

# **2014 Yearbook of Foreign Aviation Enterprises in China: Defense and Commercial**

Edited and Compiled

by

WENDELL MINNICK



The Chinese government does not engage in theft in commercial secrets in any form, nor does it encourage or support Chinese companies to engage in such practices in any way. - Xi Jinping (2015)

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## **INTRODUCTION**

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**This book contains 175 names of foreign companies from 23 countries listed in the directory of the 9<sup>th</sup> China International Aviation and Aerospace Exhibition (2012 Zhuhai Airshow). Each listing includes the original Zhuhai airshow directory citation and is augmented with press releases and other background materials related to China. Many of the citations list the Chinese agent or agency handling the corporate account.**

**At nearly 900 pages with an index, suggested reading list, and a list of Chinese aviation shows and conferences, this directory is the only one of its kind available to the public. The original Zhuhai airshow directory is not available online.**

**This directory is alphabetized by company name. If the company is not listed, please consult the index. The directory contains both commercial and defense companies and their products.**

**If there are any errors, they probably first appeared in the Zhuhai airshow directory or on the corporate website. Many of the companies listed here do not represent English-speaking countries, so sometimes the English text is incorrect (but still comprehensible). The original Zhuhai directory was in “Chenglish” and when possible I corrected it.**

**The following countries are covered: Australia, Austria, Belgium, Brazil, Brunei, Canada, Chile, Czech Republic, France, Germany, India, Italy, Israel, Korea, Malaysia, Pakistan, Russia, Singapore, Sweden, Switzerland, The Netherlands, Ukraine, United Kingdom, and the United States.**



# A

## **A2C Air Cost Control**

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2012 Zhuhai Directory: Air Cost Control is a worldwide interconnects product distributor and a leading specialist in electrical parts for the aerospace industry. With the headquarters in Toulouse, France, 2 warehouse facilities in Fort Lauderdale, USA, and Hamburg, Germany, and 5 representative offices in Beijing, Paris, Madrid, Dubai, and Switzerland; we provide the right support to aircraft manufacturers, sub-contractors, IFE integrators, test equipment and harness assembly providers, MRO facilities, and major airlines. Our line of electrical hardware includes wire/cable, sleeving, conduit, wire terminals, connectors, accessories, circuit breakers, switches, relays and more. We support major programs such as Airbus (NSA, EN, ABS, ASN-E, DAN, MS), Dassault (01C0A, 01APP, 02C0K), Eurocopter (MBBN, VG, LN, ECS, DHS), ATR, Socata and also work on COMAC/AVIC, Boeing, Embraer, and Bombardier programs. We have been named 1<sup>st</sup> European value added distributor for the assembly of Souriau 8525/EN3646/ASN-E0052/53 and increased our capability to the 8533/EN2997 engine connectors. Air Cost Control also offers value added services such as supply-chain agreement, vendor management, consignment stock, kitting, modular electrical training courses, custom-built tool kits and AOG services.

## **ADR Alcen**

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2012 Zhuhai Directory: ADR provides specific technical solutions and associated services based on its expertise in bearing technology, implementing a strategy focused on customer satisfaction, innovation and the pursuit of excellence, in order to meet the

special requirements of high-technology markets. ADR offers the following products: high-precision ball bearings; electromechanical actuators; electromechanical and opto-mechanical assembly in a clean room environment. We also market ourselves as an equipment supplier with the ability to supply rotating units in which mechanical and adjacent functions can be integrated. The strength and investment behind us has made ADR a preferred partner in the field of technical studies, industrialization and production of complete equipment units and sub-units. Our core business is the manufacture of rotating systems and high precision ball bearings within a dimensional range extending (from 1 mm to 330 mm). ADR is recognized for its technological expertise in: Miniature bearings, Thin-section ball bearings, integrated bearings, Special and hybrid bearings, Precision actuators, Electro-optical sub-systems, ADR works in the **Defense**, Space, Aeronautical, Optical, Medical, Vacuum, Scientific, and Nuclear Markets. ADR offers a range of solutions suited for every environment whether it is for the ocean depths or for space and can deal with aggressive environments (high vacuum, high temperature, hyper corrosion).

Corporate Website (Extracted February 2014): In the **defense** and security sector: Autonomous buoyancy-driven underwater vehicles – Gliders; Day/Night vision systems; High definition cameras and mega-pixels; High precision ball bearings; HUD copy cameras; Hydraulics presses for pressing active powders; Identification by luminescent nanoparticles; Portable Torpedo Test Range GIB-FT; and Releasable buoys for submarines. In the aeronautic sector: Airspeed sensor; GIB submarine localization equipment; Isentropic compression generators; Precision actuators; Propellant valves; Suspensions; and Thin metallic layer for high pressure storage tank. Other activities: Components and motorized subsets for cryogenic and high temperatures applications; Electronic & realization engineering; Laser Megajoule; Mechanical & realization engineering; and Multifunction antennas for submarines.

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2012 Zhuhai Directory: AgustaWestland, a Finmeccanica company, has the widest and most modern range of rotorcraft to meet any requirements. Its 24/7 customer support and a full range of training solutions enhance availability and safety whatever your mission. AgustaWestland has its main operations in Italy, the UK, Poland and the USA, but has a global presence through its network of industrial partners and an expanding network of regional headquarters, customer support centers and authorized service centers.

**AGUSTAWESTLAND PRESS RELEASES**

Aviation Expo China

AGUSTAWESTLAND AT AVIATION EXPO CHINA 2013

AgustaWestland is exhibiting its range of new generation high performance civil helicopters at Aviation Expo China from the 25th to 28th September in Beijing. AgustaWestland commercial helicopters' presence in China has been experiencing a quick growing success in recent years for various applications with orders totalling over 40 units so far, while the company has been progressively strengthening its relationship with Chinese aerospace industry. A distributorship agreement with Sino-US announced earlier in September this year has further increased this commercial presence as the agreement included an order for twenty aircraft. This agreement marked the entrance of the AgustaWestland Family of new generation helicopters into the Chinese civil helicopter market. AgustaWestland's products have found a remarkable success particularly for law enforcement and disaster relief/firefighting duties with approximately half of sales performed in this market so far and a first order placed in 2003. Several types including the AW119 single engine, the AW109 Power and GrandNew light twins and AW139 intermediate twin have been adopted for these tasks by a number of operators including the Beijing Municipal Public Security Bureau, Dalian Municipality, Gaungxi Police, Nanning Police, the Public Security Bureau of Ordos, Shenzhen Police, Zhejiang Police, Zhengzhou Municipal Police, as well as the Maritime Safety Administration (MSA) of China which acquired two Grands used for controlling and fighting water pollution deployed aboard the MSA's new large vessels operating in the Guangdong province, Southern China. As the best selling medium twin helicopter on the world market, the AW139 has rapidly shown excellent prospects also in the region for other missions in addition to the law enforcement one, particularly for passenger and VIP transport and utility. Leading company Sky Shuttle Helicopters Limited of Hong Kong signed a contract for six AW139s in 2007 to perform passenger transport duties including scheduled and offshore transport in the Pearl River Delta area operating in Hong Kong, Macau and Shenzhen. Apart from AgustaWestland's sales in the country, the company has also set an important industrial collaboration with Jiangxi Changhe Aviation Industries Company, an AviChina company, which is one of the most successful industrial programmes ever run in China. CAH (Jiangxi Changhe Agusta Helicopters Co. Ltd.) is a joint venture between Changhe Aircraft Industry Group Co. Ltd. and AgustaWestland established in 2005 for the sale, production, marketing and local support of the AW109 Power light twin helicopter, designated the CA109. The joint venture, headquartered in Jingdezhen Jiangxi province, is intended to fulfil the growing Chinese light twin civil, law enforcement, and emergency medical service helicopter market. Since January 2009 a fully functional final assembly and flight line has been operative in Jingdezhen assembling, painting and testing CA109s in the state of the art facilities of CAH, marking a major milestone for the development of AgustaWestland in China as well as of the entire Chinese Helicopter industry. AgustaWestland is committed to offering the best commercial rotorcraft solutions to meet the requirements of the rapidly expanding Chinese market. AgustaWestland's presence in the region is expected to grow further due to the expanding market and multi-role capabilities of its modern range of high performance helicopters which now also includes the exclusive Family of new generation helicopters comprising AW139, AW169 and AW189. All three types from the Family possess the same high performance flight characteristics and safety features as well as sharing a common cockpit layout, design philosophy and maintenance/training concept. This commonality will allow more effective operations for customers operating helicopter fleets across the 4 to 8.5 tonne categories, setting new standards in helicopter fleet management.

AGUSTAWESTLAND SIGNS DISTRIBUTOR AGREEMENT FOR CIVIL  
HELICOPTERS IN CHINA AND SIGNS FOR 20 HELICOPTERS  
September 5, 2013

AgustaWestland is pleased to announce that it has appointed Sino-US of China as an official non-exclusive distributor for AgustaWestland civil helicopters in China, excluding Hong Kong and Macau. The relevant distributorship agreement was signed during an official ceremony held at China Helicopter International Exhibition in Tianjin (5th – 8th September) today and includes orders for twenty helicopters comprising AW119Ke single engine, GrandNew light twin, AW169 light intermediate, AW139 intermediate and AW189 8 ton class twin engine helicopters. The order, whose preliminary commitment was signed at Paris Air Show last June for 15 helicopters, is thus strengthened by adding another 5 units, bringing the value to over €170 million.

Sino-US (Sino-US Intercontinental Helicopter Investment Co. Ltd) is part of Shanghai Zenisun Investment Group, a large conglomerate corporation which focuses on real estate and general aviation. The company has been specialized in helicopter sales and operations in China since 2006, providing a one-stop service for helicopter purchase, import, operation, management, support & training as well as airport construction.

Emilio Dalmasso, Senior Vice President Commercial Business Unit, AgustaWestland said “Partnering with Sino-US is a latest, major step forward for our growing presence in the increasingly important Chinese civil helicopter market. This collaboration with a prime local player in the helicopter sector further testifies the widely recognized quality of our outstanding range of products and the significant potential of the AgustaWestland Family of new generation helicopters in China for a range of applications.”

Jianming Zou, Chairman of Sino-US Intercontinental Helicopter Investment said “Partnering with AgustaWestland, a world leading rotorcraft OEM, is a key milestone in the growth and development plan of Sino-US. I strongly believe it is of great importance also to the development of Chinese rotorcraft market. We want to collaborate closely with our partner AgustaWestland in rotorcraft sales and expect to expand our partnership in other areas such as technical training, helicopter maintenance and support in the future. Together, we want to provide comprehensive helicopter solutions to AgustaWestland users in China and jointly create a new page in the Chinese rotorcraft market development.

The distributorship agreement further strengthens the presence of the GrandNew and AW139 models in China and marks the entrance of the AgustaWestland Family of new generation helicopters with the addition of the state-of-the-art AW169 and AW189.

The 20 helicopters add to over 40 helicopters in service or on order in the Chinese market and will satisfy a range of mission requirements, including VIP transport duties. With this latest agreement, AgustaWestland is well positioned to benefit from the growing range of opportunities expected in China in the future and it allows Sino-US to play a greater role in this market, leveraging on the AgustaWestland Family advantage.

#### AGUSTAWESTLAND AND SHANGHAI ZENISUN INVESTMENT GROUP SIGN OFFICIAL DISTRIBUTORSHIP AGREEMENT FOR CHINA

June 17, 2013

AgustaWestland, a Finmeccanica company, is pleased to announce that it has signed an agreement with Shanghai Zenisun Investment Group of China which is expected to lead to the appointment of Shanghai Zenisun as an official non-exclusive distributor for AgustaWestland civil helicopters in China.

The agreement includes a commitment for the AgustaWestland Family of new generation helicopters comprising five AW169 light intermediate 4.5-tonne class, five AW139 intermediate twin and five AW189 8-tonne class twin-engine helicopters.

Shanghai Zenisun Investment Group is a large conglomerate corporation which focuses on real estate and general aviation. Specialising in helicopter sales and operations in China since 2006, the company has been in this sector through three of its subsidiaries (Shanghai Kingwing General Aviation Co. Ltd, Sino-US Intercontinental Helicopter Investment Co. Ltd, and Shanghai Zenisun General Aviation Airport Development Co. Ltd)



for the last seven years, providing a one-stop service for helicopter purchase, import, operation, management, support & training as well as airport construction.

Emilio Dalmasso, Senior Vice President Commercial Business Unit, AgustaWestland said "We are delighted to have Shanghai Zenisun, a major operator in the important Chinese market, as our partner. This agreement marks the entry of the AgustaWestland Family of new generation helicopters into the Chinese civil helicopter market continuing the success of this new approach to fleet management."

The 15 helicopters will satisfy a range of mission requirements, including VIP transport duties. The agreement marks a major achievement for AgustaWestland in an important civil helicopter market which shows huge potential and where the company has progressively strengthened its presence. AgustaWestland has over 40 helicopters in service or on order in the Chinese market. With this latest agreement, AgustaWestland is well positioned to benefit from the growing range of opportunities expected in China in the future and it allows Shanghai Zenisun Investment Group to play a greater role in this market, leveraging on the AgustaWestland Family advantage.

#### TWO AW139 VIP HELICOPTERS DELIVERED IN CHINA QINGHAI PROVINCE

November 15, 2012

AgustaWestland, a Finmeccanica company, is pleased to announce that two AW139 intermediate twin helicopters in VIP transport configuration have been delivered to a customer in China's Qinghai Province. One of the two helicopters is fitted with a unique mixed VIP-utility configuration including a FLIR camera and rescue hoist. This aircraft will be operated in Gulmud, Qinghai province, Western China, which is at an elevation of 2,800 m (9,200 ft). The second AW139 will be operated in Chengdu, Sichuan province, Southwest China.

This delivery continues the growing success and presence of the multirole AW139 in China where the type has been chosen by various operators to perform law enforcement, rescue, disaster relief, civil protection, fire fighting and passenger transport missions. AgustaWestland's has achieved growing success in China's commercial helicopter market in recent years with orders now totalling over 40 units of various types for a number of applications including law enforcement, disaster relief, fire fighting, harbour pilot shuttle, water pollution monitoring, VIP, utility and passenger transport.

#### GUANGXI PROVINCE POLICE TAKES DELIVERY OF AN AW139 HELICOPTER

September 22, 2011

AgustaWestland, a Finmeccanica company, is pleased to announce that the Police of the Province of Guangxi in China has taken delivery of an AW139 medium twin helicopter. This aircraft will be used to perform a number of roles including law enforcement and civil protection/disaster relief across the province. The AW139 joins an AW109 Power light twin helicopter already in service with the Nanning Public Security Bureau, enhancing the operational capabilities in the province as well as in Nanning, the capital of Guangxi Province. This delivery is part of a helicopter fleet modernization and expansion programme which will include additional helicopters to even better serve the local community.

AgustaWestland in the market leader in the Chinese law enforcement market with over 70% market share, having achieved sales success with the AW119Ke single engine, the AW109 Power and the AW139 medium twin models. Law enforcement operators in China which have chosen AgustaWestland helicopters include Shenzhen, Beijing, Nanning, Zhengzhou, Dalian and Zhejiang Public Security Bureaus in addition to the Guangxi Province. AgustaWestland's presence in China's commercial helicopter market in recent years has experienced growing success with orders totalling over 40 units of various types for a number of applications including law enforcement, disaster relief, fire

fighting, harbour pilot shuttle, water pollution monitoring, VIP, utility and passenger transport.

#### AGUSTAWESTLAND AND CHONGQING HELICOPTER INVESTMENT CORPORATION SIGN A STATEMENT OF INTENT IN THE HELICOPTER FIELD

September 21, 2011

AgustaWestland, a Finmeccanica company, and Chongqing Helicopter Investment Corporation Limited (CQHIC) have signed a Statement of Intent in Beijing today to explore potential collaboration in the helicopter field to satisfy the market requirements of China. The parties plan to set up a joint venture in Liangjiang New Area of Chongqing, with the test-flight of the first aircraft assembled by the joint venture expected to be performed by the end of 2012. AgustaWestland is committed to offering the best commercial rotorcraft solutions to meet the requirements of the rapidly expanding Chinese market and this cooperation further develops its collaboration with the preeminent Chinese aerospace industry and new industrial partners. AgustaWestland commercial helicopters' presence in China has experienced rapid success in recent years for various applications with orders totalling over 40 units so far. Chongqing, one of the fastest growing provinces in China, has a solid industrial base and it is playing a key role in the industrial growth of Central Western China.

Emilio Dalmasso, Senior Vice President, Commercial Business Unit, AgustaWestland said: "AgustaWestland is giving the highest priority to the Chinese market and together with CQHIC we will be able to satisfy the helicopter requirements of this increasingly important province. Aerospace is one of the most promising industrial sectors in the province and we are committed, through this partnership, to play a major role in its future growth." Xie Huajun, Board Chairman of CQHIC said: "The cooperation between AgustaWestland and CQHIC will allow AgustaWestland to further strongly expand its presence in China's market, and boost the development of the aerospace industry in Chongqing, helping us to achieve our common goal."

Apart from AgustaWestland's sales in the country, the company has also set up an important industrial collaboration with Jiangxi Changhe Aviation Industries Company, an AviChina company, establishing the Change Agusta Helicopter (CAH) joint venture. The cooperation between AgustaWestland and CQHIC will add to CAH in the Chinese market. AgustaWestland's presence in the region is expected to grow further due to the expanding market and the multi-role capabilities of its wide range of modern high performance helicopters. Backed by the Chongqing Municipal Government, Chongqing Helicopter Investment Company was established in January 2011 and is located in the Liangjiang New Area, CQHIC has registered assets of RMB 3.3 billion, and covers an area of 2000 Mu (about 50 acres). Business scope of the company includes R&D, manufacturing, selling, maintenance, consulting, training, service-providing and operation of helicopters, other aircraft and their parts. It will strive to develop the aerospace industrial base in Chongqing and supply the whole of China.

#### PUBLIC SECURITY BUREAU OF ORDOS ORDERS TWO AGUSTAWESTLAND GRANDNEW HELICOPTERS

September 16, 2011

AgustaWestland, a Finmeccanica company, is pleased to announce that the Public Security Bureau of Ordos, in China's Inner Mongolia, has ordered two GrandNew twin-engine helicopters. The two helicopters will be used to perform fire fighting, rescue, observation, transport and civil protection duties. The GrandNew was selected, following a tender process and a comprehensive evaluation of the available helicopters. The GrandNew was chosen due to its outstanding performance and particularly its ability to operate in the demanding local environmental and weather conditions, which are characterized by strong winds, poor visibility and high summer temperatures. With this

latest order AgustaWestland maintains its market leader position in China's public security market.

Aircrew and technicians will be provided with comprehensive training and the aircraft backed by 24/7 support. This latest selection marks the entrance of the GrandNew helicopter into China's public security market adding to the AW119Ke, AW109 Power, Grand and AW139 types that are already in service. The GrandNew features the very latest developments in avionics while retaining the Grand's outstanding performance and features. The GrandNew is the first type certified light twin (CS/JAR/FAR 27) to enter service with a new EFIS featuring Synthetic Vision and the first helicopter in this class on the market fully compliant with the latest advanced global positioning system-based navigation requirements for all weather operations. The GrandNew offers operators unprecedented abilities to exploit the advantages of a helicopter and these features make it the most advanced solution to operate in the challenging environment of Inner Mongolia.

#### QINGHAI ZHONGHAO NATURAL GAS CHEMICAL CO., LTD. ORDERS TWO AW139 HELICOPTERS

September 15, 2011

AgustaWestland, a Finmeccanica company, is pleased to announce that Qinghai Zhonghao Natural Gas Chemical Co., Ltd. of China has placed an order for two AW139 medium twin helicopters. The aircraft, configured for VIP transport purposes, will be used to support operations of a new general aviation subsidiary.

The customer, following a rigorous assessment of operational capabilities, performance, technological features and cabin space, chose the AW139. One of the two helicopters will be fitted with a unique mixed VIP-utility configuration including a FLIR camera and rescue hoist. This aircraft will be operated in Gulmud, Qinghai province, Western China, which is at an elevation of 2,800 m (9,200 ft). The second AW139 will be operated in Chengdu, Sichuan province, Southwest China. This order continues the growing success of the multirole AW139 in China where the type has been chosen by various operators to perform law enforcement, disaster relief, civil protection, fire fighting and passenger transport missions. AgustaWestland's success in the fast growing Chinese commercial helicopter market has resulted in orders for over 30 helicopters to have been placed in recent years.

#### ZHEJIANG POLICE ORDERS ONE AW119KE AND ONE AW139

January 25, 2011

AgustaWestland, a Finmeccanica company, is pleased to announce that the Zhejiang Public Security Bureau in China has placed an order for two helicopters comprising one AW119Ke single engine and one AW139 medium twin engine helicopter. The helicopters will be used for law enforcement and fire fighting duties. These two AgustaWestland helicopters were selected to serve the Zhejiang community after a rigorous and comprehensive evaluation process for their outstanding performance, operational capabilities, safety and ease of maintenance.

Fulvio Maurogiovanni, Head of Region for China, AgustaWestland said "We are delighted the Zhejiang Public Security Bureau has chosen these two models to enhance its operational capabilities. This contract expands the presence of AgustaWestland helicopters in China and confirms AgustaWestland as the market leader in the Chinese law enforcement and public service markets." This sale marks further success for AgustaWestland in the Chinese law enforcement and public security market, where it has become the market leader with sales of AW119Ke, AW109 Power and AW139 models. Law enforcement operators in China using AgustaWestland helicopters include Shenzhen, Beijing, Nanning, Zhengzhou and Dalian Public Security Bureaus as well as the Guanxi Province.

The 8-seat AW119Ke is the top-of-the-range helicopter in the single engine market and has excellent performance even in extremely hot and high operating environments. Over 190 AW119 helicopters have been ordered to date in around 30 countries by more than 90 customers. The AW119Ke is ideally suited to perform a wide range of tasks including law enforcement, utility, fire-fighting, EMS, VIP/corporate transport and offshore transport. The AW139 has the largest cabin in its weight class and has large sliding cabin doors to enable easy and quick access. The cabin also allows easy configuration changes between roles to meet operational requirements. With a maximum speed of 167 knots (306 kph) and excellent range and endurance the AW139 can be quickly deployed to any crime scene or accident location. The integrated avionic system provides the basis for managing the sensors and comprehensive communications suite required for the law enforcement role.

#### GUANXI PROVINCE POLICE ORDERS AN AW139 HELICOPTER

November 16, 2010

AgustaWestland, a Finmeccanica company, is pleased to announce that the Police of the Province of Guanxi in China has placed an order for an AW139 medium twin helicopter. This aircraft will be used to perform a number of roles also including law enforcement and civil protection/disaster relief across the Province. The AW139 adds to the AW109 Power light twin helicopter recently delivered to the Nanning Public Security Bureau further strengthening the operational capabilities in the area as well as in Nanning, the capital of Guanxi Province. This new contract is part of a helicopter fleet modernization and expansion programme which will include further units to even better serve the local community. This is the third AW139 ordered in China for law enforcement duties following the one purchased by the Beijing Municipal Public Security Bureau and the one ordered by the Shenzhen Public Security Bureau, confirming the reliance of law enforcement operators in China for the best selling medium twin helicopter on the global market.

Giuseppe Orsi, Chief Executive Officer, AgustaWestland said "It gives us great pleasure to add another important customer to the growing list of law enforcement operators who have chosen and are using our helicopters in China to provide the best levels of service to their communities. We are committed to further expanding our presence in the country in the future as the national low-altitude airspace is envisaged to be progressively opened allowing a significant increase of use and exploitation of helicopters' capabilities." This latest order also confirms AgustaWestland products as the civil helicopters of choice for law enforcement and public utility duties in China, and further expands the already relevant presence in this market where the company boasts a 90% share of the police helicopter fleet, having found a rapidly growing success with other sales logged for the AW119Ke single engine, the AW109 Power and the AW139 models. Law enforcement operators in China using AgustaWestland helicopters also include Zhengzhou and Dalian Public Security Bureau.

AgustaWestland's presence in the China's commercial helicopter market has experienced a quick growing success in recent years for various applications with orders totalling over 30 units of various types so far, particularly for law enforcement, harbour pilot shuttle, water pollution monitoring and passenger transport. The company has also been progressively strengthening its relationship with Chinese aerospace industry through the CAH joint venture with AVIC II for the local assembly of the CA109 light twin helicopter (as the AW109 Power assembled in China has been named) in the plant based in Jingdezhen (Jiangxi Province). The announced opening of the low-altitude airspace will dramatically change the market prospective in China and AgustaWestland is well placed to play an even greater role in this market, thanks to its industrial partnership and production activities as well as the largest and the most advanced range of commercial helicopters able to meet current and future requirements for a number of missions.

## SHENZHEN PUBLIC SECURITY BUREAU ORDERS AN AW139 HELICOPTER

February 10, 2010

AgustaWestland, a Finmeccanica company, is pleased to announce that the Public Security Bureau of Shenzhen has ordered one AW139 medium twin helicopter. This aircraft will be used to perform a number of roles also including law enforcement, civil protection/disaster relief, transport and control missions across the Province. The AW139 has been selected thanks to its outstanding performance, operational capabilities, safety and ease of maintenance following a rigorous and comprehensive evaluation process for the supply of a new helicopter to serve the Shenzhen community. This aircraft, the second AW139 ordered in China for law enforcement duties following the one purchased by the Beijing Municipal Public Security Bureau, adds to the AW109 Power light twin already in service with the Public Security Bureau of Shenzhen confirming the reliance of this customer on AgustaWestland products. The Public Security Bureau of Shenzhen province has a requirement for additional helicopters and the addition of this AW139 is another step to enhance public security capabilities and operational effectiveness through the acquisition of modern platforms.

This latest contract confirms AgustaWestland products as the civil helicopters of choice for law enforcement and public utility duties in China, and further expands the already relevant presence in this market where the company boasts a 90% share of the police helicopter fleet, having found a rapidly growing success with other sales logged for the AW119Ke single engine, the AW109 Power and the AW139 models. Law enforcement operators in China using AgustaWestland helicopters include Shenzhen Beijing, Nanning, Zhengzhou and Dalian Public Security Bureau.

The AW139 has the largest cabin in its class for the task with large sliding doors to enable easy and quick access. The cabin also allows easy configuration changes to meet operational requirements. The AW139 internally and externally accessible separate baggage compartment is large enough to carry a multitude of mission specific equipment. With a maximum speed of 167 knots (306 kph) and excellent range and endurance the AW139 can be quickly deployed to any crime scene or accident location. Also, the AW139 is the only medium twin-engine helicopter in production that not only meets, but also exceeds, the latest FAR 29 certification standards for safety. The integrated avionic system provides the basis for managing the sensors and comprehensive communications suite required for the law enforcement role.

## MARITIME SAFETY ADMINISTRATION OF CHINA TAKES DELIVERY OF TWO GRAND HELICOPTERS

December 04, 2009

AgustaWestland, a Finmeccanica company, is pleased to announce that the Maritime Safety Administration (MSA) of China has taken delivery of two Grand light twin helicopters during an official ceremony held at AgustaWestland's Vergiate facility in Italy today. The MSA is responsible for monitoring all inland and coastal waters and these two helicopters will be dedicated to controlling and fighting water pollution. The aircraft will also be based aboard the MSA's new large vessels performing missions in the Guangdong province, Southern China. The contract also includes an option for an additional two aircraft to be exercised next year.

Giuseppe Orsi, Chief Executive Officer, AgustaWestland said "We are delighted to deliver these two helicopters to the MSA, marking another major success for AgustaWestland in the increasingly important Chinese commercial helicopter market. As additional vessels on order are completed for the MSA, further expansion of its helicopter fleet will be required and we are committed to offering the best solutions to meet future customer requirements".

The Grand helicopter was selected following the evaluation of the responses to an international tender issued by the Ministry of Telecommunications of China, to whom the

MSA reports. The Grand was chosen for its class leading operational capabilities and performance in the maritime role. AgustaWestland has already sold almost 30 helicopters in China and sees growing future business opportunities in the country where it aims to establish itself as the market leader in the light and medium twin commercial markets. The Grand is a top-of-the-range light twin helicopter offering high performance capabilities, space and payload, previously only associated with larger helicopters, whilst retaining attractive light twin economics. The Grand has set a new standard in its class offering the highest performance, including full Cat. A/Class 1 capability enabling it to operate from elevated helipads. Orders for nearly 280 helicopters have been placed by almost 150 customers in over 30 countries worldwide for various roles including EMS, SAR, harbour pilot shuttle and VIP/corporate transport.

#### NANNING PUBLIC SECURITY BUREAU ORDERS ONE AW109 POWER HELICOPTER

October 28, 2009

AgustaWestland, a Finmeccanica company, is pleased to announce that the Public Security Bureau of Nanning (Southern China) has ordered one AW109 Power light twin engine helicopter. This aircraft will be used to perform a number of roles also including law enforcement and civil protection/disaster relief across the Guangxi Zhuang Autonomous Region. The AW109 Power has been selected thanks to its outstanding performance, operational capabilities, safety and ease of maintenance following a rigorous and comprehensive evaluation process for the supply of a new helicopter to serve the Nanning community. The Public Security Bureau of Nanning province has a requirement for additional helicopters and the purchase of the AW109 Power is the first step to enhance public security capabilities and operational effectiveness through the acquisition of modern platforms.

This latest contract confirms AgustaWestland products as the civil helicopters of choice for law enforcement and public utility duties in China, and further expands the already relevant presence in this market where the company has found a rapidly growing success with other sales logged for the AW109 Power, but also for the AW119 single engine and the AW139 medium twin models. Nanning Public Security Bureau adds to the Beijing, Shenzhen, Zhengzhou and Dalian Public Security Bureau, as law enforcement operators in China using AgustaWestland helicopters. The 8-seat AW109 Power is a highly versatile twin engine helicopter used for a wide range of roles and offers the highest levels of performance with low operating costs. The ability to change the interior configuration provides exceptional versatility to support the different law enforcement roles. With a maximum cruise speed of 154 kts (285 Km/h) and a range of 512 nm (948 km), the AW109 Power offers superior rapid reaction capabilities, surveillance area coverage and in-flight endurance.

#### MARITIME SAFETY ADMINISTRATION OF CHINA ORDERS TWO GRAND HELICOPTERS

June 16, 2009

AgustaWestland, a Finmeccanica company, is pleased to announce that the Maritime Safety Administration (MSA) of China has signed a contract for two Grand light twin helicopters, with an option for an additional two to be exercised next year. Acceptance for the two purchased aircraft is expected to be performed later this year. The MSA is responsible for monitoring all inland and coastal waters and these two helicopters will be dedicated to controlling and fighting water pollution. The Grand helicopter was selected following the evaluation of the responses to an international tender issued by the Ministry of Telecommunications of China, to whom the MSA reports. The Grand was chosen for its class leading operational capabilities and performance in the maritime role. The Grands

will be used by the MSA for pollution control and they will operate aboard the MSA's new large vessels operating in the Guangdong province, Southern China.

The MSA's activities are planned to be further expanded to cover all regions in the next few years. With the completion of additional vessels already ordered by the MSA, the number of helicopters needed by the MSA is expected to grow significantly, further strengthening the success of AgustaWestland in China. The MSA order is another success for AgustaWestland in the important Chinese commercial helicopter market. AgustaWestland has already sold almost 30 helicopters in China and sees growing future business opportunities in the country where it aims to establish itself as the market leader in the light and medium twin commercial markets.

#### SKY SHUTTLE HELICOPTERS TAKES DELIVERY OF THE 200TH AW139

December 09, 2008

AgustaWestland, a Finmeccanica company, is pleased to announce the delivery of the 200th AW139 medium-twin helicopter. The 200th aircraft was one of two aircraft accepted by Ms Cheyenne Chan, CEO of Sky Shuttle Helicopters Limited during a ceremony held at AgustaWestland's Vergiate facility in Italy today. The helicopters will be used by Sky Shuttle Helicopters Limited, previously known as Heli Express, to provide helicopter shuttle flights between Hong Kong, Macau and Shenzhen. These are the first two of a six aircraft order placed by Sky Shuttle Helicopters in June 2007. Renzo Lunardi, Senior Vice President Commercial Business Unit, AgustaWestland said "It gives us great pleasure to be handing over the 200th AW139 to Sky Shuttle Helicopters Limited, an operator with a worldwide reputation for excellence. The tremendous success of the AW139 worldwide has made it the helicopter of choice for a wide range number of applications including commercial passenger transport and we are sure Sky Shuttle Helicopters' customers will appreciate its class leading speed and passenger comfort."

Sky Shuttle Helicopters has a long and distinguished history of providing premium helicopter shuttle services and is one of the world's leading helicopter operators. Sky Shuttle Helicopters is the sole commercial helicopter operator between Hong Kong, Macau and Shenzhen and has more than 20 years operating experience. Today Sky Shuttle Helicopters operates more than 60 helicopter flights per day, transporting more passengers than any other operator in the region. The delivery of the 200th AW139 represents a significant achievement, occurring just over four years after the delivery of the first helicopter of this type and just 18 months after the delivery of the 100th AW139 in June 2007. State-of-the-art technology, outstanding performance, low operating costs and the only helicopter in its class to meet the latest safety standards, have made the AW139 the clear market leader.

AgustaWestland is achieving an increasing share of the commercial Chinese helicopter market with aircraft now in service for roles also including passenger transport, law enforcement and harbour pilot shuttle purposes utilising the AW119, AW109 Power and AW139 models. The Company has also been progressively strengthening its industrial presence in China with the establishment of Jiangxi Changhe, a joint venture between AgustaWestland and China Aviation Industry Corp (AVIC), to manufacture the AW109 Power in China for the civil light twin helicopter market. Over 430 AW139 helicopters have now been ordered by almost 110 customers in approximately 40 countries all over the world performing many tasks including VIP/corporate transport, passenger shuttle services, offshore transport, EMS/SAR, law enforcement, fire fighting and troop transport with civil operators, government agencies and **military** customers.

#### MARITIME SAFETY ADMINISTRATION OF CHINA ORDERS TWO AW109 POWER HELICOPTERS

January 11, 2008

AgustaWestland is pleased to announce that the Maritime Safety Administration (MSA) of China has signed a contract for the supply of two AW109 Power light twin turbine engine helicopters, with an option for an additional two to be exercised next year. The MSA is responsible for monitoring all inland and coastal waters and these two helicopters will be dedicated to controlling and fighting water pollution.

The AW109 Power helicopter was selected following the evaluation of the responses to an international tender issued by the Ministry of Telecommunications of China, to whom the MSA belongs. The AW109 Power was chosen for its class leading operational capabilities and performance in the maritime role. The AW109 Power will be used by the MSA for pollution control and they will operate aboard the MSA's new large vessels operating in the Guangdong province, Southern China. The MSA's activities are planned to be further expanded to cover all regions in the next few years. With the completion of additional vessels already ordered by the MSA, the number of helicopters needed by the MSA is expected to grow significantly, further strengthening the success of AgustaWestland in China. The MSA order is another success for AgustaWestland in the important Chinese commercial helicopter market. AgustaWestland has already sold 16 helicopters in China and is expected to more than double this figure with additional sales in the next three years, establishing itself as the market leader in the Chinese light and medium twin commercial markets.

#### BEIJING MUNICIPAL PUBLIC SECURITY BUREAU TAKES DELIVERY OF ONE AW109 POWER AND ONE AW139 HELICOPTER

July 31, 2007

AgustaWestland is pleased to announce the delivery of one AW109 Power light twin and one AW139 medium twin helicopter to the Beijing Municipal Public Security Bureau. The handover ceremony took place AgustaWestland's Vergiate facility in Italy on 28th July 2007. These two aircraft are part of an order placed in June 2006 that also includes two CA109 Power helicopters produced by the Jiangxi Change Agusta Helicopter (CAH) joint venture company in China. The contract was the first contract awarded to CAH, which was established in 2005 to meet the growing Chinese light twin civil, law enforcement and emergency medical service helicopter market. These helicopters will perform law enforcement and security operations during the 2008 Olympic Games.

Giuseppe Orsi, Chief Executive Officer, AgustaWestland said during the ceremony "We are delighted the Beijing Municipal Public Security Bureau chose the AW109 Power and the AW139 helicopters to meet its demanding requirements for law enforcement operations, especially during the Olympic Games next year. AgustaWestland is committed to offer the best law enforcement helicopters and this delivery will dramatically enhance the operational capabilities and effectiveness of the Beijing Municipal Public Security Bureau".

These deliveries strengthen the AW109 Power's position in the growing light twin Chinese market and mark the entrance of the AW139 in this market for law enforcement applications, while the AW139 presence in China is progressively getting stronger for several other commercial missions. AgustaWestland's range of law enforcement-configured helicopters has experienced an increasing success in the Chinese market in recent years with various helicopter types selected to perform the most demanding missions. The AW109 Power has been operating in China since 2004 when the Shenzhen Police took delivery of a helicopter.

#### CCTV ORDER A CA109 POWER

May 24, 2007

AgustaWestland, a Finmeccanica company, is pleased to announce CCTV of China has signed a contract for a CA109 Power helicopter for electronic news gathering and aerial filming operations in Beijing. The aircraft, which will be delivered by



AgustaWestland's Chinese joint venture company Jiangxi Changhe Agusta Helicopter Company, will enter service in early 2008. The aircraft will be used by CCTV to cover events at the 2008 Olympics that will be held in Beijing.

Jiangxi Changhe Agusta Helicopter Company will assemble, maintain and provide ongoing training with pilots and maintainers undergoing initial training at AgustaWestland's "A. Marchetti" Training Academy in Italy. This order represents further success for AgustaWestland in the growing Chinese commercial helicopter market. Last year AgustaWestland was awarded a contract by the Beijing Municipality Public Security Bureau for one AW109 Power, two CA109 Powers and one AW139. The AW109 Power has been operating in China since 2004 when the first aircraft was delivered to the Shenzhen Police.

The AW109 Power is certified for single pilot IFR operation and is powered by two Pratt & Whitney turbine engines enabling Category A performance at maximum gross weight. The ability to change the interior configuration enables the aircraft to be used for a wide range of transport and para public roles including VIP transport, emergency medical services, law enforcement role.

#### BEIJING MUNICIPALITY PUBLIC SECURITY BUREAU ORDERS A109 POWER AND AW139 HELICOPTERS

June 28, 2006

AgustaWestland, a Finmeccanica company, is pleased to announce the sale of one A109 Power, two CA109 Powers and one AW139 to the Beijing Municipality Public Security Bureau to provide law enforcement, particularly during the 2008 Olympic Games. The contract for the A109 Powers and the AW139 has been awarded to AgustaWestland. The contract for two CA109 Powers has been awarded to the joint venture Jiangxi Changhe Agusta Helicopter (CAH). It is the first contract awarded to CAH, established in 2005 to fulfill the growing Chinese light twin civil, law enforcement and emergency medical service helicopter market.

Attending the ceremony were Mr. Renzo Lunardi, Marketing & Sales Director AgustaWestland, Mr. Ma Zhenchuan, Beijing Municipal Committee Beijing Municipal Public Security Bureau, Standing Member of the CPC, Director BMPSB and Mr. Wang Bin, President Jiangxi Changhe Agusta Helicopter (CAH). "We are delighted by the Beijing Municipality Public Security Bureau decision to buy the Powers and AW139 helicopters" said Renzo Lunardi. "Their choice strengthens AgustaWestland's position in the growing Chinese market and represents the first success of the recently established Jiangxi Changhe Agusta Helicopter joint venture".

The A109 Power has been operating in China since 2004 when the Shenzhen Police took delivery of an A109 Power establishing the Power as the preferred law enforcement helicopter in China. Today several Chinese law enforcement and commercial operators are benefiting from the A109 Power's capabilities and performance.

#### CHINESE SHENZHEN POLICE TAKES DELIVERY OF AN A109 POWER

February 24, 2004

AgustaWestland, a Finmeccanica and GKN company, is pleased to announce the delivery of an A109 Power helicopter to the Shenzhen Police. The Power is fitted with special state of the art high tech police equipment for extensive night surveillance operations and also with special police avionics. The Shenzhen Power is also equipped with video link, rescue hoist, cargo hook, rappelling kit, searchlight and floatation system. With the ever changing world situation and the changing face of law enforcement, Shenzhen aviation unit procured an aircraft that will meet their mission of today and is fully capable to meet the unknown missions of the future.

The A109 Power is certified for single pilot IFR operation and powered by two Pratt & Whitney turbine engines, and is also certified for Category A performance at maximum gross weight. The ability to change the interior configuration provides exceptional versatility

to support the law enforcement role. The versatility of the Power provides the Shenzhen Police a highly effective, multi-mission capable helicopter, establishing the Power as the preferred law enforcement solution in China.

### **Aero Hardware Equipment (AHE)**

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2012 Zhuhai Directory and Corporate Website: Aero Hardware Equipment (AHE) specialist in: Logistics and Distribution for the aeronautical industry: fasteners, hardware, and tools; Supply Chain Management-Supplier City and Global Solution: a complete software solution for all your FSL, VMI, KANBAN, Kitting; AHE Bazaille Dept: cotter pins manufacturing. Accreditations: ISO 9001 and AS/EN9120. In conformance with aerospace requirements and specifications, we offer a wide range of standardized products starting with series: ABS, AN, AS, ASNA, BAC, BAS, DAN, DIN, EN, FON, LN, MDS, MS, NFE, NFL, NSA, NAS, PAN, and including tooling.

### **Air Capital Aviation Services (ACA)**

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2012 Zhuhai Directory: Air Capital Aviation Services (ACAS) is your source for aviation services in Asia. Our home office is in Wichita, Kansas, US, and we also have a branch office in Shanghai. ACAS specializes in finding our customers the right airplanes while saving them up to millions of dollars.

Corporate Website (Extracted in February 2014): Air Capital Aviation Services (ACA) is headquartered in Wichita, Kansas, USA, home to Hawker-Beechcraft, Spirit Aerospace, Lear Jet, and Cessna. ACA is also located in Shanghai, China to service the developing Asia market.

ACA specializes in the sale and delivery of pre-owned, private and corporate aircraft, each with the amenities of a new aircraft, at substantial cost savings compared to a new aircraft purchase.

The goal of ACA is to provide the correct aircraft to satisfy the individual or corporations needs. This is done by first defining the mission of the customer with regard to typical type of trip, distance, amount of passengers, and expected budget for ownership.

Once the customer mission is defined, ACA will hand-pick, screen and pre-qualify aircraft for customer review. Upon purchase ACA will prepare that aircraft for express delivery to any location on the globe.

Air Capital Aviation Services is the exclusive representative in China for GlobalParts.Aero. Contact: <http://GlobalParts.Aero/>; [rfq@globalparts.aero](mailto:rfq@globalparts.aero); Tel: +1-316-733-9240.

ACAS is your one stop shop for all quality aviation spares in Asia. GlobalParts.Aero is ISO9120 and ASA-100 accredited, and supports the general aviation industry worldwide. Product offerings available for immediate delivery include Wheels, Brakes, Landing Gear, Windscreens, Avionics, Airframe and Accessories. We cover all general airframes, including Hawker Beechcraft, Cessna, Embraer, Lear, Falcon, and Gulfstream to name a few. We offer same day shipping, 7 days a week.

The company also runs Pro Aviation Instruction (PAI) in cooperation with the National Center for Aviation Training (NCAT). It is offering students from China an opportunity to attend 18 months of training in Wichita, Kansas to study for the Airframe and Powerplant license. At the end of the course you will be qualified to test for your FAA certification to become an A&P mechanic. Pro Aviation Instruction will make arrangements with NCAT, for your education, in addition to provisions for housing and transportation over the 18 months of training.

Contact: PAI, 400 N. Woodlawn, Suite 210, Wichita, Kansas 67208, US, Tel: 316-686-7314, Fax: 316-683-6638, [www.proaviationinstruction.com](http://www.proaviationinstruction.com); PAI – China, Nancy Shi, Building A11, Suite 4-401, Olympic Village, E. Lincui Rd, Chaoyang District, Beijing 100101, China, Tel: 86 10 8437-7398.

### **Air Team Pilot and Avionics Shop**

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2012 Zhuhai Directory: AIR TEAM is a authorized distributor and installation service of the world's leading manufacturers of avionics and pilot supplies based in Central and Eastern Europe. Our name is associated primarily with the conduct of serious, stability, and high quality of the goods and services.

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2012 Zhuhai Directory: Airbus is the leading aircraft manufacturer offering the most modern and efficient passenger aircraft family on the more than 100-seat market. Airbus' comprehensive product line comprises highly successful families of aircraft ranging from 100 to more than 500 seats: the single-aisle A320 Family, including A320neo, best selling aircraft in aviation history, the wide-body long-range A330 Family including the freighter and MRTT, the all-new next generation A350 XWB Family, and the double-deck A380. Across all its aircraft families Airbus' unique approach ensures that aircraft share the highest commonality in airframes, on-board systems, cockpits and handling characteristics. This reduces significantly operating costs for airlines. Headquartered in Toulouse, France, Airbus is a truly global enterprise of some 59,000 employees, with fully owned subsidiaries in the United States, China, Japan and in the Middle East, spare parts centers in Hamburg, Frankfurt, Washington, Beijing, Dubai and Singapore. Airbus also has training centers in Toulouse, Miami, Hamburg, Bangalore and Beijing, as well as Seville for **Airbus Military**, and more than 150 field service offices around the world. Airbus also relies on industrial co-operation and partnerships with major companies all over the world, and a network of some 1,600 suppliers (for the flying parts alone) in more than 30 countries. Airbus is an EADS company.

Corporate Website (Extracted in February 2014): Airbus has a logistics hub in Beijing: "The Beijing store is dedicated to operators in China. This bonded store houses about 33,000 different parts with 112,000 items on a storage space of 3,150 square metres. The store is attached to the Airbus regional Material, Logistics and Suppliers centre. Seventeen major suppliers also have stocks located at the store."

#### Training Centre in Beijing

Tianzhu Airport Industrial Zone, Shunyi District, 101312 Beijing

The Beijing training centre is 8,000m<sup>2</sup> in size, and currently operates two modern Full Flight Simulators, approved by several Civil Aviation Authorities, including the French DGAC, the Chinese CAAC and the CAD Hong Kong. The training centre offers flight crew training and maintenance personnel training and cabin attendants training. All courses provided use the same training standards as the ones at the Toulouse and Miami training centres.

### AIRBUS PRESS RELEASES

#### MAJOR DELIVERY MILESTONE REINFORCES AIRBUS' STRONG PRESENCE IN CHINESE MARKET

Airbus has surpassed the 1,000-aircraft delivery mark in China, underscoring the popularity of its modern jetliner product line across this major aviation market – which will continue to grow during the coming years.

16 January 2014

This milestone was reached in December 2013 with the handover of an A320 to Air China. Speaking at the delivery ceremony, Airbus China CEO and president Eric Chen said: "Such a success couldn't be achieved without the efforts and dedication of all the employees of Airbus China, and I would like to extend my heartfelt gratitude and thanks to all of you."

Airbus delivered its first jetliner to China in 1985, but the fleet grew slowly for the first decade. Deliveries to Chinese customers now account for over 20 per cent of total Airbus production and, according to forecasts, 170 aircraft per year will be delivered from 2014 to 2020.

"I couldn't have imagined that we could have 1,000 Airbus aircraft in service in China when I joined the company 20 years ago," continued Chen. "Airbus is a great company with attractive cultural diversity, technological innovation, and a comprehensive product range. That is why we're celebrating this milestone today." He added that Airbus China's commercial goal is to expand the country's fleet to 2,000 by 2020.

#### ZHEJIANG LOONG AIRLINES FIRMS UP ORDER FOR 20 A320 FAMILY AIRCRAFT; AIRLINE BECOMES NEW AIRBUS CUSTOMER AND OPERATOR

30 December 2013

Zhejiang Loong Airlines, based in Hangzhou, capital city of Zhejiang province in Eastern China, has signed its first purchase agreement with Airbus, for 20 A320 Family aircraft, including 11 A320ceo and nine A320neo, becoming the latest Airbus customer. The agreement follows the Memorandum of Understanding (MoU) signed in September at the Beijing Airshow.

In addition Zhejiang Loong Airlines has also become the latest Airbus operator in mainland China, having completed its maiden commercial flight with a leased A320.

"Today is a special day for Zhejiang Loong Airlines as we start passenger operation and order 20 Airbus A320 Family aircraft, which demonstrates our ambition to contribute to the economic and social development of Zhejiang province by providing efficient transportation," said Liu Qihong, Chairman of Zhejiang Loong Airlines. "We are making efforts to play a more important role in building the four-hour transportation circle around Hangzhou, which is advocated by the Zhejiang Government. The Airbus A320 Family aircraft is ideal for us to achieve our goals with advantages in operational reliability, economics, cabin space and its commonality between different types of Airbus aircraft."

"We congratulate Zhejiang Loong Airlines on becoming a new customer and operator of the best-selling Airbus A320 Family" said John Leahy, Airbus Chief Operating Officer – Customers. "The A320 is the most eco-efficient single-aisle aircraft family and a world-class customer support network will provide Zhejiang Loong Airlines with an excellent platform to benefit from the economic growth in the region."

#### SICHUAN AIRLINES TAKES DELIVERY OF ITS FIRST A321 WITH SHARKLETS; CAPTURES GROWTH WITH LARGER, ECO-EFFICIENT SINGLE-AISLE MODEL

27 September 2013

Sichuan Airlines, the largest all Airbus operator in China, has taken delivery of its first A321 aircraft equipped with Sharklets fuel saving wing tip devices. It will also be the first A321 with Sharklets to be operated in China. The A321, powered by IAE V2500 engines, features a comfortable two class cabin, seating 194 passengers with 8 in business class and 186 in economy.

Sichuan Airlines is China's largest all Airbus operator. It introduced an A320 in 1995 to become the first Chinese airline to operate an Airbus fly-by-wire aircraft. It was also the first airline to operate Airbus A321 in China. In 2009, the airline received the first A320 assembled at the Airbus Tianjin Final Assembly. Thanks to the unique commonality between Airbus aircraft, the airline was able to smoothly expand its fleet to larger and more fuel-efficient models. With the introduction of this A321 with Sharklets, the airline is able to further increase its capacity to meet the growing demand for air travel in China, particularly in the southwestern part of the country, where its hub is based.

By the end of August 2013, Sichuan Airlines operates a fleet of six A330s and 75 A320 Family aircraft.

The A321 is the largest member of the best-selling single aisle A320 Family. Sharklets are made from light-weight composites and are 2.4 meters tall. They are an option on new-build A320 Family aircraft and standard on all members of the new A320neo family. They offer operators up to four per cent fuel burn reduction on longer range sectors and provide the flexibility of either adding an additional 100 nautical miles range or increased payload capability of up to 450 kilograms.

The A320 Family is the world's best-selling and most modern single aisle aircraft Family. To date, over 9,800 aircraft have been ordered and more than 5,700 delivered to more than 385 customers and operators worldwide. With proven reliability and extended servicing periods, the A320 Family has the lowest operating costs of any single-aisle aircraft.

**QINGDAO AIRLINES ORDERS 23 A320 FAMILY AIRCRAFT; NEWLY ESTABLISHED AIRLINE IN CHINA TO START OPERATION WITH BEST-SELLING A320**  
25 September 2013

Qingdao Airlines, a newly established airline based in the Eastern Chinese coastal city of Qingdao, Shandong Province, has selected the best-selling Airbus A320 Family aircraft to build up its fleet.

The airline has signed a purchase agreement with Airbus for a total of 23 A320 Family aircraft, including five A320ceo and 18 A320neo. The agreement was signed by He Li, director of the Board of Qingdao Airlines and John Leahy, Airbus Chief Operating Officer Customers at the 15th Aviation Expo China 2013 in Beijing. The deal is subject to approval from China's central government. The first delivery is expected to begin in 2016. The airline will start operation in 2014 with leased A320 aircraft.

"As a newly established airline, we need to have a thorough research before we make a decision on what aircraft to introduce to start operation and build up our brand new fleet. We pay much attention to the reliability, economics and cabin comfort of the aircraft and also take the potential for our further fleet expansion into consideration. We believe the Airbus A320 Family aircraft are the right choice," said Xiao Liyuan, President of Qingdao Airlines.

"We welcome Qingdao Airlines as a new member of the big Airbus family," said John Leahy, Airbus Chief Operating Officer Customers. "The selection of the Airbus A320 Family by Qingdao Airlines proves again the preference of the market for our efficient single aisle aircraft. With a proven track record of operational reliability and the lowest operational costs in its class, the Airbus A320 will play a key role in Qingdao Airlines' sustainable development."

The A320neo is offered as an option for the A320 Family and incorporates new more efficient engines and large "Sharklet" wing tip devices, which together will deliver up to 15 percent in fuel savings. At the end of August 2013, firm orders for the NEO stood at 2,348 from 42 customers, making it the fastest selling commercial airliner ever and underlining its market leadership position.

The A320 Family is the world's best-selling and most modern single aisle aircraft Family. To date, more than 9,800 A320 Family aircraft have been ordered and over 5,700 delivered to nearly 390 customers and operators worldwide.

**ZHEJIANG LOONG AIRLINES SIGNS MOU FOR 20 A320 FAMILY AIRCRAFT; HANGZHOU BASED AIRLINE TO START PASSENGER OPERATIONS SOON**  
25 September 2013

Zhejiang Loong Airlines, an airline based in Hangzhou, capital city of Zhejiang Province in Eastern China, has signed a Memorandum of Understanding (MoU) for 20 Airbus A320 Family aircraft, including 11 A320ceo and nine A320neo. The airline has recently been approved by the Civil Aviation Administration of China (CAAC) for passenger flight operation.

The MoU was signed by Liu Yi, President of Zhejiang Loong Airlines and Fabrice Bregier, Airbus President and CEO, at the 15<sup>th</sup> Aviation Expo China 2013 in Beijing.

"The Airbus A320 Family aircraft is ideal for start up airlines with clear advantages in operational reliability, economics, cabin space and its commonality between different types of Airbus aircraft, which will help operators to reduce cost on training and maintenance," said Liu Qihong, Chairman of Zhejiang Loong Airlines. "I believe the Airbus A320 aircraft will help us to achieve the goal of building intensive domestic and international networks around Hangzhou".

"The commitment from Zhejiang Loong Airlines is another vote of confidence for our popular A320 Family, both the current and the new engine option," said Fabrice Bregier, Airbus President and CEO. "Based in Eastern China, where the economy is growing fast and strong, Zhejiang Loong Airlines will have with their efficient A320 Family aircraft an excellent basis for a prosperous future and surely will contribute to boost the economic development of this area further."

Zhejiang Loong plans to start business in 2013. Its passenger operation will start with domestic routes from Hangzhou to first tier airports like Chengdu, Chongqing, Shenzhen and Xi'an. The airline has the ambition to start regional and international routes in three to five years.

#### HARBIN COMPOSITE MANUFACTURING CENTRE DELIVERS 1ST MAJOR A350 PART; AIRBUS' NEWEST JOINT VENTURE IN CHINA PROGRESSES WELL ON A350 WORK PACKAGES

16 September 2013

Harbin Hafei Airbus Composite Manufacturing Centre (HMC), a joint venture between Airbus and its Chinese partners, has started to deliver elevators for the Airbus A350 XWB programme. A ceremony was held today in Harbin for the delivery of the first ship set of elevators. The elevators manufactured at HMC are delivered to Spain-based Aernnova Aerospace (ANN), who will deliver them to the Airbus plant in Getafe, Spain, where they will be integrated into the A350 XWB horizontal tail plane. ANN is a major supplier of aerostructures to Airbus.

Under a contract signed by HMC and ANN in 2010, HMC is responsible for manufacturing and assembling the complete set of carbon fibre elevators (an elevator is a movable control surface in the horizontal tail plane that makes the aircraft pitch up or down to increase or reduce its flight altitude). During the initial phase the A350 elevators were solely produced at ANN. Production in China started in 2012. After a period of transition, during which the elevators are produced at both ANN and HMC, the Harbin Manufacturing Centre will become the sole supplier of A350 XWB elevators.

According to an agreement signed in 2007 between Airbus and the Chinese government, Airbus agreed to allocate five percent of the A350 XWB airframe to be manufactured in China. The work packages to be carried out by HMC are a significant part of the five per cent.

Rafael González-Ripoll, Airbus China Chief Operating Officer, said: "The delivery of the first ship set of A350 XWB elevators by HMC is an important milestone in our long-term partnership with the Chinese aviation industry. The A350 XWB has taken to the sky and the programme is progressing on track. The Chinese have every reason to be proud of the contribution they are making to the A350 XWB."

Geng Ruguang, Executive Vice President of AVIC, the parent company of the majority shareholding Chinese partners of the HMC, said: "It's inspiring for the Chinese aviation industry to be involved in the development and production of the A350 XWB, which is the world's most advanced and most efficient aircraft, and to become an integrated part of Airbus' global supply chain. The delivery of the first A350 XWB elevator demonstrates one more step forward of HMC towards its set target. The development of HMC will also constitute a pulling force for the relevant local industries."

Pedro Fuente, Chief Operating Officer of ANN, said: "We at Aernnova are really satisfied with the very effective teamwork model developed together with the Harbin Manufacturing Centre to industrialize and progressively transfer the A350 XWB Elevators. We are impressed by the fast growing capabilities we are seeing every day. Clearly these are great pillars for a long term collaboration and mutual success."

Among the participants at the ceremony were Chinese government officials, European Government representatives, executives of Airbus and its Chinese partners including AVIC, an aviation industry group of China, representatives of ANN and other industry professionals.

The Harbin Hafei Manufacturing Centre, set up in 2009, is already producing work packages related to the Airbus Single Aisle programme (elevators, rudders and HTP spars) and starts today to deliver the first major part to the A350 XWB programme. In order to fulfil these work packages, especially those for the A350 XWB programme, including elevators, rudders, Section 19 maintenance doors and belly fairing parts, HMC began to build new facilities in 2009. The state-of-the-art new facilities were inaugurated in early 2011.

Notes to editors

About Harbin Hafei Airbus Composite Manufacturing Centre

Harbin Hafei Airbus Composite Manufacturing Centre Company Limited (HMC) is a joint venture between Airbus China (20%) and a group of Chinese partners comprising Harbin Aircraft Industry Group Corporation Limited (HAIG, with 50%), Hafei Aviation Industry Company Limited (HAI, 10%), AviChina Industry & Technology Company Limited (AVICHINA, 10%) and Harbin Development Zone Infrastructure Development Company Limited (HELI, 10%). The Manufacturing Centre commenced production of elevators for Single-Aisle Airbus aircraft in December 2009. The Manufacturing Centre produces parts and components for Airbus single-aisle programme as well as A350 XWB programme, using the latest composite manufacturing technology based on Airbus standards and processes. Deliveries of single-aisle parts and components commenced from July 2010 and the delivery of A350 XWB components started in 2012. S19 Maintenance Door is the first A350 XWB component delivered by the HMC.

#### AIRBUS PROSKY PARTNERS WITH CHINESE AUTHORITIES TO IMPROVE AIRPORT OPERATIONS

10 September 2013

The Airbus ProSky subsidiary is to work with China's Air Traffic Management Bureau (ATMB) in implementing RNP AR-to-ILS transition approaches for commercial aircraft at Chengdu Airport, with the goal of improving overall airport capacity. This capability will enable aircraft to perform satellite-based Required Navigation Performance Authorization Required (RNP AR) approaches into the airport, then seamlessly transfer to ground-based precision Instrument Landing System (ILS) mode when aligned on the runway axis.

#### AIRBUS AND CHINA TO COLLABORATE ON AIR TRAFFIC MANAGEMENT BREAKTHROUGH AGREEMENT TO MODERNISE CHINA'S ATM ENSURING GROWTH

4 September 2013

Airbus and China's Air Traffic Management Bureau (ATMB) signed a Memorandum of Understanding (MoU) to cooperate on modernizing the country's Air Traffic Management System and to implement the latest Air Traffic Management (ATM) technologies.

The MoU signed by Airbus and the ATMB under the Civil Aviation Administration of China (CAAC) focuses on improving air transportation, capacity and efficiency, while contributing to a sustainable future. It will also help in harmonising China's ATM, globally and regionally. The implementation of state-of-the-art ATM technologies and solutions will be done by "Airbus ProSky", the Airbus' ATM Company.

Within the MoU framework, four projects will start this year



- Air Traffic Flow Management (ATFM) - Airport Collaborative Decision Making (A-CDM),  
- Chengdu Airport capacity assessment and RNP AR to ILS implementation - Instrument Landing Systems at Beijing Capital Airport performance improvement

"We are pleased to launch the ATM cooperation program with Airbus today," said Wang Liya, Director General of CAAC ATMB. "The four projects we have launched now pave the way for a broader cooperation between us and Airbus in the future. The implementation of new ATM technologies is the key driver for the modernisation of the ATM system in China. The cooperation will help us draw on the experience of other regions to develop our future ATM systems, which will be more integrated with global systems," Wang added.

"We are delighted to launch the cooperation programme with CAAC ATMB in air traffic management," said Eric Chen, President of Airbus China. "ATM modernisation is key to making air transportation more efficient. It is also key to help aviation grow capacity efficiently. China is set to become the largest domestic civil aviation market in the world. We are happy to support the modernisation of China's ATM system, which will also play an important role in advancing China's civil aviation development in general," added Eric Chen.

(Required Navigation Performance Authorization Required, Instrument Landing System)

#### SICHUAN AIRLINES TAKES DELIVERY OF ITS FIRST A320 WITH SHARKLETS; CUSTOMER FLIES HIGHER WITH ECO-EFFICIENT AIRBUS AIRCRAFT

28 June 2013

Sichuan Airlines, the largest all Airbus fleet operator in China, has taken delivery of its first A320 aircraft equipped with Sharklets, joining the rapidly increasing group of Airbus single-aisle aircraft operators benefiting from the latest fuel saving aerodynamic devices.

The A320, powered by IAE V2500 engines, features a comfortable two class cabin, seating 164 passengers with eight in business class and 156 in economy.

"As the first airline to introduce Airbus fly-by-wire aircraft in China, Sichuan Airlines has benefited from the low cost and highly reliable Airbus aircraft. Thanks to the commonality of Airbus aircraft, we were able to seamlessly introduce the wide body A330 Family aircraft into our fleet. With the introduction of this A320 with Sharklets, we will be able to further optimise our route network and bring a high level of comfort to our passengers as well as further reducing our operational cost", said Li Haiying, General Manager of Sichuan Airlines Co., Ltd.

"We are proud to be part of Sichuan Airlines' success story. They were first Chinese airline to operate the A320, the first to take delivery of an A320 assembled at Airbus' Tianjin Final Assembly Line, and now one of the first with Sharklets in China," said John Leahy, Airbus Chief Operating Officer, Customers. "The Sharklets will deliver up to four per cent reduction in fuel burn and make the airline even more competitive across China and Asia", said John Leahy, Airbus Chief Operating Officer, Customers.

Sichuan Airlines is China's largest all Airbus fleet operator. It introduced an A320 in 1995 to become the first Chinese airline to operate an Airbus fly-by-wire aircraft. In 2009, the airline received the first A320 assembled at the Airbus Final Assembly Line China (FALC) in Tianjin. Now it operates a fleet of five A330s and 70 A320 Family aircraft.

#### FIRST CHINESE ASSEMBLED A320 WITH SHARKLETS GOES TO CHINA EASTERN FIRST IN CHINA TO BENEFIT FROM MORE FUEL SAVINGS

17 May 2013

China's largest operator of Airbus aircraft, China Eastern Airlines, has taken delivery of its first A320 aircraft equipped with Sharklet fuel saving wing-tip devices, becoming

China's first carrier to do so. The aircraft is also the first Sharklets equipped A320 assembled and delivered in Tianjin.

The A320, powered by IAE V2500 engines, features a comfortable two class cabin, seating 158 passengers with eight in business class and 150 in economy. The A320 will make its first commercial flight from Shanghai to Dalian on May 18.

"As the first and biggest Airbus customer in China, China Eastern and Airbus have long-term good cooperation. China Eastern is honored to be the first customer of A320 with sharklets in China. In the near future, China Eastern will further expand our sharklet equipped A320 family fleet", said Shu Mingjiang, Vice President Flight Operations, China Eastern.

"We are delighted that China Eastern Airlines has taken delivery of its first Sharklet equipped A320. It is a mark of our close ties that the biggest Airbus fleet operator in China is also the first Chinese carrier to benefit from up to four per cent reduction in fuel costs", said John Leahy, Airbus Chief Operating Officer, Customers.

Sharklets are made from light-weight composites and are 2.4 meters tall. They are an option on new-build A320 Family aircraft and standard on all members of the new A320neo family. They offer operators up to four per cent fuel burn reduction on longer range sectors and provide the flexibility of either adding an additional 100 nautical miles range or increased payload capability of up to 450 kilograms.

China Eastern is one of the largest airlines in China and is the first Chinese airline operating Airbus aircraft in 1985. Now it operates an Airbus fleet of over 230 aircraft including A300s, A319s, A320s, A321s, A330s and A340s.

Airbus Tianjin Delivery Centre has delivered 126 aircraft since June 2009 and it plans to deliver 46 aircraft in total in 2013.

#### CHINA'S CAS SIGNS GTA WITH AIRBUS FOR 60 AIRCRAFT; ECO-EFFICIENT AIRBUS AIRCRAFT SUPPORT FAST GROWING CHINESE CIVIL AVIATION

25 April 2013

China Aviation Supplies Holding Company (CAS) has signed a General Terms Agreement (GTA) with Airbus for the purchase of 60 Airbus aircraft, which includes 42 A320 Family aircraft and 18 A330 aircraft.

The GTA was signed today at the Great Hall of the People in Beijing by Li Hai, President and CEO of CAS and Fabrice Brégier, President and CEO of Airbus in the presence of the visiting French President François Hollande and the Chinese President Xi Jinping. It was part of a series of France-China agreements signed today.

"We are delighted to receive a new order from our long-standing customer CAS for both the Airbus best-selling single aisle A320 Family and wide-body A330 Family," said Fabrice Brégier, President and CEO of Airbus. "The A320's high reliability and low operational cost has made it very popular with Chinese airlines. As congestion puts pressure on airports in large cities in China, the A330 is an excellent solution as larger aircraft can transport more passengers with less flights. The comfort of the A330's spacious cabin is also appealing to passengers. These eco-efficient Airbus aircraft will contribute to the growth and success of China's aviation sector," said Fabrice Brégier.

By the end of March 2013, there were some 750 A320 Family aircraft in operation with 14 Chinese airlines and more than 110 A330s in operation with six operators.

#### EADS AND AIRBUS DONATE FOUR MILLION RMB TO EARTHQUAKE HIT YA'AN CITY IN SOUTH WESTERN CHINA; EUROCOPTER, ANOTHER EADS SUBSIDIARY ALSO CONTRIBUTES TO DISASTER RELIEF OPERATIONS

24 April 2013

Airbus and its parent company EADS have donated a total of RMB 4 million (about US\$647,200) to the earthquake hit area of Ya'an, Sichuan province, in south west of China via the National Development and Reform Commission of China (NDRC).

Eurocopter, another subsidiary of EADS has also contributed to the disaster relief operations. Since 21<sup>st</sup> April, two Eurocopter helicopters, EC120 and EC135, have been deployed on the earthquake site. Moreover, Eurocopter China will provide special technical and financial support to its Sichuan based private operator, Sichuan Xilin Fengteng General Aviation Company from Guanghan, for the operation of the two helicopters, on request of the Authorities, to participate to the disaster relief air rescue missions.

Airbus China has expressed its intention to contribute to the after-quake reconstruction of Ya'an through supporting students in need in the area.

A quake measured at magnitude 7.0 on the Richter scale, struck Ya'an on Saturday morning, leaving more than 200 people dead missing and more than 11,000 injured. The number of casualties is expected increase as the rescue efforts continue.

#### PRESIDENT OF AIRBUS CHINA

January 22, 2013

President of Airbus China - Eric Chen has become president of Airbus China effective January 1, 2013, responsible for Airbus' overall activities in the PRC, including sales, marketing, contracts, government affairs, customer services, industrial cooperation, finance, communications, administration and site management, legal, etc.

Eric Chen joined Airbus in 1994 as Area Sales Director. He was promoted to Vice President Sales and External Affairs of Airbus China in 2001. Mr. Chen held that position until 2008 when he became Senior Vice President Commercial and External Affairs of Airbus China.

As one of the pioneers who worked for Airbus China, Mr. Chen has witnessed the successful development of Airbus' business in this country, especially the expansion of its in-service fleet from 6% in 1994 to about 50% today for aircraft over 100 seats.

Before joining Airbus, Eric Chen had worked for companies in Shanghai and Paris. Mr. Chen graduated from University of Nanjing in 1982 and studied in several institutions in France. He can speak many languages and Chinese dialects.

Born in Shanghai, Mr. Chen is married with two children. His hobbies include philosophy, history and Peking Opera.

#### FIRST AIRBUS SIMULATOR SUPPORTING A320NEO TRAINING IN CHINA READY FOR OPERATION

3 December 2012

The first A320 full-flight simulator upgradable to support the flight training of A320neo was put into operation today at the Hua Ou Aviation Training Centre in Beijing, a joint venture between Airbus China and China Aviation Supplies Holding Company (CAS). Captain Hu Zhenjiang, deputy director general of Flight Standard Department of Civil Aviation Administration of China (CAAC) presented the qualification certificate of the A320 full flight simulator (S35) and the approval certificate for CCAR "Quality Assurance System" to Raymond Lim, general manager of Hua Ou Aviation Training Centre during a ceremony held at the centre with over 100 guests.

Hua Ou Aviation Training Centre is part of an Airbus global training and support network, dedicated to provide Airbus aircraft operators with training and support around the clock throughout the year. Since it received the first group of pilot trainees in October 1997, the center has trained crews from more than 30 airlines worldwide. Over 24,000 professionals, including pilots, cabin attendants, maintenance technicians, performance/operations personnel and structure technicians have been trained there.

The 12,300-square-metre training center is equipped with four full flight simulators for Airbus aircraft, three for the A320 Family and one for the A330/A340 Family. It also manages the daily operation and maintenance work for an EC225 helicopter simulator, which belongs to Eurocopter, another subsidiary of EADS.

"I am pleased to participate in another milestone in the history of Hua Ou and to see Hua Ou inaugurating a fourth Airbus full flight simulator. As the best selling single aisle aircraft family, the A320 has also proven to be very popular in China. Hua Ou has served our customers training needs extremely well since it was put into operation in 1997. With this new simulator, we will be able to prepare our customers for the EIS of the A320neo in 2015", said Laurence Barron, president of Airbus China.

Hua Ou Aviation Training Centre has also received the approval for "Quality Assurance System" by CAAC on the same day. The system, established by CAAC, is to ensure reliable and high-quality flight training facilities in China. Hua Ou Aviation Training Centre is among the first to obtain CCAR "Quality Assurance System". It is a testament to and recognition of Hua Ou's long and tested experience in Airbus flight training.

The A320neo, with over 1,500 firm orders from more than 30 customers since its launch, is the fastest selling commercial aircraft ever and is on track to enter service from 2015. On 30 August, 2012, ICBC Financial Leasing Co. Ltd. signed an agreement with Airbus for a total of 50 A320 Family aircraft, including 30 A320ceo and 20 A320neo, becoming the neo's first customer in China.

#### CHINA'S TIBET AIRLINES TAKES DELIVERY OF ITS FIRST FALC A319

23 November 2012

China's Tibet Airlines has taken delivery of its first A319 assembled at the Airbus Tianjin Final Assembly Line (FALC). The A319 delivered today is the fifth A319 to join the all Airbus fleet operated by Lhasa based Tibet Airlines. The airline received its first Airbus A319 in July 2011 in Hamburg, Germany.

The newly delivered A319 accommodates 128 passengers in a two-class configuration with eight premium seats and 120 economy seats. The aircraft is powered by CFM56-5B engines.

The aircraft will operate from Lhasa Gongga Airport, which at 12,000 feet in altitude is one of the world's highest. It will fly the route between Lhasa and Shenzhen, which borders Hong Kong in Southern China with a stop-over in Chengdu, Southwestern China.

The newly introduced A319 is certificated for high altitude airport operation and RNP-AR (Required Navigation Performance – Authorisation Required) and Satcom installed.

RNP-AR procedures represent today the most modern navigation technique, allowing the aircraft to fly precisely along a predefined route using on-board navigation systems and the GPS-based 'Global Navigation Satellite System' (GNSS). RNP AR is especially important for airlines operating in and out of high altitude airports. Tibet Airlines has selected Quovadis, an Airbus subsidiary, as its strategic partner for its RNP-AR operations.

"The new aircraft will fly between Shenzhen and Lhasa and contribute to further development of the two areas", said Yin Huixin, Vice President of Tibet Airlines.

"We are honored that our modern Airbus A319 aircraft will contribute to the development of civil aviation on the Tibetan plateau and I'm really confident that the FALC assembled A319 will serve the need of Tibet Airlines", said Airbus China President Laurence Barron.

The FALC in Tianjin is based on the latest state-of-the-art Airbus single aisle final assembly line in Hamburg, Germany. The aircraft delivered in China are assembled to the same standards as those assembled and delivered in Europe.

Airbus has delivered 105 Tianjin assembled A320 Family aircraft to 11 operators since the inauguration of the Final Assembly Line in 2008, which is the first Airbus final assembly line outside Europe.

#### CHINESE CUSTOMER ORDERS AIRBUS ACJ319; REINFORCES AIRBUS CORPORATE JET PRESENCE IN CHINA

14 November 2012

An Airbus ACJ319 with the fuel-saving Sharklet option has been ordered by a Chinese customer, in the first deal for this version from the country. The order builds on the strong Airbus corporate jet presence in greater China, where there are around 25 orders to date.

Airbus corporate jets such as the ACJ318 and ACJ319 are already in widespread service in China, with operators such as BAA Jet Management, Beijing Airlines, China Eastern Executive Aviation, Comlux Asia, Deer Jet, Hong Kong Jet and TAG Aviation.

“China is a relatively new market for corporate jets, as well as having one of the highest economic growth rates, making it a bright spot in today’s business jet market, especially at the top end where Airbus corporate jets serve with distinction,” points out Airbus Chief Operating Officer, Customers, John Leahy. “The Chinese business jet market also favours the ability to carry larger groups, for which Airbus corporate jets are especially well suited.”

Airbus’ ACJ318, ACJ319, ACJ320 and ACJ321 share a similar length and wingspan with competing large business jets, but have the widest and tallest cabin, delivering unequalled comfort, space and freedom of movement.

The wider cabin of Airbus corporate jets allows unique features such as a large circular table that converts to a square one, which is popular in cultures such as China’s because it allows the ideal arrangements for both socialising and playing games such as Mah Jong.

Airbus corporate jets also come from a good family – the world’s most modern – which means that they deliver inherently good value, with many standard features that are lacking in other business jets. These include pilot and mechanic friendly common cockpits, fly by wire controls and centralised maintenance. Other features include a richer baseline specification, extensive use of weight-saving materials such as carbonfibre, and new range-extending engine options.

More than 490 Airbus customers and operators benefit for a worldwide network of technical support and training and support centres, which includes services tailored to corporate jet users, including staff based in China.

Airbus corporate jets now also has commercial offices in both Beijing and Hong Kong.

Airbus corporate jets have won more than 170 orders to date, from companies, individuals and governments, and are flying on every continent, including Antarctica.

#### AIRBUS TO SHOWCASE LATEST PRODUCTS AT AIRSHOW CHINA 2012; A320NEO MODEL ON SHOW FOR THE FIRST TIME IN CHINA

6 November 2012

Airbus will highlight the 21st century’s flagship of A380 and its best selling single aisle aircraft the A320neo (New Engine Option) at the 9th China International Aviation & Aerospace Exhibition (Zhuhai Airshow), from 13th to 18th November 2012 in the southern Chinese city of Zhuhai, Guangdong Province.

A 1:20 scale cutaway A380 model and a 1:20 scale A320neo model will be displayed at the EADS stand located at Booth 10 in Hall 1. It is the first time for Airbus to showcase an A320neo model in China.

A press conference will be held at noon on Tuesday 13th November in the Press Centre, room 220, on the second floor.

#### A NEW INTERNATIONAL DESTINATION FOR CHINA SOUTHERN AIRLINES A380S

12 October 2012

China Southern Airlines has expanded the route network for its A380 fleet with the start-up of operations on international routes. This achievement was marked by a trans-Pacific flight between China’s Guangzhou Baiyun airport and Los Angeles International in the United States during October. The three initial A380 flights on this route – which also were the first China-U.S. services for China Southern A380s – were a popular ticket for customers, with over 90 per cent of seats sold.

## AIRBUS DELIVERS THE 100TH A320 FAMILY AIRCRAFT ASSEMBLED IN CHINA 25 September 2012

The 100th A320 Family aircraft assembled at Airbus' A320 Family Final Assembly Line China (FALC) was handed over today to Air China. This delivery from the Airbus Tianjin Delivery Centre comes some three years after the first aircraft was delivered on 22nd June, 2009.

The new A320, powered by IAE V2500 engines, is configured in a typical two class layout with eight business class and 150 economy class seats. The aircraft will be deployed on domestic routes linking Shanghai to other cities in China. Air China now operates 93 A320 Family aircraft, one of the biggest A320 Family fleets in China.

"We are delighted to have delivered the 100th A320 assembled in Tianjin to Air China today. The airline already operates a significant Airbus fleet and is a most valued and long-term strategic customer", said John Leahy, Airbus Chief Operating Officer Customers. "We will continue to reward the trust our loyal customers place in our aircraft, by delivering the best quality product and support to enable the highest levels of operational performance."

On 31st August, visiting German Chancellor Angela Merkel and Chinese Premier Wen Jiabao presided over a grand gathering of some 1,000 people in Tianjin to celebrate the completion of the 100th A320 Family aircraft assembled at the Airbus A320 Family Final Assembly Line China (FALC).

To date, more than 700 Airbus A320 Family aircraft are in service in China. 11 Chinese customers have so far taken deliveries from the Airbus Tianjin Delivery Centre.

## SINOPEC AND AIRBUS TO DEVELOP CHINESE ALTERNATIVE AVIATION FUEL; PARTNERS SUPPORT CHINESE SUSTAINABLE ALTERNATIVE FUEL STANDARD AND SUPPLY

24 September 2012

China Petroleum and Chemical Corporation (Sinopec), one of China's biggest energy companies and Airbus are developing and promoting renewable aviation fuel production for regular commercial use in China.

Sinopec is the instrumental partner in helping the Central Government to establish a Chinese airworthiness certification for alternative aviation fuels made from locally grown feedstocks.

The certified fuel known as "1# bio-jetfuel" will be produced by Sinopec using its own technology in a newly built refinery in Hangzhou (near Shanghai). The refinery is one of the few in the world that has the capacity to produce aviation fuel from biomass in large-scale.

Airbus is supporting the development of the Chinese standard with technical expertise gained in past certification processes with the European Union and US fuels standards bodies and in the selection of sustainable feedstocks.

"Bio-jetfuel is becoming increasingly important in aviation and the energy market. It will help aviation grow sustainably and demand for fuel increase. Sinopec has developed its own technology for producing aviation fuel from biomass and waste oil and has already produced aviation fuel meeting international standards. Sinopec is assisting CAAC (Civil Aviation Administration of China) in the airworthiness certification process and is proud to be collaborating with Airbus and other partners in the push for alternative aviation fuels," said DAI Houliang, SVP of Sinopec.

In addition to fuel certification, the partners are also establishing a sustainable alternative fuel value chain in China, to help speed up its commercialisation, and will use 100 per cent domestic resources and refining capabilities.

"Bio-fuels are a crucial part of the roadmap to meet aviation ambitious CO2 targets. We are privileged to be working with our Chinese partners to establish a domestic value

chain in China which is 100 percent Chinese,” said Laurence Barron, President of Airbus China.

Airbus currently supports alternative fuel value chains in Australia, Latin America, Europe and the Middle East.

#### **ASSEMBLY LINE IN CHINA COMPLETES THE 100TH A320 FAMILY AIRCRAFT AIRBUS AND CHINESE PARTNERS AGREE ON A FRAMEWORK CONCERNING FALC PROJECT EXTENSION**

31 August 2012

Visiting German Chancellor Angela Merkel and Chinese Premier Wen Jiabao today presided over a grand gathering of some 1,000 people in Tianjin to celebrate the completion of the 100th A320 Family aircraft assembled at the Airbus A320 Family Final Assembly Line China (FALC), which is a joint venture between Airbus and its Chinese partners. Among the participants attending the celebration were government officials from China and Europe, representatives of Airbus and its Chinese partners and customers as well as employees of the Airbus Tianjin Final Assembly Line and Airbus Tianjin Delivery Centre, a subsidiary of Airbus in Tianjin.

One day before the celebration, a framework agreement was signed by Airbus, Tianjin Free Trade Zone (TJFTZ) and the Aviation Industry Corporation of China (AVIC), the two parties of the Chinese consortium that hold a 49% stake in the FALC joint venture, concerning the shared intention to continue the cooperation on the project beyond the current business plan, which is due to expire in 2016. The agreement was signed at the Great Hall of the People in Beijing as a part of a series of Europe-China agreements in the presence of the German Chancellor and Chinese Premier.

“The completion of the 100th A320 Family aircraft by the Airbus Tianjin final assembly line represents a significant milestone for the cooperation between Airbus and China, as well as the Airbus strategy of internationalisation, one of the pillars of the Airbus vision for our future,” said Fabrice Brégier, Airbus President and CEO. “Having a final assembly line in Tianjin has greatly promoted the Airbus brand and image in China and brought us closer to our customers in one of the world’s most important aircraft markets. I would like to congratulate all those involved in making FALC a great success and contributing to a win-win situation for Airbus and the Chinese industry,” he added.

The FALC is the third A320 Family final assembly line in the world after the ones in Toulouse, France and Hamburg, Germany and the first Airbus aircraft final assembly line outside Europe. In July this year, Airbus has announced its decision to establish an A320 Family final assembly line in the United States.

In December 2005, Airbus and the Chinese government signed a MoU for the establishment of a single aisle final assembly line in China. In May 2007, the construction of the Tianjin assembly line started. In August 2008, the Tianjin final assembly line started operation. In June 2009, the first aircraft assembled in Tianjin was delivered to Sichuan Airlines. Since then a total of nearly 100 aircraft have already been delivered to 11 Chinese operators from Tianjin. Since the agreement for the FALC project was signed, China has placed orders for more than 550 A320 Family aircraft. In the mean time, the in-service fleet of Airbus A320 Family aircraft have expanded from some 200 to more than 700 as of end of July 2012

#### **CHINA’S ICBC LEASING PLACES ORDER FOR 50 AIRBUS A320 FAMILY AIRCRAFT; EMERGING LESSOR ENHANCES PORTFOLIO WITH ECO-EFFICIENT AIRBUS AIRCRAFT**

30 August 2012

ICBC Financial Leasing Co. Ltd. (ICBC Leasing), has signed an agreement with Airbus for a total of 50 A320 Family aircraft, including 30 A320ceo and 20 A320neo.

The aircraft purchase agreement was signed at the Great Hall of the People in Beijing by Li Xiaopeng, Senior Executive Vice President of ICBC and Chairman of ICBC Leasing, and Fabrice Bregier, President and CEO of Airbus. It was a part of a series of Europe-China agreements signed in the presence of visiting German Chancellor Angela Merkel and Chinese Premier Wen Jiabao.

"We decided to order more Airbus A320 Family aircraft, not only A320ceo but also A320neo, to enhance our portfolio in anticipation of increasing demand of the aviation markets in China, Asia Pacific region and the world as well. The order indicates that leasing companies are playing a more important role in the aviation sector," said Li Xiaopeng, Senior Executive Vice President of ICBC and Chairman of ICBC Leasing.

"We are delighted to see ICBC Leasing placing another order for the world's best selling single-aisle aircraft. In particular, the order for 20 A320neo makes ICBC Leasing the first Chinese customer for the fastest selling aircraft, which offers a 15 per cent fuel burn reduction. We are proud to support the growth of Chinese leasing companies with our eco-efficient aircraft," added Fabrice Bregier, Airbus President and CEO.

By the end of July 2012, there were over 700 A320 Family aircraft in operation with 15 Chinese airlines.

As of today, more than 8,500 Airbus A320 Family aircraft have been sold and more than 5,100 delivered to over 365 customers and operators worldwide, making it the world's best selling commercial jetliner ever. With proven reliability and extended servicing periods, the A320 Family has the lowest operating costs of any single-aisle aircraft. The A320neo is a new engine option for the A320 Family entering into service from 2015 and incorporates latest generation engines and large "Sharklet" wing tip devices, which together will deliver 15 percent in fuel savings. The A320neo has over 95 percent airframe commonality making it an easy fit into existing fleets while offering up to 500 nautical miles (950 kilometres) more range or two tonnes more payload at a given range.

#### AIRBUS AND CHINA MAKE A PUSH FOR ALTERNATIVE FUELS; SPEEDING UP THE COMMERCIALISATION AND PRODUCTION OF ALTERNATIVE AVIATION FUEL 27 August 2012

Airbus and one of the world's leading academic institutions, Tsinghua University have formed a partnership to complete a sustainability analysis of Chinese feedstocks, and to evaluate how best to support the development of a value chain to speed up the commercialisation of aviation bio-fuels. The value chain aims to produce and to promote the use of aviation bio-fuel in China, the world's fastest growing aviation market.

In phase one, the partnership is assessing suitable feedstocks that comply with ecological, economic and social sustainability criteria. The sustainability analysis is managed by Airbus and involves close collaboration with Tsinghua and leading European institutions. Phase two will narrow down the most promising alternative fuel solutions.

The first results are due to be analysed in the second half of 2012. The goal is to select a number of feedstocks including used cooking oil (which would otherwise be waste) and also algae. By the beginning of 2013, the full sustainability analysis should have been completed.

From 2013 onwards, the partners will look at scaling-up the alternative fuel production process to achieve sustainable quantities of aviation fuel for commercial use.

"We are privileged to be working with our Chinese partners to determine how best we can contribute to a sustainable aviation sector in China" said Frédéric Eyckenne, Airbus New Energies Programme Manager. "The commercialisation of alternative fuels is one of the essential ingredients in our quest to achieving ambitious environmental targets in aviation.

"We are grateful to Airbus support for the project." The Project Manager, Professor Zhang Xiliang, Director of Institute of Energy, Environment and Economy, Tsinghua University, said, "the project will help us improve the understanding of the nature of aviation



Biofuels commercialisation in China, identify the opportunities and challenges, and evaluate the possibility of social, economic, market and technology change and its cost, obstacles and challenges. We believe that the research will have positive effects on energy conservation, emissions reduction and climate change addressing in Chinese aviation sector."

The partnership agreement is one of the initiatives to develop a complete sustainable aviation bio-fuel production capability in China, using only sustainable resources and is part of the Airbus goal to have in place a value chain in every continent by 2012. So far Airbus has value chains in Latin America, Australia, Europe, the Middle East, and with the Chinese value chain, Asia.

#### A FAST-GROWING CHINESE LEASING COMPANY BUILDS ITS FUTURE WITH AIRBUS

11 July 2012

Airbus jetliners are to become a significant portion of the China Aircraft Leasing Company's (CALC) portfolio based on this Hong Kong-based company's latest commercial commitment, signed today at the Farnborough Airshow.

During a morning press conference, a memorandum of understanding was inked for 36 current-generation A320 Family aircraft, with flexibility for CALC to choose between the A319 and A321 versions based on leasing customer needs, according to CEO Dr. Mike Poon. He added that customers also will be able to select Airbus' fuel-saving and performance-enhancing Sharklets as part of the configuration.

With this new commitment, CALC's Airbus jetliner inventory will increase to over 50 – representing a major element in the company's strategy to increase its overall portfolio to 100 aircraft by 2015, Poon said. The current CALC portfolio includes five A320s, five A321s and one A330. CALC also has three A330s and five A320s earmarked for delivery.

#### CHINA AIRCRAFT LEASING COMPANY COMMITS TO 36 A320 FAMILY AIRCRAFT; OPERATORS CAN SELECT AIRBUS' NEW FUEL SAVING SHARKLETS

11 July 2012

China Aircraft Leasing Company (CALC), the fast growing Hong Kong based aircraft leasing company has signed a Memorandum of Understanding (MoU) at the 2012 Farnborough International Airshow for 36 current generation A320 Family aircraft. The deal includes eight A321s, the largest member of the A320 Family and operators will be able to select Airbus' new fuel saving Sharklets.

"This is an important milestone for CALC," said Dr. Mike Poon, CEO of CALC. "We have a long-term commitment to the aviation industry and are very pleased to establish a relationship with Airbus. This sizeable aircraft order will lay the foundation for CALC to achieve our ambition to become a major aircraft lessor in the region."

"We are delighted to welcome CALC as our newest Airbus and A320 Family customer. We're equally happy that they have chosen the industry's favourite single-aisle aircraft to position themselves at the forefront of the fast growing Chinese market," said Fabrice Bregier, Airbus' President and Chief Executive Officer. "It's no secret that if the A320 Family is the cornerstone of airline fleets around the world, it's because they get an unbeatable return on their investment thanks to the A320 Family's outstanding reliability and low operating costs."

CALC currently owns a portfolio of 11 Airbus aircraft including five A320s, five A321s and one A330. It also has three A330s and five A320s aircraft in its delivery pipeline. With this new commitment, CALC's Airbus fleet will grow to over 50.

#### STUDENTS GRADUATE FROM SINO-EUROPEAN AERONAUTICS MASTERS PROGRAMME SUPPORTED BY AIRBUS; A JOINT PROGRAMME TO EDUCATE AVIATION PROFESSIONALS FOR CHINA

26 April 2012

A ceremony was held today in China, at the Civil Aviation University of Tianjin to celebrate the graduation of 43 students from the Aviation Safety Management Masters Programme (ASM Masters Programme). The programme is jointly developed and implemented by Airbus and its European and Chinese partners, Ecole Nationale de l'Aviation Civile (ENAC), Institut Supérieur de L'Aéronautique et de L'Espace (ISAE) of France, and Civil Aviation University of China (CAUC).

The programme was developed to create a state-of-the-art educational tool in China to train future professionals on civil aviation safety management to the highest international standards. The graduate students get a French diploma from ENAC and ISAE, recognized in both France and China. Today, these graduates can be found working for airlines, airworthiness authorities, maintenance organizations, airports, air traffic control providers and educational institutions, mainly in the field of aviation safety. They play an important role in promoting aviation safety management in China.

The programme was initiated by the International Airworthiness Cooperation Department of Airbus in 2001. Airbus' initiative was welcomed by ENAC, ENSICA (now ISAE) and CAUC. The academic activities started in 2003 and the first group of masters students graduated in 2004. Some 450 graduates, including today's, have successfully obtained their masters degree or diploma.

The new graduates, belonging to the programme's eighth graduation year, received their masters degree or diploma in Aviation Safety Management (specialising in Airworthiness or in Aeronautical Maintenance) during the graduation ceremony. Concerning the programme's ninth graduation year, 61 students have registered for the 2012-2013 programme in Aviation Safety Management (in Flight Operations and Aviation Safety Management or in Aeronautical Maintenance). An increasing number of students apply each year for this Aviation Safety Management Programme.

Supported by Airbus, the ASM Masters Programme is taught at the CAUC premises, jointly with ENAC and ISAE. The programme has been strongly backed by the Civil Aviation Administration of China (CAAC), the Chinese aviation authority.

#### HANDOVER OF THE 80TH CHINESE-PRODUCED A320 FAMILY JETLINER

16 March 2012

Airbus today delivered the 80th aircraft produced on its A320 Family final assembly line in Tianjin, China, further underscoring continued success of the company's globalisation strategy. The milestone jetliner was received by carrier Air China, which operates one of the largest A320 Family fleets in China – which will expand to 88 aircraft when this latest A320 enters commercial revenue service between Chengdu and Guangzhou on 18 March. Air China's new A320 is powered by CFM International CFM56-5B engines, and it features a two-class configuration with business and economy seating. Officially opened in 2008, the Chinese A320 Family production line in Tianjin is a joint venture between Airbus and a Chinese consortium of Tianjin Free Trade Zone (TJFTZ) and China Aviation Industry Corporation (AVIC).

#### HONG KONG AIRLINES TAKES DELIVERY OF ITS FIRST A320; CARRIER ALSO ADDS ALL-PREMIUM CLASS A330 TO FLEET

25 January 2012

Hong Kong Airlines has become a new operator of Airbus single aisle aircraft, following the delivery of its first A320. The aircraft is the first of 30 A320s ordered by the airline and is powered by CFM International's CFM 56 engines. Seating 152 passengers in two classes, the A320s will be operated across the carrier's regional network, linking Hong Kong with destinations in mainland China, and North and South East Asia.

Hong Kong Airlines has also taken delivery of its latest long range A330-200, featuring a new all-premium class layout. With luxurious accommodation for just 116 passengers,

the aircraft will be used to launch new non-stop services to London. The delivery increases the carrier's in-service widebody fleet to 10 aircraft, comprising seven A330-200 passenger aircraft and three A330-200F freighters.

"With the delivery of our first A320 and the new all-premium class A330 Hong Kong Airlines will consolidate further its position as a premier full-service carrier," said Yang Jian Hong, President, Hong Kong Airlines. "The on-board features will ensure that we are able to offer the best possible in-flight experience, while benefitting from the economic efficiency offered by these modern aircraft types."

"We are pleased to see Hong Kong Airlines become a new A320 operator and also increase its Airbus long range fleet," said John Leahy, Chief Operating Officer, Customers, Airbus. "These modern and fuel-efficient aircraft will offer Hong Kong Airlines the lowest operating costs in both regional and medium capacity long haul markets, as well as a level of technical commonality unique to the Airbus product line."

#### AIRBUS (TIANJIN) LOGISTICS COMPANY OPENS FOR BUSINESS; HUB IN TIANJIN TO OPTIMISE SUPPLY CHAIN FOR AIRBUS INDUSTRIAL PROJECTS IN CHINA

18 November 2011

Airbus (Tianjin) Logistics is now fully operational in its brand new facilities in the Tianjin Free Trade Zone Comprehensive Bonded Area. With a logistics facility design similar to Europe, the main purpose of the company is to optimise and support supply chain management of present and future industrial cooperation programmes of EADS and Airbus in China.

A ceremony was held today to mark the opening of Airbus (Tianjin) Logistics. Chinese government officials, representatives of Airbus and its partners, and other aviation industry professionals attended the event. By establishing this logistics company in Tianjin, Airbus aims in particular to optimize all transport and logistics activities related to Airbus in China as part of its worldwide supply chain.

Today, a number of Chinese companies are directly involved in manufacturing parts and components for Airbus aircraft. These companies are located in different cities, including Harbin, Shenyang, Tianjin, Xi'an, Chengdu and Shanghai, and each supply chain is organised separately. A harmonised and streamlined supply chain will increase the efficiency of the Airbus production lines and reduce logistics costs.

"Airbus (Tianjin) Logistics will provide strong support to all industrial exchanges between China and the rest of the world, which are needed as a result of our expanding industrial activities in China. The Airbus logistics centre in Tianjin is another step forward in our cooperation with Tianjin, where we already have the A320 Family Final Assembly Line and Delivery Centre," said Laurence Barron, Airbus China President. "This improvement in our logistics set-up will also support the production of the A350 XWB, of which five percent of the airframe will be manufactured in China".

In October 2009, Airbus signed a Memorandum of Understanding with Tianjin Free Trade Zone on the establishment of a logistics hub in Tianjin. In 2010, the logistics centre started operations in temporary facilities, having served already two major aeronautic projects in Tianjin: the A320 wing equipping project and the assembling and testing of the wing slats by SINELSON AERO (Tianjin) to be installed on aircraft assembled at the FALC.

#### CHINA SOUTHERN AIRLINES' FIRST A380 ENTERS FINAL ROUND OF TESTS

17 August 2011

The final phase of testing has begun for China Southern Airlines' initial A380, which is scheduled to enter commercial service with the carrier later this year. These flight and ground evaluations, which are being carried out from Airbus' facilities in Hamburg, Germany, are validating the double-deck jetliner's general performance and cabin systems – including air flow and air conditioning, lighting, galleys, lavatories, seats and in-flight

entertainment – before its upcoming flight to Toulouse, France for pre-delivery preparations.

**“PASSING OF THE BATON” AT AIRBUS’ TIANJIN, CHINA FACILITY UNDERSCORES COMMITMENT TO INTERNATIONALIZATION** AIRBUS’ A320 FAMILY FINAL ASSEMBLY LINE IN CHINA IS GEARING UP FOR A “CHANGING OF THE GUARD” AS THE FACILITY’S FIRST GENERATION OF MANAGERS PREPARE A PLANNED AND STRUCTURED HANDOVER OF RESPONSIBILITIES TO THEIR SUCCESSORS.

29 July 2011

Approximately 120 European Airbus managers and employees gradually will begin leaving the final assembly line in Tianjin, with 90 per cent of these positions to be filled by Chinese nationals – underscoring Airbus’ commitment to internationalisation of its industrial base.

“Our mission was to get things going,” said the facility’s original and current head of operations, Andreas Foerster. “In the meantime, our Chinese colleagues have developed fantastically and built up the necessary experience. And, while the final assembly line was still being established, we delivered our aircraft 100-percent on-time and on-quality, right from the start.”

The current team will stay in Tianjin for an additional two months to help acclimate their new counterparts, who have some 120 years of industry experience between them.

Foerster is moving on to a post at **Airbus Military** in Spain, and will hand over his duties to the facility’s new leader, Dieter Stratmann – who currently is head of long-range forward/aft fuselage at Airbus’ Hamburg, Germany site.

They will work together for six weeks as the outgoing manager familiarises the incoming one with the specifics of Stratmann’s new role. According to Foerster, cultural aspects are as important as technical and organisational facets, and feels that many things have to be approached differently in China.

Stratmann regards his new duties as a logical and welcome step. “I’m looking forward to moving into the role of my former internal customer, as an aircraft builder entrusted with the technical aspects of the entire aircraft, and above all to working with our Chinese colleagues in an international environment,” he said.

**TIBET AIRLINES TAKES DELIVERY OF ITS FIRST A319; NEWEST CHINESE OPERATOR FLIES HIGH WITH AIRBUS**

1 July 2011

Tibet Airlines, a newly established Chinese airline based in Lhasa, Tibetan autonomous region of China, has taken delivery of its first Airbus A319, becoming Airbus’ newest operator in China. This aircraft is the first out of three A319s, an order which was placed in May 2010.

Tibet Airlines’ A319 accommodates 128 passengers in a two-class configuration, with eight seats in premium and 120 in economy class. The aircraft is powered by CFM56-5B engines.

The aircraft will operate at the highest airports in the world such as Ali Kunsha, Tibet, which is above 14,000ft, and fly RNP-AR (Required Navigation Performance - Authorisation Required) procedures from Beijing and Chengdu to Lhasa and other regional routes.

RNP-AR procedures represent today the most modern navigation technique, allowing the aircraft to fly precisely along a predefined route using on-board navigation systems and the GPS-based ‘Global Navigation Satellite System’ (GNSS). RNP AR is especially important for operators, who have their base at a high altitude airport. Tibet Airlines has selected Quovadis as its strategic partner for its RNP-AR operations.

"I am confident, the proven high altitude flight performance of the A319 will enable us to offer our passengers the highest level of comfort on the highest altitude routes", said Xu Bo, Chairman of Tibet Airlines. "We aim to build a regional network covering all civil airports in Lhasa, Tibetan autonomous region."

"We are honored that our modern Airbus A319 aircraft will contribute to the development of civil aviation on the Tibetan plateau and we warmly welcome Tibet Airlines as our new operator", said Airbus China President Laurence Barron. "Today, over 85 percent of the commercial flights to and from Tibet are already performed with an Airbus aircraft. We are now pleased that this number will rise further with Tibet Airlines' RNP capable A319s."

#### AIRBUS' JOINT VENTURE IN CHINA TO INCREASE A320 RUDDER PRODUCTION; HALF OF A320 RUDDERS TO BE PRODUCED IN CHINA BY 2014

29 June 2011

Airbus has signed an agreement with its Chinese partners on progressively increasing the production of A320 rudder at the Hafei Airbus Composite Manufacturing Centre (HMC), a joint venture between Airbus and AVIC HAFEI and other Chinese partners.

The agreement was signed today in Berlin, Germany, by Fabrice Brégier, Airbus Chief Operating Officer, and Liu Guanglin, Vice President of AVIC HAFEI and Chairman of HMC, at the Third Airbus/NDRC Aviation Cooperation & Development Summit, organized by Airbus and China's National Development and Reform Commission (NDRC) and attended by Zhang Xiaoqiang, Vice Minister of NDRC.

According to the agreement, HMC will increase its production of A320 rudders progressively in the next years to reach 21 shipsets per month by 2014, which represents half of the total production of A320 rudders worldwide. Currently HMC produces about three shipsets of A320 rudders per month.

"The agreement is an important development of the joint venture manufacturing centre. We are proud to be further integrated into the Airbus worldwide supply chain network and play a more important role in the production of the world's best selling single-aisle aircraft," said Liu Guanglin.

"The agreement demonstrates our long-term commitment to the partnership with Chinese aviation industry," said Tom Enders, President and CEO of Airbus. "The ramp up of the rudder production at HMC will be a strong support to the further development of the joint venture."

#### Notes to editors

Harbin Hafei Airbus Composite Manufacturing Centre Company Limited (HMC) is a joint venture between Airbus China (20%) and a group of Chinese partners comprising AVIC HAFEI (with 50% of the stake), Hafei Aviation Industry Company Limited (HAI, 10%), AviChina Industry & Technology Company Limited (AVICHINA, 10%) and Harbin Development Zone Infrastructure Development Company Limited (HELI, 10%). HMA commenced production of components for Single-Aisle Airbus aircraft in December 2009. In February 2011, a new facility was operational at the manufacturing centre, which is mainly used to produce components for the A350 XWB programme, using the latest composite manufacturing technology based on Airbus standards and processes.

#### CHINA'S CAS AND ICBC LEASING BUY 88 AIRBUS A320 FAMILY AIRCRAFT

28 June 2011

China Aviation Supplies Holding Company (CAS) and ICBC Financial Leasing Co., Ltd. (ICBC Leasing) have signed agreements with Airbus for a total of 88 A320 Family aircraft, 42 of them are for ICBC Leasing.

CAS's General Terms Agreement (GTA) with Airbus was signed by Li Hai, President of CAS and Tom Enders, President and CEO of Airbus.

The purchase agreement between ICBC Leasing and Airbus was signed by Li Xiaopeng, Senior Executive Vice President of ICBC and Chairman of ICBC Leasing, and Tom Enders. This is the first order that ICBC Leasing has placed directly with an aircraft manufacturer. So far ICBC has 68 aircraft in its portfolio. ICBC Leasing is a subsidiary of the Industrial and Commercial Bank of China (ICBC), the world's largest bank by market capitalization.

"Since the first A320 Family aircraft was introduced in China in 1995, the Airbus single aisle programme has played an important role in supporting the fast Chinese civil aviation growth. The A320's high reliability and low operational cost have made them very popular among Chinese airlines. The outstanding eco-efficient performance of the Airbus A320 Family will contribute significantly to the sustainable development of Chinese civil aviation," said Li Hai, President of CAS.

"After a thorough assessment and study of the market, we have decided to place our very first order with Airbus for its A320 Family. This strategic decision to start with the A320 Family aircraft will help our customers to develop their business in the most profitable and sustainable way," said Li Xiaopeng, Chairman of ICBC Leasing.

"We are delighted to receive a new order from our long-lasting customer CAS, and also the very first order from ICBC Leasing. These aircraft will contribute to the growth and success of China's aviation sector, and we are proud to be their partner," said Tom Enders, Airbus President and CEO.

By the end of May 2011, there were some 575 A320 Family aircraft in operation with 13 Chinese airlines.

#### NEW A330 DELIVERY UNDERSCORES THE JETLINER'S CONTINUED POPULARITY IN CHINA

23 June 2011

China Southern Airlines has received its latest A330-200, with handover occurring today during a ceremony at the 2011 Paris Air Show. This delivery reinforces the A330's status as China's most popular widebody aircraft – with a total of 77 jetliners now in service across the country. China Southern Airlines will mark another milestone later this year when it becomes the first Chinese operator of Airbus' 21st century flagship A380.

#### TEAM WINGS OF PHOENIX FROM NANJING UNIVERSITY OF AERONAUTICS AND ASTRONAUTICS WINS AIRBUS FLY YOUR IDEAS 2011 COMPETITION; STUDENTS WIN €30,000 FOR THEIR IDEA OF A GROUND-BASED WIND POWER GENERATION SYSTEM DERIVED FROM AIRCRAFT WAKES

23 June 2011

The first prize of €30,000 in Airbus' Fly Your Ideas 2011 competition was awarded to Team Wings of Phoenix from Nanjing University of Aeronautics and Astronautics (China) at a ceremony held at the International Paris Air Show – Le Bourget today. The team members, along with all the finalists, will also be offered an internship at Airbus. The Airbus Fly Your Ideas (FYI) biennial contest challenges students worldwide to develop new ideas to deliver a more eco-efficient aviation industry for the future.

Team Wings of Phoenix won for their suggestion of a ground-based wind power generation system that exploits the wakes of aircraft generated during takeoff and landing. Their idea involves the placement of a series of leaf-shaped devices along the sides of airport runways that are perturbed by passing aircraft, recovering energy that is otherwise lost. The team considered the electro-mechanical conceptual design of their 'leaves' and the potential to generate electrical power while meeting airport safety regulations.

The winning team is comprised of: Xinyuan Zheng, Lijun Pan, Xianmei Wu, Xuesong Liu and Kai Xu.

"To participate in the 2011 Fly Your Ideas challenge was a great experience for us. We are very proud to be the winning team and hope our idea will inspire the industry," said Xinyuan Zheng, spokesperson for Team Wings of Phoenix.

The runner-up prize of €15,000 went to Team Condor from Universidad Técnica Federico Santa María in Chile for their proposal on an alternative design for aerodynamic speed brakes to recover energy for on-board reuse.

Spanish team 'Ecolution', from the Universidad Pontificia Comillas de Madrid, was awarded the Best Video prize for the creative way they presented their project, the implementation of light-weight natural fibre composites in aircraft cargo containers.

Tom Enders, Airbus President and CEO, said: "Innovation is the essential ingredient for maintaining our industry's license to grow, and the Fly Your Ideas competition is a unique opportunity for students worldwide to promote their ideas for the sustainable future of flight. It is also a strong lever to engage with the next generation of talent who will push the limits of research and technology further."

Charles Champion, Airbus Executive Vice President Engineering and Patron of Fly Your Ideas, said: "This year's record number of 315 teams from everywhere around the world entering the competition demonstrates a strong interest in aviation and Airbus. The level of enthusiasm, creativity and thinking 'outside the box' has been remarkably rewarding."

Thierry Baril, Airbus Executive Vice President Human Resources, said: "I am thrilled and inspired by the level of skill we have encountered. This year all members of the five finalist teams as well as the Video Prize winners will be offered an internship at Airbus, and maybe they'll go on to become part of our future talent."

The final round of the year-long challenge culminated this week as the five finalist teams presented their proposals to a special jury consisting of selected Airbus representatives and high-profile industry experts.

The global challenge, which was launched in July 2010, drew entries from more than 2,600 students from 75 countries, representing 287 universities. Students were asked to propose an idea related to one stage of the aircraft's lifecycle: design, supply chain, manufacturing, aircraft operations or aircraft end-of-life.

The unique nature of the Fly Your Ideas challenge is that it gives students the chance to develop teamwork, enhance their creativity and innovation skills, and improve project management as well as presentation skills. Students have close interaction with Airbus staff benefitting from Airbus expertise and insight into the global aviation industry which currently supports 33 million jobs worldwide and is a substantial contributor to global commerce.

#### CHINA SOUTHERN AIRLINES' INITIAL A380 EMERGES FROM THE PAINT SHOP 20 June 2011

The first A380 for China Southern Airlines has been rolled out of the Airbus paint shop in Hamburg, Germany, where it was completed with the airline's distinctive livery. China Southern Airlines has five A380s on order, and will become the seventh operator of Airbus' 21st century flagship jetliner after taking delivery of its initial aircraft later this year.

#### AIRBUS DELIVERS THE 50TH A320 FAMILY AIRCRAFT ASSEMBLED IN CHINA; JUNEYAO AIRLINES KEEPS GROWING WITH AIRBUS' TOP PERFORMING SINGLE-AISLE JETS 1 June 2011

Less than two years after Airbus delivered the first A320 Family aircraft assembled by the Airbus A320 Family Final Assembly Line in China (FALC), the world's largest aircraft manufacturer celebrates today the hand-over of its 50<sup>th</sup> aircraft assembled by FALC at the Airbus (Tianjin) Delivery Centre to Chinese customer, Juneyao Airlines, a Shanghai-based privately-owned carrier.

The event was earmarked with a special ceremony, attended by National Development and Reform Commission of China and Tianjin government officials, Juneyao executives and Airbus representatives.

"We are pleased to take delivery of the 50<sup>th</sup> aircraft assembled at FALC to further enhance our all Airbus fleet," said Wang Junjin, Chairman of Juneyao Airlines. "Our highly reliable A320 Family fleet has demonstrated excellent performance while keeping operational costs low," Wang Junjin added.

"We are proud that the A320 Family plays an important role in the growth of Juneyao Airlines," said Laurence Barron, Airbus China President. "The 50<sup>th</sup> delivery is a major milestone for FALC. Airbus will continue providing the best products and services to its Chinese customers," affirmed Laurence Barron.

Currently Juneyao operates two A319s and 17 A320s.

The FALC is a joint venture between Airbus and a Chinese consortium comprising Tianjin Free Trade Zone (TJFTZ) and China Aviation Industry Corporation (AVIC). Since the first delivery of a FALC assembled A320 Family aircraft to Sichuan Airlines in 2009, 50 A320 Family aircraft, of which seven are A319s and 43 A320s, including today's, have been delivered by Airbus in Tianjin to nine Chinese Airlines.

#### CHINA SOUTHERN AIRLINES SIGNS AIRBUS FLIGHT HOUR SERVICES FOR THE FIRST A380 FLEET IN CHINA; AIRBUS EXPANDS ITS AIRLINE CUSTOMER BASE FOR EXTENDED SERVICES

9 May 2011

China Southern Airlines, the first Chinese operator to fly the Airbus A380 aircraft, has signed a contract with Airbus for customized Flight Hour Services (FHS) for its fleet of five A380s, scheduled to be in service from the second half of 2011.

Airbus will deliver to China Southern Airlines a tailor-made FHS solution supported by the benchmark Airbus worldwide customer services system. This long-term agreement guarantees on-site availability of Line Replaceable Units (LRUs), related logistics and maintenance services for China Southern Airlines, which joins the club of growing Airbus FHS customers in Asia.

"The introduction of Airbus A380s and the Airbus A380 FHS to China Southern Airlines extends a long and successful partnership with Airbus. The fully customised Airbus Flight Hour Services solution for our A380 fleet will contribute to securing the highest service level our passengers are accustomed to," said Dong Suguang Executive Vice President Maintenance and Engineering of China Southern Airlines.

"With its introduction of Airbus A380s and becoming the first customer in China to operate this aircraft, China Southern Airlines again exhibits its innovative vision and excellent judgment. The A380 is the ideal aircraft to meet the demands of the fast growing travel market in China and Airbus FHS underlines our full commitment to service excellence," said Pierre Steffen, Senior Vice President Customer Service and Operations Airbus China.

"This agreement reinforces Airbus strong commitment to be integrally involved from aircraft choice, the entry into service and onwards securing the daily operations of our Airbus customers," said Didier Lux, Executive Vice President Customer Services of Airbus.

By the end of March 2011, China Southern Airlines operates the largest Airbus aircraft fleet in China, which includes 169 A320 Family and 18 A330s. In 2005, China Southern Airlines placed a firm order for five A380s, becoming the first Chinese airline to order the double-decker.

#### EADS/AIRBUS SIGN ALUMINIUM PROCUREMENT CONTRACT WITH CHINA'S SOUTHWEST ALUMINIUM; STRATEGIC MOVE TO EXPAND QUALIFIED SUPPLIERS OF ALUMINIUM

10 March 2011

Airbus and its parent company EADS have signed a procurement frame contract with Southwest Aluminum (Group) Co., Ltd. (SWA), one of the largest aluminum product producers in China, for the manufacture and supply of aluminum plate.



EADS' sourcing strategy aims to develop a truly global supply chain that will enable the Group to create a more competitive cost base and provide natural hedging while gaining access to strategic markets in Asia. To drive this business transformation, EADS' Global Sourcing Network supports Airbus to identify new potential partners around the world that can meet its quality standards and optimize its existing industrial assets.

Today, aluminum is of utmost importance in the production of airplanes as it is used in many different parts of an aircraft such as fuselage panels and frames, floor beams, and wing spars/ribs. SWA's aluminum products will initially supply both Airbus' single-aisle and long-range families, and the contract could be extended to other programmes in the future.

A ceremony was held in Beijing on 9th March to celebrate the signing of the contract. The contract was signed by Klaus Richter, Airbus Executive Vice President Procurement, Eric Zanin, Airbus Senior Vice President and Head of Materials and Detail Parts Procurement, Li Fengyi, Chief Executive Officer of SWA, and Yinxiaohui, Chief Engineer of SWA on 16<sup>th</sup> February 2011. Antoine Gaugler Director EADS China Sourcing Office and Li Fengyi, Chief Executive Officer of SWA, were present at the ceremony on the 9<sup>th</sup> March.

"We are proud to become a certified supplier to EADS and Airbus. We are confident that we will deliver the products with high quality and at competitive prices" said Li Fengyi, CEO of SWA.

"The contract creates a win-win situation for all parties, as EADS and Airbus move a further step forward to sourcing new qualified suppliers in emerging regions while SWA becomes a supplier of the leading aircraft manufacturer," said Antoine Gaugler. "In addition, Airbus will increase its efficiency as the aluminum needed by partners in China will be sourced directly from China instead of being shipped from western suppliers," he added.

Over the years, China has become a strategic partner of Airbus. Today, different Chinese manufacturers are involved in manufacturing parts for Airbus aircraft. All types of Airbus commercial aircraft (from the A320 Family to the A380) have components produced in China. Via four major joint-ventures with Chinese aeronautical partners, Airbus has also forged a solid service and industrial footprint in China that provides dedicated services for its Chinese customers and supports Airbus' worldwide supply chain. Those include a training and support centre, an engineering centre, the first Airbus Final Assembly Line outside of Europe producing A320 Family aircraft and a Manufacturing Centre dedicated to composite material components. Airbus has also chosen China as one of its partners in the A350 XWB programme and allocated five per cent of the A350 XWB airframe to be manufactured in China. The total value of industrial cooperation between Airbus and the Chinese aviation industry reached 206 million US dollars in 2010 and is expected to be close to half a billion US dollars per year in 2015.

#### AIRBUS APPOINTS TAECO AS CABIN OUTFITTER; FIRST AIRBUS CORPORATE JET OUTFITTER IN ASIA-PACIFIC

7 March 2011

Airbus announced today that it has appointed Taikoo (Xiamen) Aircraft Engineering Company Ltd (TAECO) as its first approved cabin-outfitter in Asia-Pacific, thereby expanding its range of completion centres available to corporate jet customers.

TAECO is a subsidiary of Hong Kong Aircraft Engineering Company Ltd. (HAECO), specialising in heavy and line maintenance, freighter conversion, component overhaul, engineering design, parts manufacturing and training in Xiamen, Mainland China.

Outfitting the cabins of business jets, such as the Airbus Corporate Jet (ACJ) and A320 Prestige is a new venture for TAECO, which has already built a cabin mock-up to showcase its capability in the field.

"We are pleased to be approved as Airbus first completion centre in the Asia Pacific, which is a recognition of TAECO's expertise and experience in the aircraft engineering

field. Expanding into cabin completions for Airbus corporate jets is an important and exciting new business opportunity for us, and we look forward to receiving the first Airbus corporate jet to be fitted out at our completion centre,” says TAECO Chief Executive Officer Patrick Healy.

TAECO's approval follows a complete audit of the company and its capabilities, allowing Airbus to recommend the company to its customers with confidence.

“Our customers expect a quality Airbus Corporate Jet from us, even when the cabin is outfitted by another company, and we are determined to help them achieve that, which is why we encourage them to choose an approved completion centre,” says Airbus Executive Vice President, Programmes, Tom Williams.

Airbus offers its customers a network of eight approved cabin-outfitters around the world, of which TAECO is the newest addition.

#### A MILESTONE FIRST FLIGHT FOR CHINA SOUTHERN AIRLINES' INITIAL A380 4 March 2011

The first of five A380s for China Southern Airlines has completed its maiden flight, during which this double-deck aircraft travelled from Toulouse, France – where it was assembled – to Hamburg, Germany for cabin installation and painting. China Southern Airlines is scheduled to receive its initial A380 later this year, bringing the total number of carriers with Airbus' 21st flagship jetliner to seven.

#### HARBIN HAFEI AIRBUS COMPOSITE MANUFACTURING CENTRE OPENS NEW FACILITIES TO PRODUCE A350 XWB COMPONENTS IN CHINA; ECO-EFFICIENT NEW PLANT INAUGURATED, BUILT TO THE HIGHEST INDUSTRY STANDARDS 28 February 2011

Today, the Harbin Hafei Airbus Composite Manufacturing Centre (the Manufacturing Centre), a joint venture between Airbus and its Chinese partners, was inaugurated in Harbin, China by Tom Enders, Airbus President and CEO, Chinese government officials and partners. The new facilities will mainly be used to manufacture composite parts for the A350 XWB, Airbus' latest aircraft programme.

The 33,800-square-metres state-of-the-art facilities opened today are the first of what will be an 80,000-square-metres manufacturing compound, comprising production, technical support, office areas and other services.

Li Fangyong, Vice President of the Aviation Industry Corporation of China (AVIC), said: “The inauguration of the Manufacturing Centre demonstrates we are well prepared for the production of the A350 XWB components. It's our honour and pleasure to be involved in the production of the world's most advanced aircraft, the A350 XWB, and to become an integrated part of the global supply chain of Airbus, the world's leading aircraft manufacturer.”

Tom Enders, Airbus President and CEO, said: “The Chinese have every reason to be proud they are contributing to the A350 XWB. The aircraft will set new standards in terms of eco-efficiency and passenger appeal. The Manufacturing Centre in Harbin and other Chinese partners will play an important role in its success.”

The Harbin Manufacturing Centre will produce A350 XWB components (53% of the aircraft's structure will be made of composite materials) including rudders, elevators, Section 19 maintenance doors and belly fairing parts – all in all a significant part of the five percent A350 XWB airframe work packages share to be carried out in China. The Manufacturing Centre uses the world's most advanced equipment and technology, including automated-tape-laying, autoclave, automated trimming, and non-destructive test equipment.

The construction started in June 2009. The facilities were built to the highest industry standards and eco-efficiency has been a decisive factor when designing its buildings and processes. Key features to minimize its environmental footprint include the management

of heating, lighting, power and electricity systems, careful management of the supply chain and environmental awareness training for employees and suppliers. By 2016, around 600 employees are expected to be working at the Harbin Manufacturing Centre.

Harbin Hafei Airbus Composite Manufacturing Centre is a joint venture between Airbus China and a group of Chinese partners comprising Harbin Aircraft Industry Group Corporation Limited, Hafei Aviation Industry Company Limited, AviChina Industry & Technology Company Limited and Harbin Development Zone Infrastructure Development Company Limited. It started production of A320 elevators, rudders and Horizontal Tail Plane (HTP) spars in December 2009. Chinese companies contribute five per cent of the A350 XWB airframe work packages.

The A350 XWB Family is Airbus' response to widespread market demand for a series of highly efficient medium-capacity long-range wide-body aircraft, with a range of up to 8,300 nm/15,400 km. The A350 XWB has the widest cabin in its category, offering unprecedented levels of comfort, the lowest operating costs and lowest seat mile cost of any aircraft in this market segment.

So far, A350 XWB has won 583 firm orders from 36 customers. Air China is the first Chinese airline to order the aircraft having placed a firm order for 10 A350 XWBs in 2010. Development of the A350 XWB programme is progressing on track towards entry into service in the second half of 2013. The final assembly of A350 XWB will start at the end of this year at the new Final Assembly building in Toulouse, France.

#### AIRBUS SIGNS MOU WITH CHINESE AUTHORITIES ON COOPERATION IN ATM; INTEROPERABILITY IN ATM SYSTEMS BETWEEN EUROPE AND CHINA REPRESENTS AN IMPORTANT STEP FORWARD FOR THE AVIATION INDUSTRY

15 December 2010

Airbus signed a Memorandum of Understanding (MoU) with the Chinese air traffic management authorities on air traffic management cooperation.

According to the MoU signed by Airbus and the Air Traffic Management Bureau (ATMB) under the Civil Aviation Administration of China (CAAC), Airbus will assist ATMB with the introduction and implementation of new ATM technologies and best practices in China, and will share its experience in Europe with ATMB for the development of future ATM systems in China. The MoU is signed by Wang Liya, Director General of CAAC ATMB and Eric Stefanello, Senior Vice President of Airbus in charge of air traffic management.

Within the MoU framework, Airbus will support ATMB in advanced R&D, the validation and deployment of new ATM technologies, and training. Airbus will also act as a coordinator in terms of extended expertise from some of the ATM players, including Quovadis, Cassidian and German air navigation service provider Deutsche Flugsicherung (DFS).

Airbus will support ATMB in 16 potential areas of cooperation identified by ATMB, including R&D, concept and technology validation, support to deployment, airspace design and training. As the first step, five concrete projects have been selected and agreed by both parties to be implemented for the 2010-2012 period, which will pave the way for the long-term cooperation between the two sides.

"CAAC is making efforts to build modernised ATM systems, which will help to improve air transport efficiency in China and contribute to the global air transport industry. The cooperation between CAAC ATMB and Airbus will help us draw on the experience of other regions to develop our future ATM systems, which will be more integrated with global systems," said WANG Liya, Director General of CAAC ATMB.

"With the MoU, Airbus has expanded its cooperation with China's civil aviation into a new area. Global interoperability of air traffic management systems, in particular between the future ATM system in China and SESAR (Single European Sky ATM Research) is key for the air transport industry, and strengthening cooperation between Europe and China will support global interoperability," said Laurence Barron, President of Airbus China.

A modernised ATM system will bring benefits in terms of operational efficiency and eco-efficiency by reducing flight delays, saving aircraft fuel consumption and reducing CO2 emissions.

#### AN A380 VISITS THE SITE OF CHINA'S A320 ASSEMBLY LINE

19 November 2010

Tianjin, which is home to the A320 Family Final Assembly Line and Delivery Centre in China, gave a traditional welcome for the A380's first visit to Tianjin Binhai International Airport. Today's arrival brings to 125 the number of airports around the world visited by Airbus' 21st century flagship jetliner.

AIRBUS HIGHLIGHTS ITS GROWING PRESENCE IN CHINA; THE GROWING PROFILE FOR AIRBUS IN CHINA IS TAKING CENTRE STAGE AT THIS YEAR'S BIENNIAL AIRSHOW CHINA EXHIBITION, WHERE THE COMPANY IS UNDERSCORING ITS INCREASED MARKET PRESENCE IN THE CHINESE AIR TRANSPORT SECTOR.

16 November 2010

Over the course of its 25-year commercial and industrial relationship with China, Airbus has consistently increased its market presence in the country's air transport sector – which in recent years has seen a greater number of aircraft orders, a ramp-up in deliveries to Chinese carriers and the establishment of Airbus' A320 final assembly line in Tianjin.

The growing profile for Airbus in China will take centre stage at this week's Airshow China 2010 exhibition, which is being held 16-21 November at Zhuhai Airport.

During the past decade, the in-service fleet of Airbus aircraft in mainland China has grown on average by more than 20 per cent annually. To date, over 630 Airbus jetliners are in operation with 12 Chinese carriers – representing 43 per cent of the country's fleet of passenger aircraft with capacity over 100 seats.

Orders from Chinese customers currently stand at 738 aircraft, which include 596 A320 Family jetliners and five A380s. In 2010 alone, Airbus signed agreements for 77 new aircraft, including 59 A320 Family aircraft, 10 A350 XWBs and eight A330s; while delivering 93 airliners.

Among the highlights at this year's Airshow China is a visit from Airbus' 21st century flagship A380, which is taking part in the biennial event's flying demonstrations as well as the exhibition's static display.

The A380 represents a new-generation solution to help ease airport congestion and accommodate growth in China's booming air transport market over the coming 20 years. The first Chinese customer for this jetliner is China Southern Airlines, which ordered five of the double-deck aircraft in 2005. Deliveries are scheduled to begin during 2011.

Airbus' industrial presence in China is highlighted by its A320 final assembly line in Tianjin, which began operations in 2008 and delivered its first aircraft in May 2009. From 1 January to 26 May 2010, Airbus delivered a total of 10 A320 Family jetliners assembled in Tianjin – demonstrating that this facility's production ramp-up was on track at the rate of two aircraft per month.

The Chinese final assembly line's output will continue to ramp up to the planned three monthly pace by 2011. As of this month, the facility had delivered a total of 33 aircraft, composed of 11 in 2009 and 22 so far in 2010.

In October, Airbus opened a new extension at its supplier village in Beijing to provide enhanced and more efficient support for operators of Airbus aircraft in China – including information and communications technology (ICT) and other logistics support.

Additional information on the latest Airbus products and services are being provided during Airshow China 2010 at the Airbus display stand (Hall 1, C 1-1), where it is exhibiting with parent company EADS.

This exhibit will include a cutaway model of the new A330-200F freighter, which offers better payload, range and economics than previous-generation freighters in its class.

#### AIRBUS TO PARTICIPATE IN 2010 ZHUHAI AIRSHOW; 40 YEARS OF INNOVATION AND COMMITMENT TO CHINA

12 November 2010

Airbus is participating in the 8<sup>th</sup> China International Aviation & Aerospace Exhibition which takes place from 16<sup>th</sup> to 21<sup>st</sup> November 2010 in the southern Chinese city of Zhuhai, Guangdong Province. This year, in addition to showcasing its 21st century flagship, the A380, and the new A330-200F freighter, the world's leading aircraft manufacturer will highlight its 40 years of innovation and commitment to China, in particular its cooperation with Chinese aviation industry and institutions in the field of research and technology (R&T).

It will be the second time that the most modern and eco-efficient commercial aircraft in the market today, Airbus' A380, will visit the Zhuhai Airshow. In 2008, the A380 made its shining debut there, impressing the audience with its size and quietness. The A380 at the show is one Airbus' development aircraft and it will be arriving in Zhuhai on the 15<sup>th</sup> November for static and flying display until the 17<sup>th</sup>. After which, the aircraft will leave Zhuhai in the afternoon for a tour to the Northern Chinese city of Shijiazhuang.

Airbus will also have a presence on the EADS stand, located in Hall 1 (C 1-1). A cutaway model of the A330-200F freighter, a reference for cabin capacity and versatility in its class, and latest member of the popular A330 Family, will be displayed on the stand. Airbus (Beijing) Engineering Centre has been involved in the development of the A330-200F programme by performing six work packages.

A press conference will be held by Airbus on Tuesday 16<sup>th</sup> November at 12:40h, in the Press Centre, room 2025, 2nd floor. Airbus China top executives will present the latest development of Airbus' business and industrial cooperation projects in China. The company will also highlight its cooperation with Chinese institutions in the field of R&T.

Airbus comes to 2010 Zhuhai Airshow as the company celebrates its 40 years of innovation. In these 40 years, Airbus has grown to become the world's leading aircraft manufacturer through continuous innovation.

Airbus started industrial cooperation with China on delivery of the first aircraft, an A310, to China in 1985. The company now has four joint-ventures with Chinese partners covering training, engineering, final assembly and composite manufacturing, in addition to a number of cooperation projects. Over half of the Airbus worldwide fleet has components produced in China.

#### CHINA SIGNS FOR 102 AIRBUS AIRCRAFT; CHINA AVIATION SUPPLIES HOLDING COMPANY (CAS) HAS SIGNED WITH AIRBUS FOR A TOTAL OF 102 AIRCRAFT OF WHICH 66 ARE NEW ORDERS

4 November 2010

China Aviation Supplies Holding Company (CAS) has signed with Airbus for a total of 102 aircraft of which 66 are new orders. The new orders comprise 50 A320 Family aircraft, six A330s and ten A350 XWBs.

The agreement was signed today by Li Hai, President of CAS and Tom Enders, President and CEO of Airbus at the Elysée Palace in Paris, in the presence of visiting Chinese President Hu Jintao, French President Nicolas Sarkozy, UK Minister for Industry Mark Prisk and Louis Gallois, CEO of EADS.

"We feel privileged that China continues to choose Airbus aircraft for the further development of its fleet. The order for Airbus' eco-efficient aircraft underlines China's ambition to grow sustainably," said Tom Enders. "We look forward to many more years of continued cooperation."

Notes to the editors:

Airbus entered the Chinese market in 1985, when an A310 was first delivered to today's China Eastern Airlines. By the end of October 2010, the Airbus in service fleet in China has risen to 637 aircraft representing 43 percent of the total. China has ordered by end of October in total 738 aircraft directly from Airbus.

The A320 Family (A318, A319, A320 and A321) is recognized as the benchmark single-aisle aircraft family, offering the lowest-operating cost per seat. With over 6,700 aircraft sold, and more than 4,400 aircraft delivered to some 316 customers and operators worldwide, the A320 Family is the world's best-selling single-aisle aircraft family. By the end of October, there were over 530 A320 Family aircraft in service in China and 219 on backlog.

The unbeatable economic efficiency of the A330 Family and its superior operational performance has positioned the twin engine jets as being one of the most widely used wide-body aircraft in service today. To date, Airbus has won more than 1,100 orders for the various versions of the aircraft and over 700 A330s are in service with 116 customers and operators worldwide. By the end of October, there are some 70 A330s in service in China and more than 40 on backlog.

The A350 XWB Family is an all-new product line seating between 270 and 350 passengers in typical three-class layouts. Scheduled for first entry-into-service in 2013, the family has won by end of October 573 firm orders from 35 customers worldwide.

**AIRBUS OPENS NEW SUPPLIER VILLAGE EXTENSION IN BEIJING; WITH A NEW ADDITION TO THE HUA-OU AVIATION SUPPORT CENTRE IN BEIJING, THIS FACILITY WILL PROVIDE ENHANCED SUPPORT FOR OPERATORS OF AIRBUS AIRCRAFT IN CHINA.**

12 October 2010

The Hua-Ou Aviation Support Centre in Beijing, a joint venture between Airbus and China Aviation Supplies Holding Company (CAS), has opened a new extension at its supplier village to provide enhanced and more efficient support for operators of Airbus aircraft in China – including information and communications technology (ICT) and other logistics support.

The extension provides 500 square metres of additional office space, along with a new workshop area and office for the ICT team – which can offer bilingual 24-hour support to suppliers. An inauguration ceremony marking its formal opening was held today, which was followed by a Supplier Village Business Forum.

“As a part of the Airbus global support network, the Hua-Ou Aviation Support Centre has played an important role in supporting the operators of Airbus aircraft in China,” said Laurence Barron, President of Airbus China and Vice Chairman of the Hua-Ou Aviation Support Centre Board. “We appreciate the strong support from the suppliers and we are sure that by working together more closely with them, we will offer more efficient support to operators.”

Over the past decade, the in-service fleet of Airbus aircraft in mainland China has grown on average by more than 20 per cent annually. To date, more than 620 Airbus aircraft are operated in China, with continued growth projected during the coming years.

“The new extension, which is funded by the Hua-Ou joint venture itself, is a demonstration of the success story of the joint venture and the cooperation between Airbus and CAS,” said Li Hai, President of the China Aviation Supplies Holding Company, and Chairman of the Hua-Ou Board. “CAS will continue to provide strong support to the further development of the centre, which will contribute more to the development of China's aviation industry.”

The Hua-Ou Aviation Support Centre, which is China's first maintenance training facility, offers door-to-door delivery services to several Chinese airlines. A total of 44

companies from Europe and the United States have committed to establishing a presence at the centre.

#### CHINA SOUTHERN AIRLINES' FIRST A380 IS FITTED WITH ITS TAIL

15 September 2010

The impressive 122-square-metre vertical tail plane for China Southern Airlines' initial A380 has been fitted to the aircraft on the Final Assembly Line at Airbus' Toulouse, France facility. This installation process takes about eight hours at the assembly line's Station 40, which is the position where A380 major sections – including the wings – are fitted together. The A380's tail is almost equivalent in size to an A320 wing, and when joined to the fuselage its tip stands 24 metres from the ground.

#### AIRBUS COMPLETES ALLOCATION OF A350 XWB AIRFRAME WORK PACKAGES TO CHINA; CCAC WILL BECOME THE SOLE MANUFACTURER OF A350 XWB SPOILERS AND DROOP PANELS

15 September 2010

CAC Commercial Aircraft Company (CCAC), one of the major aviation industry companies in China, today signed a contract with Airbus for the work package of A350 XWB spoilers and droop panels. With this new contract, Airbus has now completed the allocation of the five percent A350 XWB airframe to be manufactured in China.

The contract was signed today in Beijing by Klaus Richter, Airbus Executive Vice President Procurement, and Wang Guangya, President and Chairman of CAC, the holding company of CCAC, and Chairman of CCAC.

Carbon fibre reinforced plastic (CFRP) is extensively used on A350 XWB spoiler and droop panels. Innovative processes include the Resin Transfer Moulding (RTM) process on the Centre Hinge Fitting that attaches the spoiler to the wing structure.

Airbus (Beijing) Engineering Centre (ABEC), a joint venture of Airbus in China, will be involved in the design activities relating to this work package.

While CCAC will become the sole supplier of the A350 XWB spoilers and droop panels, FACC AG, an Austria based leading company specialising in the development, design and manufacture of composite components and systems for civil aircraft will be responsible, under a separate contract, for the definition of the industrial process. Airbus worldwide industrial standards will be applied for the assessment of the products and the training of employees.

"We are proud to be involved in the latest Airbus aircraft programme. With this contract, we have reached our objective to be part of a global aeronautical manufacturing chain. We have long been a supplier to Airbus and have been a partner in several cooperation projects with Airbus. We cherish this opportunity very much to cooperate with Airbus and with FACC," said Wang Guangya, President and Chairman of CAC and Chairman of CCAC.

"With this work package, we have accomplished our commitment to manufacture five percent of the A350 XWB airframe in China," said Klaus Richter, Airbus Executive Vice President, Procurement. "Besides, this is also an important step forward for Airbus to develop a truly global industrial and engineering footprint, which helps Airbus to create a competitive cost base and access talented global resources," he added.

Notes to Editors

About FACC

FACC is one of Airbus' European Support Partners.

FACC AG is one of the world's leading companies in the development and production of advanced fiber-reinforced composite components and systems for the aviation industry. Their range of products reaches from structural components for the fuselage and wings to engine components to complete passenger cabins for passenger planes and helicopters. FACC is a supplier to all large aircraft manufacturers such as Airbus, Boeing, Bombardier,

Embraer and ACAC, as well as for engine manufacturers and sub-suppliers of manufacturers. In the business year of 2009/10, FACC achieved a turnover of 251.43 million euros and employed an average of 1,529 employees. Further information can be found at <http://www.facc.at>.

About China and the A350 XWB airframe production

On 26th November 2007, Airbus signed a memorandum of understanding with the National Development and Reform Commission of China to formalise the commitment of manufacturing five per cent of the A350 XWB's airframe in China.

#### DELIVERY OF THE FIRST A380 TAIL FOR CHINA SOUTHERN AIRLINES

2 September 2010

The vertical tail for China Southern Airlines' initial A380 has arrived at its final assembly facility in Toulouse, France. This component was delivered today from Airbus' production site in Hamburg, Germany, aboard a Beluga transport aircraft. China Southern Airlines, which has five A380s on order, is scheduled to become a new operator of Airbus' 21st century flagship jetliner in 2011.

#### TIBET AIRLINES WILL LAUNCH ITS OPERATIONS WITH THE A319; NEWLY ESTABLISHED AIRLINE CHOOSES A319 FOR ITS PROVEN HIGH ALTITUDE PERFORMANCE

19 August 2010

Lhasa-based Tibet Airlines has chosen the Airbus A319 to build up its fleet and is set to become Airbus' newest customer in China. The airline, which obtained the approval of the Civil Aviation Administration of China (CAAC) in March 2010, has signed a commitment to acquire three A319s.

The aircraft will be able to accommodate 128 passengers in a two-class configuration, with eight first class seats. The carrier plans to operate the A319s both on routes within the region and to major destinations across China.

High mountains make it extremely difficult to develop road traffic on the Tibetan plateau which is around 4000 meters in altitude on average. This makes it more efficient to travel by air in Tibet. Thanks to its Required Navigation Performance (RNP) technology and expertise, Airbus is proud to note that over 80 percent of the commercial flights to and from Tibet are performed with Airbus aircraft, most of them being A319s with the rest being A330s.

This commitment to acquire Airbus aircraft by the new carrier was marked by a ceremony in Lhasa with local officials, representatives of the CAAC, as well as executives of Tibet Airlines and of Airbus.

"Air traffic will play a key role in the social and economic development of the Tibet Autonomous Region," said Liu Yanping, General Manager of Tibet Airlines. "The proven high altitude flight performance of Airbus A319 was key in our intent to start our operations with this aircraft. In anticipation of the growing demand for air transport in the region, we are planning to expand our fleet to some 20 aircraft in the next five years," he added.

"The high altitude performance of the Airbus A319 which has been proven by more than six years of commercial operations in and out of Lhasa and the RNP validation in 2007 makes the aircraft an ideal and natural choice for Tibet Airlines. We wish Tibet Airlines a prosperous future with our world's leading aircraft," said John Leahy, Chief Operating Officer, Customers.

#### 26TH CHINESE-ASSEMBLED AIRCRAFT DELIVERED TO WEST AIR

4 August 2010

Chinese private airline West Air has received its first Airbus aircraft, an A319 assembled at the A320 Family final assembly line in Tianjin. This 26th Airbus jetliner produced in China will be deployed on the carrier's domestic routes from Chongqing to



Wenzhou and via Shijiazhuang to Yantai. With the aircraft's service entry, West Air will join a growing list of Airbus operators in China – with orders to date for nearly 600 A320 Family jetliners. West Air also is the eighth operator to receive aircraft produced at the Tianjin facility.

**AIRBUS JV IN CHINA OFFERED A350 XWB BELLY FAIRING WORK PACKAGE; A STEP FURTHER TO ACCOMPLISH 5% A350 XWB WORK PACKAGE COMMITMENT IN CHINA**

21 July 2010

Airbus' latest joint venture in China, Harbin Hafei Airbus Composite Manufacturing Centre (the Manufacturing Centre), has signed a contract for the work package of A350 XWB belly fairing parts with the Spain-based Alestis Aerospace. As one of Airbus' tier one suppliers, Alestis is specialized in the design, development, certification, manufacturing and support of complex carbon fiber aerostructure.

The contract was signed today by Gaizka Grajales, CEO of Alestis Aerospace and Liu Guanglin, Chairman of the Harbin Hafei Airbus Composite Manufacturing Centre, at the Farnborough International Airshow.

Under the contract, the Manufacturing Centre will become the sole supplier of certain parts of the A350 XWB belly fairing to Alestis. Alestis will be responsible for the design, material review and configuration of the parts and the design of the processes and tooling. The detailed design of the parts will be outsourced to Airbus (Beijing) Engineering Centre (ABEC), another joint venture of Airbus in China. Production in China is expected to start in 2012 after an initial industrialisation phase in Europe. The parts manufactured in China will be shipped to Spain to be integrated onto the complete belly fairing.

The belly fairing work package is the fourth A350 XWB work package allocated to the Manufacturing Centre following the agreements for the A350 rudder, A350 S19 maintenance door and A350 XWB elevators.

"The latest work package has made the Harbin Hafei Airbus Composite Manufacturing Centre the largest supplier to the five percent of the A350 XWB work packages to be performed in China," said Liu Guanglin, Chairman of the Manufacturing Centre. "We are looking forward to the cooperation with Alestis. The building of the new facilities of the Manufacturing Centre is on track and the training of Chinese staff is underway. We are confident to deliver the work packages on quality and on time."

"With this work package, we are another step closer to the completion of the allocation of the five percent A350 XWB work packages to be performed in China," said Laurence Barron, President of Airbus China. "This is another demonstration of our commitment to the long term partnership with the Chinese aviation industry," he added.

**THE WORLD'S THIRD HIGHEST AIRPORT OPENS WITH MILESTONE AIRBUS A319 FLIGHT; AIRBUS IS SUPPORTING AND CONTRIBUTING TO THE SMOOTH OPERATION OF TIBET'S HIGH-ALTITUDE ALI AIRPORT, WHICH OPENED ITS OPERATIONS WITH AN A319 COMMERCIAL FLIGHT FROM SICHUAN, CHINA.**

7 July 2010

An A319 jetliner has successfully completed the first commercial flight to Ali Airport in Tibet, officially opening the world's third highest airport – which is located at an elevation of 4,274 metres (14,022 feet). The aircraft, operated by Air China, performed its 4-hr. 23-min. maiden flight on 1 July from China's Chengdu Shuangliu Airport – with a short-stopover in Lhasa, the capital of Tibet. Later that day, the A319 left for Lhasa and subsequently returned to Chengdu, completing the Chengdu-Lhasa-Ali-Lhasa-Chengdu round trip. To date, Airbus' A319 is the only civil aircraft certified by the Civil Aviation Administration of China (CAAC) for flights to and from Ali Airport.

"We are proud to see that the A319 has been chosen to operate the first flight to Ali Airport. Airbus experts have worked together with CAAC and Chinese experts in preparation for the airport's opening," said Didier Lux, Airbus Executive Vice President Customer Services. "Airbus will continue to work closely with the CAAC, provide constant support and contribute to the smooth operation of Ali Airport."

The A319 was selected to be the first civil jetliner operating to and from Ali Airport due to its proven performance on high altitude flights. Statistics show that over 80 percent of all commercial flights to and from Tibet are flown by Airbus aircraft, a large percentage of which are A319s. Paving the way for this milestone, the A319 completed a Required Navigation Performance – Authorisation Required (RNP-AR) validation flight on 28 May using customised procedures for Ali Airport – which were designed by Airbus subsidiary QUOVADIS.

#### HONG KONG AIRLINES CELEBRATES DELIVERY OF ITS FIRST AIRBUS AIRCRAFT; CARRIER SET TO LAUNCH LONG HAUL SERVICES WITH A330-200

15 June 2010

Hong Kong Airlines today celebrated becoming a new Airbus operator with a ceremony in Hong Kong to mark the delivery of its first A330-200. Featuring the carrier's new two class long haul cabin product, the aircraft will be used to launch services to Europe at the end of this month, initially flying non-stop to Moscow.

The A330-200 is the first of 53 aircraft ordered by the airline from Airbus, comprising 23 A330s and 30 single aisle A320s. In addition to direct orders with Airbus, the airline also plans to operate two A330-200F freighters under a separate lease agreement.

"The arrival of the A330 is a milestone for Hong Kong Airlines as we expand into the long haul market," said Yang Jian Hong, President, Hong Kong Airlines. "It also marks the start of Airbus operations at the airline, which will enable us to offer our customers a premium product across our route network with the most efficient aircraft available today."

"We are proud to welcome Hong Kong Airlines as a new Airbus operator," said John Leahy, Airbus Chief Operating Officer, Customers. "The extended range, low operating costs and high levels of passenger comfort offered by the A330 make it the perfect choice for the airline to launch its long haul services."

Established in 2006, Hong Kong Airlines already operates a network linking Hong Kong with destinations in mainland China and the Asian region. With the arrival of the A330s, the airline plans to expand its reach to major cities in Europe, as well as to destinations in North America.

#### A DRAGONAIR A330 IS PAINTED WITH SPECIAL 25TH ANNIVERSARY LIVERY

14 June 2010

One of Dragonair's A330s is now flying with a special livery to mark the Hong Kong carrier's 25th anniversary celebrations. It features a golden dragon together with distinctive Chinese characters highlighting the anniversary theme: "Serving you for 25 years." Since 1985, Dragonair has become one of Asia's leading regional carriers. A part of the Cathay Pacific Group, the airline today operates an all-Airbus passenger jetliner fleet comprising 13 A330-300s, nine A320s and six A321s, and serves a network of 29 destinations in Mainland China and Asia.

#### CHINESE A320 FINAL ASSEMBLY LINE DELIVERS ITS 10TH AIRCRAFT IN 2010

1 June 2010

Production of A320 Family jetliners on the new Tianjin final assembly line in China is on track at the rate of two aircraft per month, and will continue to ramp up to the planned four monthly pace by 2012. Since the start of this year, 10 A320 Family aircraft have been

provided to customers from the Tianjin facility, bringing the total number to 21 since the Chinese final assembly line delivered its first aircraft in June 2009.

#### AIR CHINA A319 COMPLETES RNP-AR VALIDATION FLIGHT AT ALI AIRPORT, CHINA; THE A319 READY TO FLY OPERATIONALLY TO ALI, ONE OF THE WORLD'S HIGHEST AIRPORTS

28 May 2010

An Air China A319 today successfully completed a validation flight utilizing tailored Required Navigation Performance - Authorisation Required (RNP-AR) procedures at Ali Airport in the Tibetan Autonomous Region of China. The RNP validation flight is essential for the entry into service of Ali Airport, which is to be officially opened for operations soon. The Civil Aviation Administration of China (CAAC) has decided that the Airbus A319 will be the first aircraft to fly to and from Ali Airport in view of its proven performance on high altitude flights. Statistics indicate that over 80 percent of the commercial flights to and from Tibet are flown by Airbus aircraft, most of them being A319s.

Today's RNP validation flight is a joint activity performed by the CAAC, Air China, Airbus and QUOVADIS, a 100 percent subsidiary of Airbus specialised in providing RNP services. RNP represents the most modern navigation technique, allowing aircraft to fly precisely along a predefined route using state-of-the-art onboard navigation systems and the Global Positioning System (GPS). The benefits of RNP include improved precision of flight operations, increased access to airports, particularly in low visibility conditions, whilst requiring fewer ground-based instrument landing aids, lower flight time and fuel consumption, and lower noise and emissions.

At an elevation of 4,274 metres (14,022 feet), Ali Airport is one of the highest airports in the world. Along the route to and from Ali spans a sparsely populated plateau at an altitude of up to 5,000 metres, and mountains over 7,000 metres high. The weather conditions in the area make it challenging for flight, the precision and reliability enabled by the RNP navigation technique allowing pilots to land the aircraft in conditions that would otherwise require them to hold, divert to another airport, or even to cancel the flight before departure.

"Building Ali Airport in Tibet is a major project of CAAC to boost the development of the Tibetan area. The success of the RNP test flight today helps further strengthen our confidence in the smooth operation of the airport," said Wang Changshun, Vice Minister of CAAC.

"Airbus has been cooperating with CAAC and Chinese airlines on RNP projects for a long time and Airbus experts have worked together with CAAC and Chinese experts in Ali for the preparation of the airport. We are proud to see that the Airbus A319 has been selected to be the first aircraft to fly to and from Ali. As a leading aircraft manufacturer, Airbus is committed to providing its customers with the most modern and comprehensive product line and the best services," said Airbus China President Laurence Barron.

"QUOVADIS is pleased to work with CAAC and Air China, both leading actors in RNP implementation to provide Ali procedures. QUOVADIS' mission is to provide safe and efficient RNP procedures that meet the operational needs. In this project we benefit from the high altitude operation experience of Air China and CAAC, together with our expertise in RNP procedure design and aircraft knowledge," said Paul-franck Bijou, CEO of QUOVADIS.

#### CHINESE A320 PRODUCTION FACILITY DELIVERS SEVENTH AIRCRAFT THIS YEAR

16 April 2010

Airbus' new Chinese final assembly line recently delivered its 18th aircraft to date - an A320 to China Southern Airlines, which operates the largest Airbus fleet in the country.

Output at this modern Tianjin-based facility will be ramped up to four aircraft monthly by the end of 2011 to meet China's growing demand for highly efficient single-aisle aircraft.

#### HONG KONG AIRLINES CONFIRMS ORDER FOR SIX A330-200s; CARRIER TO START LONG RANGE SERVICES TO EUROPE

7 April 2010

Hong Kong Airlines has finalised a firm order with Airbus for six A330-200s. The contract firms up a Memorandum of Understanding (MOU) announced during the Singapore Airshow earlier this year. The new aircraft will be powered by PW 4000 engines.

Hong Kong Airlines now has a total of 23 A330s on order. The first of these will arrive in Hong Kong in the second quarter of this year and will initially be used on existing routes and later to launch the airline's first services to Europe.

"Low operating costs and high levels of cabin comfort make the A330-200 the perfect choice to expand into the long haul market," said Yang Jian Hong, President, Hong Kong Airlines. "We are looking forward to offering passengers a premium service on these routes." "The order from Hong Kong Airlines is another vote of confidence in the A330 as the most popular widebody in service today," said John Leahy, Airbus Chief Operating Officer, Customers. "With the A330-200 in its fleet the airline will be well placed to develop a profitable long haul operation."

Established in 2006, Hong Kong Airlines currently operates a full service network linking Hong Kong with destinations in mainland China and the Asian region. In addition to A330s, the carrier also has 30 single aisle A320 aircraft on firm order for future delivery. The A330 is one of the most widely used widebody aircraft in service today. To date, Airbus has won more than 1,000 firm orders for the various versions of the aircraft. More than 650 A330s have already been delivered and the aircraft is currently flying with over 80 operators worldwide.

#### THE A380 ACHIEVES KEY MILESTONE WITH CHINA'S CIVIL AVIATION AUTHORITY; AIRBUS' 21st CENTURY FLAGSHIP JETLINER IS ONE STEP CLOSER TO SERVICE ENTRY IN CHINA WITH A SUCCESSFUL OPERATIONAL EVALUATION BY THE COUNTRY'S CIVIL AVIATION ADMINISTRATION.

26 March 2010

Airbus' 21st century flagship jetliner has successfully passed an intensive Civil Aviation Administration of China (CAAC) operational evaluation, marking another step towards the A380's future service entry in this growing market.

The intensive review - launched in Toulouse, France during August 2009 - verified the A380 can be operated to China Civil Aviation Regulations requirements. It is completed for all new aircraft types before service entry in the country.

The CAAC examined a wide range of areas during the evaluation, including the aircraft type rating for pilots and training specification, the dispatch standard for operations with inoperable equipment, aircraft maintenance requirements, and instructions for continued airworthiness.

On the basis of its latest report, CAAC will now validate A380 entry-into-service for airlines planning to operate the next-generation aircraft in China.

Airbus' 21st century flagship jetliner received a Validation of Type Certificate from the CAAC in December 2009. With this document, CAAC certified that the A380's design complies with Chinese aviation regulations and endorsed the original Type Certificate issued by the European Aviation Safety Agency on 12 December 2006.

The first Chinese customer for the A380 is China Southern Airlines, which ordered five of these double-deck aircraft in 2005. Deliveries are scheduled to begin during 2011.

Airbus' overall fleet in China has grown from one jetliner in 1985 to more than 530 today - and covers a full range of aircraft from the single-aisle A320 Family to the widebody A330/A340.

AIRBUS SUBSIDIARY QUOVADIS INAUGURATES SALES AND SUPPORT OFFICE IN CHINA; RESPONDING TO THE GROWING MARKET FOR PERFORMANCE-BASED NAVIGATION TECHNOLOGY IN CHINA - WHERE ONE-FOURTH OF AIRPORTS PRESENT CHALLENGING OPERATIONAL CONDITIONS - AIRBUS SUBSIDIARY QUOVADIS HAS OPENED A NEW FACILITY IN BEIJING.

23 March 2010

New Airbus subsidiary QuoVadis has opened an office in Beijing, China to manage performance-based navigation (PBN) projects and sales for this region's rapidly growing aviation sector.

China is proving to be a strong, mature market for PBN - which is ideal for air traffic management in challenging environments. The country also has one of the most advanced roadmaps for implementing this technology.

Operational conditions at 38 of China's 160 airports have proven to be particularly challenging. Beijing - which handles some 1,400 take-offs and landings each day - has extremely high traffic density, while other Chinese airports are at elevations above 8,000 feet. The number of airports in China is expected to increase by as much as half in the coming years due to domestic and international demand.

QuoVadis was launched in July 2009 to support airlines, airports, air navigation service providers and authorities in performance-based navigation deployment, and to sell related services. The subsidiary has launched its own dedicated website - [www.quovadisway.com](http://www.quovadisway.com) - aimed at potential and existing customers, as well as staff recruitment.

Last month, QuoVadis signed a memorandum of understanding with General Administration of Civil Aviation of China, paving the way for increased cooperation between these entities.

Globally ranked second in the world for air transport volumes, Chinese aviation grew at a rate of more than 17 per cent annually between 1978 and 2008, and is predicted to increase by 10 per cent each year over the next decade.

16th CHINESE-ASSEMBLED AIRCRAFT DELIVERED TO SPRING AIRLINES

11 March 2010

China's first private low-cost carrier Spring Airlines has received its initial A320 produced at Airbus' Chinese final assembly line, joining the growing list of operators to receive aircraft from this facility. The A320 - configured in an efficient 180-economy seat layout - will be deployed on routes between Shanghai and other Chinese cities. It is the 16th aircraft built at the Tianjin assembly line, as well as the 16th A320 to join Spring Airlines' all-Airbus fleet.

FIRST CHINESE-BUILT A320 IS DELIVERED TO SHANGHAI'S JUNEYAO AIRLINES

8 February 2010

Shanghai-based Juneyao Airlines today received its initial A320 from the Airbus Final Assembly Line China in Tianjin, which joins the privately-owned carrier's existing all-Airbus fleet of two A319s and 13 A320s. The new A320 is the 15th aircraft assembled at Tianjin, and the fourth delivered from this production facility so far in 2010.

HONG KONG AIRLINES TO ORDER SIX A330-200s

4 February 2010

Hong Kong Airlines has signed a Memorandum of Understanding (MOU) with Airbus for six A330-200 aircraft. The latest commitment will increase the number of A330s ordered by the airline to 23. Hong Kong Airlines intends to use the A330-200s to develop new services to destinations across the Asia-Pacific region, as well as to the Middle East and Europe.

"The A330-200 offers the perfect range and size capability to enable us to expand into new medium and long haul markets," said Yang Jian Hong, President, Hong Kong Airlines. "With these aircraft in our fleet we are aiming to create new standards in comfort and service and to establish our company as a premium brand in new international markets."

"This latest commitment from Hong Kong Airlines underscores once again the popularity of the A330 as the right aircraft right now for quality airlines across the world," said John Leahy, Airbus Chief Operating Officer, Customers. "The A330 remains the most efficient aircraft in its size category flying today, providing airlines with the ability to maximise profit potential on a wide range of operations."

Established in 2006, Hong Kong Airlines currently operates a full service network linking Hong Kong with destinations in mainland China and the Asian region. In addition to A330s, the carrier also has 30 single aisle A320 aircraft on firm order for future delivery.

#### FIRST A330 JOINS SICHUAN AIRLINES' ALL-AIRBUS FLEET; AIRLINE TO TAKE FULL BENEFIT OF AIRBUS COMMONALITY

4 February 2010

Airbus today delivered to Sichuan Airlines the very first widebody aircraft, an A330-200, to add capacity to its existing all-Airbus Single Aisle fleet. The A330 is the first of three brand new Airbus A330-200s that Sichuan Airlines has leased from the Netherlands-based AerCap Aviation Solutions.

While expanding its regional and international network, Sichuan Airlines intends to compete on high density routes with the most modern and cost-effective widebody aircraft on the market. The fleet of A330s will be deployed on domestic trunk routes from the airline's home base of Chengdu to major cities such as Beijing and Shenzhen; on regional routes within Asia and on international long haul routes from Chengdu to Europe. The A330s will be configured in a comfortable two-class lay-out with 36 first class and 209 economy seats.

This delivery comes as a key milestone for Sichuan Airlines after successfully operating A320 Family aircraft for the last 15 years. Airbus aircraft share a unique cockpit and operational commonality, allowing airlines to use the same pool of pilots, cabin crews and maintenance engineers, bringing operational flexibility and resulting in significant cost savings. Today, Sichuan Airlines operates 44 Airbus A320 Family aircraft (13 A319s, 21 A320s, 10 A321s).

"In the past decades, Sichuan Airlines has evolved from a regional airline to a national airline connecting Chengdu to all provinces across China as well as more than 20 popular tourist destinations. The reliable and efficient Airbus Single-Aisle aircraft were decisive in this success. It was then a natural choice for us to select the A330s to help us to become one of the top five Chinese airlines," said Mr. Lan Xinguo, Chairman of Sichuan Airlines.

"We are delighted to support the rapid expansion of our old friends at Sichuan Airlines. We believe the low operating cost and excellent cabin comfort of the A330s will be key ingredients for the airline's continuing success," said John Leahy, Airbus Chief Operating Officer Customers.

During its long standing relationship with Airbus, Sichuan Airlines has recorded a number of premieres in China. The airline was the first to introduce a fly-by-wire aircraft, an A320 in 1995, the first to operate an A321 and is flying the first A320 assembled at FALC in Tianjin. In order to operate the newly built A330 fleet in a more efficient and cost-

effective way, Sichuan Airlines was also the first Chinese airline to sign for the Airbus Flight Hour Services (FHS), a customized service with strong support from Airbus' worldwide customer services system. The twin engine A330 is one of the most widely used wide body aircraft in service today. To date, Airbus has won more than 1,000 orders for the various versions of the aircraft. More than 600 A330s have already been delivered and the aircraft is currently flying with over 80 airlines worldwide.

#### AIRBUS SIGNS MOU ON AIRCRAFT FINANCING SOLUTIONS WITH CHINESE PARTNER; CLC TO PROVIDE FINANCING SUPPORT FOR AIRBUS AIRCRAFT OPERATORS WORLDWIDE

26 January 2010

Airbus today signed a Memorandum of Understanding with the CDB Leasing Co., Ltd. (CLC), one of China's leading leasing companies, on cooperation in aircraft financing and leasing. The MoU was signed by John Leahy, Airbus Chief Operating Officer Customers, and Wang Chong, President of CLC, in Toulouse, France. Airbus and CLC endeavour to share competence and experience to cooperate on a variety of leasing and financing projects, such as pre-delivery payment financing for Airbus aircraft, delivery financing new and used Airbus aircraft and Passenger to Freight conversion projects.

Under the MoU, CLC will provide aircraft delivery financing solutions to airlines around the world for the acquisition of aircraft ordered from Airbus. CLC will provide financing support by way of sale and leaseback transactions with its airline customers in the amount of up to four billion US dollars over the next five years for all Airbus aircraft types, including aircraft assembled at the Airbus Final Assembly Line China (FALC) as well as Airbus' Final Assembly Lines in Europe.

Furthermore, CLC is also considering purchasing a certain number of aircraft directly from Airbus for future leasing needs of airlines worldwide.

"The modern and advanced Airbus aircraft are valuable assets for leasing companies at any time. We are proud to provide financing solutions for customers worldwide to support the development of the aviation industry, especially the aviation industry of China. At the same time, through this cooperation, CLC will expand its market share in the field of aviation leasing," said Wang Chong, President of CLC.

"Airbus is always looking for ways to help its customers finance their aircraft. Thanks to our close cooperation with CLC, we can support airlines in taking delivery of the most eco-efficient and advanced aircraft available today," said John Leahy, Airbus Chief Operating Officer, Customers.

Notes to the editors

About CDB Leasing Co., Ltd (CLC)

CDB Leasing Co., Ltd. (CLC) is the non-bank financial institution, mostly held by China Development Bank (CDB), with registered capital over 8 billion RMB (1.2 billion US dollars) and total assets over 36 billion RMB (5.3 billion US dollars), making it the largest financial leasing company in China in terms of registered capital and total assets. CLC is the pioneer for doing aircraft leasing in China. So far, CLC has delivered 51 aircraft to airlines, and gained professional experiences on managing aircraft financial lease and operating lease.

#### HARBIN HAFEI AIRBUS COMPOSITE MANUFACTURING CENTRE AWARDED A350 ELEVATOR WORK PACKAGE; AIRBUS' LATEST JV IN CHINA TO BECOME SOLE SUPPLIER OF A350 XWB ELEVATORS

14 January 2010

Harbin Hafei Airbus Composite Manufacturing Centre (the Manufacturing Centre), a joint venture between Airbus and Chinese partners, signed a contract for the work package of A350 XWB elevators with the Spain-based Aernnova Aerospace SAU (ANN) which is a major supplier of aerostructures to Airbus.

Under the contract, the Manufacturing Centre will become the sole supplier of A350 XWB elevators to ANN. The Manufacturing Centre is responsible for both manufacturing and assembling the complete set of elevators, mostly made of composites, and which are part of the A350's horizontal tail plane. Production in China is expected to start in 2012 after an initial industrialisation phase in Europe.

Following the agreement for the A350 rudder and A350 S19 maintenance door, the A350 XWB elevator is the third A350 work package allocated to the Manufacturing Centre. It is also the largest A350 XWB component allocation contracted in China to date and is a significant part of the five percent of the A350 airframe to be manufactured in China.

"We are very proud to have obtained another work package from Airbus for the A350 XWB programme and to start cooperation with Aernnova," said Liu Guanglin, Chairman of the Manufacturing Centre. "The building of the new facilities is on track and the training of Chinese staff is underway. We are confident in our ability to deliver the aircraft components on time and on quality."

Notes to the editors

About Harbin Hafei Airbus Composite Manufacturing Centre

Harbin Hafei Airbus Composite Manufacturing Centre Company Limited (the Manufacturing Centre) is a joint venture between Airbus China (20%) and a group of Chinese partners comprising Harbin Aircraft Industry Group Corporation Limited (HAIG, with 50%), Hafei Aviation Industry Company Limited (HAI, 10%), AviChina Industry & Technology Company Limited (AVICHINA, 10%) and Harbin Development Zone Infrastructure Development Company Limited (HELI, 10%). The Manufacturing Centre commenced production of elevators for Single-Aisle Airbus aircraft in December 2009. By end of 2010, it will produce major components for the A350 XWB programme, using the latest composite manufacturing technology.

About China and the A350 XWB airframe production

On 26th November 2007, Airbus signed a memorandum of understanding with the National Development and Reform Commission of China to formalise the commitment of manufacturing five per cent of the airframe of the A350 XWB aircraft in China.

CHINA CERTIFIES THE A380 FOR ITS FUTURE SERVICE ENTRY IN THE COUNTRY; THE A380 HAS RECEIVED A VALIDATION OF TYPE CERTIFICATE FROM THE CIVIL AVIATION ADMINISTRATION OF CHINA, PREPARING THE WAY FOR ITS FUTURE OPERATION IN THIS GROWING AIRLINE MARKETPLACE.

7 January 2010

Airbus' 21st century flagship jetliner has received a Validation of Type Certificate from the Civil Aviation Administration of China (CAAC), marking a key milestone for the A380's future operations in this important market.

Type certification by international governing authorities is required for all new aircraft to ensure they meet or exceed all airworthiness requirements.

By issuing the validation document, China confirms that the A380s design complies with the country's aviation regulations and endorses the original Type Certificate issued by the European Aviation Safety Agency (EASA) on 12 December 2006.

The first Chinese customer for the A380 is China Southern Airlines, which ordered five of the double-deck aircraft in 2005. Deliveries are scheduled to begin during 2011.

To prepare for the A380s service entry in China, CAAC has set up an A380 working group. Members of this body include officials in charge of flight standards, airworthiness, airport management, air control and the CAAC's regional administration. They are tasked with following A380 technical updates from Airbus and the European Aviation Safety Agency, studying and formulating operational standards and policies for the A380, and coordinating all matters relating to the aircraft.



The overall Airbus fleet in China has grown from one aircraft in 1985 to more than 530 today - and covers a full range of aircraft from the single-aisle A320 Family to the widebody A330/A340.

#### THE CHINESE FINAL ASSEMBLY FACILITY EARNS ITS PLACE IN AIRBUS' GROWING INTERNATIONALISED NETWORK

22 December 2009

The on-target delivery of 11 A320 Family aircraft this year from Airbus' new Tianjin, China final assembly line marks another milestone in the company's internationalisation - which is a key element for its future evolution.

Tianjin symbolises the more global development, production and outsourcing system being established by Airbus - providing multiple benefits that include harnessing the skills and capabilities of a culturally-diverse talent base; contributing to increased cost-effectiveness; and generating an even closer presence to the company's worldwide customers and operators.

Activity at the Tianjin final assembly line began in August 2008, and the facility has since met its objectives of smoothly ramping up the production rate while delivering to Airbus' high level of quality.

Its first Chinese-assembled aircraft was an A320 provided to Sichuan Airlines via Dragon Aviation Leasing in June 2009. In the months since then, five other A320s and five A319s assembled at Tianjin have been delivered to customers and are now in operation with Sichuan Airlines, Deer Air, Shenzhen Airlines and China Eastern Airlines.

Tianjin joins the existing A320 final assembly lines in Toulouse, France and Hamburg, Germany - and it is the initial such facility to be located outside Europe. The production rate at Tianjin will be ramped up to four aircraft per month by the end of 2011.

#### SICHUAN AIRLINES SIGNS FIRST AIRBUS FLIGHT HOUR SERVICES IN CHINA; AIRBUS TO PROVIDE EXTENDED SERVICES TO AIRLINES IN CHINA

21 December 2009

Sichuan Airlines, the first Chinese operator to fly Airbus A320 Family aircraft, has signed a contract with Airbus for customized Flight Hour Services (FHS) for its future fleet of three brand new leased A330s, which are scheduled to be in service from early next year.

In order to operate the newly built A330 fleet in a more efficient and cost-effective way, Sichuan Airlines has decided to use the Airbus FHS and will become the first customer for Airbus FHS in China.

The FHS is part of Airbus' comprehensive portfolio of support, services and solutions that help Airbus customers meet and exceed their business objectives. Airbus will deliver to Sichuan Airlines a tailor-made solution with strong support from Airbus worldwide customer services system. Under the agreement, Airbus guarantees availability of key Line Replaceable Units (LRUs) as well as related logistics and maintenance services for Sichuan Airlines for an initial 13.5-year period.

Airbus FHS helps minimize aircraft on-the-ground time by providing airlines with even faster and simpler access to spare parts and services at predictable rates, based on stock and flight hour parameters. Airbus already has FHS services in operation with other customers in the Asian region.

"The introduction of Airbus A330s and the Airbus FHS for the new A330 fleet is a natural choice for Sichuan Airlines as we have been in successful partnership with Airbus for 14 years. Thanks to the tailor-made Airbus Flight Hour Services, we will optimise our investment and deliver better services to our customers," said Mr. Lan Xinguo, Chairman of Sichuan Airlines.

"Facing evolving market and customer requirements, Airbus continues to develop innovative and customized services, enabling Airbus customers such as our long lasting customer Sichuan Airlines to focus on their core business," said Laurence Barron, President of Airbus China.

"There are now more than 530 Airbus aircraft in operation with Chinese airlines and the Airbus fleet in China are expanding fast. More than ever, our Chinese customers are expecting from us innovative and flexible solutions to enable safe, efficient and profitable operations and this agreement strengthens further our partnership with our long time customer Sichuan Airlines," said Charles Champion, Executive Vice President Customer Services of Airbus.

Sichuan Airlines was also the operator of the very first Airbus A320 assembled by Family Final Assembly Line China (FALC) in Tianjin.

#### Airbus in China: Customer Services

Airbus offers customised support, services and solutions tailored to meet airline individual needs. This comprehensive services portfolio starts well before delivery of the aircraft and continues throughout its operational life, irrespective of whether the aircraft has been bought or leased.

All Chinese Airbus operators have designated customer support managers and representatives who regularly visit the airlines to ensure the performance of Airbus aircraft and provide operational analysis. The customer services department provides on-site technical support to airline operations in major Chinese cities, including Beijing, Chengdu, Guangzhou, Haikou, Hong Kong, Nanjing, Shanghai, Shenyang, Shenzhen and Xi'an.

#### AIRBUS FINAL ASSEMBLY LINE CHINA ACHIEVES 2009 TARGET; ELEVEN A320 FAMILY AIRCRAFT DELIVERED FROM TIANJIN ON SCHEDULE AND ON QUALITY

17 December 2009

The Airbus A320 Family Final Assembly Line China (FALC) has achieved its 2009 target as the 11th A320 Family aircraft assembled by the FALC was delivered to Deer Air, an airline part of the HNA Group, on 16th December in Tianjin.

The first A320 assembled by the FALC was delivered to Sichuan Airlines via Dragon Aviation Leasing on 23rd June 2009. Since then, a total of five A320 and five A319 assembled by the FALC have been delivered and are now in operation with Sichuan Airlines, Deer Air, Shenzhen Airlines and China Eastern Airlines.

"We are very proud to have achieved our target in the first year of operation, on schedule and on quality. When we started operations in August 2008, we had two challenges: deliver Airbus quality from Tianjin and ensure a smooth ramp up of production. Both objectives were reached thanks to our Chinese partners' daily commitment as well as Airbus' active support at all levels. The success achieved in FALC is definitely a way forward for the continuous industrial cooperation between Airbus and China," said Laurence Barron, Airbus China President.

"This is a significant step for the development of FALC and is the result of the joint-efforts made by the Chinese and the European partners. FALC is an excellent example of the cooperation between the Chinese aviation industry and the rest of the world. FALC is a driving force for the development of the Aviation Industrial Base in Tianjin," said Zhao Haishan, Chairman of the Board of Directors of Airbus (Tianjin) Final Assembly Company Ltd.

By the end of November 2009, 442 A320 Family aircraft are in operation with 12 operators in China. Chinese airlines have ordered close to 600 A320 Family aircraft in total.

#### About FALC

The Airbus A320 Family Final Assembly Line China (FALC) in Tianjin is the third single-aisle aircraft final assembly line location of Airbus worldwide, after Toulouse and

Hamburg. It is also the first Airbus final assembly line outside Europe. Based on the latest state-of-the-art Airbus single-aisle Final Assembly Line in Hamburg, Germany, FALC will assemble A320 and A319 aircraft. The FALC is a joint venture between Airbus and a Chinese consortium comprising Tianjin Free Trade Zone (TJFTZ) and China Aviation Industry Corporation (AVIC). Airbus and the Chinese Consortium respectively hold 51 per cent and 49 per cent of the shares of the joint venture. FALC started work in August 2008. Eleven A319 and A320 aircraft are scheduled for delivery in Tianjin in 2009 and the FALC production rate will be ramped up to four aircraft per month by the end of 2011.

**AIRBUS PARTNERS WITH TIANJIN FREE TRADE ZONE TO ESTABLISH A LOGISTICS CENTRE IN TIANJIN; LOGISTICS CENTRE TO SUPPORT ON-GOING AIRBUS' INDUSTRIAL COOPERATION PROGRAMMES IN CHINA**

29 October 2009

Airbus signed today a Memorandum of Understanding (MoU) with Tianjin Free Trade Zone (TJFTZ) on the establishment of a Logistics Centre in Tianjin to optimise the supply chain management for all Airbus' industrial cooperation projects in the country.

The MoU was signed by Bruno Gutierrez, Head of Airbus Transportation and William Wei, Vice President of Tianjin Port Free Trade Zone Administrative Committee, in the presence of Louis Gallois, CEO of EADS, Airbus' parent company, He Lifeng, Deputy Party Secretary of Tianjin and Wang Zhiping, Vice Mayor of Tianjin.

Airbus intends to organize its supply chain based on modern and efficient methods that have been deployed and tested in Europe and the USA in order to sustain the growth of its industrial activities in China. The Logistics Centre will serve as a hub to manage the transportation to and from China of all goods that are needed for the success of Airbus industrial projects in China.

According to the MoU, the project has been divided into three phases. In the first phase, both parties will jointly establish the logistics and customs processes as well as any other action necessary to launch the project. As early as January 2010, the logistics centre will start operation in a temporary location in the TJFTZ Comprehensive Bonded Area. The first step enables simple logistics operations for the Wing Equipping project in Tianjin with XAIC and the Manufacturing Centre with Hafei in Harbin.

In the second phase, a joint working team comprising Airbus, TJFTZ and Tianjin Customs will develop a Feasibility Study on the complete implementation of the project. A permanent location of the Logistics Centre will be decided during this period.

Finally, in phase 3, which is expected to be launched in March 2010, the Logistics Centre will be fully operational in the permanent location. The services of the Logistics Centre will be extended to cover all Airbus industrial packages in China, including the FALC.

Today, six Chinese aviation companies are directly involved in manufacturing parts and components for Airbus aircraft. These companies are located in different cities including Harbin, Shenyang, Tianjin, Xi'an, Chengdu and Shanghai, and each supply chain is organised separately.

"As Airbus is expanding its industrial activities in China, a logistics centre will help us optimize the supply chain for all our projects in a more streamlined way, while reducing costs and increasing efficiency. There were many reasons why we selected Tianjin as the location for our new Logistics Centre; among them, its geographic advantages as a major sea port, its proximity to several Airbus cooperation projects in China, FALC, and soon Wing equipping, and its excellent infrastructure," said Laurence Barron, Airbus China President.

"Following the success of the various Airbus industrial cooperation projects in Tianjin, we are pleased to welcome Airbus Logistics Centre Tianjin. The success of the Airbus A320 Family Final Assembly Line China project has attracted more and more international

as well as domestic aviation companies to Tianjin. The establishment of the Airbus Logistics Centre will further promote the development of Tianjin as one of the country's major aviation cities," said He Lifeng, Deputy Party Secretary of Tianjin.

CHINESE TRAINING CENTRE EXPANDS ITS OFFERINGS; AS THE DEMAND FOR MAINTENANCE MECHANICS AND OTHER AVIATION PERSONNEL GROWS IN CHINA, THE AIRBUS/CASC HUA-OU AVIATION TRAINING CENTRE JOINT VENTURE IS RESPONDING WITH ONLINE PROGRAMMES AND ENGLISH LANGUAGE INSTRUCTION.

6 October 2009

China's Hua-Ou Aviation Training Centre is adding new elements to its suite of training opportunities in response to the country's growing demand for maintenance mechanics and other personnel.

The Beijing centre - a joint venture between Airbus and Aviation Supplies Holding Company, which opened in 1997 - has signed an agreement with French knowledge management company Cybel SA to begin building and marketing an online training system for maintenance mechanics.

The Chinese-language system will be adaptable to aviation technicians at airlines, maintenance repair organisations and schools, as well as other users in the Chinese market.

Airbus has identified a crucial need for new approaches in aviation technical training. The demand for programmes that blend classroom instruction with online learning is particularly high in a market as large and diverse as China.

In addition, Hua-Ou has partnered with Ireland-based Edgewater College to provide students with English language training, which also plays a critical role in the growth of civil aviation in China.

The Hua-Ou Aviation Training Centre is part of Airbus' global training network. Equipped with three full flight simulators - two for the A320 and one for the A330/A340 - the centre provides Airbus aircraft operators with customised training programmes for flight crews, mechanics, engineers, and cabin crews. Since its inception, Hua-Ou has trained more than 18,000 people with more than 30 airlines.

#### AIRBUS TO INCREASE PILOT TRAINING FACILITIES IN CHINA

24 September 2009

Marking another strategic milestone in its cooperation with the Chinese aviation industry, Airbus has partnered with HYL T Aviation Science and Technology Co. Ltd. to design and produce an A320 Airbus Pilot Transition Trainer in Tianjin, China. As part of the agreement, Airbus will provide this Chinese company with a flight training device software package, the Airbus Pilot Transition Trainer Data package (G05) and technical support such as training for HYL T engineers and specific expertise on the use of G05 data.

SUCCESSFUL PRODUCTION RAMP-UP CONTINUES FOR AIRBUS' CHINESE FINAL ASSEMBLY LINE; AIRBUS' CHINESE FINAL ASSEMBLY LINE REMAINS ON TRACK TO HAND OVER 11 A320 FAMILY AIRCRAFT TO CUSTOMERS THIS YEAR AS THE TIANJIN FACILITY MARKS ITS FIRST DELIVERY OF TWO AIRCRAFT IN A SINGLE MONTH.

17 September 2009

Airbus' Chinese Final Assembly Line has marked another milestone with the first delivery of two aircraft in a single month from this Tianjin facility, underscoring its smooth ramp-up in production.

The Chinese site is positioned to deliver 11 A320 Family aircraft to customers this year - with its output increasing to four monthly by the end of 2011 to meet China's growing demand for highly efficient single-aisle aircraft.

The latest delivery from Tianjin - an A320 for long-time Airbus customer China Eastern Airlines - is the fifth aircraft assembled in China and the second Chinese-built A320 received by the carrier. Powered by IAE V2527-A5 engines, the aircraft has a two-class configuration with eight business and 150 economy seats.

Since the handover of the initial Chinese-produced jetliner on 23 June, Airbus has provided five A320 Family aircraft from Tianjin, which are being flown by Sichuan Airlines, Deer Air, Shenzhen Airlines and China Eastern.

By the end of August 2009, more than 420 A320 Family aircraft were in operation in China with 12 operators. Chinese airlines have ordered close to 600 A320 Family aircraft in total.

#### AIRBUS' CHINESE FINAL ASSEMBLY LINE IS READY TO MEET THE COUNTRY'S SINGLE-AISLE JETLINER DEMAND

18 August 2009

The production ramp-up at Airbus China's new final assembly line - the company's first outside of Europe - is continuing on schedule, highlighted by deliveries of the second and third A320 Family jetliners built at this modern Tianjin-based facility.

A total of 11 A319s and A320 aircraft are expected to be received by customers from the assembly site this year, with its output reaching up to four monthly by the end of 2011 to meet China's growing market requirement for highly efficient single-aisle aircraft.

The latest deliveries were Airbus' first A319 built at Tianjin - handed over to Deer Air this July - followed by an A320 in early August for Shenzhen Airlines. They came after the historic handover of the assembly facility's no. 1 jetliner, an A320, which was provided in June to Dragon Aviation Leasing for operation by Sichuan Airlines.

All three airlines accepting the Tianjin-built jetliners so far are major Chinese operators of Airbus aircraft. Deer Air now has 21 A319s, along with eight A330/A340s. The Shenzhen Airlines fleet has reached 23 A320s and five A319s, while Sichuan Airlines' all-Airbus inventory counts 41 A319s, A320s and A321s.

Tianjin's next delivery will occur in the coming weeks with an A320 for China Eastern Airlines, a long-time Airbus carrier that flies A300s, A319s, A320s, A321s, A330s and A340s.

As of June 2009, Chinese customers have ordered close to 600 A320 Family aircraft - with more than 400 currently in operation with 12 carriers throughout the country.

The Tianjin final assembly line is Airbus' third such single-aisle production site worldwide, joining facilities in Hamburg, Germany and Toulouse, France.

It is a joint venture between Airbus and a Chinese consortium comprising Tianjin Free Trade Zone and China Aviation Industry Corporation.

#### SHANGHAI AIRLINES TAKES DELIVERY OF ITS FIRST AIRBUS AIRCRAFT; THE AIRLINE BECOMES A NEW AIRBUS OPERATOR

17 July 2009

During a ceremony held at Hamburg, Germany, Shanghai Airlines has taken delivery of its first Airbus aircraft, an A321, becoming a new operator of Airbus aircraft. The aircraft is the first of 10 A321s ordered by the Shanghai-based carrier in 2006 and 2007.

Powered by IAE V2533-A5 engines, the carrier's first A321 is fitted in an all-new, comfortable two-class configuration with 178 seats (166 seats in Economy, 12 in Business Class). The aircraft will initially be deployed on domestic routes followed in the future by regional routes including Japan and Korea.

"Introducing A321s to our fleet was a strategic decision for Shanghai Airlines in anticipation of the future growth of the domestic as well as international air traffic market," said Zhou Chi, Chairman of Shanghai Airlines. "After 20 years of fast, steady and all round development, Shanghai Airlines is becoming an international airline based in the regional hub of Shanghai. The introduction of the highly reliable and efficient Airbus A320 Family aircraft will help Shanghai Airlines to expand its new base, develop domestic routes network and increase capacity in order to meet increasing passenger demand," added Zhou.

"We are delighted to welcome Shanghai Airlines as a new Airbus operator. With its all new cabin and low operational costs, the A321 will enable Shanghai Airlines to satisfy passenger needs, whilst also meeting operational requirements," said Tom Enders, Airbus President and CEO. "As a major financial centre and home of the next World Expo, Shanghai will undoubtedly experience rapid growth and we are honoured to be part of this success," added Enders. Shanghai Airlines was set up in 1985. Headquartered in Shanghai, the carrier now operates 68 aircraft on more than 170 domestic, regional and international passenger and freighter routes linking over 60 destinations across China and around the world. Shanghai Airlines is a member of the Star Alliance.

By the end of May 2009, almost 400 A320 Family aircraft are in operation with 12 operators in China. Chinese airlines have ordered close to 600 A320 Family aircraft in total.

#### CHINA'S JUNEYAO AIRLINES TAKES DELIVERY OF ITS FIRST PURCHASED A320; PRIVATELY-OWNED CARRIER REINFORCES COMPETITIVENESS WITH HIGHLY EFFICIENT AIRBUS FLEET

16 July 2009

Juneyao Airlines, a Shanghai-based privately-owned carrier, has taken delivery of its first purchased A320 during a delivery ceremony in Toulouse, France.

Juneyao Airlines currently operates 10 leased Airbus aircraft - two A319s and eight A320s - with 10 more A320s, via operating lease and purchase, due to join the fleet by the end of 2012.

The aircraft, the first of six ordered in June 2007, is powered by CFM56 engines and will accommodate 158 passengers in a two-class configuration, including eight first class seats. The airline plans to operate the A320 on routes between Shanghai and some of the most popular tourist destinations in China, as well as other destinations in Asia.

"We have been operating Airbus A320 Family aircraft since September 2006 and their high efficiency and low operational costs have helped us win market share on China's most competitive routes. Thanks to our Airbus A320 Family fleet, we have managed to implement our strategic vision: developing our company into an international airline that provides high quality service with an extended network, while ensuring excellent profitability," said Wang Junjin, Chairman of Juneyao Airlines.

"We are pleased that Juneyao Airlines is adding to its Airbus A320 Family fleet with self purchased aircraft. This is a clear demonstration of confidence in the A320 Family aircraft, which is the first choice for many low cost operators," said John Leahy, Airbus Chief Operating Officer Customers. "The commonality of Airbus aircraft will definitely offer operational and economic advantages for the airline's future development."

The A320 Family, which includes the A318, A319, A320 and A321, is recognized as the benchmark single-aisle aircraft family. Each aircraft features fly-by-wire controls and all share a unique cockpit and operational commonality across the range. More than 6,300 Airbus A320 Family aircraft have been sold and nearly 3,900 delivered to some 300 customers and operators worldwide, making it the world's best-selling commercial jetliner ever. With proven reliability and extended servicing periods, the A320 Family has the lowest operating costs of any single aisle aircraft. Uniquely, the A320 Family offers a containerized cargo system, which is compatible with the world wide standard wide-body

system. By the end of May 2009, almost 400 A320 Family aircraft are in operation with 11 operators in China. Chinese airlines have ordered close to 600 A320 Family aircraft in total.

#### FIRST CHINESE-ASSEMBLED A320 DELIVERED TO DRAGON AVIATION LEASING FOR SERVICE WITH SICHUAN AIRLINES

23 June 2009

Delivery of the initial Chinese-built A320 Family aircraft represents a new step in Airbus' internationalisation of its industrial base, and further broadens the company's presence in China's dynamic airline market.

This milestone jetliner was accepted today at the new Final Assembly Line facility in Tianjin, China by Dragon Aviation Leasing for lease and operation by Sichuan Airlines. It was the first Airbus aircraft ever produced outside of Europe, and is a key element in the company's strategic long-term partnership with China and the Chinese industry.

The Tianjin Final Assembly Line is a joint venture between Airbus and a Chinese consortium comprising the Tianjin Free Trade Zone and the China Aviation Industry Corporation. It is assembling the A319 and A320 versions of Airbus' popular single-aisle A320 Family, with 11 aircraft scheduled for delivery this year. The facility's production output will reach the rate of four aircraft per month by the end of 2011.

Aircraft build-up activity began at Tianjin in August 2008, with its organisation and work flow patterned after the latest state-of-the-art Airbus single-aisle final assembly line, located in Hamburg, Germany. The original A320 Family assembly site in Toulouse, France also continues to be active - providing a total of three locations that contribute to Airbus' sustained output of A318, A319, A320 and A321 aircraft.

Delivery of the no. 1 Chinese-built A320 from Tianjin will further expand Sichuan Airlines' all-Airbus fleet, which consisted of 40 A319s, A320s and A321s prior to today's delivery. The Tianjin-assembled A320 is configured in a two-class configuration with eight first class seats and 156 in economy, and is to be deployed by Sichuan Airlines beginning tomorrow on domestic trunk routes from the airline's Chengdu base to such major cities as Beijing and Shanghai.

Chinese customers have ordered close to 600 A320 Family aircraft, with almost 400 in operation with 11 operators in China at the end of May. Worldwide, more than 6,300 Airbus A320 Family aircraft have been sold to date, with nearly 3,900 delivered to some 300 customers and operators around the globe.

#### AIRBUS DELIVERS FIRST A320 ASSEMBLED IN CHINA; FIRST FINAL ASSEMBLY LINE OUTSIDE EUROPE HIGHLIGHTS AIRBUS' INTERNATIONALIZATION APPROACH

23 June 2009

Airbus today delivered the first A320 aircraft assembled at its Final Assembly Line China (FALC) in Tianjin. At a grand ceremony, the aircraft was handed over by Airbus President and CEO, Tom Enders, to the Chairman of Dragon Aviation Leasing, Li Hai. The aircraft will be leased to and operated by Sichuan Airlines.

Tianjin Party Secretary Zhang Gaoli, Mayor of Tianjin, Huang Xingguo, as well as German State Secretary (Federal Ministry of Economics and Technology) Hartmut Schauerte and the President of Sichuan Airlines, Lan Xingguo were present at the ceremony attended by more than 1000 guests.

"The highly reliable and efficient Airbus aircraft are very valuable assets of aircraft leasing companies. As a China-based company, Dragon Aviation Leasing is proud to take delivery of the first Airbus aircraft assembled in China," said Li Hai, Chairman of Dragon Aviation Leasing.

"Sichuan Airlines was the first Chinese airline to introduce the A320 Family aircraft in China in 1995. Today, we are proud to become the operator of the first A320 assembled

in China. We believe that the Airbus aircraft further enhances our profitability and competitiveness with low operational costs and high reliability," said Lan Xinguo, President of Sichuan Airlines.

"Our Final Assembly Line here in Tianjin and this first aircraft delivery outside Europe mark an important milestone in our strategic long-term partnership with China and the Chinese industry," said Tom Enders, Airbus President and CEO. "This FAL is state of the art, second to none in the world. And so are the aircraft manufactured here in Tianjin. I would like to thank all our partners and employees who worked very hard during the last three years to make this happen."

The Export-Import Bank of China, a strategic long term partner to Dragon Aviation Leasing, has been supporting the financing for the purchase of the aircraft. The A320 to be operated by Sichuan Airlines will be in a two-class configuration, with eight first class seats and 156 economy seats. The aircraft will be deployed on domestic trunk routes between the airline's base of Chengdu to such major cities like Beijing and Shanghai. It will enter into service on 24th June on the route from Chengdu to Beijing. The aircraft will join the existing fleet composed of 40 Airbus single-aisle aircraft.

#### About FALC

The FALC is a joint venture between Airbus and a Chinese consortium comprising Tianjin Free Trade Zone (TJFTZ) and China Aviation Industry Corporation (AVIC). Eleven A319 and A320 aircraft are scheduled for delivery in Tianjin in 2009 and the FALC production rate will be ramped up to four aircraft per month by the end of 2011.

#### About A320 Family

The A320 Family, which includes the A318, A319, A320 and A321, is recognized as the benchmark single-aisle aircraft family. Each aircraft features fly-by-wire controls and all share a unique cockpit and operational commonality across the range. More than 6,300 Airbus A320 Family aircraft have been sold and nearly 3,900 delivered to some 300 customers and operators worldwide, making it the world's best-selling commercial jetliner ever. With proven reliability and extended servicing periods, the A320 Family has the lowest operating costs of any single aisle aircraft. Uniquely, the A320 Family offers a containerized cargo system, which is compatible with the world wide standard wide-body system. By the end of May 2009, almost 400 A320 Family aircraft are in operation with 11 operators in China. Chinese airlines have ordered close to 600 A320 Family aircraft in total.

#### About Dragon Aviation Leasing

Dragon Aviation Leasing Company Limited, a Beijing-based aircraft leasing company, is a joint-venture of China Aviation Supplies Holding Company (CAS), AerCap and Calyon Airfinance. Dragon Aviation Leasing was created 2006 in response to the development of the aviation industry in China. The new aircraft leasing company aims at answering worldwide market demand for aircraft, focusing on China and other Asian countries.

#### About Sichuan Airlines

Sichuan Airlines was established in 1986 and it started commercial flight operation in 1988. The Sichuan Airlines Co Ltd so far operates 40 Airbus A320 Family aircraft. It is the largest airline in China with all-Airbus fleet (above 100 seats).

### AIRBUS AND THE CHINESE BANK ICBC SIGN MOU ON AIRCRAFT FINANCING SOLUTIONS; INCREASING COOPERATION TO SUPPORT AIRCRAFT DELIVERIES AND AIRLINE CUSTOMERS

22 June 2009

Airbus today signed a Memorandum of Understanding with the Industrial and Commercial Bank of China (ICBC), one of China's leading banks, on cooperation in aircraft financing and leasing. The MoU was signed by John Leahy, Airbus Chief Operating Officer Customer Affairs and Li Xiaopeng, Vice President of ICBC and Chairman of ICBC Financial Leasing Co. Ltd. (ICBC Leasing), the wholly-owned subsidiary of ICBC, based in Tianjin.



Airbus and ICBC endeavour to share competence and experience to cooperate on aircraft financing and management activities, including structuring of operating and finance lease transactions as well as portfolio management and aircraft placement remarketing.

Under the MoU, ICBC Leasing will provide aircraft delivery financing solutions to airlines domiciled in the People's Republic of China for the acquisition of aircraft ordered from Airbus. ICBC Leasing could provide financing solutions for up to 70 A320 Airbus aircraft assembled at Final Assembly Line China (FALC) over the next five years. The total value of the financing support will be over 20 billion RMB (some US\$3 billion). The financing solutions such as purchase and lease back transactions will be provided directly to Chinese airlines.

Furthermore, ICBC Leasing shall also consider offering these services for aircraft delivered by Airbus from other Final Assembly Lines around the world. Finally, ICBC Leasing shall consider purchasing a certain number of aircraft directly from Airbus for future leasing needs of airlines.

"We are proud to provide financing solutions for customers taking deliveries of aircraft assembled at FALC. Our objective is to support the whole aeronautic community in China; the airlines when enabling them to acquire Airbus aircraft as well as FALC to ensure its smooth ramp up," said Jiang Jianqing, Chairman of ICBC.

"In the current economic environment, aircraft financing remains very challenging. But aircraft remain very attractive investments. Our modern portfolio of aircraft is delivering an excellent return on investment and an outstanding value for money to our customers," said Tom Enders, Airbus President and CEO. "The timely financing support from ICBC Leasing will surely help Chinese airlines to take deliveries of their new Airbus aircraft and enhance their competitiveness."

ICBC is one of the leading banks in China with wide networks across the country and in the world. ICBC Financial Leasing CO., Ltd. ("ICBC Leasing") is 100 percent owned by ICBC, set up in November 2007.

#### CHINESE A320 FAMILY ASSEMBLY LINE MARKS NEW ACHIEVEMENT WITH FIRST FLIGHT OF A LOCAL-BUILT AIRCRAFT

18 May 2009

Airbus marked a new milestone in the expansion of its global industrial network with today's maiden flight of the initial A320 built at the new Chinese final assembly line in Tianjin.

This aircraft - which is the first assembled outside of Airbus' European production system - will be delivered to Sichuan Airlines via Dragon Aviation Leasing next month, followed by 10 more A319/A320s for Chinese customers before the end of 2009.

Airbus is maintaining its plans to ramp up the Tianjin final assembly line's output to four aircraft per month by the end of 2011, responding to China's growing market requirement for highly efficient single-aisle aircraft. Currently, nine jetliners are in the final assembly line process at Tianjin, with the next aircraft in this flow - an A319 - now undergoing the installation of its engines.

The Tianjin facility - formally known as the Airbus Final Assembly Line China (FALC) - is an Airbus joint venture with a Chinese consortium composed of the Tianjin Free Trade Zone (TJFTZ) and China Aviation Industry Corporation (AVIC).

Aircraft build-up activity at Tianjin began in August 2008, with its organisation and work flow patterned after the latest state-of-the-art Airbus single-aisle final assembly line, located in Hamburg, Germany. The original A320 Family assembly site in Toulouse, France also continues to be active - providing three locations that contribute to Airbus' sustained output of A318, A319, A320 and A321 aircraft.

There are some 488 Airbus aircraft currently operated by Chinese mainland carriers, with A320 Family jetliners accounting for more than 80 per cent of this fleet.

#### FIRST A320 ASSEMBLED IN CHINA PERFORMS MAIDEN FLIGHT; DELIVERY TO CUSTOMER SCHEDULED FOR JUNE

18 May 2009

The first A320 aircraft assembled outside Europe in the Airbus Final Assembly Line China (FALC) successfully completed its first flight today. The aircraft took off from Tianjin International Airport at 10:42 am and landed at 14:56. The four hour and fourteen minute test flight was jointly captained by Harry Nelson, Vice President Production Flight Tests and by Experimental Test Pilot Philippe Pellerin. The other crew members were Senior Vice President Flight & Integration Tests Fernando Alonso and Zidan Ren, the first Chinese Flight Test Engineer trained by Airbus as well as Cabin Engineer Eric Garcia.

"The flight was a complete success thanks to excellent teamwork," said Fernando Alonso, Senior Vice President Flight & Integration Tests, Airbus. "I was delighted to participate in this historic flight. This A320 assembled in China unquestionably demonstrated the same quality and performance as those assembled and delivered in Hamburg or Toulouse."

I would like to congratulate and sincerely thank all those in China and in Europe who, through their dedication and hard work, have made the first Airbus Final Assembly Line outside of Europe a reality," says Laurence Barron, President of Airbus China. "Our commitment is to provide the very best aircraft and services to our customers and operators in China, while applying the same rules, procedures and quality standards as for any other Airbus aircraft produced in Europe. It highlights our commitment to the development of a long-term strategic partnership with the Chinese aviation industry."

This first aircraft will be delivered to Dragon Aviation Leasing in June from the Airbus Delivery Centre in Tianjin and will be operated by Sichuan Airlines. Chinese customers have ordered more than 700 aircraft from Airbus, the majority of which are from the A320 Family. Eleven A319/A320 aircraft are scheduled for delivery in Tianjin in 2009 and the FALC production rate will be ramped up to four aircraft per month by the end of 2011.

The A320 FALC is a joint-venture between Airbus and a Chinese consortium comprising Tianjin Free Trade Zone (TJFTZ) and China Aviation Industry Corporation (AVIC). Airbus China holds 51 per cent of the shares, while the Chinese Consortium holds 49 per cent. The FALC in Tianjin is based on the latest state-of-the-art Airbus single-aisle Final Assembly Line in Hamburg, Germany. FALC started work in August 2008.

#### AIRBUS EXPANDS ENVIRONMENTAL ISO 14001 CERTIFICATION TO US AND CHINA; STRONG COMMITMENT AND SUPPORT FROM AIRBUS MANAGEMENT TO ECO-EFFICIENCY

25 March 2009

Airbus Americas and Airbus China Beijing Campus have achieved certification according to the ISO 14001 standard for Environmental Management Systems. This international standard requires organisations to develop an integrated, structured approach in setting and achieving environmental policies and objectives with the goal of supporting protection of the environment, prevention of pollution and compliance with regulatory requirements.

In the United States, sites now covered by the ISO 14001 certification include: Airbus Americas Headquarters in Herndon, Virginia; the Spares Centre in Ashburn, Virginia; the Training Centre in Miami, Florida; plus two Engineering Centres in Wichita, Kansas and Mobile, Alabama respectively. Meanwhile, in Beijing, China, the recent certifications include Airbus China Limited and its subsidiaries. These subsidiaries comprise Hua-Ou

Aviation Training Centre, Hua-Ou Aviation Support Centre, and Airbus (Beijing) Engineering Centre.

As a precursor to these awards, preparatory certification audits for both Airbus Americas and Airbus China Beijing Campus were conducted in December 2008 by an independent third-party registrar. The registrar identified several strengths regarding eco-efficiency programmes. These strengths included: a strong commitment and support from executive management; green construction; and communication with stakeholders on the environment.

In January 2007, Airbus became the first aerospace company in the world to receive ISO 14001 "full life-cycle approach" environmental certification. Initially compliance focussed on the 16 production sites, including Airbus' headquarters in Toulouse. Furthermore, from early 2008, the programme was expanded to target certification at Airbus' subsidiaries in the United States as well as Airbus China's Beijing Campus. Looking ahead in 2009, the next stage for environmental certification of Airbus sites in China will involve the recently inaugurated A320 "Final Assembly Line China" in Tianjin.

"The expansion of ISO 14001 certification to both Airbus Americas and Airbus China Beijing Campus is a significant step in achieving global implementation of the Airbus Environmental Management System (EMS)," said Christian Dumas, VP Sustainable Development & Eco-Efficiency at Airbus. He added: "Airbus, as a 100 percent subsidiary of EADS, shares the same environmental policy which applies eco-efficiency as a major goal of EADS' Vision-2020 strategic roadmap. The target is to maximise the benefits of aircraft products and services to customers and other stakeholders, while minimising the environmental impact of operating and manufacturing these products throughout their life-cycle."

#### FIRST CAAC SIMULATOR ENTERS INTO SERVICE AT HUA-OU AVIATION TRAINING CENTRE; NEW TRAINING FACILITIES HELP INCREASE HUA-OU'S TRAINING CAPACITY BY OVER 25 PER CENT

24 March 2009

The Civil Aviation Administration of China (CAAC) has put into service an Airbus A320 Full Flight Simulator (FFS), ordered from Thales, at the new extension of the Hua-Ou Aviation Training Centre, a joint-venture between Airbus and the China Aviation Supplies Holding Company (CAS) in Beijing.

A ceremony was held on 24th March at the training centre to celebrate the opening of the new extension and the new simulator's entry into service.

Raymond Lim, General Manager of Hua-Ou Aviation Training & Support Centre, and Captain Jiang Huaiyu, Director General of Flight Standards Department of CAAC, signed a cooperation agreement on the operation of the new simulator and an A320 configured Thales Formation System Trainer (TFST). The FFS and TFST are owned by CAAC and will be operated by Hua-Ou. This is the first time CAAC has purchased its own FFS. The new device will become a reference standard for the training of CAAC inspectors. Those inspectors are responsible for verifying that all A320 FFS in use throughout the Chinese aviation industry meet all regulatory standards necessary to provide pilot training at the required level.

Hua-Ou's new extension includes four new classrooms, a structural training workshop, a new simulator bay and a new cabin trainer hall. The new facilities will host 20 per cent more pilot trainees and 33 per cent more engineering (mechanics) trainees each year, increasing the centre's total capacity by 25 percent.

"Safety has always been our top priority and qualified pilots and engineers are key to ensuring safety in air traffic. The Hua-Ou Aviation Training Centre has played an important role in the training of qualified pilots, engineers and crew members for China. We firmly

believe that the experts of the training centre will make full use of the training facilities to contribute even more to air transportation safety," said Li Jian, Vice Minister of CAAC.

"As a shareholder of the Hua-Ou Aviation Training Centre, CAS will increase its cooperation with Airbus to further develop the centre and to enhance its training capacity," said Li Hai, President of CAS and Chairman of the Hua-Ou Aviation Training and Support Centre.

"We are proud that CAAC has chosen the Hua-Ou Aviation Training Centre as a base for its first simulator. It highlights their trust in our expertise and professionalism. Through this project, CAAC and Hua-Ou have set a new cooperation mode. The expansion of the training centre and the addition of new training facilities will allow us to better answer the need for training of our customers and Airbus aircraft operators in China," said Pierre Steffen, Airbus China Senior Vice President Customer Services and Internal Operations.

The Hua-Ou Aviation Training Centre was opened in 1997. In April 2006, China Aviation Supplies Holding Company (CAS) and Airbus announced the renewal of their contract for two more decades for the Training and Support Centre.

#### About Hua-Ou Aviation Training Centre

Opened in 1997, the Hua-Ou Aviation Training Centre is part of the Airbus global training network. The centre is able to provide Airbus aircraft operators with customized training programs for flight crews, mechanics, operation engineers, as well as cabin crews.

Since it received the first group of pilot trainees in October 1997, the training centre has provided training programs for people from more than 30 airlines. Over 17,000 registered trainees have been trained, including pilots, maintenance engineers and cabin attendants.

Now that the new A320 Full Flight Simulator (FFS) has been put into service, Hua-Ou is equipped with three full flight simulators, two for the single-aisle A320 Family and the other for the long range A330/A340. A new CAE 7000 Series Airbus A330/340 convertible Full Flight Simulator will be in operation at the training centre by the end of the year to replace the current A330/A340 simulator.

#### About the new FFS and TFST

The new Full Flight Simulator and the A320 configured Thales Formation Systems Trainer (TFST) conform to Airbus A320 Standard 1.5.0, Level D. The FFS is based on the Thales C2000X system, which uses the latest state-of-the-art proven technology, and will be equipped with the CFM 56-5B4 engine, a substitute for the IAE V2527-A5 engine. It will also have a Flight Crew Debrief System and a Forward Facing Instructor Operating Station.

The Motion System selected is the new revolutionary Thales eM2K 6-degree of freedom electric motion system, using hydraulic mass compensation and transmission, which removes the requirements for a Hydraulic Power Unit and the associated piping and facilities requirements such as chilled water. Using the system reduces the energy operating costs by around 80 per cent of that incurred for traditional hydraulic motion systems and it uses 90 per cent less oil.

### CHINA'S CHONGQING AIRLINES TAKES DELIVERY OF ITS FIRST A319; CARRIER AIMS TO EXPAND ITS FLEET WITH HIGHLY EFFICIENT, LOW COST A320 FAMILY AIRCRAFT

24 March 2009

China's Chongqing Airlines has taken delivery of the first of three Airbus A319s it has agreed to lease from ILFC, at a delivery ceremony in Hamburg, Germany.

The aircraft will be able to accommodate 122 passengers in a two-class configuration, with eight first class seats. The company, which is located in Chongqing, the centre of

China's most populated Southwest region, plans to operate the A319 on the route to some of the most popular tourist destinations in the region.

Chongqing Airlines was set up in October 2007 jointly by China Southern Airlines and Chongqing International Invest Co. The company currently operates four A320s. From March to May 2009, the company will receive three new leased A319s. The new aircraft will help Chongqing Airlines expand its network and open up new routes in the country.

"We look forward to introducing the world's best selling single-aisle aircraft, which features high efficiency and low operational costs, to build up our fleet", said Liu Qing, Vice President of Chongqing Airlines. "The A319s will help to strengthen our competitiveness and profitability in the domestic market and pave the way for our future development."

"We are pleased that the newly established Chongqing Airlines has chosen efficient Airbus A320 Family aircraft to develop its fleet", said John Leahy, Airbus Chief Operating Officer Customers. "The A320 Family commonality concept will definitely offer operational and economic advantages to the airline."

#### DRAGON AVIATION LEASING RECEIVES ITS FIRST DIRECTLY PURCHASED AIRBUS AIRCRAFT; CUSTOMER AWAITS FIRST DELIVERY FROM FINAL ASSEMBLY LINE CHINA IN SUMMER

24 February 2009

Dragon Aviation Leasing Company Limited, a Beijing-based aircraft leasing company, today took delivery of its first directly purchased Airbus aircraft at a delivery ceremony in Toulouse, France. The aircraft, the first of 13 A320s that the company has ordered, is leased to Air France.

The company is a joint-venture of China Aviation Supplies Holding Company (CAS), AerCap and Calyon Airfinance. Dragon Aviation Leasing was created 2006 in response to the development of the aviation industry in China. The new aircraft leasing company aims at answering worldwide market demand for aircraft, focusing on China and other Asian countries.

"The delivery of our first directly ordered Airbus aircraft marks an important step forward for the joint-venture's plans to build up a fleet of \$1 billion worth of aircraft over the next few years. Although the current financial crisis may have negative effect on the air traffic industry globally, we still see growth potential. The long-term economic prospects for China and other Asian countries are expected to drive continued demand for new, fuel-efficient narrow-body aircraft such as the A320 Family for many years to come," said Jean-Louis Chevrot, Chief Executive Officer of Dragon Aviation Leasing. "We are proud to have Air France as the customer of one of our A320 Aircraft. Our strategy is to invest in aircraft with low operating costs, which in return will play a positive role in improving the profitability of our clients."

John Leahy, Airbus Chief Operating Officer, Customers said: "China is a growing market and we are delighted that Dragon Aviation Leasing has chosen to build up its fleet with Airbus A320 Family aircraft. This is a clear vote of confidence for our best selling single-aisle programme. The aircraft's economic efficiency - unbeatable in the 100-220-seat category - makes the A320 Family a huge asset for leasing companies and operators worldwide."

This summer Airbus will deliver the first A320 assembled at the Final Assembly Line China (FALC) in Tianjin to Dragon Aviation Leasing.

#### AIRBUS AND XAC SIGN AGREEMENT ON A320 FAMILY WING EQUIPPING PROGRAMME

2 February 2009

Airbus and Xian Aircraft Industry Company (XAC) today signed a cooperation agreement relating to the A320 Family wing equipping (Phase IV) programme. A320 Family wings for aircraft to be assembled at the Final Assembly Line in China (FALC) will now be fully completed and tested in Tianjin, China.

The agreement was signed by Brian Fleet, Airbus Senior Vice President, Wing and Pylon Centre of Excellence, and Mr Meng Xiangkai, President of XAC, in London, in the presence of Chinese Premier Wen Jiabao and Rt. Hon Gordon Brown MP, British Prime Minister.

According to this fourth phase of the agreement, the wing equipping and testing will be done in Tianjin in a facility to be newly built close to the A320 FALC by XAC, a wholly owned subsidiary of China Aviation Industry Corporation (AVIC). The fully equipped and tested wings will be directly delivered to the nearby Final Assembly Line.

Today, the wingbox structures assembled by XAC in China are completed at Airbus' site at Broughton, before being transported to the Final Assembly Line in China.

Wing equipping operations are expected to start at the end of 2009, followed by the first delivery of a fully equipped set of wings in the first quarter of 2010. The production rate will be ramped up to two units per month by the end of 2010 and four units per month by the end of 2011.

"With this project, Airbus is fulfilling its support to the co-operation agreement regarding A320 China wing manufacture," said Brian Fleet. "Having this facility so close to the FALC is the most efficient industrial solution. It will save transportation costs, reduce lead-time and risks in handling, and ensures quicker response time to our customers."

"We have been successful with the first three phases of the wing programme and we are confident that we will also be successful with this fourth phase," said Mr Meng Xiangkai.

Today, more than 5200 Airbus aircraft are in operation worldwide, and over half of the Airbus worldwide fleet has components produced in China.

Airbus is an EADS company

The Wing Co-operation Programme between Airbus and XAC started in 1999 when Airbus and AVIC signed the General Agreement on Industrial Co-operation at the Paris Airshow. Under the frame of the agreement, both parties agreed that Airbus would facilitate the transfer of A320 aircraft wing manufacturing technology and capability from Airbus to China.

The cooperation program proceeded in several phases. Phase I started with Shenyang Aircraft Corporation (SAC) producing track ribs on the leading edge and Xian Aircraft Industry Corporation (XAC) producing sub-assemblies on the leading and trailing edges.

In the same year when SAC and XAC achieved the first delivery of Phase I successfully, Phase II started with SAC producing the leading edge and XAC the trailing edge. On March 31, 2005, Phase III was signed, under which XAC assembles the wing box structure.

In Phase IV, the wings will be completed in Tianjin with installation of systems, movable surfaces and other remaining structural works and will then be tested.

## AIRBUS' NEW A320 FAMILY FINAL ASSEMBLY LINE IN CHINA RAMPS UP THE OUTPUT

30 January 2009

Since its formal inauguration in September 2008, the new Airbus A320 Family final assembly line in Tianjin, China is running smoothly. All stations in the main facility are now occupied with aircraft undergoing their build-up, as four single-aisle aircraft have now been assembled and sections for the fifth are ready to be put in position. The initial completed aircraft from Tianjin is planned for delivery in mid-year to Chinese operator Sichuan

Airlines, with the targeted production rate of four A320 Family jetliners per month expected to be reached at the end of 2011.

**AIRBUS SIGNS A JOINT VENTURE CONTRACT TO ESTABLISH A MANUFACTURING CENTRE FOR AIRCRAFT COMPOSITE PARTS IN HARBIN, CHINA**  
30 January 2009

Airbus and a group of Chinese industrial partners today signed a contract to establish a Joint Venture Manufacturing Centre in Harbin, China to manufacture composite material parts and components for the Airbus A350 XWB programme and Airbus A320 Family aircraft.

The Chinese partners are Harbin Aircraft Industry Group Company Limited (HAIG), Hafei Aviation Industry Company Limited (HAI), AviChina Industry & Technology Company Limited (AVICHINA) and Harbin Development Zone Heli Infrastructure Development Company Limited (HELI).

The contract was signed by Laurence Barron, President of Airbus China, and Pang Jian, Chairman of the Board of Directors of HAIG and HAI in Madrid, Spain in the presence of Chinese Premier Wen Jiabao and Spanish Prime Minister José Luis Rodríguez Zapatero.

The Harbin Hafei Airbus Composite Manufacturing Centre Company Limited (the Manufacturing Centre) will be set up in 2009. HAIG will hold a 50 per cent stake, Airbus China will hold 20 per cent, while HAI, AVICHINA and HELI will each hold a ten per cent stake. Manufacturing operations are expected to start in September 2009 and a new plant should be ready for operations by the end of 2010.

The Manufacturing Centre will produce major components for the A350 XWB programme, as part of Airbus' target of manufacturing five per cent of the A350 XWB airframe in China. These components will be manufactured using the latest composite manufacturing technology based on Airbus standards and processes.

"The signing of the joint venture contract marks a historical breakthrough for the relationship between HAIG/HAI and Airbus," said Pang Jian. "HAIG/HAI and Airbus have become risk sharing partners. We will share the profits of the joint venture and will jointly meet the challenges caused by global economic slowdown. Today's signature is a joint response of the Chinese partners and Airbus to these challenges. It is based on our confidence in the future economic growth of China and in the future development of the Chinese aviation industry together with Airbus. We will further promote and expand our strategic cooperation," he added.

"This project demonstrates once again Airbus' long term commitment to the sustainable development of China's aviation industry," said Laurence Barron, President of Airbus China. "The joint venture is another step forward in our cooperation with Hafei, as Hafei was one of the founding members of our Airbus Engineering Centre in Beijing. We are very confident in the prospects for our joint venture with our Chinese partners in Harbin," he added.

Airbus is committed to forging a long-term strategic partnership with China. The total value of industrial cooperation between Airbus and the Chinese aviation industry is expected to be near 200 million dollars per year in 2010 and 450 million dollars per year in 2015.

Airbus is an EADS company.

Industrial co-operation between Airbus and Chinese aviation industry dates back to 1985. Aerospatiale, today Airbus France, signed first product sub-contracting agreement in 1985 with Xi'an Aircraft Company on manufacturing and assembling access doors for Airbus A300/A310 wide-body aircraft.

On 26th November 2007, Airbus signed a memorandum of understanding with the National Development and Reform Commission (NDRC) of China to formalise the commitment of allocating A350 XWB airframe work packages to the Chinese aviation industry.

On the same day, Airbus and the former AVIC II, parent company of Hafei, signed a "Heads of Agreement" for a joint venture manufacturing centre.

On 15th July 2008, Airbus China Limited and HAIG entered into a framework contract for the Joint Venture Composite Manufacturing Centre in Harbin.

This manufacturing centre is established as part of Airbus' efforts to fulfil Airbus' undertaking to NDRC to allocate such airframe work packages relating to the Airbus A350 XWB programme to China.

So far, six Chinese manufacturers are already involved in manufacturing parts, such as wing components, emergency-exit doors for Airbus aircraft.

In July 2005, the Airbus (Beijing) Engineering Centre was formally inaugurated in Beijing. In June 2008, ABEC obtained its joint venture license from the Beijing Administration for Industry and Commerce to become a joint venture between Airbus China Limited and Chinese partners. Today Hafei holds a stake of 18 per cent in the JV.

In September 2008, Airbus A320 Family Final Assembly Line in China (FALC), a joint venture between Airbus and a Chinese Consortium comprising Tianjin Free Trade Zone, former AVIC I and Hafei, was officially inaugurated by Chinese Premier Wen Jiabao and Airbus President and CEO Tom Enders.

#### BAA JET MANAGEMENT IS FIRST WITH A318 ELITE IN ASIA

5 December 2008

BAA Jet Management Ltd of Hong Kong has taken delivery of its first managed Airbus aircraft, an A318 Elite, becoming the first to operate the type in the Asian region.

The Airbus A318 Elite - the first to be registered in the People's Republic of China - is now based at Shenzhen and is available for VVIP charter.

"This Airbus A318 Elite is the first in Asia to offer customers something that they cannot get with other high-end business jets - much greater comfort, space and ease of movement around the cabin," says BAA Managing Director Ricky Leung. "And with seating for 18 passengers in our A318 Elite, we can also carry larger business groups and families than any other corporate jet currently available for VVIP charter in the region today," he adds.

The Airbus A318 Elite is the newest member of the Airbus ACJ Family and offers the widest and tallest cabin of any business jet in its class, as well as all the benefits of a modern and elegant design.

"Asia has long been an important market for Airbus - it's where we won our first airliner sale outside Europe - so it's great to see BAA becoming our first operator in the region for our modern A318 Elite corporate jet," comments Airbus Chief Operating Officer, Customers, John Leahy. "The longer you fly, the more important your comfort becomes, so the A318 Elite really does have a lot to offer," he adds.

#### A FORMAL KICK-OFF FOR THE NEW A320 FAMILY FINAL ASSEMBLY LINE IN CHINA

18 November 2008

An impressive ceremony attended by over 600 guests marked the official opening of the new Chinese A320 Final Assembly Line in Tianjin, culminating a fast-paced project that built this facility in just 15 months.

Leading today's inauguration were Chinese Premier Wen Jiabao; Zhang Gaoli, the Party's Secretary of Tianjin; and Airbus President and CEO Tom Enders. The ceremony



was followed by a visit to the no. 1 A320 aircraft now taking shape on the final assembly line.

Enders recalled that Airbus' relationship with China began almost 25 years ago, when the first A310 was delivered to China Eastern Airlines. With the new Tianjin assembly site, Airbus is deepening and expanding its industrial relationships - which are key pillars of the company's internationalisation strategy, he explained.

The Tianjin facility is the first Airbus final assembly line to operate outside of Europe. Based on Airbus' A320 Family Final Assembly Line in Hamburg, Germany, the Chinese site started operations in August, and is set to deliver its first aircraft to Sichuan Airlines in mid-2009. By 2011, the Chinese assembly line's output will ramp up to four A320/A319s per month.

Prime Minister Wen congratulated the final assembly line project - which is a joint venture involving Airbus and a Chinese consortium of Tianjin Free Trade Zone (TJFTZ) and China Aviation Industry Corporation (AVIC). "We are very glad to see the achievement and the result of this cooperation," he said.

More than 430 Airbus aircraft are in service with Chinese airlines, and approximately 15 per cent of Airbus' total production is delivered to China. The country is the world's second largest market for civil aircraft, and in the next 20 years it is expected to require nearly 3,000 new civil aircraft and freighters.

#### BOC AVIATION ORDERS 20 A320 FAMILY AIRCRAFT

4 November 2008

BOC Aviation, the Singapore-based aircraft leasing unit of Bank of China, has placed additional firm orders with Airbus for 20 A320 Family aircraft. The announcement was made today at the Zhuhai Air Show in China.

"Our latest orders reflect ongoing demand for leased aircraft from the A320 Family at both full service and low cost airlines around the world," said Robert Martin, Managing Director and Chief Executive Officer, BOC Aviation. "The decision to acquire these additional aircraft also represents a sound investment in a proven asset, offering long term value for our business."

"The order from BOC Aviation is another vote of confidence in the proven appeal of the A320 Family, especially as airlines around the world look to replace older aircraft with newer, more efficient models," said John Leahy, Airbus Chief Operating Officer, Customers. "It also reflects the proven underlying value of the A320 Family as a long term investment for the aircraft leasing community."

BOC Aviation, formerly known as Singapore Aircraft Leasing Enterprise (SALE), is the largest Asia-based aircraft leasing company. Altogether, the company has now ordered 98 single aisle aircraft directly from Airbus, of which 58 have already been delivered. The lessor also has five A330-200F freighters on firm order for future delivery.

#### AIRBUS AND CAAC SIGN MOU ON SAFETY COOPERATION

29 September 2008

Airbus signed a Memorandum of Understanding (MoU) on safety cooperation with the Civil Aviation Administration of China (CAAC) on 28th September in Tianjin, China. The MoU covers a five-year cooperation program in the areas of rules and regulations training for Chinese aviation authorities, maintenance operation support for airlines, air traffic management (ATM) technologies and concepts and a "train the trainer" program for Chinese aviation institutes and universities. This MoU follows an earlier Safety Cooperation Agreement that was signed in 2002.

The MoU was signed by Tom Enders, Airbus President and CEO and Li Jiaxiang, Head of CAAC, on the occasion of the inauguration of the Airbus A320 Family Final Assembly Line in Tianjin.

"Hundreds of millions of people fly on Airbus aircraft every year, and their safety is our top priority", said Tom Enders, Airbus President and CEO, at the signature ceremony. "Within this partnership, regulators, operators and Airbus, as manufacturer, work closely together to further enhance the safety standards in Chinese civil aviation and ensure future interoperability of ATM systems in the world. We are proud to continue the sharing of our experiences together between CAAC and Airbus. With the signature of today's agreement, the cooperation between Airbus and its Chinese partners will be an enhanced and continuous action."

With the common understanding that civil aviation safety is of paramount importance and taking into account the quickly growing Chinese aviation industry as well as the shortage of highly skilled resources, Airbus and CAAC have set the common objective to further improve the level of aviation safety in China. In addition, this could also contribute to increase the eco-efficiency of the sector, since optimizing routings, for example, would allow for important fuel-, cost- and therefore also emission savings.

Airbus and CAAC already developed and launched various programs and projects in the past, which have contributed to improving the safety of aircraft operations, inspectors' training, maintenance enhancement and aircraft fleet standardization since 2002 when the cooperation first started.

#### FIRST AIRBUS FINAL ASSEMBLY LINE OUTSIDE EUROPE INAUGURATED IN TIANJIN, CHINA

28 September 2008

Airbus, today, officially opened its first final assembly line outside of Europe. The Chinese Premier Wen Jiabao, together with the Party's Secretary of Tianjin, Zhang Gaoli and Airbus President and CEO Tom Enders inaugurated the Airbus A320 Family Final Assembly Line in Tianjin, China (FALC) at a grand ceremony with over 600 guests.

The final assembly line is a joint venture between Airbus and a Chinese consortium comprising Tianjin Free Trade Zone (TJFTZ) and China Aviation Industry Corporation (AVIC).

"The Tianjin final assembly line for Airbus A320 Family aircraft has been set as a paradigm of Sino-European friendship and cooperation. Based on mutual trust and close-knit cooperation, the two parties have commenced the final assembly of the first aircraft within only one year and three months from the beginning of the facility construction till present and created a miracle in the history of this giant project," said Huang Xingguo, mayor of Tianjin.

"The opening of the FALC is an historic event for Airbus and for the aviation industry," said Tom Enders, President and CEO of Airbus. "The first Airbus final assembly line outside Europe highlights the importance we attach to growing our partnership with China, one of the most important aviation markets today and certainly tomorrow."

The FALC in Tianjin is based on the latest state-of-the-art Airbus single aisle final assembly line in Hamburg, Germany. The aircraft will be assembled and delivered in China to the same standards as those assembled and delivered in Europe.

The first aircraft assembled in the FALC will be delivered to Sichuan Airlines through Dragon Aviation Leasing in mid 2009. The FALC will ramp up production to four aircraft a month by 2011.

The FALC is a demonstration of Airbus' commitment to forging a long-term strategic partnership with China. Six Chinese manufacturers are already involved in manufacturing parts, such as wing components, emergency-exit doors and assembly and transportation tools for Airbus aircraft. In 2007 alone, Airbus sourced \$70 million worth of high quality

components and materials from Chinese companies. By 2010, Airbus purchasing from the Chinese aviation industry will almost treble to \$200 million, before more than doubling again to \$450 million by 2015. By the end of August, there were 351 Airbus A320 Family aircraft in operation with 12 operators in China and over 400 on order.

OPENING A NEW TRANSPORT ROUTE TO CHINA; AIRBUS' NEW FINAL ASSEMBLY LINE IN TIANJIN, CHINA MARKED A MAJOR MILESTONE THIS SUMMER WITH THE ARRIVAL OF ITS FIRST AIRCRAFT SECTIONS.

2 September 2008

This summer's arrival of the first aircraft sections at Airbus' new final assembly line in Tianjin, China marked the successful conclusion of almost two years of logistical planning and equipment design. An Airbus team has been instrumental in working with the Chinese consortium to ensure that the best transport solutions are in place for these sections. Top-level requirements, such as the verification that components would never be disassembled from the jig during transport - as well as cost-effectiveness - were taken into account when decisions were made on the transportation process. The relatively small size and weight of the sections make it possible to transport them in container liners. The team also developed special jigs and tools to avoid damage during the month-long transit, and worked with shipping carriers to test and validate the processes upstream.

FIRST AIRCRAFT SECTIONS ARRIVE AT A320 FINAL ASSEMBLY LINE IN TIANJIN

25 July 2008

The first aircraft sections for the new Airbus single-aisle assembly line in Tianjin arrived at the A320 Final Assembly Line (FAL) site in the early morning of 25th July.

Six jigs loaded with parts for an A320, coming from the Airbus production sites in Europe, departed from Hamburg on a container ship on 24th June. It carries the forward and rear fuselage section, a pair of wings, the horizontal and vertical tailplane and engine pylons. The sections arrived at the Tianjin Harbour at 06:30am on 24th July, then were transported from the harbour to the FALC site by road at 3:00 o'clock in the morning of 25th July.

The assembly process of the first aircraft, which is for Sichuan Airlines, will start in August 2008. Delivery of the aircraft is scheduled for mid 2009. By 2011, the production ramp-up will reach 4 aircraft per month.

"The arrival of these aircraft sub-assemblies marks another important step forward for our assembly line in Tianjin", said Laurence Barron, the President of Airbus China. "With China's economic booming and the rapid development of the Chinese aviation industry, Airbus looks at China not only as one of the most important markets but as a strategic partner. Airbus will closely work with the Chinese aviation enterprises and continue to deepen and expand our cooperation", he added.

"Airbus A320 FAL project is a great example of China-European cooperation and an impetus for the development of Binhai New Area. We attach great importance to it and will do our utmost to ensure its success together with Airbus", said Gou Lijun, Member of CPC Tianjin Municipal Standing Committee and Director of the Administrative Committee of Binhai New Area.

AIRBUS AND HAIG SET UP JOINT VENTURE IN CHINA

16 July 2008

Airbus China Limited and Harbin Aircraft Industry Group Company Limited (HAIG) today entered into a framework contract for a Joint Venture Manufacturing Centre in Harbin, China to produce aircraft composite material parts and components.

The contract was signed by Laurence Barron, President of Airbus China, and Pang Jian, Chairman of the Board of Directors of HAIG, a company under China Aviation Industry Corporation II (AVIC II), at 2008 Farnborough International Airshow. Fabrice Bregier, Chief Operating Officer of Airbus, and Zhang Hongbiao, President of AVIC II, witnessed the signature of the contract.

The manufacturing centre, which will be set up in early 2009, will be an equity joint venture enterprise, with HAIG holding 80 per cent stake and Airbus China owning 20 per cent stake.

According to the contract, the manufacturing centre shall manufacture composite materials parts and components for the Airbus A320 Family and shall participate in the industrialisation and serial production of Airbus A350 XWB work-packages.

The manufacturing centre shall apply Airbus standards and procedures and meet Airbus technical and quality requirements. The personnel of the manufacturing centre shall be trained in accordance with Airbus requirements.

"The establishment of the joint venture manufacturing centre marks another important milestone for the relationship between HAIG and Airbus," said Pang Jian. "HAIG is already a qualified supplier for Airbus and is one of the shareholders of Airbus (Beijing) Engineering Centre. The new manufacturing centre will further enhance the strategic cooperation between HAIG and Airbus," he added.

"This project demonstrates once again Airbus' commitment to the long term sustainable development of China's aviation industry," said Laurence Barron, President of Airbus China. "We will continue to expand our cooperation with Chinese aviation industry in the future," added Barron.

On 26<sup>th</sup> November 2007, Airbus signed a memorandum of understanding with the National Development and Reform Commission of China to formalise the commitment of allocating 5 per cent of the A350 XWB airframe to the Chinese aviation industry.

This manufacturing centre is established as part of Airbus' efforts to fulfil Airbus' undertaking to NDRC to allocate such airframe work packages relating to the Airbus A350 XWB programme to China.

Also on 26<sup>th</sup> November 2007, Airbus and AVIC II signed a Heads of Agreement for a joint venture manufacturing centre. Today's signature is a significant step forward of the previous agreement.

## AIRBUS TRANSPORTS FIRST AIRCRAFT SEGMENTS TO ASSEMBLY LINE IN CHINA

24 June 2008

Airbus has started transporting the first aircraft segments to the new single-aisle assembly line in Tianjin, China. The assembly process of the first aircraft, which is for Sichuan Airlines, will start in August 2008. Delivery of the aircraft is scheduled for the first half of 2009.

Six jigs loaded with parts for an A320, coming from the Airbus production sites in Europe, departed from Hamburg on a barge. It carries the forward and rear fuselage section, a pair of wings, the horizontal and vertical tailplane and engine pylons. The barge will transport these segments to the nearby container terminal at Hamburg harbour, where they will then be transferred onto a commercial container ship bound for Tianjin. The overall transportation to China will last less than one month.

"The transportation of these aircraft sub-assemblies marks another important milestone for our assembly line in China. The construction work on the site is progressing successfully and the training of the Chinese workers at our production facilities in Toulouse and Hamburg is going very well," said Alain Flourens, Airbus Executive Vice President A320 Programme.

The final assembly line in China is an important milestone on Airbus' way to become a global company. It enables Airbus to increase its flexibility in the A320-family production by simultaneously ramping-up the production rate to 40 by 2010. The Chinese final assembly line will mainly produce aircraft for the Chinese market, where Airbus expects the passenger traffic to grow fivefold in the next 20 years, causing a demand of a total of 2,670 new passenger aircraft.

The final assembly line in China is a joint venture between Airbus (51 per cent) and the Chinese Industry Consortium (49 per cent). The latter comprises the Tianjin Free Trade Zone (TJFTZ) holding a 60 per cent interest, China Aviation Industry Corporation I (AVIC I) holding 20 per cent, and China Aviation Industry Corporation II (AVIC II) holding 20 per cent of the consortium's 49 per cent overall share.

MAINLAND CHINA'S PASSENGER AIRCRAFT FLEET WILL TRIPLE IN THE COMING 20 YEARS; AIRBUS PREDICTS THAT THE CHINESE MAINLAND WILL NEED APPROXIMATELY 2,800 NEW PASSENGER AIRCRAFT OVER THE 20-YEAR PERIOD COVERED BY THE COMPANY'S LATEST GLOBAL MARKET FORECAST - INCLUDING 190 VERY LARGE AIRCRAFT, SUCH AS THE A380.

17 June 2008

Airbus forecasts that the Chinese Mainland will need some 2,800 new passenger aircraft and freighters from 2007 to 2026, with a total market value of US\$ 329 billion. It represents 11.6 per cent of the world total demand for over 24,000 new aircraft in the next 20 years.

According to Airbus' 2007-2008 Global Market Forecast (China) issued today, mainland China will need some 2,800 new passenger and freighter aircraft over the next 20 years, including more than 1,900 single aisle aircraft, nearly 700 twin-aisles and 190 very large aircraft (VLA). The number of VLAs, such as A380, needed on the Chinese mainland is forecast to be on rise as international traffic from and to China is to greatly increase and to be highly concentrated.

The passenger traffic is expected to grow five-fold and the passenger aircraft fleet will triple on the Chinese mainland. A total of 2,670 new passenger aircraft are needed in the next 20 years on the Chinese mainland.

Freighter traffic in China is expected to grow six-fold and will need some 130 new freighter aircraft over the next 20 years. China's freighter traffic demand will remain at a high level with an average domestic market growth rate of 10.5 per cent per year and an average international market growth rate of 8.5 per cent per year. China's dedicated freighter fleet will grow eleven-fold over the next 20 years, from 45 freighters to 471 in 2026.

"In terms of in-service aircraft, Airbus' share of the in-service fleet on the Chinese mainland has already increased from 7 per cent in 1995 to the current 38 per cent. Our aim is to reach 50 per cent in 2012," said John Leahy, Airbus Chief Operating Officer Customers. "In the next 20 years, the greatest demand for passenger aircraft will come from China, second only to the United States," he added.

Drivers of China's dynamic air transport growth include the country's long-term economic and trade growth, fast growth in real consumer spending of the Chinese people and the large Chinese outbound tourist wave. All these drivers plus the more concentrated population in mega cities such as Beijing and Shanghai will translate into a substantial demand for VLAs such as A380. According to IATA statistics, international traffic to China in 2007 is highly concentrated as 87 per cent of Europe-China passengers and 85 per cent of USA-China passengers want to go to Beijing or Shanghai. The intra Asia demand is also concentrated between such big cities as Beijing, Shanghai, Hong Kong, Tokyo, Seoul, Bangkok, and Singapore. There will be 80 very large aircraft daily flights to Beijing by 2020.

A380, which can carry more passengers with less flights, less fuel consumption, less noise, and less CO2 emission, will bring advantages to Chinese airlines.

"Airbus will contribute to the long-term sustainable development of China's air transportation by providing Chinese airlines with modern and eco-efficient aircraft and excellent support and service," Mr Leahy said. "But we are not just supplying aircraft to Chinese airlines. We are building long-term relationships with Chinese aviation industry."

In 2007, the total value of sub-contracting in China has exceeded the company's US\$ 60 million target to reach US\$ 70 million. Six Chinese enterprises are already involved in manufacturing parts for Airbus aircraft. The Airbus A320 Final Assembly Line in Tianjin, a joint venture between Airbus and the Chinese consortium comprising Tianjin Free Trade Zone, AVIC I and AVIC II, will start assemble the first aircraft in August this year and deliver the first plane in mid 2009.

#### AIRBUS DEPLOYS TWO AIRCRAFT TO HELP CHINESE EARTHQUAKE RELIEF EFFORTS

30 May 2008

Two Airbus test aircraft, an A380 and an A340-300 have been deployed to help transport essential relief effort cargo to China's South Western region following the devastating earthquake near Chengdu, in China's Sichuan province on 12<sup>th</sup> May 2008.

The two aircraft will carry over 2,000 tents between them to help shelter the thousands of people left homeless. The relief operation was set up by Airbus, the Chinese Ministry of Foreign Affairs and the Chinese Embassy in Paris and is undertaken in close cooperation with Air France Cargo, Air China and Aéroports de Paris. The A380 and A340 will be operated by Airbus crews. Around 1,100 tents are supplied by the Chinese Embassy with the remaining tents being provided by the Association Franco-Chinoise d'Echanges Economiques et Culturels as a result of individual donations.

The aircraft will first fly from Toulouse to Paris CDG airport, where Air France Cargo will load the containerised cargo. The A380 will depart for Chengdu on Friday, 30<sup>th</sup> May in the afternoon, and the A340 at dawn on Saturday. Both aircraft are scheduled to arrive and leave again on Saturday, 31<sup>st</sup> May.

Airbus employees from throughout the world are contributing to the relief effort. Airbus China and its partner China Aviation Supplies Holding Company donated ten emergency mobile stretcher units for transport aircraft to Chinese life saving teams. Airbus also chartered five train carriages to help deliver 1,000 tonnes of packaged milk donated by a Beijing based dairy company. Furthermore, Airbus donated RMB five Million in cash to help in the relief efforts through the Ministry of Foreign Affairs of China. And once the rescue efforts are over, Airbus will also be looking at projects to support the rebuilding phase.

Today's flights are part of a series of relief actions the EADS group has undertaken and started through its various divisions, in particular the donation from Airbus, but also providing Infoterra satellite imagery of the affected areas with Astrium, organising and coordinating the work of ten Eurocopter helicopters for relief operations from Guaghan airport, and sending an important quantity of tents for the refugees in Sichuan with EADS/DS.

Airbus is a leading aircraft manufacturer with the most modern and comprehensive product line on the market, Airbus is a global company with design and manufacturing facilities in France, Germany, the UK, and Spain as well as subsidiaries in the U.S., China, Japan and in the Middle East.

#### AIRBUS CONTRIBUTES TO CHINESE EARTHQUAKE STRICKEN AREAS AND COMMITS TO FURTHER LONG-TERM SUPPORT

20 May 2008

Airbus has donated RMB five million in cash to help the refugees affected by the severe earthquake, which occurred in south western China last week. The donation was made through the Ministry of Foreign Affairs of China at a meeting in Beijing between Airbus CEO Tom Enders and officials of Ministry of Foreign Affairs of China on 20th May.

"On behalf of Airbus and all our employees, I would like to express our sincere condolences and our deepest sympathy to those who have lost loved ones or their homes and possessions. Our thoughts are with the Chinese people", said Tom Enders. "We will continue to work together with the Chinese government to do our best to support those in need", he added.

The donation includes RMB 120,000 of personal contributions by Airbus employees. "The cash donation of RMB five million is an immediate step and is designed to assist the emergency rescue efforts underway in the affected areas", said Tom Enders.

In addition, Airbus China and its partner China Aviation Supplies Holding Company will jointly donate 10 emergency mobile stretcher units for transport aircraft to Chinese life saving teams in Sichuan. The stretchers are very useful and efficient in transporting traumatized victims by air to other hospitals. The total value of the stretchers is US\$ 300,000 (about RMB 2,100,000).

"In the medium term, once the rescue efforts are over and we enter the rebuilding phase, we will also be looking for a rebuilding project to support over time", said Tom Enders.

"At Airbus China, many of us have seen TV pictures of distressed children, which moved us greatly, and I think we will try to identify a project involving children, such as the rebuilding of a school or an orphanage, as children are the future for all of us", said Laurence Barron, President of Airbus China.

#### AIRBUS CALLS ON CHINESE PARTNERS TO JOIN EFFORTS FOR A GREEN AVIATION INDUSTRY

17 April 2008

Airbus called on its partners and suppliers, as well as other key players in the Chinese aviation industry, to share its vision of a green aviation industry and to join in its efforts to make aviation an eco-efficient industry. The appeal was made at a conference on aviation eco-efficiency, which was held yesterday in Beijing.

Addressing the China Eco-efficiency Conference, which was attended by Chinese government officials and representatives of airlines, Rainer Ohler, Airbus Senior Vice President Public Affairs and Communications, said that a green industry must be the vision for the future of aviation and joint efforts are needed to make aviation an eco-efficient industry - which means growing and creating value with less environmental impact.

"There is not one simple solution but cross-industry and international cooperation are the way forward," Ohler said. "China has become an increasingly important player in the world aviation sector thanks to the country's continuous economic growth in the past decades."

"I therefore would like to make a call to the key stakeholders of the air transport sector in China, including the government, partners and suppliers, to share our vision and to join in our efforts for an eco-efficient aviation. Doing so will help long-term sustainable growth of the industry and China's economy, to which the air transport sector is a strong and indispensable contributor, as well," Ohler added.

Airbus' call received positive response from the government officials and airline executives present at the conference.

"China attaches great importance to environmental issues and the government is enhancing the regulations over environmental protection, aiming to addressing the environmental concerns while keeping the momentum of economic growth," said Ms. Feng

Yan, Deputy Division Chief of the Ministry of Environmental Protection. "We fully support Airbus' efforts and encourage Chinese aviation enterprises to contribute to an eco-efficient aviation industry."

During the event, Ohler and Laurence Barron, Head of Airbus China, unveiled Airbus "green cotton bags," which will be given to the public for free.

#### BOC AVIATION SIGNS FIRM ORDER FOR FIVE A330-200F AIRCRAFT

22 February 2008

BOC Aviation, the leading Asia-based aircraft leasing company, has signed a firm contract for five A330-200F all-cargo aircraft. The agreement was signed during the 2008 Singapore Airshow.

Previously known as Singapore Aircraft Leasing Enterprise, BOC Aviation is headquartered in Singapore, with representatives based in Europe and the US. The company is wholly owned by the Bank of China.

Robert Martin, BOC Aviation Chief Executive Officer, said the contract marked the first time that BOC Aviation has ordered cargo aircraft directly from a manufacturer. "This order reflects our confidence in strong future demand for widebody production freighter aircraft," he said. "The payload capability and range of the A330-200F make it an appealing choice in the mid-size category and we feel sure that the aircraft will provide us with a strong return on our investment."

BOC Aviation's portfolio is one of the youngest in the leasing business and already includes the popular A320 Family and A330 passenger aircraft.

"We are delighted to welcome another new customer for our latest, fast selling Freighter aircraft, the A330-200F", said John Leahy, Chief Operating Officer, Customers. "Having BOC Aviation as a new customer for our successful new freighter is a further recognition that the aircraft's unique flexibility, excellent efficiency and superior performance are fully in line with market needs," he added.

#### AIRBUS SIGNS MOU WITH NDRC TO FORMALISE AIRBUS A350XWB WORK PACKAGE TO CHINESE AVIATION INDUSTRY

26 November 2007

Airbus signed today a memorandum of understanding (MOU) with the National Development and Reform Commission (NDRC) to formalise the commitment of allocating five per cent of the A350XWB airframe to the Chinese aviation industry.

The MOU was signed by Chen Deming, Vice Minister of NDRC, and Fabrice Bregier, Chief Operating Officer of Airbus, at the Great Hall of the People in the presence of Chinese President Hu Jintao and visiting French President Nicolas Sarkozy.

According to the MOU on Strengthening Industrial Cooperation through A350XWB, NDRC and Airbus will carry out high-level industrial cooperation on A350XWB development and manufacturing work, in order to enhance a closer strategic cooperation relationship between Airbus and the Chinese aviation industry.

Airbus confirms its intent to manufacture five per cent of the airframe of the A350XWB aircraft in China. Airbus will actively involve Chinese enterprises in the A350XWB project to develop the current cooperation and prepare for further possible cooperation for future programmes.

The co-development of A350XWB Work Packages is the key condition to guarantee the success of such cooperation.

On the same day, Airbus also signed a Heads of Agreement (HOA) with China Aviation Industry Corporation II (AVIC II) to develop a new cooperation model to support the A350XWB industrialization.



According to the HOA between Airbus and AVIC II, a joint venture manufacturing centre is to be established in Harbin by Airbus and Harfei Aviation Industry Company Ltd, a subsidiary of AVIC II, to produce composite material parts and components for Airbus A350XWB.

The manufacturing centre is expected to be established in the first quarter of 2009. The production scale of the manufacturing centre shall correspond to the work packages for the A350XWB allocated to the manufacturing centre and may be enlarged based on the future Business Plan.

"NDRC encourages the efforts to further enhance industrial cooperation between the Chinese aviation industry and Airbus. The reinforcement of cooperation between Airbus and the Chinese aviation industry will be beneficial for the development of the industry and for Airbus as well," says Zhang Xiaoqiang, Vice Minister of NDRC.

AVIC II President Zhang Hongbiao said: "AVIC II supports Airbus' cooperation strategy with China's aviation industry. Both sides will be dedicated to a long-term and strategic cooperation relationship and will complement each other with different advantages. We believe that there is a big potential for cooperation."

"We are impressed by the fast and sustained growth of the Chinese aviation industry and are extremely proud to be able to contribute to its development with our state-of-the-art, efficient and environmentally friendly aircraft. We demonstrate once again Airbus' commitment to the long term development of China's aviation industry. For Airbus, China is not only an important market, but also an industrial partner. We are making efforts to further strengthen the already existing cooperation," says Fabrice Bregier.

Airbus is committed to forging a long-term strategic partnership with China. Six Chinese manufacturers are already involved in manufacturing parts, such as wing components, emergency-exit doors and maintenance tools for Airbus aircraft. In July 2005, the Airbus (Beijing) Engineering Centre was formally inaugurated in Beijing. In June 2006, Airbus signed a joint venture contract with a Chinese Consortium comprising Tianjin Free Trade Zone, AVIC I and AVIC II for the establishment of an A320 Family Final Assembly Line in China. So far, the FAL project is proceeding well on schedule. The total value of industrial cooperation between Airbus and the Chinese aviation industry is expected to be near 200 million dollars per year in 2010 and 450 million dollars per year in 2015. On the same day, China Aviation Supplies Import and Export Group Corporation (CASGC) signed an agreement with Airbus for 150 aircraft including 110 A320s and 40 A330s. China Southern Airlines signed a contract with Airbus for 10 A330-200s.

#### HAINAN AIRLINES TAKES DELIVERY OF THEIR FIRST A330

14 November 2007

Hainan Airlines Company Limited (HNA), a subsidiary of the HNA Group, based in China, has taken delivery of its first A330 on lease from CIT Aerospace. The aircraft powered by Rolls Royce Trent 700 engines was handed over to the HNA Chairman, Mr. CHEN Feng in a ceremony held in Toulouse. The aircraft will seat 222 passengers in a two-class configuration.

The HNA Group, the fourth largest aviation group in China, comprises Hainan Airlines, Xinhua Airlines, Changan Airlines, Shanxi Airlines and is now setting up its Grand China Air. The group currently operates 12 A319s and has 98 Airbus aircraft on order.

"Today is a remarkable day in the continuous, fast and healthy development of our airline and marks an important step for our future success. This new aircraft in service will allow us to expand services to major business and leisure destinations across China and to offer new routes, benefiting from the aircraft's unique operational costs savings while providing our passengers with an optimal travel comfort" said Mr. CHEN Feng, Chairman of HNA Group.

"We are delighted that Airbus is a part of HNA Group's rapid growth and are proud of their choice for the A330-200 to further extend their success. This reflects again the advantages that the A330 offers in terms of route efficiency and passenger comfort in addition to the commonality with the A320 Family aircraft already in service within the group. All of us at Airbus wish Hainan Airlines and HNA Group a very bright future," said Fabrice Bregier, Airbus Chief Operating Officer.

HNA was established in 1993 and currently operates on trunk routes, regional routes and business charter services to more than 90 destinations.

#### C-JET ORDERS AN AIRBUS ACJ

11 November 2007

C Jet Limited, the aviation company of a private individual based in Hong Kong, has placed a firm order for an Airbus Corporate Jetliner (ACJ), becoming a new customer.

C Jet Ltd's Airbus ACJ will feature a luxurious interior based on the Prestige cabin-concept, which features a lounge, dining area, private office, bedroom and ensuite bathroom with shower. It will be powered by CFM International CFM56-5B7/P engines. The choice of cabin-outfitter has yet to be made.

BAA Jet Management Ltd of Hong Kong, which has already placed orders for an Airbus ACJ and an A318 Elite, will manage and operate the aircraft on behalf of C Jet Limited. This will be BAA Jet Management's second Airbus ACJ under management. BAA Jet Management Ltd will also manage an A318 Elite.

"With its larger and more comfortable cabin, as well as a more modern design, the Airbus ACJ Family is the natural choice for companies and individuals that want to trade up from traditional top-of-the-line business jets," says BAA Jet Management Ltd Vice Chairman Jay Shaw. "This is an important market opportunity, on which Airbus and BAA Jet Management Ltd are well placed to capitalise," he adds.

Airbus' ACJ Family, which recently passed the milestone of 100 sales, is increasingly popular in China and has a strong presence in Asia-Pacific.

"The Airbus ACJ is just a great aircraft to do business in, as more and more forward-thinking customers such as C Jet Ltd and BAA Jet Management Ltd are recognising," comments Airbus Chief Operating Officer, Customers John Leahy. "And with the Airbus ACJ Family now flying on every continent, including Antarctica, they have to be one of the most popular corporate jets in the world," he adds.

#### BAA JET MANAGEMENT TO INCREASE AIRBUS FLEET WITH A318 ELITE

24 September 2007

BAA Jet Management Ltd is to acquire an Airbus A318 Elite, adding to the Airbus Corporate Jetliner (ACJ) that it ordered earlier this year and ensuring that it will have a strong presence at the upper end of the top-of-the-line business jet market.

The deal highlights the ACJ Family's leadership in high-end corporate jets in Asia.

BAA Jet Management will operate its A318 Elite from Shenzhen, near Hong Kong, and it will be based, and registered, in the People's Republic of China. Like the company's Airbus ACJ, it will comply with the new Chinese CCAR Part 135 rules.

One of the leading aviation companies in Asia, BAA Jet Management offers a complete range of business jet services, including VIP charters, aircraft management, flight support and aircraft sales and acquisition. Handling aircraft that are registered in the USA or the People's Republic of China, BAA Jet Management has bases in Beijing, Hong Kong and Shenzhen.

"Our customers will be impressed by the big jet comfort and spaciousness that Airbus' A318 Elite brings to a broader market, where it is unmatched in offering discerning travellers so much more," says BAA Vice Chairman Jay Shaw. "The extra comfort that the A318 Elite delivers on long flights will be of special appeal to our Asian clients, while

comprehensive commonality between our A318 Elite and Airbus ACJ is also a big plus for us - as are the aircraft's modern designs and reliability," he adds.

Like its Airbus ACJ, BAA's A318 Elite will be powered by CFM56-5 engines.

XIAN AIRCRAFT COMPANY DELIVERS FIRST A319 CHINA-MADE WING BOX; THE LARGEST AIRBUS AIRCRAFT COMPONENT EVER PRODUCED BY A CHINESE AVIATION MANUFACTURER HAS BEEN DELIVERED BY XIAN AIRCRAFT COMPANY (XAC); THIS A319 WING BOX THE FIRST EVER MADE IN CHINA UNDERSCORES AIRBUS' HIGH LEVEL OF INDUSTRIAL COOPERATION WITH THE CHINESE AVIATION INDUSTRY, AND MARKS A PRODUCTION MILESTONE FOR THE HIGHLY POPULAR A320 FAMILY

25 July 2007

The first Airbus A319 wing box made in China was delivered today to Airbus by Xian Aircraft Company (XAC), a subsidiary of China Aviation Industry Corporation I (AVIC I). The wing box will be dispatched to the Airbus site at Broughton in the UK for equipping with systems and further work.

With a dimension of 16.67m x 4.2m x 1.0m and a weight of 3,500 kg per wing, the wing box is the largest Airbus aircraft component ever produced by a Chinese aviation manufacturer. It highlights the high level of Airbus commitment to its programme of industrial cooperation with the Chinese aviation industry.

This delivery marks a significant milestone in the A320 family aircraft wing co-operation programme between Airbus and China. Xian Aircraft Company is scheduled to ramp up the production of the wing box to four shipsets a month by the end of 2009. With the continuing strong demand for the A320 family aircraft, XAC represents additional capacity to Airbus wing production in Broughton, UK.

Airbus has a long history of co-operation with the Chinese aviation industry. In addition to manufacturing, the Airbus (Beijing) Engineering Centre was inaugurated in July 2005 and today houses more than 100 engineers. Airbus has proposed up to five per cent of the A350XWB outsourced airframe work to the Chinese Aviation Industry and a new A320 Family Final Assembly Line is planned in Tianjin.

JOINT VENTURE CONTRACT SIGNED FOR THE A320 FAMILY FINAL ASSEMBLY LINE IN TIANJIN

28 June 2007

The joint venture contract for the Airbus A320 Family Final Assembly Line (FAL) in Tianjin was signed today in Beijing between the Chinese Consortium and Airbus in the Great Hall of the People. Visiting German Minister of Economics and Technology Michael Glos and Airbus Chief Operating Officer Fabrice Brégier attended the signature ceremony.

Upon the creation of the joint venture, Airbus will hold 51 per cent of the shares, while the Chinese Consortium will hold 49 per cent.

The Chinese Consortium comprises Tianjin Free Trade Zone (TJFTZ) holding a 60 per cent interest, China Aviation Industry Corporation I (AVIC I) holding 20 per cent and China Aviation Industry Corporation II (AVIC II) holding 20 per cent of their 49 percent.

On the occasion of the signing, 86 of the 150 A320 Family aircraft firmly ordered under the General Terms Agreement signed between CASGC and Airbus in October 2006, were allocated to six Chinese customers. Agreements were signed with Shenzhen Airlines for 28 A320 family aircraft, with Sichuan Airlines for 18 A320 family aircraft, with China Aviation Suppliers Import and Export Group Corporation (CASGC) 15 A320 family aircraft, with Hainan Airlines for 13 A320 family aircraft, with Spring Airline and Juneyao Airlines for six A320 family aircraft respectively. Nearly half of these 150 A320 family aircraft will be assembled and delivered in Tianjin.

Dai Xianglong, Mayor of Tianjin, said at the signature ceremony: "The Airbus A320 Final Assembly Line in Tianjin is a remarkable achievement of the Chinese-European cooperation in the field of civil aviation. It will play an important role in further promoting the development of the Chinese civil aviation industry and speeding up the opening up of Tianjin Binhai New Coastal District. Tianjin Municipal Government will fully support this important project and make it an excellent example of Chinese-European cooperation."

"I am very proud to witness this historic contract signature today. We achieved remarkable progress with our Chinese partners in the past eight months since we signed the Framework Agreement last October. Once again, this event demonstrates Airbus' commitment to further enhancing our industrial cooperation with the Chinese aviation industry. We are confident that this project will create win-win results and have an unprecedented impact on the already-close cooperation between the Chinese aviation industry and Airbus," said Fabrice Bregier, Airbus Chief Operating Officer.

The construction on the Airbus A320 Family Final Assembly Line (FAL) in Tianjin was officially kicked off on 15th May 2007. The assembly of the first aircraft in China will start in August 2008 and it will be delivered in the first half of 2009. The ramp up production for the Final Assembly Line in Tianjin will reach four aircraft a month in 2011.

The FAL in Tianjin will be based on the latest state-of-the-art Airbus single aisle final assembly line in Hamburg, Germany. The aircraft will be assembled and delivered in China to the same standards as those assembled and delivered in Europe.

The A320 Family, recognized as the benchmark single-aisle aircraft family, also includes the A318, the A319 and A321 versions and features the newest and most modern design of any single-aisle airliner. An advanced fuel-saving aerodynamic design, including wingtip fences, centralized maintenance with extended servicing intervals, and proven reliability in day-to-day service help to give it the lowest operative costs.

Currently, ten operators on the Chinese Mainland operate over 270 A320 family aircraft. According to Airbus' latest Global Market Forecast, Chinese Mainland will need more than 1,900 single aircraft in the next 20 years.

#### BAA JET MANAGEMENT BECOMES NEW AIRBUS ACJ CUSTOMER

21 June 2007

BAA Jet Management has placed a commitment for an Airbus Corporate Jetliner (ACJ), becoming the first customer for the type to be based in Hong Kong with extensive business there and in mainland China. The order reinforces the Airbus ACJ Family's leadership of top-of-the-line corporate jet sales in Asia.

BAA Jet Management's Airbus ACJ will operate from Shenzhen, near Hong Kong, and will be the first to be based, and registered, in the People's Republic of China. It will also be the first authorised for charter under the new Chinese CCAR Part 135 rules.

One of the leading aviation companies in Asia, BAA Jet Management offers a complete range of business jet services, including VIP charters, aircraft management, flight support and aircraft sales and acquisition. Handling aircraft that are registered in the USA or the People's Republic of China, BAA Jet Management has bases in Beijing, Hong Kong and Shenzhen.

"Airbus ACJ is clearly the future at the top end of the corporate jet market, where the trend is toward larger aircraft and making it part of our fleet will allow us to offer unmatched cabin volume and capability to meet this growing demand," says BAA Vice Chairman Jay Shaw. "Our customers want the best, and are going to be more than happy with what we will deliver with the Airbus ACJ."

BAA Jet Management's Airbus ACJ will be powered by CFM International CFM56-5 engines.

## CONSTRUCTION STARTED ON AIRBUS A320 FAMILY FINAL ASSEMBLY LINE IN CHINA

15 May 2007

Construction has started on the Airbus A320 Family Final Assembly Line (FAL) in Tianjin, following recent approval by the State Council of the Feasibility Study Report for the project. A formal ceremony was held on site in the Tianjin Binhai New Coastal District, where the FAL is to be located, in the presence of Mr. Tang Jiaxuan, State Councillor and Fabrice Brégier Airbus Chief Operating Officer.

The setting up of the FAL in China includes the construction of dedicated hangars, office buildings, delivery centre and related facilities, including electricity, gas, water and fuel supply systems.

The FAL in Tianjin will be identical to the latest state-of-the-art Airbus single aisle final assembly line in Hamburg, Germany. The aircraft will be assembled and delivered in China to the same standards as those assembled and delivered in Europe.

"The A320 FAL in Tianjin, China is of great significance. Government leaders from both China and European Union (EU) have attached great importance to this project. It provides a win-win result and represents a new achievement of the China-EU strategic partnership", said State Councillor Mr. Tang Jiaxuan. "I believe A320 FAL project will not only enhance the further development of the aviation industry of both sides, but also help promote China-EU economic and trade cooperation. It will contribute to the development of Tianjin Binhai New District and its region", he added.

"Today is a day of great significance for Tianjin, our Chinese industrial partners and Airbus. We are extremely pleased to witness this major step forward which will lead to the assembly of our aircraft in China for the first time. This not only represents a new level of mutually beneficial industrial cooperation between China and Airbus, but also demonstrates our long term commitment to the development of the Chinese civil aviation industry", said Airbus Chief Operating Officer Fabrice Brégier at the ceremony. "The launch of construction of this Final Assembly Line in China will lead to the commencement of its operations by August 2008 as planned, with the aim to deliver the first aircraft assembled in China in the first half of 2009. I believe when the day for the first delivery comes, it will be another great day for you, for myself, for Airbus and for the Chinese civil aviation industry," he added.

The Final Assembly Line in Tianjin aims to ramp up production to reach four aircraft per month in 2011. An Airbus delivery centre will also be set up by Airbus in Tianjin.

The National Development and Reform Commission of China (NDRC) and Airbus signed a Memorandum of Understanding (MOU) on 4th December 2005 when the Chinese Premier Wen Jiabao visited the Airbus Headquarters in Toulouse, France. The MOU described the process to evaluate the new fields of enhanced cooperation, including the possibility to establish a Final Assembly Line for Airbus single aisle aircraft in China.

On 8th June 2006, NDRC and Airbus announced that the site for the potential A320 Family FAL in China would be in Tianjin Binhai New Coastal District. On 26th October 2006, a Framework Agreement was signed between Airbus and a Chinese Consortium comprising Tianjin Free Trade Zone (TJFTZ), China Aviation Industry Corporation I (AVIC 1) and China Aviation Industry Corporation II (AVIC II) in Beijing. Under the Framework Agreement, Airbus agreed in principle to set up an A320 Family Final Assembly Line in Tianjin, and the parties settled the main details of the corresponding joint venture to be created between the Chinese Consortium and Airbus.

The Feasibility Study Report (FSR) was jointly conducted and signed by the Chinese Consortium and Airbus in January 2007 and was then submitted to NDRC for approval.

With more than 50 million flight hours to date, more than 5,000 aircraft ordered and over 3,000 delivered to more than 190 operators, the A318, A319, A320 and A321 make up the world's best-selling single-aisle aircraft family. The current production rate is currently at 32 aircraft per month and will reach 36 by the end of 2008. This is the highest ever for any jetliner, and it is planned to go even beyond.

Designed with advanced fuel-saving aerodynamics, with proven reliability and extended servicing intervals, the A320 Family has amongst the lowest operating costs of any aircraft.

By the end of March 2007, ten operators on the Chinese Mainland operate over 270 A320 family aircraft, with over 370 aircraft still on order. According to Airbus' latest Global Market Forecast, Chinese Mainland will need more than 1,900 single aircraft in the next 20 years.

#### AIRBUS DONATES FIRST A310 TO CHINA CIVIL AVIATION MUSEUM

18 April 2007

Airbus today donated the first Airbus aircraft to be delivered to and operated on the Chinese Mainland, an Airbus A310-200, to the China Civil Aviation Museum at a ceremony held in Beijing. The aircraft was originally delivered to CAAC Shanghai in June 25, 1985, then operated by China Eastern Airlines, marking the debut of Airbus operations on the Chinese Mainland market. The aircraft was retired by China Eastern this September after more than 20 years of loyal service to the airline, having accumulated 39,053 flight hours and 20,968 flight cycles. The China Civil Aviation Museum, the first of its kind in China, is now under the construction nearby Beijing Capital Airport.

ONE YEAR OF OPERATION FOR THE BEIJING ENGINEERING CENTRE; THE AIRBUS ENGINEERING CENTRE IN BEIJING, CHINA - WHICH WILL PLAY AN IMPORTANT ROLE IN THE A350 XWB's DESIGN AND DEVELOPMENT - CURRENTLY HAS 104 LOCALLY-EMPLOYED ENGINEERS AND IS ON TARGET TO REACH ITS HEAD COUNT OF 200 BY 2008. THIS AIRBUS JOINT VENTURE WITH CHINA'S TWO LARGEST AVIATION COMPANIES OPENED FOR BUSINESS IN 2006.

16 March 2007

Airbus' Beijing-based engineering centre (ABEC) has been operational now for more than a year,

ABEC, a joint venture between Airbus and China's two largest aviation companies - China Aviation Industry Corporation I (AVIC I) and China Aviation Industry Corporation II (AVIC II), first opened for business early in 2006. The aim of the centre was to provide Airbus with a significant foothold in the fast-growing Chinese region, to make the most of local engineering design talent and industrial possibilities. The announcement in October 2006 of the construction of an A320 final assembly line in China (FALC) further strengthened Airbus' commitment to international co-operation in the country.

ABEC's engineers will work on specific design packages for new programmes, which will be manufactured later on by Chinese industry, and they are due to play an important role in the design and development of the A350 XWB.

Airbus has a 70 per cent stake in ABEC with AVIC II holding 25 per cent and AVIC I 5 per cent. Engineers are being recruited through Airbus' two Chinese partners as well as from universities and free market, which ensures a mix of skills and experience. The engineers are already quite experienced and well trained but must understand Airbus' methods and standards of working, so that they fit with existing teams. With this in mind, most of the new recruits receive training at Airbus sites, including Hamburg, Getafe, St Martin and St Eloi and also now at the Beijing centre.

The engineering centre is well on target to reach a head count of 200 locally trained engineers by 2008 with 104 locally employed engineers working at the centre and the latest

recruits - 33 engineers - having just returned from their training in Europe. And the proportion of women working at ABEC is more than 27 percent.

In the run-up to starting work on the A350 XWB, ABEC engineers have been tackling work packages including designs and modifications for existing Airbus programmes.

## MORE THAN 3,000 AIRCRAFT NEEDED ON THE CHINESE MAINLAND IN NEXT 20 YEARS

14 February 2007

Airbus forecasts that the Chinese Mainland will need more than 3,000 passenger aircraft and freighters from 2006 to 2025, including some 2,050 single aisle aircraft, nearly 600 small twin-aisle aircraft, over 200 intermediate twin-aisle aircraft and 180 very large aircraft. Some 2,650 passenger aircraft will be required on the Chinese Mainland with a total value of US\$ 289 billion. The Chinese mainland passenger fleet will triple in the next 20 years, from 760 at the end of 2005, to 2,700 in 2025.

Freighter traffic in China is expected to grow six-fold and will need close to 400 freighter aircraft over the next 20 years. China's freighter traffic demand will remain at a high level with an average domestic market growth rate of 10.9 percent p.a. and an average international market growth rate of 8.9 per cent p.a.

"In terms of in-service aircraft, Airbus' market share on the Chinese Mainland has already increased from seven per cent in 1995 to the current 35 per cent. Our aim is to reach 50 per cent in 2011," said John Leahy, Airbus Chief Operating Officer Customers. "In next 20 years, the greatest demand for passenger aircraft will come from the Chinese Mainland just after the United States," he added.

- The drivers of China's dynamic air transport growth include:
- Strong economic growth (eight per cent for the next 10 years)
- Progressive market liberalisation in China
- Fast growth in household spending on transport
- Addressable market for air traffic to reach 650 million consumers by 2015
- Large Chinese outbound tourism wave coming
- China becoming a major tourism/business destination
- More export of high value manufacturing goods and emergence of a domestic express market

The concentration of the population, the very dynamic and large Chinese cities, combined with the vast potential outbound tourism will translate in a substantial requirement for large aircraft such as the A380, especially, in the next decade. More than 110 A380 passenger aircraft will be required to serve not only long haul international routes but also intra-Asia and domestic China trunk routes.

Meanwhile, Airbus anticipates the opening of more than 110 new long haul routes to/from China to be served by small and intermediate twin-aisle aircraft such as the A350.

The domestic Chinese Mainland traffic will continue to grow at a fast pace, with an anticipated 11.3 per cent increase per year, requiring some 1,200 single aisle aircraft over the next 10 years and as many as 1,900 over the next 20 years.

The delivery of Airbus aircraft to the Chinese Mainland has enjoyed a sustained growth. In 2005, 56 new Airbus aircraft were delivered to airlines on the Chinese Mainland, accounting for 15 per cent of Airbus deliveries worldwide. In 2006, Airbus achieved further growth with a total delivery of 76 new aircraft, accounting for 18 per cent of Airbus deliveries worldwide.

## CHINA SONANGOL ORDERS THREE AIRBUS CORPORATE JETLINERS

5 February 2007

China Sonangol has disclosed a previously placed firm order for three Airbus Corporate Jetliners (ACJs), becoming the first named Chinese customer for the aircraft. The announcement highlights the growth of corporate jets in China, as large companies increasingly recognise their benefits as business tools for executives.

China Sonangol's first Airbus ACJ is currently undergoing cabin outfitting at Associated Air Center in Dallas, Texas, and will be delivered soon. It is powered by CFM International CFM56-5 engines.

Asian sales of the Airbus ACJ Family, which includes the smaller A318 Elite and larger A320 Prestige, run into double-digit figures.

Worldwide sales of the Airbus ACJ Family now total around 80, with the aircraft having been chosen by customers on every continent. Airbus ACJs have led the large top-of-the-line corporate jet market for the last three years, and won almost two-thirds of sales in 2006.

Airbus' ACJ Family brings a new dimension to business jet travel, giving executives and VIPs the widest cabin of any corporate jet. It offers twice the cabin-width and three times the cabin volume of older top-of-the-line business jets, as well as the most modern design of any corporate jet, while remaining as affordable, delivering unmatched quality and value.

Customers have full cabin flexibility with their Airbus ACJ cabin, and can chose anything from a corporate shuttle with seating for almost 50 passengers, through a mixed arrangement with areas for VIP travellers and support staff, up to a full VIP configuration with different zones - including lounges, dining rooms, private offices, bedrooms, bathrooms and showers.

"We give customers the space in which to realise their dreams," says Airbus Chief Operating Officer customers John Leahy. "Of course our modern Airbus ACJ design also confers the intercontinental range that you would expect in a top-of-the-line corporate jet, remarkable reliability and the full backing of Airbus' worldwide product support network."

Benefits of the modern Airbus ACJ Family include advanced fuel-saving aerodynamic design with wingtip fences as standard, extensive use of weight-saving carbonfibre structure, and modern systems that encompass a cost-saving common cockpit, fly-by-wire controls and centralised maintenance.

The Airbus ACJ is derived from the Airbus A320 Family, the world's best-selling airliner range, which has more than 5,000 orders and some 240 customers and operators to its credit.

#### SHANGHAI AIRLINES BECOMES NEW AIRBUS CUSTOMER BY ORDERING FIVE A321s

31 October 2006

Shanghai Airlines has signed a contract with Airbus for the purchase of five A321s at the Zhuhai Airshow, making it a new Airbus customer and positioning the airline to become the 11<sup>th</sup> A320 family operator on the Chinese Mainland.

The five A321s are part of the 150 A320 family aircraft ordered under the General Terms Agreement (GTA) signed between Airbus and China Aviation Supplies Import and Export Group Corporation (CASGC) in December 2005, when the Chinese Premier Wen Jiabao visited France.

"The introduction of Airbus A320 Family aircraft is to meet our strategic development plan," said Mr. Zhou Chi, President of Shanghai Airlines. "After twenty years of rapid and steady development, Shanghai Airlines is entering into the new phase of expanding internationally and comprehensively. By selecting the world leading A320 Family aircraft,



we can increase our operational flexibility with an expanded and diversified fleet to meet different market demands.”

Founded in 1985, Shanghai Airlines currently operates a fleet of 48 aircraft with a network connecting over 60 major cities in China and abroad.

“I am delighted to welcome Shanghai Airlines as a new Airbus customer. This decision once more reflects the value of the leading Airbus Single Aisle Family on the market, be it in China or in the rest of the world, and the high level of commitments ensures work for many years at high production rates,” said Airbus President and Chief Executive Officer, and EADS co-CEO, Louis Gallois.

With almost 50 million flight hours to date, more than 4,400 aircraft ordered and 2,800 delivered to some 180 operators, the A318, A319, A320 and A321 make up the world's best-selling single-aisle aircraft family. Designed to optimise revenue through cabin adaptability and passenger comfort and featuring the most modern and complete fly-by-wire technology available on any single-aisle aircraft, they ensure savings in every element of direct operating cost and provide operators with the highest degree of operational commonality and economy for aircraft in the 100-220 seat category. Production rates are being increased to reach 34 per month in 2007, not including the aircraft to be assembled in China, and in view of the very high backlog of around 1,600 aircraft will continue to run at high levels for the next four years at least.

By the end of September 2006, 10 operators on the Chinese Mainland operated 249 A320 family aircraft, accounting for over 80% of the total Airbus in-service fleet in China.

#### AIRBUS SIGNS FRAMEWORK AGREEMENT WITH CHINESE CONSORTIUM ON A320 FINAL ASSEMBLY LINE IN CHINA

26 October 2006

Airbus has signed today the Framework Agreement with a Chinese Consortium comprising Tianjin Free Trade Zone (TJFTZ), China Aviation Industry Corporation I (AVIC I) and China Aviation Industry Corporation II (AVIC II) in Beijing on the establishment of an A320 Family Final Assembly Line in China. This follows the study initiated in late 2005 and is part of Airbus' commitment to increasing its industrial cooperation with China.

Chinese Consortium Representative Feng Zhijiang and Airbus President and Chief Executive Officer, and EADS co-CEO Louis Gallois, signed the Agreement at the Great Hall of People in the presence of the Chinese President Hu Jintao and the visiting French President Jacques Chirac.

Under the Framework Agreement, Airbus will set up an A320 Family Final Assembly Line in Tianjin, and the corresponding joint venture is to be created between a Chinese Consortium led by TJFTZ and Airbus. The agreement, which covers all major issues related with the establishment of the Final assembly Line in China, is subject to formal approval by the Chinese government. Aircraft assembly in China is planned to begin in early 2009, with the aim of ramping up production to reach four aircraft per month by 2011.

“We are both proud and delighted with this outstanding development in the field of industrial cooperation with China. While the aircraft sections will continue to be produced in Europe, the establishment of such an assembly line, which will deliver aircraft to the same standards as those produced in Europe, is beneficial to both China and Europe. It can only further strengthen our industrial and business relationship. We look forward to the day when we can deliver the first aircraft assembled in China to this fast growing and dynamic market,” said Louis Gallois.

Airbus is committed to forging a long-term strategic partnership with China. Six Chinese manufacturers are already involved in manufacturing parts, such as wing components, emergency-exit doors and maintenance tools for Airbus aircraft. In July 2005, Airbus (Beijing) Engineering Centre was formally inaugurated in Beijing. On-site customer services and technical support teams are now available in 20 Chinese major

cities. A world-class training and support centre, which represents a US\$80 million investment by Airbus, is fully operational in Beijing.

#### AIRBUS SIGNED AGREEMENT WITH CASGC FOR LARGEST SINGLE TRANSACTION EVER - 170 AIRCRAFT

26 October 2006

China Aviation Supplies Import and Export Group Corporation (CASGC) signed a General Terms Agreement (GTA) for the purchase of 150 A320 Family aircraft and a Letter of Intent (LOI) for 20 A350XWB aircraft with Airbus in Beijing.

CASGC President Li Hai and Airbus President and Chief Executive Officer, and EADS co-CEO, Louis Gallois signed the agreements at the Great Hall of People in the presence of the Chinese President Hu Jintao and the visiting French President Jacques Chirac.

The General Terms Agreement for the firm purchase of 150 A320 Family aircraft together with the Letter of Intent for 20 A350XWBs represents the largest single transaction ever performed by Airbus in China.

"These commitments are new milestone achievements in the history of the close cooperation between our two companies. We are pleased to develop our cooperation with more A320 Family aircraft and we are happy to introduce the Airbus A350XWB Family aircraft, which represents the 21<sup>st</sup> Century solution for an aircraft in this size category, into China. We believe that more Chinese airlines will select this new generation aircraft for daily operation in the future," said Li Hai at the ceremony.

"We are impressed by the fast and sustained growth of the Chinese civil aviation industry and are extremely proud to be able to contribute to its development with our products. The fact that more and more Chinese airlines are turning to Airbus aircraft for their daily operations is a clear demonstration that we have the right products to be part of it. We look forward to further expanding our cooperation with CASGC and the Chinese airlines," said Louis Gallois.

The A350XWB is Airbus' response to market demand for a medium capacity long range wide-body family available from 2012, it will have an entirely new, uncompromised, 21<sup>st</sup> Century design with a new and wider fuselage for extra space and passenger comfort. It will also be extra efficient, extra environmentally friendly and quiet. Conceived from the outset to form a complete family of airliners, three basic passenger versions are being offered. They include the 800, 900 and the 1000 accommodating between 250 and 375 passengers in a range of different configurations to suite airline needs. An ultra long-range version, the 900R, and a freighter 900F complete the family.

With almost 50 million flight hours to date, more than 4,400 aircraft ordered and 2,800 delivered to some 180 operators, the A318, A319, A320 and A321 make up the worlds best-selling single aisle family.

Airbus entered China in 1985 with its first delivery of an A310 to China Eastern Airlines. Today, the number of in-service Airbus aircraft on the Chinese Mainland has grown to more than 300 from just 29 in 1995. The number of Airbus operators has increased to ten.

#### NEW CHINESE PRIVATE AIRLINE, JUNEYAO AIRLINES RECEIVES ITS FIRST A319

13 September 2006

Juneyao Airlines, a new Chinese private airline headquartered in Shanghai, received its first A319 on 13 September 2006 at Shanghai Hongqiao International Airport, becoming a new Airbus operator on the Chinese Mainland. The new leased A319 is configured in a two-class layout with eight business class seats, providing comfortable seating for a total of 128 passengers. The aircraft is to make its maiden commercial flight in the coming weeks.

"We are very pleased to welcome the first Airbus A319 joining our fleet. It marks that co-operation between Airbus and our company has entered into a new phase," said Wang Junjin, President of Juneyao Group. "After making extensive comparison between various aircraft models, we finally selected the Airbus A320 family to build our commercial fleet. We believe that the A320 family aircraft will help us offer unmatched comfort to passengers. Moreover, the low operating costs and unique family commonality of the aircraft will ensure a smooth take-off of our business."

Approved by the General Administration of the Civil Aviation of China (CAAC) in June 2005, Juneyao Airlines started business in Shanghai with registered capital of 150 million Yuan. In March 2006, Juneyao Airlines signed lease contracts with GE Commercial Aviation Service (GECAS) for eight A320 family aircraft, including two A319's and six A320's. By January 2007, Juneyao Airlines will receive two more A320 family aircraft to serve on several domestic trunk routes connecting Shanghai, Zhengzhou, Taiyuan, Changsha and Sanya.

"We are very proud to welcome Juneyao Airlines as a new Airbus operator in China," said Airbus' President and CEO Christian Streiff. "Selection of the A320 family aircraft, once again, underscores that it is the aircraft of choice for new airlines. We are very glad to see that more private airlines in China have chosen A320 family to kick off their business in recent years. We hope to further develop our co-operation with Juneyao Airlines in the future."

With 40 million flight hours to date, more than 4300 aircraft ordered and over 2,700 aircraft delivered, the A318, A319, A320 and A321 make up the world's best-selling single-aisle aircraft family with more than 170 operators worldwide.

The A319, first delivered in April 1996, continues to prove its versatility, enabling carriers to benefit from its range options and seat layout flexibility. In addition to the standard 124-seat model, which has a range of up to 6,800 km/3,700 nm, Airbus offers an option allowing increased seating efficiency with typically up to 156 seats.

#### GUANGZHOU AIRCRAFT MAINTENANCE ENGINEERING COMPANY LIMITED (GAMECO) OF CHINA JOINS AIRBUS MRO NETWORK

26 July 2006

Established in 1989, GAMECO, a joint venture between China Southern Airlines Co. Ltd. and Hutchison Whampoa from Hong Kong, has joined the Airbus MRO Network as 15th member. With its large maintenance facilities at Guangzhou Baiyun International Airport, GAMECO provides aircraft maintenance, component repair and painting facilities for its Chinese and International customers.

The Airbus MRO Network is designed to provide customers with a worldwide choice of competitive, quality maintenance services from MRO providers with Airbus aircraft experience. Since its launch in March 2005, Airbus has worked with the MRO Network members to establish performance benchmarks for maintenance efficiency and customer satisfaction. MRO improvement plans based on the performance benchmarking are currently underway which will result in enhanced services for Airbus customers.

"By becoming a member of the Airbus MRO Network, this demonstrates our experience and quality in maintaining Airbus aircraft and we are looking forward to participating in all of the MRO Network processes, which will assist us to improve and develop new services for our Airbus customers" stated Mr Thomas Tsiang, General manager of GAMECO.

Patrick Gavin, Executive Vice President, Airbus Customer Services, said: "It gives us great pleasure to welcome GAMECO into the MRO Network and with their knowledge of both the Chinese and International markets, GAMECO strengthens and enhances our portfolio of MRO members."

The Airbus MRO Network includes the following 15 members:

- Air Canada Technical Services
- Air France Industries
- Air New Zealand Engineering Services
- EADS SOGERMA Services
- Guangzhou Aircraft Maintenance Engineering Company
- Hong Kong Aircraft Engineering Company
- Iberia Maintenance
- Lufthansa Technik AG
- Sabena Technics
- SIA Engineering Company
- Singapore Technologies Aerospace
- SR Technics Switzerland
- TACA Aeroman
- TAP Maintenance & Engineering
- TIMCO Aviation Services

A leading aircraft manufacturer with the most modern and comprehensive product line on the market, Airbus is a global company with design and manufacturing facilities in France, Germany, the UK, and Spain as well as subsidiaries in the U.S, China and Japan. Headquartered in Toulouse, France, Airbus is an EADS joint Company with BAE Systems.

#### AIRBUS CHINESE A320 FINAL ASSEMBLY LINE TO BE LOCATED IN TIANJIN 8 June 2006

The National Development & Reform Commission of China (NDRC) and Airbus announced today that the site for a potential A320 family final assembly line (FAL) in China is Tianjin Binhai New Coastal District, a state level new development zone. This follows the signing of the memorandum of understanding between NDRC and Airbus in December 2005 to further upgrade cooperation between Airbus and China in the field of civil aviation.

Out of 4 cities considered for the establishment of the FAL, Tianjin has been selected after a thorough evaluation including multiple criteria such as, facility site and land, sea port proximity, airport characteristics, labour and industrial capability.

The site selection is an important step, which enables the on-going feasibility study to continue, with an objective to reach a final joint decision on the setting up of the FAL by end September 2006. Subject to such decision, the shared target is to commence FAL operations in 2008 with a production ramp up to four aircraft per month by 2011.

Industrial cooperation between Airbus and China has been steadily increasing in recent years. In addition to the FAL feasibility study, a number of other initiatives are already underway. They include targets for increased parts procurement, as well as the setting up of the Airbus (Beijing) Engineering Centre (A(B)EC) which was inaugurated in July 2005 with a target of 200 Chinese engineers by 2008. Furthermore, a participation of up to five per cent of airframe content in the A350 programme is being proposed to the Chinese aviation industry, with specific design of the parts to be manufactured in China being carried out at A(B)EC.

#### AIR CHINA RECEIVED ITS FIRST A330-200 8 June 2006

Today, Air China Southwest Branch took delivery of Air China's first A330-200, becoming a new operator of the aircraft type on the Chinese Mainland. Configured in a two-class layout, the aircraft provides comfortable space for 283 passengers, including 12 business class seats and 271 economy class seats. The official delivery ceremony was held at Chengdu Shuangliu International Airport in Sichuan Province, where Air China Southwest Branch is located. The first A330-200 in Air China's livery flew over from

Toulouse, France on June 7 and arrived at Chengdu today. It will be put into service on Air China's high-altitude routes connecting Chengdu, Lhasa, Lingzhi and Jiuzhaigou.

"We are delighted to welcome the first A330-200 to our fleet. It will further consolidate our leading position in the high-altitude route operation in China's domestic market," said Mr. Tan Zhihong, President of Air China Southwest Branch. "The A330-200 will also effectively increase our operating flexibility whilst providing unmatched comfort for our passengers." Air China Southwest Branch was founded in October 2002. It currently operates an Airbus fleet of six A340-300s and 11 A319s, connecting over 80 domestic and international destination cities.

Airbus President and CEO Gustav Humbert said, "We are proud to see that Air China has once again selected our A330 family of aircraft to further expand its fleet. We are grateful for the confidence that Air China has shown in Airbus and our products over the years since we delivered the first A340-300 to Air China in 1997 and we look forward to forging an even closer cooperation with Air China in the future."

Derived from the longer fuselage A330-300 with a range of up to 12,500 km/6,750 nm, the A330-200 entered into service in 1998. Comfortably carrying passengers in a typical three-class arrangement, it features higher payloads and improved engines.

To date over 700 A330/A340 Family aircraft are in operation with almost 80 operators worldwide and over 300 aircraft in backlog. By the end of April 2006, the three major airline groups on the Chinese Mainland operate 26 A330/A340 family aircraft with a further 45 still on order.

A leading aircraft manufacturer with the most modern and comprehensive product line on the market, Airbus is a global company with design and manufacturing facilities in France, Germany, the UK, and Spain as well as subsidiaries in the U.S., China, Japan and in the Middle East. Headquartered in Toulouse, France, Airbus is an EADS joint company with BAE Systems.

#### CHINA SOUTHERN PREPARES FOR THE A380

23 May 2006

Airbus held a technical seminar in Guangzhou, China for engineers and officials from China Southern Airlines, Guangzhou Aircraft Maintenance and Engineering (GAMECO) and the Chinese Civil Aviation Authority, CAAC, to prepare the entry into service of the A380 in China. China Southern will be the first A380 customer in China. Its first two A380s are scheduled for delivery at the end of 2007 and in early 2008 in time for the Summer Olympic Games in Beijing.

#### EAST STAR RECEIVES ITS FIRST AIRBUS A319

22 May 2006

The first Airbus A319 leased by East Star Airlines, a new Chinese airline, took to the sky successfully for its premier revenue flight from Wuhan to Shenzhen, making East Star Airlines a new Airbus A319 operator on the Chinese Mainland.

Configured in a two-class layout, the aircraft provides spacious capacity for 128 passengers. East Star plans to put this A319 into service on its newly opened trunk routes connecting Wuhan, Shenzhen, Haikou and Guangzhou.

"We are very proud to select the A319 for our first revenue flight and become the first private airline in Central China that operates the A319," said Lan Shili, President of East Star Group, "its optimised cabin cross-section, the widest single-aisle fuselage on the market, sets a new standard for passenger comfort and its unmatched low operating costs will also help ensure a smooth kick-off of our business."

Headquartered in Wuhan, the capital city of Hubei Province, East Star Airlines, with registered capital of RMB 80 million, received approval for operation from the General

Administration of Civil Aviation of China (CAAC) on June 10, 2005. On November 2005, East Star Airlines signed a MOU with Airbus for the purchase of ten A320 family aircraft, plus a firm lease deal with GE Commercial Aviation Service (GECAS) for the lease of a further ten A320 family aircraft.

Airbus President & CEO Gustav Humbert said: "We are very pleased to welcome East Star as a new A319 operator in China. The A320 family is the undoubted reference for East Star and other new airlines in the Chinese market. We will provide full technical support to East Star and assist in further expanding its route network. We look forward to providing more new modern aircraft to the airline to help it achieve greater success in the future."

The A319, known by Chinese customers as the "Mountain Goat", performs excellently to high altitude airports. The first A319 made a successful demonstration flight to Tibet International Airport in 2001. Currently there are more than 70 A319s in service in the fleet on the Chinese Mainland.

The A320 Family, recognized as the benchmark single-aisle aircraft family, includes the A318, the A319, the A320 and the A321 versions and features the newest and most modern design of any single-aisle airliner, with a passenger-pleasing cabin. By the end of April 2006, More than 4,300 Airbus A320 family aircraft have been ordered worldwide, making it the most successful and the best-selling aircraft. More than 2,700 A320 family aircraft have been delivered to over 170 operators worldwide so far.

A leading aircraft manufacturer with the most modern and comprehensive product line on the market, Airbus is a global company with design and manufacturing facilities in France, Germany, the UK, and Spain as well as subsidiaries in the U.S., China, Japan and in the Middle East. Headquartered in Toulouse, France, Airbus is an EADS joint company with BAE Systems.

#### CASGC/AIRBUS TRAINING AND SUPPORT CENTRE CONTRACT RENEWED FOR TWO MORE DECADES

27 April 2006

China Aviation Suppliers Import and Export Group Corporation (CASGC) and Airbus extended their cooperation agreement for the joint venture CASC/Airbus Training and Support Centre for two more decades. The companies announced this at a ceremony held today in Beijing celebrating the 10th anniversary of the Centre. The Centre is part of Airbus' US\$80 million investment in China.

The CASC/Airbus Training & Support Centre is the first and most modern combined training and customer support facility in China, comprising two separate buildings for training, spare parts servicing and offices, with a total surface area of 13,000 square meters. Since it received the first group of pilot trainees in October 1997, the training centre has provided training for people from more than 30 airlines worldwide. Some 12,000 registered trainees have been trained, including over 10,000 Chinese pilots, maintenance engineers and cabin attendants.

"The CASC/Airbus Training & Support Centre has set an excellent example of Sino-European cooperation in the field of civil aviation," said Yang Guoqing, Vice Minister of General Administration of the Civil Aviation of China (CAAC), on the occasion. "It has played a key role in helping China train a large number of pilots, maintenance engineers and cabin attendants during the past 10 years, which has appropriately matched the increasingly growing demand of the Chinese airlines for more aircrew and maintenance staff."

"Airbus is committed to the development of China's civil aviation industry. In China, Airbus not only sells aircraft, but also provides quality customer services on a daily basis," said Airbus President and CEO Gustav Humbert. "The Centre is part of Airbus' US\$80 million investment in China and the renewal of the contract with CASGC will further enhance our close relationship."

The 8,200-square-metre training centre is currently equipped with two full flight simulators, one for the single-aisle A320 family and the other for the long range A330/A340. Each simulator is able to provide 5,000 training hours per year for crew transition and recurrent training as well as training for maintenance engineers. The support centre has a floor space of 5,000 square meters stocking some 21,000 part numbers with a total value of US\$22 million.

CASGC President Li Hai said, "We are delighted to renew the contract for the cooperation on the Training and Support Centre with Airbus for two more decades after ten years of close cooperation. CASGC and Airbus have decided to further expand the Training and Support Centre with the aim of providing better and timely services to Chinese customers in the future. The renewal of the contract fully demonstrates our strong confidence in continuing our cooperation with Airbus to cope with the dynamic Chinese civil aviation market."

CASGC is a comprehensive service provider for aviation industry with key business in the import and export of civil aviation products in China. The business range of CASGC covers the import & export, leasing, maintenance and consignment of aircraft, engines, aviation parts, equipment and specialty vehicles etc. Since 1980, it has imported over 800 aircraft for the Chinese airlines.

By the end of March 2006, 264 Airbus aircraft have been put into service on the Chinese Mainland, accounting for 32% of market share. Airbus expects to deliver some 80 new aircraft to China this year, a 20% increase over that of 2005. A leading aircraft manufacturer with the most modern and comprehensive product line on the market, Airbus is a global company with design and manufacturing facilities in France, Germany, the UK, and Spain as well as subsidiaries in the U.S., China, Japan and in the Middle East.

#### UK'S PRINCE ANDREW VISITS A320 WING WORKSHOP IN X'IAN, CHINA

3 April 2006

The Duke of York, HRH Prince Andrew, UK's special representative for international trade and investment, visited the A320 wing cooperation programme workshop of XAC in Yanliang Aviation Industry Zone, ShaanXi Province. The three-phase programme, which started in 2000 is an industrial cooperation between Airbus and XAC and aims at enabling the Chinese manufacturer to produce the entire wing structure for the A320 Family by 2007.

#### AIRBUS MRO NETWORK WELCOMES HONG KONG AIRCRAFT ENGINEERING COMPANY LTD (HAECO) AS LATEST MEMBER

23 February 2006

One of Asia's longest serving aircraft Maintenance, Repair and Overhaul (MRO) centres, Hong Kong Aircraft Engineering Company Ltd. (HAECO), signed an agreement with Airbus to become a new member of the Airbus MRO Network. Established in 1950, HAECO has been supplying a range of aircraft services in Hong Kong and more recently through its subsidiary Taikoo (Xiamen) Aircraft Engineering Co. Ltd. (TAECO) at Xiamen in China.

The Airbus MRO Network ensures a worldwide availability of competitive, quality maintenance services from MRO providers with Airbus aircraft experience. Since its launch in March 2005, Airbus has completed the first cycle of performance benchmarks on maintenance efficiency and customer satisfaction with the members. Currently the first round of management review meetings with the MRO providers is being conducted, which will result in specific improvement actions taken by the members.

"Joining the MRO Network will provide us with a great opportunity to work closer with Airbus and participate in their initiatives, which will benefit both HAECO and the services we provide to our customers and other Airbus operators" says PK Chan, Deputy Chairman and Chief Executive Officer of HAECO.

Patrick Gavin, Executive Vice President, Airbus Customer Services, said, "We are very excited that HAECO has joined the Network. With their wealth of experience and excellent reputation, HAECO will make a welcome addition to our Network of first class MRO providers."

The Airbus MRO Network includes the following 13 members:

- Air Canada Technical Services
- Air France Industries
- Air New Zealand Engineering Services
- EADS Sogerma Services
- Hong Kong Aircraft Engineering Company
- Iberia Maintenance
- Sabena Technics
- SIA Engineering Company
- Singapore Technologies Aerospace
- SR Technics Switzerland
- TACA Aeroman
- TAP Maintenance & Engineering
- TIMCO Aviation Services

A leading aircraft manufacturer with the most modern and comprehensive product line on the market, Airbus is a global company with design and manufacturing facilities in France, Germany, the UK, and Spain as well as subsidiaries in the U.S, China and Japan. Headquartered in Toulouse, France, Airbus is an EADS joint Company with BAE Systems.

#### SHENZHEN AIRLINES RECEIVES ITS FIRST TWO A319s

17 February 2006

Shenzhen Airlines has taken delivery of its first two Airbus A319s today, becoming a new operator of this aircraft type in China. Powered by CFM International's CFM56-5B engines, the aircraft will be configured in a two-class layout, which will provide spacious space for 128 passengers.

The first two A319s with Shenzhen Airlines' livery departed Hamburg, Germany on February 16 and landed successfully at Shenzhen Bao'an International Airport at 2 p.m. on February 17. They will be put into service on the routes linking Shenzhen and other major cities in China, including some new and high-altitude routes.

"Airbus' A320 Family features the newest and most modern design of any single-aisle airliner," said Shenzhen Airlines Chairman Zhao Xiang, "we received our first Airbus aircraft, an Airbus A320, in May 2005 and today we are delighted to become a new operator of the Airbus A319 in China. Selection of the new A319 is part of our strategy for the further expansion of our fleet and the extension of our air networks. The new A319 aircraft will also help us open new and high-altitude routes in the future."

Founded in 1992, Shenzhen Airlines operates out of the Bao'an International Airport in the city of Shenzhen, with air links to more than 90 domestic and international destinations.

"We are delighted to see two A319s join the A320 as part of fleet of Shenzhen Airlines," said Gustav Humbert, Airbus President and CEO, "and we look forward to developing an even closer relationship with the airline as the size of the A320 fleet of Shenzhen Airlines continues to grow in the future. We wish Shenzhen Airlines great success with these two A319s in service."

Comprising the A318, the A319, the A320 and the A321, the A320 Family has become the most successful and best-selling aircraft family in the world. By the end of 2005, firm orders for the Airbus A320 Family stood at some 4,300 aircraft, more than 2,600 of which have been delivered.



The A319, first delivered in April 1996, continues to prove its versatility, enabling carriers to benefit from its range options and seat layout flexibility. In addition to the standard 124-seat model, which has a range of up to 6,800 km/3,700 nm, Airbus offers an option, allowing increased seating efficiency with typically up to 156 seats.

The first A319 on the Chinese Mainland made a successful demonstration flight over Tibet International Airport in 2001. Since then, it has been widely selected by the Chinese airlines and been regarded as "the Mountain Goat", which has been used to serve mainly on the high-altitude routes. Currently, six Chinese Mainland airlines operate nearly 70 A319s, accounting for more than one fourth of all 247 in-service Airbus aircraft on the Chinese Mainland.

With an annual turnover of 22.3 billion in 2005, Airbus is a global company with design and manufacturing facilities in France, Germany, the UK, and Spain, as well as subsidiaries in the U.S., China, Japan and Middle East.

Headquartered in Toulouse, France, Airbus is a joint EADS Company with BAE Systems.

#### AIRBUS AT ASIAN AEROSPACE '06; A380 TO BE DISPLAYED AT THE SHOW FOR THE FIRST TIME

26 January 2006

Airbus comes to Asian Aerospace '06 with a positive outlook after achieving record orders, deliveries and profitability in 2005. During the year, Airbus received 1,111 gross orders, delivered 378 aircraft and recorded a profitability margin above its target of 10 per cent. The year also saw the industrial launch of the new A350 and the first flight of the A380.

Airbus orders from the Asia - Pacific region in 2005 accounted for over 45 per cent of the global total, with more than 500 firm orders from 13 customers. These included highly significant orders for the A380 from China Southern and Kingfisher in India, A330s from Air China & China Southern, and almost 270 A320 Family orders from low-cost carriers including Air Asia, Air Deccan, IndiGo and Tiger Airways. Total orders from the region stand at almost 1,500, with more than 800 aircraft of all types now in service with 55 airline operators across the region.

Airbus will underscore its strong presence in the Asia-Pacific marketplace with major participation at Asian Aerospace, to be held at the Changi Exhibition Centre in Singapore, 21st-26th February. An A380 will be exhibited at the show for the first time and also is to take part in the daily flying display. The Airbus exhibit stand, located in Hall A (Booth 701), will include scale models of the full product line, with emphasis on the A380 and the newest Airbus family member - the A350, whose growing list of airline customers includes Bangkok Airways.

#### CHINA EASTERN AIRLINES RECEIVES ITS FIRST A330-300 AIRCRAFT

25 January 2006

China Eastern Airlines has taken delivery of its first A330-300 thus becoming the launch operator of the aircraft on the Chinese Mainland. The aircraft is powered by Rolls Royce Trent 700 engines and, will seat 300 passengers in a two-class layout with 38 seats in business class.

"These new A330-300s will be used to replace the A300-600 aircraft in our current fleet," said Luo Chaogeng, President of China Eastern Airlines Company Ltd. "We will put the A330-300 mainly into operation on medium and long range routes, especially on new international routes in Asia. Introduction of the new aircraft will speed up the modernisation of our Airbus fleet and help us open new routes on the international market. The A330-300 will offer our passengers a unique and comfortable in-flight experience. We will also benefit

from A330's commonality with other members of the Airbus Family by reducing training and maintenance costs."

"The introduction of the first A330-300 into China marks a new achievement in our 20 years of close cooperation with China Eastern Airlines," said Gustav Humbert, Airbus President and Chief Executive Officer. "We are pleased to see that China Eastern Airlines, our largest operator in China and the whole Asia-Pacific, has continued to develop and enlarge its Airbus fleet, which currently comprises the most complete range of Airbus aircraft families in China."

China Eastern Airlines, Airbus' first Chinese customer in China, currently operates an Airbus fleet of over 100 Airbus aircraft, including 75 A320 family aircraft, 18 A300/310 family aircraft and 10 A340 family aircraft. Headquartered in Shanghai, China Eastern Airlines has set up an extensive network connecting Asia, Europe, Australia and America with air links to 450 domestic and international destinations.

The A330-300 entered into service at the end of 1993 and has a range of up to 10,500 km/5,650 nm, giving it excellent flexibility for a wide range of route structures. Benefiting from a very low operating cost per seat, the A330-300 also offers a cabin that optimises both flexibility and comfort. With generous, truly wide-body fuselages, they are able to accommodate seat and class configurations to suit every operator's requirements.

The A330 Family is the unquestioned leader in its category with a commanding market share and a continually expanding operator base. The longest-range twin-engine Airbus aircraft in service, A330 airliners have flown over five million operational hours with more than 70 customers and operators, a fact that underlines their strong market endorsement.

By the end of 2005, four Chinese Airlines on the Chinese Mainland, Hong Kong and Macao have operated 43 A330 family aircraft with a further 56 still on order.

#### CASGC SIGNS AGREEMENT FOR LARGEST EVER CHINESE ORDER WITH PURCHASE OF 150 A320 FAMILY AIRCRAFT

5 December 2005

Airbus is setting a new and significant record in its 20 years of close cooperation with the Chinese civil aviation industry by signing a General Terms Agreement (GTA) for the purchase of 150 A320 family aircraft with China Aviation Supplies Import and Export Group (CASGC) during the visit of Chinese Premier Wen Jiabao to France.

CASGC President Li Hai and Airbus President and CEO Gustav Humbert signed the GTA in Paris in the presence of Chinese Premier Wen Jiabao and French Prime Minister Dominique de Villepin. With a total value close to US\$ 10 billion, the order for 150 A320 family aircraft comprises A319s, A320s and A321s, marking the largest single order that Airbus has ever received since it entered the Chinese market two decades ago. The 150 aircraft will be delivered to six Chinese airlines, including Air China, China Eastern Airlines, China Southern Airlines, Sichuan Airlines, Shenzhen Airlines, and Hainan Airlines.

"Since it was first introduced into the Chinese market in 1995, the A320 family aircraft has been put in-service by 10 Chinese operators with a total of 216 aircraft, accounting for 2/3 of all in-service Airbus aircraft, or nearly 1/4 of the total aircraft in operation in China. The demand for this modern and cost-saving aircraft family from Chinese airlines has been rapidly increasing in recent years," said CASGC President Li Hai. "We are very pleased to sign the record-breaking GTA with Airbus today and to be a part of this historic order for China. We look forward to an even closer relationship with Airbus and further improving our service to Airbus' Chinese customers and operators."

"We are delighted and proud to see such great business success in China, which not only indicates the strong demand and the rapid growth of this dynamic market, but also shows a new and significant vote of confidence in our best-selling aircraft family from our Chinese customers," said Airbus President and CEO Gustav Humbert. "Today's GTA is no

doubt the best way to celebrate our 20-year-long close cooperation with China. We will continue to provide the Chinese customers and airlines with the best family of aircraft and full technical support to ensure smooth and profitable operation of all Airbus fleets in China, while also studying possibilities to continue upgrading the cooperation to new levels between the Chinese civil aviation industry and Airbus."

#### AIRBUS TO EXTEND INDUSTRIAL COOPERATION WITH CHINA

4 December 2005

The National Development & Reform Commission of China (NDRC) and Airbus have signed a Memorandum of Understanding about the cooperation between the Chinese civil aviation industry and the European manufacturer. The MOU sets the frame for a further upgrade of the cooperation between both parties. It also describes the process to evaluate the fields of enhanced cooperation, including the possibility to establish a Final Assembly Line for single aisle aircraft in China.

Airbus' industrial cooperation with China dates back to 1985 when it signed a first agreement with Xian Aircraft Company to produce and assemble access doors for Airbus A300/A310 wide-body aircraft in China. Today, five Chinese companies from AVIC I and AVIC II are involved in producing parts for Airbus aircraft: Chengdu Aircraft Corporation, Shenyang Aircraft Corporation, Xian Aircraft Company, Hong Yuan Aviation Forging & Casting, and HAFEI Aviation Industry Co. Ltd.

In industrial cooperation with China, Airbus is committed to further increase procurement volumes to reach US\$ 60 million per annum by 2007, and US\$ 120 million by 2010.

With regards to research and development, Airbus formally inaugurated the Airbus (Beijing) Engineering Centre in July this year and has so far recruited 54 Chinese engineers, and this will grow to 200 engineers by 2008.

Airbus has also offered the Chinese aviation industry a participation in the A350 programme of up to five percent of the airframe. This participation will include both design and manufacturing. The design will be performed by the Airbus Engineering Centre in China, and the manufacturing of the corresponding parts and components will be under the responsibility of the Chinese aviation industry, mainly AVIC I and AVIC II.

"We are very pleased to enter into discussions about possible next steps of cooperation with our Chinese industrial partners who over the years have developed excellent industrial competences on which we can now draw", said Gustav Humbert, Airbus President and CEO on the occasion of the MOU signature.

#### NEW CHINESE AIRLINE EAST STAR TO INTRODUCE 20 AIRBUS A320s

28 November 2005

East Star Airlines, a new Chinese airline based in Wuhan, today signed a Letter of Intent with Airbus for the purchase of 10 A320s plus a firm lease deal with GE Commercial Aviation Service (GECAS) for another 10 A320s, becoming a new Airbus customer in China. Deliveries of the leased A320s to East Star will start from the second quarter of 2006. The aircraft will accommodate 128 passengers in a comfortable two-class configuration.

East Star, the first private airline in the central part of China, received approval for operation from the Civil Aviation Administration of China (CAAC) on June 10, 2005. Headquartered in Wuhan, the Capital city of Hubei Province, East Star Airlines plans to start operations in May 2006 with a network connecting more than 10 major Chinese cities, including Shenzhen, Nanjing, Xi'an, Haikou, and Hangzhou.

"The A320 family aircraft is no doubt the best choice for our new airline. Its unmatched low operating costs with the highest level of passenger comfort will help us take off smoothly and successfully," said Lan Shili, President of East Star Group. "We are very

confident that by flying the best-selling aircraft in the world, we will not only ensure a good beginning of profitable operation, but also high standards of service quality for passengers on domestic routes in China."

"It is exciting to be involved in the initial phase of development of East Star Airlines," said Mike Jones, Senior Vice President, GECAS Asia. "We will make joint efforts with Airbus to ensure East Star Airlines' maiden flight is a great success and get its business off to a good start within one year's time."

"We are delighted to welcome East Star Airlines as our new customer in China," said Gustav Humbert, Airbus President and CEO. "We feel very proud that East Star Airlines has signed a Letter of Intent for the initial commitment to purchase 10 Airbus A320 aircraft. This shows a new vote of confidence from the Chinese private airlines in our modern family of aircraft."

**AIRBUS AND AVIC 1 SIGN A PROTOCOL EXTENDING COOPERATION ON A \$500 MILLION CONTRACT FOR THE A320 FAMILY WING COOPERATION PROGRAMME**  
11 November 2005

China Aviation Industry Corporation (AVIC 1) and Airbus signed a protocol to confirm the extension of their cooperation in activities to produce A320 Family wing boxes in China. The protocol was signed today in London during Chinese President Hu Jintao's official visit to Britain.

Iain Gray, Airbus General Manager and Yang Yuzhong, Executive Vice President of AVIC 1, signed the protocol in the presence of the Chinese President Hu Jintao and British Prime Minister Tony Blair.

The protocol refers to the initial contract, with a projected total value of over US\$ 500 million, signed in Beijing earlier this year between Airbus and AVIC 1, which committed the parties to the third phase of the A320 Family Wing Cooperation Programme, comprising the production of wing boxes and now also including the management of a second tier supply chain. It represents further significant progress in Airbus' overall programme of technology transfer to the Chinese aviation industry.

"The A320 Family Wing Cooperation Programme is a key industrial cooperation programme between Airbus and AVIC 1," said Yang Yuzhong, AVIC 1 Executive Vice President. "We have successfully kicked off the third phase of the programme in April this year. With joint efforts and close cooperation of the two sides, we are very confident that we can gradually undertake the production of whole wing box packages for the A320 Family."

Iain Gray, Airbus General Manager, said: "Airbus is committed for the long term to substantially increase industrial cooperation with the Chinese aviation industry. The A320 Wing Cooperation Programme has set an excellent example of mutually beneficial cooperation between Airbus and the major Chinese manufacturers. Airbus has no comparable project with any other country. We are looking forward to extending the scope and improving the levels of cooperation with our Chinese partners."

Today, five Chinese companies are involved in producing parts for Airbus aircraft: Chengdu Aircraft Corporation, Shenyang Aircraft Corporation, Xi'an Aircraft Company, Hong Yuan Aviation Forging & Casting and HAFEI Aviation Industry Co. Ltd. In industrial cooperation with China, Airbus is not only committed to technology transfer, but also committed to further increasing procurement volume to reach US\$ 60 million per annum by 2007 and US\$120 million by 2010.

With regard to research and development, Airbus formally inaugurated Airbus (Beijing) Engineering Centre in July this year and has so far already recruited 54 Chinese engineers. Airbus is also offering the Chinese aviation industry up to five per cent of

airframe work share in the latest A350 project, which saw its industrial launch on October 6, 2005.

Today, more than 3,800 Airbus aircraft are in operation worldwide, and over half of the Airbus worldwide fleet has components produced in China.

**CHINA EASTERN AIRLINES TAKES DELIVERY OF THE 100th AIRBUS AIRCRAFT;  
CHINA EASTERN AIRLINES TAKES DELIVERY OF ITS 100th AIRBUS AIRCRAFT IN A  
CEREMONY AT SHANGHAI HONGQIAO INTERNATIONAL AIRPORT OCTOBER 27,  
MAKING IT THE FIRST CARRIER IN THE ASIA-PACIFIC REGION TO OPERATE MORE  
THAN 100 AIRBUS AIRCRAFT.**

28 October 2005

China Eastern Airlines took delivery of its 100th Airbus aircraft, an Airbus A320, becoming the first carrier to operate an Airbus fleet of more than 100 aircraft in China as well as in the whole Asia-Pacific region. The official delivery ceremony was held at Shanghai Hongqiao International Airport today.

"During the past two decades, we have enjoyed a close relationship with Airbus and benefited from Airbus' non-stop innovation in aircraft design, manufacturing and the commonality of the Airbus family of aircraft. These advantages not only help strengthen our operational efficiency but also remarkably reduce our costs in aircraft maintenance, fuel consumption and pilot training," said China Eastern Airline Chairman Li Fenghua, "Today's 100th Airbus aircraft delivery opens a new phase in the mutually beneficial cooperation between China Eastern Airlines and Airbus."

"We are very proud and delighted to deliver the 100th Airbus aircraft to China Eastern Airlines, which sets a new significant milestone in the two-decade long close cooperation between our two companies," said Gustav Humbert, Airbus President and Chief Executive Officer at the delivery ceremony, "We admire the pioneering spirit of China Eastern Airlines and will continue to provide the most modern aircraft and the best technical support to the airline to ensure the rapid expansion of its business."

"Next year we will deliver the first A330 aircraft to China Eastern Airlines, which will help further increase its operational flexibility, especially on international and regional long-haul routes," added Gustav Humbert.

China Eastern Airlines took delivery of its first Airbus, an A310, in June 1985, marking the beginning of Airbus' entry into the Chinese market. By the end of August 2005, China Eastern Airlines had built up the largest Airbus fleet in China, including aircraft from the A300/310 family, the A320 family and the A340 family. China Eastern was also the first Airbus A319 operator and the first A340-600 operator on the Chinese Mainland. The airline also has 20 A330-200 and A330-300 aircraft on order.

To date, the Shanghai-based carrier has become one of the top three Chinese airlines with an extensive air network connecting Asia, Europe, America and Australia. Currently, China Eastern Airlines operates nearly 200 aircraft on more than 400 domestic and international routes.

With more than 3,600 Airbus single-aisle aircraft ordered and more than 2,500 delivered today, the A320 family is without doubt the airliner programme which has notched up the greatest success ever. The A320 Family has more than 160 customers and operators to its credit. By the end of August 2005, over 200 A320 Family aircraft were already in service with 9 operators in China, while a further 80 A320 Family aircraft are still on order.

**HAINAN AIRLINES TAKES DELIVERY OF FIRST AIRBUS A319**

23 September 2005

Hainan Airlines has taken delivery of its first Airbus A319 aircraft today in Hamburg, Germany. The aircraft will arrive at Xi'an International Airport in the Shanxi Province tomorrow, where a formal handover ceremony will take place.

The A319 is powered by CFM International CFM56-5b engines and is configured in a single economy-class layout, which will provide spacious space for 134 passengers. The aircraft will be operated by Chang'an Airlines, a local branch of Hainan Airlines in Xi'an, and will serve domestic trunk routes and some high-altitude routes like Tibet, Huanglong and Gongga.

Having started its operations in 1993, Hainan Airlines currently operates out of the city of Haikou, Hainan Island, with airlinks to more than 50 domestic destinations.

The A319, which is known to the Chinese customers as "the Mountain Goat", first made a successful demonstration flight over Tibet International Airport in 2001. Since then, it has been widely received by Chinese customers. Currently, there are 50 A319s in service in the Chinese fleet on the Chinese Mainland, Hong Kong and Macao.

Airbus first entered China in 1985 and has now sold 183 A320 Family aircraft to 11 airlines with 120 aircraft having been delivered to date. In total, 192 A320 Family aircraft are in use in China with 14 customers and operators.

#### CHINA SOUTHERN AIRLINES JOINTLY WITH CASGC ORDERS TEN ADDITIONAL AIRBUS A330s

6 September 2005

China Southern Airlines has signed a contract with Airbus today in Beijing for the purchase of ten additional Airbus A330s, which comprises eight A330-300s and two A330-200s. China Aviation Supplies Import and Export Group (CASGC) was also involved in this deal by signing a GTA with Airbus. The ten A330 aircraft will be delivered from 2007 to 2008. China Southern Airlines already operates four A330-200s on domestic trunk and international routes.

Si Xianmin, President of China Southern Airlines, Li Hai, President of CASGC and Iain Gray, General Manager of Airbus, signed the contract and GTA in the Great Hall of the People this morning. Chinese Premier Wen Jiabao and British Prime Minister Tony Blair witnessed the signing ceremony.

"As the largest carrier in China, we are planning to expand our business both domestically and internationally. The selection of ten additional A330s will definitely increase our capability and flexibility in the flight operation, especially in the domestic trunk and regional routes," said Si Xianmin. "We believe that this acquisition of additional A330s will not only further optimize the operation by improving the scale of economy of the A330 fleet, but also will help us to save pilot resources due to cockpit commonality with our growing fleet of A320 family aircraft."

China Southern Airlines, the first A330 customer on the Chinese Mainland, currently operates a fleet of over 60 Airbus aircraft, including 14 A319s, 27 A320s, ten A321s, six A300s and four A330s. On April 21, 2005, the Guangzhou-based carrier ordered five A380s and became the first customer for the aircraft in China and the 15th in the world.

"CASGC has enjoyed an excellent cooperative relationship with Airbus for many years. We are very pleased to be part of the successful cooperation between China Southern Airlines and Airbus," said Li Hai. "Through our joint efforts, Airbus can provide more modern and economic aircraft to Chinese airlines, while CASGC can offer high quality services to Chinese airlines."

"The repeat orders for the ten A330s once again, shows China Southern Airlines' new vote of confidence in Airbus aircraft and indicates the fast development of its business," said Iain Gray. "This year is the twentieth anniversary of Airbus' entry into the Chinese

market. Airbus wishes to continue to provide Chinese airlines with the best family of aircraft which matches their needs to further boost their development."

XI'AN AIRCRAFT COMPANY DELIVERS FIRST A320 WING PART; HIS ROYAL HIGHNESS THE DUKE OF YORK VISITED AIRBUS FACILITIES IN TOULOUSE, FRANCE, PRAISING THE COMPANY AND ITS WORKERS AS MODELS OF EUROPE'S CAPABILITY TO BE A WORLD LEADER IN AVIATION AND TECHNOLOGY.

4 August 2005

With a dimension of 15.6m x 1.5m x 0.8m, the A320 fixed trailing edge comprises more than 500 components and some 20 new materials with special processes. It is one of the most difficult and complicated overseas programs that XAC has ever undertaken due to its high-tech contents. More than 1,000 such parts remain to be delivered.

The next phase of the programme, the manufacturing of the wing box, will start soon.

Speaking at the delivery ceremony, Airbus Executive Vice President Procurement Tom Williams said: "This underscores our commitment to the long-term development of China's aviation industry through industrial cooperation and increased procurement from China."

"In recent years, we have carried out fruitful cooperation with Airbus," said XAC President Gao Dacheng. "We hope our cooperation can be further consolidated and expanded."

Xi'an Aircraft Company currently makes electronics bay doors for Airbus A320 Family and A330/A340 Family aircraft. The company also produces fixed trailing edges for the wings of the A320 Family aircraft, as well as brake blades and medium air duct for the A330/A340 Family aircraft. It is to become the sole supplier of electronics bay doors for the Airbus A320 Family aircraft by 2006.

Photo Not included: At the delivery ceremony (left to right): Laurence Barron, Airbus China President; Yang Yuzhong, China Aviation Corporation Industry I (AVIC I) Executive Vice President; Dave Micklewright, Airbus Procurement Wing COE; and Tom Williams, Airbus Executive Vice President Procurement.

AIRBUS INAUGURATES ENGINEERING CENTRE IN BEIJING, CHINA; AIRBUS' NEWLY-OPENED ENGINEERING CENTRE IN BEIJING WILL PERFORM WORK THAT INCLUDES AN IMPORTANT SHARE IN THE A350 AIRLINER PROGRAMME.

4 August 2005

Dr. Gustav Humbert, President and CEO of Airbus, inaugurated the new Airbus (Beijing) Engineering Centre, in the presence of Jose Luis Rodriguez Zapatero, Spanish Prime Minister. This was the first overseas visit of Gustav Humbert since his nomination at the head of Airbus.

"China is a very important and strategic part of Airbus' global picture and Airbus highly values cooperation with the Chinese aviation industry," said Gustav Humbert at the inauguration.

The opening of Airbus (Beijing) Engineering Centre marks the beginning of a new phase in the close industrial partnership that has existed for the past two decades between China and Airbus. It also demonstrates Airbus' commitment to the long-term development of the Chinese aviation industry.

Airbus plans to allocate a significant work share to China in the A350 programme. The new Engineering Centre will also help China train more engineers of world-class standards. The first group of engineers has already finished their training programme in Europe and started working. The number of engineers in the Centre is planned to increase to 50 by the end of the year, and to 200 by 2008.

Airbus expects the new centre to play a key role in developing an even closer relationship between Airbus and the Chinese aviation industry with a view to China becoming a full risk-sharing partner in a future Airbus programme for new generation aircraft.

A320 OPERATOR BASE CONTINUES TO EXPAND RAPIDLY; CHINESE LOW-COST CARRIER UNITED EAGLE HAS BECOME THE LATEST OPERATOR OF A320 FAMILY AIRCRAFT, JOINING NINE OTHER CARRIERS THAT HAVE BEEN ADDED TO THE RANKS IN 2005.

4 August 2005

The A320 Family, which passed the 2,500th delivery milestone in July, has acquired ten new operators in 2005, the latest of which was Chinese Low Cost Carrier, United Eagle.

In Asia-Pacific, the new operators include United Eagle and China Spring, P.R. China's first private carriers, Shenzhen Airlines also of P.R. China, Cebu Pacific in the Philippines, Freedom Airlines of New Zealand and India's Kingfisher. In Europe, Donbassaero of the Ukraine became the sixth operator of the A320 Family aircraft in the CIS, and Volare in Italy started A320 operations. Elsewhere, the Brazilian Air Force and one unnamed Customer put Airbus Corporate Jetliners into service for the first time.

2500th A320 FAMILY MEMBER DELIVERED TO CHINA EASTERN

26 July 2005

Airbus today achieved a very significant milestone, when China Eastern (CES) took delivery of the 2500th A320 family aircraft, an A320. This auspicious occasion falls in the same month that the A320 Family reached 40 million flight hours, a statistic that underlines its position as the benchmark of single-aisle airliners. "This is a historical day for Airbus and the aviation industry, as no other airliner programme has ever attained this level of deliveries in its basic version. This is a clear reflection of the success of this unique Family with customers and operators and with the travelling public", said Gustav Humbert, Airbus president and Chief Executive Officer. "And as China Eastern Airlines was our first Chinese customer, we are delighted that this 2,500th aircraft has been delivered to them as part of their fleet expansion," he added. During the official delivery ceremony held in Toulouse, Chairman Li Fenghua said: "With this year being the twentieth anniversary of Airbus' entry into the Chinese market, China Eastern Airlines is pleased to participate in such a significant milestone." China Eastern Airlines already operates a fleet of 69 A320 Family aircraft. In 2005, this Shanghai-based carrier ordered an additional 20 A320 Family aircraft to further expand their worldwide fleet.

AIR CHINA JOINTLY WITH CASC ORDER 20 AIRBUS A330-200 AIRCRAFT

21 July 2005

Air China signed a contract with Airbus on July 21, 2005 for the purchase of 20 Airbus A330-200s, scheduled for delivery from May 2006, becoming a new customer of the aircraft in China. China Aviation Supplies Import and Export Group (CASC) was also involved in this deal by signing a GTA with Airbus.

Air China President Li Jiaxiang, CASC President Li Hai and Airbus President & CEO Gustav Humbert signed the contract and GTA at the Great Hall of the People. Chinese Premier Wen Jiabao and Spanish Prime Minister Jose Luis Rodriguez Zapatero witnessed the signing ceremony.

"These 20 A330-200 aircraft will help us expand our fleet and open new international routes," said Li Jiaxiang, President of Air China. "A330-200 will also further strengthen our reliability, punctuality and efficiency, and improve our competitiveness in the global market."



"We are very pleased to be part of the successful cooperation between Air China and Airbus. Airbus is the largest airliner manufacturer in the world and provides Chinese customers with the most complete range of aircraft family. CASC is willing to help both sides to continue the win-win cooperation," said Li Hai, President of CASC.

Air China operates 16 A319s, five A320s and six A340s. The selection of 20 A330-200s will further diversify its Airbus fleet. Today's signature once again shows both Air China and CASC's new vote of confidence to Airbus aircraft.

"Today's A330 contract is the first one that I am signing since I took over my new responsibilities last month. I am very happy this happens to be with Air China, the flagship carrier of China," said Gustav Humbert, Airbus new President and CEO, "Airbus also enjoys a good and long lasting relationship with CASC, and we highly appreciate the confidence CASC has shown to Airbus over the years."

The A330 is renowned for being the most efficient aircraft in its class, combining the lowest operating costs with highly efficient cargo capabilities that enhance the airline's profitability through freight operation. The A330 also offers the most spacious cabin of any wide-body aircraft in its category.

Airbus' business in China has been steadily expanding since it first entered the country in 1985. The Airbus fleet in service in the Chinese mainland, Hong Kong and Macao has grown to nearly 300 a/c today from just 29 in 1995. A world-class training and support centre, which represents a US\$80 million investment by Airbus, is fully operational in Beijing.

#### AIRBUS CONFIRMS EXECUTIVE COMMITTEE MEMBERS

19 July 2005

##### EXCERPT:

"John Leahy (55) is appointed COO - Customers. In this role he continues to be in charge of all commercial activities, including sales, marketing, contracts, business transactions control, asset management, and leasing business development. He is also in charge of Airbus North America, Airbus China, Airbus Japan and Airbus Russia, as well as the regional sales offices."

CHINA TO BECOME WORLD'S SECOND LARGEST AVIATION MARKET; RAPID GROWTH OF THE CHINESE AVIATION MARKET IS EXPECTED TO GENERATE THE NEED FOR SOME 200 LARGE AIRCRAFT OVER THE NEXT 20 YEARS, ACCORDING TO AIRBUS MARKET FORECASTS.

12 July 2005

Speaking at the EU-China Aviation Summit in Beijing, Laurence Barron, Airbus' Vice-President and President of Airbus China said: "Over the next 20 years, China will become the second largest aviation market in the world after the U.S. The number of aircraft delivered to China per year will count for over 10 per cent of Airbus' annual total deliveries worldwide."

Reviewing Airbus' global market forecast, Laurence Barron pointed out the rapid growth of the Chinese aviation market in recent years. From 2000 to 2004, China's total aviation traffic has grown at an average rate of 16.7 per cent. Airbus forecasts it will deliver a total of nearly 1,800 aircraft to China over the next 20 years, i.e. an average of 90 aircraft delivered per year.

According to Airbus' forecast, the fast growing aviation market in China will need at least 200 large aircraft like the A380. At present, China Southern Airlines has purchased five A380s and become the first A380 customer in China. Delivery of the first A380 to China is scheduled for the later half of 2007, in time for the 2008 Beijing Summer Olympic Games. The other 15 A380 customers have announced their plans to serve major Chinese destinations with 150 weekly frequencies by 2010.

In his speech, Laurence Barron also stressed that Airbus intends to further enhance and develop its industrial cooperation with the Chinese aviation industry. Airbus plans to allocate up to a 5 per cent work share to China in the A350 programme, which is expected to be launched by the end of September 2005.

The Airbus Engineering Centre, a joint venture by Airbus and China Aviation Industry Corporation I and China Aviation Industry Corporation II (AVIC I and AVIC II), is set to start operation this summer in Beijing.

Last October, Airbus signed an agreement outlining plans to further increase its procurement from China. The figure is expected to increase from \$U.S. 15 million per year currently to \$U.S.120 million per year by 2010. Airbus considers China as a full risk-sharing partner in a future Airbus aircraft programme, in which China's work share will be increased to at least 10 per cent. A full risk-sharing partner takes complete responsibility for a part of a programme, from design to manufacturing, including the corresponding investment and profit sharing.

AIRBUS AWARDED MOST VALUABLE BRAND IN CHINA BY FORTUNE CHINA MAGAZINE; A SURVEY PUBLISHED IN THE JUNE ISSUE OF FORTUNA CHINA THE CHINESE EDITION OF AMERICA'S FORTUNE MAGAZINE HAS RANKED AIRBUS AHEAD OF ITS COMPETITOR AS A TOP BRAND IN 2005, BASED ON INDICATORS THAT INCLUDE PRODUCT QUALITY, MARKET SHARE AND COMPANY INFLUENCE IN THE MARKET.

12 July 2005

For the first time ever Airbus has been ranked ahead of its competitor in "The Most Valuable Brand in China 2005", a survey published in June's Fortune China, the Chinese edition of the American magazine. Some 5,000 senior business people across China were asked to rank 250 brands nominated by Fortune China as part of the magazine's survey. The survey canvassed opinions on a broad spectrum of brand indicators including product quality, market share, influence of the company on the local market, its presentation in the local market and its development trend and potential. Of the 250 brands, only 25 were awarded the accolade of "The Most Valuable Brand in China 2005". There are nine brands which appeared for the first time on Fortune's ranking, among which is Airbus, which is ranked eighth surpassing its main rival, Boeing. Laurence Barron, President of Airbus China expressed his delight commenting: "The brand and image awareness of a company grows together with the increase in the company's market share." Over three consecutive years between 2002 and 2004, Airbus has gained more aircraft orders than Boeing in the global market. Its business in China has been growing continuously since 1995 and last year the company received an unprecedented 58 orders from China. Having dramatically increased its industrial cooperation with and the transfer of technological know-how to China in recent years, Airbus is planning to expand the value of its Chinese cooperation further from US\$60 million in 2007 to US\$120 million by 2010.

#### SICHUAN AIRLINES ORDERS EIGHT AIRBUS A320 FAMILY AIRCRAFT

18 May 2005

Sichuan Airlines has signed a contract with Airbus for the purchase of six A320s and two A319s. The aircraft, scheduled for delivery from late 2005 to 2008, will be powered by IAE's V2500 engines.

"The aircraft will help us enlarge our fleet and increase our operational capability on high-altitude routes," said Lan Xinguo, President of the Sichuan Airlines.

"We are delighted to see that Sichuan Airlines gave us a new vote of confidence by ordering more Airbus aircraft," said Airbus President and CEO Noel Forgeard. "We are convinced that the A319 will further boost the fast development of the airline."

The relationship between Airbus and the Sichuan Airlines can be dated back to 1995, when the Chengdu-based carrier became the first A320 operator and first fly-by-wire operator in the Chinese mainland. Currently, it has a fleet of eight A320s, four A321s and two A319s, which have been operating successfully.

The A320 Family offers optimum cabin comfort in its class, reflecting a common commitment that is found in all Airbus aircraft. And like all the passenger aircraft that Airbus produces today, it features many modern technology features at no extra charge, such as advanced fuel-saving aerodynamics, including winglets, widespread weight-saving carbon fibre composites, and pilot and maintenance-friendly fly-by-wire controls and centralised maintenance.

Airbus' A320 Family is the most successful aircraft family in the world, having been chosen by more than 180 customers and operators around the world. Firm orders for the Airbus A320 Family stand at some 3,400 aircraft, more than 2,300 of which have been delivered to date. Around 180 A320 Family aircraft are in service in the Chinese fleet on the mainland, Hong Kong and Macao.

Airbus's business in China has been steadily expanding since it first entered the country in 1985. The Airbus fleet in service in the Chinese mainland, Hong Kong and Macao has grown to more than 280 today from just 29 in 1995. A world-class training and support centre, which represents a US\$80 million investment by Airbus, is fully operational in Beijing. Five Chinese companies are already involved in producing parts for Airbus aircraft.

#### AIRBUS ENGINEERING CENTRE TO BE SET UP IN CHINA

22 April 2005

Airbus and China Aviation Industry Corporation II (AVIC II) have agreed to set up an engineering centre in the form of a joint venture in Beijing. The facility will in particular perform aircraft specific design work for the A350 programme.

Chinese Premier Wen Jiabao and French Prime Minister Jean-Pierre Raffarin attended the signing ceremony at the Great Hall of the People in Beijing. There are plans to recruit 200 engineers for the engineering centre by 2008 and the first group of engineers from AVIC II have already started their training programme. The centre is to be located in the Tianzhu Airport Industrial Zone, adjacent to the offices of Airbus China.

"China has a solid foundation in the aviation industry with a number of excellent professionals," said Philippe Delmas, Airbus Executive Vice President Government Relations, Communications and External Affairs. "We believe that the Chinese engineers, together with their colleagues in other Airbus engineering centres in the world, will be able to make significant contributions to the design of Airbus aircraft in the future. The engineering centre will also enable China to increase substantially the number of world-class aircraft engineers."

"In recent years we have been delighted to see that Airbus has constantly increased procurement in China. The establishment of this engineering centre signals that Airbus is committed to strengthening industrial cooperation with China," said AVIC II Vice President Xu Zhanbin. "We are most pleased to participate in this significant programme and are looking forward to expanding cooperation with Airbus."

Airbus is committed to the long-term development of China's aviation industry. The setting up of the centre is intended to enhance and develop a close relationship between Airbus and the Chinese aerospace industry, with a view to China becoming a full risk-sharing partner in a future Airbus programme for new generation aircraft. A risk-sharing partner takes complete responsibility for a part of a programme, from design to manufacturing, including the corresponding investment and profit sharing.

The engineering centre in China will work with the most modern Airbus technologies and to the most advanced standards, participating in both existing and future programmes.

Airbus signed an agreement last October outlining plans to further increase its procurement from China, that is projected to reach an annual total of \$U.S. 120 million by 2010, double the \$U.S. 60 million target for 2007.

Airbus' business in China has been steadily expanding since it first entered the country in 1985. The Airbus fleet in service on the Chinese mainland, Hong Kong and Macao has grown to more than 280 today from just 29 in 1995. A world-class training and support centre, which represents a US\$80 million investment by Airbus, is fully operational in Beijing.

#### CHINA TO PRODUCE WING BOX FOR AIRBUS A320 FAMILY AIRCRAFT

22 April 2005

Airbus and China Aviation Industry Corporation I (AVIC I) have agreed to enter into the third phase of the A320 Family Wing Cooperation Programme, which comprises the production of wing box. This represents significant progress in Airbus' technology transfer to China.

The two sides signed today the initial contract to launch the A320 Family Wing Box work package in China. This covers the assembly work of the first batch of wing boxes and the corresponding tooling, involving a contractual value of \$U.S. 70 million. Chinese Premier Wen Jiabao and French Prime Minister Jean-Pierre Raffarin attended the signing ceremony at the Great Hall of the People in Beijing.

"The A320 Family Wing Cooperation Programme is a major cooperation programme between Airbus and AVIC I," said AVIC I Executive Vice President Yang Yuzhong. "The wing box contract has enabled the programme to make further progress. We are looking forward to enlarging the scope and improving the levels of our cooperation."

Airbus wings are the most advanced and the A320 Family is the best-selling aircraft in the world, with more than 1,000 remaining to be delivered.

"Airbus is determined to substantially increase its industrial cooperation with China and this is an important step in that direction," said Philippe Delmas, Airbus Executive Vice President Government Relations, Communications and External Affairs.

The A320 Wing Family Cooperation Programme is a key commitment that Airbus has made to China in terms of technological transfer. In 1999, Airbus signed an agreement with AVIC I, pursuant to which Airbus agreed to transfer the manufacturing technologies and assemblies of the wings of A320 Family aircraft to China.

The first phase of the programme started in the same year. In November 2002, Airbus signed an agreement with AVIC I to start the second phase of the programme, which allowed Xi'an Aircraft Corporation (XAC) and Shenyang Aircraft Corporation (SAC) to produce the fixed trailing and leading edges respectively. The first ship set of fixed leading edges was delivered in September 2004, while the first ship set of fixed trailing edges was delivered in March 2005, signalling that the second phase is making progress. With up to 30 engineers sent by Airbus to XAC and SAC, the cooperation programme is set to speed up.

The leading and trailing edges and wing box technologies are important components of wing production, and play an essential role in aircraft manufacturing.

Five Chinese companies are already involved in producing parts for Airbus aircraft, namely Chengdu Aircraft Corporation, Shenyang Aircraft Corporation, Xi'an Aircraft Company, Hong Yuan Aviation Forging & Casting and Guizhou Aviation Industrial Group.

In industrial cooperation with China, Airbus is not only committed to technology transfer, but also committed to increasing procurement and R & D. The value of procurement from China per annum, in respect of existing programmes, is projected to reach \$U.S. 120 million dollars by 2010, doubling the \$ U.S. 60 million target for the year 2007. As regards research and development, Airbus plans to establish an engineering

centre in China and recruit 200 Chinese engineers by 2008. Airbus is also offering the Chinese aviation industry participation in up to five percent of the proposed A350 programme.

Today, more than 3,600 Airbus aircraft are in operation worldwide, and over half of the Airbus worldwide fleet has components produced in China.

Airbus's business in China has been steadily expanding since it first entered the country in 1985. The Airbus fleet in service in the Chinese mainland, Hong Kong and Macao has grown to more than 280 today from just 29 in 1995. A world-class training and support centre, which represents a US\$80 million investment by Airbus, is fully operational in Beijing.

#### CHINESE AIRLINES ORDER 30 AIRBUS AIRCRAFT

21 April 2005

Three Chinese airlines have signed contracts for the purchase of 30 Airbus aircraft. China Southern Airlines has signed with Airbus for five A380s; China Eastern Airlines has signed with Airbus for five A319s, 11 A321s and four A320s; Shenzhen Airlines has signed with China Aviation Supplies Import & Export Group Corporation (CASGC) and Airbus for three A320s and two A319s, and becomes a new customer for Airbus in China.

Chinese Premier Wen Jiabao and French Prime Minister Jean-Pierre Raffarin attended the signing ceremony today at the Great Hall of the People in Beijing.

"As the largest carrier in China, we are pleased to join the list of renowned customers for Airbus' new double-decker. We believe that the A380 will further build our image of reliability, punctuality and efficiency and increase our competitiveness in the global market," said Liu Shaoyong, Chairman of China Southern Airlines Company Limited. "We also hope that the acquisition of the A380 will help China become a powerful civil aviation giant."

"The largest Airbus operator in China, China Eastern has maintained sound momentum in its development. The purchase of an additional 20 A320 Family aircraft will satisfy the needs of our strategic development and accommodate growing aviation market demand," said Luo Chaogeng, President of China Eastern Airlines Co., Ltd. He also added that: "The introduction of these A319s, A320s and A321s will enlarge our fleet and give a boost to our growth."

"Airbus' A320 Family features the newest and most modern design of any single-aisle airliner. We are delighted to become a new customer of the type," said Shenzhen Airlines President Dong Lijia. "Our selection of the A319 and the A320 is part of our strategy for future development. The aircraft will help us expand our networks and open high-altitude routes in the future."

"This year is the twentieth anniversary of Airbus' entry into the Chinese market. Over the past two decades, Airbus has maintained excellent cooperation with Chinese airlines and government departments, and devoted all efforts to carrying out industrial cooperation with our partners and providing first-class customer services," said Philippe Delmas, Airbus Executive Vice President Government Relations, Communications and External Affairs. "With the most modern and comprehensive product line on the market, Airbus wishes to fly high together with the Chinese aviation industry."

Built to the latest and most stringent requirements, the A380, the world's first full-length twin-deck aircraft, embodies the most advanced technologies, providing unbeatable operating costs, more range, and greater comfort for passengers.

The A320 Family offers optimum cabin comfort in its class, reflecting a common commitment that is found in all Airbus aircraft. And like all the passenger aircraft that Airbus produces today, it features many modern technology features at no extra charge such as advanced fuel-saving aerodynamics, including winglets, widespread weight-saving carbon

fibre composites, and pilot and maintenance-friendly fly-by-wire controls and centralised maintenance.

Airbus's business in China has been steadily expanding since it first entered the country in 1985. The Airbus fleet in service in the Chinese mainland, Hong Kong and Macao has grown to more than 280 today from just 29 in 1995. A world-class training and support centre, which represents a US\$80 million investment by Airbus, is fully operational in Beijing. Five Chinese companies are already involved in producing parts for Airbus aircraft.

#### CHINA SOUTHERN AIRLINES RECEIVES FIRST A330-200 AIRCRAFT

28 February 2005

China Southern Airlines has taken delivery its first A330-200 of four on order, becoming the first operator of the aircraft in the Chinese mainland. The remaining three will be delivered in the first half of this year.

The aircraft, powered by Trent 700 engines of Rolls Royce, will seat 266 passengers in a two-class layout. "We will mainly put the A330-200s into operation on medium- and long-range routes, especially on new international routes that we plan to open. Our goal is to become an airline of prime choice by passengers," said Liu Shaoyong, Chairman of China Southern Airlines Company Limited.

"Introduction of the aircraft will offer our passengers a safe and comfortable in-flight experience. And we will also benefit from A330's commonality with other members of the Airbus Family, which will help us reduce training and maintenance costs." "The introduction of the A330 marks a new milestone in our cooperation," said Noël Forgeard, Airbus President and Chief Executive Officer.

"We are pleased to see that we have established strategic relationship with China Southern Airlines, which has just committed to purchase five A380s and received its first A330-200 today. We are confident that the A330-200 will play an important role in the continued development of the airline." With a range of up to 6,650 nm/12,300 km, the A330-200 combines some of the lowest operating costs of any aircraft ever designed with maximum flexibility over medium to long-haul routes.

The A330 is part of the market leading Airbus A330/A340 Family which has been especially successful in Asia-Pacific, where it has been selected by some 20 airlines, including almost every major international carrier in the region. The A330/A340 Family has booked some 900 orders from over 70 customers worldwide. China Southern Airlines currently has more than 230 large and medium-sized aircraft, operating out of 17 bases on 660 routes.

In 2004, the company achieved a turnover of around 40 million passengers, becoming one of the top ten passenger carriers in the world. Among all Chinese airlines, it boasts the largest fleet with the most bases, most extensive domestic networks and highest flight frequencies. Renowned for its excellent passenger services, the airline has won Five-star Diamond Award for flight services and has been honoured as China's best airline by TTG Asia Magazine. The airlines has 49 Airbus aircraft in service, with more than 40 Airbus aircraft to be delivered.

#### CHINA SOUTHERN AIRLINES COMPANY LIMITED AND CHINA AVIATION SUPPLIES IMP. PURCHASE OF FIVE A380s

28 January 2005

China Southern Airlines Company Limited and China Aviation Supplies Imp. and Exp. Group Corporation (CASGC) have signed in Paris a General Terms Agreement (GTA) with Airbus for the purchase of five A380s. This is the first commitment placed by a Chinese carrier for the A380, which herewith becomes the 15th customer for the all new very large Airbus airliner.

"As one of the largest carriers in China, we are pleased to join the list of renown customers for Airbus' new double-decker. We believe that the A380 will further build our image of reliability, punctuality and efficiency and increase our competitiveness in the global market," said Liu Shaoyong, Chairman of China Southern Airlines Company Limited. "We also hope that the acquiring of the A380 will help China become a powerful civil aviation giant."

"The A380 is the newest and largest airliner ever produced in the world. CASGC has enjoyed an excellent cooperative relationship with Airbus for many years. Through our joint efforts, Airbus can provide modern and economic aviation products to Chinese airlines, while CASGC can offer high quality and value-added services to Chinese airlines, and we are pleased to join the list of renown customers for Airbus' new double-decker," CASGC Vice President Zhu Yanjun said.

"We are extraordinarily pleased to have received the first commitment for the A380 from China, which marks a significant breakthrough of our business in this important and strategic market," said Airbus President and CEO Noël Forgeard. "The A380 will effectively accommodate ever growing air travel demand in the dynamic Chinese market, and will be able to provide first-class services to 2008 Olympics in Beijing, 2010 World Expo in Shanghai and 2010 Asian Games in Guangzhou."

With today's agreement, Airbus has now 154 orders and commitments from 15 customers for the A380 programme. Built to the latest and most stringent requirements, the world's first full-length twin-deck aircraft embodies the most advanced technologies, providing unbeatable operating costs, more range, and greater comfort for passengers.

China Southern Airlines currently has 232 large and medium-sized aircraft, operating out of 17 bases on 660 routes. In 2004, the company achieved a turnover of around 40 million passengers, becoming one of the top ten passenger carriers in the world. Among all Chinese airlines, it boasts the largest fleet with the most bases, most extensive domestic networks and highest flight frequencies. Renowned for its excellent passenger services, the airline has won Five-star Diamond Award for flight services and has been honoured as China's best airline by TTG Asia Magazine.

#### CHINA AVIATION SUPPLIES IMPORT & EXPORT GROUP CORPORATION (CASGC) HAS ANNOUNCED ITS DECISION TO ACQUIRE 23 AIRBUS A320 FAMILY AIRCRAFT

6 December 2004

China Aviation Supplies Import & Export Group Corporation (CASGC) has announced its decision to acquire 23 Airbus A320 Family aircraft. The announcement was made in Beijing at a ceremony in the Great Hall of the People attended by Chinese Premier Wen Jiabao and German Chancellor Gerhard Schröder.

"CASGC has enjoyed an excellent cooperative relationship with Airbus for many years. Through our joint efforts, Airbus can provide more modern and economic aviation products to Chinese airlines, while CASGC can offer high quality and value-added services to Chinese airlines," CASGC President Li Hai said.

"Airbus considers China as a very strategic and important market," said Gustav Humbert, Airbus Chief Operating Officer.

The Airbus A320 Family is the world's fastest selling single-aisle product range, made up of the A318, A319, A320 and A321. A320 Family aircraft are chosen by more than 160 customers and operators around the world, including many in Asia, with a market share of orders of around 60 per cent for the year 2004 so far. Firm orders for the Airbus A320 Family stand at more than 3,200 aircraft in total, of which some 2,300 have been delivered to date.

The A320 Family is the acknowledged technological leader in its category, with advanced features such as fuel-saving wingtip fences, weight-saving composites, and the

reliability that comes from its modern design and ease of maintenance. It also consistently leads in independent passenger and operator surveys.

Airbus' business in China has been steadily expanding since it first entered the country in 1985. The Airbus fleet in service in the Chinese mainland, Hong Kong and Macao has grown to more than 260 today from just 29 in 1995. A training and support centre, which represents a US\$80 million investment by Airbus, is fully operational in Beijing. Five Chinese companies are involved in producing parts for Airbus aircraft.

#### HAINAN AIRLINES ORDERS EIGHT AIRBUS A319s

2 November 2004

Hainan Airlines has signed a contract with Airbus for eight A319s for fleet optimization, becoming a new customer of Airbus. The aircraft will be mainly deployed on medium- and short-haul routes, with operational bases in Beijing, Xi'an and Haikou. Introduction of the aircraft is expected to significantly increase the company's competitiveness in the medium- and short-haul market. The aircraft are scheduled for delivery from 2005 to 2007.

Hainan Airlines will benefit from the economics and passenger comfort of the A319, as well as Airbus unique commonality concept. The A319 will play a strategic role in the airline's strategic development.

"We are extremely happy to see that the fast-growing Hainan Airlines has become a new customer of Airbus, which marks a significant breakthrough of our business in China," said Airbus President and CEO Noël Forgeard. "Hainan Airlines has established a good reputation for quality service for its passengers. We are confident that the features of the new A319s will give further impetus to the development of the carrier."

The A319 is a member of the A320 Family, which consists of the A318, A319, A320 and A321, the world's fastest selling single-aisle family. The A320 Family features the most modern design with the widest and most comfortable cabin in its class. More than 3,250 Airbus A320 Family aircraft have been ordered to date, of which over 2,250 have been delivered. The Airbus A320 Family has more than 175 customers and operators to its credit.

Founded in 1993, Hainan Airlines is the fourth largest airline group in China, with more than 100 aircraft operating on over 500 domestic and regional routes.

#### SICHUAN AIRLINES RECEIVES FIRST AIRBUS A319

2 November 2004

Sichuan Airlines Co., Ltd. has taken delivery of its first Airbus A319 aircraft, becoming a new customer for the type. The A319 aircraft will seat up to 132 passengers in a very comfortable and flexible two-class layout and are equipped by V2500 engines from International Aero Engines to meet requirements of high-altitude operations.

This is the first of the four A319s ordered by the Chengdu-based carrier in 2003, and the remaining three will be delivered from December 2004 to 2005.

"We are pleased to deploy the modern aircraft on the routes linking with Jiuzhai Valley, Panzhihua, Lijiang and other high-altitude areas in west China, and will put the A319s into operation at Lhasa, Tibet in the future," said Lan Xinguo, Chairman and President of Sichuan Airlines Co., Ltd.

Sichuan Airlines has an excellent record in operating of the A320 Family aircraft with a strong technical support team.

"We are extremely happy to see that the performance of the A319 is able to meet the stringent operational requirements at the challenging airports," said Airbus President and CEO Noel Forgeard. "Airbus attaches great importance to its traditional relations with Sichuan Airlines and we are convinced that the A319 will further boost the fast development of Sichuan Airlines."

The relationship between Airbus and the Sichuan Airlines can be dated back to 1995, when the Chengdu-based carrier became the first A320 operator and first fly-by-wire



operator in the Chinese mainland. Currently, it has a fleet of 10 A320s and four A321s, which have been operating successfully.

The A319 is a member of the A320 Family, which consists of the A318, A319, A320 and A321, the world's fastest selling single-aisle family.

Airbus's business in China has been steadily expanding since it first entered the country in 1985. The Airbus fleet in service in the Chinese mainland, Hong Kong and Macao has grown to more than 250 today from just 29 in 1995. A world-class training and support centre, which represents a US\$80 million investment by Airbus, is fully operational in Beijing. Five Chinese companies are already involved in producing parts for Airbus aircraft.

#### AIR CHINA ORDERS SIX AIRBUS A319s

9 October 2004

Flag carrier Air China has signed a contract with Airbus for six additional A319s. The aircraft, powered by CFM International's CFM56-5 engines, are scheduled for delivery in 2005.

The carrier plans to deploy the aircraft mainly on Chengdu-Lhasa and other routes linking high-altitude airports in Sichuan Province and Tibet in southwest China which Air China serves with A319 and A340-300 aircraft.

"With its outstanding performance, the A319 is an aircraft suitable for our operations at high-altitude airports. It fits perfectly our strategic development in the western region of China, which increasingly attracts passengers whether travelling for business or pleasure," said Ma Xulun, President of Air China. "We will also benefit from the A319's commonality with our A320s, which will help us reduce training and maintenance costs, and increase our operational flexibility."

The A319 is a member of the A320 Family, which consists of the A318, A319, A320 and A321, the world's fastest selling single-aisle family. The A319 has already shown its outstanding performance at high-altitude airports in Latin America, and the more challenging airports at Lhasa and Bangda airports in Tibet, among the highest in the world. Lhasa and Bangda are 3,570 and 4,334 metres (11,712 and 14,218 feet respectively) above sea level.

"We are extremely happy to see that the performance of the A319 is able to meet the stringent operational requirements at the most challenging airports," said Airbus President and CEO Noel Forgeard. "Airbus attaches great importance to its traditional relations with Air China and we are convinced that the A319 will further boost the fast development of the airline."

Airbus's business in China has been steadily expanding since it first entered the country in 1985. The Airbus fleet in service in the Chinese mainland, Hong Kong and Macao has grown to more than 250 today from just 29 in 1995. A world-class training and support centre, which represents a US\$80 million investment by Airbus, is fully operational in Beijing. Five Chinese companies are already involved in producing parts for Airbus aircraft.

#### CHINA EASTERN AIRLINES SIGNS CONTRACT WITH AIRBUS ON PURCHASING 20 A330-300s

9 October 2004

China Eastern Airlines Co., Ltd. and Airbus have signed a contract for the purchase of 20 A330-300 aircraft for fleet replacement and expansion, becoming the first customer of the type in the Chinese mainland. The aircraft, to be deployed on both regional and domestic trunk routes, will increase the airline's competitiveness in both international and domestic markets.

"As one of the three major airline groups in the country, China Eastern has maintained sound momentum of development. Purchase of the 20 A330-300s will satisfy the needs of

strategic development of China and accommodate growing aviation market demand," said Luo Chaogeng, President of China Eastern Airlines Co., Ltd. "Introduction of the aircraft will enlarge our fleet and give a boost to our growth."

"We are delighted that China Eastern Airlines, our first and largest customer in China, has chosen our aircraft again to meet the ever growing traffic demands," said Airbus President and CEO Noel Forgeard. "This agreement marks a new milestone in the long standing cooperation between our two companies."

The twin-engine A330 combines some of the lowest operating costs of any aircraft ever designed with maximum flexibility for a wide range of route structures. The A330-300, which first entered service in early 1994, typically seats 335 passengers in two classes or 295 passengers in three classes and can fly up to 5,650 nm/10,500 km.

The A330s will give China Eastern the full benefit of Airbus' unique operational commonality, which enables operation of A330s and A340s using the same pool of pilots, cabin crews and maintenance engineers. This gives airlines more crew and fleet planning flexibility and will result in significant cost savings in training, combined with unmatched passenger comfort.

China Eastern's selection of the A330 further reinforces the remarkable success of Airbus' A330/A340 Family as the preferred medium to ultra long-range aircraft among airlines worldwide. The A330/A340 Family has booked more than 830 orders from over 60 customers to date.

Based in Shanghai, China Eastern Airlines has air links to more than 40 domestic destinations and over 20 cities abroad. The airline operates a fleet of nearly 170 aircraft, around 90 of which are Airbus aircraft.

Airbus's business in China has been steadily expanding since it first entered the country in 1985. The Airbus fleet in service in the Chinese mainland, Hong Kong and Macao has grown to more than 250 today from just 29 in 1995. A world-class training and support centre, which represents a US\$80 million investment by Airbus, is fully operational in Beijing. Five Chinese companies are already involved in producing parts for Airbus aircraft.

#### AIRBUS TO OFFER NEW PROJECTS WORTH \$US100 MILLION TO CHINA

11 June 2004

Airbus has reached an agreement with China Aviation Industry Corporation I (AVIC I) on subcontracting projects worth \$ U.S. 100 million to Chinese manufacturers. A signing ceremony was held today in Paris, attended by visiting Chinese Vice Premier Zeng Peiyan and French Prime Minister Jean-Pierre Raffarin.

The upper and lateral panels of the A380 Nose Landing Gear Bay will be subcontracted to AVIC I. The project will be carried out via Airbus first-tier supplier Latecoere, a French company. This has been the first time for Airbus to involve China in producing A380 components.

Airbus will allocate A330/A340 forward cargo door projects, via Eurocopter, a first-tier supplier of Airbus, to Shenyang Aircraft Corporation, which is affiliated with AVIC I.

"We appreciate Airbus" efforts to carry out effective cooperation of mutual benefits with Chinese manufacturers," AVIC I Senior Vice President Gu Huizhong said. "We hope that our cooperation could be further consolidated and expanded. We are particularly pleased to see that Chinese companies will produce A380 components."

"Airbus is not only selling aircraft in China, but also committed to the long-term development of China's aviation industry," said Airbus President and CEO Noel Forgeard.

AVIC I is a large state-owned enterprise group in China, which has involved itself in the R&D, manufacturing, sales and after-sales services of aircraft, aero-engines, airborne equipment, as well as non-aero products. Fifteen affiliated companies of AVIC I have manufactured aircraft and aero engine parts and components for many world-renowned foreign companies including Airbus.

Five Chinese companies have got involved in producing parts for Airbus aircraft, namely Chengdu Aircraft Corporation, Shenyang Aircraft Corporation, Xi'an Aircraft Company and Hong Yuan Aviation Forging & Casting (HYFC) and Guizhou Aviation Industrial Group.

#### CASGC SIGNS AGREEMENT WITH AIRBUS ON PURCHASING 20 A330-300s

11 June 2004

The China Aviation Supplies Imp. & Exp. Group Corporation (CASGC) and Airbus signed an agreement for the purchase of 20 A330-300 aircraft. The aircraft are scheduled for delivery from the first quarter of 2006. Selection of the engines for the aircraft has yet to be decided. The agreement was signed in a ceremony attended by Chinese Vice Premier Zeng Peiyan and French Prime Minister Jean-Pierre Raffarin. "CASGC has enjoyed a very good cooperative relationship with Airbus for many years. With joint efforts, we hope that Airbus could provide more modern and economic aviation products to Chinese airlines, while CASGC could offer high quality and value-added services to Chinese airlines," CASGC President Li Hai said. "We are delighted that China is giving us a new vote of confidence to our products," said Airbus President and CEO Noel Forgeard. "This agreement marks a new milestone in the long standing cooperation of our two sides." The twin-engine A330 combines some of the lowest operating costs of any aircraft ever designed with maximum flexibility for a wide range of route structures. The A330-300, which first entered service in early 1994, typically seats 335 passengers in two classes or 295 passengers in three classes and can fly up to 5,600 nm/10,400 km. The A330s will give airlines the full benefit of Airbus' unique operational commonality, which will enable airlines to operate the A330s and A340s using the same pool of pilots, cabin crews and maintenance engineers. This gives airlines more crew and fleet planning flexibility and will result in significant cost savings in training, combined with unmatched passenger comfort. CASGC's selection of the A330 further reinforces the remarkable success of Airbus' A330/A340 Family as the preferred medium to ultra long-range aircraft among airlines worldwide. The A330/A340 Family has booked some 820 orders from more than 60 customers to date.

#### A380 RO-RO VESSEL CHRISTENED "VILLE DE BORDEAUX" IN NANJING

27 February 2004

The Airbus A380 program has reached a new milestone with the christening of a roll-on and roll-off sea (ro-ro) vessel built for the transportation of components of the aircraft. The vessel was named "Ville De Bordeaux" at a ceremony held today in Nanjing in East China's Jiangsu Province.

The 5,200-dwt roll-on and roll-off vessel measures 154.15 metres long, 24 metres wide and 21.85 metres deep and features the largest ever watertight stern door on a ro-ro vessel (22 metres by 14 metres). It has a cargo deck space of 6,720 square metres and holds as much as 1,805 lanes metres. It incorporates special features tailored to the loading and transport of aircraft components like stern mooring system, cargo hold environment control, lashing arrangements and control of accelerations.

Airbus will charter the vessel to transport A380 sections by sea from Airbus sites in the UK, Germany, France and Spain to the French city port of Bordeaux. The vessel is built by the Nanjing-based Jinling Shipyard and commissioned by FRET/Cetam, a subsidiary of Louis Dreyfus Armateurs (LDA) of France, and Leif Hoegh of Norway.

Specially designed barges will then carry the components on the penultimate part of the voyage along the Garonne River, from Bordeaux to the river harbour of Langon. Here the aircraft components will be transferred to road trailer to continue the final part of the journey to the final assembly line in Toulouse.

The 555-seat A380, Airbus' newest and largest aircraft, will enter service in 2006. It offers unequalled passenger comfort, unrivalled operating costs and state-of-the-art

technology to minimise noise and emissions. An evolution of aviation technology, the A380 promises to ease congestion at major airports by transporting more people more efficiently than ever. To date, 11 customers have announced orders and commitments for a total of 129 A380s.

"Suppliers worldwide have taken part in the development of the A380 programme and China in particular is making a very visible contribution," said Philippe Delmas, Airbus Executive Vice President Government Relations, Communication and External Affairs, at the christening ceremony. "The Republic's involvement in the A380 program opened up a new chapter in the co-operation between Airbus and China."

Chinese government officials, Mr Philippe Louis-Dreyfus, Chairman and CEO of LDA group, and Mr Westye Hoegh, Chairman of the Board of Leif Hoegh, as well as envoys from France and other European countries attended the christening ceremony.

In April, the vessel will be delivered to the city of Yizheng on the Yangtze River, sailing downstream to Shanghai before eventually arriving in Europe.

#### SICHUAN AIRLINES ORDERS FOUR AIRBUS A319s

28 November 2003

Sichuan Airlines Co., Ltd. signed a contract with Airbus today for four A319s, becoming a new customer for the type. The aircraft, powered by IAE V2500 engines, are scheduled for delivery from 2004 to 2005.

The four A319s are part of the General Terms Agreement (GTA) signed on April 25 in Beijing by the China Aviation Supplies Imp. & Exp. Group Corporation (CASGC) and Airbus for a firm bulk order of 30 Airbus aircraft.

The Chengdu-based carrier plans to deploy the aircraft mainly at the newly opened Jiu Huang Airport, which is around 3,400 meters/11,200 feet above sea level. The airport is close to the well-known scenic spots of Jiuzhaigou Valley and Huanglong Scenic and Historic Interest Area, in southwest China's Sichuan Province. The A319 also offers the potential for flying further afield to destinations such as Lhasa, Tibet and other high-altitude airports.

With the introduction of the A319s, traveling time from Chengdu to Jiuzhaigou and Huanglong will be reduced to around two hours by air from more than nine hours by bus.

"With its outstanding performance, the A319 is an aircraft suitable for our operations at high-altitude airports. It fits perfectly our strategic development in the western region of China, which attracts passengers whether traveling for business or pleasure," said Lan Xinguo, President of the Sichuan Airlines at the signing ceremony in Jiuzhaigou Valley. "We will also benefit from the A319's commonality with our A320s and A321s, which will help us reduce training and maintenance costs, and increase our operational flexibility."

The A320 Family has already shown its outstanding performance at high-altitude airports in Latin America. However, Lhasa and Bangda airports in Tibet, among the highest in the world, are more challenging. Airbus has successfully made two A319 demonstration flights in Lhasa and Bangda, which are at 3,570 and 4,334 metres (11,712 and 14,218 feet respectively) above sea level.

"We are extremely happy to see that the performance of the A319 is able to meet the stringent operational requirements at the most challenging airports," said Airbus President and CEO Noel Forgeard. "Airbus attaches great importance to its traditional relations with Sichuan Airlines and we are convinced that the A319 will further boost the fast development of the airline."

The relationship between Airbus and the Sichuan Airlines can be dated back to 1995, when the Chengdu-based carrier became the first A320 operator and first fly-by-wire operator in the Chinese mainland. Currently, it has a fleet of eight A320s and three A321s, which have been operating successfully.

AIRBUS GRANTED 420,000 YUAN TO THE TIBET MOUNTAINEERING SCHOOL;  
AIRBUS GRANTED 420,000 YUAN TO THE TIBET MOUNTAINEERING SCHOOL AND  
SIGNED AN AGREEMENT TODAY IN BEIJING WITH THE SCHOOL TO SUPPORT THE  
TIBET MOUNTAINEERING UNDERTAKING

15 October 2003

Airbus granted 420,000 yuan to the Tibet Mountaineering School and signed an agreement today in Beijing with the school to support the Tibet mountaineering undertaking.

"Airbus has lent us great support, to which we are very grateful," said Nima Tsering, president of the school, who is also a well-know alpinist. "With funds from Airbus, we will build a rock climbing wall. We want to carry out more cooperation with Airbus so as to promote the development of mountaineering undertaking in Tibet and turn out more professionals of international standards."

"A bridge between Europe and China, Airbus is actively promoting the cultural, educational and sports exchanges," said Airbus Executive Vice President for government relations, communication and external affairs. Airbus is firmly behind the Tibetan mountaineering undertaking and the government's strategy of developing the western region. Airbus is a young company with only 33 years but has become the No. 1 in civil aviation. One of the reason for our success is that we are a young and dynamic company seeking the same spirit as mountaineers, which is to boldly face challenges and aim high."

In recent years, Airbus has been supporting the school with financial assistance and equipment.

In 1999, the Tibet Mountaineering School was founded and recruited more than 20 people in the Himalayan region. In the school, students receive strict training in rock climbing, ice climbing, how to use ropes. They also learn safety knowledge, mountaineering skills and foreign languages. The school has as well sent its students to France and Beijing to attend courses in mountaineering and rescue in high mountains. The school has drawn attention from the government, and was listed one of the 107 key projects for development in Tibet in 2002.

Students at the school and over 100 fans across China recently took part in a national mountaineering event in Tibet and successfully ascended Nyainqentanglha' which is 7,117 meters above the sea level. Nima Tsering brought with him a flag of Airbus to its summit on October 4.

Having over 50 mountains with an altitude of more than 7,000 meters and a number of mountains with an altitude of 6,000 meters, Tibet attracts alpinists worldwide. As the Himalayan region becomes increasingly open to the outside world, more and more foreign mountaineers rushed to the region. One of the goals of the school is to train mountaineering guides, who could play an important role in international cooperation and friendship.

Nima Tsering has become a famous figure after an amateur mountaineering team led by him successfully climbed to the top of Everest on May 21 this year, in celebration of the 50th anniversary of man's ascent of the mountain.

Hundreds of millions of people watched Nima Tsering unfurling on TV a Chinese national flag on the summit.

CHINA SOUTHERN AIRLINES SIGNS PURCHASE AGREEMENT FOR 4 A330-200  
AIRCRAFT

September 29, 2003

China Southern Airlines signed with Airbus a purchase agreement today in Guangzhou for 4 A330-200s, becoming the first customer of the aircraft in the Chinese mainland. Deliveries of the aircraft, powered by Trent 700 engines of Rolls Royce, will start in 2005.

This is part of the General Terms Agreement signed on April 25 in Beijing. The China Aviation Supplies Imp. & Exp. Group Corporation (CASGC) signed the GTA with Airbus for a firm bulk order of 30 Airbus aircraft, to be operated by the China Southern Airlines and several other Chinese carriers.

"We will mainly put the A330-200s into operation on medium- and long-range routes, especially on new international routes that we plan to open. Our goal is to become an airline of prime choice by passengers," said Liu Mingqi, Vice President of the China Southern Airlines group. "Introduction of the aircraft will offer our passengers a safe and comfortable in-flight experience. And we will also benefit from A330's commonality with other members of the Airbus Family, which will help us reduce training and maintenance costs."

"The purchase agreement for the A330 marks a new milestone in our cooperation," said Noël Forgeard, Airbus President and Chief Executive Officer. "We are confident that the A330-200 will play an important role in the continued development of the airline and look forward to a long and fruitful partnership between our two companies."

With a range of up to 6,650 nm/12,300 km, the A330-200 combines some of the lowest operating costs of any aircraft ever designed with maximum flexibility over medium to long-haul routes. The A330-200 for the China Southern Airlines will comprise 276 seats.

The A330 is part of the market leading Airbus A330/A340 Family which has been especially successful in Asia-Pacific, where it has been selected by 20 airlines, including almost every major international carrier in the region. The A330/A340 Family has booked more than 800 orders from over 60 customers worldwide.

The largest airline in The People's Republic of China for the past 24 years, China Southern Airlines connects more than 80 cities around the globe with more than 300 routes. It has over 120 large modern aircraft, including 20 A320s.

#### CHINA'S FLAG CARRIER AIR CHINA RECEIVES FIRST A319

15 July 2003

Air China, the flag carrier of the People's Republic of China, has taken delivery of its first A319 at the Airbus delivery centre in Hamburg, Germany. This is the very first aircraft of the A320 Family ever delivered to Air China. The ferry flight will take the aircraft to Xiaoshan International Airport in the Chinese province of Zhejiang.

The A319, powered by V2500 engines from International Aero Engines, will offer a two-class layout, seating eight passengers in business class and 120 in economy class. The aircraft delivered today carries the serial number "2000" of the Airbus Single-Aisle Family. The A319 will join the fleet of Air China Zhejiang Subsidiary, formerly CNAC-Zhejiang, which operates eight Airbus aircraft.

"The A319 is an ideal aircraft for our short- and medium-haul operation in the economically prosperous region of East China," said Sun Yude, Vice President of Air China and President of Air China Zhejiang Subsidiary. "We will also benefit from A319's commonality with members of the Airbus Family, which will help us reduce training and maintenance costs. The modern aircraft will also offer high comfort to passengers with wider seats, aisle and overhead stowage."

Air China has a further seven A319 on order, with one to be delivered in both August and September, three in 2004 and the rest in 2005.

"China is a significant market for Airbus, and we are proud to see that Air China, the national flag carrier, has become a new operator of the A320 Family," said Airbus President & CEO Noël Forgeard. "Airbus attaches great importance to its relations with Air China, and the A319 provides a new opportunity to reinforce the ties between the two sides."

Air China's parent company China National Aviation Holding Company (CNAH), founded in October 2002, is one of the three largest airline groups in China. Air China is CNAH's biggest civil aviation entity.

The A319s will mainly be operated on high-density routes linking Hangzhou and Wenzhou cities with Southern cities like Xiamen, Fuzhou and Guangzhou, Central and Western cities like Changsha, Chengdu and Chongqing and Northern cities such as Beijing, Dalian and Qingdao.

The A319 is a member of the A320 Family, which consists of the A318, A319, A320 and A321, the world's fastest selling single-aisle family.

Airbus business in China has been steadily expanding since it opened its first facility in the country in 1985. The Airbus fleet in service in the Chinese mainland, Hong Kong and Macao has grown from 29 in 1995 to more than 190 today. The CASC/AIRBUS Customer Services Training and Support Centre, which represents a US\$80 million investment by Airbus, is fully operational in Beijing. Four Chinese manufacturers are already involved in the manufacturing of Airbus parts, such as wing components, passenger doors and maintenance tools.

#### AIRBUS IS AN EADS JOINT COMPANY WITH BAE SYSTEMS. CHINESE AIRLINES ORDER 30 AIRBUS AIRCRAFT

25 April 2003

The China Aviation Supplies Imp. & Exp. Group Corporation (CASGC) signed a General Terms Agreement (GTA) with Airbus today in Beijing for a firm bulk order of 30 Airbus aircraft, scheduled for delivery from 2004.

Under the agreement, these 30 aircraft, including 4 A330s, 16 A319s and 10 A320s, will be operated by China Southern Airlines Group, Air China Group, China Eastern Airlines Group, Hainan Airlines and Sichuan Airlines.

Airbus President and CEO Noel Forgeard Airbus and CASGC President Li Hai signed the agreement at the Great Hall of the People. Chinese Premier Wen Jiabao and French Prime Minister Jean-Pierre Raffarin witnessed the signing ceremony.

Importantly, the A330 will operate with an airline on the Chinese mainland for the first time.

"CASGC has enjoyed a very good cooperative relationship with Airbus for many years," CASGC President Li Hai said. "With joint efforts, we hope that Airbus could provide more modern and economic aviation products to Chinese airlines, while CASGC could offer high quality and value-added services to Chinese airlines."

"Selection of the A330s, A320s and A319s has diversified and expanded Airbus fleet in China, marking a significant breakthrough for Airbus," said Airbus President and CEO Noel Forgeard. "We consider China a strategic market and we are delighted that Chinese airlines are giving us a new vote of confidence by selecting more Airbus aircraft."

The A330 will enable Chinese airlines to open new domestic trunk routes and new international routes, while significantly reducing operating costs. The A320 and A319 will do an outstanding job for the airlines, providing passengers with more comfort, higher reliability and unbeatable operating economics.

Airbus's business in China has been steadily expanding since it first entered the country in 1985. The Airbus fleet in service in the Chinese mainland, Hong Kong and Macao has grown to about 190 today from 29 in 1995. The CASC/AIRBUS Customer Services Training and Support Centre, which represents a US\$80 million investment by Airbus, is fully operational in Beijing. Four Chinese manufacturers are already involved in manufacturing of Airbus parts, such as wing components, passenger doors and maintenance tools.

## CHINA EASTERN AIRLINES ORDERS 20 A320 AIRCRAFT FROM AIRBUS

16 April 2002

China Eastern Airlines signed a contract with Airbus today in Shanghai for the firm order of 20 A320 aircraft, scheduled for delivery from the beginning of 2003. The newly ordered aircraft will be powered by CFM International engines.

The purchase agreement was signed by Ye Yigan, Chairman of China Eastern Airlines and John Leahy, Chief Commercial Officer of Airbus in a ceremony presided over by Liu Shaoyong, President of China Eastern Airlines.

"Selection of the A320s will improve our operating efficiency thanks to the aircraft's commonality with our existing fleet," said China Eastern Airlines President Liu Shaoyong during the signing ceremony. "The expansion of our A320 fleet further reinforces the foundation for our continued growth and prosperity."

"We are delighted that China Eastern Airlines, our first and largest customer in China, is giving a further vote of confidence to our products," said John Leahy, Airbus Chief Commercial Officer.

"We are extremely pleased that China Eastern Airlines has again selected the A320 to expand its fleet," said Noël Forgeard, Airbus President and Chief Executive Officer (CEO). "This agreement marks a new milestone in the long-standing cooperation between China Eastern Airlines and Airbus. The close partnership between our companies is a great source of pride for us."

The best-selling A320 Family's optimised cabin cross-section has set a new standard for passenger comfort in single-aisle aircraft, allowing for wider seats and aisles as well as more capacious overhead stowage. Comprised of the A318, A319, A320 and A321, which all share the highest degree of commonality and economy, the A320 Family offers many advantages for operators, such as reduced maintenance and training costs. By the end of March, the A320 Family had booked 2,782 firm orders from 108 customers worldwide.

Based in Shanghai, China Eastern Airlines is one of the three largest airline groups in China, with air links to more than 40 domestic destinations and over 20 cities abroad. The airline operates a fleet of more than 70 aircraft, 43 of which are Airbus aircraft.

Airbus' market share has grown steadily since it entered China in 1985. The Airbus fleet in service in the Chinese mainland, Hong Kong and Macao has grown to 168 today from 29 in 1995. A state-of-the-art training and service centre, which represents an US\$80 million investment by Airbus, is fully operational in Beijing. In the field of industrial cooperation, four Chinese manufacturers are already involved in manufacturing parts, such as wing components, emergency-exit doors and maintenance tools, for Airbus aircraft.

## AIRBUS VENDORS INCREASE SUPPORT TO CHINESE AIRLINES

28 February 2002

In a clear vote of confidence in Airbus and Chinese airlines, ten aviation vendors from Europe and the United States signed today agreements with CASC/Airbus Customer Services Support Center in Singapore during the 2002 Asian Aerospace show.

The ten vendors, which include Airbus France Avionics & Simulation Products, AirCruisers, Avio-Diepen, B/E Aerospace, Eltra Aeronautics, FR-HITEMP, Messier Services, Pacific Scientific, Satair and Smiths Industries, provide spare parts, avionics repair, customer liaison and training to Airbus operators in China and the Asia-Pacific region at large.

They bring the total numbers in partnership with Airbus at the center to 20. In cooperation with Airbus, they continue to demonstrate their support and commitment to the region.

The 10 companies already participating in the center are Eaton Aerospace, Hamilton Sundstrand, Honeywell, Interturbine, Intertechnique, Litton Aero Products, Parker



Aerospace, Sully Produits Speciaux, Thales Avionics and TPA Pte. Ltd. Together they represent over 80% of vendor spares most likely to be needed, and complement an Airbus stock of 24,000 spare parts.

The vendor presence at the Beijing-based CASC/Airbus Customer Services Support Centre is a unique benefit to Airbus customers, distinguishing the faculty from other customer services support facilities. It helps to ensure a fast response to airline needs while reducing costs and turnaround time at its CAAC, JAA and FAA approved avionics repair station, as well as providing opportunities for new business and technological co-operation with them.

CASC/Airbus Customer Services Support Centre is part of a state-of-the-art training and support complex jointly established by the China Aviation Supplies Import and Export Corporation (CASC) and Airbus. As part of Airbus' global customer services network, this facility makes training and support more accessible and convenient to Airbus operators in China as well as in the Asia-Pacific region. The facility represents an investment of more than US\$80 million by Airbus in the important Chinese market.

Airbus entered China in 1985 and its market share has kept increasing. In terms of fleet in service and orders, Airbus aircraft market share in China (including Hong Kong and Macao) has risen to 28 percent at present from 13 percent at the beginning of 1995. Its fleet has also been expanded to 168 from 29. Airbus sees opportunities to further develop its industrial cooperation with the Chinese industry and to integrate new suppliers in its network. Four Chinese manufacturers are already involved in manufacturing parts, such as wing components, emergency-exit doors and maintenance tools, for Airbus aircraft.

#### CHINA EASTERN AIRLINES JIANGSU LTD INSTALLS AIRBUS' LOMS SOFTWARE TOOL

27 February 2002

Following signature of a contract with Airbus in December, China Eastern Airlines Jiangsu Ltd. began deploying LOMS (Line Operation Monitoring System) on its A320 fleet this month. This innovative and user-friendly software tool is, together with FOM (Flight Operation Monitoring), part of Airbus' global safety policy. Conceived and developed by Airbus engineers and Airbus test pilots, LOMS is a measurement, analysis and reporting software tool for flight operations data monitoring. It can be integrated in any airline's FOM programme. Routine tracking and reinforcement of operating standards is one objective of the diagnostic presented by LOMS; the other is a critical perception of pilot training programmes and published standard operating procedures. LOMS focuses on identification of deviations from good flight operating practices as violations of good operating practice, using a global statistical approach. LOMS has already attracted four other airlines: China Southern Airlines (operating 6 A320s), Sichuan Airlines (operating 6 A320s and 2 A321s), Spanair (operating 3 A320s and 3 A321s) and Middle East Airlines (operating 3 A320s, 2 A321s, 1 A300 and 3 A310s).

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2012 Zhuhai Directory: They are developing and manufacturing on an advanced-technology base: radar and flight control and navigational sighting systems; computer systems of piloting; steering control systems; armament control systems; meteorology;

display systems; kallimator systems; emergency registrars; fuel gauges and flowmeters; public recognition systems; computer systems; flight simulators.

NOTE TO READER: Valuev Nikolay comes up 13 times in this directory as the contact for the following Russian companies: Aircraft Engineering Concern, Aviation Electronics and Communication Systems, Aviapribor Holding, Electroavtomatika, EST "Vzlet", Moscow Institute of Electromechanics and Automatics, Phazotron – NIIR, RPE ELTom, Ryazan State Instrument Making Enterprise, Science – Research Institute of Aircraft Equipment, Ufa Instrument – Making Production Association, Utyos, and Zhigulyovsky Radiozavod.

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2012 Zhuhai Directory: Aircraft Industries, a.s. is the largest Czech civil aircraft manufacturer building on the 70-year aviation tradition of LET Kunovice company. Present core business is serial production of the L 410 twin turboprop commuter aircraft of which over 1,100 units have already been produced and operated in more than 50 countries all over the world. Under way is upgrade of this high-wing commuter which is usually designed for 19 passengers or cargo, but there are available other variants meeting special customers needs. L410 UVP-E20 Aircraft: All-metal aircraft powered by two GE H-80 engines; For transportation up to 19 PAX, cargo or for **special missions**; Outstanding versatility with number of quick change conversion kits; Remarkable "hot and high" performance; STOL capabilities even on unpaved runways; Excellent safety history.

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Corporate Website (Extracted in February 2014): Airmid Aviation comes to you from the Indiabulls Group, a large Indian business house. We at Airmid offer our guests a slew of tailor-made business jet services to help you make most of your time and your life.

Our next-generation fleet of aircraft includes a Bombardier Challenger-850, a Bombardier Challenger-604, a Cessna Citation Bravo and Eurocopter-135 offering to our guests a personalized and luxurious experience replete with private suites, experienced and highly trained flight crew, pampering in-flight services and much more, to help you fly at your convenience - anywhere, anytime.

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2012 Zhuhai Directory: Altitude Aerospace Inc. is a leading engineering firm specializing in conceptual design, structural analysis, and certification, both for the development of new aircraft programs as well as support for existing aircraft fleets. Our firm has gained a solid reputation with OEMs by contributing closely to the development of significant structural sub-assemblies such as aircraft fuselage sections, wing boxes, structural bulkheads, doors, cockpit structure. In addition, Altitude supports numerous airlines worldwide in the modification and repair of aircraft in their fleet. In an effort to pursue our long-term goals and remain a leader in our sector, Altitude Aerospace continuously invests in research and development by developing and introducing new innovative products in the aerospace industry. Our engineering capabilities include: Conceptual Design (using Catia V4, Catia V5, Pro/ENGINEER and AutoCAD); Structural Analysis; Static Analysis; Fatigue Analysis; Damage Tolerance Analysis; FEM analysis (using Nastran/Patran, Catia FEM and optimization using HyperMesh); Aircraft damage assessments; Repairs of both metallic and composite structures; Major aircraft modifications through STCs.

#### **ALTRAN**

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#### **Altran China**

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[www.altran.cn](http://www.altran.cn)  
[www.linkedin.com/company/altran-china](http://www.linkedin.com/company/altran-china)  
Contacts:

- Mr. Nan JIANG, Chairman
- Mr. David NICOLAS, CEO
- Mr. Weimin SU, Chief Technical Officer

2012 Zhuhai Directory: Altran is an international advanced engineering and innovation consulting group, and a European leader in this domain. The Group's mission is to help our clients creating and developing new products. Every day, we apply our technological and innovative expertise to enhance our clients' performance and bring their complex projects to life. In a complex and centralized Aerospace & **Defense** market, geared to address wide stakes, ranging from environment issues to breakthrough technologies. Altran's role is to meet all of its client's challenges, from innovation through to supplier Supply Contractor optimization, via performance management and IS technologies. With more than 2,500 specialists worldwide, Altran's long-standing presence and expertise in the field of Aeronautics, Space and **Defense** (ASD) makes it one of the key players in the ASD sector today.

Corporate Website (Extracted in February 2014) ([www.altran.cn](http://www.altran.cn)): Altran China was established in 2006 and has more than 100 employee now. Altran Group has put a great attention for the development of Altran China in next 5 years by defining it as a key strategic priority. We offer services intended to: Support international customers in China with local consultants using European standards & methodologies; Deliver locally managed services to international customers in China with service mirroring & technology transfer from Europe; Provide Technology and Engineering consulting & support to Chinese customers.

### **ANTONOV Company**

#### **АНТОНОВ**

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Contact: Dmytro Kiva, President-General Designer

2012 Zhuhai Directory and Corporate Website: ANTONOV Company is now one of the few enterprises, running the complete development cycle of advanced aircraft — from preliminary design to construction, testing, certification, production and integrated logistic support. It has a great experience in creation of cargo, regional passenger and multipurpose aircraft, upgrading earlier designs, development and implementation of innovative technologies. This experience was implemented in joint works on Chinese ARJ-21 and Y-8F-600 airplanes. ANTONOV aircraft advantages include reliability and economic efficiency, flexibility of transport operations, ability to use unpaved airfields and easy maintenance. At Zhuhai Airshow ANTONOV presents its modern programs, which can become a basis for further development of semi-centennial cooperation with Chinese enterprises and aircraft operators. Among them are family of AN-148 regional jets; AN-124-100 Ruslan and AN-225 Mriya freighters; AN-2-100 multipurpose aircraft.

### **ANTONOV PRESS RELEASES**

#### **25 YEARS OF THE DREAM COMING TRUE**

December 19, 2013

EXCERPT: On December 21, 2013, 25 years will pass from the maiden flight of the AN-225 Mriya (Dream), the world's biggest transport designed by ANTONOV Company. It is a legendary and absolutely unique aircraft. The Mriya's maximum take-off weight reaches fantastic value of 640 tons that surpasses considerably modern achievements of other airplanes among them take-off mass of the A-380 which is 80 tons less. The AN-225 has 240 world records including transportation of the heaviest cargo weighing 253.8t, the heaviest monocargo – 187t as well as a cargo with length 42.1m. On June 10, 2010, the Mriya carried a cargo, which became the longest one in the airlift history. Two wind turbine blades of 42.1 m long each were delivered from China to Denmark. During December 1–2, 2013, Antonov Airlines performed air transportation of two green-energy tram carriages from Shijiazhuang, China, to Samsun, Turkey. Taking into account the cargo dimensions (each carriage of 20.04 x 2.88 x 3.60 m) the AN-225 Mriya, the world's largest transport airplane with length of cargo compartment of 43.3 m, was chosen to perform this flight.

#### **THE AN-225 MRIYA CARRIED CARRIAGES FOR THE FIRST TIME**

December 02, 2013

Antonov Airlines performed air transportation of two green-energy tram carriages produced by Chinese CNR Tangshan Railway Vehicle Co Ltd from Shijiazhuang, China, to Samsun, Turkey. Taking into account the cargo dimensions (each carriage of 20.04 x

2.88 x 3.60 m) the AN-225 Mriya, the world's largest transport airplane with length of cargo compartment of 43.3 m, was chosen to perform this flight. To provide possibility of loading and carrying two carriages as well as their accessories for one flight of the AN-225, ANTONOV's engineers have developed special transport equipment in shortest terms. Total weight of the cargo reached 70 t. The loading process was widely broadcasted by Chinese mass media. It was the first batch of such type tram carriages to be delivered to Turkey. The flight lasted 10 hours. The transportation was performed in strict accordance with the schedule approved by the customer. It was much more time-efficient compared with traditional means on the sea or by rail. For 25-year age, the Mriya carried carriages for the first time, but this task was performed successfully. On December 3, the AN-225 returned to the Kyiv-Antonov airport. New flights are ahead.

**Argosy International**

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2012 Zhuhai Directory: Argosy International was established in New York, USA, in 1988, and has built up long-standing relationships with the world's leading aerospace materials manufacturers to ensure the 24/7 supply of specialty materials and services. In addition to the aerospace industry, Argosy International serves a diverse group of markets, such as automotive, tooling, transporting and sporting goods, with specialty chemical products including tooling resins, adhesives, coatings, potting compounds, specialty tapes, film adhesives, honeycomb, sealants and prepreps. Argosy International has sales and

distribution facilities in the U.S.A. (New York, Los Angeles), China (Beijing, Shanghai, Xi'an, Guangzhou, and Xiamen), Taiwan (Taichung), South Korea (Seoul, Busan), Malaysia (Kuala Lumpur), India (Bangalore), Australia (Melbourne) and Europe (France), and can provide customized service. Argosy quality management system is approved by AS9120:2002, ISO 9001:2000 and AS9100.

Corporate Website (Extracted in February 2014): Established in the U.S. in 1988 as a trading company, Argosy began to focus on the commercial aerospace market in Asia when the company became the solutions provider for all non-standard items to a major contractor in Taiwan where it opened an office. Over the next five years, Argosy became a key supplier to China and was well positioned in this market when outsourcing to Asia by OEMs took off in 2000. To serve the needs of the market, Argosy opened offices in Beijing, Xian and Shanghai, China as well as in Korea, Malaysia, India and Australia in addition to its Taiwan office. Currently, Argosy is an approved supplier to every major aerospace contractor in Asia, except Japan.

Available Products and Services in China – Products: Honeycomb Core; Adhesives; Composites; Coatings; Consumables/Composite Bagging Materials; Fibers/Fabrics; Infrastructure Repair Materials; and Aluminum Products. Services: Custom Tooling; Logistics; Inventory Management; and Distribution.

Argosy International is the exclusive aerospace distributor of UMECO Process Materials in China, Taiwan, Hong Kong and Macau.

Our blending facility in China offers a wide variety of products ranging from primers and topcoats to specialty coatings. Argosy International is the exclusive distributor of Akzo Nobel Aerospace Coatings in China and Taiwan.

Past Industry Trade Shows in China with Argosy Participation:

- International Forum on Composite Material Application For Large Commercial Aircraft 2011
- The 17th China International Composites Industrial Technical Expo 2011
- SAMPE China 2011
- China Composites Expo 2010
- CICE - International Conference in Civil Engineering, 2010
- China Composites Expo 2009
- Asian Aerospace 2009 (Hong Kong)
- SAMPE China 2009 Conference & Exhibition

“Indicative of our commitment of providing products and services that meet or exceed customer requirement, Argosy International, Inc., its Argosy (Shanghai) Aerospace Material subsidiary, and its joint-venture company, Argosy XAC Composite Materials, Ltd, operate under quality systems that have achieved third-party accreditation.”

Argosy has been certified by the Civil Aviation Administration of China under the China Civil Aviation Report-53 for “Airworthiness Regulation for Aero-Chemicals used in Civil Aviation,” and “Shanghai facility approved as a supplier and manufacturer of blended Eclipse aerospace coatings for application on China Civil Aircraft.

The Argosy (Shanghai) Aerospace Material Ltd & Beijing Branch Office holds AS9100B/ISO 9001:2000 for the formulation and distribution of aerospace coatings, supply and distribution of high performance aerospace specialty materials, including composites and thermal management materials.

Argosy XAC Composite Materials Ltd. holds AS9100B/ISO 9001:2000 for the manufacture of honeycomb core for aerospace industry.

The Argosy Shanghai facility is approved for blending colors in accordance with ANAC formulations, and stocking and distribution of all ANAC aerospace coating products. This is an “AKZO Nobel Aerospace Coating Statement of Approval.”

### **Arrowhead Products**

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2012 Zhuhai Directory: We are a global leader that provides single source design, engineering, manufacturing and qualification of High Press Metal and Low Pressure Composite air distribution systems for aerospace customers worldwide. Arrowhead Products China located in Nanjing, China has recently built a new 11,000 square meter composite manufacturing plant.

Corporate Website (Extracted in February 2014): In 1983, Arrowhead Products was sold to Vesper Corporation now called Industrial Manufacturing Company based out of Brecksville, Ohio.

Arrowhead Products is a world leader in the design, development, and manufacture of ducting systems for aircraft and propulsion lines for rockets. We specialize in both High Pressure metallic ducting systems and Low Pressure composite ducting systems and take pride in providing creative engineering solutions with the highest product quality. **We are also the primary source of rocket propulsion lines for NASA and the U.S. space launch system industry.** Backed by more than 70 years of experience and proven reliability, our products are installed on virtually every major commercial, **military**, and space vehicle.

Arrowhead Products offers repairs of its products through its FAA Part 145 certificated repair facility located on the premises.

As the OEM we provide complete product Repair, Overhaul and Factory New OEM Licensed Spares for Rigid, Flexible and Insulated duct assemblies constructed of Metal, Composite & Elastomers.

Arrowhead Products, with its 75 years of knowledge and experience in design and manufacture of aerospace complex ducting systems and components has opened a new, state-of-the art, Repair & Overhaul facility designed with the same manufacturing processes and equipment that we use with our OEM customers resulting in extensive repair capabilities and a reduced Turn-Around-Time (TAT).

Repairs are performed in accordance with OEM drawings, CMMs, Specifications and utilize the original fixtures, tooling, raw materials and components.

Applications Include: Pneumatic Systems; Environmental Control Systems; Engine Bleed Air Systems; Thermal Anti-Ice Systems; Piccolo Tubes; and Starter Ducts.

Examples of Arrowhead Products' capability are the integrated designs of the bleed air ducting systems for the **F-35, F/A-18 E/F**, Dash 8 - Q400 Pneumatic System, and the Low Pressure Systems for the Lear 85.

### **ASCO Industries**

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2012 Zhuhai Directory: ASCO Industries is a world leader in the design and manufacture of high lift devices, complex mechanical assemblies and major functional components for the aerospace industry. 1,250 dedicated men and women comprise the ASCO team, focusing on continuous improvement, know how, and customer satisfaction. In a global environment, ASCO provides local solutions to its customers through: 120,000<sup>2</sup> of covered industrial area on 4 industrial locations: Belgium, Canada, Germany and the USA. There are 3 service offices: Brazil, France, and the USA. Organic growth is based on Research and Technology and participation in new workpackages from design to delivery of (sub) assemblies.

**August Rüggeberg GmbH & Co. KG (PFERD)**

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Contact: Mr. Ralf Gesetz

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www.pferd.cn

2012 Zhuhai Directory: August Ruggeberg was established in 1897. Today, marketing its products under the PFERD trademark, the company is considered a global leader in quality and performance, supplying a broad system range of rotary tools for producing finishes 'from coarse to mirror polish' to the metalworking industry. Our products are sold via retailers as well as directly to industrial end users and professional craftsmen. More than 200 PFERD sales consultants are at work worldwide to provide application support to PFERD customers in the above markets.

**Aviation Electronics and Communication Systems, JSC**

**АВЭКС**

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Contact: Valuev Nikolay, Department Head

2012 Zhuhai Directory: The principle directions of the activities of the JSC (AVECS) are the following: engineering of the regulation and monitor equipment for spacecraft power supply units and the control and conversion equipment for the systems, which command spacecraft electric plasma thrusters, and also creating of the simulators of solar and storage batteries. According to these directions the JSC (AVECS) is responsible for tasks for the leading Russian aerospace corporations.

NOTE TO READER: Valuev Nikolay comes up 13 times in this directory as the contact for the following Russian companies: Aircraft Engineering Concern, Aviation Electronics and Communication Systems, Aviapribor Holding, Electroavtomatika, EST "Vzlet", Moscow Institute of Electromechanics and Automatics, Phazotron – NIIR, RPE ELTom, Ryazan State Instrument Making Enterprise, Science – Research Institute of



Aircraft Equipment, Ufa Instrument – Making Production Association, Utyos, and Zhigulyovsky Radiozavod.

**Aviapribor-Holding, JSC**

**Авиаприбор-холдинг**

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Contact: Valuev Nikolay, Department Head

2012 Zhuhai Directory: The Aviapribor-Holding Company is a leading enterprise within the Russian aerospace industry where development, manufacturing and maintenance of avionics for long-haul and short-haul fixed-wing aircraft and helicopters of all types are concerned. The company's areas of specialization include: measurement of air data of aircraft; aircraft control; navigation and flight planning; flight data display; control of airborne equipment; integration of airborne equipment; and automated ground systems for airborne equipment control.

NOTE TO READER: Valuev Nikolay comes up 13 times in this directory as the contact for the following Russian companies: Aircraft Engineering Concern, Aviation Electronics and Communication Systems, Aviapribor Holding, Electroavtomatika, EST "Vzlet", Moscow Institute of Electromechanics and Automatics, Phazotron – NIIR, RPE ELTom, Ryazan State Instrument Making Enterprise, Science – Research Institute of Aircraft Equipment, Ufa Instrument – Making Production Association, Utyos, and Zhigulyovsky Radiozavod.

**Aviasalon JSC/MAKS "Moscow Airshow"**

**Международный авиационно-космический салон**

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Contact: Catherine Shapoval, cat@aviasalon.com

2012 Zhuhai Directory: AVIASALON JSC is the executive organizer of the International Aviation and Space Salon MAKS and the International Forum 'Engineering Technologies', both held at the TEC RUSSIA exhibition grounds, Ramenskoye airfield, Zhukovsky, Moscow region, Russia. The jubilee 10th MAKS 2011 has exceeded all previous exhibitions: 842 exhibitors from 40 countries, 241 aircrafts at the static display, 91 airplanes and helicopters in the flying display, transactions for the total sum over \$16 billions. Total number of visitors has exceeded 550,000, among them 110,000 specialists and official delegates.

Corporate Website (Extracted in February 2014): Excerpt: A distinctive feature of the International Aviation and Space Salon MAKS is its colorful and rich flight program. The forthcoming MAKS 2013 was not going to be an exception. The following aircrews will participate in MAKS 2013 flight program: Official Partners in charge for reception of the "August 1st" aerobatic team of the Chinese People's Liberation Army Air Force: ROSOBORONEXPORT (JSC), Tactical Missiles Corporation (JSC), Sukhoi Company (JSC), Irkut Corporation (JSC), Ilyushin Aviation Complex (JSC), UAC-TA (JSC).

EXCERPT: Results of the third day of MAKS 2013 Aviation Salon. At MAKS, All-Russian Scientific Research Institute of Aviation Materials entered into five agreements with Russian and foreign enterprises. The institute will develop composites for aviation equipment with Porcher Industries and Aerocomposit. It will develop co-operation in civil aviation and share research and scientific data with the Chinese Academy of Fundamental Science AVIC TECH. Besides, VIAM will co-operate with Atlas group in holding of climatic tests. The institute also signed a memorandum for the establishment of an Innovative Materials and Technologies cluster in Stupino that will develop materials for T-50 and MS-21 engines.

Chinese Participants of MAKS 2013:

- Ameco Beijing
- AVIC International Holding Corporation
- China Great Wall International Corporation Co. Ltd
- Airshow China (Zhuhai Airshow)

### MAKS PRESS RELEASE

#### CHINESE AEROBATIC TEAM WILL FOR THE FIRST TIME TAKE PART IN MAKS 2013

August 13, 2013

On August 1, the aerobatic team of the Chinese Air Forces will for the first time take part in the flight program of MAKS 2013 XI International Aviation and Space Salon, announced Commander-In-Chief of the Russian Air Forces Viktor Bondarev at the meeting of the Organizing Committee.

Chinese aviators will perform at Chengdu J-10 multi-role fighters. Six machines equipped with AL-31FN Russian engines will take part in the show.

V. Bondarev underlined that the newest Chinese fighters had virtually not been demonstrated to the public earlier. Meanwhile, in the long view, they will become the most common combat plane of the Chinese Air Forces.

Four aeronautic teams of the Russian Air Forces will also perform at the aviation salon: Swifts, Russian Knights, Sokoly Rossii and Berkuty. Besides, the aeronautic team of the Russian Voluntary Association for Assistance to Army, Aviation and Fleet and a team of sportsmen – winners of aerial aerobatics world championships Pervy Polet will take part in demonstration flights. As for foreign teams, Latvian Baltic Bees has confirmed its participation.

The meeting of the organizing committee reported that on August 27-29, during the business program, performances of aerobatic teams will be given in a short form. From August 30 to September 1, days allocated for broad public's visit, the summer program will last till 05-06 p.m.

#### **Aviazapchast PLC**

##### **Авиазапчасть**

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Contact: Mr. V. Shorin, Chief Specialist, Commercial Department

2012 Zhuhai Directory: Aviazapchast PLC was established in 1990 as a result of corporatization of the “Aviazagranpostavka” state-owned enterprise, founded in 1968 as an aircraft industry export company. The “Aviazapchast” PLC offers complete services for civil and dual-purpose aircraft including helicopters and planes supply and overhaul, supply of ground service equipment and aerodrome equipment, from products purchasing to their further support. The “Aviazapchast” PLC head office is located in Moscow; we also have representations in India, Algeria and Mexico. Our Company successfully realizes its export capacities because we have an international certificate of quality ISO 9001 and established partnership relations with more than 30 countries. Aviazapchast PLC supplies Russian products to more than 30 countries including India, Algeria, China, Mexico, Peru, the United Arab Emirates, etc.

Excerpts Corporate Website (Extracted in February 2014):

“AVIATION EXPO CHINA 2002, 2005 exhibitions. It took place at Zhuhai City, Gungdong province, China. Aviazapchast OJSC is a standing participant of this aviator forum. Along with the leading Russian plants and corporations, we consider China as one of the major world countries in development of the aviation industry. Air Show China is an aerospace exhibition in China which is approved by the Chinese Government. Zhuhai City history is interesting. In 1978, when Zhuhai was a fishermen village, it was decided to create a special economic area there. It hasn't been 15 years that a millionaire city has grown at the bank of the Zhu River which is translated from Chinese as 'pearly.' 195 companies: both domestic and international, from 11 countries took part in this exhibition. Aviazapchast OJSC participated as part of the Russian delegation.”

“FIDAE 2012 INTERNATIONAL AIR & SPACE FAIR Santiago, Chile.

Fields highlighted at FIDAE 2012:

Aviazapchast PLC was among numerous international exhibitors of FIDAE, with its exposition displayed together with that of Aeroelectromash and Eastern Aviation, BV, exhibit booth No. E84. Aviazapchast delegation and its leader Igor Kargin, Deputy General Director, had a series of business meetings with delegations of aircraft, engine, and component manufacturers. Aviazapchast PLC hosted at its exhibit booth representatives of operators, MRO companies, suppliers of components for the fleet of Russian-made aircraft from the following countries: USA, Brazil, Columbia, Peru, UAE, as well as representatives of space companies (Brahmos, India). A highly positive and constructive meeting was held with AVIC (China) delegation.”

“The seventh International Aviation Exhibition Aero India – 2009.

Apart from the aircrafts, since 60s years of the previous century the great demand is shown for the helicopters of the Soviet Union/Russian origin. During Aero India - 2009 the organizers announced the possibility of the arrangement of the Russian helicopters assembling in India and China.”

#### **Avio Aero a GE Aviation Business**

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China Country Manager: Ferdinando Sorrentino

Corporate Website (Extracted in February 2014): Avio Aero, a GE Aviation business, is a leading player in the design, manufacture and maintenance of civil and **military**

aeronautics components and systems. Avio Aero acts as the center of excellence for the entire General Electric Group in the field of mechanical transmissions and low-pressure turbines. Italy is home to the head office, as well as plants based in Turin, Pomigliano d'Arco (Naples) and Brindisi. Around the world, the company has approximately 4,700 employees, of which approximately 4,000 are in Italy and has plants also in Poland, Brazil and China.

Corporate Website (Extracted in February 2014): On 1 August 2013, the Company business unit of Avio S.p.A. relative to the design, development and manufacture of accessory drive trains and power transmissions, low-pressure turbines, combustors, afterburners, subsystems and MRO and CRO activities for civil and **military** aeronautical engines, was sold to Nuovo Pignone Holding S.p.A. (General Electric Group), which makes up an integral part of the GE Aviation activities. The closing of the operation follows the stipulation on 21 December 2012 of the contract of sale with regard to this Company business unit. All the business activities of Avio S.p.A. relative to the design, development and manufacture **of propulsion systems for space launchers and tactical missiles**, as well as the development, integration and production of the new European launcher Vega, remain the property of Avio S.p.A.

Excerpt from Corporate Website: "History in a Nutshell: 2010 – With the focus on emerging markets, a first joint venture is launched in China, for the development and production of combustion chambers for the Chinese aeronautical market."

Avio (Beijing) Aviation and Aerodynamics Technology Co., Ltd  
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In Harbin (North-East China), Avio Aero, through an equal joint venture with the AVIC Group, is involved in the fulfilment of an industrial plant for the development, production, sales and maintenance of power transmission systems for civil helicopters and turboprop aircraft, accessory drive trains for commercial aeroengines, and mechanical transmission components such as gears and shafts for aeronautical, marine and industrial applications, all destined for the Chinese market.

In Xian (North-West China), Avio Aero, through a joint venture with XAE - Xian Aero Engine, is setting up a centre of excellence dedicated to the development and subsequent production of combustors for civil aeroengines and aeroderivative gas turbines for marine applications, turbines for industrial use and the relevant components, all destined mainly for the Chinese market.

#### AVIO PRESS RELEASES

Press releases in the present section refer to the period before the purchase by Nuovo Pignone Holding S.p.A. (General Electric Group) of the Company business unit relative to the aeronautical activities of Avio S.p.A., which took place on 1 August 2013. Starting from this date, all activities regarding the design, development and manufacture of accessory drive trains and power transmissions, low-pressure turbines, combustors, afterburners, subsystems and MRO and CRO activities for civil and **military** aeronautical engines became an integral part of the business of GE Aviation.

AVIO SIGNS JOINT VENTURE AGREEMENT WITH AVIC DONGAN AND AVICOPTER; VENTURE WILL MANUFACTURE POWER TRANSMISSIONS FOR THE CHINESE MARKET

Dongan (China), 20 January 2011 – Avio, Italy's leading aerospace company, AVIC Dongan and AVICOPTER (an AVIC Group company), have signed a joint venture (JV) agreement for the development and production of power transmissions for civil aircraft engines destined for the Chinese market – expected to grow exponentially in the coming years. Avio will have 50 per cent capital ownership of the new company, while AVIC Dongan will have 42 per cent, and AVICOPTER the remaining 8 per cent. Total expected investment for the set up and development of the JV is over €150 million over the coming years. The JV will focus on the development, production, sales and maintenance of power transmission systems for commercial helicopters and turboprop aircrafts – a field in which Avio is a global leader. The JV will also manufacture accessory drive gearboxes for commercial aircraft engines, and mechanical transmission components such as gears and shafts for aeronautical, marine and industrial applications. The JV will be headquartered in a new industrial plant which will be built in Harbin, North East China, over 97,300 square metres. Construction will begin in April 2011, and is expected to be completed by the end of November 2011. The venture will be fully operational by early 2012. This agreement signifies a major step forward in Sino-Italian collaboration in the aeronautical industries.

#### XIAN AERO ENGINE (XAE) AND AVIO SIGN MOU FOR DEVELOPMENT AND PRODUCTION OF AERONAUTICAL COMBUSTERS FOR CHINESE MARKET

Zhuhai (China), 17 November 2010 – Xian Aero Engine (XAE), the Chinese Company involved in the aeronautical propulsion sector, and Avio, the international Italian based group and leader in aerospace propulsion, signed a Memorandum of Understanding at the China International Aviation & Aerospace Exhibition, Zhuhai, for setting up a equity joint venture aimed at establishing a leading centre of excellence that will be focused on development and manufacturing of combustors for civil aircraft, marine engines and turbines for industrial use, including relative components, mainly intended for the Chinese market. The centre of excellence will be founded on Avio's technical and management skills, linked to the XAE domestic and international market experience, and will be located in the XETDZ area (Xian Economic and Technologic Development Zone) in Xian, North West China. Thanks to the support of Avio and its consolidated experience, this agreement will allow, among other things, the Chinese XAE to increase the level of cooperation with European industries, and to join into the worldwide aviation supply chain. Moreover, the centre of excellence will be able to promote itself as world-class manufacturing centre for combustors for the Chinese engine to power the COMAC C919, the narrowbody aircraft, entirely "Made in China". In order to take advantage of these opportunities, Avio signed – at the Zhuhai Airshow – a Memorandum of Understanding with ACAE, a Business Unit of AVIC being responsible for development of the commercial turbofan engine for COMAC C919 aircraft. In order to support the development in China, Avio has recently set up Avio (Beijing) Aviation and Aerodynamics Technology Co Ltd., a company based in Beijing and entirely owned by Avio.

**NOTE TO READER:** Press releases in the present section refer to the period before the purchase by Nuovo Pignone Holding S.p.A. (General Electric Group) of the Company business unit relative to the aeronautical activities of Avio S.p.A., which took place on 1 August 2013. Starting from this date, all activities regarding the design, development and manufacture of accessory drive trains and power transmissions, low-pressure turbines, combustors, afterburners, subsystems and MRO and CRO activities for civil and **military** aeronautical engines became an integral part of the business of GE Aviation:

#### AVIO: EXTENSION OF THE MRO AGREEMENT FOR THE PW100 IN CHINA

Avio has signed an extension to its MRO agreement with Chinese Xinjiang Airlines until 2010 for the PW100 engines installed on ATR72 aircraft. Xinjiang Airlines, the only Chinese operator of the ATR aircraft, has been an Avio customer since 1999. Avio views this agreement as an acknowledgement of the quality of the support provided by the Italian

company over the past years. This contract further increases the Axon presence in the MRO market of the engines for the ATR, a turboprop aircraft that is achieving success due to its low operating costs.

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Exhibitions for 2014:

- Electronica China, 18 - 20 Mar 2014, Shanghai, [www.electronicachina.com](http://www.electronicachina.com)
- CIPPE, 19 - 21 Mar 2014, Beijing, [www.cippe.com.cn](http://www.cippe.com.cn)
- Nuclear Industry China, 15 - 18 Apr 2014, Beijing

Corporate Website (Extracted in February 2014): AXON' INTERCONNECT Ltd was established in December 2000 and moved to the current site in Shunde, Guangdong Province in China in February 2004. The company is located 2 hours from Hong Kong by Ferry and 1 hour from Guangzhou by car. AXON' INTERCONNECT Ltd employs around 130 staff. The 6800 m<sup>2</sup> factory is dedicated to the manufacture of flat flexible cables, flat cables for airbag, mini coaxial cables for wireless applications, telecom assemblies, micro D cable assemblies and MIL-STD-1553 data bus assemblies. Sales area: China and Hong Kong. Quality: ISO 9001, ISO 14001, TS16949, ISO 13485, and EN 9100 (in process).

For aero-**military** & space markets:

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2012 Zhuhai Directory: Axon' Cable is a French group specialized in the design and manufacture of custom designed wires, composite cables, cable assemblies, harnesses and connectors for aeronautics and **military** markets. Our products are designed to meet the most severe challenges including weight saving, miniaturization, flexibility high frequency, high data rate, data transmission, electromagnetic protection and resistance to extreme temperatures. Robust but small, our micro-D connectors and assemblies are micro-miniature solutions which rise to the challenge of demanding applications and harsh environments. Our MIL-STD-1553 transmission networks offer high security of data and signal integrity. They allow for weight and space saving, better reliability and simplified diagnostics of avionics. High data rate cables and connectors offered by Axon' Cable for Voice-Data-Image transmission are used in on-board electronics. They transmit signals over large distances with high fidelity and reliability. Axon' Cable has a truly global presence with manufacturing subsidiaries worldwide. Axon' Interconnect Ltd., the Chinese subsidiary, is based in Shunde, Guangdong Province.

Corporate Website (Extracted in February 2014): With the rapid development and growth of its key customers such as Nortel in China, Axon' has decided to invest in a new facility in Shunde, Guangdong Province of China, to match and support the industries with high technology interconnect products. This is also tuned towards the market trend and demand in the Asia Pacific Region and China. Axon' Interconnect Limited was founded in

11th December 2000 in Shunde, Guangdong, China. The Company is the subsidiary which assembles design, production and sales under Axon' Cable S.A.S.



# B

## **BARCO**

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### **CFG & Barco (Beijing) Electronics Company Ltd.**

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2012 Zhuhai Directory: Barco, a global technology company, designs and develops visualization solutions for a variety of selected professional markets. Barco has its own facilities for Sales & Marketing, Customer Support, R&D and Manufacturing in Europe, North America and Asia Pacific. Barco (NYSE Euronext Brussels: BAR) is active in more

than 90 countries with about 3,900 employees worldwide. Barco posted sales of 1.041 billion euro in 2011.

## BARCO PRESS RELEASES

Li Shen, Press & PR contact Greater China, Barco NV

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### BARCO INSTALLS THE FIRST SIMULATION AND VIRTUAL REALITY TRAINING SYSTEM FOR CHINA'S COMMERCIAL AVIATION INDUSTRY

Beijing, China, June 10, 2013 – Global simulation and virtual reality expert Barco recently announced that Commercial Aircraft Corporation of China Ltd. (COMAC) has selected its simulation and virtual reality training system for the day-to-day training of its aerospace engineers. It will be the first simulation and virtual reality system in China's commercial aviation industry. The proposed system consists of Barco's Hologspace L-shaped stereoscopic environment and five Galaxy NW-12 active 3D stereo projectors, providing high-resolution and full-immersion 3D stereoscopic environment for daily training of COMAC's engineers.

Hands-on training aircraft training is often very costly and inconvenient, as aerospace engineers need to visualize and analyze complex mechanical structures. To solve this problem, COMAC had adopted Barco's simulation and virtual reality training system.

Mr. Zhenwei Wang, Minister of Pilot Training Department at COMAC Shanghai Aircraft Customer Service Co., Ltd., commented: "We are the first to integrate simulation and virtual reality technology with trainings for aerospace engineers in China's commercial aviation industry. Based on leading design and rich installation experience, this system provides full-immersion into life-like physical environments and helps improve our actual operation expertise significantly."

#### SIMCAD Customized Visualization Solution

In the preliminary design phase, Barco and COMAC negotiated the proposed design after identifying customer's demands, including virtual assembly/disassembly training, meetings and reporting. Based on its unique SIMCAD design platform, Barco finally provided the customer with a customized comprehensive solution that consisted of an L-shaped, Hologspace stereoscopic environment, Galaxy NW-12 active 3D stereo projectors as well as visual assembly software applications.

#### Full-Immersion Application

Five units of high-resolution, Galaxy NW-12 active stereo projectors have been installed for the main screen, floor screen and side screens respectively. This enables the 3D stereoscopic images of the inner cabin, engine and mechanical facilities of a real aircraft to be displayed at a scale of 1:1, thus providing users with a highly immersive experience. Integrated with an L-shaped, Hologspace stereoscopic environment and ART interactive project equipment, it creates a life-like physical environment for the engineers and enables engineering operation training.

#### Dual-System Application Scenario

Barco's simulation and virtual display system allows up to 3 or 4 people to do simulation training through its stereoscopic environment with large visual field and interactive scenario and operation. In addition, the installation functions as a large- and medium-sized meeting system with multiple eye points. "Barco provided complete support covering project design, application and installation, fully satisfying our requirements for different applications of the system," Mr. Wang added.

Mr. Tang Feng, Barco's Managing Director Sales & Service Entertainment for Greater China., stated: "In pace with China's strategic adjustment and great support to the further

development of aviation and the aerospace industry, cutting-edge display technologies have been increasingly applied in this field. Barco has provided great technical support for the Chinese aerospace industry, such as the launch of Shenzhou-IX manned spacecraft and Tiangong II space laboratory. It is our honor to be selected by COMAC and we will continue to provide premium service and leading system solutions for this field to promote the sector and the information-based development of China."

#### BARCO VISUALIZES CHINA SHENZHOU IX MISSION'S HISTORIC SPACE STATION DOCKING

Beijing, China, 29 June 2012 – Barco, a world leader in visualization solutions, proudly announces that it was chosen to support Shenzhou IX, a manned spacecraft flight in China's Shenzhou aerospace program. Barco provided large-screen projection at both the Jiuquan Satellite Launch Center (JSLC) and the Beijing Aerospace Control Center (BACC) for China's first manned spacecraft docking with the Tiangong-1 lab module.

Thanks to the high reliability and stability of its products, Barco has been a display system service provider for China's aerospace program ever since Shenzhou V, witnessing one milestone after another in China's aerospace history. For the Shenzhou IX spacecraft, Barco's HD projectors and image processing systems were deployed at both JSLC and BACC, which command and control the entire space program. The Barco systems were used throughout the Shenzhou IX spacecraft, from the launch to the moment the astronauts' re-entry module landed in central Inner Mongolia.

Shanghai Golden Bridge Info Tech Co., Ltd. ("Golden Bridge Info-tech"), Barco's system integrator in China, implemented 4 SLM-R12+ units and TransForm A display wall controllers at JSLC, following a system-level update for BACC at the beginning of the year comprising 4 FLM-HD20 units coupled with Encore systems and an 18 m x 3.2 m projector display system. The FLM-HD20 is known for delivering stable, crisp high-definition picture quality around the clock.

#### Long-Term Dedication To China's Aerospace Program

When employed in conjunction with an activity as momentous as China's first video talk between the control center on Earth and astronauts in space, product reliability is crucial to success. On top of delivering a superior, advanced technology product in support of the event, Barco also provided on-site 24/7 technical standby via a specially assigned technical team at multiple spots.

The officer in charge of Command and Control in the JSLC stated: "The launch of Shenzhou IX marks a major step in China's aerospace history. Not one mistake is acceptable. Barco's reliable products and field support have made quite a valuable contribution to our success."

Mr. Jin Guopei, General Manager of Golden Bridge Info-tech, said: "It would be a great honor for any Chinese to be part of the nation's aerospace program - so we are especially proud of our contribution to this program."

"China has captured the attention of the entire world with its history-making breakthroughs in manned aerospace in such a short time," says Mr. Tang Feng, Barco's Managing Director Sales & Service and VP Sales Entertainment for Greater China. "Barco is very proud to provide its leading technology and service to such an important program. I'd like to offer our sincerest gratitude to China's National Space Administration for their appreciation of Barco's products and services. Looking to the future, we will continue our technological research and development, striving to further contribute to China's thriving aerospace industry."

#### **BDC Aero Industrie Inc. - PUMA Light Sport Aircraft (LSA)**

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www.puma-aircraft.com

2012 Zhuhai Directory: BDC Aero Industrie manufacturers light sport aircraft at its Lachute Airport facilities for the company's core market of South America and Asia. We strive to ensure that our PUMA aircraft meets the needs of clients and can be flexibility upgraded. Our company is committed to using the latest materials, implementing innovative design, and introducing new safety features developed for LSA aircraft. In addition, we are currently seeking LSA certification for our aircraft here, as in the United States, in accordance with ASTM standards.

### **Bell Helicopter**

#### **A Textron Company**

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#### **Customers Service Engineers:**

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China

Derek Chen

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"Derek Chen will assist Bell Helicopter customers in China from the Textron office in Shanghai. He comes to Bell Helicopter with experience with the Shanghai Government Flying Unit and Shanghai Airlines. Derek's extensive experience in helicopter maintenance will be a tremendous asset for Bell Helicopter as we expand our global presence in the Asia Pacific region."

#### **Customer Service Facilities in China:**

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Managing Director: Wei (Wilson) Liao

## 2014 Yearbook of Foreign Aviation Enterprises in China

Commercial and Logistics: Dapeng (Tom) Lu  
Marketing Manager: Yu (Grace) Ma  
Engineer: Jianwei Ma  
Fuel Available: None  
Airport/Heliport: Yangjiang Airport  
Credit Cards Accepted: Visa and MasterCard  
Certification(s): CAAR- Part 145  
Special Services: Aircraft Import, Aircraft Repair, Aircraft Sales, Helicopter Storage, Aircraft Installation & Repair, and Aircraft Upgrades & Modifications.  
Additional Information: H&P is now applying for R.R Engine Service Center in China  
Field Maintenance: 407

Shanghai KingWing General Aviation Co. Ltd.  
No. 200 Gao Dong Yi Road, Pu Dong District, Shanghai 200137, China  
Tel: 86-20-68121363  
www.kingwingaviation.com  
Managing Director: Shuzhen Zou  
Material Manager: Zhaochen Wang  
Maintenance Manager: Kang Zhu, zhukang@zenisun.com  
Chief Engineer: Wei Chen  
Fuel Available: Jet A-1  
Airport/Heliport: Gao Dong Heliport  
Credit Cards Accepted: MasterCard and Visa  
Certification(s): F145-3 NO. 200098  
Special Services: Aircraft Import & Export, Aircraft Repair, and Ramp Service  
Additional Information: VIP Charter  
Field Maintenance: 429

### Independent Representatives:

NOTE: All commercial, para-public and government markets (excluding all branches of the People's Liberation Army) in Hong Kong, Macau and the provinces and municipalities of Fujian, Guangdong, Guangxi, Zhuang, Guizhou, Hainan, Hunan, Jiangxi, Shanghai and Zhejiang of the People's Republic of China.

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(All commercial, para-public and government markets; excluding all branches of the People's Liberation Army)  
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Managing Director: Diana Chou, diana.chou@aerochine.com

2012 Zhuhai Directory: Bell Helicopter, a wholly owned subsidiary of Textron Inc., is an industry-leading producer of commercial and **military**, manned and unmanned vertical-

lift aircraft and the pioneer of the revolutionary tiltrotor aircraft. Globally recognized for world-class customer service, innovation and superior quality, Bell's global workforce serves customers flying Bell aircraft in more than 120 countries.

RECENT EXHIBITIONS:

Airshow China 2012 (Zhuhai)

Aviation Expo China 2013 (Beijing)

BELL PILOT SAFETY AWARD

Recipient: Dai Chenghuai

Accident Free Flight Hours In Bells: 1,000

Operator: CAAC Flying College, Xinjin Branch

Year: 2000

Excerpt from RotoBreeze Magazine (internal Bell publication); 3Q 2012.

"Bell Helicopter Signs Agreement to Open First Flight Training School in China"

Bell Helicopter has signed a memorandum of understanding (MOU) to open the first Bell Helicopter authorized flight training school in China. "Bell Helicopter is committed to growing our customer support and services in China," said Eric Cardinali, executive vice president, Customer Support and Services for Bell Helicopter. "Partnering with Guanchen Aviation to provide a high-quality, local flight training solution is an important first step in meeting our customer needs in the region. After the initial internal training cycle is complete, the Anyang-based Flight Training School will be certified to provide factory-approved initial and recurrent type training for Bell 206L and Bell 407 pilots. Over time, this Certified Training Facility (CTF) could expand to train more Bell aircraft types to meet future demands."

Excerpt from RotoBreeze Magazine (internal Bell publication); 3Q 2011.

"CSF Corner", by Kirk Blackwelder, Manager Customer Service. Facilities

"The last two years have witnessed Bell Helicopter establishing CSFs in Chile, Kazakhstan and Russia and we expect the appointment of the first 407 Field Maintenance CSF in mainland China in the latter half of 2011."

Excerpt from brochure: "Support And Service Solutions Throughout Your Aircraft's Lifecycle." Dated: 2013.

"We also signed a Memorandum of Understanding (MOU) with Guanchen Aviation to open the first Bell Helicopter authorized flight training school in China for Bell 206L and Bell 407 pilots as well as an MOU with Guangzhou Civil Aviation College establish a Bell Helicopter maintenance training facility for Bell 206L and Bell 407 product lines."

Excerpt from the "2013 Customer Support And Services Directory."

"Letter from Eric Cardinali, Executive Vice President, Customer Support & Services...Signing two Memorandums of Understanding in China to open a pilot training school and a maintenance training facility. Announcing two new Customer Service Facilities (CSFs) in China."

Excerpt from "Potentially Destroyed Bell Aircraft Awaiting Government Report" December 11, 2012:

Model: 206B3

Register: B-7747

Serial Number: 4454

Date: 22-May-2000

China

Model: 206L4

Register: B-7727

Serial: 52395

21-Jul-2012

China

## BELL PRESS RELEASES

### BELL HELICOPTER CONTINUES TO EXPLORE NEW OPPORTUNITIES IN CHINA

Fort Worth, TX - October 11, 2013 - While at the 2013 Aviation Expo China, Bell Helicopter, a Textron Inc. company (NYSE: TXT), announced it had reached agreement with its independent representative, Reignwood Investment, Ltd. (Reignwood) for the purchase of 12 Bell helicopters, including 10 Bell 407 and two Bell 429 aircraft. In addition to this agreement, Bell Helicopter also entered in to a Memorandum of Understanding (MOU) with Reignwood to explore future business opportunities in the growing China market. The MOU permits the two parties to explore potential opportunities to collaborate and grow the Chinese helicopter market. While specifics are not defined in the MOU, discussion and collaboration could occur in areas such as sales and marketing, service and support, training, reassembly, completions or customizing for Reignwood's approved territory. Contrary to inaccurate media reports, the MOU does not include a commitment for the purchase of additional aircraft or the creation of a Bell Helicopter manufacturing site in China. "We are pleased that Bell Helicopter and Reignwood have reached an agreement to further discussions regarding growth opportunities in the Chinese market," said Chris Jaran, managing director, China. "Reignwood will serve as a key resource for Bell Helicopter in this region as we continue to grow our global presence." Founded in 1984 as a general trading, real estate development and tourism organization, Reignwood Investments quickly grew to become a multinational company expanding its investments into key growth industries such as aviation, energy and mining, financial services, real estate and consumer goods.

### BELL HELICOPTER FURTHERS MARKET PRESENCE AT AVIATION EXPO CHINA: AGREEMENTS FOR 14 AIRCRAFT SIGNED AT EXPO

Beijing, China - October 4, 2013 - Bell Helicopter, a Textron Inc. company (NYSE: TXT) continues to expand its regional presence in China, announcing several recent purchase agreements with new and returning customers in the growing Chinese marketplace.

While at Aviation Expo China, Bell Helicopter signed an agreement to sell two Bell 407GXs to General Dynamic Aero Industry.

"The Bell 407GX continues to gain momentum in China," said Chris Jaran, managing director, China. "Its range and capabilities, combined with the modern avionics package, make it an excellent choice for the Chinese market."

This agreement was signed one day after Bell Helicopter announced the sale of 12 aircraft to Reignwood Investment Co., Ltd.

"Our customers continue to diversify their operations and require aircraft that can meet multiple mission criteria," said Jaran. "The versatility of Bell Helicopter's aircraft makes them an ideal solution. We customized General Dynamic's Bell 407GXs with a multi-mission configuration so they can take full advantage of the aircraft's capabilities."

Just prior the show, Bell Helicopter inked agreements for the sale of an additional four aircraft to the following companies:

Nanying - one Bell 407GX

Dayou - one Bell 407GX

Jiangxi-Tianren - two Bell 206L4s

Bell Helicopter's industry-leading aftermarket support is another differentiator that customers factor into their purchasing decision.

"Customers are excited about our products, not only because of their versatility and quality, but because Bell Helicopter's on-going support and service helps create the best value in total cost of ownership," said Jason Johnson, director, Sales and Customer Support. "Our customer support engineers serve as in-region contacts to provide assistance, education, training and troubleshooting. In addition, we continue to work with our regional authorized Customer Service Facilities (CSFs) to ensure they have the training and resources necessary to support this growing market."

#### BELL HELICOPTER TO FEATURE BELL 429 AT AVIATION EXPO CHINA

Fort Worth, TX - September 19, 2013 - Bell Helicopter, a Textron Inc. company (NYSE: TXT), announced today its participation in the 15th bi-annual Aviation Expo China, held September 25 to 28 in Beijing, China. Bell Helicopter will have a strong presence as an exhibitor, featuring the Bell 429 on display in its booth.

"The 2013 Aviation Expo China presents a great opportunity for us to connect with our commercial customers in China and the Asia-Pacific region," said Danny Maldonado, Bell Helicopter's executive vice president of Commercial Sales and Marketing. "We will showcase the Bell 429, which is an exceptional platform for our Chinese customers, and promote the capabilities of our recently announced SLS and our popular Bell 407. There will also be opportunities to learn more about our industry-leading customer service and support and how we are meeting the aftermarket needs of our customers in the region."

Bell Helicopter has partnered with its independent representative, Reignwood, to have a Bell 429 on display during the Aviation Expo. The Bell 429 has received worldwide accolades for its luxury seating, glass cockpit and superior speed, making it the first choice for a variety of operations around the globe. The Bell 429 is in service today with customers in Europe, North America, Latin America, the Middle East and Asia Pacific across all market segments, including oil and gas, parapublic, helicopter air ambulance and corporate/VIP.

The Bell 407GX is one of Bell Helicopter's most versatile aircraft, with more than 1,000 in the fielded fleet. Featuring the Garmin G1000H avionics package and enhanced safety features, the Bell 407GX performs a variety of missions and also makes an excellent training aircraft.

Announced in June, the SLS is a five-seat, entry-level aircraft scheduled to complete first flight in 2014. It will feature a high visibility, fully flat cabin floor with five forward-facing seats and is designed to meet performance targets including a speed of 125 knots (232 km), a range of 360 to 420 nautical miles (667 km) and a useful load of 1,500 pounds (608 kg). Powered by the Turbomeca Arrius 2R engine, the SLS is designed to meet customer requirements for a high performance, high value helicopter at a very competitive price.

Aviation Expo China is the only civil and **military** aviation exhibition in Beijing. The biennial event has the support of top China aviation authorities and brings together Chinese and international companies specializing in supplying equipment, services and technology. The expo has received the endorsement of the People's Government of Beijing Municipality and has been granted approval as a UFI approved event by the Global Association of the Exhibition Industry.

#### BELL 407 SUPPORTS EARTHQUAKE RECOVERY IN CHINA

Sichuan Province, China - May 6, 2013 - Bell Helicopter, a Textron Inc. company (NYSE: TXT), announced today that one of its customers in China, State Grid General Aviation (SGGA), is flying a Bell 407 in disaster relief missions in Sichuan Province to aid with recovery efforts after a massive earthquake severely damaged the city of Ya'an on



Saturday, April 20. SGGA's Bell 407 is performing power line inspections, making sure that the power grid remains operational during the Sichuan relief operations. "We are proud to be a part of the disaster relief efforts SGGA is performing for the citizens in Sichuan Province," said Danny Maldonado, Bell Helicopter's executive vice president of Sales and Marketing. "SGGA operates the largest fleet of Bell helicopters in China, and we are honored they choose Bell products to carry out their missions." General aviation companies, like SGGA, play an important role in emergency rescue in China. The Civil Aviation Administration of China (CAAC) Southwest Bureau is prepared to manage commercial helicopter operators supporting the earthquake rescue underway in Sichuan Province. The 6.6 magnitude earthquake has resulted in 192 deaths, more than 11,000 injuries and 10,000 damaged houses throughout the county. Helicopters are essential in recovery efforts as hard-hit parts of the area remain unreachable by road, with several highways cut off. SGGA was established on December 29, 2002 as a government-owned enterprise approved by the State Council to conduct government authorized investment activities. The mission of the company is to provide safe, economical, clean and sustainable electric power for social and economic development. Its core business is the construction and operation of a power network that covers 26 provinces, autonomous regions and municipalities. Its service area represents 88% of the national territory, supported by more than 1,500,000 employees to serve a population of over one billion.

#### BELL HELICOPTER INKS PURCHASE AGREEMENTS FOR 15 AIRCRAFT AT AIRSHOW CHINA

Zhuhai, China - November 15, 2012 - Bell Helicopter, a Textron Inc. company (NYSE: TXT), announced that it has signed purchase agreements for 15 aircraft during the 2012 China International Aviation & Aerospace Exhibition (Airshow China), held in Zhuhai, Guangdong, China, Nov. 13-18, 2012.

"Customers are excited about the high quality products and support that Bell Helicopter is bringing to the Chinese market," said John Garrison, President and CEO of Bell Helicopter. "There is a significant opportunity for us to provide valuable solutions to Chinese customers and we are expanding our in-country presence to serve them. According to recent forecasts, China is poised to become one of the largest rotorcraft markets in the world. Bell Helicopter offers a range of products that are ideally suited to China's diverse terrain, climates and flying conditions."

Bell Helicopter signed agreements with the following during Airshow China:

- Aerochine Aviation - two Bell 429s
- Astro Airlines - one Bell 407GX
- General Dynamics - one Bell 407GX
- Guanchen Aviation - four Bell 407GXs
- Reignwood - four Bell 407GXs and two Bell 206L4s
- Riverside - one Bell 407GX

"We have received tremendous customer acceptance and demand for Bell products and services in China," said Garrison. "Our focus in China is to expand our infrastructure and support network as the infrastructure, needs and regulatory environment evolve."

In addition to a strong sales performance, Bell Helicopter made several major announcements during Airshow China. Bell Helicopter announced that the Civil Aviation Administration of China (CAAC) has approved the increased maximum gross weight for the Bell 429, which will allow customers in China to fully utilize the capabilities of the aircraft.

Additionally, Bell Helicopter announced the appointment of Chris Jaran as managing director for Bell Helicopter in China. In this role, Jaran is responsible for all helicopter sales activities within China as Bell Helicopter continues to expand its presence in the Asia Pacific.

Bell Helicopter continues to reinforce its industry leading reputation for support and service with the signing of a memorandum of understanding with Guangzhou Civil Aviation College to assist with the establishment of a maintenance training facility for the Bell 206L and Bell 407. Bell Helicopter also appointed Shanghai Kingwing General Aviation Co., Ltd. and H&P General Aviation Service Co., Ltd. as a Bell Helicopter authorized Customer Service Facilities.

#### About the Bell 429

The Bell Helicopter 429 is one of the most advanced light twin IFR (Instrument Flight Rules) helicopters ever developed. The 429 has set the standard for light twins, delivering exceptional speed, range, hover performance and enhanced safety margins. The 429 boasts a spacious cabin with 204ft<sup>3</sup> (5.78m<sup>3</sup>) of usable volume, optional rear clam-shell doors and seating for 7 passengers and 1 crew.

#### About the Bell 407GX

Built on the success of the Bell 407, the 407GX is the only helicopter equipped with the innovative Garmin G1000H integrated glass flight deck, making it the most advanced light, single-engine rotorcraft on the market. The Garmin G1000H enhances mission awareness with HTAWS, TIS, moving map display and Garmin's Helicopter Synthetic Vision Technology (HSV).

### BELL HELICOPTER EXPANDS CUSTOMER SERVICE CAPABILITIES IN CHINA

Zhuhai, China - November 13, 2012 - Bell Helicopter, a Textron Inc. company (NYSE: TXT), announced today it has appointed Shanghai Kingwing General Aviation Co., Ltd., (Kingwing GA) as a Bell Helicopter authorized Customer Service Facility (CSF). Kingwing GA currently provides charter, training, leasing overhaul and operational management from five bases in Eastern China. As a Bell Helicopter authorized CSF, Kingwing is approved to perform field maintenance on Bell 429 aircraft. Speaking at the signing ceremony at Airshow China 2012, Eric Cardinali, executive vice president, Customer Support and Services said, "We are pleased to work with Kingwing General Aviation to provide our growing Chinese customer base with the same level of support and service enjoyed by our customers worldwide." "We are honored that Kingwing was approved as a Bell Helicopter Customer Service Facility and will continue to promote the cooperation between our two companies. It is our hope that, long-term, we can provide maintenance services for all Bell helicopters operating in China," said Zou JianGou, chairman, Kingwing. "Our international Customer Service Facilities play a strategic role in ensuring Bell Helicopter operators have access to our support and service network regardless of where they are based," said Cardinali. "This is part of Bell Helicopter's ongoing commitment to our customers - local, Bell-approved resources with factory-trained technicians, access to parts inventory and high standards of quality." All Bell Helicopter authorized CSFs must meet rigorous requirements outlined by Bell Helicopter, use Bell Helicopter trained mechanics, maintain tooling and inventory requirements necessary to meet customers' needs and be approved by their local regulatory authority.

### FIRST MAINTENANCE TRAINING FACILITY FOR BELL HELICOPTER TO OPEN IN CHINA

Zhuhai, China - November 13, 2012 - Bell Helicopter, a Textron Inc. company (NYSE: TXT), announced today it has signed a memorandum of understanding (MOU) to assist with the establishment of a maintenance training facility for Bell 206L and 407 helicopters in the Guangdong province of China. Bell Helicopter and Guangzhou Civil Aviation College (Guangzhou College) signed the MOU at Airshow China 2012. The MOU will focus on training for the Bell 206L and Bell 407 product lines, and includes access to training course materials, electronic training systems and continued support throughout training.

"The signing of this MOU reinforces Bell Helicopter's commitment to increasing our global customer service and support offerings," said Eric Cardinali, executive vice president, Customer Support and Services for Bell Helicopter. "Working with Guangzhou College is an important step towards ensuring our customers in China have regional access to maintenance and repair training so they can use their aircraft in the most safe and effective manner possible."

Located in Fort Worth, Texas, the Bell Helicopter Training Academy's curriculum includes pilot flight training, mechanical, electrical and avionics training and pilot safety training. It is a Federal Aviation Administration (FAA), European Aviation Safety Association (EASA) and Transport Canada approved training facility. The Guangzhou College MOU is the second MOU Bell Helicopter signed this year to further its training capabilities in China: the first MOU was between Bell Helicopter and Guanchen Aviation to open the first Bell Helicopter authorized flight training school in China.

"The Bell Helicopter Training Academy is a strategic part of Bell Helicopter's Customer Service and Support offerings," said Cardinali. "As we continue to add customers around the world, we must ensure they have access to the same level of support and service available in the United States. We are carefully selecting institutions like Guangzhou College to help us provide top-tier support worldwide."

The Guangzhou College maintenance training facility, located in Guangzhou in the Guangdong province, will be authorized to conduct factory-approved maintenance and repair training for the Bell 206L and Bell 407 helicopters. Over time, this Certified Training Facility (CTF) could expand to deliver maintenance training on additional Bell aircraft models to meet future demand.

#### BELL HELICOPTER ANNOUNCES NEW MANAGING DIRECTOR IN CHINA

Zhuhai, China - November 13, 2012 - Bell Helicopter, a Textron Inc. company (NYSE: TXT), announced the addition of Chris Jaran as managing director in China. In this role, Jaran is responsible for all marketing and sales activities within China as Bell Helicopter continues to expand its presence in the Asia Pacific region. He brings more than 30 years of total aviation industry experience in both engineering and commercial products. Jaran is very familiar with the Chinese aerospace industry, having worked in management positions within China coordinating both domestically and with international partners for several major programs.

"I am thrilled to have Chris bring his experience and track record of success to Bell Helicopter," said Danny Maldonado, Bell Helicopter's executive vice president of Sales and Marketing. "He has an intimate knowledge of not only what it takes to deliver what customers in China are looking for, but also knows how to expand and build the partnerships necessary for long-term success. We have been focused on bringing the top talent in the aerospace industry to meet the needs of our growing customer base and Chris will be a big part of our future success."

Jaran has held a variety of positions with increasing levels of responsibility across the industry. His broad range of experience includes roles ranging from senior engineer to chief operations officer for a large helicopter manufacturer. His diverse professional background incorporates the fields of engineering, business development, operations management and marketing. Jaran earned a Bachelor of Science degree and Master of Science degree in Aeronautical Engineering as well as completed course work for a doctorate degree in Aeronautical Engineering.

An active member of nonprofit aviation organizations, Jaran has served as President of the China Chapter of the American Helicopter Society International (AHS) and as a board member of the China affiliate of Helicopter Association International (HAI). He also served on various committees for the Federal Aviation Administration, The American Helicopter Society and the Helicopter Association International.

## THE CIVIL AVIATION ADMINISTRATION OF CHINA APPROVES GROSS WEIGHT INCREASE FOR BELL 429

Customers in China Can Now Fly Farther with More Payload

Zhuhai, China - November 13, 2012 - Bell Helicopter, a Textron Inc. company (NYSE: TXT), announced that China has approved the increased maximum gross weight for the Bell 429. The Civil Aviation Administration of China's (CAAC) approval makes China the twelfth country to endorse the increased maximum gross weight for the Bell 429 based on Transport Canada's certification. The increase in the maximum gross weight of the Bell 429 allows operators to carry more payload and/or fuel, expanding the capability of the aircraft in any mission requirement. With additional fuel or mission equipment on board, aircrews can fly farther with the tools needed to deliver services critical in supporting the growth of China's infrastructure and economy. This is important given China's large and geographically diverse landscape. "The approval of the Bell 429 gross weight increase in China allows Bell Helicopter to better serve the multi-mission needs of our customers in China," said Danny Maldonado, Bell Helicopter's executive vice president of Commercial Sales and Marketing. "Our customers need to get the most out of our helicopters in their everyday operations and this decision will allow them to better perform vital missions safely and efficiently." Transport Canada approved operation of the Bell 429 at 3400 kg (7,500 lbs) in January 2012, after an extensive technical evaluation. The increased gross weight of the Bell 429 was driven by customer requirements for an increased load, which dramatically enhances the aircraft's capabilities. The Bell 429 increased gross weight has been approved by a total of twelve countries – Argentina, Australia, Brazil, Canada, China, Ecuador, India, Malaysia, Mexico, New Zealand, Thailand and Vietnam – to date.

## BELL HELICOPTER PARTICIPATION AT AIRSHOW CHINA REFLECTS GROWING PRESENCE

Fort Worth, Texas - November 08, 2012 – Bell Helicopter, a Textron Inc. company (NYSE: TXT), will have a strong presence at the 2012 China International Aviation & Aerospace Exhibition (Airshow China) as it continues to enhance its position in the growing Chinese aviation marketplace. Airshow China will take place in Zhuhai, Guangdong, China, Nov. 13-18, 2012. "China is facing an unprecedented demand for training, support and products as it moves to expand its aviation infrastructure," said John L. Garrison, president and CEO of Bell Helicopter. "According to recent forecasts, there is a projected need for as many as 2,000 helicopters in the coming decade, which will require thousands of trained professionals to fly and maintain these aircraft to standards. There is not only an opportunity to help create these jobs, but also ensure China has access to the best operational and technical training possible." The Bell 429 and Bell 407GX have generated a great deal of interest throughout the world during their demonstration tours. The new Bell 407GX and Bell 429 will both be on display in corporate configuration at the trade exhibition at Airshow China. Bell Helicopter will also perform a limited number of demonstration flights on the Bell 429. Bell Helicopter aims to further amplify awareness of its industry-leading products and top ranked customer service and support at Airshow China. "We are excited to be a part of Airshow China and highlight the commitments and investment we are making to position ourselves to serve this expanding market," said Garrison. "We are not only creating products that can handle the diverse range of terrain, climates and flying conditions across the region, but also making sure we can help keep China flying for decades to come."

## 429 RECEIVES AIRWORTHINESS CERTIFICATE IN CHINA

Fort Worth, Texas - August 9, 2012 - Bell Helicopter, a Textron Inc. company (NYSE: TXT), announced today that it has received its airworthiness certificate from the Civil Aviation Administration of China (CAAC) for the Bell 429. The certification follows the first complete assembly and successful flight testing of a 429 at a CAAC 145 service facility.

"We are very excited to see the first operational and serviceable Bell 429 in China. This is an important milestone for the Bell 429 and for Bell Helicopter as we continue to expand our presence in the Asia Pacific region," said Eric Cardinali, Bell Helicopter's executive vice president of Customer Support and Services. "We constantly strive to provide solutions to our operators' growing training needs," added Cardinali. "Part of that solution is gaining regulatory approvals in order to provide our customers access to the breadth of training programs provided by the Bell Training Academy." Kingwing General Aviation Company, a CAAC 145 service facility, completed the first reassembly and flight testing of a Bell 429 in China. With the CAAC approval of two Kingwing pilots' Bell Helicopter Training Academy (BTA) 429 flight training, Kingwing signed a Memorandum of Agreement to perform demonstrations of the aircraft at Airshow China in November. Bell Helicopter recently received CAAC approval to provide pilot training on Bell 429 helicopters. The Bell 429 pilot training program blends theoretical knowledge instruction with specific aircraft training tasks that are conducted in the advanced flight training device, as well as in the aircraft itself.

#### BELL HELICOPTER SIGNS AGREEMENT TO OPEN FIRST FLIGHT TRAINING SCHOOL IN CHINA

Fort Worth, Texas - June 4, 2012 - Bell Helicopter, a Textron Inc. company (NYSE: TXT), announced today it has signed a memorandum of understanding (MOU) to open the first Bell Helicopter authorized flight training school in China. Bell Helicopter and Guanchen Aviation signed the MOU during the opening ceremony of the 4th Annual Anyang International Aviation Sports Festival in Anyang, China. "Bell Helicopter is committed to growing our customer support and services in China," said Eric Cardinali, executive vice president, Customer Support and Services for Bell Helicopter. "Partnering with Guanchen Aviation to provide a high-quality, local flight training solution is an important first step in meeting our customer needs in the region. "As the need for vertical lift emerges around the world, we intend to replicate the successful operation of the Bell Helicopter Training Academy, located in Fort Worth, Texas, as a critical element of our strategy. Opening the first Bell Helicopter authorized flight training school in China is a significant step as we begin this journey," Cardinali said. After the initial internal training cycle is complete, the Anyang-based Flight Training School will be certified to provide factory-approved initial and recurrent type training for Bell 206L and Bell 407 pilots. Over time, this Certified Training Facility (CTF) could expand to train more Bell aircraft types to meet future demands.

#### BELL HELICOPTER'S 429 EARNS CERTIFICATION IN CHINA

Fort Worth, Texas - October 24, 2011 - Bell Helicopter, a Textron Inc. company (NYSE: TXT), announced today it has received type certification for the Bell 429 from the Civil Aviation Administration of China. "This is an important milestone as Bell Helicopter continues to grow its presence within the Asia Pacific region," said Larry D. Roberts, senior vice president for Bell Helicopter's Commercial business. "Our customers like the speed, power and the advanced cockpit technology that the Bell 429 delivers. Along with the largest cabin in its class, it offers a smooth, comfortable ride. The interior environment can be tailor-made to meet the most demanding requirements for style, comfort and individuality. The Bell 429 is reliable, conforming to the latest airworthiness standards, and is backed by Bell Helicopter's award-winning and industry-leading customer service and support," Roberts said. The Bell 429 has conducted extensive flight demonstrations in every continent, except Antarctica, and has been certified in more than 40 countries. With configuration options ranging from VIP to air-medical, law enforcement, utility and oil & gas, the Bell 429 offers superior mission capability and adaptability.

#### BELL HELICOPTER SCORES FIRST ORDER FOR BELL 429 IN CHINA

Zhuhai, China – September 15, 2010 – Bell Helicopter, a Textron Inc. (NYSE: TXT) company, has received its first 429 customer order in the People's Republic of China. The order was confirmed during the Bell 429 demonstration tour in Zhuhai, China on September 15, 2010.

Sold to Mr. Ren Jianjun, a prominent industrialist from Hebei province, this is the first Bell 429 scheduled for delivery in China. Mr. Ren, an aviation enthusiast and pilot, also owns and operates a Bell 206B-3 JetRanger.

Helping facilitate the purchase of the aircraft was Heliflite China. Headquartered with maintenance facilities in Xi'an, Shaanxi province, Heliflite China provides customers with purchasing support and operational assistance.

"The Bell 429 was designed with a global mission scope, and is particularly well suited for the multi-mission roles in the Asia Pacific region, and in particular, China," said Larry D. Roberts, senior vice president Commercial Business. "The 429 is truly a new force in the marketplace and will appeal to the discerning customer who is interested in reliability, performance and maintenance-cost containment. We are honored to partner with Mr. Ren and bring the first 429 to the People's Republic of China."

Customer response to the 429 has been very positive and interest continues to build among potential buyers for its use in private operations, corporate transport and utility missions, emergency medical services and for civil government agencies.

With its superior Category A capability, speed and versatility, spacious cabin, excellent maintainability, and hot and high performance, the 429 sets the standard for 21st century aircraft. The Bell 429 meets the latest requirements of Part 27 airworthiness rules, set in 2007, which are more stringent than the requirements, set a decade or more ago, under which competing light twins were certified.

Designed using the Maintenance Steering Group 3 (MSG-3) process, the 429 is the only helicopter flying whose maintenance program is approved by the European Aviation Safety Agency (EASA) and Transport Canada.

In August, the Bell 429 continued its world tour in the Asia Pacific region with customer demonstrations in Australia, Hong Kong and China. More than 1,500 customers have experienced the 429's speed, performance and spacious cabin firsthand during the world tour, which is scheduled to continue later this year in Africa and the Middle East.

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2012 Zhuhai Directory: BAFA is the leading Flight Training Organization in Belgium, providing all levels of flight training: from integrated ATPL courses up to type ratings. BAFA is known as an innovative company that uses state-of-the-art technology for the benefit of its students and aviation partners. BAFA has been training professional pilots since 1980 with a focus on Quality and Safety. BAFA has been awarded the prestigious QFOR quality label. Along with the basic pilot training BAFA offered extensive services to airlines to ensure that they have the best available pilots flying their aircraft. Pilot Selection: licensed candidates which been identified by the airline are interviewed and tested according to the airline's selection criteria. BAFA provides a detailed report and ranks the pilots. Pilot provisioning: upon the request of the airline, BAFA searches for and tests suitable candidates. Training them to the requested skills and ensuring that the candidate meets the requested performance level.

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2012 Zhuhai Directory: Beriev Aircraft Company is famous for developments in hydroaviation. More than 30 types of aircraft were designed by the company and many of them were put into series production. Be-200 multi-mission amphibian aircraft and Be-103 light multi-mission amphibian aircraft are produced in series. The Company renders technical and post-sales support during operation of aircraft equipment at the customer's premises, as well as training and preparation of the customer's maintenance personnel.

Corporate Website (Extracted in February 2014): The Be-103 light amphibian was built in series at the facilities of Komsomolsk-on-Amur Aviation Production Association. This amphibian is designed for the carrying of five passengers, and is sold in the USA. The Be-103 amphibian is certified according to requirements of Federal Aviation Administration (FAA) of the USA, and has Type Certificates issued by Airworthiness Authorities of Europe, Brazil and China. On December 22, 2005, the Civil Aviation Authorities of China (CAAC) issued the Type Certificate № VTC173A for Be-103 amphibian aircraft.

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2012 Zhuhai Directory: Boeing is the world's largest aerospace company and leading manufacturer of commercial jetliners and **defense**, space and security systems. A top US exporter, the company supports airlines and US and allied government customers in 150 countries. Boeing products and tailored services include commercial and **military** aircraft, satellites, **weapons, electronic and defense systems**, launch systems, advanced information and communication systems, and performance-based logistics and training.

Corporate Website (Extracted in February 2014): For more than 40 years, Boeing has been privileged to serve in the development of China's air transport system. In 1972, the historical visit by President Richard Nixon to China led to the introduction of Boeing aircraft to this market. Boeing has a long-standing relationship with Chinese airlines, the Chinese aviation industry, the Civil Aviation Administration of China (CAAC) and the Chinese government.

The history of cooperation between Boeing and China's aviation industry traces back to 1916. The first engineer that Bill Boeing hired was China-born Wong Tsao, who helped design the company's first commercial success — the Model C bi-wing airplane. Mr. Wong later returned to China, playing an important role in early Chinese aviation.

This heritage of mutual benefit and joint contribution continues today. The State Council of China has declared that aviation will remain a critical component of China's continuing economic development. Boeing forecasts that over 20 years China will need 5,580 new airplanes, worth more than \$780 billion. This demand will make China Boeing's largest commercial airplane customer. In turn, Boeing equity investment in China's aviation industry is considerable, with Boeing being the leading commercial purchaser.

Today, more than 50 percent of the commercial jetliners operating in China are Boeing airplanes. At the same time, more than 7,000 Boeing airplanes fly throughout the world with parts and assemblies built by China. China has a role on every one of Boeing's commercial airplane models — 737, 747, 767, 777, and the newest and most innovative airplane, the 787 Dreamliner.

China builds horizontal stabilizers, vertical fins, the aft tail section, doors, wing panels, wire harnesses and other parts on the Next-Generation 737; 747-8 trailing edge wing ribs; and 747-8 horizontal stabilizers, vertical fins, ailerons, spoilers and inboard flaps. In addition, China has an important role on the 787, building the rudder, wing-to-body fairing panels, leading edge and panels for the vertical fin, and other composite parts.

China is the first conversion location for the new 747-400 Boeing Converted Freighter. Parts and assemblies are built in China; conversion, test and certification performed in China; and airplanes delivered from Xiamen, China. Boeing partners with more than 35 major Chinese firms as direct contractors on this production and also with hundreds of Chinese subcontractors.

Boeing signed a 10-year contract with SAMC for 737 horizontal stabilizers in September 2011. It is Boeing's largest ever contract with a Chinese supplier. The AVIC-Boeing Manufacturing Innovation Center, launched in November in Beijing, will increase AVIC's efficiency and capacity to supply high-quality parts for Boeing airplanes.

The Boeing-COMAC Aviation Energy Conservation Emissions Reductions Technology Center in Beijing is working with Chinese universities and research institutions to develop technologies, such as sustainable aviation biofuels, to improve fuel efficiency and reduce CO2 emissions.

The Boeing-COMAC Technology Center's first research project is exploring ways to refine waste cooking oil, or "gutter oil," into aviation biofuel. Earlier in October 2011, Air China conducted China's first biofuels flight in a Boeing 747-400. The center looks forward to a trans-Pacific flight.

Boeing's large China investments include Boeing Tianjin Composite Co. Ltd in Tianjin (a joint venture with AVIC) and Boeing Shanghai Aviation Service Co. Ltd. (a joint venture with China Eastern Airlines and the Shanghai Airport Authority). Boeing Tianjin is the largest aerospace employer in Tianjin and manufactures interior parts and composite structures for Boeing commercial airplanes. Boeing Shanghai is a maintenance, repair and overhaul (MRO) center based in Shanghai, performing line maintenance, heavy maintenance, and airframe modifications as well as upgrades for airplane interiors, avionics and in-flight entertainment systems.

In addition, Boeing is minority joint venture partner in the TAECO MRO center in Xiamen and operates a number of wholly owned subsidiaries, including Boeing Shanghai Aviation Flight Training (a training business for pilots, crews and mechanics), Aviall (an aviation spare parts distributor) and Jeppesen (the world's leading provider of flight and navigation information services).

Boeing has long worked with China in areas such as safety, aviation quality practices, business and executive training, and technical support. Since 1993, in cooperation with Chinese airlines, CAAC and industry, Boeing has provided enhanced professional training



to almost 50,000 Chinese aviation professionals in pilot techniques, flight operations, maintenance engineering, regulatory, air traffic management, executive management, airline management and marketing, manufacturing, quality assurance, finance and industrial engineering. Boeing considers this training an investment in the future of Chinese commercial aviation and provides it at no charge to China. The Boeing Academy – China, launched in November 2012, created an integrated platform to further enhance the training initiatives in China.

With the support of the Chinese and U.S. governments, Boeing and other industry leaders are helping to establish a sustainable aviation biofuel industry in China that will provide broad-based economic and environmental benefits throughout the world, but particularly in the United States and China — the world's two largest aviation markets.

Boeing, Honeywell's UOP and United Technologies are leading the U.S. team, while Air China and PetroChina Company Ltd. are leading the Chinese team.

Boeing has also established Boeing Research & Technology-China, a part of Boeing's advanced central research and development organization. The center is involved in collaborative research with the Chinese Academy of Sciences and Chinese universities. Three joint research laboratories and a joint research center have been formed with the research partners. Activities are focused on the environment, advanced materials, and advanced computing technologies for aviation and industry design.

Boeing successfully promoted U.S. approval of China's accession to the World Trade Organization and congressional approval of normal trade relations between the United States and China. The company is recognized as an industry leader in supporting a strong and robust U.S.-China trade relationship and remains committed to demonstrating the value of bilateral trade and advocating its continued growth. In addition, Boeing is a leader in creating the U.S.-China Aviation Cooperation program, an initiative of U.S. government and American aviation companies, working with CAAC and airlines to help advance China's commercial aviation.

Good corporate citizenship has always been an essential part of The Boeing Company. In China, the company's vision for corporate social responsibility program is to stretch Boeing expertise and commitment to the science, technology, engineering and mathematics (STEM) education of Chinese youth from elementary school to college.

At the elementary level, Boeing provided \$1.8 million for Soaring with Your Dream, an aerospace education project. Launched in Beijing in 2009, now more than 57,000 students from 817 schools across the country have participated. Starting in 2011, the project expanded to western area of China, including Xi'an, Tibet area, Shanxi province and Chengdu.

At the high school level, Boeing supported the introduction of the First Robotic Contest among high school student in Beijing to inspire young people's interest and participation in science and technology. More than 400 students participated in the contest in China at the end of 2012, and the winners joined students from other countries and the United States to compete for the global annual championship in the United States in 2013.

At the college level, in 2008, Boeing identified four strategic partnering universities (Peking University, Tsinghua University, Civil Aviation University of China and Civil Aviation Flight University of China) and committed total funding and program sponsorship at these institutions. Projects include scholarships, faculty training, student technology projects such as a new environment standard study for a Boeing joint venture, and course development in areas such as lean manufacturing and software outsourcing. In 2010, Boeing launched six student aviation clubs at Chinese universities (Peking University, Tsinghua University, Civil Aviation University of China and Civil Aviation Flight University of China, South China University of Technology, and Sun Yat-sen University).

Boeing (China) Co. Ltd. is the holding company for Boeing's China operations and is based in Beijing, with staff working in key corporate and business unit functions, including Government Affairs; Marketing and Communications; Business Development; Commercial

Airplane Sales; Law; Human Resources; Commercial Aviation Services; Boeing Training & Flight Services; Engineering, Operations & Technology; Boeing Capital Corporation; and Jeppesen. There are 250 Boeing employees throughout China and more than 6,000 employees at Boeing's various businesses, subsidiaries and joint ventures. Last revised September 2013. Contact: Yukui Wang +86 10 5925 5588 yukui.wang@boeing.com.

#### Current Market Outlook 2013-2032

##### Long Term Growth - China

##### Regional Leader

China continues to lead the Asia Pacific region in new deliveries. Over the next 20 years, Chinese airlines will need nearly 6,000 new airplanes, valued at \$780 billion, accounting for more than 40 percent of forecast deliveries to the Asia Pacific region.

##### Continued growth

With GDP forecast to rise 6.4 percent per year over the next 20 years, China's share of the total world GDP is expected to grow from 8.5 percent today to 16 percent by 2032. As Chinese incomes converge toward those in the historical industrialized nations, an expanding middle class will expect to enjoy a comparable standard of living and consumption patterns.

Air traffic continues to be robust. In 2012, traffic to, from, and within China increased 10.6 percent, according to the CAAC. Domestic traffic accounted for 78 percent of the total, international for 20 percent, and the remaining 2 percent was to Hong Kong, Macau, and Taiwan. Over the next 20 years, international travel will grow faster than domestic travel, increasing at an annual rate of 7.2 percent, compared to 6.8 percent for domestic travel.

China's airports are rising in rank for total enplanements and deplanements, with Beijing at number 2 in the world, Hong Kong at 10, Guangzhou at 19, and Shanghai at 20. Hong Kong ranked as the number 1 cargo airport in terms of metric tonnes, with Shanghai at 3, Beijing at 14, and Guangzhou at 21.

##### Airplane Demand

As in other parts of the world, single-aisle airplanes, such as the 737-800 and new 737 MAX 8, are the mainstay of the Chinese fleet and will continue to be over time. Today there are more than 1,650 single-aisle airplanes in service and a backlog of nearly 700 airplanes with airlines and lessors. Going forward, China will need 3,900 new airplanes, with single-aisle airplanes accounting for 70 percent of new deliveries.

With the fast growth in international travel, airlines in the region will need 1,440 new widebody airplanes. The number of new international long-haul markets has increased 135 percent over the past 10 years, with eight new markets opened in 2012 alone. Airlines continue to look for opportunities to expand their networks as international flying increases from secondary cities apart from Beijing, Shanghai, and Guangzhou. Long-haul service currently operates from Chengdu, Hangzhou, Xiamen, Chongqing, Sanya, Nanjing, and Shenyang, with the growth trend expected to continue.

#### Fleet Services – China

##### IN CHINA, BY CHINA, FOR CHINA

The new Boeing China Service Center provides enhanced product support to China's growing commercial aviation industry. Opened Oct. 11, 2011, the service center comprises highly qualified pilots and experts in flight operations, spare parts, and maintenance engineering who are dedicated full-time to serving airlines in China. With Beijing-based experts who are fluent in Chinese and knowledgeable about customers' concerns and issues, the team enhances Boeing's day-to-day support of more than 800 Boeing airplanes currently in service in China. Boeing projects that China's demand for air travel will grow at an annual rate of 7.6 percent during the next 20 years, creating the need for more than 5,000 new airplanes by 2030. The Boeing China Service Center

works closely with the Boeing engineering teams in Seattle, Wash., and Long Beach, Calif., on unique customer requirements and to develop products and services to further the reliability, efficiency, and safety of the Chinese commercial airline fleet.

Excerpt:

World Air Cargo Forecast

2012-2013

#### REGIONAL MARKETS - DOMESTIC CHINA

For the purposes of this forecast, we define domestic China as the mainland or what is commonly referred to as the People's Republic of China. The special administrative regions of Hong Kong and Macau are not examined in this chapter.

Domestic China air cargo traffic to grow 8.0% annually

China's domestic air cargo traffic currently accounts for an estimated 9.1% of the world's total air cargo traffic by weight, but only about 2.7% of the world market in terms of cargo tonne-kilometers.

China has rapidly become the world's premier manufacturing center, with key industries geared toward commodities such as computing, telecommunication equipment, and apparel. These commodities are traditionally transported by air.

Most of these goods are intended for export, and China has witnessed a tremendous increase in international air trade. Strong air export traffic to Asia, Europe, and North America has long been a major driver of China's domestic air cargo traffic growth. During the past decade, however, domestic demand in the region's rapidly developing large cities has become an important driver.

China's domestic air cargo market grew 2.8% in 2011, following growth of 13.6% in 2010 and 11.6% in 2009. Scheduled freight accounts for 94% of domestic China air cargo traffic. Mail accounts for the remaining 6%.

Throughout the 1990s, strong economic growth, rising foreign investment, and extremely competitive labor rates have stimulated 15.2% average annual growth in domestic air cargo.

Air cargo activity is concentrated in the coastal and southern provinces, where the bulk of the country's 1.3 billion people and \$4.2 trillion economy are situated. At 3.7 million tonnes transported annually, China's domestic air cargo market has become the second largest in the world, led only by the US domestic market. The types of goods transported on domestic routes vary by region. In the southeastern provinces, especially the Pearl River Delta region, domestic air cargo consists largely of apparel, home electronics, telecommunication equipment, and light industrial products. Goods transported from the eastern provinces include textiles, apparel, electronics, perishable foods, and live animals.

In the northern regions, apparel and electronics are supplemented by precision instruments. Pharmaceuticals, cashmere, cut flowers, and industrial equipment constitute the bulk of the cargo flow that originates in the western provinces.

Infrastructure development remains key to continued growth. From 2006 to 2010, China invested 250 billion yuan (US\$39 billion) in infrastructure, equivalent to the aggregate investment in civil air transportation infrastructure during the previous 25 years. The investment brought 31 new airports, increasing the total number of airports for commercial services to 175 in 2010. Shanghai Pudong airport became the third largest cargo airport in the world in terms of tonnage. Air services became accessible to 76% of the population.

China's 12th Five-Year Plan (2011-2015) calls for investment of 1,500 billion yuan (US\$235 billion) in civil air transportation infrastructure, of which 340 billion yuan (US\$53 billion) is for airport construction and upgrades, with the objective of having a total of 230 airports by 2015. The majority of new airports will be in the rural west and central area of China, in line with the unprecedented urbanization wave and supporting the government's "Go West" development plan.

The first 10 years of the Go West plan has shown impressive results. In response to tax and investment incentives and growing local market demand, many multinational companies (including HP, Intel, Foxconn, and Cisco) have either established new or moved existing manufacturing centers from the coastal provinces to interior cities such as Chengdu, Chongqing, Zhengzhou, and Xi'an. Go West policy success has laid a strong foundation for continued growth as the development plan commences its second decade.

China has been investing in road infrastructure since the mid-1980s. Infrastructure investment became a national priority during the 1990s. The government invested heavily to develop road networks connecting major industrial centers in the coastal regions, as well as to improve roads in provinces and towns. Originally, most of the road development resources went to the coastal regions. The government shifted its investment focus to the west as part of a strategy to develop that region.

China has added about 3,000 kilometers of expressway per year, resulting in a 30,000-kilometer network of highways, second only to the US in total kilometers. China invested US\$4.3 billion in Beijing's infrastructure in 2004, then another US\$22 billion in 2008 to improve Beijing's traffic congestion.

China's 12th Five-Year Plan targets construction of more than 40,000 kilometers of express rail lines and more than 85,000 kilometers of highway. Completion of the road network could ignite modal competition for time-definite, short- to medium- distance domestic transport services. New surface transport modes could divert traditional air cargo traffic from airplanes to ground transport, as has happened recently in North America.

#### Domestic China Air Cargo Traffic To Expand

China's GDP is projected to grow 6.7% per year on average during the forecast period. Considering population growth predictions, per capita GDP is expected to exceed its current level by a factor of 3.5 in 20 years.

Base-, low-, and high-growth GDP models were developed to forecast China's domestic air cargo growth. The low- and high- growth air cargo scenarios reflect GDP projections for 0.5% below and 0.5% above the baseline GDP growth, respectively.

Overall air trade within China will grow 8.0% annually for the forecast period, with growth most rapid in the first decade of the forecast period.

Extracted Jan. 2014

Background on Boeing VP, China:

Bertrand-Marc ("Marc") Allen

Vice President, Boeing International President, Boeing China

Marc Allen was named president of Boeing China in March 2011. He is responsible for leading the company's business in China and is based in Beijing at the Boeing China headquarters. He reports to Shep Hill, president of Boeing International and senior vice president of Business Development and Strategy.

As president of Boeing China, Allen is responsible for Boeing growth and productivity objectives and initiatives in this important market. He leads companywide activities — including government affairs and the development and implementation of the Boeing China strategy — focused on new business and industrial partnership opportunities, as well as corporate citizenship projects, expanding the Boeing presence and strengthening company relationships with customers and other stakeholders. He also pursues opportunities to leverage local intellectual, industrial and financial capabilities.

Before this appointment, Allen served as vice president of Global Law Affairs and general counsel to Boeing International. He led the company's international legal practice group from its inception in late 2007.

With offices and attorneys around the world, Global Law Affairs provides enterprise wide support to the company across its full range of international legal issues. Allen had general counsel responsibilities for Boeing International and managed the company's

international legal policy matters, such as World Trade Organization dispute resolution, as well as its cross-border trade regulations counsel.

Before Boeing, Allen was in private practice in Washington, D.C., with the Kellogg Huber law firm. He litigated complex commercial matters for a range of domestic and international clients, focusing on the prosecution and **defense** of business wrongs (including claims for fraud, breach of fiduciary and contract duties, and False Claims Act violations). His previous government service includes an appointment as U.S. Supreme Court Justice Anthony M. Kennedy's law clerk.

Allen was born and raised in Southern California. He received his undergraduate degree summa cum laude from Princeton University, majoring in political science with a certificate in economics. In college, he was appointed to the FBI Honors Internship program. He received his Doctor of Laws degree from Yale Law School.

In recent years, Allen has served as a member of Peking University College of Engineering's Industrial Board, as a trustee for the U.S.-China Legal Cooperation Fund, as co-chairman of the American Chamber of Commerce in China's Aviation Cooperation program and Export Compliance Working Group, and as a member of the International Chamber of Commerce's Task Force on Public Procurement. He is a member of the bar for the Commonwealth of Virginia and the District of Columbia.

#### BCA Feature Story

##### Boeing Proves Big in China

April 02, 2013

Boeing and China Eastern Airlines celebrated the delivery of the 1,000th Boeing airplane to China, one of the world's most dynamic markets for commercial airplanes. Boeing forecasts that China will need 5,260 new airplanes, valued at \$670 billion, in the next 20 years. "This is another testimonial that we do remain China's preferred partner, China's preferred supplier and this is just another way to celebrate that," said Ihssane Mounir, Boeing Commercial Airplanes Vice President of Sales in Northeast Asia. The 1,000th airplane, a Next-Generation 737-800 with the Boeing Sky Interior and painted in special peacock livery, will join China Eastern Yunnan Airlines. China Eastern currently operates the largest 737 fleet among Chinese airlines. "We're pleased to be part of this historic delivery for Boeing and China," said Tang Bing, vice president of China Eastern Airlines. "We look forward to working with Boeing to leverage the reliability, comfort, economics and good environmental performance of Boeing airplanes, and bring more value to our customers." Boeing airplanes comprise the majority of commercial jetliners operated in China, providing dependable, efficient service to more than twenty different Chinese airlines. Chinese suppliers contribute parts and components to every current Boeing commercial airplane model, including 737, 747, 767, 777 and 787. Today more than 7,000 Boeing airplanes operating throughout the world use major parts and assemblies from China.

#### BCA Feature Story

##### EVERGREEN INTERNATIONAL AIRLINES' BOEING 747 CONVERTED FREIGHTER TAKES OFF INTO THE SKY OVER XIAMEN, CHINA

2012 July 12

In 2004 Boeing began the option of converting 747-400 passenger planes into a freighters. Eight short years later, the company is celebrating a major milestone: just last month Oregon-based Evergreen International Airlines took re-delivery of Boeing's 50th 747 Converted Freightier. The converted freighter offers a number of unique features Evergreen will utilize to make its business stronger. "Payload, range are just two [features]. The value over all is the most important part," said Evergreen International Airlines President, Jim Wheeler. Evergreen International Airlines provides air cargo transportation and charter services for customers such as major airlines and the U.S. Government. It is

also well-known for its Boeing 747 Supertanker, a converted 747-100, which is used around the world for firefighting missions. With continued success, Evergreen hopes to be part of the next 50 converted freighters. "I think you will see us acquiring a few more in the very near future", said Wheeler.

BCA Feature Article

BOEING IN BEIJING FOR IATA, HELPS CUSTOMERS IN CHALLENGING

June 13, 2012

Top airline leaders were greeted with sobering news at the general meeting of the International Air Transport Association (IATA) in Beijing. The influential trade organization, which advocates for the interests of 240 airlines, announced it expects industry profits to plummet to 3 billion dollars, down from 7.9 billion last year.

High oil prices and the Eurozone crisis were cited as contributing factors to the bleak outlook. Director General Tony Tyler said IATA is doing what it can to help.

"Through our lobbying efforts we've managed to persuade some governments and some airports to keep charges down," he said. "Whenever we see costs going up we're onto it in a flash."

For Boeing Commercial Airplanes CEO Jim Albaugh, IATA was a chance to meet with customers and share with them Boeing's dedication to improving the industry's bottom line. "The real driver in the cost of doing business is the cost of fuel," he said. "We have the most energy-efficient airplanes in the world and that's why customers turn to us."

Boeing was represented on two panel discussions at IATA.

Stephen Emmert, a BCA Biofuels Strategy regional director, discussed the commercialization of biofuels, which come from sustainable sources like plants. He stressed their importance in reducing carbon emissions and the cost benefit to airlines.

"Biofuels are less dependent on the price of oil so there's less volatility in the pricing that can happen as oil prices fluctuate," he said.

Travis Sullivan, a BCA Business Development & Strategic Integration vice president who oversees international strategy, talked about the links between commercial aviation and economic development around the world.

Aviation is recognized as a significant source of economic benefit, said Sullivan, a former official at the U.S. Commerce Department. The Air Transport Action Group, an industry trade organization, estimates that commercial aviation generates 8.4 million direct jobs and supports 56 million jobs around the world. In the U.S., the Federal Aviation Administration says civil aviation contributes about 5 percent of U.S. gross domestic product (GDP).

At the same time, the commercial aviation industry can do more to ensure that governments fully recognize its value.

"When our industry is aligned on key 'growth' issues and can mobilize other stakeholders -- from manufacturers and suppliers to Chambers of Commerce, the travel industry and airport retailers -- to support those issues as well, we strengthen our ability to advocate for policies that enable and expand our industry's economic impact," Sullivan said.

BCA Feature Article

THE GREAT CALL OF CHINA

May 03, 2010

The Boeing Dreamscape at Shanghai Expo 2010 is an interactive mosaic of photographic images co-created by people from all over the world. It offers an opportunity for the people of China and abroad to share their dreams of travel and the journeys they have experienced.

Jiang began his aviation career as an airplane mechanic, working on Boeing 707, 747, 737, and 767 jetliners. Now, as a senior technical specialist, Jiang provides technical support to Chinese airline personnel and the Civil Aviation Administration of China.

"My background is in maintenance and engineering and part of my job is conducting evaluations of airlines' maintenance processes."

Jiang is part of a legacy of cooperation between Boeing and China's aerospace industry, a story that's now on display at the "Boeing Dreamscape" exhibit at Shanghai Expo 2010. With a projected attendance of 76 million people, the Shanghai Expo is expected to be the largest international exposition in history.

"Being a part of this world expo means a lot to Boeing because of our long history of partnership with the Chinese aerospace industry," said David Wang, president of Boeing China.

In 1916, when Bill Boeing sought the first aeronautical engineer for his fledgling company, he hired Wong Tsao, a Chinese graduate of the Massachusetts Institute of Technology. Tsao went on to design the Model C seaplane, Boeing's first production airplane.

Today, Jiang is one of 150 Boeing employees working in China, while another 6,100 work for Boeing joint ventures and subsidiaries there. And all of Boeing's current commercial airplanes, from the 737 to the 787 Dreamliner, incorporate parts made in China.

Going forward, Boeing leaders say the company's future depends upon success in the China market because of the country's phenomenal growth.

In the past nine years, the commercial airline fleet in China has more than doubled to more than 1,300 airplanes. The number of commercial airline passengers soared from 83 million to 202 million during that same period, according to the International Civil Aviation Organization.

Between now and 2028, Chinese airlines are expected to purchase 3,770 new airplanes -with a market value of \$400 billion, according to Boeing's latest Commercial Market Outlook.

"It's the largest market outside the U.S. for commercial airplanes, period," said Jim Simon, the Boeing vice president who oversees sales in China. "The potential growth in demand for air travel as China's economy grows is staggering."

Boeing is not the only airplane manufacturer vying for a piece of this important market. Airbus has been as active as Boeing in courting orders from Chinese airlines. Last May, the first Airbus A320 assembled in a new joint venture plant in Tianjin took to the air. Additionally, China's aerospace industry is preparing to produce its own commercial airplanes, starting with a 737-size model, in the next five years.

"That's going to happen. We have to find a way in China to both partner and compete," said Randy Tinseth, Boeing vice president of Marketing. "I'm confident we can find a way through that."

David Wang said Boeing can benefit by communicating more with the Chinese public about how Boeing's presence and programs add real value across the nation.

The Shanghai Expo is just the venue to continue this conversation. The "Boeing Dreamscape" exhibit is within the USA Pavilion, which on its own is expected to draw 7 million visitors. The expo started May 1 and runs through the end of October.

## BOEING SPEECH

"Nearly Four Decades in China: A CEO's Perspective"

The Chicago Council on Global Affairs

Jim McNerney, Chairman, President and Chief Executive Officer

May 26, 2010

Given our topic today, I think I should start by commending Secretary of State Hillary Clinton and Treasury Secretary Tim Geithner for the progress that their teams made this week at the Strategic and Economic Dialogue in Shanghai. I know some of you followed this closely. And I know Commerce Secretary Gary Locke also played a key role as part of that 200-person U.S. delegation.

It's vitally important that U.S. political leaders are engaged in support of U.S. trade relationships. Expanded engagement in international markets, combined with the recovery of our financial services markets, is critical to accelerating our overall economic recovery. We're reminded everyday how fragile the recovery is when we see what is happening in Europe right now.

What I think is remarkable is that this year's Strategic and Economic Dialogue was, in a way, unremarkable -- an established and accepted part of the way the United States and China work together on behalf of their respective citizens.

What a difference 38 years makes! I know most of us remember what's been called the "week that changed the world," when President Richard Nixon made his historic trip to China in 1972. Nixon said at the time that the United States and China had come together to "build a bridge" -- a bridge that would span thousands of miles of ocean ... and a nearly a quarter of a century of barely suppressed "hostilities."

Back then, the "bridge" that President Nixon spoke of consisted of nothing more than a piece of paper -- the Joint Communiqué signed by the leaders of the two countries. Today, the sea-and-sky bridge that connects our two countries carries a two-way traffic of goods and services that totals nearly 400 billion dollars a year -- or more than a billion dollars a day.

There was zero trade between our two countries between 1949 and 1972. By the year 2000, U.S. exports to China had grown to \$16 billion, while U.S. imports from China totaled \$100 billion. Since then, U.S. exports to China have doubled and redoubled -- rising by a factor of four (to \$70 billion) -- while U.S. imports from China have tripled (to nearly \$300 billion).

Obviously, as a nation we are running a large bilateral trade deficit with China. (I'll come back to that and comment on it further in a few minutes.) For now I just want to point out a powerful fact: China has passed Britain, Germany and other countries to become the largest buyer of U.S. exports outside North America . . . while the United States has passed Japan to become the largest buyer of China's exports.

Indeed, Chinese goods -- everything from apparel, to toys and games, furniture, cameras, computers, electrical machinery and equipment, footwear and bedding material -- are ubiquitous in U.S. stores such as Wal-Mart, Crate & Barrel, Home Depot and many other places.

By the same token, rising disposable incomes have energized Chinese consumers like never before: traveling, driving cars, and shopping for high-end goods. So if you spend much time traveling around China, as I have over the past two decades, you cannot miss the fast-growing presence in China of all things (or at least many things) American -- from movies and music to the exponential growth in number of retail outlets, such as Starbucks, KFC, Pizza Hut, McDonald's, and Wal-Mart. It now seems like there's a Starbucks on every corner in Shanghai -- and that's because there is -- just as there is in downtown Chicago. Wal-Mart now has no fewer than 146 stores, including 138 Supercenters, in 89 Chinese cities. And high-end Buicks from General Motors have become the symbol of success for the young professional set.

China's demand for imported goods is also being stoked by huge government spending on infrastructure -- in building highways, railroads, airports, hospitals and the like -- and still more by the recent real estate and construction boom. So U.S. manufacturers with growing exports to China include makers of pharmaceuticals, computers and electronics, and medical, railroad and construction equipment. IBM, Caterpillar, GE and Boeing all count China as one of their largest export markets. And



for perspective, China is, indeed, Boeing's largest export market -- and not by a little, but by a lot.

In looking back, the case can be made that the whole story of what now goes by the name of 'globalization' began with that presidential visit to China in February 1972. In that sense, Boeing had the good fortune of being present at the moment of its creation. President Nixon and his entourage arrived in Beijing on a Boeing 707, truly the game-changing airplane of its time, and they were met on the tarmac by Premier Zhou Enlai and a small group of Chinese officials. China ordered ten Boeing 707 jetliners soon after the visit, setting in motion a tremendously productive relationship between a company (Boeing) and a country (China) -- a relationship that continues today and in many ways has become symbolic of the nearly four decades of cooperation between our two nations. Visits to our facilities over the years by some of the highest-ranking Chinese leaders -- from Vice Premier Deng Xiaoping to Presidents Jiang Zemin and Hu Jintao -- have underscored our centrality to both commercial and country-to-country relationships with China.

Following President Nixon's landmark visit -- with the so-called "Open Door" now solidly in place -- China began moving from a centrally planned system that was largely closed to the outside world ... to a still-centrally planned but self-styled market-oriented economy. In doing so, China quickly embraced participation in the global marketplace. Toward the end of the 1970s, China initiated major economic reforms -- freeing farmers to sell surplus crops on the open market and encouraging foreign companies to make direct investments in special economic zones along the coast. These reforms set the stage for the prolonged economic boom which has continued unabated from that time to this.

China is now the third-largest economy in the world after the United States and Japan.

On a somewhat more personal note, when Nixon visited China, I was a year out of college and working in Europe. Like everyone else, I was taken with the idea that this vast and ancient land was prepared to open her door to the outside world. Later on, I joined GE -- in part because GE was a company with very much of a global view.

Jack Welch -- GE's leader for the 19 years I was there -- sent me over to Hong Kong in the early 1990s to head up GE's Asia operations. Jack didn't give me a blueprint or lots of instructions. Instead he gave me one of his leadership lessons. He told me, "Asia's the biggest opportunity we've got, and we're not doing much. Go figure it out." The lesson was, if you give good people a lot of rope, you'll get good ideas in return, instead of getting a public hanging.

At that time there was a lot of talk about the fact that China had passed the one billion mark in population. It became a popular cliché to say if you could figure out a way to sell just one of anything to everyone in China, you'd get rich in a hurry. Problem was, China at that time was still very poor. These were the days when bicycles were the predominant luxury. It's hard to sell much of anything to people who are only making a few dollars a day.

Therein, I think, is one of the most important changes in China that I have witnessed over the last 20 years -- the rapid growth in personal incomes. A growing middle class in China is dramatically reshaping the country's domestic economy and having a major global economic impact, too.

China's growing prosperity is compelling when you look at a few noteworthy statistics (and you pretty much have to go there every six months just to keep up with the pace of change!):

One survey indicates that automobile ownership in China has doubled in the last five years, with approximately 50 million people now owning their own cars. The Chinese are adding 12,000 cars per day. And, in fact, here's the clincher: Chinese consumers last year

bought more cars than U.S. consumers did! Think about that; the Chinese auto market is now bigger than ours.

Public transportation in large cities has become incredibly fast and efficient. For example, if you want to get to the middle of Shanghai from Pudong International Airport (almost exactly the same distance as between here and O'Hare), you can make your way through 45 or more minutes of traffic ... or you can hop the world's fastest train and get there in eight minutes. That's about 280 miles [450 kilometers] an hour. Imagine a Blue Line trip to O'Hare like that!

As recently as 1986, only 7 million people in China had phones of any kind. Today more than 350 million people own mobile phones. (You'll note that there are more mobile phones in China than there are people living in the United States!)

And China's online population is the biggest in the world at more than 425 million people, or a third of the population.

Narrowing things in the direction of Boeing's interests: Under China's civil aviation plan, by 2020 the number of airports serving more than 30 million passengers a year will increase to 13 from the current three. These are huge, O'Hare-sized airports. (In 2009, the U.S. had 18 airports of that size.) And between 2008 and 2020, China will be adding 97 new airports in major metropolitan cities, which will open the airways particularly for domestic travelers and bring its total number of airports to 244.

The Chinese people are becoming significant spenders on global travel, too. Already, today, in Paris, the greatest number of tourists by ethnic origin are Chinese -- and they spend more per capita than anybody else. And an estimated 180 million plan to travel in the relatively near term. Many of them want to visit the United States, but it is much more difficult for them to obtain a U.S. visa than it is for them to visit European Union nations, as an example.

Now, Boeing doesn't sell any of the consumer products I've mentioned. But, of course, we are interested in travel, and we do keep an eye on consumer sentiment as it relates to buying airline tickets -- as that is what ultimately drives demand for new airplanes. For more than a decade, air traffic within China ... and between China and the rest of the world ... has been growing at a compound annual rate of about 12 to 15 percent -- even through the global economic downturn. That is a blisteringly fast pace -- one we can expect will continue for some time.

Over the past decade, China has bought more airplanes than any country in the world (except the U.S.). It has a total of 1,560 commercial airplanes (almost 53 percent of them Boeing airplanes), and the average age of these planes is just six and a half years -- meaning that China also has one of the youngest fleets in the region. Notwithstanding those impressive stats, just think of the 97 new airports I mentioned earlier, and consider how far China has to go before it begins to approach the levels of air travel saturation we have in the United States: To draw even with the U.S. in frequency and convenience of air service, China would need ten times as many airplanes as it now has.

There are some reasons that China may never achieve the same level of air service that we are accustomed to in our country. But it will surely come a lot closer than it is today. To us it is axiomatic that the desire to fly goes up with a rising level of income. That is why we have forecast that China (including Hong Kong and Macau) will triple its fleet over the next 20 years to 4,600-plus airplanes -- representing a growth rate six times that of the North American fleet that we anticipate over the same time period..

Let me put that into perspective: The current value of Boeing airplanes now in the China fleet is around twenty billion dollars. The total market potential over the next 20 years is 20 times that amount -- or four hundred billion dollars. And we hope to provide a majority of those airplanes.

I'd like to make just a few more comments on Boeing's work in China and the impact of our deep roots there. For any of you who may be planning your first trip to China (and

for those of you who may travel there with regularity), it's often overlooked that China is a world leader in aviation safety, which isn't the image we've had over the years. The fact that China has maintained an excellent safety record during the past decade of unprecedented growth in its air-transportation system is an impressive achievement when you grow that fast. It's also something Boeing is proud to have actively partnered with China and its airlines to attain.

Not only have we supplied more than half of the airplanes in China's fleet, but we have also helped China stand up its aviation infrastructure. We have trained pilots, mechanics, air traffic controllers, help design air-traffic-control systems and other things. We have worked with China in the establishment of airports and airplane service centers that maintain, modify and upgrade existing aircraft, and provide various other kinds of technical support. And we have shared best practices in leadership, integration and lean operations to make the whole system as safe, and as efficient and as successful as possible.

Last but not least, we have helped nurture China's capabilities in the design and manufacture of an increasing number of parts and assemblies for all of our airplanes -- the Boeing 737, 747, 767, 777 ... and our newest and most innovative airplane, the 787 Dreamliner.

In large part because of our efforts, the U.S. is now the biggest import market for Chinese aerospace suppliers. Since the 1980s, Boeing has purchased more than one point five billion in aviation hardware and services from China, and we are prepared to purchase roughly twice that amount over the near term.

That leads to a view shared by many in our industry that within the next 10 to 20 years, the Chinese aerospace industry -- which today is customer and supplier to both Boeing and Airbus -- will also become a strong competitor to both of us. All the necessary ingredients are there: financial wherewithal, technological proficiency, a large domestic market, a productive workforce, and a pipeline of talent trained in science and technology.

Rather than retreat from this challenge or attempt to delay the inevitable, we have opted to accept the reality of both partnering and competing with China. In the near term, the Chinese market I've described for you today is simply too large and too important not to cooperate for mutual benefit. More joint activity, such as our aviation services facility in Shanghai that Secretary of State Clinton visited this past weekend, are a potential outcome of this strategy.

Longer term, as China's capabilities continue to strengthen, and head-to-head competition for new airplane orders sets in, we will compete and win the way we have for decades -- through the game-changing innovation of our products and services, fueled by advancing technologies and the creativity and ingenuity of our people. All of which we focus on providing our customers a substantial competitive advantage over their competitors.

Ultimately, we believe that China's airlines -- like airlines everywhere -- will want to buy products and services that provide their customers the best experience and their business with the best value -- and we intend to be their supplier of choice. In other words, we're playing offense, not defense.

The opportunity for Boeing in China is but one frame in the mosaic of overall business potential for U.S. companies in Chinese markets, and, reciprocally, for Chinese companies in U.S. markets. I believe the United States and China are already interdependent and growing more so every day. Now, clearly there are a host of challenges that I won't detail here, which business leaders and government leaders are working to resolve in order to ensure the continued strength and mutual benefit of our bilateral relationship.

I expect that the U.S.-China relationship will always be complex, but that global interdependence in business will help keep both nations motivated to work out their differences constructively.

My observation is that even when the two nations face strong disagreement and the rhetoric does occasionally flare, our mutual interdependence tends to bring it back down to a more pragmatic discussion about how to work through the respective issues for the long term.

Case in point: Despite ongoing debates on a number of issues, the two nations have worked very closely and effectively to navigate through the global financial crisis. And that is because we both had to.

Now, I'm under no illusion that some of these complex issues have easy solutions. Each of our countries faces a unique set of economic, business and political challenges which will color our views of things and drive different priorities and expectations. What I believe we must strive for on both the business and political fronts is balance in the outcomes, supported by a spirit of constructive engagement and dialogue.

For its part, China is managing tremendous growth but also tremendous change. It is working to convert its initial low-cost advantage to a new foundation of competitiveness through technology and its application and a scaling-up of its industries to compete globally. And, all the while, it must manage the inherent tension between free-market dynamics and a political structure that wants to ensure the engagement of as many people as possible in the new economy to avoid a potential backlash.

I mentioned earlier the 5-to-1 trade imbalance that exists between our two countries, which I see as one of the more pressing challenges to our bilateral relationship. However, as development progresses in China and per-capita incomes continue to rise, China's domestic consumption will increase quickly. And when you consider the sheer numbers of potential new middle-class consumers involved, those increases will go a long way toward closing the trade gap with the U.S. and, in due course, make China less dependent upon exports for its future growth.

Meanwhile, on our side, we are confronted with high unemployment, growing deficits, massive debt levels, and reduced competitiveness in the face of emerging global competitors. As a nation, we really do need to do a better job of living within our means. We need to borrow less, save more, produce more, become more efficient and competitive, and bring our exports back into line with our imports. Opening up and expanding new markets is paramount, even if means -- as is the case with Boeing in China -- accelerating competition as you do it.

Allow me to make one last point. Ensuring a level global playing field for trade between our two nations is vital to both of our interests. I believe Secretary of State Clinton made that point very clearly this week in China. A soon-to-be-published World Trade Organization ruling against Europe's Airbus over the legality of government start-up funding (in this case known as launch aid) for large commercial aircraft programs, will set an important precedent for the global aerospace industry. China is one of several nations -- including Brazil, Canada, Russia, and Japan -- that is gearing up to compete in the large-airplane market mainly served by Boeing and Airbus today. Media reports have made it clear that the WTO will rule strongly against the kind of non-commercial launch aid funding that powered the rise of Airbus within our industry.

I'm confident that China (and that other nations with aspirations to enter the commercial-airplane business) will be mindful of that precedent. A rules-based global trading system builds trust across all parties and provides substantial economic benefits to all nations -- based on their competitiveness, not based on anything else.

Let me close now with a couple of thoughts.

The rise of China over the last several decades is truly a marvel. Some fear this rise, but I would argue that China can no more displace America than America can hold back China. Or as Secretary of State Clinton said recently: "Few global problems can be

solved by the U.S. or China alone, and few can be solved without the U.S. and China together." The important concept here is maintaining dialogue between the two nations ... as well as between industry and the respective governments ... not only to address issues of concern but also to expand existing partnerships and create new ones.

Ultimately, I believe that China will continue to be both a major market and a major partner to us, supporting thousands of U.S. jobs and contributing significantly to the U.S. balance of trade. In fact, our interdependence with China is key to the United States achieving President Obama's goal of doubling America's exports over the next five years -- an increase projected to support two million American jobs at a time when we really need them.

I know I don't have to tell this crowd how much relationships matter, presence matters, and respect matters. The more we work with our counterparts in Chinese business and government, the more we will develop mutual understanding and influence.

In doing all that, we will keep the historic "bridge" that I mentioned at the beginning of my remarks in good repair.

Thank you. Now, I'll be happy to take your questions.

## BOEING PRESS RELEASES

### BOEING EXPANDS FLIGHT SERVICES BUSINESS IN CHINA

- Triples training capacity for airlines at the Shanghai campus
- First 787 training suite in China introduced
- 747-400 full-flight simulator benefiting airline customers

Shanghai, June 18, 2012 -- Boeing (NYSE: BA) today announced it has expanded its Flight Services business in China, greatly enhancing training capacity for airlines in the region. With the introduction of an advanced 787 Dreamliner training suite for pilot and maintenance training, and a newly-installed 747-400 full-flight simulator, the company is tripling its offerings at the Boeing Flight Services Shanghai training campus. The new training devices join an existing 757/767 full-flight simulator at the facility.

"China is one of the fastest-growing and most dynamic aviation markets in the world, and Boeing is committed to giving the Chinese airlines the competitive advantage they need to succeed as they grow," said Sherry Carbary, vice president, Boeing Flight Services. "Providing new, world-class resources and training focused on the region's 787 and 747 fleets is one way we can bring the Boeing Edge to China."

The Boeing Pilot & Technician Outlook projects the largest demand for global pilots and maintenance technicians will be in the Asia Pacific region. China's expected requirement leads the region's demand with a need for 72,000 new commercial airline pilots and more than 108,000 maintenance technicians over the next 20 years.

"As we celebrate the 40th anniversary of Boeing in China, this is another important step forward in our long-term commitment to serving China's development of the air transport system," said Marc Allen, president of Boeing China. "There is a real need for more pilots in the region, and the expansion of the Boeing training campus in Shanghai is geared to help meet that need."

Chinese customers are already benefiting from the new Boeing training capacity in Shanghai. Crews from Yangtze River Express, Air China and China Cargo have completed 747-400 training. Several crews from Hainan Airlines have completed 787 pilot training.

"Boeing not only produces amazing airplanes, but also delivers innovative services and support throughout the lifecycle of the customer fleet," said Ihssane Mounir, vice president of Sales and Marketing for Greater China and Korea, Boeing Commercial Airplanes. "With the expanded capability at the Boeing Flight Services Shanghai training campus, we will be able to quickly and efficiently provide our services to our customers in China and the Asia-Pacific region."

COMMERCIAL AIRCRAFT CORP. OF CHINA AND BOEING SIGN COLLABORATION AGREEMENT TO PARTNER IN AREAS ADVANCING COMMERCIAL AVIATION INDUSTRY GROWTH

- Boeing and COMAC Create Aviation Energy Conservation and Emissions Reductions Technology Center in Beijing

- Aircraft Manufacturers Strengthen Ties with Leadership Meetings, Exchange of Commercial Aviation Market Forecasts

Beijing, March 6, 2012 -- Commercial Aircraft Corp. of China (COMAC) and Boeing (NYSE: BA) today announced a collaboration agreement to partner in areas that will enable commercial aviation industry growth in China and potentially around the world. This is the first collaboration agreement between COMAC, which is building the new C919 jet and ARJ21 regional jet, and Boeing, which this year celebrates its 40th anniversary of providing commercial aircraft and services to China's aviation industry.

As part of the agreement, the two companies will create the Boeing-COMAC Aviation Energy Conservation and Emissions Reductions Technology Center in Beijing. Funded by both companies, the Boeing-COMAC Center will support research projects to increase commercial aviation's fuel efficiency and reduce greenhouse-gas emissions. The aircraft manufacturers also agreed to have annual leadership engagements and exchange commercial aviation market forecasts.

A signing ceremony in Beijing was attended by COMAC Chairman Jin Zhuanglong, COMAC President He Dongfeng and Boeing Commercial Airplanes President and CEO Jim Albaugh.

"Through this collaboration agreement, Boeing and COMAC will build our relationship and will further sustainable growth and fuel efficiency for China's fast-growing aviation market," said Albaugh. "Our new Technology Center shows that two companies in a competitive industry can partner to make progress on important challenges that cannot be solved by one company alone. That is good for customers and passengers, and it's the right thing to do."

The Boeing-COMAC Aviation Energy Conservation and Emissions Reductions Technology Center will be located at COMAC's Beijing Civil Aircraft Technology Research Center. The companies will collaborate with China-based universities and research institutions to expand knowledge of technologies – such as sustainable aviation biofuels, aviation connectivity infrastructure and other areas – that improve commercial aviation's energy efficiency or reduce the industry's carbon emissions. The companies will jointly select and fund each research project.

"This milestone agreement between Boeing and COMAC follows four decades of Boeing partnership with airlines, government agencies, suppliers and research institutions to support the development of China's aviation industry," said Marc Allen, President of Boeing China. "Our hope is that innovative emissions-reduction technologies developed through the Boeing-COMAC Center will advance aviation in China and around the world."

China is one of the world's fastest-growing aviation markets. The Civil Aviation Administration of China has forecast that passenger traffic in China will surpass 300 million this year and will reach 1.5 billion passengers in 2030. Boeing has estimated that Chinese airlines will need to buy 5,000 new airplanes by 2030 to meet this extraordinary demand.

#### About COMAC

The Commercial Aircraft Corporation of China, Ltd. (COMAC) is a state-owned company, which is formed with the approval of the State Council and jointly invested by the State-owned Assets Supervision and Administration Commission (SASAC) of the State Council, Shanghai Guosheng (Group) Co., Ltd., Aviation Industry Corporation of China (AVIC), China Aluminum Corporation (CHINALCO), Baosteel Group, and

Sinochem Group. With a registered capital of RMB 19 billion. COMAC was held on May 11th, 2008. COMAC is headquartered in Shanghai. Mr Jin Zhuanglong serves as Chairman of the Board, and Mr He Dongfeng as President.

COMAC functions as the main vehicle in implementing large passenger aircraft programs in China. It is also mandated with the overall planning of developing trunk liner and regional jet programs and realizing the industrialization of civil aircraft in China. COMAC is engaged in the research, manufacture and flight tests of civil aircraft and related businesses such as marketing, servicing, leasing and operations of civil aircraft. The company has six member organizations: Shanghai Aircraft Design and Research Institute (SADRI), Shanghai Aircraft Manufacturing Co., Ltd. (SAMC), Shanghai Aircraft Customer Service Co., Ltd., Beijing Civil Aircraft Technology Research Center (BCATRC), Shanghai Aviation Industrial (Group) Co., Ltd. (SAIGC) and Shanghai Commercial Aircraft Magazine Co., Ltd.

COMAC adopts a "major manufacturer-suppliers" model, focusing on aircraft design, final assembly and manufacture of aircraft, marketing and customer service, and acquisition of certification. COMAC adheres to the principle of "developing with Chinese characteristics and representing the technical progress" and makes self-reliant advancement in the process of marketing, integration, localization and globalization. The company endeavors to manufacture large passenger aircraft that are safe, economical, comfortable and environmentally friendly. COMAC is determined to independently build large Chinese passenger aircraft that will soon be soaring through the blue skies.

#### BOEING STATEMENT ON CHINA SOUTHERN'S COMMITMENT TO BUY 10 777-300ERS

Seattle, February 28, 2012 – Boeing [NYSE: BA] announced today that China Southern Airlines has agreed to buy 10 Boeing 777-300ERs, as the airline plans to expand its capacity to meet growing demand in Asia-Pacific and China. "We're very pleased that China Southern, which has been a staunch 777 supporter from the very beginning of the program, has once again selected the 777-300ER to serve its passengers and to deliver value to its bottom line," said Ihssane Mounir, vice president, Sales, Boeing Commercial Airplanes. The Boeing 777 is the world's most successful twin-engine, long-haul airplane. The 777-300ER extends the 777 family's span of capabilities, bringing twin-engine efficiency and reliability to the long-range market. The airplane carries 365 passengers up to 7,930 nautical miles (14,685 km). Boeing incorporated several performance enhancements for the 777-300ER, extending its range and payload capabilities. Excellent performance during flight testing, combined with engine efficiency improvements and design changes that reduce drag and airplane weight, contributed to the increased capability. The agreement requires Chinese Government approval, and Boeing looks forward to working with China Southern Airlines, a long-time valued customer, to obtain approval. Once approval is attained, the order will be posted to Boeing's Orders & Deliveries Website. Contact: Yukui Wang, 86-1360-131-7722, yukui.wang@boeing.com.

#### BOEING BUSINESS JETS DELIVERS FIRST BBJ TO NANSHAN JET OF CHINA; CHINA EMERGING AS KEY MARKET FOR BUSINESS JETS

Seattle, Dec. 16, 2011 -- Boeing (NYSE: BA) Business Jets today announced the delivery of a BBJ to Nanshan Jet of Yantai, China, rounding out a strong year of orders and deliveries to Chinese customers. Representatives of Nanshan Jet took delivery of the airplane at the Boeing Delivery Center in Seattle. This is the first BBJ for Nanshan Jet and one of the first aircraft the company will operate on its own. "Previously our jets were operated by Air China. We're thrilled to begin this new adventure with Boeing as our partner," said Bin Yu, president of Nanshan Jet. Yu adds the BBJ is Nanshan Jet's

largest, most capable aircraft in their fleet of seven and will provide charter services for corporations, government agencies and private individuals in China. "Flying farther, with lower cabin altitude and with nearly three times the interior space of the largest traditional business jets, Nanshan Jet is going to love their BBJ," said Capt. Stephen Taylor, BBJ president. Boeing delivers the BBJ to the customer 'green' (no interior or paint) so it can be customized to suit specific needs and tastes. Nanshan Jet has selected Lufthansa Technik's U.S. Subsidiary, BizJet International, to complete its BBJ interior in Tulsa, Oklahoma. It will be configured to carry 28 passengers. Three of four BBJ orders and three of seven deliveries this year were to customers in China. 2012 is expected to be equally as strong for BBJ in the region.

#### BOEING LAUNCHES 787 DREAM TOUR IN CHINA

- New airplane pays its first visit to mainland China, landing in Beijing
- Additional stops scheduled in Guangzhou and Haikou

Beijing, Dec. 4, 2011 -- The Boeing (NYSE:BA) 787 Dreamliner arrived today at the Beijing Capital International Airport, making its debut in mainland China, one of the world's fastest-growing aviation and travel markets. It also marks the start of a six-month worldwide Dream Tour with the all-new jet.

The airplane will be in China Dec. 4 through 11, with stops in Beijing, Guangzhou and Haikou, where Chinese customers, partners, government officials and media will experience the revolutionary technology and passenger innovation firsthand.

"Chinese airlines including Air China, China Southern, Hainan Airlines and Xiamen Airlines have been instrumental in bringing this game-changing airplane to the market," said Ihssane Mounir, senior vice president of Sales & Marketing for greater China and Korea, Boeing Commercial Airplanes. "We thank them for their initial commitment to the first new airplane of the 21st century."

The airplane, ZA003, was originally used for flight testing but has been elegantly refurbished to showcase the standard capabilities and features of the 787.

"I'm extremely impressed with what I saw including the spacious cabin, largest-ever windows, larger overhead bins, and the dynamic LED lighting," said Fan Cheng, senior vice president of Air China. "I believe the Dreamliner will enable Air China to offer a superior passenger experience and I look forward to its important role in Air China's plans for international expansion."

"This great day demonstrates our partnership with China in pursuing aviation excellence," said Marc Allen, Boeing China president. "Chengfei, Hafei and Shenfei -- as exclusive and single-source Boeing suppliers -- have made a great contribution to the success of the 787 program, producing the rudder, wing-to-body fairing, and vertical fin leading edge. We want to thank them for their role in making today possible."

Made from composite materials, the Boeing 787 Dreamliner is the first mid-size airplane capable of flying long-range routes and will allow airlines to open new, non-stop routes preferred by the traveling public. As a result of innovative technologies, the airplane offers unparalleled operating economics, fuel efficiency and passenger comfort. More than 800 787s are on order by more than 50 airlines, a testament to the airplane's unique capabilities. Contact: Yukui Wang, Boeing China Communications, +86 10 59255505, [yukui.wang@boeing.com](mailto:yukui.wang@boeing.com).

#### AIR CHINA, BOEING AND INDUSTRY PARTNERS CONDUCT FIRST CHINESE SUSTAINABLE BIOFUEL FLIGHT; FLIGHT HIGHLIGHTS BILATERAL COOPERATION ON RENEWABLE ENERGY BETWEEN CHINA AND THE U.S.

Beijing, Oct. 28, 2011 -- Air China, Boeing (NYSE: BA), and Chinese and U.S. aviation energy partners today conducted China's first sustainable biofuel flight. The two-hour mainland flight from Beijing Capital International Airport was witnessed by officials



from both countries and highlights the viability of using sustainable aviation biofuel sourced in China.

"Through our collaborative efforts with China we have found an incredible partner and place where national capability, innovation and technology come together in a remarkable way," said Boeing China President Marc Allen. "This historic flight illustrates exactly how bilateral collaboration can help address environmental challenges, and we commend the Chinese for their leadership in helping to develop sustainable aviation solutions."

PetroChina, working with Honeywell's UOP, sourced and refined the China-grown, jatropha-based biofuel used for today's flight aboard a Boeing 747-400 powered by Pratt & Whitney engines. China National Aviation Fuel blended the biofuel with traditional jet fuel and also provided aircraft fueling support.

China's National Energy Administration (NEA) and Boeing also announced an agreement for further study of regional biofuel development. The study results will help support future efforts to establish a sustainable aviation biofuels industry in China, and also form the foundation for an announced renewable energy agreement between the U.S. Trade and Development Agency and the NEA.

Air China and Boeing are already working plans for an international flight between the U.S. and China fueled by sustainable biofuel, which will highlight increasing cooperation on renewable energy development between the two countries.

"The recent success of our biofuel initiatives with government, energy and aviation organizations in China and around the world underscores the tremendous support that exists for the macro-economic benefits and value aviation provides through its unique ability to connect people, cultures, goods and services," said Boeing Commercial Airplanes Vice President of Environment and Aviation Policy, Billy Glover. "Working closely with the Chinese and U.S. energy agencies we can reduce carbon emissions in the two largest aviation markets, while helping to ensure sustainable industry growth."

The China-Boeing aviation partnership dates back nearly a century, with more than half of all commercial jets operating in China today being Boeing aircraft. Boeing and its partners, including the US-China Energy Cooperation Program, are now jointly addressing the challenges of sustainability and working to establish a pathway for China to create a sustainable aviation biofuel industry. Boeing Commercial Airplanes and Boeing Research & Technology are at the forefront of the global effort to expand aviation's fuel supply through sustainable options. Contact: Yukui Wang, Boeing China Communications, +86 10 5925 5588, [yukui.wang@boeing.com](mailto:yukui.wang@boeing.com).

#### BOEING UNVEILS NEWEST BUSINESS JET FOR CHINESE CHARTER MARKET

Las Vegas, Oct. 10, 2011 -- Boeing (NYSE: BA) Business Jets unveiled the latest BBJ to enter the Chinese charter market at the National Business Aviation Association (NBAA) conference in Las Vegas this week. The new BBJ, owned and operated by Deer Jet of Beijing, is the second of four BBJs for the airline making it the largest BBJ charter operator in China. "It's no surprise BBJ is dominating the airplane charter business in Asia," said Steve Taylor, BBJ president. "BBJ can carry more people than traditional business jets, as well as having cabins that are around twice as wide with unequalled comfort, space and freedom of movement, which makes them ideal for carrying business teams," said Taylor. BBJ customers work with designers and interior completion centers to develop personalized interiors. The interior of Deer Jet's new BBJ was completed by Associated Air Center of Dallas, Texas and features 28 seats, a bedroom suite and full sized bathroom with a shower. Korean Airlines, Beijing Airlines and Metrojet also charter BBJs in Asia. Sales of BBJs to private individuals in Asia are extremely strong as well. One reason is that the BBJ can fly further than its competitor's airplanes. Range is very

important to buyers in the region, due to the great distances from Asia to Europe and North America.

#### CHINA EASTERN AIRLINES RECEIVES ITS FIRST HIGH AND HOT BOEING 737; CHINA EASTERN TO INTRODUCE ITS FIRST 737 WITH BOEING SKY INTERIOR

Seattle, Aug. 23, 2011 -- China Eastern Airlines today took delivery of its first Next-Generation 737-700 outfitted with both the High-Altitude High-Temperature Airport Operations Feature Package and the new Boeing Sky Interior from Boeing (NYSE: BA). China Eastern will operate the aircraft at the high altitude airports in western China. The airplane will be assigned to China Eastern Airlines Sichuan Co., Ltd. based in Chengdu. A new engine thrust rating provides the 737-700 additional payload capability at high altitude airports and hot conditions. The package also includes an extended duration oxygen system and equipment to utilize the enhanced enroute navigation requirements to and from high-altitude airports. The Boeing Sky Interior introduces new lighting and curving architecture that create a distinctive entry way. Passengers enjoy a greater sense of spaciousness in the cabin in an environment simulated by light-emitting diode (LED) lighting. The new interior also features decorative sculpted sidewalls, newly improved and expanded pivot stowage bins. Contact: Wang Yukui, China, +86 10 5925 5588, yukui.wang@boeing.com.

#### BOEING DELIVERS FIRST 777-300ER TO AIR CHINA

Everett, Wash., July 21, 2011 -- Boeing (NYSE: BA) this week delivered the first 777-300ER (extended range) to Air China, the flag carrier of the People's Republic of China. The new airplane is the first of 19 777-300ERs Air China has on order with Boeing. With this new addition to its fleet, Air China becomes the first airline on the Chinese mainland to operate the new generation 777 family member.

"The introduction of this brand new aircraft is not only a milestone in the cooperation history between Boeing and Air China, but also an important symbol to deepen our relationship," said He Li, Vice President of Air China. "The 777-300ER will be the backbone of our long-haul international fleet in the coming years and enable us to fulfill our ambition to be a large network carrier with international competitiveness."

With this delivery, Boeing is scheduled to deliver an additional three 777-300ERs to Air China by the end of 2011. Air China will use the airplanes for route expansion including direct routes to Frankfurt, London and Paris, as well as for gradual replacement of the Boeing 747-400s currently serving North American routes.

"We have witnessed the rapid development of Air China and we're honored to be part of their success by providing our best products and services," said Ihssane Mounir, senior vice president of Sales for Greater China and Korea, Boeing Commercial Airplanes. "The new generation 777-300ER is a great choice for Air China. Its structural efficiency, industry-leading reliability and brand-new cabin design combine to help the airline remain profitable and provide superior passenger experience."

The Boeing 777-300ER is 19 percent lighter than its closest competitor, greatly reducing its fuel requirement. It produces 22 percent less carbon dioxide per seat and costs 20 percent less to operate per seat. To date 34 customers around the world have ordered more than 500 777-300ERs.

Air China, a member of the Star Alliance, is the most profitable airline in world as well as the world's largest carrier by market value. Air China owns 158 Boeing aircraft, making up 60 percent of its fleet. Contact: Yukui Wang, Boeing China, +86 10 5925 5588, yukui.wang@boeing.com.

#### BOEING AND AVIC TO OPEN MANUFACTURING INNOVATION CENTER IN CHINA; BOEING AWARDS 737 RUDDER CONTRACT TO AVIC'S CCAC

Partnership will enhance AVIC capability and increase value in Boeing supply chain

Le Bourget, France, June 20, 2011 -- Boeing (NYSE: BA) and Aviation Industry Corporation of China (AVIC), China's largest state-owned aviation company, today announced that they will open the AVIC-Boeing Manufacturing Innovation Center (MIC) in Xi'an, Shaanxi Province, China. Geng Ruguang, executive vice president of AVIC, and Ray Conner, vice president and general manager of Boeing Commercial Airplanes Supply Chain Management & Operations, signed the agreement on behalf of their respective companies.

The AVIC-Boeing MIC will enhance Boeing's production system by increasing AVIC's efficiency and capacity to supply high-quality parts for Boeing airplanes. The MIC will also support AVIC's goals of improving its manufacturing and technological capabilities and the competitiveness of its affiliated factories to achieve global Tier-1 supplier status. It was also announced today that Boeing has awarded a contract to produce 737 rudders to Chengfei Commercial Aircraft Co. (CCAC), an AVIC company located in Chengdu, China. That contract will serve as the initial work statement for the MIC.

"AVIC has established a long-term partnership with Boeing, and I am very delighted to see that both sides have committed to establish the AVIC-Boeing Manufacturing Innovation Center," said AVIC President Lin Zuoming. "This agreement marks a new step in our companies' mutual cooperation and has great significance in deepening our relationship."

"As a company in a global market poised for tremendous growth, we need to increase both the capacity and capabilities of our supply chain," said Boeing Commercial Airplanes President and CEO Jim Albaugh. "The AVIC-Boeing Manufacturing Innovation Center is consistent with our approach of partnering with suppliers to enhance their quality and productivity. AVIC has been a valuable supplier partner to Boeing for many years. This agreement is an opportunity to advance their capabilities and add value for Boeing and our customers."

The MIC, which will open by early 2012, will provide classroom training for AVIC employees and hands-on training for workers in AVIC factories. The training will replicate Boeing's successful production methods for sustainable quality to strengthen AVIC's manufacturing and meet Boeing's quality, cost and delivery requirements.

Boeing has been working with AVIC for more than 20 years; AVIC facilities currently manufacture parts for the 737, 747-8 and 787 programs. As the largest foreign customer for China's aviation industry, Boeing has purchased more than US \$1.5 billion in aviation hardware and services from China since the 1980s and expects to double its annual procurement in coming years.

AVIC is centered on aviation but provides whole-value services to customers in many fields from research and development to operations, manufacturing and finance. Its business units include **defense**, transport aircraft, engine, helicopter, avionics, electromechanical systems, general aviation, flight test, trade and logistics, asset management, financial services, engineering planning and construction, and automotive, among others. It owns nearly 200 member companies, more than 20 listed companies and has approximately 400,000 employees. In 2010, AVIC ranked 330th among the newly published Fortune Top 500 enterprises.

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## BOEING, AIR CHINA SIGN AGREEMENT FOR 747-8 INTERCONTINENTALS; AIR CHINA TO BECOME FIRST CHINESE CUSTOMER FOR BOEING'S NEWEST JUMBO JET

Hong Kong, March 7, 2011 -- Boeing (NYSE: BA) and Air China today signed an agreement for the purchase of five 747-8 Intercontinental jetliners. Air China is the first Chinese carrier to contract the passenger version of the new, fuel-efficient 747-8. The agreement requires Chinese government approval, at which time it will be posted to the Boeing Orders & Deliveries website. "Air China has been operating 747s since the 1980s," said He Li, vice president of Air China. "The new, high capacity Boeing 747-8 Intercontinental will deliver exceptional economics and a great flying experience to our customers." Air China, the flag carrier of the People's Republic of China, will use the airplanes to expand its international routes. "The technologically advanced 747-8 Intercontinental will deliver improved operating economics, efficiency and environmental performance in support of Air China's continued growth," said Marlin Dailey, vice president of Sales & Marketing, Boeing Commercial Airplanes. "Air China has become one of the fastest growing airlines in the world and today is one of the world's largest carriers. We're proud to be part of their success and look forward to continuing our long and enduring partnership." Contact: Wang Yukui, Boeing China, +86 1 360 131 7722, yukui.wang@boeing.com.

## STATEMENT ON CHINESE APPROVAL OF 200 BOEING AIRCRAFT

Seattle, Jan. 19, 2011 -- Boeing (NYSE: BA) is pleased to have received final approval today from the Chinese Government confirming a \$19 billion aircraft agreement. China's approval of airline contracts for 200 orders covers aircraft to be delivered over a three-year period, 2011-2013. The approval helps Boeing maintain and expand its market share in the world's fastest growing commercial aircraft market. Comprised of 737s and 777s, the agreement positively impacts more than 100,000 jobs including those at Boeing and with its thousands of suppliers throughout the U.S. "We value China's support for our products and its confidence in Boeing," said Jim Albaugh, president and CEO, Boeing Commercial Airplanes. "With the outstanding support provided by the United States Government, this deal is a win-win for the Boeing-China partnership, which is approaching its 40th anniversary." Today, Boeing jets are a mainstay in China's air travel and cargo system, representing more than 50 percent of all commercial jetliners operating in China. Over the next 20 years, Boeing projects that China will need 4,330 new airplanes, worth more than \$480 billion, and will be Boeing's largest commercial airplane customer.

## BOEING AIRPLANE HEALTH MANAGEMENT ACTIVATED ON AIR CHINA 737 FLEET

Zhuhai, China, Nov. 17, 2010 -- Boeing (NYSE: BA) and Air China said today that the initial release of Boeing's Airplane Health Management (AHM) system is now active on 40 airplanes in the airline's Next-Generation 737 fleet, providing information on the condition of airplanes during flight operations. "We are quite excited to begin seeing the benefits of Airplane Health Management," said Zhong Dechao, deputy chief engineer of Air China. "AHM will help us improve our maintenance efficiency and will benefit our passengers with an even higher level of on-time performance." Airplane Health Management allows Air China to gather and evaluate critical real-time in-flight flying condition data, relaying airplane information to ground controllers. This visibility allows the airline to better plan and perform repairs, minimizing scheduling impacts. AHM also supports long-term fleet reliability by helping airlines identify and respond to faults proactively. Fleet-wide history and knowledge from multiple operators is available to help guide repair decisions on same-model airplanes, improving reliability and efficiency. Air China last year contracted with Boeing for AHM on a total of 117 Air China 737s that are

in service and on order. Air China is Boeing's first Chinese customer for AHM. Airplane Health Management is a key component in Boeing's larger vision of Lifecycle Solutions -- improving airline efficiency with digital productivity tools, product and industry expertise and the power of aviation's leading integrated supply chain, supporting Boeing airplanes from order placement through retirement. Contact: Wang Yukui, Boeing China, +86 1 360 131 7722, [yukui.wang@boeing.com](mailto:yukui.wang@boeing.com).

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2012 Zhuhai Directory: As one of the leading manufactures of highly demanding aircraft applications, Böhler Special Steels can offer you a wide range premium melted and remelted high performance special steels and Ni-based alloys in bars, billets, sheets and plates condition for various structural parts e.g. fuselage, wing, engine mount and pylon system as well as landing gear components and engine disc. Edelstahl GmbH & Co KG was founded in 1991 and is a 100% subsidiary company of voestalpine AG.

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**2012 Zhuhai Directory:** With manufacturing capabilities in Canada, the United States, the United Kingdom and Mexico, Bombardier Aerospace is a world leader in the design and manufacture of innovative aviation products, and is a provider of related services for the business, commercial and specialized aircraft markets. Bombardier has launched many successful aircraft programs that have helped its customers enhance their business. Within Bombardier's commercial aircraft segment are the twinjet and turboprop aircraft that have revolutionized the industry – the Bombardier CRJ Series, Q-Series aircraft families- and the fame-changing CSeries aircraft scheduled to enter into service in 2013. The industry's most complete portfolio of business jets is found within the Learjet, Challenger, and Global, which now includes the newly launched Global 7000 and Global 8000 jets aircraft families. The Bombardier 415 turboprop is recognized as the most advanced, purpose-designed amphibious firefighting aircraft.

**Corporate Website (Extracted in February 2014):** With more than 35,500 employees and a leadership position in global markets, Bombardier Aerospace designs, manufactures and supports innovative aviation products for the business, commercial, specialized and amphibious aircraft markets. We have the most comprehensive aircraft portfolio and we hold the number one position in business and regional aircraft. Our high-performance aircraft and services set the standard of excellence in several markets, including:

- Business aircraft - Learjet, Challenger and Global aircraft families
- Commercial aircraft - new CSeries program, CRJ Series and Q-Series aircraft families
- Amphibious aircraft - Bombardier 415 and Bombardier 415 MP aircraft
- Specialized aircraft solutions - Bombardier aircraft modified for special missions

Aircraft services and training - aircraft parts, maintenance, comprehensive training, technical support and publications, and online services

Excerpts from the 2013 brochure:

#### **BOMBARDIER IN CHINA: A SUCCESSFUL PARTNERSHIP**

1942 Joseph-Armand Bombardier founded L'Auto-Neige Bombardier, which commercialized, in 1959, the first snowmobile—the legendary Ski-Doo1— creating a brand new industry. This was just the beginning.

2012 Today Bombardier is a global leader in rail technology and the world's third largest civil aircraft manufacturer. We employ 71,700 highly skilled workers on five continents, with 80 production and engineering sites in 26 countries and a worldwide network of service and support centres. With global headquarters in Montréal, Canada, we generated revenues of \$16.8 billion in the fiscal year ended December 31, 2012.

Our relationship with China began more than 50 years ago. Today this partnership continues to grow stronger through ongoing investments in people, manufacturing facilities and advanced technology.

1954 It all started when Deutsche Waggonbau, which we later acquired, began supplying China with rail equipment, including freight cars and passenger coaches.

1980 Later, choosing Xian Aircraft Corporation to provide components for our CL-215 amphibious firefighting aircraft marked the beginning of our cooperation in aerospace.

1997 We further strengthened our partnership by establishing three joint ventures in China to build advanced rail vehicles and equipment.

2008 We also selected Shenyang Aircraft Corporation (SAC) to supply the centre fuselage on our game-changing CSeries commercial aircraft.

2013 More than 4,000 employees work at our four joint ventures and seven wholly foreign owned enterprises in China, as well as at our offices in Beijing, Shanghai, Guangzhou and Hong Kong.

In rail transportation, our long-standing presence in China has generated orders for over 4,000 rail cars and more than 550 electric locomotives to date. In aerospace, we account for one third of the business jet fleet in China with over 100 aircraft. Seven airlines operate 43 Bombardier commercial aircraft in Greater China.

Our involvement in China's aviation industry dates back to the 1970s and includes participation in industry and government initiatives to foster R&D collaboration between China and Canada. Today this relationship is a true partnership.

2006 Selecting Shenyang Aircraft Corporation (SAC) to supply main components for our Q400 turboprop marked a milestone in this partnership.

2007 So did establishing a long-term strategic alliance with China Aviation Industry Corporation in the five-abreast, 100- to 149-seat commercial aircraft market. We also began providing technical assistance for China's ARJ21 regional aircraft program.

2008 When we announced a collaborative agreement with China for the CSeries aircraft program, we became the first Original Equipment Manufacturer (OEM) to grant design authority on major supplied parts to China's aviation industry.

2013 Significant growth in our aerospace activities in China includes a steady expansion of our customer base and deliveries in recent years, coupled with an increased focus on development and manufacturing opportunities. Our offices in Beijing, Hong Kong and Shanghai help us identify and build on these opportunities.

Additionally, we signed a second definitive agreement with the Commercial Aircraft Corporation of China Ltd (COMAC) covering program commonalities between the C919 and CSeries aircraft, which further reinforces the strategic long-term relationship between COMAC and Bombardier and demonstrates the complementary nature of the two aircraft programs.

#### Business aircraft

All three of our business aircraft families—Learjet, Challenger and Global— are in service in China. Together, they account for one third of China's overall business jet fleet and over 100 aircraft.

#### Commercial aircraft

Our commercial airline customers include Shandong Airlines, China Eastern Airlines, Shanghai Airlines, China Express Airlines, UNI Air, EZNIS and China United Airlines. These airlines operate 43 CRJ200, CRJ700 and Q-Series commercial aircraft.

#### Customer Services

We put our customers first by providing local support through our Regional Support Offices in Shanghai for commercial aircraft customers and in Hong Kong for business aircraft customers, our parts depots in Beijing and Hong Kong, and our network of Authorized Service Facilities (ASF) in the region:

- Metrojet Limited (HKG), located in Hong Kong and providing support to business aircraft customers
- Shanghai Hawker Pacific Business Aircraft Service, located in Shanghai and providing support to business aircraft customers
- Execujet Haite Aviation Services China Co. Ltd. (TSN), located in Tianjin and providing support to business aircraft customers
- STAECO (TNA), located in Jinan and providing support to both business and commercial aircraft customers. STAECO is the only ASF in all of China for commercial aircraft customers.

We also have a strategic service agreement with Taikoo Spirit AeroSystems (Jinjiang) Composite Co. Ltd., Hong Kong Aircraft Engineering Company Limited (HAECO)'s composite facility, to offer repair capability on the Trent 700 inlet cowl.



Excerpt:

**BOMBARDIER COMMERCIAL AIRCRAFT MARKET FORECAST 2012-2031**

“In December, an undisclosed customer in China ordered seven CRJ700 NextGen aircraft.”

Excerpt:

**MARKET FORECAST 2013-2032: BUSINESS JETS**

“Growth slowed in China, India and Brazil. In particular, China faced the uncertainties of a political leadership transition.”

“In China, where growth slowed in 2012, housing and infrastructure outlays looked poised to revert to their long-term trend.”

“This year, Deer Jet launched China’s first fractional ownership service.”

“China, in contrast, has a very small number of business jets relative to the size of its economy and its business jet fleet is now entering a rapid growth phase.”

“Greater China – Forecast: Business jet aviation is in the early stages of development in Greater China [Greater China includes China, Hong Kong, Macau and Taiwan.] Currently, the Chinese fleet accounts for less than 2% of the worldwide business jet installed base. Nevertheless, China has great potential to see a rapid growth of business jet deliveries in the coming years.

In 2012 China experienced a relative economic slowdown as the Chinese economy heavily relies on exports which were weak due to slower global demand. The country’s GDP growth averaged 6.9% in 2012 versus the double-digit growth it posted during most of the previous decade. In order to stimulate its economy and offset the current slowdown, the Chinese government is undertaking an expansionary fiscal policy. In its five-year development plan for the 2011-2015 period, this policy is particularly geared toward government-funded investment projects, including airport infrastructure. According to IHS Global Insight, China’s GDP growth is projected to reach 7.6% in 2013 and the annual GDP growth for the next 20 years is anticipated to average 6.2%.

In the past, significant barriers have prevented the Chinese business jet market from growing to its potential. Restrictive airspace access, high aircraft import taxes and high user fees are among the factors which explain China’s small fleet of some 290 business jets for an increasingly affluent population of 1.3 billion in 2012. In addition, China’s current business aviation infrastructure is underdeveloped, taking into consideration the country’s size, with only 180 airports as of the end of 2011. China is acting to address this shortfall - the Civil Aviation Administration of China (CAAC) reported that it will accelerate its infrastructure investment in the next three years, and the government is targeting to build 72 new airports by 2015.

In terms of billionaires, China is the third largest region, after the U.S. and Europe. The Chinese population of billionaires increased by 18% in 2013, totaling 186 individuals compared to 157 in 2012, according to Forbes. China is presently the second largest market for luxury goods, and is forecast to take first place by 2015, according to The Boston Consulting Group. The Chinese market accounted for 7% of worldwide industry deliveries in 2012 compared to 2% of total industry deliveries in 2009.

Demand for business jets should increase considerably in China as barriers to business jet ownership and operation are gradually removed, as the opening of airspace for civil aviation is accelerated, and as the significant investment in airport infrastructure begins to pay dividends. Bombardier’s forecast for business jet penetration predicts that fleet per population of 100 million will grow from 24 to 201 over the next 20 years, equivalent to 2,420 aircraft deliveries. During the forecast period China will become the third largest market of business jets with 1,000 aircraft deliveries between 2013 and 2022 and 1,420 deliveries between 2023 and 2032. Considering that the country represents a relatively new market, retirements will account for less than 3% of the country’s overall fleet during the 2013-2032 period. The fleet will increase at a CAGR of 12% from 290 aircraft in

2012 to 2,640 aircraft by the end of 2032 and is projected to account for nearly for 9% of the worldwide business jet fleet by this date.”

#### BOMBARDIER PRESS RELEASE

##### MOMENTUM IN CHINA CONTINUES FOR BOMBARDIER AS NANTONG TONGZHOU BAY AVIATION INDUSTRY CO., LTD. SIGNS LETTER OF INTENT FOR 30 Q400 NEXTGEN TURBOPROPS

December 5, 2013 - Toronto

Landmark deal marks Q400 NextGen aircraft's entry as largest turboprop in China

Bombardier Aerospace announced today that Nantong Tongzhou Bay Aviation Industry Co., Ltd. (“Nantong Tongzhou Bay Aviation”) has signed a letter of intent (LOI) to acquire 30 firm Q400 NextGen aircraft, as it prepares to launch commercial airline operations in China through an airline to be named “Sutong Airlines.” Sutong Airlines, to be based in Nantong, Jiangsu plans to operate an all-Bombardier fleet of Q400 NextGen airliners when it starts operations in 2015.

Based on Q400 NextGen aircraft list price, a firm order would be valued at approximately \$995 million US.

“With its regional aviation model set to revolutionize air service in Jiangsu, one of China's most affluent and fast-growing provinces, Sutong Airlines will not only make traveling increasingly convenient for the people of Jiangsu, but will also bring tremendous economic benefits to the economies and communities of the province,” said Zhou Binzhen, President, Nantong Tongzhou Bay Aviation Industry Co., Ltd. “Bombardier's Q400 NextGen airliner fulfills our business plan requirement for a high-performance regional aircraft that is fast, reliable, economical and comfortable.”

“As the sole aircraft manufacturer with three distinct and optimized families of aircraft in the regional and single-aisle market segments of up to 149 seats, Bombardier is pleased to support China's five-year plan that calls for the expansion of regional airlines,” said Mike Arcamone, President, Bombardier Commercial Aircraft. “We are thrilled that Nantong Tongzhou Bay Aviation is looking to the Q400 NextGen aircraft to establish Sutong Airlines' operations, and we look forward to supporting the up-and-coming airline in supplying regional air transportation service that will allow ease of movement within China.”

“The Q400 NextGen turboprop is ideally-suited to service China's vast geography, delivering unbeatably low operating costs, superb reliability to support high utilization operations, high payload capability and excellent short-haul range. We welcome Nantong Tongzhou Bay Aviation and Sutong Airlines as it works to bring much needed connectivity to the Jiangsu province's markets,” added Andy Solem, Vice President, Sales, China and North Asia, Bombardier Commercial Aircraft.

As of September 30, 2013 Bombardier had booked 476 firm orders for Q400 and Q400 NextGen turboprops.

##### BOMBARDIER AND CHINA EXPRESS AIRLINES ANNOUNCE PURCHASE AGREEMENTS FOR UP TO 16 CRJ900 NEXTGEN AIRCRAFT

December 2, 2013 Toronto

Bombardier Aerospace announced today that China's sole specialized regional airline, China Express Airlines, has placed a firm order for three CRJ900 NextGen airliners, as well as entered into conditional purchase agreements for five CRJ900 NextGen aircraft with options on an additional eight CRJ900 NextGen aircraft. China Express, based in Guiyang, Guizhou provides regional passenger services with its fleet of five CRJ200 aircraft and six CRJ900 NextGen aircraft. The airline made history last year by being the first to operate the CRJ900 aircraft in the country. Based on the list price for the CRJ900 NextGen aircraft, the firm order is valued at approximately \$134 million US. Should the conditional agreements for five CRJ900 NextGen and options on the additional eight

CRJ900 NextGen aircraft be converted to firm orders, the value of the contract would increase to \$733 million US. "By 2016, we anticipate that the total number of China Express' routes will reach approximately 90, three times as many as the number of existing routes, and will cover 60 per cent of China's regional cities," said Wu Longjiang, President, China Express. "We are confident that our fleet of Bombardier aircraft will be a very efficient and reliable asset in achieving these objectives." "With China's growing economy, improved support infrastructure and expanding middle-class, regional air travel will be more accessible to Chinese citizens in more regions," said Mike Arcamone, President, Bombardier Commercial Aircraft. "As demonstrated by China Express, the outstanding economics of Bombardier's CRJ NextGen aircraft will allow airlines to profitably enter smaller tier-two and tier-three markets, providing efficient service to a growing demand from business and leisure travelers. We are delighted that China Express has once again put its trust in Bombardier." More than 140 Bombardier-produced aircraft, including CRJ Series and Q-Series commercial aircraft, as well as Learjet, Challenger and Global business jets are currently operating in Greater China.

#### **BOMBARDIER DISCLOSES CDB LEASING CO., LTD. OF CHINA AS A CUSTOMER FOR UP TO 30 CSERIES AIRCRAFT**

October 18, 2013 Beijing

CDB Leasing Co., Ltd. identified as previously undisclosed customer for 15 CSeries aircraft; agreement also includes options on an additional 15 CSeries aircraft.

Announcement made during visit of His Excellency the Right Honourable David Johnston, Governor General of Canada with His Excellency Xi Jinping, President, People's Republic of China.

Bombardier Aerospace announced today that CDB Leasing Co., Ltd. (CLC), one of China's top leasing companies, is the previously announced undisclosed customer that signed a conditional purchase agreement for five CS100 and 10 CS300 jetliners. The purchase agreement also includes options on an additional five CS100 and 10 CS300 aircraft, for a total of up to 30 CSeries aircraft. This agreement was initially announced as a conditional order from an undisclosed customer for five CS100 and 10 CS300 jetliners on July 8, 2012.

The announcement was made today in Beijing, in the presence of His Excellency Xi Jinping, President, People's Republic of China; His Excellency the Right Honourable David Johnston, Governor General of Canada; the Honourable John Baird, Canada's Minister of Foreign Affairs; the Honourable Joe Oliver, Canada's Minister of Natural Resources; Wang Chong, Chairman, CLC; Mike Arcamone, President, Bombardier Commercial Aircraft; and Andy Solem, Vice President, Sales, China and North Asia, Bombardier Commercial Aircraft.

"This announcement, witnessed at the highest levels by both governments, reflects extremely well on the cooperation between Bombardier and China in the aviation sector, as well as on the overall economic relations between Canada and China," said Minister Baird.

As previously announced by Bombardier, based on list prices of CS100 and CS300 aircraft, the contract is valued at approximately \$1.02 billion US. Should all 15 options be exercised, the value of the contract would increase to \$2.07 billion US.

"Given ongoing high fuel prices and increased environmental concerns, older and less efficient aircraft represent one of the greatest challenges to airlines," said Mr. Wang. "Following an in-depth analysis of existing and re-engined aircraft, the CSeries family of airliners, with its unmatched economics, advanced technology, excellent operational flexibility, as well as its outstanding performance seemed like the obvious choice and shows great potential for operators in China and abroad."

"We are delighted with this landmark agreement between CLC and Bombardier, as it not only represents the first Chinese customer to select the CSeries airliners, but also

demonstrates the flexibility designed into these game-changing aircraft, as required by the diversity of our customers,” said Mr. Arcamone. “With the aircraft having recently completed its historic maiden flight, the worldwide momentum of interest for the CSeries aircraft program continues to grow and we are pleased that yet another leading lessor has placed its trust in the CSeries airliner,” he added.

“With its superb performance and cabin flexibility, as well as its transcontinental range and superior field performance, the CSeries aircraft is tailor-made to meet the fleet expansion needs of Chinese operators, and is an ideal complement to China’s domestic products,” said Mr. Solem.

#### **BOMBARDIER STRENGTHENS ITS AFTERMARKET SERVICE NETWORK FOR BUSINESS AIRCRAFT CUSTOMERS IN CHINA**

September 25, 2013 - Beijing

Photo Not Included: Bombardier Customer Services’ President, Eric Martel and Beijing Airlines VPGM, Zhang Xueheng, sign service agreement for Beijing Airlines to provide technical support to all Bombardier business aircraft models based in and landing at the Beijing Capital International Airport.

Beijing Airlines to provide AOG support for Bombardier Business aircraft operators at the Beijing Capital International Airport

Bombardier Aerospace today stepped up its commitment to build an industry-leading aftermarket service network for its business aircraft operators in China with the announcement of a new service agreement with Beijing Airlines, one of mainland China’s premier business aviation operators. Beijing Airlines will have the capabilities to provide technical support for all Bombardier business aircraft models based in and landing at the Beijing Capital International Airport.

“Bombardier has long-standing and valued relationships in China, and we are steadily increasing our customer support in strategic locations across the country,” said Éric Martel, President, Customer Services & Specialized and Amphibious Aircraft, Bombardier Aerospace. “This new agreement with Beijing Airlines means the growing number of Bombardier business aircraft operators in Beijing can count on high quality, efficient maintenance services at their doorstep.”

This agreement with Beijing Airlines reinforces Bombardier’s expanding presence in China, which includes Bombardier’s Mobile Response Team that will continue to support AOG service in the region. Business aircraft operators in the country also have access to Bombardier-authorized service facilities at four other locations: Metrojet Limited (HKG) in Hong Kong; Shanghai Hawker Pacific Business Aircraft Service in Shanghai; Execujet Haite Aviation Services China Co. Ltd. (TSN) in Tianjin; and Staeco (TNA) in Jinan. In the past two years alone, Bombardier has opened Regional Support Offices (RSOs) in Shanghai, Hong Kong and established parts depots in both Beijing and Hong Kong.

Beijing Airlines (originally established in 2003 as China Business Jet) is strategically located at the Beijing Capital International Airport. The company employs an experienced maintenance staff of 70, which includes technicians who have been previously trained by Bombardier. This expertise is backed by the considerable maintenance, overhaul and repair resources of Air China, China’s flagship carrier and one of Beijing Airline’s principal investors.

Bombardier’s latest market forecast for the aviation industry predicts a total delivery of 2,420 business jet deliveries destined for China over the next 20 years. The fast-growing fleet of Bombardier’s Learjet, Challenger and Global jets occupies a one-third share of the business jet market in Greater China. To date, Bombardier business aircraft based in Greater China region has reached 99 jets.

#### **BOMBARDIER AEROSPACE TO ATTEND AVIATION EXPO/CHINA 2013**

September 21, 2013 - Montréal

Bombardier Aerospace, the global leader in business aviation and the world's third largest civil aircraft manufacturer, will attend Aviation Expo/China 2013 to meet current and potential customers, further strengthen its long-term relationships with partners in the growing Chinese aviation industry and showcase its innovative range of aircraft and services.

Bombardier has identified China as one of the key growth markets that are part of its geographic diversification strategy. Dating back to the 1970s, Bombardier's involvement in China's aerospace industry has grown to include a significant fleet of business and commercial aircraft, as well as an increased focus on development and manufacturing opportunities. Most recently, in June 2013, Bombardier and COMAC signed a definitive agreement covering four projects as part of their long-term collaboration on leveraging commonalities between the C919 and CSeries airliners.

Over the next 20 years, Bombardier forecasts 2,420 business jet deliveries in Greater China, driven by the gradual removal of barriers to business jet ownership and operation, the acceleration in the opening of airspace for civil aviation and significant investments in airport infrastructure. With its comprehensive product portfolio and commitment to leadership in customer satisfaction, Bombardier continues to grow its leadership position in the business jet manufacturing industry. There are approximately 100 of Bombardier's Learjet, Challenger and Global business jets in operation in Greater China, representing a market share of approximately 34 per cent.

In its latest market forecast for 2013-2032, Bombardier Commercial Aircraft predicts that operators in Greater China will take delivery of 2,330 aircraft in the 20- to 149-seat commercial aircraft segment, making it the second most important region following the United States. More than 40 of Bombardier's commercial aircraft are currently in operation in Greater China with China Eastern Airlines, China Express Airlines, China United Airlines, Shandong Airlines, Shanghai Airlines and UNI Air. Bombardier's Q400 NextGen turboprop, CRJ NextGen regional jets and all-new CSeries airliners, the first of the new generation of narrowbody commercial aircraft to complete its maiden flight, are an ideal complement to China's domestic products and deliver the low operating costs, operational flexibility and reliability to meet the fleet expansion needs of Chinese operators.

#### Putting Customers First Locally, Globally

Bombardier is committed to putting its customers first by offering the highest level of support as close as possible to their operational bases. As a part of its commitment to operators in China, Bombardier operates a localized customer service network, including a team of Field Service Representatives and Customer Support Account Managers, four Authorized Service Facilities, Regional Support Offices in Shanghai, Hong Kong and neighbouring Singapore, as well as two established parts depots in Beijing and Hong Kong. In addition, Bombardier continues to explore opportunities to increase its customer support presence in strategic locations across China.

Aviation Expo/China 2013 runs from Wednesday, September 25 to Saturday, September 28. Bombardier Aerospace's exhibit, which is located in the China National Convention Center (CNCC) at U1-1, will be closed on Saturday, September 28.

### CHINA EXPRESS AIRLINES CONFIRMS ORDER FOR SIX BOMBARDIER CRJ900 NEXTGEN AIRCRAFT

July 7, 2012 - Toronto

Airline to introduce CRJ900 aircraft service to China

Bombardier Aerospace announced today that China Express Airlines has converted a previously announced conditional order for six CRJ900 NextGen regional jets to a firm order. The transaction includes options on an additional five CRJ900 NextGen aircraft.

As previously announced, and based on the list price of the CRJ900 NextGen airliner, the firm order contract is valued at approximately \$264 million US, and could increase to approximately \$491 million US should the five options be converted to firm orders.

Bombardier announced on October 26, 2011 that a Chinese airline, which at that time wished to be unidentified, had placed a conditional order for CRJ900 NextGen jetliners. On February 9, 2012, Bombardier confirmed that the order had been placed by China Express Airlines.

"Our five 50-seat CRJ200 regional jets have served us very well since we started operations in 2006, and we are confident that the CRJ900 NextGen aircraft, which offers excellent economics, will support the growing passenger demand on our larger routes," said Hu Xiaojun, Chairman, China Express.

China Express, which is China's first private regional airline, is based in Guiyang, Guizhou and currently provides regional passenger services with its fleet of five CRJ200 aircraft. The airline will be the first to launch CRJ900 aircraft service in China.

"As the only aircraft manufacturer with three distinct and optimized families of aircraft in the 60- to 149-seat market segment, Bombardier is well positioned to support the growth of China's air transport network, and we are delighted that China Express has firmed up its order for six CRJ900 NextGen aircraft and will introduce the aircraft to China," said Mike Arcamone, President, Bombardier Commercial Aircraft. "Currently more than 100 Bombardier-produced commercial and business aircraft are operating in China and we look forward to welcoming many more operators in the country."

"In our Market Forecast for 2012 to 2031 that was released on June 19 this year, Bombardier predicts a demand for approximately 2,200 commercial aircraft in the 60- to 149-seat segment in China," said Andy Solem, Vice President, Sales, China and North Asia, Bombardier Commercial Aircraft. "We are working closely with local airlines, suppliers and stakeholders to assist in fleet and infrastructure expansion to support the development of China's fleet of commercial aircraft as it grows to become the world's second largest market for new aircraft deliveries, following closely behind the United States."

**CRJ900 NextGen aircraft** Like other members of the CRJ Series family of aircraft, the light weight and advanced aerodynamics of the CRJ900 NextGen regional jet combine to deliver improved efficiency and reduced operating costs compared to other aircraft in its class. The combination of a larger winglet and other optimizations since the launch of the CRJ900 aircraft, give the CRJ900 NextGen regional jet excellent airfield and en-route fuel consumption. All CRJ NextGen aircraft feature new interiors with larger overhead luggage bins, larger windows, improved lighting and redesigned ceiling panels and sidewalls.

Including the order from China Express announced today, Bombardier has recorded firm orders for 1,735 CRJ Series aircraft, including 274 CRJ900 and CRJ900 NextGen aircraft. Worldwide, CRJ Series aircraft are in service with more than 60 airlines and more than 30 customers operate corporate variants of the aircraft. The aircraft are operating in over 50 countries on six continents, and on average, a CRJ aircraft takes off every ten seconds somewhere in the world. CRJ Series aircraft have transported more than 1.2 billion passengers and have logged more than 33 million flight hours and over 28 million takeoffs and landings.

## **BOMBARDIER AEROSPACE TO ATTEND AVIATION EXPO/CHINA 2011 IN BEIJING**

September 16, 2011 - Montréal

Emphasizing the importance of China and the broader Asia-Pacific marketplace in the aerospace industry, Bombardier Aerospace will attend Aviation Expo/China 2011 in Beijing from September 21 to 24, 2011.

While Bombardier's relationship with China began more than 50 years ago, its involvement in China's aviation industry began in the 1970s. Today, this longstanding relationship has grown to include a steady expansion of Bombardier's customer base and deliveries, along with an increased focus on development and manufacturing opportunities.

Bombardier projects that over the next 20 years, China's fleet of commercial aircraft will grow to become the world's third largest, closely following Europe and the United States. As China's regional aircraft play a key role in feeding traffic to big city hubs and meeting the country's present and forecast needs, Bombardier predicts a demand for almost 2,400 commercial aircraft in the 60- to 149-seat segment over the forecast period. Bombardier is well positioned to meet the needs of China's growing air transportation needs with its CRJ and Q-Series families of regional aircraft and the new CSeries jetliners.

Business aviation in China is experiencing rapid growth. Bombardier's latest market forecast for the aviation industry predicts a total delivery of 2,360 business jet deliveries destined for China over the next 20 years. With a solid fleet of business jets in the country, and a strong market share of approximately 29 per cent of the business jet market in China, Bombardier's Learjet, Challenger and Global jets are all represented. The fast-growing fleet of Bombardier business aircraft based in China has already surpassed 50 jets.

Fully committed to putting its customers first with the highest level of support as close as possible to their operational bases, Bombardier has significantly expanded its customer services network in China. To date in 2011, Bombardier has opened a new regional support office (RSO) and parts depot in Hong Kong, added a Line Maintenance Facility (LMF) in Jinan, and hired a new Director, Business Development in Beijing. This is the first phase of a much broader strategy to establish a world-class service and support hub in Asia, supported by satellite facilities throughout the Asia-Pacific region.

Aviation Expo/China 2011 welcomes visitors from Wednesday, September 21 to Saturday, September 24. The Bombardier exhibit, located in the China National Convention Centre (CNCC) at D-1, will be closed on Saturday, September 24.

CSeries aircraft cabin mockup Bombardier will showcase a full-scale cabin mockup of the all-new CSeries jetliner at Aviation Expo/China 2011. Designed for the growing 100- to 149-seat market, the CSeries family of aircraft combines advanced materials, leading-edge technology and proven methods to meet commercial airline requirements in 2013 and beyond.

## **BOMBARDIER DELIVERS FIRST CHINA-BASED CHALLENGER 300 JET TO DONGHAI JET**

March 9, 2011 - Hong Kong

Bombardier Aerospace today announced the delivery of the first Challenger 300 jet to be operated from China to Donghai Jet Co., Ltd. based in Shenzhen, Southern China. The aircraft is the first of five Challenger 300 jets ordered by Donghai Jet on November 13, 2010.

The aircraft was handed over today during a special ceremony with Donghai Jet and Bombardier executives at Asian Aerospace International Expo and Congress 2011 in Hong Kong. The Challenger 300 business jet joins a Challenger 605 aircraft, already in operation in Donghai Jet's fleet.

"This is a very important milestone for Bombardier's growing China-based fleet," said David Dixon, Regional Vice President, Sales, Asia-Pacific, Bombardier Business Aircraft. "The Challenger 300 jet will offer Donghai Jet's customers the perfect combination of performance and comfort for their increasing travel requirements throughout China. We look forward to a long relationship with Donghai Jet as they further develop their business jet charter operations in China," he added.

Donghai Jet Co., Ltd. is headquartered at Shenzhen airport and was jointly established by Shenzhen Donggang Investment Development Ltd, East Pacific Holdings Ltd. and Win Glory Enterprises Ltd., a Sino-foreign joint venture. In addition to charter services, Donghai Jet Co., Ltd. provides trading consultation, management and maintenance services for business jets.

Present in China for over 50 years, Bombardier is best positioned to offer its customers the required support for their increasing travel requirements. Bombardier Business Aircraft operates sales offices in Beijing and in Hong Kong and has three Authorized Service Facilities in the region. In addition, a Regional Support Office in Hong Kong is scheduled to open in the first quarter of 2011.

China is among a number of countries emerging as key markets for business aviation. Globalization, increased travel requirements by business people and a general positive trend towards the acceptance of business aircraft use are among the contributors to increased activity in the region. The Bombardier Business Aircraft Market Forecast, published in July 2010, predicts business aviation industry deliveries of 600 aircraft in China for the 10-year period covering 2010-2019.

#### **BOMBARDIER AT AIRSHOW CHINA 2010**

November 12, 2010 - Montréal

Bombardier Aerospace today announced its participation in the 2010 edition of Airshow China, which will be taking place from November 16 to 21 in Zhuhai, People's Republic of China. Bombardier will highlight its extensive range of business and commercial aircraft, as well as its customer services portfolio, at this event. The company's static display will feature the midsize Learjet 60 XR, the super midsize Challenger 300 and the large cabin Challenger 850 business jets.

##### **Bombardier Business Aircraft**

"Bombardier's presence in China dates back more than 50 years," said David Dixon, Regional Vice President, Sales, Asia-Pacific, Bombardier Business Aircraft. "We enjoy a leading position in this very dynamic market and our growing installed base of business jets in the country also reflects the enthusiasm for our Learjet, Challenger and Global aircraft families."

In March 2010, Bombardier announced it had delivered its first Learjet 60 XR and Challenger 850 jets to customers based in China. In addition, Bombardier delivered its first Global 5000 jet for operation in mainland China in July 2009. Currently, five out of eight in-production Bombardier business aircraft models are represented in China.

China is among a number of key countries emerging as strategic markets for business aviation. Globalization, increased travel requirements by business people and a general positive trend towards the acceptance of business aircraft use are among the contributors to increased activity in the region. The Bombardier Business Aircraft Market Forecast, published in July 2010, predicts industry deliveries of 600 business jets for China over the 10-year period from 2010-2019.

##### **Bombardier Commercial Aircraft**

"Bombardier's commercial aircraft are well positioned to meet the needs of China's growing air transportation networks," said Trung Ngo, Vice President, Sales, Asia-Pacific, Bombardier Commercial Aircraft. "Our CSeries, Q400 NextGen and CRJ NextGen aircraft are designed to provide excellent passenger comfort, operational flexibility and outstanding economics with reduced environmental impact that should readily provide optimized solutions for the country's airlines."

Currently, Bombardier commercial aircraft are in service with five airlines in Greater China, namely Shandong Airlines, Shanghai Airlines, China Eastern Yunnan Airlines, China Express and UNI Air. Bombardier's Commercial Aircraft Market Forecast predicts a shift in delivery demand over the next 20 years, during which China will take delivery of 2,260 commercial aircraft in the 20- to 149-seat market, growing China's fleet of aircraft in this segment to the third largest in the world after North America and Europe by 2029.

Bombardier's strategic cooperation with China is growing; as a risk-sharing supplier on Bombardier's game-changing CSeries aircraft, Shenyang Aircraft Corporation (SAC), a subsidiary of the state-owned aviation industrial entity, China Aviation Industry Corporation (AVIC), will supply the fuselage, tail cone, and doors for Bombardier's CSeries jetliner, and



has full technical responsibility for its work packages. This arrangement is in addition to SAC's work on the Q400 NextGen turboprop airliner.

In March 2010, Bombardier announced that it had signed a Memorandum of Understanding (MOU) with CDB Leasing of China ("CLC") on financing cooperation, which cleared the way for CLC to offer pre-delivery payment financing, delivery financing and leasing solutions to customers of CSeries, Q400 and CRJ aircraft.

#### Customer Services and Support

In July 2010, Bombardier announced a \$30 million US investment as part of its plan to build a comprehensive service and support network for the Asia-Pacific region, which will be centered in China. Bombardier's footprint in China includes sales offices in Beijing and Hong Kong, a Regional Support Office (RSO) for commercial aircraft operators in Shanghai, and a parts distribution centre in Beijing. In addition, Metrojet Limited, an Authorized Service and Line Maintenance Facility located in Hong Kong, provides service for business aircraft customers, while STAEKO, located in Jinan, is a recognized service facility for CRJ Series aircraft. An RSO for business aircraft operators is scheduled to open in Hong Kong by the first quarter of 2011.

#### Bombardier Media Activities

Tuesday, November 16, 2010

Event: Bombardier Business Aircraft press conference Time: 11:00 a.m. Location: Press centre Participant: David Dixon, Regional Vice President, Sales, Asia-Pacific, Bombardier Business Aircraft.

Wednesday, November 17, 2010

Event: Bombardier Commercial Aircraft: Market review and programs update Time: 11:00 a.m. Location: Press centre Participant: Trung Ngo, Vice President, Sales, Asia-Pacific, Bombardier Commercial Aircraft.

Bombardier's exhibit will be located at Hall 1, D2-1A.

Bombardier aircraft on static display:

Learjet 60 XR aircraft: In service since July 2007, the Learjet 60 XR aircraft is a proven model of performance, comfort, value and versatility in the midsize jet market segment. It delivers a high cruise speed of Mach 0.81 (861 km/hr), superior climb capabilities, proven fuel efficiency and low direct operating costs per nautical mile. The jet's higher operating altitudes – certified to 51,000 ft (15,545 m) – translate to time savings due to better winds, less traffic and less turbulence.

The Learjet 60 XR aircraft can fly from Zhuhai to Darwin non-stop with four passengers and two crew. It is now available with the Signature Series interiors, which combine bold design elements with increased functionality to bring the large cabin concept to a midsize jet.

#### BOMBARDIER PRESS CONFERENCE

Date: Tuesday, November 4, 2008

Time: 11 a.m.

Location: Room 205C

Participants:

Trung Ngo, Vice President, Sales Asia-Pacific, Bombardier Commercial Aircraft.

Jason Liao, Director of Sales, China, Bombardier Business Aircraft.

#### BOMBARDIER LANDS AT AIRSHOW CHINA 2008 - ZHUHAI

October 31, 2008 - Montréal

Bombardier Aerospace, a market leader in China for commercial and business aircraft, is participating in the seventh edition of Airshow China 2008, which is taking place in Zhuhai in the People's Republic of China, from November 4 to 9. Bombardier aircraft on

display at the show include the Bombardier Challenger 605, Global Express XRS and CRJ900 NextGen aircraft.

“Bombardier offers the widest range of business jets of any Original Equipment Manufacturer (OEM). The Chinese market for private aviation is poised for tremendous growth, and Bombardier is ready to provide travel and business solutions that are tailored to the requirements of corporate and government leaders in China,” said Jason Liao, Director of Sales, China, Bombardier Business Aircraft. “The Global Express XRS and the Challenger 605 aircraft are two fine examples of business jets that combine comfort, performance, speed and range to create an ideal mode of business or luxury transportation.”

According to Bombardier Aerospace’s market forecast, China represents 15 per cent of the 20- to 149-seat aircraft market over the next 20 years, or approximately 2,000 aircraft. Currently, five commercial airlines in China operate a total of 25 CRJ Series regional jets. The airlines include China Eastern Yunnan Airlines, China Express Airlines, Kunpeng Airlines, Shandong Airlines and Shanghai Airlines. In addition, government agencies operate a total of 12 corporate variants of CRJ200 and CRJ700 aircraft. The corporate variants are configured as personnel shuttles.

“Bombardier Commercial Aircraft is promoting all its market-leading products in Zhuhai – the CRJ NextGen regional jet with its enhanced cabin environment, the quiet Q400 turboprop, and the all-new CSeries airliner – the world’s newest and most advanced single-aisle aircraft designed to set new standards in technology, fuel efficiency and reduced environmental impact,” said Trung Ngo, Vice President, Sales Asia-Pacific, Bombardier Commercial Aircraft.

Bombardier’s aerospace activities in China have grown substantially in recent years as the Chinese marketplace shows increasingly strong interest in Bombardier’s comprehensive line of products. Bombardier has sales offices in Beijing and Hong Kong for both business aircraft and commercial aircraft.

Airshow China, organized with the backing of the government and the Chinese aviation and aerospace industries, will feature 60 exhibitors from 35 countries and expects over a quarter million people to visit the show. The Bombardier exhibit is located in Hall 1, B2-3 at the China International Aviation & Aerospace Centre.

#### **BOMBARDIER AEROSPACE AT AIR SHOW CHINA 2006**

November 1, 2006 - Montréal

Bombardier Aerospace, a market leader in China for regional and business aircraft, is participating in the sixth China International Aviation and Aerospace Exposition (Air Show China 2006), being held in Zhuhai, People’s Republic of China from October 31 to November 5. The Bombardier exhibit is located in Hall 1, B2-3 at the China International Aviation & Aerospace Centre.

Currently, seven commercial airlines and government agencies in China operate a total of 35 Bombardier regional aircraft, flying domestic and international routes. The airlines include China Eastern Yunnan Airlines, CR Airways, China Express, Shandong Airlines and Shanghai Airlines. In addition, China United Airlines and China Ocean Aviation operate Bombardier Challenger 850 and Challenger 870 aircraft configured as personnel shuttle aircraft. They are variants of the CRJ200 and CRJ700 regional jets respectively.

“We are extremely proud of our relationship with these leading Chinese airlines,” said Steve Crowley, Vice-President, Sales, Asia-Pacific, Bombardier Regional Aircraft. “We are delighted that our aircraft are making a positive contribution to the growth and prosperity of our customers. We are also proud of the role our aircraft are playing as China continues to develop its regional aviation infrastructure.”

Bombardier Aerospace regional aircraft are supported from the Bombardier spare parts depot in Beijing, reducing the time required to ship parts to the aircraft operator.

Earlier in 2006, Bombardier appointed Taikoo (Shandong) Aircraft Engineering Ltd. (STAECO) of Jinan as Bombardier's first recognized heavy maintenance facility in Asia.

More recently, Bombardier signed an agreement with Shenyang Aircraft Corporation (SAC) under which it has transferred production of some Q400 aircraft components to the Chinese company. Bombardier Business Aircraft is also a leader in the Asia-Pacific region and is displaying a widebody Challenger 604 business jet at the event.

Bombardier is also promoting its proposed CSeries, a 90- to 149-seat jetliner that would enter service in 2013. Bombardier continues to discuss the project with potential partners and customers. With the projected lowest operating costs in its class, the CSeries would provide Chinese operators with an ideal solution for their route networks. Its exceptional range and hot weather-high altitude capabilities will be a significant advantage in the Chinese market place.

### **Breeze-Eastern Corporation**

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2012 Zhuhai Directory: Breeze-Eastern is the developer, producer and supporter of a number of various helicopter rescue hoists and cargo hooks for **military** and other government and civil agencies throughout the world. Breeze also provides a number of aerospace, **military** and commercial aircraft cargo winches worldwide. Breeze has developed, supplied and supports a number of munitions hoists.

### **Breton S.p.A.**

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2012 Zhuhai Directory: Breton is one of the most famous 5 axe high speed machining center manufacturers in Europe, which satisfy all the requirements of the following industrial sectors: aerospace, **defense**, aeronautics, automotive, naval, motor racing, energy, automotive and naval modeling and prototyping, and general manufacturing industry. Breton's range of machining centers was specially conceived for working the following materials: aluminum, steel, titanium, special alloys, and composites.

## C

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Carlisle Companies Incorporated ("Investor"), as the sole shareholder of Carlisle (Shanghai) Management Co. Ltd. (the "Company"), hereby authorizes the Company as our regional headquarters in the Asia Pacific region, to perform relevant basic functions of regional headquarters and provide the management services for the investor's affiliated enterprises in the Asia Pacific Region.

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2012 Zhuhai Directory: Carlisle Interconnect Technologies (Carlisle IT) is a world leading, full service interconnect solution provider that offers high performance wire and cable, cable assemblies, connectors, installation kits, ARINC trays, and fully integrated structures. Carlisle offers engineering and certification services with FAA certified DER, DAR, and DMIR personnel on staff. Our products are targeted at applications in the aerospace, **defense**, test and measurement and medical industries. By virtue of our vertical integration, we can provide interconnect solutions encompassing every facet of design, production and certification. As a leading supplier to the largest airframe manufacturers and OEMs around the world, we have the experience and produce breadth to handle even the most complex challenges. Through a single contact, our customers can get a complete solution to meet their most demanding interconnect requirements.

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Corporate Website (Extracted in February 2014): Carpenter (NYSE:CRS) is a leader in the development, manufacture and distribution of cast/wrought and powder metal stainless steels and specialty alloys. Our worldwide staff of expert metallurgists, research and development scientists, engineers and service professionals work closely with you to find innovative solutions for your specific product requirements. Carpenter's broad product portfolio includes high temperature (iron-nickel-cobalt base), stainless, superior corrosion resistant, controlled expansion alloys, ultra high-strength and implantable alloys, tool and die steels, and other specialty metals as well as cast/wrought titanium alloys. Product forms include loose gas atomized metallic powders, billet, hollow and multi-dimensional forged bar, cold finished bar, strip and plate, and wire and rod. Amega West produces precision machined components for the oil and gas industry. Carpenter's metals-related services include contract manufacturing, conversion, distribution, and supply solutions for customers around the world.

**Centurion Aircraft Engines**

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NOTE FROM AUTHOR: Centurion Aircraft Engines' products were displayed at the AVIC booth at the Singapore Airshow in 2014. On 23 July 2013 the company was sold to Continental Motors, Inc., which is owned by AVIC International. Thielert was renamed Technify Motors GmbH.

Corporate Website (Extracted February 2014): Centurion is the leading brand for certified kerosene (diesel) piston aircraft engines for general aviation. As far back as 2001, the manufacturer of Centurion engines, then the former Thielert Aircraft Engines and now Technify Motors GmbH as member of the Continental Motors Group, became the first company in the world to receive type certification for its kerosene piston aircraft engines.

Centurion pilots have a global network of more than 350 authorized service centers at their disposal. Altogether, the some 3,500 plus Centurion engines operated in General Aviation have to date successfully completed more than 3,5 million flight hours. The plant located in Germany was founded in 1999 for R&D as well as for the manufacture of efficient and reliable kerosene piston aircraft engines for General Aviation. The company is a high-tech company and the first in decades to achieve certification for kerosene piston aircraft engines and to achieve production approvals. Kerosene piston engines reduce direct operating costs for GA airplanes dramatically in comparison with conventional avgas engines. In addition to manufacturing aircraft engines with electronic engine management to jet propulsion standards, the company also manufactures prototyping parts for the aircraft and automotive industries. The company is a JAA and EASA certified design, maintenance and production organization. The plants in Lichtenstein/Saxony, Altenburg/Thuringia, and Hamburg currently have a workforce of around 200 dedicated and highly skilled employees.

### CENTURION PRESS RELEASE

#### Centurion Production Back on Track

Aug. 16, 2013

Mobile, Alabama and St. Egidien, Germany, August 16, 2013 – Continental Motors Group, a division of AVIC International Holding Corporation announced today that its Technify Motors GmbH division successfully renewed all EASA certifications required to design, produce and maintain its successful line of Jet-A fueled Centurion engines. The certification renewal was required as part of the process to complete the acquisition of the assets of Thielert Aircraft Engines.

Technify Motors received renewal of its Design Organization, Production Organization and Maintenance Organization certificates after review by the European Aviation Safety Agency (EASA) as well as the German Federal Aviation Office (Luftfahrt-Bundesamt) had confirmed compliance with European Commissions Regulations.

“We appreciate the support and commitment of the authorities in completing this timely review, allowing us to ensure full compliance while minimizing the impact on our customers,” said Mr. Kenneth R. Suda, President of Technify Motors. “We now look forward to expanding both production and design activities with this important step behind us.”

“Now that we have completed the last major step in the transition of acquiring this important engine technology, we will focus on what Continental Motors does best, focusing on the customer,” said Mr. Rhett Ross, Continental Motors Group President. “The team will immediately begin working on improving customer service, parts availability and looking at expanding the markets available for its products with special emphasis on emerging economies.”

AVIC International Holding Corporation was set up in 1979 during the initial reform and open policy period and is itself owned by the Chinese government through Aviation Industries of China (AVIC).

Headquartered in Beijing, AVIC International delivered over 120 billion RMB (€ 14.8B) in revenue in 2012. The company has over 60,000 employees across 400 subsidiaries and is located in over 180 countries. AVIC International is a well-diversified company, with holdings in international civil aviation, Trade & Logistics, Retail and High-end Consumables, Real Estate and Hotel Management, Electronics manufacturing, and Natural Resource Development.

Continental Motors Group is an operating unit of AVIC International Holding Company. It's mission is to provide advanced gasoline and Jet-A engine products, spare parts, repair station services, and pilot training for the general aviation marketplace. It's operating units

include Continental Motors, Inc., Technify Motors, GmbH, Mattituck Services, Inc., and Zulu Flight Training, Inc.

Centurion is the leading brand for certified kerosene (diesel) piston aircraft engines for general aviation and has been part of the Continental Motors Group since July 2013. As far back as 2001, the manufacturer of Centurion engines became the first company in the world to receive type certification for its kerosene piston aircraft engines. Centurion pilots have a global network of more than 350 authorized service centers at their disposal. Altogether, the some 3,500 plus Centurion engines delivered have to date successfully completed more than 3.7 million flight hours. More information can be found at [www.centurion.aero](http://www.centurion.aero).

#### AVIC International Holding Corporation Acquires the Assets of Thielert Aircraft Engines Out of Bankruptcy

July 22, 2013

St. Egidien, Germany and Beijing, China - AVIC International Holding Corporation (AVIC International) announced today the acquisition through its subsidiary, Technify Motors GmbH, of the diesel aircraft engine and manufacturing assets of the former Thielert Aircraft Engines GmbH (Thielert) to enhance its already strong capabilities in general aviation piston aircraft engine technology.

The acquisition adds the Centurion line of reliable, economical, electronically controlled Jet-A (diesel/kerosene) piston engines to its portfolio of general aviation piston engine technology. Acquired products include the certified Centurion 2.0 series of 135 Hp and 155 Hp Jet-A engines and the certified Centurion 4.0, 350 Hp engine. The Centurions has seen nearly 3,500 units fielded during its almost ten year service history. The addition of the technologically advanced Jet-A fueled piston engines provides a global fuel capability that AVIC International believes will accelerate emerging market adoption of piston powered aircraft.

"AVIC International's acquisition of Thielert's assets rounds out the highly successful and popular Continental Motors' line of gasoline engines acquired by AVIC International in 2011" said Mr. Yu Yimin, Senior Vice President of AVIC International, and Chairman and Chief Executive Officer of Continental Motors, Inc. "It is also the right long-term solution for the market, as this creates a "one stop shop" for both AVGAS and Jet-A engine solutions backed by the global support capabilities of Continental Motors," he went on to say.

Although the acquisition is structured as an asset purchase, AVIC International will continue its business model of thinking globally and operating locally by remaining in the Saxony region of Germany. The assets acquired include not just the technology, but excellent facilities and manufacturing equipment, which when coupled with the knowledge and experience of the 200 former employees of Thielert provides an excellent base to start operations. Further, AVIC International intends to leverage its other international GA engine operations at Continental Motors, Inc., Mattituck Services, Inc. and Zulu Flight Training to deliver world class technology and service covering both gasoline and Jet-A fueled piston engine technology.

"This acquisition adds excellent engine technology to the Continental Motors' brand that significantly accelerates product offerings that can compete in the global market," said Mr. Rhett Ross, Continental Motors, Inc. President. "We look forward to working with our new sister company to become an integrated leader in global aircraft piston engine products", he went on to say.

AVIC International will operate two manufacturing locations dedicated to piston aircraft engines, including its original Mobile, Alabama site and the new St. Egidien, Germany site. Mr. Kenneth R. Suda, Executive Vice President of Global Operations for Continental Motors, Inc. has been named the Managing Director/President of Technify Motors GmbH and will be responsible for its daily operations. A full line up of AVGAS and Jet A fueled engines covering the 100, 150, 200+ and 300+ horsepower ranges are now available for

sale for OEM applications, STC conversions and existing installations through the Continental Motors' website ([www.continentalmotors.aero](http://www.continentalmotors.aero)).

AVIC International Holding Corporation was set up in 1979 during the initial reform and open policy period and is itself owned by the Chinese government through Aviation Industries of China (AVIC). Headquartered in Beijing, AVIC International delivered over 120 billion RMB (€ 14.8B) in revenue in 2012. The company has over 60,000 employees across 400 subsidiaries and is located in over 180 countries. AVIC International is a well-diversified company, with holdings in international civil aviation, Trade & Logistics, Retail & High-end Consumables, Real Estate and Hotel Management, Electronics manufacturing, and Natural Resource Development.

Technify Motors GmbH, a newly formed subsidiary of AVIC International, holds the acquired assets of Thielert and operates the business from its headquarter in St. Egidien, Germany. More information can be found at [www.continentalmotors.aero](http://www.continentalmotors.aero).

Continental Motors Inc., a wholly-owned subsidiary of AVIC International is a leading manufacturer and service provider of certified piston aircraft engines and components used in propeller-driven general aviation aircraft engines for more than 80 years. AVIC International acquired Continental Motors in 2011.

### **Cessna Aircraft Company**

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2012 Zhuhai Directory: Cessna is the world's leading general aviation company. Since 1927, Cessna has delivered more than 193,500 airplanes, including Citations, the largest fleet of business jets in the world. Cessna's business: aircraft sales including Citations, Caravan turboprops, single engine and CitationAir; and aftermarket services including parts, maintenance, inspection and repair.



Corporate Website (Extracted in February 2014): Cessna Aircraft Company ["Cessna"] is a wholly owned subsidiary of Textron Inc. Cessna is a separate and independent legal entity and a member of the Textron family of companies.

## CESSNA PRESS RELEASES

### CESSNA WINS CHINESE CHARTER ORDER FOR CITATION MUSTANGS XI'AN, PEOPLE'S REPUBLIC OF CHINA

Oct. 22, 2013 – Cessna Aircraft Company, a Textron Inc. (NYSE:TXT) company, is celebrating a landmark deal that will see Citation Mustangs being flown for charter services in China for the first time. Yunnan Ruifeng General Aviation Company is acquiring two Citation Mustangs to operate charter flights in China. The company plans to offer customers connections to high-altitude airports, of around 13,000 feet (4,000 meters) above sea level. The first delivery is scheduled for December 2013, with the second delivery scheduled for 2014. Kevin Wu, Cessna regional vice president of Sales for Greater China says: "This deal proves again the growing demand in the Chinese business aviation market. We are pleased that Yunnan Ruifeng General Aviation Company is investing in Citations for performance and features that support their business and customer expectations." Yunnan Ruifeng General Aviation Company was founded in 2011. The company already operates a Cessna Grand Caravan for sightseeing flights in south-west China. The deal was announced on the heels of the 2013 China International General Aviation Convention where Cessna is displaying their Grand Caravan and 172 Skyhawk products. The Citation Mustang is equipped with the Garmin G1000 avionics suite and weather avoidance radar. The aircraft has a maximum operating altitude of 41,000ft (12,497m) and a maximum cruise speed of 340ktas (630km/h).

### CESSNA AND CAIGA JOINT VENTURES GEAR UP FOR OPERATIONS CESSNA AND CAIGA JOINT VENTURES GEAR UP FOR OPERATIONS

Shanghai, April 15, 2013 — Cessna Aircraft Company, a Textron Inc. (NYSE: TXT) company, today announced that it is making excellent progress toward beginning operations in China through joint ventures to be formed with China Aviation Industry General Aircraft Company (CAIGA) in Shijiazhuang and Zhuhai.

In November 2012, Cessna and CAIGA signed agreements to form joint ventures to assemble Citation XLS+ business jets through CESSNA-AVIC Aircraft (Zhuhai) Co., Ltd and Cessna Caravan utility turboprops through CESSNA-AVIC Aircraft (Shijiazhuang) Co., Ltd. The aircraft from both operations are intended to be sold in the Chinese market.

Speaking today at the Asian Business Aviation Conference & Exhibition (ABACE), William Schultz, Cessna's senior vice president – business development, China, said: "Together with CAIGA, we are making swift progress toward establishing the joint venture operations. The construction of facilities is complete and we expect tooling and equipment to be in place in Shijiazhuang by June and in Zhuhai before the end of the year." Formation of the joint ventures and the beginning of operations remain subject to various government approvals.

In addition, Cessna and CAIGA today announced key senior management appointments for both joint ventures.

Trey Wade, formerly with Cessna's sister company Bell Helicopter, has been appointed general manager for the Zhuhai operation. With 12 years experience at Bell Helicopter, Wade was most recently director of the Bell Helicopter Training Academy. Li Yanbei, previously vice general manager of CAIGA South China Aircraft Industry Co., Ltd., has been named as the deputy general manager of the Zhuhai joint venture.

David Howard has been promoted to general manager of the Shijiazhuang joint venture. Howard was previously responsible for overseeing operations of the Cessna Skycatcher 162 program in Shenyang, China. Jing Weiliang, previously Manager of Human Resource with CAIGA North China Aircraft Industry Co., Ltd., has been appointed to be the deputy general manager of the Shijiazhuang joint venture.

Schultz said: "We have worked hard to identify suitably skilled leaders for both joint ventures. The operations will benefit immensely from the experience and insights of both management teams."

In addition to conducting aircraft assembly and sales, the joint ventures are also expected to develop customer support capabilities to meet aftermarket needs in China. These services are intended to complement the activities of Cessna's existing service network in the country: Beijing DINGSHI GA Tech Service Center (CFIC) was appointed a Citation authorized service facility in March 2012, and Cessna is working towards awarding the same status to Shanghai Hawker Pacific Business Aviation Service Centre.

#### **CESSNA AND CAIGA SIGN CONTRACT FOR JOINT VENTURE TO ASSEMBLE AND SELL UTILITY TURBOPROPS IN CHINA**

Shijiazhuang, China, November 27, 2012 — Cessna Aircraft Company, a Textron Inc. (NYSE: TXT) company (through Textron Far East Pte. Ltd.), has entered into a joint venture contract with China Aviation Industry General Aircraft Company Ltd., (CAIGA) (through CAIGA North China Aircraft Industry Co., Ltd.), in accordance with their previously announced strategic agreement, for the formation of a joint venture company to conduct final assembly of Cessna Caravan utility turboprop aircraft in China for the Chinese market. The joint venture contract also contemplates the possibility of designing and assembling new models of utility turboprop aircraft in the future. Formation of the joint venture company remains subject to various government approvals and customary conditions. Cessna's Wichita, Kansas operations will provide components and parts manufacturing and sub-assemblies for the Caravan aircraft to be sold by the joint venture. Joint venture operations in Shijiazhuang will be designed to conduct final assembly, paint, testing, interior installation, customization, flight testing and delivery of the Cessna Caravan to in-country customers. "Since its introduction, the Cessna Caravan has proven to be an incredibly reliable aircraft and is particularly well suited for growing global markets," said Scott Ernest, Cessna's president and CEO. "Cessna is pleased to bring the Caravan to customers in China who will benefit from its quality and versatility." Management of the joint venture will include board members from both Cessna and CAIGA, with the general manager to be nominated by Cessna Aircraft Company and the deputy general manager to be nominated by CAIGA. "Cessna continues to work closely with our partners at CAIGA to bring high quality aircraft to the Chinese market that meets customer expectations for reliability," said William Schultz, Cessna's senior vice president of Business Development, China. "As general aviation continues to grow in China, Cessna is committed to offering the right products to serve the market complemented by the company's unparalleled customer service." This joint venture contract stems from the strategic framework agreement that Cessna entered into with CAIGA parent company, Aviation Industry Corporation of China (AVIC), in March 2012. Linked images: Mr. William Schultz, Cessna's senior vice president of Business Development, and Mr. Zhang Shuwei, deputy general manager of CAIGA and Chairman of CAIGA North China Aircraft Industry Co., Ltd. celebrate the joint venture at a signing ceremony today in Shijiazhuang, China.

#### **CESSNA AND CAIGA SIGN CONTRACT FOR JOINT VENTURE TO ASSEMBLE AND SELL CITATION XLS + BUSINESS JETS IN CHINA**

Zhuhai, China, November 14, 2012 — Cessna Aircraft Company, a Textron Inc. (NYSE: TXT) company (through Textron Far East Pte. Ltd.), has entered into a joint venture

contract with China Aviation Industry General Aircraft Company Ltd., (CAIGA) (through CAIGA South China Aircraft Industry Co., Ltd.), in accordance with their previously announced strategic agreement, for the formation of a joint venture company to conduct final assembly of Cessna Citation XLS+ aircraft in China for the Chinese market. As the largest general aviation company in the world, Cessna's relationship with CAIGA taps into what is expected to be the highest growth aviation market during the coming decade. Formation of the joint venture company remains subject to various government approvals and customary conditions.

Cessna's Wichita, Kansas operations will provide components and parts manufacturing and sub-assemblies for aircraft to be sold by the joint venture. Joint venture operations in Zhuhai will be designed to conduct final assembly, paint, testing, interior installation, customization, flight testing and delivery of the Cessna XLS+ business jets to in-country customers.

"This is an exciting opportunity for Cessna, given the tremendous growth potential of the region and our ability to bring high quality, proven aircraft that people have come to expect from Cessna," said Scott Ernest, president and CEO. Management of the joint venture will include board members from both Cessna and CAIGA, with the general manager to be nominated by Cessna Aircraft Company and the deputy general manager to be nominated by CAIGA. "We are extremely pleased with this joint venture contract and we look forward to producing high-quality business jets for the Chinese market," said Bill Schultz, Cessna's senior vice president of Business Development, China. "Customers can expect rigorous testing and quality controls that are the hallmark of our reliable aircraft family."

This joint venture contract stems from the strategic framework agreement that Cessna entered into with CAIGA parent company, Aviation Industry Corporation of China (AVIC), in March 2012.

#### CESSNA AND AVIC PARTNERSHIP STRENGTHENS SUPPLY FOR CHINA AVIATION NEEDS

Shijiazhuang, China, May 3, 2012 — Cessna Aircraft Company, a Textron Inc. (NYSE: TXT) company, signed a strategic agreement with the China Aviation Industry General Aircraft Company Ltd., (CAIGA) and the Shijiazhuang Municipal Government. This agreement is a progression stemming from the strategic framework that Cessna entered into with CAIGA parent company, Aviation Industry Corporation of China (AVIC), in March 2012. Specifically, this next step forms a cooperation framework for an eventual joint venture whose purpose will be the final assembly, sales, and customer support for the Cessna Caravan in China for the Chinese market.

"It is important to understand that today's agreement is a direct result of the overarching agreement signed with AVIC in March. This agreement picks up where that announcement left off," said Mike Shih, Vice President, China Strategy and Business Development for Cessna. "Not only does this continue Cessna's involvement in the development of General Aviation in China, but it also paves the way for aircraft sales to which we would not have otherwise had access. These Cessna aircraft will be manufactured in the United States, in Kansas, and sent to Shijiazhuang, China, to undergo final assembly and then be sold in China."

Cessna and CAIGA plans include locating the joint venture's operations at the CAIGA facilities in Shijiazhuang to conduct final assembly, painting, testing, interior installation, customization, flight testing and delivery of the Cessna Caravan to in-country customers.

"As a subsidiary of AVIC, CAIGA has demonstrated great capabilities with general aviation production, and this made the choice of the Shijiazhuang facility a simple one," said Lannie O'Bannion, Business Leader for Caravan aircraft. "The cooperation between

Cessna and CAIGA will enable us to deliver the Cessna Caravan within China for many different purposes. We have seen interest for the Caravan for use in commuter aviation fleets as well as China's growing tourist and sightseeing businesses. The versatility of the Caravan makes it a great fit for this market."

Scott Ernest, Cessna president and CEO, says: "We continue to be extremely pleased with the cooperative relationship between AVIC and Cessna. China's potential in general aviation is tremendous, and represents an exciting opportunity for Cessna. Since we do expect China to be one of the largest general aviation markets in ten year's time, we are excited to see that it will be Cessna aircraft that will help meet this demand in the years to come."

#### CESSNA SIGNS SERVICE AGREEMENT WITH SHANGHAI HAWKER PACIFIC

Shanghai, China, March 28, 2012 — Cessna Aircraft Company, a Textron Inc. (NYSE: TXT) company, has today signed a preliminary agreement to work towards appointing Shanghai Hawker Pacific Business Aviation Service Centre (SHPBASC) as an authorized service facility. SHPBASC currently provides lounge facilities, handling and maintenance, repair and overhaul (MRO) for business aircraft at Shanghai's Hongqiao International Airport. Authorized service facility status will allow SHPBASC to support Citation Sovereigns operating in northern Asia. SHPBASC is a joint venture between Shanghai Airport Authority and aircraft service company Hawker Pacific. Speaking at the signing ceremony at the Asian Business Aviation Conference & Exhibition (ABACE), Scott Ernest, Cessna president and CEO, said: "This agreement is the first step towards SHPBASC being awarded authorized service facility status. We are committed to China and our valued customers here; this facility will further enhance Cessna's support network across the Asia-Pacific region." Carey Matthews, SHPBASC general manager, added: "With over 30 years' experience of maintaining and handling aircraft, Hawker Pacific has built up a solid support network in China. Shanghai Hawker Pacific is therefore ideally placed to offer a high level of service to Cessna's rapidly growing fleet across China and the surrounding region."

#### CESSNA NAMES CFIC AS AUTHORIZED CITATION SERVICE FACILITY IN CHINA

Shanghai, China, March 27, 2012 — Cessna Aircraft Company, a Textron Inc. (NYSE: TXT) company, has today signed an agreement appointing Beijing DINGSHI GA Tech Service Center (CFIC) as a Citation authorized service facility. The facility will provide maintenance services for operators of Citation XLS+ family, Citation Sovereign and Citation X aircraft throughout northern Asia. Speaking at the signing ceremony at the Asian Business Aviation Conference & Exhibition (ABACE), Scott Ernest, Cessna president and CEO, said: "This agreement is an expansion of Cessna's long relationship with CFIC. The Chinese business aviation market represents an exciting opportunity for Cessna; we are committed to the region and our valued customers here. We are delighted CFIC will provide our growing Asian customer base with the high level of support enjoyed by our customers globally." Mr. Ouyang, director of CFIC, added: "We have owned and maintained Citation aircraft since the early 1990s, operating the airplanes on flight inspection missions, and we now have 10 Citations in our fleet, most recently adding three Citation Sovereigns. We are therefore ideally positioned to provide experienced support to Cessna customers."

#### CESSNA STRENGTHENS PRESENCE IN CHINA TO SUPPORT GENERAL AVIATION GROWTH

Shanghai, March 27, 2012 — Cessna Aircraft Company, a Textron Inc. (NYSE: TXT) company, is strengthening its presence in China to support the growth of general and business aviation in the Asia-Pacific region. Speaking at the Asian Business Aviation

Conference & Exhibition (ABACE), Mike Shih, Cessna's vice president – Strategy and Business Development, said: "With expert forecasts indicating the Chinese economy will grow by more than 8% in 2012 alone, we expect the Asian business aviation market – and China in particular – to mature at quite a rapid pace. We foresee China being one of the top 10 countries for business jet ownership globally by 2025, aided enormously by the ongoing liberalization of the country's airspace. We are delighted to see the Chinese government understands the economic importance of general aviation and is committed to supporting the industry. We at Cessna are equally eager to play our part in helping develop Chinese business aviation from infancy to maturity as quickly as possible." Shih continued: "We want to work with local partners to develop all aspects of general aviation in the region. Only last week, on March 23, Cessna signed strategic agreements with Aviation Industry Corporation of China (AVIC) and the Chengdu government to jointly establish a range of products and services for general and business aviation in China. The agreements pave the way for a range of light and mid-size business jets, utility single-engine turboprops and single-engine piston aircraft to be manufactured and certified in China." Shih added: "As well as building local partnerships, we are undertaking measures to strengthen our own direct Cessna presence in Asia and we now have, for example, more than 20 employees based in China – in Shanghai, Beijing, Shenzhen, Chengdu and Shenyang." Shih concluded: "We are committed to providing our growing customer base in Asia with the best possible operations and maintenance support. We are therefore seeking to add Citation authorized service facilities to our network in Asia, and particularly China, as soon as possible and are scheduled to complete a joint service facility, with sister company Bell Helicopter, in Singapore later this year."

#### CESSNA AND AVIC JOIN FORCES TO DEVELOP GENERAL AND BUSINESS AVIATION IN CHINA

Beijing, China, March 23, 2012 — Cessna Aircraft Company, a Textron Inc. (NYSE: TXT) company, and Aviation Industry Corporation of China (AVIC) are signing two strategic agreements to jointly develop general and business aviation in the People's Republic of China. The agreements together pave the way for a range of business jets, utility single-engine turboprops and single-engine piston aircraft to be manufactured and certified in China. The first agreement between AVIC and Cessna/Textron is an overarching agreement between these companies that is intended to lead to the formation of joint ventures that will pursue various activities pertaining to the development of general aviation businesses in China, including the establishment of an aircraft service network in China.

The second is a specific cooperation agreement between Cessna Aircraft Company, AVIC Aviation Techniques Co., LTD (AAT), and the Chengdu government to enter into negotiations to establish a joint venture to produce mid-size Cessna business jet models, as well as a potential new product for the business jet market. Scott Ernest, Cessna president and CEO, says: "We are extremely pleased to be entering into these strategic agreements. China's market potential is tremendous and therefore represents an exciting opportunity for Cessna. China recognizes general aviation offers the foundation to support its national air transportation needs for the future. These agreements will help take the industry to the next level." Within the next year, Cessna and AVIC are seeking to launch joint venture companies which will focus on implementing the initial phase of the strategic agreements.

#### **CFM International**

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2012 Zhuhai Directory: CFM International is a 50/50 joint company of Snecma (Safran group, France), and GE (USA). CFM produces the highly popular CFM56 engine family and its product line includes nine engine models for more than 30 commercial and **military** applications. CFM International was formed as a joint venture in 1974 and the two parent companies have extended the partnership agreement to the year 2040. CFM is developing a new engine family, under the brand name LEAP, which will enter service in 2016. This new engine, which was formally launched in 2008, is the next-generation engine family for single-aisle aircraft. LEAP is designed to meet customer expectations, with reduced fuel consumption and maintenance costs, combined with higher reliability and greater environmental-friendliness. LEAP engines have already been selected for three major applications: LEAP-1A for the Airbus A320neo, LEAP-1B for the Boeing 737 MAX, LEAP-1C the sole Western powerplant on the COMAC C919. More than 23,000 CFM56 engines have been delivered to date to more than 530 operators worldwide.

#### CFM PRESS RELEASES

##### BOC AVIATION PLACES \$460 MILLION ORDER WITH CFM

June 18, 2013

Places first order the LEAP-1A for Airbus A320neo

Expands CFM56-5B fleet on A320ceo

Le Bourget, France — BOC Aviation today announced that it has selected CFM engines to power new Airbus A320 family aircraft. The order, which is comprised of 10 LEAP-1A-powered Airbus A320neo and 10 CFM56-5B-powered A320ceo aircraft, is valued at \$460 million U.S. at list price.

Robert Martin, managing director and chief executive officer of BOC Aviation, said, "This is our first order for engines for A320neo aircraft. This new order reinforces our customers' satisfaction with CFM56-powered Aeros aircraft as a reliable aircraft and engine combination, and marks our confidence in the CFM LEAP engine."

"We are pleased BOC Aviation has chosen to power its A320neo aircraft with the LEAP engine," said Jean-Paul Ebanga, president and CEO of CFM. "This engine will prove to be a real asset for both BOC and for its customers. We also appreciated their continued confidence in the CFM56-5B engine."

"We have a great, long-standing relationship with the BOC team," said Kevin McAllister, vice president of sales for CFM parent company GE Aviation. "We are honored to have been a part of their success in the past and look forward to strengthening that relationship even further as they introduce LEAP-powered aircraft into their portfolio."

The foundation of the LEAP engine is heavily rooted in advanced aerodynamics and materials technology development programs. The engine is designed to provide 15 percent better fuel consumption and an equivalent reduction in CO2 emissions compared to today's best CFM engine, along with a 50 percent reduction in oxides of nitrogen emissions, and up to a 75 percent reduction in the engine noise footprint. All this technology brings with it CFM's legendary reliability and low maintenance costs.

The CFM56-5B is the engine of choice for the Airbus A320 family and is popular with major airlines, low-cost carriers, and leasing companies alike. More than 3,250 CFM56-5B engines have been delivered to date to operators around the globe. Primary factors behind the engine's broad-based market acceptance include this industry's best reliability, durability, low cost of ownership, and world-class customer and product support. The CFM56-5B is the only engine that can power every model of the A320 family, from the small A318 up to the A321, with the same bill of materials.

About BOC Aviation

BOC Aviation is the leading Asia-based aircraft leasing company with a portfolio of 222 owned and managed aircraft operated by airlines worldwide and another 82 aircraft on

firm order. The Company has one of the youngest fleets in the industry with aircraft averaging less than four years of age. BOC Aviation is 100% owned by Bank of China, one of the largest banks in the world by market value. The Company has passed its first US\$1 billion in cumulative net profits under Bank of China. It is on target to reach \$10 billion in total assets this year. The company will be celebrating its 20th anniversary this year.

#### HAINAN AVIATION AND CFM SIGNED LONG TERM SERVICE AGREEMENT

June 18, 2013

Le Bourget, France — Hainan Aviation has signed a long-term Rate per Flight Hour (RPFH) agreement with CFM International to support its fleet of CFM56-5B engines. Under the 15-year service agreement, CFM will provide maintenance, repair and overhaul (MRO) service and support for 84 CFM56-5B engines powering 42 Airbus A320s, along with eight spare engines. CFM will guarantee the maintenance cost on a dollar per engine flight hour basis. “CFM has been a good provider, not only for engines but also for world-class service,” said Wang Jian, vice chairman of Hainan Group. “From the first engine we purchased in 1993 when we began operations, CFM has consistently provided excellent support for our fleet. We have complete trust in their products, technology and service, all of which help guarantee that we can provide outstanding service to our customers.” “Hainan Airlines is a long-time strategic customer for CFM,” said Jean-Paul Ebanga, president and CEO of CFM. “We appreciate their continued trust in us to provide comprehensive service and support to their fleet. We look forward to work closely with Hainan to ensure their CFM56-5B engines have a long, productive life in service.” Hainan Airlines, the fourth largest airline in China, became a CFM customer in 1993 when the airline began operations. Now it is one of the fastest developing airlines in China and operates nearly 500 domestic and international routes to more than 90 cities, with regular international and regional and charter flights.

#### CALC PLACES \$500 MILLION CFM56-5B ENGINE ORDER

March 7, 2013

- Becomes CFM's newest customer
- Will use new fleet for expansion

West Chester, Ohio — Hong Kong-based China Aircraft Leasing Company (CALC) has announced its selection of CFM56-5B engines to power 25 new Airbus A320 family aircraft. The firm engine order is valued at \$500 million U.S. at list price and deliveries are scheduled between 2014 and 2016.

The aircraft are part of CALC's first-ever new aircraft order; the company announced an agreement with Airbus for 36 A320 family aircraft in 2012.

“CFM56 engines have an outstanding reputation in the industry and we are pleased that they will power the majority of our first new aircraft buy,” said Dr. Poon, CEO of CALC. “Our customers value the reliability and low cost of ownership the CFM56-5B provides, as well as the world class support they receive. We believe that forming this strategic partnership with CFM will be instrumental in helping us expand our business globally.”

The aircraft will be initially placed with Chinese lessees, but CALC plans to diversify the portfolio and expand into the rest of Asia, as well as building its presence in Europe and the United States.

“We are honored to welcome CALC to the CFM family,” said Jean-Paul Ebanga, president and CEO of CFM International. “Our continual investment in the CFM56 product line has made it the industry leader it is today. The CFM56-5B gives operators a significant advantage in terms of overall cost of ownership and they will have a positive impact on the profitability of CALC's leasing customers.”

CALC's new A320 aircraft will be powered by the CFM56-5B Performance Improvement Package engine, which has been the production configuration since October

2011. The PIP improvements, which provide a 0.5% improvement in fuel burn, include hardware changes to the core, including new high-pressure turbine blade, as well as manufacturing changes to the fan and compressor blades and vanes to improve performance retention. The engine also features fewer parts to help lower maintenance costs.

About China Aircraft Leasing Company

China Aircraft Leasing Company Limited (CALC), which was founded in 2006, has headquarters in Hong Kong, along with representative offices in Beijing, Shanghai, Shenzhen and Tianjin in China, as well as in France and Ireland. The company has aggressive expansion plans and expects to grow its fleet to 100 aircraft by 2015. CALC's fleet has mainly been built through sale/leaseback agreements of new aircraft, as well as operating lease agreements of both new and used aircraft.

SPRING EXPANDS CFM56-5B FLEET WITH \$40 MILLION ENGINE ORDER

November 14, 2012

Adding two additional A320 aircraft

Zhuhai, China – 14 November 2012

China's Spring Airlines signed the agreement with CFM International for CFM56-5B engines to power two new Airbus A320 aircraft. The engine order is valued at \$40 million U.S. at list price and the airline is scheduled to take delivery of the first aircraft in January 2014 and the second aircraft in July 2014.

"We very much appreciate the long-term support CFM has been providing us and we are very happy with the outstanding performance of the CFM56 engines," said Mme. Zhang Xiuzhi, CEO of Spring Airlines. "We look forward to further strengthening this relationship in the future."

"Spring Airlines is a great customer," said Jean-Paul Ebanga, president and CEO of CFM International. "And we are honored that this airline has again put its trust in the CFM56 product line. Our promise is to continue earn that trust every day."

Shanghai-based Spring Airlines, established by Spring Travel in 2005, is China's first low cost airlines. Its entire fleet consists of 33 CFM56-5B-powered Airbus A320 fleet. The airline boasts one of the youngest fleets in the world today and operates more than 50 routes across China. Spring Airlines is also the first private carrier to operate international routes and currently serves destinations in Japan and Thailand, in addition to Hong Kong and Macau. The two new A320 aircraft of Spring Airlines will be powered by the CFM56-5B Performance Improvement Package engine, which has been the production configuration since October 2011. The PIP improvements, which provide a 0.5% improvement in fuel burn, include hardware changes to the core, including new high-pressure turbine blade, as well as manufacturing changes to the fan and compressor blades and vanes to improve performance retention. The engine also features fewer parts to help lower maintenance costs.

NEW C919 ORDERS PUSH TOTAL LEAP ORDERS PAST 4,300 ENGINES

November 14, 2012

4,352 total LEAP engine orders and commitments

Valued at \$52 billion U.S. at list price

Zhuhai, China – CFM International's LEAP family continues to be the engines of choice for next-generation single-aisle aircraft. The order for 50 LEAP-1C-powered C919 aircraft announced by COMAC at the Zhuhai Air Show pushed total LEAP engine orders and commitments to 4,352 engines at a list price value of more than \$52 billion U.S. CFM's LEAP-1C is the sole Western powerplant for the new 150-passenger C919 scheduled to enter commercial service in 2016. Following COMAC's announcement, there are now 760 LEAP-1C engines on order to power 380 C919 aircraft. The LEAP-1B is the sole powerplant for Boeing's new 737 MAX aircraft schedule to enter service in 2017. To date,



CFM has received firm orders for 1,876 LEAP-1B engines to power 938 737 MAX airplanes. The LEAP-1A is one of the engine options for the Airbus A320neo family. To date, 1,192 LEAP-1A engines have been ordered to power 596 A320neo aircraft. This total represents 51 percent of the total A320neo orders for which an engine selection has been made. The foundation of the LEAP engine is heavily rooted in advanced aerodynamics, environmental, and materials technology development programs. It will provide up to 15 percent better fuel consumption and an equivalent reduction in CO<sub>2</sub> emissions compared to today's best CFM engine, along with a 50 percent reduction in oxides of nitrogen emissions, and up to a 15 decibel reduction in noise. All this technology brings with it CFM's legendary reliability and low maintenance costs.

#### 10,000th STUDENT GRADUATED FROM AEMTC

November 13, 2012

School formed in 1996

Averages 700 –800 students annually

Zhuhai, China – CFM International and its partners are celebrating the 10,000th student to complete CFM56 line maintenance training at the Aero Engine Maintenance Training Center (AEMTC). AEMTC is a cooperative venture between CFM, the Civil Aviation Administration of China (CAAC), Civil Aviation Supplies Holding Company (CASC), Civil Aviation Flying University of China (CAFUC), GE Aviation, and Snecma (Safran group) established in 1996.

"The AEMTC embodies CFM's sustained commitment to the China aviation industry and we are honored to be a part of this great institution," said Jean-Paul Ebanga, president and CEO of CFM International.

"We are very happy to support this long-term cooperative venture in China," said Zheng Xiaoyong, president of CAFUC. "This training center is making a significant contribution to aviation safety in China, as well as the long-term growth of the industry here."

CFM was one of the earliest Western engine manufacturers to support China's airlines when the first CFM56-3-powered Boeing 737 aircraft was delivered to China Yunnan and China Southwest in 1985. Today, more than 10 percent of CFM's worldwide commercial fleet is in operation in Greater China. Chinese airlines operate a total of more than 1,120 CFM56-powered Airbus, A320s and A340s, as well as Boeing Classic and Next-Generation 737 aircraft.

AEMTC was the first training center of its kind in China and was the first such world-class training facility outside the U.S. and France. It originally opened on scheduled in 1996 to support operation of CFM56 and GE CF6 engines in China. The school is located within the CAFUC campus in Guanghan, Sichuan Province and trains 700 to 800 students each year.

GE and Snecma have continued to invest in AEMTC over the years to both equip the Center and to expand its capabilities. In addition to helping design the school to U.S. standards, the companies have equipped the school with CFM56-3, CFM56-5B, CFM56-7B and CF6-80C2 training engines, tooling, instructional manuals, and teaching aides.

The school curriculum features comprehensive, hands-on courses in basic engine introduction, line maintenance, fan balancing, borescoping, and other skills. The training provided at AEMTC - a state-of-the-art 4,500 square meter facility with six engine shop bays and five classrooms - is equivalent to the training at the CFM centers in the United States, France, and India. All four centers are staffed with experienced instructors who facilitate exercises in the classroom and hands-on procedures in the engine shop. Each center also provides computer-based training, both self-paced and instructor-led. AEMTC is staffed by two co-leaders and three full-time instructors.

#### JUNEYAO ORDERS CFM56-5B ENGINES TO POWER A321 AIRCRAFT

July 11, 2012

Order valued at \$100 million

Expands CFM-powered fleet to more than 30 aircraft

Farnborough, England – China's Juneyao Airlines today announced that it has selected CFM International's CFM56-5B engine to power five new Airbus A321 aircraft. The engine order is valued at more than \$100 million U.S. at list price and the airline is scheduled to begin taking delivery in 2013.

"We are very happy with the high reliability the CFM56-5B engines have been providing to our entire fleet," said Zhao Hongliang, president of Juneyao Airlines. "We also enjoyed a very good relationship with CFM and the outstanding support they provide to us."

Juneyao Airlines began operations in September 2006 and has been one of the fastest growing local airlines in China. Based in Shanghai, Juneyao provides passenger, cargo, and mail service, in addition to business and tourist charter business. The airline currently operates a fleet of 26 CFM56-5B-powered A320 family aircraft.

"We are honored that Juneyao Airlines has selected CFM56-5B engines for its newly added A321 fleet," said Jean-Paul Ebanga, president and CEO of CFM International. "We are ALSO excited to bring the benefits of CFM56-5B PIP technology to their fleet."

All of Juneyao's A321 aircraft will be powered by the CFM56-5B Performance Improvement Package engine, which has been the production configuration since October 2011. The PIP improvements, which provide a 0.5% improvement in fuel burn, include hardware changes to the core, including new high-pressure turbine blade, as well as manufacturing changes to the fan and compressor blades and vanes to improve performance retention. The engine also features fewer parts to help lower maintenance costs. The CFM56-5B PIP engine maintains the same noise signature as the previous production model and also meets current International Civil Aviation Organization (ICAO) Committee of Aviation Environmental Protection standards (CAEP/6) requirements. CFM56-5B engines are a product of CFM International, a 50/50 joint company between Snecma (Safran group) and GE. CFM, the world's leading supplier of commercial aircraft engines, has delivered more than 23,500 engines to date. The CFM56-5B engine powers every model of the Airbus A320 family and has been chosen to power nearly 60 percent of all A320 aircraft in service or on order.

#### BOC AVIATION ORDERS 20 LEAP-1C-POWERED COMAC C919 AIRCRAFT

February 22, 2012

BOC Aviation announced that it has signed a Launch Customer Agreement with Commercial Aircraft Corporation of China (COMAC) for 20 LEAP-1C-powered C919 aircraft. BOC Aviation is the 11th customer for this aircraft and today's order brings to total to 235 C919 aircraft. BOC Aviation is the leading Asia-based aircraft leasing company with a portfolio of 180 modern aircraft operated by airlines worldwide. In addition, the company has 69 aircraft on firm order and another one on committed purchase and leaseback. BOC Aviation has one of the youngest fleets in the industry with an average aircraft age of less than four years. BOC Aviation is 100% owned by Bank of China, one of the largest banks in the world. The LEAP-1C is the exclusive powerplant for the new 150-passenger COMAC C919. COMAC has received commitments for 165 aircraft, including recently announced orders for 45 aircraft from ICBC Leasing and 20 aircraft from Sichuan Airlines. LEAP development is progressing on schedule and the engine is on track for entry into service in 2016 on the A320neo and C919 and in 2017 on the Boeing 737 MAX. The foundation of the LEAP engine is heavily rooted in advanced aerodynamics, environmental, and materials technology development programs. It will provide up to 15 percent better fuel consumption and an equivalent reduction in CO2 emissions compared to today's best CFM engine, along with a 50 percent reduction in oxides of nitrogen emissions, and up to a 15-

decibel reduction in noise. All this technology brings with it CFM's legendary reliability and low maintenance costs.

#### ADVANCED CFM56-7BE PERFORMING WELL IN REVENUE SERVICE

November 14, 2011

The first CFM56-7BE-powered Boeing Next-Generation 737 was delivered to China Southern Airlines in July. Since then, more than 120 aircraft have been delivered to 34 operators worldwide. This fleet had logged more than 125,000 flight hours through 31 October without a single engine-related issue. The CFM56-7BE-powered Next-Generation 737 enhanced airplane/engine combination will provide a 2 percent improvement in fuel consumption, which, in turn, equates to a 2 percent reduction in carbon emissions. Additionally, the enhanced -7B will provide up to 4 percent lower maintenance costs, depending on the thrust rating. CFM executed an extensive certification program that included a 60-hour certification flight test program aboard GE's modified 747 flying testbed in Victorville, California. In addition, the CFM56-7BE completed a grueling 150-hour block test at Snecma facilities in Villaroche, France, during which it operated at what is referred to as triple redline: maximum fan speed, maximum core speed, and maximum exhaust gas temperature. This test simulates conditions far more extreme than would ever be experienced in commercial service to validate the reliability and durability of the hardware. The first full CFM56-7BE type design engine completed ground testing in January 2010, and engine operation and performance was as expected. Overall, the engine completed 390 hours of ground testing (including the block test) and achieved all the technical requirements and met the key objectives for performance improvement, acoustics, engine operation and durability. CFM is used advanced computer codes and three-dimensional design techniques to improve airfoils in the high- and low-pressure turbines for better engine performance. In addition, the company improved engine durability and reduced parts count to achieve lower maintenance costs.

#### ORDERS FOR LEAP-1C-POWERED C919 REACH 165 AIRCRAFT

November 14, 2011

Orders for the Commercial Aircraft Corporation of China, Ltd.'s (COMAC) new C919 airplane, powered exclusively by CFM International's LEAP-1C engines, have now reached a total 165 aircraft with the recent addition of orders from ICBC Financial Leasing Company (45) and from Sichuan Airlines (20).

These airlines join Air China, China Eastern, China Southern, Hainan Airlines, CDB Leasing Company and GE Capital Aviation Services (GECAS) as C919 customers. COMAC has forecasted global sales of more than 2,000 C919 aircraft over the 20 years following entry into service.

In June, CFM and COMAC reached another major milestone with the signing of the Master Contract for the C919/LEAP Integrated Propulsion System (IPS). The definitive agreement stipulates that CFM will be the sole overseas supplier for an integrated propulsion system (engine, nacelle, thrust reverser) and that the LEAP-X1C engine will be the sole Western powerplant for the new 150-passenger short-to-medium range airplane on schedule to enter service in 2016.

As part of the IPS for the C919, CFM will provide the LEAP-X1C engine and, in partnership with Nexcelle, will provide the nacelle and thrust reverser to deliver a complete IPS solution to COMAC. Nexcelle is a 50/50 joint venture between GE's Middle River Aircraft Systems and Safran group's Aircelle that the two companies launched in 2008.

The LEAP engine, which was formally launched in 2008, is a totally new centerline engine and the development and testing program has been progressing steadily. The LEAP is on track for the first full engine to begin testing in 2013.

In 2010, CFM and COMAC began the Joint Design Phase to define the functional and mechanical interfaces and optimize the integrated propulsion system for the C919. The teams are in the final stages of the Joint Design Phase.

CFM has a dedicated team of about 20 people who work directly with COMAC in Shanghai. Hundreds of engineers are also working on the LEAP-X1C engine back at the headquarters of CFM's parent companies, GE and Snecma. The team is building strong relationships with COMAC's team to ensure all the customer's needs are well understood and achieved.

Beyond the propulsion system program, CFM has also provided extensive training to COMAC for the last two years. Training sessions for COMAC leaders have occurred at Snecma's Paris location and GE's Cincinnati, OH facilities. CFM has also conducted training sessions at COMAC's Shanghai offices and CFM's training school Aero Engine Maintenance Training Center in Guanghan City, Sichuan Province of China.

#### ICBC LEASING, CFM SIGN MOU FOR \$450 MILLION ENGINE ORDER

September 29, 2011

CBC Financial Leasing Co., Ltd, a subsidiary of Industrial and Commercial Bank of China (ICBC), today signed a Memorandum of Understanding with CFM International to purchase CFM56-5B engines to power a new fleet of 22 firm Airbus A320 family aircraft. The firm engine order, which includes three spare engines, is potentially valued at more than \$450 million U.S. at list price and the leasing company is scheduled to begin taking delivery in 2012. This order represents the largest order by a Chinese financial leasing company to date. Defined as a first trial by China State Council, ICBC Financial Leasing Co. Ltd. is the first banking financial leasing company approved by the China Banking Regulatory Commission. The company is fully owned by the Industrial and Commercial Bank of China and its current asset values approximately \$12 billion U.S. All of ICBC's new engines will be the CFM56-5B Performance Improvement Package (PIP) configuration. The -5B PIP completed extensive ground testing and more than 26 hours of flight testing on the A320. The engine, which will become the new production standard, is on schedule for certification and entry into service by the end of 2011. The improvements, which provide a 0.5% improvement in fuel burn, include hardware changes to the core, including new high-pressure turbine blade, as well as manufacturing changes the fan and compressor blades and vanes to improve performance retention. The engine will maintain the same noise signature as the current production engine. These engines also meet current International Civil Aviation Organisation (ICAO) Committee of Aviation Environmental Protection standards (CAEP/6) requirements. CFM56-5 engines are a product of CFM International, a 50/50 joint venture between Snecma (Safran group) and GE. CFM, the world's leading supplier of commercial aircraft engines, has delivered nearly 23,000 engines to date and the fleet has achieved nearly 550 million flight hours as the most reliable engines in the air.

#### CFM INTERNATIONAL AND COMAC SIGN MASTER CONTRACT TO FINALIZE LEAP-POWERED C919 AGREEMENT

August 17, 2011

In a special ceremony June 20th, the Commercial Aircraft Corporation of China (COMAC), its subsidiary, Shanghai Aircraft Manufacture Company, and CFM International signed the Master Contract for the C919/LEAP Integrated Propulsion System (IPS). LEAP is a product of CFM, a 50/50 joint company between Snecma (Safran group) and GE. The definitive agreement stipulates that CFM International (CFM) will be the sole overseas supplier for an integrated propulsion system (engine, nacelle, thrust reverser) and that the LEAP-X1C engine will be the sole Western powerplant for the new 150-passenger short-to-medium range airplane on schedule to enter service in 2016. COMAC has forecasted a global market for more than 2,000 C919 aircraft over the 20 years following entry into

service. This is the first master contract for airborne systems that COMAC has signed for its ongoing C919 Program. As part of the IPS for the C919, CFM will provide the LEAP-X1C engine and, in partnership with Nexcelle, will provide the nacelle and thrust reverser to deliver a complete IPS solution to COMAC. Nexcelle is a 50/50 joint venture between GE's Middle River Aircraft Systems and Safran group's Aircelle that the two companies launched in 2008. "This is truly an historic occasion for us all as we formally launch a new era in our history," said Jean-Paul Ebanga, president and CEO of CFM International. "China has been a very important region to us for more than 25 years, and more than 10 percent of the in-service CFM56 commercial fleet operates there. It is exciting to be a part of this program and to see this great relationship move to the next level." The LEAP engine, which was formally launched in 2008, is a totally new centerline engine and the development and testing program has been progressing steadily. The LEAP is on track for the first full engine to begin testing in 2013.

**BOEING DELIVERS FIRST 737 WITH PERFORMANCE IMPROVEMENT ENGINES**  
Performance and drag improvements provided at no additional cost to customers  
Seattle, July 21, 2011

The first Boeing [NYSE: BA] Next-Generation 737 with the certified performance improvement engines was delivered on a 737-800 to China Southern Airlines at Boeing Field in Seattle last week. The new CFM56-7BE engine configuration, which is now standard on all delivered 737s, is an improved design that includes high and low pressure turbine modification. Coupled with drag reduction improvements that Boeing started phasing into 737 production earlier this year, it will result in lower fuel consumption and maintenance cost savings. The new engine is part of the 737 performance improvement package that Boeing began testing in November 2010 with the goal of reducing fuel consumption by 2 percent. Other fuel performance incorporations will take place into 2012 and data analysis will continue to quantify the final benefit to customers. "We continue to review performance flight test data and collect delivery data," said John Hamilton, vice president and chief project engineer 737 program, Boeing Commercial Airplanes. "The improved fuel savings is part of our commitment to deliver market-leading value to Next-Generation 737 customers." Boeing's continuous efforts to improve the Next-Generation 737 family have resulted in an accumulated 5 percent gain in fuel efficiency since the first airplane delivered in 1998. The new improvements will give operators an airplane that is up to 7 percent more efficient than the first Next-Generation 737s delivered.

**CFM, HAINAN AIRLINES FINALIZE CFM56-5B ENGINE ORDER**  
June 23, 2011

CFM International and Hainan Airlines, China's fourth largest airline group, have finalized an agreement for CFM56-5B engine to power 42 new Airbus A320 family aircraft. The entire agreement is valued at approximately \$1.2 billion U.S. at list price, including the firm engine order and a long-term services and support agreement. The airline is scheduled to begin taking delivery in 2012. The MOU was originally announced at the Zhuhai Air Show in November 2010. To support the new CFM56-5B-powered A320 fleet, Hainan has also signed a long-term RPFH (Rate per Flight Hour) agreement with CFM to provide comprehensive engine maintenance service. Under the terms of this agreement, CFM will guarantee maintenance costs on a dollar per engine flight hour basis. Hainan Airlines has been a CFM customer since the airline began operations in 1993, when it took delivery of its first Boeing 737 aircraft. Today, Hainan operates more than 85 Boeing 737-300/-400/-800 aircraft powered by CFM56-3 and CFM56-7 engines. The airline operates more than 500 domestic and international routes to about 90 cities throughout China, Asia, Africa, Europe, and North America. "We are honored that Hainan Airlines has chosen again to make CFM an important part of its long-term operations," said Jean-Paul Ebanga, President & CEO of CFM International. "We thank them for their trust and offer them our

commitment that we will continue to earn that trust every day." The high reliability, long on-wing life, and low maintenance costs of the CFM56-5B make it extremely popular with major airlines, low-cost carriers, and leasing companies worldwide. All of Hainan's new CFM56-5B engines are of the Tech Insertion configuration. This configuration was introduced in September 2007 and, through October 2010, the CFM56-5B fleet of more than 1,600 engines in service worldwide had logged more than seven million flight hours and four million flight cycles without a single engine-related event.

#### SHENZHEN AIRLINES SELECTS CFM56-5B FOR ITS NEW A320 FLEET

June 22, 2011

In a special ceremony in China last week, Shenzhen Airlines signed an agreement with CFM International for CFM56-5B to power its 10 new Airbus A320 family aircraft. The engine order is valued at \$190 million U.S. at list price and the airline is scheduled to take delivery in 2012 and 2013. Together with the engine selection, Shenzhen also signed a Rate per Flight Hour (RPFH) agreement to provide comprehensive maintenance service for the fleet under which CFM will guarantee maintenance costs on a dollar per engine flight hour basis. "We are so pleased that Shenzhen Airlines has selected the CFM56-5B engines to power its new A320 fleet," said Jean-Paul Ebanga, President and CEO of CFM. "We have established a great relationship with Shenzhen Airlines and we look forward to working more closely with them through the RPFH agreement to service and support its growing fleet." Shenzhen Airlines, which currently operates a fleet of 91 CFM56-powered Boeing 737s and Airbus A319/320s. Shenzhen is one of the fastest growing airlines in China, serving both domestic and international routes. All of Shenzhen's new engines will be the CFM56-5B Performance Improvement Package (PIP) configuration. The -5B PIP completed extensive ground testing and more than 26 hours of flight testing on the A320. The engine, which will become the new production standard, is on schedule for certification and entry into service by the end of 2011. The improvements, which provide a 0.5% improvement in fuel burn, include hardware changes to the core, including new high-pressure turbine blade, as well as manufacturing changes the fan and compressor blades and vanes to improve performance retention. The engine will maintain the same noise signature as the current production engine. These engines also meet current International Civil Aviation Organisation (ICAO) Committee of Aviation Environmental Protection standards (CAEP/6) requirements.

#### TIBET AIRLINES PLACE \$60 MILLION CFM56-5B ORDER TO POWER A319 FLEET

June 21, 2011

Tibet Airlines Co. Ltd., the newest start-up airline in China, has signed an agreement with CFM International to purchase three Airbus A319 powered by CFM56-5B engines. The aircraft are scheduled to be delivered in the July of 2011 and the engine order is valued at \$60 million U.S. at list price. Based at Konggar Airport, Lhasa, Tibet, the Airlines will start operation of domestic passenger and cargo and services from July 2011. The airline which was established in May 2010, will be the first airline based in the southwest Tibet Autonomous Region. "We are very excited that Tibet Airlines has selected CFM56-5B to power their new fleet," said Jean-Paul Ebanga, President of CFM International. "We appreciate their trust and offer them our commitment that we will continue to earn that trust every day. The airline is off to a great start and we're honored to be a part of it." "We selected CFM56 engines after an extensive technical evaluation," said Mr. Liu Yanping, President of Tibet Airlines. "The reliability, performance and low cost of ownership advantages that the CFM56-5B provides will help ensure our airline of a smooth and successful launch into service. CFM56 engine is also a good choice for the safety of our high-altitude mission."

## AIR CHINA AND CFM FINALIZE ENGINE MRO JOINT VENTURE

December 17, 2010

In early 2007, Air China and CFM International agreed to establish an innovative maintenance repair, and overhaul (MRO) joint venture. In 2010, after three years negotiations, the two companies cleared the final hurdle and have received Chinese government approval for the formation of Sichuan Services Aero Engines Maintenance Company (SSAMC), a 60/40 joint venture between Air China and CFM, located in Chengdu, China. SSAMC will combine Air China's extensive expertise with that of CFM to create a truly world-class maintenance facility. The facility, which previously operated as a Snecma Services overhaul shop, completes 60 to 80 engine overhauls annually. The new joint venture will expand Air China's engineering services, which already provides aircraft maintenance, repair and overhaul services.

"Air China's objective is to have the most competitive MRO solutions for its fleet, without any compromise in flight safety," said Senior VP He of Air China. "The partnership with CFM can help both stakeholders to continuously increase their competitiveness globally with their advantages, and to provide the best service for Chinese and worldwide customers."

"This new venture is a perfect example of the type of win-win solutions that airlines and OEMs can implement together," said Eric Bachelet, President and CEO of CFM International.

"The combination of Air China's extensive expertise with that of CFM will enable SSAMC to develop and grow to the best level of performance, in terms of quality, turnaround time, EGT margin, and cost."

Air China is the Chinese national flag carrier and has been a long-time CFM customer. In the last several years, the airline has grown and expanded its reach to become one of the leading airlines in the country. In addition to the 20 A320 orders formalized at the Zhuhai Air Show, the airline's current fleet includes 55 Airbus A320 and 118 Boeing 737 family aircraft powered by CFM56-5B and CFM56-3/-7B engines, respectively, as well as six long-range, four-engine Airbus A340-300 aircraft powered by the CFM56-5C.

## CHINA EASTERN FINALIZES CFM56-5B ENGINE ORDER

November 17, 2010

In a special ceremony here today, China Eastern Airlines and CFM International formalized the airline's order for CFM56-5B engine to power 30 new Airbus A320 family aircraft. The order, valued at approximately \$600 million U.S at list price, was originally announced at the 2010 Farnborough Air Show and the airline is scheduled to begin taking delivery in March 2011. Together with the engine selection, China Eastern also signed a long-term RPFH (Rate per Flight Hour) agreement with CFM to provide comprehensive maintenance service for the CFM56 engines in the airline's fleet under which CFM will guarantee maintenance costs on a dollar per engine flight hour basis. For its existing fleet, China Eastern has also signed a 15-year material agreement that will provide a full range of new, used, and repaired material offerings tailored to the specific requirements of each individual engine overhaul. China Eastern became a CFM customer in 1994 with an order for five CFM56-5C-powered long-range, four-engine Airbus A340 aircraft. Today, the airline is CFM's largest customer in China, currently operating about 500 CFM56-3/-5B/-5C and -7B engines. "We are honored by China Eastern's selection of the CFM56-5B engine," said Eric Bachelet, president and CEO of CFM. "China Eastern and CFM have a long-standing relationship, and this engine selection demonstrates the continued confidence the airline has in our products and services." The high reliability, long on-wing life, and low maintenance costs of the CFM56-5 make it extremely popular with major airlines, low-cost carriers, and leasing companies worldwide. All of China Eastern's new CFM56-5B engines are of the Tech Insertion configuration. This configuration was introduced in September 2007 and, through October 2010, the fleet of more than 1,600

CFM56-5B engines in service worldwide had logged more than seven million flight hours and four million flight cycles without a single engine-related event.

#### LEAP-X1C LAUNCHED ON NEW C919 AIRCRAFT AIRLINES, LEASING COMPANIES PLACE ORDERS FOR A TOTAL OF 100 AIRCRAFT

November 16, 2010

Commercial Aircraft Corporation of China (COMAC) and CFM International today announced the launch of the LEAP-X1C-powered C919. Air China, China Eastern, China Southern, Hainan Airlines, CDB Leasing Company, and GE Capital Aviation Services (GECAS) have ordered a combined total of 100 new aircraft with first deliveries scheduled for 2016. "We are obviously honored by the strong show of support from China's major airlines evidenced by these launch orders," said Eric Bachelet, president and CEO of CFM International. "All of them are long-time CFM customers and we look forward to embarking on this exciting new era with them. Over the next few years, we will work closely with COMAC to develop the engine and certify the C919. Ultimately, we look forward to providing these customers with a very smooth entry into service in 2016." COMAC selected CFM's advanced new LEAP-X engine as the sole western powerplant for the C919 in December 2009. COMAC has forecasted global sales of more than 2,000 C919 aircraft over the 20 years following entry into service. The two companies are nearing the completion of the joint definition phase and CFM is on schedule to freeze the LEAP-X design by the end of 2011 and the first full LEAP-X engine will go on test in early 2013. COMAC has opted for a complete Integrated Propulsion System (IPS) for the C919. CFM will provide the engine and, in partnership with Nexcelle, the nacelle and thrust reverser to deliver a complete IPS solution to COMAC.

#### AIR CHINA FINALIZES CFM56-5B ENGINE ORDER

November 16, 2010

In a special ceremony here today, Chinese flag carrier Air China finalized its order for CFM International's CFM56-5B engine to power 20 firm Airbus A320 aircraft. The engine order, originally announced at the Farnborough Air Show in July, is valued at approximately \$300 million U.S. at list price. Air China, which is scheduled to begin taking delivery of the new aircraft in 2011, is the largest commercial airline in China and has been a long-time CFM customer. In addition to the 20 A320s announced today, the airline's current fleet includes 55 Airbus A320 and 118 Boeing 737 family aircraft powered by CFM56-5B and CFM56-3/7B engines, respectively, as well as six long-range, four-engine Airbus A340-300 aircraft powered by the CFM56-5C. "We are very pleased to continue our long relationship with CFM," He Li, Vice President of Air China noted when placing the order. "We already have a big CFM56-powered fleet of Airbus and Boeing aircraft, and the operating economics and the outstanding reliability of this engine have been enabling us save our costs and assure our customers of the very highest level of service that we can provide." The high reliability, long on-wing life, and low maintenance costs of the CFM56-5B make it extremely popular with major airlines, low-cost carriers, and leasing companies worldwide. All of Air China's new CFM56-5B engines are of the Tech Insertion configuration. This configuration was introduced in September 2007 and, through October 2010, the CFM56-5B fleet of more than 1,600 engines in service worldwide had logged more than seven million flight hours and four million flight cycles without a single engine-related event.

#### HAINAN AIRLINES SELECTS CFM56-5B TO POWER NEW A320 FLEET

November 16, 2010

Hainan Airlines, China's fourth largest airline group, today announced that it has selected CFM International's CFM56-5B engine to power 42 new Airbus A320 family aircraft. The entire agreement is valued at approximately \$1.2 billion U.S. at list price, including the firm engine order and a long-term services and support agreement. The



airline is scheduled to begin taking delivery in 2012. To support the new CFM56-5B-powered A320 fleet, Hainan has also signed a long-term RPFH (Rate per Flight Hour) agreement with CFM to provide comprehensive engine maintenance service. Under the terms of this agreement, CFM will guarantee maintenance costs on a dollar per engine flight hour basis. Hainan Airlines has been a CFM customer since the airline began operations in 1993, when it took delivery of its first Boeing 737 aircraft. Today, Hainan operates more than 85 Boeing 737-300/-400/-800 aircraft powered by CFM56-3 and CFM56-7 engines. The airline operates more than 500 domestic and international routes to about 90 cities throughout China, Asia, Africa, Europe, and North America. "We are honored that Hainan Airlines has chosen again to make CFM an important part of its long-term operations," said Eric Bachelet, President & CEO of CFM International. "We thank them for their trust and offer them our commitment that we will continue to earn that trust every day." The high reliability, long on-wing life, and low maintenance costs of the CFM56-5B make it extremely popular with major airlines, low-cost carriers, and leasing companies worldwide. All of Hainan's new CFM56-5B engines are of the Tech Insertion configuration. This configuration was introduced in September 2007 and, through October 2010, the CFM56-5B fleet of more than 1,600 engines in service worldwide had logged more than seven million flight hours and four million flight cycles without a single engine-related event.

#### CFM CELEBRATES 25-YEAR RELATIONSHIP WITH CHINA'S AVIATION INDUSTRY

November 15, 2010

In 1985, two Chinese airlines, Air China Southwest and China Eastern Yunnan, took delivery of their first Boeing 737s. These airplanes were powered by CFM International's CFM56-3 engines. CFM was a very young company and these were some of its first orders. Since then, Greater China has become one of the largest and most important customer regions for CFM, with 25 Chinese airlines operating nearly 2,030 CFM56 engines powering more than 985 Airbus and Boeing aircraft.

In late 2009, the relationship was taken to a whole new level when the Commercial Aircraft Corporation of China (COMAC) CFM's advanced LEAP-X1C engine as the sole Western powerplant for the new C919 single-aircraft on schedule to enter revenue service in 2016.

"We are both honored and humbled by the continued faith China has placed in CFM products and people," said Eric Bachelet, president and CEO of CFM International. "We owe a tremendous debt of gratitude to them for the great success that CFM has achieved. Both Air China Southwest and China Eastern Yunnan were willing to work with us in the early days. Since then, our relationship with China's aviation industry has continued to evolve and flourish and now goes well beyond customer and engine manufacturer. And we are constantly finding new ways to strengthen those ties; the C919 is just the latest example of a truly successful partnership."

Since the first engines were delivered 25 years ago, China has become an important supplier base for CFM's parent companies, GE and Snecma. In 2010, these companies will purchase more than \$450 million in engines parts, including the CFM56 product line, from Chinese manufacturers. The quality of these parts has been key to the ongoing success of the CFM product line.

One of the world's best aircraft engine maintenance training centers, the Aero Engine Maintenance Training Center (AEMTC), located in the Civil Aviation Flight College, Guanghan City, is a cooperative venture between CFM, the Civil Aviation Administration of China, Snecma, and GE, China Aviation Supplies Imp. & Exp. Group Corporation, Civil Aviation Flight University of China. Since opening its doors in late 1996, the Center has trained more than 8,500 students.

The training provided at AEMTC - a state-of-the-art 4,500 square meter facility with six engine shop bays and five classrooms - is equivalent to the training at the CFM centers in the United States, France, and India. All four centers are staffed with experienced instructors who facilitate exercises in the classroom and hands-on procedures in the engine shop. Each center also provides computer-based training, both self-paced and instructor-led.

To date, the CFM56 fleet worldwide has logged more than 500 million flight hours in service powering more than 8,400 commercial and **military** aircraft worldwide as the most reliable engines in the air.

#### JOINT C919 DEFINITION PHASE NEARING COMPLETION

November 15, 2010

CFM International and the Commercial Aircraft Corporation of China (COMAC) have nearly completed the joint definition phase for the advanced C919 single-aisle aircraft/engine combination in preparation for entry into revenue service in 2016. In December 2009, COMAC selected CFM's advanced new LEAP-X engine as the sole western powerplant for the C919. COMAC has forecasted global sales of more than 2,000 C919 aircraft over the 20 years following entry into service in 2016. LEAP-X is a totally new centerline engine formally announced in mid-2008, and the development program has been progressing steadily ever since. CFM is on schedule with engine development work, will begin running a full-scale 5,000-cycle endurance test on the 3-D Woven Resin Transfer Molding (3-DW RTM) composite fan in the third quarter 2010, as well as initiating testing of eCore Demonstrator 2 in mid-2011. The company recently completed a two-phase, 150-hour test program of eCore Demonstrator 1. This development work will culminate in the first full engine, the LEAP-X1C, going to test in early 2013. COMAC has opted for a complete Integrated Propulsion System (IPS) for the C919. CFM will provide the engine and, in partnership with Nexcelle, the nacelle and thrust reverser to deliver a complete IPS solution to COMAC. "The program is coming along very well," said Eric Bachelet, president and CEO of CFM International. "This agreement is the next logical step in what has been a tremendously successful collaboration between CFM, the Chinese aviation industry, and our Chinese airline customers. Today, we are embarking on an exciting new chapter with COMAC and we are honored to be a part of it."

#### PARTNERS RENEW AGREEMENT FOR CHINA TRAINING SCHOOL JOINT VENTURE

November 15, 2010

The Civil Aviation Administration of China (CAAC), Civil Aviation Supplies Holding Company (CAS), Civil Aviation Flying University of China (CAFUC) CFM International (CFM), GE Aviation (GE), and Snecma (Safran group) have jointly renewed the cooperative agreement under which the Aero Engine Maintenance Training Center (AEMTC) operates. The original agreement that established the training center was signed in 1994 and has been extended twice since then. The current extension takes the center through the year 2014. AEMTC, which originally opened on scheduled in 1996 to support operation of CFM56 and GE CF6 engines in China, is located within the CAFUC campus in Guanghan, Sichuan Province. It was the first training center of its kind in China and was the first such world-class training facility outside the U.S. and France. AEMTC trains 500 to 600 students each year and, to date, has graduated more than 8,500 mechanics from Chinese airlines. GE and Snecma have continued to invest in AEMTC over the years to both equip the Center and to expand its capabilities. In addition to helping design the school to U.S. standards, the companies have equipped the school with CFM56-3, CFM56-5B, CFM56-7B and CF6-80C2 training engines, tooling, instructional manuals, and teaching aides. The school curriculum features comprehensive, hands-on courses in basic engine introduction, line maintenance, fan balancing, borescoping, and other skills. The training

provided at AEMTC - a state-of-the-art 4,500 square meter facility with six engine shop bays and five classrooms - is equivalent to the training at the CFM centers in the United States, France, and India. All four centers are staffed with experienced instructors who facilitate exercises in the classroom and hands-on procedures in the engine shop. Each center also provides computer-based training, both self-paced and instructor-led. AEMTC is staffed by two co-leaders and three full-time instructors.

#### CHINA'S SPRING AIRLINES EXTENDS CFM56-5B ONPOINT SOLUTION AGREEMENT TO NEW ENGINE ORDER

July 21, 2010

Chinese low-cost carrier Spring Airlines has extended its current OnPoint solution agreement with GE Aviation's Services business for the maintenance and overhaul of the CFM56-5B engines that power the airline's fleet of Airbus A320 aircraft to include the engines powering four additional A320 family aircraft announced earlier today, as well as three additional leased aircraft. The agreement now covers the engines powering the airline's recently announced fleet of 14 purchased A320 as well as 23 leased aircraft. The total agreement (covering all 37 aircraft) is valued at \$300 million over the life of the contract. Spring Airlines, the first low cost carrier in China, is headquartered in Shanghai. As a subsidiary of the Spring International Travel Service Ltd., one of the leading travel service providers in China, OnPoint solutions are customized service agreements tailored to the operational and financial needs of each customer for any size fleet. These agreements are designed to help lower the customers' cost of ownership and maximize the use of their assets. Backed by GE's global support network, OnPoint services may include overhaul, on wing support, new and used-serviceable parts, component repair, technology upgrades, engine leasing, integrated systems support and diagnostics and integrated systems. GE Aviation, an operating unit of General Electric Company (NYSE: GE), is a world-leading provider of commercial and **military** jet engines and components as well as avionics, electric power, and mechanical systems for aircraft. GE Aviation also has a global service network to support these offerings.

#### SPRING AIRLINES EXPANDS CFM56-5B-POWERED A320 FLEET

July 21, 2010

China's Spring Airlines has selected CFM56-5B engines to power four new Airbus A320 family aircraft in an engine order valued at \$70 million U.S. at list price. The airline is scheduled to begin taking delivery in mid-2012. Spring Airlines, the first low cost carrier in China, is headquartered in Shanghai. As a subsidiary of the Spring International Travel Service Ltd., one of the leading travel service providers in China, the airline began operation in 2005 and a total of 37 purchased and leased CFM56-5B-powered A320 aircraft, either in service or on order. The airline is currently operating 19 A320s. "We're pleased to continue our relationship with CFM International and are very satisfied with the excellent performance of CFM56 engines," said Wang Zhenghua, Chairman of Spring Airlines. "The engine's low cost of ownership has been a strong contributor to our long-term growth strategy." "We are obviously honored by Spring Airlines' continued confidence in the CFM56 product line," said Eric Bachelet, president and CEO of CFM International, "We look forward to growing and improving this relationship for many more years to come."

#### AIR CHINA EXPANDS CFM56-5B-POWERED A320 FLEET WITH NEW ORDER FOR 20 AIRPLANES

July 19, 2010

Chinese flag carrier Air China today announced that it has selected the CFM56-5B engine to power 20 firm Airbus A320 aircraft. The agreement is valued at approximately \$600 million U.S. at list price, including a long-term maintenance agreement.

In addition to the new engine order, Air China also signed a Rate Per Flight Hour (RPFH) agreement with CFM to provide comprehensive maintenance service for the CFM56 engines in the airline's fleet under which CFM will guarantee maintenance costs on a dollar per engine flight hour basis.

Air China, which is scheduled to begin taking delivery of the new aircraft in 2011, is the largest commercial airline in China and has been a long-time CFM customer. In addition to the 20 A320s announced today, the airline's current fleet includes 55 Airbus A320 and 118 Boeing 737 family aircraft powered by CFM56-5B and CFM56-3/7B engines, respectively, as well as six long-range, four-engine Airbus A340-300 aircraft powered by the CFM56-5C.

"We are very pleased to continue our long relationship with CFM," said He Li, Vice President of Air China. "We already have a big CFM56-powered fleet of Airbus and Boeing aircraft, and the operating economics and the outstanding reliability of this engine have been enabling us save our costs and assure our customers of the very highest level of service that we can provide."

The high reliability, long on-wing life, and low maintenance costs of the CFM56-5B make it extremely popular with major airlines, low-cost carriers, and leasing companies worldwide. All of China Eastern's new CFM56-5B engines are of the Tech Insertion configuration. This configuration was introduced in September 2007 and, through June 2010, the fleet of more than nearly 3,900 in service worldwide had logged more than 17 million flight hours and 9.6 million flight cycles without a single engine-related event.

CFM56 Tech Insertion provides operators with a 1 percent improvement in fuel consumption over the life of the product, compared to the base CFM56-5B engine. This lower fuel consumption also significantly lowers CO2 emissions. Improved analytic design tools have also enabled CFM to further improve the Tech Insertion combustor such that it emits 25 percent lower NOx emissions and the engine meets the current International Civil Aviation Organization (ICAO) Committee of Aviation Environment Protection standards (CAEP /6) that took effect in early 2008.

#### CHINA EASTERN ORDERS CFM56-5B ENGINE TO POWER A320S; SIGNS LONG-TERM MAINTENANCE AGREEMENT

July 19, 2010

China Eastern Airlines today announced that it has selected the CFM56-5B engine to power 30 new Airbus A320 family aircraft; the airline is scheduled to begin taking delivery in March 2011. The firm engine order is valued at approximately \$600 million U.S. at list price. Together with the engine selection, China Eastern also signed a long-term RPFH (Rate per Flight Hour) agreement with CFM to provide comprehensive maintenance service for the CFM56 engines in the airline's fleet under which CFM will guarantee maintenance costs on a dollar per engine flight hour basis. China Eastern became a CFM customer in 1994 with an order for five CFM56-5C-powered long-range, four-engine Airbus A340 aircraft. Today, the airline is CFM's largest customer in China, currently operating about 500 CFM56-3/-5B/-5C and -7B engines.

"We are honored by China Eastern's selection of the CFM56-5B engine," said Eric Bachelet, president and CEO of CFM. "China Eastern and CFM have a long-standing relationship, and this engine selection demonstrates the continued confidence the airline has in our products and services."

The high reliability, long on-wing life, and low maintenance costs of the CFM56-5 make it extremely popular with major airlines, low-cost carriers, and leasing companies worldwide. All of China Eastern's new CFM56-5B engines are of the Tech Insertion configuration. This configuration was introduced in September 2007 and, through June 2010, the fleet of more than nearly 3,900 in service worldwide had logged more than 17 million flight hours and 9.6 million flight cycles without a single engine-related event. CFM56 Tech Insertion provides operators with a 1 percent improvement in fuel

consumption over the life of the product, compared to the base CFM56-5B engine. This lower fuel consumption also significantly lowers CO<sub>2</sub> emissions. Improved analytic design tools have also enabled CFM to further improve the Tech Insertion combustor such that it emits 25 percent lower NO<sub>x</sub> emissions and meets the current CAEP/6 industry requirements.

#### JOINT C919 DEFINITION PHASE CONTINUES

July 17, 2010

CFM International and the Commercial Aircraft Corporation of China (COMAC) are continuing the joint definition phase for the advanced C919 single-aisle aircraft/engine combination in preparation for entry into revenue service in 2016. The joint definition phase will continue into early 2011. In December 2009, COMAC selected CFM's advanced new LEAP-X engine as the sole western powerplant for the C919. COMAC has forecasted global sales of more than 2,000 C919 aircraft over the 20 years following entry into service in 2016. LEAP-X is a totally new centerline engine formally announced in mid-2008, and the development program has been progressing steadily ever since. CFM is on schedule with engine development work, will begin running a full-scale 5,000-cycle endurance test on the 3-D Woven Resin Transfer Molding (3-DW RTM) composite fan in the third quarter 2010, as well as initiating testing of eCore Demonstrator 2 in mid-2011. The company recently completed a two-phase, 150-hour test program of eCore Demonstrator 1. This development work will culminate in the first full engine, the LEAP-X1C, going to test in early 2013. COMAC has opted for a complete Integrated Propulsion System (IPS) for the C919. CFM will provide the engine and, in partnership with Nexcelle, the nacelle and thrust reverser to deliver a complete IPS solution to COMAC. "The program is coming along very well," said Eric Bachelet, president and CEO of CFM International. "This agreement is the next logical step in what has been a tremendously successful collaboration between CFM, the Chinese aviation industry, and our Chinese airline customers. Today, we are embarking on an exciting new chapter with COMAC and we are honored to be a part of it."

#### CFM, COMAC IN JOINT DEFINITION PHASE FOR NEW AIRCRAFT/ENGINE COMBINATION

February 2, 2010

Since the announcement in December 2009 that the Commercial Aircraft Corporation of China (COMAC) had selected CFM International's advanced new LEAP-X engine as the sole western powerplant for its new C919 single-aisle aircraft, the two companies have launched a joint definition phase for the new aircraft/engine combination that will continue throughout 2010. CFM, a 50/50 joint company between Snecma (SAFRAN Group) and General Electric Company, is the world's largest commercial aircraft engine manufacturer. In 2008, the two companies renewed the partnership to the year 2040. COMAC has forecasted a global market for more than 2,000 C919 aircraft over the 20 years following entry into service in 2016. LEAP-X is a totally new centerline engine formally announced in mid-2008, and the development program has been progressing steadily ever since. CFM will continue engine development work, including the second phase of testing for eCore 1, as well as running full-scale endurance tests on the Resin Transfer Molding (RTM) composite fan. This development work will culminate in the first full engine, provisionally called the LEAP-X1C, going to test in early 2013. COMAC has opted for a complete Integrated Propulsion System (IPS) for the C919. CFM will provide the engine and, in partnership with Nexcelle, the nacelle and thrust reverser to deliver a complete IPS solution to COMAC. Nexcelle is a 50/50 joint venture between GE's Middle River Aircraft Systems and SAFRAN Group's Aircelle the two companies launched in 2008. "We are very pleased to work with CFM on our new C919," said Zhang Qingwei, chairman of COMAC. "The leading-edge technology incorporated in the engine, coupled with all of the benefits of a

completely integrated propulsion system, will enable us to build a very competitive airplane for the global market."

"The relationship between CFM and China goes back more than 25 years," said Eric Bachelet, president and CEO of CFM International. "This agreement is the next logical step in what has been a tremendously successful collaboration between CFM, the Chinese aviation industry, and our Chinese airline customers. Today, we are embarking on an exciting new chapter with COMAC and we are honored to be a part of it."

#### ADVANCED LEAP-X1C ENGINE CHOSEN AS SOLE POWERPLANT TO LAUNCH NEW COMAC C919 AIRCRAFT

December 21, 2009

The Commercial Aircraft Corporation of China (COMAC) and CFM International today jointly announced that the advanced new LEAP-X1C engine has been selected as the sole western powerplant to launch the new C919 single-aisle aircraft scheduled to enter commercial service in 2016. CFM, a 50/50 joint company between Snecma (SAFRAN Group) and General Electric Company, is the world's largest commercial aircraft engine manufacturer. In 2008, the two companies renewed the partnership to the year 2040. COMAC has forecasted a global market for more than 2,000 C919 aircraft over the 20 years following entry into service. COMAC has opted for a complete Integrated Propulsion System (IPS) for the C919. CFM will provide the engine, provisionally called the LEAP-X1C, and, in partnership with Nexcelle, will provide the nacelle and thrust reverser to deliver a complete IPS solution to COMAC. Nexcelle is a 50/50 joint venture between GE's Middle River Aircraft Systems and SAFRAN Group's Aircelle the two companies launched in 2008.

"We are very pleased to work with CFM on our new C919," said Zhang Qingwei, chairman of COMAC. "The leading-edge technology incorporated in the engine, coupled with all of the benefits of a completely integrated propulsion system, will enable us to build a very competitive airplane for the global market."

"The relationship between CFM and China goes back more than 25 years," said Eric Bachelet, president and CEO of CFM International. "This agreement is the next logical step in what has been a tremendously successful collaboration between CFM, the Chinese aviation industry, and our Chinese airline customers. Today, we are embarking on an exciting new chapter with COMAC and we are honored to be a part of it. This is truly an historic occasion."

LEAP-X, which was formally launched in 2008, is a totally new centerline engine and the development program has been progressing steadily since it was launched in mid-2008. The first core in the development program, eCore 1, successfully completed the first phase of testing earlier this year. The second phase of testing will begin in early 2010. CFM has also been testing the revolutionary 3-D Woven Resin Transfer Molding (RTM) composite fan and case. Results to date have been very positive and inline with pre-test expectation and CFM will continue to refine and test various blade designs to identify the optimum. The LEAP-X fan will feature 18 blades, a 50 percent reduction versus the CFM56-5C and 25 percent fewer blades than the CFM56-7B.

#### CFM AND ACAE SIGN MOU FOR LEAP-X1C ASSEMBLY LINE IN CHINA

December 21, 2009

CFM International (CFM) and AVIC Commercial Aircraft Engine Company (ACAE) have signed a Memorandum of Understanding to establish a world-class final assembly line and engine test facility to support the LEAP-X1C engine selected to power the new COMAC C919 150-passenger aircraft scheduled to enter commercial service in 2016. COMAC, which announced the LEAP-X1C engine as the sole western powerplant to launch the C919, forecasts a global market for more than 2,000 aircraft over 20 years. ACAE and CFM have established a working team to evaluate the scope and feasibility of

a LEAP-X1C final engine assembly and test facility in China. This same team will formulate the business plan and develop the legal structure and operating agreement for the proposed joint venture.

About ACAE

ACAE was founded on January 2009. It is one of the subsidiaries of Aviation Industry Corporation of China (AVIC). As the major force of the aero-engine for the commercial aircraft in China, ACAE bears the responsibility for commercial aircraft engine and the related products, including R&D, manufacture, final assembly, testing, sales, MRO, service, technological development and consultation.

CHINA SOUTHERN CHOOSES CFM56-5B TO POWER NEW A320 AIRCRAFT

Farnborough, England - July 14, 2008

China Southern Airlines today announced that it has selected CFM56-5B engines to power a new fleet of 20 Airbus A320 family aircraft, and back the engine purchase with a long-term material services agreement. CFM56-5B engines are a product of CFM International, a 50/50 joint company between Snecma (SAFRAN Group) and General Electric Company. China Southern, one of the largest airlines operating in The People's Republic of China, operates more than 600 domestic and international routes. It is also the first Chinese airline and the only one who is ranked as top five carriers in the world in terms of volume of passenger traffic. The airline was one of CFM's first customers in China and the airline has been operating CFM56 engines for more than 20 years. The aircraft announced today, which will be delivered between March 2009 and mid-2011, will nearly double the airlines current CFM56-powered A320 fleet. China Southern also operates 27 CFM56-3-powered 737 Classics as well as 71 Boeing Next-Generation 737s. An additional 65 737NG are on order, with deliveries scheduled through 2013. "China Southern is a long-time CFM customer and we honored that an airline of this caliber continues to put its trust in CFM56 engines," said Eric Bachelet, president and CEO of CFM. China Southern's new CFM56-5B/3 engines will be the Tech Insertion configuration, which incorporates advanced technologies to provide operators with improved fuel burn and lower maintenance costs. Compared to the base CFM56-5B engines already in the airline's fleet, the Tech Insertion-powered fleet of 20 aircraft could save the airline as much as 275,000 gallons of fuel each year, as well as significantly lowering carbon emissions. Improved analytic design tools enabled CFM to optimize the Tech Insertion combustor so that it will provide 25 percent lower NOx emissions, providing even greater margin to the new International Civil Aviation Organisation (ICAO) Committee of Aviation Environmental Protection emissions standards (CAEP/6 regulations) which took effect in early 2008.

CHINA'S SPRING AIRLINES SELECTS CFM56-5B TO POWER A320 FLEET

January 16, 2008

China's Spring Airlines has signed a Memorandum of Understanding (MOU) to purchase CFM56-5B engines to power its new fleet of 10 Airbus A320 aircraft in an engine order valued at approximately \$170 million at list price, including spare engines. The airline is scheduled to begin taking delivery in March 2009. CFM56-5B engines are a product of CFM International (CFM), a 50/50 joint venture between Snecma (SAFRAN Group) and General Electric Company and the world's leading supplier of commercial aircraft engines. Spring Airlines, the first low cost carrier in China, is headquartered in Shanghai. As a subsidiary of the Spring International Travel Service Ltd., one of the leading travel service providers in China, the airline began operation in 2005 and has been profitable since then with passenger load factor as high as 95% and its CFM56 fleet has kept a very high safety standard. In addition to the purchased A320s, the airline has also signed an agreement to lease 12 additional CFM56-5B-powered Airbus A320 aircraft, which are scheduled for delivery between 2009 and 2012. "We're pleased to continue our relationship with CFM International and are very satisfied with the excellent performance of CFM56 engines," said

Wang Zhenghua, Chairman of Spring Airlines. "The engine's low cost of ownership has been a strong contributor to our ability to implement a long-term growth strategy." "We are obviously honored by Spring Airlines' continued confidence in the CFM56 product line," said Eric Bachelet, President and CEO of CFM International, "We look forward to growing and improving this relationship for many more years to come."

#### CHINA'S QIANTANG AIRWAYS PLACES \$150 MILLION CFM56-5B ENGINE ORDER

June 20, 2007

Qiantang Airways has selected the CFM56-5B engine to power its new fleet of 10 Airbus A319/A320 in an engine order valued at approximately \$150 million over the life of the product. The airline will take delivery between 2009 and 2011. CFM56-5B engines are a product of CFM International (CFM), a 50/50 joint venture between Snecma (SAFRAN Group) and General Electric Company and the world's leading supplier of commercial aircraft engines. Qiantang Airways, a new Chinese start up, is the first private airline in Zhejiang Province of China and has been in development since June 2006. The airline is headquartered in Hangzhou, and is scheduled to begin scheduled passenger service in January 2008. "The CFM56-5B engine is an ideal match for our A320/319 fleet," said Chen Xijian, Chairman of Qiantang. "The outstanding quality and reliability of this engine will be a big advantage to our operations as we launch revenue service and begin to win new customers. The engine's low cost of ownership will also be a strong contributor to our ability to implement a long-term growth strategy." "We are honored to welcome Qiantang Airways as our newest CFM56 customer," said Eric Bachelet. "We look forward to working with them as the launch their airplane and we see this order as the beginning of what we hope will become a great and lasting relationship."

#### AIR CHINA PLACES \$345 MILLION CFM56-5B ENGINE ORDER

February 01, 2007

Chinese flag carrier Air China has selected the CFM56-5B engine to power its new fleet of 24 Airbus A321s. The engine order is valued at approximately \$345 million at list price and the airline will take delivery between 2008 and 2012. CFM56-5B engines are a product of CFM International (CFM), a 50/50 joint venture between Snecma (SAFRAN Group) and General Electric Company and the world's leading supplier of commercial aircraft engines. Air China Limited has been a CFM customer since 1986 and operates more than 100 CFM56-powered aircraft, including Airbus A319s and A340-300s, as well as Boeing Classic 737-300s and Next-Generation 737-600/-700/-800 aircraft.

In addition to the engine order, Air China will sign a 15-year maintenance agreement covering engine overhaul and repair of its new engines. For the existing fleet, Air China will sign a 15-year material agreement that will provide the airline with a full range of new, used, and repaired material offerings tailored to the specific requirements of each individual overhaul. Also, Air China and CFM have agreed to establish an innovative maintenance repair, and overhaul (MRO) joint venture that will combine the airline's extensive expertise with that of CFM and its parent companies, Snecma and GE, to create a truly world-class maintenance facility.

"This is a great new phase in our relationship with Air China," said Mike Wilking, vice president, China region, for CFM. "We're honored both by their continued confidence in our products and by the opportunity to be such an integral part of their overall operations going forward."

About Air China

Air China Limited (Air China) is the national flag carrier of China and a leading provider of air passenger, air cargo and airline-related services in China. Its operational head office is in Beijing. It has an extensive route network serving major Chinese cities and international destinations, with dominant market share measured by total traffic volume for



the Beijing Capital International Airport. It also provides airline-related services, including aircraft maintenance, ground services and in-flight catering services in Beijing, Chengdu, Hong Kong and other locations through its own business units and joint ventures. As of 31 December 2006, it operated a fleet of 207 aircraft, serving 77 domestic and 38 international and 1 regional Airports. Air China was listed on the Hong Kong Stock Exchange and the London Stock Exchange on 15 December 2004 under codes 0753 and AIRC respectively. On 2 July 2006, Air China debuted its American Depositary Receipt (ADR) listing on the New York Stock Exchange under the code AIRYY. On 16 August 2006, Air China was listed on the Shanghai Stock Exchange under code 601111. On 4 August 2004, Air China was designated as the sole official airline partner of the Beijing Olympic Games.

#### CHINA'S EAST STAR AIRLINES SELECTS CFM56-5B TO POWER A320 FLEET

Beijing, China - November 28, 2005

East Star Airlines, a new start-up carrier in China, has signed a Letter of Agreement to purchase CFM56-5B engines to power its new fleet of 10 firm Airbus A320 aircraft that will be delivered in 2009/2010. CFM56-5B engines are produced by CFM International (CFM), a 50/50 joint company between Snecma (SAFRAN Group) and General Electric company. 2005 marks CFM's 20th anniversary in China and, today, it is the leading supplier of commercial aircraft engines to Chinese airlines, with more than 1,100 engines in service powering more than 500 Airbus and Boeing aircraft with 14 airlines in that country. "We selected CFM56 engines after an extensive technical evaluation," said Mr. Lan Shili, Chairman & CEO of China East Star Group Co. Ltd. "The performance and low cost of ownership advantages that the CFM56-5B provides will help ensure our airline of a smooth and successful launch into service." East Star Airlines, China's fourth registered private airline, was established in June 2005. The airline, a subsidiary of China East Star Group Co. Ltd, is headquartered in Wuhan, Hubei Province and is scheduled to begin scheduled passenger service in May 2006. In addition to the purchased A320s, the airline has also signed an agreement to lease 10 additional CFM56-5B-powered Airbus A319/A320 aircraft. The leased aircraft are scheduled for delivery between 2006 and 2008. "We are honored that East Star Airlines has chosen to power its fleet with the CFM56-5B," said Andy Solem, president of CFM International China. "We thank them for their trust and offer them our commitment that we will continue to earn that trust every day."

#### A 20-YEAR SUCCESS STORY: CFM IN CHINA

Beijing, China - November 4, 2005

In 1985, two Chinese airlines, Air China Southwest and China Eastern Yunnan, took delivery of their first Boeing 737s. These airplanes were powered by CFM International's CFM56-3 engines. CFM was a very young company and these were some of its first orders. Since then, China has become one of the largest and most important customer regions for CFM, with 14 Chinese airlines operating more than 1,075 CFM56 engines powering nearly 500 Airbus and Boeing aircraft.

CFM International, a 50/50 joint company between Snecma (SAFRAN Group) and General Electric, is today one of the most successful aircraft engine suppliers in history; earlier this year, the company delivered its 15,000th engine.

"We are both honored and humbled by the continued faith China has placed in CFM products and people," said Eric Bachelet, president and CEO of CFM International. "We owe a tremendous debt of gratitude to them for the great success that CFM has achieved. Both Air China Southwest and China Eastern Yunnan were willing to work with us in the early days. Since then, our relationship with China's aviation industry has continued to evolve and flourish and now goes well beyond customer and engine manufacturer. And we are constantly finding new ways to strengthen those ties."

Since the first engines were delivered 20 years ago, China has become an important supplier base for CFM's parent companies, GE and Snecma. In 2005, these companies

will purchase more than \$137 million in CFM56 parts from Chinese manufacturers. The quality of these parts has been key to the ongoing success of the CFM product line.

One of the world's best aircraft engine maintenance training centers, the Aero Engine Maintenance Training Center (AEMTC), located in the Civil Aviation Flight College, Guanghan City, is a cooperative venture between CFM, the Civil Aviation Administration of China, Snecma, and GE, China Aviation Supplies Imp. & Exp. Group Corporation, and Civil Aviation Flight University of China. Since opening its doors in late 1996, the Center has trained nearly 5,000 students.

The training provided at AEMTC - a state-of-the-art 4,500 square meter facility with six engine shop bays and five classrooms - is equivalent to the training at the CFM centers in the United States and France. All three centers are staffed with experienced instructors who facilitate exercises in the classroom and hands-on procedures in the engine shop. Each center also provides computer-based training, both self-paced and instructor-led.

Also in 1996, the company opened the CFM Spares Service Center in Beijing. Nearly 2,200 items for CFM56-3, CFM56-5A, -5B, -5C, and CFM56-7 line maintenance are now available to operators in a matter of days, rather than weeks.

The CFM56 product line includes six engine models spanning the thrust range from 18,500 to 34,000 pounds thrust. Commercial applications include Airbus A318, A319, A320, and A321 single-aisle aircraft, the long-range A340-200/-300, and the A319 Corporate Jet; and Boeing Classic 737-300/-400/-500, Next-Generation 737-600/-700/-800/-900, the Boeing Business Jet, and re-engined DC-8 Super 70 series aircraft. **CFM56 engines power several s military applications, including the Boeing 737 Airborne Early Warning & Control aircraft, the U.S. Navy C-40 transport, and the Multi-mission Maritime Aircraft (MMA), as well as re-engined KC-135R and C-135FR tanker, E-3 Airborne Warning and Control System aircraft, the E-6 submarine communications aircraft, and RC-135 surveillance aircraft.**

#### SHENCHEN AIRLINES PLACES \$60 MILLION CFM56-5B ORDER

Evendale, Ohio, August 26, 2005

Shenzhen Airlines has become the newest customer for the CFM56-5B, placing an order for engines to power three Airbus A320 and two A319 aircraft. The engine order is valued at \$60 million at list price. CFM56-5B engines are produced by CFM International, a 50/50 joint company between Snecma (SAFRAN Group) and General Electric Company. CFM is the world's leading aircraft engine supplier, with more than 15,000 engines in service worldwide. Shenzhen Airlines, which currently operates a fleet of 32 CFM56-powered Boeing 737s, will take delivery of its first A320 later this year. Shenzhen is one of the fastest growing airlines in China, serving both domestic and international routes. The airline has been recognized for its outstanding service, receiving three champions of "National Passengers Assessment on Civil Aviation" and "National Customer Satisfied Enterprise" awards. The CFM56-5B is the only engine that can power every model of the A320 family with the same bill of materials, giving Shenzhen a distinct commonality advantage in terms of training and provisioning. The CFM56-5B's industry-leading reliability, durability, long on-wing life, and lower overall cost of ownership makes it extremely popular with leasing companies, low-cost carriers, and major airlines worldwide. The CFM56-5B core served as the foundation for the development of the CFM56-7B, which power the Next-Generation 737s in the Shenzhen fleet, as well as for the new CFM56-5C/P engine for the Airbus A340 Enhanced aircraft. CFM used advanced three dimensional aerodynamic (3-D aero) design tools to give the 9-stage CFM56 high-pressure compressor better efficiency and improved aerodynamics. The high-pressure turbine also incorporates 3-D aero, active clearance control, and single-crystal N5 material in both the blades and the nozzles for improved durability, lower maintenance costs, and longer on-wing life. The low-pressure turbine incorporated 3-D airfoils for improved efficiency and

fuel burn. The CFM56-5B-powered A320 fleet currently in service has logged more than 19 million engine flight hours and 11 million cycles.

#### HAINAN PLACES \$90 MILLION CFM56-5B ORDER

Haikou, China - March 2, 2005

Hainan Airlines, China's fourth largest airline group, has placed an \$90 million firm order for CFM56-5B engines to power eight Airbus A319 aircraft. The airline, which also took options on 12 additional A319s, will take delivery between 2005 and 2007. CFM56-5B engines are produced by CFM International, a 50/50 joint company between Snecma Moteurs (SAFRAN Group) and General Electric Company. CFM is the world's leading supplier of commercial aircraft engines with more than 14, 500 engines in service with more than 400 operators worldwide. Hainan Airlines has been a CFM customer since its first B737 aircraft delivery in 1993 and currently operates 52 Boeing 737 aircraft powered by CFM56-3 and CFM56-7 engines. The airline operates more than 480 domestic flights to about 90 cities throughout China. The new A319s will be operated on short- and medium-haul routes from Haikou, Beijing and Xi'an. "We are honored that Hainan Airlines has chosen again to make CFM an important part of its long-term operations," said Andy Solem, president of CFM International China. "We thank them for their trust and offer them our commitment that we will continue to earn that trust every day." The high reliability, long on-wing life, and low maintenance costs of the CFM56-5 makes it extremely popular with leasing companies, low-cost carriers, and major airlines worldwide. More than 1,700 CFM56-5B engines have been delivered to date, and the fleet is growing at a rate of about 20 engines per month.

#### AIR CHINA DOUBLES CFM56-POWERED A319 FLEET WITH \$66 MILLION ORDER

Evendale, Ohio - October 14, 2004

Air China announced this week a \$66 million order for CFM56-5B engines to power six additional Airbus A319 aircraft. The order will more than double the airline's CFM-powered A319 fleet when the new aircraft are delivered in 2005; Air China currently operates five CFM-powered A319s. CFM56-5B engines are produced by CFM International, a 50/50 joint company between Snecma Moteurs (SAFRAN Group) and General Electric Company. CFM, celebrating its 30th anniversary, is the world's leading supplier of commercial aircraft engines. Air China, a long-time CFM customer, is the largest commercial airline in China. In addition to the A319s, the airline also operates a fleet of 42 Boeing 737s powered by CFM56-3 and CFM56-7 engines, in addition to three long-range, four-engine Airbus A340-300 aircraft powered by the CFM56-5C. The new A319s will be operated on routes to altitude airports such as Lhasa in Tibet. The high reliability, long on-wing life, and low maintenance costs of the CFM56-5 makes it extremely popular with leasing companies, low-cost carriers, and major airlines worldwide. About 1,700 CFM56-5B engines have been delivered to date, and the fleet is growing at a rate of about 20 engines per month. Primary factors behind the engine's broad-based market acceptance include this industry's best reliability (with a 0.001 in-flight shutdown rate) durability, and low cost of ownership brought about by the engines simple, rugged architecture. CFM56-5 engines are averaging nearly 16,000 hours on wing prior to initial shop visit, and more than 10,000 hours after overhaul. No competing engine in this thrust class can match this record. On average, CFM56-5B engines have a maintenance cost advantages of nearly \$2 million per engine over a 15-year period versus the competition.

#### CHINA EASTERN WUHAN SIGNS FIVE-YEAR EXTENSION TO GUARANTEED AVAILABILITY CONTRACT

Farnborough - July 19, 2004

China Eastern Wuhan has signed a five-year extension to its agreement with Shannon Engine Support (SES) for guaranteed spare engine availability. SES is a wholly owned subsidiary of CFM International (CFM). CFM, a 50/50 joint company between Snecma Moteurs (SAFRAN Group) and General Electric Company, produces the world's best-selling commercial engine product line, the CFM56 family. SES, the third largest spare engine leasing company in the industry and the leading lessor of CFM56 spare engines, grew its customer base by 35 percent in 2003 and now supports nearly 600 aircraft worldwide. The original agreement was signed in 1996. Under the extension, SES will continue to provide CFM56-3 guaranteed availability for eight spare engines for China Eastern Wuhan's 737-300 fleet. SES provides flexible, cost-effective engine leasing solutions, tailored to operators' specific requirements. With pools of engines worldwide, the company can provide engines in a ready-to-install configuration within 24 hours. SES also offers short-term engine leases, operating leases, sale/leaseback, and engine trading. Additional services SES can provide, directly or through its service partners, include transport and logistical support; on-wing support services; spare stand and bootstrap kits; test cell validation; management of redelivery work; and access to CFM technical support resources. The company manages 160 CFM56 engines and has continued to invest in its portfolio. In addition to CFM56-3, CFM56-5A, CFM56-5B, CFM56-5C, and CFM56-7 engines, SES is the only lessor to provide CFM56-2C spare engines for DC-8 Super 70 aircraft, CFM56-3 engines with the Advanced Upgrade package; CFM56-5B engines equipped with the advanced double annular combustor (DAC), and CFM56-7B engines rated for the Boeing Business Jet.

#### CHINA SOUTHERN SELECTS CFM56-5B TO POWER NEW AIRBUS A320 FLEET IN \$250 MILLION ENGINE ORDER

Guangzhou, China, April 9, 2004

China Southern Airlines today announced that it has selected the CFM56-5B engine to power 21 Airbus A320 family aircraft. The order, which includes engines for 15 A320s and six A319s, is valued at just over \$250 million. China Southern, one of the largest airlines operating in The People's Republic of China, operates more than 3,200 flights each week on more than 660 domestic and international routes. The airline will begin taking delivery of the CFM56-powered A320s later this year, with deliveries extending through 2007. The CFM56-5B is produced by CFM International. CFM, a 50/50 joint company between Snecma Moteurs (SAFRAN Group) of France and General Electric Company, is the world's leading supplier of commercial transport engines. There are currently more than 14,100 in service worldwide. Of these, more than 800 are in service in China powering Airbus A320 and A340 and Boeing 737 aircraft for 15 Chinese airlines. "We've formed a great working relationship with China Southern over the years," said Li Hsi, President of CFM International, Greater China Region. "The CFM56-3 and CFM56-7 engines have performed well in their fleet, and we are honored that the CFM56-5B is the engine of choice for their modernized A320 fleet." Headquartered in Guangzhou, China Southern is a long-time CFM customer. The airline took delivery of its first CFM56-3-powered 737 in January 1991 and today operates a fleet of 55 CFM56-powered 737 aircraft. This fleet has accumulated more than 2 million flight hours with some of the highest reliability ratings in the industry. This is the first order for CFM-powered A320 family aircraft.

#### CFM56-3 TIME ON WING UPGRADE PERFORMING WELL IN SERVICE

Singapore - February 24, 2004

Integration of the advanced CFM56-3 Time on Wing (TOW) upgrade kit into Southwest Airlines' 737 fleet is well underway, with the airline currently operating ~150 upgraded engines; Air China has upgraded one -3 engine. CFM56 engines are produced by CFM International (CFM), a 50/50 joint company between Snecma Moteurs (SAFRAN Group) and General Electric company of the United States. Southwest launched the TOW

package in 2001 with an order for 300 kits and is on track to have them all in service by 2006. Air China ordered five kits. More than 4,400 CFM56-3 engines have been produced for the Boeing 737-300/-400/-500 series, representing a tremendous long-term market potential for the engine upgrade package. The TOW kit, which features advanced three-dimensional high-pressure compressor aerodynamics (3-D aero) and new high-pressure turbine hardware, was certified in mid-2002. The upgrade is installed during normal overhaul and provides significant benefits, including: a 1 percent improvement in specific fuel consumption, as well as up to 15 degrees additional exhaust gas temperature (EGT) margin, which reduces maintenance costs through longer on-wing life. CFM56-3 engines average 16,000 hours on wing before requiring an initial shop visit, and about 10,000 hours after overhaul. The TOW core upgrade will improve post-overhaul time on wing by as much 1,500 to 2,000 cycles. Also, lower operating temperatures, coupled with material improvements, reduce operating costs. Turbine improvements include new nozzle and shroud materials, a new blade coating, and improved cooling. These changes extend component life and lower scrap rates and repair costs by as much as 50 percent.

#### CHINA SIGNS DEAL FOR 30 CFM-POWERED 737S

Washington, D.C. - November 12, 2003 In a ceremony here today, Li Hai, president of China Aircraft Supply Corporation (CASC), signed an agreement with Boeing Commercial Airplanes for the purchase of 30 CFM56-7-powered 737-700/-800/-900 aircraft. The engine order is valued at approximately \$300 million. CFM56-7B engines, which are the sole powerplant for the Boeing Next-Generation 737 series, are produced by CFM International (CFM). CFM, a 50/50 joint company between Snecma Moteurs (SAFRAN Group) of France and General Electric Company, is the world's leading supplier of aircraft engines for commercial and military transport aircraft with nearly 14,000 engine in service with 375 operators. The first CFM56-powered airplanes entered service in China in 1985. Today, there are 11 Chinese airlines operating nearly 750 CFM56 engines. The 30 new 737s are scheduled to enter service with Air China, Hainan Airlines, Shandong Airlines, Shenzhen Airlines, and Xiamen Airlines, each a long-time CFM customers. More than 1,350 CFM56-7-powered 737-600/-700/-800/-900 aircraft are currently in service worldwide. The engine provides operators substantial benefits, including low operating costs, better performance, high reliability, low noise and emissions, and outstanding operability. The relationship between CFM and the Chinese aviation industry extends well beyond that of engine manufacturer and engine operator. In 2003, CFM's parent companies will purchase more than \$20 million in CFM56 parts from Chinese manufacturers. One of the world's best aircraft engine maintenance training centers, the Aero Engine Maintenance Training Center, located in the Civil Aviation Flight College, Guanghan City, is a joint venture between CFM and the Civil Aviation Administration of China. Since opening its doors in late 1996, the Center has trained more than 3,700 students. In 1996, the company also opened the CFM Spares Service Center in Beijing. Nearly 2,000 items for CFM56-3, CFM56-5, and CFM56-7 line maintenance are now available to operators in a matter of days, rather than weeks.

#### SHENZHEN AIRLINES ACHIEVES 25,000 HOUR MILESTONE WITH CFM56-3 ENGINES

Shenzhen, China - September 16, 2003 CFM International has recognized Shenzhen Airlines for the outstanding achievement of reaching 25,000 hours on wing without a single shop visit with two CFM56-3 engines in its fleet. Both engines are still on wing and there are no plans to remove them from service. CFM56-3C engines, which power the Boeing 737-300/-400/-500 series of aircraft, are produced by CFM International (CFM), a 50/50 joint company between Snecma Moteurs (SAFRAN Group) of France and General Electric Company. Shenzhen is one of China's most successful, fastest growing low-cost carriers and has been profitable for the past eight years. The airline's fleet is made up entirely of

CFM-powered aircraft, including six 737-300s powered by the CFM56-3 and 14 of the new Boeing 737-700s and -800s powered by CFM56-7 engines. Four more Boeing 737-800 will be delivered by the end of 2003. Later in the month, Shenzhen is also celebrating its 10 years of operation. "We are very pleased to celebrate this major achievement with Shenzhen," said Li Hsi, President of GE Aircraft Engines/CFM International, Greater China Region. "It is testament to the outstanding job the maintenance and ground crews continue to do to support this fleet. Everyone on the CFM Team extends its warmest congratulations." CFM56-3 engines average 16,000 hours on wing before requiring an initial shop visit, and about 10,000 hours after overhaul. Overall, there are about 730 CFM56 engines operating in China, of which more than 300 are the CFM56-3 model.

#### HAINAN AIRLINES ESTABLISHES NEW TIME ON WING RECORD IN CHINA

August 20, 2003

Haikou, China - August 20, 2003 - In a ceremony here today, Hainan Airlines was recognized for setting a new time on wing record in China. A CFM56-3 engine has logged more than 26,600 hours without a single shop visit. CFM56-3 engines, which power the Boeing 737-300/-400/-500 series of aircraft, are produced by CFM International (CFM), a 50/50 joint company between Snecma Moteurs (SAFRAN Group) and General Electric Company. The record-setting CFM56-3 engine, which is still on wing, was part of an original 737-300 ship set delivered to Hainan Airlines in May 1993. During its in-service life, the engine has undergone routine inspections but has remained trouble-free. Hainan began operations in 1989 and is the fourth largest airline group in China, serving 6.3 million passengers in 2002 on 480 routes throughout China. During 2003, the airline is also celebrating its safety record: 10 years of incident-free operation. The airline currently operates a fleet of 39 CFM-powered Boeing 737s, including 16 Classic 737-300/-400, which began delivery in 1993. In 1998, the airline began taking delivery of Next-Generation 737-700/-800 aircraft and has 16 in service. During 2003, the airline is schedule to take delivery of 10 additional 737s. The CFM56-3 has done extremely well in commercial service in China. The engine at Hainan is the latest record. In the past year, five CFM56-3 engines have achieved more than 20,000 hours on wing without a shop visit, and all are still in operation.

#### CHINA EASTERN YUNNAN SETS HIGH-ALTITUDE TIME-ON-WING RECORD WITH CFM56-3

Kunming, China - January 21, 2003

China Eastern Yunnan Airlines, the first operator of CFM56 engines in China, has achieved another important milestone. In a ceremony here today, the airline was recognized for setting a new high-altitude time-on-wing record with a CFM56-3 engine that logged more than 20,000 flight hours without a shop visit. CFM56-3 engines, which power the Boeing 737-300/-400/-500 series of aircraft, are produced by CFM International (CFM), a 50/50 joint company between Snecma Moteurs (SAFRAN Group) of France and General Electric Company. China Yunnan Airlines took delivery of its first CFM56-3-powered 737 in 1985. In addition to 737-300s, the airline also operates CFM56-7-powered 737-700s. The record-setting engine was delivered on a 737-300 in May 1995. During its in-service life, the engine has undergone routine inspections but has remained trouble-free. China Eastern Yunnan operates in extremely demanding conditions at high-altitude airports well above 6,000 feet. In this environment, an engine runs at much higher temperatures and usually experiences less time on wing before a shop visit than engines operated at sea level. In 2002, China Yunnan was integrated with China Eastern, and its aircraft now operate under that livery. China Eastern has been a CFM customer since 1994 and is CFM's largest customer in China. Prior to the integration, China Eastern operated a fleet of 30 purchased and leased A319 and A320 aircraft powered by the CFM56-5B and six Boeing 737-300 aircraft powered by the CFM56-3, in addition to five long-range A340s.

The combined fleet now totals 78 CFM-powered aircraft, with 26 additional A320s and 737s on order.

#### AIR CHINA SETS NEWS CFM56-3B TIME ON WING RECORD

Beijing, China, December 16, 2002

In a ceremony here today, Air China was recognized for establishing a new CFM56-3B time on wing record in China, achieving more than 25,000 hours and 12,000 cycles on wing without a single shop visit. CFM56-3B engines, which power the Boeing 737-300/-400/-500 series of aircraft, are produced by CFM International (CFM), a 50/50 joint company between Snecma Moteurs (SAFRAN Group) of France and General Electric Company. With its recent integration of China Southwest Airlines and Zhejiang Airlines, the new Air China Group now operates a fleet of 67 aircraft powered by 146 CFM engines. The record-setting engine was part of the original installation on a new Boeing 737-300 delivered to Air China in April 1992. During its in-service life, the engine has undergone routine inspections but has remained trouble-free. In November, Air China became the second customer for the CFM56-3 Time on Wing (TOW) upgrade with an order for five kits. The upgrade, which features advanced three dimensional high-pressure compressor aerodynamics and new high-pressure turbine hardware, was certified in June, and Air China has already taken delivery of its first kit. CFM56-3 engines average 16,000 hours on wing before requiring an initial shop visit, and about 10,000 hours after overhaul. The TOW core upgrade will improve post-overhaul time on wing by as much 1,500 to 2,000 cycles. Also, lower operating temperatures, coupled with material improvements, reduce operating costs. Air China has been a CFM customer since 1986 and also operates 11 737-800 aircraft powered by CFM56-7 engines and three long-range Airbus A340 aircraft powered by the CFM56-5C. The airline has six 737-700s on order and is scheduled to take delivery in 2003 and 2004. Overall, there are nearly 650 CFM56 engines operating in China, of which more than 300 are the CFM56-3 model.

#### AIR CHINA LAUNCHES CFM56-3 TIME ON WING UPGRADE PACKAGE IN CHINA

Zhuhai, China, November 4, 2002

Air China has become the second customer for the CFM56-3 Time on Wing (TOW) upgrade with a \$6 million order for five kits for its Boeing 737-300 aircraft fleet. The upgrade kit, which features advanced three dimensional high pressure compressor aerodynamics (3-D aero) and new high pressure turbine hardware, was certified in June. Air China will begin taking delivery later this year. CFM56 engines are produced by CFM International (CFM), a 50/50 joint company between Snecma Moteurs (SAFRAN Group) of France and General Electric of the United States. The CFM56-3 TOW package was launched by Southwest Airlines in 2001 with an order for 300 kits. More than 4,200 CFM56-3 engines have been produced for the Boeing 737-300/-400/-500 series, representing a tremendous long-term market potential for the engine upgrade package. Air China operates a fleet of 19 737-300 aircraft powered by the CFM56-3. The TOW upgrade, which will be installed during normal overhaul, will significantly improve fuel burn through a 1 percent improvement in specific fuel consumption, as well as up to 15 degrees additional exhaust gas temperature (EGT) margin, which reduces maintenance costs through longer on-wing life. CFM56-3 engines average 16,000 hours on wing before requiring an initial shop visit, and about 10,000 hours after overhaul. The TOW core upgrade will improve post-overhaul time on wing by as much 1,500 to 2,000 cycles. Also, lower operating temperatures, coupled with material improvements, reduce operating costs. "This is a strategic win for us," said Bob Barton, general manager of Upgrade Sales for CFM. "Air China is a long-time customer and we're happy to have the opportunity to put that relationship on a new level. It also provides us with a great opportunity to demonstrate the overall value this upgrade can bring to Chinese airlines, which operate 350 CFM56-3 engines.

#### SES SIGNS \$30 MILLION CONTRACT WITH CHINA SOUTHWEST AIRLINES

Farnborough, United Kingdom - July 23, 2002

Shannon Engine Support (SES) has signed a 10-year agreement with China Southern Airlines to provide comprehensive, guaranteed CFM56-7 spare engine support for the airline's Boeing 737-800 fleet. In addition, SES and China Southern signed a five-year extension to their original agreement for CFM56-3 spares support. The two contracts are worth approximately \$30 million. SES is a wholly-owned subsidiary of CFM International (CFM). CFM is a 50/50 joint company between Snecma Moteurs (SAFRAN Group) of France and General Electric of the United States and produces the world's best-selling commercial engine product line, the CFM56 family.

China Southern has been an SES customer since 1990. The airline operates more than 30 CFM56-3-powered 737s and will begin taking delivery of the first of 20 737-800s powered by the CFM56-7 later this year. Deliveries will continue to 2005. Under the terms of the agreement, SES guarantees China Southern access to CFM56-3 and -7 spare engines to help manage shop visits. "China Southern Airlines and SES have developed a very close business relationship over the past 12 years cooperation," said Madame Wei Guilan, Deputy General Manager of Engineering & Maintenance for China Southern Airlines. "SES spare engine support gives CSA maximum flexibility and reliability in arranging their CFM56 spare engine requirements."

"China Southern was our first customer in China, so we're obviously pleased that they have chosen to keep SES as an integral part of their long-term fleet planning," said Liam Meade, sales director in China for SES.

SES specializes in flexible, cost-effective engine leasing solutions tailored to airlines' specific requirements. Spare engine leasing provides tremendous cost savings to airlines. They avoid the acquisition cost of a spare engine as well as the expense of underused assets. SES also offers short-term engine leases, operating leases, sale/lease back, and engine trading. SES has a portfolio of 130 CFM56 engines, including the CFM56-3 engine for the Boeing 737-300/-400/-500, the CFM56-5A and CFM56-5B for the Airbus Industrie A320 family, the CFM56-5C for the Airbus A340, and the CFM56-7 for the 737-600/700/-800/-900. The company supports 40 customers worldwide, predominantly in Europe and China.

#### CHINA EASTERN AIRLINES PLACES \$200 MILLION CFM56-5B ORDER

April 16, 2002

EVENDALE, OHIO April 16, 2002 China Eastern Airlines today announced its selection of the CFM56-5B to power 20 new Airbus A320 family aircraft in an engine order valued at \$200 million. The airline will take delivery of the first two in December of this year with the remaining deliveries scheduled to continue through late 2005. CFM56-5B engines are produced by CFM International (CFM), a 50/50 joint company of Snecma Moteurs (SAFRAN Group) of France and General Electric of the United States and the world's leading supplier of commercial transport aircraft engines. China Eastern became a CFM customer in 1994 with an order for five CFM56-5C-powered long-range, four-engine Airbus A340 aircraft. Today, the airline is CFM's largest customer in China, operating a fleet of 30 purchased and leased A319 and A320 aircraft powered by the CFM56-5B and six Boeing 737-300 aircraft powered by the CFM56-3, in addition to the A340s. "We are honored by the continued confidence China Eastern has shown in our products," said Li Jing-Bing, CFM sales director for the China Region. "The decision to expand its short-range fleet with CFM56-5B engines is highly gratifying and we are committed to continue to earn China Eastern's trust for many years to come."

#### CFM56-7B ENGINE TRAINING NOW AVAILABLE IN CHINA

February 26, 2002



A CFM56-7B engine has been added to the inventory at the Aero Engine Maintenance Training Center (AEMTC) in Guanghan, China and, beginning in April, the school will offer CFM56-7B Line Maintenance and Borescope Inspection training. Located adjacent to the China Civil Aviation Flying College (CCAFC) in Guanghan, the AEMTC is a joint venture between CFM, GE, Snecma (SAFRAN Group), the CCAFC, the Civil Aviation Administration of China (CAAC), and the China Aviation Supplies Import & Export Corporation (CASC). CFM56-7B engines are produced by CFM International (CFM), a 50/50 joint company between Snecma Moteurs (SAFRAN Group) of France and General Electric of the United States. The AEMTC specializes in maintenance training on CFM and GE commercial engines, as well as serving as a CAAC vocational training facilities. In addition to the new CFM56-7 training courses, the school also provides Line Maintenance and Borescope Inspection training on CFM56-3, CFM56-5B, and CF6-80C2 for customers in China and from other nearby countries. Since opening in 1996, the AEMTC has trained more than 2,600 mechanics. This latest upgrade of AEMTC is part of the continuing commitment of CFM and its parent companies to provide world-class support to customers throughout China. The training provided at AEMTC a state-of-the-art 4,500 square meter facility with six engine shop bays and seven classrooms -- is equivalent to the training at the CFM centers in the United States and France. All three centers are staffed with experienced instructors who facilitate exercises in the classroom and hands-on procedures in the engine shop. In addition, each center also provides computer-based training, both self-paced and instructor-led.

#### CHINA PLACES \$300 MILLION CFM56-7 ENGINE ORDER

October 02, 2001

China Aviation Supplies Import & Export Corporation (CASC) has placed an order for 30 CFM56-7-powered Boeing 737 aircraft, scheduled for delivery between 2002 and 2005. The engine portion of the order is valued at approximately \$300 million. CFM56-7 engines are produced by CFM International, a 50/50 joint company between Snecma Moteurs (SAFRAN Group) of France and General Electric of the United States. The new 737s, a mix of the -700 and -800 models, will go into service with China Eastern Airlines, China Southern Airlines, Hainan Airlines and Shanghai Airlines. The CASC conducts the civil aviation import and export business for the Chinese government under the auspices of the CAAC, the state council ministry responsible for national civil aviation affairs.

#### CFM56 FLEET IN CHINA LOGS 5 MILLION FLIGHT HOURS

October 07, 1999

The CFM56-powered fleet currently in service with more than 20 Chinese airlines has logged a total of more than 5 million flight hours while maintaining the outstanding reliability that is the hallmark of CFM.

CFM56 engines are produced by CFM International, a 50/50 joint company between Snecma (SAFRAN Group) of France and General Electric Company of the United States.

The first CFM56-3-powered Boeing 737s were delivered to Yunnan Airlines and China Southwest Airlines in 1985; Air China received its first aircraft in early 1986. Since then, more than 215 Airbus A320 and A340 aircraft and Boeing Classic and Next-Generation 737s have been delivered. An additional 100 CFM56 engines are currently on order to power 50 aircraft scheduled for delivery over the next five years.

To date, the in-service fleet has logged about 5.2 million flight hours and 3.1 million flight cycles. The CFM56 engines in China, which include the CFM56-3, CFM56-5B, CFM56-5C, and CFM56-7, have a dispatch reliability rate of 99.99 percent-fewer than one departure per 10,000 is delayed or cancelled for engine-related issues. The fleet also has a cumulative shop visit rate of 0.039, which translates to fewer than one unplanned shop visit per 25,650 flight hours (single-aisle aircraft such as the A320 and 737 logged 3,000 to 5,000 hours annually). In addition, the fleet maintains an outstanding in-flight shutdown

rate of only 0.002; this statistic translates to one engine-caused in-flight shutdown every 500,000 flight hours.

"We are very excited that the CFM fleet in China is doing so well, but I cannot say we are surprised," said Grard Lavie, president of CFM. "We believe that CFM builds the most reliable engines in the industry, but we know that it is our customers who keep them in the air. The maintenance crews of our Chinese customers are to be commended on doing such an exemplary job."

In recent years, CFM has brought two major programs on-line that are helping the company provide even greater support for the nearly 500 CFM56 engines currently in service in China.

Working closely with the Civil Aviation Administration of China (CAAC), CFM opened the Aero Engine Maintenance Training Center (AEMTC) in Guanghan, Sichuan Province, adjacent to the CAAC Flying College, in November 1996. AEMTC offers courses from line maintenance to engine technology management on CFM56 and GE CF6 engines. To date, AEMTC has trained more than 1,600 students.

In addition, CFM and China Aviation Supply Company (CASC) have established a CFM Spares Service Center at Beijing Airport. The facility provides line maintenance parts for the CFM56-3, CFM56-5B, and CFM56-5C engines for more seamless support of Chinese 737, A320, and A340 operators. The Center has nearly 1,200 parts in stock and has shipped more than \$10 million worth since it began operation in 1996. Prior to the Center's opening, it took two to three weeks for spare parts to reach China. With the aid of CASC, the Center has reduced that turnaround time to one to two days.

#### CFM EXPANDS PRESENCE IN CHINA WITH NEW LIAISON TEAM IN BEIJING

October 08, 1997

CFM International has formed a new Liaison Team in Beijing as part of the company's program to expand its already strong presence in China. The Liaison Team, which was officially established in September, is the first of its kind for CFM and underscores the company's commitment to this growing market. CFM International (CFM), a 50/50 joint company of Snecma (SAFRAN Group) of France and General Electric of the United States, is the world's leading supplier of engines for commercial transport aircraft. The CFM Team is located in General Electric's Beijing headquarters building. The new Beijing Liaison Team will focus on the CFM56-9 program and related industrial cooperation activities in China. One of its primary responsibilities will be to coordinate with Aviation Industries of China (AVIC) on the CFM56-9 as a potential powerplant for the new AE-100. As part of this program, seven AVIC engineers are currently undergoing an extensive six-month training program at GE facilities in the United States and at Snecma facilities in France. The CFM Beijing Liaison Team will also help coordinate the industrial cooperation agreements between CFM's parent companies and the Chinese aviation industry. AVIC has produced more than \$46 million CFM56 parts at its facilities in Shenyang and Xian since 1986; that level is expected to reach \$20 million annually by the year 2000. In late 1996, AVIC received an \$8 million purchase order to manufacture CFM56 hardware over the next several years. As part of this program, CFM is helping AVIC construct a new Center of Excellence (COE) at Xian Aero Engine Factory; the COE is scheduled to become operational in early 1998. COEs are designed to bring together engineering, manufacturing, quality control, and sourcing in one area to ensure a high quality product while reducing cycle time. This process has proven to be highly successful in development programs such as the new CFM56-7. In addition, preparations are being made with Lining, Xian, Liyang, and Xinyi aero engine factories to develop/manufacture parts similar to those of the CFM56-9 in China. Most of these parts are for the new CFM56-7, and quality representatives are assigned full time to assist with these development efforts. Also in 1996, two major programs came on-line that are enabling CFM to improve its support of the nearly 300 CFM56 engines currently in service in China. Working closely with the Civil

Aviation Administration of China (CAAC), CFM opened the new Aero Engine Maintenance Training Center (AEMTC) in Guanghan, Sichuan Province, adjacent to the CAAC Flying College in November 1996. AEMTC offers courses from line maintenance to engine technology management on CFM56-3, CFM56-5C, and GE CF6 engines. By year's end, AEMTC will have trained nearly 1,000 students, including some 240 maintenance personnel trained on-site at Chinese airlines prior to AEMTC's opening. At the same time, CFM worked with China Aviation Supply Company (CASC) to establish a CFM Spares Service Center at Beijing Airport. The facility provides line maintenance parts for the CFM56-3, CFM56-5B, and CFM56-5C engines for more seamless support of Chinese 737, A320, and A340 operators. The Center has nearly 1,200 parts in stock and has shipped more than \$2.2 million worth since it began operation last November. Prior to the Center's opening, it took two to three weeks for spare parts to reach China. With the aide of CASC, the Center has reduced that turnaround time to one to two days.

**CFMI & AVIATION INDUSTRIES OF CHINA FORM JOINT LEADERSHIP COUNCIL**  
June 15, 1997

CFM International (CFMI) and Aviation Industries of China (AVIC) have formed a joint leadership council to coordinate all cooperative activities between CFMI and AVIC and to promote a closer working relationship between the organizations.

CFMI, the world's leading aircraft engine supplier, is a 50/50 joint company between Snecma (SAFRAN Group) of France and General Electric of the United States.

The leadership council, which is jointly chaired by the presidents of CFMI and AVIC, is charged with fostering long-term business relationships and discussing strategic issues. The council will also monitor ongoing industrial cooperation efforts and review proposed cooperative programs, in addition to providing marketing and research support. The organization will also review potential new revenue-sharing and joint venture opportunities. The council is supported by representatives from AVIC, GE, and Snecma who will explore potential projects and recommend activities to the leadership council.

Another key focus of the leadership council is the periodic review of the development status of AVIC's 100-passenger AE-100 aircraft, CFMI's CFM56-9 engine program, and CFM56 product strategy. AVIC recently signed a framework agreement with Airbus Industrie, Singapore Technologies, and Finmeccanica of Italy outlining the joint development of this new 100-seat aircraft family, which is scheduled to enter service in the year 2003.

As a proposed powerplant for the AE-100, the CFM56-9 combines proven, state-of-the-art technology with inherent CFM56 reliability. CFMI has completed more than 70 percent of the design work and is prepared to certify the engine within three years of aircraft launch to meet aircraft certification requirements.

The CFM56-9 is a low-cost, derivative engine sized to meet the thrust requirements of the 100-passenger aircraft market. It is targeted to have 5 percent better specific fuel consumption and 20 percent lower direct maintenance costs than the industry-leading CFM56-31 at the same thrust level.

The engine's performance advantage is due, in part, to the 3-D aero technology used in the high and low pressure turbines and the high pressure compressor for increased efficiency. This technology is currently being proven in service on the CFM56-5B/P and will enter service on the CFM56-7 later this year. The CFM56-9 shares a common core with these engines. This commonality will provide significant operating cost benefits to airlines already operating CFM56-powered fleets.

Another significant CFM56-9 advantage is the single stage high pressure turbine. This design feature, which has proven performance and reliability advantages, also translates to an engine with lower cost, lower weight, and less complexity.

The engine will be equipped with a single annular, low emissions combustor that will easily meet all anticipated regulations. CFMI is also incorporating its advanced Full

Authority Digital Electronic Control system, which is fully integrated for ease of maintenance and multifunctional capability.

#### AERO ENGINE MAINTENANCE TRAINING CENTER OPENS IN GUANGHAN

November 04, 1996

The Aero Engine Maintenance Training Center, which was jointly developed by the Civil Aviation Administration of China (CAAC), Civil Aviation Supply Company (CASC), CFM International (CFMI), GE Aircraft Engines (GEAE), and Snecma (SAFRAN Group), was officially opened November 1. The Center is adjacent to the CAAC's Civil Aviation Flying College in Guanghan, Sichuan Province. CFM International is a 50/50 joint company of Snecma (SAFRAN Group) of France and General Electric of the United States. The new Center was developed to support operation of CFM56 and GE CF6 engines in China. The Center is the first of its kind in China and is the first such world-class training facility outside the U.S. and France. Although classes do not begin at the new center until November 16, the school already has a six-month backlog for trainees. To meet the high demand, maintenance training has been provided at individual airlines since October 1995. GEAE and Snecma (SAFRAN Group) have invested a total of approximately \$17 million in equipment for the Center. In addition to helping design the school to U.S. standards, the companies have equipped the school with CFM56-3 and CF6-80C2 training engines, tooling, instructional manuals, and teaching aides. They have also provided two full-time instructors that have been in China since late 1995 and will remain in country for five years. The school curriculum features comprehensive, hands-on courses in basic engine introduction, line maintenance, fan balancing, borescoping, and other skills. The curriculum is identical to that provided at GEAE training facilities in Cincinnati, Ohio, and Snecma facilities in Melun-Montereau, France. The program was launched by an agreement in 1994 and was completed on schedule.

#### CFM56 SOURCING AND SPARE PARTS PROGRAMS LAUNCHED IN CHINA

November 04, 1996

CFM International has launched two initiatives that will enable the company to both improve its support of Chinese airlines and to broaden its relationship with Chinese industry. GE Aircraft Engines, a 50/50 partner in CFM International (CFMI) with Snecma (SAFRAN Group) of France, has agreements in place that will result in the manufacture of CFM56 parts in China. The company recently signed with Xian Engine Aero Factory for the manufacture of approximately \$8 million worth of CFM56 hardware. Delivery of these parts is scheduled to begin in 1997. These agreements are in addition to the on-going purchase programs CFMI has had with AVIC factories since 1986. Working closely with China Aviation Supply Company (CASC), the company is also establishing the CFMI Spares Service Center adjacent to Boeing facilities at Beijing Airport. The facility will provide CFM56-3 line maintenance parts and will result in more seamless support for Chinese 737 operators. It currently takes two to three weeks for spare parts to reach Chinese airlines. With the aide of CASC, that turnaround time will be reduced to one or two days when the Center becomes operational in late November of this year. Again, the Center will initially offer only CFM56-3 parts, but services could be expanded to encompass the entire CFM56 product line in the future.

#### CAAC/CASC PLACE \$130 MILLION CFM56-5 ORDER TO POWER NEW AIRBUS INDUSTRIE A320S

November 04, 1996

The Civil Aviation Administration of China and the China Aviation Supplies Import & Export Corporation have together placed a \$130 million order for CFM56-5B4 engines to power 13 new Airbus Industrie A320 aircraft. The CFM56-5B4 is produced by CFM International (CFMI), a 50/50 joint company of Snecma (SAFRAN Group) of France and

General Electric of the United States. The A320s, which are scheduled for delivery between 1997 and 2000, will be divided between China Northwest, which will get 10 new planes, and Zhejiang Airlines, which will operate the three remaining aircraft. The A320s will be the first introduction of CFM56-powered aircraft into either fleet.

**CFMI/GE BREAK GROUND FOR NEW TRAINING CENTER; CELEBRATES 10 YEARS OF RELIABLE SERVICE IN CHINA**

June 2, 1995

The Civil Aviation Administration of China (CAAC), CFM International, and GE Aircraft Engines broke ground here today for a new aircraft engine maintenance training center. At the same time, CFM International (CFMI), a 50/50 joint company of General Electric (GE) of the United States and Snecma (SAFRAN Group) of France, is celebrating 10 years of CFM56 reliability in China. The new training school, scheduled to open in 1996, was developed jointly by the CAAC, CFMI, and GE to support operation of CFM56, CF6, and, later, GE90 engines in China. The center is the first of its kind in the country and reflects the growing CFMI/GE presence in the region. The training center will soon begin operation in temporary facilities. CFMI and GE are equipping the school with CFM56-3 and CF6-80C2 training engines and are providing a full-time instructional staff. The school curriculum will feature comprehensive, hands-on courses in basic engine introduction, line maintenance, fan balancing, borescoping, and other skills. The curriculum is identical to that provided at CFMI and GE training facilities in Cincinnati, Ohio, and Melun-Montereau, France. The first CFM56-3-powered Boeing 737-300s were delivered to Yunnan and China Southwest airlines in 1985. Today, Chinese airlines operate 108 737s with 14 more on order, including leased aircraft. In addition, China Eastern and CAAC have on order 11 CFM56-5C-powered long-range, four-engine Airbus Industrie A340s. The CFM56-3 fleet in China has achieved an outstanding reliability record over the past 10 years. These engines have logged nearly 1.3 million flight hours while maintaining a 99.99 percent dispatch reliability rate. During the entire 10 years, there has been only one engine-caused in-flight shutdown. At the same time, the fleet has achieved a shop visit rate of .023.

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Corporate Website (Extracted in February 2014): For over a century numerous companies have placed their trust in the Clemessy Group. The feedback received and the excellent relations maintained with our partners, allow us to anticipate market developments and their expectations. Our offer of expertise and services incorporates the most recent technological developments, which we combine with the best professional talents. Clemessy is present in all sectors of activity: industry, energy and nuclear, tertiary and transport infrastructure. Within the Energy branch of the Eiffage group, Eiffage is a leading figure in the European concessions and public works sector. Clemessy offers all the skills required to design, integrate, install, maintain, and improve systems and equipment in the fields of electrical engineering and mechanical engineering. By supporting internal synergies and developing everybody's skills, Clemessy fulfills a very wide variety of requirements, whether it is for new works or maintenance work. Clemessy will be taking part in the "Airshow China 2012" exhibition devoted to aeronautics, which will be held in Zhuhai, China from 13th to 18th November 2012. On this occasion Clemessy will be

presenting its expertise particularly in the fields of multi-technical test bench automation, integration, validation and simulation benches, as well as lean manufacturing.

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Contact: Petrov Yury, Project Manager, Ad and Exhibit

2012 Zhuhai Directory: This was formerly the Scientific and Production Centre Tekhnokomplex. The JSC Concern AVIONICA is the largest Russian airborne instrument making corporation including leading developers and manufacturers of avionics for **military** and civil aircraft, as well as for spacecraft, seaborne and ground-based vehicles.

The corporation unites the following JSC companies:

- Moscow Research and Production Complex, AVIONIÑA.
- AEROPRIBOR-VOSKHOD, Moscow.
- PRIBOR, Kursk.
- Ramensky Instrument-Engineering Plant, Ramenskoye, Moscow Region.
- ELARA, Cheboksary.
- TECHPRIBOR, St.-Petersburg.

The companies of the corporation have created basic mass-production technologies for **combat** aircraft avionics of the “Su”, “MiG”, helicopters “Mi” and “Ka”, the 5th generation aircraft. Now the concern is developed avionics for new civil aircraft Tu-204SM, MS-21, multi-role transport aircraft MTS, and Ka-62 helicopter.

### **Crane**

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2012 Zhuhai Directory: Crane products are trusted on virtually every aircraft that flies, and include brake control, sensing systems, power products, fluid management and more. Located in many locations worldwide, Crane's products are found in some of the toughest environments, from aircraft engines and landing gear to space satellites and power systems. Founded in 1855, with 2 offices in China -- Beijing and Shanghai, a history of 157 years, and 2011 net sales of \$2.5 billion, Crane is dedicated to integrity and honest dealings. With 11,000 employees worldwide, Crane has over 120 locations-including four manufacturing centers in China and regional headquarters in Beijing and Shanghai. Through these facilities in China, Crane has maintained a strong manufacturing and marketing presence in China for almost 20 years and offers more experience and less risk than others. Crane brands that have provided China airlines with reliable, trustworthy service for many decades include Hydro-Aire, Lear Romec, ELDEC, Interpoint, Keltec and P.L. Porter. Today, Crane continues its commitment to China aerospace manufacturers, distributors and operators, and is significantly expanding its aerospace industry presence in China. We are excited to supply our innovative and proprietary technologies on aircraft

and engines developed by China manufactures. Crane Aerospace & Electronics will be showcasing its innovative business and commercial aircraft solutions at Airshow China as it continues to expand its presence in the growing Chinese aerospace industry. Airshow China 2012 will take place in Zhuhai, China November 13-18. Crane will be featuring its Landing, Cabin, Fluid, Sensing and Power Solutions at the China International Aviation & Aerospace Exhibition Center. On display will be Crane's SmartStem Wireless Tire Pressure System, Compact Hydroluk, mcX Motion Control module, DC-DC converters, Lube & Scavenge Pump and Wheel Speed Transducer. SmartStem provides a fast and reliable method of checking aircraft tire pressure without gas loss and is designed to be easily retrofitted on existing aircraft. Crane has four manufacturing centers in China with its regional headquarters located in Shanghai. Through these offices, Crane has maintained a strong manufacturing presence in China for more than 17 years.

## CRANE PRESS RELEASES

### CRANE CELEBRATES WITH COMAC ON ITS 5TH ANNIVERSARY

August 26, 2013

Crane Aerospace & Electronics recently presented The Commercial Aircraft Corporation of China, Ltd. (COMAC) with a celebratory plaque to congratulate COMAC on reaching its fifth anniversary. Crane was among the few suppliers to have the privilege to be invited to the private anniversary celebration with COMAC. Crane presented the plaque in person to Mr. Tao Zhihui, VP of International Cooperation Program Management. Mr. Tao Zhihui said he appreciated Crane's support on COMAC's fifth anniversary and the critical role Crane plays as a supplier for COMAC. COMAC was established on May 11, 2008 in Shanghai, China and is the leading manufacturer of large passenger aircraft in China.

Supporting Quote:

"It is a great honor to celebrate with COMAC on its 5<sup>th</sup> anniversary," said Eddy Wong, Vice President of Business Development in China. "We have built a trusting partnership and look forward to continuing to build on that relationship. Crane has not only established itself as one of the key suppliers for COMAC, but also a professional organization with seasoned industrial experience that allowed us to become both an advisor and a trusted friend in the relationship. Our commitment in this most important China national aviation program will ensure our long term success as the preferred supplier in our fields for all other programs in the country."

### COMAC'S SADRI SUBSIDIARY SELECTS CRANE TO PARTICIPATE IN RESEARCH PROJECT TO IMPROVE SUPPLIER MANAGEMENT

November 12, 2012

Crane Aerospace & Electronics, has been selected by Shanghai Aircraft Design and Research Institute (SADRI), a subsidiary of COMAC, to be its only C919 supplier from the United States to participate in a project aimed at improving supplier management. Entitled, "Improving the supplier management system and process control system for the China Civil Aviation Industry," the objective of the project is to research and understand best-of-class process control and supplier management systems and use the information to develop an optimized system for COMAC. The supplier management improvement project is expected to take place over 15 months. The results of the project will help to shape existing supplier management system and methodologies for the China Civil Aviation Industry. Assisting in the project is COMAC's third party consultant group from Tsinghua University, the top university in China. Members of Tsinghua University visited Crane's Lynnwood, Washington site in October 2012 to begin their research and information gathering.

Supporting Quote: "We are very pleased to be considered a key contributor and trusted partner for the China civil aviation industry by receiving the honor from COMAC to be part of this research project," said Eddy Wong, Vice President of Business Development

for Crane Aerospace & Electronics in China. “With more than 60 years of experience, Crane is not only a technology leader in its fields with the highly proven solutions, but also a professional organization with robust process control systems that provides the lowest risk solution for customers.”

#### CRANE EXHIBITS AT AIRSHOW CHINA 2012 IN ZHUHAI

November 9, 2012

Crane Aerospace & Electronics will be showcasing its innovative business and commercial aircraft solutions at Airshow China as it continues to expand its presence in the growing Chinese aerospace industry. Airshow China 2012 will take place in Zhuhai, China November 13-18. Crane will be featuring its Landing, Cabin, Fluid, Sensing and Power Solutions at the China International Aviation & Aerospace Exhibition Center. On display will be Crane’s SmartStem Wireless Tire Pressure System, Compact Hydrolok, mcX Motion Control module, DC-DC converters, Lube & Scavenge Pump and Wheel Speed Transducer. SmartStem provides a fast and reliable method of checking aircraft tire pressure without gas loss and is designed to be easily retrofitted on existing aircraft. Crane has four manufacturing centers in China with its regional headquarters located in Shanghai. Through these offices, Crane has maintained a strong manufacturing presence in China for more than 17 years. Airshow China is the only international aerospace trade show in China that is endorsed by the Chinese central government. It features the display of real-size products, trade talks, technological exchange and flying display. Since 1996, the show has been successfully held in Zhuhai in every even-number year for eight sessions.

#### SMARTSTEM WIRELESS TIRE PRESSURE SYSTEM CERTIFIED FOR BOMBARDIER Q-SERIES AIRCRAFT

Zhuhai – November 5, 2012 – Crane Aerospace & Electronics, a segment of Crane Co. (NYSE:CR), has announced that the Federal Aviation Administration (FAA) has awarded a Supplemental Type Certificate (STC) for Crane’s SmartStem Wireless Tire Pressure System to be fitted on Bombardier Q-Series aircraft (Dash 8 -100, -300, and -400). This certification makes SmartStem the first tire pressure indication system to be available for any regional commercial aircraft. Additionally, this STC establishes a DO.178 and DO.254 “Design Assurance Level B” pedigree of our handheld system. In general, DO.178 is the software standard and DO.254 is the hardware standard against which many aerospace products are certified. “We believe that consistent measurement of aircraft tire pressure before every flight is a key enabler for operators of quick-turn aircraft to increase their tire longevity, reduce cost, and decrease the likelihood of tire failure. SmartStem enables a regional jet operator to check a full set of aircraft of wheels in less than a minute, create an automatic data record of the check, and deploy an aircraft with 100% assurance that tires are inflated properly” said Eric Haas, Business Development Director for Crane. “Operators of regional jets should take a hard look at their tire usage and ask if fast, convenient checks before every flight would reduce their overall costs.” Visitors to Aviation Expo China in Zhuhai are invited to stop by Crane’s booth to see a demonstration of the SmartStem Tire Pressure System. SmartStem Tire Pressure Sensors are already certified for use on a variety of business jets, and Crane is in the process of certifying SmartStem on additional business, regional, and large commercial aircraft. To fit an aircraft with SmartStem technology, the existing tire inflation valve stem is simply replaced with a special valve stem containing integral sensors. SmartStem communicates tire pressure, temperature, and other stored information wirelessly to a Handheld Reader without the use of an internal battery in the stem. Since this information is communicated wirelessly and does not require the removal of the valve cap, no gas is lost during routine tire pressure checks.

#### CHENGDU CAIC ELECTRONICS CO., LTD (CAIC) SELECTS CRANE TO PROVIDE PROXIMITY SENSORS FOR MA60 LANDING GEAR RETROFIT



Zhuhai – November 5, 2012 – Crane Aerospace & Electronics, a segment of Crane Co. (NYSE:CR), has been selected by Chengdu CAIC Electronics Co., Ltd (CAIC) to supply proximity sensors and electronics interface modules for a landing gear indication system upgrade program on the MA60 turboprop aircraft of AVIC Xi'an Aircraft Industry (group) Company Ltd. (AVIC XAC). "We are very pleased to bring our high-accuracy proximity sensing technology and reliability to Xi'an for the MA60 turboprop aircraft," said Rick Jones, Senior Vice President of Sensing & Utility Solutions for Crane Aerospace & Electronics. "With more than 40 years of experience, Crane is clearly a technology leader in proximity sensing systems around the world with more than 1 million sensors delivered and in-service." Xi'an Aircraft Company has orders for 196 MA60 turboprops with 76 aircraft already delivered.

#### CRANE SIGNS LETTER OF INTENT WITH COMAC TO PROVIDE DOORS SIGNALS SYSTEM FOR THE C919 AIRCRAFT

Zhuhai – November 5, 2012 – Crane Aerospace & Electronics has been selected by the Shanghai Aircraft Design and Research Institute, a division of Commercial Aircraft Corporation of China (COMAC), to provide the Doors Signals System for the C919 Commercial Aircraft. A Letter of Intent was signed at Crane's Lynnwood, Washington USA location in December 2011. The Crane Doors Signals System will monitor and communicate the position of the C919 fuselage doors, cargo doors and flight locks. The Doors Signal System will communicate with other aircraft systems as well as to door-mounted status panels. "We are very pleased to bring our high-accuracy sensing technology and reliability to COMAC for the C919," said Rick Jones, Senior Vice President of Sensing & Utility Solutions for Crane Aerospace & Electronics. "With more than 40 years of experience, Crane is clearly the technology leader in proximity sensing systems around the world with over 12,000 systems delivered and in-service." Gregg Herman, Aerospace Group Vice President of Sales & Marketing, said, "The selection of Crane by COMAC furthers our strategic focus on the rapidly emerging commercial airplane market in China. In 2010, we were chosen to provide the Brake Control, Tire Pressure Indication and Brake Temperature Monitoring System for the COMAC C919." The C919 is a new aircraft platform being developed and manufactured by Commercial Aircraft Corporation of China (COMAC). The market is anticipated to exceed 2000 aircraft.

#### CRANE SELECTED BY UTC AEROSPACE SYSTEMS TO PROVIDE PROXIMITY SWITCHES FOR AIRBUS A320NEO

Zhuhai – November 5, 2012 – Crane Aerospace & Electronics has been selected by UTC Aerospace Systems to provide proximity switches to be used on the thrust reverser actuation system on the A320neo fitted with the Pure Power 1100G engines. UTC Aerospace Systems is designing the nacelle and thrust reversers for the Pratt & Whitney PurePower 1100G engine that will power the Airbus A320 Family, designated the A320neo (new engine option). UTC Aerospace Systems will also perform engine build up (EBU) for the PurePower propulsion system. "Crane provides proximity sensing technology on all Airbus programs. We are very pleased to add new-generation advanced proximity switch technology and reliability, through UTC, for the Airbus A320neo thrust reverser system application," said Rick Jones, Senior Vice President of Sensing & Utility Solutions and Group Engineering for Crane Aerospace & Electronics. "Our responsiveness and ability to develop new proximity switch technology variants quickly were critical to UTC and we're excited to be working with them on this new engine/thrust reverser application." First hardware is due to UTC Aerospace Systems by December 2012. With more than 40 years of experience, Crane is a technology leader in proximity sensing and systems around the world with well over 1,000,000 proximity switches delivered and in-service.

#### COMAC'S SADRI SUBSIDIARY SELECTS CRANE TO PARTICIPATE IN RESEARCH PROJECT TO IMPROVE SUPPLIER MANAGEMENT

Zhuhai – November 5, 2012 – Crane Aerospace & Electronics, a segment of Crane Co. (NYSE:CR), has been selected by Shanghai Aircraft Design and Research Institute (SADRI), a subsidiary of COMAC, to be its only C919 supplier from the United States to participate in a project aimed at improving supplier management. Entitled, “Improving the supplier management system and process control system for the China Civil Aviation Industry,” the objective of the project is to research and understand best-of-class process control and supplier management systems and use the information to develop an optimized system for COMAC. The supplier management improvement project is expected to take place over 15 months. The results of the project will help to shape existing supplier management system and methodologies for the China Civil Aviation Industry. Assisting in the project is COMAC’s third party consultant group from Tsinghua University, the top university in China. Members of Tsinghua University visited Crane’s Lynnwood, Washington site in October 2012 to begin their research and information gathering. “We are very pleased to be considered a key contributor and trusted partner for the China civil aviation industry by receiving the honor from COMAC to be part of this research project,” said Eddy Wong, Vice President of Business Development for Crane Aerospace & Electronics in China. “With more than 60 years of experience, Crane is not only a technology leader in its fields with the highly proven solutions, but also a professional organization with robust process control systems that provides the lowest risk solution for customers.”

#### CRANE SIGNS LETTER OF INTENT WITH COMAC TO PROVIDE DOORS SIGNALS SYSTEM FOR THE C919 AIRCRAFT

February 14, 2012

Crane Aerospace & Electronics has been selected by the Shanghai Aircraft Design and Research Institute, a division of Commercial Aircraft Corporation of China (COMAC), to provide the Doors Signals System for the C919 Commercial Aircraft. A Letter of Intent was signed at Crane’s Lynnwood, Washington USA location in December 2011. The Crane Doors Signals System will monitor and communicate the position of the C919 fuselage doors, cargo doors and flight locks. The Doors Signal System will communicate with other aircraft systems as well as to door-mounted status panels. The C919 is a new aircraft platform being developed and manufactured by Commercial Aircraft Corporation of China (COMAC). The market is anticipated to exceed 2000 aircraft.

Supporting Quotes: “We are very pleased to bring our high-accuracy sensing technology and reliability to COMAC for the C919,” said Raman Afflation, Vice President of Sensing & Utility Solutions for Crane Aerospace & Electronics. “With more than 40 years of experience, Crane is clearly the technology leader in proximity sensing systems around the world with over 12,000 systems delivered and in-service.” Nigel Duncan, Aerospace Group Vice President of Sales & Marketing, said, “The selection of Crane by COMAC furthers our strategic focus on the rapidly emerging commercial airplane market in China. Last year at about this time, we were chosen to provide the Brake Control, Tire Pressure Indication and Brake Temperature Monitoring System for the COMAC C919.”

#### CRANE WILL DEMONSTRATE ITS MODERNIZATION AND UPGRADE AFTERMARKET PRODUCTS AT MRO ASIA

November 9, 2011

MRO Asia is being held November 9-10 at the China National Convention Center in Beijing, China. Crane will feature its Commercial Aftermarket Solutions such as the 737 Proximity Sensors, enhanced A320 Landing Gear Control Interface Unit and SmartStem Wireless Tire Pressure Monitoring System.

#### CRANE AEROSPACE & ELECTRONICS AND GAMECO SIGN REPAIR SERVICES AGREEMENT AT ASIAN AEROSPACE 2011

March 8, 2011 - Nigel Duncan of Crane Aerospace & Electronics, and David Conrad of GAMECO sign Authorized Repair Services Agreement at Asian Aerospace 2011. On March 8, Crane Aerospace & Electronics, a Crane Co. segment, signed an Authorized Repair Services Agreement with Guangzhou Aircraft Maintenance Engineering Co., Ltd. (GAMECO) at Asian Aerospace in Hong Kong. Under the terms of the agreement, GAMECO will serve as an authorized repair station in China for a number of Crane products including Boeing aircraft Fuel Pumps, Engine Fuel Flowmeters, and Brake Control Wheel Speed Transducers and Control Valves.

Supporting Quotes:

Tim King, Aerospace Group Director, Aftermarket Sales, said, "We are pleased to announce this partnership with GAMECO. With this agreement in China we will be better positioned to serve our customer's needs."

Mr. Bill Norman, general manager, GAMECO, stated, "We are very pleased to have this partnership with Crane. A key part of our growth strategy has been to develop closer working relationships with key OEM's to better support our key customers such as China Southern Airlines. We see Crane as one of those key OEM's and look to continue to grow this Authorized Repair Services Agreement with Crane, and help them better serve the market in China."

CRANE AEROSPACE & ELECTRONICS CHOSEN BY HONEYWELL TO PROVIDE BRAKE CONTROL FOR COMAC C919

November 19, 2010

Crane Aerospace & Electronics to provide integrated Brake Control, Tire Pressure Indication and Brake Temperature Monitoring system. Crane Aerospace & Electronics announced today it has been selected by Honeywell to provide the Brake Control System (BCS) for the Commercial Aircraft Corporation of China Ltd. (COMAC) C919 Commercial Airplane aircraft. Crane will assist in the integration of the BCS, which includes SmartStem passive, wireless tire pressure sensing technology and a Brake Temperature Monitoring System. The COMAC 919 is a new aircraft platform being developed and manufactured by COMAC, for which the market is anticipated to exceed 2000 airplanes. Crane Aerospace & Electronics employs a workforce of more than 2500 people across four operating divisions, including sales and support offices in China. Crane Aerospace & Electronics' regional office in China is in Shanghai.

Supporting Quotes

"This marks a major strategic step for Crane into the rapidly emerging commercial airplane market in China," said Mike Romito, Aerospace Group President of Crane Aerospace & Electronics. "We look forward to providing Honeywell with the most trusted and proven brake control system in the marketplace for the COMAC C919."

"With more than 70 years of experience, Crane Aerospace & Electronics is the leader of brake control systems worldwide," said Nigel Duncan, Aerospace Group's Vice President of Sales & Marketing. "We currently provide safe, reliable brake control for approximately 70 percent of the world's commercial airplanes, including those operated by the majority of airlines in China."

CRANE AEROSPACE & ELECTRONICS IS HIGHLIGHTING ITS AEROSPACE SOLUTIONS AT AIRSHOW CHINA IN ZHUHAI, CHINA NOVEMBER 16-21.

November 8, 2010

Crane's Aerospace Solutions on display include Aircraft Brake Control Systems, Landing Gear Proximity Sensors and Systems, Aircraft Seat Control components, and the SmartStem Wireless Tire Pressure System. Attendees are invited to stop by Crane's booth and learn more about the SmartStem Wireless Tire Pressure System and the other solutions that Crane offers. SmartStem was developed by Crane Aerospace & Electronics

to provide a fast and reliable method of checking aircraft tire pressure without gas loss. It is also designed to be easily retrofitted on existing aircraft. SmartStem technology provides numerous benefits including reduced maintenance costs, improved convenience, and automatic tracking of tire pressure checks – information which helps assure safety and extends tire life.

#### CRANE SIGNS LONG-TERM AGREEMENTS WITH KEY CUSTOMERS IN CHINA

October 6, 2010

[The LED sign visible in the photo at Qianshan welcomes Simon Abel and Annie Gu.]

Crane representatives Simon Abel and Annie Gu met with two key customers in China recently to sign long-term supply agreements. The three-way agreements were signed between the Redmond site of Crane Aerospace & Electronics and Chinese Distributor Excelpoint. At the same time, Excelpoint signed agreements with the end-use customers. One of these agreements was with customer AVIC Shaanxi Qianshan Avionics Company Limited (Qianshan for short). Based in Xi'an, China, Qianshan has been a Crane customer for many years. Qianshan designs and manufactures flight data recorders. Another long-term agreement was signed at the Chinese Academy of Space Technology (CAST) in Beijing. CAST specializes in manufacturing Micro Satellites for monitoring weather.

## D

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2012 Zhuhai Directory: D. Marchiori, DMA, manufacture aerospace instrumentation products and airframe tooling/adaptors. The MPS range of Air Data Testers cover civil and **military** requirements for pilot-static testing, enabling high altitude and airspeed capabilities to be provided, combined with RVSM relevant precision along with annual recalibration cycles. Also covered, pneumatic based Smart probes, which in addition to the usual pilot-static parameters provide Angle of Attack measurement. DMA have not

only traditional ADTS twin channel Ps/Pt, such as the standard civil aircraft MPS31C, and ultra compact MPS43, but also 3, and 4 independent channels for AoA testing. The MPS39C provides 3 independent channels, Ps and Pt and a delta P channel for AoA. The MPS40C has 4 channels with 2 AoA channels available. The ADTS are suitable for flight-line and laboratory ATE applications. For laboratory applications for MPS46 rack mount and the PAMB10/11 Transfer Standard are available. Sophisticated capabilities are provided such as Remote control via pc and Bluetooth wireless control, GPIB, RS232 and ARINC interfaces. Programmable test routines, Altimeter Encoder Interface, and many more features. Other aero products include, Tachometer testers, Pilot-Static Adaptors, Two or Three axis Tilt Tables and Angular Protractors.

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#### **Shanghai Hawker Pacific Business Aircraft Service Centre**

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Models concerned: F2000DX, F2000LX, F7X, F900EX EASy, F2000EX EASy, F2000S, F900DX, and F900LX.

Important Notice: EASA, FAA, China

Important Notice: Regulatory Authority Approval for each Falcon model must be confirmed directly with ASC prior to planning any maintenance.

Dassault Falcon is responsible for selling and supporting Falcon business jets throughout the world. It is part of Dassault Aviation, a leading aerospace company with a presence in over 70 countries across five continents. The company has assembly and production plants in both France and the United States and service facilities on multiple

continents. It employs a total workforce of over 12,000. Since the rollout of the first Falcon 20 in 1963, 2,100 Falcon jets have been delivered to 67 countries worldwide. The family of Falcon jets currently in production includes the Falcon 900LX, Falcon 7X and Falcon 2000LX.

## DASSAULT FALCON PRESS RELEASES

### DASSAULT FALCON PRACTICAL TRAINING PROGRAM GRADUATES 300TH TRAINEE

Photo Not Included: Mr. Wu Jian Ming from Business Aviation Asia and Eloi Dufour, Director, Customer Relations, Dassault Falcon.

(Saint-Cloud, France, November 12, 2012) – Dassault Falcon's Certified Practical Training Program has passed the 300th trainee mark, demonstrating its growing popularity among Falcon operators and service centers. Mr. Wu Jian Ming from Business Aviation Asia, based in China, was the 300th participant.

By using real production aircraft and actual work cards, the Practical Training Program puts students in real-life maintenance and trouble-shooting conditions, providing a smooth transition from required theoretical training and simulator training. "This innovative approach means that the trainees are better prepared and more efficient when it comes to working on Falcon aircraft in the field," said Eloi Dufour, Director Customer Relations. "It is not just a 'show and tell' exercise. Each student performs the required tasks himself and works on green aircraft – i.e. without interior fittings – allowing for easier access to all aircraft components."

Training is performed either at the Dassault assembly line in Bordeaux-Mérignac, or at the Dassault Flight Test Center in Istres, near Marseille, France. Each session uses two highly experienced Dassault Aviation instructors - a mechanic and an avionics specialist. The final two days of the ten-day training program are dedicated to aircraft run-up and engine testing.

Since its launch in April 2007, the program has graduated 307 trainees, two-thirds of them representing operators, and the rest, Authorized Service Centers.

Some 40 sessions have been held for the Falcon 7X, accounting for more than 75% of total graduates. Falcon 900LX sessions were introduced in 2010, and the Falcon 2000LX sessions late last year.

The training initiative is currently accelerating as more Falcon 7X and 900LX/2000LX aircraft enter service. Almost a hundred technicians and mechanics are expected to graduate this year, alone. Close to 40% of trainees over the past 24 months hail from China, reflecting the surging growth of Dassault Falcon in this emerging market.

Originally conceived as a way to support entry into service of the top-of-the-line Falcon 7X, the Practical Training Program was later extended to cover Falcon 900 and 2000 EASy operators as well. The program, approved by French Civil Aviation Authority DGAC and certified under EASA Part 66 Regulations, targets technicians and mechanics and complements the theoretical training provided by Dassault's training partners, CAE SimuFlite and FlightSafety International.

### DASSAULT FALCON TO ESTABLISH NEW CUSTOMER SERVICE REGIONAL HEADQUARTERS IN BEIJING

(Beijing, China, September 5, 2012) – Dassault Falcon will establish a Customer Service regional headquarters in Beijing, China. Scheduled to start operations in early 2013, it will be staffed by local specialists experienced in receiving and processing spare parts orders as well as warranty and FalconCare claims. Additionally, at least two types rated Falcon pilots will be based in Beijing to provide jump-seat support to new and existing Falcon customers.

“Dassault Falcon continues to solidify and grow our market position by adding to our sales and customers service teams and making significant capital investments in the country,” said John Rosanvallon, President, and CEO of Dassault Falcon. “Adding this capability is key to doing business in China and making sure Falcon customers have the best possible resources.”

In addition to this program, this week Dassault Falcon launched Dassault Falcon Aircraft Services – China, a dedicated program with Shanghai Hawker Pacific at Hongqiao International Airport in Shanghai. The program is staffed by a group of Falcon technicians who average over 10 years of experience on Falcon business jets and are well trained to work on the Falcon 2000EX EASy family and Falcon 900EX family as well as the Falcon 7X models. The team brings extensive, hands-on Falcon maintenance experience to Shanghai Hawker Pacific’s world-class facilities for support of local and transient Falcon aircraft. They will also provide an opportunity to transfer significant knowledge and maintenance experience to Chinese maintenance engineers in this developing market.

#### Falcon Business Jets Ideal for China Market

Earlier this year, Dassault revealed the number of Falcons operating in China will triple before the end of 2012. “We sold our first new Falcon to China in 2006 but the market has now grown to become our largest for new aircraft orders and our most promising,” said Rosanvallon.

Most orders are for the Falcon 7X with a current backlog of 20 of the tri-jets scheduled to be delivered in China in the coming years. The Falcon 2000S has also been well received in China since it was launched in May 2011.

The Dassault Falcon product range includes four large-cabin models: the tri-jet Falcon 7X and Falcon 900LX and the twin-jet Falcon 2000LX and the new Falcon 2000S. They share a number of common features, including, large and comfortable cabin interiors, efficient and economical performance and advanced technology derived from Dassault’s considerable **military** experience. Dassault introduced the Falcon 2000S into the super mid-size category in 2011 as an entry level option to the Falcon family offering outstanding performance, a luxurious, roomy interior and ultra-low operating costs for a price tag comparable to the smaller models featured by its competitors.

Falcon aircraft are more economical to operate and more environmentally friendly than any other large cabin aircraft. Their efficient design and advanced technology means less weight, 20-40% better fuel burn and lower emissions than other airplanes in their class.

#### Falcon 7X: Leader In China

The tri-jet offers flexible range, a large and comfortable cabin interior, efficient and economical performance as well as advanced technology based on Dassault **military** heritage. The aircraft’s 5,950 nm range enables it to handle more of the missions flown by typical business jets. It can connect Beijing or Shanghai to all of Europe or the Western United States and access challenging airports such as London City Airport -- and is the only business jet in its category capable of doing so. The global Falcon 7X fleet is approaching 150,000 flight hours.

### DASSAULT FALCON WILL HAVE A FALCON 7X ON DISPLAY DURING CIBAS; DASSAULT AIRCRAFT SERVICES — WILMINGTON GRANTED CHINESE MAINTENANCE APPROVAL

(Beijing, China, September 5, 2012) – Dassault Aircraft Services – Wilmington recently was granted approval by the Civil Aviation Administration of China (CAAC) to perform airframe and component maintenance on China registered Falcons. “With our Falcon fleet in China continuing to rapidly grow, we need to continuously expand our service capabilities,” said Bob Sundin, Chief Operating Officer of Dassault Aircraft Services. “This is an important step for Chinese operators who travel frequently to the United States or are in need of heavy maintenance capabilities.” With this approval from the CAAC, Dassault Aircraft Services – Wilmington capabilities include inspection, repair

and modifications to the Falcon 7X and inspection, repair and modifications including C level checks for the Falcon 2000EX/DX/LX EASy and Falcon 900EX/DX/LX EASy family of aircraft. Approval for the Falcon 2000 and Falcon 900 classic family of aircraft was granted as well. Additionally, approval for inspection, repair, overhaul, and modifications of components for air conditioning, communications, fuselage, nacelles/pylons, stabilizers, and wings has been granted. The approval also allows Wilmington to perform work away from its facility at other Dassault Aircraft Services locations in Little Rock, Reno, Sorocaba, St Louis, and West Palm utilizing those facilities manpower and with CAAC approval.

#### DASSAULT FALCON EXPANDS SPARES SERVICES IN CHINA WITH NEW AEROSPACE PRODUCTS INTERNATIONAL (API) AGREEMENT

(Beijing, China, September 5, 2012) – Dassault Falcon and Aerospace Products International (API), a wholly owned subsidiary of First Aviation Services, Inc. have expanded their logistics services agreement to support Dassault Falcon customers operating in China, Hong Kong and Macau.

Under the expanded agreement, API's Shanghai Distribution Center will provide parts logistics services for all Falcon needs, including AOG events, in China and surrounding markets. As part of this Supply Chain program, API will stock spare parts in API Shanghai's bonded warehouse and will provide import and export services, customs clearance, and parts dispatch into China and surrounding countries to meet the demand. With the updated agreement, API will expand its warehousing capacity fourfold.

"We revealed earlier this year, that Dassault will triple the number of Falcons based in China during 2012 so we've planned a rapid expansion of our service offerings in China," said John Rosanvallon, President and CEO of Dassault Falcon. "Our spares efforts are of critical importance in that effort."

"API is pleased with the progress we have made in our partnership with Dassault," said Dr. Ahmed Metwalli, API's President & Chief Operating Officer. "The aviation logistics and global spare parts distribution expertise within our Shanghai operations provide customers with outstanding around-the-clock support and deliver rapid, error-free logistics services to DFJ's customers in the region. Our China subsidiary has been supporting Dassault for over five years and this newly expanded agreement reflects Dassault's confidence in the Chinese market and their satisfaction with API's support of their customers."

About API ([www.apiworldwide.com](http://www.apiworldwide.com))

API, a First Aviation Services Inc. company and headquartered in Memphis, TN USA focuses on the distribution of OEM parts and supply chain programs so that its customers (OEMs, MRO facilities, FBOs, airlines, aircraft owners/operators, Government and **Military** aircraft) can concentrate on their core competencies and business performance. As a distributor and supply chain partner, API strives to boost its customers' product support and customer satisfaction ratings by increasing product availability, minimizing time-to-delivery and reducing process and working capital costs. API also provides customers with key business data and metrics (such as product usage by work order, inventory status by location, availability rate by part number and repair cycle times) in order to allow customers to effectively manage their businesses.

About First Aviation Services Inc. ([www.firstaviation.com](http://www.firstaviation.com))

First Aviation Services Inc., together with its subsidiaries, is one of the leading suppliers of aircraft parts and components to the aviation industry worldwide, and is a provider of third party logistics and inventory management services to the aerospace industry. API distributes the products of over 150 parts and component manufacturers and suppliers. In addition, FAVS offers maintenance, repair and overhaul services through three Federal Aviation Administration authorized facilities. Customers of First Aviation Services Inc. include passenger and cargo airlines, general aviation, and **military** operators.



#### DASSAULT FALCON AIRCRAFT SERVICES-CHINA LAUNCHES IN SHANGHAI

Sept. 3, 2012 "Falcon customers will experience a further increase in the level of Falcon maintenance experience in China," said Kathy Liu, Director, Asia Region Customer Service. "Dassault will bring its in depth Falcon know-how and experience, rapidly expanding the capabilities of Shanghai Hawker Pacific as dozens of new Falcons enter the Chinese market." The program is staffed by a team of Dassault technicians with an average experience of 10 years on Falcon business jets and specifically trained for Falcon 2000EX EASy, Falcon 900EX as well as Falcon 7X models. The team brings extensive, hands-on Falcon maintenance experience to Shanghai Hawker Pacific's world-class facilities for support of local and transient Falcon aircraft. They will also provide an opportunity to transfer significant knowledge and maintenance experience to Chinese maintenance engineers in this developing market. The Shanghai Hawker Pacific complex features a 4,000 sq meter facility for maintenance, repair and overhaul (MRO), in addition to its fix based operations (FBO) capabilities. It was the first third-party MRO facility in mainland China and is a joint partnership with Shanghai Airports Authority. In March 2012, the Civil Aviation Administration of China (CAAC) granted a Part 145 Approved Maintenance Organization (AMO) certificate for the facility as well as a Part 145 approval for the Falcon 7X. Approvals for the Falcon 900LX and the Falcon 2000LX models are expected shortly. In addition to this facility in Shanghai, Falcon customers can find repair facilities at Hawker Pacific in Singapore, Sydney, Australia as well as Jet Aviation in Hong Kong.

#### DASSAULT FALCON AIRCRAFT SERVICES - CHINA TO LAUNCH IN SHANGHAI

(Shanghai, China, March 27, 2012) - Dassault Falcon will set up a new operation in Shanghai to help support its rapidly growing Chinese fleet. The new entity, to be known as Dassault Falcon Aircraft Services - China, will be established by the end of the second quarter of 2012 in partnership with Shanghai Hawker Pacific and will be located within the Shanghai Hawker Pacific complex at Shanghai Hongqiao International Airport.

Photo Not Included: Left to right: Frank Youngkin, Senior Vice President of Customer Service for Dassault Falcon; Carey Matthews, General Manager, Shanghai Hawker Pacific; George Lu, Deputy General Manager, Shanghai Hawker Pacific.

Dassault Falcon Aircraft Services - China will play a key role in ensuring first-class support for the Falcon fleet that is expected to triple by the end of 2012. The unit will be staffed by a team of technicians with an average experience of more than 10 years with Falcon business jets and who are specially trained on Falcon 7X, Falcon 2000LX and Falcon 900LX models. Line maintenance, AOG support, troubleshooting and component replacement will be among the services offered.

Dassault Falcon Aircraft Services - China will bring extensive, hands-on Falcon maintenance to the world-class Shanghai Hawker Pacific facilities that support local and transient Falcon aircraft, while providing an opportunity to transfer technical maintenance know-how to Chinese engineers in this developing market.

"This facility in Shanghai is an essential part of our strategy to support our growing market share in China," said John Rosanvallon, President and CEO of Dassault Falcon. "Our customers will appreciate the instant increase in the level of Falcon maintenance experience that this program will offer, as well as the dedication that only Dassault as the aircraft manufacturer can provide."

The Shanghai Hawker Pacific complex features a 4,000 sq m facility for maintenance, repair and overhaul (MRO), in addition to its fixed base operations (FBO) capabilities. It was the first third-party MRO facility in mainland China and is a joint partnership with the Shanghai Airports Authority.

The Civil Aviation Administration of China (CAAC) recently granted a Part 145 repair certificate for the facility as well as a Part 145 approval for the Falcon 7X. Approvals for the Falcon 900LX and Falcon 2000LX models are expected within six months.

"Dassault Falcon and Shanghai Hawker Pacific have a shared vision of providing the best customer service experience in China," said John Riggir, Vice President-Asia for Hawker Pacific. "We have the facilities, dedication and infrastructure to meet our customers' needs today and into the future. The Dassault team will bring a more advanced business aircraft MRO experience to complement and rapidly grow the capabilities of Shanghai Hawker Pacific as China absorbs this fleet of new Falcons."

In addition to this new facility in Shanghai, Falcon customers can access repair facilities operated by Hawker Pacific in Singapore and Sydney, Australia and Jet Aviation in Hong Kong.

#### DASSAULT FALCON TO HIGHLIGHT FALCON 7X AND FALCON 2000LX AT ABACE 2012

(Shanghai, China, March 27, 2012) - Dassault Falcon is presenting the Falcon 7X and the Falcon 2000LX at the Asian Business Aviation Conference Exhibition (ABACE), from March 27-29. Falcon Customer Service will also hold its first ever Falcon M&O (Maintenance and Operations) seminar in Shanghai.

Eight Falcon business jets are in operation in China and Dassault expects that number to triple before the end of 2012. Most of the company's new orders are for the Falcon 7X, twenty of which are currently set for delivery to Chinese customers. The Falcon 2000S has also been well received in the country: Minsheng Financial signed a Memorandum of Understanding for 10 of the twin-jets in October 2011.

"We sold our first new Falcon to China in 2006 and the market has now grown to become our largest for new aircraft orders, and the most promising," said John Rosanvallon, President and CEO of Dassault Falcon. "Dassault Falcon continues to solidify and grow its market position by adding to its sales and customer service teams and making significant capital investments in the country." Dassault opened a new marketing office in Beijing in 2010 with a similar office opening recently in Shanghai.

##### Falcon M&O Comes to Shanghai

The first Falcon Maintenance and Operations (M&O) seminar to be held in Shanghai will be specifically tailored to the needs of Chinese customers and will focus both on operational and technical issues. M&O seminars are designed to help aircraft operators improve the efficiency, reliability and safety of their operations. Topics will range from the latest customer service and engineering support initiatives to enhancements in troubleshooting and product reliability. There will also be dedicated pilot sessions. The one-day event will include interaction with model and support specialists as well as Authorized Service Centers, vendors and partners.

##### Falcon Business Jets Ideal for China Market

The Dassault Falcon product range includes four large-cabin models: the tri-jet Falcon 7X and Falcon 900LX and the twin-jet Falcon 2000LX and Falcon 2000S. They share a number of common features, including flexible range, large and comfortable cabin interiors, efficient and economical performance and advanced technology derived from Dassault's considerable **military** experience. Dassault introduced the Falcon 2000S into the super mid-size category in 2011 as an entry level option to the Falcon family offering outstanding performance, a luxurious, roomy interior and ultra-low operating costs for a price tag comparable to the smaller models featured by its competitors.

#### DASSAULT FALCON NAMES JEAN-MICHEL JACOB SENIOR VICE PRESIDENT OF INTERNATIONAL SALES

(Shanghai, China, March 27, 2012) - Dassault Falcon has promoted Mr. Jean-Michel Jacob to Senior Vice President of International Sales. He will oversee all sales activity for

Dassault Falcon in Asia, the Pacific Rim and South America. Jacob will work out of Beijing where he has been based since September 2010. "Jean-Michel has a keen understanding of our industry and our products, which makes him an invaluable resource for Falcon operators," said John Rosanvallon, President and CEO of Dassault Falcon. Since 1987, when he joined the company, Jacob has worked in numerous sales capacities. He was named Western Europe Falcon Regional Sales Manager and moved to Sao Paulo, Brazil, in 1996, to establish Dassault Falcon's sales office in that country. He was named Vice President of International sales in 2005 and relocated to Dassault Falcon's U.S. Headquarters at Teterboro Airport in New Jersey. He established the firm's Asian sales headquarters in Kuala Lumpur, Malaysia, in 2007. Prior to joining Dassault, Jacob was an engineer for Aerospatiale Helicopter in France. He started his career in Quito, Ecuador with the French Trade Commission. Jacob holds a degree in Economics and Business Administration from the prestigious Ecole des Hautes Etudes Commerciales du Nord, in France. He is married with three children.

#### **DASSAULT FALCON LAUNCHES UNIQUELY DESIGNED CHINESE WEBSITE**

Thursday, March 22, 2012

The dynamically designed website is presented entirely in Mandarin and goes into great depth on all Falcon models, their capabilities and key benefits. The easy-to-navigate site allows the visitor to watch video presentation overviews and look over 360 degree interiors, range maps, airport performance and other features for each Falcon model. "Chinese customers are incredibly astute and savvy web users," said Beijing-based Jean-Michel Jacob, Vice President of International Sales and Marketing for Dassault Falcon. "Launching this website is key to exposing the strengths of the Falcon brand in China and creating higher levels of awareness among our customers." The site also features a specific tab for the award-winning EASy flight deck, including information on the newly certified EASy II. In addition, visitors can experience Dassault aircraft design and manufacturing processes and see how cutting edge design techniques such as Product Lifecycle Management (PLM) are incorporated into each new Falcon business jet. Company history and appropriate news releases are available on the site as well. The site was designed in conjunction with an advertising and digital marketing agency with offices in Paris, New-York and Beijing. The site is hosted on servers within China to enhance the web experience for visitors.

#### **MINSHENG FINANCIAL LEASING SIGNS AGREEMENT FOR 20 FALCON BUSINESS JETS; MEMORANDUM OF UNDERSTANDING IN ADDITION TO FIVE AIRCRAFT ALREADY ORDERED**

(Las Vegas, Nevada, October 10, 2011) – Dassault Falcon and Minsheng Financial Leasing today signed a Memorandum of Understanding for 10 Falcon 7X aircraft and 10 Falcon 2000S. This is in addition to a firm order for five Falcon 7X aircraft that was received earlier this year.

"This agreement reinforces an already strong relationship that has been established between Dassault Falcon and Minsheng," said John Rosanvallon, President and CEO of Dassault Falcon. "Both companies wish to offer our customers the best possible solutions for business aircraft in China. The agreement is a clear indication of the popularity of Falcon business jets in China.

The 5,950 nm Falcon 7X is the first and only business jet in service to incorporate a digital flight control system which provides greater control, operational safety and a smoother flight. It was named the winner of the Business Aviation category at the Aviation Awards Asia in March 2011. The Falcon 7X has an extensive list of city pairs including Beijing with Paris and Shanghai with Auckland.

The 3,350 nm Falcon 2000S was announced at EBACE in May 2011. It is the new entry level aircraft into the Falcon family offering an aggressive acquisition price along with

low operating costs and an impressive list of standard options. The Falcon 2000S inherits the same qualities of other Falcons: performance and efficiency, cutting edge technology and flexibility. The Falcon 2000S offers super mid-size category the largest cabin interior, leading low-speed performance for even greater airport access, optimized operating costs and the greenest footprint of any comparable aircraft. The Falcon 2000S can connect any two points within China. Other city pairs include Beijing to Delhi or Beijing to Singapore.

#### Dassault Falcon's Commitment to China Grows

To accommodate the increased transient traffic and in anticipation of continued fleet expansion in China, Dassault Falcon recently appointed Kathy Liu (Li Ying Liu) as Director of Customer Service for the entire Asia-Pacific area, a new position. Liu will work with Falcon operators and Dassault Falcon personnel to ensure the highest levels of customer service and satisfaction and further expand the service and support infrastructure throughout China and neighboring countries. Dassault Falcon has had Field Service representatives based in the region since 1989 with representatives today based in Beijing, Hong Kong and Singapore.

In late 2010, Dassault Falcon established a sales and marketing office in Beijing, which is lead by Jean-Michel Jacob, Vice President of International Sales.

#### DASSAULT FALCON EXPANDS SUPPORT EFFORTS IN ASIA WITH DEDICATED CUSTOMER SERVICE DIRECTOR

(Las Vegas, Nevada, October 9, 2011) – Dassault Falcon has appointed Kathy Liu (Li Ying Liu) as Director of Customer Service for the entire Asia-Pacific area, a new role that addresses the increasing growth and transient traffic of the Falcon fleet in the region. Liu will work with Falcon operators and Dassault Falcon personnel to ensure the highest levels of customer service and satisfaction and further expand the service and support infrastructure throughout China and neighboring countries. "As the Falcon fleet expands in Asia and the number of Falcons transiting the region continues to grow, we saw the need to have a dedicated senior customer service leader to ensure that we are meeting and exceeding the needs of our customers," said Geoff Chick, Senior Director of Customer Service for the Western Hemisphere. "For many of our customers in Asia, this is their first time operating business aircraft, and we want to make sure the transition is as smooth as possible. Kathy's expertise will ensure our support expansion plans are tailored to reflect the operational needs of our customers in the region." Liu is a local Chinese citizen with nearly 20 years of experience in the Chinese aircraft maintenance and operations community. Her experience and understanding and respect for the culture will be a great asset in assisting Chinese buyers as the market develops, according to Chick. In addition to being a focal point for the overall relationship with Falcon operators in the region, Liu also will support the coordination and future growth of Dassault's front-line technical personnel, spares distribution centers, Authorized Service Centers and other partners in the region to maximize efficient support for Falcon operators. Liu has additional experience in engineering and business jet operations, including Falcon aircraft. Her career in aviation includes a well-rounded background in quality control, ISO procedures, and regulatory requirements for multiple airworthiness authorities, including the CAAC, FAA and EASA. Liu will report to Geoff Chick.

#### DASSAULT FALCON SUBSIDIARY MIDWAY AIRCRAFT INSTRUMENT COMPANY RECEIVES CHINA REPAIR STATION CERTIFICATE

(Atlanta, Georgia, October 18, 2010) – Dassault Falcon's wholly owned component repair facility, Midway Aircraft Instrument Corporation, recently received a Part 145 repair station certification from the Civil Airworthiness Authority of China (CAAC). The certification comes after a rigorous application and approval process, which began in 2008, including training of key Midway employees with the CAAC. Midway's approved capabilities list under the CAAC certificate includes 138 part numbers on the Falcon 900EX, 900EX EASy,

900DX and 2000 models. Capabilities to service the Falcon 7X are expected to be added shortly. "Midway is now able to offer components with certification from three airworthiness authorities: the FAA, EASA and the CAAC," said Terry Bacola, President and CEO of Midway. "This is not only a benefit to Falcon operators in China where the fleet is rapidly expanding, but also to transient operators passing through the region who may need maintenance or repair." The CAAC repair station certificate will allow Midway to pursue component repair and overhaul business from the airlines and the **military** as well as the helicopter industry which operate in China. It will also provide a valuable service to Midway's vendors, by providing functional checks and approvals for certain equipment on their behalf."

#### About Midway

Midway was established in 1949 as an instrument repair station serving the aviation community in the northeastern United States, and was purchased by the Dassault Falcon Jet in 1988. Midway's 24,000 sq. ft. facility in Teterboro, New Jersey is home to about 40 employees who maintain technical currency on a variety of equipment, testing, and repairs. Their test and repair equipment is state-of-the-art, and updated and retrofitted regularly to take advantage of the latest technology. They are capable of repairing electrical systems, flight controls, environmental systems, fuel systems, indicating systems, fire warning & control components, and more.

#### DASSAULT FALCON ESTABLISHES ASIAN SALES AND MARKETING HEADQUARTERS IN BEIJING

(Atlanta, Georgia, October 18, 2010) – Dassault Falcon recently established a sales and marketing office in Beijing which will be lead by Jean-Michel Jacob, Vice President of International Sales. "Firmly establishing Dassault's presence in China today positions us to serve the needs of its growing business aviation sector with the highest level of support in the years to come," said Jacob. The Falcon fleet in China is expected to grow considerably in the next five years with the overall number of business jets in the country to approach 300 during the same time. "To the emerging business class in China, Falcons are appreciated for their superior technology, efficiency and value they add to the bottom line – whether that means a flight across the globe to seal a business deal, or a multi-leg journey completed in the same day," said John Rosanvallon, President and CEO of Dassault Falcon. Dassault Falcon also has sales and marketing offices in Kuala Lumpur and Hong Kong. Dassault has had Field Service Representatives based in the Asia-Pacific region since 1989 with representatives today based in Beijing, Hong Kong and Singapore. Dassault also has an Authorized Service Center in Singapore and recently signed an agreement to add another Authorized Service Center in Shanghai in 2011. An Authorized Service Center (ASC) in Hong Kong is expected to come online by the end of this year and an ASC in Beijing is being evaluated. A spare parts depot in Shanghai also houses more than (US) \$1.7 million in inventory which can be speedily delivered throughout the region. Nearby, a spare parts depot in Singapore also has (US) \$1.8 million in inventory of high usage parts. Dassault Falcon will increase the spares inventory level in China in 2011.

#### DASSAULT FALCON TO ESTABLISH AUTHORIZED SERVICE CENTER IN SHANGHAI, CHINA; EVALUATING ADDITIONAL FACILITY IN BEIJING; FALCON "GO TEAM" IN PLACE TO HANDLE GROWING FALCON FLEET

(Atlanta, Georgia, October 18, 2010) – Dassault Falcon recently signed an agreement adding Shanghai Hawker Pacific Business Aviation Service Center to the Falcon Authorized Service Center Network (ASC). The new service center, at the Hongqiao International Airport (ZSSS), is scheduled to come fully online within six months. A Falcon GoTeam, however, is already positioned on-site and ready to provide support for Falcon operators in the region.

The new Shanghai service center is expected to receive its Part 145 Repair Station Certification from both the US and Chinese airworthiness authorities by April of 2011, and will be capable of servicing Falcon 900, 2000 and 7X aircraft. The facility will be designated a Line Service Center with line maintenance and A/A+ inspections. The capabilities will be expanded to a Major Service Center to include C-check for these Falcon models as the fleet matures.

"Our partnership with Shanghai Hawker Pacific is part of our continual effort to increase our footprint of service in this region for Falcon operators," said Jacques Chauvet, Senior Vice President of Worldwide Customer Service for Dassault Falcon. "The benefit will be felt by local and transient operators, alike as the use of business aviation in this dynamic region continues to grow." A Beijing ASC is expected to be announced by the end of the year to accommodate a growing regionally based Falcon fleet as well as increased transient traffic.

"The Shanghai Hawker Pacific facility has an infrastructure capable of sustainable growth which gives Dassault an advantage as we plan to increase our support capabilities in this region in step with fleet growth," said Dean Anderson, Director of Dassault's Authorized Service Center Network in the Western Hemisphere.

Over \$2 million (U.S.) in spares, tooling and equipment will be placed at the facility by the end of this year. Upon opening, there will be eight people dedicated to serving Falcon operators, including a director of maintenance, a quality assurance manager as well as staff dedicated to parts and planning.

GoTeam support is provided by a dedicated 7X technician from Hawker Pacific, Dassault's authorized service center in Singapore. It can be dispatched on very short notice to an aircraft in an AOG situation and is fully capable of returning an aircraft to service via sign-off from Hawker Pacific's Singapore Repair Station certificate.

The Shanghai facility has 40,000 square foot of hangar spaces and an additional 18,000 square feet of workshop and office space. Another 200,000 square feet of land has been reserved for a second hangar in future phases of expansion. The attached Business Aviation Center and FBO facility consists of a further 32,000 square feet of space.

About the Shanghai Hawker Pacific Business Aviation Service Centre

Shanghai Hawker Pacific Business Aviation Service Centre is a joint venture between Shanghai Airport Authority and one of Asia Pacific's leading aircraft service companies, Hawker Pacific, which has over 30 years of experience maintaining and handling aircraft. The world class facility operates 24 hours, 7 days a week, and includes a full-service FBO as well as aircraft charter and management services.

#### DASSAULT FALCON ADDS AUTHORIZED SERVICE CENTER IN HONG KONG; AGREEMENT WITH JET AVIATION HONG KONG EXPANDS CAPABILITY IN ASIA

(Geneva, Switzerland, May 3, 2010) – Dassault Falcon today signed an agreement with Jet Aviation Hong Kong to establish a Dassault Falcon Authorized Line Service Station at Hong Kong's Chep Lap Kok Airport (VHHH) by the end of 2010. The facility will be authorized to support scheduled and unscheduled maintenance up through A and A+ level checks for the Falcon 2000EX EASy, 2000DX, 2000LX, Falcon 900EX EASy, Falcon 900DX, Falcon 900LX and the Falcon 7X. Initially, the facility will be able to perform maintenance on FAA and Hong Kong registered Falcons. European approval is expected in the first half of 2011.

"This agreement is consistent with our philosophy of enhancing the service experience by expanding our footprint of service," said Jacques Chauvet, Senior Vice President for Worldwide Customer Service for Dassault Falcon. "China and Asia are rapidly expanding as they realize the benefits of business aviation. Additionally, transient traffic in Hong Kong continues to expand so this agreement is of vital importance to all of our customers." Dassault Falcon will also position U.S. \$1.1 million in spare parts and

tooling to support this initiative in Hong Kong. Once complete, the total value of Genuine Dassault Falcon Replacement Parts in Asia will stand at nearly U.S. \$8 million.

Jet Aviation Hong Kong is a world class 9,200 square meter (99,000 square feet) facility staffed by a team of 20 multinational professionals with vast experience in aircraft maintenance. In addition to scheduled and unscheduled maintenance, AOG assistance from Hong Kong is available throughout China and the Asia Pacific region.

Once Jet Aviation Hong Kong is fully operational, Dassault Falcon's service center network will stand at 37 locations: 27 Authorized Service Centers, five company-owned Service Centers and five company-owned Satellite Service Centers. The service center network is supported by 11 spare parts distribution centers strategically located around the world and a Technical Center spanning three time zones which provide 24/7 support to Falcon operators.

Jet Aviation, a wholly owned subsidiary of General Dynamics (NYSE: GD), was founded in Switzerland in 1967 and is one of the leading business aviation services companies in the world. Close to 5,100 employees cater to client needs from over 24 airport facilities throughout Europe, the Middle East, Asia and North and South America. The company provides maintenance, completions and refurbishment, engineering, fixed base operations, along with aircraft management, charter services, aircraft sales and personnel services. Jet Aviation's European and U.S. aircraft management and charter divisions jointly operate a fleet of more than 200 aircraft. For more information, please visit [www.jetaviation.com](http://www.jetaviation.com).

#### **DASSAULT DELIVERS FIRST FALCON 7X TO CHINA**

(Teterboro, New Jersey, March 19, 2010) – Dassault Falcon delivered the first Falcon 7X to mainland China on March 5th. Two more will be delivered to mainland China by the end of this month. "This is a significant milestone for the Falcon 7X program and Dassault. The time has arrived for China to emerge as a strong market for business aviation," said John Rosanvallon, President and CEO of Dassault Falcon. "In anticipation of this growth, Dassault has increased customer support significantly and increased marketing activity throughout China and Asia." Last month, Dassault delivered the first Falcon 7X to India. Dassault's Falcon 7X demonstrator recently completed a two week marketing tour through Asia and Australia culminating in its first appearance at the Singapore Air Show. During that time, 28 legs were flown over sixteen days with five off days. The aircraft accumulated 76 hours of pilot and executive demonstration flight time. "The response was very positive," added Rosanvallon. The 5,950 nm Falcon 7X can connect Beijing with Paris, France; Sydney, Australia and San Francisco, California. It can also connect Shanghai with Auckland, New Zealand; Seattle Washington and London, England.

#### **DASSAULT'S FALCON 7X RECEIVES TYPE CERTIFICATION BY CHINESE AUTHORITIES; ALL CURRENT PRODUCTION FALCONS NOW CERTIFIED IN CHINA**

(Singapore, February 2, 2010) – Dassault Falcon recently received Type Certification for the 5,950 nm Falcon 7X from the Civil Aviation Administration of China (CAAC). The Falcon 7X is the latest current production Falcon to be certified by the Chinese authorities. The Falcon 900 family and Falcon 2000 family were both certified several years ago. "Before the end of the first quarter of this year, we will have delivered three Falcon 7Xs in mainland China," said John Rosanvallon, President and CEO of Dassault Falcon. "As an industry, we've been waiting for China to emerge as a strong force for several years. That time has arrived and this certification will not only help Dassault Falcon continue to grow in China but will be of vital importance to all of our operators." The Falcon 7X can connect Beijing with Paris, France; Sydney, Australia and San Francisco, California. It can also connect Shanghai with Auckland, New Zealand; Seattle, Washington and London, England.

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2012 Zhuhai Directory: Dedienne Aerospace is a world-leading manufacturer of Ground Support Equipment and was founded in 1946 in Toulouse France. We are here to provide our customer with the latest tools version under the license of Airbus/Boeing/CFM/P&W. It is our great honor to provide you the best price and the top quality. To be close to our customers, we have 3 subsidies all over the world: Dedienne Aerospace France; Dedienne Aerospace USA; and Zhuhai Dedienne Aero-Equipment Co., Ltd.

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2012 Zhuhai Directory: The company Direct Fly was founded in 2006 and focus on development and manufacturing of ultralight and LSA aircrafts. It is located near Uherské Hradiště - Kunovice, in the region with over 70-year tradition of aircraft production and high proficiency of local technicians. The aircrafts L200 Morava, L13 and L23 Blanik, L410 and several new successful ultralight aircraft originate from this region. The main subject of enterprise of the company is serial production of the ultralight sport aircrafts ALTO and Argo. Long lasting R&D skills and deep experience with construction of the aircraft using CNC technology guarantee high quality and competitive products in ultralight market worldwide. Direct Fly is an active exhibitor at local and international air shows and has won the bronze medal with ALTO during World Air Games Competition in 2009. ALTO has been certified in Czech Republic, France, and in USA. The certification in Germany is in progress.

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2012 Zhuhai Directory: As a leading producer of cutting machine tools, our high-tech machines are found at the start of the investment and production chain; thus they play a key role throughout the entire industry. In addition to our core areas of expertise of "turning", "milling" and "ultrasonic/lasertec", our product range includes a wide variety of automation and software solutions for machine tools. Our widely diversified, international service business is constantly gaining in importance. Moreover, GILDEMEISTER is tapping into the business area of renewable energies with innovative products for energy production and energy storage as well as applications. It comprises four areas: Components, SunCarrier, CellCube and WindCarrier. The cooperation with the Japanese machine tool builder, Mori Seiki, is an essential component in our global corporate strategy.

# E

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2012 Zhuhai Directory and Corporate Website: EADS is a global leader in aerospace, **defense**, and related services. In 2001, the Group-comprising Airbus, Astrium, Cassidian, and Eurocopter-generated revenues of €49.1 billion.

The following is from EADS website (December 2013) and was not included in the 2012 directory:

Showing the importance of China, the EADS Group and its joint ventures currently have more than 1,100 employees and the company and its Divisions are present in multiple locations across the country. Airbus entered the Chinese market in 1985, when an A310 was first delivered to today's China Eastern Airlines. By the end of October 2010, the Airbus in service fleet in China has risen to 637 aircraft representing 43 percent of the total. China has ordered by end of October in total 738 aircraft directly from Airbus. In Tianjin, Airbus has set up the first Final Assembly Line outside of Europe. Airbus not only values its relationship with airlines in China, it also appreciates the enormous potential offered by Chinese industry. In addition, Airbus has several major technology transfer programmes underway, including one that will enable the complete wing of the A320 Family to be manufactured in China. Astrium is actively pursuing cooperation with China in the space sector. In 1997, Astrium and CASC set up a joint venture, EuroSpace, which constitutes a link between both major industry players. In 2003, Astrium signed a major contract with CAST for the setting up in Beijing of the world largest Compensated Compact Test Range (CCR120/100). Through Astrium Geoinformation Services, Astrium is also extremely active in the Earth Observation domain. Beijing Spot Images (BSI) is the joint venture founded in 1998 between Spot Image and CEODE, an affiliate organization of the Chinese Academy of Sciences. Cassidian has won a number of major contracts in the field of Professional Mobile Radio. The partnership between Cassidian and Chinese companies (CETC and CASIC) started to provide integrated solutions that guaranteed the security for the 2008 Beijing Olympic Games. Cassidian has deployed the TETRA radio systems in airports all over the country which enable digital dispatching services in various airport functions such as airline operation, cargo traffic, ground services, airport public security and oil depots. 2010 has been a very successful year for Cassidian on the Chinese market. It won the contract from the Guangzhou government for a TETRA network to ensure security at the 16th Asian Games in 2010. It also co-signed a contract to provide the Shenzhen Public Security Bureau with a TETRA radio system that will offer secure communication services during the 26th World University Games in 2011. For over 40 years, Eurocopter has been

China's No. 1 helicopter partner and today it is the leader with a 41% market share and more than 150 helicopters sold across the country.

### **Eaton Corporation**

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2012 Zhuhai Directory: Eaton's Aerospace Group is a leading supplier of fluid power, fuel, electrical distribution, motion control and sensing components and systems. The extensive systems portfolio includes: hydraulic, electro-hydraulic pump and generator products and integrated systems; fuel pumps, valves, sensors, accessories and integrated systems; fluid conveyance products and systems; electrical motors; aircraft flap and slat systems; nose wheel steering systems; integrated control systems; cockpit interface and circuit protection; power and load management systems; and pressure sensors and fluid debris monitoring products and systems. Eaton aerospace components and systems are currently operating on most modern aircraft platforms manufactured by Airbus, Boeing, Bell Helicopter, Bombardier, Embraer, Gulfstream, Lockheed Martin, Raytheon, Sikorsky, and others. Eaton components and systems for actuation and controls, air management, electrical, fuel, hydraulic and propulsion have been selected for the latest aircraft platforms around the world, such as Airbus A380, A350, Boeing B787, Embraer Phenom 100 and 300, and Sikorsky **CH-53K and UH-60** helicopters.

### **EATON AEROSPACE CUSTOMER CONNECTION**

October 2007, Volume 15, Issue 1

### **YUZHENG YIN NAMED NEWEST CUSTOMER SUPPORT REGIONAL MANAGER FOR THE PEOPLE'S REPUBLIC OF CHINA**

Yuzhe is the latest addition to Eaton's Aerospace Operations customer support team. He earned a Bachelor's degree in Aircraft Powerplant Engineering from the Civil Aviation University of China and his MBA from the Paris Graduate School of Management. He has 13 years experience working for China Northwest Airlines, Air France Industries, and Eaton in a variety of positions in engineering, program management, and supervisory roles. He is based in Eaton's World Headquarters office in Shanghai. Please join Eaton in welcoming

Mr. Yin. Contact Information: YuZhe Yin, Tel: +86 21 6387 9988, Cell: +86 139 1759 5322, YuZheYin@Eaton.com.

## EATON PRESS RELEASES

### EATON, HIT LAUNCH JOINT ELECTRICAL, HYDRAULICS LABS AND HIT- EATON ENGINEERING EDUCATION CENTER IN HARBIN

September 9, 2013

Harbin ... Power management company Eaton and the Harbin Institute of Technology (HIT), one of the top universities in China, this month opened two new HIT-Eaton joint labs at the university -- an electrical lab and a hydraulics lab -- and also launched the HIT-Eaton Engineering Education Center in Harbin. Curt Hutchins, president of Eaton's Asia Pacific region; Wang Shuquan, party secretary for HIT; Xu Dianguo, HIT president assistant; and faculty attended the opening ceremony on September 9. This event marks another step forward in the cooperation between Eaton and China's leading academic institutions.

"As a global leader in electrical and hydraulic engineering technology, Eaton is excited to take this step forward in extending our partnership with the Harbin Institute of Technology," Eaton's Curt Hutchins said at the opening ceremony. "Eaton is committed to developing the talent of engineering specialists in China. The establishment of the joint labs and the internship program will enable us to better support HIT's scientific research and foster innovation in China's power management industry."

Eaton helped establish the HIT-Eaton electrical lab and provided advanced electrical equipment such as uninterruptible power systems (UPS), SmartWire DT control panel wiring, converter, smart switch technology and PowerXpert monitoring software that can be used for innovation experiments and in the teaching of comprehensive courses for undergraduate and graduate students. By integrating teaching and research resources, the cooperation between HIT and Eaton aims to provide students with access to sophisticated technologies in power quality, electricity transmission and distribution and power management. Eaton has provided research equipment such as electromagnetic steering valves, safety valves and cartridge valves for the hydraulics lab to promote undergraduate and graduate education and research in hydraulic innovations.

The HIT-Eaton Engineering Education Center serves as an incubator for first-rate engineers and engineering talents. It's committed to enhancing students' team spirit, communicative ability and leadership towards becoming excellent engineering practitioners and innovators. Open to HIT students from the School of Electrical Engineering and Automation, School of Mechatronic Engineering and School of Energy Science and Engineering, the program offers teaching assistance, training programs, internship opportunities, career guidance and other services.

As one of the leading global enterprises dedicated to supporting China's research and development, Eaton has partnered with HIT since 2008 when the two entered an R&D sponsorship agreement to promote technological innovations and talent development in the power management industry. The research findings of the project, "High-Performance Digital Cockpit Control Panel (CCP) System for Air Craft Systems", have been applied in the C919 joint venture between Eaton and the Commercial Aircraft Corporation of China (COMAC), an example of enterprises helping to advance research and development in key national scientific projects. Eaton later signed a strategic partnership agreement with the university and donated RMB 100,000 to the HIT Education and Development Foundation. The donation was used to set up the HIT-Eaton Innovation Scholarship, a program aiming to encourage innovation and recognize high-achieving HIT students. Eaton has continued to work with HIT faculty to extend the partnership and several Eaton executives serve as part-time instructors at HIT.

As a proponent of indigenous innovation in China, Eaton has been involved in research and development initiatives with several universities such as the Beijing Institute

of Technology, Nanjing University of Aeronautics and Astronautics, Zhejiang University, Huazhong University of Science and Technology, Xi'an Jiaotong University, Shanghai Jiaotong University and South China University of Technology.

**EATON NAMES JOE-TAO ZHOU PRESIDENT, CHINA**

July 04, 2013

Shanghai ... Diversified industrial manufacturer Eaton recently announced that Joe-Tao Zhou has been named president of Eaton in China, reporting to Curt Hutchins, president – Asia Pacific, effective May 1. Zhou succeeds Erbing Shang who was appointed general manager – China for the company's Vehicle Group. "With the acquisition of Cooper, the complexity of our business in China has expanded significantly with an increased footprint, staffing, customers, business partners and overall scale. In Joe's new capacity he will provide critical leadership for our technology day activities, government relations, marketing, communications, business development, partner relations and key account management activities," said Hutchins. "Joe will play a key leadership role in helping to integrate Cooper products and messaging into our technology days and lead the renovation of our Shanghai and Beijing Customer Experience Centers." Zhou most recently held the position of president – Asia Pacific for Eaton's Aerospace business and prior to that held the president, China role for Eaton. Prior to joining Eaton in 2008, Zhou worked for Alcatel Lucent where he last served as executive vice president of its China organization. He holds a bachelor's degree in automation control engineering from Beijing University of Aerospace Technology in China and a postgraduate diploma in business administration from Queensland University of Technology in Australia.

**EATON OPENS NEW LABORATORY IN ITS CHINA INNOVATION CENTER TO DRIVE DEVELOPMENT OF ENERGY-EFFICIENT POWER MANAGEMENT TECHNOLOGIES**

July 25, 2012

This news release was distributed by Eaton in China.

Shanghai...Diversified industrial manufacturer Eaton Corporation announced today that the Eaton China Innovation Center has opened a new laboratory to drive development of energy-efficient power management technologies for the local market.

Located in Eaton's Asia Pacific headquarters in Shanghai, the new laboratory covers an area of more than 300 square meters and is designed to develop key technologies and solutions essential to the company in order to achieve business success in China and the Asia Pacific region. The new laboratory is equipped with best-in-class hardware equipment and software tools, providing world-class facilities to support innovation in China.

Chris Roche, vice president of Corporate Technology, Eaton Corporation, said: "The opening of the laboratory will help us not only gain access to local technology and talent, but also collaborate with our global innovation center network to provide world class power management solutions for our customers."

Established in September 2010, Eaton's China Innovation Center is one of five global innovation centers. In February 2012, Eaton announced the expansion of the Innovation Center by adding a team in Shenzhen to focus on power conversion technology. Eaton's China Innovation Center is focused on developing advanced technologies and solutions, such as next generation power converters, safe solutions for alternative energy, environmental friendly vacuum switching, advanced diagnostics and prognostics, digital and green hydraulics, energy-efficient vehicle powertrains, electrical vehicle and high-efficiency charging technology.

The Innovation Center organization is Eaton's most forward-looking Research & Development and technological innovation organization, committed to providing the most

advanced technology innovation for the company's global business. Eaton currently has global innovation centers in the United States, China, India, and the Czech Republic.

Eaton has invested heavily in innovation and R&D. Today, Eaton owns approximately 9,000 patents throughout the world, and was granted over 900 patents during 2011 alone. Eaton was named one of the Top 100 Global Innovators by Thomson Reuters in 2011 for its outstanding innovation capability. In the meantime, Eaton has made extensive efforts to cooperate with Chinese universities, research institutes and academia to drive progress in research and development and the cultivation of local talents. Eaton has established technology cooperation with eight major universities in China, including Harbin Institute of Technology, Zhejiang University, Shanghai Jiaotong University, Huazhong University of Science and Technology, Beijing Institute of Technology, Nanjing University of Aeronautics and Astronautics, Xi'an Jiaotong University and South China University of Technology.

#### EATON SIGNS LETTER OF INTENT WITH COMAC TO SUPPLY CARGO-DOOR ACTUATION SYSTEM FOR C919 AIRCRAFT PROGRAM

July 9, 2012

Eaton's Integrated Design Reduces System Weight, Improves Fuel Efficiency

FARNBOROUGH ... Diversified industrial manufacturer Eaton Corporation has signed a letter of intent with Commercial Aircraft Corporation of China, Ltd. (COMAC) to supply the cargo door actuation system for the COMAC C919 program. The system's lightweight design helps reduce overall aircraft weight and improve fuel efficiency. The value of the contract has not been disclosed. "Our selection by COMAC was based on Eaton's superior system design and integration capabilities, which optimize aircraft performance and lifecycle cost," said Joe-Tao Zhou, president – Asia Pacific, Eaton's Aerospace Group. "Eaton's innovative solutions are driving growth in China's emerging aerospace market and extending Eaton's broad product portfolio to new markets worldwide." Eaton's cargo door actuation system will lift the fore and aft cargo doors on the C919 passenger jet. The cargo door actuator contains integrated control electronics, a design innovation that eliminates the need for a separate controller. Eaton's integrated approach saves weight and volume, leading to overall aircraft weight reductions, improved fuel efficiency and lower environmental emissions.

#### EATON TO PROVIDE HIGHLY RELIABLE AC MOTORPUMPS FOR CHINA EASTERN'S NEW ORDER OF 50 AIRBUS A320 JETS

June 25, 2012

Excellent component reliability helps customers reduce aircraft lifecycle costs

Cleveland ... Diversified industrial manufacturer Eaton Corporation will supply AC motorpumps for 50 new Airbus A320 passenger jets in a contract awarded by China Eastern Airlines. Eaton's AC motorpumps deliver the highest reliability in the industry and help airline operators improve aircraft availability while lowering lifecycle costs. The value of the contract has not been disclosed. "Eaton is an industry leader in developing innovative power-management solutions that improve aircraft performance and lifecycle cost management," said Joe-Tao Zhou, president – Asia Pacific, Eaton's Aerospace Group. "Our increasing business with China Eastern is an example of how Eaton's strengths in component excellence and customer support are driving growth in the Asia-Pacific region and establishing new markets for our comprehensive product portfolio." Eaton sets the standard for hydraulic pump reliability, with average reliability exceeding 50,000 hours MTBF. Eaton's AC motorpumps are sole source on Airbus A330, A340 and A380 platforms. Eaton's AC motorpumps are fitted on 90 percent of China Eastern's A320 fleet. AC motorpumps provide hydraulic power for inflight and systems ground operation.

EATON TO PROVIDE ENGINE-DRIVEN PUMPS, AC MOTORPUMPS FOR CHINA SOUTHERN'S NEW ORDER OF 30 AIRBUS A320 PASSENGER JETS

June 19, 2012

Cleveland ... Diversified industrial manufacturer Eaton Corporation will supply engine-driven pumps and AC motorpumps for 30 new Airbus A320 jets in a contract awarded by China Southern Airlines, Asia's largest carrier. Eaton is the sole supplier of engine-driven pumps and AC motorpumps for all Airbus aircraft operated by China Southern, including its current fleet of 179 A320 jets. The contract highlights Eaton's continuing expansion in the Asia-Pacific aerospace market and its global leadership in aircraft component quality, service and reliability. The value of the contract has not been disclosed. "China Southern and a growing number of airlines in the Asia-Pacific region are benefiting from Eaton solutions that support improved aircraft performance and total lifecycle management," said Joe-Tao Zhou, president – Asia Pacific, Eaton's Aerospace Group. "Eaton components provide unsurpassed levels of reliability and efficiency for our customers, and our global support network ensures that products are available whenever and wherever needed to keep fleets in operation around the world." Eaton sets the standard for hydraulic pump reliability, with average reliability exceeding 50,000 hours MTBF. Eaton's hydraulic engine-driven pumps and AC motorpumps are sole source on Airbus A330, A340 and A380 platforms. Engine-driven pumps and AC motorpumps provide hydraulic power to perform vital actions on the aircraft, including landing gear extension and retraction; flap, aileron, rudder and elevator motion; aircraft wheel braking; and cargo door opening and closing via hydraulic actuators.

EATON JOINS CHINA BUSINESS COUNCIL FOR SUSTAINABLE DEVELOPMENT

June 11, 2012

This news release was issued by Eaton in China. Contact: Vivian Xiao (86 21)5200 0582

Shanghai...Diversified industrial manufacturer Eaton Corporation announced that it has recently joined the China Business Council for Sustainable Development (CBCSD), an invitation-only coalition of leading Chinese and foreign enterprises registered and operating in China to advance sustainable development through providing a platform for exchange and cooperation among business, government and social communities on critical sustainability issues. As a regional partner of the World Business Council for Sustainable Development (WBCSD) and under the guidance of it, CBCSD aims to provide a platform for local and foreign companies to share information, experience and best practices in the field of sustainable development. As a leader in the sustainability practice, Eaton was invited to become a member of WBCSD in 2010. "We are very pleased to be invited to join CBCSD and become a member of this leading organization. It is recognition of Eaton's long-term efforts in the fields of sustainability and corporate social responsibility in China," said Erbing Shang, president of Eaton in China. "Sustainability is the way we operate our business and is also the foundation of our success. Eaton is dedicated to providing our customers with highly efficient products and solutions to help them manage electrical, fluid and mechanical power more effectively, safely and reliably and to drive the sustainability of the industry." Established in October, 2003, CBCSD now has approximately 80 members. CBCSD focuses on such key areas as energy and climate, corporate social responsibility, environment health and safety (EHS), low-carbon economy and clean development mechanism, which is consistent with WBCSD, to help companies address the challenges and push forward the course of sustainability in the world. Entering the Chinese market in 1993, Eaton adheres to the philosophy of "doing business right" over the past almost two decades. With the continuous growth of the business, Eaton also upholds corporate social responsibility and closely focuses on sustainability of such topics as energy, transportation and education in a variety of ways including releasing the annual

China Sustainability Report, hosting sustainability seminars and engaging in community activities. Eaton's untiring endeavor has earned public recognitions at large with approximately 25 honors and awards in the fields of sustainability and CSR since 2008 in China. "We will actively fulfill our obligations and responsibilities as a member of CBCSD and work closely with peer companies to support the council's valued work and make a strong contribution to China's sustainable development." added Erbing Shang.

#### EATON COMPONENTS ENABLE GAIG TO RELEASE COTTON HARVESTER WITH ALL-HYDRAULIC DESIGN OFFERING IMPROVED DRIVABILITY AND PRODUCTIVITY

May 24, 2012

Eden Prairie, Minn. ... Diversified industrial manufacturer Eaton Corporation today announced that Guizhou Aviation Industry Group (GAIG) Agriculture Equipment Company, Ltd. of Shihezi, Xinjiang, China, the country's largest producer of cotton harvesting equipment, is equipping its large, self-propelled 4MZ-5 cotton harvesters with an all-hydraulic design featuring Eaton products that have helped improve drivability and productivity. GAIG's next generation 4MZ-5 harvesters feature an Eaton heavy-duty hydrostatic transmission, open-circuit piston pump, valve manifolds, steering unit and motor supplied by Eaton in China. In addition to its total hydraulic package design expertise, Eaton was awarded GAIG's business based on its application and technical support strengths, resulting in ongoing batch supply orders since January 2011.

#### EATON SAMC CONVEYANCE SYSTEM JOINT VENTURE NOW OPEN FOR BUSINESS; MILESTONE IN INTERNATIONAL COOPERATION FOR COMAC C919 AIRCRAFT PLATFORM

June 28, 2011

The following news release was issued by Eaton in China earlier today.

Shanghai ... Diversified industrial manufacturer Eaton Corporation and Shanghai Aircraft Manufacturing Co., Ltd. (SAMC), a subsidiary of Commercial Aircraft Corporation of China (COMAC), today celebrated the official opening of Eaton SAMC (Shanghai) Aircraft Conveyance System Co., Ltd., their conveyance joint venture.

Senior executives, including Mr. Jin Zhuanglong, General Manager of COMAC and Craig Arnold, Eaton vice chairman and chief operating officer – Industrial Sector, presided at the office opening ceremony at Shanghai Pudong Lujiazui Software Park.

The official opening of Eaton's joint venture with SAMC is an important step forward in the Sino-international cooperation involved in the exciting C919 project, said Craig Arnold. "We look forward to working with SAMC to develop the comprehensive conveyance system engineering and manufacturing capabilities for the global civil aviation market. Together we will utilize the best civil aviation technology, world-class manufacturing capabilities, and proven management practices to create a globally competitive company."

Among the joint ventures being formed to support the C919 program, the Eaton-SAMC joint venture, signed in July 2010, was the first for the COMAC enterprise with a foreign company and also the first to be granted a business license in March 2011. The new joint venture will focus on the design, development, manufacturing and support of fuel and hydraulic conveyance systems to support COMAC's C919 design, development and manufacturing capacity. Future plans include supplying conveyance systems to other aircraft and engine manufacturers in China and in global markets.

COMAC is the recently created indigenous Chinese commercial aircraft company. The C919 program, with first flight planned for 2014 and certification planned for 2016, represents a significant area of rapid development and growth for the Chinese aerospace industry. As the assembly and manufacturing center of COMAC, Shanghai Aircraft Manufacturing Co. Ltd. (SAMC) is mainly engaged in the manufacturing, final assembly,



parts assembly, delivery, maintenance of the commercial aircraft parts, pilot flight and other services.

Eaton began operations in China in 1993 through a joint venture in Jining, Shandong Province. Since then, its presence has grown significantly in the region through acquisitions, joint ventures and wholly owned subsidiaries. In China today, Eaton has 27 operations and four research and development centers with approximately 10,000 employees, including 1,500 engineers in China.

#### EATON'S NEW DIGITAL CONTROL PANEL SYSTEM OFFERS THE LATEST INDUSTRY ADVANCEMENTS IN RELIABILITY, EFFICIENCY AND WEIGHT REDUCTION

June 17, 2011

PARIS ... Diversified industrial manufacturer Eaton Corporation has introduced a new digital control panel system to the aerospace industry that offers technological innovations along with sweeping improvements in reliability, efficiency and weight reduction. Eaton will feature the system as part of its product and technology demonstrations during the Paris Air Show on June 20-26. "Eaton's goal is to anticipate the changing needs of our customers and the aerospace industry and to deliver products that exceed their expectations," said Bradley J. Morton, president of Eaton's Aerospace Group. "The innovations in our control panel system are great examples of Eaton's leadership in new technologies and our focus on expanding market growth." With more than 70 years of experience in improving a broad range of aircraft cockpits, Eaton's new designs represent the most reliable, rugged, and efficient switches, lighted panels, keyboards and CRT bezels available in the aerospace market. The new digital control panel system paved the way for one of Eaton's largest aerospace contracts in 2010, when the company signed a letter of intent with Commercial Aircraft Corporation of China, Ltd. (COMAC) and Shanghai Aviation Electric Co., Ltd. to supply control panel assemblies and dimming control systems for the COMAC C919 program. The total contract value is estimated to exceed \$425 million based on an anticipated volume of 2,500 aircraft.

#### EATON CORPORATION AND SHANGHAI AIRCRAFT MANUFACTURING CO., LTD. FORM CONVEYANCE JOINT VENTURE

April 5, 2011

First JV Granted Business License to Support COMAC C919 Aircraft Platform The following news release was issued by Eaton Corporation in China on April 6, 2011.

SHANGHAI ... Diversified industrial manufacturer Eaton Corporation (NYSE:ETN) and Shanghai Aircraft Manufacturing Co., Ltd. (SAMC), a subsidiary of Commercial Aircraft Corporation of China (COMAC), announced today that they have established a joint venture in Shanghai to support the COMAC C919 single-aisle commercial aircraft program.

Of the joint ventures being formed to support the C919 program, the Eaton-SAMC joint venture is the first for the COMAC enterprise with a foreign company, as well as the first to receive a business license. The joint venture will focus on the design, development, manufacturing and support of fuel and hydraulic conveyance systems.

"Eaton is proud to be the first foreign supplier that officially establishes a joint venture with our Chinese partner to support the C919 aircraft platform," said Brad Morton, president of Eaton's Aerospace Group.

"We look forward to working with SAMC to develop the comprehensive conveyance system engineering and manufacturing capabilities for the global civil aviation market. We will utilize the best civil aviation technology, manufacturing capabilities, and management practices to create a globally competitive company.

"Today's announcement follows a joint venture agreement signed by the two companies in July 2010. SAMC owns a 51 percent interest in the new joint venture, and

Eaton owns a 49 percent interest. The primary focus of the joint venture is to support COMAC's C919 design, development and manufacturing capacity. Future plans include supplying conveyance systems to other aircraft and engine manufacturers in China and the rest of the world. Total program value for C919 conveyance systems, including aftermarket opportunities, is estimated at \$1.8 billion, based on an anticipated volume of 2,500 aircraft.

COMAC is the recently created indigenous Chinese commercial aircraft company. The C919 program, with first flight planned for 2014 and certification planned for 2016, represents a significant area of rapid development and growth for the Chinese aerospace industry. As the assembly and manufacturing center of COMAC, Shanghai Aircraft Manufacturing Co. Ltd. (SAMC) is mainly engaged in the manufacturing, final assembly, parts assembly, delivery, maintenance of the commercial aircraft parts, pilot flight and other services.

Eaton began operations in China in 1993 through a joint venture in Jining, Shandong Province. Since then, its presence has grown significantly in the region through acquisitions, joint ventures and wholly owned subsidiaries. In China today, Eaton has 27 operations and four R&D centers with approximately 10,000 employees.

#### CHINA SOUTHERN AIRLINES AND TIBET AIRLINES SELECT EATON TO PROVIDE ENGINE-DRIVEN PUMPS, AC MOTORPUMPS FOR AIRBUS FLEETS

March 8, 2011

Irvine, Calif. ...Diversified industrial manufacturer Eaton Corporation announced today that China Southern Airlines Co., Ltd. and Tibet Airlines have awarded contracts to Eaton to supply engine-driven pumps and AC motorpumps for Airbus passenger fleets. The contracts highlight Eaton's continued expansion in the Asia-Pacific aerospace market and its global leadership in aircraft component quality, service and reliability. The value of the contracts has not been disclosed. China Southern Airlines Co., Ltd., Asia's largest airline, selected Eaton to supply engine-driven pumps and AC motorpumps for its fleet of Airbus A320 passenger jets. Eaton is the sole supplier of these components on all of the airline's Airbus aircraft. Tibet Airlines selected Eaton to supply engine-driven pumps and AC motorpumps for its fleet of Airbus A319 passenger jets. The airline will be the first carrier based in Tibet and is expected to launch operations later this year. "We're excited about these opportunities for expansion in one of the world's fastest growing aerospace markets," said Joe-Tao Zhou, president – Asia Pacific, Eaton's Aerospace Group. "We look forward to building on our longstanding relationship with China Southern Airlines as we welcome a new customer in the region, Tibet Airlines."

#### EATON SECURES AC MOTORPUMP CONTRACTS WITH SICHUAN AIRLINES, CHINA SOUTHERN AIRLINES; NEW BUSINESS TO BOOST GROWTH IN ASIA

November 18, 2010

Shanghai ...Diversified industrial manufacturer Eaton Corporation (NYSE:ETN) today announced that Sichuan Airlines and China Southern Airlines have awarded contracts to the company's Aerospace Group, underscoring Eaton's continuing growth in the Asia-Pacific region and its global leadership in aircraft component quality and reliability. The value of the contracts has not been disclosed. Sichuan Airlines Co., Ltd. selected Eaton to supply engine-driven pumps and AC motorpumps for its new fleet of 32 Airbus 320 passenger jets. The company will also supply engine-driven pumps and AC motorpumps for China Southern Airlines' new fleet of 20 Airbus 320 passenger jets. Engine-driven pumps and AC motorpumps are key components in an aircraft's hydraulic power system. Pumps for the A320 series aircraft will be manufactured by the Aerospace Group's Hydraulic Systems Division in Bedhampton, United Kingdom. "These contracts showcase Eaton's expanding capabilities as well as the increased focus on quality that is driving

growth in the Asia-Pacific market and around the world,” said Joe-Tao Zhou, president – Asia Pacific, Eaton’s Aerospace Group. “We are excited to be working with these airlines and are prepared to provide the support they need to achieve their goals now and well into the future.” As Asia’s largest airline, China Southern Airlines is based at Baiyun International Airport in Guangzhou and operates 14 branches throughout China and 53 international offices in major metropolitan markets. Sichuan Airlines is a regional airline based at Chengdu Shuangliu International Airport in Shuanxi Plain focusing mainly on domestic flight services. In July, Eaton announced a joint venture agreement with Shanghai Aircraft Manufacturing Co., Ltd. to support China’s COMAC C919 Aircraft Platform.

EATON NAMES JOE-TAO ZHOU PRESIDENT – ASIA PACIFIC FOR THE AEROSPACE GROUP

October 12, 2010

Cleveland ... Diversified industrial manufacturer Eaton Corporation today announced that Joe-Tao Zhou has been named president - Asia Pacific for the company’s Aerospace Group, effective October 1. In his new role, Zhou will report to Bradley J. Morton, president - Aerospace Group, and will continue to be based in Shanghai, China. A search for Zhou’s successor in his current role as country president – China has begun. “Joe’s success leading Eaton’s corporate activities in China and his prior leadership experience in Asia Pacific position him well to take on this regional role for the Aerospace Group,” said Morton. “His experience and understanding of the region will be extremely valuable to us as we respond to unprecedented growth in the aerospace market and execute our strategic objectives in this region. Zhou joined Eaton in 2008 as country president - China. Prior to joining Eaton, Zhou worked for Alcatel Lucent where he last served as executive vice president of its China organization. He holds a bachelor’s degree in automation control engineering from Beijing University of Aerospace Technology in China and a postgraduate diploma in business administration from Queensland University of Technology in Australia.

EATON CORPORATION EXPECTS TO MEET \$1 BILLION SALES GOAL IN CHINA IN 2010

August 10, 2010

BEIJING ... Diversified industrial manufacturer Eaton Corporation today announced that it expects to meet a sales goal of \$1 billion in China by the end of 2010. Alexander M. Cutler, chairman and chief executive officer, outlined the company’s blueprint for growth in China and detailed a series of major initiatives to utilize Eaton’s global expertise and capabilities to support China’s ongoing infrastructure development.

“Eaton is well on the track to meet our previously announced sales goal of \$1 billion in China in 2010, despite the global economic recession that began in 2008,” said Cutler in remarks to Chinese media. “We anticipate that China’s economy will continue to grow faster than the rest of the world, and Eaton will continue its business expansion through both organic growth and acquisitions in this key developing market.” Cutler noted that Eaton made the following achievements in China in 2010:

Eaton and Shanghai Aircraft Manufacturing Co., Ltd. (SAMC), a subsidiary of Commercial Aircraft Corporation of China (COMAC), have signed a joint venture agreement to support the COMAC C919 single-aisle commercial aircraft program. The planned joint venture, the first for the COMAC enterprise with a foreign company, will focus on the design, development, manufacturing and support of fuel and hydraulic conveyance systems for the global civil aviation market. Total program value for C919 conveyance systems, including aftermarket opportunities, is estimated at \$1.8 billion, based on an anticipated volume of 2,500 aircraft.

Eaton, Shanghai Aviation Electric Co., Ltd. (SAE) and COMAC have signed a letter of intent for Eaton to supply the cockpit panel assemblies and dimming control system for the COMAC C919 aircraft program. Total value of the program is estimated to exceed \$425 million, based on an anticipated volume of 2,500 aircraft.

Eaton's Vehicle Group launched a new engine valve production facility in Jining, Shandong Province. The new facility will assemble engine valves for automotive customers in the Chinese market. It has also added a new R&D center in Wuxi to better serve the demands of local customers.

Eaton has won the contract to supply more than RMB41 million in electrical products -- including RMB20 million in mid-voltage switchgear and RMB21 million in assemblies -- to the new TFT-LCD plant of BOE Technology Group Co., Ltd, a leading supplier of display products and solutions in China. This contract is one of several recent agreements that Eaton's Electrical business has reached with Chinese customers.

Eaton's Hydraulics Group continues to partner in China's infrastructure development by winning contracts of over RMB 70M in 2010 for concrete pumps and mixers. In addition, Eaton was awarded a RMB 18M contract to supply high pressure Eaton-Aeroquip hoses for China's High speed railway network.

"The further expansion of Eaton's production capability in China is another positive step forward in meeting our significant growth goals in the region," Cutler said. "We see our participation in China first and foremost as an opportunity to support our customers in the fast-growing Chinese domestic economy. We are committed to increasing our research and development initiatives locally, as well as investing in our people and our communities in China."

In related news this week, Eaton announced its new Asia Pacific regional headquarters building in Shanghai has earned Gold Certification by the U. S. Green Building Council's internationally recognized LEED program.

Eaton began operations in China in 1993 through a joint venture agreement to manufacture steering control units and hydraulic motors in Jining, Shandong Province. Its presence has grown significantly in China through acquisitions, joint ventures and wholly owned subsidiaries. Currently, Eaton employs a workforce of 10,000 and has 27 operations and 4 R&D centers in China.

#### EATON SIGNS LETTER OF INTENT TO SUPPLY COCKPIT PANEL ASSEMBLIES AND DIMMING CONTROL SYSTEM FOR COMAC C919 AIRCRAFT PLATFORM

July 14, 2010

Total Program Value Estimated to Exceed \$425 Million

SHANGHAI ...Diversified industrial manufacturer Eaton Corporation (NYSE:ETN), Shanghai Aviation Electric Co., Ltd. (SAE) and Commercial Aircraft Corporation of China, Ltd. (COMAC) have signed a letter of intent for Eaton to supply the cockpit panel assemblies and dimming control system for the COMAC C919 aircraft program. Total value of the program is estimated to exceed \$425 million, based on an anticipated volume of 2,500 aircraft. The letter of intent covers critical aspects of the design, development, manufacture and support of integrated cockpit panels and dimming controls for the C919 single-aisle commercial airliner. Separately, Eaton and SAE have signed a strategic cooperation agreement for the design, development and manufacture of the cockpit panel assemblies and dimming control system for the COMAC C919. This agreement also puts in place a framework for future collaboration between the two companies. "The award of the C919 cockpit panel assemblies and dimming control system business will strengthen Eaton's presence in China's emerging aerospace market while expanding our capabilities to serve customers worldwide," said Brad Morton, president of Eaton's Aerospace Group. The strategic collaboration agreement with SAE demonstrates Eaton Corporation's focus on seeking further collaborative efforts in China, where the company employs a workforce

of 10,000 and has 27 operations. "These new agreements with SAE and COMAC highlight Eaton's commitment to growing its presence in China and helping to extend China's commercial aerospace industry into new markets worldwide," said Joe-Tao Zhou, president of Eaton in China. SAE is a leading aviation equipment manufacturer of aircraft cockpit panels, electrical power distribution systems, lighting systems, warning systems and related products in China.

**EATON CORPORATION AND SHANGHAI AIRCRAFT MANUFACTURING CO., LTD. ANNOUNCE JOINT VENTURE AGREEMENT TO SUPPORT COMAC C919 AIRCRAFT PLATFORM**

July 12, 2010

Program Value Expected to Total \$1.8 Billion

Shanghai ... Diversified industrial manufacturer Eaton Corporation (NYSE:ETN) and Shanghai Aircraft Manufacturing Co., Ltd. (SAMC), a subsidiary of Commercial Aircraft Corporation of China (COMAC), today announced they have signed a joint venture agreement to support the COMAC C919 single-aisle commercial aircraft program. The formation of the joint venture, the first for the COMAC enterprise with a foreign company, is subject to regulatory approvals and customary closing conditions. The planned joint venture will be based in Shanghai and will focus on the design, development, manufacturing and support of fuel and hydraulic conveyance systems for the global civil aviation market. Total program value for C919 conveyance systems, including aftermarket opportunities, is estimated at \$1.8 billion, based on an anticipated volume of 2,500 aircraft. "This joint venture demonstrates Eaton's continued commitment to expand its overall presence in China," said Craig Arnold, Eaton vice chairman and chief operating officer – Industrial Sector. "The comprehensive conveyance system engineering and manufacturing capabilities that will reside in our joint venture with SAMC will strengthen Eaton's presence in China's aviation industry. We look forward to working with SAMC to develop this unique full-service capability for the global civil aviation market." Today's announcement follows a joint venture framework agreement signed by the two companies in December 2009. SAMC will own a 51 percent interest in the new joint venture; Eaton will own a 49 percent interest. Eaton employs a workforce of 10,000 and has 27 operations in China. Eaton's Asia-Pacific regional office is in Shanghai. Shanghai Aircraft Manufacturing Co. Ltd. (SAMC) is a subsidiary of Commercial Aircraft Corporation of China (COMAC). As the assembly and manufacturing center of COMAC, Shanghai Aircraft Manufacturing Co. Ltd. (SAMC) is mainly engaged in the manufacturing, final assembly, parts assembly, delivery, maintenance of the commercial aircraft parts, pilot flight and other services.

**EATON CORPORATION IS PLEASED TO ANNOUNCE THE SIGNING OF A SIX-YEAR SUPPLY AGREEMENT WITH SHENYANG LIMING AERO-ENGINE GROUP CORPORATION**

June 16, 2009 - Irvine, Calif.

Diversified industrial manufacturer Eaton Corporation is pleased to announce the signing of a six-year supply agreement with Shenyang Liming Aero-Engine Group Corporation, which is fully owned by Aviation Industry Corporation, or AVIC, China's national aircraft manufacturer. Under this agreement, Shenyang Liming will supply Eaton with components used in fuel-system applications. This contract with Shenyang Liming will further strengthen Eaton's sourcing presence in China with AVIC International. AVIC will now support Eaton and its customers on a wide range of platforms. "We've been working with AVIC in China for a decade but have accelerated our global sourcing efforts over the last two years," said Brad Morton, president of Eaton's Aerospace Group. "As we hone our manufacturing strategies in the coming months, we will look to Shenyang Liming and others

to support our goals of enhancing production and growth. Eaton looks forward to expanding our relationship with AVIC."

#### CHINA'S ARJ21 NEW REGIONAL JET SUCCESSFULLY COMPLETES FIRST FLIGHT WITH EATON ONBOARD

Irvine, California, December 15, 2008

China's first advanced business jetliner made its first flight on November 28. In the one-hour test flight, the aircraft took off from its manufacturing base at Shanghai and flew to Chongming Island and back. A second flight is planned this month and three more aircraft will join the flight test program next year. COMAC, the new platform's builder, says that it will produce 20 ARJ21s a year and has now completed six. Eaton is a key supplier on the ARJ21 providing the advanced jetliner's integrated cockpit overhead control and monitoring panel assemblies and cockpit lighting controller sub-system. The series of overhead integrated panel assemblies feature Eaton's state of the art NEXGEN LED-illuminated pushbutton switches mated to Type-7 (LED) edge-lit panels. In addition, Eaton is also supplying a multi-channel cockpit lighting controller as well as Eaton toggle and non-illuminated pushbutton switches.

#### EATON APPOINTS DAVID CHEN PRESIDENT OF COMPANY'S CHINA OPERATIONS

Sep 11, 1996

Cleveland, Ohio...Eaton Corporation today announced the appointment of David Chen as the company's president for China. Chen will be based in Shanghai. In making the announcement in Shanghai, Eaton President and Chief Operating Officer, Alexander M. Cutler, said, "David Chen's appointment is another significant step in our overall China strategy, and symbolizes the importance we attach to China as both a manufacturing base, and one of our fastest-growing markets." Chen, who will report to Laurence M. Iwan, Eaton Vice President Asia/Pacific, will be responsible for assisting Eaton's operating units in developing a China presence, and leading Eaton's team in identifying opportunities for Eaton in China. He will also assist operating units in implementing business strategies to take advantage of those opportunities. "David Chen's appointment will allow Eaton to continue to both accelerate our development of manufacturing operations, and serve our growing list of key customers in markets ranging from the automotive industry, to industrial equipment, and from appliance manufacturers to the construction industry," Iwan said. After receiving undergraduate technical degrees from The New Medical School in Janjing, China, and from the University of New Orleans, Chen received a master of science degree from Cornell University in 1986. Prior to joining Eaton, he was chief representative for China for the BOC Group plc, a British company that is one of the world's leading suppliers of industrial and specialty gasses, with 1995 sales of 4.5 billion pounds sterling.

#### École Nationale d'Aérotechnique (ENA)

5555, Place De La Savane, Saint-Hubert (Québec), J3Y 8Y9 Canada

Tel: +450 678-3561 ext. 4526

<http://ena.college-em.qc.ca/english>

Contact: Frédéric Busseau, [frederic.busseau@cegepmontpetit.ca](mailto:frederic.busseau@cegepmontpetit.ca)

Corporate Website (Extracted in February 2014): ÉNA is affiliated with Cégep Édouard-Montpetit, one of the biggest college in Quebec. ÉNA can accommodate approximately 1,300 students a year for regular full-time programs and several hundred technicians in continuing education. Its three programs in aeronautical technology are recognized by Transport Canada. Furthermore, thanks to an agreement with the (Wallonie Aerotraining Network) Centre de compétences Wallonie Aerotraining Network (WAN), a training and evaluation centre in Belgium, ÉNA can offer students the opportunity to take

the EASA PART-66 theoretical exams in order to obtain an aeronautical technician's licence under the EASA PART-147 European certification norms of the European Aviation Safety Agency (EASA). The École Nationale d'Aérotechnique (ÉNA) is a leader in terms of technical training in aerospace technology in North America. It is located near Montreal in the St-Hubert airport zone, close to many aeronautical businesses. ÉNA has five hangars and a fleet of 34 aircraft, 24 airplanes and 10 helicopters, and is equipped with modern installations that include over 30 laboratories and specialized workshops. Not only does ÉNA offer training where theory and practice go hand in hand, but it offers its students the opportunity to register for a work-study program and to have access to internships in the workplace, both in Canada and in other countries. This work-study program allows a student to work at a paid internship varying from 12 to 16 weeks long in an aerospace business, starting in his 4<sup>th</sup> term. There is a second internship later in the training program. Although these internships can extend the duration of the study program by a year, this work experience is incomparable and extremely useful.

**Ekran Scientific Research Institute**  
**V.I. Shimko Radioelectronics SPA JSC**  
[which includes both Ekran and Shimko]

Ekran  
ЭКРАН  
Pr. Kirova, 24, Samara, Russia, 443022  
Tel/Fax: 7-(846)-932-05-07  
www.niiekran.ru  
Contact: Alexander Kisletsov, Deputy General Director, kisletsov@samtel.ru

2012 Zhuhai Directory: The Scientific Research Institute "Ekran" is one of the leading companies in the development of **electronic warfare** systems for aircraft and helicopters, and is part of "The radio electronic technology concern." The best known of the company developed system is the **electronic warfare** system "President-C."

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50, Zhurnalistsov Str., Kazan, Russia 420029  
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www.shimko.rostechn.ru  
Contact: Sergey I. Samoylov – Sales Deputy Director General

2012 Zhuhai Directory: Radioelectronics Scientific and Production Association, named after VI Shimko, is a leader in development and production of identification systems (IFF/identification, friend or foe), including airborne, ground and cryptographic facilities and is part of Concern Radioelectronic Technologies. The enterprise has development and introduced several generation equipment operating systems.

**Electroavtomatika/St. Petersburg Experimental - Design Bureau**  
40 Marshal Govorov St., Saint-Petersburg, Russia 198095  
Tel: 7(812)-252-13-98; Fax: 7(812)-252-38-17  
postmaster@elavt.spb.ru  
Contact: Valuev Nikolay, Head of Department

2012 Zhuhai Directory: The main fields of the company activity are design, development and production of the following systems: navigation, navigation and piloting, and special systems, including software design; airborne computers and computing

systems, internal and external interfaces, system and applied software; - helmet mounted displaying and aiming systems; collimating head-up display; airborne display systems (including software), built on CRTs; AMLCD and EL flat panels/CDUs and video recording systems; Integrated systems developed by Electroavtomatika are installed aboard Ka-50, Mi-24, Mi-35 and their derivatives. [FGUP Electroavtomatika St. Petersburg Experimental Design Bureau named after P. A. Efimov designs, develops and produces integrated avionics systems and computing systems including their software, display systems (head down, HUD, HMD), simulators and crew training systems. Company is a part of "Radioelectronic technologies" Concern "Rostechnologies" State Corporation.]

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Certification: JAR145

On-Board Electronics and Parts Distributor

2012 Zhuhai Directory: ELTA is specialized since 1975 in electronics for harsh environment. For aeronautics: it provides Cabin connectivity components such as wireless distribution and control equipment for Airbus Connectivity Platform (Long Range and A380), on-board power converters and motor control systems, power management and converters for cockpit and airframe, windshield de-icing systems, control and regulation of onboard cooling systems, EHA, EMA, ventilation, flight controls, and electric braking. ELTA is the leader on the ELT market with more than 15000 ELT's delivered to 280 airplanes. For space activity: on board equipment and systems for stratospheric balloons, and fail safe computers and systems. T&C ground stations for stratospheric balloons and LEO satellites. Indoor and Outdoor fail safe radio communication systems. Product lines on frequency conversion, digital signal processing, high bit rate data recording. High data rate modem, monopulse, monoscan, and beacon receivers, telemetry receivers, microwave modules, GNSS simulators, Satellite Link Simulators. ELTA manufacturers also customized products, test benches (SCOE), and satellite ground stations for earth observation.

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Corporate Website (Extracted in February 2014): Embraer established Beijing Representative Office in May 2000, which covers the overall responsibilities of sales and marketing, customer support and services, government relations and public relations for Greater China. As of Dec.1st, 2011, Embraer enjoys around 76% of China's regional aviation market. In light of the steady growth of its customer base in China, Embraer created its wholly-owned subsidiary, Embraer China Aircraft Technical Services Co., Ltd., in July 2010. Its business scope covers logistics and spare parts sales, as well as consulting services regarding technical issues and flight operations.

Harbin Embraer Aircraft Industry  
15 Youxie St., Pingfang, Harbin 150066 China

Corporate Website (Extracted in February 2014): The Harbin Embraer Aircraft Industry Co., Ltd. was jointly established by Embraer and Harbin Aircraft Industry (Group) Co., Ltd., a subsidiary of Aviation Industry Corporation of China (AVIC) on January 13th, 2003, in the city of Harbin. Embraer and its Chinese partner hold 51% and 49% shares, respectively. The joint venture manufactures 50-seat ERJ 145 jets in China.

2012 Zhuhai Directory: Founded in 1969, Embraer (Embraer S.A.) designs and manufactures commercial, executive and **military** aircraft for worldwide customers, as well as providing aviation services. With over 40 years' continuous progress and innovation, Embraer, following its market-oriented strategy and its commitment to meeting customers' needs, has become the world's largest manufacturer of commercial jets up to 120 seats, accounting for approximately 45% shares of the world's regional aircraft market. Embraer's E-Jets family has four models: Embraer 170 with 70-78 seats, Embraer 175 with 78-88 seats, Embraer 190 with 98-114 seats, and Embraer 195 with 108-122 seats. Over 850 units have already been put into operation by 62 airlines in 42 countries. The year 2001 saw Embraer's entry into the executive aviation market. Over the 11 years of development, the company has become the world's one and only business aircraft manufacturer that offers a full line of executive jets. Embraer's Executive Jets portfolio consists of seven aircraft: the entry level Phenom 100, light Phenom 300, midlight Legacy 450, midsize Legacy 500, super midsize Legacy 600, large Legacy 650, and ultra-large Lineage 1000 jets. These aircraft offer cabin sizes and flexible ranges that are well-suited to the most diverse demands, permitting greater work productivity and saving valuable travel time, which is enjoyed in comfort and privacy. Embraer set up its Beijing Representative Office in May 2000 which was responsible for sales and marketing, customer support and services, government relations, and public relations for mainland China, Hong Kong, and Macau SARs. After over ten years of operation, Embraer has built up a sizeable customer base in China including China Southern Airlines, China Eastern Airlines, Tianjin Airlines, Hebei Airlines and Henan Airlines, as well as some executive aviation customers. As of Aug. 31<sup>st</sup>, 2012, Embraer has now received 159 firm orders and 20 option orders from China's market, including 28 firm orders for executive jets; 125 aircraft, including 8 executive ones have been delivered. Embraer enjoys 78% shares in China's market of commercial jets up to 120 seats.

#### EMBRAER PRESS RELEASES

EMBRAER EXECUTIVE JETS' LEGACY 450 MAKES SUCCESSFUL FIRST FLIGHT  
São José dos Campos, Brazil, December 28, 2013

Embraer Executive Jets' newest aircraft, the Legacy 450, made a successful first flight today. Embraer test pilots Eduardo Camelier and Eugênio Cará, supported by flight test engineer Carlos Kobayashi, flew the aircraft for one hour and thirty-five minutes, conducting the evaluation of handling and performance characteristics. "Besides setting a new standard in business aviation, delivering innovations that reflect our vision, our commitment to customers, and our passion for excellence, I congratulate all Embraer people for achieving this important Legacy 450 program milestone on the scheduled date" said Frederico Fleury Curado, Embraer President and CEO. "The Legacy 450 will be the best-in-class mid-light business jet, responding to the needs and wishes of customers worldwide," said Marco Túlio Pellegrini, Senior Vice President Operations and COO, Embraer Executive Jets. "With full fly-by-wire technology and the roomiest cabin in its category, this aircraft will deliver unique features and amenities." The maiden flight covered a significant range of the flight envelope and allowed for a variety of inflight systems tests, benefiting from an advanced campaign of flight simulations and extensive ground tests. "The flight was a success," said Capt. Camelier. "The full fly-by-wire system, with side stick flight controls, made the flight very smooth. With the advanced avionics suite, the aircraft operation was very easy and intuitive."

#### EMBRAER EXECUTIVE JETS ANNOUNCES JACKIE CHAN AS LAUNCH CUSTOMER OF LEGACY 500 IN CHINA

Las Vegas, Nevada, October 21, 2013

Embraer Executive Jets announced today, during its press conference at the NBAA Business Aviation Convention & Exhibition 2013, that the world renowned artist and philanthropist Jackie Chan is the launch customer of the Legacy 500 executive jet in China, with scheduled delivery for 2015.

"We are thrilled that Jackie Chan is our first Legacy 500 customer in China," said Ernest Edwards, President, Embraer Executive Jets. "Jackie's Legacy 650 has been supporting his demanding intercontinental travel schedule, and we are honored that he has chosen the Legacy 500 to serve him in the shorter range requirements of his business development, as well as his tireless charitable endeavors in China, Asia and around the world."

The Legacy 500 is a midsize business aircraft with a range of 3,000 nautical miles with best-in-class six-foot flat-floor cabin, which is wider than some aircraft in the super midsize category. Eight club seats may be berthed into four beds, and the in-flight entertainment system consists of a high definition video system, surround sound, multiple audio and video input options, a cabin management system, and three options for voice communications and connectivity.

The Legacy 500 is the first midsize business jet with Full Fly-By-Wire technology, featuring side stick flight controls, a state-of-the-art Pro Line Fusion avionics suite on four 15-inch high resolution LCD displays, and capable of paperless operations, with graphical flight planning, and options electronic Jeppesen charts and maps, and the E2VS (Embraer Enhanced Vision System).

"My Legacy 650 is perfect for long trips, and it has everything I need on board," said Jackie Chan. "The Legacy 500 is futuristic and I'm anxious to fly in the real aircraft."

Jackie Chan became the first customer of the Legacy 650 large executive jet in China, as well as the Embraer Executive Jets Brand Ambassador. His aircraft features his iconic "Dragon" livery. For more stories about Jackie Chan and his Legacy 650, see [www.embraerexecutivejets.com.cn/jackielegacy650](http://www.embraerexecutivejets.com.cn/jackielegacy650)

#### About Jackie Chan

Born in Hong Kong, Jackie Chan ([www.jackiechan.com](http://www.jackiechan.com)) is globally renowned and respected for his success in numerous hit movies, commitment to world philanthropic causes, and devotion to the promotion of Chinese culture throughout the world.

He enjoys worldwide recognition as the most influential movie star of Chinese Kung Fu, with various awards from home and abroad. This past June, the Academy of Motion Picture Arts and Science paid tribute to Jackie Chan and held "An Academy Salute to Jackie Chan" event. Days later, Jackie was honored with the Lifetime Achievement Award by the New York Asian Film Festival.

In recent years, Jackie Chan shifted his focus to charity causes, dedicating more of his time working for children, the elderly and those in need. In recognition of his contributions to social welfare, Jackie has been presented with awards by various public institutes, including the "one of the 48 most philanthropic people in Asia" by Forbes Asia in 2010, and was named the International Goodwill Ambassador for UNICEF/UNAIDS in 2004. To better support his charity causes, Jackie established the Jackie Chan Charitable Foundation, the Dragon's Heart Foundation and the Jackie Chan Charitable Foundation Beijing in 1988, 2004, and 2008, respectively.

As one of the most well-known Chinese citizens in the world, Jackie Chan was named Goodwill Ambassador for the 2008 Beijing Olympics, and Promotion Ambassador for the 2010 Shanghai World Expo.

#### EMBRAER RELEASES CHINA EXECUTIVE AVIATION MARKET OUTLOOK 2014-2023

Beijing, China, September 10, 2013

Embraer Executive Jets presented its China Executive Aviation Market Outlook 2014-2023 during the press conference held today at the Chinese International Business Aviation Show (CIBAS) 2013, in Beijing, China. The Company forecasts that a total of 805 executive jets will be in demand the Chinese market over the next decade. The large-cabin business jet class is expected to represent 51% of this demand, accounting for 78% of the total value of deliveries.

"Over the past 12 years, Embraer has built a strong position as one of the top business jet manufacturers, with a full line of state-of-the-art products that meet and exceed the expectations of customers worldwide," said Guan Dongyuan, Senior Vice President of Embraer and President of Embraer China. "Embraer's decade-long investment in China's commercial aviation market has resulted in a fleet of 120 commercial jets in service, and we are now building our presence in the Chinese executive aviation market, affording our executive jet customers the high quality service and support that our airline customers already enjoy."

Embraer maintains a favorable forecast for the Chinese executive aviation market potential, based on comprehensive studies of the country's economic scenario. China's fleet of executive jets has experienced an average annual expansion of 27%, fueled by a 26% growth of the wealthiest population, from 2008 to 2012, according to the data released by Hurun Report, which is considered to be one of the most influential publications of the luxury genre in the country.

In addition, the overall environment calls for the development of executive aviation, in order to meet the demand for direct business and leisure travel, beyond the destination and schedule limitations of the airlines. The Company's market outlook also highlights infrastructure improvements as catalysts to executive aviation growth in China, with the number of Fixed-Base Operators (FBO) expected to increase to nine, up from the current five.

Since 2004, when its first executive jet was delivered to this region, Embraer has booked orders for 38 executive jets in China, including five options. Leveraging its commercial jets service network and facilities, the Company has several Authorized Service Centers for executive jets customers in the Greater China region, offering tailor-made efficient service and support.

Upholding its commitment to the Chinese market, Embraer built an executive jets assembly line in the country. In June 2012, Embraer inked the agreement with Aviation

Industry Corporation of China (AVIC) to cooperate on the Legacy 600 and Legacy 650 programs, using the existing infrastructure of their joint venture, Harbin Embraer Aircraft Industry Co. Ltd. (HEAI). In late August, the first Legacy 650 large executive jet assembled by HEAI successfully completed its maiden flight, with delivery scheduled for the end of this year.

#### EMBRAER CO-ORGANIZES CHINA REGIONAL AVIATION FORUM 2013

Beijing, China, August 27, 2013

In association with the Civil Aviation Management Institute of China (CAMIC), an education and training institute under the Civil Aviation Administration of China (CAAC), and the Ordos Airport Administration Group Co., Ltd., Embraer is co-organizing the China Regional Aviation Forum 2013 on August 28 and 29 in the city of Ordos in Inner Mongolia, China. The regional aviation seminar is part of the China Civil Aviation Development Forum 2013, an annual international event focusing on key issues concerning civil aviation around the world. The event has been hosted by the CAAC and organized by CAMIC since 2007. This year's program marks the first time the conference has included regional aviation in the seven years the China Civil Aviation Development Forum has been held. "Second only to the USA, China is the country that operates the largest fleet of Embraer commercial aircraft in the world," said Paulo Cesar Silva, President & CEO, Embraer Commercial Aviation. "With Asia forecast to lead the growth in passenger enplanements, regional aviation will be a significant force in building China into a civil aviation powerhouse. No doubt this forum will serve as an effective platform for all participants, home and abroad, to discuss regional aviation issues." The two-day event brings together senior members from the Government of China, experts from both domestic and foreign regional aviation associations, and representatives from several airlines. The agenda promotes in-depth discussions and the sharing of experiences on regional aviation policies, business models and operations. In China, Embraer delivered 126 aircraft of the 131 firm orders for commercial jets it has received since 2000 when the company introduced its first ERJ 145 to this market. Embraer jets account for almost 80% of China's regional aircraft fleet.

#### FIRST CHINA-ASSEMBLED LEGACY 650 SUCCESSFULLY COMPLETES MAIDEN FLIGHT

Harbin, China, August 26, 2013

Harbin Embraer Aircraft Industry Co., Ltd (HEAI), Embraer's joint venture with Aviation Industry Corporation of China (AVIC), announced that the first Legacy 650 large executive jet assembled in China successfully completed its maiden flight today. Delivery of the first Legacy 650 is scheduled for the end of 2013.

Embraer's test pilots flew the aircraft for about two hours and thirty minutes, assessing its handling and performance characteristics. The aircraft's systems were evaluated, including flight control, communication, and navigation.

"The successful maiden flight of HEAI's first Legacy 650 marks an important milestone not only in the Embraer-AVIC partnership, but also in the history of the Chinese executive aviation industry, as the jet is also the first large executive jet assembled by a joint venture in China," said Guan Dongyuan, Senior Vice President of Embraer and President of Embraer China. "Congratulations to all who have made it a success!"

"Today's achievement is the fruit of Brazil-Sino collaboration and the hard work of all parties concerned," said Yuri Capi, President of HEAI. "The maiden flight is of special significance to HEAI, as it demonstrates to the market that HEAI is fully capable and ready to offer customers high-quality executive jets assembled here in China."

The Legacy 650 entered service in late 2010. With a range of 3,900 nautical miles (7,223 kilometers), it provides such nonstop flights as Beijing to Dubai and Hong Kong to Adelaide (Australia), while carrying four passengers under NBAA IFR conditions. It has the

largest cabin in its class, offering three distinctive cabin zones. The Legacy 650 enables up to 14 passengers to work or rest during the flight, enjoying the latest-generation entertainment system and high-speed internet. The jet also has the largest in-flight-accessible baggage compartment and lavatory in its category.

Since February 2012, when the first Legacy 650 was delivered to the Chinese market, the Company has booked firm orders for 21 Legacy 650s and five options. To provide tailor-made and efficient customer support, Embraer is continuing to build its customer service network with several service centers authorized for executive jets customer services in the Greater China region.

#### EMBRAER EXECUTIVE JETS' PHENOM 300 TO SPREAD WINGS IN CHINA

Beijing, China, June 27, 2013

Embraer Executive Jets announced today that a Phenom 300 light executive jet will join the fleet of China's Ordos General Aviation Co., Ltd. in the third quarter of 2013, marking the first aircraft of this model sold in the China market. The Phenom 300 was certified by the Civil Aviation Administration of China (CAAC) last November. Established in 2003, Ordos General Aviation is one of the top five companies in China's growing general aviation industry. Its 19-aircraft fleet has accumulated more than 30,000 flight hours and over 12,800 cycles. "Having Ordos General Aviation as the launch customer of the Phenom 300 in China is an important milestone for Embraer Executive Jets," said Guan Dongyuan, President of Embraer China.

"The new partnership is indeed a strong endorsement of Embraer Executive Jets. Our companies share the same vision of the promising future of China's executive aviation market. The Phenom 300 has been well received worldwide by owner-operators, corporate flight departments and leading fractional providers alike, making it an ideal aircraft to satisfy customer requirements for comfort, performance and reliability. The introduction of the Phenom 300 in China validates its place as a global leader among light business jets."

"It's a great honor to be the first customer of the Phenom 300 in China, marking the beginning of our partnership with Embraer Executive Jets," said Shang Zhanhu, President of Ordos General Aviation Co., Ltd. "After comprehensive studies of the jet, we are confident the Phenom 300 is ideally suited to our customers' needs for interior comfort and operating efficiency."

Since the first Embraer Executive Jets aircraft was delivered to Greater China in 2004, the company has booked firm orders there for 31 executive jets. The orders include the Phenom 300, super-midsize Legacy 600, large Legacy 650 and ultra-large Lineage 1000. Embraer Executive Jets also named world-renowned movie star Jackie Chan as its global brand ambassador.

#### EMBRAER EXECUTIVE JETS SIGNS DEAL FOR LINEAGE 1000 IN CHINA

Shanghai, China, April 15, 2013

Embraer Executive Jets announced it had signed a deal for a Lineage 1000 ultra-large executive jet with a previously undisclosed Chinese customer at the press conference held today at the 2013 Asian Business Aviation Conference & Exhibition (ABACE). Delivery of the aircraft is scheduled for May. The deal boosts Embraer Executive Jets' overall order book in China to 29, including six Lineage 1000s, since the company delivered its first executive jet to this market in 2004. "This sale reflects the ever growing popularity of Embraer Executive Jets in the China market," said Ernest Edwards, President, Embraer Executive Jets. "This is a new customer for this unique, ultra-large aircraft, which provides an excellent balance of outstanding performance, cutting-edge technology and unprecedented cabin design. The Lineage 1000 will not only allow our customers to enhance their business efficiency but also provide them home-away-from-home comfort while traveling." The Lineage 1000, the flagship of Embraer Executive Jets' seven-aircraft portfolio, entered service in 2009. It is equipped with an advanced avionics suite, auto-

throttle and a fly-by-wire flight control system, which provide pilots a highly intuitive and professional cockpit for safe and smooth trips. As the only business jet in its category providing up to 19 passengers with five distinct and spacious cabin zones, the Lineage 1000 is the ultimate in comfort and state-of-the-art technology to facilitate work or rest in flight. Onboard amenities may include a queen-size bed, en-suite shower and complete audio and entertainment systems. The jet also has the largest, inflight-accessible baggage compartment of any executive jet. The Lineage 1000's range of 8,149 kilometers (4,400 nautical miles) affords such nonstop flights as Beijing to Copenhagen or Shanghai to Anchorage, with eight passengers and NBAA IFR fuel reserves. In 2011, the Lineage 1000 was awarded "Best of the Best Star Performer for 2011" by the Hurun Report, given to the product with outstanding performance and fast growing brand awareness. The publication is one of the most widely recognized authorities in tracking the lifestyle and the rapid growth of China's wealthy.

#### EMBRAER NAMES STAECO TO ENHANCE CUSTOMER SERVICES AND SUPPORT IN CHINA

Ji'nan, Shandong, China, December 21, 2012

Embraer has named Taikoo (Shandong) Aircraft Engineering Co., Ltd. ("STAECO") as Embraer's Authorized Service Center for airline market in China in a ceremony held today at the facilities of STAECO in the city of Ji'nan, China. STAECO will provide line and heavy maintenance for E-Jets family in accordance with China Civil Aviation Regulation Part 145 standards.

"The cooperation with STAECO, one of the major MRO providers in China, is the result of Embraer's continuous efforts to improve its customer services and support to the Chinese market. We do have the confidence that STAECO's professionalism and expertise will offer our customers highly efficient services with top quality," said Siu Ying Yeung, Chief Operating Officer, Embraer (China) Aircraft Technical Services Co., Ltd. (ECA).

"We are honored to join Embraer's worldwide customer support and service network. Since its establishment, STAECO has been committing itself to apply the highest quality and safety standards in civil aircraft maintenance and engineering services. We will surely extend our professional service with top quality service to Embraer's each valued customers," said Huang Enfang, President of Taikoo (Shandong) Aircraft Engineering Co., Ltd.

In light of the steady growth of its customer base and fleet in China, Embraer constantly strengthens its customer service and support capability. In July 2010, Embraer established the ECA, its wholly-owned subsidiary whose business scope covers spare parts sales and consulting services regarding technical issues and flight operations. In October 2010, Tianjin Airlines became Embraer's Authorized Service Center for the ERJ 145 and the E190. Since Embraer's office inauguration in China, in 2000, to date, its fleet grew to 121 commercial jets, including 75 E190 jets.

The Chinese regional aviation market will be responsible for 15% of the world deliveries of 61 to 120-seat jets in the next 20 years. Embraer forecasts a demand in China for 1,005 new jet deliveries up to 2031 in this category, comprising of 455 jets (61 to 90-seat) and 550 jets (91 to 120-seat).

#### About STAECO

As one of the major MRO providers in China, STAECO focuses on extensive maintenance and engineering solution for middle & small aircraft in civil aviation and executive aviation. Its MRO business covers cargo conversion, heavy maintenance, system upgrade, transit check, component overhaul, part fabrication, technical training, engineering design and consulting, engineering management spare parts sales and etc. The company now operates five hangars with ten maintenance production by complete facilities, professional technical engineers and advanced research and development center.

EMBRAER EXECUTIVE JETS DELIVERS 200TH AIRCRAFT OF THE LEGACY600/650 FAMILY TO CHINA'S MINSHENG FINANCIAL LEASING

São José dos Campos, Brazil, November 30, 2012

Embraer's Legacy 600/650 program reached a significant milestone with the delivery of the 200th aircraft of the Legacy family, a Legacy 650 large executive jet, to China's Minsheng Financial Leasing Co., Ltd. (MSFL) in a ceremony held this week at headquarters in Sao Paulo, Brazil. This aircraft, one of the 13 Legacy 650s ordered by MSFL in October 2011, will be used by an anonymous Chinese customer. As one of the largest financial institutions providing executive jets leasing services in China, MSFL ordered three Lineage 1000 ultra-large Lineage 1000 executive jets as well. "The Legacy 600/650 family has been well recognized by customers worldwide since the first Legacy 600 delivered in early 2002," said Ernest Edwards, President, Embraer Executive Jets. "The delivery of the 200th aircraft of the Legacy family within a decade eloquently reflects the success of the Legacy program. In addition, we are proud that Minsheng Financial Leasing, one of our most important customers, is part of this historic success by taking delivery of this aircraft."

EMBRAER EXECUTIVE JETS SEES DEMAND FOR 650 EXECUTIVE JETS IN CHINA IN NEXT DECADE

Zhuhai, China, November 13, 2012—Embraer Executive Jets presented its business aviation market outlook at a press conference held today at the 9th China International Aviation & Aerospace Exhibition (Airshow China 2012) in Zhuhai, Guangdong Province. The forecast predicts a total demand for 650 business aircraft by the year 2022, with a total value of USD24 billion, representing 9% of the world deliveries' value. "China is a rapidly growing global executive aviation market with its economic development, the gradual opening of low-altitude airspace and the continuous improvement of its aviation infrastructure," said Ernest Edwards, President, Embraer Executive Jets. "Embraer Executive Jets pays close attention to the China market which is expected to generate great opportunities for all industry players. We commit ourselves to the market and each of our customers, with our full line of state-of-the-art executive jets and continuously improved customer support." The company's in-depth analysis shows that the overall environment in China is fostering the development of its business aviation. The rapid development of its national economy generates more Chinese companies listed on Fortune 500 and more High-Net-Worth Individuals (HNWI) as well. Data show the annual growth rate of the country's HNWI (with investable assets over 10 million RMB) stayed at 25% over the past five years. In addition, the latest Hurun Report, the authority in monitoring the wealthy in China, indicates billionaires (in RMB) in China increased by 87% in 2012 over 2011. The country's business aviation culture is gaining maturity. Executive jets are recognized more and more as tools for improving productivity for business elites. Today, the country has a fleet of 267 executive jets, 77% of which are super mid-size to ultra large jets, up from only 78 jets in 2007. Since its first executive jet entered service in 2002, Embraer Executive Jets has delivered over 550 executive jets worldwide. In the China market, the company booked 28 firm orders and five options for its executive jets. In light of China's flourishing executive aviation market, in June 2012, Embraer inked the agreement with Aviation Industry Corporation of China (AVIC) for final assembly of Legacy 600/650 jets in China, using the resources of their joint venture, the Harbin Embraer Aircraft Industry Co., Ltd.

EMBRAER RELEASES CHINA REGIONAL AVIATION MARKET OUTLOOK 2012-2031

Zhuhai, China, November 13, 2012 – The Chinese regional aviation market will be responsible for 15% of the world deliveries of 61 to 120-seat jets in the next 20 years.

During a press conference held today at the 9th China International Aviation & Aerospace Exhibition (Airshow China 2012) in Zhuhai, Guangdong Province, Embraer released its dedicated Market Outlook to this market. Embraer holds a favorable prospect for the demand for jets with up to 120 seats based on a comprehensive analysis, including how versatile business applications of 61 to 120-seat jets capture the market, by replacing older jets, optimizing fleet structure and helping airlines explore new markets with lower risk. Embraer forecasts a demand in China for 1,005 new 61 to 120-seat jet deliveries up to 2031, comprising of 455 for 61 to 90-seat jets and 550 for 91 to 120-seat jets. "In the 12 years since its first delivery to the Chinese market, Embraer has built a solid leadership position in the country's regional aviation market, claiming 77% of the market with almost 120 commercial jets delivered to date. Looking forward we have full confidence in the great potential of the Chinese market. Embraer will strive to maintain its leadership position by upholding its commitments to each of our valued customers, and will be prepared to support the air transportation growth in China," said Guan Dongyuan, President of Embraer China. The Market Outlook points out there will be growing demand for better connectivity in secondary tier cities, fostered by China's vibrant economy and its growing middle class. The country's regional aviation will continue its sound growth trajectory, as experienced in the past decade. The Market Outlook highlights the central and local government aviation policies as catalysts to regional aviation expansion in China, as well as fleet capacity optimization as a mean to keep a competitive edge. The Market Outlook includes an in-depth case study illustrating how Embraer's commercial jets are fostering the development of both local air transportation industry and the economy of China's Inner Mongolia region.

#### **EMBRAER EXECUTIVE JETS DEBUTS LEGACY 650 WITH NEW INTERIOR AND PHENOM 300 AT AIRSHOW CHINA 2012**

Beijing, China, November 8, 2012

Embraer Executive Jets is debuting its newly refined interior for the Legacy 650 as well as the Phenom 300 during the 9th Annual China International Aviation & Aerospace Exhibition (Airshow China 2012) in Zhuhai, Guangdong Province, from November 13 to 18, 2012. A press conference to provide program updates has been scheduled for November 13th, 14:00 - 16:00, in Press Conference Room 210 at the China International Aviation & Aerospace Exhibition Center, while the company's commercial and executive aviation product portfolio will be presented at Booth B3-1, Hall 1. "China's vibrant economy has resulted in the fast development of its executive aviation market and is now recognized as a market of great potential," said Guan Dongyuan, President of Embraer China. "Embraer Executive Jets is the only manufacturer to have a complete portfolio to meet the needs of virtually all businesses from an entry-level to an ultra-large jet. Visitors at the show can learn more about our award-winning portfolio while exploring the Legacy 650 with its enhanced interior and the Phenom 300." Since its entry into the China market, Embraer has logged orders for 159 aircraft, including 85 E190s, 46 ERJ 145s and 28 executive jets in addition to five executive jet options. It has delivered 126 aircraft to China including 118 commercial jets and eight executive jets.

#### **EMBRAER EXECUTIVE JETS NAMES FIRST AUTHORIZED SERVICE CENTER IN MAINLAND CHINA**

Orlando, FL, October 29, 2012

Embraer Executive Jets signed an Authorized Service Center agreement with ExecuJet Haite Aviation Services China Co., Ltd. (ExecuJet Haite) in a press conference held today at the NBAA 65th Annual Meeting & Convention, in Orlando, United States. ExecuJet Haite will be fully equipped to provide line and base maintenance service for Embraer's Legacy 600/650 and Lineage 1000 customers by early 2013, making it Embraer Executive Jet's first Authorized Service Center in Mainland China.



"We welcome ExecuJet Haite to Embraer Executive Jet's worldwide service network," said Guan Dongyuan, President of Embraer China. "The agreement is part of our commitment to continuously improve our services to meet the demands of Embraer's increasing customer base in the Chinese market. We have full confidence in our partnership with ExecuJet Haite."

"We are honored to have the trust of Embraer Executive Jets, being named as its first authorized service center in Mainland China," said Graeme Duckworth, Managing Director of ExecuJet Asia. "ExecuJet Haite is committing itself to provide the high-quality maintenance services expected by Embraer Executive Jet customers in the region."

Embraer Executive Jets is gaining strength in the promising Chinese market. Since the Company's first corporate aircraft was delivered to the Greater China region in 2004, it has booked 28 firm orders and five options for executive jets.

About ExecuJet Haite Aviation Services China Co., Ltd.

ExecuJet Haite Aviation Services China Co., Ltd., a joint venture between Tianjin Haite Engineering and the ExecuJet Aviation Group, is located at the Binhai International Airport in Tianjin, China. The company provides a range of aviation services including aircraft maintenance, technical support and AOG services in Tianjin and Beijing. ExecuJet Haite is a Civil Aviation Administration of China (CAAC) Part 145 approved maintenance facility.

#### FIRST LINEAGE 1000 SPREADS ITS WINGS IN MAINLAND CHINA

São José dos Campos, August 2, 2012

Embraer's Lineage 1000 ultra-large executive jet will spread its wings for its first mainland China customer with the delivery to China's Xinjiang Guanghui Industry Investment Group Co., Ltd., in a ceremony held at Embraer's headquarters in São José dos Campos.

"We welcome Xinjiang Guanghui Group to join Embraer's increasing customer base in China," said Guan Dongyuan, President of Embraer China. "We believe that the Lineage 1000, the flagship of Embraer executive jets portfolio, will be the ideal business partner for our new customer by increasing the productivity of their daily operations, while offering them the ultimate comfort in traveling."

"As one of the world's leading aircraft manufacturers, Embraer has achieved exceptional progress in the business aviation segment worldwide," said Kong Lingjiang, Vice President of Xinjiang Guanghui Industry Investment Group. "We are confident that Embraer's Lineage 1000 will give us outstanding performance, providing us a home away from home, while maximizing this jet as the business tool we need to optimize our time."

Since the first delivery of Embraer's executive jet in Greater China in 2004, Embraer has booked firm orders for 28 executive jets in this market. Last year witnessed exceptionally fast brand awareness and business growth for Embraer in China's business aviation segment with 15 firm orders. It also saw the addition of world famous movie star Jackie Chan as Embraer Executive Jets' brand ambassador and the delivery of his aircraft, the first Legacy 650 in the Greater China region. The company forecasts an industry-wide demand of 635 executive jets in the China market in the coming 10 years.

In light of its increasing customer base, the company is continuously enhancing its customer services capacity with executive jets authorized services centers fully equipped to serve its customers in Greater China.

#### CHINA'S HEBEI AIRLINES TO EXPAND ITS E-JETS FLEET WITH FIVE MORE EMBRAER 190s

Farnborough, United Kingdom, July 9, 2012

China's Hebei Airlines acquired five more EMBRAER 190s jets to join its E-Jets fleet by the end of 2013, as announced by Embraer. today, during the 2012 Farnborough

International Airshow. The total value of the deal, at list price, is USD 226 million. The order has been registered in the Company's backlog for the second quarter of the year.

"The approval by the Chinese government for Hebei Airlines to acquire five more E190s indicates their confidence in the E-Jets' performance and the jets' contribution to the development of China's aviation industry," said Paulo Cesar Silva, Embraer President, Commercial Aviation. "The E-Jets are market leaders in its segment in China and recognized for their versatility and passenger appeal, and will help Hebei Airlines to expand its network by exploring new markets and adding frequencies on existing routes."

Based in Shijiazhuang, China's Hebei Province, Hebei Airlines currently has two E190s in service, covering eight destinations with around 70 flights per week. The two jets have maintained healthy operations since their revenue service began in January 2012, with an average schedule reliability of 99.5% and 100% completion rate, while the daily utilization hours keep increasing.

"It is exciting to have the government's approval for five more E190s. The two jets in operation have maintained exceptional performance. The approval demonstrates the recognition by the authorities in Hebei Airlines for its contribution to the development of the Hebei Province aviation industry and economy. Expanding the E-Jets fleet fits into our marketing strategy, and we have the confidence that the right sized E190s with their outstanding economic performance will contribute to the company's development," said Luo Zhanling, Vice Chairman & CEO of Hebei Aviation Investment Group.

To date, Embraer has over 60 E190s in service in China since the jet entered this market in 2008. The Company forecasts that 1005 jets up to 120 seats will be demanded in the Chinese market in the next 20 years.

The E190 is the third of four members of Embraer's E-Jets family. The jet's 2,400 nautical mile (4,450 kilometer) range gives the 100-seat airplane tremendous flexibility to operate on city pairs with over 5.5 hours flight time. Since the first E-Jet went into revenue service in 2004, to date, the E-Jets family has around 850 aircraft in operation by 61 airlines in 42 countries, worldwide, helping airlines to right size their fleets, to replace older and inefficient aircraft, and to develop new markets with lower operating costs.

#### About Hebei Airlines

Hebei Airlines was inaugurated on June 29, 2010, and is the core affiliate of the Hebei Aviation Investment Group. Based in Shijiazhuang Zhengding International Airport (SJW), the carrier focuses mainly on carrying passengers, cargo and mail, and partially on general aviation and other services associated with air transportation.

The company strictly follows the strategy of "getting started with regional aviation, integrating regional with mainline, getting support from the government, and being complemented by ground operations", and adheres to its commitment of being "safe and efficient, credibility-focused, customer-oriented and excellence-pursuing". In its earlier stage, the company has focused on regional flights within Hebei Province and neighboring cities that can be reached by air in 1-2 hours. It has established four networks, namely an intra-provincial hub, regional net, Beijing sub-hub, and the "Bohai-rim express". Along with its business growth, Hebei is progressing towards an integrated airline specialized in both mainline and regional business, serving urban and rural regions by increasing mainline flights, exploiting international routes and improving its network development. Its fleet is expected to expand to 20 aircraft by the end of China's "12th Five-Year Plan" (2015), carrying more than 3 million passengers per year.

#### EMBRAER AND AVIC ANNOUNCE JOINT VENTURE TO BUILD EXECUTIVE JETS IN CHINA

Rio de Janeiro, Brazil, June 21, 2012 – During China's Prime Minister Wen Jiabao's visit to Brazil for the Rio+20 Conference, in a signing ceremony witnessed by leaders from both nations, Embraer S.A. (BOVESPA: EMBR3, NYSE: ERJ) and Aviation Industry Corporation of China (AVIC) signed an agreement to build Embraer's Legacy 600/650

executive jets in China, using the infrastructure, financial resources and workforce of their joint venture Harbin Embraer Aircraft Industry Co., Ltd. (HEAI), which started operations in 2002.

The agreement is based on the understanding of both parties about the potential demand of China's flourishing executive aviation market, and their wish to extend their decade-long strategic partnership. HEAI's first executive jet is expected to be delivered by the end of 2013.

"Today's announcement marks another milestone in the history of Embraer's long term commitment to China and of Brazil-Sino bilateral relations. This new phase of AVIC-Embraer partnership corroborates what has been referred to by state leaders of both countries as 'a model of South-South cooperation'," said Frederico Fleury Curado, Embraer President and CEO.

"The achievement of Sino-Brazil cooperation in the field of aviation is a hard-won, indispensable of the joint efforts from state leaders and the industry players of both countries. The cooperation on executive jets manufacturing, as the continuation of what the two parties have attained via the joint venture, fits in the strategic development of all parties. It is undoubtedly a win-win strategic international cooperation. As the leader of China's aviation industry, AVIC will seize the opportunity to develop a platform building executive jets that will meet the demand of the global and China markets, and ultimately assist China's executive aviation industry progressing into a new stage," said Tan Ruisong, President of Aviation Industry Corporation of China.

Embraer's presence in China dates back to 2000, when its Beijing Representative Office was established. In June 2010, in light of its increasing customer base, the Company set up its first wholly owned subsidiary in China, the Embraer (China) Aircraft Technical Services Co., Ltd., focusing on after sale support.

To date, Embraer has 154 firm orders from China market, with 116 aircraft already delivered. Embraer accounts for around 78% of China's regional aviation market and is gaining strength in its executive segment with 18 firm orders for executive jets in the year 2011. The cooperation with AVIC on Legacy 600/650 program further consolidates Embraer's presence in China's executive aviation market.

#### CHINA'S ICBC LEASING, HEAI SIGN 10-AIRCRAFT ORDER FOR LEGACY 650s Rio de Janeiro, Brazil, June 21, 2012

ICBC Financial Leasing Co., Ltd (ICBC Leasing), signed a deal for 10 Legacy 650 large executive jets, including five firm orders and five options, with Harbin Embraer Aircraft Industry Co., Ltd. (HEAI), Embraer's joint-venture with Aviation Industry Corporation of China (AVIC). Deliveries are scheduled to begin at the end of 2013.

The order makes ICBC Leasing the launch customer of HEAI's Legacy 600/650 program and rounds out ICBC's current 70-aircraft portfolio.

"It is really inspiring news that right after its inauguration of the Legacy 600/650 production program in China, HEAI welcomes ICBC Leasing as the first customer," said Mr. Guo Dianman, Chairman of Harbin Embraer Aircraft Industry Co., Ltd. "We appreciate the confidence and trust ICBC Leasing has in us. By fully leveraging all resources, with the dedicated collaboration of AVIC and Embraer, HEAI will provide the outstanding and reliable performance for which the Legacy 600/650 is known."

"Over a decade's effort has gone into Embraer's corporate image and products in the China market," said Guan Dongyuan, President of Embraer China. "HEAI's Legacy 600/650 program and an immediate order from its first customer is solid proof of the faith our Chinese customers place in Embraer. China's fast growing economy has been cultivating its business aviation market, which is expected to require some 635 executive jets in the next decade. We believe that Embraer Executive Jets will play an important role in China's executive aviation market."

“As a wholly owned subsidiary of the Industrial and Commercial Bank of China, the world’s largest bank by market capitalization, ICBC Leasing commits itself to be the world’s leading financial leasing institute,” said Cong Lin, President of ICBC Financial Leasing Co., Ltd. “We are really delighted to make the order come true shortly after the Memorandum of Understanding signed by the two sides last April. We do believe that, with joint efforts, both parties will have greater achievements in the executive aviation segment.”

With this deal, Embraer’s firm orders in China total 159 commercial and executive jets, including 20 firm orders for the Legacy 650. Jackie Chan, the internationally renowned movie star and Embraer’s Executive Jets brand ambassador, was the first user of the aircraft in the Greater China region.

The Legacy 650 entered service in late 2010 and can accommodate up to 14 passengers. The jet’s range is 3,900 nautical miles (7,223 kilometers), affording nonstop distances such as Beijing to Dubai (United Arab Emirates) and Hong Kong to Adelaide (Australia), carrying four passengers under NBAA IFR conditions.

#### EMBRAER INKS MOU WITH CHINA’S ICBC FINANCIAL LEASING

São José dos Campos, Brazil, April 23, 2012 – Embraer and China’s ICBC Financial Leasing Co., Ltd. (ICBC Leasing) today signed a Memorandum of Understanding (MoU) on aircraft financing and leasing. The agreement creates financing opportunities for the sale of Embraer’s commercial and executive jets in China and other markets. Under the MoU, total program support could amount to as much as USD 2.5 billion over the next five years.

ICBC Leasing started doing business in 2007 as a wholly owned subsidiary of Industrial and Commercial Bank of China, the world largest bank by market capitalization. The leasing company has over 70 jets in its aircraft fleet portfolio.

“The rapid development of the Chinese economy has resulted in high growth rates for regional and executive aviation, making it one of the greatest potential markets in the world. Embraer forecasts a demand of 430 commercial jets up to 120-seat and 635 executive jets in China during the next ten years,” said Paulo Cesar Silva, President, Embraer Commercial Aviation. “The cooperation with ICBC Leasing reinforces the recognition from Chinese leasing companies of Embraer’s leading presence in the regional aviation and growing strength in executive aviation. We are honored to be a partner of ICBC Leasing, an important player in the market.”

“ICBC Leasing commits itself to be the world leading financial leasing institute via diversified business development, including aviation. The strategic alliance with Embraer indicates one important breakthrough in the company’s aviation business segment, which also demonstrates our efforts to contribute to the development of China’s regional and executive aviation. Through integration of financing leasing services with industries entities and taking advantages of the strength of each party, we look forward to win-win collaboration,” said Cong Lin, CEO of ICBC Leasing.

Since its entry into China market in 2000, Embraer has received 153 firm orders, including commercial and executive jets, from Chinese customers, with more than 110 aircraft delivered and in service. The Company accounts for around 76% of China’s market of commercial jets, up to 120-seat.

#### About ICBC Financial Leasing Co., Ltd.

Founded in 2007 with a registered capital of USD 1.27 billion (RMB 8 billion), ICBC Financial Leasing Co., Ltd. is a wholly owned subsidiary of the Industrial and Commercial Bank of China, with its business covering aviation, shipping, large equipment and etc. ICBC Leasing is now the largest financial leasing institute in China having its total assets over USD 15.87 billion (RMB 100 billion). The company is the first institute approved by China Banking Regulatory Commission to have its business focusing on financial leasing within the banking system. It is also the first one to initiate aircraft leasing structure in bonded

zone in China. To date, it has over 70 jets in its portfolio which is planned to be expanded to 250 jets by 2014.

#### EMBRAER ENTERED INTO A FRAMEWORK AGREEMENT WITH CHINA AVIC ON INDUSTRIAL COOPERATION

The program will focus on final assembly of Legacy 600/650 in China

São José dos Campos, April 12, 2011

Embraer S.A. (BOVESPA: EMBR3, NYSE: ERJ), signed today a framework agreement with AVIC (Aviation Industry Corporation of China) aiming to implement a Legacy 600/650 production line in China, using the infrastructure, financial resources and workforce of their joint venture company Harbin Embraer Aircraft Industry Company (HEAI). In the next few weeks the parties shall finalize the details of the project and execute the relevant documentation. Embraer and AVIC recognize the rapid growth of the Chinese executive aviation market and are encouraged with the potential of the Legacy 600/650 to fulfill the requirements of this demanding market. Embraer's corporate presence in the PRC dates back from the year 2000, and there are more than 80 Embraer aircraft currently operated in Greater China. HEAI was established in January 2003, and has produced and delivered 39 ERJ 145 aircraft to date.

About Aviation Industry Corporation of China.

Aviation Industry Corporation of China (AVIC), restructured and incorporated on the basis of former China Aviation Industry Corporation I (AVIC I) and China Aviation Industry Corporation II (AVIC II), is a state-owned enterprise, a state government authorized investment organization, and a state holding company, directly reporting to the Central Government. AVIC establishes 10 functional entities including **Defense Business Unit**, Transporter Company, Engine Company, AVICopter Company, System Company, General Aircraft Company, Assets Management Business Unit, CATIC, Technology Basic Research Institute, and Technology and Economy Research Institute. Among AVIC's nearly 200 subsidiaries (branches), 18 subsidiaries are listed on China mainland stock exchange and 3 subsidiaries are listed on Hong Kong. The Sale Revenue of AVIC is US\$ 31.44 billion, EBIT reached US\$ 1.53 billion and become the Top of 500. AVIC is not only develop the Aero products but also develop the Non-Aero products such as automobile, motorcycle gas turbine, refrigeration equipment, electronic products, environmental protection and new energy equipment etc.

#### EMBRAER ANNOUNCES THE SALE OF TEN EMBRAER 190 TO CHINA'S HEBEI AIRLINES WITH PURCHASE RIGHTS FOR ADDITIONAL FIVE UNITS

The new jets will be used to boost the economic development and support air transportation growth in Hebei Province

São José dos Campos, April 12, 2011

Embraer and China's Hebei Airlines Co., Ltd. inked an order for ten EMBRAER 190 earlier today at a signing ceremony held in Beijing, P.R. China. The first delivery of these ten jets is scheduled for September 2012.

To meet the growing demand for air transportation as a consequence of the region rapid economic development in recent years, Hebei Provincial Government is giving top priority to aviation expansion. In June 2010, with strong support from the provincial government, Hebei Airlines was inaugurated as a holding company of Hebei Aviation Investment Group, a leading state-owned company. Currently, Hebei Airlines operates six aircraft, including two Embraer ERJ 145. The EMBRAER 190 will help the airline support its near-term expansion.

"We are delighted to welcome Hebei Airlines as our newest E-Jets operator. The current Chinese fleet of Embraer aircraft will soon reach 100 airplanes and this deal emphasizes Chinese operators' confidence and recognition in our products," said Paulo César de Souza e Silva, Embraer Executive Vice President, Airline Market. "EMBRAER

190 is a worldwide success with outstanding economics, performance and comfort. We believe our aircraft will play an important role in Hebei Airlines' market development."

"Thanks to the correct guidance and strong support from the Hebei Provincial Party Committee and Government, Hebei Airlines has introduced ten EMBRAER 190s to expand its regional aircraft fleet and will also take positive actions to make the deal for another five aircraft come true. This deal enables us to leap forward for future development, which we believe will play an active role in economic, political and culture development for Hebei province," said Wang Sheping, Chairman of the Board of Directors, Hebei Airlines. "We will take this cooperation with Embraer as the turning point for further strengthening partnership for a win-win development at all levels and in all-round aspects."

With this new order, Embraer has a firm order of 135 aircraft in China market, including 85 EMBRAER 190s, 46 ERJ 145s and four executive jets. To date, more than 80 Embraer aircraft are in service in this market.

About Hebei Airlines Co., Ltd.

Approved by CAAC, Hebei Airlines Co., Ltd. (Hebei Airlines) is a modernized airlines, whose majority stock shares are absolutely held by Hebei Aviation Investment Group while Sichuan Airlines Group and Shenyang Zhongrui Company are also holding shares in the name of partnership. Being a core affiliate to Hebei Aviation Investment Group, Hebei Airlines, based in Shijiazhuang Zhengding International Airport, puts its focuses mainly on air transport of passengers, cargoes and mails, and partially on general aviation business and other services associated with air transport.

Hebei Airlines firmly carries out the national strategy of becoming a nation with strong civil aviation industry and gives active response to the call of developing regional aviation business for civil aviation. The company strictly follows the strategy of "Getting Started with regional aviation, integrating regional with mainline, getting support from the government and complemented by ground operations", and adheres to its commitment of being "safe and efficient, credibility-focused, customer-oriented and excellence-pursuing". In its earlier stage, the company focuses on regional flights within Hebei province and neighboring cities that can be reached by air in 1-2 hours, through which, the company will establish four networks, namely intra-provincial hub, regional net, Beijing sub-hub and "Bohai-rim express". Along with its business growth, the company will progress towards an integrated airlines specialized in both mainline and regional business and serves both downtown and countryside by increasing mainline flights, exploiting international routes and improving its network development. Its fleet will expand to 20 aircraft at the end of the "12th Five-Year-Plan", carrying more than 3 million passengers per year.

Hebei Airlines began its operations on June 29, 2010. The company now operates a fleet of six aircraft, including two ERJ 145s, which are operated under wet lease agreement with Xiamen Airlines. Its network connects to some medium and large-sized cities, including Shanghai (Hongqiao), Guangzhou, Chengdu, Hangzhou, Nanchang, Haikou, Huhhot, Sanya, Zhuhai, Wenzhou, Ningbo, Dalian, Qinghuangdao, Tangshan and Handan etc.

#### EMBRAER ANNOUNCES THE CONFIRMATION OF A SECOND BATCH OF TEN EMBRAER 190 BY CHINA'S CDB LEASING

A LOI was also signed by CDB Leasing to purchase a third group of ten EMBRAER 190

São José dos Campos, April 12, 2011

Embraer announced that a tripartite signing ceremony was held earlier today in Beijing, P.R. China among Embraer, CDB Leasing Co., Ltd. (CLC) and China Southern Airlines Co., Ltd. CLC confirmed the purchase of a second batch of ten EMBRAER 190 as a follow-on order to an agreement concluded earlier this year when a first group of ten EMBRAER 190 was ordered. In addition, a LOI was also signed during the ceremony for

a third group of ten EMBRAER 190s, which, if confirmed, will bring the total CLC order to 30 aircraft, which translates into a list price amount of US\$ 1.25 billion.

All thirty EMBRAER 190 ordered by CLC will be operated by China Southern Airlines, the country's largest airline, and the third airline in the world. China Southern Airlines will start receiving the EMBRAER 190 during the second half of this year.

"We are delighted to receive such incremental orders from CLC and China Southern Airlines. It's an additional endorsement to our aircraft that will soon total 100 in China," said Paulo César de Souza e Silva, Embraer Executive Vice President, Airline Market. "The continuous growth of the Chinese regional aviation market has opened up opportunities for airlines expanding their services in complete agreement with the central government policy. We are proud that the EMBRAER 190 has been recognized as an ideal tool to perform such role."

"CLC is excited to reach an agreement with Embraer on another ten EMBRAER190s, following the original deal signed in January 2011, as well as the signing now of a LOI for an additional group of ten E-Jets. These orders further consolidate CLC's cooperation and relationship with Embraer and China Southern," said Wang Chong, CLC Chairman.

"We enjoy the sound cooperation with Embraer and have full confidence in its products. The EMBRAER 190 is a successful aircraft, well received by the worldwide market, with proven economics and performance. The new jets will be operated in Xinjiang to boost the regional economic development. The deal strengthens the partnership between China Southern and Embraer," said Xu Jiebo, Vice President of China Southern Airlines.

About CDB Leasing Co., Ltd.

CDB Leasing Co., Ltd. (CLC) is a major non-banking financial institution controlled by the China Development Bank. It has registered capital of US\$ 1.22 billion, and has approximately US\$ 9.16 billion in total assets. The company owns the largest leasing fleet in China and, so far, it has delivered 78 aircraft to airlines.

About China Southern Airlines Co., Ltd.

China Southern Airlines Co., Ltd., one of the top three state-owned airlines in China, has 14 branches and five holding subsidiaries, as well as 53 international offices located in major metropolitan markets around the world. It operates the largest and most technologically advanced fleet, as well as the most extensive domestic network in China. Currently, the company operates 400 modern aircraft, including Embraer's ERJ 145. In 1997, China Southern debuted on both the New York and Hong Kong Stock Exchanges, and in 2003 it was listed in Shanghai. In November 2007, China Southern officially joined the SkyTeam alliance, becoming the first domestic airline in the country with a global airline alliance. At the present time, the company operates six ERJ 145s.

#### EMBRAER INKED STRATEGIC COOPERATION AGREEMENT WITH CHINA'S MINSHENG FINANCIAL LEASING CO., LTD.

The agreement demonstrates recognition and confidence in Embraer's executive jets from China's financial institutions

São José dos Campos, April 4, 2011

Embraer and Minsheng Financial Leasing, a subsidiary of China Minsheng Banking Co., Ltd., jointly announced the signature of a strategic cooperation agreement between the two parties at a press conference held last Saturday at the Hainan Rendez-Vous event (<http://hainanrendezvous.com/en>), April 1-4, Hainan Province, China. The agreement is designed to create financing opportunities for selling Embraer executive jets to China and the international market and to jointly promote executive aviation in China.

According to data released last February 22 by the General Aviation Manufacturers Association (GAMA), Embraer was the company that had the largest growth in jet deliveries in the executive aviation market in 2010. The Company delivered 145 executive jets during

the year, achieving a market share of 19%, meaning that almost one in five executive jets delivered, worldwide, was produced by Embraer.

In light of China's growing executive aviation market, Minsheng Financial leasing marched into this market by launching executive jets leasing services in 2009. After a two-year development, Minsheng Financial Leasing has become one of the major financial institutions that provides executive jets leasing services in China.

With the signature of this agreement between Embraer and Minsheng Financial Leasing, Embraer sees more opportunities of expediting its market penetration in this booming executive aviation market.

"We are delighted to sign this agreement with Minsheng Financial Leasing, one of Embraer's most important partners in China. Embraer has full confidence in developing cooperation with Minsheng Financial Leasing at all levels and related aspects to jointly promote China's executive aviation market," said Luís Carlos Affonso, Embraer Executive Vice President, Executive Jets. "The agreement demonstrates strong recognition and confidence in Embraer and its executive aviation products from the Chinese financial community."

"Both parties hold full confidence in the prospects of China's executive aviation market, and we believe that this strategic alliance with Embraer will succeed. With the advantages of each party, the alliance between Embraer and Minsheng Financial Leasing will surely promote sound and robust development of China's executive aviation market. We look forward to establishing a win-win collaboration," said Kong Linshan, Chairman Minsheng Financial Leasing.

About Minsheng Financial Leasing Co., Ltd.

Minsheng Financial Leasing Co., Ltd. (MSFL), was established in April 2008, and is one of the first five financial leasing companies approved by the China Banking Regulatory Commission (CBRC) in China. MSFL was co-sponsored by China Minsheng Banking Corporation Ltd. (CMBC) and Tianjin Port Free Trade Zone Investment Co., Ltd. The total registered capital is US\$ 488 million. China Minsheng Banking Corporation Ltd. invested US\$ 396.5 million, accounting for 81.25% of registered capital, and Tianjin Port Free Trade Zone Investment Co. invested US\$ 91.50 million, accounting for 18.75% of registered capital.

In 2010, MSFL assets totaled US\$ 6.3 billion, and the company became the leader in the respective market sectors in China leasing industry. As the main non-banking financial institution to engage in financial leasing business, MSFL has a collection of experienced leasing professionals, specializing in shipping, aviation, large equipment manufacturing and other fields to provide professional and quality financial leasing products and services to domestic and overseas large and SME enterprises.

Since its inception, MSFL has adopted the concept of professionalism and efficiency management. According to market demands, MSFL reacts with innovation, vitality and flexibility to provide quality and complete leasing services to customers. MSFL has established a good brand image in the industry and was widely acclaimed by clients.

#### EMBRAER INKED MEMORANDUM OF UNDERSTANDING WITH CHINA'S ABC FINANCIAL LEASING CO., LTD.

This MoU demonstrates high confidence in Embraer from China's financial community  
São José dos Campos, March 24, 2011

Embraer and ABC Financial Leasing Co., Ltd., a wholly owned subsidiary of Agricultural Bank of China, signed a Memorandum of Understanding on aircraft financing and leasing at a ceremony held yesterday at Embraer headquarters in São José dos Campos, São Paulo, Brazil.

The agreement is designed to create new financing opportunities for Embraer to sell aircraft in China and other markets, with a focus on the development of China's regional,



executive, and agricultural aviation. The agreement could come to as much as US\$ 1.5 billion over the next five years.

"We are proud to sign this memorandum with ABC Leasing, one of Embraer's most important partners in China. The agreement will certainly help provide strong support to our customers in China and around the world with ABC Leasing high quality standards," said Paulo César de Souza e Silva, Embraer Executive Vice President, Airline Market. "The deal demonstrates compelling recognition and confidence in Embraer and its products from the Chinese financial community."

"This strategic alliance with Embraer will create a new approach for both sides to jointly develop both domestic and overseas markets," said Mr. Yang Kun, Chairman of the Board of ABC Leasing. "Both parties hold full confidence in each other's market positioning and future prospects. By integrating the assets financing leasing services with industries entities, plus the advantages of each party, we look forward to establishing a win-win collaboration."

With the signing of this agreement, Embraer further strengthens its cooperation with financing institutions in China. As of today, Embraer has 115 firm orders from Chinese customers, with more than 80 aircraft already delivered and operating in China.

About ABC Leasing

ABC Financial Leasing Co., Ltd., is a wholly owned subsidiary of Agricultural Bank of China and a non-banking financial institution approved and regulated by China Banking Regulatory Committee with business focusing on financing and leasing. The company is committed to providing specialized leasing and asset-financing services, mainly in sectors such as agro-related businesses, SME, equipment manufacturing, transportation, public services, financial markets and institutions.

ABC Leasing provides customized financing and leasing services, and assets-financing services for financial market and industry entities. It will maintain "serving with quality, pursuing for excellence and cooperating with passion" as the business guideline, rely on the strategic collaboration with the parent bank (Agricultural Bank of China), enhance professional management capability, establish core competitiveness and accelerate the process of internationalization.

#### CDB LEASING, FROM CHINA, SIGNS FOR TEN EMBRAER 190 JETS

The aircraft will be operated by China Southern Airlines

São José dos Campos, January 10, 2011

Embraer confirmed the sale of ten EMBRAER 190s to CDB Leasing Co., Ltd. (CLC), of China, today. The jets will be operated by China Southern, the country's largest airline, and the third in the world. The aircraft will be used to develop new markets, and the first delivery is expected for the second half of 2011.

"Embraer is delighted to complete the first operation under the Memorandum of Understanding signed with CDB Leasing, in 2009, for the purchase and leasing of E-Jets. This deal reaffirms their strong recognition and confidence in our products, as well as in the prospects for China's regional aviation growth," said Paulo César de Souza e Silva, Embraer Executive Vice President, Airline Market. "We are proud to welcome China Southern as the newest E-Jet operator and another prominent airline on our customer roster. We are certain that the EMBRAER 190 will be an important tool to support the company's market development strategy."

"We are very pleased to make this significant deal with Embraer, and are honored to cooperate with China Southern, again. This transaction is an important measure to support the airline's aviation market expansion in Xinjiang and the economic development of the Xinjiang region. The deal will facilitate the strategic partnership between CLC and Embraer," said Vice President Wu Rongyang, CDB Leasing Co., Ltd.

"China Southern enjoys the good partnership with Embraer and is full of confidence in its products. The EMBRAER 190 is a successful type of aircraft with proven economics

and performance, and it is well received by the market. These aircraft will be operated in Xinjiang to boost the economic development of the region. The partnership between China Southern and Embraer will certainly be further consolidated,” said Xu Jiebo, Vice President of China Southern Airlines Co., Ltd.

The deal is within the framework of a Memorandum of Understanding signed by Embraer and CLC, in December 2009, which aims to create financing opportunities for selling Embraer aircraft to the Chinese and international markets. CLC is a major financial leasing company held by the China Development Bank, and one of the most important international aviation financing institutions.

China Southern has been an operator of Embraer’s ERJ 145, since 2004, with a fleet of six jets providing regional aviation services. In 2009, the company was awarded by Embraer for its successful operation of this aircraft model, in terms of pilot training, market development and maintenance improvement.

The EMBRAER 190 went into operation in the Chinese market in 2008. Today, 80 aircraft produced by Embraer are in service in China, including the 70- to 122-seat E-Jets, the 37- to 50-seat ERJ 145 regional jet family, and the Legacy 600 executive jet. With this new order, 29 EMBRAER 190s will be delivered to China in the coming years.

The EMBRAER 190 is the third of four members of Embraer’s E-Jets family. Its cabin may be configured in one or two classes, seating 98 to 114 passengers in a comfortable four-abreast (2x2) configuration with no middle seat. The jet can fly up to 2,400 nautical miles (4,450 kilometers) nonstop. At the present time, more than 700 E-Jets are operated, worldwide, and have accumulated over 5 million flight hours.

#### EMBRAER HOLDS AIRLINE OPERATORS CONFERENCE IN CHINA

Subjects related to operational experiences of E-Jets and ERJ 145 families will be discussed

São José dos Campos, November 29, 2010

Embraer’s Operators Conference (EOC) China 2010 will be held from November 29 to December 3, in the city of Tianjin, China. The event will bring together Chinese operators of both the E-Jets and the ERJ 145 families, guests from the Civil Aviation Administration of China (CAAC), and Embraer suppliers.

Embraer hosts EOCs, worldwide, every year, aiming to enhance product and service knowledge and to improve customer satisfaction by sharing valuable information and experiences with operators and suppliers. EOC China was created with a sole focus on Chinese customers, and has been held nine years in a row. In the 2010 edition of EOC China, a blend of technical workshops and panel discussions will deal with specific maintenance issues, management and cost of maintenance activities, engineering support, flight operations, and spare parts topics for both E-Jets and ERJ 145 aircraft, reflecting input received from customers and suppliers.

“The annual EOC China, exclusively dedicated to our Chinese customers, not only shows our high commitment to this market, but also demonstrates our continuous efforts in making Embraer’s customer support increasingly local,” said Siu Ying Yeung, Chief Operating Officer, Embraer China Aircraft Technical Services Company Limited. “Currently, we have 77 aircraft in service in China, and the event provides a unique platform for communicating with and better understanding the needs of our customers. Operational and management experiences can be shared among airlines, suppliers and, Embraer’s experts to improve our service to the Chinese market.”

EOC China 2010 is of special significance in the year of Embraer’s tenth anniversary in the country. This year also witnessed two milestones of Embraer’s constant effort to improve its customer support capability: the establishment of Embraer China Aircraft Technical Services Company Limited, in July, and the qualification of Tianjin Airlines as

the first Embraer Authorized Service Center (EASC) to carry out line and heavy maintenance for the ERJ 145 and EMBRAER 190 jets in this region, in October.

About Embraer China's customer support and services

A comprehensive customer support and services capacity is one of the key elements contributing to Embraer's expansion in the Chinese market. In March 2002, the Company established a distribution center in Beijing, together with China Aviation Supplies Corp., to provide spare parts for local customers. To improve service, this facility was expanded, in June 2007. The new 21,530-square-foot (2,000-square-meter) warehouse is fully capable of handling all current and foreseen spare parts demands of Chinese customers. In addition, an ERJ 145 Full Flight Simulator (FFS) was installed at China Southern Airline's Zhuhai flight training center, in July 2005, and provides convenient and cost-effective training. In December 2008, the first EMBRAER 190 FFS and another ERJ 145 FFS were installed at Hainan Airlines' training center in Sanya, Hainan Province. In July 2010, in light of the steady growth of its customer base in the country, Embraer strengthened its existing customer support capability by creating Embraer China Aircraft Technical Services Co., Ltd. In October 2010, Embraer qualified Tianjin Airlines as the first Embraer Authorized Service Center (EASC) to carry out line and heavy maintenance for the ERJ 145 and EMBRAER 190 jets in this region.

EMBRAER'S LEGACY 650 JET DEBUTS AT AIRSHOW CHINA 2010

Company promotes its full line of executive jets, while presenting its newest product  
São José dos Campos, November 17, 2010

Embraer attends the eighth China International Aviation & Aerospace Exhibition (Airshow China 2010, [www.airshow.com.cn](http://www.airshow.com.cn)), November 16 to 21, in the city of Zhuhai, Guangdong Province, China. The Company's large Legacy 650 executive jet, on its first visit to China, debuts at the Airshow with both a static display and demonstration flights scheduled every afternoon during the event. The Legacy 650 is the seventh executive jet model announced by Embraer and complements its broad portfolio of business jets. From the entry level to the ultra-large segments, Embraer's executive jets feature unique combinations of cabin size, performance and technology that are well-suited to meet diverse customer demands. In their respective categories, these jets offer the roomiest cabin, largest baggage compartment, unparalleled design style, superior performance, fuel efficiency, and state-of-the-art systems that differentiate each and every one of them. "China's national economy is one of the greatest and most vibrant in the world, not only today, but also with an enormous potential for the future, and forms an ideal breeding ground for the executive aviation market. Embraer is confident that it can successfully serve this promising market with its full line of unique products," stated Guan Dongyuan, President of Embraer China. "We are very satisfied to present the Legacy 650 at Airshow China 2010, the most important aerospace trade show in China. Visitors at the event will get a taste of Embraer's newest executive jet."

EMBRAER RELEASES CHINESE MARKET OUTLOOK FOR 2010-2029

Company forecasts demand of 950 new regional jets over the next 20 years in China  
São José dos Campos, November 17, 2010

Embraer released its outlook dedicated to the Chinese market for 2010-2029 during a press conference held on the opening day of the eighth China International Aviation & Aerospace Exhibition (Airshow China 2010, November 16 to 21, in the city of Zhuhai, Guangdong Province). The market outlook provides analyses of present and future growth trends of the air transportation industry in China, and presents the Company's vision regarding the future development of China's regional aviation market. In line with the expansion of China's aviation market and economic development, Embraer forecasts a total demand of 950 new regional jets over the next 20 years, consisting of 20 for 30-60

seats, 425 for 61-90 seats, and 505 for 91-120 seats. "China's booming economy fosters the development of its regional aviation market, which generates great opportunities for players in the aviation industry," said Guan Dongyuan, President of Embraer China. "Since we delivered the first jet in China, in 2000, the fleet now in operation totals 77 airplanes, out of 105 firm orders, making Embraer the major supplier of airplanes up to 120 seats in the country. We will continue to provide state-of-the-art products and outstanding services to this promising market, demonstrating our high commitment to Chinese development." The forecast points out that the rapid development of the Chinese High Speed Train (HST) system calls for the transportation industry to adapt to this new scenario, where regional aviation will continue playing an indispensable role. The HST tends to concentrate on high density markets, while regional aviation will still expand into low- and mid-density sectors, supporting the Chinese policy of regional integration. Embraer's Chinese Market Outlook also forecasts opportunities for airplanes up to 120 seats to play an important role in efficiently rightsizing narrowbody fleets, developing new routes at low cost, and adding flight frequencies, as well as reducing emissions, for sustainable air transport industry development.

#### COMMUNIQUÉ - EMBRAER IN CHINA

São José dos Campos, October 7, 2010

With reference to the news that was released by the press, today, about the possible cessation of the industrial operations of Harbin Embraer Aircraft Industry (HEAI), Embraer clarifies that, at the present time, no decision has been made in this respect, and that the Company is negotiating with the government of China and the Chinese partner for the purpose of continuing the operations.

#### COMMUNIQUÉ - EMBRAER 190 ACCIDENT IN CHINA

São José dos Campos, August 24, 2010

Embraer extends its profound condolences and wishes for recovery to the families and friends of those lost or injured in the accident of Henan Airlines' EMBRAER 190, on flight VD 8387, while landing at Yichun airport, in China, today, at approximately 10:00 p.m., local time. Embraer has made a team of specialists available, and they are already on their way to the site, to support Chinese authorities in the accident investigation.

#### EMBRAER CHINA AIRCRAFT TECHNICAL SERVICES ESTABLISHED; THE NEW WHOLLY OWNED SUBSIDIARY IS THE FIRST IN CHINA

São José dos Campos, July 6, 2010

In the year of the tenth anniversary of Embraer's beginning in China, the Company established its first wholly owned subsidiary in that country. Embraer China Aircraft Technical Services Company Ltd. (ECA) is based in Beijing, and its implementation anticipates investments of US\$ 18 million. Embraer's first step in China was to create a representative office in Beijing, in May 2000. The focus of the initiative was to develop market strategy, guarantee after-sale services, and promote products and industrial cooperation with Chinese aviation pioneers. In 2003, Embraer and the Aviation Industry Corporation of China established Harbin Embraer Aircraft Industry (HEAI), in Harbin, northeast China. The joint venture for producing commercial jets for Chinese airlines delivered its first aircraft in 2004. In light of the steady growth of its customer base in the country, Embraer strengthened its existing customer support capability by creating ECA. The business scope of the new subsidiary covers logistics and spare parts sales, as well as consulting services regarding technical issues and flight operations. "The establishment of Embraer China Technical Services demonstrates our long-term commitment and confidence on the growing Chinese aviation market," said Guan Dongyuan, President of Embraer China and CEO of ECA. "Continuous improvement of customer support is vital to

the ultimate success of Embraer's operations in China. Currently, there are more than 70 Embraer aircraft in service in the country, out of 105 firm orders. The new facility will certainly satisfy the demands of current and future customers." The official incorporation of Embraer China Technical Services Company Ltd. took place on July 1. According to plan, the new subsidiary will be fully operational within a month.

#### EMBRAER SHOWCASES THE LEGACY 600 AT ASIAN AEROSPACE EXPO 2009

Airplane will move on to a demo tour in mainland China following event

São José dos Campos, September 2, 2009 – Embraer will participate in Asian Aerospace EXPO 2009 ([www.asianaerospace.com/en/Home](http://www.asianaerospace.com/en/Home)), September 8 - 10, at Hong Kong International Airport. Company officers will meet the public in Suite 2, of the airport's Business Aviation Centre, and Embraer's super midsize Legacy 600 executive jet will be shown at static display No. 9. Located at the hub of Asian enterprise, Hong Kong, the event's motto is: The Right Place. The Right People. The Right Value. Held in conjunction with Pacific Aviation Training (APATS), Aircraft EXPO interiors, Air Freight Asia (AFA), and Asian Business Aviation (ABA), Asian Aerospace focuses on developing commercial aviation interests in China and the rest of Asia. "It is a great pleasure for Embraer to participate in Asian Aerospace EXPO 2009, which is one of the most influential air shows in the region," said Mr. Guan Dongyuan, President, Embraer China. "We are pleased to show the Legacy 600 aircraft, which has been well accepted by the global market and is suitable for the emerging Chinese market." Immediately following the air show, the Legacy 600 will go on a demo tour of four cities in mainland China. From September 10 to 15, it will be in Beijing, Shanghai, Nanjing, and Kunming, as part of the larger Asia tour already announced by the Company. The range of the Legacy 600 allows it to cover all of China, Japan, Korea, and Southeast Asia, departing from Beijing, Shanghai, Hong Kong, or Kunming.

#### EMBRAER HOLDS OPERATORS CONFERENCE IN CHINA

This is a first for both ERJ 145 and E-Jets family customers in the country

São José dos Campos, November 13, 2008 – Embraer's Operators Conference (EOC) China 2008 will be held November 17 to 21, at Hotel Shangri-la, in the city of Xi'an, Shan Xi Province of the People's Republic of China. The event will bring together customers of both the ERJ 145 and the E-Jets family in the country, as well as guests from the Civil Aviation Administration of China (CAAC) and several Embraer suppliers. The EOC has been held annually, since 2003, in China. The purpose of the encounter is to get customers, vendors, authorities and Embraer together to share valuable information and experiences, thus enhancing product and service knowledge and improving customer satisfaction. It is also an opportunity to help customers deal with technical difficulties and to strengthen their relationship with Embraer. "It is a great pleasure for Embraer to be part of the rapid growth of the Chinese regional aviation market, and EOC China 2008 reflects this accomplishment," said Siu Ying Yeung, Vice President of Customer Support and Services, Embraer China. "Embraer's products such as the ERJ 145, the Embraer 190 and the Legacy 600 have been meeting market and Chinese customer needs, and our support and services team is fully committed to satisfying the growing customer base with high standards." The Embraer 190 entered service in mainland China last May, with Grand China Express, and this is the first time that EOC China organizes workshops for both the ERJ 145 and the E-Jets family. In August 2008, Kunpeng Airlines took delivery of its first Embraer 190, to enhance its operational capability. As of September 30, 2008, six Chinese operators were flying 31 ERJ 145 and seven Embraer 190 jets in the country.

About Embraer China's Customer Support and Services

A comprehensive customer support and services capacity is one of the key elements contributing to Embraer's expansion in the Chinese market. On March 2002, the Company

established a facility in Beijing, together with China Aviation Supplies Corp., to provide spare parts for Chinese customers. To improve service, this distribution center was expanded in June 2007. The new 2,000-square-meter (21,530-square-foot) warehouse is fully capable of handling all current and foreseen spare parts demands of Chinese customers. In addition, an ERJ 145 full-flight simulator was installed at the facility of China Southern Airline's Zhuhai Flight Training Center, in July 2005, and provides convenient and cost-effective training for the aircraft customers. Other full-flight simulators will be implemented in China in 2008 and 2009.

#### EMBRAER SIGNS SERVICE CONTRACT WITH CHINA'S KUN PENG AIRLINES

ECIP program will support the EMBRAER 190 jet soon to enter service with the airline  
São José dos Campos, August 26, 2008 – Embraer signed a five-year Embraer Collaborative Inventory Parts (ECIP) service contract with Kun Peng Airlines Co., Ltd., the newest E-Jets operator in China. Kun Peng currently has more than 1,900 part numbers from seven maintenance bases covered by ECIP. "With this program, Kun Peng Airlines will optimize its spare parts supply chain by simplifying it," said Siu Ying Yeung, Vice President, Customer Support and Services – Embraer China. "We increased our spare parts support assurance to Kun Peng through proactive participation in its supply process, which will result in great aircraft availability. This is win-win cooperation for both of us." The ECIP program monitors customer parts usage, guarantees automatic stock replenishment, shortens delivery times for contracted parts, and establishes a baseline for the carriers to better manage their costs. By reducing the workload for planning, controlling and purchasing expendable parts, the airlines can also save management time for repairable items. "Supported by ECIP, we expect to significantly reduce the operational risk of our EMBRAER 190 by having the spare parts supply well guaranteed," said Han Dexing, Vice President, Safety and Maintenance, Kun Peng Airlines. "We are looking forward to being covered by more Embraer service programs, and we firmly believe that due to the sound cooperation between both parties, the future operation of our EMBRAER 190 will be very good." Kun Peng Airlines is a joint venture between China's Shen Zhen Airlines and the Mesa Air Group, of the United States. In July 2008, Embraer announced a firm order for five EMBRAER 190 jets by Kun Peng, which will become the second operator of the E-Jets family in mainland China. The first delivery is scheduled for August 2008.

#### EMBRAER'S SPARE PARTS WAREHOUSE IN CHINA IS CERTIFIED BY ANAC

Certification will allow the Company to optimize its aftermarket services in that country  
São José dos Campos, August 11, 2008 – Embraer's spare parts warehouse in China has been certified by the Brazilian Civil Aviation Agency (Agência Nacional de Aviação Civil – ANAC), in compliance with Brazilian Aeronautical Regulation (Regulamento Brasileiro de Homologação Aeronáutica – RBHA), Part 21, to issue airworthiness certificates for parts and equipment. An extensive audit process qualified Embraer China's Quality Technicians to issue spare part airworthiness certificates through its own quality system in China, broadening the range of services and bringing flexibility to customers. The ANAC audit highlighted the fact that Embraer China has no discrepancies related to warehouse infrastructure and operational processes. This certification allows Embraer China to optimize its supply chain, providing shorter turn-around-times for parts and more agile service solutions. With this achievement, Embraer reinforces its commitment to offer high level material services to enhance its coverage of the growing fleet of the Company's aircraft in the market. "We are proud of the accomplishment of our team upon receiving this certification," said Siu Ying Yeung, Vice President, Customer Support and Services – Embraer China. "With this step, we create conditions for lean processing and to be more competitive to serve our customers in China." By June 30, 2008, Embraer had delivered 33 commercial jets to six customers in China, and had a firm order backlog of 88 aircraft from Chinese airlines. The Company also has been manufacturing regional jets in Harbin,

northeast China, since 2003. The spare parts warehouse certification by ANAC reinforces Embraer's commitment to have strong and efficient aviation services based in the country.

#### EMBRAER SELLS FIVE EMBRAER 190 JETS TO CHINA'S KUN PENG AIRLINES

The airline will be the second operator of the E Jets in mainland China

São José dos Campos, July 11, 2008 – Embraer and Kun Peng Airlines Co., Ltd., one of the main operators in the Chinese regional aviation market, signed a contract for five firm orders for the EMBRAER 190 jet, marking an important expansion of Embraer's presence in mainland China. The total value of this agreement is US\$ 187.5 million, at list price. "We are much honored to have Kun Peng Airlines as our new E-Jets family customer," said Mauro Kern, Embraer Executive Vice President, Airline Market. "We have always been confident in China's regional aviation market expansion, and this is an extremely positive sign in that direction. I firmly believe that our customer-friendly EMBRAER 190 will make a strong contribution to Kun Peng Airlines' growth plans and will please Chinese passengers." Headquartered in Xi'an City, Kun Peng Airlines is a joint venture between China's Shen Zhen Airline and the Mesa Air Group, of the United States, with the Chinese company holding the larger share. Since its start-up in September 2007, Kun Peng already has more than 20 routes in operation. The new EMBRAER 190 of the Chinese airline will be configured with 98 seats in a comfortable dual-class layout, and the first delivery is scheduled for 2008. "Introducing the EMBRAER 190 jet fits our company's strategy perfectly, and we believe it will definitely benefit both of us, Kun Peng and Embraer, in our long-term cooperation," said Mr. Zhang Pei, General Manager of Kun Peng Airlines. "Kun Peng Airlines is dedicated to building itself into the most sizable, characteristic, and competitive regional airline in China, to promote the development of the Chinese regional aviation industry, and to contribute to China's harmonious civil aviation progress."

#### EMBRAER DELIVERS FIRST EMBRAER 190 JET TO GRAND CHINA EXPRESS

Airline is launch customer of the model in mainland China

São José dos Campos, May 20, 2008 – In a ceremony held, on Tuesday, at the Company's headquarters, in São José dos Campos, Embraer delivered the first Embraer 190 jet to China's Grand China Express. The airline is controlled by the Hainan Airlines Group, and is the launch customer of this E-Jets family model in China. The aircraft delivered to Grand China Express is configured to comfortably accommodate 106 passengers in a single-class layout. The company also has an additional 49 firm orders for the same aircraft to be delivered over the coming years. "It is always a pleasure to welcome another airline to join the growing group of more than 30 E-Jets operators," said Mauro Kern, Embraer Executive Vice President, Airline Market. "In this specific case, we're especially excited because it is our first EMBRAER 190 delivery in mainland China and we're entering that market with the right partner – Grand China Express: an ambitious, fast-growing airline based in Tianjin, the third largest Chinese city."

"Grand China Express has been operating eight ERJ 145 jets, since the first delivery in September 2007, which paved the way for further cooperation between the two companies," said Yu Wenyong, President of Grand China Express. "We are very pleased to take delivery of the first Embraer 190, which will fly for the first time in the skies of mainland China. You gave life to the bird; we will make it soar in the unbounded sky." In October 2007, Grand China Express received the 1000th jet of the ERJ 145 family, manufactured in Harbin, China, by Harbin Embraer Aircraft Industry Co. Ltd. (HEAI), a joint venture between Embraer and AVIC II. The Chinese airline has a total of 50 firm orders for the ERJ 145 jet.

#### EMBRAER 190 AND EMBRAER 195 JETS RECEIVE CERTIFICATION IN CHINA

First model is delivered to Grand China Express

São José dos Campos, May 20, 2008 – Embraer received certification, on May 12, from the Civil Aviation Administration of China (CAAC) for operating the Embraer 190 and Embraer 195 jets in mainland China. “This certification is one more important step for our E-Jets in the excellent and promising Chinese aviation market,” says Mauro Kern, Embraer Executive Vice President, Airline Market. “We see China’s domestic commercial fleet as very unbalanced, because of an excessive concentration on large-capacity aircraft. We have no doubt that the Embraer 190 and the Embraer 195 will be extremely useful tools for expanding and operating more efficiently the air routes in that country.” The first aircraft was delivered on Tuesday, May 20, to Grand China Express, controlled by the Hainan Airlines Group, which will be the launch customer of the modern Embraer 190 in China. The other members of the E-Jets family – Embraer 170 and Embraer 175 – will be certified, according to market needs and as new orders are received from Chinese customers. Embraer estimates that the Chinese aviation market will grow around 7.5 percent per year over the next 20 years, and that it will need some 730 new airplanes with 30 to 120 seats, which will represent 10 percent of the world demand in this segment. In the 91 to 120-seat range, where the Embraer 190 is positioned, the Chinese market will need 450 new airplanes.

#### EMBRAER RELEASES COMMERCIAL AVIATION FORECAST FOR THE ASIA PACIFIC REGION AND CHINA

Company reveals its long-term expectations during the Singapore Airshow 2008

São José dos Campos, February 19, 2008 – Embraer has released its projections for commercial air traffic demand in the Asia Pacific region and China over the next 20 years (2008-2027) during the Singapore Airshow 2008 (February 19-24). Asia Pacific will grow at an annual rate of 5.3 percent and, particularly, China at 7.5 percent, which are well above the projected world average of 4.9 percent. This is based on a positive economic environment and more accessibility to the market by new carriers. “Embraer’s production, training and service investments show its deep involvement in the Asia Pacific region, where the Company has three decades of experience,” said Orlando José Ferreira Neto, Managing Director – Embraer Asia Pacific. “The burgeoning and highly competitive aviation markets of the region pose a challenge that we take very seriously and sharpens the focus of our strategic planning.” Increasing openness in some countries of the region encourages more airline expansion and start-ups, which are resulting in stronger air transportation growth. However, the Asian fleet still concentrates on high-capacity narrowbody aircraft, preventing the implementation of adequate air transportation services to medium-sized cities. Embraer expects that this fact, in conjunction with an ever-growing need to integrate secondary cities, plus new public policies, will motivate the development of regional transportation, thus creating major opportunities for regional aviation in the coming years. In China, the economy is growing at a fast pace and, together with the heavy infrastructure investments, is stimulating the creation of privately-owned airlines, resulting in greater competition. But the fleets are centered, mainly, on high-capacity aircraft, which are unable to efficiently serve most medium-demand secondary markets. Embraer foresees a demand for 1,270 jets in the 30 to 120-seat segment, over the next 20 years, in the Asia Pacific region and China, or an estimated total market value of US\$ 42 billion. The forecast, broken down into ten-year periods, shows the delivery of 610 aircraft in 2008-2017 and 660 in 2018-2027, as shown below. Embraer’s current forecast indicates that the aircraft demand in the region will be 25 percent higher than the previous estimates. The Asia Pacific region and China will represent 17 percent of worldwide aircraft deliveries over the next 20 years. The studies indicate that the 30 to 90-seat segment will be the mainstay of regional aviation development in Asia. The 91 to 120-seat segment will support airlines to right-size aircraft capacity to market demand with improved service levels on low load factor narrowbody flights and to expand into mid-sized markets. The carbon emissions issue is becoming one of the main drivers of airline fleet decisions and early retirement of



older aircraft. Around 50 percent of the 61 to 120-seat jets currently in service in the Asia Pacific region are over 20 years old and should be replaced in the near future, resulting in substantial environmental and economic benefits.

#### HARBIN EMBRAER DELIVERS THE FIRST ERJ 145 JET TO GRAND CHINA EXPRESS

The aircraft is the 1000th unit of the ERJ 145 family

São José dos Campos, October 1, 2007 – The 1000th aircraft of the ERJ145 family was unveiled to the public, last Friday, by Harbin Embraer Aircraft Industry Co. Ltd. (HEAI) in Harbin City, China. This aircraft was manufactured by HEAI, the joint venture of Embraer and AVIC II, and delivered to Grand China Express, an airline that is wholly owned by Hainan Airlines Group, which placed an order for 50 ERJ 145s and 50 EMBRAER 190s in August 2006. According to the agreement, the 50 ERJ 145s will be manufactured by HEAI, whilst the 50 EMBRAER 190 will be manufactured by Embraer in Brazil.

“I am delighted to witness the delivery of the 1000th jet of the ERJ 145 family to our valuable Chinese customer, the HNA Group. The aircraft is a proven product and has been flying with all the main world-class regional airline operators around the globe, since 1996,” said Frederico Fleury Curado, Embraer President and CEO. “I firmly believe the aircraft perfectly fits the overall operational strategy of Grand China Express.”

“ERJ 145 project is a significant measure of AVIC II to fulfill the strategy for development of regional aircraft and regional aviation instituted by the Central Government and the State Department,” said Hongbiao Zhang, General Manager of AVIC II. “It is the first time that China collaborates by a pattern of joint venture with a leading foreign civil aircraft manufacturer to assemble aircraft. This project is a major outcome of the collaboration between China and Brazil in high tech industry, and a successful model of ‘South-South Cooperation’. It is beneficial to the development of aviation transportation, the pervasiveness of the convenience of aviation and the construction of a harmonious society. This project also prompts the development of aviation manufacturing industry and synchronizes China’s aviation industry with advanced technology worldwide. We will strengthen the cooperation with Embraer to deliver eximious service to clients in China.”

Mr. Chen Feng, Chairman of HNA Group, said that the purchase of ERJ145 aircraft by the Grand China Express is a specific initiative that HNA Group has made to support the development of national aircraft manufacturing industry. HNA Group is expecting to effectively lift the Chinese competency in national aviation industry through this effort and to promote the development of the national civil aviation. Besides, HNA Group is hoping to facilitate the regional feeder aviation industry by this initiative and to optimize the regional fleet ratio in China. In addition, HNA Group believes that this initiative will greatly promote the mutual trading partnership and friendship between China and Brazil as well. Mr. Chen Feng also said that HNA Group will regard the first delivery of ERJ145 as the starting point to building a long-term cooperative relationship with EMBRAER, AVIC II as well as Harbin Embraer Aircraft Industry Co., Ltd. so as to make some contributions to the realization of building a powerful aviation country of China, to the promotion of the economic development in west China and to building a socialism harmonious society.

After the ceremony, the milestone ERJ 145 aircraft flew directly to Tianjin City, where Grand China Express is based, and the flight service will start right away.

#### EMBRAER’S CHINA OFFICE MOVES TO NEW PREMISES

Facilities also celebrate the seventh anniversary of Embraer’s operations in China

São José dos Campos, May 30, 2007 – Effective today, Embraer’s China office will operate from the China Central Place Office Building, located in the newly established Central Business District (CBD) region east of downtown Beijing. This date coincides with the seventh anniversary of the inauguration of Embraer’s operations in China. Since Embraer first entered the Chinese market, in 2000, its firm order book in the country has

grown to 123 jets, including 71 ERJ 145, 50 EMBRAER 190 and two executive jets from private customers. From the very early stages of its operations in China, Embraer has given special attention to developing a high level of cooperation with the Chinese aviation industry, which eventually resulted in establishing the joint venture with Harbin Aviation Industry Co., Ltd., and Hafei Aviation Industry Co., Ltd., under China Aviation Industry Corporation II (AVIC II). The joint venture carries the name of Harbin Embraer Aircraft Industry Company (HEAI). In the pursuit of full customer satisfaction, Embraer set up a spare parts center in Beijing, in partnership with the China Aviation Supplies Company (CASC). Since then, facilities have been expanded to keep pace with the needs of Embraer's growing customer base in China, focusing its efforts on building a sophisticated customer support system to best serve the needs of its clients. "I am very pleased to participate in the opening of Embraer China's new premises, a memorable moment that witnesses the solid results of seven years of development in the Chinese market, as well as our commitment to both China and Brazil," said Frederico Fleury Curado (from left to right, the sixth in the photo), Embraer President and CEO, who hosted the ribbon-cutting ceremony, in which he gave his blessing to the future prospects of Embraer's China office. On the day Embraer began operations in China, on May 30, 2000, its workforce consisted of only three employees. Today, there are 230 working at the Beijing office and the HEAI joint venture. This number is expected to grow to 270 by the end of the year.

#### CHINA EASTERN AIRLINES WUHAN BUYS FIVE ERJ 145s FROM HARBIN

Carrier's new board of directors approved deal

São José dos Campos, January 18, 2006 – The new board of directors of China Eastern Airlines Wuhan Ltd has approved the acquisition of five 50-seat ERJ 145 LR aircraft from Harbin Embraer, fulfilling the last required formality for the sales contract to take effect. Deliveries of these aircraft will occur between November 2006 and June 2007. The deal will add to the five ERJ 145s previously acquired by China Eastern Airlines Jiangsu Ltd, and bring to ten the total number of ERJ 145 jets in China Eastern's regional fleet. Harbin Embraer is a joint venture established between Embraer and China Aviation Industry Corporation II in 2002. With 180 employees, this facility is capable of producing up to 24 50-seat aircraft per year. Harbin Embraer has delivered six ERJ 145s to China Southern Airlines and three to China Eastern Airlines Jiangsu. In 2006, two more deliveries to China Eastern Airlines Jiangsu are expected. Embraer forecasts Chinese demand for 590 jets in the 30 to 120-seat category in the coming 20 years, with China accounting for seven percent of estimated global aircraft deliveries in this segment. Currently, there are 18 Embraer jets flying in China, including 14 ERJ 145s, three EMBRAER 170s and one Legacy 600 business jet. To support the Company's expanding customer base in China, an emerging market with considerable growth potential, Embraer set up one spare parts center in Beijing and one Full Flight Simulator for the ERJ 145 family in Zhuhai, under the administration of China Southern Airlines.

#### EMBRAER 190 JET TOURS CHINA

A continuation of its 21-week World demonstration tour

São José dos Campos, October 15, 2006 – The EMBRAER 190 enters China to start a six-city tour, after successfully completing its tours in Europe and North and South America, over the past eleven weeks. The specially configured E-Jet will visit Beijing, Urumchi, Chengdu, Kunming, Shanghai and Haikou. By the end of this year, the EMBRAER 190 will have been on display to some 95 airlines, in 68 cities in 43 countries on six continents, and attended three industry trade shows. Upon completion of its tour in Haikou, the aircraft will fly to Zhuhai, on October 28, and make ready for the Zhuhai International Aerospace Exhibition, which will begin on October 30, 2006. The EMBRAER 190's standard configuration has 100 seats in a two-by-two arrangement. This particular dual-class demonstration aircraft is especially configured with nine premium and 84

economy seats to emphasize the versatility of cabin layouts. The airplane is equipped with a video and audio on-demand passenger entertainment system with individual TV screens at each seat. The EMBRAER 190 is one member of a family of four E-Jet models, a new generation of aircraft optimized for the 70 to 110-seat capacity segment. The EMBRAER 190 is currently in service with JetBlue Airways (USA), Air Canada (Canada), TAME (Ecuador) and Copa Airlines (Panama). The aircraft is on order with HNA Group (China), US Airways (USA), AeroRepublica (Colombia), Finnair (Finland), Air France's Regional Airlines (France), GECAS (USA) and Mandarin Airlines (Taiwan Region).

#### EMBRAER OPERATION IN CHINA

São José dos Campos, November 24, 2005 - Due to contamination of the river which supplies water to the city of Harbin, Embraer confirms the provisional suspension of production at Harbin Embraer Aircraft Industry (HEAI) in China. Actions after the incident are being taken by the community and HEAI's management in an atmosphere of tranquility. The Company continues to monitor the situation closely.

#### CHINA EASTERN AIRLINES TAKES DELIVERY OF ITS FIRST ERJ 145 JET

Aircraft manufactured by Harbin Embraer Aircraft Industry Co., Ltd. joins one of the largest fleets in China.

São José dos Campos, August 29, 2005 – Harbin Embraer Aircraft Industry Co., Ltd. (HEAI) today announced that China Eastern Airlines Jiangsu Ltd. took delivery of the first of five 50-seat ERJ 145s it placed on order. Completion of deliveries to China Eastern is expected by April 2006. Su Guoxin, President of China Eastern Airlines Jiangsu Ltd., said: "I am very happy to be the second customer of Harbin Embraer. Operating the ERJ 145 will further strengthen our operation by helping us meet demand of diversified routes and provide flexible air services to our passengers. The ERJ 145 will be put into service right after we accept it. Taking Nanjing as the hub, it will fly from Nanjing to cities such as Chongqing, Hohhot, Shijiazhuang and Zhengzhou. The service will play a very important role in local economic development."

"It is stimulating to see HEAI products finding increasing acceptance in China's aviation industry," said Roberto Rossi, President of Harbin Embraer Aircraft Industry Co., Ltd. "With the development of the Chinese regional aviation and the proven success of ERJ 145 family worldwide, China Eastern Airlines Jiangsu Ltd. will be able to expand its network, offering flexible transportation service at low-cost, low-risk and exploring new markets."

HEAI is the joint venture established in 2003 by Embraer, the Harbin Aviation Industry (Group) Co., Ltd. and the Hafei Aviation Industry Co. The Harbin Aviation Industry (Group) Co., Ltd. and the Hafei Aviation Industry Co. are affiliate companies of China Aviation Industry Corporation II (AVIC II). In the same year the joint venture was established, the first aircraft was rolled out at HEAI. Between June 2004 and January 2005, HEAI delivered the first six locally produced ERJ 145s to China Southern Airlines.

Embraer's Chinese facility produces ERJ 145 family aircraft under license and its scope of business includes final assembly, sales and after sales customer support. As of August 20, 2005, HEAI employed 174 people. Embraer's total investment in China's ERJ 145 program is US\$ 25 million.

#### HARBIN EMBRAER SECURES SECOND ERJ 145 ORDER FROM CHINA EASTERN AIRLINES

New order for five jets going to Jiangsu subsidiary

São José dos Campos, March 24, 2005 - Harbin Embraer announced today the sale of five ERJ 145s to China Eastern Airlines Jiangsu Ltd. The contract marks the second order placed by a Chinese airline with Harbin Embraer Aircraft Industry Co., Ltd. (HEAI). "We are very pleased to welcome the ERJ 145 to our fleet. It is a very attractive aircraft

that will fit in very well with our existing fleet and route structure,” said Su Guoxin, President & CEO of China Eastern Airlines Jiangsu Ltd. Deliveries are scheduled to start in the second half of 2005 and continue in 2006. This deal will increase the ERJ 145 fleet in China to 16 aircraft, joining five airplanes operated by Sichuan Airlines and six operated by China Southern Airlines. “Embraer is very proud that China Eastern Airlines Jiangsu Ltd. chose the ERJ 145. It will no doubt reinforce Embraer’s long-term commitment to the Chinese market. We are highly confident that the regional aviation market in China will enjoy further growth in the years to come. We believe the right-sizing and highest level of passenger comfort that ERJ 145 provides will meet the satisfaction of both the airlines and the passengers,” said Frederico Fleury Curado, Embraer Executive Vice-President for Civil Aircraft. “This is a very encouraging step forward for this Sino-Brazil joint venture. It will enhance both partners’ efforts to expand and strengthen the commercial ties with clients based in this dynamic economy,” said Xu Zhanbin, Vice President of AVIC II, Embraer’s partner in the HEAL joint venture. The ERJ 145’s built in Harbin under license from Embraer feature the same characteristics of the successful ERJ regional jet family made in Brazil by Embraer: a modern design that has stood out in the world market for its operational efficiency, low operating costs and high levels of safety and comfort. More than 900 aircraft of this family have been delivered worldwide.

#### HONG KONG EXPRESS TO OPERATE FOUR EMBRAER 170s

Airline to be first EMBRAER 170 operator in China

São José dos Campos, December 3, 2004 - Embraer announced today that startup airline Hong Kong Express Airways Ltd (HKE) will operate four EMBRAER 170 aircraft configured with 76 seats. HKE will be the launch customer for the EMBRAER 170, not only in China but also in the whole of Asia. Three aircraft are scheduled for delivery to HKE in the second half of 2005 and one in the first half of 2006. These aircraft will be leased from General Electric Capital Aviation Services (GECAS). HKE Chief Executive Officer Andrew Tse said: “The aircraft will be used to provide multiple daily services between Hong Kong and secondary cities in mainland China. In conjunction with the extensive air services to over 140 cities worldwide through the Hong Kong International Airport (HKIA), HKE’s plan of operation will strengthen HKIA’s position of being the predominant gateway to mainland China by enhancing the connectivity for mainland China international travelers as well as the air service for local Hong Kong travelers. This is an investment of over US\$ 100 million, which fully demonstrates our commitment to Hong Kong.” The lease of the four EMBRAER 170 aircraft is just the first phase of HKE’s fleet plan. It is HKE’s intention to acquire two aircraft per year to cover 12-15 cities in mainland China in the next five years, subject to the regulatory approval and market conditions. “Embraer is very proud and pleased that Hong Kong Express became our launch customer in Asia for the EMBRAER 170. By providing air services between Hong Kong and secondary cities in mainland China, it will no doubt promote the economic cooperation between the two areas. In addition, it will allow mainland travelers more choices and convenience to go for worldwide trips via Hong Kong,” said Guan Dongyuan, Managing Director of Embraer in China.

#### EMBRAER PARTICIPATES IN THE 2004 CHINA AIR SHOW

Zhuhai Airport is venue for event's fifth edition

São José dos Campos, November 5, 2004 – Embraer is participating in the fifth edition of the China Air Show at Zhuhai Airport on Nov 1-7. Manufacturers, operators, regulatory agencies and government authorities are in attendance of the exhibition, which is regarded as one of the most important in Asia. Participation at the Zhuhai trade show this year is the first since Embraer set up the joint venture in China to manufacture the ERJ 145 aircraft. Harbin Embraer Aircraft Industry (HEAI) was legally established by Embraer and its partners Harbin Aviation Industry Group Co., Ltd. and Hafei Aviation Industry Co., Ltd. (companies controlled by AVIC II - China Aviation Industry Corporation II) in January 2003.

In just under 11 months, Embraer's Harbin-based facility rolled out the first 50-passenger ERJ 145 jet. The first order for Embraer's new Chinese facility came in February 2004 from China Southern Airlines. HEAL's launch customer, also the largest airline in the country, ordered six ERJ 145 airplanes, adding to a fleet of five ERJs flying in China since 2000 in the colors of Sichuan Airlines. Deliveries to China Southern began in June 2004 and will extend through January 2005. "Embraer sees the strengthening of air transportation in China as a key component of the country's development and the Harbin assembly line is a clear sign of our long-term commitment to the progress of Chinese aeronautical industry," said Guan Dongyuan, Embraer Director for the Civil Aviation Market in China. "The establishment of the Harbin Embraer facility, combined with the introduction of the new EMBRAER 170/190 family of commercial airliners, places Embraer in a privileged position to serve Chinese operator customers, as experienced by airlines all over the world", added Guan. In terms of market trends in China, load factors show clearly there is a significant number of routes that could be better served with aircraft under 120 seats. In a recent study, Embraer forecast total Chinese demand for jets in the 30- to 120-seat range at 635 units between 2004 and 2023.

#### CHINA SOUTHERN TAKES DELIVERY OF TWO ERJ 145 REGIONAL JETS

Built in China, the Embraer aircraft join China's largest fleet

Harbin (China), June 28, 2004 – Embraer announced today that the Harbin Embraer Aircraft Industry Company Limited, the joint venture established between Embraer, Harbin Aviation Industry (Group) Co., Ltd. and Hafei Aviation Industry Co., Ltd. - companies controlled by China Aviation Industry Corporation II - delivered the first two ERJ 145 jets to China Southern Airlines, the largest airline in The People's Republic of China. The Chinese customer ordered a total of six ERJ 145s in February 2004, with deliveries scheduled to continue through January 2005.

Since 2000, Sichuan Airlines, who is now partially controlled by China Southern Airlines Company Limited through a shareholding arrangement, has been operating five ERJ 145 airplanes in the country.

"Today we are very pleased to gather here to attend this delivery ceremony of these new ERJ 145 regional jets," said Mr. Hao Jianhua, Vice-President for China Southern Airlines. "The launching of this new ERJ 145 further enriches China Southern's aircraft fleet and satisfies our demand for different aircraft capacity. Currently, the operation of the ERJ 145 on domestic routes is still in an initial stage," said Mr. Hao. He added: "As China Southern's operating route structure continues to expand and the civil aviation market further develops, ERJ 145 aircraft will provide our passengers with broader and more options for air transportation services. We are confident that this co-operation will create a promising future for both Embraer and China Southern."

"We are pleased and honored with the delivery of the first two ERJ 145s produced by Harbin Embraer Aircraft Industry to its launch customer China Southern Airlines. This is another important milestone in Embraer's long-term strategy and commitment towards the Chinese market," said Frederico Fleury Curado, Embraer Executive Vice-President – Civil Aircraft. "We are certain that China Southern's business will greatly benefit from this aircraft, which has enjoyed great success worldwide. With more than 800 units in operation, we strongly believe that the ERJ 145 will fit in well with its existing fleet and route structure, providing the same good services which made this aircraft one of the most successful programs in the world's aeronautical industry."

Embraer signed an agreement in December 2002 to establish a production unit in China. This marked Embraer's first industrial initiative outside Brazil to manufacture its renowned ERJ 145 family aircraft to better meet the needs of the Chinese market in terms of commercial aviation products. The new company, Harbin Embraer Aircraft Industry Company Ltd., is based in Harbin, capital of Heilongjiang province, and is specialized in manufacturing the top selling 30-50 seat ERJ 145 regional jet series products.

#### EMBRAER 170 KICKS OFF FIVE-CITY DEMO TOUR IN MAINLAND CHINA

China tour follows successful introduction at Asian Aerospace trade show in February

Guangzhou, March 22, 2004 – Embraer today announced that the EMBRAER 170 airliner has embarked on a five-city demonstration tour in mainland China with stops in Guangzhou, Haikou, Chengdu, Shanghai and Beijing. This follows the successful introduction of the aircraft at the Asian Aerospace trade show in Singapore and a demonstration of the product in Hong Kong last week. “The aviation market in China is one with great growth potential and Embraer is committed to supporting that growth. Embraer successfully implemented a joint venture with Chinese partners AVIC II/HAFEI to locally assemble a widely recognized product, the ERJ 145,” said Guan Dongyuan, Managing Director of Embraer China. “Now, Embraer brings in the EMBRAER 170, first member of the new EMBRAER 170/190 family, to demonstrate the attributes that make it suitable for the Chinese air transportation market. We believe that both families of aircraft would fit in very well to the rapidly developing Chinese air transportation industry,” said Guan Dongyuan, Managing Director of Embraer China.

#### HARBIN EMBRAER SECURES LAUNCH ORDER OF SIX ERJ 145 TO CHINA SOUTHERN AIRLINES

Delivery of aircraft to start in June 2004

Harbin, February 02, 2004 – Harbin Embraer today announced the sale of six ERJ 145 to China Southern Airlines. The contract marks the first order placed by a Chinese airline with Harbin Embraer Aircraft Industry Co. Ltd. (HEAI), the joint venture between Brazil's Embraer and China's Harbin Aircraft Industry Co. Ltd. (HAI) and Hafei Aviation Industry Co. Ltd. (HAFEI), both controlled by China Aviation Industry Corporation II (AVIC II). “This initial order rewards Embraer and its Chinese partners' efforts to expand and strengthen commercial ties with clients based in this rapidly developing economy,” said Maurício Botelho, President and Chief Executive Officer (CEO) of Embraer. “The fact that in such a short time, teams of technicians have been trained, an assembly line has been implemented, followed by the rollout of the first ERJ 145 produced in China and the first order for this aircraft, only reflects Embraer's determination and commitment to our presence in that country.” Under the agreement with China Southern, deliveries are expected to start in June of 2004 and stretch until January 2005. “We are very pleased to be the launch customer of Harbin Embraer Aircraft Industry Co., Ltd.. The ERJ 145 is a very attractive aircraft that will fit in very well with our existing fleet and route structure. It will play a significant role in the development of China Southern's business,” said Yan Zhiqing, President of China Southern Airlines Group of Companies and Chairman of China Southern Airlines Company Ltd. China Southern has been the largest airline in China for the past 23 years. Currently, it connects more than 80 cities around the globe and its market share at home is 38 percent. This deal increases the ERJ 145 fleet in China to 11 aircraft, adding up to the five airplanes operated by China Southern-controlled Sichuan Airlines since 2000. In a recent market outlook report, Embraer pegged total Chinese demand for regional jets in the 30 to 120-seat range at 635 units between 2004 and 2023. The ERJ 145's built in Harbin under license from Embraer feature the same characteristics of the successful ERJ regional jet family made in Brazil by Embraer: a modern design that has stood out in the world market for its operational efficiency, low operating costs and high levels of safety and comfort. More than 750 aircraft of this family are in operation worldwide.

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#### HARBIN EMBRAER APRESENTA E FAZ PRIMEIRO VOO DO ERJ 145 PRODUZIDO NA REPUBLICA POPULAR DA CHINA

Harbin, December 16, 2003 - The first aircraft produced by HEAI - Harbin Embraer Aircraft Industry Company Ltd., the joint venture established between Embraer with Harbin Aircraft Industry (Group) Co., Ltd. and Hafei Aviation Industry Co., Ltd., (companies controlled by AVIC II - China Aviation Industry Corporation II), was rolled out and completed its first flight earlier today. The ceremony was attended by high ranking Chinese and Brazilian government authorities, executives from China's top airlines, as well as representatives of partner and supplier companies.

"The first Embraer aircraft manufactured outside Brazil represents Embraer's long-term commitment to the Chinese aviation industry, from both the airline operation and industrial points of view," said Maurício Botelho, President and CEO of Embraer. "We firmly believe that the satisfaction of our customers is the most important focus of our entrepreneurial action and Harbin Embraer is well positioned to undertake this endeavour in the Chinese marketplace, producing our worldwide successful ERJ 145 aircraft family with the same quality standards and level of product support as those manufactured in Brazil."

"The cooperation between AVIC II and Embraer will be a long-term, strategic and mutual beneficial cause for both companies. We will make efforts to ensure bilateral cooperation a new successful model of South-South Cooperation," said Professor Zhang Yanzhong, President of AVIC II.

Since HEAI's business license was granted on January 13, 2003, the parties involved have been fully engaged in starting the new company and manufacturing of the first

airplanes. In just eleven months, the relevant HAFEI facilities were refurbished, jigs and tools were prepared, employees were hired and trained, and the first aircraft was assembled on schedule. The Company currently employs 152 people, a number that is slated to reach 180 by July 2004.

The facilities in Harbin extend Embraer's presence in the People's Republic of China where the Beijing Representative Office, responsible for marketing and sales activities in the Chinese territory, was inaugurated in 2000. This was followed by a 750 sq. m. depot and distribution center with an inventory of more than 6,000 different aircraft spare parts.

The successful ERJ 145 family derives from a modern design that stands out in the world market for its operational efficiency, low operation and maintenance costs, and high levels of safety and comfort. More than 750 aircraft of this family are in operation worldwide.

#### EMBRAER SETS UP JOINT VENTURE IN CHINA WITH AVIC II

##### New Company to Manufacture the ERJ 145 Family Aircraft

Beijing, December 2, 2002 - Embraer signed today an agreement to build a production unit in China through a joint venture with Harbin Aircraft Industry (Group) Co., Ltd. and Hafei Aviation Industry Co., Ltd. – companies controlled by China Aviation Industry Corp. II, AVIC II. Embraer's first industrial initiative outside Brazil will manufacture its renowned ERJ 135/140/145 family aircraft to better meet the needs of the Chinese market in terms of commercial aviation products. The new company, denominated Harbin Embraer Aircraft Industry Company Ltd., will be located in Harbin, capital of Heilongjiang province.

"This event represents a landmark not just in the history of Embraer, but also in the history of both countries' bilateral relations. China and Brazil have an enormous potential for cooperation in different fields of interest, and we are confident that this is but the first step towards many successful accomplishments in the future. We firmly believe that Harbin Embraer Aircraft Industry Company will be a powerful lever to expand the presence of our products in this flourishing Chinese market which, for sure, will represent an important share of Embraer's global operations," affirmed Mauricio Botelho, President and CEO of Embraer, during the signature of the contract in Beijing.

"To cooperatively develop commercial regional jets will definitely bring win-win results to both AVIC II and Embraer. I wish this Sino-Brazilian cooperative program will set yet another successful model of South-South Cooperation (Technical Cooperation among Developing Countries – TCDC)," stated the President of AVIC II and Academician of China's Academy of Engineering, Dr. Zhang Yanzhong.

Harbin Embraer Aircraft Industry Company Ltd. will be responsible for the manufacturing, assembly, sales and after-sale support for the ERJ 135/140/145 family aircraft. The contract covers the production under license of all versions of the ERJ family of regional jets, including the ERJ 135, ERJ 140 and ERJ 145 aircraft, to be marketed primarily in the entire territory of the People's Republic of China. The delivery of the first aircraft is scheduled for December 2003.

The equity investment in the Joint Venture will be of US\$ 25 million. The new production unit will occupy an area of 24,000 sq. m., employing up to 220 people.

The facilities in Harbin extend Embraer's presence in China, where the Beijing Representative Office was inaugurated in 2000. Embraer also implemented the Beijing Distribution Center, which is jointly run with China Aviation Supplies Import and Export Corp. Embraer's Distribution Center is a 750 sq. m. facility that inventories more than 6,000 different aircraft spare parts and components; it is electronically connected to other storage centers in Brazil, Australia, England, France and USA, allowing customers to place purchase orders in real time.

Currently there are 5 ERJ 145s flying in China, operated by Sichuan Airlines Co., Ltd. The carrier is obtaining good levels of schedule and dispatch reliability, while flying in some of the most demanding environments in the world. The performance of this fleet has been



highly satisfactory and is establishing a reputable platform for Embraer's commercial jet product line in the country.

#### EMBRAER MARKS PRESENCE AT ZHUHAI AIRSHOW CHINA

##### EMBRAER 170 Mock-up to be Showcased at the Event

São José dos Campos, November 4, 2002 - For the second time, Embraer takes part in the China International Aviation & Aerospace Exhibition - Zhuhai. The 4th edition of the event is held on November 4-7 in Zhuhai, located in the southern part of the country. The airshow is one of the most important events of the industry in Asia and main players from around the world including operators, manufacturers, regulatory agencies and government authorities are expected to attend. Located in the province of Guangdong, in the vicinity of Macau and Hong Kong, Zhuhai is known as 'The Garden City' and has hosted the biannual event since 1996.. "China is an important market and we are confident that our attendance at this airshow will further demonstrate Embraer's commitment in the long run," said Frederico Curado, Embraer's Vice President, Commercial Market. Embraer has an area of 400m<sup>2</sup> at the Exhibition Pavillion that hosts a mock-up (reproduction in 1:1 scale of the passengers' cabin) of the EMBRAER 170, besides meeting rooms and extensive material about the entire line of products manufactured by the Company. Expected to be the highlight of the Zhuhai Airshow, the mock-up is fully equipped with real airline configuration: seats, windows, functional galleys and toilets, overhead bins, lighting and underfloor compartments for baggage and freight. Besides its commercial office, Embraer has implemented the Beijing Distribution Center, run jointly with China Aviation Supplies Import and Export Corp. Embraer's Beijing center is linked to warehouses in Brazil, Australia, England, France and the USA, allowing purchase orders to be placed electronically. The new 750m<sup>2</sup> warehouse stocks more than 6,000 part numbers. Mr. Guan Dongyuan, managing director and chief representative of Embraer China said, "As one of the leading aircraft manufacturers in the world, Embraer is optimistic about the future of the Chinese aviation market. We believe the current reform and consolidation in the Chinese airline industry will further push forward the rationalization of the airline networks, opening new opportunities for the regional aviation market." Currently there are 5 ERJ 145s flying in China, operated by Sichuan Airlines. The carrier is obtaining good levels of schedule and dispatch reliability, while flying in some of the most demanding environments in the world. The performance of this fleet has been successful and may establish a reputable platform for Embraer's commercial jet product line in the country.

#### EMBRAER PARTS DISTRIBUTION CENTER IN CHINA STARTS OPERATIONS

##### New warehouse adds to international network dedicated to customer support

Beijing, March 4th, 2002 – Embraer announced today the start of operations of its Beijing Distribution Center, located within the Development Zone of Beijing International Airport. The new warehouse occupies 750 square meters (8,073 sq. ft.), is operated by five people and stocks over 6,000 part numbers. The move is part of Embraer's program to provide the best customer support in the aero industry and was announced in June of last year during the 44th Paris Air Show in Le Bourget. Embraer's Executive Vice-President for Customer Services Artur Coutinho stated; "We are very proud to add to our technical and field support this new capability offering spare parts distribution for our Chinese customer from Beijing." The Beijing operating system is linked to Embraer's worldwide-established warehouses located in Brazil, Australia, England, France and the U.S. Thanks to a fully-integrated online system, purchase orders and shipments can be placed electronically, thus saving time and costs to the airlines. Embraer's President and CEO Maurício Botelho reinforced that the new Beijing operation adds to the already well-known company's image in the customer support market: "Embraer has already positioned itself in the market as a benchmark in the customer support business. Our warehouse in China is part of our commitment on focusing on our clients' satisfaction". The running of Embraer's Beijing

Distribution Center is done jointly with the China Aviation Supplies Import and Export Corporation (CASC).

#### EMBRAER LOOKS FOR PARTNERSHIP WITH CHINA IN THE EFFORT AGAINST WORLD TRADE STRUCTURAL DISADVANTAGES

Developing countries seek fair trade rules within World Trade Organization

São José dos Campos, November 1st, 2001 – Embraer Vice President for External Relations Henrique Rzezinski will attend the IBLAC (International Business Leaders' Advisory Council for the Mayor of Shanghai) conference next Sunday (Nov. 4)) in Shanghai. This council is composed of 36 prominent members of different countries and sectors of the economy and its major purpose is to provide the town's Government with recommendations for economic growth and increased multilateral commerce over the next 10 years. The conference in Shanghai is associated with China's entry into the World Trade Organization (WTO) and Embraer's focus on the promising China market for the aerospace industry. Embraer will be participating in the section "China Challenges and Opportunities within WTO", and will be joined by Canada, Singapore and Japan among others. For the conference, Rzezinski anticipates that he will defend fair rules on exports financing. "By carefully reading the WTO Subsidies Agreement, we have found that some of these rules are – in a constant mode – quite damaging to the interests of developing countries. If these rules are not changed, they will bring serious trouble for many of these countries, Brazil included, thus making a global, free and fair trade a goal beyond reach", said he.

#### EMBRAER ESTABLISHES SPARE PARTS CENTER IN BEIJING

China operators to benefit from new customer support initiative

Le Bourget, France, June 18, 2001 – Embraer today announced the establishing of an aircraft spare parts center in Beijing, China, in order to assure successful operations of its products in the Chinese market. The Spare Parts Center, jointly established by Embraer and the China Aviation Supplies Import and Export Corporation (CASC), will ensure the total guarantee of effective and adequate customer support to its local operators. The value of the bonded inventory will be worth of US\$ 20 million. The facility will be put into operation in the second half of this year. CASC, the fifth largest trading company in China, with a turnover of more than US\$1.5 billion last year, is specialized in the import and export of civil aviation products in China. It is also engaged in the businesses of leasing, repairing, consignment and consulting and other activities in this specialized field. The company is experienced in jointly running spare parts distribution facilities with major international aviation players as the result of its years of practices. Since Embraer officially set up its representative office in Beijing in May 2000, great success has been achieved in the sales of its ERJ 145 to the Chinese market. Following the order of five ERJ 145 aircraft from Sichuan Airlines, earlier this year, Embraer has logged further orders for the ERJ 145 from China Southern Airlines, one of the biggest air transportation operators in China, and Wuhan Airlines, respectively. "Following the opening of our Representative Office in Beijing last year, Embraer's long-term commitment to customer satisfaction and to the Chinese market naturally led to setting up a spare parts center in China", said Artur Coutinho, Executive Vice President, Customer Services for Embraer. When commented on this event, a senior director of CASC said, "CASC pursues the same objective as Embraer does, which is to provide our Chinese customers with the best customer support. The establishment of this spare parts center will certainly help the airlines to reduce their stock for spares and therefore, keep their cost for spares at the minimum." This joint venture will allow local, easier support to ERJ 145 aircraft operated by Sichuan Airlines, as well as for the upcoming China Southern Airlines and Wuhan Airlines airplanes. According to the agreement, the new facility will start operations in the second half of this year. "It is, among many, a milestone along the progress of penetrating Embraer's products into the Chinese

market, which will undoubtedly further secure Embraer's position in China," according to Mr. Guan Dongyuan, Embraer's China Chief Representative and Managing Director.

#### EMBRAER ORGANIZES REGIONAL AVIATION CONFERENCE IN CHINA

São José dos Campos, Brazil, May 14, 2001 – With the Chinese province of Hainan as venue, Embraer will open on this coming May 16 its company-sponsored conference "Opportunities for Regional Jet Operations in China". During three days, Chinese and international aviation industry professionals will discuss a wide array of topics regarding the regional aviation market. Seen as one of the fastest growing markets in the world, the burgeoning Chinese regional air transport industry is one of the most promising fields for regional jet manufacturers. Yet, the regional aviation segment of the Chinese air transport market is undergoing large-scale changes that need to be analyzed. Also counting with the participation of speakers from suppliers (Rolls-Royce International Ltd., Parker Aerospace and Honeywell International Inc.) and business partners and airlines (General Electric Aircraft Engines, British Regional Airlines, Air Canada and China Aviation Supplies Imp. & Exp. Corp), as well as representatives of aviation associations and authorities such as ERAA, RAA, CAAC and SDPC, this conference will prove to be the ideal forum to discuss the challenges, opportunities and strategies that aim towards adequately addressing that market's manifold requirements. Embraer's conference is a timely event in view of the imminent admission of the People's Republic of China into the World Trade Organization (WTO). One of the expected consequences of China's acceptance into the WTO is a considerable expansion of the Chinese air transport activities, in particular the regional air transport network. Embraer's vast experience in the regional air transport industry - collected over the span of nearly 32 years - will be an important asset to this conference that will end on May 19th. Moreover, its expertise in developing and placing into service a top-notch regional jetliner that successfully operates in widely varying operational conditions gives Embraer a sufficiently solid background to head a conference that may well establish future guidelines for the development of that country's regional air transport industry.

#### EMBRAER LAUNCHES CHINA OPERATIONS; CHINA-WIDE FLIGHT DEMO TOUR INTRODUCES REGIONAL AIRCRAFT TO AVIATION INDUSTRY

Beijing, China, May 30, 2000

Capping a three week, six city China-wide tour, Brazilian aircraft manufacturer Embraer made a grand entry into the China market, culminating with the grand opening of its Beijing commercial representative office and private demo flight for industry and government guests.

Top-level Embraer executives, including President and CEO, Mr. Maurício Botelho, Executive Vice President Commercial Airline Market, Mr. Frederico Curado, Vice President of Corporate Communications, Mr. Walter Nori, Sales Director, PR China, Mr. Orlando Ferro, and Vice President, Asia, Far East and South Pacific, Mr. Peter Obeysekere were in Beijing to launch Embraer's business in China. Embraer ranks among the four largest commercial aircraft manufacturers in the world with a well-established family of regional airliners, ranging from 37-seat to 108-seat commercial jetliners.

In order to introduce its commercial aircraft, Embraer has conducted ERJ145 Flight Demos in six cities across China – Urumqi, Chengdu, Kunming, Shenzhen, Beijing, and Shanghai from May 12 to June 4, 2000. The demo flights provided government aviation officials, customers, and the media a first-hand experience with the aircraft.

The demo flights in Beijing were accompanied by Embraer's representative office opening, ribbon cutting ceremony, press conference, gala lunch and Brazilian Embassy cocktail reception.

Embraer's senior management, the Brazilian Ambassador, and other officials of the Embassy hosted the reception. Chinese officials from the Civil Aviation Administration of

China (CAAC), China Aviation Supplies Import & Export Corporation (CASC), State Development Planning Commission (SDPC), State Economic and Trade Commission (SETC), Ministry of Foreign Trade and Economic Cooperation (MOFTEC), local government officials, foreign partners, customers and other guests were invited to attend.

"The Chinese market is a critical component of Embraer's global strategy, as we see a rapid growth for regional aviation in China," said Mr. Botelho. "This is a major milestone for Embraer."

Mr. Botelho continued, "China has made great achievements since its opening up and reform. The establishment of Embraer's Beijing Office is a result of the bright future we see for China's market development, especially with China's upcoming WTO entry. Our focus will be to expand our business development in China and do our part to promote bilateral trade relations between China and Brazil."

According to Mr. Ferro, "China is a great move for Embraer, given that its airline industry is advancing so rapidly. Throughout the opening of Embraer's office and the China demo flights, we have experienced tremendous support from the government and aviation authorities across China and have great expectations for future cooperation."

CAAC Vice Minister Mr. Bao Peide also delivered remarks at the ribbon-cutting ceremony, and congratulated Embraer on the successful establishment of its Beijing Representative Office.

According to Mr. Bao Peide, China and Brazil have enjoyed a long-term friendship and business relationship that will be enhanced by Embraer's China presence. He added that as a famous aircraft manufacturer, Embraer has advanced technology and high-quality products that will provide China's aviation industry with greater choice in aircraft.

Regional jets are the fastest growing market segment in commercial aviation, and Embraer now has 40% of the worldwide regional jet market. In China, the current trend of diversification of aircraft indicates the potential for the strong development of regional jets.

#### **ERA a.s.**

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Contact: Jan Hodinka

2012 Zhuhai Directory: ERA a.s. is the pioneer and world leader in next-generation surveillance and flight tracking solutions with proven multilateration and ADS-B (Automatic Dependent Surveillance-Broadcast) technologies. ERA's systems are installed around the globe ensuring safety and efficiency at some of the largest and busiest airports.

Corporate Website (Extracted in February 2014):

Parallel Runway Monitoring & Surface Management - Beijing

Beijing is home to one of the fastest growing airports in the world, Beijing Capital International Airport (PEK).

In 2005, Beijing Capital International Airport was the world leader in passenger growth, with a staggering 17.5% upswing in passenger traffic. This number is only expected to rise, especially as Beijing prepares for the 2008 Summer Olympics. Sixty-six airlines serve Beijing Capital International Airport offering flights to more than 88 cities in China and 69 cities abroad, accounting for over 5,000 scheduled flights.

The Challenge

Beijing's unprecedented growth and success represents an immense challenge for the airport operations. The large increase in demand cannot be met by capital

improvements and construction alone. Furthermore, the safety concerns in the face of expanding volumes become a critical consideration.

Beijing Capital International Airport currently has 2 runways with the 3rd under construction. All runways are parallel to each other, necessitating the need for a Parallel Runway Monitoring (PRM) system. Previously, Beijing utilized a specially designed electronically scanned radar, which had been the only system deemed acceptable for use in guiding aircraft on approach to parallel runways. However, e-scan radars are an extremely expensive solution with a limited life cycle as they offer no support for next-generation ADS-B technologies.

Additionally, with the extreme upswing in aircraft movements, Beijing Capital International Airport needed improved airport ground surveillance. ATM officials decided to research systems that could leverage next-generation technologies based on multilateration and ADS-B to provide a complete solution for both parallel runway monitoring and surface surveillance, as well as future-proof their investment in this surveillance infrastructure.

#### The Solution

The North China ATMB evaluated multilateration and ADS-B solution providers and selected the team of Park Air and ERA to deliver two separate Mode S Multilateration (MLAT) systems including ADS-B reception, decoding and transmitting capabilities. NCATMB selected Park Air as the prime contractor to deliver the system, based on its track record of success in integrating component technologies to offer a turnkey air traffic control solution, and MSS by ERA, based on its proven wide area multilateration and ADS-B technology. The ERA solution will provide parallel runway monitoring as well as surface surveillance for Beijing Capital International Airport by utilizing the same "MSS by ERA" network of sensors.

This groundbreaking project will provide higher accuracy, greater update rate, better coverage and improved reliability when compared to traditional radar technology, as well as dramatically lower initial and maintenance costs.

The solution utilizes the MSS by ERA multilateration and ADSB surveillance data to provide air traffic controllers with uninterrupted identification of aircraft and equipped vehicles. The surface sensors at Beijing Capital International Airport cover all manoeuvring areas with the added ability to cover a future undeveloped fourth runway.

November 20, 2008

Letter of Reference: To whom it may concern,

Era's Multilateration System in Beijing Capital International Airport, China

Beijing Capital International Airport held a competitive tender in April 2006 for an ASMGCS which resulted in a contract award in October 2006 to Park Air Systems as the successful bidder.

The MLAT system designed as part of the winning tender response of Park Air Systems was provided by Era using their well proven and robust MSS technology. The specific requirements for the MLAT system at Beijing Capital International Airport were very stringent and demanding in terms of accuracy, coverage and redundancy and the solution design delivered by Era met the requirements admirably, and in many cases exceeded them as well.

Due to the complexity at the airport, the delivered system has 26 remote stations around the airport that deliver MLAT data to the ASMGCS in the tower – the implementation of this system has led to a noticeable increase of traffic flow on the airport's surfaces.

During the project delivery, the MSS of Era passed Factory Acceptance Testing and became operational in March 2008.

Era is recognized to the world's leader in MLAT technology and also a reliable and communicative partner. The Era technicians who installed the system and trained the staff

at Beijing were of a very high caliber and ultimately, the project was delivered on time and within budget. If you need any further information, please don't hesitate to contact me.

Zeng Sihong, Director

Beijing Aerospace and Terminal Reconstruction Project Commanding Office

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**EST "Vzlet" JCS**

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Contact: Valuev Nikolay, Head of Department

2012 Zhuhai Directory: Main types of activity: engineering tests of radio-electronic equipment of special and civil applications, systems and complexes of management of the **weapons**; hotel services, etc.

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Products: Eurostar and SportStar

2012 Zhuhai Directory: Evektor-Aerotechnik and Evektor are focused on aircraft industry activities in development, design and engineering subassemblies and assemblies, prototypes manufacturing, testing, certification and start of serial production. Aircraft activities also include modifications, repairs, engine installation, interiors including changes and activities which are necessary for type and supplementary certification. In practice, we usually frequently transfer construction principles from aircraft design to non-aircraft construction of road and transport vehicles and general engineering. Long-time company objectives are reaching dominant position in the Czech aircraft industry and active participant and co-operate in the European aircraft industry, especially in design, prototype production and manufacturing. At present, both companies, Evektor-Aerotechnik and Evektor, employs over 300 people, out of them more than 200 designers.

**EVEKTOR PRESS RELEASE**

**EVEKTOR SUCCESSFULLY PASSES AUDIT OF CIVIL AVIATION  
ADMINISTRATION OF CHINA**

November 29, 2013 - Evektor successfully passed audit of Civil Aviation Administration of China (CAAC) at its production plant in Kunovice, Czech Republic. CAAC audit was focused on Quality Assurance, Engineering and Manufacturing, Quality

Inspections and Continued Operational Safety Monitoring of fixed wing light sport airplanes. Evektor has proven compliance with the ASTM F2245, F2279 and other related ASTM standards adopted by CAAC for fixed wing light sport aircraft. It means Evektor is fully approved by CAAC for further deliveries of light sport aircraft to Chinese market. "Quality management system audited by CAAC of China together with US FAA and the European EASA Part 21 Design & Production Organization Approvals represents compliance of Evektor's Quality Management System with the highest General Aviation quality standards and is the base for the best quality of Evektors' airplanes" said Petr Javorsky, Executive Director of Evektor-Aerotechnik. The company was audited by Li Bo, Director of Airworthiness Inspection Division of CAAC, Li Liwen, Deputy Director, Northwest Regional Ad of CAAC and CAAC Airworthiness Inspectors Hou Zhuo and Xu Lei. In August 2012 Evektor gained type certification from CAAC for its worldwide popular pilot training/leisure flying aircraft the SportStar, which had become the very first FAA approved aircraft in the US LSA category and become also one of the first EASA CS-LSA certified aircraft in Europe. Having CAAC production certification and SportStar type certification Evektor meets all the requirements of CAAC for importation of the SportStar to China. Evektor believes in a great potential in the Chinese market and is building sales and customer support network. For an expansion of marketing activities in China the company is actually searching for sales partners in the territory. Evektor-Aerotechnik is one of the world's largest manufacturers of light sport aircraft, advanced UL and PPL training airplanes, with over 40 year experience in aircraft manufacturing, EASA certified production and sales network in 40+ countries all around the world. Fleet of over 1200 Evektor aircraft has been already delivered worldwide. The latest Evektor's project is a new generation twin engine turboprop airplane for transportation of 9 - 14 passengers or cargo – the EV-55 Outback, currently under flight testing program.

#### EVEKTOR SPORTSTAR GAINS TYPE CERTIFICATE FROM CIVIL AVIATION ADMINISTRATION OF CHINA

Evektor-Aerotechnik, August 20, 2012

On August 10, 2012 Civil Aviation Administration of China, CAAC grants Type Certificate to Evektor-Aerotechnik SportStar aircraft. SportStar - the very first aircraft in the world approved by FAA in the U.S. S-LSA category and EASA certified PPL trainer - is now available also to Chinese private pilots and flight training organizations. Gaining CAAC Type Certificate enables Evektor to deliver now in production finalization the first SportStar to China.

## F

### **FDC Composites**

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2012 Zhuhai Directory: FDC Composites Inc. is an SME in the Montreal Canada area that specializes in the design, manufacture and assembly of composite parts and assemblies primarily for the transportation industry (aviation and rail). We also sometimes offer at our expertise in composite materials to other sectors with high technical requirements. Our main manufacturing techniques are "Out-of-Autoclave", and can produce high performance structural and non structural composite parts with significant value added. All types of fibres (carbon, glass, etc.) and the vast majority of types of resins can be used. The main manufacturing process, Vacuum Assisted Resin Infusion (VARTM), is at the forefront of the industry. Vacuum Bag Moulding, Pre-Preg and Hand Lay-up techniques are also mastered. We also offer manufacturing of tooling, research and development, design, various testing and certification, which allows us to deliver projects faster than the competition. Our quality system is regularly audited by our customers and has demonstrated its compliance with their high standards of quality. We are proud of our employees and their ability to innovate and offer a high level of quality and service to our customers at very competitive prices.

### **FED Corporation**

#### **State Enterprise Kharkov Machinery Plant**

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Contact: Viktor Popov, Chairman of the Board and/or Director Aleksandr Zhdanov

2012 Zhuhai Directory: History of the "FED" plant takes in 1927. Disposing modern production base and highly skilled staff, today "FED" is a leading Scientific Production Corporation in CSI in production, development, service, repair, serial production of control systems, complex steering drives, electro hydraulic steering drives, integral hydraulic drives, electronic drive pump stations, hydraulic pumps, fuel control units for aircraft and helicopters. There are a lot of test stations at the enterprise, which produced full complex mechanical, climatic and other special exploitation tests, which are the main confirmation of quality goods with different technical characteristics.

Corporate Website (Extracted in February 2014): FED Corporation is an association of Ukrainian enterprises in development, production, service, and overhaul of aggregates for aviation and components for other industries.

The main developer of aggregates for enterprises of corporation FED is State Enterprise "Kharkov aggregate design bureau. SE KADB is the leading organization in designing, production and testing aggregates for hydraulic, fuel and electrical systems in aviation and rocket technique.

The main enterprise of FED Corporation is State Enterprise Kharkov machinery plant "FED", which is a part of the State Concern "UKROBORONPROM". A plant produces the most difficult fuel-regulating equipment, integral hydro-drives, hydro-motors, hydraulic pumps and pumping stations for aviation industry and for other industries.

Volchansk aggregate plant and Pervomaisk mechanical plant takes a part in the projects of the creation and mastering, production of new types of units.

For new airplane An-148 by these enterprises are developed, certificated and serially produced 19 types of goods (wares) such as: combined, complex and electromechanics drives of main flight control system, systems of wing mechanization, pumps and electro-drive pumping stations, aggregates for hydro-systems and systems of power supply of the



plain. For one complete set of airplane An-148 by enterprises of “FED” corporation are produced 42 aggregates.

Besides the output of new competitive products for the engines TV3-117VM (VMA), AI-222-25F, AI-450, AI-450MS, TV3-117VMA-SBM1V, MS-400, MS-500, MS-350 for airplanes Yak-130, An-140, An-148, Tu-204, Tu-214 and helicopters of types Ka and Mi is successfully mastered.

The major consumers of our products on Ukrainian market are JSC “Motor Sich”, enterprises SE “Antonov”, SE «Ivchenko-Progress», Kharkov aviation plant.

FED corporation closely cooperates with the leading Russian developers of aviation aggregates, producers of engines and aviation technics.

Our partners are: JSC Voronezh airplane building company, aviation enterprises of Saratov, Samara, Rostov-on Don, Irkutsk, Komsomolsk-on-Amur, “OMKB” Omsk, Aircraft corporation “RUBIN”, Balashikha, Stock company “STAR” Perm, OSC “Kristall” and many other.

Using a potential of scientific-designer base and working on a prospect, an enterprise is developed a mutually beneficial cooperation with the aviation firms of China, India, Iran, Czech Republic, countries of Southeast Asia, Central and South America, and North Africa.

On the plant “FED” is entered quality control system. It has certificates of accreditation MC ISO-9001, ISO-14001 for galvanic production given by Bureau Vernitas Quality International, and meets all requirements of the Aviation rules of AP21, AP145, AR IAC.

The permanent increase of scientific and technical and production potential allows to plant to work to the prospect and to take a part in all large Ukrainian and Russian programs in creation of new aviation technics and aviation engines.

FED always upgrades technically. The workshop of new equipment has been created on the plant. There is the newest equipment from well known firms Spinner, Reishauer, Okamoto, it means that we are using only modern technologies. The newest cutting and tonnage tools from such brands as “Mitutoyo” (Japan) and “USKAR” (Israel) are using on the our enterprise. Saving and developing image of modern aviation enterprise with world famous name, we are looking forward with optimism. And we are exactly sure that the new generations of “FED” employees will save our traditions and will increase achievements of the predecessors.

## FED PRESS RELEASE

### CREATION OF THE JOINT VENTURES

November 16, 2010

Scientific Production Corporation FED established a new company in China Beijing Fed Technology

Main tasks:

1.Design and production of aggregates and components for aircraft and helicopters joint with aircraft construction enterprises of China; flight control systems; hydro-systems; energy supply systems; and management and control systems of aircraft engines.

2.Repair of aggregates produced by FED according to technical conditions.

3.Permanent warehouse of spare parts to support fast delivery. Since 2011 all this tasks will be solved in China.

Beijing Fed Technology, Office 2303, Building B, No.60 Anli Road, Chaoyang District, Beijing, China, Tel: +86 64827533, Contact: Fedor Alexeevets.

### FIDAE 2014

“International Air and Space Fair”

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Contact: Mr. Luis Jara, Executive for North America, Africa, Asia and Oceania

2012 Zhuhai Directory: Recognized as the leading business platform of Latin America, FIDAE 2014 will set out the cutting-edge advances in the aerospace technology, **defense** and security, in a tailor-made environment to satisfy and enlarge your commercial skylines. The main companies and authorities from the aeronautical world will convene in Chile, between March 25 and 30, 2014, for the foremost exhibition of Latin America.

#### FIDAE PRESS RELEASES

CATIC, THE CHINESE MULTINATIONAL IS INTERESTED IN PARTICIPATING IN FIDAE 2014

July 23, 2013

Photo: The FIDAE 2014 CEO, Colonel Jose Ignacio Nogueira with the Vice President of CATIC, Wu Jiajia.

CATIC, China National Aero-Technology Import & Export Corporation, the Chinese multinational state corporation, which manufactures aviation products, and import and export technologies as a main activity, met last July 22 with the FIDAE 2014 representatives, occasion that expressed their intention to participate in the national exhibition, which will be held next March. The FIDAE 2014 CEO, Colonel Jose Ignacio Nogueira, with the Commercial Manager, Major Mario Toro, had the possibility to meet the Vice President of CATIC, Wu Jiajia, and the CATIC Senior Sales Manager America Oceania Department, Jiao Yan. Wu Jiajia, stated that "FIDAE is an effective business platform for manufacturers like CATIC. Also, this exhibition has a high level of organization and running. The idea of this meeting was to get information about the forthcoming FIDAE 2014, and look for a potential further agreement between both parties". In turn, Colonel Jose Ignacio Nogueira, empathized that "one of the objectives set by FIDAE is to aim towards the Asian market, that's why it is so important that a company with such relevance for the industry, like CATIC, desires to be present and participate in the eighteenth edition of the International Air and Space Fair".

AIRSHOW CHINA 2012: THE PRESENCE OF FIDAE IN ASIA FOLLOWS

November 12, 2012

From next November 13 to 18, it will be performed in Zhuhai the ninth edition of China International Aviation & Aerospace salon, biennial event that gathers the most important companies of these fields worldwide. After its recent participation in the Japan Aerospace 2012 and conscious of the expansion of the Asian market in the last years, FIDAE returns to the East to be present with a delegation led by its CEO, Jose Ignacio Nogueira with the Commercial Manager, Mario Toro and the executive Claudia Caceres. The purpose of this new visit is to follow generating and strengthening commercial ties with Asian companies, by presenting FIDAE as the main business platform in Latin America, for which it has been scheduled several meetings and visits of the Chilean delegation with executives of different companies. The representatives of FIDAE 2014 will be in stand 5B-10-11, of the exhibition that in its version of 2010 registered more than 600 exhibitors and 100 thousand trade visitors.

**Flemish Aerospace Group (FLAG)**

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2012 Zhuhai Directory: The Flemish Aerospace Group is an association of companies located in Flanders/Belgium, active in aerospace markets. Our members are active in most of the aeronautical sectors: from concept, design, and certification to manufacturing and customer support, and also aerospace training and exploitation. FLAG can help anybody find his way in Belgium, be introduced to our members, as well as to all the Government agencies, Regional (Flanders), Federal (Belgium), and European.

**Ford Aerospace Ltd. (FAL)**

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Tel: 0191-454-0141; Fax: 0191-456-0028  
sales@ford-aerospace.com  
info@ford-aerospace.com  
www.ford-aerospace.com  
Contact: Dou Tsang

Corporate Website (Extracted in February 2014): “[Ms] Dou Tsang joined Ford-Aerospace on 22 March 2010 and will be here for 3 months. Dou will be assisting in the development of marketing activities for China which will include the new web site and other marketing literature.”

FAL China Northern Agency: Dalian Yibang Science and Technology Co., Ltd.  
230 Heping Road Tiedong District, Anshan City, Liaoning Province, China  
Contract: Ms. Ban  
Tel: 0086-412-6322-505; Fax: 0086-412-6348-121  
Mobile: 0086-13610983580  
Icelee\_first@126.com

FAL China Western Agency: Chengdu Great Imp & Export Trading Co Ltd  
118 Hangtian North Road, Longquan Town, Longquanyi District, Chengdu 610100  
Tel: 0086-28-84808397; Fax: 0086-28-848-08291  
Mobile: 0086-138-822-67150  
great-ywb@spacechina.com

Corporate Website (Extracted in February 2014): Ford are an award-winning, highly successful specialist in the precision machining and pressing of component and assemblies for the aerospace, **defence** and related high technology industries. Ford Aerospace provides a first-class, manufacturing and engineering service to a broad range of customers. With its foundations laid in 1910, Ford is a celebrated name within the precision engineering industry, with an enviable reputation for high levels of service, performance and quality. Ford Aerospace is proud to be approved to the industry standard ISO9001:2000, AS EN 9100 rev C. FAL has been approved directly by many Prime Contractors OEMs: AgustaWestland (SQA2631); Airbus (10188); MOOG; BAE SYSTEMS (BAE/AG/10573/CSS); Goodrich (8711); GKN (S12631); Rolls Royce (85650); APPH; Avio; and Thales. Our machining and presswork capabilities are complimented by our niche laminate product "Easipeel" and "Plasipeel", and we are one of only a handful of

companies in the world with this capability. Laminate has a variety of applications for example "wear compensation, tolerance build up and where numerous thicknesses are required". Easipeel consists of a number of layers of foil bonded to form a near solid material, that can be converted to components in conjunction with customers drawings and specifications.

## FORD PRESS RELEASES

### FORD WINS EEF EXPORT COMMENDATION

March 26, 2013

Ford's export strategy - which has seen expansion into China and India - has been given a 'Highly Commended' certificate in the prestigious EEF Future Manufacturing Awards' Outstanding Export category. Judges commended Ford for its success in improving its processes and up-skilling staff in preparation for the challenges of breaking into new markets, and said they were also impressed with current plans to target business in the fast growing markets of Brazil, Turkey, South Africa and Russia.

### FORD CONDUCTS AGENT TRAINING

May 30, 2012

Renowned North East precision parts manufacturer Ford has taken another step to securing success in the Chinese aerospace market - with bespoke product training for one of its overseas agents.

Representatives from Chengdu Great Import & Export Trading Company Ltd (part of CASC), of one of three companies Ford works with in China to market their products and services travelled to the UK to sign a representation agreement and participate in product training at its sites in South Tyneside.

They learned exactly how its laminate shimstock product Easipeel works and uses, along with learning about other products such as high volume press work and standard aircraft parts - enhancing their ability to market Ford it in the fast-growing Far East.

Ford hopes the visit by staff from its Western China partner will help it capitalise further on recent export successes.

Since securing its first order to China just 18 months ago, it has enjoyed sales in excess of £250k and customer enquiries of £1.5m.

Mark Podmore, Ford's Managing Director, said: "This visit exemplifies our commitment to exceptional customer service and growing our international markets.

"Continuously providing our overseas partners with full training across the Ford product range has been a key factor in the rapid inroads we have made into China.

"Seeing at firsthand where our products are made, meeting our staff and receiving expert training, is an essential part of our sales strategy.

"Visits such as this help ensure there are no gaps in communication between ourselves, our agents and our Chinese customers."

In 2011, Ford's success in selling its products to China led to it scooping the prestigious 'Gateway to Global Growth' Award at the North East Exporter Awards.

The three-day visit saw the agents visit Ford Aerospace, at Tyne Dock, South Shields, and Ford Component Manufacturing at Monkton, Hebburn.

Training covered the whole Ford order process, from estimating and engineering, to milling, turning, quality, packing and despatch.

A meeting with UK Trade and Investment (UKTI) concluded the visit.

UKTI was instrumental in helping Ford to penetrate the high growth Chinese market, with its China Business Development Manager, Dr. Zhengming Yang working closely with Ford's Export Team to identify opportunities for Ford's components. Ford has gone on to act as a case study for UKTI to outline their experiences of working alongside them to develop an export strategy for China.

Last month, the Gazette revealed Ford had secured a prestigious £550,000 contract to supply components for Airbus's new generation passenger jet.

It will provide 22 components to be used in the landing gear of an initial 85 Airbus A350 jets which are due to start test flights next year.

The firm hopes that may rise to "many millions" of pounds over the lifetime of the aircraft.

The deal also took its current order book past £5m - double that of just 18 months ago.

#### NEW FACES

April 19, 2010

[Ms] Dou Tsang joined Ford-Aerospace on 22 March 2010 and will be here for 3 months. Dou will be assisting in the development of marketing activities for China which will include the new web site and other marketing literature.

#### **Frasca International, Inc.**

##### **Frasca Flight Simulation**

906 Airport Road, Urbana, Illinois 61802

Tel: 217-344-9200; Fax: 217-344-9207

[www.frasca.com](http://www.frasca.com)

Contact: Joel Prichard, Sales Director, [jprichard@frasca.com](mailto:jprichard@frasca.com)

2012 Zhuhai Directory: Frasca is experienced in building both Flight Training Devices and Full Flight Simulators for all aircraft types including fixed wing and helicopter and has delivered over 2500 simulators worldwide. Frasca has over 50 years of experience in flight simulation R&D, design, manufacturing, certification and support experience. Frasca has the reputation as a solid dependable partner committed to a mutual outstanding reputation and success with their customers. Frasca has been active in the Chinese aviation market for over 15 years. Our Chinese Customers included Government Flight Colleges and Universities, Chinese Airlines Training Centers, and Privately owned Chinese Aviation Academies and Schools. Frasca is committed to meeting your flight training needs.

Corporate Website (Extracted in February 2014): "Having a partner like Frasca cooperating with our Flight School is very important for mutual continued success. The Frasca FTDs will be used in Shenzhen's prestigious flight training program to enhance pilot proficiency and public safety." - Mr. Li Kun, President, Shenzhen Airlines.

#### Chinese Users:

Binzhou Flight Academy

China Civil Aviation Flying College (CCAFC)

Government Flying Service (Hong Kong)

Hubei Sky-Blue Aviation Academy

Nanshan Flight Academy

Qingdao Jiutian Spartan Flight Academy (QJSFA)

Shanghai Industrial University

Shenzhen Airlines

#### FRASCA PRESS RELEASES

##### **MORE FRASCA FTDS FOR CHINA**

(Feb. 1, 2013)

Frasca has received an order for a Cessna 172 Flight Training Device (FTD) and a Mentor for Shanghai Industrial University.

## NANSHAN INTERNATIONAL FLIGHT ACADEMY ORDERS LEVEL D FULL FLIGHT SIMULATOR (FFS) FROM FRASCA INTERNATIONAL.

(October 15, 2012)

Nanshan International Flight Academy has ordered a CAAC Level D Cessna CJ1+ Full Flight Simulator (FFS) from Frasca International, Inc. The Simulator will be installed at Nanshan's flight academy located in Longkou, China.

The Frasca FFS will fully simulate the Cessna CJ1+ business jet and will include Frasca's advanced FFS packaging, Frasca's Graphical Instructor Station (GISt), the Collins Proline 21 Avionics Suite, a 60 inch stroke Moog Electric Motion System, and RSI Visual Systems' XT Series Image Generator with RSI CrossView 200 X 40 Field Of View Display System. The FFS will also include Frasca's reinforced motion platform base and other advanced engineering and manufacturing designs and processes.

This is a significant order for Frasca and expands their strong footprint within the Chinese commercial aviation flight training community. During its 50+ years of service to the international flight training industry, Frasca has designed, manufactured, delivered, and supported various Full Flight Simulators worldwide. With more than 2,500 simulators installed in over 70 countries, Frasca is well known as a major supplier to flight training organizations.

"Frasca is extremely honored to have been selected for this follow on order to provide a CAAC Level D FFS to Nanshan Flight Academy," stated John Frasca, President of Frasca International. "We've been building simulators for over 50 years and are thrilled to be working with the prestigious Nanshan organization on this simulator project and look forward to future cooperation with Nanshan on additional projects. We have the expertise, experience and reputation to provide a quality Level D FFS that thoroughly meets their requirements."

Mr. Luan Yebo, director of Nanshan International Flight Academy, noted, "Nanshan is rapidly expanding its aviation businesses. This is the seventh simulator we have purchased from Frasca. Nanshan is well-positioned to provide excellent flight training to our expanding customer base. Nanshan and Frasca have outstanding worldwide reputation for high quality aviation services and products.; We look forward to continuing our relationship with Frasca and to ensuring the highest quality flight training services for the Chinese aviation community as well as to the international market."

About Nanshan International Flight Academy: Nanshan International Flight Academy is one of China leading providers of aviation training. It operates 20 training aircrafts, 7 simulators and 2 training centers.

## SIMULATORS TO CHINA

(August 22, 2012)

Frasca has expanded their market share within China with eight flight simulator contracts this year. Five of the simulators are for Cessna C172 G1000 and three are for Piper PA44 Seminole. All eight simulators are designed to CAAC Level 5 standards. Binzhou Flight Academy has taken delivery of a Frasca Cessna 172 CAAC Level 5 Flight Training Device (FTD). Hubei Sky Blue International Aviation Academy has taken delivery of a Frasca Seminole PA44 Level 5 FTD. Nanshan Flight Academy has ordered six level 5 FTDs (four Cessna 172 and two Piper Seminole PA44 FTDs).

## NEW INSTALLATIONS

(August 1, 2012)

Frasca flight simulators have recently been installed at the following schools:

Hubei Blue Sky International Aviation Academy, China - Piper Seminole, PA44 FTD,  
and Binzhou Flight Academy, China - 172R Level 5 FTD,

AVIATION ACADEMY GETS CAAC L5 APPROVAL ON FRASCA SEMINOLE FTD

(July 2, 2012)

Hubei Sky-Blue International Aviation Academy Co. Ltd, Wuhan, China has received CAAC Level 5 approval on their Frasca Seminole Flight Training Device. The school provides both CPL and PPL training.

HUBEI SKY BLUE INTERNATIONAL ACADEMY SELECTS FRASCA

(January 5, 2011)

Sky Blue International Academy, China has chosen Frasca to supply a Cessna 172R Flight Training Device. This will be their 4th Frasca. Frasca has delivered over 20 devices to customers in China to date.

# G

## **Galaxy GRS s.r.o.**

### **Galaxy Rescue Systems**

Třída 1. máje 24a, 46001, Liberec 3, Czech Republic

Tel: 420-724-844-686; Fax: 420-485-104-492

Mobil: 420-777-55-00-91

Konstrukce: milan@galaxysky.cz

production@galaxysky.cz

www.galaxysky.cz

Contact: Vit Hrusa, Marketing, vita.galaxy@volny.cz

Paul Wong - Peiport Industries Limited

China, Hong Kong - Importer

Rm. 1302, Westlands Centre, 20 Westlands Road, Taikoo Place, Hong Kong

Tel: +852 28859525; Fax: +852 28863241

neil@peiport.com.cn

www.rotaxchina.com

2012 Zhuhai Directory: Galaxy High Technology, s.r.o., is a prominent European producer of parachute ballistic rescue systems aimed for ultralights, light sport aircraft, unmanned aircraft and experimentals ranging up to speed of 350 km/h. The company exports 90% of its production to all continents. Overall year production represents ca. 700 units of 53 different modifications. Thanks to its long tradition, since 1984, the systems GRS are constantly updated and enhanced. Our company does not pursue development of parachutes only for high speeds, but during the long testing the company pay special attention to quick opening in low speeds enabling a safe rescue from lowest possible heights. Ever growing number of customers testifies not only to the product quality but about a good marketing and service as well.

## **Garmin (S) Pte. Ltd.**

46 East Coast Road, #05-06, Eastgate Building, Singapore 428766

Tel: 65-63480378; Fax: 65-63480278

justin.chen@garmin.com

www.garmin.com

2012 Zhuhai Directory: Garmin is a worldwide leader in avionics with a wide variety of panel-mount, remote-mount and portable systems. From the fully integrated, all-glass G5000 avionics suite to our portable GPS devices, Garmin units are made by pilots for pilots.

## **Gazprombank (GPB)**

### **Газпромбанк**

Mailing: 16, Building 1, Nametkina St., 117420, Moscow, Russia

Location: 63, Novocheremushkinskaya St., 117418, Moscow, Russia



Tel: (495)-913-74-74; Fax: (495)-913-73-19  
Telex: 412027 GAZ RU  
mailbox@gazprombank.ru  
www.gazprombank.ru  
Contact: Vladimir Dankov

2012 Zhuhai Directory: Gazprombank has successfully operated in the banking market since 1990. Founded by the world's largest gas producer and exporter Gazprom to provide banking services for gas industry enterprises, Gazprombank has since become a leader in the banking sector, which key performance indicators place the Bank among the top three banks of Russia. Gazprombank as a universal financial institution delivers a wide range of banking and investment services for over 45,000 corporate and about 3 million private clients. Gazprombank invests and lends to companies in major sectors of the economy – oil and petrochemical industry, metallurgy, machine building, nuclear industry, electric power industry, real estate construction, transport, telecommunications and trade. Diversified client base enables a strong growth of a corporate loan portfolio and the retail business also shows sustainable growth. Despite of a rapid growth of the loan portfolio, efficient risk policy and prudent approach to borrowers allow the Bank to maintain a ratio of problem and non-performing loans at the lowest level among the largest Russian banks. Gazprombank actively develops areas closely related to the investment business. Besides strategic investments to oil-and-gas, petrochemical industries, and media-business, in Russia Gazprombank occupies leading positions in transactions in the capital markets (bonds underwriting, arranging financing for clients), corporate finance advisory and project finance. At present, Gazprombank operates 6 subsidiary and affiliated banks in Russia, Belarus, Switzerland and Armenia, representative offices in China, Mongolia and India, and also 43 own branches across Russia from Kaliningrad in the west to Youzhno-Sakhalinsk in the east. The total number of offices delivering customer friendly high-quality banking and depository services under the single brand name of Gazprombank exceeds 500. Steady growth and high reliability were rewarded with ratings assigned by international rating agencies: Moody's Investors Service, Standard & Poor's etc. Gazprombank was twice awarded by The Banker Magazine as "The Bank of the Year in Russia" in 2001 and 2005.

## GAZPROMBANK PRESS RELEASES

### GAZPROMBANK HIRES MARKET PROFESSIONALS IN BUILDING FURTHER ITS CAPITAL MARKETS PLATFORM

Moscow, September 30, 2013 – Gazprombank is continuing to recruit experienced professionals in line with gradual strategy of the bank to build its capital markets platform with a focus on servicing its public and private corporate clients in arranging and raising finance in the international capital markets and actively participating in the development of Russian securities market.

Sanjar Aspandiarov joins Gazprombank as Executive Vice President, Michael E. Hammond as co-Chairman and Head of Capital Markets, Asia-Pacific and Igor Donnio as Managing Director and Head of Equity Solutions within the Capital Markets division of the Bank.

In his new role of Executive Vice President Sanjar Aspandiarov will be in charge of sales and trading across debt and equity capital markets. Prior to joining Gazprombank Sanjar worked in Barclays (London) where he was one of the founding traders of the Barclays emerging markets fixed income group focusing on the CEEMEA and CIS region. Lately, he headed Barclays RUB local currency trading in Russia developing RUB franchise for non-resident clients. Sanjar has prior experience across research, trading and structuring departments of Credit Agricole Financial Products (Paris, London), Credit

Suisse First Boston (London) and Citigroup (London). Graduate of Moscow State University (Lomonosov), he has a PhD in mathematics from University Paris VI (Pierre et Marie Curie).

Michael Hammond will lead the development of Gazprombank's capital markets platform in Asia-Pacific and setting up a Hong Kong office. Michael brings 31 years of investment banking experience across Debt, Equity, and Equity-Linked Capital Markets. Michael has structured and executed transactions for large Russian and international clients including debut Eurobond for the Russian Federation and the first Chinese privatization through IPO. He has held senior positions at CSFB, SBC/SBCW (UBS), RF/JF (JPM), ABN AMRO Rothschild and City Capital, based in U.S.A., U.K., Switzerland, Japan and HK/China. Michael has BA and MBA from the University of Rochester/Chicago Program.

Igor Donnio as Managing Director and Head of Equity Solutions will focus on strengthening the equity advisory and execution capabilities for Bank's corporate clients. Igor has 15 years of investment banking experience and joined Gazprombank from Goldman Sachs where he was until recently acting as a Managing Director responsible for Equity Capital Markets in Russia and CIS. Previously, Igor was responsible for the Equity Capital Markets coverage team for France and Belgium, based in Paris. Prior to this, he spent 8 years in London in various positions in the European Equity Capital Markets team at Goldman Sachs. Igor started his carrier in the M&A and corporate finance department at BNP Paribas, France. Igor is a graduate of HEC Business school and Institute of Political Sciences in France.

The above appointments follow the arrival last year of Denis Shulakov as the 1st Vice President in charge of capital markets.

#### GAZPROMBANK SIGNS COOPERATION AGREEMENT WITH BOC INTERNATIONAL HOLDINGS LIMITED

Moscow, September 10, 2013. - Gazprombank Chairman Andrey I. Akimov and Bank of China International Holdings Ltd. Chief Executive Office Li Tong signed a cooperation agreement in Moscow. Under this agreement, the two banks undertake to establish a broad cooperation in multiple fields of mutual interest for their respective corporate, institutional and retail clients across capital markets and investment banking. Commenting on the agreement, Andrey I. Akimov said: "We are pleased to establish such a broad partnership with one the most prominent Chinese investment banks. As our two economies strengthen their links and as we see our respective core clients seeking to expand their operations in our respective regions, it is of paramount importance that we reinforce our capabilities to assist our clients, and such agreement will be mutually beneficial to help us execute on this strategy." For reference, Gazprombank is in the process of establishing an office in HK to coordinate the capital markets activity of the bank in the Asia Pacific region and has already established presence in mainland China with an office in Beijing.

#### GAZPROMBANK AND EXPORT-IMPORT BANK OF CHINA SIGNED THE FRAMEWORK LOAN AGREEMENT

April 28, 2012

Moscow – Gazprombank and Export-Import Bank of China signed a Framework Loan Agreement at the Russia-China Trade and Investment Forum, held in Moscow during the official visit by Li Keqiang, Vice-Premier of the State Council of the People's Republic of China. Based on the signed Agreement, Gazprombank will obtain an RMB 1 billion facility, and the earlier Basic Facility Agreement (in respect of medium and long term USD denominated debt financing in connection with import of Chinese equipment and relevant services into Russia) will be extended. These agreements will enable Gazprombank to offer to its corporate customers more flexible and better terms of the medium and long term multicurrency loans for importing of Chinese commodities, equipment and services.

## GE Aviation

One Neumann Way, Cincinnati, Ohio 45215

Fax: 1-513-243-2000

www.geaviation.com

Contact: Emma Harrison, Marketing Communications, emma.harrison@ge.com

2012 Zhuhai Directory: GE Aviation, an operating unit of GE (NYSE: GE), is a world-leading provider of jet and turboprop engines, components and integrated systems for commercial, **military**, business and general aviation aircraft. GE Aviation has a global service network to support these offerings. Headquartered in Cincinnati, Ohio (USA), GE Aviation employs more than 39,000 people and operates manufacturing, overhaul and repair facilities across more than 80 locations worldwide. In recent years, more than 50% of the world's orders for large commercial jet engines have been awarded to GE and CFM International, a 50/50 joint company of GE and Snecma (Safran group). About 26,000 GE and CFM jet engines are in airline service. An aircraft powered by GE or CFM engines takes flight every two seconds.

GE Aviation Offices and Facilities in China:

Guanghan, China

Aero Engine Maintenance Training Center (AEMTC)

Chengdu, Sichuan, China

TEXTL

GE90

Shanghai, China

Aviation Operations Center – Shanghai

Shanghai GE Corporate Technology Park

GE90-115B, CF34-3, CFM56-3/-5B/-7B

FAA, CAAC

Xiamen, China

TEXTL

GE90

## BIOGRAPHIES OF KEY GE CHINA EXECUTIVES (Extracted December 2013)

Chris S. Beaufait

Senior Executive, China

Chris Beaufait was named as the senior executive for GE Aviation, China in June 2012. His responsibilities include leading GE Aviation's commercial aircraft programs and the business strategy, operating processes, partnerships, marketing and government relationships in the Greater China Region. Previous to his current role, he was the senior executive for Avionics for GE Aviation Systems and responsible for civil and **military** avionics products and programs. Chris joined GE in 1998 as a quality engineer for GE Appliances after serving in the U.S. Navy for 11 years. In 2001, he joined GE's Corporate Audit Staff, which led to a business development manager position in GE's headquarters

office supporting portfolio assessments, financial analysis, mergers, acquisitions and dispositions for GE Corporate and GE's business units. In 2006, Chris was named General Manager, Business Development for GE's Aviation and Transportation businesses and led the acquisitions of Smiths Aerospace, Walter Engines and numerous other transactions. In 2008, Chris was named General Manager, Corporate Business Development - China, responsible for creating and leading a newly formed Corporate Business Development Center of Excellence based in Shanghai to support GE's business initiatives. In addition to his other responsibilities while in this role, he led the efforts to form a global civil avionics joint venture between GE's Avionics business and the Aviation Industry Corporation of China. Chris graduated from the U.S. Naval Academy with a bachelor's degree in systems engineering. Post-graduation, Chris served as a submarine officer.

Roger N. Seager

Vice President, Strategic Customer Relationships

Roger joined GE Aviation in 1979 as a member of the company's CF6 engineering department following a career in aerospace engineering with British Aerospace and Redifussion Simulation. Moving to the **military** engine business in 1980, Roger managed CF6 engine programs for the United States Air Force. In 1983, Roger was named to manage the T700 program for the US Army. There followed a series of increasingly responsible roles managing national and international turboshaft programs. In 1991, Roger was appointed director of international programs and advanced applications for GE's T700 product line. In 1995, Roger was named general manager of military marketing development and then general manager of CF6 project the next year. He was named vice president of marketing and sales and an officer of General Electric Company in 2002. He was named vice president of sales in February 2003. In May 2008, Roger moved to China and served as vice president and general manager of Commercial Aircraft Programs. He assumed his current position in July 2012. Roger earned a Bachelor's degree in aeronautical engineering from Southampton University in the United Kingdom.

Extracted in February 2014

GE AVIATION: AROUND THE WORLD

Shanghai, China

Dialogue in the Dark: China Commercial team helps jet engines roar to life for visually impaired students in China. GE Aviation's China commercial team recently visited the Shanghai Blind Children School to teach students about jet engines and how they power aircraft. The school, founded in 1912, is the only school for the visually impaired in Shanghai, and currently there are about 180 children enrolled. The Aviation team, made up of employees from sales, finance, marketing, legal and compliance, shared the history of GE and CFM engines and played videos of aircraft so the children could hear the sounds different jet engines produce. "During our presentation, I explained how airplanes fly and how engines work verbally since they couldn't see the charts. We were happy to have a few kids raise their hands and tell us they had traveled by airplane. Some of them could even tell us the differences they felt when they were on different aircraft," said Weiming Xiang, Pole GM of Greater China. During the second half of the day, students took the team on a tour of their classrooms, sang for them and read English text for them from their braille books. "Overall, we learned a lot from the team building and were so amazed by all the kids in the school. The visually impaired instructors and lovely children didn't have any frustrations about their physical difficulties. They were happy and optimistic about their lives," said Weiming. "From them, we did learn a lot and were encouraged to face whatever challenges are in front of us."

GE AVIATION HISTORY

#### EXPANDING PRESENCE IN EMERGING MARKETS

GE Aviation continues to increase its presence in China, with close to 2,000 GE and CFM56 engines now in service. An additional 1,000 GE and CFM engines are on order. The best-selling aircraft in China are the Airbus A320 and Boeing 737 families, which are powered by the CFM56 engines. GE's GENx engines have been very popular with customers in the region, with orders for 44 787 Boeing Dreamliners with GENx engines. GE's GE90, CF6 and CF34 engines are also flying with many carriers in the region. GE is working with Commercial Aircraft Corporation of China (COMAC) on the new ARJ21 aircraft, powered by GE's CF34-10A engine. COMAC has form orders for 85 ARJ21s and sees a market for up to 850 ARJ21s in 20 years, which represents a potential to GE of more than \$4 billion in engine revenues. In 2009, GE Aviation and AVIC Systems of China announced they would form a new joint venture company to develop and market integrated avionics systems for commercial aircraft customers. The new avionics company, headquartered in China, will offer fully integrated, open architecture avionics and services for future commercial aircraft programs. Enhancing GE's role within the Chinese aviation market, the advanced LEAP-X1C engine was selected as a sole powerplant for the COMAC C919 Aircraft. COMAC has forecasted a global market for more than 2,000 C919 aircraft over the 20 years following entry into service. COMAC has opted for a complete Integrated Propulsion System (IPS) for the C919. CFM will provide the engine, provisionally called the LEAP-X1C, and, in partnership with Nexcelle, which will provide the nacelle and thrust reverser to deliver a complete IPS solution to COMAC. Launched in 2008, Nexcelle is a 50/50 joint venture between GE's Middle River Aircraft Systems and SAFRAN Group's Aircelle.

#### GE PRESS RELEASES

##### GE EXPANDS SERVICE CENTER NETWORK IN ASIA WITH TWO NEW CF34-3 AUTHORIZED SERVICE CENTERS

October 21, 2013

Las Vegas, NV — GE Aviation continues to grow its service network in Asia and has named Metrojet and STAECO as authorized service centers for GE's CF34-3 engines that power the Bombardier Challenger series aircraft. With this agreement, STAECO in Jinan and Metrojet in Hong Kong can perform line maintenance inspections and routine installed engine maintenance, including removal and replacement of engines and engine components. The two centers will also be allowed to provide OnPoint solution and GE's new engine warranty support. "GE Aviation is proud to welcome Metrojet and STAECO as Authorized Service Center for CF34-3 engines," said Brad Mottier, vice president and general manager of GE Aviation's Business & General Aviation organization. "These two centers expand our service center footprint in Asia and allow our customers to have access to OEM-quality service and support around the world." GE Aviation is expanding its service network for business and general aviation engines with more than 50 Authorized Service Centers for M601, H80 and CF34 engines. This network enables customers to have access to OEM-quality service and support around the world. Located at Jinan Yaoqiang Airport in Shandong province, STAECO is a joint venture of Shandong Aviation Group Company (SDAG), Hongkong Aircraft Engineering Company Limited (HAECO), Taikoo (Xiamen) Aircraft Engineering Company Limited (TAECO) and Hongkong ZhongKai Aviation Consulting Service Company Limited. One of the major maintenance, repair and overhaul providers in mainland China, STAECO focuses on extensive maintenance and engineering solutions for middle and small aircraft in civil aviation. Established in 1995, Metrojet is a leading business jet operator and maintenance provider in Asia. The company pioneered business aviation in Hong Kong, and offers comprehensive aircraft management, consultancy, charter and maintenance services with approvals from the Hong Kong CAD and the United States FAA. Metrojet is also fully authorized to carry out maintenance on

aircraft registered in China, Macau, Taiwan, Thailand, Indonesia, Malaysia, Philippines, Bermuda, Canada, Isle of Man, and Cayman Islands.

#### GE AVIATION AND CAIGA SIGNED AGREEMENT FOR H80 FAMILY AUTHORIZED SERVICE CENTER IN CHINA

July 30, 2013

Oshkosh, WI - China Aviation Industry General Aircraft Co., Ltd. (CAIGA) signed an agreement with GE Aviation to become the first Authorized Service Center for the H80 turboprop engine family in China. With this agreement, CAIGA Customer Service Center can perform line maintenance inspections and routine engine maintenance, including removal and replacement of H75, H80, and H85 engines and engine components.

"CAIGA is honored to cooperate with GE Aviation and set up the first H80 family Authorized Service Center in China," said Mr. Sha Chang'an, Vice President of CAIGA. "The H80 turboprop engine family is gaining interest in China, and we will ensure operators receive outstanding service and support."

"This agreement with CAIGA helps expand GE Aviation's turboprop service and support network into China, which is a growing region for business and general aviation," said Brad Mottier, vice president and general manager of Business & General Aviation at GE Aviation. "CAIGA's expertise and commitment to customer service will ensure GE General Aviation turboprop operators in China have access to high quality service and support for their turboprop engine."

Last year, CAIGA selected GE's H85 turboprop engine to power CAIGA's five-seat, light single-engine pressurized turboprop business aircraft with a carbon fiber composite airframe. It is one of the fastest pressurized single-engine turboprop aircraft in its class.

The H85 engine is a derivative of GE's H80 engine, which currently powers the Thrush 510G and Aircraft Industries L410 aircraft. The H80 turboprop engine family incorporates GE's 3-D aerodynamic design techniques and advanced materials to create a powerful, fuel-efficient, durable engine with no recurrent fuel nozzle inspections and no hot section inspection. The H80 engine features a service life of 3,600 flight-hours or 6,600 cycles between overhauls. The H80 engine also offers a standard auto start and limiting unit to simplify engine start-up as well as a choice of propeller governors to allow customers flexibility in propeller selection.

The H85 engine is rated at 850 shaft horsepower (shp) for takeoff and maximum continuous operation. The engine is aimed at the business turboprop, agricultural, commuter and utility aircraft segments. The H85 engine received its EASA engine type certification last year with the U.S. Federal Aviation Administration expected next year.

CAIGA is a subsidiary company of Aviation Industry Corporation of China (AVIC). CAIGA acquired US-based Cirrus and possesses a world-class general aircraft industry supply chain, with five major industry bases in Zhuhai, Guizhou, Shijiazhuang, Jingmen and Shenzhen. The company is developing a comprehensive general and business aviation capability, including R&D and manufacturing, general aviation operation, customer support and service. Its business spectrum covers parts & components manufacturing, final assembly and delivery, pilot training, aviation club, general aviation operation, business aviation, FBO (Fixed Base Operator), maintenance, leasing and various sectors.

#### HAINAN AIRLINES RECEIVED ITS FIRST GENx POWERED BOEING 787 DREAMLINER

July 8, 2013

Hainan Airlines received its first GENx-1B-powered Boeing 787 Dreamliner at 11:00 AM in Haikou on July 7th. It was the first of four B787 Dreamliners Hainan will receive this year.

"It is an exciting month in China for the GENx engine. This is the third GENx-powered Boeing 787 delivered to China following the two deliveries to China Southern," said

Weiming Xiang, general manager of GE Aviation, Greater China Region. "We feel very proud that China Southern, Hainan and Xiamen Airlines have all selected GENx-1B engines for their B787 fleet, which demonstrates the confidence these Chinese operators have in the engine. We treasure their confidence and will ensure our customers receive our best service and support for their operation."

"We welcome the first new B787 aircraft powered by GENx engines that joined our fleet," said Xie Haoming, vice president of Hainan Airlines. "We believe the higher fuel efficiency of the GENx engines will bring the benefit of low cost of ownership and also help with our environmental efforts with low emissions and noise levels."

Hainan selected GENx-1B engines in 2006 to power its eight B787 and added another two aircraft to the fleet last year, which brought its B787 fleet to 10 in total. Hainan Airlines will operate the first two aircraft on domestic routes connecting Beijing to Haikou and Beijing to Shanghai. They will be in service in the international long-haul routes to North America connecting Beijing to Chicago, Beijing to Seattle and Beijing to Toronto in the future. This will help Hainan to improve its competitiveness in the international market. All the GENx-1B engines powering this fleet have been covered by GE's long-term service agreement. As part of the service agreement, Hainan's GENx engine fleet will be maintained in the latest configuration to ensure they remain the most fuel efficient engines in their class.

The GENx-1B engine is the best-selling engine on the Boeing 787 Dreamliner. The engine has accumulated more than 60,000 flight hours and more than 14,000 cycles since entering service in last year. About 900 GENx-1B engines have been sold to 30 customers.

GE Aviation has been ramping up production of the GENx engines over the last few years and plans to produce more than 200 GENx engines in 2013.

The GENx engine family is the fastest-selling engine in GE Aviation history with more than 1,300 engines on order. Compared to GE's CF6 engine, the GENx engine offers up to 15 percent better fuel efficiency, which translates to 15 percent less CO<sub>2</sub>. The GENx's innovative twin-annular pre-swirl (TAPS) combustor dramatically reduces NO<sub>x</sub> gases as much as 55 percent below today's regulatory limits and other regulated gases as much as 90 percent. Based on the ratio of decibels to pounds of thrust, the GENx is the quietest engine GE produces due to the large, more efficient fan blades that operate at slower tip speed, resulting in about 40 percent lower noise levels.

The GENx is part of GE's "ecomagination" product portfolio - GE's business strategy to develop new, cost-effective technologies that enhance customers' environmental and operating performance.

Revenue-sharing participants on the GENx are IHI Corporation of Japan, Avio SpA. of Italy, Volvo Aero of Sweden, MTU of Germany, TechSpace Aero of Belgium, Snecma (SAFRAN Group) of France and Samsung Techwin of Korea.

Headquartered in Haikou, Hainan Province, Hainan Airlines is the one of the fastest developing airlines in China and maintains an excellent safety record and a strong service reputation. Hainan Airlines operates more than 500 domestic and international routes through China, Asia, Europe, the Americas, South Pacific islands and Africa. The Boeing 787 fleet will be deployed on Hainan's expanding international routes.

#### **HAINAN AIRLINES AND CFM SIGNED LONG TERM SERVICE AGREEMENT**

June 18, 2013

Le Bourget, France -- HNA Aviation Holding Company Limited signed a long-term Rate per Flight Hour (RPFH) agreement with CFM International to support its fleet of CFM56-5B engines. Under the 15-year service agreement, CFM will provide maintenance, repair and overhaul (MRO) service and support for 84 CFM56-5B engines powering 42 Airbus A320s, along with eight spare engines. CFM will guarantee the maintenance cost on a dollar per engine flight hour basis over the life of the agreement. "CFM has been a good provider, not only for engines but also for world-class service," said Li Tie, President

of HNA Aviation Holding. "From the first engine we purchased in 1993 when we began operations, CFM has consistently provided excellent support for our fleet. We trust in their products, technology and service, all of which help guarantee that they can provide outstanding service to their customers." "HNA is a long-time strategic customer for CFM," said Jean-Paul Ebanga, president and CEO of CFM. "We appreciate their continued trust in us to provide comprehensive service and support to their fleet. We look forward to working closely with HNA to ensure their CFM56-5B engines have a long, productive life in service." HNA became a CFM customer in 1993 when the airline began operations. Now it is one of the fastest developing airlines in China and operates nearly 500 domestic and international routes to more than 90 cities, with regular international and regional and charter flights.

#### XIAMEN AIRLINES SELECTS GENx ENGINES FOR ITS BOEING 787 DREAMLINERS

June 17, 2013

Le Bourget -- Xiamen Airlines signed a Letter of Intent (LOI) with GE Aviation to select GENx-1B engines to power its six Boeing 787 Dreamliners. The LOI also includes a 10-year OnPoint solution agreement for GE to provide maintenance, repair and overhaul of the airline's GENx fleet. The list price of the engine order and the OnPoint solution agreement are valued at more than \$560 million (USD) over the life of the engines. Delivery of the aircraft will begin next year.

"We selected the GENx-1B engine for its excellent fuel efficiency, reduced emissions and lower noise levels," said Che Shanglun, Chairman and President of Xiamen Airlines. "With the engine's outstanding economy and operational performance, we look forward to the GENx-powered Boeing 787 Dreamliners joining our fleet and helping us with our continued profitability."

"We are very honored that Xiamen Airlines has selected GENx engines to power its new Boeing 787 Dreamliner fleet," said Kevin McAllister, vice president and general manager of Global Sales & Marketing at GE Aviation. "Xiamen Airlines has been a long-term customer, and the GENx selection will give us more opportunities to demonstrate the outstanding performance of our products and services."

The GENx-1B engine is the best-selling engine on the Boeing 787 Dreamliner. The engine has accumulated more than 60,000 flight hours and more than 14,000 cycles since entering service in 2012. Almost 850 GENx-1B engines have been sold to more than 30 customers.

The GENx engine family is the fastest-selling engine in GE Aviation history with more than 1,300 engines on order. Compared to GE's CF6 engine, the GENx engine offers up to 15 percent better fuel consumption, which translates to 15 percent less CO<sub>2</sub>. The GENx's innovative twin-annular pre-swirl (TAPS) combustor dramatically reduces NO<sub>x</sub> gases as much as 55 percent below today's regulatory limits and other regulated gases as much as 90 percent. Based on the ratio of decibels to pounds of thrust, the GENx is the quietest engine GE produces due to the large, more efficient fan blades that operate at slower tip speed, resulting in about 40 percent lower noise levels.

The GENx is part of GE's "ecomagination" product portfolio - GE's business strategy to develop new, cost-effective technologies that enhance customers' environmental and operating performance.

Revenue-sharing participants on the GENx are IHI Corporation of Japan, Avio SpA. of Italy, GKN Aerospace Engine Systems of Sweden, MTU of Germany, TechSpace Aero of Belgium, Snecma (SAFRAN Group) of France and Samsung Techwin of Korea.

OnPoint solutions are customized service agreements tailored to the operational and financial needs of each customer for any size fleet. These agreements are designed to help lower the customers' cost of ownership and maximize the use of their assets. Backed by GE's global support network, OnPoint services may include overhaul, on wing support,



new and used serviceable parts, component repair, technology upgrades, engine leasing, integrated systems support and diagnostics and integrated systems.

Xiamen Airlines is the only Chinese airline that operates an all Boeing fleet to more than 210 routes in 50+ major cities in Southeast and Northeast Asia. The airline has become the only airline in China that has maintained an outstanding performance of profit for 25 consecutive years. For more information, visit <http://www.xiamenair.com/cn/en/>.

#### GE AVIATION AND CAAC EXPAND REQUIRED NAVIGATION PERFORMANCE PROGRAM AT JIUZHAI AIRPORT

June 17, 2013

Seven new airlines join the program; RNP to ILS procedure will improve all-weather operations

Le Bourget, FRANCE/Kent, WA USA - GE Aviation, in coordination with airport officials and the Civil Aviation Administration of China (CAAC), is expanding the Required Navigation Performance (RNP) program at Jiuzhai Huanglong Airport to include seven additional airlines and RNP to Instrument Landing System (ILS) technology. The program will help simplify pilot and controller workload at the airport located in the Sichuan Province of China.

"Key to the airlines' operational efficiency at the airport is the RNP to ILS procedure which enables lower landing minima and additional predictability for all-weather operations," said Alan Caslavka, president, Avionics & Digital Systems for GE Aviation. "The procedure also connects to a Required Navigation Performance - Authorization Required missed approach, providing a fully contained and guided flight path in the event of a go-around."

Required Navigation Performance is part of GE's suite of service offerings that increase an aircraft's overall operational efficiency. GE is harnessing the power of the Industrial Internet and using software and analytics to make its machines smarter and more efficient.

Since 2011, the GE-designed RNP paths at Jiuzhai have provided multiple airlines with improved access to the airport when navigating the complex terrain of the Min Shan mountain range. For the seven new airlines contracted, GE is custom-engineering the flight paths for both Boeing and Airbus aircraft variants to ensure the most efficient procedure. All 11 scheduled airlines at Jiuzhai will comply with the recent RNP-only operations mandate.

"Because of the positive experience and results from the RNP programs at Jiuzhai and other Chinese airports, the CAAC mandated six airports, including Jiuzhai, become 100% RNP capable as of April 1," said Zhu Baosheng, vice president of Jiuzhai Airport. "We can now ensure all operators at Jiuzhai are flying the safest, most accurate flight paths while maximizing aircraft and airspace efficiency and improving on-time arrival rates."

As the third highest airport in China, located at 11,311 feet, the steep terrain can make airport access challenging, especially during poor weather operations, causing flight delays, cancellations and additional pilot workload. The GE-designed RNP paths improve airport access and payload for all operators, while providing an optimized lateral and vertical guidance to the runway. GE also harmonized the approach and departure paths to allow for simultaneous operations.

Performance-based Navigation (PBN) technology allows aircraft to fly precisely-defined flight paths without relying on ground-based radio-navigation signals. RNP procedures, the highest performing type of PBN, can be designed to shorten the distance an aircraft has to fly en-route, and to reduce fuel burn, exhaust emissions and noise pollution in communities near airports. Because of RNP's precision and reliability, the technology can help air traffic controllers reduce flight delays and alleviate air traffic congestion.

ONPOINT IS A SERVICE MARK OF GENERAL ELECTRIC COMPANY; CF34  
ENGINE ORDERS HIT 350 MARK IN SIX MONTH [Excerpted China passage only]

June 17, 2013

Le Bourget--GE Aviation received firm orders for more than 350 CF34 engines from customers since December 2012. CF34-powered aircraft orders include: The CF34-10A engine continues to flight test on the Commercial Aircraft Corporation of China (COMAC) ARJ21 regional jet. About 20 GE engineers and field service support are assisting in the aircraft certification program. GE has also established an engine line maintenance training course at its Customer Training Center in Shanghai. COMAC has announced orders for more than 250 ARJ21 regional jet aircraft and forecasts a demand for up to 850 aircraft over the next 20 years.

THE FIRST GNex-POWERED B787 DELIVERED TO CHINA SOUTHERN

June 04, 2013

Guangzhou - China Southern Airlines welcomed its first GENx-powered Boeing 787 Dreamliner in a special ceremony held Sunday in Guangzhou, China. This is the first of eight Boeing 787 aircraft to be delivered to China Southern this year. China Southern ordered a total 10 Boeing 787 Dreamliners and selected GENx-1B engines to power these aircraft.

China Southern also signed an OnPoint solution agreement with GE Aviation for its GENx fleet. As part of this agreement, GE Aviation will provide the maintenance, repair and overhaul for the GENx engine fleet.

"Today is a great day of celebration for the delivery of the GENx-powered Boeing 787 Dreamliner to China Southern, which marks the first B787 delivered to China," said Chuck Nugent, general manager of the GENx Program at GE Aviation. "We believe the dramatically improved fuel efficiency, performance, emissions and durability of the GENx engine brought by the advanced technologies and materials will bring significant benefits to China Southern."

"We're so excited to receive our first Boeing 787 Dreamliner powered by GENx engines," said Tan Wangeng, president and chief executive officer of China Southern Airlines. "The Boeing 787 features remarkable craftsmanship, technology, greenness and excellence experience. The B787 can provide our customers with an exceptional flight experience in its elegant and personalized cabin. Its low fuel burn consumption and high efficiency fit the modern green flight concept perfectly well. Our Boeing 787 Dreamliners' entry into service will certainly help the airline further tap into the international market, improve our comprehensive competitiveness and provide a more enjoyable travel experience to all our passengers."

China Southern is the largest airline in terms of size of aircraft fleet, the flight route network and volume of passenger traffic in China and currently operates more than 500 passenger aircraft and freighters. The airline is a significant GE customer with a fleet including Boeing 777s, 737s and Airbus A320s powered respectively by GE and CFM International (a 50/50 joint company of GE and Snecma). China Southern operates more than 1,930 daily flights to 193 destinations in 35 countries and regions. Through close cooperation with its SkyTeam partners, China Southern' global route network spans 1,000 destinations to 187 countries and regions and nearly every major world metropolis. The airline will deploy the new 787s for its expanding international routes.

CALC PLACES \$500 MILLION CFM56-5B ENGINE ORDER

March 07, 2013

- Becomes CFM's newest customer
- Will use new fleet for expansion

West Chester, Ohio - Hong Kong-based China Aircraft Leasing Company (CALC) has announced its selection of CFM56-5B engines to power 25 new Airbus A320 family aircraft.

The firm engine order is valued at \$500 million U.S. at list price and deliveries are scheduled between 2014 and 2016.

The aircraft are part of CALC's first-ever new aircraft order; the company announced an agreement with Airbus for 36 A320 family aircraft in 2012.

"CFM56 engines have an outstanding reputation in the industry and we are pleased that they will power the majority of our first new aircraft buy," said Dr. Poon, CEO of CALC. "Our customers value the reliability and low cost of ownership the CFM56-5B provides, as well as the world class support they receive. We believe that forming this strategic partnership with CFM will be instrumental in helping us expand our business globally."

The aircraft will be initially placed with Chinese lessees, but CALC plans to diversify the portfolio and expand into the rest of Asia, as well as building its presence in Europe and the United States.

"We are honored to welcome CALC to the CFM family," said Jean-Paul Ebanga, president and CEO of CFM International. "Our continual investment in the CFM56 product line has made it the industry leader it is today. The CFM56-5B gives operators a significant advantage in terms of overall cost of ownership and they will have a positive impact on the profitability of CALC's leasing customers."

CALC's new A320 aircraft will be powered by the CFM56-5B Performance Improvement Package engine, which has been the production configuration since October 2011. The PIP improvements, which provide a 0.5% improvement in fuel burn, include hardware changes to the core, including new high-pressure turbine blade, as well as manufacturing changes to the fan and compressor blades and vanes to improve performance retention. The engine also features fewer parts to help lower maintenance costs.

CFM 56-5B engines are a product of CFM International, a 50/50 joint company between Snecma (Safran) and GE. CFM, the world's leading supplier of commercial aircraft engines, has delivered nearly 25,000 engines to date. The CFM56-5B engine powers every model of the Airbus A320 family and has been chosen to power nearly 60 percent of all A320 aircraft in service or on order.

About China Aircraft Leasing Company

China Aircraft Leasing Company Limited (CALC), which was founded in 2006, has headquarters in Hong Kong, along with representative offices in Beijing, Shanghai, Shenzhen and Tianjin in China, as well as in France and Ireland. The company has aggressive expansion plans and expects to grow its fleet to 100 aircraft by 2015. CALC's fleet has mainly been built through sale/leaseback agreements of new aircraft, as well as operating lease agreements of both new and used aircraft.

#### SPRING EXPANDS CFM56-5B FLEET WITH \$40 MILLION ENGINE ORDER

November 14, 2012

Zhuhai, China – — China's Spring Airlines signed the agreement with CFM International for CFM56-5B engines to power two new Airbus A320 aircraft. The engine order is valued at \$40 million U.S. at list price and the airline is scheduled to take delivery of the first aircraft in January 2014 and the second aircraft in July 2014. "We very much appreciate the long-term support CFM has been providing us and we are very happy with the outstanding performance of the CFM56 engines," said Mme. Zhang Xiuzhi, CEO of Spring Airlines. "We look forward to further strengthening this relationship in the future." "Spring Airlines is a great customer," said Jean-Paul Ebanga, president and CEO of CFM International. "And we are honored that this airline has again put its trust in the CFM56 product line. Our promise is to continue earn that trust every day." Shanghai-based Spring Airlines, established by Spring Travel in 2005, is China's first low cost airlines. Its entire fleet consists of 33 CFM56-5B-powered Airbus A320 fleet. The airline boasts one of the youngest fleets in the world today and operates more than 50 routes across China. Spring Airlines is also the first private carrier to operate international routes and currently serves

destinations in Japan and Thailand, in addition to Hong Kong and Macau. The two new A320 aircraft of Spring Airlines will be powered by the CFM56-5B Performance Improvement Package engine, which has been the production configuration since October 2011. The PIP improvements, which provide a 0.5% improvement in fuel burn, include hardware changes to the core, including new high-pressure turbine blade, as well as manufacturing changes to the fan and compressor blades and vanes to improve performance retention. The engine also features fewer parts to help lower maintenance costs.

#### HAINAN AIRLINES SELECTS GENx ENGINES FOR ITS ADDITIONAL BOEING 787 DREAMLINERS

November 14, 2012

Zhuhai Air Show - Hainan Airlines selected GE Aviation's GENx-1B engines to power its two additional Boeing 787 aircraft. This brings Hainan Airlines' total GENx-powered Boeing 787 Dreamliner fleet to 10 aircraft.

Hainan Airlines also expanded its long-term service agreement to include the additional GENx engines. As part of the agreement, Hainan's GENx engine fleet will be maintained in the latest configuration to ensure they remain the most fuel efficient engines in their class.

"Hainan Airlines' order for additional GENx engines demonstrates the airline's confidence in the engine's performance," said Chuck Nugent, general manager of GE's GENx Program. "The GENx engine will provide Hainan Airlines with improved fuel efficiency, reduced emissions and lower noise to further the carrier's environmental efforts."

"Hainan Airlines is committed to energy conservation and emissions reduction and the introduction of new equipment and new technology is an important way. We aim to be a green company," said Yu Wenyong, Vice President of Hainan Airlines. "The technical features of the GENx engine – improved fuel efficiency and reduced emissions will greatly help us achieve our goal."

The GENx-1B engine is the best-selling engine on the Boeing 787 Dreamliner. The engine has accumulated more than 18,000 flight hours and more than 3,400 cycles since entering service in April. More than 800 GENx-1B engines have been sold to close to 30 customers.

The GENx engine family is the fastest-selling engine in GE Aviation history with more than 1,300 engines on order. Compared to GE's CF6 engine, the GENx engine offers up to 15 percent better fuel efficiency, which translates to 15 percent less CO<sub>2</sub>. The GENx's innovative twin-annular pre-swirl (TAPS) combustor dramatically reduces NO<sub>x</sub> gases as much as 55 percent below today's regulatory limits and other regulated gases as much as 90 percent. Based on the ratio of decibels to pounds of thrust, the GENx is the quietest engine GE produces due to the large, more efficient fan blades that operate at slower tip speed, resulting in about 30 percent lower noise levels.

The GENx is part of GE's "ecomagination" product portfolio - GE's business strategy to develop new, cost-effective technologies that enhance customers' environmental and operating performance.

Revenue-sharing participants on the GENx are IHI Corporation of Japan, Avio SpA. of Italy, Volvo Aero of Sweden, MTU of Germany, TechSpace Aero of Belgium, Snecma (SAFRAN Group) of France and Samsung Techwin of Korea.

Headquartered in the Hainan Province, Hainan Airlines is the one of the fastest developing airlines in China and maintains an excellent safety record and a strong service reputation. Hainan Airlines operates more than 500 domestic and international routes through China, Asia, Europe, the Americas, South Pacific islands and Africa. The Boeing 787 fleet will be deployed on Hainan's expanding international routes.

GE Aviation, an operating unit of GE (NYSE: GE), is a world-leading provider of jet, turboprop and turboshaft engines, components and integrated systems for commercial, **military**, business and general aviation aircraft. GE Aviation has a global service network to support these offerings.

#### NEW C919 ORDERS PUSH TOTAL LEAP ORDERS PAST 4,300 ENGINES

November 14, 2012 [Excerpts of China passages only]

Zhuhai, China – CFM International's LEAP family continues to be the engines of choice for next-generation single-aisle aircraft. The order for 50 LEAP-1C-powered C919 aircraft announced by COMAC at the Zhuhai Air Show pushed total LEAP engine orders and commitments to 4,352 engines at a list price value of more than \$52 billion U.S. CFM's LEAP-1C is the sole Western powerplant for the new 150-passenger C919 scheduled to enter commercial service in 2016. Following COMAC's announcement, there are now 760 LEAP-1C engines on order to power 380 C919 aircraft.

#### 10,000th STUDENT GRADUATED FROM AEMTC

November 13, 2012

Zhuhai, China – CFM International and its partners are celebrating the 10,000th student to complete CFM56 line maintenance training at the Aero Engine Maintenance Training Center (AEMTC).

AEMTC is a cooperative venture between CFM, the Civil Aviation Administration of China (CAAC), Civil Aviation Supplies Holding Company (CASC), Civil Aviation Flying University of China (CAFUC), GE Aviation, and Snecma (Safran group) established in 1996.

"The AEMTC embodies CFM's sustained commitment to the China aviation industry and we are honored to be a part of this great institution," said Jean-Paul Ebanga, president and CEO of CFM International.

"We are very happy to support this long-term cooperative venture in China," said Zheng Xiaoyong, president of CAFUC. "This training center is making a significant contribution to aviation safety in China, as well as the long-term growth of the industry here."

CFM was one of the earliest Western engine manufacturers to support China's airlines when the first CFM56-3-powered Boeing 737 aircraft was delivered to China Yunnan and China Southwest in 1985. Today, more than 10 percent of CFM's worldwide commercial fleet is in operation in Greater China. Chinese airlines operate a total of more than 1,120 CFM56-powered Airbus, A320s and A340s, as well as Boeing Classic and Next-Generation 737 aircraft.

AEMTC was the first training center of its kind in China and was the first such world-class training facility outside the U.S. and France. It originally opened on scheduled in 1996 to support operation of CFM56 and GE CF6 engines in China. The school is located within the CAFUC campus in Guanghan, Sichuan Province and trains 700 to 800 students each year.

GE and Snecma have continued to invest in AEMTC over the years to both equip the Center and to expand its capabilities. In addition to helping design the school to U.S. standards, the companies have equipped the school with CFM56-3, CFM56-5B, CFM56-7B and CF6-80C2 training engines, tooling, instructional manuals, and teaching aides.

The school curriculum features comprehensive, hands-on courses in basic engine introduction, line maintenance, fan balancing, borescoping, and other skills. The training provided at AEMTC - a state-of-the-art 4,500 square meter facility with six engine shop bays and five classrooms - is equivalent to the training at the CFM centers in the United States, France, and India. All four centers are staffed with experienced instructors who facilitate exercises in the classroom and hands-on procedures in the engine shop. Each

center also provides computer-based training, both self-paced and instructor-led. AEMTC is staffed by two co-leaders and three full-time instructors.

#### GE AVIATION IMPLEMENTING RNP TO ILS FOR AIR CHINA AT XI CHANG

November 13, 2012

Kent, WA USA/Zhuhai, Guangdong China – GE Aviation is designing and deploying the first Required Navigation Performance-Authorization Required (RNP-AR) to Instrument Landing System (ILS) flight procedure in China for Air China Southwest. Merging the two technologies will provide more efficient routing and improved access for flight operations at Xi Chang airport. "Using GE's method of merging RNP to the ILS, operators can experience the track mile reduction benefits of RNP with the lower decision altitudes a precision landing system provides," said Giovanni Spitale, general manager for GE Aviation's Air Traffic Optimization group. "Air China Southwest will have continuous lateral and vertical guidance all the way to the runway while navigating the challenging mountainous environment of Western China." The Xi Chang RNP to ILS procedure will save Air China Southwest up to 14 nautical miles per approach, compared to the conventional ILS procedure. GE also designed an RNP AR approach to the non ILS-equipped runway, reducing the decision height by more than 575 feet compared to the existing approach. Because RNP paths rely on satellite-based navigation technology, the airline does not have to rely on the outdated, ground-based navigation aids in place at the airport, improving schedule reliability. Current operational problems at Xi Chang include weather related delays, one-direction traffic, flight cancellations, and tail wind limitations on the ILS runway. The GE-designed procedures will improve all-weather operations and allow for arrivals and departures on both runways. On departures, GE's RNP procedures provide engine-out protection throughout the most critical time to the enroute structure. Xi Chang airport is located in Sichuan province, southwest of Chengdu, in a five kilometer wide (16,400 feet) valley at 1,588 meters (5,112 feet) elevation. Since 2004, GE Aviation has worked closely with Air China and the CAAC to implement a network of RNP AR procedures in China. GE has deployed RNP paths at seven other Chinese airports for the airline, improving access and schedule reliability while reducing fuel and track miles to many of the mountainous regions it serves.

#### CAIGA SELECTS GE'S H85 TURBOPROP ENGINE ON PRIMUS 150

November 12, 2012

Zhuhai, China -- The China Aviation Industry General Aircraft Co., Ltd. (CAIGA) selected GE Aviation's new H85 turboprop engine to power CAIGA's Primus 150 aircraft, which is a five-seat business aircraft. This is the first application for the H85 turboprop engine, which is awaiting certification from the European Aviation Safety Agency (EASA).

CAIGA and GE have also signed an agreement to jointly develop a service and support program for the H85-powered Primus 150 and expand turboprop engine service capabilities in China.

"The China region is a growing area for business and general aviation," said Brad Mottier, vice president and general manager of GE Aviation's Business & General Aviation organization. "The H85-powered Primus 150 will allow GE to strengthen its presence in the region and to be a significant participant in China's 12th five-year growth plan."

The H85 engine is a derivative of GE's H80 engine, which recently entered service on the Thrush 510G aircraft. The H80 turboprop engine family incorporates GE's 3-D aerodynamic design techniques and advanced materials to create a powerful, fuel-efficient, durable engine with no recurrent fuel nozzle inspections and no hot section inspection. The H80 engine features a service life of 3,600 flight-hours or 6,600 cycles between overhauls. The H80 engine also offers a standard auto start and limiting unit to simplify engine start-up as well as a choice of propeller governors to allow customers flexibility in propeller selection.

The H85 engine is rated at 850 shaft horsepower (shp) for takeoff and maximum continuous operation. The engine is aimed at the business turboprop, agricultural, commuter and utility aircraft segments. EASA engine type certification is anticipated this year with the U.S. Federal Aviation Administration expected next year.

The H85 engines will be manufactured at GE Aviation's facility in the Czech Republic, which is currently ramping up production of the H80 engines. Along with the Thrush 510G agricultural aircraft, the H80 engine also has been selected to power the Aircraft Industries L410 commuter aircraft, which is expected to enter service early next year.

CAIGA's Primus 150 is a five-seat, light single-engine pressurized turboprop business aircraft with a carbon fiber composite airframe. It is one of the fastest pressurized single-engine turboprop aircraft in its class.

CAIGA is a subsidiary company of Aviation Industry Corporation of China (AVIC) and currently owns two types of very light business jet aircraft and two types of very light business turboprop aircraft. CAIGA acquired US-based Cirrus and possesses a world-class general aircraft industry chain, with five major industry bases in Zhuhai, Guizhou, Shijiazhuang, Jingmen and Shenzhen. The company is developing a comprehensive business model, including R&D and manufacturing, general aviation operation, customer support and service. Its business spectrum covers parts & components manufacturing, final assembly and delivery, pilot training, aviation club, general aviation operation, business aviation, FBO (Fixed Base Operator), maintenance, leasing and various sectors.

#### JUNEYAO ORDERS CFM56-5B ENGINES TO POWER A321 AIRCRAFT

July 11, 2012

Farnborough, England -- China's Juneyao Airlines today announced that it has selected CFM International's CFM56-5B engine to power five new Airbus A321 aircraft. The engine order is valued at more than \$100 million U.S. at list price and the airline is scheduled to begin taking delivery in 2013.

"We are very happy with the high reliability the CFM56-5B engines have been providing to our entire fleet," said Zhao Hongliang, president of Juneyao Airlines.

"We also enjoyed a very good relationship with CFM and the outstanding support they provide to us."

Juneyao Airlines began operations in September 2006 and has been one of the fastest growing local airlines in China. Based in Shanghai, Juneyao provides passenger, cargo, and mail service, in addition to business and tourist charter business. The airline currently operates a fleet of 26 CFM56-5B-powered A320 family aircraft.

"We are honored that Juneyao Airlines has selected CFM56-5B engines for its newly added A321 fleet," said Jean-Paul Ebanga, president and CEO of CFM International. "We are also excited to bring the benefits of CFM56-5B PIP technology to their fleet."

All of Juneyao's A321 aircraft will be powered by the CFM56-5B Performance Improvement Package engine, which has been the production configuration since October 2011. The PIP improvements, which provide a 0.5% improvement in fuel burn, include hardware changes to the core, including new high-pressure turbine blade, as well as manufacturing changes to the fan and compressor blades and vanes to improve performance retention. The engine also features fewer parts to help lower maintenance cost.

#### GE PERFORMANCE-BASED NAVIGATION FLIGHT PATHS VALIDATED AT JIUZHAI AIRPORT

May 03, 2012

Seattle, Washington. - GE-designed Performance-based Navigation (PBN) flight paths were validated last week at Jiuzhai Huanglong Airport in the Sichuan Province of China. In this first public PBN project initiated by a Chinese airport, the paths will be available to all approved aircraft operators. Air China, China Eastern and Sichuan Airlines

are the first three airlines that will fly the highly-precise flight paths. "GE worked diligently with each stakeholder to ensure the new flight paths were compatible and validated with each qualified operator's specific aircraft types in order to maximize the benefit," said Giovanni Spitale, general manager for GE Aviation's PBN Services. "The PBN paths will not only improve aircraft performance and reliability into the region, but will help streamline air traffic management and improve airport capacity as well."

Located at 11,311 feet in the Min Shan mountain range, the steep terrain can make airport access challenging, especially during poor weather operations. The GE-designed, highly-accurate PBN paths will improve airport access and payload for all qualified operators, while providing an optimized lateral and vertical guidance to the runway. GE also harmonized the approach and departure paths to allow for simultaneous PBN operations. "Safety, efficiency and service reliability are top priorities for our airspace customers," said Mr. Zhu, deputy general manager of the Jiuzhai airport. "The PBN paths will help us to better ensure their needs are met, while streamlining our airspace operations."

PBN technology allows aircraft to fly precisely-defined flight paths without relying on ground-based radio-navigation signals. Required Navigation Performance (RNP) procedures, an advanced form of PBN technology, can be designed to shorten the distance an aircraft has to fly en-route, and to reduce fuel burn, exhaust emissions and noise pollution in communities near airports. Because of RNP's precision and reliability, the technology can help air traffic controllers reduce flight delays and alleviate air traffic congestion.

#### ONPOINT IS A SERVICE MARK OF GENERAL ELECTRIC COMPANY; ORDERS FOR LEAP-1C-POWERED C919 REACH 165 AIRCRAFT

November 15, 2011

Dubai, U.A.E. -- Orders for the Commercial Aircraft Corporation of China, Ltd.'s (COMAC) new C919 airplane, powered exclusively by CFM International's LEAP-1C engines, have now reached a total 165 aircraft with the recent addition of orders from ICBC Financial Leasing Company (45) and from Sichuan Airlines (20).

These airlines join Air China, China Eastern, China Southern, Hainan Airlines, CDB Leasing Company and GE Capital Aviation Services (GECAS) as C919 customers. COMAC has forecasted global sales of more than 2,000 C919 aircraft over the 20 years following entry into service.

In June, CFM and COMAC reached another major milestone with the signing of the Master Contract for the C919/LEAP Integrated Propulsion System (IPS). The definitive agreement stipulates that CFM will be the sole overseas supplier for an integrated propulsion system (engine, nacelle, thrust reverser) and that the LEAP-X1C engine will be the sole Western powerplant for the new 150-passenger short-to-medium range airplane on schedule to enter service in 2016.

As part of the IPS for the C919, CFM will provide the LEAP-X1C engine and, in partnership with Nexcelle, will provide the nacelle and thrust reverser to deliver a complete IPS solution to COMAC. Nexcelle is a 50/50 joint venture between GE's Middle River Aircraft Systems and Safran group's Aircelle that the two companies launched in 2008.

The LEAP engine, which was formally launched in 2008, is a totally new centerline engine and the development and testing program has been progressing steadily. The LEAP is on track for the first full engine to begin testing in 2013. In 2010, CFM and COMAC began the Joint Design Phase to define the functional and mechanical interfaces and optimize the integrated propulsion system for the C919. The teams are in the final stages of the Joint Design Phase.

CFM has a dedicated team of about 20 people who work directly with COMAC in Shanghai. Hundreds of engineers are also working on the LEAP-X1C engine back at the headquarters of CFM's parent companies, GE and Snecma. The team is building strong



relationships with COMAC's team to ensure all the customer's needs are well understood and achieved.

Beyond the propulsion system program, CFM has also provided extensive training to COMAC for the last two years. Training sessions for COMAC leaders have occurred at Snecma's Paris location and GE's Cincinnati, OH facilities. CFM has also conducted training sessions at COMAC's Shanghai offices and CFM's training school Aero Engine Maintenance Training Center in Guanghan City, Sichuan Province of China.

#### AIR CHINA FINALIZES GENx-2B ENGINE PURCHASE AND SIGNS ONPOINT SOLUTION AGREEMENT

November 15, 2011

Dubai Air Show -- Air China has finalized its agreement to purchase 20 GENx-2B engines to power its five Boeing 747-8 Intercontinental aircraft and has also signed a 15-year OnPoint solution agreement for the maintenance, repair and overhaul of its GENx-2B engines. "As the first airline in Mainland China to purchase the GENx-2B-powered Boeing 747-8 Intercontinental, Air China will experience improved fuel efficiency, outstanding durability and performance and reduced emissions," said Bill Fitzgerald, vice president and general manager of GENx Program at GE Aviation. "GE Aviation has developed an extensive service and support team that will help OnPoint customers like Air China keep their engines in top operating condition." Air China is China's national flag carrier for civil aviation and a member of Star Alliance – the world's largest airline alliance, and the official airline partner of the 2008 Beijing Olympic Games. The airline has the most market value of worldwide airlines in 2010, ranks first in brand value among domestic airlines and leads the market over its domestic competitors in terms of passenger and freight air transport and related services. Air China owns nearly 400 Boeing and Airbus aircraft with scheduled flights covering 29 countries and regions worldwide.

#### GE AVIATION: AVIONICS JOINT VENTURE (JV) WITH AVIATION INDUSTRY CORPORATION OF CHINA (AVIC)

October 05, 2011

GE is working to establish a commercial joint venture (announced in November 2009) with the Aviation Industry Corporation of China (AVIC) because it will provide global commercial opportunities in China and the rest of the world that GE would not have on its own. Specifically, GE will contribute its commercial Integrated Modular Avionics (IMA) technology to the joint venture. The JV's first order is for the COMAC C919, a new narrow-body commercial aircraft being built in China. The JV will supply IMA technology, displays, onboard maintenance systems, flight recorders and flight management system for the C919.

Listen to an introduction to the JV by Lorraine Bolsinger, president and CEO of GE Aviation Systems.

Find out how GE's joint venture with AVIC is contributing to jobs in the United States, and what we've done to safeguard the security of our nation and ensure the protection of our intellectual property.

#### JOBS

The JV is creating at least 300 high-tech jobs in the U.S., mostly in Grand Rapids and Clearwater.

GE's overall business in China - across all divisions - will support nearly 4,500 American jobs, including those along GE's U.S. supply chain.

In the last 10 years, revenue from outside of the U.S. has grown to be 60 percent of GE's business. Because of this international growth, GE has been able to keep more than half of its industrial workforce in the U.S.

If we don't compete for business in China, foreign companies will, which has the potential to sacrifice U.S. jobs and diminish America's role as a world leader in technology.

In fact, companies such as Switzerland's Liebherr Aerospace and France's Airbus have already formed partnerships with Chinese companies

Increased revenue from the JV will create income that allows GE to reinvest in developing new technologies in the U.S.

GE Aviation employs more than 26,000 American workers and supports more than 11,000 domestic suppliers - 1,800 of which are thanks to GE's aviation business in China. These are high-paying jobs that are part of the core of America's technology base, in communities that need them most.

Business overseas fuels business at home: If we sell more overseas, we'll buy more at home. At GE Aviation that means...

- Exports will account for 52 percent (\$9 billion) of our 2011 revenues.

- This helped us add nearly 1,000 domestic jobs since fiscal year 2010. We plan to grow an additional 450 in the next three years.

- 63 percent (\$5.7 billion) of our annual spend with suppliers is in the U.S., translating to 35,000 domestic supplier jobs.

#### **NATIONAL SECURITY**

No **military** applications are involved in this joint venture, and significant measures are in place to safeguard against any unauthorized transfer of intellectual property.

The scope of this joint venture is limited to commercial aviation use only; the joint venture is prohibited from supporting a **military** application, and is subject to independent third-party audits and oversight.

Both GE and AVIC are contributing unique elements to the partnership, leading to new technology and intellectual property. GE is transferring to the JV its commercial Integrated Modular Avionics (IMA) technology, which has no immediate application for **military** aircraft. No existing synthetic vision avionic technology will be transferred to the JV.

No direct U.S. government funding was received for development of the IMA technology. The IMA was developed as a commercial product and therefore was not funded by Department of **Defense** or **military** money.

We have been thorough, proactive and transparent in consulting and briefing Congress and all relevant U.S. government agencies throughout the process, including the Departments of Commerce and **Defense**.

On the C919, the GE-AVIC Civil JV has won content for IMA, displays, onboard maintenance systems (OMS), flight recorders and flight management system (FMS). In addition to supplying the IMA, GE will be providing the flight recorders and FMS. The JV will buy most of the displays and OMS content from the parent companies and third-party suppliers.

#### **INTELLECTUAL PROPERTY**

Intellectual property is the most valuable thing we have and we rigorously protect it at GE.

GE has consulted with leading experts in global trade and commerce to ensure full government compliance and the highest level of security with regards to intellectual property. GE has continued to consult with all relevant U.S. government agencies during this process.

The competitive nature of the aviation and aerospace industry is such that it makes good commercial sense to vigilantly protect proprietary, domestic IP. If GE's IP is stolen, the company no longer profits.

We have spent three years fashioning a robust set of protection measures, which include some of the most rigorous legal commitments available, to ensure that both GE's and AVIC's contributions and efforts are protected.

These include:

- Rigorous intellectual property protections,
- Oversight compliance and IP mechanisms,

- Significant remedies in the event of a breach of compliance, and
- Non-competition obligations.

China is the world's fastest growing major market, and other U.S. aerospace companies, including Honeywell and Rockwell Collins, have also formed JVs with Chinese aerospace companies. We cannot afford to be afraid of China.

GE Aviation has a number of successful joint ventures elsewhere in the world; the joint venture with AVIC is the fourth. That means GE Aviation is experienced at establishing compliance plans to protect its technology - whether it is China, Canada or with partners here in the U.S.

GE works diligently to comply with all rules and regulations with regard to aviation, and also to make sure American workers and companies are able to compete in foreign markets. This JV with AVIC is no exception.

#### ICBC LEASING, CFM SIGN MOU FOR \$450 MILLION ENGINE ORDER

September 29, 2011

Beijing, China -- ICBC Financial Leasing Co., Ltd, a subsidiary of Industrial and Commercial Bank of China (ICBC), today signed a Memorandum of Understanding with CFM International to purchase CFM56-5B engines to power a new fleet of 22 firm Airbus A320 family aircraft. The firm engine order, which includes three spare engines, is potentially valued at more than \$450 million U.S. at list price and the leasing company is scheduled to begin taking deliver in 2012. This order represents the largest order by a Chinese financial leasing company to date. Defined as a first trial by China State Council, ICBC Financial Leasing Co. Ltd. is the first banking financial leasing company approved by the China Banking Regulatory Commission. The company is fully owned by the Industrial and Commercial Bank of China and its current asset values approximately \$12 billion U.S. All of ICBC's new engines will be the CFM56-5B Performance Improvement Package (PIP) configuration. The -5B PIP completed extensive ground testing and more than 26 hours of flight testing on the A320. The engine, which will become the new production standard, is on schedule for certification and entry into service by the end of 2011. The improvements, which provide a 0.5% improvement in fuel burn, include hardware changes to the core, including new high-pressure turbine blade, as well as manufacturing changes the fan and compressor blades and vanes to improve performance retention. The engine will maintain the same noise signature as the current production engine. These engines also meet current International Civil Aviation Organisation (ICAO) Committee of Aviation Environmental Protection standards (CAEP/6) requirements.

#### CFM, HAINAN AIRLINES FINALIZE CFM56-5B ENGINE ORDER

June 23, 2011

Le Bourget -- CFM International and Hainan Airlines, China's fourth largest airline group, have finalized an agreement for CFM56-5B engine to power 42 new Airbus A320 family aircraft. The entire agreement is valued at approximately \$1.2 billion U.S. at list price, including the firm engine order and a long-term services and support agreement. The airline is scheduled to begin taking delivery in 2012. The MOU was originally announced at the Zhuhai Air Show in November 2010. To support the new CFM56-5B-powered A320 fleet, Hainan has also signed a long-term RPFH (Rate per Flight Hour) agreement with CFM to provide comprehensive engine maintenance service. Under the terms of this agreement, CFM will guarantee maintenance costs on a dollar per engine flight hour basis. Hainan Airlines has been a CFM customer since the airline began operations in 1993, when it took delivery of its first Boeing 737 aircraft. Today, Hainan operates more than 85 Boeing 737-300/-400/-800 aircraft powered by CFM56-3 and CFM56-7 engines. The airline operates more than 500 domestic and international routes to about 90 cities throughout China, Asia, Africa, Europe, and North America. "We are honored that Hainan Airlines has chosen again to make CFM an important part of its long-term operations," said Eric

Bachelet, President & CEO of CFM International. "We thank them for their trust and offer them our commitment that we will continue to earn that trust every day." The high reliability, long on-wing life, and low maintenance costs of the CFM56-5B make it extremely popular with major airlines, low-cost carriers, and leasing companies worldwide. All of Hainan's new CFM56-5B engines are of the Tech Insertion configuration. This configuration was introduced in September 2007 and, through October 2010, the CFM56-5B fleet of more than 1,600 engines in service worldwide had logged more than seven million flight hours and four million flight cycles without a single engine-related event.

#### TIBET AIRLINES PLACE \$60 MILLION CFM56-5B ORDER TO POWER A319 FLEET

June 21, 2011

Le Bourget, France -- Tibet Airlines Co. Ltd., the newest start-up airline in China, has signed a Memorandum of Understanding (MOU) with CFM International to purchase three Airbus A319 powered by CFM56-5B engines. The aircraft are scheduled to be delivered in the July of 2011 and the engine order is valued at \$60 million U.S. at list price. Based at Konggar Airport, Lhasa, Tibet, the Airlines will start operation of domestic passenger and cargo and services from July 2011. The airline which was established in May 2010, will be the first airline based in the southwest Tibet Autonomous Region. "We are very excited that Tibet Airlines has selected CFM56-5B to power their new fleet," said Jean-Paul Ebanga, President of CFM International. "We appreciate their trust and offer them our commitment that we will continue to earn that trust every day. The airline is off to a great start and we're honored to be a part of it." "We selected CFM56 engines after an extensive technical evaluation," said Mr. Liu Yanping, President of Tibet Airlines. "The reliability, performance and low cost of ownership advantages that the CFM56-5B provides will help ensure our airline of a smooth and successful launch into service. CFM56 engine is also a good choice for the safety of our high-altitude mission."

#### CHINA SOUTHERN SELECTS CF34-10E-POWERED EMBRAER E190s

June 20, 2011

Le Bourget -- China Southern Airlines today has selected 20 CF34-10E-powered EMBRAER 190 aircraft to add to its fleet. China Southern is leasing the E190s from China Development Bank (CDB) Leasing. Aircraft deliveries will begin this year. "China Southern Airlines and GE Aviation have enjoyed a successful relationship with the airline being the launch customer for the GE90-powered Boeing 777 in Asia," said Kevin McAllister, vice president and general manager, Global Sales at GE Aviation. "The CF34-10E engine line set the standard for reliability in regional aviation and we know that China Southern will be very pleased with this selection." "We are confident in the performance and reliability of GE's CF34 engines," said Dong Suguang, Vice President of China Southern Airlines. "The CF34-10E-powered E190 will be a great fit for our business expansion in the northwest region, especially in Xinjiang area." China Southern Airlines, one of the largest airlines in China, operates more than 600 domestic and international routes. It is the only carrier in mainland China in the world's Top 10 passenger airlines.

#### GE AVIATION TO DEPLOY RNP PATHS AT JIUZHAI HUANGLONG AIRPORT MARKS SIGNIFICANT RNP PROGRAM COMMISSIONED BY AN AIRPORT IN CHINA

June 20, 2011

Le Bourget, France -- GE Aviation has been selected to deploy a Required Navigation Performance (RNP) program at Jiuzhai Huanglong Airport, in the Sichuan province of China. The cornerstone of the program is a network of GE-designed RNP paths that will improve access and maximize operational efficiency for airlines serving the airport. This

significant contract marks the first airport-sponsored RNP program implementation in China.

GE, in coordination with the airport and the Civil Aviation Administration of China (CAAC), will design and deploy highly-precise approach and departure flight paths with custom-engineered vertical paths for each of the eight RNP-capable airlines that operate to Jiuzhai. This will enable Jiuzhai Airport to provide a common RNP path for all airlines while giving each airline the best performance possible for their fleet-type. GE also will provide RNP operations approval support and validation for two launch airlines, Air China (A319) and China Eastern (737-700), followed by operations approval and validation support for six subsequent airlines.

In total, GE will deploy RNP procedures and provide maintenance and support services for eight airlines, operating five different aircraft types from three aircraft families at Jiuzhai.

Furthermore, GE will cooperate with the CAAC to support the local establishment of expertise through a package of tutoring and on-the-job training to qualified CAAC procedure design personnel to demonstrate effective methodologies for designing and validating flight procedures. GE also is working with the airport to identify terrain obstacles north of the airport that currently limit aircraft operations. The RNP program will solve limitations presented by the obstacle, improving accessibility for the eight operators.

"This joint undertaking marks a significant milestone in airspace modernization efforts in China," said Giovanni Spitale, general manager for GE's PBN Services. "GE is proud to work with such forward-thinking organizations around the world that are working toward a common goal of improving aircraft and air traffic management operations."

Jiuzhai Airport, located at 11,311 feet (3,448 meters) in the Himalayan Mountains, is the third highest airport in China. Delays and diversions are common at Jiuzhai due to inclement weather and poor visibility. RNP procedures can be deployed at any airport enabling aircraft to fly very precise paths with an accuracy of less than a wingspan. This precision allows pilots to land the aircraft in weather conditions that would otherwise require them to hold, divert to another airport, or even cancel the flight before departure.

"In order to improve operational efficiencies at Jiuzhai, it was essential to be able to offer this solution to not just one airline that serves the airport, but to all the airlines," said Yang Hong Hai, director of flight operations management division, CAAC Flight Standards Department. "We are confident that this RNP program will improve both airline operations and passengers experience when flying to and from Jiuzhai."

Chinese airlines and CAAC are working with GE to deploy PBN (Performance-based Navigation) solutions that align with China's PBN Implementation Roadmap. Since 2004, GE's PBN Services has completed 16 RNP AR implementations for four Chinese airlines at six airports.

"Air China first began flying GE-designed RNP paths in 2005 at Lhasa to improve access to the airport," said Captain Chen Dongcheng, vice general manager of operations quality & management department of Air China Southwest branch. "Since then, we have deployed RNP with GE at five other Chinese airports, improving access, schedule performance and lowering fuel usage. We are pleased to now be able to take advantage of similar benefits at Jiuzhai."

"Our daily operations into Lhasa and Yushu have improved significantly since deploying RNP in 2009," said Capt. Zhao Jinyu, vice president of China Eastern Airlines. "It's crucial to our business and to the communities we serve to provide consistent, reliable flights -- and RNP helps ensure this is possible."

RNP procedures, an advanced form of PBN technology, are very precise flight paths that can be designed to shorten the distance an aircraft has to fly en-route, and to reduce fuel burn, exhaust emissions and noise pollution in communities near airports. Because of RNP's precision and reliability, the technology can help air traffic controllers reduce flight

delays and alleviate air traffic congestion. GE has designed and deployed more than 345 RNP flight paths around the world since 2003.

#### CFM INTERNATIONAL AND COMAC SIGN MASTER CONTRACT TO FINALIZE LEAP-POWERED C919 AGREEMENT

June 20, 2011

Le Bourget, France -- In a special ceremony here on the opening day of the 2011 Paris Air Show, the Commercial Aircraft Corporation of China (COMAC), its subsidiary, Shanghai Aircraft Manufacture Company, and CFM International signed the Master Contract for the C919/LEAP Integrated Propulsion System (IPS). LEAP is a product of CFM, a 50/50 joint company between Snecma (Safran group) and GE. The definitive agreement stipulates that CFM International (CFM) will be the sole overseas supplier for an integrated propulsion system (engine, nacelle, thrust reverser) and that the LEAP-X1C engine will be the sole Western powerplant for the new 150-passenger short-to-medium range airplane on schedule to enter service in 2016. COMAC has forecasted a global market for more than 2,000 C919 aircraft over the 20 years following entry into service. This is the first master contract for airborne systems that COMAC has signed for its ongoing C919 Program. As part of the IPS for the C919, CFM will provide the LEAP-X1C engine and, in partnership with Nexcelle, will provide the nacelle and thrust reverser to deliver a complete IPS solution to COMAC. Nexcelle is a 50/50 joint venture between GE's Middle River Aircraft Systems and Safran group's Aircelle that the two companies launched in 2008. "This is truly an historic occasion for us all as we formally launch a new era in our history," said Jean-Paul Ebanga, president and CEO of CFM International. "China has been a very important region to us for more than 25 years, and more than 10 percent of the in-service CFM56 commercial fleet operates there. It is exciting to be a part of this program and to see this great relationship move to the next level."

#### GE AND AVIC SIGN AGREEMENT FOR INTEGRATED AVIONICS JOINT VENTURE

January 21, 2011

Chicago -- GE Aviation of the United States and Aviation Industry Corporation of China (AVIC) today announced the signing of the agreement to form their new joint venture company. Chinese Commerce Minister Chen Deming and the U.S. Commerce Secretary Gary Locke witnessed the public signing by David Joyce, president and CEO of GE Aviation and Zhang Xinguo, vice president of AVIC today in Chicago.

The new AVIC and GE joint venture company will develop and market integrated, open architecture avionics systems to the global commercial aerospace industry for new aircraft platforms. This system will be the central information system and backbone of the airplane's networks and electronics and will host the airplane's avionics, maintenance and utility functions. GE and AVIC will continue to service their legacy programs and existing contracts with customers. The agreement is subject to government approvals and the issuance of an operating license.

This 50/50 joint venture represents a significant milestone in the growing aerospace relationship between Chinese aviation industry and GE Aviation since the mid-1980s. Chinese airlines now operate more than 2,500 jet engines produced by GE and CFM International (joint company of GE and Snecma), with an additional 1,000 engines on back order. GE Aviation's collaboration in China also involves investment in a network of facilities for technical training, manufacturing, spare parts distribution, and engine maintenance and overhaul. Additionally, GE is powering China's new ARJ21 regional aircraft and CFMI was selected to power the new Chinese C919 aircraft.

The new GE-AVIC joint venture extends the relationship beyond engines into commercial avionics. It will enable GE and AVIC to grow a business together that will create jobs globally, including hundreds of new jobs in the US, the UK and China.

"GE is extremely pleased and excited to be a part of this unique aviation business. The JV will build on the extensive avionics capabilities of both companies and create a technology center of excellence to serve the commercial aviation market," said David Joyce. "GE's aviation business in China results in 1,800 high-technology jobs in the U.S. The jobs are involved in producing and supporting jet engines for China, as well as developing the new engine and avionics system for the C919."

The joint venture company will be headquartered in China and will be the single route-to-market for integrated avionics systems for both GE and AVIC for new commercial aircraft. Also, GE and AVIC will each provide avionics products to the joint venture company as a customer and distributor.

"The combination of AVIC and GE's aviation experience, technical know-how and people skills will lead to the development of highly competitive commercial avionics products," said Zhang Xinguo. "AVIC is looking forward to a long and successful partnership."

The name of the joint venture is GE-AVIC Civil Avionics Systems Company Limited. The joint venture will have its Chairman and General Manager nominated by AVIC and GE respectively with final approval from its board of directors. The company will be initially located at Zizhu Digital Hub Science Park in Shanghai until a permanent location is secured.

"The joint venture will work to secure systems and other avionics products on future aircraft adding to the overall economic value and jobs created," said Lorraine Bolsinger, president and CEO of GE Aviation Systems. "The JV and C919 program will support and maintain at least 300 high-tech jobs locally in each the US and China. This venture will challenge our team to come up with break-through technology. GE and AVIC will together develop a world-class engineering organization and the JV itself will be creating new IP and new technology. This is a 50/50 partnership; you have to be all in and be very committed."

The initial focus for the joint venture is integrated avionics systems for the C919 aircraft. This selection was formalized in a Letter of Intent with COMAC memorialized in a public signing on July 12, 2010. COMAC anticipates delivering more than 2300 C919 aircraft over the 20-year life of the program. This market potential provides an estimated value for the AVIC GE avionics systems of approximately \$2 billion.

Jeff Immelt, Chairman and CEO of GE and Lin Zuoming, president of AVIC, originally signed the framework agreement on November 15, 2009 regarding the formation of the visionary joint venture and the intention of jointly creating a market-leading integrated avionics system supplier.

Since a major restructuring in November 2008, the AVIC Group has been ranked in the Fortune's Global 500 list with a diversified aviation business portfolio ranging from helicopter-making to plane manufacturing. The company has also developed strong capabilities to supply avionics products to various models of aircrafts, both for **military** and civil use. AVIC has also been active in extensive international exchange and cooperation, viewing all industrial players in the aviation space globally as potential partners.

China Aviation Industry Corporation (AVIC) is an ultra large state-owned enterprise and an investment institution, authorized and managed by the Central People's Government. It is reorganized from AVIC I and AVIC II. The AVIC group oversees a wide range of business units, including **defense**, transport aircraft, aviation engine, helicopters, avionics, electromechanical systems, general aviation aircraft, aviation research and development, flight test, trade & logistics and asset management. It has nearly 200 subsidiaries (branches) and over 20 listed companies with a total of 400,000 employees. AVIC was ranked 330th in the Global Fortune 500 for 2010. It was the first Chinese aviation industrial company to make it into the rarified league. For more information, please visit [www.AVIC.com.cn](http://www.AVIC.com.cn).

## CHINA EASTERN FINALIZES CFM56-5B ENGINE ORDER

December 17, 2010

Zhuhai, China -- In a special ceremony here today, China Eastern Airlines and CFM International formalized the airline's order for CFM56-5B engine to power 30 new Airbus A320 family aircraft. The order, valued at approximately \$600 million U.S at list price, was originally announced at the 2010 Farnborough Air Show and the airline is scheduled to begin taking delivery in March 2011. Together with the engine selection, China Eastern also signed a long-term RPFH (Rate per Flight Hour) agreement with CFM to provide comprehensive maintenance service for the CFM56 engines in the airline's fleet under which CFM will guarantee maintenance costs on a dollar per engine flight hour basis. For its existing fleet, China Eastern has also signed a 15-year material agreement that will provide a full range of new, used, and repaired material offerings tailored to the specific requirements of each individual engine overhaul. China Eastern became a CFM customer in 1994 with an order for five CFM56-5C-powered long-range, four-engine Airbus A340 aircraft. Today, the airline is CFM's largest customer in China, currently operating about 500 CFM56-3/-5B/-5C and -7B engines. "We are honored by China Eastern's selection of the CFM56-5B engine," said Eric Bachelet, president and CEO of CFM. "China Eastern and CFM have a long-standing relationship, and this engine selection demonstrates the continued confidence the airline has in our products and services." The high reliability, long on-wing life, and low maintenance costs of the CFM56-5 make it extremely popular with major airlines, low-cost carriers, and leasing companies worldwide. All of China Eastern's new CFM56-5B engines are of the Tech Insertion configuration. This configuration was introduced in September 2007 and, through October 2010, the fleet of more than 1,600 CFM56-5B engines in service worldwide had logged more than seven million flight hours and four million flight cycles without a single engine-related event.

## AIR CHINA AND CFM FINALIZE ENGINE MRO JOINT VENTURE

December 17, 2010

Chengdu, China-- In early 2007, Air China and CFM International agreed to establish an innovative maintenance repair, and overhaul (MRO) joint venture. In 2010, after three years negotiations, the two companies cleared the final hurdle and have received Chinese government approval for the formation of Sichuan Services Aero Engines Maintenance Company (SSAMC), a 60/40 joint venture between Air China and CFM, located in Chengdu, China. SSAMC will combine Air China's extensive expertise with that of CFM to create a truly world-class maintenance facility. The facility, which previously operated as a Snecma Services overhaul shop, completes 60 to 80 engine overhauls annually. The new joint venture will expand Air China's engineering services, which already provides aircraft maintenance, repair and overhaul services. "Air China's objective is to have the most competitive MRO solutions for its fleet, without any compromise in flight safety," said Senior VP He of Air China. "The partnership with CFM can help both stakeholders to continuously increase their competitiveness globally with their advantages, and to provide the best service for Chinese and worldwide customers."

"This new venture is a perfect example of the type of win-win solutions that airlines and OEMs can implement together," said Eric Bachelet, President and CEO of CFM International. "The combination of Air China's extensive expertise with that of CFM will enable SSAMC to develop and grow to the best level of performance, in terms of quality, turnaround time, EGT margin, and cost." Air China is the Chinese national flag carrier and has been a long-time CFM customer. In the last several years, the airline has grown and expanded its reach to become one of the leading airlines in the country. In addition to the 20 A320 orders formalized at the Zhuhai Air Show, the airline's current fleet includes 55 Airbus A320 and 118 Boeing 737 family aircraft powered by CFM56-5B and CFM56-3/-7B engines, respectively, as well as six long-range, four-engine Airbus A340-300 aircraft powered by the CFM56-5C.



# CHINA EASTERN FINALIZES CFM56-5B ENGINE ORDER

November 17, 2010

Zhuhai, China -- In a special ceremony here today, China Eastern Airlines and CFM International formalized the airline's order for CFM56-5B engine to power 30 new Airbus A320 family aircraft. The order, valued at approximately \$600 million U.S at list price, was originally announced at the 2010 Farnborough Air Show and the airline is scheduled to begin taking delivery in March 2011. Together with the engine selection, China Eastern also signed a long-term RPFH (Rate per Flight Hour) agreement with CFM to provide comprehensive maintenance service for the CFM56 engines in the airline's fleet under which CFM will guarantee maintenance costs on a dollar per engine flight hour basis. For its existing fleet, China Eastern has also signed a 15-year material agreement that will provide a full range of new, used, and repaired material offerings tailored to the specific requirements of each individual engine overhaul. China Eastern became a CFM customer in 1994 with an order for five CFM56-5C-powered long-range, four-engine Airbus A340 aircraft. Today, the airline is CFM's largest customer in China, currently operating about 500 CFM56-3/-5B/-5C and -7B engines. "We are honored by China Eastern's selection of the CFM56-5B engine," said Eric Bachelet, president and CEO of CFM. "China Eastern and CFM have a long-standing relationship, and this engine selection demonstrates the continued confidence the airline has in our products and services." The high reliability, long on-wing life, and low maintenance costs of the CFM56-5 make it extremely popular with major airlines, low-cost carriers, and leasing companies worldwide. All of China Eastern's new CFM56-5B engines are of the Tech Insertion configuration. This configuration was introduced in September 2007 and, through October 2010, the fleet of more than 1,600 CFM56-5B engines in service worldwide had logged more than seven million flight hours and four million flight cycles without a single engine-related event.

# LEAP-X1C LAUNCHED ON NEW C919 AIRCRAFT AIRLINES, LEASING COMPANIES PLACE ORDERS FOR A TOTAL OF 100 AIRCRAFT

November 16, 2010

Zhuhai, China-- Commercial Aircraft Corporation of China (COMAC) and CFM International today announced the launch of the LEAP-X1C-powered C919. Air China, China Eastern, China Southern, Hainan Airlines, CDB Leasing Company, and GE Capital Aviation Services (GECAS) have ordered a combined total of 100 new aircraft with first deliveries scheduled for 2016. "We are obviously honored by the strong show of support from China's major airlines evidenced by these launch orders," said Eric Bachelet, president and CEO of CFM International. "All of them are long-time CFM customers and we look forward to embarking on this exciting new era with them. Over the next few years, we will work closely with COMAC to develop the engine and certify the C919. Ultimately, we look forward to providing these customers with a very smooth entry into service in 2016." COMAC selected CFM's advanced new LEAP-X engine as the sole western powerplant for the C919 in December 2009. COMAC has forecasted global sales of more than 2,000 C919 aircraft over the 20 years following entry into service. The two companies are nearing the completion of the joint definition phase and CFM is on schedule to freeze the LEAP-X design by the end of 2011 and the first full LEAP-X engine will go on test in early 2013. COMAC has opted for a complete Integrated Propulsion System (IPS) for the C919. CFM will provide the engine and, in partnership with Nexcelle, the nacelle and thrust reverser to deliver a complete IPS solution to COMAC. CFM, a 50/50 joint company between Snecma (Safran group) and GE, is the world's largest commercial aircraft engine manufacturer. In 2008, the two companies renewed the partnership to the year 2040. Nexcelle is a 50/50 joint venture between Aircelle (Safran group) and GE's Middle River Aviation Systems.

#### GE AVIATION AND HNA GROUP TO FORM MRO JOINT VENTURE FOR GE'S CF34-10 ENGINES

November 16, 2010

Zhuhai, China -- GE Aviation and the HNA Group today signed a Memorandum of Understanding (MOU) to form a joint venture to provide maintenance, repair and overhaul (MRO) services for GE's CF34-10A and CF34-10E engines. The MRO JV will be located in the Tianjin and operated by HNA Group, with technical support and materials provided by GE Aviation. "The HNA Group, through Hainan Airlines, has been a strong customer for GE and CFM International engines and we are pleased to sign this MOU that will expand our relationship," said Kevin McAllister, vice president and general manager of Global Sales at GE Aviation. "This JV will provide GE's CF34-10A and -10E customers in China the opportunity to receive in-country MRO services and support to keep their engines at peak performance." "We are very excited to sign the MOU with GE to provide services for the GE CF34-10 engines," said Tan Xiangdong, Executive Director of Board, HNA Group. "We look forward to working together to provide outstanding support for our customers." GE's CF34-10A engines will power COMAC's ARJ21 indigenous regional jets, which are scheduled to enter service next year. GE's CF34-10E engines power the EMBRAER 190/195 aircraft and have been in service since 2005. HNA Group is the largest operator of the CF34-10E engine in Asia. The HNA Group is a diversified business group that includes airlines, airports, hotels, logistics, property, retail and tourism. HNA Group is the fourth largest Chinese airline group and a significant GE customer with a fleet of Boeing 737s and Airbus A319s powered by CFM International engines. HNA Group has also ordered GENx-powered Boeing 787s for its expanding international routes.

#### HAINAN AIRLINES SELECTS CFM56-5B TO POWER NEW A320 FLEET

November 16, 2010

Zhuhai, China-- Hainan Airlines, China's fourth largest airline group, today announced that it has selected CFM International's CFM56-5B engine to power 42 new Airbus A320 family aircraft. The entire agreement is valued at approximately \$1.2 billion U.S. at list price, including the firm engine order and a long-term services and support agreement. The airline is scheduled to begin taking delivery in 2012. To support the new CFM56-5B-powered A320 fleet, Hainan has also signed a long-term RPFH (Rate per Flight Hour) agreement with CFM to provide comprehensive engine maintenance service. Under the terms of this agreement, CFM will guarantee maintenance costs on a dollar per engine flight hour basis. Hainan Airlines has been a CFM customer since the airline began operations in 1993, when it took delivery of its first Boeing 737 aircraft. Today, Hainan operates more than 85 Boeing 737-300/-400/-800 aircraft powered by CFM56-3 and CFM56-7 engines. The airline operates more than 500 domestic and international routes to about 90 cities throughout China, Asia, Africa, Europe, and North America. "We are honored that Hainan Airlines has chosen again to make CFM an important part of its long-term operations," said Eric Bachelet, President & CEO of CFM International. "We thank them for their trust and offer them our commitment that we will continue to earn that trust every day." The high reliability, long on-wing life, and low maintenance costs of the CFM56-5B make it extremely popular with major airlines, low-cost carriers, and leasing companies worldwide. All of Hainan's new CFM56-5B engines are of the Tech Insertion configuration. This configuration was introduced in September 2007 and, through October 2010, the CFM56-5B fleet of more than 1,600 engines in service worldwide had logged more than seven million flight hours and four million flight cycles without a single engine-related event.

#### AIR CHINA FINALIZES CFM56-5B ENGINE ORDER

November 16, 2010

Zhuhai, China-- In a special ceremony here today, Chinese flag carrier Air China finalized its order for CFM International's CFM56-5B engine to power 20 firm Airbus A320 aircraft. The engine order, originally announced at the Farnborough Air Show in July, is valued at approximately \$300 million U.S. at list price. Air China, which is scheduled to begin taking delivery of the new aircraft in 2011, is the largest commercial airline in China and has been a long-time CFM customer. In addition to the 20 A320s announced today, the airline's current fleet includes 55 Airbus A320 and 118 Boeing 737 family aircraft powered by CFM56-5B and CFM56-3/7B engines, respectively, as well as six long-range, four-engine Airbus A340-300 aircraft powered by the CFM56-5C. "We are very pleased to continue our long relationship with CFM," He Li, Vice President of Air China noted when placing the order. "We already have a big CFM56-powered fleet of Airbus and Boeing aircraft, and the operating economics and the outstanding reliability of this engine have been enabling us save our costs and assure our customers of the very highest level of service that we can provide." The high reliability, long on-wing life, and low maintenance costs of the CFM56-5B make it extremely popular with major airlines, low-cost carriers, and leasing companies worldwide. All of China Eastern's new CFM56-5B engines are of the Tech Insertion configuration. This configuration was introduced in September 2007 and, through October 2010, the CFM56-5B fleet of more than 1,600 engines in service worldwide had logged more than seven million flight hours and four million flight cycles without a single engine-related event.

#### CFM CELEBRATES 25-YEAR RELATIONSHIP WITH CHINA'S AVIATION INDUSTRY

November 16, 2010

Zhuhai, China-- In 1985, two Chinese airlines, Air China Southwest and China Eastern Yunnan, took delivery of their first Boeing 737s. These airplanes were powered by CFM International's CFM56-3 engines. CFM was a very young company and these were some of its first orders. Since then, Greater China has become one of the largest and most important customer regions for CFM, with 25 Chinese airlines operating nearly 2,030 CFM56 engines powering more than 985 Airbus and Boeing aircraft. In late 2009, the relationship was taken to a whole new level when the Commercial Aircraft Corporation of China (COMAC) CFM's advanced LEAP-X1C engine as the sole Western powerplant for the new C919 single-aircraft on schedule to enter revenue service in 2016.

"We are both honored and humbled by the continued faith China has placed in CFM products and people," said Eric Bachelet, president and CEO of CFM International. "We owe a tremendous debt of gratitude to them for the great success that CFM has achieved. Both Air China Southwest and China Eastern Yunnan were willing to work with us in the early days. Since then, our relationship with China's aviation industry has continued to evolve and flourish and now goes well beyond customer and engine manufacturer. And we are constantly finding new ways to strengthen those ties; the C919 is just the latest example of a truly successful partnership." Since the first engines were delivered 25 years ago, China has become an important supplier base for CFM's parent companies, GE and Snecma. In 2010, these companies will purchase more than \$450 million in engines parts, including the CFM56 product line, from Chinese manufacturers. The quality of these parts has been key to the ongoing success of the CFM product line. One of the world's best aircraft engine maintenance training centers, the Aero Engine Maintenance Training Center (AEMTC), located in the Civil Aviation Flight College, Guanghan City, is a cooperative venture between CFM, the Civil Aviation Administration of China, Snecma, and GE, China Aviation Supplies Imp. & Exp. Group Corporation, Civil Aviation Flight University of China. Since opening its doors in late 1996, the Center has trained more than 8,500 students. The training provided at AEMTC - a state-of-the-art 4,500 square meter facility with six engine shop bays and five classrooms - is equivalent to the training at the CFM centers in the United States, France, and India. All four centers are staffed with

experienced instructors who facilitate exercises in the classroom and hands-on procedures in the engine shop. Each center also provides computer-based training, both self-paced and instructor-led.

#### JOINT C919 DEFINITION PHASE NEARING COMPLETION

November 16, 2010

Zhuhai, China-- CFM International and the Commercial Aircraft Corporation of China (COMAC) have nearly completed the joint definition phase for the advanced C919 single-aisle aircraft/engine combination in preparation for entry into revenue service in 2016. In December 2009, COMAC selected CFM's advanced new LEAP-X engine as the sole western powerplant for the C919. COMAC has forecasted global sales of more than 2,000 C919 aircraft over the 20 years following entry into service in 2016. LEAP-X is a totally new centerline engine formally announced in mid-2008, and the development program has been progressing steadily ever since. CFM is on schedule with engine development work, will begin running a full-scale 5,000-cycle endurance test on the 3-D Woven Resin Transfer Molding (3-DW RTM) composite fan in the third quarter 2010, as well as initiating testing of eCore Demonstrator 2 in mid-2011. The company recently completed a two-phase, 150-hour test program of eCore Demonstrator 1. This development work will culminate in the first full engine, the LEAP-X1C, going to test in early 2013. COMAC has opted for a complete Integrated Propulsion System (IPS) for the C919. CFM will provide the engine and, in partnership with Nexcelle, the nacelle and thrust reverser to deliver a complete IPS solution to COMAC. "The program is coming along very well," said Eric Bachelet, president and CEO of CFM International. "This agreement is the next logical step in what has been a tremendously successful collaboration between CFM, the Chinese aviation industry, and our Chinese airline customers. Today, we are embarking on an exciting new chapter with COMAC and we are honored to be a part of it." CFM, a 50/50 joint company between Snecma (Safran group) and GE, is the world's largest commercial aircraft engine manufacturer. In 2008, the two companies renewed the partnership to the year 2040. Nexcelle is a 50/50 joint venture between Aircelle (Safran group) and GE's Middle River Aviation Systems

#### PARTNERS RENEW AGREEMENT FOR CHINA TRAINING SCHOOL JOINT VENTURE

November 16, 2010

Zhuhai, China-- The Civil Aviation Administration of China (CAAC), Civil Aviation Supplies Holding Company (CAS), Civil Aviation Flying University of China (CAFUC) CFM International (CFM), GE Aviation (GE), and Snecma (Safran group) have jointly renewed the cooperative agreement under which the Aero Engine Maintenance Training Center (AEMTC) operates. The original agreement that established the training center was signed in 1994 and has been extended twice since then. The current extension takes the center through the year 2014. AEMTC, which originally opened on scheduled in 1996 to support operation of CFM56 and GE CF6 engines in China, is located within the CAFUC campus in Guanghan, Sichuan Province. It was the first training center of its kind in China and was the first such world-class training facility outside the U.S. and France. AEMTC trains 500 to 600 students each year and, to date, has graduated more than 8,500 mechanics from Chinese airlines. GE and Snecma have continued to invest in AEMTC over the years to both equip the Center and to expand its capabilities. In addition to helping design the school to U.S. standards, the companies have equipped the school with CFM56-3, CFM56-5B, CFM56-7B and CF6-80C2 training engines, tooling, instructional manuals, and teaching aides. The school curriculum features comprehensive, hands-on courses in basic engine introduction, line maintenance, fan balancing, borescoping, and other skills. The training provided at AEMTC - a state-of-the-art 4,500 square meter facility with six engine shop bays and five classrooms - is equivalent to the training at the CFM centers in the United

States, France, and India. All four centers are staffed with experienced instructors who facilitate exercises in the classroom and hands-on procedures in the engine shop. Each center also provides computer-based training, both self-paced and instructor-led. AEMTC is staffed by two co-leaders and three full-time instructors. CFM International is a 50/50 joint company between Snecma (Safran group) and General Electric Company.

#### 5,000-CYCLE ENDURANCE TEST OF COMPOSITE FAN IMMINENT

November 16, 2010

Zhuhai, China-- Endurance testing of CFM International's advanced 3-D Woven Resin Transfer Molding (3-DW RTM) fan in imminent as development of the advanced LEAP-X engine continues. The fan, along with the composite fan case, with complete the demanding 5,000-cycle endurance test program in the first quarter of 2011. CFM initiated ground test of a full-scale 3-DW RTM fan installed on a CFM56-5C MASCOT (Moteur à Aubes de Soufflante en Composite Taille) demonstrator engine in early 2009. At Snecma (Safran group) facilities in Villaroche, France, MASCOT completed aerodynamic and performance testing before going to GE facilities in Peebles, Ohio. It has successfully logged 165 hours of extensive crosswind and acoustics testing to measure noise levels under various operating conditions. MASCOT will accumulate approximately 400 additional hours full-scale in 2010 and 2011. In addition, CFM has performed scores of component and rig tests, including bird ingestion and blade out tests that simulate certification requirements of the proprietary 3-DW RTM technology. The LEAP-X development program is on schedule for engine certification in 2014. "We have achieved outstanding results, fully in line with our pre-test expectations," said Francois Bastin, LEAP-X program director for CFM International. "We have successfully simulated the complete range of engine certification tests and are confident the technology is ready for production. We will continue to refine and test various blade designs to optimize the final configuration for the first full LEAP-X1C engine test in early 2013."

#### CFM DELIVERS 21,000TH CFM56 ENGINE WHILE RETAINING SOLID DELIVERY BACKLOG

November 16, 2010

Zhuhai, China-- In July 2010, CFM International delivered the 21,000th CFM56 engine as the company continues to maintain record production rates. CFM has been producing more than 1,250 engines per year since 2007 and expects to maintain these rates at least through 2012. Through October 2010, the company had received firm orders for more than 1,500 commercial, military and spare engines and it maintains a backlog is for approximately 5,420 engines, which represents four years of production. "The continued success of the CFM56 program is phenomenal. At our current production rate, there is a CFM56 engine coming off the production line every four hours," said Eric Bachelet, president and CEO of CFM International. "We are honored by the continued confidence airlines around the globe have shown in our products, selecting CFM56 engines to power more Airbus and Boeing single-aisle aircraft than any other engine in history."

#### CHINA'S SPRING AIRLINES EXTENDS CFM56-5B ONPOINT SOLUTION AGREEMENT TO NEW ENGINE ORDER

July 21, 2010

Farnborough, England -- Chinese low-cost carrier Spring Airlines has extended its current OnPoint solution agreement with GE Aviation's Services business for the maintenance and overhaul of the CFM56-5B engines that power the airlines fleet of Airbus A320 aircraft to include the engines powering four additional A320 family aircraft announced earlier today, as well as three additional leased aircraft. The agreement now covers the engines powering the airline's recently announced fleet of 14 purchased A320 as well as 23 leased aircraft. The total agreement (covering all 37 aircraft) is valued at \$300

million of the life of the contract. Spring Airlines, the first low cost carrier in China, is headquartered in Shanghai. As a subsidiary of the Spring International Travel Service Ltd., one of the leading travel service providers in China. OnPoint solutions are customized service agreements tailored to the operational and financial needs of each customer for any size fleet. These agreements are designed to help lower the customers' cost of ownership and maximize the use of their assets. Backed by GE's global support network, OnPoint services may include overhaul, on wing support, new and used-serviceable parts, component repair, technology upgrades, engine leasing, integrated systems support and diagnostics and integrated systems.

#### CHINA EASTERN ORDERS CFM56-5B ENGINE TO POWER A320S SIGNS LONG-TERM MAINTENANCE AGREEMENT

July 19, 2010

FARNBOROUGH, England -- China Eastern Airlines today announced that it has selected the CFM56-5B engine to power 30 new Airbus A320 family aircraft; the airline is scheduled to begin taking delivery in March 2011. The firm engine order is valued at approximately \$600 million U.S at list price. Together with the engine selection, China Eastern also signed a long-term RPFH (Rate per Flight Hour) agreement with CFM to provide comprehensive maintenance service for the CFM56 engines in the airline's fleet under which CFM will guarantee maintenance costs on a dollar per engine flight hour basis. China Eastern became a CFM customer in 1994 with an order for five CFM56-5C-powered long-range, four-engine Airbus A340 aircraft. Today, the airline is CFM's largest customer in China, currently operating about 500 CFM56-3/-5B/-5C and -7B engines. "We are honored by China Eastern's selection of the CFM56-5B engine," said Eric Bachelet, president and CEO of CFM. "China Eastern and CFM have a long-standing relationship, and this engine selection demonstrates the continued confidence the airline has in our products and services." The high reliability, long on-wing life, and low maintenance costs of the CFM56-5 make it extremely popular with major airlines, low-cost carriers, and leasing companies worldwide. All of China Eastern's new CFM56-5B engines are of the Tech Insertion configuration. This configuration was introduced in September 2007 and, through June 2010, the fleet of more than nearly 3,900 in service worldwide had logged more than 17 million flight hours and 9.6 million flight cycles without a single engine-related event.

#### AIR CHINA EXPANDS CFM56-5B-POWERED A320 FLEET WITH NEW ORDER FOR 20 AIRPLANES

July 19, 2010

Farnborough, England -- Chinese flag carrier Air China today announced that it has selected the CFM56-5B engine to power 20 firm Airbus A320 aircraft. The agreement is valued at approximately \$600 million U.S. at list price, including a long-term maintenance agreement. In addition to the new engine order, Air China also signed a Rate Per Flight Hour (RPFH) agreement with CFM to provide comprehensive maintenance service for the CFM56 engines in the airline's fleet under which CFM will guarantee maintenance costs on a dollar per engine flight hour basis. Air China, which is scheduled to begin taking delivery of the new aircraft in 2011, is the largest commercial airline in China and has been a long-time CFM customer. In addition to the 20 A320s announced today, the airline's current fleet includes 55 Airbus A320 and 118 Boeing 737 family aircraft powered by CFM56-5B and CFM56-3/7B engines, respectively, as well as six long-range, four-engine Airbus A340-300 aircraft powered by the CFM56-5C. "We are very pleased to continue our long relationship with CFM," said He Li, Vice President of Air China. "We already have a big CFM56-powered fleet of Airbus and Boeing aircraft, and the operating economics and the outstanding reliability of this engine have been enabling us save our costs and assure our customers of the very highest level of service that we can provide."

The high reliability, long on-wing life, and low maintenance costs of the CFM56-5 make it extremely popular with major airlines, low-cost carriers, and leasing companies worldwide. All of Air China's new CFM56-5B engines are of the Tech Insertion configuration. This configuration was introduced in September 2007 and, to date, the fleet of more than 2,350 in service worldwide has logged nearly 11 million flight hours and six million flight cycles without a single engine-related event. CFM56 Tech Insertion provides operators with a 1 percent improvement in fuel consumption over the life of the product, compared to the base CFM56-5B engine. This lower fuel consumption also significantly lowers CO<sub>2</sub> emissions. Improved analytic design tools have also enabled CFM to further improve the Tech Insertion combustor such that it emits 25 percent lower NO<sub>x</sub> emissions and the engine meets the current International Civil Aviation Organization (ICAO) Committee of Aviation Environment Protection standards (CAEP/6) that took effect in early 2008.

#### GE AND AVIC PROVIDING SYSTEMS FOR CHINA'S FIRST LARGE COMMERCIAL AIRCRAFT COMAC'S C919 AIRCRAFT WILL HAVE LEADING OPEN-ARCHITECTURE AVIONICS

July 12, 2010

Shanghai -- Commercial Aircraft Corporation of China Ltd (COMAC) today announced that GE Aviation Systems and AVIC Systems, the partners to a proposed AVIC GE joint venture, have been selected to provide the avionics core processing system, display system and on-board maintenance system for the newly launched C919 single-aisle aircraft. The AVIC GE joint venture will support COMAC for avionics integration for the C919.

The public signing of the Letter of Intent for the C919 avionics selection was attended by senior management from GE, AVIC and COMAC. AVIC and GE are forming the new joint venture company to develop and market integrated avionics systems to the global commercial aerospace industry, and in particular the avionics systems for the C919.

"China is the world's fastest-growing aviation market and we need to ensure GE and the United States are part of this growth," said John Rice, Vice Chairman of GE. "Our participation helps GE to grow high-tech jobs and capabilities, while serving the aviation market with the latest commercial technology. The C919 program will support hundreds of jobs in US, China and the UK."

The C919 modular avionics system provided by the proposed AVIC GE joint venture will be the central information system and backbone of the airplane's networks and electronics and will host the airplane's avionics, maintenance and utility functions. The system replaces dozens of traditional, standalone computers fitted to aircraft flying today, benefitting in weight savings, improved reliability and reduced operating cost.

Zhang Xinguo, AVIC vice president, said: "We are building a long-term partnership through the joint venture and will provide the C919 with advanced commercial technologies and products for its avionics systems. Although this joint venture is based in China, we anticipate expanding our customer market to the U.S. and other global markets as we work together to achieve mutual business success."

"The C919 will be more advanced than current operating commercial air transport aircraft of the same size. It will use between 12% and 15% less fuel, and help reduce carbon emissions," said Zhang Qingwei, Chairman, Commercial Aircraft Corporation of China. "The GE AVIC open systems architecture avionics enables integration of third-party applications with high integrity and performance."

With this announcement, the proposed AVIC GE joint venture becomes a key supplier for China's first large commercial aircraft, including supporting COMAC for avionics integration. The integrated avionics systems that GE AVIC will provide for the C919 include:

Open-architecture, integrated modular avionics core processing system, Flight deck large-area display system, On-board maintenance system, and the Flight recording system.

"The immediate focus of our joint venture is to jointly offer the best, competitive solutions for the COMAC C919 and we are very happy with this successful outcome," said Lorraine Bolsinger, president and CEO for GE Aviation Systems. "The C919 allows the joint venture to build upon our extensive open-architecture avionics capabilities and to provide our customers with some of the most advanced commercial technology in the world."

GE Aviation and AVIC recently announced the agreement to form a new joint venture company to develop and market integrated avionics systems for commercial aircraft customers.

Jeff Immelt, Chairman and CEO of GE and Lin Zuoming, president of AVIC, signed this framework agreement on November 15, 2009. Definitive documentation is being put in place with the goal of launching the proposed joint venture upon receipt of all required regulatory approvals.

The new COMAC C919 150-passenger aircraft is scheduled to enter commercial service in 2016, with a global market forecast of more than 2,300 aircraft over 20 years.

To learn more about GE news in China, visit <http://www.ge.com/chinanews>.

Commercial Aircraft Corporation of China, Ltd. (COMAC) was established on May 11th 2008 and is headquartered in Shanghai. COMAC is not only for the main body to implement the trunk liner program, but also the platform of the over all planning of main carrier for trunk liner, the development of the regional aircraft and the industrialization of civil aircraft in China.

AVIC has more than 20 years of experience providing integrated avionics systems for various types of aircraft. AVIC has rich experience in developing and manufacturing these systems and providing maintenance service.

Notes to editors

C919 integrated systems: The C919 avionics core processing system includes a state-of-the-art, open-architecture, integrated modular avionics processing system and its associated network which connects all of the aircraft's avionics together. The modular avionics processing system includes GE's flight management technology, adding to the aircraft's overall efficiencies through fuel, noise and emissions reductions.

The AVIC GE joint venture will support COMAC as avionics integration partner for the C919.

The flight deck display system includes large area head-down, head-up and stand-by displays. The on-board maintenance system includes wireless upload and download capability, central maintenance functions and the flight recording system.

## GE'S NAVERUS SUPPORTS EARTHQUAKE AID EFFORTS IN YUSHU DONATES RNP PATHS TO IMPROVE ACCESS FOR EMERGENCY RELIEF EFFORTS

May 3, 2010

Kent, Wash. -- Naverus, part of GE Aviation, announced today it has donated advanced navigation paths at Yushu Airport. The new PBN (performance-based navigation) paths will allow Chinese air carriers to speed relief supplies and emergency response efforts to the earthquake stricken area in the Qinghai Province.

Last week, Naverus worked with the Civil Aviation Administration of China (CAAC) and Air China to quickly authorize and validate the RNP (required navigation performance) paths for Air China's fleet of Airbus A319s. The RNP paths will allow the aircraft to land and take off at the high-altitude airport in periods of poor weather and reduced visibility when conventional navigation methods are ineffective. The new navigation procedures will immediately improve the reliability and frequency of relief flights carrying aid, humanitarian



workers and government officials to the stricken area high in the Qingzang Plateau. Air China anticipates flying the new paths to Yushu as early as this week.

"The new RNP procedures at Yushu will greatly improve the ability of Chinese air carriers to speed sorely needed supplies and relief to the area," said Captain Zhang Jianqiang, deputy director general of flight standards department of CAAC. "It was important to implement these procedures as quickly as possible, and we are very pleased with the response. We are grateful for Naverus' contribution to support the aid efforts," he said.

The devastating 7.1 magnitude earthquake, as reported by the Chinese Earthquake Administration, struck the region on April 14, leaving more than 2,000 people dead and thousands more injured and homeless. Because the airport is located in a remote, mountainous region, access is challenged due to inclement weather and airport restrictions that allow daytime-only aircraft operations. This has made aid delivery to the region difficult and unpredictable.

"Through our extensive work in China, we've gotten a first-hand look at how important all-weather access is for remote areas of China," said Captain Steve Fulton, technical fellow with GE's Naverus business. "When CAAC asked, we didn't hesitate to help. Fortunately, we have experience in that region and were able to use it to speed our response," Fulton said.

The navigation paths utilize an advanced form of PBN called RNP. PBN unleashes the full potential of the aircraft to fly precisely-defined paths without relying on ground-based radio-navigation signals. RNP ensures that the aircraft does not stray from the path, and provides additional navigational flexibility, such as custom-tailored, curved paths through mountainous terrain. Naverus has worked with the CAAC, four Chinese airlines and seven Chinese airports, deploying 85 RNP procedures in China since 2004.

One of the many benefits of RNP is its ability to guide safe, all-weather, day and night aircraft operations at mountainous airports such as Yushu. At 12,800 feet above sea level, and 11 miles outside Gyegu Town, Yushu is among the highest civil airports in China.

#### About Naverus

Naverus Inc., part of GE Aviation Systems, is a global leader in the development and implementation of Performance-based Navigation and is working with aircraft operators and air traffic management providers in China, South and Central America, the United States, Australia, New Zealand, Canada and Europe to implement PBN solutions. Learn more about Naverus at: [www.naverus.com](http://www.naverus.com). GE Aviation, an operating unit of GE (NYSE: GE), is a world-leading provider of jet engines, components and integrated systems for commercial and military aircraft. GE Aviation has a global service network to support these offerings.

### CHINA SOUTHERN AIRBUS A319 COMPLETES RNP VALIDATION AT LHASA -- NAVERUS RNP WILL PROVIDE RELIABLE ACCESS TO ONE OF WORLD'S HIGHEST AIRPORTS

February 5, 2010

Guangzhou, China -- A China Southern Airlines Airbus A319 has successfully completed validation flights at Lhasa Gonggar Airport, China for tailored Performance-based Navigation (PBN) procedures developed by Naverus, a part of GE Aviation. The procedures use an advanced form of PBN, called Required Navigation Performance (RNP), to provide fuel-efficient, all-weather arrival and departure paths at one of the world's highest and most challenging airports. Nestled among the towering Himalayan Mountains, at an elevation of 11,700 feet, Lhasa is the capital of China's Tibet Autonomous Region, and is considered one of the most economically, culturally and historically significant cities in the region. Also, it is among the most challenging flight environments in the world. The Naverus-designed RNP procedures will allow China Southern A319 aircraft to arrive and depart the airport through rugged mountainous terrain, even in adverse weather conditions,

both day and night. Without RNP procedures the airport only is accessible in favorable weather during daylight hours. Earlier this year, China Southern became the world's first airline to fly RNP procedures in a widebody aircraft when it validated Naverus-designed RNP flights at Lhasa in its fleet of Airbus A330s. On January 27, the airline completed the validation flights in its narrow-body Airbus A319. "China Southern's investment in RNP technology allows us to provide superior service to our customers and to provide reliable transportation to this important area of China," said Captain LIU Qian, vice president, China Southern Airlines Company Limited. PBN engages the full potential of the aircraft to fly precisely-defined paths without relying on ground-based radio-navigation signals. RNP ensures the aircraft precisely follows the path and provides additional navigational flexibility, such as custom-tailored, curved paths through mountainous terrain or in congested airspace. RNP procedures can be deployed at any airport, allowing aircraft to fly very precise paths with an accuracy of less than a wingspan. This precision allows pilots to land the aircraft in weather conditions that would otherwise require them to hold, divert to another airport, or even to cancel the flight before departure. In addition, since the procedures are very precise, they can be designed to shorten the distance an aircraft has to fly enroute, and to reduce noise, fuel burn and exhaust emissions. Because of RNP's precision and reliability, the technology can help air traffic controllers reduce flight delays and alleviate air traffic congestion.

#### CFM, COMAC IN JOINT DEFINITION PHASE FOR NEW AIRCRAFT/ENGINE COMBINATION

February 2, 2010

Singapore -- Since the announcement in December 2009 that the Commercial Aircraft Corporation of China (COMAC) had selected CFM International's advanced new LEAP-X engine as the sole western powerplant for its new C919 single-aisle aircraft, the two companies have launched a joint definition phase for the new aircraft/engine combination that will continue throughout 2010. CFM, a 50/50 joint company between Snecma (SAFRAN Group) and General Electric Company, is the world's largest commercial aircraft engine manufacturer. In 2008, the two companies renewed the partnership to the year 2040. COMAC has forecasted a global market for more than 2,000 C919 aircraft over the 20 years following entry into service in 2016. LEAP-X is a totally new centerline engine formally announced in mid-2008, and the development program has been progressing steadily ever since. CFM will continue engine development work, including the second phase of testing for eCore 1, as well as running full-scale endurance tests on the Resin Transfer Molding (RTM) composite fan. This development work will culminate in the first full engine, provisionally called the LEAP-X1C, going to test in early 2013. COMAC has opted for a complete Integrated Propulsion System (IPS) for the C919. CFM will provide the engine and, in partnership with Nexcelle, the nacelle and thrust reverser to deliver a complete IPS solution to COMAC. Nexcelle is a 50/50 joint venture between GE's Middle River Aircraft Systems and SAFRAN Group's Aircelle the two companies launched in 2008.

"We are very pleased to work with CFM on our new C919," said Zhang Qingwei, chairman of COMAC. "The leading-edge technology incorporated in the engine, coupled with all of the benefits of a completely integrated propulsion system, will enable us to build a very competitive airplane for the global market." "The relationship between CFM and China goes back more than 25 years," said Eric Bachelet, president and CEO of CFM International. "This agreement is the next logical step in what has been a tremendously successful collaboration between CFM, the Chinese aviation industry, and our Chinese airline customers. Today, we are embarking on an exciting new chapter with COMAC and we are honored to be a part of it."

#### CFM AND ACAE SIGN MOU FOR LEAP-X1C ASSEMBLY LINE IN CHINA

December 21, 2009

Beijing, China -- CFM International (CFM) and AVIC Commercial Aircraft Engine Company (ACAEC) have signed a Memorandum of Understanding to establish a world-class final assembly line and engine test facility to support the LEAP-X1C engine selected to power the new COMAC C919 150-passenger aircraft scheduled to enter commercial service in 2016. COMAC, which announced the LEAP-X1C engine as the sole western powerplant to launch the C919, forecasts a global market for more than 2,000 aircraft over 20 years. ACAEC and CFM have established a working team to evaluate the scope and feasibility of a LEAP-X1C final engine assembly and test facility in China. This same team will formulate the business plan and develop the legal structure and operating agreement for the proposed joint venture.

#### About ACAEC

ACAEC was founded on January 2009. It is one of the subsidiaries of Aviation Industry Corporation of China (AVIC). As the major force of the aero-engine for the commercial aircraft in China, ACAEC bears the responsibility for commercial aircraft engine and the related products, including R&D, manufacture, final assembly, testing, sales, MRO, service, technological development and consultation.

#### NEXCELLE TO SUPPLY THE NACELLE FOR THE LEAP-X1C INTEGRATED PROPULSION SYSTEM ON CHINA'S COMAC C919 AIRLINER

December 21, 2009

Cincinnati, Ohio -- Nexcelle will be a key partner on the world's first truly integrated propulsion system, providing a highly capable nacelle, thrust reverser and exhaust system for the new CFM International LEAP-X1C engine selected as the sole western powerplant to launch China's COMAC C919 jetliner.

Innovative features available in the Nexcelle design include an advanced inlet configuration, the extensive use of composites and acoustic treatment, and an electrically-operated thrust reverser.

"COMAC's selection of LEAP-X1C for the C919 is an historic choice, enabling this new aircraft to benefit from the full advantages of a next-generation, low-risk integrated propulsion system," said Nexcelle president Steve Walters. "These advantages include reduced fuel consumption through better aerodynamic performance and lower weight, higher in-service reliability, better maintainability – resulting in lower direct operating costs."

The LEAP-X1C integrated propulsion system was conceived through the side-by-side working relationship of Nexcelle and CFM. Nexcelle is a 50/50 joint venture of Middle River Aircraft Systems (MRAS) and Aircelle, whose GE and Safran parent companies also own the 50/50 CFM International (CFM) joint venture.

Nexcelle has modeled its operating practices, collaborative tools and business processes directly on those of CFM International and their shared parent companies. This enables the collaborative development of integrated propulsion systems such as the LEAP-X1C configuration selected for China's C919.

Established in 2008, Nexcelle combines the expertise of its MRAS and Aircelle parent companies in engine nacelle design, systems integration, certification, manufacturing and after-market product support. It teamed earlier this year with CFM, which has become the world's most successful jet engine suppliers – delivering more than 20,000 powerplants for aircraft flown by more than 500 operators worldwide.

"This partnership is strategic to our integrated propulsion system solution, as CFM International and Nexcelle work together to define product requirements and then optimize the propulsion system's capabilities through a shared product development process," Walters said. "This is what integration is really about: it's not just a label or something that can be created overnight."

The LEAP-X1C integrated propulsion system selected for COMAC's C919 includes a totally new centerline engine that was launched by CFM in mid-2008. In its application on

the single-aisle C919, the LEAP-X1C propulsion system is scheduled to enter commercial service in 2016.

About Nexcelle

Nexcelle is creating smart nacelle systems for tomorrow's world travel. Headquartered in Cincinnati, Ohio, USA, the company is a joint venture of Aircelle and Middle River Aircraft Systems (MRAS), which are leading suppliers of engine nacelles, thrust reversers and aerostructures. Through Nexcelle's relationship with CFM International, the company brings unparalleled expertise in the design, development, production and support of integrated propulsion systems for a wide range of aircraft.

About Middle River Aircraft Systems

Middle River Aircraft Systems is one of the top suppliers of jet engine thrust reversers and nacelle systems. The company also produces a variety of specialized structures for major aircraft manufacturers on commercial and military aircraft. Middle River employs a workforce of about 1,000 employees at its Baltimore, Maryland site. In addition to design and manufacturing, Middle River Aircraft Systems provides technical support and spares services for a variety of aerostructures.

About Aircelle

Aircelle is one of the leading players in the global nacelle market and has a workforce of 3,000. It produces large and small nacelles, thrust reversers and aerostructures. The company is expanding its repair and support business, especially on the products that Aircelle has been given after-sales service responsibility directly with operators. Aircelle is a subsidiary of Safran, an international high-technology group with activities in aerospace propulsion, communications, aircraft equipment, **defense** and security.

## CHINA EASTERN COMPLETES RNP VALIDATION FLIGHT IN BOEING 737 AT LHASA

December 18, 2009

Kent, Wash. -- China Eastern this week completed a PBN (Performance-based Navigation) validation flight at Lhasa Gonggar Airport in a Boeing 737. The successful flight is the first RNP AR (Required Navigation Performance) implementation of this aircraft at an airport over 10,000 feet - Lhasa's elevation is 11,691 feet. The new procedures, designed by Naverus, a GE Aviation business, will increase safety and accessibility for China Eastern's fleet of B737s at Lhasa, located in the Tibet Autonomous Region of China.

The new approach and departure procedures allow China Eastern to schedule B737 nighttime operations into Lhasa. Without the RNP AR procedures, China Eastern is only able to operate at Lhasa during daylight hours in good weather. The airport is located in the rugged peaks of the Himalayan Mountains where poor weather is common, causing China Eastern to divert or cancel many of its daily operations into Lhasa. RNP is an advanced form of PBN that ensures the aircraft adheres to a very precise flight path. This allows pilots to land during periods of lower cloud cover, which means fewer flights are diverted.

Earlier this year, Naverus also assisted China Eastern with RNP validation for its fleet of A319s at both Lhasa and Yushu airports. Naverus also has designed and validated RNP procedures at several other Chinese airports, including Linzhi, Bangda and Jiuzhaigou.

PBN unleashes the full potential of the aircraft to fly precisely-defined paths without relying on ground-based radio-navigation signals. RNP ensures the aircraft does not stray from the path, and provides additional navigational flexibility, such as custom-tailored, curved paths through mountainous terrain.

"Naverus congratulates China Eastern on this aviation milestone at Lhasa," said Naverus CEO Steve Forte. "They are committed to providing customers with safer, more efficient flights into their country's terrain-challenged regions."

PBN procedures have the ability to simultaneously improve fuel efficiency, reduce aircraft emissions and noise, improve airspace system capacity and improve airline

reliability. Naverus Inc., a GE Aviation business, is a global leader in the development and implementation of Performance-based Navigation and is working with aircraft operators and air traffic management providers in China, South and Central America, the United States, Australia, New Zealand, Canada and Europe to implement PBN solutions. Learn more about Naverus at: [www.naverus.com](http://www.naverus.com).

## GE AND AVIC JOINT VENTURE CREATES NEW GLOBAL BUSINESS OPPORTUNITIES

November 16, 2009

Beijing -- GE Aviation of the United States and AVIC Systems of China today announced agreement on forming a new joint venture company to develop and market integrated avionics systems for commercial aircraft customers. The announcement was made as part of "GE's Clean Technology Week in China" activities.

Jeff Immelt, Chairman and CEO of GE and Lin Zuoming, president of AVIC, signed a framework agreement for open architecture avionics. Definitive documentation is being put in place with the goal of launching a new JV company by mid-2010, subject to receiving all required regulatory approvals.

"GE has a fabulous history of forming global partnerships that create new global business opportunities," said Immelt. "This builds on one of GE's great strengths. The new company combines GE and AVIC capabilities to develop commercial integrated systems to meet aviation's growing demands. We will utilize the best civil aviation technology, manufacturing capabilities, and management practices to create a globally competitive company."

The new avionics company, to be headquartered in China, will offer fully integrated, open architecture avionics and services for future commercial aircraft programs. GE will build on its extensive avionics capabilities and its China Technology Center in Shanghai to create a technology center of excellence to serve the commercial aviation market.

"The joint venture and cooperation will offer customers highly competitive solutions that will benefit from the expertise of two industry leaders," said Lin. "AVIC and GE will work together to build on the most advanced open architecture avionics in the world for the commercial aviation industry. The joint team will create a competitive company with a global strategy to benefit China and the United States."

"The joint venture creates approximately 200 jobs in the U.S., in addition to creating bilateral industrial cooperation with China," said Lorraine Bolsinger, president and CEO for GE's Aviation Systems business. "Our immediate focus is to jointly bid the best, competitive solutions to compete for the COMAC C919 narrow-body aircraft program. This includes an open architecture Integrated Modular Avionics (IMA) platform."

"Aviation is a national priority in China to everyone's benefit. The joint venture creates a major integrated supplier to airframers worldwide," continued Bolsinger. "Our participation helps the U.S. to grow high-tech jobs and capabilities, while serving the aviation market with the latest technology. This is an exciting opportunity for global careers in commercial avionics."

GE Aviation brings an extraordinary history, experience and knowledge to the joint company, with more than five decades of avionics and integration experience.

Zhang Xinguo, AVIC vice president, said: "AVIC and GE have been actively responding to the requests for C919 key systems by COMAC. We are building a long-term partnership through the joint venture and will provide C919 with advanced technologies and products of avionics systems. The joint venture is based in China but will target the U.S. and the global market as we work together to achieve mutual benefits and win-win."

AVIC has more than 20 years of experience providing integrated avionics systems for various types of aircraft. AVIC has rich experience in developing and manufacturing these systems and providing maintenance service.

## GE AND AVIC JOINT VENTURE CREATES NEW GLOBAL BUSINESS OPPORTUNITIES NEW COMPANY TARGETS FUTURE COMMERCIAL AIRCRAFT PROGRAMS

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"The joint venture and cooperation will offer customers highly competitive solutions that will benefit from the expertise of two industry leaders," said Lin. "AVIC and GE will work together to build on the most advanced open architecture avionics in the world for the commercial aviation industry. The joint team will create a competitive company with a global strategy to benefit China and the United States."

"The joint venture creates approximately 200 jobs in the U.S., in addition to creating bilateral industrial cooperation with China," said Lorraine Bolsinger, president and CEO for GE's Aviation Systems business. "Our immediate focus is to jointly bid the best, competitive solutions to compete for the COMAC C919 narrow-body aircraft program. This includes an open architecture Integrated Modular Avionics (IMA) platform."

"Aviation is a national priority in China to everyone's benefit. The joint venture creates a major integrated supplier to airframers worldwide," continued Bolsinger. "Our participation helps the U.S. to grow high-tech jobs and capabilities, while serving the aviation market with the latest technology. This is an exciting opportunity for global careers in commercial avionics."

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## AVIC AIRCRAFT AND NEXCELLE ANNOUNCE PLANS FOR A NACELLE JOINT VENTURE IN CHINA

September 23, 2009

Beijing, China -- A MOU signed today by AVIC Aircraft Corporation and Aircelle/MRAS/Nexcelle creates the framework for a new joint venture that will design and manufacture engine nacelle and components for a full range of aircraft applications. This MOU, which was signed in Beijing during Aviation Expo China 2009, marks the first step in establishing a long-term alliance focused on engine nacelle technology and the production of nacelle and components to be used on both new and existing aircraft. The accord brings together key aviation industry leaders for collaboration on engine nacelle technology – which is one of the fundamental elements in an aircraft's performance, efficiency and environmental footprint. AVIC Aircraft is responsible for the development of medium/large transport, commercial aircraft and landing gear systems and nacelle in China, while Nexcelle is the nacelle joint venture company created by GE's Middle River Aircraft Systems and Aircelle, a Safran group company. "Our MOU is an important milestone for AVIC Aircraft as we establish new aviation capabilities in China," said Hu Xiaofeng, the president of AVIC Aircraft. "It is important to work with the best partners for crucial technologies such as engine nacelles." AVIC Aircraft and Nexcelle will consider a broad range of nacelle and components manufacturing and design opportunities, including current production programs and for new aircraft. Categories could range from business jets to large airliners. "We are extremely pleased to join with AVIC Aircraft for this long-term cooperation, which opens new prospects to meet evolving air transportation needs in China and elsewhere," stated Nexcelle President Steve Walters. The joint venture will be a 50/50 shared company, and is backed by the resources of Nexcelle's two parent companies – Aircelle and Middle River Aircraft Systems – as well as their parent companies GE Aviation and Safran groups. "This is a significant opportunity to rapidly develop new nacelle capabilities in China, and to work with AVIC Aircraft as it performs a vital role in building the country's aviation sector," added Jean-Pierre Cojan, the Chairman and CEO of Aircelle.

#### GE'S GENx ENGINE PERFORMS WELL DURING CERTIFICATION TESTING

September 23, 2009

Beijing -- GE Aviation's new GENx-2B engine is performing well during engine certification testing. The engine, which will power Boeing's new 747-8 aircraft, has accumulated more than 1500 hours and 1900 cycles during ground testing and more than 150 hours during 29 flight tests on GE's 747 flying testbed.

"We are very pleased with the performance of the GENx-2B engine during ground and initial flight tests," said Tom Brisken, general manager of the GENx program. "We look forward to watching the GENx-powered Boeing 747-8 aircraft take its first flight, ushering in a new era of improved aircraft efficiency."

Optimized for the Boeing 747-8 aircraft, the GENx-2B engine shares a common core and 80 percent of the line-replaceable units with the GENx-1B, which will power Boeing's 787 Dreamliner. The GENx is the fastest selling engine in GE's history with more than 1,200 engines on order.

The GENx engine will have a significant presence in China once it enters service. Four Chinese airlines have selected the GENx-1B engine to power their 787 fleets. These airlines are China Eastern Airlines (15 aircraft), China Southern (10 aircraft), Hainan Airlines (8 aircraft) and Shanghai Airlines (9 aircraft). Each airline has also signed GE Aviation's OnPoint solution agreements for the maintenance, overhaul and repair of their GENx engines.

Based on the proven architecture of the GE90, the GENx engine will succeed GE's CF6 engine. Compared to the CF6 engine, the GENx engine will offer 15 percent improved fuel efficiency, which translates to 15 percent less CO<sub>2</sub>. The engine achieves these improvements with aerodynamic advancements that enable higher pressures and improved energy extraction from a more compact core architecture that has significantly fewer parts.

The GENx's innovative twin-annular pre-swirl, TAPS, combustor will dramatically reduce NOx gases as much as 60 percent below today's regulatory limits and other regulated gases as much as 90 percent. Based on the ratio of decibels to pounds of thrust, the GENx will be the quietest engine GE has produced due to the large, more efficient fan blades that operate at a slower tip speed, resulting in about 30 percent lower noise levels. The GENx will be the world's only jet engine with both a front fan case and fan blades made of carbon fiber composites. Using the same material on the fan case and fan blades enables more precise thermal matching, further enhancing aerodynamic efficiency.

IHI of Japan, Avio SpA. of Italy, Volvo Aero of Sweden, MTU of Germany, TechSpace Aero of Belgium, Snecma (SAFRAN Group) of France and Samsung Techwin of Korea are revenue-sharing participants in the GENx program.

The GENx is part of GE's "ecomagination" product portfolio--GE's commitment to develop new, cost-effective technologies that enhance customers' environmental and operating performance.

#### GE'S CF34 ENGINE HELPS CHINA'S AVIATION INDUSTRY SOAR

September 23, 2009

Beijing -- Flight tests continue for China's first domestically developed regional jet aircraft, powered by GE Aviation's CF34-10A engines. Two ARJ21 aircraft, developed by the Commercial Aircraft Corporation of China, LTD (COMAC), have been flying in the flight test program that began late last year. The aircraft have completed a combined 25 flights and logged more than 45 flight hours. Later this year, a third aircraft will begin flight tests, and next year a fourth flight test aircraft will start flying in support of aircraft certification and entry into service that is scheduled for 2010. GE Aviation provides the complete propulsion system for the ARJ21, including two fuselage-mounted CF34-10A engines. Engine certification testing on the CF34-10A is nearing completion with the fan blade out test scheduled for later this year. GE Aviation plans to submit certification reports to the Federal Aviation Authority by year-end. "Being part of the first indigenous aircraft developed in China has been a rewarding experience for all of us at GE Aviation," said Chuck Nugent, general manager of the CF34 engine program. "Our engineers have forged a strong relationship with the COMAC engineers, and we have learned many valuable lessons." COMAC has taken orders for more than 200 ARJ21 aircraft and estimates a potential for 850 aircraft to be built over the next 20 years. The 70-to-90-passenger ARJ21 aircraft is designed for Chinese and export markets. The aircraft combines Chinese intellectual property with GE engines and airborne systems from leading European and North American companies. Since COMAC selected GE's CF34-10A engine in 2002, the two companies have collaborated closely during the aircraft's detailed design and the aircraft/engine integration phases. The ARJ21 is designed to meet China's diverse environment, specifically the hot temperature and high altitude conditions on many routes in Western China. The CF34-10A technology is ideally suited to this aircraft, with thrust to meet performance requirements and lower-cost, highly reliable operation.

#### GE AVIATION AND TEXTL READY XIAMEN FACILITY FOR GE90 REPAIR WORK

June 15, 2009

Le Bourget -- Taikoo Engine Services (Xiamen) Company Limited (TEXTL), with the help of GE Aviation, is making significant progress toward certification from the Civil Aviation Administration of China (CAAC) of its Xiamen maintenance, repair and overhaul (MRO) facility and anticipates beginning certain repairs on GE90-115B engines by year end. "More than 860 GE90 engines are in service with operators around the world, and the engine is just entering the beginning of the regular maintenance phase of its life cycle," said Tom Gentile, vice president and general manager of GE Aviation's Services organization. "TEXTL will provide GE90-115B operators in the Asian region with high quality repairs and OEM material to help maintain their engine fleets." In 2008, Hong Kong Aircraft



Engineering Company Limited (HAECO) and Taikoo (Xiamen) Aircraft Engineering Company Limited (TAECO), affiliates of the Swire Pacific group, purchased a majority shareholding in GE Engine Services Xiamen Company Limited. The facility was renamed TEXTL. Concurrently, TEXTL signed a 22-year branded service agreement to become the GE Authorized GE90 Service Provider in Asia. The TEXTL facility has more than 3,500 square metres of floor space and an advanced test cell capable of handling the world's largest, most powerful commercial engine, the GE90-115B, which delivers 115,000 lbs. of thrust. TEXTL Chairman PK Chan commented, "TEXTL is pleased to become the GE Authorized GE90 Service Provider in Asia. When TEXTL is operational, the HAECO Group will be capable of providing comprehensive aircraft and engine maintenance services in Xiamen." He further stated, "We are committed to making TEXTL a competitive world-class GE90-115B engine overhaul service provider."

#### GE EXPANDS WITH NEW FACILITY OPENING IN SUZHOU

March 4, 2009

Suzhou, China -- GE Aviation, a unit of General Electric Company (NYSE: GE), today announced the opening of the new systems manufacturing facility in Suzhou, China. Ms. Lorraine Bolsinger, president and CEO for GE Aviation Systems formally opened the facility at the event where senior representatives of the Government of Suzhou, China Aviation Industry Corporation (AVIC) and additional senior government and customer officials were present. "Our Suzhou facility brings state-of-the-art systems manufacturing to the Jiang Su province and its people," said Lorraine Bolsinger. "GE is committed to the continued growth of the region in support of our customers' requirements for the advancement of aerospace systems. Suzhou will play a key role in our mission to deliver competitive and time-critical civil aerospace programs." GE's facility in Suzhou is located at 200 Middle Suhong Road, Suzhou Industrial Park. This new expansion includes 18,600 sq meters (or 200,000 sq ft) and is immediately capable of producing state-of-the-art autoclaved composite parts, mechanical fabrications, structure assembly and civil aircraft actuation systems. Current plans are to ramp China labor in this new GE factory to more than 200 employees in 2009. The facility is a strategic focus in support of key customer requirements, including parts for Boeing's B737, B777 & B787, the Airbus A320, A330 & A340 and China's emerging ARJ21 regional jet, just to name a few. Future plans include the addition of an electronics assembly and test capability. The factory brings great potential to GE and further growth over the next several years is anticipated.

#### CHINESE AVIATION INDUSTRY AIRBORNE WITH GE-POWERED ARJ21 REGIONAL JET

December 01, 2008

Shanghai, China -- With the maiden flight on November 28 of China's first domestically developed regional jet aircraft, the flight test program for the GE-powered ARJ21 aircraft is now underway.

The ARJ21 manufacturer, Commercial Aircraft Corporation of China, LTD (COMAC), deemed the aircraft's hour-long first flight as highly successful, reaching altitudes of 9,000 feet. GE Aviation provides the complete propulsion system for the ARJ21, including two fuselage-mounted CF34-10A engines.

COMAC plans to perform a second demonstration flight later this month, followed by engineering flight tests in early 2009. Also, three additional aircraft will be added to the flight test program next year to support aircraft certification and entry into service in 2010.

COMAC has already taken orders for more than 200 ARJ21 regional jet aircraft and sees a potential market for 850 aircraft over the next 20 years. This represents a potential of more than \$4 billion in CF34 revenue for GE Aviation.

"The ARJ21 first flight is a fantastic accomplishment for COMAC," said David Joyce, president and CEO of GE Aviation. "GE and COMAC have developed a strong relationship in recent years, and our technical collaboration on the ARJ21 has been invaluable."

The ARJ21 will seat 70 to 90 passengers and is designed for Chinese and export markets. The aircraft combines Chinese intellectual property with GE engines and airborne systems from leading European and North American companies. COMAC selected GE's CF34-10A engine in 2002. Since then, GE and COMAC collaborated closely during the aircraft's detailed design and the aircraft/engine integration phases.

The CF34-10A is part of GE's CF34 engine family, which is the best-selling engine in regional jet aviation. More than 5,000 CF34 engines power business jets and regional jets worldwide. The CF34-10A is about 80 percent common with the CF34-10E, which entered service in November 2005 on the EMBRAER 190/195.

The ARJ21 is part of China's dramatic aviation expansion. Fueled by economic growth, revenue passenger miles have increased significantly. There are currently 50 new airports scheduled for construction within China over the next five years to meet the higher demand.

As a result, feeder and point-to-point traffic could grow 12% annually over the next 20 years. The ARJ21 is being designed to meet China's diverse environment, specifically the hot temperature and high altitude conditions on many routes in Western China. The CF34-10A technology is ideally suited to this aircraft, with thrust to meet performance requirements and lower-cost, highly-reliable operation.

GE Aviation activities have grown dramatically in China over the past decade. GE is the China airline industry's largest engine supplier with 1,000 airliners operating in China, powered by engines from GE or CFM International, a 50/50 joint company of GE and Snecma (SAFRAN).

#### ORDER BOOK GROWING FOR CHINA'S GE-POWERED ARJ21 REGIONAL JET AIRCRAFT

November 04, 2008

Cincinnati, Ohio - With GE Commercial Aviation Services' (GECAS) Tuesday order for five-firm, 20-option ARJ21-700 regional jets, Commercial Aircraft Corporation of China, LTD (COMAC) has now taken orders for 206 of its new regional jet aircraft, which are powered by GE Aviation's CF34 engine. COMAC sees a potential market for 850 ARJ21s over the next 20 years - representing a potential to GE of more than \$4 billion in CF34 engine revenues. The growing ARJ21-700 order book bolsters GE's rapidly expanding engine fleet for regional jets worldwide. Today, more than 4,200 CF34 engines power regional jets - a fleet that GE expects to surpass 8,600 CF34 engines by 2018 based on the strong demand for GE-powered regional aircraft. The ARJ21, which seats 70 to 90 passengers, begins flight tests later this year. Shanghai-based COMAC is developing the aircraft for Chinese and export markets. GECAS becomes COMAC's first global aircraft leasing customer. Aircraft deliveries to GECAS will begin in 2013. The first commercial jet aircraft indigenous to China, the ARJ21 combines Chinese intellectual property with GE engines, and airborne systems from leading European and North American companies. COMAC selected GE's CF34-10A engine in 2002. Since then, GE and COMAC collaborated closely during the aircraft's detailed design and the aircraft/engine integration phases. The ARJ21 is part of China's dramatic aviation expansion. Fueled by economic growth, revenue passenger miles have increased significantly. There are currently 50 new airports scheduled for construction within China over the next five years to meet the higher demand. As a result, feeder and point-to-point traffic could grow 12% annually over the next 20 years. The ARJ21 is being designed to meet China's diverse environment, specifically the hot temperature and high altitude conditions on many routes in Western China. The CF34-10A technology is ideally suited to this aircraft, with thrust to meet performance requirements, and lower-cost, highly-reliable operation. GE Aviation activities

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#### GE AVIATION'S PRESENCE IN CHINA CONTINUES TO GROW

November 4, 2008

Zhuhai, China -- GE Aviation continues to increase its presence in China, with close to 2,000 GE and CFM56 engines now in service. An additional 1,000 GE and CFM engines are on order.

"GE Aviation has seen significant increases in engine orders in the region over the last five years to support China's growing aviation segment," said Roger Seager, vice president and general manager of Commercial Aircraft Programs in China. "Our Chinese operators have been extremely pleased with the performance, reliability and durability of the GE and CFM products, and we remain committed to supporting our customers in this region."

The best-selling aircraft in China are the Airbus A320 and Boeing 737 families, which are powered by the CFM56 engines. GE's GEnx engines have been very popular with customers in the region, with orders for 44 787 Boeing Dreamliners with GEnx engines. GE's GE90, CF6 and CF34 engines are also flying with many carriers in the region.

GE is working with Commercial Aircraft Corporation of China (COMAC) on the new ARJ21 aircraft, powered by GE's CF34-10A engine. COMAC has form orders for 85 ARJ21s and sees a market for up to 850 ARJ21s in 20 years, which represents a potential to GE of more than \$4 billion in engine revenues.

As the GE and CFM engine fleets continue to grow in the region, GE Aviation has been very active in training technicians from Chinese airlines and cargo companies on the engine technology and line maintenance needs. By the end of 2008, more than 500 flight-line technicians and propulsion engineers from about 20 Chinese operators will receive training on GE's CF34, GE90, CF6 and GEnx engines as well as CFM56 engines. Training classes are held at GE's Customer Technical Education Center (CTEC) in Cincinnati, Ohio and at the Aero Engine Maintenance Training Center in Guanghan, China, which is supported by GE and Snecma training departments.

GE's customer support offerings include the China Operations Center (CHOC) in Shanghai. The CHOC, which celebrated its two-year anniversary in August, provides 24-hour, seven-day-a-week customer and product support to more than 35 customers in the region. Staffed with highly trained employees who have a wealth of technical expertise, the center has handled more than 1,100 cases this year.

GE Aviation also has been actively increasing its sourcing efforts for jet engine components in China. "Our suppliers in China have demonstrated their commitment to high-quality workmanship," said Seager. "As a result, we focused on strengthening our relationship with key suppliers in the region and increased our sourcing efforts." This year, GE Aviation's direct sourcing efforts will reach \$365 million, which is a 20 percent increase over last year.

GE started doing business in China as early as 1906 and was considered one of the most active foreign companies in the country at the time. In 1908, the first GE light plant was built in Shenyang. Today, the relationship encompasses advanced R&D, including: a new facility in Shanghai; joint ventures in high technology industries such as medical systems, plastics and lighting products; and aircraft engine maintenance facilities, training, and component manufacturing.

GE has 27 manufacturing facilities throughout China and employs more than 12,100 people in China.

#### GE TRAINING HUNDREDS OF JET ENGINE TECHNICIANS FROM CHINESE AIRLINES

April 23, 2008

Evendale, Ohio -- With hundreds of GE and CFM International jet engines being delivered to Chinese airlines and cargo companies, GE Aviation is training a growing number of technicians from Chinese operators of these dramatically expanding fleets.

In 2008 alone, GE and CFM, GE's 50/50 joint company with Snecma (SAFRAN Group) of France, will deliver more than 200 jet engines to 13 China-based airlines and cargo operators. Also this year, more than 500 flight-line mechanics and propulsion engineers from almost 20 Chinese operators will be trained on GE's CF34, GE90, CF6, and GENx engines, as well as CFM's highly popular CFM56 engines.

Training occurs at GE's Customer Technical Education Center (CTEC) in Cincinnati, Ohio, and at the Aero Engine Maintenance Training Center (AEMTC) in Guanghan, China, which is supported by GE and Snecma training departments. (GE, CFM, Snecma, the Civil Aviation Administration of China, and China's Civil Aviation Supply Company jointly created AEMTC.)

Chinese airline technicians are being trained in flight-line engine maintenance, engine removal and installation, and engine borescope procedures. For example, Chinese airlines routinely send a dozen or more technicians at a time to spend at least two weeks at GE's CTEC operation.

"With the GE and CFM engine fleets growing so quickly in China, training is a huge need of our customers and a huge opportunity for us," said Michael Brown, manager of training programs at GE's CTEC operation. "GE's training programs are key in establishing long-term relationships with these Chinese operators."

The CFM56 engine, which already powers more than 650 Airbus A320, Airbus A340, and Boeing 737 aircraft in China, requires the most training focus. And, over the next five years, more than 400 additional CFM-powered aircraft are also slated for delivery in China.

Two new GE engines are also gaining critical exposure in China: the CF34-10A regional jet engine and the new GENx engine. The CF34-10A will power the ARJ21-700 regional jet, which is being developed by China's AVIC 1 Commercial Aircraft Co., Ltd. (ACAC). In 2006, four China-based airlines ordered a total of 42 Boeing 787 Dreamliners powered by the GENx-1B engine.

GE's CTEC operation has recently added the GENx to its training curriculum. Training groups from China Southern, China Eastern, Shanghai Airlines and Hainan Airlines are experiencing hands-on sessions for the GENx program this year.

Air travel growth in China, where 44 new airports are scheduled for construction over the next five years, continues to outpace airplane supply. In 2007 alone, domestic airline traffic grew by 18 percent in China, while international airline traffic grew 11 percent.

GE Aviation or CFM International operate facilities in Beijing, Shanghai, and Guanghan. In addition, GE Aviation's purchase of jet engine components in China reached \$284 million in 2007, a 100 percent growth in three years.

#### CFM DELIVERS THE 18,000TH CFM56 ENGINE

February 19, 2008

Singapore -- CFM International, a 50/50 joint company between Snecma (SAFRAN Group) and General Electric and one of the most successful aircraft engine suppliers in history, has delivered the 18,000th CFM56 engine. At the current production rate, the 19,000th CFM56 engine will be delivered in 2008, as well. The engine, a CFM56-5B, was delivered to Airbus on February 8th to be installed on an Airbus A320 aircraft that will be leased to China's Shenzhen Airlines. "Eighteen thousand engines is an incredible milestone," said Eric Bachelet, president and CEO of CFM International. "We are certainly very proud of the products we bring to the industry, but we also know we owe the tremendous debt of gratitude to our nearly 500 customers around the world, as well as to Airbus and Boeing, for our continued success and we thank them all for their confidence in our people and in our products." CFM has long-standing relationships with the two airplane

manufacturers and each has made tremendous contributions to the company's long-term success. The first CFM56 engine, a CFM56-2, was delivered in 1982 to power a re-engined DC-8-71 airplane.

#### GE JET ENGINE BACKLOG CLIMBS TO \$5 BILLION IN CHINA

January 21, 2008

Evendale, Ohio and Beijing, China -- GE Aviation and CFM International, GE's 50/50 joint company with Snecma (SAFRAN Group) of France, today announced that combined jet engine orders in China in 2007 surpassed more than 420 engines, adding to GE's dramatically growing presence in the country.

GE and CFM engine orders in 2007 in China are valued at more than \$1 billion at list price, spanning engines for regional jets to jumbo jet airliners. The value of the GE engine backlog in China has grown to approximately \$5 billion (list price).

Air travel growth in China, where 44 new airports are scheduled for construction in the next five years, continues to outpace airplane supply. In 2007 alone, domestic airline traffic grew by 18 percent in China, while international airline traffic grew 11 percent.

"In aviation, you establish very long-term relationships," said Scott Donnelly, president and CEO of GE Aviation, headquartered in Evendale, Ohio. "In the past five years, GE Aviation has emerged as the leading engine supplier in China with a fast-growing support structure to handle these new fleets."

#### Regional jet boom

In late December, Kunpeng Airlines selected 50 firm, 50 option ARJ21-700 regional jets from China's AVIC1 Commercial Aircraft Co., Ltd. (ACAC). The ARJ21, powered by GE's CF34 engine, is being developed for Chinese and export markets. To date, ACAC has firm orders for 85 ARJ21s, and sees a market for up to 850 ARJ21s in 20 years, representing a potential to GE of more than \$4 billion in engine revenues. The aircraft's first flight is slated for the first half of 2008.

GE has hosted more than 200 executives and middle managers from China's AVIC 1 and the Chinese airlines for training courses at GE facilities in New York and Ohio. The training model, which includes a curriculum that focuses on HR, financial practices and governance, is unique to GE and has helped to deepen relationship in China.

#### Large aircraft sales continue strong

Clearly, the best-selling airliners in China are the single-aisle Airbus A320 and Boeing 737 families. CFM International powers more than 600 single-aisle Airbus and Boeing aircraft in service with Chinese airlines, and has nearly 400 more single-aisle aircraft on order. The CFM engine backlog in China approaches 900 engines.

While GE powers about 27 twin-aisle jumbo jets in the Chinese airline fleets, it has been selected for another 70 jumbo jets on order, including 44 787 Boeing Dreamliners with the GENx engine.

#### Commitment to China

GE Aviation or CFM International now operate facilities in Beijing, Shanghai, Guanghan, and Xiamen. In addition, GE Aviation's purchase of jet engine components in China reached \$284 million in 2007, a 100 percent growth in three years.

GE began working with Chinese industry in 1910, when the first GE light bulb was produced there. Today, the relationship encompasses advanced R&D, including: a new facility in Shanghai; joint ventures in high technology industries such as medical systems, plastics and lighting products; and aircraft engine maintenance facilities, training, and component manufacturing.

GE has formed more than 30 different joint ventures and employs more than 9,000 people in China, representing a \$1.5 billion investment.

#### CHINA'S SPRING AIRLINES SELECTS CFM56-5B TO POWER A320 FLEET

January 16, 2008

Evendale, Ohio -- China's Spring Airlines has signed a Memorandum of Understanding (MOU) to purchase CFM56-5B engines to power its new fleet of 10 Airbus A320 aircraft in an engine order valued at approximately \$170 million at list price, including spare engines. The airline is scheduled to begin taking delivery in March 2009. CFM56-5B engines are a product of CFM International (CFM), a 50/50 joint venture between Snecma (SAFRAN Group) and General Electric Company and the world's leading supplier of commercial aircraft engines. Spring Airlines, the first low cost carrier in China, is headquartered in Shanghai. As a subsidiary of the Spring International Travel Service Ltd., one of the leading travel service providers in China, the airline began operation in 2005 and has been profitable since then with passenger load factor as high as 95% and its CFM56 fleet has kept a very high safety standard. In addition to the purchased A320s, the airline has also signed an agreement to lease 12 additional CFM56-5B-powered Airbus A320 aircraft, which are scheduled for delivery between 2009 and 2012. "We're pleased to continue our relationship with CFM International and are very satisfied with the excellent performance of CFM56 engines," said Wang Zhenghua, Chairman of Spring Airlines. "The engine's low cost of ownership has been a strong contributor to our ability to implement a long-term growth strategy." "We are obviously honored by Spring Airlines' continued confidence in the CFM56 product line," said Eric Bachelet, President and CEO of CFM International, "We look forward to growing and improving this relationship for many more years to come."

#### CHINA'S SPRING AIRLINES SIGNS 15-YEAR ONPOINT SOLUTION AGREEMENT January 16, 2008

Evendale, Ohio -- Chinese low-cost carrier Spring Airlines has signed a 15-year OnPoint solution agreement with GE Aviation's Services business for the maintenance and overhaul of the CFM56-5B engines that power the airlines fleet of Airbus A320 aircraft. The agreement, which covers the engines powering the airline's recently announced fleet of 10 purchased A320 as well as 20 leased aircraft, is valued at more than \$200 million of the life of the contract. Spring Airlines, the first low cost carrier in China, is headquartered in Shanghai. As a subsidiary of the Spring International Travel Service Ltd., one of the leading travel service providers in China, the airline began operation in 2005 and has been profitable since then with passenger load factor as high as 95% and its CFM56 fleet has kept a very high safety standard. OnPoint solutions are flexible, long-term commitments designed to meet customers' unique engine services needs. Backed by GE's world-class support, these solutions help lower our customers' cost-of-ownership and maximize the use of their assets. Available OnPoint services include overhaul, on wing support, new and used serviceable parts, component repair, technology upgrades, engine leasing and diagnostics.

#### CHINA AVIATION INDUSTRY ROLLS OUT GE-POWERED ARJ21-700 REGIONAL JET WITH MAJOR ORDER December 21, 2007

Shanghai, China -- AVIC1 Commercial Aircraft Co., Ltd. (ACAC) rolled out its new 90-passenger, GE-powered ARJ21-700 regional jet today at the Shanghai Aircraft Company assembly plant before enthusiastic Chinese government and aviation leaders. At the ceremony, Kunpeng Airlines, a new regional airline in China, announced orders for 50 firm and 50 option ARJ21-700 regional jets.

China's ACAC developed the aircraft for both the Chinese and export markets. To date, ACAC has taken firm orders for 85 ARJ21 aircraft, powered by the GE CF34-10A engine.

ACAC sees a potential market for 850 ARJ21s over the next 20 years, representing a potential to GE of more than \$4 billion in engine revenues.

"The roll-out is another important milestone in the growing relationship between China's rapidly expanding aviation industry and GE," said Scott Donnelly, president and CEO of GE Aviation, headquartered in Evendale, Ohio.

In 2002, ACAC selected GE's CF34-10A engine to power the ARJ21-700, and since then, GE and the ACAC have collaborated closely during the aircraft's detailed design and the aircraft/engine integration phases. The aircraft is scheduled to begin flight tests in the first half of 2008.

U.S. Federal Aviation Administration (FAA) certification of the CF34-10A is targeted for late 2008. The engine ran for the first time this past October and achieved more than 20,000 pounds of thrust.

The CF34-10A is part of GE's CF34 engine family, which is the best-selling engine in regional jet aviation. More than 5,000 CF34 engines power business jets and regional jets worldwide. The CF34-10A is about 80 percent common with the CF34-10E, which entered service in November 2005 on the EMBRAER 190/195.

The ARJ21 is part of China's dramatic aviation expansion. Fueled by economic growth, revenue passenger miles have increased significantly. There are currently 50 new airports scheduled for construction within China over the next five years to meet the higher demand.

As a result, feeder traffic - the segment serviced by regional jets - could grow 12% annually over the next 20 years. The ARJ21 is being designed to meet China's diverse environment, specifically the hot temperature and high altitude conditions on many routes in Western China. The CF34-10A technology is ideally suited to this aircraft, with thrust to meet performance requirements, and lower-cost, highly-reliable maintainability.

GE Aviation activities have grown dramatically in China over the past decade. GE is the China airline industry's largest engine supplier with almost 1,000 airliners operating in China, powered by engines from GE or CFM International, a 50/50 joint company of GE and Snecma (SAFRAN).

GE Aviation or CFM International operate now facilities in Beijing, Shanghai, Guanghan, and Xiamen. In addition, GE Aviation's purchase of jet engine components in China exceeded \$200 million in 2007, a 100 percent growth in three years.

GE began working with Chinese industry in 1910, when the first GE light bulb was produced there. Today, the relationship encompasses advanced R&D, including: a new facility in Shanghai; joint ventures in high technology industries such as medical systems, plastics and lighting products; and aircraft engine maintenance facilities, training, and component manufacturing.

GE has formed more than 30 different joint ventures and employs more than 9,000 people in China, representing a \$1.5 billion investment.

#### GE'S CF34 ENGINES CELEBRATE 15 YEARS OF POWERING REGIONAL JETS October 17, 2007

Evendale, Ohio -- Fifteen years ago, a new era in aviation began with regional jets powered by GE's CF34 engines. Today, more than 3,600 CF34 engines are in service, having accumulated more than 40 million engine hours, as they continue to be one of the cleanest, quietest and most fuel-efficient engines in their class.

The launch of the CF34-3 engine on the Bombardier CRJ100 aircraft in 1992 was a significant departure for commercial airline operation. The engine allowed carriers to strengthen their hub and spoke networks and enabled the growth of many regional airlines in North America and Europe.

Since 1992, GE has invested in new technology for the CF34 and developed a successful engine family to power regional jets that can carry up to 118 passengers.

The CF34-8 engine is the fastest selling engine in the CF34 family. With more than 1,200 engines in service with 40 operators, the engine powers the Bombardier CRJ700 and CRJ900 aircraft as well as the Embraer E170 and E175 aircraft. Earlier this year, GE

announced the new CF34-8C5A2 engine would be offered on the new Bombardier CRJ1000 regional jet. The new engine derivative will be rated at the same 14,510 pounds of thrust as the original CF34-8C5, but with a greater thrust capability at takeoff. The engine will include software modifications to the engine control to provide additional thrust, as well as an upgraded high-pressure turbine (HPT) for greater durability. The HPT advances will become standard production hardware for the CF34-8 family of regional jet engines. Engine certification for the CF34-8C5A2 is targeted for early 2009.

The CF34-10E engine that powers the Embraer E190 and E195 entered service in 2005 and has more than 200 engines in service with 11 operators. The engine has the highest thrust rating for the CF34 family with 20,000 lbs. of thrust and includes many advanced technologies, including a single stage high-pressure turbine, advanced wide chord fan blades, advanced 3-D aero compressor and turbine airfoils and chevron exhaust nozzles.

The CF34-10A engine has been selected to power China's ARJ21 aircraft now in development by the AVIC I Commercial Aircraft Company. The first engine to test (FETT) for the CF34-10A started testing on schedule last week at GE's Peebles, Ohio, outdoor test facility and reached about 70 percent of take-off power. The CF34-10A is based on the CF34-10E with approximately 80 percent common design/hardware. The advanced engine technology will not only provide the thrust capability to meet aircraft performance requirements, but will also give customers low-cost operations with a highly reliable, easily maintainable propulsion system. The ARJ21 aircraft is scheduled to roll-out in December with first flight set for first quarter 2008 and entry into service in 2009.

GE continues to invest in the CF34 engine and has introduced several technology upgrades. The CF34-3A1 engine has an upgrade that converts it to a CF34-3B1 engine and offers customers improved fuel burn and climb thrust capability. The CF34-3B1 engine upgrades include advanced material and coatings on the high pressure turbine blade, nozzles and shrouds for improved durability and longer time on wing. An upgrade for the CF34-8C1 fleet infuses advanced technology and improved durability components from the -8C5 engine into the existing engines to create a common engine for the CRJ700 and CRJ900 aircraft.

#### GE AVIATION'S CHINA OPERATIONS CENTER CELEBRATES FIRST ANNIVERSARY

October 09, 2007

Shanghai, China -- GE Aviation is celebrating the first anniversary of the China Operations Center (CHOC) which opened in Shanghai in 2006 to provide dedicated customer and product support for China's growing aviation market. The CHOC complements the GE Aviation Customer Support Center based in Cincinnati, Ohio, and supports all GE and CFM56 engine models. In addition to technical line and shop maintenance support, the CHOC also provides expanded services such as in-country technical and spare part AOG (aircraft on the ground) support, lease engine dispatch, and fleet data management, as well as enhanced support for smaller operators. The center also integrates OnPoint Diagnostics (health monitoring) with the product support elements to develop proactive solutions to fleet issues. GE anticipates that the CHOC will cover more than 80 percent of the China fleet with Diagnostics service, covering 11 GE/CFM product lines, by June 2008. "In its first year of operation, the CHOC has been a huge benefit to our customers in the region," said Mike Wilking, president, China Region, for GE - Aviation. "Coupled with the Spare Parts Service Center in Beijing, the Aero Engine Maintenance Training Center in Guanghan City, and the On Wing Support operations in Xiamen, GE is providing a comprehensive package that is helping our customers continue to succeed in an increasingly competitive and dynamic industry." Each of the Technical Support Engineers (TSEs) manning the center has extensive aviation experience within China and completed an intensive 15-week training program at the Customer Support Center,



including immersion training and hands-on support experience. GE Aviation's OnPoint Diagnostics program has two levels of services: Standard Diagnostics which is available without charge to all GE and CFM engine operators and customizable Comprehensive Diagnostics that includes engine trend reports to assist an operator with its regulatory reporting and engine exceedance and fault troubleshooting.

#### AIR CHINA PLACES \$345 MILLION CFM56-5B ENGINE ORDER

January 29, 2007

Evendale, Ohio -- Chinese flag carrier Air China has selected the CFM56-5B engine to power its new fleet of 24 Airbus A321s. The engine order is valued at approximately \$345 million at list price and the airline will take delivery between 2008 and 2012.

CFM56-5B engines are a product of CFM International (CFM), a 50/50 joint venture between Snecma (SAFRAN Group) and General Electric Company and the world's leading supplier of commercial aircraft engines.

Air China Limited has been a CFM customer since 1986 and operates more than 100 CFM56-powered aircraft, including Airbus A319s and A340-300s, as well as Boeing Classic 737-300s and Next-Generation 737-600/-700/-800 aircraft.

In addition to the engine order, Air China will sign a 15-year maintenance agreement covering engine overhaul and repair of its new engines. For the existing fleet, Air China will sign a 15-year material agreement that will provide the airline with a full range of new, used, and repaired material offerings tailored to the specific requirements of each individual overhaul. Also, Air China and CFM have agreed to establish an innovative maintenance repair, and overhaul (MRO) joint venture that will combine the airline's extensive expertise with that of CFM and its parent companies, Snecma and GE, to create a truly world-class maintenance facility.

"This is a great new phase in our relationship with Air China," said Mike Wilking, vice president, China region, for CFM. "We're honored both by their continued confidence in our products and by the opportunity to be such an integral part of their overall operations going forward."

The CFM56-5B is the engine of choice for the Airbus A320 family and is popular with major airlines, low-cost carriers, and leasing companies alike. More than 2,450 CFM56-5B engines have been delivered to date, and the fleet is growing at a rate of about 32 engines per month. Primary factors behind the engine's broad-based market acceptance include this industry's best reliability, durability, low cost of ownership, and world-class customer and product support. The CFM56-5B is the only engine that can power every model of the A320 family, from the small A318 up to the A321, with the same bill of materials.

For more information on CFM International, visit us at [www.cfm56.com](http://www.cfm56.com).

Air China Limited (Air China) is the national flag carrier of China and a leading provider of air passenger, air cargo and airline-related services in China. Its operational head office is in Beijing. It has an extensive route network serving major Chinese cities and international destinations, with dominant market share measured by total traffic volume for the Beijing Capital International Airport. It also provides airline-related services, including aircraft maintenance, ground services and in-flight catering services in Beijing, Chengdu, Hong Kong and other locations through its own business units and joint ventures. As of 31 December 2006, it operated a fleet of 207 aircraft, serving 77 domestic and 38 international and 1 regional Airports.

Air China was listed on the Hong Kong Stock Exchange and the London Stock Exchange on 15 December 2004 under codes 0753 and AIRC respectively. On 2 July 2006, Air China debuted its American Depositary Receipt (ADR) listing on the New York Stock Exchange under the code AIRYY. On 16 August 2006, Air China was listed on the Shanghai Stock Exchange under code 601111. On 4 August 2004, Air China was designated as the sole official airline partner of the Beijing Olympic Games.

## GE MAKES A BIG PLAY IN CHINA COMMERCIAL AVIATION THROUGH GENx WINS

October 10, 2006

Evendale, Ohio -- Since August, General Electric Company has won a series of significant jet engine orders in China, including four of five competitions in that country to power the new Boeing 787 Dreamliner. Five Chinese airlines have firmed up 787 orders for a total of 57 aircraft. Four airlines selected 42 of those aircraft with the GENx engine now under development. GENx wins in China are: China Eastern Airlines (15 787s), Hainan Airlines (8 787s), Shanghai Airlines (9 787s), and China Southern (10 787s). Aircraft deliveries begin in 2008. The 84 installed GENx engines for the Chinese airlines are valued at more than \$1 billion. These engines will be maintained under GE OnPoint SolutionSM agreements. Scott Donnelly, president and CEO of GE-Aviation, attributes much of this success to the GENx's technical attributes, as well as to the outstanding performance of GE90 engines powering Boeing 777s worldwide. The GENx is based on the architecture of the higher-thrust GE90 engine, which also powers China Southern's fleet of 777s. In addition, Chinese airlines operate or have on order more than 500 Airbus A320s and Boeing 737s powered by the CFM56 engine. CFM International, a joint company of GE and Snecma Moteurs, produces the CFM56 engine family. "The airlines in China are very comfortable working with GE," Donnelly added. GE - Aviation's growing presence in China is reflected by its investments there. In 2006, GE will purchase approximately \$200 million in jet engine components in the China region. In addition, GE recently opened a China Operations Center in Shanghai to provide around-the-clock customer and product support. The entry into service later this decade of China's ARJ21 regional jet, powered by GE's CF34 engine, will create further GE opportunities for investment in China. The purchase by four Chinese airlines of the GENx further establishes it as the best-selling engine for the Boeing 787. Selected for three new wide-body aircraft under development, the GENx has orders exceeding 770 engines. The GENx engine will succeed GE's CF6 engine family, which is the most reliable and best-selling engine on wide-body aircraft. It provides significantly better specific fuel consumption and payload performance than GE's CF6 engines. Testing began earlier this year on the GENx engine, with engine certification scheduled for 2007.

## CHINA CARGO AIRLINES SIGNS \$28 M. OnPoint AGREEMENT WITH GE

September 21, 2006

Evendale, Ohio -China Cargo Airlines has signed a 10-year, \$28 million OnPoint Solutions agreement with GE for the overhaul and maintenance of its nine CF6-80C2 engines that will power its two Boeing 747-400 aircraft. China Cargo Airlines is the first Chinese airline specializing in cargo and mail transport and operates out of Shanghai Hongqiao International Airport and Shanghai Pudong International Airport. The cargo carrier's freighter fleet consists of six MD-11 freighters, one 747-200 freighter as well as the new 747-400 freighters, which will begin flying later this month. OnPoint Solutions are flexible, long-term commitments designed to meet customers' unique engine service needs. Backed by GE's world-class support, these solutions help lower our customers' cost of ownership and maximize the use of their assets. Available OnPoint services include overhaul, on-wing support, new and used parts, component repair, technology upgrades, engine leasing and diagnostics.

## CHINA EASTERN AIRLINES SELECTS GENx ENGINES FOR ITS BOEING 787 DREAMLINER FLEET

September 18, 2006

Evendale, Ohio -- China Eastern Airlines has selected GE-Aviation's GENx engine to power its 15 Boeing 787 Dreamliner aircraft.

The value of the GENx engines ordered is approximately \$370 million. Aircraft delivery will begin in June 2008. China Eastern has also reached a 15-year OnPoint Solutions maintenance agreement with GE for its GENx fleet.

With this order, China Eastern Airlines is the fourth Chinese airline to select the GENx engine for its 787 fleet.

China Eastern, based in Shanghai, is one of the three largest airlines in China and the largest GE/CFM customer in China. The airline will deploy the new 787s for its expanding international routes.

"We have selected the GENx engine to power our Boeing 787 fleet based on a comprehensive evaluation of products and technologies," said Mr. Luo Cao Geng, President of China Eastern Airlines. "We are expecting a long and very close cooperation with GE in operating and maintaining our Boeing 787 fleet as one of the best fleets in the world."

"We are excited about China Eastern Airlines' selection of the GENx engine," said Scott Donnelly, President and CEO of GE-Aviation. "China Eastern Airlines and GE have a long-standing relationship, and this selection attests to the confidence the airline has in our products and services."

The GENx is the best-selling engine for the Boeing 787. Selected for three new wide-body aircraft under development, the GENx has orders exceeding 750 engines.

Based on the highly successful GE90 architecture, the engine will succeed GE's CF6 engine family, which is the most reliable and best-selling engine on wide-body aircraft. It provides significantly better specific fuel consumption and payload performance than GE's CF6 engines. Testing began earlier this year on the GENx engine, with engine certification scheduled for 2007.

The GENx engine is the world's only jet engine with both a front fan case and fan blades made of composites, which provide for greater engine durability, weight reduction and lower operating costs. The fan blades will utilize GE90 composite technology that has performed well, with no routine on-wing maintenance required and no in-service issues for more than a decade. The GENx will operate with 18 fan blades (50 percent fewer than the CF6) at noise levels lower than any large GE commercial engine. The GENx also features a new combustor for efficient fuel mixing before ignition, resulting in significantly lower oxides of nitrogen (NOx) levels.

The GENx is part of GE's "ecomagination" product portfolio--GE's commitment to develop new, cost-effective technologies that enhance customers' environmental and operating performance.

#### GE - AVIATION LAUNCHES NEW CUSTOMER SUPPORT CENTER IN CHINA September 14, 2006

Shanghai, China - GE - Aviation has opened a new China Operations Center (CHOC) here to provide dedicated customer and product support for the country's growing aviation market. The Center officially began 24-hour, seven day a week operations on August 10. "There are more than 1,600 GE and CFM56 engines in service in China. With the opening of the China Operations Center, we now support that fleet locally," said Tony Aiello, general manager of Customer and Product Support for GE - Aviation. "The Center is staffed by highly trained Chinese nationals who bring a wealth of technical expertise to the role and eliminate any potential language barriers. We're offering a menu of services that translates to a 'one-stop shop' and even better support for our customers including OnPoint Diagnostics." The CHOC mirrors the Customer Support Center based in Cincinnati, Ohio, and supports all GE and CFM56 engine models. In addition to technical line and shop maintenance support, the CHOC also provides expanded services such as in-country technical and spare part AOG (aircraft on the ground) support, lease engine dispatch, and fleet data management, as well as enhanced support for smaller operators. The center integrates engine diagnostics (health monitoring) with the product support elements to

develop proactive solutions to fleet issues. "This new center is a logical extension of GE's support of our customers in China," said Mike Wilking, president, China Region, for GE - Aviation. "Coupled with the Spare Parts Service Center in Beijing, the Aero Engine Maintenance Training Center in Guanghan City, and the On Wing Support operations in Xiamen, GE is providing a comprehensive package that will help our customers continue to succeed in an increasingly competitive and dynamic industry." Each of the nine Technical Support Engineers (TSEs) has extensive aviation experience within China and completed an intensive 15-week training program at the Customer Support Center, including immersion training and hands-on support experience.

#### HAINAN AIRLINES SELECTS GENx ENGINES FOR ITS BOEING 787 DREAMLINER FLEET

September 14, 2006

Evendale, Ohio -- Hainan Airlines has selected GE-Aviation's GENx engine to power its eight Boeing 787 Dreamliner aircraft. The GENx engine order is valued at more than \$200 million. Aircraft delivery will begin in 2008. Hainan Airlines has also reached an OnPoint Solutions agreement with GE for the maintenance of its GENx fleet. Hainan Airlines, headquartered in the tropical Hainan province, China, is the fourth largest airline group in China and a significant GE customer with a fleet of Boeing 737s and Airbus A319s powered by CFM International (50/50 joint company of GE and Snecma Moteurs) engines. Hainan Airlines will deploy the new 787s for its expanding international routes. "We are very excited to select the GENx for our 787 fleet," said Wang Jian, Vice Chairman of Hainan Airlines. "The GENx engine has advanced, proven technologies that will help us maintain a low cost of ownership for our new aircraft." "Hainan Airlines and GE have a solid working relationship," said Scott Donnelly, President and CEO of GE-Aviation. "The selection of the GENx engine for the airlines' new 787 aircraft will help us further enhance our relationship."

#### SHANGHAI AIRLINES SELECTS GENx ENGINES FOR ITS BOEING 787 DREAMLINER FLEET

August 25, 2006

Evendale, Ohio -- Shanghai Airlines has reached agreement with GE - Aviation to purchase the GENx engine to power its 9 Boeing 787 Dreamliner aircraft. The first aircraft delivery scheduled for June 2008 will be one of the first GENx-powered Boeing 787 aircraft delivered worldwide. Shanghai Airlines will deploy the new 787s for its expanding international routes. The GENx engine order is valued at more than \$220 million. Shanghai Airlines has also reached an OnPointSM Solutions service agreement with GE for the maintenance of its GENx fleet. Shanghai Airlines, based in Shanghai, China, the first commercial airline and the first Star Alliance airline in China, is a significant GE customer with a fleet of Boeing 737s and Bombardier CRJs powered respectively by CFM International (50/50 joint company of GE and Snecma Moteurs) and GE engines. "We are pleased to expand our cooperation with GE," said Zhou Chi, Chairman of Shanghai Airlines. "GE's proven reliability and performance, coupled with the low cost of ownership of the engines, will make GENx engines an integral part of Shanghai Airlines' international growth strategy." "We are extremely gratified with the confidence that Shanghai Airlines has put in the GENx engine," said Scott Donnelly, President and CEO of GE - Aviation. "We cherish the great relationship that GE and Shanghai Airlines have built up over the years, and we are fully focused on enhancing it."

#### CHINA SOUTHERN SELECTS GENx ENGINES FOR ITS BOEING 787 DREAMLINER FLEET

August 24, 2006

Evendale, Ohio - China Southern has reached agreement with GE-Aviation to purchase the GENx engine to power its 10 Boeing 787 Dreamliner aircraft. Aircraft deliveries are scheduled to begin in 2008. The value of the GENx engines ordered is approximately \$240 million. China Southern has also reached an OnPointSM maintenance agreement with GE for its GENx fleet. China Southern, based in Guangzhou and the largest airline in terms of volume of passenger traffic, number of scheduled flights per week, number of hours flown, number of routes and size of aircraft fleet in the People's Republic of China, is a significant GE customer with a fleet of Boeing 777s, 737s and Airbus A320s powered respectively by GE and CFM International (50/50 joint company of GE and Snecma Moteurs). The airline will deploy the new 787s for its expanding international routes. "We are grateful for the continued confidence China Southern has with GE," said Scott Donnelly, president and CEO of GE-Aviation. "We are fully focused on enhancing this long-term relationship."

#### GE90 MATURATION PROGRAM UNIQUE TO COMMERCIAL AVIATION

July 17, 2006

Farnborough -- For its highest-thrust GE90 engine, General Electric Company is successfully progressing with an ambitious engine maturation test program like no other in commercial aviation. In June, the GE90-115B maturation program expanded to GE's Xiamen, China, facility--the fourth country to test the engine. The maturation program allows GE, through ground testing, to simulate the engine in service years ahead of actual airline operations. The GE90-115B, rated at an unprecedented 115,000 pounds of thrust, entered service on Boeing's 777-300ER in 2004. Already, GE90-115B engines in the maturation program have accumulated more than 25,000 cycles--simulating more than 15 years of a fleet-leader engine in airline service. GE90-115B engines in the program will ultimately accumulate 40,000 cycles and undergo five shop visits by 2009--simulating 30 years of typical airline service. "We believe we've developed a new way to mature new jet engines," said Scott Donnelly, president and CEO of GE - Aviation. "The GE90-115B maturation program has become a blueprint for how we will mature our new high-thrust commercial engines." In addition to the China facility, GE90-11 maturation testing is being conducted at GE's test facility in Peebles, Ohio, at IHI facilities in Japan, and at Snecma facilities in France. In 2007, additional tests begin at the National Institute for Aerospace Technology in Madrid, Spain. "This program will help us to identify repair development needs before the first GE90-115B engine comes in for its initial shop visit in mid-2009," said Tom Wygle, general manager of the GE90 Project.

#### GE90 AND CHINA SOUTHERN AIRLINES: FLYING HIGH AFTER A DECADE OF REMARKABLE Service

December 5, 2005

Evendale, Ohio - On December 28, 1995, the world's most powerful jet engine--the GE90--on a new Boeing 777 was delivered to China Southern Airlines. Since then, GE and China Southern have developed a strong relationship and demonstrated the outstanding reliability of the GE90 engines. China Southern was the first Asian airline to operate the GE90-powered, 777 aircraft, and the airline has continued to garner more firsts with this engine and aircraft. In 1997, China Southern made aviation history with the world's first, non-stop flight between mainland China and the United States with the GE90 engine-777 aircraft combination. In 2000, the airline awarded GE a 10-year, \$215 million engine service agreement for the GE90 engines, which was the first long-term maintenance agreement with a Chinese airline. This service agreement was extended through 2013. Today, China Southern operates 10 777 aircraft and 25 GE90 engines. "China Southern operates the largest fleet and the highest density routes in China, as well as handling the highest volume turnover," said Mr. Yuan Xin An, Vice President of China Southern. "Over the past 10 years, the GE90 has played an important role in supporting our operations by improving

operational safety, customer satisfaction, and helping to establish the China Southern brand. We are continuing to build our relationship with GE and look forward to a long and successful future together."

#### CHINA'S EAST STAR AIRLINES SELECTS CFM56-5B TO POWER A320 FLEET

November 28, 2005

Beijing, China - East Star Airlines, a new start-up carrier in China, has signed a Letter of Agreement to purchase CFM56-5B engines to power its new fleet of 10 firm Airbus A320 aircraft that will be delivered in 2009/2010.

CFM56-5B engines are produced by CFM International (CFM), a 50/50 joint company between Snecma and General Electric company. 2005 marks CFM's 20th anniversary in China and, today, it is the leading supplier of commercial aircraft engines to Chinese airlines, with more than 1,100 engines in service powering more than 500 Airbus and Boeing aircraft with 14 airlines in that country.

"We selected CFM56 engines after an extensive technical evaluation," said Mr. Lan Shili, Chairman & CEO of China East Star Group Co. Ltd. "The performance and low cost of ownership advantages that the CFM56-5B provides will help ensure our airline of a smooth and successful launch into service."

East Star Airlines, China's fourth registered private airline, was established in June 2005. The airline, a subsidiary of China East Star Group Co. Ltd, is headquartered in Wuhan, Hubei Province and is scheduled to begin scheduled passenger service in May 2006. In addition to the purchased A320s, the airline has also signed an agreement to lease 10 additional CFM56-5B-powered Airbus A319/A320 aircraft. The leased aircraft are scheduled for delivery between 2006 and 2008.

"We are honored that East Star Airlines has chosen to power its fleet with the CFM56-5B," said Andy Solem, president of CFM International China. "We thank them for their trust and offer them our commitment that we will continue to earn that trust every day."

The high reliability, long on-wing life, and low maintenance costs of the CFM56-5 make it extremely popular with major airlines, low-cost carriers, and leasing companies worldwide. More than 2,000 CFM56-5B engines have been delivered to date, and the fleet is growing at a rate of about 20 engines per month.

Primary factors behind the engine's broad-based market acceptance include this industry's best reliability, durability, and low cost of ownership. The CFM56-5B is the only engine that can power every model of the A320 family, from the small A318 up to the A321, with the same bill of materials, giving airlines a significant commonality advantage.

#### A 20-YEAR SUCCESS STORY: CFM IN CHINA

November 04, 2005

Beijing, China - In 1985, two Chinese airlines, Air China Southwest and China Eastern Yunnan, took delivery of their first Boeing 737s. These airplanes were powered by CFM International's CFM56-3 engines. CFM was a very young company and these were some of its first orders. Since then, China has become one of the largest and most important customer regions for CFM, with 14 Chinese airlines operating more than 1,075 CFM56 engines powering nearly 500 Airbus and Boeing aircraft.

CFM International, a 50/50 joint company between Snecma and General Electric, is today one of the most successful aircraft engine suppliers in history; earlier this year, the company delivered its 15,000th engine.

"We are both honored and humbled by the continued faith China has placed in CFM products and people," said Eric Bachelet, president and CEO of CFM International. "We owe a tremendous debt of gratitude to them for the great success that CFM has achieved. Both Air China Southwest and China Eastern Yunnan were willing to work with us in the early days. Since then, our relationship with China's aviation industry has continue to

evolve and flourish and now goes well beyond customer and engine manufacturer. And we are constantly finding new ways to strengthen those ties."

Since the first engines were delivered 20 years ago, China has become an important supplier base for CFM's parent companies, GE and Snecma. In 2005, these companies will purchase more than \$137 million in CFM56 parts from Chinese manufacturers. The quality of these parts has been key to the ongoing success of the CFM product line.

One of the world's best aircraft engine maintenance training centers, the Aero Engine Maintenance Training Center (AEMTC), located in the Civil Aviation Flight College, Guanghan City, is a cooperative venture between CFM, the Civil Aviation Administration of China, Snecma, and GE, China Aviation Supplies Imp. & Exp. Group Corporation, Civil Aviation Flight University of China. Since opening its doors in late 1996, the Center has trained nearly 5,000 students.

The training provided at AEMTC - a state-of-the-art 4,500 square meter facility with six engine shop bays and five classrooms - is equivalent to the training at the CFM centers in the United States and France. All three centers are staffed with experienced instructors who facilitate exercises in the classroom and hands-on procedures in the engine shop. Each center also provides computer-based training, both self-paced and instructor-led.

Also in 1996, the company opened the CFM Spares Service Center in Beijing. Nearly 2,200 items for CFM56-3, CFM56-5A, -5B, -5C, and CFM56-7 line maintenance are now available to operators in a matter of days, rather than weeks.

The CFM56 product line includes six engine models spanning the thrust range from 18,500 to 34,000 pounds thrust. Commercial applications include Airbus A318, A319, A320, and A321 single-aisle aircraft, the long-range A340-200/-300, and the A319 Corporate Jet; and Boeing Classic 737-300/-400/-500, Next-Generation 737-600/-700/-800/-900, the Boeing Business Jet, and re-engined DC-8 Super 70 series aircraft. CFM56 engines power several s military applications, including the Boeing 737 Airborne Early Warning & Control aircraft, the U.S. Navy C-40 transport, and the Multi-mission Maritime Aircraft (MMA), as well as re-engined KC-135R and C-135FR tanker, E-3 Airborne Warning and Control System aircraft, the E-6 submarine communications aircraft, and RC-135 surveillance aircraft.

The CFM56 fleet has logged more than 300 million flight hours in service powering more than 6,065 commercial and **military** aircraft worldwide as the most reliable engines in the air.

#### SHENZHEN SIGNS OnPoint SOLUTION AGREEMENT WITH GE

August 26, 2005

Evendale, Ohio - Shenzhen Airlines has signed a new 15-year OnPoint Solution engine services agreement with General Electric Company for the maintenance, overhaul and repair of CFM56-5B engines that will power the airline's fleet of Airbus A320 family aircraft. The agreement is potentially worth up to \$240 million. Shenzhen Airlines is one of the fastest growing airlines in China, serving both domestic and international routes. The airline has received three champions of "National Passengers Assessment on Civil Aviation" and "National Customer Satisfied Enterprise" awards for having the best customer services recognized by the industry. In 2004, the airline signed three separate 10-year maintenance agreements for its fleet of CFM56-3 and CFM56-7 engines. "We have great confidence in the quality GE Engine Services provides and we are pleased to be entering into a long-term relationship with them," said Yang Jia Bao, vice president of Shenzhen Airlines. "This relationship not only helps keep our maintenance costs more predictable, it also helps us meet the commitment for safety and reliability that we have made to our customers." OnPoint Solutions are flexible long-term commitments designed to meet customers' unique engine service needs. Backed by GE's world-class support, these solutions maximize asset value and utilization and improve operating efficiencies.

OnPoint services include overhaul, on-wing support, new and used parts, component repair, technology upgrades, engine leasing and diagnostics.

#### SHENZHEN AIRLINES PLACES \$60 MILLION CFM56-5B ORDER

August 26, 2005

Evendale, Ohio - Shenzhen Airlines has become the newest customer for the CFM56-5B, placing an order for engines to power three Airbus A320 and two A319 aircraft. The engine order is valued at \$60 million at list price. CFM56-5B engines are produced by CFM International, a 50/50 joint company between Snecma and General Electric Company. CFM is the world's leading aircraft engine supplier, with more than 15,000 engines in service worldwide. Shenzhen Airlines, which currently operates a fleet of 32 CFM56-powered Boeing 737s, will take delivery of its first A320 later this year. Shenzhen is one of the fastest growing airlines in China, serving both domestic and international routes. The airline has been recognized for its outstanding service, receiving three champions of "National Passengers Assessment on Civil Aviation" and "National Customer Satisfied Enterprise" awards. The CFM56-5B is the only engine that can power every model of the A320 family with the same bill of materials, giving Shenzhen a distinct commonality advantage in terms of training and provisioning. The CFM56-5B's industry-leading reliability, durability, long on-wing life, and lower overall cost of ownership makes it extremely popular with leasing companies, low-cost carriers, and major airlines worldwide. The CFM56-5B core served as the foundation for the development of the CFM56-7B, which power the Next-Generation 737s in the Shenzhen fleet, as well as for the new CFM56-5C/P engine for the Airbus A340 Enhanced aircraft. CFM used advanced three dimensional aerodynamic (3-D aero) design tools to give the 9-stage CFM56 high-pressure compressor better efficiency and improved aerodynamics. The high-pressure turbine also incorporates 3-D aero, active clearance control, and single-crystal N5 material in both the blades and the nozzles for improved durability, lower maintenance costs, and longer on-wing life. The low-pressure turbine incorporated 3-D airfoils for improved efficiency and fuel burn.

#### SHENZHEN AIRLINES AWARDS LONG-TERM MAINTENANCE CONTRACT TO GE ENGINE SERVICE

March 14, 2005

Shenzhen, China - Shenzhen Airlines has signed a ten-year Maintenance Cost Per Hour (MCPH) agreement with GE Engine Services. Under the terms of the agreement, which is valued at \$68 million over the life of the contract, GE will maintain the airlines' fleet of 24 CFM56-7B engines powering the airline's fleet of Boeing 737-700/-900 aircraft. All of the maintenance and overhaul work will be completed at GE's Wales facility. Shenzhen Airlines is one of the fastest growing airlines in China, serving both domestic and international routes. The airline has received three champions of "National Passengers Assessment on Civil Aviation" and "National Customer Satisfied Enterprise" awards for having the best customer service recognized by the industry. "We have great confidence in the quality GE Engine Services provides and we are pleased to be entering into a long-term relationship with them," said Yang Jia Bao, vice president of Shenzhen Airlines. "This relationship not only helps keep our maintenance costs more predictable, it also helps us meet the commitment for safety and reliability that we have made to our customers."

#### GE CF34-10E ENGINE CERTIFIED BY THE FAA

March 09, 2005

Evendale, Ohio - The U.S. Federal Aviation Administration (FAA) has awarded engine type certification to GE's CF34-10E, paving the way for aircraft certification and introduction into revenue service with jetBlue Airways on the EMBRAER 190 in the 3rd quarter of this year. The CF34-10E, rated at 18,500 pounds (82 kN) thrust, is the sole powerplant for the 90- to 118-passenger EMBRAER 190 and EMBRAER 195 aircraft. The 1,800-hour CF34-



10E engine certification program encompassed more than 25 major tests on seven production and one core engine. The CF34-10E is currently undergoing flight tests on the EMBRAER 190/195 aircraft. The CF34-10E turbofan engine is the newest, largest and most powerful addition to GE's family of CF34 powerplants. Developed with GE's revenue sharing partners, Ishikawajima-Harima Heavy Industries Co., LTD (IHI) of Tokyo, Japan and Techspace Aero S.A. (TA) of Milmort, Belgium, the engine has advanced technology features including: a highly efficient three-dimensional aerodynamic (3-D aero) high-pressure compressor; a single annular combustor (SAC) that reduces oxides of nitrogen (NOx) by as much as 12 percent compared with the NOx emissions of current-technology SACs; a low-solidity high-pressure turbine in which efficiency is improved and the number of airfoils is reduced; and a chevron exhaust nozzle that reduces jet noise. GE is also developing the CF34-10A, a fuselage-mounted variant that will power the China AVIC I Commercial Aircraft Co. Ltd (ACAC) ARJ21 regional jet. The ARJ21 is scheduled to enter service in 2008.

#### HAINAN PLACES \$90 MILLION CFM56-5B ORDER

March 02, 2005

Haikou, China - Hainan Airlines, China's fourth largest airline group, has placed an \$90 million firm order for CFM56-5B engines to power eight Airbus A319 aircraft. The airline, which also took options on 12 additional A319s, will take delivery between 2005 and 2007. CFM56-5B engines are produced by CFM International, a 50/50 joint company between Snecma Moteurs and General Electric Company. CFM is the world's leading supplier of commercial aircraft engines with more than 14,500 engines in service with more than 400 operators worldwide. Hainan Airlines has been a CFM customer since its first B737 aircraft delivery in 1993 and currently operates 52 Boeing 737 aircraft powered by CFM56-3 and CFM56-7 engines. The airline operates more than 480 domestic flights to about 90 cities throughout China. The new A319s will be operated on short- and medium-haul routes from Haikou, Beijing and Xi'an. "We are honored that Hainan Airlines has chosen again to make CFM an important part of its long-term operations," said Andy Solem, president of CFM International China. "We thank them for their trust and offer them our commitment that we will continue to earn that trust every day."

#### AHK AIR HONG KONG SIGNS 14-YEAR MCPH AGREEMENT

January 25, 2005

Evendale, Ohio - AHK Air Hong Kong has announced its selection of GE Engine services to provide maintenance and overhaul services for the GE CF6-80C2 engines powering the airline's fleet Airbus A300-600 freighters. The current AHK Air Hong Kong, an all-cargo carrier, was formed in 2002 as a business partnership between Cathay Pacific (60%) and DHL Express (40%). The airline has ordered eight A300-600GFs (General Freighters) and currently has four aircraft in operation. The four remaining airplanes will be delivered in 2005 and 2006. AHK is using the aircraft to service routes to Japan, Korea, Malaysia, Singapore, Taiwan, and Thailand from its hub in Hong Kong. GE's highly successful Maintenance Cost Per Hour (MCPH) programs maintain engines on a flat rate per engine flight hour basis, enabling airlines to accurately forecast operating costs, reduce cost of ownership and improve asset utilization. "AHK Air Hong Kong has accomplished a great deal in a relatively short amount of time," said Dan Heintzelman, vice president and general manager of GE Engine Services. "We're delighted that AHK has made GE Engines Services such a major part of its operations and we're looking forward to a very long, very successful relationship with them." The CF6 engine family has distinguished itself for reliability while accumulating more flight-hours than any other high-bypass engine family, powering more than 10 models of wide-body aircraft. GE's CF6-80C2 engine alone has accumulated more than 100 million flight-hours since entering service in 1985.

#### AIR CHINA DOUBLES CFM56-POWERED A319 FLEET WITH \$66 MILLION ORDER

October 14, 2004

Evendale, Ohio - Air China announced this week a \$66 million order for CFM56-5B engines to power six additional Airbus A319 aircraft. The order will more than double the airline's CFM-powered A319 fleet when the new aircraft are delivered in 2005; Air China currently operates five CFM-powered A319s. CFM56-5B engines are produced by CFM International, a 50/50 joint company between Snecma Moteurs and General Electric Company. CFM, celebrating its 30th anniversary, is the world's leading supplier of commercial aircraft engines. Air China, a long-time CFM customer, is the largest commercial airline in China. In addition to the A319s, the airline also operates a fleet of 42 Boeing 737s powered by CFM56-3 and CFM56-7 engines, in addition to three long-range, four-engine Airbus A340-300 aircraft powered by the CFM56-5C. The new A319s will be operated on routes to altitude airports such as Lhasa in Tibet.

#### CHINA SOUTHERN EXTENDS MCPH WITH GE ENGINE SERVICES

July 14, 2004

Evendale, Ohio -- China Southern announced that it has signed a five-year extension to its current GE90 MCPH (Maintenance Cost Per Hour) with GE Engine Services through 2013. The MCPH agreement, originally signed in August 2000, covers the maintenance, overhaul and repair of the GE90-90B engines powering China Southern's fleet of 10 Boeing 777-200 aircraft. Maintenance and overhaul work will be performed at GE's Nantgarw, Wales facility. "China Southern was our first MCPH customer in China," said Xiaofan Hou, sales general manager - North China Region for GE. "We are obviously very pleased to extend MCPH program with China Southern. We look forward to further strengthening our relationship in the future." GE's highly successful MCPH programs maintain engines on a flat rate per engine flight hour basis, enabling airlines to accurately forecast operating costs, reduce cost of ownership and improve asset utilization. China Southern was one of the first operators of the GE90-powered 777 and made aviation history in 1997 when it launched the first nonstop transpacific ETOPS (Extended-range, Twin-engine Operations) route between mainland China and the United States (Guangzhou to Los Angeles).

#### SHENZHEN AIRLINES AWARDS LONG-TERM MAINTENANCE CONTRACT TO GE ENGINE SERVICES

May 13, 2004

Shenzhen, China -- Shenzhen Airlines today announced it has signed a ten-year Maintenance Cost Per Hour (MCPH) agreement with GE Engine Services. Under the terms of the agreement, which is valued at \$40 million over the life of the contract, GE will maintain the airlines' fleet of nine CFM56-3C1 engines. All of the maintenance and overhaul work will be completed at GE's Malaysia facility, which has previously serviced the CFM56-3 engines powering the airline's four Boeing 737 aircraft. Shenzhen Airlines is one of the fastest growing airlines in China serving both domestic and international routes. The airline has received three champions of "National Passengers Assessment on Civil Aviation" and "National Customer Satisfied Enterprise" awards for having the best customer services recognized by the industry. "We have great confidence in the quality GE Engine Services provides and we are pleased to be entering into a long-term relationship with them," said Yang Jia Bao, vice president of Shenzhen Airlines. "This relationship will not only help keep our maintenance costs more predictable, it also helps us meet the commitment for safety and reliability that we have made to our customers." Li Hsi, general manager of Aircraft Engines Greater China Region said, "Shenzhen Airlines is a valuable customer and we are pleased to continue to offer them our product knowledge and service expertise as they grow their business."

## GE SIGNS DEFINITIVE AGREEMENT WITH CHINA FOR REGIONAL JET ENGINES

November 12, 2003

Washington DC -- In ceremonies here with U.S. and Chinese government leaders, GE Aircraft Engines (GEAE) signed a formal contract with the Chinese AVIC I Commercial Aircraft Co. Ltd. (ACAC) to supply GE engines for China's new regional jet aircraft. GEAE and Chinese officials have been working on the details of this long-term definitive agreement since late 2002, when ACAC selected GEAE's new CF34-10A engine to power China's ARJ21 regional jet, a new aircraft now under development and scheduled for flight-testing in 2006. ACAC and GEAE envision a potential market for 500 ARJ aircraft over the next 20 years. This represents a potential engine value to GEAE of approximately \$3 billion. At the signing ceremony, David Calhoun, president and chief executive officer of GEAE, joined members of China's National Development and Reform Commission, and the U.S. Department of Commerce. "The ARJ represents one of the most important aviation collaborations between GEAE and the growing Chinese aviation industry," Calhoun said. Fueled by a dramatic rate of economic expansion, China will build nearly 100 airports in the next seven years. This will result in a sharp growth in feeder traffic into China's major airports. Growth in Western China should stimulate demand for the ARJ, which is uniquely suited for the region's hot, high-altitude airports. GEAE and ACAC are now collaborating on integrating the CF34-10A engine into the ARJ aircraft, which is in the design phase. In the production phase, the CF34-10A will be sourced from global suppliers, most of which are based in the United States. GEAE is already a substantial engine supplier to greater China. Engines produced by GEAE and CFM, a 50/50 joint company of Snecma of France and GE, power more than 450 aircraft ordered, or delivered, to airlines in greater China.

## GE90 ENGINES CONTINUE TO SHOW DURABILITY ON CHINA ETOPS FLIGHTS; CHINA SOUTHERN ACHIEVING SUCCESS ON LONGER-RANGE ROUTES

April 2, 2003

Beijing, China - China Southern, the largest airline operating in The People's Republic of China, is bringing new meaning to successful Extended-range Twin-engine Operations (ETOPS) as a strategic operator of GE90-powered Boeing 777s in Asia. China Southern was the first Asian customer to operate GE90-powered Boeing 777s. Since January 1996, China Southern's GE90-powered aircraft have accumulated more than 329,503 flight hours and more than 122,000 cycles. Governing agencies typically require that twin-engine aircraft demonstrate a level of engine reliability many times more stringent than aircraft with more engines. Current ETOPS requirements limit twin-engine aircraft to routes that are at no time more than 180 minutes from a suitable diversion airfield using a single-engine. Due to increased reliability of aircraft and newer, more advanced engine technology, extensions to current limits are being considered. "China Southern made aviation history as the first airline to launch nonstop transpacific ETOPS routes between mainland China and the United States," said Chaker Chahrour, general manager of the GE90 engine project. "Today, the GE90-powered Boeing 777 is opening new routes and destinations for customers choosing to take advantage of its recognized ETOPS performance history." Currently, China Southern operates 20 ETOPS flights per week on three routes that include Guangzhou to Los Angeles, Guangzhou to Melbourne and Guangzhou to Sydney. More than 5 years ago, the airline was the first to fly a transpacific route using the GE90 engine. Recently, China Southern decided to upgrade their GE90 engines with the new performance improvement program upgrade kits. The PIP kits, which are targeted for installation between 2003 and 2006, will enable China Southern to operate GE90 engines initially certified at 76,000- and 90,000-pounds thrust to have the ability to achieve 94,000 pounds thrust, a significant advantage for takeoff from hot temperature/high altitude

airports. With the addition of the new PIP upgrades, China Southern will now benefit from increased payload, fuel burn and maintenance cost advantages.

## GE SUPPORTS CHINA'S GROWING CIVIL AVIATION INDUSTRY; NEW REGIONAL JET ENGINE BUILDING ON PIONEERING TECHNOLOGY

March 27, 2003

Hainan, China - As China embarks on the historic development of its ARJ21 regional jet, GE Aircraft Engines (GEAE) is working closely with the AVIC I Commercial Aircraft Co. Ltd (ACAC) to integrate one of the world's most advanced engines into the aircraft.

GE is actively developing the CF34-10A engine, while working closely with ACAC to integrate the engine into the ARJ21 regional jet. ACAC launched the Joint Definition Phase (JDP) in January. During the JDP, teams are defining key aircraft and propulsion system interfaces, along with detailed design requirements. In April, GE will begin subscale ARJ21 aerodynamic component and nacelle testing at Fluidyne's Aerotest Lab. In June, ACAC is expected to finalize aircraft configuration and GE will conduct an interim propulsion system review. The engine is slated for certification in 2005, and entry into passenger service on the ARJ21 in 2007.

Meanwhile, testing of the CF34-10 engine is progressing rapidly. The engine will soon begin flight-testing in southern California USA on GE's unique Boeing 747 Flying Testbed. This significant milestone represents another step for GE as a driving force behind the rapidly expanding worldwide regional jet marketplace - where China will make a significant contribution.

GE first launched its first CF34 model in 1983 by taking the durable TF34 **military** engine and developing it into a business jet engine. A decade later, GE further developed the CF34 for a new breed of aircraft -- regional jets. Today, GE continues to pioneer new technology in this market by developing and certifying new, higher thrust versions of the CF34 for the latest 70- to 90-passenger regional jets.

Over the past decade, GE has invested more than \$1 billion to develop the CF34 engine family. To date, more than 5,600 CF34 engines are on order, including more than 1,500 in service worldwide.

GE brings to the ARJ21 a depth of experience that includes 500 million flight hours from across the entire GE commercial engine product line, including the GE90, the world's most powerful engine; the CF6, the most popular and reliable engine for widebody aircraft; and the CFM56, one of the most reliable and best-selling airline engines in aviation history.

In designing the CF34-10, GE has scaled the core of the successful CFM56-7, the jet engine for the Boeing 737 family, to ensure the highest durability, reliability, and greater operating temperature margins which equate to a lower cost of operation for airlines. In addition, advancements in Fully Automated Digital Engine Control (FADEC) technology will allow GE to offer its Remote Diagnostics service to monitor this engine model while in flight.

The new CF34-10's thrust capability will meet maximum passenger and payload requirements for the entire ARJ21 aircraft family, and will offer hot and high performance capability in Western China.

Designed as an easily maintainable propulsion system, the CF34-10 offers:

- Lower operating costs
- Lower maintenance costs
- GE's world-class customer and product support.

GE has a long history of mutually beneficial business activity in China, dating back to 1910, when GE first produced a light bulb there. Today, the relationship encompasses advanced research and development, including: a new 38,000-square-meter facility in Shanghai; joint ventures in high technology industries such as medical systems, plastics and lighting products; and aircraft engine maintenance facilities, training, and component manufacturing. GE has formed more than 30 different joint ventures and employs more

than 9,000 people in China, representing a \$1.5 billion investment. GE first delivered an aircraft engine for entry into service in China in 1985.

CFM International (CFM), a 50/50 joint company between Snecma Moteurs of France and General Electric Company of the USA, has powered aircraft for Chinese airlines since 1985. The first CFM56-3-powered Boeing 737s were delivered to Yunnan Airlines and China Southwest Airlines in 1985. Overall, there are nearly 650 CFM56 engines operating on more than 300 aircraft with 10 airlines in China.

China Southern, the largest airline operating in The People's Republic of China, is bringing new meaning to successful Extended-range Twin-engine Operations (ETOPS) as a strategic operator of GE90-powered Boeing 777s in Asia. China Southern was the first airline to operate GE90-powered Boeing 777 aircraft on long-range transpacific ETOPS routes. Since January 1996, China Southern's aircraft have accumulated more than 329,503 hours and more than 122,000 cycles.

Working closely with the Civil Aviation Administration of China (CAAC), GE and CFM opened the Aero Engine Maintenance Training Center (AEMTC) in Guanghan, Sichuan Province, adjacent to the CAAC Flying College, in November 1996. The AEMTC offers courses from line maintenance to engine technology management on both GE and CFM commercial engines, as well as serving as a CAAC vocational training facilities. To date, AEMTC has trained more than 3,400 students.

#### AIR HONG KONG EXPANDS FREIGHTER FLEET WITH CF6-80C2-POWERED A300-600s

March 24, 2003

Hong Kong - Air Hong Kong today announced that it has placed a \$100 million order for GE CF6-80C2 engines to power six firm, two option Airbus A300-600F -General Freighter- aircraft scheduled for delivery in 2004 and 2005. Air Hong Kong will use the new aircraft to expand its operations. The cargo carrier currently serves routes to Tokyo and Bangkok from its Hong Kong hub and plans to expand its operations within the Asian region. "The reliability and low cost of ownership of the CF6-powered A300 will be a big asset as we implement a very aggressive fleet expansion program over the next couple of years," said Tony Tyler, chairman of Air Hong Kong. "We're looking forward to working with GE Aircraft Engines." "This was a big decision for Air Hong Kong and we're honored that they have elected to make the CF6 such an integral part of their future fleet," said Dave Calhoun, president and CEO of GE Aircraft Engines. "We've seen explosive growth in the cargo market in Asia in the last couple of years. With its ties to Cathay Pacific and DHL- two very well run and profitable organizations-Air Hong Kong is extremely well placed to become a major force in that continued growth." Air Hong Kong is the launch customer for the A300-600F General Freighter, a version of the A300-600F that features a unique loading system and a side door capable of handling large items of general freight in addition to small packages.

#### CHINA SOUTHERN PLACES \$35 MILLION ORDER FOR GE90 UPGRADE

February 10, 2003

Evendale, Ohio - China Southern Airlines has placed a \$35 million order for 23 Performance Improvement Program (PIP) upgrade kits for the GE90 engines powering its Boeing 777 fleet.

China Southern, the largest airline operating in The People's Republic of China, is the fifth airline to order the PIP kit. Air France, Lauda, Kuwait Airways, and Saudi Arabian Airlines have also purchased the kit

"China Southern has long been a valued customer," said Dave Calhoun, president and CEO of GE Aircraft Engines (GEAE). "And we're excited by the opportunity to work with them on the GE90 upgrade, helping them achieve greater flexibility with their fleet."

Incorporating advanced 3-D aerodynamic components in the high pressure compressor, as well as new sealing, clearance, and turbine technology, the PIP kit provides a 1.6 percent fuel burn improvement and over 20 degrees Celsius additional exhaust gas temperature margin. This increased margin translates to longer time on wing, thus reducing maintenance costs.

"China Southern has done a great job managing its 777 fleet over the past five years," said Chaker Chahrour, general manager of GEAE's GE90 project. "With the addition of the GE90 PIP kit, this airline is going to get even more value from this asset - the lower fuel burn and longer on-wing life will translate to significantly lower overall cost of ownership."

The PIP kits, which are targeted for installation between 2003 and 2005, will also enable China Southern to operate GE90 engines initially certified at 85,000- and 90,000-pounds thrust to achieve 94,000 pounds thrust, a significant advantage for takeoff from hot temperature/high altitude airports.

China Southern was one of the first operators of the GE90-powered 777 and made aviation history in 1997 when it launched the first nonstop transpacific ETOPS (Extended-range, Twin-engine Operations) route between mainland China and the United States (Guangzhou to Los Angeles)

The GE90 PIP upgrade kit was developed concurrently with the GE90-94B engine model that entered service in 2000. This engine's advanced 3-D compressor is a key building block of the GE90-115B for the Boeing 777-300ER and -200LR. The -115B, the world's most powerful engine, broke its own world record earlier this month when it achieved an unprecedented 127,900 pounds thrust during ground testing. The engine is on schedule to begin flight testing on the 777-300ER later this month, leading to certification and entry into service with Air France in early 2004.

Snecma of France, FiatAvio of Italy, and IHI of Japan are revenue-sharing participants in the GE90 program.

#### AIR CHINA LAUNCHES CFM56-3 TIME ON WING UPGRADE PACKAGE IN CHINA November 4, 2002

Zhuhai, China -- Air China has become the second customer for the CFM56-3 Time on Wing (TOW) upgrade with a \$6 million order for five kits for its Boeing 737-300 aircraft fleet. The upgrade kit, which features advanced three dimensional high pressure compressor aerodynamics (3-D aero) and new high pressure turbine hardware, was certified in June. Air China will begin taking delivery later this year. CFM56 engines are produced by CFM International (CFM), a 50/50 joint company between Snecma Moteurs of France and General Electric of the United States. The CFM56-3 TOW package was launched by Southwest Airlines in 2001 with an order for 300 kits. More than 4,200 CFM56-3 engines have been produced for the Boeing 737-300/-400/-500 series, representing a tremendous long-term market potential for the engine upgrade package. Air China operates a fleet of 19 737-300 aircraft powered by the CFM56-3. The TOW upgrade, which will be installed during normal overhaul, will significantly improve fuel burn through a 1 percent improvement in specific fuel consumption, as well as up to 15 degrees additional exhaust gas temperature (EGT) margin, which reduces maintenance costs through longer on-wing life. CFM56-3 engines average 16,000 hours on wing before requiring an initial shop visit, and about 10,000 hours after overhaul. The TOW core upgrade will improve post-overhaul time on wing by as much 1,500 to 2,000 cycles. Also, lower operating temperatures, coupled with material improvements, reduce operating costs. "This is a strategic win for us," said Bob Barton, general manager of Upgrade Sales for CFM. "Air China is a long-time customer and we're happy to have the opportunity to put that relationship on a new level. It also provides us with a great opportunity to demonstrate the overall value this upgrade can bring to Chinese airlines, which operate 350 CFM56-3 engines.

### CFM56-5B UNDERGOING FLIGHT TESTS ON AIRBUS A318

November 4, 2002

Zhuhai, China - An Airbus A318 equipped with CFM56-5B engines is currently undergoing flight tests at Airbus facilities in Toulouse, France, in preparation for aircraft certification and entry into service in mid-2003. The U.S. Federal Aviation Administration and the French Direction Générale de l'Aviation Civile jointly certified two new thrust ratings for the A318 in late July: the CFM56-5B8, rated at 21,600 pounds (96 kN) thrust, and the CFM56-5B9, rated at 23,300 pounds (103.5 kN) thrust. No hardware changes were required for these new ratings. The CFM56-5B is a member of the CFM56 engine family produced by CFM International (CFM), a 50/50 joint company between Snecma Moteurs of France and General Electric. With more than 13,500 engines in service, CFM is the world's leading aircraft engine supplier. Airbus Industrie confirmed earlier this year that the CFM56-5B will be the first engine in service on the new A318. Aircraft certification is expected in May 2003, and the first CFM56-5-powered A318 will be delivered to Frontier Airlines in July 2003. Air France is scheduled to begin taking delivery of its A318s in October 2003. In addition to the Air France (15 firm, 10 option) and Frontier (five firm, five option) orders, GE Capital Aviation Services has 30 CFM56-5B-powered A318s on order and will receive its first airplane in 2004. The CFM56-5B engines for the A318 are the same as those powering the Airbus A319/A320/A321. As the only engine that can power every model of the A320 family with the same bill of materials, the CFM56-5B provides airlines a distinct commonality advantage, in addition to the lowest cost of operation on this application. The CFM56-5B can also be ordered with the optional double annular combustor (DAC). The CFM56-5 continues to be the engine of choice for the Airbus A320 family, having been selected to power 56 percent of all A318/A319/A320/A321 aircraft ordered to date.

### CHINA ACAC SELECTS GENERAL ELECTRIC TO POWER ARJ21 REGIONAL JET; SELECTION REPRESENTS POTENTIAL \$3 BILLION ENGINE MARKET

November 4, 2002

Zhuhai, China - AVIC I Commercial Aircraft Co. Ltd. (ACAC) of China today signed a cooperative Letter of Intent with GE selecting GE's CF34-10A engine to power the ARJ21 regional jet now in development. ACAC and GE see a potential market for 500 ARJ21s over the next 20 years, representing a potential value to GE of \$3 billion. Development of the ARJ21 represents the next phase in China's rapid expansion of its aviation market. Fueled by the country's tremendous economic growth over the past decade, revenue passenger miles have increased significantly. There are currently 50 new airports scheduled for construction within China over the next five years to meet the higher demand. As a result, feeder traffic - the segment serviced by regional jets - could grow 12% annually over the next 20 years. The CF34-10A engine, which has been selected to power both the 79-passenger and the 99-passenger ARJ21 aircraft, is part of GE's best-selling CF34 family for regional jets. To date, GE has received firm and option orders for more than 5,600 CF34 engines, of which about 1,400 have been delivered. The ARJ21 is being designed to meet the demanding conditions of China's diverse environment, specifically the hot temperature and high altitude conditions experienced on many routes in Western China. The advanced technology of the CF34-10A is ideally suited to this aircraft. The engine will not only provide the thrust capability to meet aircraft performance requirements, but will also give customers low-cost operations with a highly reliable, easily maintainable propulsion system. "The ARJ21 program is an outstanding achievement for China, and we are honored to be a part of it," said David Joyce, general manager of Small Commercial Engine Programs at GE Transportation Aircraft Engines. "GE has been doing business in China for nearly 100 years, and our commitment to China has never been stronger: working together to develop great products for global markets. We're committed to working with AVIC 1 to help ensure the long-term success of this program and the continued growth of

Chinese aviation." GE began working with Chinese industry in 1910, when the first GE light bulb was produced there. Today, the relationship encompasses advanced research and development, including: a new 38,000-square-meter facility in Shanghai; joint ventures in high technology industries such as medical systems, plastics and lighting products; and aircraft engine maintenance facilities, training, and component manufacturing. GE has formed more than 30 different joint ventures and employs more than 9,000 people in China, representing a \$1.5 billion investment.

#### AIR CHINA PLACES \$6 MILLION ORDER FOR CFM56-3 ENGINE UPGRADE PACKAGE

October 1, 2002

Evendale, Ohio - Air China has become the second customer for the CFM56-3 Time on Wing (TOW) upgrade with a \$6 million order for five kits for its Boeing 737-300 aircraft fleet. The upgrade kit, which features advanced three dimensional high pressure compressor aerodynamics (3-D aero) and new high pressure turbine hardware, was certified in June. Air China will begin taking delivery later this year. CFM56 engines are produced by CFM International (CFM), a 50/50 joint company between Snecma Moteurs of France and General Electric Company of the United States. The CFM56-3 TOW package was launched by Southwest Airlines in 2001 with an order for 300 kits. More than 4,200 CFM56-3 engines have been produced for the Boeing 737-300/-400/-500 series, representing a tremendous long-term market potential for the engine upgrade package. Air China operates a fleet of 19 737-300 aircraft powered by the CFM56-3. The TOW upgrade, which will be installed during normal overhaul, will significantly improve fuel burn through a 1 percent improvement in specific fuel consumption, as well as up to 15 degrees additional exhaust gas temperature (EGT) margin, which reduces maintenance costs through longer on-wing life. CFM56-3 engines average 16,000 hours on wing before requiring an initial shop visit, and about 10,000 hours after overhaul. The TOW core upgrade will improve post-overhaul time on wing by as much 1,500 to 2,000 cycles. Also, lower operating temperatures, coupled with material improvements, reduce operating costs. "This is a strategic win for us," said Bob Barton, general manager of Upgrade Sales for CFM. "Air China is a long-time customer and we're happy to have the opportunity to put that relationship on a new level. It also provides us with a great opportunity to demonstrate the overall value this upgrade can bring to Chinese airlines, which operate 350 CFM56-3 engines."

#### GE ENGINE SERVICES' XIAMEN FACILITY RECEIVES FAA CERTIFICATION

July 29, 2002

Evendale, Ohio - GE Engine Services' (GEES) Xiamen facility has received its Repair Station Certificate from the U.S. Federal Aviation Administration (FAA). GEES Xiamen is now able to perform full maintenance on the CFM56-3 engine.

GE Engine Services (Xiamen) Co., Ltd. was previously CAAC-certified for the CFM56-3 in June 2001.

Located at Gaoqi International Airport, GE Engine Services (Xiamen) Co., Ltd. is a joint venture with Xiamen Aviation Industry Co., Ltd., Taikoo (Xiamen) Aircraft Engineering Company Ltd., China Eastern Airlines Company Ltd. and Hainan Airlines Group Co., Ltd. GEES Xiamen is home to Asia's most advanced test cell with up to 150,000 pounds (667 kN) thrust capability.

"We are pleased to receive FAA certification for the GE Engine Services (Xiamen) service facility," said Scott Ernest, vice president and general manager, GE Engine Services' Global Operations. "This milestone is the result of the hard work and dedication of our more than 70 employees in providing high quality service to our customers."

"We have been working toward this certification since day one," said Rick Turner, vice chairman and managing director of GE Engine Services (Xiamen) Co., Ltd. "Since opening



the facility last year, we have provided our customers in China and throughout the region access to world-class overhaul and repair capability."

GEES Xiamen celebrated its grand opening in 2001 as an overhaul facility for CFM56 engines. CFM56 engines, which power Boeing 737 and Airbus Industrie A310, A320, A321, and A340 aircraft of more than 325 customers worldwide, are produced by CFM International, a 50/50 joint company of Snecma Moteurs of France and General Electric Company.

GE Engine Services is a global provider of maintenance and support services that include overhaul and repair, component repair, on wing support, spare parts, engine/aircraft accessories service, remote diagnostics monitoring of aircraft in flight, and a full range of engine leasing plans. In addition to Xiamen, GE Engine Services engine overhaul and repair facilities are located at: Ontario, California; Strother Field, Kansas; Dallas/Ft. Worth, Texas; Petropolis, Brazil; Rio de Janeiro, Brazil; Kuala Lumpur, Malaysia; Nantgarw, Wales; and Prestwick, Scotland.

GEAE, a division of General Electric Company (NYSE: GE), is the world's leading manufacturer of jet engines for **military** and civil aircraft, including engines produced by CFM International, a 50/50 joint company of Snecma Moteurs of France and GE. GEAE also manufactures gas turbines, derived from its highly successful jet engine programs, for marine and industrial applications. In addition, GEAE provides comprehensive maintenance support, through its GE Engine Services operation, for GE and non-GE jet engines in service throughout the world.

#### SES SIGNS \$37 MILLION CONTRACT WITH CHINA SOUTHERN AIRLINES

July 22, 2002

Farnborough, England - Shannon Engine Support (SES) has signed a 10-year agreement with China Southern Airlines to provide comprehensive, guaranteed CFM56-7 spare engine support for the airline's Boeing 737-800 fleet. In addition, SES and China Southern signed a five-year extension to their original agreement for CFM56-3 spares support. The two contracts are worth approximately \$37 million. SES is a wholly-owned subsidiary of CFM International (CFM). CFM is a 50/50 joint company between Snecma Moteurs of France and General Electric of the United States and produces the world's best-selling commercial engine product line, the CFM56 family. China Southern has been an SES customer since 1990. The airline operates more than 30 CFM56-3-powered 737s and will begin taking delivery of the first of 20 737-800s powered by the CFM56-7 later this year. Deliveries will continue to 2005. Under the terms of the agreement, SES guarantees China Southern access to CFM56-3 and -7 spare engines to help manage shop visits. "China Southern was our first customer in China, so we're obviously pleased that they have chosen to keep SES as an integral part of their long-term fleet planning," said Liam Meade, sales director in China for SES. SES specializes in flexible, cost-effective engine leasing solutions tailored to airlines' specific requirements. Spare engine leasing provides tremendous cost savings to airlines. They avoid the acquisition cost of a spare engine as well of the expense of underused assets. SES also offers short-term engine leases, operating leases, sale lease back, and engine trading. SES has a portfolio of 130 CFM56 engines, including the CFM56-3 engine for the Boeing 737-300/-400/-500, the CFM56-5A and CFM56-5B for the Airbus Industrie A320 family, the CFM56-5C for the Airbus A340, and the CFM56-7 for the 737-600/700/-800/-900. The company supports 40 customers worldwide, predominantly in Europe and China.

#### CHINA EASTERN AIRLINES PLACES \$200 MILLION CFM56-5B ORDER

April 16, 2002

Evendale, Ohio - China Eastern Airlines today announced its selection of the CFM56-5B to power 20 new Airbus A320 family aircraft in an engine order valued at \$200 million. The airline will take delivery of the first two in December of this year with the remaining

deliveries scheduled to continue through late 2005. CFM56-5B engines are produced by CFM International (CFM), a 50/50 joint company of Snecma Moteurs of France and General Electric of the United States and the world's leading supplier of commercial transport aircraft engines. China Eastern became a CFM customer in 1994 with an order for five CFM56-5C-powered long-range, four-engine Airbus A340 aircraft. Today, the airline is CFM's largest customer in China, operating a fleet of 30 purchased and leased A319 and A320 aircraft powered by the CFM56-5B and six Boeing 737-300 aircraft powered by the CFM56-3, in addition to the A340s. "We are honored by the continued confidence China Eastern has shown in our products," said Li Jing-Bing, CFM sales director for the China Region. "The decision to expand its short-range fleet with CFM56-5B engines is highly gratifying and we are committed to continue to earn China Eastern's trust for many years to come."

#### GE HIGHLIGHTS FROM ASIAN AEROSPACE 2002

#### GE AIRCRAFT ENGINES MAINTAINS STRONG PRESENCE IN CHINA; CF34 WELL POSITIONED FOR ARJ21 REGIONAL JET

February 26, 2002

Singapore - Following are highlights from press releases issued today by GE Aircraft Engines at Asian Aerospace 2002 in Singapore. GE Aircraft Engines, the world's largest supplier of jet engines for commercial regional jets, views China as an important participant in this rapidly expanding segment of commercial aviation. GE is holding discussions with the China Aviation Industry Corporation I (AVIC I) relative to future industrial cooperation opportunities between GE and China, as well as the potential use of GE's CF34 engine on an indigenous 70-to 90-passenger regional jet, the ARJ21, being studied by AVIC I.

#### GE AIRCRAFT ENGINES MAINTAINS STRONG PRESENCE IN CHINA; CF34 WELL POSITIONED FOR ARJ21 REGIONAL JET

February 26, 2002

Singapore - GE Aircraft Engines (GEAE), the world's largest supplier of jet engines for commercial regional jets, views China as an important participant in this rapidly expanding segment of commercial aviation.

GEAE is holding discussions with the China Aviation Industry Corporation I (AVIC I) relative to future industrial cooperation opportunities between GEAE and China, as well as the potential use of GEAE's CF34 engine on an indigenous 70- to 90-passenger regional jet, the ARJ21, being studied by AVIC I.

"We believe that a market exists for 500 or more regional jet aircraft in China over the next 20 years," said David Joyce, general manager of Small Commercial Engine Programs at GEAE. "GE wants to be more than a supplier of jet engines for this market. We want to be a strategic participant to the development of China's commercial airliner industry, supporting growth with our existing products, and developing new products in conjunction with the Chinese aerospace industry."

Today, the CF34 engine family powers 50-, 70-, and 90-passenger regional jets in operation or under development by Bombardier, Fairchild Dornier, and Embraer. GEAE currently has a firm and option order backlog of nearly 5,000 regional jet engines. GEAE's presence in China will expand with the continued success of its CF34 engine family.

The 9,000-pound (40-kN) thrust-class CF34-3 powers the Bombardier CRJ-100/200 regional airliners and the Challenger 601 and 604 business jets. Entering airline service in 1992, the CF34 has helped airlines achieve dramatic business growth and profitability and has contributed significantly to the success of the regional jet.

GE's CF34-8 series engines, rated in the 14,000-pound (62-kN) thrust class, entered revenue service on the CF34-8C1-powered Bombardier CRJ700. GE is also advancing toward its goal of certifying the CF34-8C5, -8D, and -8E engines in March 2002. In the second quarter of 2002, GE will be participating in aircraft flight test programs for all three

engines: the CF34-8C5 powering the Bombardier CRJ900 in North America; the CF34-8D powering the Fairchild Dornier 728 in Europe; and the CF34-8E powering the EMBRAER 170 in South America.

Detail design for the latest and most powerful CF34, the C34-10, is complete, and integration of the 18,000-pound (80-kN) thrust-class CF34-10 with the Fairchild Dornier 928 and EMBRAER 190 is ongoing. GE will conduct the first CF34-10 engine test in July. U.S. Federal Aviation Administration certification of the CF34-10 is targeted for early 2003.

GEAE continues to expand its presence in China as a supplier of commercial jet engines and services, and is an important participant in China civil aviation. Currently, 24 Chinese airlines operate more than 300 aircraft powered by engines produced by GE and CFM International, a 50/50 joint company of Snecma Moteurs of France and GE. An additional 63 aircraft are also on order.

GE Engine Services recently opened GE Engine Services (Xiamen), located at Xiamen's Gaoqi International Airport. This facility serves as an overhaul facility for CFM56 engines.

GEAE also operates a spare parts warehouse in Beijing as well as the Aero Engine Maintenance Training Center in Guanghan. GEAE continues to build on its overall strategy of increasing its investments in China, as well as the company's commitment to training and employing Chinese nationals.

#### CHINA PLACES \$300 MILLION CFM56-7 ENGINE ORDER

October 2, 2001

Evendale, Ohio - China Aviation Supplies Import & Export Corporation (CASC) has placed an order for 30 CFM56-7-powered Boeing 737 aircraft, scheduled for delivery between 2002 and 2005. The engine portion of the order is valued at approximately \$300 million. CFM56-7 engines are produced by CFM International, a 50/50 joint company between Snecma Moteurs of France and General Electric of the United States. The new 737s, a mix of the -700 and -800 models, will go into service with China Eastern Airlines, China Southern Airlines, Hainan Airlines and Shanghai Airlines. The CASC conducts the civil aviation import and export business for the Chinese government under the auspices of the CAAC, the state council ministry responsible for national civil aviation affairs.

#### HNA GROUP TO PARTICIPATE IN GE ENGINE SERVICES (XIAMEN)

September 17, 2001

Xiamen, Fujian Province, China - September 17, 2001 - Hainan Airlines Group Co., Ltd. (HNA Group) has become the newest shareholder in GE Engine Services (Xiamen) Co. Ltd. The other shareholders include China Eastern Airlines Co., Ltd., Taikoo (Xiamen) Aircraft Engineering Co., Ltd., Xiamen Aviation Industry Co., Ltd., and Engine Services (Asia) Investment Ltd. (GEL). GE Engine Services (Xiamen), located at Xiamen's Gaoqi International Airport, celebrated its grand opening in June as an overhaul facility for CFM56 engines. CFM56 engines, which power Boeing 737 and Airbus Industrie A310, A320, A321, and A340 aircraft of more than 325 customers worldwide, are produced by CFM International, a 50/50 joint company of Snecma of France and General Electric Company. "The participation of Hainan Group in GE Engine Services Xiamen marks the first step of the Group's growth strategy focusing on cooperating with a global entity at management, operations and technology levels," said Wang Jian, vice chairman of Hainan Group. "It will also help to ensure safety and quality services to end users. We expect to extend and deepen our cooperation with GE in the long run." "We are extremely excited about having Hainan Group as part of our Xiamen joint venture," said George Oliver, president and CEO of GE Engine Services. "Hainan's participation, plus that of China Eastern Airlines, demonstrates the confidence that customers in the region place with GE Engine Services Xiamen and our willingness to work with them to meet their high expectations." HNA Group is headquartered in Haikou, Hainan Province, People's Republic of China (PRC), and has

offices throughout the world. Numbered among HNA Group's multiple businesses is Aviation Transportation, whose holdings include Hainan Airlines Co., Ltd. and China Xinhua Airlines, both of which operate CFM56-powered Boeing 737 aircraft. In a separate but related transaction, HNA Group entered into a service agreement with GE Engine Services (Xiamen) whereby GE Engine Services (Xiamen) will maintain CFM56 engines of Hainan Airlines and China Xinhua Airlines.

#### GE ENGINE SERVICES OPENS ENGINE OVERHAUL AND REPAIR FACILITY IN XIAMEN, CHINA

June 21, 2001

Xiamen, China - On June 28, GE Engine Services will celebrate the grand opening of the newest of its nine engine overhaul and repair facilities, GE Engine Services (Xiamen) Company Ltd., with a ceremony at the facility, located at Gaoqi International Airport. The opening ceremony will be followed by a cocktail reception and celebration dinner for officials from the Civil Aviation Administration of China (CAAC), national and local government officials, airline customers, local dignitaries, and other invited guests. Participants with GE Engine Services in GE Engine Services (Xiamen) Company Ltd. include China Eastern Airline Company Ltd., Xiamen Taikoo Aircraft Engineering Company Ltd., and Xiamen Aviation Industry Company Ltd. Initially, GE Engine Services (Xiamen) will provide shop module service for CFM56-3 engines, but will have full overhaul and repair capability by the end of this year for CFM56-5B engines. Overhaul and repair of CFM56-5C engines will be added in 2002. Additional engine capability, such as overhaul and repair of CFM56-7 engines, will be added in the future. "We have really looked forward to today," said Rick Turner, chairman and managing director of GE Engine Services (Xiamen) Company Ltd. "GE and Snecma of France are partners in CFM International, the original equipment manufacturer for the CFM56 family of engines. Now, with the Xiamen shop open, our many valued CFM engine customers in China and throughout the region will have our world-class overhaul and repair more readily available.

#### CHINA EASTERN TO JOIN GE ENGINE SERVICES (XIAMEN) CO. LTD.

May 14, 2001

Evendale, Ohio - China Eastern Airlines Co., Ltd., one of China's largest airlines, has signed an agreement to become a major shareholder in GE Engine Services (Xiamen), an engine overhaul joint venture (JV) company in Xiamen, China. Under the agreement, China Eastern will acquire a 30 percent share to become the second largest shareholder in GE Engine Services (Xiamen). In addition, China Eastern will also be entering into a service agreement with GE Engine Services (Xiamen) that will provide significant CFM56 engine overhaul work to the Xiamen operation. Based in Shanghai, China, Eastern operates the largest installed fleet of CFM56 engines in China.

The company, GE Engine Services (Xiamen) Company Ltd., was formed in February 1999 by its initial shareholders, GE Engine Services, Xiamen Aviation Industry Company Ltd. (XAICO), and Taikoo (Xiamen) Aircraft Engineering Company Ltd. (TAECO). GE Engine Services (Xiamen) is scheduled to begin operation by late June 2001 from a new, state-of-the-art facility in Xiamen, a special economic zone within the Fujian Province of People's Republic of China. The company will perform overhaul and repair of engines produced by GE Aircraft Engines and by CFM International, a 50/50 joint company of Snecma of France and GE.

"The participation of China Eastern will provide momentum when the joint venture begins operations in June," said George Oliver, president of GE Engine Services, Inc., headquartered in Cincinnati, Ohio (U.S.A.). "It will also help to establish the JV as a more customer-focused hub for GE's Engine Services support structure in China as well as for the region."

"The participation of China Eastern in the joint venture not only helps to improve the efficiency of our engines, but also reduces the overhaul cost," said Liu Shaoyong, president of China Eastern Airlines. "China Eastern and GE already have an outstanding relationship. Today's signing ceremony marks an important step in our strategic cooperation. We will continue to look for further cooperation in the future. "Following the signing of this agreement, GE Engine Services Inc. and China Eastern Airline intend to pursue other possible opportunities for alliances in the near future. XAICO is a high-technology, export-oriented company focused on the development of the aerospace, aircraft maintenance, and related industries in Xiamen.

TAECO, another prominent Xiamen company, is a leading international aircraft maintenance company providing service to airlines throughout Asia, including China, and worldwide.

Headquartered in Shanghai, China Eastern Airlines is one of the three largest air carriers in China with 7 subsidiaries in East and North China. The company now has a fleet of around 60 aircraft and operates 200 air routes serving 70 cities both at home and abroad. In recent years, China Eastern has won the highest awards for Safe Flight from CAAC. In March 2001, China Eastern Airline was given the highest qualified service award, the "Five Star Diamond Award", by the American Academy of Hospitality Sciences. GE Engine Services is the world's leading aviation service provider. The Xiamen operation is part of GE Engine Services' global network of Centers Of Excellence (COE), which include international overhaul and repair facilities in: Nantgarw, Wales; Prestwick, Scotland; Tokyo, Japan; Singapore; Kuala Lumpur, Malaysia; Petropolis, Brazil; as well as U.S. based facilities in: Cincinnati, Ohio; Strother Field, Kansas; Dallas, Texas; and Ontario, California, in addition to Garrett Aviation's six Total Aircraft Service Centers.

#### GE ENGINE SERVICES AWARDED \$215 MILLION MCPH CONTRACT

August 8, 2000

Evendale, Ohio - GE Engine Services, the world's leading total aviation services provider, has been awarded a \$215 million contract to maintain, overhaul and repair the GE90 engines powering China Southern Airlines' Boeing 777 fleet. The ten-year MCPH (Maintenance Cost Per Hour) contract covers the 23 GE90-90B engines powering China Southern's nine Boeing 777-200IGW (Increased Gross Weight) aircraft. Maintenance and overhaul work will be performed at GE's Nantgarw, Wales, facility. "We are extremely excited about servicing China Southern's GE90 fleet with our first MCPH opportunity in China," said George Oliver, president of GE Engine Services. "With China Southern being the largest airline in China, and the success that our MCPH product has achieved with our customers worldwide, this is a significant step toward expanding our opportunities in China." GE's highly successful MCPH programs maintain engines on a flat rate per engine flight hour basis, enabling airlines to accurately forecast operating costs, reduce cost of ownership and improve asset utilization. In addition to its Nantgarw shop, GE Engine Services has overhaul shops and component repair facilities located in: Ontario, California; Strother Field, near Arkansas City, Kansas; Miami, Florida; Dallas/Fort Worth, Texas; McAllen, Texas; Terre Haute, Indiana; Prestwick, Scotland; Petropolis, Brazil; Rio de Janeiro, Brazil; Xiamen, China; Taipei, Taiwan; Kuala Lumpur, Malaysia; Singapore; Yokoshiba, Japan; and Cincinnati, Ohio, and at Garrett Aviation Services' Total Aircraft Service Centers. GE also offers the world's most extensive on wing maintenance and hospital repair shop network, GE On Wing Support, which dispatches "rapid response" technicians 24 hours a day, 365 days a year, from facilities in: Luton and Heathrow, England; Los Angeles, California; Dallas, Texas; Cincinnati, Ohio; New York, New York; Miami, Florida; Phoenix, Arizona; Seattle, Washington; Xiamen, China; Seoul, South Korea; and Kuala Lumpur, Malaysia.

#### GE DRIVING STRONG ENGINE SERVICES INITIATIVE IN ASIA

February 21, 2000 [Excerpts of China Passages Only]

Singapore -- GE Engine Services, Inc., the world's leading total aviation services provider, has convincingly demonstrated a strong commitment to Asia. In only three years, GE Engine Services has established eight Asian operations to service and support engines produced by GE, CFM, Rolls-Royce, Pratt & Whitney and IAE. "Asia is vital to our global support structure," said Bill Vareschi, president and chief executive officer of GE Engine Services. "Our new Asian facilities bring us closer to the region's customers while greatly enhancing our global service offerings." GE Engine Services' Asian facilities include:

- GE On Wing Support (Xiamen) Co., Ltd.: Will dispatch "rapid response" technicians 24 hours a day, 365 days a year worldwide; also will provide quick-turnaround, on wing maintenance and repair, from Xiamen City, China facility, beginning in spring 2000.
- GE Engine Services (Xiamen) Co., Ltd.: Joint venture with Xiamen Aviation Industry Co., Ltd., and Taikoo (Xiamen) Aircraft Engineering Company Ltd., to begin maintenance and overhaul operations in 2001.

#### CFM56 FLEET IN CHINA LOGS 5 MILLION FLIGHT HOURS

October 7, 1999

Beijing, China - The CFM56-powered fleet currently in service with more than 20 Chinese airlines has logged a total of more than 5 million flight hours while maintaining the outstanding reliability that is the hallmark of CFM.

CFM56 engines are produced by CFM International, a 50/50 joint company between Snecma of France and General Electric Company of the United States.

The first CFM56-3-powered Boeing 737s were delivered to Yunnan Airlines and China Southwest Airlines in 1985; Air China received its first aircraft in early 1986. Since then, more than 215 Airbus A320 and A340 aircraft and Boeing Classic and Next-Generation 737s have been delivered. An additional 100 CFM56 engines are currently on order to power 50 aircraft scheduled for delivery over the next five years.

To date, the in-service fleet has logged about 5.2 million flight hours and 3.1 million flight cycles. The CFM56 engines in China, which include the CFM56-3, CFM56-5B, CFM56-5C, and CFM56-7, have a dispatch reliability rate of 99.99 percent-fewer than one departure per 10,000 is delayed or cancelled for engine-related issues. The fleet also has a cumulative shop visit rate of 0.039, which translates to fewer than one unplanned shop visit per 25,650 flight hours (single-aisle aircraft such as the A320 and 737 logged 3,000 to 5,000 hours annually). In addition, the fleet maintains an outstanding in-flight shutdown rate of only 0.002; this statistic translates to one engine-caused in-flight shutdown every 500,000 flight hours.

"We are very excited that the CFM fleet in China is doing so well, but I cannot say we are surprised," said Grard Lavieq, president of CFM. "We believe that CFM builds the most reliable engines in the industry, but we know that it is our customers who keep them in the air. The maintenance crews of our Chinese customers are to be commended on doing such an exemplary job."

In recent years, CFM has brought two major programs on-line that are helping the company provide even greater support for the nearly 500 CFM56 engines currently in service in China.

Working closely with the Civil Aviation Administration of China (CAAC), CFM opened the Aero Engine Maintenance Training Center (AEMTC) in Guanghan, Sichuan Province, adjacent to the CAAC Flying College, in November 1996. AEMTC offers courses from line maintenance to engine technology management on CFM56 and GE CF6 engines. To date, AEMTC has trained more than 1,600 students.

In addition, CFM and China Aviation Supply Company (CASC) have established a CFM Spares Service Center at Beijing Airport. The facility provides line maintenance parts

for the CFM56-3, CFM56-5B, and CFM56-5C engines for more seamless support of Chinese 737, A320, and A340 operators. The Center has nearly 1,200 parts in stock and has shipped more than \$10 million worth since it began operation in 1996. Prior to the Center's opening, it took two to three weeks for spare parts to reach China. With the aid of CASC, the Center has reduced that turnaround time to one to two days.

#### GE ENGINE SERVICES (XIAMEN) BREAKS GROUND FOR NEW FACILITY

August 4, 1999

Xiamen, Fujian Province, China - GE Engine Services (Xiamen) Co., Ltd. today held groundbreaking ceremonies for its new, state-of-the-art jet engine overhaul facility.

GE Engine Services (Xiamen) is a jet engine overhaul joint venture whose shareholders include Xiamen Aviation Industry Co., Ltd. (XAICO) and Taikoo (Xiamen) Aircraft Engineering Co., Ltd., (TAECO), both Xiamen-based companies. XAICO is a high technology, export-oriented company focused on the development of the aerospace industry, aircraft maintenance, and related industries in Xiamen. TAECO is a leading international aircraft maintenance company providing service to airlines throughout Asia as well as the People's Republic of China. The joint venture agreement also provides for the possible future addition of other shareholders, including airlines.

Located in Xiamen, a special economic zone within Fujian Province of the People's Republic of China, GE Engine Services (Xiamen) will perform overhaul and repair of engines produced by GE Aircraft Engines and by CFM International, a 50/50 joint company of Snecma of France and General Electric Company of the United States.

"Today's groundbreaking is an important milestone for GE Engine Services (Xiamen)," said Rick Turner, managing director and general manager of the joint venture. "This facility will be the hub of GE's engine service support structure for airlines in China, and will be key in helping customers manage costs, increase engine time on wing, and lower overall cost of ownership."

The facility, expected to be operational by mid-2001, joins the global network of GE Engine Services "Centers of Excellence," which include overhaul and repair facilities located in Nantgarw, Wales; Singapore; Kuala Lumpur, Malaysia; Ontario, California; Strother Field, near Arkansas City, Kansas; Miami, Florida; Dallas/Fort Worth, Texas; Prestwick, Scotland; Petropolis, Brazil; Rio de Janeiro, Brazil; and Cincinnati, Ohio; plus Garrett Aviation Services' Six Total Aircraft Service Centers.

Founded by Thomas Edison in 1878, GE is a leading provider of products and services that enhance the quality of life for people all over the world. GE began to develop trade with China as early as 1910, and was considered then as one of the most active and influential foreign enterprises in China. Today, all of GE's major businesses are active in China, and have established more than 20 joint ventures or wholly owned enterprises in the country, employing more than 6,000 people. GE investments in China amount to more than US\$1 billion.

#### GE ENGINE SERVICES ESTABLISHES ENGINE OVERHAUL JOINT VENTURE IN CHINA

March 3, 1999

Xiamen City, Fujian Province, Peoples Republic of China - GE Engine Services, Inc., the world leader in total aviation services, has formed a jet engine overhaul joint venture company in China, GE Engine Services (Xiamen) Co., Ltd. The joint venture's initial shareholders include Xiamen Aviation Industry Co., Ltd. (XAICO) and Taikoo (Xiamen) Aircraft Engineering Company Limited (TAECO), both Xiamen-based companies. XAICO is a high-tech, export-oriented company focused on the development of the aerospace industry, aircraft maintenance, and related industries in Xiamen. TAECO is a leading international aircraft maintenance company providing service to airlines throughout Asia as well as the PRC. The joint venture agreement also provides for the possible future

addition of other shareholders, including airlines. Located in Xiamen, a special economic zone within the Fujian Province of the Peoples Republic of China, GE Engine Services (Xiamen) will perform overhaul and repair of engines produced by GE Aircraft Engines and the engines of CFM International, a 50/50 joint venture company of Snecma of France and General Electric Company of the United States. Its new, state-of-the-art facility is expected to be operational by mid-2001. "The nucleus of our engine service support structure for airlines in China is now formed," said Bill Vareschi, president and chief executive officer of GE Engine Services. "GE Aircraft Engines continually looks for products and services to help our customers manage costs, increase engine time on wing, and lower overall cost of ownership, and we are very pleased to extend this initiative to China." GE Engine Services (Xiamen) joins the global network of GE Engine Services "Centers of Excellence," which has overhaul and repair facilities located in Nantgarw, Wales; Singapore; Kuala Lumpur, Malaysia; Ontario, California; Strother Field, near Arkansas City, Kansas; Miami, Florida; Fort Worth/Dallas, Texas; Prestwick, Scotland; Petropolis, Brazil; Rio de Janeiro, Brazil; and Cincinnati, Ohio, and also at Garrett Aviation Services' six Total Aircraft Service Centers. Total Aircraft Service is a service mark of GE Engine Services-Corporate Aviation, Inc.(d.b.a. Garrett Aviation Services).

#### CHINESE AMBASSADOR VISITS GE AIRCRAFT ENGINES FACILITY

February 15, 1999

Cincinnati, Ohio - China's ambassador to the United States, Li Zhaoxing, visited GE Aircraft Engines' world headquarters here January 21 as part of a one-day trip to meet with more than 250 Cincinnati-based businesses. GE Aircraft Engines (GEAE) and CFM International (CFM) maintain a strong presence in China, both through the country's airlines and through cooperative ventures. During his visit, Ambassador Li had the opportunity to view CFM56 production and final assembly at GE's Cincinnati facility. CFM56 engines are the most popular and most reliable engines operating in China today. Currently, 18 Chinese airlines operate more than 225 aircraft powered by GE/CFM engines; an additional 59 aircraft are also on order. To support this fleet, GE opened a Spare Parts warehouse in Beijing in 1995, as well as the Aero Engine Maintenance Training Center in Guanghan. Since the AEMTC opened in late 1997, more than 1,500 airline service technicians have been trained. There are also GE-trained Chinese national field service representatives based at each airline operating GE/CFM engines. Last September, GE Engine Services launched an on-wing support center in Xiamen and is considering several additional locations throughout the country. Ambassador Li praised GEAE's overall strategy of increasing its investments in China, as well as the company's commitment to training and utilizing local Chinese nationals. As part of its continuing investment in China, GE is currently evaluating the development of a joint venture with Xiamen Aviation Industries Company (XAICO) and Taikoo (Xiamen) Aircraft Engineering Company Limited (TAECO). Between 1986 and 1998, GEAE purchased a total of more than \$60 million in Chinese-manufactured parts, and the company is committed to further enhancing its sourcing capabilities there.

#### GEAE EVALUATING PRODUCTION ALLIANCE IN CHINA

November 16, 1998

Zhuhai, China - GE Aircraft Engines (GEAE) is evaluating the expansion of its manufacturing relationship with XAE Aero-Engine Corporation (XAE) and China National Aero-Technology Import/Export Corporation (CATIC) in the second phase of the growth program for the new Manufacturing Technology Center (MTC) in Xi'an, China, to help the center become a world-class rotating parts Center of Excellence.

This expanded effort, which is a continuation of the long-standing relationship GEAE has developed with XAE and CATIC, includes evaluating the need for additional equipment for increased production, technical support, and training.



The Phase II investment in the MTC will enable XAE/CATIC to increase its annual part production output from \$13 million in 1999 to approximately \$30 million by 2001. GEAE currently has \$18 million in existing purchase orders with XAE/CATIC.

"We have been purchasing engine parts from China's aerospace manufacturing industry since 1986," said W. S. Clapper, CFM56 Project General Manager for GEAE. "During that time, we have formed a solid working relationship with XAE and we're looking forward to the prospect of taking that relationship to the next level. The MTC is a world-class operation that supports the high quality standards that have made GE and CFM engines the world's best-selling."

The relationship between GEAE, XAE and CATIC dates back to 1982, when GEAE first visited China and entered into discussions with the PRC Government and XAE about manufacturing engine parts in China. Since then, XAE has become a key supplier to GEAE, with \$6 million in XAE-manufactured parts delivered in 1998; the figure is expected to reach nearly \$13 million in 1999.

Because of XAE's quality and delivery performance, GEAE made it the sole supplier for its marine and industrial LM2500 engine's low pressure turbine disks; XAE has delivered more than 2,800 disks. In addition, GE received the first rotating part produced by XAE for a CFM56 engine earlier this year.

The concept for the MTC facility was developed by GEAE, Aviation Industries of China (AVIC), and XAE in January 1996. Phase I culminated in the official opening of the 95,000 square foot facility last August. The MTC is now the most advanced rotating parts manufacturing facility for aero engine parts in China.

When all the equipment is installed, it will represent an investment of as much as US \$30 million and will employ several hundred people capable of making US \$30 million in parts per year, thus quadrupling the business between GEAE and XAE/CATIC. In addition to the LM2500 low pressure turbine disks, the MTC will also produce CFM56 engine seals, high pressure turbine shafts, compressor shafts, a compressor disk, and high pressure turbine blade retainers.

In addition to providing purchase orders, GEAE also provided technical assistance and quality training as part of Phase I. One quality engineer from XAE has completed Six Sigma quality training at GEAE facilities in the U.S. and is now working full time at MTC. There are currently 18 additional team members undergoing Six Sigma training.

This training is a key element to producing the highest quality parts. An aircraft engine core spins at more than ten thousand revolutions per minute, in addition to being subjected to temperature and pressure levels far greater than those experienced by most machined parts. In addition, they are subjected to rigorous inspections and testing before they can ever be installed in GE/CFM engines.

The MTC was developed to ensure that all of the parts produced maintain GEAE's high reliability standards.

## GE ENGINE SERVICES EXPANDS GLOBAL ON WING SUPPORT NETWORK TO CHINA

September 8, 1998

Xiamen City, China - GE Engine Services, Inc., the industry leader in total aviation services, today announced the formation of its first GE Engine Services facility in China, GE On-Wing Support (Xiamen) Co., Ltd. Located in Xiamen City, Fujian Province, China, GE On-Wing Support (Xiamen) Co., Ltd., becomes part of the well-established GE On-network which provides quick and efficient on-wing aircraft engine maintenance and repair by dispatching "rapid response" teams of expert GE aircraft engine technicians to any location worldwide, 24 hours a day, 365 days a year. "This is the first step in the implementation of GE Engine Services' plan to establish a support structure for the airlines in China," said William J. Vareschi, president and chief executive officer of GE Engine Services. GE On-Wing Support (Xiamen) will provide support for engines produced by GE

Aircraft Engines and the engines of CFM International, a 50/50 joint company of Snecma of France and General Electric Company of the United States, as well as engines produced by other manufacturers. In addition to convenience, On-Wing Support service provides exceptional customer value by reducing costly engine removals and shop visits, and decreasing expensive operational disruptions with time-off-wing. First established at Heathrow Airport in London, U.K., in 1993, GE On-Wing Support operates sites from: Luton Airport, near London; the Greater Cincinnati/Northern Kentucky International Airport, near Cincinnati, Ohio; John F. Kennedy (JFK) International Airport at New York City; Miami (Florida) International Airport; and Carter Field, in the Dallas/Ft. Worth, Texas, area. In addition to On-Wing Support (Xiamen), GE Engine Services plans to be operating more than 20 On-Wing Support locations by 2000.

#### CHINA EASTERN AIRLINES PLACES \$140 MILLION CFM56-5B/P ORDER

March 9, 1998

Evendale, Ohio - China Eastern Airlines has placed a \$140 million order for CFM56-5B/P engines to power 10 new Airbus Industrie A320 aircraft scheduled for delivery between mid-1999 and late 2000. CFM56-5B/P engines are produced by CFM International (CFM), a 50/50 joint company of Snecma of France and General Electric of the United States and the world's leading supplier of commercial transport aircraft engines. China Eastern is the third largest airline in China, both in terms of fleet size and revenue passenger miles, and, in 1997, became the first Chinese airline traded on the New York Stock Exchange. The airline became a CFM customer in 1994 with an order for five CFM56-5C-powered long-range, four-engine Airbus A340 aircraft. In addition to the ten new aircraft China Eastern is purchasing, the Shanghai-based airline is also leasing an additional 10 CFM-powered A320s. The first of these aircraft was delivered in late February, and the remaining leased airplanes will all be delivered by the year 2000. "We are very happy to have this opportunity to further strengthen our relationship with China Eastern," said Phillip Zhang, CFM sales director for the China Region. "The confidence this airline has shown in our products by selecting them to power a large segment of its short-range fleet is highly gratifying. We are committed to continue to earn China Eastern's trust in the years to come."

#### CHINA SOUTHERN AIRLINES LAUNCHES FIRST NON-STOP CHINA/U.S.TWIN-ENGINE FLIGHT WITH GE90-POWERED 777

July 21, 1997

Evendale, Ohio - China Southern Airlines made aviation history Sunday (July 20), launching the world's first nonstop, twin-engine transpacific flight between the mainlands of China and the U.S. with the GE90-powered Boeing 777. China Southern, which operates about 90 aircraft to more than 60 cities worldwide, inaugurated its new Guangzhou-to-Los Angeles route with yesterday's flight. The U.S. Department of Transportation granted permission for the new route in June. China Southern is headquartered in Guangzhou, northwest of Hong Kong. China Southern's GE90-powered 777s received extended-range, twin-engine international operations (ETOPS) approval from the Civil Aviation Administration of China in May, making the 14-hour, nonstop route possible. The GE90-90B growth engine was designed to provide ETOPS capability over the Pacific Ocean; yesterday's flight represents the 777's first transpacific ETOPS operation. ETOPS approval provides airlines greater route-scheduling flexibility and economy as it allows twin-engine aircraft to service routes traditionally reserved for three- or four-engine aircraft. The GE90 is the world's largest and most powerful jet engine and has demonstrated outstanding performance in nearly two years of revenue service powering the 777. In logging nearly 100,000 revenue flight hours, the GE90-powered 777 has experienced no in-flight shutdowns and has maintained an industry-leading 99.97 percent dispatch reliability rate on this aircraft. Dispatch reliability is based on the number of flights delayed for 15 minutes

or more, or canceled, for any engine-caused reason. The GE90-powered 777 is in service with China Southern and British Airways. In addition, Air France, Continental Airlines, Kuwait Airways, GE Capital Aviation Services, International Lease Finance Corporation, Lauda Air, and Saudi Arabian Airlines have ordered 92 firm and option GE90-powered 777s at a value of more than \$3 billion.

#### GE CF34 ENGINES TO POWER CHINA'S RECORD-SETTING ORDER FOR CANADAIR CORPORATE JETLINERS

February 4, 1997

Lynn, Massachusetts -The People's Republic of China, in its largest order ever for corporate aircraft, has signed a purchase agreement for five Bombardier Corporate JetLiner aircraft powered by GE CF34-3B1 turbofan engines.

China United Airlines, which will operate the fleet, will take delivery of three aircraft in July 1997 and two in 1998.

The Canadair Corporate JetLiner, which is manufactured by Bombardier Aerospace, is a corporate variant of the highly-successful 50-passenger Canadair Regional Jet. The CF34 engine, which is manufactured at GE's Lynn, Massachusetts, facility, is the sole powerplant for the Canadair Jet, which currently is in service with 14 operators in eight countries worldwide.

"We are pleased that the People's Republic of China, and China United Airlines, have chosen the GE-powered Canadair JetLiner to transport senior government and **military** officials," said Lloyd Thompson, general manager of the Small Commercial Turbofan Department of GE Aircraft Engines. "They have selected an outstanding aircraft, powered by an engine that sets industry standards for performance and reliability."

Derived from the proven TF34 military engines, the CF34-1A entered service in 1983 powering the Canadair Challenger 601 business jet. The CF34-3A entered service in 1987, also on the 601, offering more power, improved performance, greater range, and a larger payload at high/hot conditions. Selected for the Canadair Regional Jet, the CF34-3A1 entered service in 1992, featuring a low-emissions combustor, longer-life materials, and improved airline maintenance characteristics.

The newest CF34 models in service, the CF34-3B and -3B1, entered service in 1995 on the 4100 nautical mile Challenger 604 and Canadair Regional Jet CRJ-200B respectively, offering lower fuel consumption at cruise, a faster rate of climb, and shorter hot-day/high-altitude takeoff performance. Both models feature the low-emissions combustor, continuing the CF34 heritage as a "clean and green" engine.

In all, the CF34 engine powers 428 Bombardier aircraft, including 285 Canadair Challenger aircraft and 143 Canadair Regional Jet airliners.

Development and testing are currently under way for the growth model CF34-8C1 to power the new 70-passenger Bombardier CRJ-X regional airliner. The -8C1 is designed to provide more than 50 percent more takeoff thrust, 4 percent lower fuel consumption and 30 percent fewer parts than current CF34 models. Engine features include a larger fan, and increased-flow compressor, a new low-pressure turbine, and a dual-channel, Full Authority Digital Electronic Control (FADEC). The CF34-8C1 is on schedule for certification by the U.S. Federal Aviation Administration in mid-1999.

#### AERO ENGINE MAINTENANCE TRAINING CENTER OPENS IN GUANGHAN

November 4, 1996

Zhuhai, China - The Aero Engine Maintenance Training Center, which was jointly developed by the Civil Aviation Administration of China (CAAC), Civil Aviation Supply Company (CASC), CFM International (CFMI), GE Aircraft Engines (GEAE), and Snecma, was officially opened November 1. The Center is adjacent to the CAAC's Civil Aviation Flying College in Guanghan, Sichuan Province. CFM International is a 50/50 joint company of Snecma of France and General Electric of the United States. The new Center was

developed to support operation of CFM56 and GE CF6 engines in China. The Center is the first of its kind in China and is the first such world-class training facility outside the U.S. and France. Although classes do not begin at the new center until November 16, the school already has a six-month backlog for trainees. To meet the high demand, maintenance training has been provided at individual airlines since October 1995. GEAE and Snecma have invested a total of approximately \$17 million in equipment for the Center. In addition to helping design the school to U.S. standards, the companies have equipped the school with CFM56-3 and CF6-80C2 training engines, tooling, instructional manuals, and teaching aides. They have also provided two full-time instructors that have been in China since late 1995 and will remain in country for five years. The school curriculum features comprehensive, hands-on courses in basic engine introduction, line maintenance, fan balancing, borescoping, and other skills. The curriculum is identical to that provided at GEAE training facilities in Cincinnati, Ohio, and Snecma facilities in Melun-Montereau, France. The program was launched by an agreement in 1994 and was completed on schedule.

#### CFM56 SOURCING AND SPARE PARTS PROGRAMS LAUNCHED IN CHINA

November 4, 1996

Zhuhai, China - CFM International has launched two initiatives that will enable the company to both improve its support of Chinese airlines and to broaden its relationship with Chinese industry. GE Aircraft Engines, a 50/50 partner in CFM International (CFMI) with Snecma of France, has agreements in place that will result in the manufacture of CFM56 parts in China. The company recently signed with Xian Engine Aero Factory for the manufacture of approximately \$8 million worth of CFM56 hardware. Delivery of these parts is scheduled to begin in 1997. These agreements are in addition to the on-going purchase programs CFMI has had with AVIC factories since 1986. Working closely with China Aviation Supply Company (CASC), the company is also establishing the CFMI Spares Service Center adjacent to Boeing facilities at Beijing Airport. The facility will provide CFM56-3 line maintenance parts and will result in more seamless support for Chinese 737 operators. It currently takes two to three weeks for spare parts to reach Chinese airlines. With the aide of CASC, that turnaround time will be reduced to one or two days when the Center becomes operational in late November of this year. Again, the Center will initially offer only CFM56-3 parts, but services could be expanded to encompass the entire CFM56 product line in the future.

#### CAAC/CASC PLACE \$130 MILLION CFM56-5 ORDER TO POWER NEW AIRBUS INDUSTRIE A320s

November 4, 1996

Zhuhai, China - The Civil Aviation Administration of China and the China Aviation Supplies Import & Export Corporation have together placed a \$130 million order for CFM56-5B4 engines to power 13 new Airbus Industrie A320 aircraft. The CFM56-5B4 is produced by CFM International (CFMI), a 50/50 joint company of Snecma of France and General Electric of the United States. The A320s, which are scheduled for delivery between 1997 and 2000, will be divided between China Northwest, which will get 10 new planes, and Zhejiang Airlines, which will operate the three remaining aircraft. The A320s will be the first introduction of CFM56-powered aircraft into either fleet.

#### CFMI/GE BREAK GROUND FOR NEW TRAINING CENTER; CELEBRATES 10 YEARS OF RELIABLE SERVICE IN CHINA

June 2, 1995

Chengdu, China - The Civil Aviation Administration of China (CAAC), CFM International, and GE Aircraft Engines broke ground here today for a new aircraft engine maintenance training center. At the same time, CFM International (CFMI), a 50/50 joint

company of General Electric (GE) of the United States and Snecma of France, is celebrating 10 years of CFM56 reliability in China. The new training school, scheduled to open in 1996, was developed jointly by the CAAC, CFMI, and GE to support operation of CFM56, CF6, and, later, GE90 engines in China. The center is the first of its kind in the country and reflects the growing CFMI/GE presence in the region. The training center will soon begin operation in temporary facilities. CFMI and GE are equipping the school with CFM56-3 and CF6-80C2 training engines and are providing a full-time instructional staff. The school curriculum will feature comprehensive, hands-on courses in basic engine introduction, line maintenance, fan balancing, borescoping, and other skills. The curriculum is identical to that provided at CFMI and GE training facilities in Cincinnati, Ohio, and Melun-Montereau, France. The first CFM56-3-powered Boeing 737-300s were delivered to Yunan and China Southwest Airlines in 1985. Today, Chinese airlines operate 108 737s with 14 more on order, including leased aircraft. In addition, China Eastern and CAAC have on order 11 CFM56-5C-powered long-range, four-engine Airbus Industrie A340s. The CFM56-3 fleet in China has achieved an outstanding reliability record over the past 10 years. These engines have logged nearly 1.3 million flight hours while maintaining a 99.99 percent dispatch reliability rate. During the entire 10 years, there has been only one engine-caused in-flight shutdown. At the same time, the fleet has achieved a shop visit rate of .023.

#### **GKN Aerospace**

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2012 Zhuhai Directory: GKN plc is a global engineering group. It has four divisions; GKN Driveline, GKN Powder Metallurgy, GKN Aerospace and GKN Land Systems, which operate in the automotive, aerospace and land systems markets. Approximately 48,000 people work in GKN companies and joint ventures in more than 30 countries. GKN is listed on the London Stock Exchange (LSE: GKN) and recorded sales of GBP6.9 billion in the year to 31 December 2012. GKN Aerospace is a global first tier supplier of airframe structures, engine components, transparencies, and fuel/flotation systems, with sales of \$3.5 billion and a global workforce approaching 12,000. It has a significant participation on all major aircraft programmes today and a broad customer base spanning commercial, **military**, business aerospace and space markets. The company's extensive engineering capability and clear focus on targeted innovation has created technological and manufacturing leads in each of its areas of expertise.

Corporate Directory (Extracted in January 2014):

Executive Profile: Phil Swash (50), CEO GKN Aerospace and Special Projects, Joint Venture China.

Appointment: Appointed to Aerospace Executive Committee, September 2007.

Experience: Joined GKN in September 2007 as CEO Aerostructures – Europe, with accountability for developing the European aerostructures business. He secured GKN Aerospace position on the Airbus A350 XWB program and led the team handling the acquisition of the Filton Wing component and assemblies manufacturing facility from Airbus. He began his career in 1980 as a craft apprentice with Hawker Siddley Dynamics

and worked for several years as a fitter then industrial engineer. In 1990 he took a 2 year secondment to the BAe Dynamics Change Team and five years later joined Airbus (Broughton, UK) as Product Unit manager of their major component center. In 1998 he was appointed head of operations for A340-600 in 2004, plant manager of the Broughton Wing Facility. He has a BEng (Hons) in mechanical and production engineering.

External Appointments: Fellow of the IEE; Chartered Engineer; Honorary Fellow of Liverpool John Moores University.

## GKN PRESS RELEASES

### GKN AEROSPACE AND SAMC EXTEND MOU AND CONCLUDE OPERATING AGREEMENTS

November 15, 2012

Aerospace – General

GKN Aerospace and Shanghai Aircraft Manufacturing Company (SAMC) have revised their Memorandum of Understanding (MOU) and signed further agreements covering manufacturing development and intellectual property rights for structures for the COMAC 919 next generation, twin turbofan, narrow body, 150 seat aircraft. SAMC is a wholly owned subsidiary of the Commercial Aircraft Company of China Ltd (COMAC).

In collaboration with SAMC, GKN Aerospace is to manufacture and assemble the composite horizontal tail plane (HTP) for the C919. The carbon fibre HTP is made using current advanced composite processes. It consists of two major torque-box assemblies joined together at a centre rib and includes the elevator assemblies. Working with SAMC, GKN Aerospace will carry out the HTP development activities and, on completion of this phase, will move into a manufacturing joint venture. This JV will be called Shanghai GKN-SAMC Aerospace Composite Structure Manufacturing Co. Ltd.

Marcus Bryson, Chief Executive Officer – GKN Aerospace and Land Systems comments: “The on-going success of this collaboration with SAMC represents both an important expansion of GKN’s long established working relationship with China and a vital technological step forward in our work on the design and manufacture of advanced composite components and structures.”

GKN has had a 25 year-long presence in China. Today the company employs 5000 people and manufactures in 12 locations across China. This foundation underpins and advises the growing relationship between COMAC and GKN Aerospace.

Photo Not Included: Caption: Mr. Phil Swash, CEO GKN Aerospace Europe and Special Products and Mr. Weiguo Shen, President, SAMC sign the revised MOU at Airshow China, 2012. Pictured behind them, left to right, are Mr. Yongkang Gu, C919 Programme Director, GKN Aerospace, Mr. Xiaofei Xu, Vice President SAMC, Supply Chain, Mr. Jeff Armitage, Vice President & MD Composite Aerostructures, GKN Aerospace, Mr. Jianzhong Shi, Vice President COMAC, Mr. Stefan Magirius, President GKN China, Mr. Yinping Zhang, Deputy Director, Development and Planning Department of COMAC, Mr. Yahong Chen, Deputy Director, International Cooperation Department of COMAC, Mr. Dasheng Huo, Senior Specialist, International Cooperation Department of COMAC.

Editor’s Notes:

GKN plc is a global engineering business serving the automotive, aerospace and land systems markets. It has operations in more than 35 countries, around 47,000 employees in subsidiaries and joint ventures and sales of GBP6.1 billion in the year to 31 December 2011. GKN plc is listed on the London Stock Exchange (LSE: GKN).

GKN Aerospace is the aerospace operation of GKN plc, serving a global customer base and operating in North and South America, the Asia Pacific and Europe. With sales of GBP1.5bn, the business is focused around three major product areas - aerostructures,

engine products and transparencies, plus a number of specialist products - electro-thermal ice protection, fuel and flotation systems, and bullet resistant glass. The business is equally split along **military** and civil lines with significant participation on all major aircraft programmes today. GKN Aerospace is a major supplier of integrated composite structures; offers one of the most comprehensive capabilities in high performance metallics processing and is the world leading supplier of cockpit transparencies and passenger cabin windows.

The Commercial Aircraft Corporation of China, Ltd. (COMAC) is a state-owned company, which is formed with the approval of the State Council and jointly invested by the State-owned Assets Supervision and Administration Commission (SASAC) of the State Council, Shanghai Guosheng (Group) Co., Ltd., Aviation Industry Corporation of China (AVIC), China Aluminum Corporation (CHINALCO), Baosteel Group, and Sinochem Group. With a registered capital of RMB 19 billion. COMAC was held on May 11th, 2008. COMAC is headquartered in Shanghai.

COMAC functions as the main vehicle in implementing large passenger aircraft programs in China. It is also mandated with the overall planning of developing trunk liner and regional jet programs and realizing the industrialization of civil aircraft in China. COMAC is engaged in the research, manufacture and flight tests of civil aircraft and related businesses such as marketing, servicing, leasing and operations of civil aircraft. The company has six member organizations including Shanghai Aircraft Design and Research Institute (SADRI), Shanghai Aircraft Manufacturing Co., Ltd. (SAMC), Shanghai Aircraft Customer Service Co., Ltd., and among these organizations Shanghai Aircraft Manufacturing Co., Ltd (SAMC) is the final assembly center for aircraft.

#### GKN AEROSPACE CAAC CERTIFICATION RENEWED. ENGINE SUPPORT OPERATION WILL GROW TO MEET DEMAND

February 15, 2008

Aerospace – Aftermarket

Visit us on Stand K82, Singapore Airshow , 19th – 24th Feb, 2008

The Civil Aviation Administration of China (CAAC) has announced the extension of GKN Aerospace's Maintenance Organisation Certificate (MOC) by a further two years until December 31st 2009. This MOC covers the repair and overhaul of a wide range of commercial aircraft engine fan blades and fan components for both Airbus and Boeing aircraft. Renewal of the MOC means the GKN Aerospace maintenance operation complies fully with China Civil Aviation Regulation (CAAR) part 145. Steve Pearl, VP, General Manager Aviation Repair, comments: "We have been maintaining aero-engine fan components for China's operators for over 20 years and this MOC extension recognises the continuing quality of our support activity. Air traffic is predicted to grow considerably in the next 20 years, with the Asia Pacific being at the heart of that growth and China expected to experience the greatest increase in activity. We intend that our global engine fan component aftermarket operation will increase and broaden to support these operators as they work to meet this increasing passenger demand."

#### **Global Aviation Spares Pty Ltd**

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2012 Zhuhai Directory: We service Airline operators, maintenance facilities, rotary and fixed wing for both civil and **military**. We also offer full corporate jet, helicopter and

small aircraft sales. Complete engine overhaul accessories for the following engines: TFE731 and JT15D, CJ610, CF700, TFE731, and JT15D.

**Groupeement Des Industries Francaises Aeronautiques Et Spatiales (Gifas)**

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2012 Zhuhai Directory: GIFAS, the French aerospace industries association (founded in 1908), has 300 members, from major prime contractors and system suppliers to small specialist companies. They cover the full spectrum of skills from the design, development and production of aerospace systems and equipment to maintenance and operation.

Excerpts From GIFAS Online Report: 2013-2014 French Aerospace, **Defence** and Security Industry.

"With a strong international presence, Eurocopter has, for several decades, been stepping up its manufacturing activities in Asia, which include joint development of the EC120/HC120 with the Chinese aviation consortium AVIC, including an assembly line set up in China; a strategic alliance with AVIC for the development and production investment phase of the EC175 civil helicopter (Z15 in China); joint development, technical support, production and international marketing agreement with KAI (South Korea) for Surion (Korean Utility Helicopter (KUH) programme), a twin-engine military transport helicopter in the 8t class; subsidiaries in China and India; a cooperation agreement with Japan; facilities in Singapore; a logistics platform in Hong Kong; training centres, etc."

"CFM International won the power plant contract (as sole Western supplier) for China's twin-engine short to medium-haul C919 jetliner. In partnership with Nexcelle (Aircelle - Safran and MRAS - GE Aviation), which will supply the nacelle, thrust reverser and exhaust system, the engine manufacturer will supply the Leap-X1C engine. This will be the world's first truly integrated propulsion system. The Leap with its lightweight nacelle is one of two engines selected by Airbus for the A320neo. It has also been chosen by Boeing for re-engining the 737 and is standard fit on the new 737 MAX."

**GRW (Germany) Aerospace Bearing Company**

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2012 Zhuhai Directory: “GRW Bearing from Germany is one of the biggest precision miniature bearing producer in the world. For bearing application of air and space, medical equipment, precise fine engineering, GRW enjoy advanced position for his technology, R&D, and manufacturing. Together with GRW Bearing Shenzhen Foreach commit itself to The Chinese Civil Space and Aviation or quicker and higher and precise fly!!”

Corporate Website (Extracted in February 2014): As a global corporation, GRW is headquartered in Rimpfing near Würzburg with assembly facilities in Prácheň (Czech Republic) and a direct sales office in the USA. We employ over 500 employees internationally. GRW is the premier developer and manufacturer of ball bearings, assemblies, and accessory parts utilizing state of the art equipment and manufacturing processes. We specialize in the production of high precision, small, miniature and instrument bearings as well as spindle bearings in addition to pre-assembled bearing units. GRW also welcomes the opportunity to design, develop and produce customized applications using customer specifications. Our radial ball bearings range in bores from 1mm to 30 mm with outer diameters from 3mm to 50 mm meeting any need from mini series to high volume standard applications. These are produced in both metric and inch dimensions making them truly applicable to any customer in the world. Whether your application requires mini series, standard high volume or customized specifications, you can always rely upon GRW to meet any requirement or challenge.

**Gulfstream Aerospace Corporation**

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2012 Zhuhai Directory: Gulfstream Aerospace Corporation, a wholly owned subsidiary of General Dynamics (NYSE: GD), designs, develops, manufactures, markets, services and supports the world's most technologically advanced business-jet aircraft. Gulfstream has produced some 2,000 aircraft for customers around the world since 1958. To meet the diverse transportation needs of the future, Gulfstream offers a comprehensive fleet of aircraft, comprising the wide-cabin, high-speed Gulfstream G150; the large-cabin, mid-range Gulfstream G200; the new large-cabin, mid-range Gulfstream G250; the large-cabin, mid-range Gulfstream G350; the large-cabin, long-range G450; the large-cabin, ultra-long-range Gulfstream G500; the large-cabin, ultra-long-range Gulfstream G550 and the ultra-large-cabin, ultra-long-range G650. Gulfstream also offers aircraft ownership services via Gulfstream Financial Services Division and Gulfstream Pre-Owned Aircraft Sales. The company employs more than 12,000 people at 12 major locations.

**GULFSTREAM PRESS RELEASES**

**GULFSTREAM G280 CERTIFIED FOR CHINA AND CANADA; AUTHORIZATIONS  
STREAMLINE REGISTRATION PROCESS FOR NEW SUPER MID-SIZE AIRCRAFT**

Savannah, Georgia. July 18, 2013 — Gulfstream Aerospace Corp. recently earned type certificate validation from the civil aviation authorities in China and Canada for the Gulfstream G280. The validations officially recognize that the G280 is compliant with airworthiness and environmental requirements in each country. Securing a validation is one of the last steps required for an aircraft to be registered in a particular country. “The

G280's range, technology, fuel efficiency and comfort make it a popular aircraft in China and Canada," said Scott Neal, senior vice president, Sales and Marketing, Gulfstream. "Receiving certification approval for the aircraft in both countries will make it an even more appealing choice for customers in those regions." In addition to China and Canada, the G280 has been certified in the United States, Israel and the European Union. The aircraft entered service on Nov. 13, 2012. With a range of 3,600 nautical miles (6,667 km) at Mach 0.80, the G280 can connect Shanghai and Singapore, Beijing and Mumbai, Montreal and London and Calgary and Miami. Its balanced field length allows it to take off from runways of 4,750 feet (1,448 m). The G280 has a maximum operating speed of Mach 0.85.

#### GULFSTREAM G650 AND G280 ARRIVE IN CHINA FOR ABACE 2013; DEMONSTRATION AIRCRAFT CONTINUE SETTING CITY-PAIR SPEED RECORDS

Savannah, Georgia. April 15, 2013 — Gulfstream Aerospace Corp's two newest aircraft are participating in the company's static display at the Asian Business Aviation Conference and Exhibition (ABACE) in Shanghai. This is the first time the G650 and G280 are part of an air show in China. "We're excited to bring the G650 and G280 as well as the G150, G450 and G550 to China for our customers to see in person," said Scott Neal, senior vice president, Sales and Marketing, Gulfstream. "Bringing these five aircraft here demonstrates the commitment we've made to China and reflects our belief in the strength of this market." Over the past several years, we've made a significant commitment to the Asia-Pacific region, investing in people, parts and facilities to ensure the continued success of our operators. The five aircraft we have on static display here show that we have a wide variety of aircraft available to suit the varied missions of our customers. Our investment in the region shows that we're committed to providing our operators with the best support and resources possible, and that we are focused on maintaining our position as the number one business aviation brand in China." The ultra-large-cabin, ultra-long-range G650 and the super mid-sized G280 have been demonstrating their capabilities throughout the world, including in the Asia-Pacific region. Most recently, the G650 added an eighth city-pair record to its 2013 flying resume when the aircraft made its way from Chicago to Beijing in late March. The aircraft left Chicago International Airport with five passengers and four crew on board. It flew 6,223 nm (11,525 km) at an average speed of Mach 0.87, landing in Beijing 12 hours and 49 minutes later. The city-pair has been submitted to the National Aeronautic Association (NAA) for confirmation as a record. "The G650 is the perfect fit for the China market," Neal said. "With a range of 6,000 nm at Mach 0.90 (955 km/h), the G650 can link Shanghai to London, Sydney or Los Angeles, saving operators up to an hour when compared to other aircraft."

#### GULFSTREAM LAYS GROUNDWORK TO SUPPORT RAPIDLY EXPANDING CHINA FLEET; 'CHINA IS OUR TOP EXPORT MARKET,' SAYS PRESIDENT LARRY FLYNN

Savannah, Georgia. March 27, 2012 — Speaking to media at Shanghai's first Asian Business Aviation Conference and Exhibition (ABACE), Gulfstream President Larry Flynn addressed the strength of sales in the Asia Pacific and committed to increasing Gulfstream resources in the region.

"Asia, and particularly China, remains our leading export market," he said. "Twenty-seven percent of our current backlog is in Asia Pacific. The fleet of Gulfstream aircraft in use in Hong Kong and China has grown from zero in 2000 to more than 80 today, with more on the way." He noted a firm order worth \$810 million from Minsheng Leasing for 20 aircraft.

Flynn also introduced a trio of new customers: Nanshan Jet, which is taking delivery of its second G450 long-range jet, with an additional G450 and an ultra-long-range G550

on order; AllPoints Jet, which signed an order at the show for a G450 and G550; and Asia Jet, which is expanding its Shanghai charter fleet with a mid-range G200.

"These companies exemplify the dynamism in the Chinese market," Flynn said. "All will use the aircraft to conduct charter operations, thereby introducing more Chinese companies to the advantages of business aviation and the comfort and capability of Gulfstream jets.

"Gulfstream's philosophy is that top quality service sells business jets; we have and will continue to expand our service offerings in Asia Pacific by growing our product support infrastructure."

Flynn pointed to the planned opening of Gulfstream Beijing, a joint service center operated by Gulfstream, Deer Jet and Grand China Aviation Technik. The joint venture will be known as Gulfstream Beijing and will open later this year. Already, Gulfstream has a parts warehouse operating nearby. Gulfstream will be the first business jet manufacturer to offer factory service in China.

Flynn also noted Gulfstream's close collaboration with training provider FlightSafety International, which inaugurated the first full-flight simulator in Asia strictly devoted to business aviation. The G450/G550 simulator is based in Hong Kong, placing training much closer to customers from northern China and other parts of Asia.

"We are also proud to have a Beijing office in the central business district there, headed by Regional Vice President Herman Chai," Flynn noted. The office, located in the middle of Beijing's Central Business District, will give customers centralized access to Gulfstream resources in the rapidly growing Chinese market.

Flynn said Gulfstream has a 48 percent share of the large-cabin market in the Asia-Pacific region.

"Gulfstream customers value our aircraft for their category-leading range, speed, reliability and comfort," he said. "And they know that Gulfstream is there to support them from an aircraft's entry-into-service through years of operation. We are proud to have established such a solid reputation in China in such a short time."

#### GULFSTREAM G150 CERTIFIED FOR CHINA REGISTRATION; MOVE REFLECTS GROWING POPULARITY OF GULFSTREAM AIRCRAFT IN REGION

Savannah, Georgia, August 2, 2011 - Gulfstream Aerospace Corp. has received type certificate validation (TCV) for its G150 aircraft from the Civil Aviation Administration of China (CAAC), a move that allows operators to register the wide-cabin, high-speed business jet there. "This is reflective of the growing worldwide popularity of Gulfstream aircraft," said Larry Flynn, senior vice president, Marketing and Sales, Gulfstream. "It also demonstrates our commitment to ensuring Gulfstream ownership continues to be a smooth and simple process, regardless of where the aircraft is registered. Getting type certificate validation from China makes an already attractive aircraft even more so." Gulfstream achieved the validation through close coordination with the U.S. Federal Aviation Administration, China's CAAC and the Civil Aviation Administration of Israel, where the G150 airframe is built. "We're pleased with the progress we've made and the cooperation we've experienced as we work with all of these regulatory agencies to the benefit of our international customers," said Bill Whitton, vice president, Organizational Designation Authorization, Gulfstream. The G150, thanks to its 3,000 nautical-mile range and high speed, provides exceptional capability and efficiency to Chinese operators and is backed by the same product support organization that services Gulfstream's long-range G550 and G450 aircraft. The G150 can fly from Singapore to Beijing in 6 hours and 10 minutes, shaving up to 1 hour and 14 minutes off the flight time of other aircraft in its class. The aircraft can travel nonstop from Hong Kong to Mumbai at Mach 0.75, Hong Kong to Delhi at Mach 0.80 and Beijing to Delhi at Mach 0.80. The mid-size jet also offers several options to improve safety, including an Enhanced Vision System (EVS) II, and a Wide Area Augmentation System-Localizer Performance with Vertical Guidance (WAAS-LPV). In

addition to China, the G150 has received type certification validation from the Ukraine, Israel, the United States, Chile, the European Union, the Philippines, Canada and Brazil.

#### **GULFSTREAM ADDS FIELD SERVICE REPRESENTATIVE IN CHINA; AVIATION INDUSTRY VETERAN JENSON SAW WILL BE BASED IN BEIJING**

Savannah, Georgia, February 1, 2010 - Gulfstream Aerospace Corp., a wholly owned subsidiary of General Dynamics (NYSE: GD), recently added a representative to its field service organization. Jenson Saw will assist Gulfstream customers in Beijing, China, and surrounding areas. Prior to joining Gulfstream, Saw worked for Jet Aviation, another General Dynamics subsidiary, in Hong Kong as an aircraft engineer, performing aircraft management, line maintenance and regional aircraft-on-ground (AOG) support. He began his 16-year aviation career in 1993 as an electrical and instrument technician for AIROD's facility at Subang airport in Malaysia. Saw, who holds airframe and power plant (A&P) licenses from the Federal Aviation Administration (FAA) and European Aviation Safety Agency (EASA), speaks six languages, including English, Mandarin and Cantonese. Saw reports to Ken Maxwell, senior operations manager, International Field Service

#### **GULFSTREAM SELLS FIRST LARGE-CABIN BUSINESS-JET AIRCRAFT IN CHINA; CHINA'S HAINAN AIRLINES GROUP FINALIZES FIRST FLEET ORDER -- THREE G350S AND ONE G550 BUSINESS JETS -- FOR ITS DEER JET AIR CHARTER COMPANY**

SAVANNAH, Ga., February 18, 2008 – Gulfstream has sold its first large-cabin business jet aircraft in China with the recent multi-aircraft sale of three mid-range G350s and one ultra-long-range G550 to Hainan Airlines Group. The four aircraft will be used as charter aircraft by Deer Jet, a wholly owned subsidiary of Hainan Airlines Group. This aircraft order marks the first fleet purchase for Beijing-based Deer Jet. Deer Jet is the first business-jet charter operator in China and the leader of Asia's private jet industry in terms of fleet size and occupancy rates. Deer Jet's current eight-aircraft fleet, which includes a Gulfstream IV and two Gulfstream G200s, reach more than 125 airports within China and 136 international airports. With nearly 4,000 charter flight hours logged every year, Deer Jet currently serves more than 70 percent of the China business-jet charter market. "With the addition of the three G350s and the G550, we will be able to optimize our fleet and capacity to meet the demands of our growing customer base," said Mr. Liu Zhiqiang, chairman of Deer Jet Ltd. "These aircraft will primarily serve our high-end customers, including central government officials, local Chinese and international business leaders, representatives from foreign governments and celebrities." The ultra-long-range G550 can fly 6,750 nautical miles nonstop, while the G350 was developed for shorter routes up to 3,800 nautical miles. Both aircraft feature low noise levels and short take-off and landing distances, that enable them to fly into and out of smaller airports. They also share the same PlaneView flight deck and the same pilot type rating. This translates to better utilization of flight crews, reduced pilot training costs and lower costs relating to service and parts inventories. "We are extremely pleased to be providing Gulfstream aircraft to Deer Jet," said Gulfstream President Joseph T. Lombardo. "We appreciate the confidence Deer Jet has in our products and our company and look forward to serving them in the future." Gulfstream plans to deliver the three G350s consecutively in the second, third and fourth quarters of 2010 and the G550 in the first quarter of 2011.

#### **FIVE GULFSTREAM BUSINESS JET MODELS CERTIFIED BY THE GENERAL ADMINISTRATION OF CIVIL AVIATION OF CHINA; CERTIFICATION ALLOWS AIRCRAFT REGISTRATION AND OPERATION WITHIN CHINA**

Savannah, Ga., February 18, 2008 – Gulfstream Aerospace announced today that it has received type certification from the General Administration of the Civil Aviation of China (CAAC) for five of its business jet models: the Gulfstream GV; G350; G450; G500 and

G550. Those models join the Gulfstream GIV and GIV-SP which were certified by the CAAC on September 15, 2003. The type certification allows the registration and operation of the aircraft models within China. In 2005, the CAAC also granted approval to Gulfstream's Long Beach, CA., service center to provide support for Chinese-registered GIV aircraft as well as Gulfstream GIIIs and GIIIs. "These type certificates enable us to further expand our business activities within China," said Joe Lombardo, president, Gulfstream Aerospace. "There is no question China is one of the most significant emerging markets for business jet aircraft. CAAC type certificates make it easier to offer our products to potential Chinese customers." The G550, G500, G450 and G350 business jets feature virtually the same onboard systems and, along with the Gulfstream GV, share the same pilot type rating. As a result, operators of multi-Gulfstream aircraft fleets reduce their operations costs associated with aircraft maintenance, pilot and technician training and spare-parts inventory.

# H

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2012 Zhuhai Directory: Hexcel is the largest US producer of carbon fiber; the world's largest weaver of reinforcement fabrics; the number one producer of composite materials such as honeycomb, prepregs, film adhesives and sandwich panels; and a leading manufacturer of composite parts and structures. More than 60 years of history has turned Hexcel into a global player with 18 plants, 26 representative offices, 4,000 employees and USD 1.1 billion annual revenue. Our product range covers aerospace, transportation, entertainment, and the emerging wind energy. Established in 2008, Hexcel first prepreg plant in Tianjin China for wind energy is now under stable operation. Composite Manufacturing, No. 16-7<sup>th</sup> Saida Branch Rd, Tianjin, Xeda, China, 300385, Tel: 86-22-23889068.

## **Plant Certification:**

Hexcel Tianjin

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"Manufacture of Glass Fibre Composite Materials for Wind Turbines

Hexcel's Tianjin plant manufactures HexPly epoxy resin prepregs. Prepreg is a fiber-reinforced resin system that cures under heat and pressure to provide structures that are exceptionally strong and stiff and yet lower weight than traditional materials."

## **HEXCEL PRESS RELEASES**

### **HEXCEL EXHIBITS AT AIR SHOW CHINA 2012**

8 November 2012

November 13-18th, Stand No. E2-2, Zhuhai, Guangdong Province. Hexcel is exhibiting for the first time at this year's China Air Show in Zhuhai to reinforce its support for the Chinese aerospace industry by promoting a range of composite technologies for civil aircraft, engines and helicopter programmes. Hexcel has a strong presence in China with a dedicated sales office and technical support team in Shanghai and a prepreg manufacturing plant in Tianjin.

Hexcel has been supplying composite materials to aerospace customers in China since the first deliveries were made for helicopter programmes in 1984. 28 years later

Hexcel products are widely used on AVICopter programmes, including the AC312 for which Hexcel developed the new HexPly M88 structural prepreg that is being used to manufacture fuselage structures including door frames. Hexcel also supplies Redux adhesives and HexWeb honeycomb for the AC312 programme. More recently Hexcel has begun supplying prepreg adhesives and honeycomb for the EC175/AC352 joint programme between AVICopter and Eurocopter.

For civil aircraft Hexcel is a leader in new-generation prepregs for primary and secondary structures.

More than 50% of the Boeing 787 airframe and the Airbus A350 XWB is carbon fiber composite. Hexcel is a major supplier of materials to both programs and was awarded the contract to supply all the primary structure prepreg (with Hexcel carbon fiber) to the A350 XWB program. The HexPly M21 family of prepregs and new HexPly M91 offer outstanding all round levels of performance for airframe components on commercial aircraft including regional jets and are suitable for automated and manual lay-up of aircraft structures.

Hexcel has developed a wide range of product solutions for aircraft engines and nacelles, where they provide a number of benefits including weight reduction, fuel optimization, greater strength, higher toughness, high temperature performance, out of autoclave manufacture and broadband noise reduction.

HexWeb Acousti-Cap is Hexcel's broadband sound reducing honeycomb that enables engine designers to achieve superior acoustical performance without a structural weight penalty. Acousti-Cap consists of a permeable cap material embedded into metallic and non-metallic honeycomb to create an acoustic septum.

Customers specify the flow resistance characteristics, overall core thickness, number of caps in a cell and insertion depth. The result is a product tuned to their acoustic requirements. Quieter engines bring a number of advantages including recurring cost-savings from lower landing fees at airports, increased fleet flexibility and improved cabin comfort.

Other composite solutions from Hexcel for aircraft engines include HexFlow RTM-6 and RTM6-2 resins for resin transfer moulding and HexWeb engineered core components produced to very tight tolerances using Hexcel's in-house honeycomb forming and machining capabilities.

Hexcel Corporation is a leading advanced composites company. It develops, manufactures and markets lightweight, high-performance structural materials, including carbon fibers, reinforcements, prepregs, honeycomb, matrix systems, adhesives and composite structures, used in commercial aerospace, space and **defense** and industrial applications.

#### HEXCEL LAUNCHES CHINESE WEBSITE AT CHINA COMPOSITES 2011

07 September 2011

Leading composite materials manufacturer, Hexcel, has today launched a Chinese version of its award-winning website. The launch of [www.hexcel.com/cn](http://www.hexcel.com/cn) was timed to coincide with this year's China Composites show taking place in Shanghai from 7th to 9th September, at which Hexcel is a major exhibitor. Hexcel provides a local service to customers on a global scale and the Chinese website is a further demonstration of the desire to provide world class product information, technical support and customer service to customers in China. Further translations of the website are also being planned for launch in 2011 and 2012. Visitors to Hexcel's stand at the China Composites show will be able to tour the new website and explore the features. At the event Hexcel is promoting its range of composite materials for new aircraft programs, including prepregs, RTM resins and engineered core. Displays will include parts made from Hexcel's HexMC carbon fiber/epoxy compression molding material that enables structural complex-shaped parts to be molded cost-effectively, providing weight-saving and performance advantages. Hexcel

is also promoting HexTOOL - a composite tooling material that can be machined without distortion, allowing complex shaped tools to be manufactured to tight tolerances. HexTOOL is lighter than metal tooling, allowing easier handling and reduced infrastructure investment. It can be repaired and modified to accommodate design changes. Hexcel Corporation is a leading advanced composites company. It develops, manufactures and markets lightweight, high-performance structural materials, including carbon fibers, reinforcements for composites, prepregs, honeycomb, matrix systems, adhesives and composite structures, used in commercial aerospace, space and **defense** and industrial applications.

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Wang has more than 10 years of brand management and marketing experience. Prior to joining Beechcraft Corporation, he was the Group Director of Marketing and Communications for the Mission Hills Group and Marketing Director at Adidas Sports Co., Ltd., in China. James holds a master's degree and a bachelor's in computer science from The City College of New York, as well as an MBA in marketing and corporate strategy from the University of Michigan.

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Corporate Website and 2012 Zhuhai Director: Hawker Beechcraft Corporation (HBC) is a world-leading manufacturer of 80 years of history of business, special mission, light attack and trainer aircraft-designing, marketing and supporting aviation products and services for businesses, governments and individuals worldwide. Upon today, the company has produced and sold 55,000 aircrafts. The company's headquarters and major facilities are located in Wichita, Kansas, with operations in Little Rock, Arkansas; Chester, England, UK; and Chihuahua, Mexico. The company leads the industry with a global



network of more than 100 factory-owned and authorized services centers. HBC has introduced various models of aircraft to Chinese customers since the company entered China more than 30 years ago. Six models of the company's current lineup have obtained certification from the Civil Aviation Administration of China: the Hawker 4000, Hawker 900XP, Beechcraft King Air 350/350ER, Beechcraft King Air C90GTx, Beechcraft Baron G58 and the Beechcraft Bonanza G36. HBC has opened its first Authorized Service Center (ASC) in Shanghai, as well as placing sales and technical support representatives in Beijing, Shanghai and Hong Kong and established new parts centers in Beijing and Hong Kong. All these investments have brought greater convenience to its customers in China and abroad.

## HISTORY IN CHINA

On March 28, 2012, Hawker Beechcraft Global Customer Support appointed Shanghai Hawker Pacific Business Aviation Service Center as its first authorized service center in mainland China, located at Shanghai Hongqiao International Airport.

On October 19, 2010, Hawker Beechcraft Corporation was selected by the *Robb Report China* as a "Best of the Best" recipient in the *Best Material of Y2010* classification for its industry-leading midsize business jet, the Hawker 900XP.

On July 28, 2010 Hawker Beechcraft Corporation received certification for its Beechcraft Baron G58 and Beechcraft Bonanza G36 piston-engine aircraft from the Civil Aviation Administration of China.

On February 23, 2010, Hawker Beechcraft Corporation announced the delivery of the first Hawker 4000 business jet to China.

On November 30, 2009, Hawker Beechcraft Corporation received Civil Aviation Administration of China (CAAC) Type Certification for the Hawker 4000 super-midsize business jet.

On August 9, 2005, Hainan Airlines became the first Raytheon Aircraft Authorized Service Center in mainland China.

## HAWKER BEECHCRAFT PRESS RELEASES

### BEECHCRAFT TO HIGHLIGHT KING AIR C90GTX AT CHINA INTERNATIONAL GENERAL AVIATION CONVENTION

Wichita, Kansas. (Oct 15, 2013) – Beechcraft Corporation today announced it will participate in the 2013 China International General Aviation Convention (CIGAC) this week in Xi'an, Shaanxi, China. The company will display a King Air C90GTx at the biennial event, which is supported by the Civil Aviation Administration of China, the People's Government of Shaanxi Province and China Council for the Promotion of International Trade to support the development of general aviation in the country. "We continue to experience strong demand in China for our piston and turboprop aircraft – particularly the King Air C90GTx," said Ted Farid, Beechcraft vice president of sales, Asia Pacific. "The King Air C90GTx is used by many aviation colleges and organizations throughout the region to meet the growing demand for multi-engine pilot training. The airframe provides a reliable training experience in a cost efficient solution that features performance standards and technology accepted by the majority of airlines around the world." Key enhancements to the King Air C90GTx include an increase in gross weight and the addition of composite winglets, which improve climb performance and further increase fuel efficiency. Featuring a cabin 50

percent larger than some very light jets, the C90GTx seats up to seven passengers in its famed squared-oval design, allowing greater passenger comfort. It includes an in-flight accessible, heated and pressurized baggage storage area along with a private aft lavatory as standard.

#### BEECHCRAFT WINS KING AIR ORDER FROM LEADING CHINESE FLIGHT ACADEMY

Shanghai, China (April 16, 2013) – Beechcraft Corporation today announced an order for a Beechcraft King Air C90GTx turboprop from Qingdao Jiutian International Flight Academy (JTFA), one of two Civil Aviation Administration of China certified, CCAR-141 certificated domestic flight schools in China. This purchase will help the academy meet the growing demand for its high-performance pilot training program in China.

The deal was signed on the opening day of the Asian Business Aviation Conference & Exhibition by Shawn Vick, president & CEO of Beechcraft International Services Company, and Mr. Siubun CHU, President of JTFA, and witnessed by U.S. Ambassador Gary Locke and officials from Pacific-China Aero Technology (PCAT).

“We are proud to close our first training aircraft deal with a private aviation school in China,” Vick said. “The King Air C90GTx has proven its high performance and reliability with outstanding mission flexibility throughout the world, and offers a proven, stable and efficient platform for advanced pilot training.”

“We are impressed by the outstanding performance and economics of the King Air C90GTx,” Mr. CHU said. “The solid support of Beechcraft also contributed much to our final decision.”

In China, the King Air C90GTx enjoys the good reputation among other aviation colleges and companies for advanced pilot training, including The Civil Aviation University of China (CAUC), Xinjiang Tianxiang Aviation College, Shenzhen Kunpeng International Flight Academy, Xi'an Tenglong General Aviation Co, Ltd., and Ordos General Aviation Co, Ltd.

The King Air C90GTx provides a reliable training experience in a cost efficient aircraft that features performance standards and technology accepted by airlines around the world. The C90GTx allows students to learn how to fly in a large, multiengine, pressurized, complex aircraft while offering flight schools the benefits of economical turboprop flight instruction in a very rugged and proven airframe.

Key enhancements to the King Air C90GTx include an increase in gross weight and the addition of composite winglets, which improve climb performance and further increase fuel efficiency. Featuring a cabin 50 percent larger than some very light jets, the C90GTx seats up to seven passengers in its famed squared-oval design, allowing greater passenger comfort. It includes an in-flight accessible, heated and pressurized baggage storage area along with a private aft lavatory as standard.

#### BEECHCRAFT BRINGING MARKET-LEADING KING AIR TURBOPROPS TO ABACE; 64 PERCENT OF BUSINESS TURBOPROPS IN ASIA PACIFIC MARKET ARE BEECHCRAFT PRODUCTS

WICHITA, Kan. (April 11, 2013) – Beechcraft Corporation will focus its display at the Asian Business Aviation Conference & Exhibition (ABACE) April 16-18 in Shanghai, China, on its line of business turboprops – a segment where it continues to see increasing interest, deliveries and market share throughout the Asia Pacific region. In its first major international show as the newly restructured Beechcraft Corporation, the company will showcase a Beechcraft King Air 350ER, King Air B200GT and King Air C90GTx at its static display.

Analysis of recent JetNet industry data shows Beechcraft has a 64 percent market share in the business turboprop segment. Of a total 660 business turboprops in the Asia Pacific region, 421 aircraft are Beechcraft products. Further, King Air deliveries to Asia

increased by 41 percent in the five years 2007-2011 compared to the previous five years 2002-2006.

"We have been an active part of this dynamic market for many decades and in terms of long-term growth, it is no surprise that Asia-Pacific represents one of the most exciting markets for us," said Richard Emery, Beechcraft's president of sales for the Asia Pacific and Europe, Middle East and Africa regions. "We're seeing increased sales activity for our piston and turboprop aircraft in China and the broader region, so there clearly is a developing appetite for shorter range, smaller aircraft and we are aiming to further enhance our leadership position in this market."

The following aircraft will be on display at Beechcraft's static exhibit on the ramp at the Shanghai Hawker Pacific Business Aviation Service Center:

**Multi-Mission Beechcraft King Air 350ER** – The King Air 350ER demonstrator aircraft is a standard extended-range (ER) airplane, which includes additional fuel capacity and increased capability landing gear allowing for 2,500 nautical mile range and take-off weight of 16,500 lbs. The aircraft's unique interior configuration highlights the versatility and utility of the King Air family of aircraft with a fully functioning medical station complete with medical oxygen, vacuum and pressure, a medical cabinet and a side facing three-place couch for the doctor/medical attendants. Additionally, the large cabin provides ample room for the installed airline style seating showcasing standard King Air chairs in a commuter airline mission.

**King Air B200GT** – Building on a reputation of proven performance, the next-generation Beechcraft King Air B200GT features composite winglets and lightweight composite propellers, delivering improved runway performance, range, speed and enhanced climb. Passengers travel in quintessential King Air comfort, easily moving about in the spacious square-oval cabin over long-distance journeys. The King Air B200GT further defines mission reliability with a ram air recovery system that maintains peak performance when the anti-icing system is activated, resulting in a high-performance, all-weather aircraft.

**King Air C90GTx** – Key enhancements to the King Air C90GTx include an increase in gross weight and the addition of composite winglets, which improve climb performance and further increase fuel efficiency. Featuring a cabin 50 percent larger than some very light jets, the C90GTx seats up to seven passengers in its famed squared-oval design, allowing greater passenger comfort. It includes an in-flight accessible, heated and pressurized baggage storage area along with a private aft lavatory as standard. The C90GTx on display at the show is one of two King Air C90GTx aircraft purchased last year and operated by the Civil Aviation University of China (CAUC) for advanced airline pilot training.

#### HAWKER BEECHCRAFT TO SHOWCASE BEECHCRAFT KING AIR PRODUCTS AT AIRSHOW CHINA 2012

Wichita, Kansas. (Nov. 8, 2012) – Hawker Beechcraft Corporation (HBC) today announced it will participate in the 2012 China International Aviation & Aerospace Exhibition (Airshow China), the country's largest airshow, held Nov. 13-18 in Zhuhai, China. The company will display a Beechcraft King Air 350i and King Air C90GTx at its chalet B3. "The strong promise of the Chinese market for business and general aviation is being realized," said Sean McGeough, HBC president, Europe, Middle East, Africa and Asia Pacific. "As a growing economy, the freeing up of more airspace for civilian use and a fast improving infrastructure are major factors in this. We are fortunate to have been an active part of this dynamic market for more than three decades." HBC believes China's actions to deepen the on-going reform of the country's low-altitude airspace management will drive demand for all types of aircraft, particularly smaller ones. McGeough added: "We're seeing increased sales activity for our piston and turboprop aircraft in China, so clearly it is developing an appetite for shorter range, smaller aircraft. It is no surprise that in terms of

long-term growth, China represents one of the most exciting markets for us and we aim to further enhance our leadership position and expand our local presence.”

This view is supported by the fact that more than 60 percent of aviation finance experts recently interviewed by the company expect demand for business aviation finance in China to grow dramatically between now and 2017 – much higher than in any other country. Some 30 percent expect a slight increase and only 6 percent expect it to stay the same. Of those interviewed, none anticipate a decline in demand for business aviation in China. King Air 350i – The Beechcraft King Air 350i turboprop features next generation capabilities and efficiency, providing a responsible, sustainable alternative for business air travelers. Not only is the King Air 350i its segment’s greenest aircraft, but it can also take more passengers farther on less fuel – meaning consistent savings for its operators. This, combined with state-of-the-art design and performance enhancements, represents new heights of power and durability, while its new interior means that it has the most comfortable and capable cabin ever offered in its class. Beechcraft King Air C90GTx – Key enhancements to the King Air C90GTx include an increase in gross weight and the addition of composite winglets, which improve climb performance and further increase fuel efficiency. Featuring a cabin 50 percent larger than some very light jets, the C90GTx seats up to seven passengers in its famed squared-oval design, allowing greater passenger comfort. It includes an in-flight accessible, heated and pressurized baggage storage area along with a private aft lavatory as standard.

#### HAWKER BEECHCRAFT RECEIVES COURT APPROVAL TO ENTER INTO EXCLUSIVE NEGOTIATIONS WITH SUPERIOR AVIATION

Wichita, Kansas. (July 17, 2012) – Hawker Beechcraft, Inc. (Hawker Beechcraft) today announced that the U.S. Bankruptcy Court for the Southern District of New York has approved the company’s motion to enter into exclusive negotiations with Superior Aviation Beijing Co., Ltd. (Superior). Approval of this motion allows Hawker Beechcraft to spend up to 45 days exclusively negotiating with Superior regarding a strategic combination that would preserve jobs and product lines.

As part of the exclusivity agreement, Superior will make payments over the next month to sustain Hawker Beechcraft’s jet business. An initial deposit of \$25 million is payable before the end of the week and a second \$25 million deposit is payable within 30 days. Any definitive agreement reached with Superior would be subject to approval by the Committee on Foreign Investment in the United States (CFIUS) and other regulatory agencies. In addition, any definitive agreement with Superior will be subject to termination if another potential purchaser succeeds in the mandatory competitive auction process which will be overseen by the U.S. Bankruptcy Court.

Robert S. “Steve” Miller, CEO of Hawker Beechcraft, Inc., said, “The agreement we have reached with Superior provides us with funding to preserve jobs as we simultaneously negotiate a potential transaction with Superior and continue to prepare for our standalone plan described in our preliminary plan of reorganization and disclosure statement. At this time, pursuing the potential transaction with Superior is in the best interests of the company and its various stakeholders, including our creditors, our employees, our suppliers and our customers. We look forward to working toward a definitive agreement with Superior and continuing to communicate with all interested parties to explain the benefits of this proposed transaction.”

During the exclusivity period, Superior will perform confirmatory diligence while the two companies negotiate definitive documentation of the transaction. If negotiations with Superior are not concluded in a timely manner, Hawker Beechcraft will proceed with seeking confirmation of the Joint Plan of Reorganization it filed with the U.S. Bankruptcy Court on June 30, 2012, which contemplates Hawker Beechcraft emerging as a standalone entity with a more focused portfolio of aircraft. More specifically, under the Standalone Plan, the company would wind down the company’s jet-related businesses, a process that

likely would have commenced already but for Superior's compelling proposal to the company.

Hawker Beechcraft's cases are being presided over by the Honorable Judge Stuart Bernstein of the U.S. Bankruptcy Court for the Southern District of New York. Hawker Beechcraft's jointly administered case number is Hawker Beechcraft Inc., 12-11873.

Hawker Beechcraft's legal representative is Kirkland & Ellis LLP; its financial advisor is Perella Weinberg Partners LP; and its restructuring advisor is Alvarez & Marsal. Hawker Beechcraft entered into the exclusivity agreement in consultation with lenders holding a majority of the company's pre-petition secured debt (Senior Secured Lenders). The Senior Secured Lenders' legal representative is Wachtell Lipton Rosen & Katz and their financial advisor is Houlihan Lokey.

#### HAWKER BEECHCRAFT EXECUTES EXCLUSIVITY AGREEMENT WITH SUPERIOR AVIATION REGARDING STRATEGIC COMBINATION

Wichita, Kansas. (July 9, 2012) – Hawker Beechcraft, Inc. (Hawker Beechcraft) today announced that it has executed an exclusivity agreement with Superior Aviation Beijing Co., Ltd. (Superior), a Beijing-based aerospace manufacturer, regarding a strategic combination. Should the transaction be completed, Superior intends to maintain Hawker Beechcraft's existing operations while also investing substantial capital in the company and its business and general aviation product line, saving thousands of American jobs, including in Wichita, Kan. and Little Rock, Ark. Hawker Beechcraft entered into this agreement as part of its ongoing review of strategic options, which included continuing to operate as a standalone entity, and decided to proceed with Superior after determining that its proposal would create the greatest value for the company and position it for long-term growth.

The transaction with Superior would not include Hawker Beechcraft **Defense** Company (HBDC), which would remain a separate entity. HBDC will continue to operate its highly successful T-6 trainer program and pursue the final certification of the AT-6 light attack aircraft.

Robert S. "Steve" Miller, CEO of Hawker Beechcraft, Inc., said, "Superior has had a long-standing interest in the commercial aircraft business of Hawker Beechcraft, having first approached the company several years ago regarding a potential strategic partnership. With Superior's previous experience operating a U.S. business and its demonstrated ability to quickly restore a business to profitability after emerging from Chapter 11, we believe a transaction with Superior would maximize value for Hawker Beechcraft and its stakeholders. Importantly, this combination would give Hawker Beechcraft greater access to the Chinese business and general aviation marketplace, which is forecast to grow more than 10 percent a year for the next 10-15 years. We look forward to working toward a definitive agreement."

Bill Boisture, Chairman of Hawker Beechcraft Corporation, said, "The decision to move forward with Superior was based on two key factors: the bid for the company was the most attractive we received during the strategic review process and the going-forward plan offered the most continuity for our business, allowing us to preserve jobs, product lines and our ability to maintain our commitments to our customers. Superior is committed to maintaining Hawker Beechcraft's strong presence in the United States and retaining its current employee base and experienced management team, while positioning the company for future growth at home and abroad."

#### Terms of the Agreement

Under the terms of the exclusivity agreement, Superior will acquire Hawker Beechcraft for \$1.79 billion and make payments over the next six weeks to support ongoing jet-related operations, which will help Hawker Beechcraft to sustain the jet business until the close of the transaction, thus preserving significant future opportunity for growth. Superior's proposal reflects its intention to make Hawker Beechcraft its flagship investment; maintain

Hawker Beechcraft's U.S. headquarters, management team and employees; and continue product development throughout its commercial product lines. During the 45-day exclusivity period, Superior will perform confirmatory diligence while the two companies negotiate definitive documentation of the transaction. The companies expect to enter into definitive documentation prior to the conclusion of the exclusivity period. If the parties successfully negotiate a definitive agreement, that agreement would be subject to a further competitive public auction process. HBDC is not part of the proposed transaction and neither ownership nor control of HBDC will transfer to Superior. In the event that HBDC is sold, up to \$400 million of the \$1.79 billion purchase price will be refundable to Superior.

If negotiations with Superior are not concluded in a timely manner, Hawker Beechcraft will proceed with seeking confirmation of the Joint Plan of Reorganization it filed with the U.S. Bankruptcy Court on June 30, 2012, which contemplates Hawker Beechcraft emerging as a standalone entity with a more focused portfolio of aircraft.

Superior has received and expects to continue receiving the full support of the City of Beijing municipal government in completing the transaction. In addition, Superior is working to obtain all regulatory approvals from the Chinese central government for this foreign investment project. The transaction also is subject to approval by the U.S. Committee on Foreign Investment in the United States (CFIUS) and would be subject to additional customary U.S. regulatory reviews and approvals. Additionally, Bankruptcy Court approval is required for Hawker Beechcraft's agreement to negotiate exclusively with Superior and for any definitive agreement that may be negotiated with Superior. The proposed combination of Hawker Beechcraft and Superior will not require a financing condition.

Hawker Beechcraft's legal representative is Kirkland & Ellis LLP; its financial advisor is Perella Weinberg Partners LP; and its restructuring advisor is Alvarez & Marsal. Hawker Beechcraft entered into the exclusivity agreement in consultation with lenders holding a majority of the company's pre-petition secured debt (Senior Secured Lenders). The Senior Secured Lenders' legal representative is Wachtell Lipton Rosen & Katz and their financial advisor is Houlihan Lokey.

Superior Aviation Beijing Co., Ltd. is an aerospace manufacturer that engages in the research & development, production and sale of general aviation engines and parts. Superior is 60 percent owned by Beijing Superior Aviation Technology Corporation Ltd., a closely-held private entity, and 40 percent owned by Beijing E-Town International Investment & Development Corporation Ltd., a company controlled by the Beijing municipal government that supports the financing of strategic investments in certain industries. Superior's legal representative is Locke Lord LLP and its financial advisor is Grant Thornton.

#### HAWKER BEECHCRAFT ANNOUNCES SALE OF 10 BEECHCRAFT KING AIR TURBOPROPS TO AVION PACIFIC

Shanghai (March 28, 2012) – Hawker Beechcraft Corporation (HBC) today announced the sale of 10 King Air turboprop aircraft to the Chinese aviation company Avion Pacific Limited. The order, which was secured at this week's Asian Business Aviation Conference and Exhibition (ABACE) in Shanghai, China, is worth approximately \$50 million. The King Air 350i and King Air C90GTx aircraft will be used for a variety of missions including VIP travel, pilot training, aerial mapping and weather modification. Deliveries are scheduled to begin in the fourth quarter of 2012. "Today's announcement is a strong endorsement of our King Air aircraft, serving as further evidence of the developing light turbine market in China and of the King Air's role as the aircraft of choice for market leaders," said Dan Keady, HBC vice president, Asia Pacific. "As one of the world's most popular business aircraft, the King Air will prove itself in China as it has in other global markets as the best and most cost-effective light turbine aircraft solution. King Airs are very capable of supporting the majority of regional business travel needs, and they are often a better suited for transport missions than either light jets or mid-light jets. In addition, the

King Air's renowned ability to land on short and unimproved runways further increases their flexibility and versatility. We are confident these aircraft will play an important role in further promoting the development of China's general aviation market." "Hawker Beechcraft's range of aircraft is well suited to the Chinese aviation market and we are delighted to purchase these King Airs," said Wu Zhendong, managing director, Avion Pacific Limited. "As the Chinese business aviation market continues to open up and grow, the versatility, efficiency and reliability of these King Airs will make them an ideal fit for our corporate and VIP clients. In addition, their flexibility for special missions ensures they will be a key part of China's fleet for the foreseeable future." Equipped with the Rockwell Collins Venue cabin management system and state-of-the-art Beechcraft FlexCabin capability, the King Air 350i sets the standard in cabin comfort, business capability, in-flight productivity and entertainment. It delivers unmatched fuel efficiency and the lowest operating cost per seat mile, making it the greenest aircraft in its class. The King Air 350i is the perfect addition to any corporate fleet. Key enhancements to the King Air C90GTx include an increase in gross weight and the addition of composite winglets, which improve climb performance and further increase fuel efficiency. Featuring a cabin 50 percent larger than some very light jets, the C90GTx seats up to seven passengers in its famed square-oval design, allowing greater passenger comfort. It includes an in-flight accessible, heated and pressurized baggage storage area along with a private aft lavatory as standard. Avion Pacific Limited was established in July 1993 as a Hong Kong company with a corporate headquarters in Shenzhen. It now has offices and operating bases in Beijing, Shanghai, Xian, Chengdu, Tianjin and Penglai. In recent years, Avion has been involved sending students to training facilities abroad for special operations and police pilot training. Avion is also working with Zhuhai Aviation Park to invest in setting up pilot and engineer training, general aviation operation, business jet management and MRO facilities.

#### HAWKER BEECHCRAFT NAMES SHANGHAI HAWKER PACIFIC AS GLOBAL AUTHORIZED SERVICE CENTER

Shanghai (March 28, 2012) – Hawker Beechcraft Global Customer Support (GCS) today announced the recent appointment of Shanghai Hawker Pacific Business Aviation Service Center as its first authorized service center (ASC) in mainland China. Located at Shanghai Hongqiao International Airport, Shanghai Hawker Pacific provides efficient and convenient service to Hawker-series aircraft owners and operators in the Northern Asia Pacific region. "While the business and general aviation market rapidly advances in China, Hawker Beechcraft continues to increase its presence and availability of support within the region," said Christi Tannahill, senior vice president, Global Customer Support. "Complementing our long-standing relationship with Hawker Pacific by adding a service facility at its Shanghai location is essential to our commitment of meeting the demands of the growing Chinese market." In addition to the new ASC in Shanghai, Hawker Beechcraft has expanded its presence in China by appointing a new ASC in Hong Kong, placing sales and technical support representatives in Beijing, Shanghai and Hong Kong and establishing parts distribution centers in Singapore and Beijing. Six models of the company's current lineup have obtained certification from the Civil Aviation Administration of China: Hawker 4000, Hawker 900XP, Beechcraft King Air 350i/350ER, Beechcraft King Air C90GTx, Beechcraft Baron G58 and Beechcraft Bonanza G36.

#### HAWKER BEECHCRAFT ACHIEVES KEY MILESTONES IN DEVELOPMENT OF HAWKER 400XPR UPGRADE PROGRAM

Shanghai (March 27, 2012) – Hawker Beechcraft Global Customer Support (GCS) today announced two major milestones in the development of the Hawker 400XPR factory-direct upgrade program. First, it has mounted the first Williams International FJ44-4A-32 engines to the Hawker 400XPR test aircraft and expects first engine run will occur in the next few weeks. Second, it has completed certification of the four-display Rockwell Collins

Pro Line 21 upgrade option. The Hawker 400XPR is a factory-direct aircraft upgrade program for the Hawker/Beechjet 400 that synergizes the aerodynamics of genuine Hawker winglets, propulsion of the FJ44-4A-32 engine, optional Pro Line 21 avionics and a number of additional system enhancements. Certification of the engines and winglets is expected by the end of September 2012. "It's quite exciting to achieve these two milestones in the certification program and we know our customers are eager to hear about our progress," said Christi Tannahill, senior vice president, Global Customer Support. "The fact that we sold out of our 2012 planned production before the year even started and increased scheduled production is a clear indication in the popularity of this upgrade. Getting the first engines installed as well as the four-display Pro Line 21 system certified are important steps toward overall certification." The Williams International FJ44-4A-32 engines are optimized exclusively for the Hawker 400XPR and are each capable of producing 3,600 pounds of thrust, flat rated at 3,200 pounds to create robust temperature margin and performance. With a total thrust of 6,400 pounds, the FJ44-4A generates 8 percent or 470 pounds more thrust than the Pratt & Whitney JT15D-5R it replaces. This significant improvement in flat-rated thrust results in exceptional hot/high, climb and cruise performance. Advanced materials are used throughout, including a composite inlet case to reduce engine weight. A dual channel, Full Authority Digital Engine Control (FADEC) system provides optimal power setting and reduces pilot workload while providing trend monitoring, time-limited dispatch, diagnostics and engine synchronization. The four-display Pro Line 21 upgrade option replaces the existing Pro Line 4 displays and upgrades the flight management system to FMS 6100. With this significant functional enhancement, operators now have access to electronic charts, XM weather/data, WAAS/LPV, ADS-B out, VHF datalink and an upgrade path for future airspace requirements. A two-year Corporate Aircraft Service Program (CASP) warranty on new and existing Rockwell Collins equipment is included with the upgrade.

#### **HAWKER BEECHCRAFT RECEIVES ORDERS FOR KING AIR C90GTx AIRCRAFT FROM TWO CHINESE AVIATION COLLEGES**

Shanghai (March 26, 2012) – Hawker Beechcraft Corporation (HBC) today announced recent orders for three Beechcraft King Air C90GTx turboprops from two aviation colleges in China. The Civil Aviation University of China (CAUC) has purchased two aircraft and the Xinjiang Tianxiang Aviation College purchased one aircraft. Both plan to use the King Air C90GTx to meet the growing demand for multi-engine pilot training throughout China. The three aircraft are scheduled to be delivered this year. "We're proud that the China aviation colleges selected the King Air C90GTx for their pilot training needs," said Dan Keady, vice president, Asia, Australia and India. "The King Air C90GTx has proven its high performance and reliability with outstanding mission flexibility throughout the world, and offers a solid, stable and progressive platform for advance pilot training."

CAUC and Xinjiang Tianxiang Aviation College chose the King Air C90GTx due to its reputation as one of the best training aircraft platforms in the industry. The King Air C90GTx is also used by other aviation colleges and companies for advanced pilot training in China, including Shenzhen Kunpeng International Flight Academy, Xi'an Tenglong General Aviation Co, Ltd. and Ordos General Aviation Co, Ltd. The King Air C90GTx provides a reliable training experience in a cost efficient aircraft that features performance standards and technology accepted by the majority of airlines around the world.

#### **HAWKER BEECHCRAFT CELEBRATES 80TH ANNIVERSARY; REPRESENTING LEADERSHIP IN INNOVATION, HAWKER BEECHCRAFT HAS DELIVERED WORLD-CLASS AIRCRAFT SINCE 1932**

Shanghai (March 26, 2012) – Hawker Beechcraft Corporation (HBC), a world-leading manufacturer of business, special mission, light attack and trainer aircraft, celebrates its 80th anniversary this year. Since its founding in 1932, the company has charted an



innovative path through the skies of the 21st century, producing many of the most sophisticated, high-performing business and **military** aircraft in the world.

Headquartered in the aviation hub of Wichita, Kan., and with maintenance and manufacturing locations worldwide, the company traces its roots to the pioneers of aviation and throughout its history has generated products of quality, safety and value that established benchmarks for the industry.

“As we recognize this special anniversary and celebrate our proud past, we look forward to more milestones to come as we carry on Hawker Beechcraft’s legacy of innovation in the aviation industry,” said Steve Miller, CEO, Hawker Beechcraft, Inc.

Hawker Beechcraft’s 80th anniversary is being celebrated in conjunction with the 50th anniversary of the Hawker 125 series – represented today as the Hawker 900XP. The Hawker 125 series is the world’s best-selling midsize business jet series.

“Hawker Beechcraft changed the course of general aviation,” added Bill Boisture, Chairman, Hawker Beechcraft Corporation. “Its proud history has included the delivery of more than 54,000 aircraft to customers around the world, and its heritage of leading edge technology and performance will continue to be an integral part of its future.”

Hawker Beechcraft today provides a wide range of products featuring evolutionary engineering and state-of-the-art technology that can be traced back to its visionary founders.

In 1932, Walter H. Beech left an executive position with Curtiss-Wright Corporation to start designing and manufacturing airplanes in Wichita, Kan., with his wife and business partner, Olive Ann Beech. While many warned that there was no market for a cabin biplane with a luxurious interior in the midst of the Great Depression, the two visionaries forged ahead with their plans to build the “finest aircraft in the world” and changed the course of general aviation.

Their philosophy was one of quality, advanced technology, customer satisfaction and business integrity: a philosophy the company continues to hold today as it has throughout the years.

While Beechcraft’s company history spans 80 years, its innovative history can be traced as far back as 1920, when test pilot and designer Harry Hawker and three others bought the assets of the Sopwith Aviation Company and formed H.G. Hawker Engineering. This company would go on to create some of the most technologically advanced and industry-leading products in aviation and later became a part of the Hawker Beechcraft product line in the mid-1990s.

From the company’s first product, the 200 miles-per-hour Beechcraft Model 17 biplane known as the Staggerwing, to its latest aircraft, the Hawker 4000 super-midsize business jet featuring advanced composite material, the Hawker and Beechcraft brands have revolutionized the aviation industry for 80 years.

**HAWKER BEECHCRAFT EXPECTS CHINA AND INDIA TO CONTINUE DRIVING DEMAND FOR BUSINESS AVIATION IN ASIA; COMPANY TO FEATURE THREE AIRCRAFT AT ASIAN BUSINESS AVIATION CONFERENCE & EXHIBIT IN SHANGHAI**

Wichita, Kansas. (March 22, 2012) – Hawker Beechcraft Corporation (HBC) today announced it continues to see strong long-term growth prospects for business aviation across Asia and has identified it as a key growth market for the coming decade. This viewpoint is supported by new research that reveals that demand for business aircraft deliveries in the region has increased dramatically since 2001. According to recent JETNET research, deliveries of business aircraft across Asia increased by 133 percent during the 2006-2010 timeframe when compared with the period between 2001-2005.

HBC will display three of its popular models at the Asian Business Aviation Conference & Exhibition (ABACE) March 27-29 in Shanghai, China: the flagship super-midsize Hawker 4000 business jet, the Hawker 900XP and a Beechcraft King Air C90GTx. “ABACE is a key event for us, as not only is it one of the flagship events on the Asian business aviation

calendar, but it is also a chance for us to connect with our core stakeholders in the region and to showcase our unique proposition to one of the most exciting aviation markets in the world,” said Sean McGeough, vice president, Europe, Middle East, Africa and Asia. Asia’s share of worldwide business aircraft deliveries increased from 5.4 percent to 8.7 percent between the periods 2001-2005 and 2006-2010. North America, for so long the dominant force in business aviation, saw its share decrease from 67 percent to 55 percent during the same period. HBC believes that this shift in delivery share signifies the growing importance and influence of emerging markets’ presence in the worldwide business aviation market. HBC saw a 103 percent increase in the number of jets and a 97 percent increase in the number of turboprops it delivered to Asia between 2006-2010 when compared to the period 2001-2005. JETNET data also shows that HBC accounted for 41 percent of the total number of deliveries in Asia during the past decade. “Over the past few years Asia has really been the driving force behind the global economy, with burgeoning economies such as China and India helping the region post GDP growth scores of 8.3 percent,” McGeough said. “This growth is driving up demand for business aviation and is apparent in the increase in the number of deliveries during the second half of the past decade.” Furthermore, McGeough said, the proportion of the business aircraft market that is for sale – which is often used as an indicator of the health of the whole market – is relatively low in the region. That figure currently stands at around 7 percent compared with 12 percent in North America and 16 percent in Europe, suggesting that the market in Asia remains strong.

#### **HAWKER BEECHCRAFT’S REGIONAL HEADQUARTERS IN BEIJING ACTIVELY DEVELOPS NORTH ASIA MARKET**

Beijing (Aug. 23 2011) – In order to maintain a leading position and further develop the North Asia market, Hawker Beechcraft Corporation (HBC), a world-leading manufacturer of business, special mission, light attack and trainer aircraft, today announced the establishment of its new regional headquarters office in Beijing for the North Asia region, which covers mainland China, Hong Kong, Macao, Taiwan, Korea and Japan. Furthermore, it has increased its investment in the fast-growing Chinese market by adding local employees and strengthening its sales and marketing network in region. “Hawker Beechcraft continues to demonstrate its commitment and confidence to this growing market, which is of great importance for our overall growth strategy,” said Jeff Anastas, HBC vice president of China, North Asia. “With the growth of the business aircraft market in China, we anticipate that customers are becoming very discriminating when they choose a business aircraft. With the establishment of our new regional headquarters office in Beijing and a stronger team on the ground, we are in an even better position to grow our market and demonstrate how we are the best choice for Chinese business aircraft buyers.” In response to China’s increasing demand for business aircraft and the reform of regulations for low-altitude airspace, HBC is committed to bringing its high-performance aircraft, as well as its comprehensive and professional services, to Chinese business aircraft customers. HBC has introduced various models of aircraft to Chinese customers since the company entered China more than 30 years ago. Six models of the company’s current lineup have obtained certification from the Civil Aviation Administration of China: the Hawker 4000, Hawker 900, Beechcraft King Air 350i/350ER, Beechcraft King Air C90GTx, Beechcraft Baron G58 and the Beechcraft Bonanza G36. To meet the growing demand of China’s business aircraft market and to provide Chinese customers with high-quality services, HBC recently appointed Metrojet as an authorized service center in Hong Kong, bringing convenience to its customers in China and abroad. In addition to inaugurating the new regional headquarters office, HBC also announces a new appointment to its China team. James Wang has joined the company as the director of Marketing & Communications for the North Asia region. Wang has more than 10 years of

brand marketing experience in China and Korea and will be responsible for promoting the Hawker and Beechcraft brands and facilitating future growth of the business.

#### HAWKER BEECHCRAFT TO DISPLAY HAWKER 4000, 900XP AND KING AIR 350I IN SHANGHAI

Wichita, Kansas. (April 12, 2011) – Hawker Beechcraft Corporation (HBC) will display its Hawker 4000, Hawker 900XP and King Air 350i at the Shanghai International Business Aviation Show (SIBAS) from April 13-15. Organized specifically to target the business aviation marketplace in China, the three-day show will be held at Shanghai's Hongqiao International Airport's Business Aviation Center. HBC and its local distributor, Avion Pacific, will be in Chalet #5 and the aircraft will be showcased the static display area. "China is making a concerted effort to encourage the growth and utilization of private aircraft," said Jeff Anastas, HBC vice president, North Asia. "This show is just one example of an ongoing effort on the part of the government and business community to encourage international market competition and cooperation. As the country's infrastructure continues to mature and accommodate private aircraft and restrictions on airspace use are relaxed, the market will grow dramatically. This is why we continue to aggressively pursue the appropriate placement of sales and support representatives in this region, and why we're pleased to participate in this show." The flagship of the Hawker line, the composite-fuselage Hawker 4000 is the most advanced super-midsize business jet in the world. It truly sets the standard for quality, performance and value in the super-midsize business jet class of aircraft. Its 3,280 nautical mile non-stop range and cruise speeds up to Mach .84 make it an attractive choice for companies with international business interests. It features a sophisticated composite fuselage, all metal supercritical wing, powerful Pratt & Whitney Canada FADEC-controlled engines and state-of-the-art Honeywell Primus EPIC avionics. The Hawker 900XP is derived from the best-selling family of midsize business jets in the world – the Hawker 800 series. A long-range workhorse that can carry a full load of passengers and fuel over 2,800 nautical miles, it combines new Honeywell engines with enhanced winglets and a large cabin to provide increased performance, range, efficiency, comfort and unprecedented value. The King Air 350i delivers exceptional performance and value. Now equipped with the Rockwell Collins Venue cabin management system and state-of-the-art Beechcraft FlexCabin capability, the King Air 350i sets the standard in cabin comfort, business capability, in-flight productivity and entertainment. It delivers unmatched fuel efficiency and the lowest operating cost per seat mile, making it the greenest aircraft in its class. The King Air 350i is the perfect addition to any corporate fleet.

#### HAWKER BEECHCRAFT PARTICIPATING IN ASIAN AEROSPACE 2011; HAWKER 4000, HAWKER 900XP AND BEECHCRAFT KING AIR 350I ON DISPLAY

Wichita, Kansas. (March 7, 2011) – Hawker Beechcraft Corporation (HBC) today announced it is participating in the Asian Aerospace International Expo and Congress, which runs March 8-10 in Hong Kong. The company, along with Avion Pacific, will showcase its flagship Hawker 4000 super-midsize business jet, a Hawker 900XP midsize business jet and a King Air 350i turboprop at its static locations #6, #7 and #8 at the Hong Kong International Airport. "Asia continues to be a focus market for HBC," said Jeff Anastas, HBC vice president, North Asia. "With the relaxation of airspace restrictions in China, the increase in acceptance of general aviation and the availability of aircraft in general, owning an aircraft in the region has never been easier. Over the past year HBC has placed a robust sales and support network throughout the region in order to respond to the growing demand for business and personal aircraft." The flagship of the Hawker line, the composite-fuselage Hawker 4000 is the most advanced super-midsize business jet in the world. It truly sets the standard for quality, performance and value in the super-midsize business jet class of aircraft. Its 3,280 nautical mile non-stop range and cruise speeds up to Mach .84 make it an attractive choice for companies with international

business interests. It features a sophisticated composite fuselage, all metal supercritical wing, powerful Pratt & Whitney Canada FADEC-controlled engines and state-of-the-art Honeywell Primus EPIC avionics. The Hawker 900XP is derived from the best-selling family of midsize business jets in the world – the Hawker 800 series. A long-range workhorse that can carry a full load of passengers and fuel over 2,800 nautical miles, it combines new Honeywell engines with enhanced winglets and a large cabin to provide increased performance, range, efficiency, comfort and unprecedented value. The King Air 350i delivers exceptional performance and value. Now equipped with Rockwell Collins' Venue cabin management system and state-of-the-art Beechcraft FlexCabin capability, the new 350i sets the standard for versatility and comfort while delivering unmatched fuel efficiency and the industry's lowest operating cost per seat mile, making it one of the most environmentally friendly aircraft available.

#### HAWKER BEECHCRAFT APPOINTS FIELD SERVICE REPRESENTATIVE IN CHINA

Zhuhai, China (Nov. 17, 2010) – In its continued efforts to expand the footprint of its Global Customer Support organization, Hawker Beechcraft today announced it has appointed Scott Wells to serve as its Field Service Representative for the China and North Asian markets. Wells is co-located with the company's regional sales office in Beijing. "China continues to be a growth market for Hawker Beechcraft Corporation (HBC) and Scott will play a key role in ensuring our customers in the region receive the world-class support they expect and deserve when they purchase a Hawker or Beechcraft product," said Christi Tannahill, HBC vice president, Global Customer Support. Wells' experience spans more than 25 years in the aviation industry, including six years in the United States Air Force as a crew chief, instructor and quality manager. In addition, Wells has worked in several Part 145 repair stations as a crew lead, as well as for a corporate flight department as director of maintenance for a Part 91 and 135 operations. Wells holds airframe and power plant licenses from the Federal Aviation Administration and the European Aviation Safety Agency.

#### HAWKER BEECHCRAFT STRENGTHENS SALES ORGANIZATION IN ASIA-PACIFIC

Zhuhai, China (Nov. 17, 2010) – Hawker Beechcraft today announced key updates to its Asia-Pacific (APAC) global sales organization. As the market continues growing in Asia and surrounding regions, the company is expanding its sales team to meet the demand for its products. The APAC sales team is fully supported by dedicated personnel in Beijing, Singapore and Hong Kong, including field service representatives, marketing and administrative roles.

Jeff Anastas and Dan Keady lead the sales efforts in the region, each bringing extensive experience to the region:

Jeff Anastas, regional vice president, North Asia. Anastas is responsible for leading the company's sales efforts in North Asia. He is based in Hong Kong with offices in Beijing. Anastas has been with Hawker Beechcraft Corporation (HBC) for more than 13 years having served as regional sales director in locations around the globe, including Africa, India, the Middle East and the United States. He has a bachelor's degree in business administration from High Point University and is an FAA certified airline transport pilot with type ratings on many HBC products, including more than 4,000 flight hours from his service as a sales demonstration pilot.

Dan Keady, regional vice president, South Asia. Keady leads the sales efforts in South Asia and Australia. Having spent nearly all of his 15 years at HBC working in international markets, Keady was formerly divisional vice president of sales for Africa, the Middle East, Asia-Pacific and Australia. Previously, he held a variety of commercial and government business sales positions both domestically and internationally. Prior to joining HBC, Keady

spent six years with Allied Signal Aerospace as an OEM and regional sales manager. He earned bachelor's degrees in aeronautical science and geography from the University of North Dakota. He is a commercial, multi-engine pilot and was a certified flight instructor for 12 years.

The following individuals are based in the company's sales offices throughout the region:

Chris Edwards, regional sales director, Hong Kong, Macau, Japan and Korea. Based in Hong Kong, Edwards is responsible for all Hawker and Beechcraft sales in Hong Kong, Macau, Japan and Korea. Prior to joining HBC, he was senior vice president of sales for NetJets Europe. A graduate of the Royal Air Force College, he served as a fighter pilot flying the Tornado GR1 in a ground attack role.

Matthew Liu, regional sales director, China. Based in the company's regional sales office in Beijing, Liu is responsible for all Hawker and Beechcraft sales efforts in China. He has nearly 20 years of aviation, aerospace and **defense** experience.

Brett Carlson, regional sales director, Australia and New Zealand. Carlson is responsible for Hawker and Beechcraft sales in Australia and New Zealand and is based in Sydney. Previously, he was sales director for the Beech 1900D, as well as a pilot for the company's demonstration organization.

Pasha Saleh, regional sales director, Southeast Asia. Saleh is responsible for Hawker and Beechcraft sales in Southeast Asia and is based in Singapore. He came to HBC from McKinsey & Company where he was an aviation analyst. Prior to that he was a captain at Continental Express Airlines.

Todd Hattaway, regional sales director, India. Hattaway is responsible for Hawker and Beechcraft sales in India and will be based in New Delhi. Hattaway's previous experience includes president of MRO provider Air Works in India and vice president of engineering for NetJets. He also previously served in the U.S. Marine Corps.

#### HAWKER BEECHCRAFT TO SHOWCASE AIRCRAFT AT AIRSHOW CHINA 2010

Wichita, Kansas. (Nov. 12, 2010) – Hawker Beechcraft Corporation (HBC) today announced it will display its Hawker 900XP business jet, as well as its King Air 350i turboprop, next week at the 8th China International Aviation and Aerospace Exhibition (Airshow China 2010) in Zhuhai, Guangdong, China. As part of the biennial event Nov. 16-21, HBC and its regional distributor Avion Pacific will exhibit and host guests at its Chalet C2-9 located at the Zhuhai Airport. "Airshow China provides a great opportunity for us to showcase some of our industry leading products to a market that continues to experience growth and demand," said Jeff Anastas, HBC vice president, North Asia. "The Hawker 900XP continues to be the aircraft of choice for those looking for a midsize jet with an exceptional combination of range, speed and cabin comfort with low operating costs. We are also excited to debut the new King Air 350i at the show – a state-of-the-art version of an aircraft with a rich tradition of reputable service throughout the region and around the world." From the best-selling midsize business jet lineage (the Hawker 800 series), the Hawker 900XP has combined new Honeywell engines with enhanced winglets and a large cabin for increased performance, range, efficiency, comfort and unprecedented value. Now equipped with the Rockwell Collins Venue cabin management system and state-of-the-art Beechcraft FlexCabin capability, the King Air 350i sets the standard in cabin comfort, entertainment and flexibility while delivering excellent fuel efficiency, twin engine safety and the lowest operating cost per seat mile, making it one of the greenest aircraft available to business travelers today.

HAWKER 900XP RECEIVES "BEST OF THE BEST" AWARD FROM ROBB REPORT CHINA; JOINS OTHER HAWKER BEECHCRAFT MODELS IN THE PRESTIGIOUS HONOR

Atlanta (Oct. 19, 2010) – Hawker Beechcraft Corporation (HBC) today announced that its industry-leading midsize business jet, the Hawker 900XP, has been selected by the Robb Report China as a “Best of the Best” recipient in the Best Material of Y2010 classification. The Hawker 900XP also received similar recognition from the Robb Report in the United States last year as a “Best of the Best” designee in the Best Business Jet category. “We are honored that, yet again, the Hawker 900XP has been recognized by such a well-respected publication as Robb Report,” said Shawn Vick, HBC executive vice president. “The ‘Best of the Best’ award in this category reaffirms the versatility and universal appeal of the 900XP, because it is pitted against a wide variety of products.” According to the Robb Report China, the Hawker 900XP beat all competitors in the final voting due to its excellent comprehensive performance. The purpose of the award is to acknowledge brands or products that have made great contributions. This is the third year in a row that a Hawker Beechcraft product has received “Best of the Best” honors. Most recently, HBC received three 2010 Best of the Best awards from the U.S. Robb Report, including the Hawker 750 in the Midsize Business Aircraft category, the Hawker 4000 in the Super Midsize Business Aircraft category and the Beechcraft King Air 350i in the Personal Aircraft category. In addition to the Hawker 900XP recognition in the Best Business Jet category in 2009, HBC also received the 2008 award in the Recently Delivered Aircraft category for its Hawker 4000.

#### BEECHCRAFT BARON AND BONANZA RECEIVE CHINA CERTIFICATION, DELIVERIES TO COMMENCE

Oshkosh, Wisconsin. (July 28, 2010) – Hawker Beechcraft Corporation (HBC) today announced it has received certification for its Beechcraft Baron G58 and Beechcraft Bonanza G36 piston-engine aircraft from the Civil Aviation Administration of China (CAAC). Both aircraft were approved by the CAAC on June 21, 2010. The first Bonanza in the region, which is scheduled to be delivered in third quarter 2010, will be based in Shandong Province in Northern China.

“The market in China for our entire lineup of aircraft continues to expand, especially as the growing customer base in the region becomes more familiar with the range and capabilities represented by our family of products,” said Justin Firestone, HBC president, Asia-Pacific region. “With exceptional records of performance, durability and economy, the Baron and Bonanza provide another level of affordable and practical transportation to both businesses and individuals.”

The Baron and Bonanza add to the growing list of CAAC certified HBC aircraft, which includes the Hawker 4000, Hawker 900XP, Hawker 850XP, Hawker 800XP, Beechjet 400A, Beechcraft Premier IA, Beechcraft King Air 350 and King Air C90GTi.

The newly configured aircraft will include Garmin’s SVT for G1000 as the centerpiece of the enhanced panels. Using sophisticated graphics modeling, it recreates a visual topographic landscape from the G1000 system’s terrain-alerting database. The resulting virtual reality display offers pilots a supplemental, color enhanced 3-D depiction of ground and water features, airports, obstacles and traffic – all shown in relative proximity to the aircraft.

Additional equipment added to the Baron and Bonanza standard equipment list includes the GTS 820 Traffic Advisory System and related hardware, the GTX 33ES Mode-S transponder with ADS-B out functionality (replacing the existing GTX-33), an upgraded GDU 104x Multifunction Display that adds an auxiliary video port and provides for potential third-party Enhanced Vision System certifications, and GRC10 and GRT10 wireless remote control systems for XM satellite radio – all supported by Garmin’s FliteLevel five-year warranty.

The Bonanza G36 is the most prestigious high-performance single-engine piston on the market, offering six passenger comfort and cabin flexibility not found in similar priced

four-seat aircraft. The Bonanza G36 features Garmin G1000 avionics and a GFC 700 flight control system.

The twin-engine piston aircraft that pilots aspire to own, the Baron G58 offers unmatched performance and range/payload capabilities in its segment. It also features a premium cabin that provides the best ride of any twin-engine aircraft, including flexible seating that allows for seating of two, four or six people, with the option to reconfigure and remove seats to accommodate mission needs and large baggage items. Its flight deck includes fully integrated Garmin G1000 avionics with a GFC 700 flight control system and new GWX 68 color weather radar.

#### HAWKER BEECHCRAFT PLACES CUSTOMER SUPPORT LEADERSHIP, PARTS IN ASIA-PACIFIC REGION; VICE PRESIDENT OF INTERNATIONAL SUPPORT STEVE PORTE NOW BASED IN HONG KONG

Farnborough, U.K. (July 21, 2010) – As part of Hawker Beechcraft Corporation's (HBC) initiative to enhance customer support in emerging markets, the company today announced it is placing customer support leadership and an additional \$3 million USD in critical spare parts into the Asia-Pacific region. Steve Porte, vice president, International Support, has relocated to the company's regional headquarters at the Hong Kong International Airport. "We want our customers in this area of the world to see we are committed to their success," said Christi Tannahill, HBC vice president, Global Customer Support. "We understand the value of this investment to place not only parts, but also our people in region to deliver on this commitment." Porte will focus on developing HBC support infrastructure in the Asia-Pacific region. He will also provide in-region management of the Asia-Pacific Field Service Representatives. "Hawker Beechcraft is focused on meeting the demand in Asia," said Justin Firestone, HBC president, Asia-Pacific Region. "Bringing Customer Support leadership into the region and making additional spare parts readily available are two important steps. We are better able to respond to customer demands within the Asia-Pacific time zone and business day with a diverse group of experienced HBC factory staff that are multi-lingual and multi-cultural." With additional parts in the region valued at approximately \$6 million USD, the company continues to build its parts inventory for the entire HBC aircraft lineup to support customers' current and future needs. The parts are based in Beijing, Hong Kong and Singapore. Headquartered in Wichita, Kan., Hawker Beechcraft Global Customer Support (GCS) is dedicated to improving the value of HBC aircraft by employing products and services to simplify aircraft ownership, reduce operating cost and increase re-sale value. GCS is comprised of four functional groups that include Support Plus (cost predictability/warranty programs), Hawker Beechcraft Parts & Distribution (genuine factory parts), Hawker Beechcraft Services (factory-owned service centers) and Technical Support (Field Support Representatives, Hot Line specialists and Technical Publications).

#### HAWKER BEECHCRAFT SHOWCASING JET PRODUCTS AT ASIAN BUSINESS AVIATION EVENT IN CHINA

Wichita, Kansas. (June 9, 2010) – Hawker Beechcraft Corporation (HBC) will display its Hawker 4000, Hawker 900XP and Hawker 750 business jets in Macau, China, this week at the Asian Business Aviation conference at Macau International Airport. As part of the event June 10-11, HBC will exhibit at Chalet C-4 and display its aircraft at Static position #8. "China is a major part of an expanding market for business aviation and especially Hawker Beechcraft," said Justin Firestone, HBC president, Asia-Pacific Region. "This particular event is designed to reach executives and entrepreneurs who are in the market for reliable and versatile air transportation and we expect to generate significant interest from our participation." All three of the Hawker Beechcraft models scheduled for display in Macau are currently in operation in the region. The flagship of the Hawker line, the composite fuselage Hawker 4000, is the most advanced super-midsize business jet in the

world. It sets the standard for quality, performance and value in the super-midsize business jet class of aircraft. It was recently certified in China and posted its first delivery in the Asia-Pacific region in November of 2009. From the best-selling midsize business jet lineage (the Hawker 800 series), the Hawker 900XP has combined new Honeywell engines with enhanced winglets and a large cabin for increased performance, range, efficiency, comfort and unprecedented value. The latest evolution of the famed Hawker 800 lineage, the Hawker 750 is a new light-midsize business jet that redefines its class with unmatched range/payload capabilities, a large midsize cabin, additional baggage space and proven efficiency.

#### HAWKER BEECHCRAFT AND FLIGHTSAFETY MXPRO TRAINING COURSE CERTIFIED IN CHINA; AUTHORITY PAVES WAY FOR DEVELOPMENT OF PRACTICAL TRAINING FOR KING AIR C90, HAWKER 4000

Wichita, Kansas. (March 9, 2010) – Hawker Beechcraft Corporation (HBC) and FlightSafety International today announced they have received approval to conduct theoretical and practical, hands-on technical training to support the Hawker 4000 and Beechcraft King Air C90 by the Civil Aviation Authority of China (CAAC). The authorization from the Chinese government paves the way for HBC and FlightSafety to provide their MxPro Regulatory maintenance training to Chinese technicians who, upon completion of the course, will be certified to perform maintenance on the two models, both of which are already operating in China. “This approval by the CAAC is an important step in providing accessible and well-established maintenance and service support in China for what promises to be a significant number of Hawker Beechcraft products,” said Christi Tannahill, vice president, Global Customer Support. “Once the trainees have completed their initial training and the MxPro Regulatory program, they receive the equivalent of a maintenance type rating and are permitted to service the aircraft in China.” MxPro is an innovative program that leverages Hawker Beechcraft’s knowledge of aircraft design, manufacturing and support with FlightSafety’s training expertise. It is currently offered at the newly completed FlightSafety Maintenance & Learning Center in Wichita, Kan. The program utilizes a variety of methods and training devices, including interactive computer 3D modeling and actual aircraft to provide hands-on training, replicate real-life experiences, offer in-depth operational and maintenance tasks, and supplement extensive classroom instruction. The MxPro course incorporates one week of hands-on instruction to supplement the two to three weeks of theoretical training. MxPro Regulatory supplements the MxPro course with an additional week of hands-on training and is designed to provide foreign certifications for the various regulatory agencies around the world. Completion of the initial training course is required for enrollment in the MxPro Regulatory training.

#### FIRST HAWKER 4000 DELIVERY TO CHINA

Wichita, Kan. (Feb. 23, 2010) – Hawker Beechcraft Corporation (HBC) today announced the delivery of the first Hawker 4000 business jet in China. Certified by the Civil Aviation Administration of China in November 2009, the Hawker 4000 is the flagship of the Hawker Beechcraft family and is the world’s most advanced business jet. Beyond its innovative composite construction, the Hawker 4000 offers best-in-class performance, a maximum cruise speed of Mach .84 and unsurpassed comfort for up to eight passengers. China’s first Hawker 4000 is based at the Beijing Capital International Airport and is being utilized for both business and leisure travel by the HBC customer.

“The first delivery of a Hawker 4000 to a customer in mainland China is a milestone for us and for aviation in a country with one of the world’s most rapidly expanding economies,” said Justin Firestone, president, Asia-Pacific. “The Hawker 4000 provides the range, performance and capacity needed to do business in a country as vast as China and throughout the Pacific Rim. This remarkable aircraft can seamlessly conduct non-stop missions such as Shanghai to Singapore, Beijing to Bangkok and Hong Kong to Tokyo.”



HBC recently exhibited the Hawker 4000, as well as the Hawker 750 and the Beechcraft King Air B200GT, at the Singapore Airshow. Additionally, the company will display the Hawker 4000, Hawker 750 and King Air 350 at the upcoming India Aviation 2010 in Hyderabad from March 3-7. The Hawker Beechcraft family of aircraft has generated considerable interest from customers throughout the Pacific region.

The Hawker 4000 is faster and delivers superior cruise and range performance than its closest competitors. With best-in-class field performance in its category, take-off field length (ISA, SL, MTOW) is just 1,545 m (5,068 ft.). Climb rate is exhilarating, going from sea level to 37,000 feet in just over 14 minutes. Once at altitude, the Hawker 4000 accelerates very quickly to its maximum cruise speed of Mach .84 (896 km/hr), maximizing customer productivity by getting them quickly to their destination. The Pratt & Whitney Canada PW308A engines deliver 6,900 pounds of thrust each flat rated at ISA +22° Celsius and, combined with the Hawker 4000's advanced wing design, provide impressive high altitude/hot temperature and short field performance.

The Hawker 4000's cockpit features a Honeywell Epic avionics suite with five high-resolution 20 x 25 cm (8 x 10 in.) LCD displays. It has enhanced situational awareness and flight management systems, backed by real-time system monitoring and status. The airplane comes standard with dual Inertial Reference System, dual air-cycle machines and auto-throttle that are ideally suited for long-range and trans-continental flights. Avionics and utility systems are fully integrated, and advanced composite material construction provides for lower part count, enhanced reliability and lower life-cycle costs.

The composite fuselage of the Hawker 4000 features a 1.83 m (6 ft.) stand-up cabin with a 1.97 m (6 ft. 5.5 in.) width. A flat floor runs the entire length of the aircraft, leading to an impressively large 2.51 cubic m (88.5 cubic ft.)/900 lb. baggage area, accessible from the cabin during flight and on the ground through a dedicated exterior baggage door. An eight-place interior configuration is standard with fully-articulating executive seats in double club format. The interior can be customized with a wide variety of materials and cabin finishes.

#### HAWKER BEECHCRAFT NAMES JUSTIN FIRESTONE PRESIDENT OF SALES FOR ASIA-PACIFIC REGION

Wichita, Kansas (Jan. 27, 2010) – Hawker Beechcraft Corporation (HBC) today announced the appointment of Justin Firestone as president, Asia-Pacific Sales. In this role, Firestone will oversee all commercial aircraft sales activities in the Asia-Pacific region, reporting to Shawn Vick, HBC executive vice president. He is based in the company's new regional headquarters in Hong Kong. "This confirms our focus on international customers and our commitment to this growing market," said Shawn Vick, executive vice president. "We are pleased to lead the industry in placing senior management in the Asia-Pacific region. Justin's leadership and experience will resonate as we expand our sales and product support footprint in this important area of the world." Firestone brings extensive industry experience to HBC. Most recently, he was Founder & CEO of Asia Jet, a regional leader in the private jet card industry. Prior to founding Asia Jet in 2008, Firestone was a senior executive with Marquis Jet whose diversified fleet of private jets is managed and operated exclusively by NetJets. He was also previously a director with eBizJets, now branded as Sentient Jet, an industry leader in charter brokering. Firestone received degrees in communication and business from Arizona State University. He is an active member of the Asian Business Aviation Association and the American Chamber of Commerce in Hong Kong.

#### HAWKER BEECHCRAFT ACHIEVES CERTIFICATION FOR ITS FLAGSHIP HAWKER 4000 IN CHINA

Wichita, Kansas (Dec. 9, 2009) – Hawker Beechcraft Corporation (HBC) today announced it received Civil Aviation Administration of China (CAAC) Type Certification for

the Hawker 4000 super-midsize business jet on Nov. 30, 2009. The Hawker 4000 is the world's most advanced business jet based on its innovative composite construction. Deliveries of the flagship aircraft into China are scheduled to begin during the first quarter of 2010. "We continue to see strength in the Asian market and are excited to provide our customers in China with yet another option in our superior lineup of aircraft," said HBC executive vice president Shawn Vick. "With its outstanding flight performance, spacious cabin and world-class avionics, the Hawker 4000 is clearly the best choice in the super-midsize business jet category." China adds to the growing list of Hawker 4000 certified countries, which includes Bermuda, Honduras, India, Isle of Man, New Zealand, Nigeria, South Africa, Turkey, United Arab Emirates and the United States. The Hawker 4000 is faster and delivers superior cruise and range performance than its closest competitors. With best-in-class field performance in its category, take-off field length (ISA, SL, MTOW) is just 1,545 m (5,068 ft.). Climb rate is exhilarating, going from sea level to 37,000 feet in just over 14 minutes. Once at altitude, the Hawker 4000 accelerates very quickly to its maximum cruise speed of Mach .84 (896 km/hr), maximizing productivity of customers by getting them quickly to their destination. The Pratt & Whitney Canada PW308A engines deliver 6,900 pounds of thrust each flat rated at ISA +22° Celsius and, combined with the Hawker 4000's advanced wing design, provide impressive high altitude/hot temperature and short field performance. The Hawker 4000's cockpit features a Honeywell Epic avionics suite with five high-resolution 20 x 25 cm (8 x 10 in.) LCD displays. It has enhanced situational awareness and flight management systems, backed by real-time system monitoring and status. The airplane comes standard with dual Inertial Reference System, dual air-cycle machines and auto-throttle that are ideally suited for long-range and trans-continental flights. Avionics and utility systems are fully integrated, and advanced composite material construction provides for lower part count, enhanced reliability and lower life-cycle costs. The composite fuselage of the Hawker 4000 features a 1.83 m (6 ft.) stand-up cabin with a 1.97 m (6 ft. 5.5 in.) width. A flat floor runs the entire length of the aircraft, leading to an impressively large 2.51 cubic m (88.5 cubic ft.)/900 lb. baggage area, accessible during flight and on the ground through an exterior door. An eight-place interior configuration is standard with fully-articulating executive seats in double club format. The interior can be customized with a wide variety of materials and cabin finishes.

#### CHINA-BASED SHENZHEN AIRLINES USES KING AIR C90GTI FOR ADVANCED PILOT TRAINING; AIRLINE'S IN-HOUSE TRAINING ACADEMY ACQUIRES SECOND AIRCRAFT FROM #1 TURBOPROP LINEUP IN THE WORLD

Hong Kong (Sept. 7, 2009) – Hawker Beechcraft Corporation (HBC) today announced the second delivery of its Beechcraft King Air C90GTi to Shenzhen Airlines in China. Shenzhen Airlines is using the King Air C90GTi to provide advanced pilot training at its in-house training academy, Kunpeng International Flight Academy. "As China's aviation industry continues to grow, it is critical to have the proper training aircraft for new pilots," said Brad Hatt, senior vice president, Hawker Beechcraft Sales. "The King Air C90GTi delivers the lowest priced twin-turbine aircraft with mid-size jet avionics and is ideally suited for use in advanced pilot training roles. As the safety and performance leader in its segment, the C90GTi will serve as a solid base for pilots being trained through Shenzhen Airlines." Shenzhen Airlines founded Kunpeng Flight Academy in 2007, marking the first flight school established independently by an airline company. It offers training courses in IFR and private and commercial licenses. Kunpeng's main instruction base is located at Wuzhou Airport in the Guangxi Zhuang Autonomous Region. The Beechcraft King Air C90GTi is exceptionally fuel-efficient, which contributes to its low operating costs, while offering increased performance and greater system redundancy. The C90GTi features an advanced, fully-integrated Collins Pro Line 21 avionics suite, the same system found in the King Air B200GT, King Air 350, Premier IA, Hawker 750 and Hawker 900XP. Advanced capabilities not found in other entry-level turbine avionics systems include a multi-sensor

flight management system that utilizes several aircraft position inputs, solid state weather radar and Collins patented Chart Link automated chart selection system, all of which greatly reduce pilot workload. Other features include TAWS+, TCAS-I, a high speed USB database loader and optional Collins HF radio. Its advanced digital capabilities in collecting, processing and displaying communication, navigation and surveillance (CNS) data keep pilots wired into a network of ever- changing information. The Rockwell Collins avionics suite also incorporates an Integrated Flight Information System (IFIS), offering pilots a wide range of tools – including map overlays and Electronic Jeppesen charts – to enhance safety and situational awareness.

#### HAWKER BEECHCRAFT STRENGTHENS PRESENCE IN ASIA THROUGH NEW REGIONAL SALES DIRECTOR; MATTHEW LIU OVERSEES CUSTOMERS AND SALES FOR CHINA AND NORTH ASIA

Hong Kong (Sept. 7, 2009) – In a continued focus on international customers and sales, Hawker Beechcraft Corporation (HBC) recently announced it has strengthened its international sales team to enhance its scope and presence in global markets, including the addition of Matthew Liu to serve as the Regional Sales Director for China and North Asia. “The addition of Matthew to our international sales team positions us to reach this important region in the world and be more responsive to the needs of this growing customer base,” said Brad Hatt, senior vice president, Hawker Beechcraft Sales. “A significant portion of our business is from international sales and Matthew’s leadership will allow us to gain new sales and be better positioned in the Asian marketplace.” Liu has more than 18 years of aviation, aerospace and **defense** experience. He previously worked on new product development and sales to the U.S. government at Raytheon’s Integrated **Defense** Systems, International Marketing at Raytheon Aircraft Company, and held various engineering positions at Boeing Commercial Airplanes. He is based in the company’s regional sales office in Beijing.

#### HAWKER BEECHCRAFT SEES STRENGTH, SUCCESS IN ASIA PACIFIC REGION; COMPANY TO FEATURE REVOLUTIONARY HAWKER 4000 AT 2009 ASIAN AEROSPACE INTERNATIONAL EXPO

Hong Kong (Sept. 6, 2009) – Hawker Beechcraft Corporation (HBC) continues to be one of the leading suppliers of business jets in the Asia Pacific region. The company today announced its plans to showcase its revolutionary Hawker 4000 with Avion Pacific, its local sales representative, at the 2009 Asian Aerospace International Expo, which runs Sept. 8-10 in Hong Kong. The flagship of the Hawker line, the composite-fuselage Hawker 4000 is the most advanced super-midsize business jet in the world. It truly sets the standard for quality, performance and value in the super- midsize business jet class of aircraft. HBC and Avion Pacific will be located at Chalet Suite #3 and Static #11. “The Asian market represents one of the strongest markets in the world today and is of particular interest to us,” said Brad Hatt, senior vice president, Hawker Beechcraft Sales. “Our King Air and Hawker products are widely used throughout this region and are viewed as reliable and cost efficient modes of transportation. We look forward to continued growth in this region as they continue to experience the value and benefits of corporate aircraft ownership.” The King Air and Hawker products are building a strong base following receipt of international aircraft certifications. The company continues working to secure additional certifications worldwide. The following certifications were received in the last year:

Hawker 900XP – Indonesia

Hawker 400XP – Philippines

Beechcraft King Air 350 – Indonesia and Malaysia

Beechcraft King Air C90GTi – China

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Corporate Website (Extracted in February 2014): Honeywell Building Solutions (HBS) China - operating under Honeywell (Tianjin) Co., Ltd - holds a place of honor as the first wholly owned company of Honeywell in China. As part of Honeywell Automation and Control Products Group, we have been providing customers and partners with value-added automation control solutions in the Industrial and Building Control markets for many years.

Corporate Website: China. Since 1935, China has been critical to Honeywell's growth and innovation strategies. Today, we have around 12,000 employees located in 20 cities, including five major technology centers in Shanghai, Beijing, Tianjin, Nanjing and Chongqing with more than 1,400 scientists and engineers focused on research and development, engineering and design. Our successes in China are many. Honeywell is playing a major role in the growth of China's aviation industry, providing fly-by-wire flight controls, wheel and brake systems, auxiliary power units and the inertial reference and air data systems for the new C919 platform from Commercial Aircraft Corporation of China Ltd. (COMAC), and Green Jet Fuel made from Honeywell technology powered the first biofuel flight in the region in 2011. Honeywell has also been selected to develop and implement China's first smart grid pilot project and feasibility study for managing energy use in commercial buildings. Honeywell has a long history in China, dating back to 1935 when it established the first franchise in Shanghai. When U.S. President Nixon visited China in 1973, he was invited by the Chinese government to recommend the best enterprises from 10 sectors to drive bilateral exchanges between the two countries and accelerate China's modernization development. Honeywell's UOP was the only company in the field of refining and batch chemicals selected and recommended to the Chinese government. Honeywell was also among the first multinationals to set up a representative office in Beijing, when China adopted its "open-door" policy in the 1980s. Today, all of Honeywell's four Strategic Business Groups are represented in China, and all have relocated their Asia Pacific headquarters to China. Over the years, Honeywell has established subsidiaries and joint ventures in over 20 cities across the country. As of today, Honeywell has invested \$1 billion in China and employs over 12,000 people.

2012 Zhuhai Directory: "Based in Phoenix, Arizona, Honeywell's aerospace business is a leading global provider of integrated avionics, engines, systems and service solutions

for aircraft manufacturers, airlines, business and general aviation, **military**, space and airport operations. Honeywell Aerospace strives to enhance customer value by making flight safer, more reliable, and more cost effective. Our vision is to transform the world with advances in Aerospace technology and innovative people. Honeywell is a Fortune 100 diversified technology and manufacturing leader, serving customers worldwide with aerospace products and services; control technologies for buildings, homes and industry; automotive products; turbochargers; and specialty materials. Based in Morris Township, N.J., Honeywell's shares are traded in New York, London, and Chicago Stock Exchanges.

## PROFILE

(Extracted from Corporate Website, February 2014)

Shane Tedjarati

President, Global High Growth Regions, Honeywell

Shane Tedjarati is responsible for driving Honeywell's business expansion in high growth regions of the world: Asia, Africa, Latin America, the Middle East and Eastern Europe. Based in Shanghai, he reports directly to Honeywell's Chairman and Chief Executive Officer.

Tedjarati has a proven track record of creating localized go-to-market strategies, fostering cross-business cooperation and nurturing business partnerships in high growth regions. Prior to this role, he was the President & CEO of Honeywell China and India, where he was instrumental in engineering Honeywell's success story in these two countries, both of which have grown several fold and become major contributors to Honeywell's worldwide growth.

Before coming to Honeywell, Tedjarati accumulated more than 20 years of consulting experience in various industries. He was the regional managing director for Deloitte Consulting (Greater China), where he worked with Chinese stated-owned enterprises and multi-national corporations to help them formulate and execute strategies for sustainable growth in China and abroad.

Tedjarati is a co-founder of Aspen Institute's Middle East and Asia Leadership Initiatives; special advisor to Chongqing and Wuhan Mayors; member of the advisory board of Antai College of Economics and Management Shanghai Jiao Tong University; and industry Co-Chair of China Leaders for Global Operations (CLGO), a dual master's degree program by MIT and Shanghai Jiao Tong University. He is also a sought-after speaker in various high growth markets. He has authored many articles on business practices, and is currently working on a book regarding the social and cultural ramifications of the sweeping changes taking place in the Chinese society.

Tedjarati is an avid aviator. He enjoys flying throughout the world and is a licensed commercial pilot. He has lived in China for 20 years and speaks six languages.

## HONEYWELL PRESS RELEASES

### HONEYWELL TO ENHANCE SAFETY AND EFFICIENCY WITH REPAIR AND MAINTENANCE ON THE 331-350 APU

Beijing, Sept. 25, 2013 – Honeywell Aerospace (NYSE: HON) has strengthened its strategic relationship with Air China, signing an agreement to provide services to Air China that will optimize the safety, efficiency and performance of its growing fleet of wide-body aircraft. Under this agreement, Honeywell will provide repair and maintenance on the 331-350 Auxiliary Power Unit. As China's flagship carrier, Air China continues to lead the way in fleet operational efficiency and safety," said Briand Greer, president, Asia Pacific, Honeywell Aerospace. "This agreement underscores the long-term relationship between Honeywell and Air China, and enables the airline to maintain high reliability and optimal

efficiencies that ultimately lower the total cost of ownership. As part of the agreement, Honeywell will provide Air China with customized service and maintenance solutions. The tailored aftermarket solutions, coupled with predictive trend monitoring and diagnostics (PTMD), will provide engineering expertise and support resources that will allow Air China to better manage and predict maintenance spending, while optimizing APU on-wing time and reducing downtime costs. Honeywell's services will also expedite maintenance turnaround time (TAT), providing Air China with low cost of maintenance and ownership. With more than 12 million hours of service, the 331-350 APU is supported at Honeywell's authorized service centers located around the world. Honeywell's emphasis on high-quality, competitive turnaround time will optimize flight safety for both Air China and its passengers.

**HONEYWELL SECURITY HONORED "ADVANCED AIRPORT SECURITY SYSTEM AWARD" ON THE CHINA AIRPORT DEVELOPMENT SUMMIT**

July 08, 2013

Honeywell Security China has been honored "Advanced Airport Security System Award" lately on the China Airport Development Summit in Shanghai China. The award recognizes Honeywell's advanced technologies and wide application footage in the airport vertical. China is one of the fastest growing civil aviation markets in the world. The airport industry in China has undergone unprecedented growth in recent years and continues to grow in both number and scale. Honeywell showcased our integrated security solution on the Summit to help China airports become safer and more efficient. The solution features HUS (Honeywell Universal Surveillance) Security Integration Platform that seamlessly integrates digital video surveillance, access control, intrusion, perimeter protection, video analytics products and systems, and highlights RVS (Radar Video Surveillance), FSF (Fiber Secure Fence) and thermal imaging technologies. The solution offers airports the ability to detect threats faster and respond quicker, bringing greater level of safety and security in an increasingly complex and intricate operating environment. Honeywell has the expertise and technologies to help airports run safer, smarter and greener both in the air with our electronic and mechanical aviation components, and on the ground with our airport security and building automation products and services. Honeywell security solutions have been successfully deployed in over 200 airports around the world, including Chicago O'Hare International Airport, a busiest airport in the USA, Dubai International Airport, the major aviation hub in the Middle East, Hong Kong International Airport, the world's busiest cargo gateway, Beijing Capital International Airport, the largest airport in China, as well as Shanghai Hongqiao Airport, Guangzhou New Baiyun Airport, Shenzhen Bao'an International Airport, and many other airports in China and across Asia Pacific.

**HONEYWELL SUPPORTS CHINA EASTERN AIRLINES IN INCREASING THE SAFETY AND EFFICIENCY OF ITS FLEET; WITH HONEYWELL AVIONICS, WHEELS AND CARBON BRAKE SYSTEMS, CHINA EASTERN AIRLINES CONTINUES ITS INVESTMENT IN INNOVATIVE AIRCRAFT TECHNOLOGY**

Shanghai, China, Feb. 26, 2013 – Honeywell Aerospace (NYSE: HON) has extended its strategic partnership with China Eastern Airlines, signing several agreements to increase the safety, efficiency and performance of its growing fleet of aircraft. Through these agreements, Honeywell will provide a range of avionics products for 58 new Boeing 737NG aircraft, scheduled to be delivered over the next five years. Honeywell will also provide wheels and brakes for 15 new Airbus A330 aircraft. This would bring the total number of Airbus A330 aircraft in China Eastern Airlines' fleet equipped with Honeywell wheels and brakes to 51 by 2015.

The Honeywell avionics products that will be installed on China Eastern's new Boeing 737NG aircraft include:

- IntuVue 3-D Weather Radar, the industry's most advanced weather radar, provides flight crews with intuitive displays of weather from 0 to 60,000 feet and up to 320 nautical miles away. This technology has been proven to save fuel by avoiding unnecessary diversions. In addition, a new upgrade is available, which predicts lightning and hail in a storm cell and allows the pilot to reroute, increasing passenger safety and preventing potential costly damage to the aircraft.
- Traffic Alert and Collision Avoidance System (TCAS), which provides SmartTraffic features, allowing airlines to accurately and safely navigate congested areas through a more intuitive and informative display of traffic. Using unique features to keep aircraft separated both over land and oceanic routes, it directly contributes to fuel savings.
- Enhanced Ground Proximity Warning System (EGPWS) uses the industry's most accurate worldwide terrain database to predict potential conflicts between the aircraft's flight path and terrain or obstacles. New software upgrades available for download address runway excursions and incursions, the aviation industry's most common cause of accidents at or near the airport.

With these avionics installations, China Eastern Airlines will have an advanced 737NG platform that enables flight crews to maximize safety and comfort for their passengers while reducing costs, fuel burn and carbon emissions during flight.

China Eastern Airlines has also chosen Honeywell's proven aircraft landing systems for its fleet of Airbus A330 aircraft. The agreement will provide a comprehensive suite of unique aftermarket repair and maintenance programs for the braking systems through Honeywell's joint venture with China Eastern Airlines and backed by Honeywell's award-winning engineering and customer and product support network.

Designed to meet the increasing performance requirements of modern aircraft, Honeywell's carbon heat-sink materials, titanium braking components and patented antioxidant protection enhance brake durability and reliability to improve the landing performance and service life of aircraft landing systems through lower weight and with lower total cost of ownership.

Supporting Quote: Briand Greer, President of Aerospace Asia Pacific, Honeywell Aerospace. "As passenger travel in China continues to grow at a rapid pace, carriers have recognized the need for aircraft technology that maximizes the safety, capacity and efficiency of their fleets. Honeywell is helping China Eastern ensure it is well-equipped with next-generation technology to support its growth in the marketplace."

#### HONEYWELL'S SHANE TEDJARATI DISCUSSES "BECOMING THE CHINESE COMPETITOR" IN BLOOMBERG BUSINESSWEEK.

January 23, 2013

Honeywell President of High Growth Regions Shane Tedjarati appeared in Bloomberg Businessweek China's recent issue, discussing how China's "Twelfth Five-year Plan" is related to Honeywell's businesses. China's Twelfth Five-year Plan is a series of social and economic development issues that are meant to transform the world's second-largest economy into a global powerhouse with a steadier and more stable trajectory. "I studied the Twelfth Five-year Plan and can link literally every policy to Honeywell's business – and 70% of the plan has some direct link to our strategy," Tedjarati remarked. China is on a fast-developing track and the needs and opportunities that come with its urbanization, industrialization, environmental protection, energy saving, and aviation initiatives are all closely connected with Honeywell's great positions in good industries, Tedjarati said in the interview. Tedjarati also underlined that the era when Honeywell simply stacked itself against large multinational companies has ended. "We are determined to be the Chinese Competitor. We see outstanding local enterprises in China as competitors. If we are able

to outperform these Chinese home-grown giants on sourcing, R&D, channel, go to market, and talent, we can definitely outperform multinationals.”

#### HONEYWELL AEROSPACE TECHNOLOGY TO UPGRADE CHINA EASTERN AIRLINES GROWING FLEET

February 15, 2012

Honeywell to provide wheel and brakes, APUs, avionics, and customized aftermarket maintenance solutions

Singapore, February 15, 2012 – China Eastern Airlines has strengthened its strategic relationship with Honeywell (NYSE: HON), signing several agreements that will enhance the safety, efficiency and performance of its growing narrow-body fleet, while lowering overall cost of ownership. Honeywell will provide wheels and brakes for new and existing Boeing 737 NG aircraft, as well as an avionics package and 131-9 auxiliary power units (APUs) for 50 new Airbus A320 aircraft scheduled to be delivered over the next three years. “With passenger demand in China growing at a rapid pace, the need to maximize safety, capacity and efficiency of aircraft fleets represents a top priority for airlines including China Eastern,” said Briand Greer, president of Honeywell Aerospace Asia Pacific. “These agreements ensure China Eastern is well-positioned to address growth in the marketplace with next-generation technology that offers flexibility, improves efficiencies and lowers overall operating costs.” As part of the contracts, Honeywell will provide China Eastern with customized aftermarket maintenance solutions for new and existing Boeing 737 NG and Airbus narrow-body aircraft. These tailored solutions will provide engineering expertise, maintenance and support resources that will help China Eastern simplify operations, while delivering greater operational flexibility and scalability. China Eastern has also chosen Honeywell’s proven aircraft landing systems for its fleet of Boeing 737NGs. With more than 1.5 million trouble-free aircraft landings each year, Honeywell Cerametalix brakes have proved to reduce operating costs, while providing improved performance and reliability over the life of the airplane. These industry-leading steel brakes also reduce the need for in-service removals, while maximizing part reuse, helping reduce maintenance requirements and repair costs. China Eastern has selected Honeywell avionics for its fleet of Airbus A320s to enhance safety and reliability, while ensuring accurate and timely communications. Included in the agreement are: Traffic Alert and Collision Avoidance System (TCAS); Enhanced Ground Proximity Warning System (EGPWS); Flight Data Recorder (FDR) and Cockpit Voice Recorder (CVR); and Airline Operational Communication (AOC) software. China Eastern will use Honeywell 131-9 APUs on its Airbus A320s. Honeywell’s 131-9 averages more than 10,000 hours between unscheduled removals, a more than 60 percent improvement over other APUs in its class size.

#### HONEYWELL TAKES AIR CHINA TO NEW HEIGHTS; NEXT-GENERATION AVIONICS SUITE TO HELP AIR CHINA MAXIMIZE OPERATING EFFICIENCY AND SAFETY

Singapore, February 14, 2012 – Air China has extended its relationship with Honeywell (NYSE: HON) Aerospace with a range of agreements covering avionics and wheels and brakes. With an increasing number of aircraft filling the skies, pilots need critical flight-related data, including weather and traffic conditions, delivered in real time to help make vital decisions during the flight. Honeywell’s avionics suite will be deployed in Air China’s brand-new fleet of 19 Boeing 777-300ER aircraft, providing pilots with improved situational awareness to help keep aircraft on course and optimize navigation and routing for improved fuel efficiency. Air China is the national flag carrier of China and provides air passenger, air cargo and airline-related services and products. Its airline-related services include aircraft maintenance and ground handling services in Beijing, Chengdu and other locations. Advanced avionics improve pilot situational awareness, the Honeywell avionics



suite includes IntuVue 3-D, an advanced weather system that provides pilots with a more complete picture of weather conditions than current two-dimensional (2-D) systems. As a lighter and more reliable solution, IntuVue will help Air China reduce costs and increase operational efficiency. The agreement also includes: SATCOM with SwiftBroadband; Traffic Alert and Collision Avoidance System (TCAS) with Mode S transponders; and Flight Data Recorders (FDR) and Cockpit Voice Recorders (CVR). Innovative Landing System Technologies Provide Improved Performance, Reduced Maintenance Costs and Excellent Maintainability Air China has also selected Honeywell to provide wheels and steel brakes for its purchase and lease of Boeing 737NG aircraft over the next 10 years.

- With Honeywell landing systems, Air China will receive long life from its wheels and brakes in all aircraft operating conditions.

- Honeywell Cerametalix steel brakes also reduce the need for in-service removals, while maximizing part reuse, to help reduce maintenance requirements and repair costs.

“As the country’s flagship carrier, leading the way in fleet operational efficiency and safety is of paramount importance to Air China,” said Briand Greer, president of Honeywell Aerospace Asia Pacific. “These agreements underscore the long-standing partnership between Honeywell and Air China, and ensure that the carrier is able to maximize performance, lower operating costs and ultimately deliver an improved passenger experience.”

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**HONEYWELL NAMES SHANE TEDJARATI PRESIDENT, HIGH GROWTH REGIONS AND STEPHEN SHANG PRESIDENT, HONEYWELL CHINA; BROADER FOCUS ON HIGH GROWTH REGIONS IMPORTANT TO HONEYWELL'S STRATEGIC PLAN**

Shanghai, China, January 4, 2012 – Honeywell (NYSE: HON) announced that Shane Tedjarati was named to the broader role of President, High Growth Regions and Stephen Shang will take over as President, Honeywell China, effective immediately. Tedjarati will continue to report directly to Honeywell Chairman and CEO Dave Cote. Shang will report to Tedjarati.

"Globalization has been a key pillar of our Growth Initiative for the past decade," said Dave Cote, Honeywell Chairman and CEO. "Ten years ago, less than 40% of our sales were generated outside the U.S.

Today, our company is twice the size, and approximately 55% of our revenues are generated outside the U.S.

We began executing this strategy by focusing on the two most important emerging markets – China and India. That strategy has proven to be a good one. We have grown nearly ten-fold in revenues and now have nearly 25,000 employees in China and India, representing a significant share of our global growth story."

"The success story we have created in China and India, as well as the product and innovation platforms we have systematically built through our East-for-East and East-to-West strategies in these markets will be a great blueprint to emulate in the rest of the emerging regions of the world – more aptly called high growth regions," continued Cote. "These regions will drive nearly 70% of the world's GDP growth over the next decade and are now well positioned to deliver significant growth for Honeywell as well."

Since joining Honeywell in 2004, Tedjarati has been instrumental in engineering Honeywell's success story in China and India, both of which have seen a 21% annual compound growth rate from 2004 through 2011.

Going forward he will work closely with business and functional leaders throughout the company to create effective go-to-market strategies in each of the major regions of the world: Asia, Africa, Latin America, the Middle East, and Eastern Europe.

Tedjarati's unique experience and track record in growing businesses and relationships in high growth regions will be critical as Honeywell looks to establish itself in these key markets.

Shang joined Honeywell in 2005 to help drive growth in China and Asia. Under Shang's leadership, Honeywell's Environmental and Combustion Controls business in the region has grown four-fold, made possible through rigorous localization and local innovation efforts, as well as acquiring and integrating Lonon, a terrific local electronic lighting business.

Shang also launched Honeywell's first home-grown Chinese business in LED lighting and achieved significant successes among blue chip clients worldwide. A seasoned executive with well over 30 years of experience in China and throughout the Asia-Pacific region, he will now focus his energy and expertise on driving Honeywell's core growth strategies in China – a country that will continue to remain in the forefront of the high growth regions of the world.

In addition to his new role as President, Honeywell China, Shang will continue to serve as Vice President and General Manager for Environmental and Combustion Controls (ECC), Asia Pacific, until a replacement is named.

"Shane and Stephen have my full support as they assume their new responsibilities," concluded Cote. "I look forward to working with them both as they drive greater value for Honeywell."

# ZHUHAI HELICOPTER COMPANY NAMED FIRST HONEYWELL FLEET OPERATOR IN CHINA AGREEMENT COVERS COMMERCIAL HELICOPTER AVIONICS PRODUCTS AND INSTALLATION FOR GROWING HELICOPTER MARKET IN REGION

China Air Show, Zhuhai, Nov. 19, 2010 -- Honeywell (NYSE: HON) has selected Zhu Hai Helicopter Company to be its first helicopter avionics fleet operator in China, marking the beginning of a strong Honeywell presence in the country's helicopter support industry.

Zhu Hai helicopters will represent Honeywell's commercial helicopter avionics product line. Zhu Hai will sell Honeywell components direct to operators, as well as perform remove and replace functions in one of their many hangars within China. "The agreement with Zhu Hai represents an important strategic step for Honeywell in China," said Mark Howes, president of Honeywell Aerospace, Asia Pacific. "Honeywell selected the Zhu Hai Helicopter Company in order to quickly and efficiently meet the forecasted demand, particularly the helicopter needs of the fast-growing oil and gas market. Zhu Hai and Honeywell are very harmonious in our goals and objectives." Howes said this business is expected to grow steadily by more than 4 percent each year. "We are very excited to become the first Honeywell helicopter avionics dealer in China," said Mr. Jian Zhuodong, vice president, Zhuhai Helicopter Company. "This is the first step to building a lasting, stable and mutually beneficial relationship with Honeywell."

# HONEYWELL HELPS DRIVE CHINESE AEROSPACE GROWTH WITH FOUR MAJOR SYSTEMS FOR NEW PASSENGER AIRCRAFT; C919, CHINA'S 168-190-SEAT NARROW-BODY AIRLINER EXPECTED TO BEGIN FLIGHT TESTS IN 2014

China Airshow, Zhuhai, Nov. 19, 2010 -- Honeywell (NYSE: HON) has been selected by Commercial Aircraft Corporation of China Ltd. (COMAC) to provide four substantial systems for the new C919 airliner, a contract valued at more than \$11.3 billion over the program life. "Honeywell has dedicated substantial resources to support China's plans to grow its domestic aviation industry," said Mark Howes, president of Honeywell Aerospace, Asia Pacific. "Honeywell's collaboration with COMAC will both enable this vital program inside China and strengthen China's strategic intent to compete globally."

Honeywell's sizeable work on the C919 represents technologies where the company has long been an innovator, including fly-by-wire flight controls, the wheel and brake system, the auxiliary power unit and the inertial reference system that provides precision location data. Honeywell has been working in conjunction with AVIC and other companies on the C919 programs, including AVIC Dongan, AVIC FACRI, and Hunan Boyun. The four-system selection on C919 flips a new page on Honeywell's cooperation with COMAC; the successful cooperation record can be tracked back to ARJ-21 on which Honeywell supplies fly-by-wire flight control system. As part of the strategy to better support C919 and other Chinese platforms, last November Honeywell opened the Honeywell China Aerospace Academy to provide systematic training to local talents and to share know-how. Honeywell is also expanding its partnership with another Chinese Aerospace leading enterprise, AVIC, on top of its current cooperation on C919, the two companies established a Honeywell-AVIC Steering Committee to discuss a series of platforms which will have significant impact on Chinese aerospace industry. Honeywell operates 10 facilities throughout China, including Aerospace maintenance and manufacturing facilities in Xiamen, Nanjing, Suzhou, and Shanghai. The Asia Pacific headquarters is based in Shanghai.

# HONEYWELL ESTABLISHES CHINA AEROSPACE ACADEMY TO BUILD UP AVIATION TALENTS; HONEYWELL CHINA AEROSPACE ACADEMY (HCAA) SET TO

## PARTNER WITH KEY INDUSTRY PLAYERS TO SUPPORT AND GROW WITH THE CHINESE AEROSPACE INDUSTRY

Beijing, Nov. 17, 2009 -- Honeywell (NYSE: HON) has today opened its China Aerospace Academy in Shanghai to train and develop local talents and capabilities to support China's expanding aerospace industry.

Located at Honeywell's Shanghai Learning Center in Pudong, the Honeywell China Aerospace Academy was opened by Dave M. Cote, Chairman and CEO of Honeywell, and Zhang Qingwei, Chairman of Commercial Aircraft Corporation of China (COMAC). They were joined by other leading Chinese companies and senior leaders from Honeywell.

The Honeywell China Aerospace Academy (HCAA) will provide Honeywell customers with access to advanced training that will in turn improve productivity and enhance business operational efficiency.

"Honeywell is partnering with China's aerospace industry to help expand their capabilities to meet expanding demand for safer more efficient cost competitive air travel over the next several decades. The establishment of Honeywell China Aerospace Academy represents another dimension of our commitment to Chinese customers and partners. The knowledge transfer and talent development is a critical aspect of our commitment to provide the best support for our customers," said Cote.

Chairman Zhang from COMAC added: "We believe that this is a win-win solution for both companies. We believe that we can benefit from Honeywell's expertise as well as leading technology know-how that can help COMAC speed up our pace of globalization and sharpen our competitiveness in the world market."

The HCAA will offer state-of-the-art courses designed for the needs of the local industry and customers. The training courses being offered include Technology, Certification, Program Management, Six Sigma Management & Leadership Training, Airworthiness Training, and Total Quality Management. Coursework will include both classroom and on-line elements. In addition, the HCAA can deliver courses on-site at customers' premises based on their requirements.

Backed by Honeywell global resources, the HCAA will leverage global expertise with regional executives. The academy will provide experienced and qualified instructors and trainers from the US and from other countries to deliver courses in China. The academy's training staff will draw on the expertise from Honeywell Technology Solutions China, the R&D arm of the company.

"HCAA's mission is to partner with key industry players such as COMAC and AVIC to build up Chinese talents with Honeywell's technology and management expertise to grow and develop the Chinese aerospace industry," said Tim Mahoney, President of Honeywell Aerospace.

China is modernizing its aviation industry through investments in both infrastructure and talent to better meet rapidly growing demand. China is also investing in its aerospace manufacturing and design capabilities. China is currently engaged in an aggressive campaign to move away from being an aerospace product customer to being a world-class supplier of aircraft and component systems.

Honeywell has recognized this trend and is committed to expanding its Aerospace operations in China to support the growing industry and today's opening of the HCAA is yet another example of its continuing commitment. Others include moving the Aerospace Asia Pacific headquarters to Shanghai in 2007, a move to better facilitate the growing business and needs from customers.

Honeywell Aerospace provides a wide array of products and services which range from manufactured products to parts sourcing. These diverse offerings provide customers in China with the solutions they need to succeed in the nation's rapidly developing aviation industry. Honeywell Aerospace has even attracted the attention of China's top legislator

Wu Bangguo who visited Honeywell Aerospace headquarters in Phoenix, Arizona, during his September 2009 official visit to the United States. Chairman Wu viewed the company's fuel-efficient Auxiliary Power Unit (APU) as well as our leading avionics technologies.

The Honeywell China Aerospace Academy (HCAA) recently opened in Shanghai to offer customers in China advanced training to better understand Honeywell's technology and improve their management expertise.

At the opening, Honeywell Chairman and CEO Dave Cote was joined by Zhang Qingwei, Chairman of Commercial Aircraft Corporation of China (COMAC), representatives from other leading Chinese companies, and Honeywell senior leaders.

"We've done a lot of 'seed planting' in China because we're committed to supporting China's continuing development in commercial aviation," said Cote. "We're investing in China's future and demonstrating our ongoing commitment to supporting strong partnerships with Chinese aerospace companies by sharing our knowledge and expertise through the courses we offer here."

The training courses being offered include Technology, Certification, Program Management, Six Sigma Management & Leadership Training, Air-worthiness Training, and Total Quality Management. Coursework will include both classroom and on-line elements. In addition, the HCAA offers courses at customers' locations.

Photo Not Included: Pictured from left to right: Shane Tedjarati, President & CEO, Honeywell China and India; Zhang XinGuo, Vice President of AVIC; Dave Cote, Chairman & CEO of Honeywell; Zhang QingWei, Chairman of COMAC; Tim Mahoney, President & CEO of Honeywell Aerospace; Wu Guanghui, Vice President and C919 Chief Designer, COMAC.

#### HONEYWELL FUEL-EFFICIENT APU SELECTED BY CHINA SOUTHERN AIRLINES FOR A320 AIRCRAFT; AUXILIARY POWER UNIT CAN REDUCE FUEL CONSUMPTION BY 5 PERCENT

Phoenix, Sept. 16, 2009 -- Honeywell (NYSE: HON) announced today that it will provide Auxiliary Power Units (APUs) to China Southern Airlines for new Airbus A320 and Boeing Next-Generation 737 aircraft, as well as supply APU materials, spares and service on existing China Southern aircraft in a contract valued at more than \$65 million for 192 aircraft. China Southern selected Honeywell's 131-9A APU, the most commonly used APU for single-aisle commercial transport, operating on more than 1,700 aircraft. An APU is a small turbine engine that provides bleed air for main engine starting and electrical power for cockpit and galley systems. Honeywell's 131-9A averages more than 10,000 hours between unscheduled repair events, a more than 60 percent improvement over other APUs in its class size. "With a de-rate modification that reduces fuel consumption by 5 percent, further reducing emissions and total cost of ownership over the APU lifetime, the Honeywell APU can offer operational savings of more than \$10,000 in fuel savings per aircraft, per year," said Mike Madsen, Honeywell Aerospace Vice President, Airlines. "It also provides a 10 percent power advantage over other APUs, which allows it to cool or heat the cabin two minutes faster." Honeywell's APU on-aircraft maintenance costs are up to 36 percent less than other APUs because of the simple design. Honeywell will provide its 131-9A APU to China Southern for 20 new Airbus A320s to be delivered over the next three years. The long-term supply agreement covers 36 existing A320s, 71 existing B737s, as well as 20 new A320s and 65 new B737s.

#### HONEYWELL LTS101 ENGINE IS SELECTED TO POWER THE CHANGHE Z11 HELICOPTER

February 22, 2009

Honeywell's LTS101-700D-2 engine has been selected by Changhe Aircraft Industries of Jingdezhen, China, to power the Z11 helicopter. Terms of the agreement were

not disclosed. The new engines will mark a restart of LTS101 production in Honeywell's Greer, S.C., facility. The Z11 was designed by Changhe, which holds all intellectual property rights and has obtained type certificate and production certificate awarded by the Civil Aviation Administration of China (CAAC). "Honeywell Aerospace is expanding its presence in China to address growth and demand in the region – and will begin providing new production LTS101-700D-2 engines to Changhe during the first quarter of 2010," said Doug Kult, Honeywell Director of Sales, Helicopter and Surface Systems. "The Z11 is a multi-mission, single-engine helicopter with application for police and rescue, aerial observation, electronic news gathering, VIP and executives, and border patrol operations. The helicopter is also available for export. The LTS101 powered Z11 will offer 7 percent more take off power, up to 10 percent lower specific fuel consumption, and greater than 30 percent lower operating costs."

### **H.S.H. Aerospace Finishes**

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2012 Zhuhai Directory: At HSH Aerospace Finishes, we are dedicated to quality and excellence in our waterborne interior coating products and services for the aircraft, marine and rolling stock markets. As medium-sized business, based both in Belgium and USA, our personnel and agents are committed to provide our world wide customers/partners with environmentally friendly state of the art products such as waterborne primers, fillers and topcoats resulting in a significant cost saving for the industry. Our aim is to develop person-to-person, win-win and long term relationships with all stakeholders, based on mutual respect and trust.

### **H&S-Technocraft**

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2012 Zhuhai Directory: Founded in 1997 and headquartered in Canada, HS-Technocraft has transformed over the years, moving beyond the production of technical manuals to include the Class V, technical publication services, Content Management

System (CSM) based CSDB (S1000D) installation/development, integrated training and maintenance services, building on its leading-edge technology and over years of experience, expertise and solid customer relationships. HS-Technology is leader in providing technical publication solutions to various companies. Our experts have worldwide experience in providing solutions based upon efficiency and latest technical solution. We have been actively involved in iSpec2200 and S1000D based solutions. HS-Technocraft is also actively involved in setting up customer services and providing pay per use customer services for our global customer. The services include ILS services namely RAMS, Spare parts analysis and obsolete management. HS-Technocraft has qualified staff to offer Research and Design services, and software development services.

### **Hutchinson Aerospace**

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2012 Zhuhai Directory: Hutchinson Aerospace has got a very strong background in the Design and Manufacture of rubber and elastometric solutions for the Aerospace Industry. The main product ranges consist of: Sealing Solutions, Fluid Transfer Solutions, Thermal and Acoustic Insulation, De-icing Systems, Interiors, Racking Systems, Control and Display Systems and Anti-Vibration Systems.

Corporate Website (Extracted in February 2014):

STRATEGY: JACQUES MAIGNÉ, CHAIRMAN AND CHIEF EXECUTIVE OFFICER.

"The Hutchinson reflex: The Group has brought all of its businesses together under the Hutchinson banner. Why? Coming together under a single brand enables us to have greater external visibility and greater internal consistency. It is the natural conclusion of the move that began once we started establishing ourselves abroad, in particular in China and Brazil, where we moved forward under the single Hutchinson brand. Thus, we are continuing a stronger global communication policy in relation to our customers."

Hutchinson Industrial Rubber - Suzhou

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Aerospace and Industry, Automotive Anti-vibration, Precision Sealing Systems, Transmission Systems

Gasket International

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Precision Sealing Systems

Hutchinson announces the acquisition of Gasket International (02/08/2013)  
Hutchinson is announcing its acquisition of Gasket International, the company is based in Italy (Castelli Calepio and Grumello) and China (Suzhou).

### **International Aero Engines (IAE)**

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**Directory and Corporate Website:** It manages the engineering, sales, production, customer support and aftermarket services for the V2500 engine. As a multinational collaboration, IAE brings together leading aircraft engine manufacturers. This exceptional joint venture provides IAE with access to the best-of-the-best in aerospace technology and the widest pool of talent from its shareholder companies consisting of Pratt & Whitney (NYSE: UTX), Pratt & Whitney Aero Engines International GmbH (a wholly owned subsidiary of Pratt & Whitney), Japanese Aero Engine Corporation and MTU Aero Engines.

### **HISTORY IN CHINA**

#### **1990 – 1999**

The latter part of the 1990s saw IAE and the V2500 engine start to become a dominant force in commercial aviation: (i) the MD-90 entered service; (ii) the first orders were taken from Chinese airlines; (iii) records were broken for deal sizes; and (iv) the first V2500 engine-powered A319 flew in United Airlines' colors. In addition, the 1,000<sup>th</sup> V2500 engine was delivered.

#### **2000 – 2010**

The new Millennium saw existing MD-90 operators – China Northern and SAS – select V2500 engine-powered Airbus aircraft for the first time. The engine also became available to power the Airbus Corporate Jetliner (ACJ). The success story continued throughout the decade as customer numbers approached 200, and a number of record-breaking deals were signed. The 2,000<sup>th</sup> V2500 engine was delivered in 2002, and the engine program surpassed the milestone of 20 million flying hours. IAE continued its philosophy of continuous improvement with the introduction of V2500 SelectOne engine in 2005, along with the first comprehensive OEM-managed aftermarket service program in this class. More records were broken as a number of first-run engines remained on wing in excess of 30,000 hours. Following the delivery of the 3,000<sup>th</sup> V2500 in 2006, orders continued to climb with tremendous success in China with orders from Sichuan Airlines, Hainan Airlines, Shanghai Airlines and Shenzhen Airlines. The V2500 SelectOne engine gained segment acceptance throughout the decade as customers selected the new engine standard and upgraded their existing fleets with the new retrofit upgrade. The new engine build standard, which debuted with IndiGo in 2008, delivered over 1500 engine units by the end of 2012 and continues to grow. It has a record of exceptional reliability following a flawless entry



into service and continued dependable operation. In addition, the V2500 engine became a launch engine for the Airbus A320 Final Assembly Line in Tianjin, China.

2011 – Present

An upgrade option for the V2500 SelectOne engine – the V2500 SelectTwo engine was also announced. Meanwhile, the V2500 SelectOne engine reached a major milestone with its 1,000<sup>th</sup> delivery to IndiGo, and IAE's order book continued to grow as China Southern became IAE's largest customer with its order for 65 V2500 SelectOne engines.

INTERNATIONAL AERO ENGINES PRESS RELEASES

IAE'S V-SERVICES HELPS MAINTAIN FLEET IN CHINA; OPERATORS' GOALS: IMPROVE TOW, MAINTAIN RESIDUALS AND LOWER RISK

Beijing (Sept. 26, 2013) – Today 19 customers based in China operate over 420 V2500 engine-powered aircraft. More than 360 of these aircraft are covered by a V-Services Fleet Hour Agreement (FHA).

"Operators in China are committed to keeping their engines operating at peak performance," said IAE President and CEO Jon Beatty. "Their goal is to enhance the engine's reliability, fuel-burn performance and residual value, as well as to reduce their maintenance costs and risk of unscheduled maintenance. IAE's records have shown that engines covered by an FHA have up to 20 percent longer time-on-wing (TOW) between shop visits.

"The large number of V-Services FHAs in China is also an indication of the strong working relationships we have with our customers," said Beatty. "Through customized aftermarket programs we are able to work with operators to better leverage IAE's fleet knowledge in China, identify trends and issues that may affect engines in the future, and proactively manage engines in operation."

Through the V-Services portfolio IAE is able to provide both flexible and optimized engine maintenance/support solutions. The benefits to customers include:

- Predictable maintenance cost
- Optimized engine performance, reliability and fuel burn
- Improved marketability
- Increased residual value

As the number of V2500 engines in service continues to grow, IAE remains focused on providing customers with a variety of options to support their fleets through V-Services initiatives, which are tailored to meet complex customer requirements.

In addition to FHAs, IAE offers Fixed Price Maintenance, Spare Engine Solutions and Lessor Direct Options. All V-Services agreements are centrally managed and run by IAE giving the customer one point of contact. IAE's goal is to increase the percentage of the fleet under service contracts so more customers experience the benefits and customized solutions available.

IAE's long-term commitment to operators in China extends beyond the world-class V2500 engine and comprehensive aftermarket support with a total of 12 field offices in Greater China and support to the Airbus Final Assembly Line in Tianjin, China (FALC).

ICBC LEASING ORDERS V2500 ENGINES FOR NEW AIRCRAFT

Beijing, China (Sept. 25, 2013) – ICBC Financial Leasing Co. Ltd, a subsidiary of the Industrial and Commercial Bank of China (ICBC), has entered into an agreement under which IAE International Aero Engines AG's V2500 engines will power 17 firm and three option A320 series aircraft. This brings the total number of V2500 engines ordered by ICBC Leasing to 37. The new deal is valued at \$430 million. Deliveries will commence in 2015

and continue through 2017. Aircraft powered by the V2500 engines will be leased to operators worldwide. "We are very pleased with the success of lease placements for our previous V2500 order. This engine fits in well with our goal of being one of the top lessors in the world," said Cong Lin, president of ICBC Leasing. "IAE is very appreciative of ICBC Leasing's selection of the V2500 engine once again," said IAE President and CEO Jon Beatty. "Their impressive growth in China and internationally have positioned them as one of the largest businesses in the world. We look forward to continuing our relationship with them and providing them with powerplants that will continue to fuel their growth."

#### BOC AVIATION CONFIRMS ORDER FOR ADDITIONAL IAE V2500 ENGINES

Paris Air Show (June 18, 2013) – BOC Aviation awarded IAE International Aero Engines AG with an engine order for 13 firm A320 family aircraft. Deliveries are scheduled from May 2014 to December 2016. The new order brings the total number of V2500-powered aircraft ordered by BOC Aviation to more than 110. "IAE appreciates BOC Aviation's continued support of the V2500 engine over the last 15 years," said IAE President Jon Beatty. "Our two organizations have worked closely together over the years to provide operators with reliable and efficient engines." Robert Martin, managing director and chief executive officer of BOC Aviation, said, "This new order for V2500 engines demonstrates the confidence BOC Aviation and our customers have in the operating economics of this fuel-efficient workhorse. The A320 family has been the backbone of our fleet since 1998, and we are pleased that our longstanding relationship with IAE provides a sound solution for this popular type of aircraft among our customers." BOC Aviation is the leading Asia-based aircraft leasing company with one of the youngest fleets in the industry with an average aircraft age of less than four years. BOC Aviation is 100 percent owned by Bank of China, one of the largest banks in the world.

#### IAE INKS NEW ENGINE DEAL WITH CALC

Paris Air Show (June 18, 2013) – China Aircraft Leasing Company Ltd. (CALC) has entered into an agreement under which IAE International Aero Engines AG will provide V2500 engines to power 11 new A320 family aircraft. The new aircraft are part of CALC's goal to grow its operating leasing fleet. CALC chose the V2500 to power its new aircraft because of IAE's strong presence and relationships in China. It is a trusted and reliable engine with a track record of continuous improvements. "We appreciate CALC's selection of the V2500 and look forward to growing our relationship," said IAE President Jon Beatty. "The V2500 is a proven engine that has demonstrated remarkable performance under a wide range of operating conditions, including high-altitude missions. We are proud to have the opportunity to help CALC achieve its goals." Today the V2500 powers a total of approximately 550 A320 family aircraft in service and on firm backlog in China making it the segment leader in the region. It has also become the preferred engine for A321 operators in China with engines on more than 70 percent of all aircraft. In addition to providing a superior fuel burn advantage over the competition, it offers improved time on wing (TOW) and the lowest noise and emissions. China Aircraft Leasing Company Limited (CALC) was founded in 2006 and is headquartered in Hong Kong. It has representative offices in Beijing, Shanghai, Shenzhen and Tianjin in China, as well as in Toulouse and Ireland. CALC has a wholly-owned leasing subsidiary in Tianjin, China. CALC's customers include Air China, China Southern, Shenzhen Airlines, Shandong Airlines and Chengdu Airlines.

#### FIRST CHINA-ASSEMBLED A320 FLIES AT AIRSHOW; IAE CUSTOMER SICHUAN AIRLINES PROVIDES FLIGHT DEMO OF FIRST ASSEMBLED A320

Zhuhai, China (November 13, 2012) – A Sichuan Airlines A320 aircraft powered by V2500 engines flew above the crowds at the Zhuhai Airshow today. The aircraft was

assembled and delivered in 2009 from the Airbus Tianjin Final Assembly Line China (FALC)—the first aircraft for the FALC. The flight demonstration provided by Sichuan was a testimony to the success they have had flying the fleet of A320 family aircraft powered by the V2500 engines. According to officials at Sichuan Airlines, the airline is proud to fly the first A320 assembled in Tianjin. They are happy with the performance of the aircraft and the reliability that the V2500 engine delivers. The V2500 engine's performance has enabled the airline to provide reliable and efficient operations, enhancing the value they offer their customers. Sichuan Airlines was IAE's launch customer in China and has been an exclusive V2500 operator for 16 years. They fly the V2500 to many destinations, including high-altitude destinations such as Lhasa and Jiuzhai. They currently have a total of more than 80 V2500-powered aircraft in service and on order. IAE President, Jon Beatty said, "It was an honor to have the demonstration of the first delivered A320 from the Tianjin facility at the airshow. As the launch customer for the V2500 in China, it was a proud moment for us that Sichuan also received the first assembled A320 in China. Their dedication to the V2500 engine is a testament to the reliability and success of our engine program." On September 25, 2012, the FALC celebrated another milestone with the delivery of the 100th A320 assembled. The aircraft was also powered by V2500 engines and was delivered to Air China. Of the 100 assembled A320s, IAE has powered 53 aircraft.

#### V2500 FLYING HIGHER IN CHINA; IAE SHARE OF A321 MARKET CLIMBS DUE TO V2500 EFFICIENCY AND RELIABILITY

Zhuhai, China (Nov. 13, 2012) – China continues to be an important and growing market for IAE's V2500 engine. Today the V2500 powers 53% of the A320 family aircraft in China with more than 500 total aircraft in service and on firm backlog. The V2500 has become the preferred engine for A321 operators in China with a market share of 77% for total aircraft. In addition to providing a superior fuel burn advantage over the competition, it offers improved time on wing (TOW) and the lowest noise and emissions. Currently, 18 operators in Greater China fly the V2500, representing some of the world's top airlines. China Southern is IAE's largest operator with over 170 V2500-powered aircraft in service or on order. To date, Chinese operators have accumulated more than six million engine flying hours with the V2500. "At IAE we take great pride in the long-standing relationships we have with our operators in China," said IAE President Jon Beatty. "We appreciate their selection of V2500-powered aircraft and are honored to play a part in their success. They illustrate what others can achieve when they have power provided by IAE – superior reliability and durability for all types of missions. We look forward to the opportunity to continue supporting their expansion as demand for air travel within and around China increases." China is the second largest market in the world in terms of domestic passengers – reaching 290 million in 2011 with a forecast for continued growth. It also includes some of the world's most mountainous territory. IAE has extensive experience at high altitudes on the A320 family with regular scheduled operations in both South America and China. On average, the V2500 engine powers 20 high-altitude take-offs every day globally. In 2003, an A319 aircraft powered by V2527M-A5 engines successfully completed high-altitude demonstration flights at China's Bangda and Lhasa airports demonstrating performance and maneuverability of the aircraft at high take-off weight in both normal and single-engine operations. Sichuan Airlines – IAE's launch customer in China and an exclusive V2500 operator for 16 years – flies the V2500 to many high-altitude destinations such as Lhasa and Jiuzhai. They currently have more than 80 V2500-powered aircraft in service and on order. IAE's commitment to long-term relationships in China extends beyond the world-class V2500 product and comprehensive aftermarket support with a total of 12 field offices in Greater China, an affiliated V2500 engine overhaul center in Zhuhai and support to the Airbus Final Assembly Line in Tianjin, China (FALC).

**V2500 POWERS 100TH A320 ASSEMBLED IN TIANJIN FACILITY; AIRCRAFT DELIVERED TO AIR CHINA TODAY**

Tianjin, China (Sept. 25, 2012) – IAE International Aero Engines AG announced that the V2500 is powering the 100th A320 family aircraft assembled at the Airbus A320 Family Final Assembly Line in China (FALC). The aircraft was delivered to Air China today at an aircraft delivery ceremony in Tianjin. This delivery brings the total number of V-powered Tianjin A320 family aircraft to 53. At present, IAE's market share in Greater China is also at 53% for engines in service and on order. The aircraft will be placed in Air China's Shanghai base for a total of five A320 family aircraft – exclusively powered by V2500. Air China, a SelectOne operator, currently has a total of 29 V2500-powered A320 family aircraft in service and an additional 11 on backlog. "Air China has been a valued customer of IAE's since 2003," said IAE President Jon Beatty, who spoke at today's event and was also present during the first A320 delivery at Tianjin in 2009. "The V2500 is a successful engine program because it has been well recognized by operators such as Air China for its fuel efficiency, as well as IAE's continuous improvement efforts resulting in lower cost of ownership and increased reliability." Air China is China's exclusive national flag carrier for civil aviation, a member of the Star Alliance, the world's largest airline alliance, and was the official airline partner of the 2008 Beijing Olympic Games. It operates a total of 282 passenger flight routes, including 71 international routes, 14 regional routes, and 197 domestic routes covering 30 countries and regions worldwide.

**ICBC LEASING SELECTS V2500S FOR ADDITIONAL FIVE AIRCRAFT; V2500 HAS MORE THAN 50% OF A320 MARKET IN CHINA**

Farnborough Air Show (July 9, 2012) – Following its initial selection of the V2500 for 15 A320 family aircraft and its outstanding success with V2500-powered A320 aircraft leasing placements, ICBC Financial Leasing Co. Ltd, a subsidiary of the Industrial and Commercial Bank of China Ltd. (ICBC), announced it has firmed up an additional five V2500-powered A320 aircraft. The transaction is valued at \$90 million. Deliveries will take place from 2013 to 2015. "Our initial selection of the V2500 moved us a step closer toward ICBC Leasing's plans to be among the top lessors in the world," said Cong Lin, President of ICBC Leasing. "Our continued relationship with IAE provides us a more powerful engine for further development." "We are very appreciative of ICBC Leasing's selection of the V2500," said IAE President Jon Beatty. "They are an important part of IAE's future in China and one of the largest businesses in the world. We see their continued selection and confidence in the V2500 as a testimony to the engine's proven reliability." Aircraft powered by the V2500s will be flown both domestically, as well as be placed in other parts of the world. ICBC Leasing is a wholly owned subsidiary of the Industrial and Commercial Bank of China. ICBC Leasing focuses on three business lines – aviation, shipping and large-ticket equipment. ICBC Leasing has become a pioneer and market leader in the financial leasing industry since its inception in November 2007. With the strong cooperation of its business partners, ICBC Leasing forges ahead with a global vision to build on a market-oriented culture and to offer innovative, tailor-made solutions and professional services. ICBC Leasing owns and manages 75 modern aircraft and has 42 Airbus A320 family, 10 Legacy 650 business jets and 45 COMAC C919 on order as of June 2012.

**SICHUAN AIRLINES ORDERS V2500S FOR EIGHT MORE AIRCRAFT; REPRESENTS FIRST IAE DELIVERY IN CHINA 16 YEARS AGO**

Singapore Air Show (February 14, 2012) – Sichuan Airlines has entered into an agreement under which International Aero Engines will provide V2500 engines to power eight new A320 series aircraft. The order includes a long-term aftermarket services agreement. The deal is valued at \$300 million. Deliveries will commence in January 2014 and continue into 2015. Over the past 16 years, IAE has provided engines and services to Sichuan's A320 fleet that has grown to 85 aircraft in service and on order. Since 2008, IAE

has held the distinction of being the airline's preferred engine supplier and supports Sichuan's current fleet operations of 60 V2500-powered aircraft. "Sichuan Airlines is the first and exclusive V2500 operator in China," said Lan Xinguo, chairman of Sichuan Airlines. "We highly regard our close working relationship with IAE and have derived value in continuous technology improvements on the V2500 engine in the past 16 years." "This represents one more milestone in our long-standing shared history with Sichuan Airlines. It is a new start point to continue this historical partnership, and we look forward to our shared future growth," commented IAE Executive Vice President of Customer Business Jim Guiliano. "The first aircraft delivery to Sichuan Airlines started a most successful 16 year legacy for IAE in China that will continue well into the future."

#### ICBC LEASING ORDERS V2500S FOR 15 AIRCRAFT; THE FIRST BLOCK ORDER FROM DOMESTIC LESSOR IN CHINA

Singapore Air Show (February 14, 2012) – ICBC Financial Leasing Co. Ltd, a subsidiary of the Industrial and Commercial Bank of China Ltd. (ICBC), has entered into an agreement under which International Aero Engines will provide V2500 engines to power its fleet of 15 new A320 series aircraft.

The deal is valued at \$300 million. Deliveries commence in January 2013 and continue into 2015.

ICBC Leasing signed a purchase agreement with Airbus for 42 A320 family aircraft in June 2011, which marked the first direct order of aircraft from a domestic Chinese lessor with an aircraft manufacturer.

"As a market leader in China's financial leasing industry, ICBC Leasing is supported by the largest bank in the world and plans to be among the top lessors in the world within a few years," said Cong Lin, President of ICBC Leasing. "We are very glad to join hands with IAE to make a new breakthrough in the aviation market, and the excellent performance and great market success of V2500 engines will provide the best support to our plan."

"We believe the aircraft lessors such as ICBC Leasing are under fast development in China, helping to bring the next major market growth there," said IAE Executive Vice President of Customer Business Jim Guiliano. "ICBC Leasing's order will be the first block order V2500 purchase by a local lessor in China."

"IAE's overall presence in China includes a network of support systems and infrastructure that is unsurpassed," Guiliano continued. "We have 17 operators, 11 field offices, training and overhaul facilities and provide final assembly line support at the Airbus final assembly line facility in Tianjin."

Aircraft powered by the V2500s will be flown both domestically, as well as be placed in other parts of the world.

IAE is a multinational aero engine consortium whose shareholders comprise of Pratt & Whitney (NYSE: UTX), Rolls-Royce (RR.L.), Japanese Aero Engines Corporation and MTU Aero Engines. Through 2011, over 4,900 V2500 engines have been delivered and nearly 2000 more engines are on order with close to 200 customers around the world.

ICBC Leasing is a wholly owned subsidiary of Industrial and Commercial Bank of China. ICBC Leasing focuses on three business lines – aviation, shipping and large-ticket equipment. ICBC Leasing has become a pioneer and market leader in the financial leasing industry since its inception in November 2007. With the strong cooperation of its business partners, ICBC Leasing forges ahead with a global vision to build on a market-oriented culture and to offer innovative, tailor-made solutions and professional services. ICBC Leasing owns and manages 72 modern aircraft and has 42 Airbus A320 family and 45 COMAC C919 on order as of January 31, 2012.

#### A RESPECTFUL, LONG-TERM RELATIONSHIP: IAE's V2500 ENGRAINED IN CHINA'S AIR TRANSPORTATION INDUSTRY

Beijing, China (Sept. 21, 2011) – The relationship between China Southern Airlines and International Aero Engines might be measured by the number of V2500 engines in operation or on firm order. However, there is much more to this arrangement than just engines – it is a global partnership.

“Just as China Southern has a vested relationship with our V2500 engine, IAE has established a substantial presence at China Southern and, in fact, all of China,” explains IAE Regional Vice President Bob Zimmerman. “We have invested to create a notable infrastructure so that we can provide the appropriate levels of support to our customers.”

IAE has a substantial presence in China, as 17 operators fly the V2500. IAE has a sales and customer support office, 11 field offices, training and overhaul facilities, and provides final assembly line support at the Airbus final assembly line facility in Tianjin.

China Southern’s order of 65 Select One engines announced at the Paris Air Show in June brought the total number of China Southern airplanes in service and on order powered by the V2500 to 177 making it IAE’s largest customer. In addition, it selected a long-term engine maintenance agreement. Deliveries for this latest order will begin in May 2012. The total value of the agreement is in excess of \$750M.

In recognition of China Southern’s position as the largest V2500 operator, IAE and China Southern have jointly committed to work together to establish a V2500 Technical Training Center, to be located in Guangzhou. We are excited to announce that the Guangzhou training facility is currently planned to open in the 1st quarter of 2012 and will serve as a training center of excellence for the region.

China Southern maintains one of the best flight-safety records in the world and is proud of its outstanding reliability and performance. The airline also displays its commitment to V2500 engines through its joint venture repair and overhaul facility with MTU Aero Engines, an IAE shareholder.

IAE is a multinational aero engine consortium whose shareholders comprise of Pratt & Whitney (NYSE: UTX), Rolls-Royce (RR.L.), Japanese Aero Engines Corporation and MTU Aero Engines. There are more than 5,500 V2500s in service or on firm order with nearly 200 customers around the world.

For more than 32 years, China Southern – [www.csair.com/global](http://www.csair.com/global) – has been the largest airline in The People’s Republic of China and is headquartered at the ultra-modern Guangzhou Baiyun International Airport. China Southern operates a fleet of 414 modern aircraft and serves 172 cities in 30 countries and regions, forming an extensive network with Guangzhou and Beijing as its hubs.

China Southern is a member of SkyTeam and together with the alliance’s 13 member airlines offers its 384 million annual passengers a worldwide system of more than 13,000 daily flights covering 898 destinations in 169 countries.

#### PEOPLE’S REPUBLIC OF CHINA FLYING IAE’s V2500

Beijing, China (Sept. 21, 2011) – Air Transport activity is in great demand in the People’s Republic of China (PRC). It has grown exponentially over the past decade and China continues to lead the aviation industry with its rapid expansion. International Aero Engines has been a key enabler, as the V2500 engine now powers more than half of the A320 aircraft in the PRC. In fact, about 40 percent of the engines produced by IAE in 2010 were delivered to China, reflecting that the country’s domestic traffic has tripled, while international traffic has grown four-fold over the past decade. IAE provides V2500 engines to a large number of airlines in this nation — some 17 operators call China their home, and over the last three years more than 30 percent of V2500 production capacity has been delivered to China. The V2500s power A320 series aircraft that operate domestically, regionally and globally. This results in more than 340 aircraft in service, with another 100 in backlog. “China has an air transportation market that continues to grow very quickly,” explains Bob Zimmerman, a regional vice president for IAE. “Over the years, we’ve effectively built solid relationships through customer focus and the attributes of the V2500.”

China Southern is the largest V2500 operator here, with a total of 177 aircraft – more than 350 engines in service or on firm backlog. It is also IAE's largest V2500 customer, gaining that recognition with an order of 65 SelectOne engines announced at the Paris Air Show in June. The second largest V2500 user in China is Sichuan Airlines, with 75 aircraft on order or firm backlog. "Many airlines and operators have made the V2500 their engine of choice in China," said IAE President and Chief Executive Officer Ian Aitken. "Our customers like the continuous upgrading of the capabilities, reliability, maintainability and efficiencies that our engines offer." With hubs in Guangzhou and Beijing, China Southern is the world's third largest global airline, operating in nearly 900 cities within 169 countries. By fleet size, it is the largest airline in China and sixth largest in the world.

#### CHINA EASTERN SELECTS V2500S FOR 50 AIRCRAFT

Beijing, China (Sept. 21, 2011) – International Aero Engines announced today China Eastern Airlines has selected IAE to provide V2500 engines to power 50 new A320 series aircraft. The deal also includes comprehensive long-term engine aftermarket services. Deliveries will commence in August 2012 and continue to 2015, and China Eastern will employ the new V2500s to expand the capacity of its fleet. The deal is valued at over \$1.2 billion including the engine and aftermarket business. IAE will deliver engines for 11 A319s (including five high altitude A319s), 19 A320s and 20 A321s. "China Eastern has expressed its satisfaction with the V2500. It has operated very well since it entered service on the A320 with China Eastern in 2008," said Ian Aitken, president and chief executive officer of International Aero Engines. "China Eastern recognizes the significant fuel burn advantage that the engine provides and the assurance that's provided by the fleet hour agreement support." China Eastern is one of the leading airlines in China and enjoys a market-leading position for punctuality. It is a long-time IAE customer, dating back to 1997 when it operated MD-90s powered by V2500s. It is one of the largest airlines in the country by number of aircraft in service, with more than 360 aircraft in service.

#### CHINA SOUTHERN BECOMES IAE'S LARGEST CUSTOMER

Paris, France (June, 20, 2011) – China Southern has distinguished itself as International Aero Engine's largest customer. Its order for 65-Select One engines, which was announced today, will bring the total number of China Southern airplanes in service and on order powered by the V2500 to 177. In addition China Southern has selected a long term engine maintenance agreement. Deliveries for this latest order will begin in May 2012. The total value of the agreement is in excess of \$750M. "We have been a customer-focused company for more than a quarter of a century. This mindset has enabled us to build close relationships with the many airlines and operators who have selected V2500," said IAE President and Chief Executive Officer Ian Aitken. "Our relationship with China Southern reflects our approach to continuously upgrading the capabilities, reliability, maintainability, and efficiencies that our engine offers, enhancing its value to our customers." With hubs in Guangzhou and Beijing, China Southern is the world's third largest global airline, operating in nearly 900 cities within 169 countries. By fleet size, it is the largest airline in China and sixth largest in the world. "We are very pleased with the performance, quality, reliability, and continuous improvements that the V2500 engines provide for our growing fleet of A320 aircraft. It is long-term relationships with partners such as International Aero Engines that have enabled us to achieve the successes we've established over these many years," commented China Southern President Mr. Tan Wangeng. China Southern maintains one of the best flight-safety records in the world, proud of its outstanding reliability and performance. The airline also displays its commitment to V2500 engines through its joint venture repair and overhaul facility with MTU Aero Engines, an IAE shareholder.

## IAE ACHIEVES MULTITUDE OF ORDERS, EXTENDS AGREEMENT, DEBUTS SELECTTWO

Paris, France (June 20, 2011) – There is no standing still at International Aero Engines (IAE). This multi-national aircraft engine consortium — comprised of Pratt & Whitney (NYSE: UTX), Rolls-Royce (RR.L), Japanese Aero Engines Corporation and MTU Aero Engines — continues to invest in its product's capabilities as it positions its V2500 engine in its highly competitive global marketplace. During the final half of last year through this spring, IAE has reached or extended agreements with legacy and new customers; recommitted to its collaboration agreement to 2045, and developed yet another iteration of its V2500 engine. IAE unveiled SelectTwo at ISTAT this spring during the conference in Arizona. This new version of the V2500 furthers its reputation as the most efficient powerplant in the market, with a notable reduction in fuel burn. Gulf Air has become an IAE customer through its purchase of six A321 aircraft with SelectTwo engines, the first operator to opt for SelectTwo. Its efficiency makes it environmentally friendly, lowering the carbon footprint. "The robust nature of our engine, coupled with its history of reliability, and excellent record of performance, has positioned us to effectively add new customers as we execute our strategy of continuously adding capabilities and durability," said IAE President and CEO Ian Aitken. "This enables us to pursue applications and customers we have never sought before in many regions around the globe." "It's been a busy year in many ways," he continued. "We are proving once again that our strategy of continuously improving our engines is working for us. We have implemented new technologies as we evolve the V2500, and made some substantial investments — feedback from our customers has been very positive." The extension of the collaboration agreement was signed at a recent IAE Board of Directors meeting in London, where its shareholders jointly reiterated their commitment, noting the organization has provided outstanding engines and support services for global customers for more than a quarter of a century. Over the past several months, IAE also reached agreements with Vietnam Aircraft Leasing Corp., Bank of China, TAM, Sichuan, Air Leasing Corp, Vietnam Airlines and China Southern Airlines. China Southern's order places that airline as the leading user of V2500 engines, followed closely by jetBlue. US Airways, United Airlines and TAM are the top five users — each with more than 100 aircraft using IAE power. "After more than a quarter of a century we continue to be the industry leader for the Airbus A320 family of aircraft," said IAE Executive Vice President of Customer Business Jim Guliano. "Our substantial investment and ability to develop and apply our technology — together with the commitment we've continuously displayed to our customers — will contribute to our success as we produce our engines for many years to come."

## IAE WINS ORDER FROM BOC AVIATION

November 30, 2010

IAE International Aero Engines AG today announced that BOC Aviation has signed an exclusive agreement for the firm order of V2500 engines to power 25 A320 family aircraft newly ordered from Airbus. The 25 new aircraft, due for delivery from 2012 onwards, will join BOC Aviation's current fleet of more than 70 V2500-powered aircraft in service or on order. BOC Aviation, wholly-owned by Bank of China, is the leading Asia-based aircraft leasing company with a total fleet of over 160 modern aircraft operated worldwide. The average aircraft age of less than four years makes it one of the youngest fleets in the industry. This exclusive order builds upon a preferred relationship which has existed between BOC Aviation and IAE for over a decade. The continuation of this relationship will allow BOC Aviation and IAE to provide customers with reliable engines that are popular with airlines operating these aircraft types. James Guiliano, Executive Vice President at IAE, said: "BOC Aviation has identified the clear operational advantages of the V2500 for the A320 family, which generates real value for their customers, both in terms of bottom



line and environmental impact. The V2500's remarkable performance under a wide range of operating conditions makes it the powerplant of choice for more than 190 customers in 70 countries." Robert Martin, Managing Director & Chief Executive Officer of BOC Aviation, said: "We continue to see high demand from our customers and the market for A320 family aircraft powered by V2500 engines which delivers environmentally sound and fuel efficient solutions to our customers. The V2500 SelectOne build standard delivers an additional one percent fuel burn advantage, along with a corresponding reduction in CO2 emissions. It improves time-on-wing by up to 20 percent and demonstrates compliance with all applicable CAEP emissions standards. The V2500 is available in seven different thrust settings, from 22,000 to 33,000lb, to power the Airbus A319, A320 and A321 family of aircraft as well as the Airbus Corporate Jetliner. IAE's in-service fleet has doubled in the last five years and is the third largest engine program currently in production. Nearly 6,500 V2500 engines are in service or on firm order and the worldwide fleet has accumulated over 85 million flying hours.

#### IAE COMMEMORATES 15 YEAR ANNIVERSARY WITH AIR MACAU

November 17, 2010

IAE International Aero Engines today commemorated its 15 year anniversary of the V2500-powered aircraft entry into service with Air Macau during a ceremony held at Airshow China 2010. Air Macau first launched services in November 1995 with the V2500-powered A320 family aircraft and has relied on IAE power ever since. Commenting on the ceremony Bob Zimmerman, China Vice President – Customer Business at IAE said: "Today's commemorative achievement is a testament to the success of our product and the operational reliability and performance our customers have come to expect from IAE. IAE has a significant and long-standing presence in Macau and the company plays a key role in the development of this important region." Mr. Zheng Yan, Chairman of EXCO and Vice President of Engineering at Air Macau said: "Air Macau prides itself on offering the highest quality standard of airline travel on which passengers rely on to fly safely, peacefully and comfortably. Over the past 15 years the IAE V2500 engine product and operational performance has helped us achieve this."

IAE is present throughout Greater China with over 250 V2500-powered aircraft in service and 150 currently on order. The V2500 was the launch engine for the Airbus Tianjin Final Assembly Line in 2009. This year 40 percent of V2500-powered aircraft deliveries are destined to Greater China. In 2011, IAE expects to power over 42 percent of Tianjin assembled A320 aircraft. The V2500 is the most technologically-advanced engine for the A320, based on a track record of continuous improvement from the A1, D5, A5 models through to the latest build standard, SelectOne. The V2500 SelectOne build standard delivers an additional one percent fuel burn advantage, along with a corresponding reduction in CO2 emissions. It improves time-on-wing by up to 20 percent and demonstrates compliance with all applicable CAEP emissions standards. During its second year of operation, the SelectOne has accumulated nearly 2 million in-service hours. Founded over 27 years ago, IAE has secured its position in the aviation industry marketplace with over 4,400 engines in-service and nearly 2,000 more on backlog. The rapid growth of the V2500 in-service fleet is due to its superior technology, resulting in the lowest fuel burn, lowest emissions and world-class reliability. Over 190 customers in more than 70 countries around the world rely on IAE V2500 power. Today's total order book value stands at roughly \$50 billion.

#### IAE CELEBRATES NEW V2500-POWERED AIRCRAFT ORDER AND 15 YEAR PARTNERSHIP WITH SICHUAN AIRLINES

November 16, 2010

IAE International Aero Engines today announced an order with Sichuan Airlines for V2500 engines to power eight Airbus A320 family aircraft, which includes a long-term IAE

Aftermarket Services Agreement. The order was announced at Airshow China 2010 during a ceremony celebrating the two company's 15 year long-standing success and partnership. Previously this year, Sichuan Airlines also selected the V2500 to power 12 Airbus A320s and a long-term IAE Aftermarket Services Agreement. The aircraft are due to be delivered between 2011 and 2015. Over the past 15 years, IAE has been relied upon to deliver power and services to Sichuan's A320 family fleet, which currently stands at 85 aircraft in service and on order. Since 2008, IAE has held the distinction of being the airline's preferred engine supplier and supports Sichuan's current fleet operations of 50 V2500-powered aircraft: 11 A321s, 25 A320s and 14 A319s. Speaking at a celebration ceremony held today during Airshow China 2010, Bob Zimmerman, China Vice President – Customer Business at IAE said: "We are honored to have this successful partnership with Sichuan Airlines and long-standing shared history in China. We look forward to our shared future growth, as we continue this historical partnership." Mr. Lan Xinguo, Chairman of Sichuan Airlines said: "We are delighted to celebrate this milestone with IAE. We highly regard our close working relationship with IAE and have derived value in increased operational performance, reduced costs and fuel burn through a 15 year legacy of continuous technology improvements on the V2500 engine." With its significant and long-standing presence in Greater China the company plays an important role in the development of this region. The V2500 holds more than 54 percent market-share and powers over 250 aircraft in service, with more than 150 IAE-powered aircraft currently on order in Greater China. Over 85 percent of the region's V2500-powered aircraft fleet is covered under IAE's comprehensive engine management and maintenance services. In region customers, derive the clear benefits and assurance IAE provides with the operating experience of more than 85 million flying hours.

#### IAE SELECTED AGAIN BY CHINA SOUTHERN IN \$400M ENGINE DEAL

July 19, 2010

IAE International Aero Engines today announced that China Southern Airlines has again selected the V2500 to power a new fleet of 20 Airbus A320 family aircraft it has on order. Deliveries are scheduled to begin in 2011. The contract also includes a long-term IAE Aftermarket Services agreement. The combined value of the engine and aftermarket business is in excess of \$400 million. The China Southern airline group is one of the largest operators of the V2500 with 136 aircraft in service, including 13 Boeing MD-90s and 123 Airbus A320 family aircraft. A further five IAE-powered aircraft are yet to be delivered in addition to this latest order. China Southern first operated the V2500 in 1996 and has since logged over three million flying hours with this engine type. Mr. Tan Wangeng, President of China Southern said: "The V2500 has proven itself to be a highly reliable and it has contributed a lot to our reputation as the leading airline in China. Our decision to once again select the V2500 to power our new A320s will further enhance our long standing relationship with IAE." Bob Zimmerman, Vice President – China added, "As an existing IAE customer, China Southern's selection of the V2500-powered A320 also demonstrates the airline's confidence in our ability to deliver a cost-effective and reliable services solution and excellent product support." All of the airline's V2500 engines on its A320 family aircraft are covered by a long-term IAE Aftermarket Services agreement, making it one of the largest customers to see the value in this type of long-term partnership with its engine manufacturer. As part of its existing aftermarket agreement, China Southern has opted to upgrade its existing V2500-A5 fleet to the new V2500 SelectOne build standard. Since the retrofit was introduced in late 2008, the airline has completed 26 upgrades to date. The 22,000-33,000lb of thrust V2500 is available in seven different thrust settings to power the Airbus A319, A320 and A321 family of aircraft as well as the A319 Corporate Jet. More than 5,500 V2500 engines are in service or on firm order. The V2500 SelectOne build standard delivers an additional one percent fuel burn advantage, along with a

corresponding reduction in CO2 emissions. It improves time-on-wing by up to 20 percent, and will be compliant with the most stringent CAEP/6 NOx standards. It entered service on schedule in October 2008.

#### SICHUAN RETAINS IAE AS EXCLUSIVE ENGINE SUPPLIER IN \$300M DEAL

February 2, 2010

Sichuan Airlines today confirmed it has selected the IAE International Aero Engines V2500 to power its latest fleet of Airbus A320s currently on order. This deal includes V2500 SelectOne engines for 12 firm aircraft, due to be delivered between 2011 and 2015. In addition, Sichuan has chosen to support these engines with a long-term IAE Aftermarket Services Agreement, where coverage includes overhaul, engine health monitoring and on-wing coverage. The total value of this new business is worth \$300 million to IAE.

Sichuan's current A320 family fleet of 61 aircraft in service and on order is exclusively powered by the V2500 and the airline was the launch customer for the V2500 in China in 1995. Ian Aitken, President and CEO – IAE said, "Sichuan is yet another example of a returning customer that maintains great confidence in our product and enjoys doing business with us. We have an exceptional, long-term relationship with Sichuan that has consistently grown stronger since their first V2500 order 15 years ago. During that time we've demonstrated our commitment to continuous improvement, introducing new technologies to drive down fuel burn, reduce maintenance cost and improve reliability, ensuring our customers get the most out of their assets." In Greater China, the V2500 powers over 250 aircraft in service and there are more than 150 IAE-powered aircraft currently on order in the region. The V2500 was also the launch engine for the Airbus Final Assembly Line China (FALC) in Tianjin in 2009, where nine of the first 10 aircraft produced were powered by IAE. The new IAE-powered aircraft are the latest V2500 SelectOne build standard offering benefits of reduced CO2 emissions and noise levels as well as an one per cent additional reduction in fuel burn, bringing the V2500's total advantage to up to four percent. The added benefit of creating a reliable engine and lowest cost of ownership maintains IAE's position as the technology leader within the aerospace industry. The 22,000-33,000lb of thrust V2500 is available in seven different thrust settings to power the Airbus A319, A320 and A321 family of aircraft as well as the A319 Corporate Jet. Nearly 6,000 V2500 engines are in service or on firm order with more than 190 customers around the world. The V2500 SelectOne build standard improves time-on-wing by up to 20 percent, and is compliant with the most stringent CAEP/6 NOx standards. It entered service on time in October 2008.

#### IAE DELIVERS 100TH V2500-POWERED AIRCRAFT TO CHINA SOUTHERN AIRLINES

July 24, 2009

International Aero Engines announced today the delivery of the 100th V2500-powered A320 family aircraft to China Southern Airlines. The 100th aircraft, an Airbus A321, is powered by the latest V2500 SelectOne build standard and is scheduled to fly both domestic and international routes. China Southern first operated the V2500 in 1996 with a Boeing MD-90 and has since logged over two million flying hours with this engine type. Bob Zimmerman, Vice President – China said, "For over a decade, China Southern has flown with V2500 engines and have since grown to be one of the largest V2500 operators in the world. We are proud to be a part of China Southern's success." In addition to the 100 V2500-powered Airbus aircraft now in service, China Southern has 29 further A320-family aircraft on order with IAE engines. Its fleet also consists of 13 MD-90s, powered by the V2500-D5 variant. The 22,000-33,000lb of thrust V2500 is available in seven different thrust settings to power the Airbus A319, A320 and A321 family of aircraft as well as the A319 Corporate Jet. More than 5,500 V2500 engines are in service or on firm order. The V2500 SelectOne build standard delivers an additional one percent fuel burn advantage,

along with a corresponding reduction in CO2 emissions. It improves time-on-wing by up to 20 percent, and will be compliant with the most stringent CAEP/6 NOx standards. It entered service on schedule in October 2008. IAE is a multinational aero engine consortium whose shareholders comprise of Pratt & Whitney (NYSE: UTX), Rolls-Royce (RR.L.), Japanese Aero Engines Corporation and MTU Aero Engines. The newest member of SkyTeam, and the largest airline in The People's Republic of China for the past 30 years, China Southern Airlines – [www.csair.com/global](http://www.csair.com/global) – connects more than 80 cities around the globe.

#### IAE CELEBRATES DELIVERY OF THE FIRST V2500-POWERED AIRCRAFT

July 17, 2009

IAE International Aero Engines today celebrated the delivery of the first V2500-powered aircraft entering the Shanghai Airlines fleet. The Airbus A321 was handed over at a ceremony at the Airbus Final Assembly Line in Hamburg, Germany, and represents the first of a 10-aircraft order announced at the Farnborough International Airshow in 2008. IAE Regional Vice President – Greater China, Bob Zimmerman, said: "We are proud to see the V2500 flying in the colors of Shanghai Airlines and look forward to growing our relationship with them. The V2500 has proven to be the engine of choice on the A320 family in China thanks to a significant fuel-burn advantage, and consequent environmental benefits, generating real value for our customers." The V2500 currently holds over 70 per cent market share on all A321s in service or on order in Greater China, driven by the fact that it offers the lowest fuel burn, lowest noise and lowest emissions of any engine on this aircraft. In Greater China, around 370 V2500-powered aircraft are either in service or on order with 16 airlines in the region. IAE is also the lead engine supplier to the Airbus A320 Final Assembly Line China in Tianjin, powering nine of the first 10 aircraft to be assembled at this new facility. The 22,000-33,000lb of thrust V2500 is available in seven different thrust settings to power the Airbus A319, A320 and A321 family of aircraft as well as the A319 Corporate Jet. More than 5,500 V2500 engines are in service or on firm order, with more than 180 customers around the world.

#### IAE POWERS FIRST A320 ASSEMBLED IN CHINA

June 23, 2009

IAE International Aero Engines today celebrated the delivery of the first Airbus A320 assembled in China, powered by the IAE V2500. The delivery ceremony was held at the new Airbus Final Assembly Line China (FALC) in Tianjin. The first aircraft was delivered to Sichuan Airlines, on lease from Dragon Aviation Leasing. Including this latest addition, Sichuan currently operates A320 family fleet of 41 aircraft exclusively powered by IAE engines, and was the launch customer for the V2500 in China in 1995. It has a further 20 IAE-powered aircraft on order. Jon Beatty, President and CEO – IAE said, "We have achieved significant success in China and, as a result, will power nine of the first 10 aircraft assembled by Airbus in the country. This achievement recognizes the superior technology of the V2500, which has lead to its recent position as the engine of choice on the A320 in China. It is fitting that Sichuan, our launch customer in China, should also be the first recipient of an indigenous IAE-powered A320. "Following the accomplishment of the first delivery, IAE wishes Airbus and the assembly line team continued success." In Greater China, the V2500 powers over 200 aircraft in service and during the past 24 months has been selected on 180 additional A320 Family aircraft placed on firm order in the region, representing more than half of the market share in China. The new IAE-powered aircraft are equipped with the latest V2500 SelectOne build standard offering benefits of reduced CO2 emissions and noise levels as well as up to one per cent additional fuel burn. The added benefit of creating a reliable engine and lowest cost of ownership maintains IAE's position as the technology leader within the aerospace industry. The 22,000-33,000lb of thrust V2500 is available in seven different thrust settings to power the Airbus A319, A320 and A321 family of aircraft as well as the A319 Corporate Jet. More than 5,500 V2500

engines are in service or on firm order, with more than 180 customers around the world. The V2500 SelectOne build standard improves time-on-wing by up to 20 percent, and is compliant with the most stringent CAEP/6 NOx standards. It entered service on time in October 2008.

#### AIR CHINA SELECTS V2500 FOR NEW FLEET OF A320-FAMILY AIRCRAFT

June 15, 2009

Air China has selected the IAE International Aero Engines V2500 to power a new fleet of Airbus A320-Family aircraft with deliveries starting in April 2010. Including a long-term aftermarket agreement, the total value of the deal is around \$700 million. This new order covers engines for 22 aircraft, representing a mix of A320s and A321s. The airline already operates the V2500 on a fleet of 12 Airbus A319s. Ian Aitken, Executive Vice President – Customer Business at IAE said: “We are delighted to grow our long-term relationship and strengthen the partnership between Air China and IAE. Our two companies share visions of leadership in our own fields, continuous improvement and growth that drives us both towards the same goals.” The selected engines are the latest V2500 SelectOne build standard, which has increased IAE’s fuel burn advantage by an additional one percent, as well as further reduced CO2 emissions. The improvements made through V2500 SelectOne maintain IAE’s position as the technology leader for the A320 family. In Greater China, around 370 V2500-powered aircraft are either in service or on order. IAE is also the lead engine supplier to the Airbus A320 Final Assembly Line China in Tianjin, powering nine of the first 10 aircraft to be assembled at this new facility. The V2500 is available in seven different thrust settings, from 22,000 to 33,000lb, to power the Airbus A319, A320 and A321 Family of aircraft as well as the Airbus Corporate Jetliner. More than 5,500 V2500 engines are in service or on firm order around the globe. The V2500 SelectOne upgrade improves time-on-wing by up to 20 percent, and will be compliant with the most stringent CAEP/6 NOx standards. It entered service on time in October 2008.

#### IAE AND SHENZHEN AIRLINES CELEBRATE FIRST V2500 DELIVERY

June 15, 2009

IAE International Aero Engines announced today the delivery of Shenzhen Airlines’ first V2500-powered aircraft. The delivery, held at the Airbus Final Assembly Line, Toulouse, represented the first of 28 A320 family aircraft ordered by Shenzhen in an \$812 million deal announced last year at the Farnborough International Airshow. Additionally, all 28 aircraft are backed by a long-term IAE Aftermarket Services agreement. This was the first V2500 order from Shenzhen who join IAE’s expanding customer base in China. Within the region, around 370 V2500-powered aircraft are either in service or on order. IAE Regional Vice President – Greater China, Bob Zimmerman, said, “We are delighted to welcome Shenzhen to the growing IAE family. The successful delivery of the first V2500-powered aircraft provides a solid foundation for the relationship between IAE and Shenzhen to continue to develop and we look forward to working with them in the future.” The engines will be the latest V2500 SelectOne build standard, the most technologically advanced engine for the A320 family. Benefits include an additional one percent fuel burn advantage along with reduced CO2 emissions and noise. It also improves time-on-wing by up to 20 percent, and will be compliant with the most stringent CAEP/6 NOx standards. The 22,000-33,000lb of thrust V2500 is available in seven different thrust settings to power the Airbus A319, A320 and A321 family of aircraft as well as the A319 Corporate Jet. More than 5,500 V2500 engines are in service or on firm order, with more than 180 customers around the world. IAE is a multinational aero engine consortium whose shareholders comprise of Pratt & Whitney (NYSE: UTX), Rolls-Royce (RR.L.), Japanese Aero Engines Corporation and MTU Aero Engines.

## IAE DELIVERS FIRST ENGINES TO AIRBUS A320 FINAL ASSEMBLY LINE IN CHINA

March 23, 2009

IAE International Aero Engines has delivered the first ship set of V2500 engines to the Airbus A320 Final Assembly Line China (FALC) in Tianjin, the first Airbus final assembly line outside Europe. Of the first 10 aircraft to be assembled by FALC, IAE's V2500 is the selected powerplant on nine, including the first aircraft scheduled to be delivered to Sichuan Airlines, through Dragon Aviation Leasing, in the summer of 2009.

The engines are the latest V2500 SelectOne production standard. They were shipped to Toulouse where they were fitted with the engine externals, before being transferred to Tianjin to be installed on the inaugural aircraft, serial number 3591. Martin Brown, IAE Vice President – Toulouse Office said: "Delivering these first engines is a major milestone in ensuring our complete readiness to support the delivery of the first A320 assembled in China. We are very proud of our position as the lead engine supplier to the Airbus Final Assembly Line China, and that we power nine of the first 10 aircraft to be assembled there. Our position as the technology leader on the A320 engine has been key to our success in China." In Greater China, the V2500 powers over 200 aircraft in service and during the past 24 months has been selected on over 180 additional A320 Family aircraft placed on firm order in the region, representing more than half of the market share in China. The V2500 is available in seven different thrust settings, from 22,000 to 33,000lb, to power the Airbus A319, A320 and A321, as well as the Airbus Corporate Jetliner. More than 5,500 V2500 engines are in service or on firm order with more than 180 customers around the world. The V2500 SelectOne build standard delivers an additional one percent fuel burn advantage, along with a corresponding reduction in CO2 emissions. It improves time-on-wing by up to 20 percent, and is compliant with the most stringent CAEP/6 NOx standards. It entered service on time in October 2008.

## SICHUAN AIRLINES PLACES \$700M V2500 ORDER

November 4, 2008

Sichuan Airlines has selected the IAE International Aero Engines V2500 SelectOne build standard of engine to power 18 Airbus A320 family aircraft that will be delivered between 2009 and 2012. As part of the deal, IAE has been designated as the airline's preferred engine supplier for all future acquisitions of A320 family aircraft. Including a long-term V2500Select aftermarket agreement, the total value of the new business is around \$700 million and covers the engines ordered as part of this deal, and those powering 15 aircraft already in service. IAE Regional Vice President – China, Craig Welsh, said: "We've generated a long-standing partnership with Sichuan Airlines, the launch customer for the V2500 in China in 1995. Our two companies have been on a journey together and we're obviously delighted that, with this decision, the V2500 will to continue to be the exclusive powerplant for Sichuan's A320-family fleet."

In Greater China, the V2500 powers over 200 aircraft in service and during the past 24 months has been selected on over 180 additional A320-family aircraft placed on firm order in the region, representing more the half of the market share in China. The V2500 is available in seven different thrust settings, from 22,000-33,000lb to power the Airbus A319, A320 and A321 Family of aircraft as well as the Airbus Corporate Jetliner. More than 5,000 V2500 engines are in service or on firm order. The SelectOne build standard delivers an additional one percent fuel burn advantage, along with a corresponding reduction in CO2 emissions. It will improve time-on-wing by up to 20 percent, and demonstrates compliance with the most stringent CAEP/6 NOx standards. It entered into service in October 2008.

## BAA JET MANAGEMENT LTD SELECTS IAE V2500 FOR THREE AIRBUS ACJs

October 6, 2008

IAE International Aero Engines today announced that Hong Kong's BAA Jet Management Ltd. has selected the V2500 to power three Airbus Corporate Jets (ACJ) under its management. Fitted with the new SelectOne build standard engine, the owners of the three aircraft will benefit from improved fuel burn, which in turn contributes to lower CO2 emissions, along with greater time on wing and lower maintenance costs. All of the engines will be covered by an ExecSelect aftermarket support program tailored specifically for corporate jet operators. Ricky Leung, Managing Director at BAA, said: "The V2500 is the proven technology leader on the Airbus A320 family, providing our clients with significant advantages in terms of reliability, fuel burn and environmental performance. Combined with ExecSelect Program services, a truly comprehensive support package, we feel that our customers have the best engine solution for their jets. IAE also impressed us with its responsiveness and its ability to tailor its services to the unique corporate jet environment particularly in Asia." IAE Executive Vice President Customers Ian Aitken added: "We've worked closely with BAA Jet Management Ltd. to deliver a solution that really works for their customers. The V2500 addresses the key concerns of corporate jet operators in terms of operating costs and environmental impact. With full aftermarket support provided by IAE, the residual value of their engine assets is also sustained, giving customers security in their investment." BAA Jet Management Ltd. with offices in Hong Kong, Shenzhen and Beijing, China is one of the leading aviation companies in Asia, specializing in aircraft charters and management, flight support services, aircraft sales and acquisition. The 22,000-33,000lb of thrust V2500 is available in seven different thrust settings to power the Airbus A319, A320 and A321 Family of aircraft as well as the Airbus Corporate Jetliner. More than 5,000 V2500 engines are in service or on firm order. At the Farnborough International Airshow in July, the V2500 was selected for an ACJ owned by Hong Kong Airlines. The IAE engine has been selected to power a total of 25 ACJs. The SelectOne build standard delivers an additional one percent fuel burn advantage, along with a corresponding reduction in CO2 emissions. It will improve time-on-wing by up to 20 percent, and demonstrate compliance with the most stringent CAEP/6 NOx standards. It entered service this month.

#### SHANGHAI AIRLINES SELECTS V2500 FOR A321s IN \$170 MILLION ORDER FOR V2500

July 15, 2008

Today at the Farnborough International Airshow, IAE International Aero Engines announced that Shanghai Airlines has selected the V2500 to power 10 Airbus A321s in a deal worth \$170 million. The airline is due to receive its first aircraft in July 2009. With this order, Shanghai Airlines will be the fourth new V2500-A5 customer in China over the last 16 months. In addition, Shanghai Airlines becomes the latest Chinese A321 customer for IAE. The V2500 currently holds 80 per cent market share on all A321s in service in China, driven by the fact that it offers the lowest fuel burn, lowest noise and lowest emissions of any engine on this aircraft. IAE Regional Vice President – Greater China, Craig Welsh, said: "Shanghai Airlines identified the clear operational advantages of the V2500 for the A321 as key factors in its decision, with the significant fuel-burn benefits high on its list of priorities. With the newer technologies available on the V2500, it generates real value for our customers, both in terms of the bottom line and environmental impact. We're delighted to welcome Shanghai Airlines to the growing list of IAE customers." In China, the V2500 powers 195 aircraft in service and during the past 18 months has been selected on over 160 additional A320-family aircraft placed on firm order in the region, representing more the half of the market share in the China region. The 22,000-33,000lb of thrust V2500-A5 is available in seven different thrust settings to power the Airbus A319, A320 and A321 family of aircraft as well as the A319 Corporate Jet. More than 5,000 V2500 engines are in service or on firm order.

#### **SHENZHEN AIRLINES SELECTS IAE IN \$812 MILLION DEAL**

July 15, 2008

Today at the Farnborough International Airshow, International Aero Engines announced that China's Shenzhen Airlines has chosen the V2500 to power 28 Airbus A320 family aircraft and back the engine order with a long-term V2500Select agreement. The combined deal is valued at more than \$812 million to IAE and represents the first V2500 order from Shenzhen. The aircraft will have the SelectOne build standard, with delivery commencing in June 2009. Shenzhen Airlines currently operates a fleet of 19 Airbus A320 family aircraft with a further 14 on firm order. IAE Regional Vice President – Greater China, Craig Welsh, said: "Shenzhen Airlines has considerable operating experience with the Airbus A320 family, and this recent engine campaign was conducted in an extremely professional and detailed manner. Our market-leading credentials in terms of overall lowest emissions, lowest fuel burn and world-class reliability – all supported by an OEM-backed aftermarket agreement – have, I am sure, been key factors in this selection. "We are delighted to welcome Shenzhen Airlines to the growing number of customers in China who have chosen IAE, the V2500 and V2500Select, and we look forward to working alongside them in the future." The 22,000-33,000lb of thrust V2500 is available in seven different thrust settings to power the Airbus A319, A320 and A321 family of aircraft as well as the A319 Corporate Jet. More than 5,000 V2500 engines are in service or on firm order. The SelectOne engine delivers up to a four per cent fuel burn benefit, along with a corresponding reduction in CO2 emissions. It will improve time-on-wing by 20 per cent, and demonstrate compliance with the most stringent CAEP/6 NOx standards. It is due to enter into service later this year.

#### **HAINAN AIRLINES PLACES \$350 MILLION FOLLOW-ON ORDER FOR V2500**

July 14, 2008

Hainan Airlines has selected the IAE International Aero Engines V2500 to power 13 Airbus A320 aircraft, backed by a long-term, V2500Select aftermarket agreement. The combined engine and aftermarket deal is valued to IAE at \$350 million. The airline took delivery of its first V2500-powered aircraft during a ceremony at the Airbus factory in Hamburg, Germany in June. Hainan placed an initial order, worth \$540 million, for IAE engines to power a total fleet of 20 A319 aircraft during the Paris Air Show in June 2007. IAE President & CEO Jon Beatty said: "We have recently witnessed Hainan Airlines become the newest operator of the V2500 in China, and today we can announce adding a further 13 IAE-powered aircraft to its order backlog. Follow-on orders display customer confidence in our product and this decision is a result of the V2500's superior performance in terms of fuel efficiency, environmental performance and engine reliability."

The 22,000-33,000lb of thrust V2500-A5 is available in seven different thrust settings to power the Airbus A319, A320 and A321 family of aircraft as well as the A319 Corporate Jet. More than 5,000 V2500 engines are in service or on firm order. In China, the V2500 powers 195 aircraft in service and during the past 18 months has been selected on over 160 additional A320-family aircraft placed on firm order in the region. The SelectOne build standard delivers an additional one percent fuel burn advantage, along with a corresponding reduction in CO2 emissions. It will improve time-on-wing by up to 20 percent, and demonstrate compliance with the most stringent CAEP/6 NOx standards. It is due to enter into service later this year.

#### **HONG KONG AIRLINES SELECTS V2500 FOR AIRBUS CORPORATE JET**

July 14, 2008

IAE International Aero Engines today announced that Hong Kong Airlines has selected the V2500 to power an Airbus A319 Corporate Jet (ACJ). The aircraft will be equipped with the new SelectOne build standard engines, delivering improved fuel burn, and in turn lower CO2 emissions, along with greater time on wing and lower maintenance



costs. The airline is scheduled to take delivery in September 2009. IAE Senior Vice President Customers Ian Aitken said: "Ultimately our customers look at how the V2500 can benefit their bottom line, whether they operate a fleet of 100 aircraft or just one. Hong Kong Airlines has identified the significant savings that the V2500 SelectOne build standard will generate for their ACJ operation, which have helped to make it the engine of choice for A320-family aircraft. We are also delighted to announce that Hong Kong Airlines is our first ACJ customer in China." Hong Kong Airlines is a subsidiary of Hainan Airlines, which has also ordered the V2500 for 33 A320-family aircraft it has on firm order with Airbus. The 22,000-33,000lb of thrust V2500-A5 is available in seven different thrust settings to power the Airbus A319, A320 and A321 family of aircraft as well as the A319 Corporate Jet. More than 5,000 V2500 engines are in service or on firm order. In China, the V2500 powers 195 aircraft in service and during the past 18 months has been selected on over 160 additional A320-family aircraft placed on firm order in the region. The SelectOne build standard delivers an additional one percent fuel burn advantage, along with a corresponding reduction in CO2 emissions. It will improve time-on-wing by up to 20 percent, and demonstrate compliance with the most stringent CAEP/6 NOx standards. It is due to enter into service later this year.

#### BOC AVIATION PLACES \$340 MILLION ORDER WITH IAE

September 20, 2007

Singapore-based BOC Aviation today (September 20) selected the V2500 to power up to 20 Airbus A320 family aircraft. The order is made up of 10 firm and 10 options and, if all options are realized, the deal will be worth \$340 million. BOC Aviation was formerly known as Singapore Aircraft Leasing Enterprise (SALE). The company changed its name on July 2, following its acquisition by Bank of China. IAE President and CEO Jon Beatty said: "With one of the youngest fleets in the leasing business, it is fitting that BOC Aviation should place this order for the V2500, the most modern engine in its class. Through the utilization of the latest technology, the V2500 continues to deliver benefits in terms of low fuel burn, low emissions and low maintenance costs and, I am sure, will continue to be a key component of BOC Aviation's portfolio." BOC Aviation's Chief Executive Officer Robert Martin said the company's latest order underlines the on-going demand for V2500-powered Airbus A320 family aircraft. "The V2500-powered A320 family has been popular with airlines from every sector of the business and all geographical regions," he said. "Our latest order with IAE will enable us to build upon our well-established and mutually beneficial partnership with IAE." To date, IAE has already supplied the V2500 for 46 A320-family aircraft ordered directly from Airbus by BOC Aviation under its previous name. The 22,000-33,000lb of thrust V2500-A5 is available in seven different thrust settings to power the Airbus A319, A320 and A321 family of aircraft as well as the A319 Corporate Jet.

#### CHINA EASTERN AIRLINES AND IAE ANNOUNCE \$800 MILLION ORDER

June 18, 2007

IAE International Aero Engines announced today (June 18) that China Eastern Airlines had chosen the V2500 to power 30 Airbus A320 family aircraft and back the engine purchase with a long-term V2500Select aftermarket agreement. The combined engine and aftermarket deal is valued at more than \$800 million to IAE. IAE President & CEO Jon Beatty said: "China Eastern Airlines has proven to be one of the success stories of the rapidly-growing Chinese aviation industry and everyone at IAE is delighted by this announcement. We have been proud to have been associated with this award-winning airline for the past ten years through their fleet of V2500-powered MD90s, and look forward to expanding our relationship through future A320-family operations. "The technologically advanced V2500 has a market-leading fuel burn advantage and the overall lowest emissions which, when coupled with the all-inclusive nature of V2500Select, have proven to be the key factors in this decision." China Eastern Airlines has twice been awarded the

highest honor of flight safety in Chinese aviation industry, the Golden Eagle Cup, and regularly been commended in the Chinese National Passenger Comments on Civil Aviation. The airline has also been granted official carrier status for the Shanghai Expo in 2010. The 22,000-33,000lb of thrust V2500-A5 is available in seven different thrust settings to power the Airbus A319, A320 and A321 family of aircraft as well as the A319 Corporate Jet.

**HAINAN AIRLINES PLACES \$540 MILLION ORDER WITH IAE**  
June 18, 2007

IAE International Aero Engines announced today (June 18) that the V2500 had been chosen by Hainan Airlines to power 20 Airbus A319 aircraft. The engine purchase will be backed by a long-term, V2500Select aftermarket agreement, with deliveries beginning in June 2008. The combined engine and aftermarket deal is valued to IAE at \$540 million. IAE President & CEO Jon Beatty said: "Since its launch in 1993, Hainan Airlines has carried more than 60 million passengers and grown to become one of the largest airlines in China. During this period of rapid expansion, Hainan Airlines has focused on providing a complete and customized service for all its customers – a strategy IAE has followed with the introduction of V2500Select. "By selecting IAE, we are confident that Hainan Airlines will be able to further improve upon its award-winning reliability record while enjoying the lowest fuel burn performance that the advanced technology of the V2500 brings to this class. We are delighted to welcome Hainan to our growing number of China-based customers and look forward to a long relationship." The 22,000-33,000lb of thrust V2500-A5 is available in seven different thrust settings to power the Airbus A319, A320 and A321 family of aircraft as well as the A319 Corporate Jet.

**ICAM Technologies Corporation**

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2012 Zhuhai Directory and Corporate Website: ICAM Technologies Corporation is an international company specializing in the development and implementation of advanced NC post-processing and machine tool simulation solutions for manufacturers in every major industry around the world. For over 40 years, ICAM has been providing aerospace, automotive, medical, heavy equipment and electronic organizations with advanced NC post-processing solutions that have enabled them to increase productivity and achieve greater manufacturing performance and precision.

**CUSTOMER TESTIMONIALS**

(Corporate Website, Extracted in January 2013)

Zhiyu Zhang, PhD, Assistant Research Scientist, Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Science.

Zhang's Testimonial: "During my NC post-processor research and evaluation, I discovered ICAM Technologies - a famous post-processor development company with a great reputation. I immediately contacted a person from ICAM China who was enthusiastic

and really helped me resolve a number of technical problems we had while linking our CAM system to our CNC machines. It is always possible to handle these complex matrix coordinate changes by creating a C-program to initiate the functions we want to address on the machine, but we are not as proficient as ICAM when it comes to writing post-processors or post-processor generators. Using ICAM's post-processor development software, we didn't have to work hard to deal with the basic problems related to 5-axis post-processor creation. We just had to answer the questions from the ICAM questionnaire in accordance to our machine requirements. Using ICAM's post-processing software is easy to use and more importantly, the generated code is very safe. I can say that it was a wise decision to choose and purchase the ICAM software. With ICAM's post-processor generator, we have been able to implement automatic cartesian/polar coordinate machining using our Haas machine and we have also implemented special machining strategies to use oblique machining with our DMG machine. ICAM's software solution helped us maximize the use of our machine tools, shorten processing time and improve the accuracy and surface quality of our finished parts. After deploying ICAM's solution and consulting its technical support team, we are no longer afraid of any manufacturing challenges. Next month, a large 5-axis ultrasonic machine tool will be installed in our facilities and we plan to use ICAM to build the post-processor and run our programs, as this option will allow us to use the machine exactly the way we want."

Robert Huang, Fair Friend Group/Feeler  
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Huang's Testimonial: "We had been searching for an NC Post-Processing solution for our 5-axis machines with Siemens Polynomial NURBS controllers for quite some time. The only solution was CAM-POST. After using it, we found CAM-POST to be very powerful and able to solve many complicated CNC machine applications."

Corporate Website: Hangzhou Good Friend Precision Machinery Co., Ltd. is the fully owned subsidiary of the Fair Friend Enterprise Co., Ltd. Currently, with total capital of 8 million US dollars, Good Friend operation in China comprises a major multifaceted manufacturing facility in Hangzhou and 28 strategically located branch offices throughout China. Good Friend has started production in September 2002 and will soon be the manufacturing resource center for all Fair Friend, domestic, and international market. In September of 2002, Fair Friend invested an additional 62 million US dollars to build the "Fair Friend Technology Park" in Hangzhou's Jiang Dong Industrial Zone. This global manufacturing center of Fair Friend Group's will comprise the productions for all of its major divisions such as CNC Machine Tools, Machining, Aerospace, Co-Generation, Forklift, Elevator, Parking Garage Elevators, Power Transmission Components, Power Tools, Pneumatic Tools, and more.

In order to reduce the production costs and enhance product competitiveness, Fair Friend Group started the construction of its subsidiary in China. "Hangzhou Good Friend Precision Machinery Co., Ltd." at Xiaoshan Industrial Park in southern China was established in 1993. Good Friend has started production in September of 2002 and will soon be serving the huge market in China. Also in 1996, Fair Friend Group acquired Sakazaki Machinery Co., Ltd. in order to gain access to the manufacturing technology and R&D ability of high accuracy Japanese machine tools. This acquisition is contributing toward the strong technical support for both Taiwan and China operations. By combining the capital, technology, and market territory of Taiwan and Japan, as well as integrating

the advantages of different regions, Fair Friend's machine tools products will be more internationalized and thus become a major player in the global machine tools market.

## HISTORY IN CHINA

2011

ICAM Signs Dealership Agreement with VCI CHINA. ICAM Technologies Corporation, headquartered in Montreal, Canada, announces the signing of a Dealership Agreement with China-based Value Creation International Limited (VCI) to provide local Chinese customers, running primarily CATIA, with advanced ICAM NC post-processors, machining simulation and technical support services.

ICAM Opens Office in Shanghai, China. ICAM Technologies Corporation announces that it has opened an office in Shanghai, China to provide local Chinese manufacturers serving primarily the aerospace and automotive industries with advanced ICAM NC post-processors, machining simulation and technical support services.

2007

ICAM and Dalian Machine Tool Group Sign Strategic Marketing Agreement ICAM Technologies Corporation entered into a Strategic Marketing Agreement with Dalian Machine Tool Group (DMTG), China's largest machine tool builder. The main purpose of this agreement is to assure the accurate integration of ICAM's NC post-processing and machine tool simulation solution with advanced Dalian machine tools.

## ICAM PRESS RELEASES

### ICAM SEMINAR ON MULTI-AXIS MACHINING WITH INTEGRATED SOLUTION PSE AT HONG KONG POLYU

Hong Kong, 2 March 2012 – a seminar on Multi-axis Machining with Integrated Solution PSE (Post-processing/Simulation/Emulation) was successfully held at Hong Kong Polytechnic University (PolyU) and was joined by around 50 participants from industry and academic. The seminar was presented by Mr Jean-Nicolas Ruby, Director of China Business Unit & Strategic Marketing, ICAM Technologies Corporation, Canada. A souvenir was presented to Mr Ruby by Mr Andrew Gridley, Associate Director of IC to express our appreciation. This seminar aims at introducing a new technology to enhance the reliability of post processing and machine simulation and in turn the utilization of multi-axis machining. In addition to Powerpoint presentation, Mr Ruby also gave a shop floor machine demonstration on the technology which allows the participants to view the process. All participants showed great interest in the machine demonstration. IC is now recognized by ICAM as their formal ICAM Training and Service Centre.

### ICAM SIGNS TRAINING CENTER AGREEMENT WITH HONG KONG POLYTECHNIC UNIVERSITY- POLYU

Montreal, September 2, 2011 – ICAM Technologies Corporation announces the signing of a Training Center Agreement with The Hong Kong Polytechnic University (PolyU) for ICAM's Integrated Post-processing, Simulation and Emulation (Integrated PSE) product suite. This Training Center Agreement will showcase how ICAM's PSE technology provides a seamless link between PolyU's various CAD/CAM systems and their CNC machines tools at the renowned Industrial Center of the University. PolyU Industrial Center will make use of the acquired ICAM integrated PSE licenses to enhance the learning environment for students and trainees at the Centre; support and develop

research and development projects at the University and provide ICAM Product Training and Support services to manufacturers throughout China. ICAM develops and delivers leading manufacturing software and services specializing in NC post-processing solutions that support the most popular CAD/CAM systems (CATIA, SIEMENS NX and Pro-NC), CNC machine tools and controllers for successful manufacturers around the world. ICAM's product suite includes CAM-POST for NC post-processor development with the option for integrated machine tool simulation using Virtual Machine. ICAM also supports G-code verification driven with Control Emulator inside Virtual Machine or CATIA. ICAM's customers benefit from dramatic improvements to CNC machine optimization, NC programmer productivity and manufacturing process efficiency. ICAM's unique technology and services provide its customers and industry partners with the competitive edge that their business operations and customers demand. "Asia has become the largest market for multi-axis CNC machines and NC manufacturing software," says Jean-Nicolas Ruby, ICAM's Director, China Business Unit & Strategic Marketing. "With the collaboration of the Industrial Centre at the prestigious Hong Kong Polytechnic University, ICAM will now be able to provide high quality training and support services for its integrated NC post-processing, G-Code verification products to its growing customer base in China at regional level"

#### ICAM OPENS OFFICE IN SHANGHAI CHINA

Montreal, September 2, 2011 – ICAM Technologies Corporation announces that it has opened an office in Shanghai, China to provide local Chinese manufacturers serving primarily the aerospace and automotive industries with advanced ICAM NC post-processors, machining simulation and technical support services. As the largest manufacturing resource center in the world, China has embraced advanced manufacturing technologies that include multi-axis numerically controlled machines and CAD/CAM/PLM systems such as CATIA, SIEMENS NX and Pro-NC. Through its facility in Shanghai and local resellers, ICAM will provide Integrated Post-processing, Simulation & Emulation (Integrated PSE) solutions to organizations serving growing industry sectors such as aerospace, automotive, energy and marine. ICAM's Integrated PSE product suite provide these companies with a seamless link between the most widely used CAD/CAM/PLM systems and CNC machines. CAM's product suite includes CAM-POST for NC post-processor development with the option for integrated machine tool simulation using Virtual Machine. ICAM also supports G-code verification driven with Control Emulator inside Virtual Machine or CATIA. ICAM's customers benefit from dramatic improvements to CNC machine optimization, NC programmer productivity and manufacturing process efficiency. ICAM's unique technology and services provide its customers and industry partners with the competitive edge that their business operations and customers demand. "China is the largest market for multi-axis CNC machines and NC manufacturing software," says Jean-Nicolas Ruby, ICAM's Director, China Business Unit & Strategic Marketing. "With a local presence in Shanghai, ICAM will efficiently provide integrated NC post-processing, G-Code machine simulation products and support services allowing Chinese customers to dramatically improve the use of their CNC machines and manufacturing processes."

#### ICAM SIGNS DEALERSHIP AGREEMENT WITH VCI CHINA

Montreal, April 28, 2011 – ICAM Technologies Corporation (ICAM), headquartered in Montreal, Canada, announces the signing of a Dealership Agreement with China-based Value Creation International Limited (VCI) to provide local Chinese customers, running primarily CATIA, with advanced ICAM NC post-processors, machining simulation and technical support services. VCI was chosen by ICAM, because of its NC manufacturing experience particularly within the CATIA V5 CAD/CAM market and its expert knowledge of ICAM's complete product catalogue. VCI Technology will offer ICAM's complete Integrated

Post-Processing, Simulation & Emulation (Integrated PSE) solution inside CATIA to the Chinese aerospace and aeronautics industry. VCI will also be serving customers using other popular CAM Systems as well. ICAM develops and delivers industry leading manufacturing software and services specializing in NC post-processing solutions that support the most popular CAD/CAM systems, machine tools and controllers for the most successful manufacturers around the world. ICAM's product suite includes CAM-POST for NC post-processor development with the option for integrated machine tool simulation using Virtual Machine. ICAM also supports machine code data verification driven with Control Emulator inside Virtual Machine or CATIA/DELMIA V5. ICAM's customers benefit from dramatic improvements to CNC machine optimization, NC programmer productivity and manufacturing process efficiency. ICAM's unique technology and services provide its customers and industry partners with the competitive edge that their business operations and customers demand.

#### ICAM AND HMCT GROUP SIGN STRATEGIC MARKETING AGREEMENT

Montreal, April 15, 2008 - ICAM Technologies Corporation has signed a Strategic Marketing Agreement (SMA) with Harbin Measuring & Cutting Tool Group (HMCT Group), a leading Chinese manufacturer of measuring, cutting and CNC machine tools, to collaborate on strategic marketing initiatives as well as to promote each company's respective products within the NC manufacturing marketplace. Additionally, under the terms of this agreement, ICAM and HMCT Group will share technical product information in order for ICAM to develop advanced NC post-processors for HMCT Group's new generation Parallel Kinematics machining center, LINKS-EXE700. The Parallel Kinematics technology enables the X, Y and Z axes motions to be performed by three or more parallel axes; thereby, allowing the LINKS-EXE700 to combine the flexibility and envelope inherit to robotic machines with the accuracy and rigidity of traditional machine tools. The LINKS-EXE700 is ideally suited for the aerospace, automotive and heavy equipment industries where agile and high-speed machining applications are required.

All post-processors developed for HMCT will be created using ICAM's NC post-processing development software product, CAM-POST. CAM-POST is an advanced independent NC post-processing development, management and deployment technology supporting all major CAD/CAM/PLM systems, CNC controllers and machine tools. CAM-POST also supports sophisticated multi-axis machining applications and techniques such as high-speed machining, tool-tip programming, coordinate frame transformations, NURBS interpolation and arc fitting of point-to-point data. "ICAM was selected by HMCT, because of their vast knowledge with developing NC post-processors for sophisticated machine tools similar to the LINKS-EXE700 Parallel Kinematics machining center," said Hualiang Wei, HMCT's President. "Additionally, ICAM's post-processors are compatible with the most widely used CAD/CAM systems in the industry; thereby, allowing our customers the flexibility to choose and to add additional CAD/CAM systems without the need to replace their existing ICAM posts." "We are pleased to develop post-processors for HMCT," says Sam Chehab, ICAM's VP, Sales and Marketing. "ICAM has been at the forefront of the NC manufacturing software industry developing advanced posts for innovative machines such as the LINKS-EXE700 for over three decades and we are confident that HMCT customers will obtain high-quality posts that will maximize their machine tool investment, while improving their overall manufacturing process efficiency."

#### ICAM & DALIAN STRENGTHEN THEIR BUSINESS RELATIONSHIP

Montreal, April 09, 2008 - ICAM Technologies Corporation announced that it has augmented its Strategic Marketing Agreement with Dalian Machine Tool Group (DMTG), China's largest machine tool builder, to include a Dealership Agreement that will enable local Chinese customers to obtain advanced NC post-processors directly from DMTG.

This business relationship provides ICAM access to DMTG's multi-axes machine tool and control specifications. The sharing of technical knowledge and other resources will allow for a successful integration of ICAM and DMTG's respective products and services ultimately enabling end-users to benefit from sophisticated DMTG machine tool features via their respective CAD/CAM/PLM systems. DMTG and ICAM will also collaborate on strategic marketing initiatives including co-exhibiting at global machine tool shows, as well as promote each other's products and services within the NC manufacturing industry.

DMTG customers will benefit from ICAM's extensive NC post-processing experience with advanced multi-axis machining applications and techniques such as high-speed machining, tool-tip programming, coordinate frame transformations, NURBS interpolation and arc fitting of point-to-point data. Additionally, deploying Virtual Machine, as a integrated productivity tool to ICAM's NC post-processing technology, delivers a powerful machine tool simulation environment enabling NC programmers to optimize and test programs against collisions and over-travel automatically during post-processing. "We are pleased to strengthen our business relationship with Dalian," said Sam Chehab, ICAM's Vice President of Sales and Marketing. "Dalian customers can now obtain integrated post-processing and machine tool simulation solutions that have been developed and proven by ICAM in order for clients to access all the advanced features and functionalities of Dalian machines via all major CAD/CAM systems." "We plan to differentiate our company by providing proven NC post-processors with our 5-axes machines as well as NC manufacturing support services to our customers." said Baoqing Zhou, Chief Engineer at Dalian. "ICAM has been the leading supplier of advanced NC manufacturing software products primarily to the aerospace and **defense** industries and we are confident that our customers will now benefit from an integrated NC post-processing and machine tool simulation solutions allowing them to capitalize on their Dalian machine tool investments."

#### **Irkut Corporation**

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2012 Zhuhai Directory: IRKUT Corporation is the leader of the Russian aviation industry, rated among Top-10 world aircraft manufacturers. IRKUT implements design, manufacturing, marketing and upgrading and after-sales support of advanced aircraft. Currently, Irkut manufactures and markets a number of civil and **military** aviation products, such as the Su-30MK multirole fighters, Yak-130 combat trainer, components for Airbus A320/A321 aircraft family and develops the MC-21 advanced single-aisle airliner family. Overall value of Irkut's order book currently exceeds US\$6 billion.

Corporate Website (translated): In 2001, Irkut signed a \$2 billion deal with China for 40 Su-30 fighter aircraft.

#### **Ivchenko Progress**

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2012 Zhuhai Directory and Corporate Website: Zaporozhye Machine-Building Design Bureau Progress State Enterprise named after Academician A.G. Ivchenko contributed much to the development of aviation industry. This is the Company, which for over 68 years has been involved in design of engines to power aircraft and helicopters of various types, and also drivers and special equipment of industrial application. For this period of time more than 80000 aviation piston and gas turbine engines, turbine starters and drivers of industrial application have been produced by engine manufacturers. The aero engines designed by SE Ivchenko-Progress power 54 types of A/C in 122 countries of the world. Total operating time of GTEs exceeds 300 million hours. The company is a part of the Ministry of Industrial Policy of Ukraine

Corporate Website (Extracted in February 2014): The Ivchenko-Progress State enterprise is a part of the State Concern "Ukroboronprom" (**defense** industry of Ukraine). The sphere of the enterprise activities: design, manufacture, test, development, certification, putting into series production and overhaul of gas turbine engines both of aviation and industrial application. The rights for designing, manufacturing, overhauling and upgrading the engines of the enterprise are confirmed by more than 75 certificates of Bureau Veritas, European Aviation Safety Agency (EASA), Central Civil Aviation Administration of China, IAC AR and GosAviaSluzhba of Ukraine.

In 2013 Ivchenko-Progress signed an agreement with AVIC for the joint development of 370-1,000 hp aircraft engines for both fixed wing and helicopters.



# J

## **Jihlavan Airplanes, s.r.o.**

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2012 Zhuhai Directory: JIHLAVAN airplanes, s.r.o. is one of the leading traditional aviation companies from Czech Republic with large portfolio of produces reaching the highest international levels of quality and respect of professionals. We specialize in design, manufacturing, sales and maintenance of all-metal and carbon-composite light aircraft (ULTRALIGHT or LIGHT SPORT AIRCRAFT category) designated for recreational flying, pilot training and special operations. Our aircraft provides safety, prestige, and emotion to our customers around the world. We are also a certified supplier for aeronautical industry (Airbus A320 components assembly).

## **JIHLAVAN PRESS RELEASES**

(NOTE TO READER: THESE PRESSERS WERE NOT DATED)

### **NEW DISTRIBUTOR FOR CHINA**

JIHLAVAN airplanes, s.r.o. again penetrates to Asia - announcing new distributor for CHINA. Announcing new distributor for People's Republic of CHINA - Mr. Hwong, Vonsvon International - branch Vonsvon (China). We wish Mr. Hwong all the best in the cooperation start and best results for SKYLEADER trademark. We are looking forward to satisfy all future clients from China!

### **VISIT OF CIGAC IN CHINA**

SKYLEADER visited for the first time the CIGAC 2011 (China International General Aviation Convention) held in Xi'an, Shaanxi province, China on 13th –17th October, 2011. The aim has been to find out & test the interest of Chinese potential customers in recreational and sport flying in the category of Light Sport Aircraft.

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China Dealer

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www.shjjlt.com

Contact: Luo Rihui

Shanghai Junji Fluids Technique Website: Company's products are mainly used in metallurgy, petroleum equipment, engineering machinery, construction vehicles, sanitation vehicles, mining, aerospace and **defense**, and many other fields.

2012 Zhuhai Directory: Jihostroj is Czech industrial company with 90 years precise engineering tradition. The company is well established as a leading manufacturer of industrial equipment for the aviation, transport and agricultural machinery markets. Main fields of production: propeller control systems; airframe fuel and hydraulic systems components and accessories; engine; APU and GPU fuel systems; airframe hydraulic systems; research and development activities; and joint projects with strategic aerospace partners.

## K

### **Kamatics Corporation**

#### **RWG (Frankenjura-Industrie Flugwerklager GMBH)**

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www.kaman.com

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2012 Zhuhai Directory: Kamatics Corporation designs and manufacturers high-performance self lubricated bearings used in the aviation, marine, hydropower markets. The Karon bearings are used on flap/slat systems, flight controls, landing gear, doors, thrust reverses and engines. Kamatics also manufacturers high misalignment KAflex and Tufflex drive shaft couplings. These are primarily used on helicopter main and tail rotors. Our German Division RWG manufacturers speciality Teflon, M/M, ball and roller bearings for the aviation industry. One of the their specialties is flap transmission drive systems. Together both companies over a wide range of bearing technologies for new design and solving existing problems.

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RWG China Field Office: Territory6@rwg-kamatics.com

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RWG Corporate Website: An independent subsidiary of Kaman Aerospace Corporation, RWG specializes in the individual manufacture of complex precision bearings. Headquartered in Dachsbad, near Nuremberg, Germany, the company efficiently develops, designs, tests, and delivers solutions for an international portfolio of aerospace industry. RWG Frankenjura is one of the world's leading airframe-bearing manufacturers for the international aerospace industry – and therefore is a strategic supplier for almost all the large aircraft manufacturers and their systems suppliers. Over and above this we produce bearings for the mechanical engineering industry and motor sport. Starting from four basic types of bearing, the company has specialized in the individual manufacture of complex precision bearings. In conjunction with the technical departments or our

customers system solutions are developed, designed, tested and approved – if necessary within the shortest time. Because flexibility is our strength, not least on the grounds of modern manufacturing facilities, an efficient fleet of machines and qualified and committed employees.

**Kulite Semiconductor Products, Inc.**

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2012 Zhuhai Directory: Kulite is a world leader in piezoresistive pressure transducer technology. Kulite has more than 50 years successful experience in aerospace application including wind tunnel testing, flight instrumentation, ECS, aeroengine, hydraulic system, APU and Deice system etc. High accuracy, reliability and long-term durability are the advantages of Kulite products. Typical applications include: hydraulic systems, exhaust systems, propulsion/engine development, wind tunnel, flight test, brake system, oil/fuel pressure measurement, combined oil pressure and temperature measurement, etc. Kulite is constantly developing extreme high temperature, as well as miniature sensor size of a diameter of 1.7mm. Kulite supports almost every major aircraft program that is in commercial service or under development today. Kulite is the leading name for aircraft engine pressure sensors. Furthermore, Kulite developed a series of excellent pressure sensor/transducers for automotive application. Typical applications include aerodynamics, airbag systems, brake/anti-lock brake systems, coolant pressure measurement, engine systems testing and diagnostics.

Corporate Website (Extracted in February 2014):

US Kulite Support for **Military** Equipment: Kulite supports military ground vehicle programs such as: M1A1 - Abrams Tank; AAHV - Advanced Amphibious Assault Vehicle; Crusader Artillery System; HIMARS - High Mobility Artillery Rocket System; and MLRSS/ILMS Rocket Launchers.

Kulite pressure sensors are used in missile programs such as: AMRAAM - Advanced Medium Range Air to Air Missile; GLCM - Ground Launched Cruise Missile; and ALCM - Air-Launched Cruise Missile.

Commercial Aircraft: Kulite is the dominant supplier of pressure sensors and can be found on almost all Boeing, Airbus, Canadair, Embraer Aircraft programs, to name a few. Kulite sensors are used to control or monitor engine systems, fuel systems, hydraulic systems (brake, flaps, rudder), tire pressures, environmental systems and provide inputs to "Black Box" systems. The reliability of an aircraft pressure transducer is our number one concern.

**Military Aircraft:** We take pride in supporting programs like the **F-18, F-22, C-17, JSF** and many others. Accurate and highly reliable pressure sensors (some are dual and triple redundancy) are required when pushing the performance of an aircraft to its maximum and achieving its goal or mission and testing the limits of the unknown.

**General Aviation:** Kulite supplies transducers to systems on almost all the smaller aircraft manufacturers. Typical applications include measurement for torque, oil, fuel, and hydraulics.

**Rotocraft:** Kulite Transducers are used on military and commercial helicopter program such as the **V-22 Osprey - tiltrotor aircraft, AH-1S Cobra, AH-64 Apache, S-76** helicopter, S-92 HELIBUS, Bell-222 helicopter and many others. Rotorcraft transducers typically see more vibration than other aircraft applications which a Kulite transducer can handle with ease.

**Space Launch Vehicles:** Our customers can't afford a satellite or space lab component to not make its intended destinations. They must choose the best, and they have chosen Kulite to be used on space launch vehicles because of superior technology, durability, extreme reliability and pinpoint accuracy.

# L

## **Lameco**

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2012 Zhuhai Directory: We are a manufacturer and specialist of Custom Laminated Shims based in our own purpose built factory complex, just outside Paris, France with a North American subsidiary in Santa Monica, California, a German subsidiary in Cologne and soon a Chinese subsidiary in Shanghai. Lameco is an ISO 9001 and AS/EN/JISQ 9100 certified; family owned and operated premier quality manufacturing company which has been in business for over nearly 40 years. We have patented and developed eight laminated materials and products among those: Intercomposite: composite laminated shims; X.Fiber: high-resistance composite Laminated Shims; DuoPeel: visual bilaminate composite peel-off shims with metallized sheets; and Instant-Peel: metallic laminated shims as easy and quick to use as shims made with composites. LAMECO Laminated Shims provide forward-thinking manufacturers with a powerful competitive edge.

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2012 Zhuhai Directory: Liebherr-Aerospace is a leading supplier of systems for the aviation industry and has more than five decades of experience in this field. The range of aviation equipment produced by Liebherr for the civil and **military** sectors includes flight control and actuation systems, landing gear and air management systems. These systems are deployed in wide-bodied aircraft, single-aisle and regional aircraft, business jets, **combat** aircraft, transporters, **military** training aircraft, civil helicopters and **combat** helicopters.

Corporate Website (Extracted in February 2014): In the Aerospace domain, Liebherr supplies aircraft air management, flight control and actuation systems, hydraulic and landing gears systems. Our systems are on board of many aircraft programs: Commercial transport aircraft, commuter and regional aircraft, business jets, fighters, **military** transport, trainer aircraft as well as civil and **military** helicopters. Liebherr-Aerospace provides a complete OEM Customer Service based on a global network with repair and overhaul services, engineering support, documentation and spare parts as well as AOG service.

Liebherr Aerospace owns all the quality and airworthiness certificates that are necessary for fulfilling its missions. In addition, some customers distinguished Liebherr Aerospace's remarkable performance achievements under the form of performance awards.

Liebherr-Aerospace has developed long-standing partnerships with the world's major aircraft manufacturers, supplying key systems to more than 100 aircraft and helicopter programs in all major market segments of aviation. Liebherr is a key partner to a number of these programmes, providing several critical systems to the relevant airframer. Examples for such programmes are the A380, AW 139, Superjet 100 and CSeries.

A380: Airbus' giant carrier A380 features some of the latest technologies that combine reliability and weight efficiency. This counts especially for systems as flight controls, engine bleed air system or hydraulic cooling system, where technologies developed by Liebherr make the difference.

AW139: AgustaWestland's helicopter features systems from two Liebherr's product lines: landing gears and air management. This helicopter demonstrates how integration capabilities and highly engineered systems lead to a perfect result for today airframes.

CSeries: The latest born of Bombardier Aerospace's commercial programmes features two integrated Liebherr systems: the air management and the landing gear system.

Superjet 100: Sukhoi Civil Aircraft Corporation's Superjet 100 programme uniquely features a complete integrated flight control system that encompasses - beyond primary and secondary flight controls - the flight control computers and the cockpit controls. Liebherr was not only selected for this system integration challenge, but also supplies the integrated air management on this program.

#### LIEBHERR-AEROSPACE PRESS RELEASES

## LIEBHERR-AEROSPACE CHINA GRANTED MAINTENANCE ORGANIZATION CERTIFICATE

January 9, 2014

Liebherr-Aerospace China, Shanghai (China), recently received its Maintenance Organization Certificate per CCAR part 145 from the General Administration of Civil Aviation of China (CAAC). Liebherr's repair station was set up to offer to airlines based in mainland China in-country repair facilities, and thus to improve component support and repair turn-around times. Having started by maintaining Liebherr components installed in Airbus aircraft, it will progressively extend its scope of services to Liebherr components installed on Bombardier, COMAC and Embraer aircraft. With its Shanghai station, Liebherr-Aerospace extended its existing infrastructure in China that had consisted in offering technical support and distribution of spare parts to Airbus aircraft operators and providing on-site liaison engineering for COMAC's ARJ 21 and C919.

## LIEBHERR AT THE CIMT 2013 IN BEIJING

April 05, 2013

As a system supplier of gear cutting machines, tools and automation systems, Liebherr will be presenting a selection from its extensive product range at the 2013 China International Machine Tool Show (CIMT) in Beijing, China, from 22 to 27 April 2013 in hall W3, at exhibition stand 908. The LSE 600 gear shaping machine with electronic diagonal control will be exhibited this year. This concept enables the flexible production of diagonal and straight toothed internal and external gear teeth with no need for retooling. Liebherr gear shaping machines are characterised by their high quality, efficiency and productiveness. Cylindrical gears as well as shafts with a maximum gear diameter of 600 mm can be produced on the LSE 600. For fully automatic operation, Liebherr offers a variety of automation solutions depending on the customer's requirements and, if necessary, can even supply its own in-house, high-quality shaping cutters. In addition, a selection of gear cutting tools can be seen at the stand.

## LIEBHERR-AEROSPACE AND LAMC CELEBRATE THEIR FUTURE JOINT VENTURE AT CHINA AIRSHOW 2012

November 15, 2012

Liebherr-Aerospace and AVIC member Landing Gear Advanced Manufacturing Co., Ltd. (LAMC) are nearing the foundation of their joint venture. Both companies agreed on the parameters and defined the exact scope of responsibility as well as the workshare for each partner. The final step to submit all documents to the Chinese Authorities, which will allow the formal incorporation of the joint venture, has already been made. This milestone was celebrated at Airshow China 2012 in Zhuhai.

The new company, Liebherr LAMC Aviation (Changsha) Co. Ltd., will be based in Changsha (China) and is set to develop and manufacture landing gear systems for the Chinese aviation industry as well as the international aviation market. Its first project will be the landing gear for the COMAC C919 aircraft. Moreover, the joint venture will work on the landing gear systems for the ARJ21 and for other programs in the years to come.

## LIEBHERR-AEROSPACE PARTICIPATING IN AIRSHOW CHINA 2012

November 13, 2012

From 13 – 18 November, 2012, Liebherr is taking part in the Airshow China in Zhuhai. The company is taking advantage of this trade show to demonstrate its wide range of technologically advanced products, its capacity for innovation and its long experience as a supplier in the aviation industry to international experts. Liebherr-Aerospace will show examples of products in the fields of air management systems, flight control/actuation systems, and landing gear. They are on board wide-bodied and commuter aircraft, rotorcraft as well as regional and business jets. A special eye-catcher will be the full-size



mock-up of a C919 main landing gear. This exhibit was manufactured by the Chinese AVIC member Landing Gear Advanced Manufacturing Co., Ltd. (LAMC). Also, an air conditioning pack for the C919 and components for the Sukhoi SuperJet 100 fly-by-wire flight control system will be on display.

#### LIEBHERR-AEROSPACE AND COMAC SIGN MASTER CONTRACT FOR CHINESE AIRCRAFT C919

March 2, 2012

On February 14, during Singapore Airshow 2012, Commercial Aircraft Company of China (COMAC), based in Shanghai, and Liebherr-Aerospace have signed a master contract for the C919 passenger aircraft program. The contract covers two major systems - the landing gear and the integrated air management system. The C919 is not the first participation of Liebherr-Aerospace in a Chinese aircraft program. Liebherr already supplies the landing gear system and the integrated air management system for the ARJ21 regional jet. The landing gear system for the C919 is to be developed, supplied and serviced by Liebherr-Aerospace Lindenberg GmbH, Lindenberg (Germany). The package includes the main landing gear and nose landing gear, extension and retraction system, nose wheel steering system as well as the position and warning system. For development and production of this system Liebherr-Aerospace has entered into a joint venture with Chinese AVIC member Landing-Gear Advanced Manufacturing Co., Ltd. (LAMC) in Changsha, Province of Hunan. The integrated air management system of the C919 is developed, supplied and serviced by Liebherr-Aerospace Toulouse SAS, Toulouse (France). The system includes the bleed air system, the air conditioning system, the air distribution system, the cabin pressure control system, the wing anti-ice system and the avionics ventilation system. Liebherr-Aerospace Toulouse SAS will supply an air management system with state-of-the-art technology. The focus is to develop a very high level of integration of all functions. There will be only two identical centralized controllers which manage all air-related functionalities, for example. For the development and manufacturing of some of the air management system's components Liebherr-Aerospace has set up a co-operation with Nanjing Engineering Institute of Aircraft Systems (NEIAS). Both companies agreed on a work share based on each partner's best capabilities.

#### LIEBHERR-AEROSPACE AND LAMC ESTABLISH JOINT VENTURE IN CHINA

July 15, 2011

The Chinese AVIC company Landing-gear Advanced Manufacturing Co., Ltd. (LAMC), Changsha, Province of Hunan in China and Liebherr-Aerospace Lindenberg GmbH, Lindenberg (Germany), have signed a joint venture contract for the COMAC C919 program at Paris Air Show, on June 20th, 2011. The ceremony took place at Liebherr-Aerospace's booth, witnessed by Mr. Peter Hintze, German Parliamentary State Secretary and Federal Government Coordinator of German Aerospace Policy, Mr. Jin Zhuanglong, President of COMAC, Mr. Geng Ruguang, Vice President of AVIC and Dr. h.c. Dipl.-Ing. (ETH) Willi Liebherr, President of the Administrative Board of Liebherr-International AG, Bulle (Switzerland), and representatives of COMAC and AVIC. The joint venture includes assembly and testing activities for landing gears for the Chinese market and will potentially extend its activities to other geographical markets. The joint venture is vivid proof of Liebherr-Aerospace's long term strategy to further extend its engagement in China.

Liebherr-Aerospace Lindenberg GmbH (Germany), and LAMC have been selected by Commercial Aircraft Company of China (COMAC), based in Shanghai, to develop, supply and service the landing gear system of the new single aisle Chinese aircraft family C919 under the responsibility of Liebherr-Aerospace. The landing gear system includes the main landing gear and nose landing gear, extension and retraction system, nose wheel steering system as well as the position and warning system. The selection of Liebherr-Aerospace Lindenberg GmbH is proof for the competence of Liebherr-Aerospace as a supplier of

competitive, future-orientated landing gears within in the field of commercial transport aircraft. This new program participation is also a possibility to further broaden the expertise in this field of technology.

#### LIEBHERR-VERZAHNTECHNIK AT THE CIMT 2011 IN BEIJING

April 15, 2011

The LCS 500 is designed for workpieces up to 500 mm in diameter and allows these to be loaded and removed fully automatically. High-output gear-grinding processes (gear forming and generating) are possible using both CBN as well as corundum tools. The LCS 500 allows all known gear-teeth modifications required for noise reduction to be implemented. Featuring state-of-the-art drive concepts for the machine table and the grinding spindle (direct drives), the machine is geared up to compete with future technological progress. In addition, the LCS 500 can be equipped with a test/measurement unit for quality assurance during production.

#### BAUMA CHINA 2010: LIEBHERR REPORTS OPTIMISTIC FORECAST

November 11, 2010

At a press conference on occasion of the Bauma China 2010 trade fair in Shanghai, P.R. China, Liebherr informed about ongoing business affairs with particular focus on the activities in the People's Republic of China.

Winfried Boehm, Member of the Board of Directors of Liebherr-International AG in Bulle, Switzerland, said that in the first six months of 2010, the Liebherr Group's worldwide turnover was 11.8 % higher than in the corresponding period of the previous year, and totalled 3,652.0 million €. Construction machines generated a turnover of 2,216.4 million € which is an increase of 6.6 %. Boehm said that this increase is due to the upturn in the Liebherr Group's earthmoving and mining division, turnover from which increased by 28.6 % to 1,081.2 million €. Turnover from the two other construction machinery product areas which include mobile cranes as well as construction cranes and mixing technology went down. Turnover from products outside the construction machinery areas in the first six months of 2010 increased by 20.9 % to reach 1,435.6 million €.

For the year 2010 as a whole the Liebherr Group currently expects an increase of about 6 % or approximately 420 million € in turnover, to a total of about 7.4 billion €, Boehm said.

Dr. Stefan Gilch, Managing Director of Liebherr Machinery Service (Shanghai) Co., Ltd. in Shanghai, P.R. China, said that the Liebherr Group could increase its turnover in P.R. China even in the crisis year 2009 by more than 50 %. Dr. Gilch added that the Group expects another significant growth in the Chinese market for the current year and that the upward trend in China is fuelled by significant investments into the entities of Liebherr in China as well as by product innovations that are tailored for the Chinese and emerging markets. As one of Liebherr's Bauma China 2010 exhibition highlights, Dr. Gilch mentioned the first Chinese built Liebherr wheel loader L 556 II, which features hydrostatic fuel-saving technology for Chinese customers.

Christoph Kleiner, Managing Director of Liebherr-Werk Ehingen GmbH in Ehingen, Germany, focused on China being traditionally a very important market for Liebherr's large mobile and crawler cranes and pointed out that the development in the past five years has been particularly positive. Kleiner announced that the LTR 11200 crawler chassis 1,200-t-telescopic crane which Liebherr exhibits at the Bauma China 2010, has been sold to China Power Large Size Equipment Assembling Construction Co. Ltd. This Liebherr customer already operates one unit of this crane concept on tyre chassis and has ordered a second one of the same type.

#### LIEBHERR-VERZAHNTECHNIK GEAR SEMINAR IN CHINA

June 15, 2010

Sigma-Pool, the shared sales platform of Liebherr-Verzahntechnik GmbH and the Klingelberg Group, will be providing interesting information on the latest trends in gear technology at the Gear Seminar in China. The dates are 22 June in Nanjing, 24 June in Chengdu and 26 June in Beijing. The first half of the seminars focuses on Klingelberg technology. Dr. Hartmuth Müller (CTO of the Klingelberg Group) will be presiding over a fascinating insight into the latest developments from Klingelberg. In the second part of the seminar, Dr. Alois Mundt (General Manager of Liebherr-Verzahntechnik GmbH) will be chairing a discussion on the latest technology for spur gear production as well as future trends in process optimisation. As well as the presentations, these seminars provide opportunities for face-to-face discussions with experts in each discipline.

#### LIEBHERR-VERZAHNTECHNIK AT THE CIMT 2009 IN BEIJING

February 12, 2009

At the CIMT international machine tool fair held April 6th to April 11th 2009 in Beijing, China, Liebherr-Verzahntechnik GmbH will be presenting the LCS 380 gear generating and profile grinding machine. The LCS 380 is designed for workpieces up to 380 mm in diameter and allows these to be loaded and removed fully automatically. High-output gear-grinding processes (gear forming and generating) are possible using both CBN as well as corundum tools. The LCS 380 allows all known gear-teeth modifications required for noise reduction to be implemented. Featuring state-of-the-art drive concepts for the machine table and the grinding spindle (direct drives), the machine is geared up to compete with future technological progress. In addition, the LCS 380 can be equipped with a test/measurement unit for quality assurance during production.

#### LIEBHERR-AEROSPACE ESTABLISHES JOINT VENTURE WITH A CHINESE PARTNER

February 01, 2007

Liebherr-Aerospace SAS, together with Wuhan Hangda Aero Science & Technology Development Co. Ltd, recently have established a repair center for aerospace systems and components in the city of Wuhan, People's Republic of China. This initiative has been taken as a response to the market's demand for local services and in anticipation of the growing market in China. The new company, Liebherr Hangda Aerospace Technologies (Wuhan) Co. Ltd. is dedicated to the maintenance of all Liebherr Aerospace products as well as heat exchangers installed on Airbus, Boeing, Bombardier and Embraer aircraft operating in the People's Republic of China. It will also provide repair services to ACAC and airlines customers for the Liebherr Aerospace products installed on the regional aircraft ARJ 21 that will enter into service in 2008. It is anticipated that the company will obtain its CAAC Part 145 certificate by mid 2007. At that time the repair services to Chinese customers currently been performed out of the Liebherr Service Center in Singapore will progressively be transferred to the new Wuhan facility. By providing local services, the operations of Liebherr Hangda Aerospace Technologies (Wuhan) Co. Ltd. will reduce transportation times, customs charges and related lead-times, such reducing the repair turn-times and overall costs of ownership for the customers.

#### LIEBHERR HOMEPAGE NOW ALSO AVAILABLE IN CHINESE

November 13, 2004

In good time for the 'bauma China' trade fair, which is being held from 16th to 19th November in Shanghai, Liebherr has now made the Group's complete homepage available in Chinese as well at [www.Liebherr.com/lh/zh](http://www.Liebherr.com/lh/zh). All the Liebherr Group's product and company information is now offered in five languages on the Internet. Versions in German, English, French and Spanish have so far been available online.

#### HYDRAULIC EXCAVATOR PRODUCTION PLANT OPENED IN DALIAN, CHINA

July 08, 2004

On July 2, 2004, Liebherr began to operate a newly built production plant in Dalian, China. Numerous guests from the Group's various construction machinery divisions were present when Dr. Zia, Deputy Governor of Liaoning Province and Mayor of Dalian, Deputy Governor Li Wancai and Guo Tingbiao, Chairman of the Liaoning Political and Consultative Committee, performed the handing-over ceremony. Only nine months of construction work were needed to erect this production plant, which occupies a site area of some 90,000 square metres and is equipped with the most modern production facilities. It is located in the port of Dalian, in Liaoning Province in Northeastern China. The production of hydraulic excavators for the Chinese market is to begin there immediately.

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2012 Zhuhai Directory: Light Aircraft Association of the Czech Republic - LAA CR is association of pilots, builders, designers, manufacturers and operators of light aircraft with MTOM up to 450 kg. It has 6 400 members and registers 7 900 aircraft and 10 000 pilots. LAA CR is a competent authority for Certification, Licencing, and Operation of microlights in the Czech Republic. This covers paragliding, powered paragliding, hang gliding, gyroplanes, helicopters, weight shift and aerodynamically controlled microlight. In this respect it is unique in Europe. It has 6,400 members and registers 7,900 aircraft and 10,000 pilots.

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Xoar Corporate Website: Has been producing movement for Rolex and other well know brand, Zenith was less known name to the consumer as one of the finest watch maker until it was bought by Louis Vuitton. From the hero behind the scene to appeal itself in glamorous stage, time has approved this timepiece maker! Same story has repeated itself in every industry. In the world of propeller, Xoar propeller as the factory line form JXF Propellers is trying to do the same. We have over 40 years experience in designing, manufacturing and testing propeller for both hobby and commercial applications. Combining the experience and modern technology through relentless operation and quality control, we are able to produce one of the finest propellers in the industry.

Singapore Airshow 2014 Directory: At the China pavilion, the following Limbach engines were being promoted: L550E, L1700E0/EC, L2000E0/EC, L1700EA, L2000EA, L2400DT/ET, L2400DT.X, L2400DFi/EFi, L275E, L550E, L2000EB, L2400EB,

#### LIMBACH PRESS RELEASE

##### ANNOUNCEMENT ABOUT LIMBACH CERTIFIED SERVICE CENTER IN CHINA September 9, 2008

China is becoming a significant player in the General Aviation, in order to provide quality, timely service to our valued customers, Limbach Flugmotoren GmbH & Co. KG is cooperating with Xoar International/JXF to establish a Certified Service Center in China. Limbach Flugmotoren GmbH & Co. KG is specialized in developing and manufacturing aircraft engines for the general aviation, the ultralight and unmanned aviation market. Limbach engines are known for reliability and fuel efficient design. Xoar International/JXF specialize in designing, producing performance propeller. By teaming with Xoar/JXF, we will be able to provide package solution to our customers from consulting, designing, products (Engines & Propellers), servicing with one stop shopping. Thank you very much for our loyal customers in China!  
Limbach Flugmotoren GmbH & Co. KG  
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From Corporate Website: LISI Group is an international French group (8909 employees, 38 production sites on the world) specialized in components and fastening systems in the automotive (LISI AUTOMOTIVE), medical (LISI MEDICAL) and aerospace

(LISI AEROSPACE) sectors. Worldwide company acting on the Aerospace Market since 1950, LISI AEROSPACE is a company worth nearly \$1 billion that designs, manufactures and services more than 300 customers in 30 countries with components and sub-assemblies of high technical content, making the difference in its ability to innovate and sustain high operating performance standards.

LISI AEROSPACE is a key player of the Industry since the early days of the Aerospace era. It serves its three main markets: Commercial and **Military** Aircrafts, Helicopters, and Jet Engines.

Our products are installed on civil programs as well as **military** ones, space launchers, satellites, **Unmanned Aerial Vehicles and missiles**.

LISI AEROSPACE works directly with the main OEMs of the Aerospace Industry as well as their Partners, and various Tiers. It also has a long established relationship with all Equipment Manufacturers as well as Key Distributors in the Industry.

LISI AEROSPACE has a strong presence in the world of Commercial Aircrafts. Working closely with the engineering and supply chain departments of AIRBUS, BOEING, Bombardier and Embraer, LISI AEROSPACE designs, manufactures, supplies high performance fasteners and state of the art large structural components widely used on legacy and new programs.

LISI AEROSPACE is also present in China, Japan and Russia to take part in the new developments of commercial aircrafts.

Over the last 40 years, the commercial aircraft market has kept on growing at an average rate of 3% to 4% per year. Published market outlooks forecast a long term positive trend, driven by the development of Asia, the existing fleet renewal needs and the search for better performing aircrafts.

All our facilities are AS/EN9100 qualified and we apply built-in quality concept by opposition to final inspection culture. Our special processes are NADCAP qualified.

LISI AEROSPACE is also a strong partner of prestigious names such as Dassault Aviation, Gulfstream, Cessna, Lockheed Martin, manufacturing products for the highly demanding worlds of business aviation and **military** aviation. Compressor blades, composite fan blades leading edges, nacelles engineered parts, bolts, tie rods, .... LISI AEROSPACE products can be found almost in every part of a jet engine. GEAE, Safran, Pratt and Whitney, Rolls Royce trust LISI AEROSPACE to design and manufacture highly reliable and performing products. Prestigious names such as Eurocopter, Sikorsky, Agusta, Bell, rely on LISI AEROSPACE products to maintain the integrity and operational performance of their latest helicopters.

#### FROM LISI 2012 ANNUAL REPORT:

“REINFORCEMENT OF RESOURCES IN CHINA: In 2013, LISI AUTOMOTIVE put in place a “China Department” bringing together the interests of the various Business Groups. The installation of the first machining and rectification operations at Shanghai, together with the first commercial successes recorded in 2012 in Beijing, in particular with DPCA, support the ramp up of the division in China, a country which has become the durable worldwide leader for sales and for the production of automobiles.”

“FOR LISI AUTOMOTIVE, CONTRASTING PERFORMANCES: On the positive side, LISI AUTOMOTIVE recorded a build- up of the German OEMs, and strong growth in sales in China where the Beijing and Shanghai units exceeded 180 million RMB of sales in 2012, or an increase of more than 60% since 2009. On the negative side, the contrasting changes on the markets weighed heavily on the business.”

**LMS International**

A Siemens Business

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Greg Hopton

Vice-President Asia, LMS

No address or other contact details available.

BEIJING

Room B0716, Huibin Office Building, Yayuncun 100101 Beijing

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SHANGHAI

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LMS Imagine Division Office:

Technical Office, Imagine China World Plaza (Shi Jie Guang Chang), Office 14 D, Pudong Nan Lu, 855, 200120 Shanghai

Tel: +86 21 5888 6182/+86 21 5888 6183

Fax: +86 (0)21 3887 0422

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LMS SAMTECH Offices:

Rm 1811, Tower B, SHIMAO Mansion Jia, 92 Jianguo Road, Chaoyang District, Beijing

Tel: +86-10 5979 8920

Acu-Vib Electronics (China) Ltd.

4/F Hong Kong & Macau Bldg, 156-157 Connaught Rd, Central, Hong Kong

Tel: +852 2893 4998; Fax: +852 2893 5998

Contact: Ms. Ophelia Leung, ophelia.leung@acu-vib.com.hk

www.acu-vib.com.hk

LMS Conferences in China:

2012 China User Conference, October 29-30, Guilin City

2011 China User Conference, October 20-21, Changsha

2012 Zhuhai Directory: LMS was founded in 1980 as a spin-off from the mechanical engineering department at the University of Leuven (Belgium). LMS has a unique combination of simulation software, testing systems and engineering services, focusing on mission critical engineering attributes, ranging from system dynamics, structural integrity and sound quality to durability, safety and power consumption. We have the LMS testing product portfolio, combining both the required hardware and software for physical testing. LMS solutions for virtual simulation: the geometry based simulation techniques (LMS

Virtual Lab), the model based simulation techniques (LMS SAMTECH). We're proud to be a preferred partner for many of the leading global manufacturers and their suppliers. Our customer base is ranging from automotive and aerospace industry to motorcycles, consumer and business electronics, medical equipment, process industry to energy production.

Corporate Website (Extracted in February 2014): LMS is a leading provider of test and mechatronic simulation software and engineering services in the automotive, aerospace and other advanced manufacturing industries. As a business segment within Siemens PLM, LMS provides a unique portfolio of products and services for manufacturing companies to manage the complexities of tomorrow's product development by incorporating model-based mechatronic simulation and advanced testing in the product development process. LMS tunes into mission-critical engineering attributes, ranging from system dynamics, structural integrity and sound quality to durability, safety and power consumption. With multi-domain and mechatronic simulation solutions, LMS addresses the complex engineering challenges associated with intelligent system design and model-based systems engineering. Thanks to our technology and over 1250 dedicated people, LMS has become the partner of choice of more than 5,000 manufacturing companies worldwide. LMS operates in over 30 key locations around the world. Based in Leuven, Belgium, LMS has 30 years of solid engineering experience with an unrivaled track record in developing and marketing technology breakthroughs that address very real customer challenges. From its roots as a high-tech spin-off from the University of Leuven in Belgium, LMS has grown to become a worldwide leader in engineering innovation with mechatronic simulation software, testing systems and engineering services.

**Loos and Company, Inc.**

P.O. Box 98, Pomfret, Connecticut 06258

Tel: 860.928.7981; Fax: 860.928.6167

sales@loosco.com

www.loosco.com

Contact: Michael M. Wallace, VP, Sales & Marketing, mike@loosco.com

East Asia/China

siena@avia-tek.com

www.avia-tek.com.

"Avia-Tek provides market research, management consulting, and M&A advisory services to the global commercial aviation and related industries. We focus on supporting our clients on projects that span emerging and developed markets with a regional specialization in China and Asia."

2012 Zhuhai Directory: Loos & Company manufactures and stocks Aircraft Cable to commercial and **military** specifications in stainless steel, galvanized carbon steel, and a variety of other alloys. We manufacture cables to the specifications of numerous aerospace and commercial OEM's. Loos & Company is a fully integrated manufacturer: drawing wire, stranding cable, extruding jacketing material and providing custom products, configurations and processes when you require them. For over 50 years, Loos & Company has pioneered and thrived in the highly critical profession of cable and wire rope manufacturing for use in aerospace flight controls, elevators, rigging and scaffolding where human lives are directly at stake. This valuable experience has taught us "the ropes" about what a difference wire makes. We can help make the difference for you too.

**LORD Asia Pacific Ltd (LORD Corporation)**



## 2014 Yearbook of Foreign Aviation Enterprises in China

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Allison Auman, Corporate Communications, allison.auman@lord.com  
Tel: +1 919 469 2500 (ext. 6631); Fax: +1 814 217 0006  
www.lord.com

Rebecca Williams  
President Asia Pacific  
Tel: 877-275-5676, 919-468-5979  
Fax: 814-866-5869

Rebecca Williams was appointed President Asia Pacific for LORD Corporation in May 2012. She began her career at LORD in 1979 as Material and Process Engineer in Erie, Pa. In 1984, she joined the Aerospace Product Design group and subsequently held engineering and management positions in design, manufacturing, sales and marketing in the company's aerospace business. In 2005, Williams was made Director of Marketing Communications and Customer Service and in 2007, Director of Marketing and Sales for Electronics and Automotive Markets in North America. In 2009 she was named Director of Elastomer Process Materials Value Stream. Most recently, she was the Vice President of Global Marketing & Business Development. She received her B.S. in Chemical Engineering and MBA from Case Western Reserve University in Cleveland, Ohio.

Corporate Website (Extracted in February 2014): LORD is a diversified technology company with a long history of developing breakthrough adhesive, coating and motion management technologies that significantly improve the performance of our customers' products. We have provided innovative solutions to demanding aerospace, **defense**, automotive and industrial customer problems for nearly 90 years. With technology centers and manufacturing locations around the world, our 2,900+ employees are ready to serve you.

CHINA: Sales, Technical Service, Customer Service, Marketing, Purchasing, EHS Management, Procurement, Finance, Human Resources, General Administration

LORD International Trading (Shanghai) Co., Ltd.  
Rm 1803-1806, 1568 China Fortune Tower Century Ave, Pudong, Shanghai 200122  
Tel: +86 21 3133 0800; Fax: +86 21 3133 0900

LORD Chemical (Shanghai) Co., Ltd.  
9 Luo Gong Rd, Shanghai Chemical Industry Park, Shanghai 201507  
Tel: +86 21 3133 0425; Fax: +86 21 3133 0433

LORD Mechanical (Shanghai) Co., Ltd.  
333 Ri Ying Rd North, Wai Gao Qiao Free Trade Zone, Shanghai 200131  
Tel: +86 21 3133 0901; Fax: +86 21 3133 0933

## M

### **MAGNA STEYR**

Magna International Inc.

337 Magna Drive Aurora, Ontario, Canada L4G 7K1

Tel: +1 905 726 2462

[www.magna.com](http://www.magna.com)

Contact: Jim Tobin, Chief Marketing Officer and President, Magna Asia

Magna International China

8F, Tower A, Eton Place, 69 Dongfang Road, Pudong, Shanghai 201-120, China

Tel: +86 21 6165 1500; Fax: +86-21-6165 9098

[www.magnasteyr.com](http://www.magnasteyr.com)

Contact: Redda Zhang, Marketing Communications Manager

[Redda.zhang@magnasteyr.com](mailto:Redda.zhang@magnasteyr.com)

Also: [georg.hartmann@magnapowertrain.com](mailto:georg.hartmann@magnapowertrain.com)

Magna Powertrain (Changzhou) Co., Ltd.

Facility #4 and #8, 6 Huanbao Yi Road, Environmental Industrial Park, New District, Changzhou, Jiangsu, 213033 China

Tel: +86 519 88229090

2012 Zhuhai Directory: Over 100 years of experience in vehicle production and a broad range of services make MAGNA STEYR the worldwide leading, brand-independent engineering and manufacturing partner for OEMs. The quest to develop, research and explore new technologies, especially new alternative drive systems and lightweight design measures, is at the heart of our link with aviation and space. Since we first started to develop and manufacture the feed lines of the liquid hydrogen and oxygen propulsion system for Ariane 5 in 1990, our aerospace competence has grown steadily.

### **MAGNA PRESS RELEASES**

#### **MAGNA NEWS - MAGNA INTERNATIONAL DONATES US\$200,000 TO SUPPORT RELIEF EFFORTS IN SICHUAN, CHINA**

Dec 15, 2008

Magna International Inc., announced today that it will donate US\$200,000 to the Red Cross Society of China for humanitarian aid and school reconstruction in Sichuan, China, following the devastating earthquake which occurred on May 12, 2008.

#### **MAGNA NEWS - MAGNA INTERNATIONAL DONATES US\$200,000 TO SUPPORT RELIEF EFFORTS IN SICHUAN, CHINA**

Shanghai, China, June 5, 2008—Magna International Inc., announced today that it will donate US\$200,000 to the Red Cross Society of China for humanitarian aid and school reconstruction in Sichuan, China, following the devastating earthquake which occurred on May 12, 2008.

"The impact of this disaster has been felt around the world," said Jim Tobin, Magna's President of Asia. "We are all affected by this tragedy and the least we can do, as companies and individuals, is to come together to support the people and communities whose lives have been devastated."

Magna has 19 facilities and nearly 4,000 employees in China. These divisions and their employees raised US\$100,000, which was matched by Magna International.

### **Meggitt PLC**

Atlantic House, Aviation Park Drive, Bournemouth International Airport, Christchurch Dorset, UK, BH23 6EW

Tel: 1-(603)-657-2535; Fax: 1-(603)-623-5751

www.meggitt.com

Contact: Susan Weiss, Susan.weiss@meggitt.com

Meggitt (Xiamen) Sensors & Controls Co., Ltd.

230 South 5, Gao Qi Road, Xiamen 361006 China

Tel: +86 592 573 3666; Fax: +86 592 573 3555

Meggitt Shanghai

Far East International Plaza, Bldg A, Rm 1107, 319 Xianxia Rd, Changning District, Shanghai 200051 China

Tel: +86 21 6278 1091; Fax: +86 21 6278 1094

2012 Zhuhai Directory: Meggitt PLC is an international aerospace, **defence** and energy group with a 10,000-strong workforce. Its manufacturing capability is global, with facilities in Europe, the Americas and Asia where it has recently expanded its aftermarket facility in Singapore to cover all Meggitt's aerospace capabilities and continues to develop its dedicated engineering facility in Bangalore, India. Meggitt continues to support Chinese aviation in China with local sourcing, sales and customers support offices and manufacturing facilities that deliver a range of products including aircraft sales for the C919, MA700 and other new engine programmes. We seek partners in China to enhance our aftermarket service capabilities. Meggitt's components and sub-systems are on virtually every western aircraft in service, encompassing power generation, conversion and storage, wheels, brakes and brake controls, thermal management, ATA Chapter 26 fire protection, aircraft seals, smart ice protection, ground fuelling, high performance and sensing systems, condition monitoring and avionics. Meggitt acquired Pacific Scientific Aerospace in 2011, enabling Meggitt to offer full ATA Chapter 26 fire protection systems and expanding the group's capability in high-density magnetic, power sensors, interconnects and harnesses, next generation lithium batteries, electro-mechanical linear motion control and the latest in aircraft security equipment.

2012 Meggitt Annual Report and Accounts: "As part of the group's low-cost manufacturing strategy, Meggitt continued to expand the range of capabilities at its manufacturing plants in China, Mexico and Vietnam, a key enabler to delivering enhanced cost- competitiveness and developing a best- in-class operational footprint."

(CV Extracted from Corporate Website in February 2014)

AMIR ALLAHVERDI

1996 – January 2012, Honeywell, New Jersey, Arizona, Switzerland, China

Progressively senior roles in operations management; quality and Six Sigma; and global sourcing for AlliedSignal. During the latter's merger with Honeywell, was awarded key

international responsibilities involving supply chain integration; production system implementation; and team creation and development.

Last role: Vice President, Integrated Supply Chain, Asia Pacific, Honeywell International.

1992–1996, Lockheed Martin, Massachusetts, Programme management, International Systems; and operations management, precision-machining (Martin Marietta) utilising hard-won turnaround experience in quality and its cost, on-time delivery and labour relations.

1985–1993, General Electric, Massachusetts, Starting as an industrial engineer, progressed rapidly through a wide range of increasingly challenging operational management roles from aircraft instruments to Phalanx Close-In Weapon Systems, with a two-year stint at GE disposal Ametek, managing quality assurance in aerospace production.

2001, MBA, Technology Management and MS, Management, New Jersey Institute of Technology 1985, BS, Mechanical Engineering and Associate in Applied Science in Aeronautical Technology, Wentworth Institute of Technology

“Some three years later, Allahverdi was rewarded with the opportunity to grow Honeywell’s Asia Pacific business. In China, he established, from scratch, the production sites and system needed to position the supply chain for the high growth levels the region was experiencing. This included delivering C919 aircraft content and low-cost manufacturing capacity for the rest of the group. Not everything fitted, he acknowledges. “Some things work there. Some don’t. I’ve learned from the experience.” – “Learning to See: Allahverdi spearheads group-wide production system”, Review: A Magazine for Employees, Winter 2012/2013, page 6.

#### **MESIT přístroje, spol. s r. o.**

Sokolovská 573, 686 01 Uherské Hradiště, Česká Republika

Tel: +420 572 522 200; Fax: +420 572 522 602

mo@msp.mesit.cz

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www.mesit.biz/en

Contact: Dr. Vladislav Mazurek

2012 Zhuhai Directory: MESIT přístroje spol. s r. o. is involved in design, development and production of aircraft instruments, digital intercom systems and instruments for vehicles. Activities: Instruments for measurement of physical variables (temperature, pressure, fuel quantity), inverters, communication-airborne VHF-UHF transceivers, antennas, instruments for the control of APU, testing of aircraft instruments, hydraulic and pneumatic aggregates for aerospace, airborne equipment, flight simulators and other training systems, and armoured equipment.

Corporate Website (Extracted in February 2014): ABOUT COMPANY- we are a Czech company with a 60-year tradition of design and development for civil and **military** aerospace, road and railway transport, industrial use and for **military** ground applications. ISO 9001:2008, ISO 14001:2004, AQAP 2110, EASA Part 21, EASA Part 145, Civil Aviation Authority Approval Certificate, Ministry of **Defence** Approval Certificate.

#### **Metallurgical Plant Electrostal JSC**

Zheleznodorozhnaya, 1, Electrostal City, Moscow region, Russia 144002

www.elsteel.ru

Contact: Mrs. Svetlana Nikolaeva, development@mpelsteel.ru

Vyacheslav Kh. Khaibrakhmanov, Sales Director, market@elsteel.ru

From Directory: "Metallurgical Plant "Electrostal" JSC is a leading Russian manufacturer of high alloyed steels and heat-resistant alloys. More than 2000 steel and alloy grades including stainless, ball-bearing, high speed, tool and structural steels as well as high-temperature, precision and titanium alloys have been elaborated by specialists of the company. The quality and environmental management systems of the plant and its products are certificated for compliance with ISO 9000 and 14000, respectively. Today, "Metallurgical Plant "Electrostal" JSC is one of the main and unique Russian suppliers of starting stock for blades, disks, shafts and rings for gas turbine engines.

Corporate Website (Extracted in February 2014): "Metallurgical Plant "Electrostal" has concluded several contracts on delivery of cast sections from heat-resistant alloys with manufactures of gas turbine engines. All-Russian Scientific Research Institute of Aviation Materials (VIAM) has issued a certificate on usage of cast sections from heat-resistant alloys manufactured by "Metallurgical Plant "Electrostal" for production of aviation equipment. A new 16-MH forging press was put into operation on May 30, 2012. This is the first step of a modernization and technical re-equipment program adopted by "Electrostal". Our key customers include main Russian aerospace companies, **defense** enterprises, power and oil and gas complexes, auto manufacturers, engineering and instrument-making plants.

#### **MOOG, Inc.**

Moog Aircraft Group

Seneca & Jamison Road, East Aurora, New York 14052

AOG: +1 716 687-7900; Fax: +1 716 687-4661

www.moog.com

Contact: Timothy Wutz, Director, Marketing, twutz@moog.com, Tel: +1 716 687-7819

2012 Zhuhai Directory: Moog Inc. is a worldwide designer, manufacturer, and integrator of precision control components and systems. Moog's high-performance systems control **military** and commercial aircraft, satellites and space vehicles, launch vehicles, **missiles**, ground-based navigation aids, automated industrial machinery, wind turbines, marine and medical equipment.

Moog in China - Wai Gao Qiao, Shanghai

No. 68 Building, 96 Yi Wei Rd, Wai Gao Qiao Free Trade Zone, Shanghai 200131

Tel: +86 21 2893 1600; Fax: +86 21 5046 377

www.moog.com.cn

Corporate Website (Extracted in January 2014): Specializes In: Industrial products and solutions, industrial service and repair. Located in Wai Gao Qiao Free Trade Zone, Shanghai, this facility includes manufacturing, sales, technical support and repair operations. This is the primary location for help on all industrial products, solutions and services. For inquiries regarding wind power solutions, visit Moog in Gao Hang, Shanghai, China. Moog Industrial Group specializes in motion control products and solutions that meet the exact needs of high performance machinery manufacturers. We help performance-driven companies design and develop their next-generation machines. Founded in 1997, Moog China has two facilities in Shanghai and offices in Beijing, Guangzhou and Hong Kong.

#### **PROFILES**

(Extracted In January 2014)

**BENSON BAI, SALES ENGINEER, CHINA**

As a Sales Engineer for our Heavy Industry market, I find my work both rewarding and extremely challenging. Working in the area of system solutions, a new area for Moog in China, I know my work is valued. But that's not just a feeling I get – it's shown in the appreciative nature of the people that work here and in the rewards that come with working for such a great company.

I enjoy knowing that the work I do helps drive the company forward. And in an environment that encourages teamwork, I know I can work closely with my colleagues to discuss and resolve any issues or problems that may arise. Everywhere you go here, you can feel a sense of wellbeing. And that's the reason I fit in so well at Moog.

This truly is an inspiring company to work for. And one that believes in helping its people fulfill their aspirations. Nobody here gives you orders. Instead they advise you on how it should be done. It's a simple cultural thing like this that makes Moog such a special place to work.

**MA DA, PRODUCTION MANAGER, CHINA**

Some say first impressions are everything. Well Moog certainly lived up to mine. One of my most treasured memories was when I attended the opening ceremony of the brand-new Wai Gao Qiao facility – after being at the company for just two weeks. Everyone was really happy. People were having a great deal of fun and there was such a friendly atmosphere. This experience has set the tone for my time at Moog ever since.

I get a sense of ambition here. From the building I work in to the people I work with, I'm inspired to keep driving myself, and the business, forward. Working in the Hydraulic field, I get to work in many parts of this global organization. It gives me a chance to see first hand why so many engineers admire Moog and why this business is recognized as the leader in its field.

As a Production Manager, I arrange the manufacture plan and coordinate various functions of my department, making sure our business operates as efficiently as possible. Though at times the work can be tough, the culture here is such that everyone comes together to solve problems and improve processes. And that just makes life so much more enjoyable – and Moog a great place to work. I've always dreamt of being the number one in whatever it is I do. Joining Moog has brought me a step closer to making that a reality.

**STEF GEERDINK, TECHNICAL SALES MANAGER, NETHERLANDS**

After 14 years with prior employer I needed new challenges. Since one of my former colleagues joined FCS late '90s the simulation business and FCS have always been in my field of interest. With the transition of FCS to Moog in 2005 the path from FCS has lead me to Moog.

Since my start with Moog beginning of 2009 it has been an adventure. Coming from a relative small company the world-wide footprint of Moog, combined with the challenging business of Simulation has been an interesting environment to work in. The surprise has been that quite a number of parallels can be seen between a small organization and one with the size of a multinational.

The Moog Nieuw-Vennep location houses a relative young, well educated enthusiastic team, fun to work with. This has helped me a lot in the transition into a complete new market, with a new customer base and new colleagues to work with.

My first day with Moog was a visit to the ITSEC exhibition in Florida USA. This was a great way to get to know the industry and meet the Moog sales team.

My position with Moog is Technical Sales Manager in the sales team for Simulation Systems. What I enjoy most is the communication with an International market to offer the best solutions for our users.

My favorite memory is the trip to China, so far I have not travelled to this part of the world and the fact to do business with people who live in a different culture was interesting.

Recently I sold an electric motion system to a company who is entering the flight simulator market for 'amateur pilots'. This was exciting and challenging. So far commercial flight simulators have been used to train pilots for commercial airlines, with this new market flight simulation is now available for a wider public.

Moog has given me the room to follow a number of trainings which are organized internally. This has been a great way to quickly find my way in the organization.

My current position brings me in touch with the whole world through a large international organization, with subsidiaries in many countries.

Friends often ask me, "where were you last night, Zurich?" as a joke on the frequency of travelling. In general I am proud to share examples of the different markets Moog provides Simulation Systems to. It is not known to many of us how important solid training of drivers for airplanes, trucks, trains etc is for our safety!

#### LANCE LI, MARKETING MANAGER, CHINA

One of the greatest benefits about working at Moog is that you always feel appreciated - whether by the company or the customer. I joined Moog Shanghai when it was a very small operation. In fact, there were only seven employees. Before joining, I had knowledge of Hydraulic products and their applications, but Moog gave me time to study and understand its products specifically. That gave me a great footing by which to progress my career.

Being a part of the Moog China operation from the outset also allowed me to get heavily involved in the setup of the new Jin Qiao facility. Seeing it get up and running gave me a great sense of achievement. One thing you will quickly discover about this company is that there are always opportunities to move your career in the directions that most suit you.

My career began as an Application Engineer. Two years later I was promoted into Sales. Today I am the Marketing Manager and report on future market trends with the responsibility for setting the market implementation plan. It's the perfect role for me. It gives me an opportunity to build relationships with both customers and colleagues and the knowledge that I'm an essential component in the success of Moog China.

#### BAI YUAN, SALES MANAGER, CHINA

The best thing about working in Sales at Moog is the outstanding and reliable products we deliver. Our customers constantly tell me that the products and technology we offer are exceptional. And that makes you feel respected. Customers know Moog is a great brand – and our name is synonymous with high quality.

Moog has enjoyed an outstanding reputation for some time. And it was the same when I worked for Moog FCS in the Netherlands. In 2007 however, I took the step of helping establish Moog in China. I was there at the opening ceremony at our brand-new facility in Shanghai. Rubbing shoulders with many VIPs, including Bob Brady, CEO of Moog, and many of our biggest customers, I knew that China had an important part to play in the future of this enviable company. And I feel privileged to be a part of it.

#### OTHER OUTLETS IN CHINA:

##### Moog – Beijing

118 Jian Guo Lu Yi, Chao Yang District, Beijing 100022 China

Tel: +86 10 6567 8512; Fax: +86 10 6567 8513

Located in the Guo Mao area in Beijing, this office includes sales and technical support operations. This is Moog's location for help on all industrial products, solutions and services in North China including wind power solutions. For more information on wind power

solutions, visit Moog in China - Gao Hang, Shanghai. Moog Industrial Group specializes in motion control products that meet the exact needs of high performance machinery manufacturers. We help performance-driven companies design and develop their next-generation machines.

Moog - Gao Hang, Shanghai

Tel: +86 21 5067 2500

Located in Gao Hang Industrial Zone, Shanghai, this facility includes manufacturing, sales and technical support operations. This is the primary location for help on wind power solutions in China. For inquiries regarding industrial products and solutions, visit Moog in China - Wai Gao Qiao, Shanghai. Moog Industrial Group specializes in motion control products and solutions that meet the exact needs of high performance machinery manufacturers. We help performance-driven companies design and develop their next-generation machines. Founded in 1997, Moog China has two facilities in Shanghai and offices in Beijing, Guangzhou and Hong Kong.

Moog – Guangzhou

Unit 13, 33/F., China Shine Plaza, No.9 Lin He Xi Road, Tian He District, Guangzhou, Guangdong 510160 China

Tel: +86 20 3801 7112; Fax: +86 20 3801 7113

Located in Guangzhou, China, this is the primary location for help on major industrial products, solutions and services in South China. For inquiries regarding wind power solutions, visit Moog in China - Gao Hang, Shanghai. Moog Industrial Group specializes in motion control products that meet the exact needs of high performance machinery manufacturers. We help performance-driven companies design and develop their next-generation machines. Founded in 1997, Moog China has two facilities in Shanghai as well as offices in Hong Kong, Beijing and Guangzhou.

Moog - Hong Kong

Unit 9, 11/F., Citimark, 28 Yuen Shun Circuit, Siu Lek Yuen Shatin, Hong Kong

Tel: +852 2 635 3200; Fax: +852 2635 4505

Located at Shatin, Hong Kong, this is Moog's location for help on industrial products, solutions and services in South China. For inquiries on wind power solutions, please visit Moog in China - Gao Hang, Shanghai. Moog Industrial Group specializes in motion control products that meet the exact needs of high-performance machinery manufacturers. We help performance-driven companies design and develop their next-generation machines. Founded in 1997, Moog China has 2 facilities in Shanghai and offices in Beijing and Guangzhou and Hong Kong.

## MOOG PRESS RELEASES

### MOOG ANNOUNCES CONTRACT WITH HAINAN AIRLINES FOR LONG TERM SUPPORT FOR 787 FLEET

12 November 2012

East Aurora, NY, USA – Moog Inc. (NYSE: MOG.A and MOG.B) and Hainan Airlines signed a 10 year exclusive contract for comprehensive support of the Moog Flight Control Systems on Hainan Airlines' fleet of Boeing 787 aircraft. The program will include maintenance and inventory support via Moog's strategically selected worldwide stocking locations, giving Hainan 24/7 access to spares no matter where their aircraft are located. Moog, the provider of both primary and high lift flight control systems on the 787, recently launched an entirely new suite of aftermarket support solutions. The Moog Total Support program is aimed at providing airlines with a comprehensive range of services for Moog products, including inventory support. "We are exceptionally proud that Hainan Airlines



has chosen the Moog Total Support program for our products on their fleet of 787 aircraft,” said Kate Schaefer, Moog’s General Manager for Commercial Aircraft Services. “We look forward to providing Hainan Airlines with a cost effective alternative for both maintenance and global inventory support along with an unparalleled level of service over the next 10 years.” Hainan Airlines Company Limited (HNA) is an airline headquartered in Haikou, People’s Republic of China. Hainan Airlines is one of the world’s SKYTRAX five-star airlines and the fourth largest airline in terms of fleet size in the People’s Republic of China. It operates scheduled domestic and international services on 500 routes from Hainan and nine locations on the mainland, as well as charter services. Hainan has a significant fleet of 787 aircraft on order with Boeing.

#### MOOG ANNOUNCES CONTRACT FOR HIGH LIFT SYSTEM ON COMAC C919 COMMERCIAL TRANSPORT

14 February 2012

East Aurora, NY—Moog Inc. (NYSE: MOG.A and MOG.B) and the Commercial Aircraft Corporation of China (COMAC) signed a contract today for the High Lift System on the C919, COMAC’s new narrow body commercial transport. The Moog high lift system will include all flap and slat actuation, pilot interfaces, electronic controls, power drive units, wing tip brakes, gearboxes and miscellaneous components. Warren Johnson, President of Moog’s Aircraft Group, was at the signing ceremony held at the Singapore Air Show and stated, “China is the world’s fastest growing aviation market and the C919 represents a key opportunity for Moog to participate in this growth. We are very proud of our selection by COMAC and of our position as a key system supplier on this prestigious program.” COMAC has forecasted a global market for more than 2,000 C919 aircraft over the 20 years following entry into service, planned for 2016. Moog has separately finalized the terms of a cooperation agreement with Qing’an Group, an industrial partner and subsidiary of the Aviation Industries of China, who will participate with Moog on this project.

#### MOOG SUPPLIES TEST SYSTEM FOR FULL-SCALE AIRCRAFT TESTS TO AIRCRAFT STRENGTH RESEARCH INSTITUTE (ASRI) OF CHINA; EXPANDS PRESENCE IN CHINA’S AVIATION INDUSTRY

16 June 2011

Moog Industrial Group, a provider of leading-edge solutions and products for the test industry, announced today that it has successfully delivered an aerospace test system to the Aircraft Strength Research Institute (ASRI) of China for full-scale aircraft tests. The order included a 192-channel control system and a 4096-channel data acquisition system. This order is ASRI’s largest test facility expansion project in the past five years, as well as Moog’s largest win in the Chinese aerospace test market. The entire system was delivered to ASRI’s test laboratory located in Xi’an in late June 2010 and was put through real tests in October 2010. ASRI, a subsidiary of Aviation Industry Corporation of China, is the country’s largest aircraft test center in China, focused on fatigue and static testing of full-scale aircraft structure. “It was actually a follow-on order to our initial successful association with ASRI five years ago,” said Tom Pierce, Business Development Manager, Simulation and Test, Moog Asia Pacific. Moog provided a 64-channel control system for ASRI’s components tests in 2005. “The high level of technical support that we provided has built a strong partnership with ASRI based on Moog’s capabilities and innovative technology.” Moog’s turnkey solution for ASRI also included a well-trained, authorized support team that will be able to respond quickly and professionally to help the customer get the most from the test equipment investment. The services cover application engineering, start-up and installation, commissioning, training and test execution among other things. “The recent orders have helped the team build a better understanding about ASRI’s requirements and we look forward to a long-term partnership with ASRI and the aviation industry in China,” observed Pierce.

## MOOG'S INTEGRATED TEST SUITE SOFTWARE SIMPLIFIES COMPLEX SETUPS

17 May 2011

Moog's new integrated Test Suite software lets users run a large number of basic and sophisticated tests with less reliance on test operators and specialists. The software, with its advanced algorithms, state-of-the-art workflow and a centralized database of tests and test data, enables engineers to set up and run tests quickly and efficiently anywhere in the world. The Test Suite leverages the world-class performance of Moog's hardware – electric and hydraulic systems, Servo valves, Servo Drives and Servo Motors, Test Actuators and Controllers. Features include flexible support of electric and hydraulic test systems, highly intuitive screens, ease of use for basic tests and junior operators, integrated modules for complex tests, and customizable screens to match specific processes. The flexible software architecture offered in the Test Suite is designed around how customers use test software and helps them add more features as their programs mature. It provides access to four modules: Runner (to run and control tests), Replication (state of the art algorithms that replicate time history files), Sinesweep (to allow investigations on test specimen resonance frequencies) and Random Vibration (to produce a predefined frequency spectrum using fully randomized time signals). All Moog test applications use the sidebar from the Integrated Test Suite, a powerful tool that allows the user to connect to a controller and then monitor and control it. It also facilitates creation, editing and running of controller scripts. From the sidebar, all controller properties can be accessed, changed and monitored. Monitoring can be done using digital, graphical or oscilloscope-based displays. Each module can be used independently or combined as users' requirements change. The same module can be used for different test systems in the test lab. "Most importantly, test data can be centrally accessed, which dramatically improves testing speed," says Pim van den Dijssel, business manager Europe for Moog. The Test Suite supports multiple test systems including Moog's Multi-axis Test Systems, hydraulic and electric Simulation Tables, Suspension Test rig and Tire Coupled Simulation System.

## MOOG RECEIVES TEST SYSTEM ORDERS FROM AIRBUS; AIRBUS OPTIMIZES STRUCTURAL TESTING IN EUROPE USING MOOG TEST SYSTEMS ON ONE SINGLE PLATFORM TO SERVE MULTIPLE FACILITIES ACROSS EUROPE

12 May 2011

East Aurora, NY, USA – Moog Industrial Group, a division of Moog Inc. and a leader in providing leading-edge testing systems to the aerospace and automotive markets and high-performance flight simulation, has received an order from Airbus in Hamburg Germany to supply 11 Moog test systems to provide a test capacity of 136 control channels. This order is in addition to those placed previously under a 10-year frame work contract between Airbus and Moog for the exclusive supply of multi-channel test systems for structural testing of aircraft.

Selecting Moog as the official supplier of multi-channel test systems enables Airbus to develop a single platform across all of its structural testing facilities in Germany, United Kingdom and France.

Moog has previously supplied seven test systems based on Moog's test controllers and software to the Airbus facility in Germany over the last three years. With this new order, the testing facility in Hamburg will be completely standardized with Moog test controllers as will the Airbus Filton facility in the United Kingdom. The Hamburg facility now employs 18 Moog test systems to support a total of 320 control channels. This emphasizes Airbus' confidence in Moog's system performance, field service and strength in continuous innovations.

The Moog test controllers and software will be used for both static and dynamic structural tests. The Moog test systems can support civil as well as **military** aircraft and technology projects. The current Airbus structural testing programs are related to the A350 XWB, A380 and A400M. One of the systems from this order will be used for the A350 XWB vertical tail structural test.

The increasingly complex test requirements, combined with an ever growing pressure for lab cost effectiveness, led Airbus to phase-out systems other than Moog including a system developed in-house. Using Moog test systems, Airbus now benefits from a standardized, transnational platform making service and support easier and faster.

The new systems will be configured with Real-time Ethernet, offering Airbus more flexibility, higher bandwidth, increased data speed, more reliability and faster test set-up.

Pim van den Dijssel, business manager Europe, for Moog said: "We are delighted to receive this new and significant order from Airbus. It is always a reward to our collaborative approach to see our customers renew their confidence in our support and offerings for test systems."

Other major benefits of the latest Moog Test Controllers to Airbus include: Increased lab productivity through high-performance testing and the ability to manage high speed tests with up to 512 control channels while simultaneously safeguarding test accuracy and test specimen safety; Long-term investment on all hardware allows backward compatibility and provides full modularity for optimum use of individual test controller as needed; and One single platform across testing facilities to accommodate and execute all simple or complex test requests.

The move to a single platform is further prompted by the extensive testing schedules Airbus faces with rapid developments on new testing programs. Standardizing the Airbus testing facilities in Europe will lead to greater efficiency and flexibility to meet the program demands. Recently Airbus Toulouse ordered two multi-channel test systems comprising 24 control channels in total.

All Moog Test Systems will be operational at Airbus throughout 2011.

#### MOOG AND COMAC SIGN LETTER OF INTENT FOR C919 HIGH LIFT SYSTEM 15 April 2010

East Aurora, NY—April 15, 2010—Moog Inc. (NYSE: MOG.A and MOG.B) and the Commercial Aircraft Corporation of China (COMAC) signed a letter of intent today for the development of the High Lift System for the C919, COMAC's new narrow body commercial transport. The letter of intent is a framework agreement to commence the joint development phase of the C919 High Lift System in parallel with definitizing contract terms for the production program. The High Lift System includes all flap and slat actuation, pilot interfaces, electronic controls, power drive units, wing tip brakes, gearboxes and miscellaneous components. COMAC has forecasted a global market for more than 2,000 C919 aircraft over the 20 years following entry into service, planned for 2016. Warren Johnson, President of Moog's Aircraft Group, stated, "China is the world's fastest growing aviation market and the C919 represents a key opportunity for Moog to participate in this growth. We are very proud of our selection by COMAC and of our position as a key system supplier on this prestigious program." Moog has separately entered into a cooperation agreement with Qing'an Group, an industrial partner and subsidiary of the Aviation Industries of China, who will participate with Moog on this project.

#### MOOG IN CHINA EXPANDS TO A NEW FACILITY IN SHANGHAI 15 March 2007

Shanghai, China (March 15, 2007): Moog held the opening ceremony for its new facility in Wai Gao Qiao Free Trade Zone, Shanghai, China on March 15, 2007. This year also marks the 10-year anniversary of Moog's operations in China. The new facility will

reinforce Moog's manufacturing, engineering, sales, and service capabilities to provide full system solutions to our local Chinese customers, and our global customers with a presence in China. With a total investment in excess of US\$3.5 million for the construction, the new 7,000<sup>2</sup> facility has state-of-the art manufacturing capabilities for Moog's motion control products, including servovalves and actuators. It is also equipped with the complete range of repair capabilities for servovalves, actuators, pumps and electronics. In addition, the operation will play an important role in the development of Moog's offering to the Test industry as the facility is equipped with a seismic pit to enable the production, assembly and testing of test rigs for automotive and aerospace customers in the Asia Pacific region. Senior Moog Executives, Bob Brady (CEO, Moog Inc.), Steve Huckvale (Vice President, Moog International Group), and Séan Gartland (General Manager, Moog Asia Pacific), officiated at the Opening Ceremony. General Manager for Moog in Greater China, Lars Rasmussen said, "With the pioneering spirit of Moog and its philosophy of continuous innovation to meet customer's needs, we will continue to increase our value to our customers through our system solutions capability and Moog's best in class technologies and services."

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2012 Zhuhai Directory: Moscow Design Bureau, Compas, (JSC) - the leading enterprise developing, producing and servicing specialized radio navigation systems and equipment for various use. JSC MDB Compas is a scientific and production centre, specializing on high precision navigation equipment for SNS: GLONASS/GPS (perspective GALILEO). MDB Compas is also the company engineering aviation medium wave range radio compasses. The company has high scientific and technology capacity, qualified staff.

Corporate Website (Extracted in February 2014): JSC "MDB "Compas" is one of the oldest Russian companies, specializing in development and production of radionavigational equipment. The company's unique products are extensively used in avionics for the fifth generation piloted aircraft systems, produced by different Russian companies such as Ramenskoe IMDB, Tikhomirov Research Institute of Instrumentation, State Research Institute of Aviation Systems, as well as for unpiloted aircrafts and rocket-space vehicles (such systems are developed by State Research and Production Space-Rocket Center "TsSKB-Progress", Khrunichev State Research and Production Space Center, OJSC "Academician V.P.Makeyev State Rocket Centre", Moscow Institute of Thermal Technology). Devices, produced by "MDB "Compas", are also used as a part of regional high-accuracy positioning, navigation and information systems for cadastral, geodesic surveys and different facilities' monitoring activities, including search and rescue systems. "MBD "Compas" is accomplishing works in the sphere of satellite and impulse-phase ground-based receivers integration, that will significantly improve time and navigation support stability.

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2012 Zhuhai Directory: MIEA JSC providing advanced avionics R&D for civil and heavy **military** airplanes. The main competencies: avionics integration, flight control and flight management systems, inertial navigation systems, primary sensors.

Corporate Website (Extracted in February 2014): The Moscow Institute of Electromechanics and Automatics began its history as an experimental-development bureau (EDB), founded in 1951 as a part of the factory №923 for production autopilots and flight control systems for new airplanes and rockets. In 1994 "MIEA" was turned into joint-stock company and entered as a head institute into one of the first Russian instrument engineering vertical-integrated corporate — Joint-Stock Holding Company "Aviapriborholding". In 2009 JSC "MIEA" entered into JSC "Aircraft Engineering Concern" — part of the "Russian Technologies State Corporation". At present "MIEA" team is working on perspective projects of avionics for civil aircraft MS-21, and fifth-generation fighter T-50, and is taking part in modernization of board equipment for a line of aircraft types of state and business aviation.

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NOTE TO READER: Hongdu Aviation Industry (Group) Co, Ltd. Nanchang, Jiangxi, China, www.hongdu.cn, is listed on the corporate website as a "partner" and the Tanlee Company for Khan Gai ARZ, China, is listed as an "aircraft repair plant." According to media reports, Motor Sich provided the AI-222-25F turbofan engine for China's Hongdu built **L-15 jet trainer**.

2012 Zhuhai Directory: Motor Sich JSC is one of the world's largest companies in the field of manufacturing, after sales support and overhaul of 55 types and modifications of up-to-date and dependable engines for various fixed-wing and rotor-wing aircraft.

Corporate Website (Extracted in February 2014): Nowadays the company is engaged in serial production of AI-222-25, D-436-148, AI-450-IS, TV3-117VMA-SBM1V aircraft engines for Yak-130, An-148, An-158 aircrafts, Mi-24, Mi-25, Mi-17, Mi-171 helicopters. The intensive preparation for serial production of D-27, Ai-222-25F, Ai-25TLSh, Ai-450I, IS-500 engines for An-70, L-15, L-39 aircrafts and Mi-2I helicopter and others.

From the Corporate Website (Extracted in February 2014): EP SHANGHAI – 2011. From 21 to 23 September 2011 Motor Sich JSC participated in the 8th International exhibition of the electric power equipment and technologies 'EP Shanghai – 2011', that took place in Shanghai, China. The exhibition drew over 600 companies from 20 countries

all over the world. In the course of the exposition there were presented video materials, posters, advertising literature, demonstrating the recent developments of our enterprise in the field of the ground commercial installations.

## INTERVIEW

FOR THE LAST FIVE YEARS OUR SALES VOLUME INCREASED A THREEFOLD!

June 06, 2012

In the context of market relations success of any company is defined by marketing strategy. In particular due to efficient marketing it is possible to increase sales volumes and, finally, to ensure company profit and salaries (the reason we are working for). What is the situation regarding marketing of products manufactured by MOTOR SICH JSC, how popular our items are and what kind of sales growth prospects ensures Foreign Trade Department of enterprise? Replies to these and other questions you can read in the interview with Mr. V. Shyrkov, Director of Marketing.

- MR. SHYRKOV, PLEASE TELL US WHAT IMPORTANT CONTRACTS WERE SIGNED IN RECENT YEARS.

- In 2011 we have practically finished placement of long-term contracts with our core partners. The key event was our signing of a five-year contract with RUSSIAN helicopters – holding company which includes all Russian helicopter plants involved in purchasing of our engines. The contract specifies pricing strategy, payment procedure, terms and scope of delivery since 2012 to 2016. It is provided for annual 10% increase of helicopter engines supply. This is a minimum (from 1bln. 200 mln. dollars) total delivery cost macrocontract.

The second most important contract of engines delivery for **L-15 Chinese combat trainer** we signed with AVIC - Chinese company. Over several years we were involved in continuous investigations and as a matter of course optimal for this aircraft engine was selected which meets Customer requirements regarding technical parameters and value for money. We fought off a competition and signed the contract for 2011-2012. Now we see the possibility of this contract development for at least another three years – total minimum quantity is not less than 200 pieces. I think that the mere fact of mounting our engine on Chinese aircraft means success for MOTOR SICH JSC and Ivchenko-Progress Design Agency. Presently China ranks the second place in the world due to its economic growth, this country invests heavily in aviation industry. Thus it is a prestige to carry on cooperation with China today.

## N

### **National Aerospace Laboratory (NLR)**

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Contact: Michel van Ierland

2012 Zhuhai Directory: NLR is the aerospace knowledge enterprise in the Netherlands. Our research is geared towards safer, more sustainable and efficient air transport. We support government in implantation of their policies and strengthen the innovative capacity of industry. NLR's facilities include wind tunnels, research aircraft, **military** and civil flight simulators, ATM tower and radar simulators and a wide variety of research and development capabilities.

Corporate Website (Extracted in February 2014): The Government Service for Aeronautical Studies (RSL) was founded in 1919 to increase air safety for **military** aviation. The rapid emergence of civil aviation, however, caused the RSL to focus on that sector too. In 1937 the RSL was turned into a foundation (the NLL and subsequently the NLR), which created a better basis for conducting scientific research for the national aircraft industry. The arrival of the digital computer gave the research a huge boost. New facilities, such as flight and air traffic simulators were created to respond to the demand for information about **military** and civil aircraft usage. The NLR has responded to public concern for sustainable, safe and efficient air transport, carrying out numerous projects with national and international collaborations.

NLR's strategic ambition for the period up to 2013 is to be the Dutch government's most obvious partner of choice for dealing with aerospace-related matters. NLR is also committed to being the most competitive knowledge organisation for the Dutch aerospace sector in Europe (with the best price-quality ratio). NLR will continue to expand its knowledge in the areas of air safety, environment and composites. NLR will strengthen its (inter)national collaboration with aerospace enterprises and miscellaneous small and medium-sized companies, with KLM-Air France, Schiphol and LVNL, universities, the Netherlands Aerospace Council, the regions in the Netherlands with aerospace ambitions and with its counterparts DLR. The necessary research and testing facilities will continue to be modernised and rationalised, as applicable. The intent is to use facilities in broader forms of collaboration, such as by strengthening the composites cluster in Flevoland.

### **NLR IN CHINA TRADE MISSION**

20 November 2013

NLR was part of a Dutch trade mission to China on 15 and 16 November 2013. Various major companies joined the trade mission, including Philips and Shell and banks like ING and Rabobank. The Dutch aviation cluster was represented by companies like KLM,

Fokker and NLR. The mission was led by Prime Minister Mark Rutte and Lilianne Ploumen, Minister for Foreign Trade and Development Cooperation, and was coordinated by the Ministry of Economic Affairs. The object of the mission was to intensify government level cooperation between China and the Netherlands in the civil aviation and aerospace fields. NLR has been active in the Chinese market for many years and in recent years has entered into various cooperation agreements. Last summer NLR signed a contract with Aviation Industry Corporation of China (AVIC) with the aim of supporting AVIC in setting up a civil Air Traffic Management (ATM) research laboratory. NLR has further signed an agreement with Commercial Aircraft Corporation of China (COMAC) under which it will assist COMAC in obtaining certification for the C919 civil aircraft. The aim of NLR during the trade mission was to strengthen existing contacts and networks and to identify possibilities for further cooperation. China has made the development and production of its own aircraft industry a priority. The development of the country's own aircraft industry was prioritised in the twelfth five-year plan of the Chinese government. The Netherlands holds a unique position in the world when it comes to developing, building and maintaining aircraft. The Dutch aerospace consortium is pursuing a share of 1 to 2% of the global value of aircraft production. NLR's contribution lies mainly in providing knowledge in the fields of R&D, design, certification, production and maintenance.

#### AVIC-CAE, NLR AND DNW HAVE SIGNED A MOA ON RESEARCH COOPERATION DURING PARIS AIR SHOW

21 June 2011

Paris Air Show

On the 21st of June the Chinese Aeronautical Establishment (CAE) has signed a Memorandum of Agreement (MoA) for long term cooperation in Research & Development with the National Aerospace Laboratory (NLR) from the Netherlands and the German Dutch Wind Tunnels (DNW).

Under these MoAs the organizations will work together on existing and future R&D projects, in order to support subsidiaries of AVIC and CAE with R&D, strengthen the relation between European and Chinese research projects or work together on new developments. CAE is part of the China Aviation Industry Corporation (AVIC).

Topics of cooperation are a perfect fit with the knowledge base of NLR and DNW and include: aerodynamic research, design and testing, manufacturing with advanced materials like composites, certification, avionics and air traffic management.

The MoAs were signed by Prof. Dr. Zhang Xinguo (President of CAE), Michel Peters (CEO of NLR) and Georg Eitelberg (Director of DNW).

Zhang Xinguo, President of CAE, also EVP of AVIC: "The Chinese civil aviation sector has experienced and will still keep two digits development rate, presenting great market opportunities. On the other hand the world attention on green aviation raised now challenges for research and innovation. This MoA, as part of the follow up of the visit AVIC/CAE delegation headed by Prof. Dr. Lin Zuoming, the President of AVIC to the European research organizations in March, will make substantial progress for future Europe-China aeronautical cooperation."

Michel Peters, CEO of NLR: "The aeronautical research community is a global community. Our partners from China are playing a more and more important role in the globalized aerospace industry. The research and developments for the future are not restricted within the boundaries of a state or a continent. NLR is very pleased to sign this MoA because this cooperation provides NLR and the Dutch aviation industry an excellent opportunity to join the developments in China."

CAE, founded in 1960, is a national aeronautical research organization in China under AVIC, with over 10.000 researchers and a global network with organizations for basic and applied research, such as universities and organizations like NLR and DNW. Composed of 36 research institutes and centres, CAE is responsible from basic research up to product



development; innovation, integration and demonstration; construction and operation of national research facilities; aeronautical research foundation and graduate education.

NLR, the organization for applied Aerospace Research & Development in the Netherlands, is a not-for-profit impartial research enterprise, founded in 1919. NLR has a long track record and experience in aeronautical research & development and supports primarily the Dutch aerospace industry and government with innovative solutions in all aspects from aircraft design, manufacturing, usage and air traffic management. NLR supports most aircraft manufacturers around the world and has the ambition to further expand their global partnerships.

Photo Not Included: Zhang Xinguo (AVIC) and Michel Peters (NLR)

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2012 Zhuhai Directory: With access to over 700 private aircraft across the world. NetJets has a private aviation solution for almost every travel need. We offer a full suite of options from the NetJets Share, NetJets Lease, and Private Jet Travel Card to private jet charter. Whether you fly for business or leisure, NetJets has a solution for you.

Corporate Web (Extracted in February 2014): All private aircraft management and flight operations services in the NetJets China program will be performed by NetJets China Business Aviation Limited. The company is currently pursuing certification by the Civil Aviation Authority of China. Aircraft management services and charter flight operations will begin as soon as all necessary approvals are obtained. Subject to government approval, NetJets China Business Aviation Limited will be a joint venture among NetJets Inc.; a consortium of Chinese investors led by Hony Jinsi Investment Management (Beijing) Ltd, a subsidiary of Hony Capital, a leading private equity firm of China; and Fung Investments, part of the private investment arm of the families of Dr. Victor Fung and Dr. William Fung, the controlling shareholders of the Li & Fung group of companies that are involved in supply chain management as well as the wholesale and retail sale of consumer products. NetJets China is the newest member of the international family of NetJets private aviation programs, joining the NetJets programs already operating in the United States and in Europe. Whether you're a seasoned aircraft owner or still planning your first purchase, NetJets China will help you get the very best from your private jet. If you own or are looking to acquire a private jet for flight operations primarily in China, NetJets China will help you maximize the return you realize from that investment. Using the high NetJets standards for excellence in safety and service, NetJets China will help you properly maintain, crew, and operate your aircraft. If you are interested in generating income from your aircraft when you are not using it, then you will also benefit from allowing NetJets China to charter your aircraft for NetJets' global network of clients. NetJets China will handle every aspect of those charter sales and operations and will remit to you revenue from its use of your aircraft.

Corporate Website (Extracted in February 2014): NetJets China is the newest member of the international family of NetJets private aviation programs, joining the NetJets programs already operating in the United States and in Europe. Whether you're a seasoned aircraft owner or still planning your first purchase, NetJets China will help you get the very best from your private jet. If you own or are looking to acquire a private jet for flight operations primarily in China, NetJets China will help you maximize the return you realize from that investment. Using the high NetJets standards for excellence in safety and service, NetJets China will help you properly maintain, crew, and operate your aircraft. If you are interested in generating income from your aircraft when you are not using it, then you will also benefit from allowing NetJets China to charter your aircraft for NetJets' global network of clients. NetJets China will handle every aspect of those charter sales and operations and will remit to you revenue from its use of your aircraft.

#### NETJETS PRESS RELEASES

##### NETJETS INC. UNVEILS NEW PRIVATE JET TRAVEL CARD

Columbus, Ohio – November 13, 2012 – NetJets Inc., a Berkshire Hathaway company and the worldwide leader in private aviation, unveiled today The Private Jet Travel Card, offering a unique product and service to both corporate and individual China-based travelers. The card opens access to NetJets' unparalleled safety, service and reliability. The Private Jet Travel Card is sold in increments of 25 hours, allowing the buyer to determine the amount of flight time that is needed, with no long-term commitment. The card grants entry to a large cabin aircraft in the NetJets U.S. and European fleet for an 18-month term, and is designed to be used by China-based travelers in the U.S., EU and Switzerland. Earlier this year NetJets announced its new joint venture in the People's Republic of China. Subject to obtaining relevant regulatory approvals, NetJets China Business Aviation Limited will be a joint venture among NetJets Inc.; Hony Jinsi Investment Management (Beijing) Ltd, a subsidiary of Hony Capital, a leading private equity firm of China; and Fung Investments, part of the private investment arm of the families of Dr. Victor Fung and Dr. William Fung, the controlling shareholders of the Li & Fung group of companies that are involved in supply chain management as well as the wholesale and retail of consumer products. The Private Jet Traveler Card is NetJets' first product offering targeted at China-based travelers. The company is working to obtain authorization to establish an aircraft management business in China within the next 12 months.

##### NETJETS INC. UNVEILS JOINT VENTURE

March 27, 2012

NetJets Inc., a Berkshire Hathaway company and the worldwide leader in private aviation, unveiled today additional details for its new joint venture in the People's Republic of China.

Subject to obtaining relevant regulatory approvals, NetJets China Business Aviation Limited will be a joint venture among NetJets Inc.; a consortium of Chinese investors led by Hony Jinsi Investment Management (Beijing) Ltd, a subsidiary of Hony Capital, a leading private equity firm of China; and Fung Investments, part of the private investment arm of the families of Dr. Victor Fung and Dr. William Fung, the controlling shareholders of the Li & Fung group of companies that are involved in supply chain management as well as the wholesale and retail of consumer products.

The joint venture and its operational base will be headquartered in Zhuhai, a prefecture-level city by the Pearl River Delta on the southern coast of Guangdong province and an hour by fast ferry from Hong Kong. A Memorandum of Understanding with the Zhuhai Aviation Industry Park was signed in Hong Kong in August of 2011 and was witnessed by Vice-Premier Li Keqiang.

**Hony Jinsi Investment Management (Beijing) Limited**

Hony Jinsi Investment Management (Beijing) Ltd is a subsidiary of Hony Capital. Hony Capital is a leading China-focused private equity firm founded in 2003 and sponsored by Legend Holdings, a leading Chinese conglomerate. Hony Capital has over US\$6.8 billion in assets under management across seven funds and investments in over 60 companies.

**About Fung Investments**

Fung Investments is part of the private investment arm of the families of Dr. Victor Fung and Dr. William Fung, the controlling shareholders of the Li & Fung group of companies that are involved in supply chain management and the wholesale and retail of consumer products. Fung Investments' investment in NetJets China is not related in any way to the Li & Fung Group, including the three listed companies within the Group: Li & Fung Limited (HKSE 0494), Convenience Retail Asia (HKSE (0831) and Trinity Limited (HKSE 0891).

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2012 Zhuhai Directory: Nexeya is a leading French company in test benches and critical electronic systems for **Defence**, Aeronautics and Transport. Nexeya designs, develops and delivers all sorts of critical electronic systems, including control and command systems, embedded equipment, data acquisition, test and simulation systems. For the aeronautic market, Nexeya designs, develops and manufactures acquisition systems with breakthrough analog and digital technology, for real-time systems. With "MAGLI", its product of telemetry, Nexeya offers modular and extendable softwares. Magali operates acquisition, generation and analysis of data in real-time, replay and post-processing modes. With "SYSTEAM", the most efficient solution for MIL-SIL-HIL validation, Nexeya offers a modular and evolutive solution to validate your system, sub-system and embedded equipment.

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Corporate Website (Extracted in February 2014): "We are on the moon with the Jade Rabbit. DMM + Blackshell." [The website does not explain in any detail how the DMM assisted in China's moon rover]

2012 Zhuhai Directory: Nicomatic specializes in the design, development and manufacture of electronics connectors, mainly products are 2.0mm CMM connector, CRIMPFLEX connectors, PCB connectors and DOME. Products are applied to aviation, aerospace, vessel, weapon, railway, telecommunication electric and other **military** area. NICOMATIC (ISO9001:2008 and EN9100:2009) is designer and manufacturer of interconnect solutions. We offer our customers a worldwide presence and proximity, quick service (1 week sampling, 90% orders 4 weeks lead time), high quality and custom design connectors.

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Corporate Website (Extracted in February 2014): Founded in 1933, Norduyn is involved in the design, certification and manufacturing of innovative products for commercial, business and **military** aviation markets. Norduyn specializes in high performance composites and holds several patents for recent innovations. The company's ingredients for success include a high level of technical know-how in lightweight composites technologies, and over 50 years of regulatory expertise enabling timely certification of new product solutions. Norduyn provides its customers innovative product solutions through extensive use of lightweight composite materials. The benefits are a reduction of fuel and carbon emissions, increased efficiency, durability and performance.

Norduyn's design and manufacturing facilities are located in Montreal (Canada) and Shanghai (China). Both facilities are well-equipped for the production of high-quality, precision aerospace products and assemblies. Our highly skilled staff of engineers, quality assurance specialists, and advanced composite technicians complement the environmentally controlled manufacturing of precision products.

NORDUYN PRESS RELEASE

CHINA SOUTHERN AIRLINES SELECTS NORDUYN'S SKYCOT FOR FLEET-WIDE INSTALLATION MONTREAL

April 9, 2013

China Southern Airlines, China's largest airline and the world's sixth largest airline measured by passengers carried selected Norduyn for the supply of its skycot for fleet-

wide installation. The airline flies 394 aircraft and in the coming years will integrate over 142 aircraft to its fleet. "Our efforts with China Southern Airlines started some years ago and we are excited that we've been given the green light on this extensive program" said Patrick Phillips, International Director of Business Development at Norduyn. "Our skycot product is a preferred solution with over 50 airlines in the world and is now airworthiness certified in China after several months of evaluation" added Phillips. Support for this product will be handled from Norduyn's owned and operated manufacturing facility near Shanghai, China. Norduyn's facility manufactures the lightest and most fuel saving airline catering trolley in the world. Entirely made of composite materials, it is the only all-composite product airworthiness-certified. Since its certification in May 2010, over 11,000 Norduyn trolleys are now flying around the globe for airline customers.

**About China Southern Airlines**

For more than 33 years, China Southern - [www.flychinasouthern.com](http://www.flychinasouthern.com) - has been the largest airline in The People's Republic of China and is headquartered at the ultra-modern Guangzhou Baiyun International Airport. China Southern operates a fleet of 450 modern aircraft and serves 191 cities in 33 countries and regions, forming an extensive network with Guangzhou and Beijing as its primary hubs. China Southern is a proud member of SkyTeam and together the 16 member airlines offer its 384 million annual passengers a worldwide system of more than 14,500 daily flights covering 958 destinations in 173 countries.

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2012 Zhuhai Directory: NTN-SNR BEARINGS established in France since 1916 with a total of 11 production sites and 4,400 employees worldwide is jointly owned NTN Corporation Group (Japan) and by Renault S.A. (France). The company is specialized in design, manufacture and marketing of ball and roller bearings. In addition to a full range of ISO standard bearings of any types, NTN-SNR is also specialized in custom-made bearings with integrated functions beyond rotation such as power transmission, fixing, lubrication, beyond rotation such as power transmission, fixing, lubrication, sealing or

electronics. The clients of NTN-SNR are from all kinds of industries; automotive paper, steel, textile, robotics, handling, food and beverages, sports, medical equipment, and aerospace. NTN-SNR HP, a division of the NTN-SNR Group, is a world leading manufacturer of super-precision bearings for all kinds of aerospace and high-tech applications; aircrafts: engines, power transmission gearboxes, flight control. Space: launcher engine and satellites. High-precision application: machine-tool spindles and turbo-machines. NTN-SNR's capability covers all kinds of ball and roller bearings of the highest degree of innovation, performance and reliability in a wide range of dimensions in ISO standard sections of fully customized to the customer application for better integration. NTN-SNR also provides aftermarket services with MRO services for aero-enginers bearings.

#### NTN PRESS RELEASES

##### NTN ESTABLISHES NEW COMPANY FOR INDUSTRIAL MACHINERY BEARINGS IN NANJING, CHINA

August 29, 2011

NTN Corporation (hereafter, NTN) has decided to establish a new company, "Nanjing NTN Corporation (hereafter, Nanjing NTN)" in Nanjing, Jiangsu province, China, for the production of industrial machinery bearings.

Purpose of establishing the new company

NTN is increasing its presence in growing markets around the world and expanding its industrial machine business as part of the three-year medium-term management plan "Global Advance 2013" announced in April this fiscal year, under the "at local sites, with local materials by local personnel" policy.

Eight production bases have been established in China so far, including "Shanghai NTN Corp.", "Guangzhou NTN-Yulon Drivetrain Co., Ltd." and "NTN-LYC (Luoyang) Bearing Corp." as part of efforts to increase production of bearings for automobiles and constant velocity joints.

The new Nanjing NTN company will feature a comprehensive production system for industrial machinery to meet increased demand for wind power generation, construction machinery and equipment for steel production in the Chinese market.

NTN is expanding its industrial machinery business within China with an integrated sales, production and technology framework, and achieving this by building on and strengthening its sales and technical development, and local production of large and extra large bearings for industrial machinery.

Future plans

Nanjing NTN will be established in September 2011, with production planned to begin from October 2012. The new company will start operating with approximately 400 employees, with plans for the gradual expansion to 1,200 employees by FY2015.

##### CONSTRUCTION OF THE NTN CHINA TECHNICAL CENTER COMPLETED

June 3, 2011

On May 26, NTN Corporation (hereafter, NTN) held an opening ceremony in Shanghai, China, for the NTN China Technical Center, the company's first technical development center in China. Approximately 200 visitors were invited to the opening ceremony, including Chinese government officials, members of the China Bearing Industry Association, universities and public offices, and representatives of various other industries. At the opening ceremony, government officials and other members of leading companies in the industry were noted as welcoming NTN's expansion of its technical development capacities in China. Chairman Suzuki from NTN stated in his greeting that "China is experiencing change toward three key models: shifting from foreign demand to

domestic demand, shifting from a high-carbon society to a low-carbon society, and shifting from a great power to wealth for all citizens. I would like to see NTN technology being utilized in new and emerging, strategic industries involving energy efficiency and environmental conservation, new materials and the new-energy automobile industry.” Following the ceremony, NTN had on show the latest testing and inspection equipment installed at the Technical Center, as well as test drives of electric vehicles (EV) equipped with the In-wheel Motor, Steer-by-wire and other technological systems developed by NTN for next generation EVs. NTN is strengthening its policy of conducting sales, production and technological development “on local site with local materials by local personnel” around the world, and particularly in growing markets. The newly completed NTN China Technical Center will play a key role in local design and testing to meet the needs of local customers and the natural environment in the automobile market, as well as the industrial machinery market, including construction machinery, machine tool, rolling stock and wind power generation. The center will make responding to customers even faster, while also providing comprehensive technical support.

#### GROUND-BREAKING CEREMONY FOR NEW COMPANY, NTN-LYC (LUOYANG) BEARING CORPORATION IN CHINA

April 22, 2011

On April 16, NTN Corporation (hereafter, NTN) held a ground-breaking ceremony in Luoyang City, Henan Province, China, to start the construction of a new manufacturing and sales company “NTN-LYC (Luoyang) Bearing Corporation (hereafter, NTN-LYC)” in China. A large number of guests, such as Mr. Chen the Vice Governor of Henan Province and Mr. Guo the Mayor of Luoyang City of China, and other administrative officials were invited to the ground-breaking ceremony, and a magnificent ceremony was held with more than 300 people in attendance, including President Chen of Luoyang LYC Bearing Co., Ltd., President Chen of the Henan Coal and Chemical Industry Group Co., Ltd., and Chairman Suzuki and Director Takagi of NTN. During the ceremony, we prayed for safe construction and a smooth start up of the new company, and the Luoyang City Mayor gave a congratulatory message, “Our city will provide the best environment, and cooperate in the industrial development to the best of our ability”. NTN-LYC manufactures and sells 2nd and 3rd generation hub bearings and needle bearings, and aims for further expansion of sales in the automobile market in China where production is expanding, by providing optimal quality and a high value added service. NTN-LYC plans to start production from June 2012.

#### NTN ESTABLISHES HOLDING COMPANY IN CHINA

July 5, 2005

NTN Corporation (President: Yasunobu Suzuki) has received approval to establish a holding company in China to oversee its local production and sales subsidiaries, as well as new projects. The new company will play a key role in further strengthening NTN's business development in China. The holding company will oversee NTN's affiliates in China to achieve greater efficiency in the use of materials, products, equipment, technology, personnel, capital, information and other business resources. The new operation will also be mobilized to integrate procurement and sales channels, establish an R&D center to promote development systems with direct links to customers, advance new projects and raise the competitive edge of the NTN Group to cope with growing business needs in the rapidly expanding Chinese market.

#### ESTABLISHMENT OF CHINA JOINT VENTURE WITH CHANGZHOU GUANGYANG BEARING CO. LTD.

July 29, 2004

On 29 July, NTN Corporation (NTN) signed an agreement with China's Changzhou Guangyang Bearing Co. Ltd. (CGB) to establish a joint venture for the development, manufacture and marketing of automotive bearings (including needle roller bearings) in Changzhou City.

**Aim of the joint venture**

The joint venture with CGB to manufacture and market automotive bearings (including needle roller bearings) will give NTN a Chinese production base for automotive bearings. Combining technological capabilities with CGB's state-enterprise business structure will enhance competitiveness in quality, pricing, delivery and service. The joint venture aims to meet the developing local sourcing needs of China-based auto producers by manufacturing and marketing products expected to see demand growth, such as needle roller bearings, cylindrical roller bearings and clutch release bearings. In addition to helping expand automotive bearing business in China, NTN will use the joint venture as a base for global bearing supply. The joint venture will include an engineering center for bearing development. The center's aim is to expand sales by creating new technologies and products. It will design, develop and test products in order to offer a timely response to the needs of Chinese auto producers and automotive-related manufacturers.

**Targets**

The joint venture is to be established and start production in September 2004. Sales are targeted at ¥3.5 billion in 2005, rising to ¥11.0 billion in 2008.

**SECOND JOINT PRODUCTION COMPANY ESTABLISHED IN CHINA FOR CVJS  
November 6, 2003**

NTN Corporation has decided to establish a joint venture for the production and sales of constant-velocity joints (CVJs) in Beijing, China with the Korea Flange Co., Ltd. (KOFKO) and the Yulon Group of Taiwan.

**Aims of the joint venture**

Following on Guangzhou NTN Yulon Drivetrain Ltd., established in the summer of last year, NTN has decided to establish a joint venture as a base for the production of CVJs in cooperation with KOFKO (which supplies CVJs to Hyundai Motor Company and Kia Motor Corporation in South Korea) and with the Yulon Group, which has a wealth of operational experience in China. This joint venture will utilize NTN's technological prowess and the strengths of the two partner companies in order to raise competitiveness in quality, cost, delivery, service, and other areas and supply CVJs to Hyundai and Kia Motors, which are already producing automobiles in China. For NTN, this joint venture will increase its CVJ operations in China and meet the local procurement needs of China's rapidly developing automobile manufacturers.

**Future Plans**

The joint venture was established in September 2003 and plans are to start production of CVJs in February 2004. Sales of approximately ¥1.1 billion are forecast for the first fiscal year 2004. With increased production by Hyundai and Kia Motors, sales are forecast to double in two years and reach ¥3-4 billion in four years.

**ESTABLISHMENT OF A JOINT VENTURE COMPANY IN CHINA TO  
MANUFACTURE AND SELL CONSTANT VELOCITY JOINTS**

**August 8, 2002**

NTN Corporation ("NTN") has decided to establish a joint venture company ("JV") in Guangzhou, Guangdong Province, People's Republic of China to manufacture and sell Constant Velocity Joints ("CVJs") under the partnership with Yulon Group.

**Purpose for establishment of the JV**

NTN has decided to establish the JV to manufacture and sell CVJ with Yulon Group that is conducting various businesses in China including its automobile companies such as



South East Motor, Feng Shen Motor, etc. The JV's advantages shall be realized by combining the strengths of both parties such as NTN's expertise in CVJ technology and Yulon Group's expertise in the operation in China. The JV is expected to grow as the important base of CVJ business in Chinese market by continuously keeping up with the market trend and pursuing the further improved customer service.

Further Schedule

The JV will be established at the beginning of October 2002, and its Start Of Production is scheduled on June 2003. Its Sales of CVJs is forecasted to be approximately 1 billion yen in 2003 and 3.5 billion yen in 2005.

JOINT VENTURE ESTABLISHED IN CHINA FOR FLUID DYNAMIC BEARING UNITS PRODUCTION

July 11, 2002

NTN Corporation (NTN) and Nidec Corporation (Nidec), have decided to establish a joint venture company for the manufacture and sales of sintered-alloy "fluid dynamic bearing units (FDB units)" for hard disk drive motors. Start of the FDB unit business was delayed this March but we have been continuing to proceed with pilot production and durability tests for high-volume customers to be used for their next generation models. We have also been looking for a more suitable production site. In the hard disk drive market, the shift to FDB units in motors and customer's deployment in China are proceeding at a rapid pace. In order to respond promptly to market demand, it was decided to establish a joint venture for the production of FDB units in China. Plans are to establish the joint venture in the Pinghu Economic Development Zone in Zhejiang Province near Shanghai at the end of August of this year and to start production from March 2003. The investment is about 3.6 billion. Initially, monthly production will be 2 million units and plans are to gradually expand to 5 million units by the end of 2005.



## **OBORONPROM - United Industrial Corporation**

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2012 Zhuhai Directory: OPK Oboronprom, a Russian Technologies State Corporation company, is a diversified group in the engineering and high technologies sectors. Oboronprom's helicopter manufacturing group, Russian Helicopters, is the leading Russian designer and manufacturer of rotary-wing aircraft equipment. Oboronprom's United Engine Corporation (UEC) consolidates over 80 per cent of the country's aircraft engine making assets. The enterprises of the corporation produced goods and provided services worth over \$4.3 billion in 2009.

The website lists Igor Chechikov as Deputy General Director for foreign economic activities.

### **OBORONPROM PRESS RELEASES**

#### **MI-17E TRANSPORT HELICOPTERS DELIVERED TO CHINA.**

19 Nov 2013

Russian Helicopters, a subsidiary of Oboronprom, part of Rostec State Corporation, announces that four Mi-171E transport helicopters have been delivered to Poly Technologies under a contract signed in 2012 by the Chinese company and Rosoboronexport.

Under the contract Russian Helicopters will supply 52 Mi-171E transport helicopters to China. The latest consignment brings the number of helicopters delivered to date to 32, with the final batch expected to be transferred in 2014.

Russian Helicopters has worked with Poly Technologies since 2009, when the companies signed a contract for 32 Mi-171Es. The contract was completed in 2011 and formed a good foundation for continued cooperation.

The new Mi-171Es produced by Ulan-Ude Aviation Plant, a Russian Helicopters company, are specially adapted to provide high-class performance in mountainous terrain. They are fitted with enhanced VK-2500 engines and Safir auxiliary power plants, modernized transmissions, searchlights, internal fuel tanks and landing seats. The loading ramp and additional sliding door on the right-hand side make transportation tasks more efficient.

Chinese crews have successfully completed training at the Ulan-Ude Aviation Plant's training centre, where they learned techniques and rules for piloting the helicopters in various conditions using advanced training methods on the latest Mi-171 flight simulator. The pilots praised the comfort and ease of use of the simulator, its consistency with a real helicopter and the high level of competence of the training centre staff.

Mi-171s operate successfully across China, in particular in areas with complex terrains and harsh climates. They are used to carry a wide range of cargoes, including medicines, humanitarian aid and construction materials. In addition, the helicopters are used to support rescue operations and in the aftermath of emergency situations.

The Mi-171 flew missions to rescue and extract people following the earthquake in Sichuan province in April 2013. With mountain roads completely destroyed, the helicopter was the only means of transporting and delivering cargoes. Chinese rescue workers and helicopter operations praised the indefatigability, reliability, durability and ruggedness of the Russian-built helicopters.

China is one of the biggest operators of Russian-made helicopters. Most popular of all are helicopters of the Mi-8/17 series. The country has a fleet of about 150 Mi-171s; also operated in China are the heavy Mi-26TS and the multirole Ka-32A11BC. China can provide full material and technical support for Russian-built helicopters, with well-trained flight and technical and engineering staff. In future China plans to expand its fleet of Russian-built helicopters, and Russian Helicopters stands ready to offer its Chinese partners the latest models including the multirole Ka-226T and Mi-171A2.

Russian Helicopters, JSC is a subsidiary of UIC Oboronprom, which in turn is a part of State Corporation Rostec.

It is one of the global leaders in helicopter production and the only helicopter design and production powerhouse in Russia. Russian Helicopters is headquartered in Moscow. The company comprises five helicopter production facilities, two design bureaus, a spare parts production and repair facility, as well as an aftersale service branch responsible for maintenance and repair in Russia and all over the world. Its helicopters are popular among Russian ministries and state authorities (Ministry of **Defence**, Ministry of Internal Affairs, Emergency Control Ministry), operators (Gazpromavia, UTair), major Russian corporations. Over 8000 helicopters of Soviet/Russian make are operated in 110 countries worldwide.

Traditionally the demand is highest in the Middle East, Africa, Asia-Pacific, Latin America, Russia, and CIS countries. Russian Helicopters was established in 2007. In 2012 its IFRS revenues increased 21% to RUB 125,7billion. Deliveries reached 290 helicopters.

OBORONPROM Corporation is a multi-profile industrial and investment group, a part of Russian Technologies State Corporation. Its main tasks include: helicopter engineering (Russian Helicopters) and engine-building (United Engine Corporation).

Rostekhnologii State Corporation (Rostec) is a Russian corporation established in 2007 in order to facilitate the development, manufacturing and export of high-technology industrial products of **military** and civil purposes. Today it comprises over 663 companies, which form 8 **military**-industrial and 5 civil industry holdings. Rostec's subsidiaries are located in 60 regions of Russia and supply their products to over 70 countries worldwide. In 2012 revenues of the Corporation amounted to RUB 931 billion, net profits were RUB 38.5 billion and total taxation exceeded RUB 109 billion.

#### OBORONPROM CORPORATION PLANS TO CREATE UP TO TEN SERVICE CENTERS FOR RUSSIAN HELICOPTERS ABROAD.

18 Apr 2008

Oboronprom plans to create a helicopter servicing network abroad by the year's end, according to Oboronprom Director General Andrei Reus.

"We plan to create a worldwide servicing network. In particular, we will establish a helicopter servicing joint venture in India on May 1," he said.

"One or two similar centers will be set up in China, with more planned for Peru, Venezuela and the Middle East."

At least seven to ten such centers will be set up by the end of the year. Reus explained that the creation of service centers is part of the new strategy for the development of Russia's helicopter manufacturing sector.

He emphasized that the development of logistical support for new and prior deliveries of helicopters will significantly improve the industry's competitiveness.

"The cost of maintaining a helicopter over the course of its serviceable life – about 35 years – is about five times the original price of the vehicle," he said.

For his part, OJSC Russian Helicopters Director General Andrey Shibitov said that requests for service centers have been received from countries in Latin America, namely, from Ecuador and Columbia. "Mexico already has a service center, and one is planned for Venezuela," he said.

He specified that the operation in Venezuela will be large, virtually an aircraft-repair plant, capable of servicing the Mi-26, Mi-35, Mi-17 and V-5 helicopters.

#### INTERNATIONAL CONFERENCE OF MI-8M-171; HELICOPTERS OPERATORS OPENED IN ULAN-UDE

03 Aug 2006

On August 3-5 the "Ulan-Ude Aircraft Plant" (UUAP) is carrying out the 5th annual international Mi-8 (171) operators conference. The conference is attended by the specialists involved in selling and maintaining the Mi-8 (171) helicopters. About 80 participants arrived from more than 45 countries of the world, including Slovakia, China, Croatia, Czechia, Pakistan, Eritrea, Latvia, Kazakhstan, Ukraine, Azerbaijan. These are specialists of Air Forces, Ministries of **Defense**, search and rescue services, frontier troops and other bodies using the products manufactured by the UUAP.

The conference is also visited by representatives of helicopter manufacturer - the "Mil" Moscow-based helicopter plant, engine manufacturer – the "V.Ya. Klimov Plant", gearbox producer – "Reductor-PM", the "Rosoboronexport" FSUE, the Federal Agency of Industry, the Federal Customs Service, the "Oboronprom" united industry corporation, the Federal Agency of **Defense** Orders, the Federal Agency of **Military** and Technical Cooperation of the RF MOD, the RF Ministry of Industry and Energy, the Ministry of **Defense** of the Czech Republic and Ukraine.

The representatives of some suppliers and repair plants were also invited to the conference, among them are China National Import & Export Company (China), Croatian Air Force (Croatia), Intertrade Limited (Pakistan), the "Ural Instrument Plant" JSC, "Tranzas" JSC, "Pribor" science and production association, the Irkutsk aviation sport club of the Russian **defense** sport and technical association (voluntary society for support of army, aviation and navy), the «RadioPribor» plant, «Ukrainian Aviation Company» state enterprise of the Ministry of **Defense** of Ukraine and some others.

The conference was opened by the President of Buryatia - L.V. Potapov. He noted that such activities were indispensable for successful development of the enterprise and the region in whole. "At present the Mi-171s produced by the UUAP are the backbone of the Russian airfleet. The "Oboronexport" makes efforts to expand the geography of the products application, including world markets such as South-East Asia, Africa, Latin America and other countries.

Last year the government of Buryatia and the plant concluded an agreement with the "Rosoboronexport", the "Rosoboronzakaz" and the "OPK Oboronprom" JSC, in which we took mutual obligations not only to retain the present production, financial and technological level of the "UUAP", but to increase it to the utmost", the President underlined.

According to Mr. Leonid Belykh, the "UUAP" General Director, the conference provides new opportunities for developers, producers, OEM suppliers and operators to establish direct contracts, exchange experience, jointly find best solutions to problems of helicopter operation and maintenance.

On the first day of the conference the participants listened to reports on marketing lines of the "UUAP"'s activities, IT use at aircraft enterprises, the Mi-171 development prospects, aircraft quality and reliability. On the same day the "Kamov" JSC made a Ka-

62 presentation. On August 4 the conference participants will be invited to visit the "UUAP" and the training center, to examine aviation technique, new equipment and to watch demo flights. On the closing day of the conference the guests will visit the Lake Kotokel' and the Lake Baikal.

#### CHINA TO RECEIVE FIRST LOT OF HELIS FROM BURYATIA

24 Jul 2006

On 24 July the Ulan-Ude aircraft plant started delivery of helicopters to China. According to the plant's press service, on January 19, 2006 the "UUAP" and "Tekhnoimport" export/import Chinese company concluded a contract for supply of 24 Mi-171 helicopters. The helicopters will be supplied under their own power to the city of Kailar in 6 lots of four helicopters each. Each subsequent lot will be delivered within 45 days after the previous one. Other assets will be delivered in 2 lots to Beijing by railway. Before the contract is executed (approximately, till March 2007) Chinese technical experts will work at the plant, they are supposed to monitor quality of products. The advance payment in the amount of 15% of the Contract value was received on March 2006. As reported earlier, the contract value amounts to about \$200 mln. The "Ulan-Ude Aircraft Plant" produces Mi-171 helicopters in different versions of application: Mi-171A passenger and cargo helicopter, Mi-171Sh **military** and transport helicopter, Su-25UBK, Su25UTG fighters and one of the promising Russian fighters - Su-39.

#### "ROSTVERTOL HELICOPTER CHINA" JOINT VENTURE TO PROMOTE MI-26TS IN CHINA.

17 Jul 2006

The "Rostvertol" Rostov helicopter-building complex and the "Lektern Aviation" Hong-Kong company are establishing a joint venture "Rostvertol Helicopter China" with the headquarters in Hong Kong, as a Russian delegation representative reported to Interfax-AVN at the Farnborough-2006 air salon opened in Great Britain. "The main goal of the joint venture is to promote the Mi-26Ts of the world's best lifting capacity at the Chinese market, as the Chinese state companies often do not aware of the great capabilities this rotorcraft has", the representative said to the Interfax-AVN. According to him, the registration process of the "Rostvertol Helicopter China" will have been completed before the International Air Exhibition is opened in Zhuhai (PRC) in October 2006. "The Rostvertol specialists have already held a number of presentations in China and in Rostov for Chinese delegation", said the representative. He added that the joint venture would help the "Rostvertol" to occupy a niche of heavy transport helicopters still vacant at the Chinese rotorcraft market. "An agreement has already been signed on leasing one Mi-26T helicopter for 3 years. The "Feylun" (Flying Dragon) state company (Harbin) expressed interest in fire-fighting version of the rotorcraft. It is expected that the Rostov plant will conclude a contract with the company for delivery of two more helicopters", he said. According to one of the world's leading business publication "Wall Street Journal", China's air fleet will have been numbered 10,000 helicopters by 2020, from 3 to 5 % of which will be heavy helicopters.

#### "ROSTVERTOL" ESTABLISHED JOINT VENUTRE TO PROMOTE MI-26T IN CHINA.

05 Jun 2006

The "Rostvertol" JSC established a joint venture with Chinese partners to promote its Mi-26T utility helicopters in the Chinese market, the company's Director General, Boris Slyusar told Interfax-**Military** News Agency Monday. "We have had a very close business with China for the last two years, and especially active it was this year. To promote our Mi-26T, we have established a joint venture. The main goal is to certify the helicopter and deliver first two aircraft for experimental operation," he said. According to Mr. Slyusar, the joint venture does not have any significant authorized stock - only the one necessary to

register the firm. The Chinese side is represented by a private company, while negotiations on certification are carried out with official bodies involved. "According to Chinese partners, China will need, at least, six such aircraft in the near future," Mr. Slyusar said. The "Rostvertol" is one of the largest helicopter manufacturers in Russia, and the only one building altogether Mi-26T heavy utility helicopters and combat helicopters, including Mi-24/35 and new-generation Mi-28N.

WHILE HIS VISIT TO CHINA SERGEI IVANOV DISCUSSED MAJOR CONTRACTS.  
28 Apr 2006

In the course of the visit to China Sergei Ivanov, **Defense** Minister of the Russian Federation discussed details of certain major contracts in the **military-defense** area. According to "Commersant" newspaper, the issue is about selling to Chinese navy 40 assault Ka-29 helicopters, more than 20 radar-surveillance Ka-31 helicopters and 15 anti-submarine amphibious Be-200 aircraft equipped with "Sea Serpent" modular sighting-search system. "Rosoboronexport" is expected to sign appropriate contracts in autumn this year. Answering the question about prospects of joint Russian-Chinese projects **Defense** Minister said that "system of **military**-technical cooperation between Russia and China is not to be changed for now". Though, he does not exclude the possibility that China may take part in promising hi-tech projects including project on development of fifth-generation fighter aircraft. But for this to become true it is necessary to solve a number of legal issues, in particular, to sign an intellectual property protection agreement. During his stay in China, Sergei Ivanov paid a visit to Ven Tzyabao, Prime-Minister of State Council of PRC, and **Colonel-General Tsao Ganchuan, Defense Minister of PRC**.

ULA-UDE HELICOPTER PLANT DELIVERS ITS MI-117 TO CHINA'S FUAVA AVIATION.

20 Feb 2006

The Ulan-Ude Helicopter Plant has delivered a Mi-171 helicopter to China.

"China's Fuava Aviation received the helicopter in passenger configuration and other aviation assets to it as stipulated in the earlier-signed contract," a spokesman for the "OPK"Oboronprom" told Interfax-**Military** News Agency Monday. According to earlier reports, the plant will also fulfill the contract obligations on another 24 Mi-171 helicopters for Chinese customers. "The plant has commenced the contract implementation procedures," the spokesman said. The contract, according to unofficial sources, is worth \$200 million. "Owing to the contract the enterprise will have no time to spare in 2006," he said, adding that the contract will have probably been implemented before this year-end. The first batch of helicopters will be delivered to the customers in the near future. Experts say that the Ulan-Ude plant has good development capabilities and is going to play an increasingly more important role in the world aviation market. In addition to the Chinese contract, the plant is also negotiating sales of its products to Thailand and Vietnam. Moreover, supplies of 10 Mi-171Sh transport and combat helicopters to Malaysia under the \$10 million contract will be resumed in 2006, the contract provides an option for additional helis to be sold. Besides, the plant is involved in the Su-25 and Su-39 production and is preparing its facilities for mass-production of the new Ka-62 utility helicopter. Owing to all these, the capital stock of the enterprise has grown significantly, and, for example, Renaissance Capital's think-tanks say the plant's shares will continue growing in price. Renaissance Capital's report issued in early February 2006 identifies the shares of the plant as very much attractive among the shares of second-echelon companies, based on the fundamental assessment. For instance, they quote the share growth rate at 42%, that is \$0.51 per share.

ULAN-UDE AVIATION PLANT TO DELIVER 24 MI-171S TO CHINA.  
26 Jan 2006

The Ulan-Ude Aviation Plant started fulfilling the contract on delivering 24 Mi-171 helicopters to China, with the total cost of the contract amounting to about \$200 million, a source in the Russian **Defense** Industry told Interfax-**Military** News Agency. "The contract on delivering 24 Mi-171s to China was signed in late 2005. Its cost amounts to about \$200 million," he said. He noted that the Ulan-Ude Aviation Plant, which had already embarked on producing the helicopters, had been appointed chief contractor. According to the source, the Chinese contract is of paramount importance to the Ulan-Ude Plant, since it provides the plant with enough work for at least 2006. "China will receive civil versions of the helicopter. The first ones will be delivered to the customer in the near future, while the entire contract is expected to be fulfilled by the turn of 2006," the source said. The Mi-171 utility transport helicopter is a Mi-8-family helicopter and a derivative of the Mi-17. It was designed by the "Mil" Design Bureau, and has been batch-produced at the Ulan-Ude Aviation Plant since 1990. The passenger modification of the helicopter is capable of transporting 26 men, while the cargo version can airlift up to 4,000 kg of internally and externally mounted cargo. The Mi-171 is capable of airlifting bulky cargo with its rear doors stripped, carrying out various mounting and loading tasks, conducting search-and-rescue operations, and fulfilling other tasks. The helicopter is fitted with state-of-the-art navigation equipment, enabling it to conduct instrument flights. The helicopter has a three-man crew, a maximum takeoff weight of 13,000 kg, a service ceiling of 6,000 m with a standard weight of 11,100 kg, and 4,800 m with the maximum weight. It has a range of 610 km with main fuel tanks, and 1,650 m with two additional fuel tanks. Its maximum speed totals 250 km/h.

HELICOPTERS MANUFACTURED BY ULAN-UDE AVIATION PLANT ARE NEGOTIATED TO BE DELIVERED TO THE COUNTRIES OF SOUTH-EAST ASIA AND ASIA-PACIFIC REGION.

15 Dec 2005

Ulan-Ude Aviation Plant is negotiating delivery of the Mi-171 helicopter family to Vietnam, Thailand and China. "We hope that in the near future we will conclude new contracts for delivery of our helicopters to the countries of South-East Asia and Asia-Pacific Region. We have got good export opportunities in the markets of Vietnam, Thailand and China", - said Leonid Belykh, General Director of Ulan-Ude Aviation Plant, to Interfax-AVN. According to L. Belykh, Ulan-Ude has for the first time exported its helicopters to Vietnam this year. "Pursuant to the contract we supplied four helicopters to the country. They are already in operation, the after-sales support is set up. I think that we have got a fair chance to supply additional batch of helicopters to Vietnam", said L. Belykh. He added that they were negotiating with Thailand through several years. First they were negotiating delivery of 4-5 civil helicopters for the Ministry of Natural Resources Conservation. The Contract was initialed, but the delivery of helicopters was delayed due to reshuffle of the Cabinet. "The relations are currently reestablished. The representatives of the plant on the delegation of "Rosoboronexport" and Federal Agency for **Military** Technical Cooperation stay on a visit in Thailand. They are negotiating delivery of not only civil helicopters but also military helicopters to Thailand", - said Belykh. In his opinion, China is one of the major buyers of helicopters in APR. L. Belykh said that in the near future a contract for supply of the Mi-171 to the country would be awarded. "China schedules to purchase about 24 helicopters. The tender has not been announced yet, but negotiations are in progress. There are assumptions that the contract will be concluded as early as this year", - said L. Belykh to the Agency.

AVIATION EXPO CHINA IN BEIJING, RUSSIAN EXPOSITION TO BE DEVOTED TO HELICOPTERS.

21 Sep 2005

The international aerospace exhibition Aviation Expo China-2005 opened as reported by the Federal Agency of **Military**-Technical Cooperation of Russia.

"The Russian industry enterprises always participate in the exhibition. Pursuant to the Russian Government decision it was allowed to display **defense** products at the exhibition", the Federal Agency of Military-Technical Cooperation said.

This year the Russian exposition will be devoted to rotorcraft. The "Rostvertol" JSC, the Ulan—Ude Aviation Plant JSC will present their products, namely, combat, transport, transport-combat helicopters Mi-28NE, Mi-35, Mi-35M, Mi-35P, Mi-26, Mi-171Sh and Su-39 aircraft equipped with the "Kopie" radar sighting system", the Federal Agency of Military-Technical Cooperation said.

Besides, one can get familiar with various developed equipment to be installed in a helicopter, including turbo-jet engines, helicopter powerplant service systems and airborne radars.

The Russian exposition is arranged proceeding from the demands of the Chinese Air Forces and other countries of the region in armaments and **defense** equipment.

As Mikhail Dmitriev, Director of the Federal Agency of Military-Technical Cooperation, said to RIA "Novosti", the military-technical cooperation between Russia and China "has promising prospects". He reminded that Russia was one of the leaders in the field of state-of-the-art aviation equipment production. According to Mr. Dmitriev, China is one of the major partners of Russia in **military**-technical cooperation.

Along with purchase of finished armament systems this country tends to import subsystems and components for its own aviation projects.

"This is a natural process subject to development of the Chinese national **defense** complex, saturation of Chinese market with Russian-made armaments and objective necessity to service and produce certain systems and components for purchased equipment.

In the view of the above our cooperation has promising perspectives taking into account a high level of the Chinese national **defense** complex", said the Director of the Federal Agency of **Military**-Technical Cooperation.



# P

## **Parker Aerospace**

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2012 Zhuhai Directory: Parker Aerospace is a global leader in the research, design, manufacture, and service of flight control, hydraulic, fuel and inerting, fluid conveyance, thermal management, and engine systems and components for aerospace and other high-technology markets. An operating segment of Parker Hannifin Corporation, Parker Aerospace has seven divisions in 43 facilities in the Americas, Europe, and Asia. Its products are used on aircraft manufactured around the world, including commercial and **military transports, military fixed-wing, regional and business aircraft, helicopters, missiles, and UAVs.**

Corporate Website (Extracted in February 2014): Parker Hannifin China was established in the 1980s. It was one of the first three joint ventures after China opened to the outside world and attracted foreign direct investment. Parker Hannifin owns over 2000 product lines in China with a wide range of products covering more than 50 markets. It is committed to providing products technologies in aerospace, climate control, electromechanical, filtration, fluid and gas handling, hydraulics, pneumatic, process control and seal & shielding. Products and solutions are widely used at diesel engine, wind turbine, shipbuilding industry, oceanic exploration, steel industry, heavy mobile equipment, high-speed railways and factory automation. With its China headquarters in Shanghai, Parker Hannifin has over 17 plants based in China. So far, Parker Hannifin has more than 3000 employees in China.

## **PARKER PRESS RELEASE**

**PARKER AEROSPACE AND AVIC HOLD CEREMONY WITH LOCAL GOVERNMENTS IN SUPPORT OF JOINT VENTURES IN NANJING AND XI'AN; NEW JOINT VENTURE IS BEING FORMED IN SUPPORT OF NEW COMAC C919 AIRCRAFT**

Nanjing, China, September 10, 2013 – Parker Aerospace, a business unit of Parker Hannifin Corporation, the global leader in motion and control technologies, and China Aviation Industry Corporation (AVIC) held signing ceremonies to finalize terms and incentive agreements with the local municipal government in support of new joint ventures forming in Nanjing, China, and in Xi'an, China, in support of the Commercial Aircraft

Corporation of China, Ltd. (COMAC) C919 program. These government incentives signing ceremonies are an important step in the process of building permanent facilities in China.

The ceremonies follow the recent contract signings between Parker Aerospace and AVIC to form the two joint venture companies, and also with COMAC to supply complete fuel and inerting, hydraulic, and flight control actuation systems on the C919 aircraft.

"Parker is honored to be building two facilities in China in support of the COMAC C919," said Parker Aerospace Group Vice President of Business Integration Mark Seidel. "We are committed to the Nanjing and Xi'an communities and to the future business these joint venture companies will provide in the fastest growing aerospace market in the world." Parker and AVIC Jincheng joint venture in Nanjing. Parker Aerospace and AVIC Jincheng Corporation will form a partnership in development and support of the fuel, inerting, and hydraulic systems on the C919 aircraft. This joint venture will be located in Nanjing and will include a manufacturing facility.

A significant portion of the systems' component assembly, test, and manufacture will take place at the new facilities, as well as systems integration test functions.

Parker and AVIC FACRI joint venture in Xi'an. Parker Aerospace and AVIC's Flight Automated Control Research Institute will form a partnership to provide local, in-country support of the joint development of the flight control actuation systems products on the C919.

This joint venture will be located in Xi'an and include a customer service repair center that will be responsible for Parker Aerospace, AVIC, and third-party products.

"Parker is pleased to form these joint ventures in support of our four key systems packages on the C919," said Parker Aerospace President Roger Sherrard. "Providing local development and support facilities for this new aircraft will allow us to provide the most competitive products in the Asian aerospace industry as it grows at an unprecedented rate."

Financial terms of the agreements have not been disclosed. Aerospace industry analysts estimate that within the next four years, China will be the world's largest aerospace market. Providing four systems on the C919. In early 2010, Parker Aerospace was named the primary fly-by-wire flight control actuation, fuel, inerting, and hydraulic systems provider for the C919 aircraft.

The primary flight control actuation system. Parker Aerospace is developing the C919's primary flight control actuation system. The fly-by-wire system will include horizontal stabilizer trim actuation and motor control; aileron, rudder, spoiler, and elevator actuators; and remote electronic units.

The hydraulic system. Parker Aerospace's hydraulic system features a control and monitoring software package for the C919 integrated modular avionics controller and provides the functions necessary to power and control the aircraft's flight control system, landing gear and steering systems, and thrust-reversers. The complete fuel and inerting systems. Parker Aerospace is also responsible for the complete fuel and inerting systems for the aircraft.

The fuel system equipment will handle multiple functions for the aircraft's fuel system and includes engine feed, auxiliary power unit feed, refuel and defuel, venting, scavenge, fuel quantity gauging, and integrated modular avionics fuel gauging and management software.

The inerting system includes the conditioned air supply and electronic control, as well as nitrogen-enriched air generation and distribution, reducing the flammability of fuel vapors in the aircraft's fuel tanks and increasing aircraft safety. ARJ21 Gold Supplier.

Parker Aerospace provides the fuel, hydraulic, and flight control actuation systems for COMAC's ARJ21 aircraft and has been a Gold Supplier for the program for many years. The regional jet made its first flight in 2008.

About Parker Aerospace.

Parker Aerospace is a global leader in the research, design, manufacture, and service of flight control, hydraulic, fuel and inerting, fluid conveyance, thermal management, and engine systems and components for aerospace and other high-technology markets. Its product lines include primary and secondary flight control actuation, power generation and control components, thrust-reverser actuation systems, electrohydraulic servovalves, electric motor-driven hydraulic pumps, fuel pumps and valves, refueling, defueling, and aerial refueling equipment, fuel tank inerting systems; tank pressure and vent controls, level and flow control equipment; motor-operated valves and fuel equipment, lubrication oil reservoirs, lubrication and scavenge pumps, fuel measurement and management systems, thermal management products, cockpit instrumentation, lightning-safe products, pneumatic subsystems and components, water subsystems and components, fluid metering delivery and atomization devices, wheels, brakes, and fluid conveyance products such as hoses, tubes, disconnects, and fittings. It is an operating segment of Parker Hannifin Corporation.

About Parker Hannifin.

With annual sales of \$13 billion in fiscal year 2013, Parker Hannifin is the world's leading diversified manufacturer of motion and control technologies and systems, providing precision-engineered solutions for a wide variety of mobile, industrial and aerospace markets. The company employs approximately 58,000 people in 49 countries around the world. Parker has increased its annual dividends paid to shareholders for 57 consecutive years, among the top five longest-running dividend-increase records in the S&P 500 index. Parker Hannifin China has 18 production bases and seven regional offices in the country with more than 2,000 product lines, covering almost all industrial fields, including metallurgy, mining, energy, automotive manufacturing, marine vessels, construction machinery, rail transportation, diesel engines, and life sciences. Product diversification and extensive coverage gives Parker Hannifin the ability and obligation to contribute to China's industrial transformation and upgrading of power.

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Corporate Website (Extracted in February 2014): Pattonair Singapore is located near Changi International Airport in Singapore. This modern 20,000 sq ft. distribution centre is strategically located only 5 minutes from the main international airport and 15 minutes from the Seletar Aerospace Park. Our facility is ISO9001 and AS9120 Accredited. This facility services most of the Asia Pacific/Austral Asia customer base. Within this 20,000 square foot facility house our main offices, kitting services area, parts inspection lab, and distribution center. This facility is fully automated distribution center including bar coding and RF material handling.

Corporate Website (Extracted in February 2014): Pattonair's first China facility is located at the China Aviation Industrial Base (CAIB) in Xi'an, Shaanxi Province, 30 minutes drive from the world famous Terracotta Warriors. Xi'an is one of the main centres for aerospace in China and is the base for many domestic and western companies. Pattonair is proud to be the first western company to open at the CAIB. The facility includes 18k sq ft of warehouse and office space housing sales, finance and procurement staff. The facility works closely with its colleagues in Europe, Singapore and America to provide supply chain solutions to core aerospace segments like western OEM Subcontractor's, China OEM's, and MRO companies. The China team also assists Pattonair's UK facility with low cost sourcing of products in China. China is forecast to be the fastest growing aerospace market in the world over the next 2 decades. Pattonair is well positioned to be a major player during this exciting growth period.

2012 Zhuhai Directory: Pattonair is the leading global aerospace and **defence** supply chain service provider. Pattonair is a leading global distribution company for aerospace hardware that specializes in kitting services and line feed services for OEM's and MRO companies. Pattonair's global distribution capabilities through over 16 locations in Europe, the Americas and Asia provide localized support to customers worldwide. In Asia, Pattonair's facilities in Singapore and China are well positioned to support the regional needs of our customers.

#### **PBS Velka Bites**

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2012 Zhuhai Directory: PBS Velka Bites is a modern and prosperous machine engineering company. The system of dividing the company into divisions with respect to individual products and their technical development capability ranks the company among modern, dynamically developing companies. PBS Velka Bites-Aircraft Technique Division is a producer of many types of auxiliary power units, turbojet engines, turboprop engine, turboshaft engine, ECS systems, gearboxes, GPU and cryogenics.

Corporate Website (Extracted in February 2014): Airshow China 2012, 2012-12-05 (12:32:43 PM). From 13 to 18 November 2012 the 9th international aerospace industry exhibition Airshow China 2012 took place in Zhuhai, China. Aircraft Technique Division took part in the exhibition, and presented its products (in particular engines, APU, ECS) through roll-ups. The exhibition hosted more than 350 Chinese and foreign aerospace industry companies from 39 countries and regions. Mapping new technologies and trends,

which would be used in our applications for China market was an important part of our effort.

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2012 Zhuhai Directory: Phazotron NIIR is the preeminent leading designer and producer of onboard radars for multifunctional front aviation aircraft. The majority of the **MiG aircraft** are equipped with the radars designed by Phazotron NIIR. At the present moment Phazotron NIIR is actively engaged in designing new generation radars incorporating them with the passive radio location and electronic countermeasures equipment into the integrated weaponry control and **defense** systems for fitting out: **multifunctional aircraft; combat and search-and-rescue helicopters; navy ships; and anti-aircraft gun/missile systems of low and medium range.**

Corporate Website (Extracted in February 2014): Our Corporation is the leader of development and production of **radars and radar weapon and defense control systems for aircraft, gun-missile ground-based and ship-borne air defense systems; radars for space vehicles**, as well as the developer and manufacturer of weather radars and civil products. Modern airborne radars produced by Phazotron are multifunctional, quasi-continuous, pulse-Doppler, multimode systems, capable to control all kinds of airborne weapons (or to give them the target designations), to destroy air targets (from two to six) as well as ground and sea ones (operation in the mapping mode). They also provide flight informational support on low heights to overfly obstacles. Instead of developing a new type of radar for each type of an aircraft the system of production of airborne radars and of WDSCS on their basis with using a number of basic radar and their unified components was created. It ensures equipment and modernization of all aircraft with radars, which are in operational service in Russian Army, and they also may be installed on aircraft and helicopters, which had no radars before. The benefit will be several billion roubles. Employment of Phazotron's modern basic radar and WDSCS allows to convert a fighter into a multipurpose aircraft, so that it can attack air, ground and surface vessel targets. Phazotron has developed a number of unified slotted X-band antenna arrays with various apertures. They are produced on the basis of Phazotron's unique soldering technology which ensures stable antenna optical characteristics. Work is also under way on a family of unified phased antenna arrays. The above SHF amplifiers and antennas can be supplied to customers not only in radar packages, but also independently.

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2012 Zhuhai Directory: Piaggio Aero is the only company in the world active in the design, maintenance and overhaul of both aircraft and aero engines. Piaggio Aero has facilities in Genoa, Finale Ligure, Naples, Italy and West Palm Beach, FL, USA (Piaggio America, Inc). Piaggio Aero's shareholding structure is composed by Mubadala Aerospace, a division of Mubadala Development Company, Tata Limited and the Ferrari and Di Mase families. Piaggio Aero's core product, the P.180 Avanti II, is the fastest and most advanced executive/multi-utility turboprop in the world. The P180 Avanti II is the result of devoted focus by Piaggio Aero engineers to design an aircraft to meet the objectives of jet-like speed, a wide-body, stand-up cabin, while retaining the efficiency of turboprop power. The Avanti II flies at 402 kts and has an endurance of nearly 1,500 nautical miles with a maximum altitude of 41,000 feet. With its elegant style and shape, the Piaggio P180 Avanti has been referred to as the "Ferrari of the Sky." Just like Ferrari, the P180 boasts advanced comfort, innovative Italian style and unrivalled performance. The Maranello racing team has been flying the Avanti aircraft since 2000.

#### PIAGGIO PRESS RELEASES

PIAGGIO AERO AND CAEA AVIATION SIGN WITH SR JET, PART OF SPARKLE ROLL INVESTMENT HOLDINGS LIMITED, A SALES CONTRACT FOR 2 P.180 AVANTI II PLUS 8 AIRCRAFT OPTIONS

Las Vegas, Nevada, October 24, 2013

Piaggio Aero together with CAEA (Beijing) Aviation Investment Co., the exclusive P.180 Avanti II distributor for Mainland China, signed a contract at the NBAA 2013 for the sale of two P.180 Avanti II aircraft plus 8 options with SR Jet, part of the Beijing based Sparkle Roll Investment Holdings Limited.

The aircraft are Piaggio Aero P.180 Avanti II models customized with extended range mission capabilities. Thanks to the installation of a permanent additional tank, which replaces only half of a closet in the toilet and with no changes to the airframe, the fuel capacity of the Piaggio Aero iconic aircraft grows from 2,826 lb to 3,226 lb.

This allows the fastest business turboprop in world to increase its maximum range to 1,720 Nm (IFR - FAA reserves, 4 Passengers), enabling a comfortable nonstop flight from Beijing to Hainan or Hanoi or, from Las Vegas to Jacksonville, Charlotte, Cancun or Toronto.

The extended range P.180 Avanti IIs will be delivered in Beijing starting from March 2014 and will be operated in China following Piaggio Aero's CAAC Certification that was obtained in 2011.

Sparkle Roll Investment Holdings Limited (SR Group) Sparkle Roll General Aviation Ltd. (SR Air) was founded in September 2013, and is a privately owned aviation transportation enterprise. Sparkle Roll Aviation Investment Ltd (a subsidiary of Sparkle Roll Holdings Limited) is the main investor, whose mission is to create the top brand amongst China's business/corporate aviation service providers, under the current environment facilitated by China's various levels of government and the Civil Aviation Administration of China (CAAC) who plan to aggressively develop the commuter aviation industry, as well as the rapid developing market of China's business aviation industry.

Sparkle Roll Holdings Limited as a globally renowned and industry-leading enterprise in luxury brand management and the entertainment industry, is dedicated in the active development and innovation of China's commuter aviation industry. SR Air's focus is to provide a brand-new mode of high efficiency environmentally friendly, superior comfort travel for domestic regions, as a premium quality business commuter flight service, and to be a transitional provider between civil and business aviation. In the near future, SR Air

also plans to rapidly create a number of operation bases (FBO's), aircraft maintenance centers (MRO's ).

Piaggio Aero and SR Jet are also working a plan to enhance SR Jet's P180 fleet maintenance capability in near future.

At the contract signing ceremony Giuliano Felten, Piaggio Aero Deputy General Manager and Chief Commercial Officer said: "Today's agreement is a great achievement of the marketing efforts that Piaggio Aero and CAEA Aviation are devoting to the Chinese market for our P.180 Avanti II.

It also rewards Piaggio Aero's continuous development activity to make the P.180 Avanti II tailored to meet our customers' needs.

We are very proud of this new extended range variant of our aircraft, which provides maximum flexibility for the Avanti II operators, who are now able to fly longer missions with an unbeatable level of comfort and speed. We believe that the unmatched performance and unique appeal of our aircraft will become more and more recognized, especially in China, which offers a huge potential for business aviation. We are pleased to welcome SR Jet as the newest P.180 Avanti II operator, integrating our aircraft with the portfolio of luxury brands that the SR Group successfully manages".

Mr. Xingzhao Ji, President and Executive Director of SR Air said, "The Piaggio P180 is absolutely a unique twin-Engine turboprop aircraft, with the core advantages of unmatched performance, unbeatable comfort and cost efficiency that is integral to SR Air development of China's business aviation market. This aircraft will be undoubtedly the first choice by global business aviation operators.

This unique aircraft differs from traditional turboprop aircraft, as this is the exclusive aircraft which has the cruising altitude, speed, climb performance and cabin comfort of a jet aircraft, but costs the price and has the operating cost of a typical turboprop. SR Air's selection of the newly developed P180 "Long Range" aircraft by Piaggio Aero as our core aircraft model, will further increase SR Air's market competitiveness.

China is a super economy with vast geographic territory, a large population and rapid economic growth. In recent years this economic growth and strengthening regional economic restructuring, coupled with the promotion of economic exchanges and collaboration among regions, have been the way for China's government at all levels and the aviation authorities to promote social development. As an ambitious private enterprise, SR Air is visionary in its focus on actively developing and creating the premium brand within Chinese business/corporate aviation and will be taking great steps with its ambitious plans to develop China's business and commuter aviation market.

#### PIAGGIO AERO TO EXHIBIT AT ABACE 2013

Shanghai, China, April 08, 2013

Piaggio Aero will attend the Asian Business Aviation Conference & Exhibition (ABACE), returning to Shanghai Hongqiao International Airport and the Shanghai Hawker Pacific Business Aviation Service Centre in Shanghai, China April 16, 17, 18, 2013. Piaggio Aero has high hopes for ABACE 2013, Asia's largest Show strictly dedicated to showcasing business aviation products and services to thousands of the region's top business leaders, entrepreneurs, wealth creators and other purchase decision-makers. The event, which is co-hosted by the National Business Aviation Association, the Asian Business Aviation Association (AsBAA) and the Shanghai Exhibition Center (SEC), serves not just as a premiere marketplace for connecting buyers and sellers in Shanghai, but also as a catalyst for growing the industry across the Asian region, which is looking more and more at business aviation to cover the distances between business locations. Piaggio Aero P 180 Avanti II is the fastest and most advanced twin-engine turboprop in the world. The aircraft, which can carry up to nine passengers, is capable of flying at a maximum cruise speed of 402 kts, 745 km/h. It has a range of more than 2,700 kilometers and can fly up to a flight ceiling of 41,000 feet so the P.180 is ideally designed and matched for all

Chinese medium range destinations. Piaggio Aero will take part in ABACE 2013 with CAEA Aviation, the Chinese distributor for the P.180 Avanti II.

#### PIAGGIO AERO AT HAINAN RENDEZ-VOUS 2013

Sanya, China, March 25, 2013

Piaggio Aero will make its debut at the 2013 edition of Hainan Rendez-Vous, running in Sanya on Hainan Island (China) from March 30th to April 2nd. Hainan Rendez-Vous is the most popular luxury lifestyle event in China: this is why it is the perfect platform for Piaggio Aero for creating and reinforcing business relationships in that country. Piaggio Aero will attend Hainan Rendez-Vous in cooperation with CAEA Aviation, distributor for Piaggio Aero P.180 Avanti II in mainland China. 2013 is the fourth consecutive year that the world's leading corporate jet brands are participating in Hainan Rendez-Vous, a show that draws thousands of China's most successful corporate leaders and entrepreneurs with its unique mix of cultural, educational and social networking events and lifestyle experiences. Fourteen aircraft will be on exhibit at the VIP Terminal at Phoenix International Airport, which is the new base for the HRV static display. Static display visitors will discover the P.180 Avanti II belonging to Free Sky Aviation, the first Chinese customer and operator of the Avanti II.

#### PIAGGIO AERO P.180 AVANTI II AIRCRAFT ARRIVES IN CHINA: PIAGGIO AERO AND CAEA AVIATION INTRODUCE THE ITALIAN AIRCRAFT IN THE CHINESE MARKET

Zhuhai, Guangdong, China, November 14, 2012

Piaggio Aero and its exclusive dealer for China, CAEA (Beijing) Aviation Investment Co., Ltd. today officially present at the 2012 Air Show China the first P.180 Avanti II aircraft registered in China. The aircraft s/n # 1228 has been delivered directly to Zhuhai for Free Sky Aviation the first Piaggio Aero, Chinese customer and operator.

The brand new Piaggio Aero P.180 Avanti II will be operated in China by Free Sky Aviation under the CAAC certification that was obtained by Piaggio Aero in October 2011.

The delivery of the first P.180 Avanti II represents a milestone for Piaggio Aero and a significant step forward for its business expansion program in China. The delivery of a second aircraft will follow shortly as the second P.180 Avanti II will land at Beijing Free Sky Aviation's Headquarters during December.

Free Sky Aviation will begin their operation offering exclusive private aircraft club program for their P.180 Avanti II fleet, which will introduce a new standard of air travel for Chinese business aviation users. The Piaggio Aero P180 Avanti II is in fact, the world's fastest turboprop aircraft with an outstanding performance and level of comfort, with a maximum speed of 402kts/745kph and a range of nearly 1500 nautical miles. With its full stand up cabin - the biggest in its class of mid-size jets and twin turboprops by far - the P.180 Avanti II provides an airy, comfortable flight for its passengers aided by its low cabin noise and sea level pressurization.

China has a huge potential for aviation and its fast expanding business aviation market is expected to grow and open rapidly in the coming years with the Chinese Government moving to tap its enormous potential and the benefits it offers to Chinese companies and individuals alike. In this expanding economy, Piaggio Aero will now grow in China as a result of their strong partnership with CAEA Aviation Investment Co. Ltd, the exclusive dealer for its P.180 Avanti II aircraft in mainland China.

CAEA is developing the Chinese market for Piaggio Aero through its focused, management experience, mature sales channels and strong market promotion. In delivering the first aircraft to China, CAEA Aviation and Piaggio Aero will grow their mutual business to a new level and expand its long term potential for sales of Piaggio Aero P.180 Avanti II aircraft



"The delivery of our first P.180 Avanti II aircraft in China marks a red letter day for Piaggio Aero and our partner CAEA Aviation. We are delighted to present our first Chinese registered P.180 Avanti II and welcome Free Sky Aviation as the first Chinese Avanti II operator," said Giuliano Felten, Deputy General Manager and Chief Commercial Officer of Piaggio Aero. "The P.180 Avanti II has achieved worldwide success thanks to its outstanding performance, superior comfort, unbeatable economics and unique Italian style. The Piaggio Aero aircraft represents an ideal new business choice for China's private aviation market and now, Chinese business aviation operators, customers and users can have the choice to "fly different" in Piaggio Aero's unique style.

The P.180 Avanti II's high performance and superior comfort are tailored to meet the needs of the most selective business elite who will also love the P.180's unique Italian elegance.

It's not by chance that Piaggio Aero aircraft has also been chosen by the Scuderia Ferrari, the Ferrari racing team for their aviation needs, and it's the only aircraft in world displaying their legendary Prancing Horse symbol" he added. "Piaggio Aero commits itself to provide the most excellent products for the global multipurpose aircraft market and we are proud to see the first Chinese registered aircraft flying in the sky over China thanks to CAEA and Free Sky Aviation. We trust our P.180 Avanti II aircraft will be a business booster for our partners and for the overall growth of Piaggio Aero in China" he concluded.

#### PIAGGIO AERO FOR THE FIRST TIME AT AIRSHOW CHINA ZHUHAI

Zhuhai, Guangdong, China, November 08, 2012

Piaggio Aero and its exclusive dealer for China, CAEA (Beijing) Aviation Investment Co., Ltd. Will attend together Airshow China 2012, taking place from 13 to 18 November 2012 in Zhuhai, Guangdong, PRC. On this occasion they will officially present the first P.180 Avanti II aircraft registered in China. The brand new Piaggio Aero P.180 Avanti II will be operated in China by Free Sky Aviation, the first Chinese customer and operator. The debut of the first P.180 Avanti II represents a milestone for Piaggio Aero and a significant step forward for its business expansion program in China.

#### PIAGGIO AERO AND CAEA AVIATION INTRODUCE THE CERTIFIED P.180 AVANTI II IN CHINA

Shanghai, China, March 26, 2012

Piaggio Aero and CAEA Aviation are participating together at the 2012 Asian Business Aviation Conference and Exhibition as the Chinese Group has been appointed as the Exclusive Sales Agent for Piaggio Aero P.180 Avanti II aircraft in mainland China.

The two companies have also announced that the delivery of the first two P180 Avanti II aircraft will take place next July, when the first of the Piaggio Aero aircraft registered in China will land in Beijing following the contract sale signed earlier this year in February.

The Piaggio Aero P.180 Avanti II has received its type certificate in October 2011, from the China Civil Aviation Authority (CAAC). The CAAC type-certificate confirms that the design of the aircraft complies with Chinese regulations and that the Avanti II can be legally registered and operated throughout the People's Republic of China including Hong Kong. Recognition that the Piaggio Aero P.180 Avanti II design meets all of the CAAC airworthiness standards enables Chinese owners to register their Piaggio Aero aircraft under a Chinese registration. The use of Chinese grade fuel was also approved.

With a unique, contemporary, bold design, the Piaggio Aero P 180 Avanti II is the fastest and most advanced twin-engine turboprop in the world. The aircraft, which can carry up to nine passengers, is capable of flying at a maximum cruise speed of 402 kts, 745 km/h. It has a range of more than 2,700 kilometers and can fly up to a flight ceiling of 41,000 feet so the P.180 is ideally designed and matched for all Chinese medium range destinations. The full stand up cabin is, without question, the most spacious, comfortable and quiet in its class.

The Piaggio P180 Avanti II has twin-turboprop Pratt & Whitney Canada engines, that are well known and supported in China, and which provide superior performance and fuel economy delivering low operating costs and give up to 33% savings when compared to similar aircraft. The lower operating costs mean 40% less carbon emissions, making the aircraft environmentally friendly with a true green focus. The aircraft due to its incredible aerodynamic design and overall capability is able to operate from shorter runways that many aircraft, both commercial and private are unable to fly in to.

As well as its contemporary design the aircraft is able to offer many sophisticated and personalized on board options such as access to broadband internet, map systems, lighting differentiators as well as a broad portfolio of customized options at customers request.

Besides its own impressive capabilities, the Piaggio P180 Avanti II is also the only aircraft to proudly display the legendary "prancing horse" livery of the Scuderia Ferrari, the Ferrari Racing Team, as it is their chosen business aircraft due to its performance, state of the art technology and unrivalled style.

Piaggio Aero enters China with the very significant backing and support of its shareholders, who include two, worldwide, business powerhouses, TATA from India, through Tata Limited UK, and Mubadala Development, the development and Investment Company driving the economic diversification of Abu Dhabi.

"The P.180 Avanti II has achieved worldwide success with outstanding performance, comfort and economics. We are fully confident that our aircraft represents an ideal tool for China's private aviation market expansion." said Piaggio Aero CEO Alberto Galassi "Chinese business aviation customers and operators now have a new affordable choice, as the Avanti II is a great time saver in the air that opens up options to choose airports that may be closer to a Customer's destination thereby reducing overall travel time. Its impressive performances and unrivalled comfort are tailored to meet the needs of the business elite and jetsetters who will love the P.180's unique Italian style and elegance. It's not by chance that Piaggio Aero aircraft has also been chosen by the Scuderia Ferrari, the Ferrari racing team, and it's the only aircraft in the world displaying their legendary Prancing horse symbol".

He further added "Piaggio Aero commits itself to provide the most excellent products for the global multipurpose aircraft market looking for the best partners worldwide to distribute and sell the aircraft. I am convinced that our partnership with CAEA Aviation will be a business booster for Piaggio Aero in China; we are proud to now be part of this growing economy".

Chairman Wang Long, President of CAEA Aviation declared "Piaggio Aero aircraft are the most luxurious and best performing airplanes in their class, due to their performance, cabin comfort level and cost performance when compared with competitive aircraft at the same market level.

As a professional international enterprises, CAEA Aviation and Piaggio Aero will yield numerous aviation achievements in the near future. Additionally we hope that both parties can work hand in hand, to make contributions for the economic development of China.

CAEA Aviation, with its expertise, assists elite travelers through its full range of consultancy services on technical and financial aspects in purchasing their desired aircraft, as well as managing the operation and maintenance of the aircraft for its owners."

#### PIAGGIO AERO TO ATTEND ABACE 2012

Shanghai, China, March 26, 2012

Piaggio Aero will attend the Asian Business Aviation Conference & Exhibition (ABACE), to be staged March 27-29 at Shanghai Hawker Pacific Business Aviation Service Center c/o Shanghai's Hongqiao International Airport, China. ABACE is jointly produced by the National Business Aviation Association (NBAA) and the Asian Business Aviation Association (AsBAA). Piaggio Aero is excited to introduce its P.180 Avanti II at ABACE for

the first time as a certified aircraft in China. The company has high hopes for the Asian market because of its enormous potential for business aviation, given the need for transportation to cover the distances between business locations. Piaggio Aero P 180 Avanti II is the fastest and most advanced twin-engine turboprop in the world. The aircraft, which can carry up to nine passengers, is capable of flying at a maximum cruise speed of 402 kts, 745 km/h. It has a range of more than 2,700 kilometers and can fly up to a flight ceiling of 41,000 feet so the P.180 is ideally designed and matched for all Chinese medium range destinations. Piaggio Aero will take part in ABACE with CAEA Aviation: the Chinese Group is the new Exclusive Sales Agent for Piaggio Aero P.180 Avanti II in mainland China.

**PIAGGIO AERO INTRODUCES THE P.180 AVANTI II AIRCRAFT IN CHINA: CAEA AVIATION TO BECOME THE OFFICIAL PIAGGIO AERO P.180 AVANTI II CHINESE EXCLUSIVE SALES AGENT**

Singapore, February 20, 2012

Piaggio Aero and CAEA (Beijing) Aviation Investment Co., Ltd. officially announced at the Singapore Air Show their agreement for the sale of the first two P.180 Avanti II aircraft in China. The aircraft will be delivered in Beijing in July 2012 and will be operated in China following Piaggio Aero's CAAC Certification that was obtained in October 2011.

CAEA Aviation Investment Co. Ltd has also been appointed as the Exclusive Sales Agent for Piaggio Aero P.180 Avanti II aircraft in mainland China.

As a result of this, the Company will develop the Chinese aviation market for Piaggio Aero thanks to its focused management experience, mature sales channels and strong market promotion.

China has huge aviation potential and its fast expanding regional aviation market is expected to grow and open rapidly in the coming years with the Chinese Government moving to tap its enormous potential.

The success in signing the agreement between CAEA Aviation and Piaggio Aero will push the development of the Chinese aviation industry to a new altitude and will allow it to exploit its vast potential for future development. CAEA Aviation Experts predicted that many P.180 Avanti II per year could be sold, with the increase of awareness and demand from the market.

"This deal with CAEA Aviation starts an important partnership for Piaggio Aero and will help to further promote our unique P.180 Avanti II aircraft in the region. We are also delighted to welcome CAEA Aviation as the first Chinese Avanti II operator," said Alberto Galassi Chief Executive Officer of Piaggio Aero. "The P.180 Avanti II has achieved worldwide success with outstanding performance comfort and economics. We are fully confident that our aircraft represents an ideal tool for China's private aviation market expansion. Chinese business aviation customers and operators now have a new affordable choice as the Avanti II is a great time saver in the air that opens up options to choose airports that may be closer to the Customer's destination thereby reducing overall travel time.

Its impressive performances and unrivalled comfort are tailored to meet the needs of the business elite and jetsetters who will love the P.180 unique Italian style and elegance. It's not by chance that Piaggio Aero aircraft has been chosen also by the Scuderia Ferrari, the Ferrari racing team, and it's the only aircraft in world displaying their legendary Prancing horse symbol" he added. "Piaggio Aero Company commits itself to provide the most excellent products for the global multipurpose aircraft market looking for the best partners worldwide to distribute and sell the aircraft. I am really happy with this agreement with CAEA Aviation which will be a business booster for Piaggio Aero in China; we are proud to be now part of this growing economy" he concluded.

Chairman Wang Long, President of CAEA Aviation declared " Piaggio Aero aircraft are the most luxurious and best performing airplanes in their class. due to their

performance, cabin comfort level and cost performance when compared with competitive aircraft at the same market level.

As a professional international enterprise, CAEA Aviation and Piaggio Aero will yield numerous aviation achievements in the near future. Additionally we hope that both parties can work hand in hand, to make contributions for the economic development of China. CAEA Aviation, with its expertise, assists elite travelers through its full range of consultancy services on technical and financial aspects in purchasing this desired aircraft, as well as managing the operation and maintenance of the aircraft for its owners."

The Piaggio Aero P180 Avanti II is the world's fastest turboprop aircraft with an outstanding performance and specification for the Chinese market. With a maximum speed of 402kts/745kph and a range of just under 1500 nautical miles, its full stand up cabin, the biggest in its class of mid-size jets and twin turboprops by far, provides an airy, comfortable flight for its passengers aided by its low cabin noise and sea level pressurization.

Besides its own impressive capabilities, the Piaggio P180 Avanti II is also the only aircraft to proudly display the legendary "prancing horse" livery of the Scuderia Ferrari, the Ferrari Racing Team, as it is their chosen business aircraft due to its performance, state of the art technology and unrivalled style.

Piaggio Aero enters China with the very significant backing and support of its shareholders, who include two, worldwide, business powerhouses, TATA from India, through Tata Limited UK, and Mubadala Development, the development and investment company driving the economic diversification of Abu Dhabi

#### THE P.180 AVANTI II RECEIVES THE CHINESE CERTIFICATION BY CAAC

Las Vegas, Nevada, October 11, 2011

Piaggio Aero has announced at NBAA 2011 that its P.180 Avanti and Avanti II aircraft have received their type certificate from the China Civil Aviation Authority, CAAC.

The CAAC type-certificate confirms that the design of the aircraft complies with Chinese regulations, having previously gained both EASA/FAA certifications. The P.180 Avanti/II can now be legally registered and operated throughout the People's Republic of China and Hong Kong.

The Chinese certification process started in 2010 with a cooperation team consisting of experts from the Certifying Authority CAAC, and the engineering and certification teams of Piaggio Aero.

The validation of Type Certificate No. VTC0261A by General Administration of Civil Aviation of China (CAAC) was awarded to Piaggio Aero on October 9, 2011, during NBAA convention.

Design recognition of the Piaggio Aero P.180 Avanti/II in meeting the CAAC airworthiness standard, enables P.180 owners to register their Piaggio Aero aircraft on the Chinese registrations. The use of Chinese grade fuel was also approved.

"We are really happy to have achieved Chinese certification for the P.180 Avanti II, this now opens the way for the Avanti II for one of the most promising market of the world," said Piero Ferrari, Piaggio Aero Chairman.

"Piaggio Aero is fully committed to making quality products available around the world and both China mainland and Hong Kong represent a high potential markets for the P.180 Avanti II in both its executive and also special mission versions." Mr Ferrari added "The P.180 Avanti II by virtue of its low operating costs, gives us a unique advantage in the market and allows us to offer Chinese customers economics, performances and operation that were not previously available. We are proud to become part of this growing economy" concluded Piaggio Aero Chairman.

The Piaggio Aero P180 Avanti II is the world's fastest turboprop aircraft with an outstanding performance and specification for the Chinese market. With a maximum speed of 402kts/745kph and a range of just under 1500 nautical miles, its full stand up cabin, the

biggest in its class of mid-size jets and twin turboprops by far, provides an airy, comfortable flight for its passengers aided by its low cabin noise and sea level pressurization.

Besides its own impressive capabilities, the Piaggio P180 Avanti II is also the only aircraft to proudly display the legendary "prancing horse" livery of the Scuderia Ferrari, the Ferrari Racing Team, as it is their chosen business aircraft due to its performance, state of the art technology and unrivalled style.

"Piaggio Aero has developed a strong working relationship with the CAAC and we are satisfied to have achieved the Chinese certification on schedule. After Brazilian and Russian certification obtained last year and the Indian certification gained 2 years ago, receiving the type certificate validation for China allows Piaggio Aero to continue our international expansion into the BRIC Countries.

We are really proud to be able to offer such a well suited aircraft to China." Commented Eligio Trombetta, Piaggio Aero General Manager.

Versatility and reliability, combined with advanced technology have also made the Piaggio Aero P.180 Avanti II the ideal aircraft for sensitive, crucial missions such as Flight Inspections and Air ambulance.

In its "Special Mission" configuration, the P.180 Avanti II is used as a multi-utility aircraft for patrolling, photo detection, and civil and military flight inspection.

#### PIAGGIO AERO PARTECIPATES AT SHANGHAI INTERNATIONAL BUSINESS AVIATION SHOW (SIBAS 2011)

Shanghai, China, April 13, 2011

For the first time Piaggio Aero will take part in SIBAS 2011, the Shanghai International Business Aviation Show which takes place from the 13th to the 15th of April 2011 at the Shanghai International Hongqiao Airport Business Aviation Center. SIBAS aims at becoming the Chinese yearly platform of all International Business Aviation professionals. During these 3 days, Shanghai Air Show SIBAS will bring together Buyers, Corporate, VVIPs, Business Leaders and nearly all manner of people involved in Business Aviation: Pilots, Manufacturers, Suppliers, Airlines Companies, Government Officials.

No pure Business Aviation Show has been successfully organized in China Mainland and the actual demand of the market is growing: that's why SIBAS represents a huge opportunity for Piaggio Aero to introduce its P.180 Avanti II, the only multiutility/Executive aircraft with the speed of a jet and the economics of a turboprop. Besides, according to the 2010 Hurun Rich List, a large number of Chinese billionaires have plans to buy private aircraft to serve professional purposes as well as personal ones.

#### PIAGGIO AERO AT THE INTERNATIONAL FLIGHT INSPECTION SYMPOSIUM IN BEIJING

Beijing, China, June 21, 2010

Piaggio Aero will attend the International Flight Inspection Symposium to be held in Beijing (China) from June 21 to June 25 2010 [www.ifis2010.com](http://www.ifis2010.com). The International Flight Inspection Symposium offers a platform for cooperation and exchanges of flight inspection organizations from all countries and regions. Here it's discussed how to improve flight inspection to better serve airspace navigation, airspace availability and flight safety. The Symposium also provides a chance for all exhibitors to display their new products and technologies in the development of aerospace industry. The flight inspection community will bring in more opportunities and write a new chapter in flight inspection history. Piaggio Aero Industries is proud to present at IFIS the certification the new Piaggio Aero P.180 Avanti II "Flight Inspection" aircraft, announcing also the first delivery to ENAV, the Italian Company which provides air traffic control service. ENAV manages the safety and regulation of air navigation and also oversees in-flight route inspection and airport radio measurement (VOR, DME, ILS etc.) to ensure the accuracy and compliance of the transmissions with internationally recognised regulations. They have their own fleet of

aircraft and this new Piaggio Aero P180 Avanti II aircraft adds to one ENAV had previously acquired. Both aircraft are equipped with the very latest generation NSM UNIFIS 3000 technology. The characteristics of the P180 Avanti II aircraft, equipped with the most advanced navigation systems, enable safe flight operations at low and high altitudes during a variety of weather conditions, and have made it the ideal airplane for "Flight Inspection" operations as required by current radio regulations ICAO/NATO. The P180 Avanti II can be equipped with state of the art systems such as the UNFIS 3000 designed and manufactured by NSM (Norwegian Special Mission) and AeroFIS by Aerodata AG creating a best in class aircraft for special missions' usage. The operational efficiency of the P180 Avanti II platform with, its state of the art systems, is designed to ensure accurate flight inspection of all aspects of radio, radar, sight procedures and assistance installed in Italy and the European Union. The turboprop Piaggio Aero P1.80 Avanti II has a range of 1470 nautical miles IFR delivering up to 5 hours flight time; a top speed of 402 kts (463 mph, 745 km/h), a climb rate of 844 meters (2532 feet) per minute and a cruising altitude of 41,000 feet (12,500 meters). This performance while similar to a jet returns 40% lower fuel consumption with greater operational efficiency and much lower CO2 emissions into the atmosphere. The aircraft is also certified for rapid landing procedures, an essential factor in missions for radio measurement and the calibration of airport control systems. The efficiency of this service and these special mission aircraft, which confirm aircrafts compliance with international standards for radio signals on approach and during instrumental flight, enables the air transport system to operate safely.

#### PIAGGIO AERO AT THE SINGAPORE AIR SHOW 2008

Singapore, February 24, 2008

Piaggio Aero will display its P180 Avanti II executive aircraft at the First edition of Singapore Airshow which takes place from the 18 to 24 February 2008 at the Changi Airport, Singapore. The Singapore Airshow is Asia's largest aerospace event, and one of the top three air shows in the world serving as a global marketplace and networking platform for global aviation community. Piaggio Aero will attend the show as affiliate of Mubadala Development Company Group and display the P.180 Avanti II in Ferrari livery on the static display. The Asian Market is going to be a primary potential market for the P.180, Piaggio Aero will deliver its first aircraft in China on the 2nd quarter of 2008 part of a bi deal for three aircraft ordered by Chinese Government agencies worth more than 21 millions. The Avanti II features a fully integrated new Pro Line 21 avionics system and the new engines PWC PT6A-66B making the Piaggio Aero aircraft the most fast up-to-date and still the fastest turboprop in production. The link between Ferrari, Mubadala and Piaggio Aero is therefore stronger than ever: The world champion racing team flies the P.180 Avanti II the only aircraft in the world to proudly display on its livery the 'prancing horse', Ferrari's legendary trademark. The new F1 World Champion Kimi Raikkonen and Felipe Massa are both spokesperson for the Avanti II also in 2008 Formula 1 season. The Piaggio Aero aircraft like Ferrari's cars represents the excellence and the world-wide success of the technological products made in Italy. Piaggio Aero and Ferrari are synonymous with success, efficiency, technology and unrivalled Italian design.

#### PIAGGIO AERO INTRODUCES THE P.180 AVANTI II FOR THE FIRST TIME TO CHINA

September 24, 2007

Atlanta, Georgia - Piaggio Aero Industries announced today a contract that calls for three P.180 Avanti II aircraft to be delivered to Sino Europe Aircraft Limited, the first Chinese customer for Piaggio Aero. The deal is worth more than \$21 million.

Sino Europe Aircraft Limited is a company dedicated to representing and promoting aircraft from Europe. Through its association with Beijing PanAm International Aviation Academy, it will promote, operate and service Piaggio Aero P.180's in the region.

The P180 Avanti II was selected over competitors thanks to its the state of the art avionics, enhanced performance and the lowest operating costs of any stand-up cabin aircraft.

"We have had extraordinary success in both the European and North American business aviation markets. Sino Europe represents the growing demand for our aircraft in new markets like the Far East" said Mr. Josè Di Mase Piaggio Aero CEO "We are extremely pleased that Sino Europe has selected the P.180 Avanti II. The Far East business aviation market is expanding rapidly and Piaggio Aero is excited to be participating in that growth."

"We contacted all major business aircraft manufactures and went through a year long comparison before coming to this decision" said Mr. Li ZhiYun, Sino Europe Aircraft Managing Director. "Thanks to its unique design and characteristics, we do feel Piaggio P-180 Avanti II is the most ideal aircraft for our applications".

The first P.180 Avanti II will be delivered in 2nd quarter of 2008 to China to join Government search and rescue operations.

The other two P.180 Avanti II will be delivered in 2009 to Beijing PanAm Aviation Academy, the first academy in China to adopt an advanced Euro-American style training syllabus, teaching and operation system and meets both CCAR Part 141 and CCAR Part 91 requirements (correspondents of the EU JAR and US FAA Part 141 and 91). The aircraft will be used for training as well as operations under Part 135.

"We are proud that three new P.180 Avanti II will fly in China" commented Mr. Ugo Anatra Piaggio Aero Industries General Manager "Our new Chinese customers love the Avanti II. They take advantage to operate, a high performance aircraft equipped with a state of the arts avionic system and a pilot friendly cockpit. The Avanti II is also designed to achieve unparalleled performance in its class with its high speed, short field operation and high utilization efficiency which contribute to obtain the lowest operating costs"

The Piaggio Aero P.180 Avanti II, EASA and FAA certified in 2006, is going to receive the Civil Aviation Authority of China certification before mid 2008.

The P.180 Avanti II is equipped with fully digital, automatic flight control and the latest generation Rockwell Collins "Pro Line 21" avionics system, the most advanced on the market today that provides the pilot with better situational awareness, resulting in even higher levels of safety, efficiency, flexibility and reliability.

The Italian-designed and built aircraft is certified for single pilot operation and seats up to nine passengers. Holder of numerous speed records, the P.180 Avanti II is capable of flying over 1,700 nautical miles at up to 402 kts and cruises at altitudes up to 41,000 ft.

#### **Pilatus Aircraft Ltd.**

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2012 Zhuhai Directory: Founded in 1939, Pilatus Aircraft Ltd is the only Swiss company to develop, produce and sell aircraft to customers around the world: from the legendary Pilatus Porter PC-6 to the best-selling PC-12, a single-engine turboprop, and the PC-21, the training system of the future. Pilatus is currently developing the PC-24 – the world's first ever business jet for use on short unmade runways. Domiciled in Stans, the company is certified to ISO 14001 in recognition of its efforts for the environment. The Pilatus Group includes three independent subsidiaries in Altenrhein (Switzerland), Broomfield (Colorado, USA) and Adelaide (Australia). With over 1600 employees at its headquarters, Pilatus is one of the largest employers in Central Switzerland. Pilatus provides training for over 100 apprentices in ten different professions – job training for young people has always been a very high priority at Pilatus. Based in Broomfield, Colorado, Pilatus Business Aircraft Ltd was established in 1996. Sixty percent of all PC-12s which come off the production line in Stans are finished to customer specifications

(interior and exterior livery) in Colorado. Our American subsidiary is also responsible for PC-12 marketing, sales and servicing activities in North and South America. Pilatus Australia Pty Ltd was set up in 1998 as PC-12 sales and marketing support center. It is responsible for the markets in Australia, New Zealand, Papua New Guinea and on the Pacific Islands. Altenrhein Aviation Ltd (AAL), also a fully-owned subsidiary of Pilatus Aircraft Ltd, started its operations on 1 January 2003. Located in eastern Switzerland at St. Gallen-Altenrhein Airport, AAL specializes in the maintenance, modernization and overhauling of Pilatus PC-12s and PC-6s, as well as other business and regional aircraft.

Pilatus is supported by over forty carefully selected independent sales and service centers worldwide, all of which help Pilatus to provide first-class customer service at local level.

Corporate Website: 2012 Annual Report (Extracts):

"The PC-12 and PC-6 are ideal for the Chinese market, and perfect for flying to the many small airports dotted across the country. Both aircraft offer exceptional performance in terms of their ability to land on and take off from short and unmade runways. They are safe, very versatile and extremely dependable. The Chinese really appreciate such high quality Swiss products! The PC-6 and PC-12 meet my expectations in full – and those of my customers!"

Zhang Wei, first to operate a PC-6 and PC-12 in China."

"Our hopes are now focused on Asia where we were delighted to sell as many as four PC-12s in 2012 – particularly since we had not sold a single aircraft in this market during the three previous years. We were also very encouraged to see the aircraft going to customers in three countries in which we have never yet sold a PC-12 – the Philippines, Malaysia and China. This initial success will spur us on to pursue our development efforts in the future."

"Three PC-6s went to China, one to Mauritania and one to Indonesia. Indonesian-based Susi Air currently operates the biggest civilian fleet of PC-6s. Susi Air signed a contract for three new PC-6s: the remaining two are scheduled for delivery in 2013. There were no sales in South America."

Corporate Website: 2011 Annual Report (Extracts):

"In China, Pilatus is currently concentrating on achieving the requisite certification and in India, we are in the process of setting up a Pilatus Center to prepare our upcoming market entry. There have been no firm sales (yet), but we are confident that this region offers good potential."

"The Pilatus PC-6 Lives On: The Maintenance Business Unit is responsible for production of this legendary aircraft. PC-6 orders are an ideal means of absorbing fluctuations in the unit's capacity utilisation. With the successful acquisition of type certificates in China and Brazil, the year under review saw our first sales to customers in these growing markets."

Corporate Website: 2010 Annual Report (Extracts):

"A REALITY: THE PC-6 REVIVAL. We are pleased to note that the new Garmin glass cockpit in the Pilatus Porter PC-6 has revived demand for this aircraft as hoped. A first delivery was made to a customer in San Marino in April. Two sales partners have been found in Brazil and China, and the certification process is underway in both countries. The 2010 production schedule was based on eight PC-6s, but only five deliveries were reported; three aircraft were delayed beyond the end of the year due to various problems. This preliminary work will obviously have a beneficial impact in 2011."

"In China, certification was obtained for the PC-12 NG, a prerequisite to cultivating this very large market on an active basis."



PILATUS PRESS RELEASE

PILATUS OPENS JOINT VENTURE COMPANY IN CHINA

July 08, 2013

Pilatus Aircraft Industry (China) Co., Ltd opened for business on August 5th, 2013 in the Chinese metropolis of Chongqing. The new joint venture company will allow Pilatus Aircraft Ltd to establish itself in the Chinese market. An initial contract to supply a total of 50 PC-12s/PC-6s has also been signed. The newly created company and associated Pilatus activities in China will have a positive impact on production operations in Switzerland. The gradual opening up of Chinese air space has brought new importance to civil aviation. The Chinese aviation authority (CAAC) expects to see average growth of over ten percent in the Chinese aviation industry in the next few years. Pilatus opted to set up a joint venture company with a Chinese Partner for the purpose of gaining a firm foothold in this new market. Indeed, Pilatus would not be able to sell its aircraft in China without the new company of which Pilatus has a majority shareholding. Pilatus Aircraft Industry (China) Co., Ltd will provide a production platform for aircraft components - for the PC-6 and PC-12 only, both civilian aircraft. The company will not be involved in the production of components for **military** training aircraft (PC-21, PC-9 M and PC-7 Mk II). Oscar J. Schwenk, Chairman of the Board of Directors of Pilatus Aircraft Ltd, comments: "The PC-12 and Pilatus Porter PC-6 are optimum aircraft for this booming market, and we are confident our products have great potential. China has many small airfields with short runways - our aircraft are ideal for operating in and out of them." Markus Bucher, CEO of Pilatus Aircraft Ltd, adds: "We believe that a partnership with a local sales partner is the key to success. It also ties in with our strategy of ensuring optimum customer service through the closest possible geographic proximity. Assisted by our joint venture partner, TXJY – Beijing Tian Xing Jian Yu Science Co., Ltd., we will achieve our goal of establishing the Pilatus brand in China." The newly created company and associated Pilatus activities in China will not impact negatively on production operations in Switzerland. On the contrary, production in Switzerland will be reinforced by the anticipated sale of aircraft to China.

**Piper Aircraft, Inc.**

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2012 Zhuhai Directory: Piper Aircraft, Inc., is headquartered in Vero Beach, Florida. A global force in aviation, Piper is an investment of the Ministry of Finance of the Government of Brunei. The company offers efficient single-engine and twin-engine trainer, personal and business aircraft. With economical acquisition and operating costs, Piper airplanes deliver the best value available today and into the future. Piper is a member of the General Aviation Manufacturers Association.

PIPER PRESS RELEASES

#### PIPER NAMES DEALER FOR CHINA

Vero Beach, Fla. - January 9, 2014

Piper Aircraft named Hebei Yuan'ao Aircraft Manufacturing Co., Ltd., as the company's authorized dealer in China for sales of new Piper Mirage single-engine pressurized aircraft, as well as the Piper Archer TX and Seminole training aircraft.

"We welcome Hebei Yuan'ao Aircraft into the worldwide Piper family," said Piper President and CEO Simon Caldecott. "As China opens up its airspace there will be many opportunities there for the sale of high-end, high-performance pistons. With its extensive aviation background, Hebei Yuan'ao Aircraft is well situated to take advantage of the anticipated growth in China of this segment as well as the burgeoning demand in China for Piper pilot training aircraft."

About Hebei Yuan'ao

Hebei Yuan'ao Aircraft Manufacturing Co., Ltd, is headquartered in Shijiazhuang, Hebei Province, China and its factory is located in the "Aviation City" of Pingquan County, Chengde City, Hebei Province, China. It was established in 2012 and is the first private general aviation manufacturing company in Hebei Province. Through solid cooperation with many famous companies and universities in China, such as AVIC Shijiazhuang Aircraft Industry Corporation Ltd. (for production and technical support), the Civil Aviation Flight University of China (for training) and Xi'an Aeronautical Polytechnic Institute (from which it is hiring talented graduates), and abroad with Piper Aircraft (Hebei Yuan'ao is the authorized sales dealer in China for the Mirage, Seminole and Archer), Hebei Yuan'ao has set up an integrated and professional support service system which includes aircraft reassembly, sales, maintenance, flight training and so on.

#### PIPER ACHIEVES HIGHER REVENUE, DELIVERIES IN 2012

Vero Beach, Fla. - February 11, 2013

Piper Aircraft Inc. ended 2012 with increased annual revenue from new aircraft sales of \$148,968,967, up more than 13 percent from \$131,263,539 in 2011. The revenue increase was a result of a 16 percent rise in new Piper deliveries to 158 aircraft in 2012 from 136 the previous year. "We stabilized the manufacturing and delivery of new aircraft throughout the year as our initiative to level-load factory production continued to meet with success. At the same time, our overall aircraft deliveries rose faster than the rest of the industry," said Piper President and CEO Simon Caldecott. "The company also met internal financial forecasts and continued working long-range product plans for the future." Deliveries of 2012 M-Class aircraft featured enhanced cabin-class features for ease of access, brighter lighting, improved sound and electrical service, and better air distribution. Strengthening its commitment to pilot training, Piper delivered 10 Piper Seminole training aircraft to Airline Transport Professionals and completed delivery of a number of Piper Warrior training aircraft to Sekolah Tinggi Penerbangan Indonesia, the government flight school at Budiarto Airport in Curug, Indonesia. While increasing production in 2012, Piper also continued to expand its global dealer network by appointing new dealers in the Netherlands, Chile, India, Central America, Korea, Turkey and China. In addition, the company located a sales manager in China to further develop that growing potential market. Fourth-quarter revenue from new aircraft sales was \$42,090,089 in 2012, up more than 8 percent from \$38,735,165 the previous year. During 2012, Piper delivered 93 top-of-the line M-Class aircraft compared with 82 the previous year, which also helped the annual revenue mix.

#### PIPER EXPERIENCES A SMOOTH 2012, CELEBRATES 75TH ANNIVERSARY

[Extract Only]

Vero Beach, Fla. - January 9, 2013

Piper Aircraft Inc. performed well during 2012, a year of steadiness and preparation for future growth that also marked the 75<sup>th</sup> anniversary of the company's founding.

"We stabilized the manufacturing and delivery of new aircraft throughout the year as our initiative to level-load factory production met with success. At the same time our overall aircraft deliveries rose faster than the rest of the industry," said Piper President and CEO Simon Caldecott. "The company also continued to work on long-range plans for the future."

As the company firmly level-loaded increased aircraft production and deliveries, it continued to globally expand its dealer network, concentrated on delivering improved higher-end M-Class aircraft and recommitted to its trainer class line.

Deliveries of 2012 cabin-class M-Class aircraft featured enhanced cabin features for ease of access, brighter lighting, improved sound and electrical service, and better air distribution. Strengthening its commitment to pilot training, Piper delivered 10 Piper Seminole training aircraft to Airline Transport Professionals and completed delivery of 18 Piper Warrior training aircraft to Sekolah Tinggi Penerbang Indonesia, the government flight school at Budiarto Airport in Curug, Indonesia.

In 2012, Piper continued to expand its global network by announcing new representatives in the Netherlands, Chile, India, Central America, Korea, Turkey and China. The company also located a sales manager in China to further develop that growing potential market.

#### AUGUST:

Piper named Jeremy Prost, a veteran of aviation in China, as the company's sales manager for Asia. With a focus of developing Piper sales in China, Prost is based in China and reports to Piper's Director of Global Fleet Sales, Chuck Glass.

#### NOVEMBER:

Piper Aircraft and the Piper Cub's year-long 75<sup>th</sup> anniversary celebration culminated with a gala customer fly-in in Vero Beach. The fun-filled weekend featured a welcome reception, vendor exhibits, aircraft static display, customer awards, facility tours, a history lesson from Piper's official historian, and a Piper meet-up and send-off pancake breakfast.

Piper Aircraft named Piper Summit Aircraft China Ltd., Beijing, as the aircraft manufacturer's authorized dealer in China for sales of new Meridian single-engine turboprop aircraft. The new Piper dealer conducted a number of Meridian demonstrations for potential customers as the airplane flew en route for display at Airshow China 2012 held during the month in Zhuhai.

#### PIPER NAMES AIRCRAFT DEALER FOR CHINA; LAUNCHES MERIDIAN TOUR

Vero Beach, Fla. - November 27, 2012

Piper Aircraft named Piper Summit Aircraft China Ltd., Beijing, as the aircraft manufacturer's authorized dealer in China for sales of new Meridian single-engine turboprop aircraft. The new Piper dealer conducted a number of Meridian demonstrations for potential customers as the airplane flew enroute for display at Air Show China 2012 held this month in Zhuhai.

"With more than 1.3 billion people, stretching from eastern Asia to the South China Sea, China already has more than 450 airports and a rapidly expanding aviation infrastructure," said Piper President and CEO Simon Caldecott.

"Consequently, we are pleased to bring on an excellent Chinese dealer for Piper Aircraft. The principals of Piper Summit Aircraft China Ltd. have a brilliant aviation track record and an outstanding business plan to grow Piper's influence in this important developing region."

Heading Piper Summit Aircraft China Ltd. will be Chief Executive Officer Jack Chan and President Aaron Gao, who posses broad business, investment and technical backgrounds in China in addition to experience in the general aviation industry.

"The annual growth rate for piston and turboprop aircraft operating in China is approaching 40 percent, reaching 1,700 aircraft by the start of this year. With the gradual

opening of airspace in China, we expect to assist Piper in winning a large share of a market estimated to grow by another 6,000 aircraft by 2015," Chan said.

"The GA market in China is definitely taking off, especially in the remote and underdeveloped Western areas, and with Piper's rich 75 Year history and current product line of high quality aircraft, we see this as a 'win-win' situation for Chinese Operators and Piper and Piper Summit Aircraft China," he added.

Gao said, "We are not only selling new Piper aircraft, we are providing a "Total GA" solution to our clients and operators, including financial options, crewing, and servicing and maintenance."

For what is believed to be the first Piper Meridian product tour in China. Piper Summit Aircraft China conducted customer demonstrations between Chengdu and Kunming and from Kunming into Zhuhai, enroute to Air Show China 2012.

About the Meridian

The Piper Meridian is a single-engine turboprop that seats six with club seating. It is powered by the P&WC PT6A-42A 500 shp engine and has a 260 KTAS/482 km/h max cruise speed and a range of 1,000 nm/1,885 km. It comes equipped with the Garmin G1000 avionics suite.

#### PIPER NAMES BEIJING-BASED SALES MANAGER

Vero Beach, Fla. - August 7, 2012

Piper Aircraft Inc. named Jeremy Prost, a veteran of aviation in China, as the company's sales manager for Asia. With a focus of developing Piper sales in China, Prost will be based in Beijing and report to Piper Director of Global Fleet Sales Chuck Glass. "With his extensive aerospace experience in China, Jeremy Prost is an expert at developing general aviation business in that country. His appointment is a key part of Piper's strategy to widen our footprint around the world and to focus on the potential represented in China," said Glass. Prior to joining the Piper sales team, Prost was head of the Beijing office for Diamond Aircraft following increasingly responsible positions in sales and customer support with that company and BinAo Aircraft, its manufacturing partner in China. He has considerable experience in fleet training sales, which will be particularly important as the Chinese aviation and aerospace market grows. He also has experience with the World Trading and Gold Sea International Trading Company. Prost has completed intensive studies of intermediate and Business Chinese at Jinan University, Guangzhou, and basic Chinese at Shanghai University. He has also completed graduate studies in business at Ecole Supérieure de Commerce in Montpellier, France, and he holds a bachelor of arts from the University of Wolverhampton in England. He also studied business at Claude Bernard, Villefranche sur Saône, France. He is fluent in Chinese, English and his native French. Part of Global Expansion. Prost's appointment is a key element in Piper's ongoing globalization initiatives that have led to more and stronger sales and dealer representation throughout the world. The company has recently made multiple fleet sales in Asia.

#### PIPER'S SINGAPORE AIRSHOW PRESENCE REFLECTS PAC RIM OPPORTUNITIES

[Extract Only]

Vero Beach, Fla. - January 23, 2012

Piper Aircraft is sending a senior group of sales executives to the Singapore Airshow, Feb. 14-19 at the Changi Exhibition Centre adjacent to the Changi Airport. Heading the company delegation from the company's Vero Beach headquarters will be Piper Head of Global Sales and Business Development Drew McEwen. Joining him from Piper's Brunei sales offices will be Piper Director of Global Fleet Sales Chuck Glass, Director of Sales Asia Pacific Dana Cox and General Manager of Piper Asia Alex Omar; all are located at

Piper's Brunei sales offices. The group has achieved recent gains in selling aircraft into the Asia Pacific area and is anticipating more opportunities with the diverse economies of the region. "We have seen the Piper fleet grow incrementally in the Pacific Rim just since the Singapore air show in 2010, and this is exemplified by our recent sales to a number of pilot training providers in the region," McEwen said. "One in six new airplanes we build is being purchased by Pacific Rim countries and we would like to see these sales grow even more. That is the primary reason we are taking this opportunity to focus our sales presence in this important region at the Singapore Airshow."

#### Recent Fleet Sales

Since the Singapore 2010 air show, Piper activity in the Pacific Rim has resulted in nearly 50 fleet training sales.

#### 10 Piper Seminole to China

Piper has sold 10 twin-engine Piper Seminole advanced training aircraft to the Civil Aviation Flight University of China.

#### PIPER DELIVERS TWIN-ENGINE TRAINERS TO CHINA

Vero Beach, Fla. - November 29, 2011

Piper Aircraft Inc. will deliver the last of seven twin-engine Piper Seminole advanced training aircraft to the Civil Aviation Flight University of China this December. While neither organization is disclosing the fleet purchase price, the retail value of seven new Seminole aircraft totals nearly \$4.2 million. Under the jurisdiction of the General Administration of Civil Aviation of China (CAAC), the Civil Aviation Flight University of China (CAFUC) is an institution of higher education for civil aviation pilots, as well as for technicians of other civil aviation specialties and for high-quality applied professionals in engineering and management. It is headquartered in Guanghan City, Sichuan Province, and has 8,000 students throughout a number of locations within the country.

#### **Pratt & Whitney (a United Technologies Company)**

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Contact: Katy Padgett, Communications Manager, P&W Commercial Engines

2012 Zhuhai Directory: Pratt & Whitney, a United Technologies Corp. company (NYSE:UTX), is a world leader in the design, manufacture and service of aircraft engines, auxiliary and ground power units, and small turbojet propulsion products. We reported an operating profit of \$2.0 billion in 2012 on revenues of \$13.4 billion. Our company has approximately 36,000 employees who support more than 11,000 customers around the world. Pratt & Whitney's large commercial engines power more than 30 percent of the world's mainline passenger fleet. The company continues to develop new engines and work with its partners in International Aero Engines and the Engine Alliance to meet airline customers' future needs. Pratt & Whitney develops game-changing technologies for the future, such as the PurePower PW1000G engine, with patented Geared Turbofan engine technology. The company's worldwide large commercial engine maintenance, repair and overhaul network provides innovative services that add value and delight customers around the globe. Pratt & Whitney Canada has produced more than 75,000 engines, of which there are currently more than 49,000 engines in service on more than 28,000 aircraft operated by more than 10,000 operators in 200 countries.

Company Locations in China:

Pratt & Whitney Shanghai Engine Center - Shanghai, China  
Overhaul Center: CFM56

Southern P&W Aero Engine Company - Zhuzhou, China  
Manufacturing

Chengdu Aerotech Manufacturing Company- Chengdu, Sichuan, China  
Manufacturing

Huapu Aviation Engine Training Center - Beijing, China  
CFM56

Pratt & Whitney China Customer Training Center, 8A Tianzhu Road, Tianzhu Airport  
Industrial Zone, Shunyi District, Beijing 101312  
Tel: (86)10-8048-6677; Fax: (86)10-8048-6329  
chinacustomertraining@pw.utc.com

Pratt & Whitney - Satellite Training Location - Beijing, China  
China Customer Training Center (CCTC)  
8 A Tianzhu Rd, Tianzhu Airport Industrial Zone, Shunyi District, Beijing 101312

6A, Bldg A, Gateway Plaza No. 18 Xiaguangli, Dongsanhuan N. Rd, Chaoyang District,  
Beijing 100027  
Tel: (86 10) 8440 0608 (ext. 208); Fax: (86 10) 8440 0616

Rm 314-315, Aviation Industry Support Center, Airport Industrial Park, Tianjin Port Free  
Trade Zone 300308  
Tel: (86 22) 5877 5800; Fax: (86 22) 5877 5801

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## HISTORY IN CHINA

1929

The Loening Air Yacht –powered by Pratt & Whitney's Hornet engine – provides mail  
service from Shanghai to Hankou.

1973

First Boeing 707 powered by Pratt & Whitney engines and equipped with Hamilton  
Sundstrand systems to China.

1996

First aviation joint venture established in China – Pratt & Whitney Chengdu Aerotech  
Manufacturing Co., Ltd.

1997

Xi'an Airfoil Technology Co. Ltd. is established - a joint venture between Pratt & Whitney, Xi'an Aircraft Industry (Group) Co., Ltd. and BTI Israel.

1998

South Pratt & Whitney Aero-Engine Co., Ltd. is established - a joint venture between China Aviation Industry Corporation and Pratt & Whitney Canada.

2002

Pratt & Whitney Customer Training Center is established – a joint venture between United Technologies Far East Ltd. and the China Aviation Supplies Import & Export Group Corporation.

2009

Shanghai Pratt & Whitney Aircraft Maintenance Company opens. The facility is a joint venture between Pratt & Whitney and China Eastern Airlines.

#### OVERVIEW OF PRATT & WHITNEY ACTIVITIES IN CHINA [EXTRACTED IN JANUARY 2014]

Pratt & Whitney has had a significant presence in China since 1929, when the Loening Air Yacht – powered by Pratt & Whitney's Hornet engine – provided mail service from Shanghai to Hankou. Over the course of more than 80 years, Pratt & Whitney has established a proven track record of long-term business activities and partnerships within the Chinese aviation industry. Today Pratt & Whitney employs more than 1,200 people in China, which continues to be a key growth market for the company's products and services. Pratt & Whitney is committed to expanding its operations in China and continues to explore opportunities to grow its presence and services within the country. Pratt & Whitney is part of United Technologies Corp. (NYSE: UTX)

#### SHANGHAI

Pratt & Whitney Management (Shanghai) Co., Ltd. – Provides marketing, sourcing, human resources, finance support and corporate communications to Pratt & Whitney businesses in China. Every year, Pratt & Whitney spends tens of millions of dollars (USD) purchasing aviation parts and rotating critical parts in China. Shanghai Pratt & Whitney Aircraft Engine Maintenance Company – This joint venture between Pratt & Whitney and China Eastern Airlines became operational in September 2009. The state-of-the-art facility – the first LEED platinum facility in China and UTC – provides maintenance, repair and overhaul services for CFM56-3, -5B, -7B engines to customers in China and throughout the Asia Pacific region. It is playing a large role in Pratt & Whitney's presence as the industry's largest independent third party MRO provider for CFM56 overhauls.

#### KEENAN SPEECH

James E. Keenan Senior Vice President & General Manager Pratt & Whitney Global Service Partners

China Civil Aviation Development Forum 2007

May 9-10, 2007

Jim Keenan is Senior Vice President and General Manager of Pratt & Whitney Global Service Partners. In this role, Mr. Keenan provides strategic leadership for all aspects of the company's global commercial engines service business. This business includes engine overhaul, part repair, fleet and materials management, and a portfolio of service solutions. Mr. Keenan also is responsible for leading the development and implementation of new

repairs and bringing new service solutions to market. Pratt & Whitney Global Service Partners is an industry leader in customer solutions and service excellence. With more than 6,000 employees and 25 engine overhaul and part repair facilities worldwide, Pratt & Whitney Global Service Partners has the most extensive commercial engines Maintenance, Repair and Overhaul (MRO) service network in the world. Before joining Pratt & Whitney in 2002, Mr. Keenan held the position of Vice President, Engineering and Technical Support at United Airlines, one of the largest international carriers based in the United States. In this role, Mr. Keenan had responsibility for the design and optimization of maintenance programs, the modification of aircraft, engines and components, and the performance of aircraft. He was with United Airlines for 14 years. Mr. Keenan serves on the Board of Directors for Junior Achievement, a non-profit organization dedicated to inspiring and preparing students in grades K-12 to succeed. He holds a Bachelor of Science degree in mechanical engineering from the Santa Clara University School of Engineering and completed a number of executive education programs at Stanford University and the University of Virginia Darden Graduate School of Business Administration. He lives in Farmington, Connecticut, with his wife and two sons. Pratt & Whitney is a world leader in the design, manufacture and service of aircraft engines, space propulsion systems and industrial gas turbines. United Technologies, based in Hartford, Conn., is a diversified company providing high technology products and services to the global aerospace and commercial building industries.

Jim Keenan Remarks "Strategies for Successfully Growing China's Aviation Market" China Civil Aviation Development Forum Beijing, China, May 9-10, 2007

Good afternoon, and thank you for that kind introduction, \_\_\_\_\_.

Visiting China any time is great, and I'm especially delighted to be with you here in Beijing. The aerospace business is always exciting for me, and it is doubly exciting when you get to fly into the city with the world's fastest growing international airport! The growth we're seeing at Beijing Capital International Airport is just one sign of the huge opportunity we have for partnership and cooperation as your nation's aviation system grows and expands. I want to thank the CAAC (General Administration of Civil Aviation of China) for sponsoring this wonderful conference, and for inviting me to be part of this distinguished list of speakers. It's been a privilege just hearing from Minister Yang [YAHNG], the vice minister and directors general, and from ICAO Secretary General Chérif and FAA Administrator Blakey.

The tremendous progress going on all around China today goes well beyond the 18.3 percent increase in passenger traffic that was seen last year at Beijing Capital, making it the ninth busiest airport in the world. It includes the 16.3 percent growth in freight shipping from Shanghai Pudong [poo-DOUNG] International. But there is much more.

There is the ARJ-21 regional jet going into flight testing next year, and soon it will be in service. There is development starting for a large Chinese-made passenger aircraft. There are the plans for something like 48 new airports across this vast and beautiful land.

UTC and Pratt & Whitney are among the 23 corporate sponsors of the U.S.-China Aviation Cooperation Program, known as ACP. Formed in 2004, this public-private initiative promotes technical, policy and commercial cooperation between the aviation sectors in China and the United States. Its goal is advancing civil aviation in China.

ACP could not have happened without the strong, personal support of Minister Yang, FAA Administrator Blakey and Director Thelma Askey of the U.S. Trade Development Agency. This is a partnership working together to ensure China's aviation system finds the best solutions to safety, capacity and efficiency as it expands its infrastructure and builds an air-traffic control system capable of handling this burgeoning demand.

UTC and Pratt & Whitney are proud to be active participants in ACP.

As I enjoy the warm welcome I've had from all of you, I am mindful of the long history of investment by United Technologies Corp. in China. Our parent corporation has felt welcomed her for a long time.



UTC has been doing business here for more than a century. We first sold Otis elevators in China in 1888, and some of those historic elevators from the early 20th century still are operating! And Pratt & Whitney was the first foreign company to form a joint venture to manufacture aerospace parts in China.

UTC is based in the United States, but we have a worldwide presence. And we have a commitment to many customers throughout the Asia-Pacific region. UTC has 214,000 employees worldwide, and two-thirds of them work outside the United States. Fourteen thousand work in China today, at more than 200 offices in 63 Chinese cities.

Our joint ventures and partnerships here are prospering and bringing prosperity to their communities across China. We expect to see their numbers rise steadily in coming years.

UTC has been on the forefront of development in Chengdu [cheng-DOO], Xian [she-AHN] and other cities in the western provinces. Expansion of the civil aviation system and the supporting infrastructure will bind your nation together as never before, and we know that our ties to China will strengthen and grow as well. We are here for the long run.

Global Service Partners, the division that I lead, is the part of Pratt & Whitney that does maintenance, repair and overhaul (MRO) for airlines around the world. Our business was started in 1925 by a man who originally worked for the Wright Brothers. We like to say our company was built on two words, "Dependable Engines," which you see alongside the Eagle on the Pratt & Whitney logo. We have a culture that begins with listening to our customers and ends with standing by our products – supporting the engines and industrial gas turbines we make and sell.

Let me mention briefly the history of Pratt & Whitney in China. More than a decade ago, as I mentioned, Pratt & Whitney became the first foreign company to establish an aviation parts manufacturing joint venture here. That was in 1995. As soon as we were able to invest in China, we invested.

That facility is the Chengdu Aerotech Manufacture, a partnership with Chengdu Engine Co. (AVIC I). It is a modern, air-conditioned, "zero-discharge" manufacturing plant. That means it was designed and built to give employees a safe and comfortable place to work, and it protects the environment.

Besides aero engine parts, this facility makes parts for industrial gas turbines that are meeting electric power needs of many communities throughout China. We are very happy with the Chengdu operation. It now has more than 250 employees. Revenues there have tripled over the past three years.

In Zhuzhou [zoo-JOE] we have a partnership with AVIC II that produces parts for turboprop engines made by our Pratt & Whitney Canada division near Montreal. And the Xian Airfoil Technology plant also employs more than 250. After almost a decade in Zhuzhou, we are committed to continue. Pratt & Whitney Canada is looking to China right now for new opportunities to provide engines for General Aviation and civil helicopters.

The line of PW600 engines made at our facility near Montreal is powering the new generation of "very light jets" made by Cessna, Eclipse and Embraer. These small, four- and six-seat jets are opening new air travel options for businesses and individuals. Pratt & Whitney Canada is in the forefront of powering those aircraft.

We also support aerospace development in China with our HUAPU Aviation Engine Training Center in Beijing. Maybe some of you have visited that center. There we offer maintenance and engineering management training to a long list of air carriers that use Pratt & Whitney engines.

It's exciting for us to know that the ARJ-21, a "Regional Jet for the 21st Century," soon will be entering flight testing. One sister company of Pratt & Whitney within UTC, Hamilton Sundstrand, holds the contract to provide that aircraft with its electric power system, ram air turbine, auxiliary power unit and flap/slat control system.

I understand that AVIC I already has advance orders for about 70 AJR-21s. People are eager to fly this exciting new aircraft, and Hamilton Sundstrand is happy to support this landmark project.

Another UTC business unit that you know well, I'm sure, is Sikorsky Aircraft. The Jingdezhen [JING-de-ZEN] Helicopter Group is part of an international team of companies building the S-92, the newest medium-lift helicopter made by Sikorsky. That relationship dates back more than a decade.

And just last fall, the Sikorsky subsidiary company Schweizer Aircraft selected Jiangxi [ji- ung-SHE] Changhe [chung-HOUE] Aircraft Co. to supply airframe components and assemblies for the Schweizer 300CBi light helicopter. This contract is the first completed under a memorandum of understanding between Sikorsky and AVIC II, and we hope it will be the first of many. Sikorsky is committed to investing in China and developing additional strategic partnerships with AVIC II.

I've mentioned past investments that Pratt & Whitney and other UTC companies have made in your country. Noting these is important, because they make clear our commitment to build and strengthen our working partnerships. But to me personally, as head of Pratt & Whitney Global Service Partners, the most exciting development at this time is our new partnership with China Eastern Airlines in Shanghai. Our joint venture was signed in November, as you've probably heard, and after final government approval it will move into construction later this year.

Pratt & Whitney has always looked to China's aerospace sector as a good place to get quality work done for a competitive price. But this is something new.

At Pratt & Whitney Global Service Partners, we see ourselves as the premier maintenance provider for all engines for single-aisle aircraft, including our own International Aero Engines (IAE) V2500 and the CFM56 engine as well. There is plenty of demand. Our division has seen its business grow by 75 percent over the past five years. Besides traditional engine overhauls and fleet maintenance plans, we've added innovative offerings such as EcoPower water washes that save on fuel and let engines fly longer between overhauls.

The China Eastern engine overhaul facility offers great things to both partners.

It will be a "center of excellence," servicing air carriers from within China and throughout the Asia-Pacific region. Pratt & Whitney has the best cutting-edge technology and advance repair capability in engine MRO. China Eastern is the largest operator of CFM56 engines in the region, and the facility will have capability to overhaul CFM56-3, -5B and -7 engines.

In this partnership, China Eastern and Pratt & Whitney have embarked on a holistic "green," energy-efficient and sustainable design approach to the Shanghai facility. We are drawing on UTC's expertise in this area, and working with experts at Chinese universities to achieve cost-effective reductions in energy use under guidelines of the U.S. Green Building Council and the green building standards of the Chinese Ministry of Construction.

Energy use reductions of at least 25 percent are believed to be achievable. There will be zero potable water use for irrigation and sanitary use, high levels of indoor environmental quality and extensive use of recycled materials in construction. All of this reflects UTC's overall commitment to the environment. Over the next four years, we have a goal of cutting greenhouse gas emissions by 12 percent companywide, while reducing water consumption by 10 percent and non-recyclable waste by 30 percent.

For Global Service Partners, this joint venture supports our strategy of expanding our worldwide service network. We want to be the industry's No. 1 independent supplier of MRO services for CFM56 engines as well as for Pratt & Whitney engines.

Here is one more example of how we listen to our customers and offer creative solutions.

Starting this year, Pratt & Whitney's Global Material Solutions unit also will offer OEM-quality spare parts for CFM56 engines at a competitive price. These will be gas-path and

life-limited parts. And they'll be certified to be as good as, or better than, the original CFM parts. This means at our Shanghai facility, we can meet 100 percent of our customers' material needs by providing a full range of services and competitively priced, fully interchangeable CFM56 engine parts.

As we've heard throughout this conference, civil aviation in China is at a historic crossroads. Air travel is expanding and penetrating new markets worldwide, but nowhere is it growing faster than in China.

As I've mentioned, there is striking evidence of that in the growth of Beijing Capital International Airport. This facility served fewer than 5 million passengers in 1987! Within 10 years, it saw passenger traffic leap to almost 17 million in 1997. Over the past decade, that figure has almost tripled to 48.5 million passengers! Beijing Capital had grown 10-fold over the past two decades. It now is among the world's largest airports, with more arrivals and departures than Tokyo International.

The trend continues. Last year, the number of passengers using Chinese airports rose by 16.7 percent, to 332 million. That figure is expected to double over a span of five years. Forecasts say before many more years, the commercial aviation market in China will rank second to the United States. To support that growth, China needs dozens of new airports and new airlines, and those airlines need new aircraft.

Through 2025, it's projected that China's airlines will need to add more than 2,800 new civil aircraft worth nearly \$280 billion. Add to that about 260 more freighter aircraft, and you're talking about building engines, APU's, electrical and control systems for more than 3,000 new planes over the next 18 years. And those planes and engines will need maintenance and overhauls.

This is why Pratt & Whitney, Pratt & Whitney Canada, Hamilton Sundstrand and all of UTC are ready to partner with Chinese companies to support this rapid development and all it will mean to the Chinese people.

We want to support you in the best ways we know. One great thing that we have already shared is training in the ACE operating system. The ACE quality system has been used throughout UTC for more than 10 years, and has improved our success in many ways. ACE – or Achieving Competitive Excellence – provides tools and specific methods for continuous improvement of your manufacturing and business processes.

A recent, three-day ACE training session at the Pratt & Whitney center in Beijing was attended by Zhang Hong Biao [jung huong bee-OW], president of AVIC II, and Zhang Xin Guo [jung shin GWAH], senior vice president of AVIC I. We were very pleased that they brought almost 150 members of their senior management teams for the training. When it was completed,

President Zhang said some very kind words at the concluding dinner. He said spring is the time for seed-planting, and this spring the ACE training has planted seeds for better success for many in China.

These are the kind of seeds we see being planted at this week's conference. We hope to find ways to share more of the same with you.

In March, the Federal Aviation Administration opened an office in Shanghai to improve ties with China and support your ARJ-21 project. The U.S. government is reaching out to China to share technology and speed development of the ARJ-21, and UTC stands ready to do the same.

I want to mention one other way that Pratt & Whitney can work with Chinese aviation to better equip the thousands of new planes arriving in service – particularly the next generation of single-aisle aircraft. I am talking about the new versions of the Boeing 737 and Airbus 320 family, or whatever new planes are designed and built to fly that mid-sized segment.

Of those 3,000 aircraft needed to support China's rapid commercial aviation growth, more than 60 percent will be single-aisle. Building on 20 years of research and

development, Pratt & Whitney will soon bring to market its unique, Geared Turbofan engine for the next generation of single-aisle aircraft.

Compared even to newer, advanced turbofan engines, the Geared Turbofan will improve fuel burn, lower maintenance costs and cut engine noise to meet the new stricter noise controls adopted by the European Union and other regulatory agencies. It is technology only Pratt & Whitney has, and it's the right innovation at the right time for civil aviation, where the cost of fuel is a greater concern than ever before.

The Geared Turbofan prototype at our Connecticut facility is scheduled for a ground demonstration later this year. It will begin flight testing in 2008 and we expect the engine to be ready for market a few years after that. This game-changing GTF technology will be the newest generation of Pratt & Whitney's "Dependable Engines."

The more we find opportunities to work together in this increasingly global world economy, the stronger will be our friendship and trust. That connection is bound to grow as a broad range of economic ties between China and the United States grow and strengthen in coming years. Certainly as China's economy and aviation infrastructure continue their rapid growth, there will be an ever-stronger case for more cooperation and exchange of knowledge.

UTC, with its long history in China and presence here in more than 200 facilities, is uniquely situated to serve all of China's aerospace industry. With industry-leading engines for aircraft ranging from the A380 down to "very light jets," and world-class service capabilities, Pratt & Whitney also has unique capabilities that we are eager to share.

Gatherings like today's conference are great things because they begin friendships and open doors. I know we'll see more of that happening next summer with the 2008 Olympics games taking place in Beijing, and I wish you all the best for that important event!

I thank you once more for inviting me today, and I look forward to being back with you again very soon.

Thank you

#### PAPER: INDUSTRY ANALYSIS OF PRATT AND WHITNEY: A DISCUSSION OF P&WS INDUSTRY, HISTORY, COMPETITION, TRENDS AND ITS PRESENCE IN CHINA.

By Makuka Chipanta and Jonathan Winn

10/22/2011

NOTE TO READER: THE BELOW ONLY INCLUDES SECTIONS 4.0-5.0 OF THE ORIGINAL PAPER.

##### 4.0 P&W Presence in China

China currently represents the fastest growing aviation market in the world. International aviation companies have been manufacturing aerospace components in China for years, but now that China is home to the next target market the manufacturing strategy has changed. Until recently, P&W's presence in China solely consisted of Chengdu Aerotech Manufacturing Co and South Pratt & Whitney Aero Engine Company, which produced machined components for turbines [Yiyu, Liu. "Pratt & Whitney, AVIC in Talks on Making Engine Parts." China Daily US Edition. 12 June 2010. Web. 15 Oct. 2011.

Forced to compete with local suppliers, P&W has sought out additional partners within China to form competitive joint ventures. These ventures give P&W access to markets that they could never manage on their own. In order to fully capitalize on the new demand for aircrafts, P&W has expanded their China business beyond component manufacturing. In 2009 P&W made a significant capital and intellectual property

investment by constructing the Shanghai Engine Center (SEC) as a joint venture with China Eastern Airlines. This service depot is positioned to service aircraft from all over the region, and further establishes P&W in China's aerospace supply chain as well as its growing economy.

#### 4.1 China's Commercial Airline Market

China's commercial airline market is ruled by China Eastern Airlines, China Southern Airlines and Air China. The Civil Aviation Administration of China (CAAC) expects air travel to increase annually by 14% to the year 2020, which leaves a lot of room for investment and growth. Air travel faces direct competition with the high speed rail system, though safety issues with these trains may force travelers back to the skies. Regardless of competition, the growing population and rising middle class will create demand for air travel and planes will continue to grow old and be retired. Companies like GE and P&W are positioning themselves to be selected as the aircraft engines that will take to tomorrow's skies. Already GE beat out P&W in the engine selection for China's ARJ21 regional jet; however P&W's Rockwell Collins was awarded production of the Avionics. P&W is also working on landing the avionics contract for the COMAC C919, an aircraft produced by the Commercial Aircraft Corporation of China (COMAC) (COMAC C919, 2011). Over 2,000 of C919s are expected to be built in competition with Airbus and Boeing. Winning the C919 contract would not only an initial cash payment for the engine purchases, but ensure future cash flow for engine maintenance. Maintenance, repair and overhaul (MRO) is a very lucrative business worthy of great investments by engine manufacturers, and P&W has recognized their construction of the Shanghai Engine Center.

#### 4.2 The Shanghai Engine Center

The SEC is a product of a joint venture between P&W and China Eastern Airlines. These types of joint ventures are becoming quite common in China as a means to defeat their disadvantaged import market. Without participation from a Chinese partner, businesses forgo better interest rates, spend more on labor and are subject to different (costlier) tax laws. This joint venture also gives P&W a stable source of revenue through a long term maintenance service agreement with China Eastern Airlines, reducing the total risk of this joint venture (P&W web page, 2011).

The technology installed in this 275,000 sq. foot building is cutting edge, and the facility is the only one of its kind in China to earn a LEED Platinum certification (P&W web page, 2011). Its construction showcases many of the products developed by other UTC companies such as Carrier chillers and pumps, and a Hamilton Sundstrand Sullair compressed air system. As viewed by the president of the U.S. Green Building Council, the SEC "will serve as a leading example for other facilities within China" (P&W web page, 2011). With all of the international attention on pollution and unregulated production in China, the SEC sets the bar high for new joint ventures. In addition, its Platinum status could become financially beneficial if China gets onboard with global trends and awards tax breaks to green manufacturers.

The SEC provides complete gas turbine MRO and will be used to service a wide variety of commercial aircraft as part of the Global Service Partners (GSP) network. The GSP network currently services "P&W, International Aero Engines, General Electric, Rolls Royce and CFMI" (P&W web page, 2011). The facility was primarily constructed to support the CFM56 engine as its partner, China Eastern Airlines, uses these engines more than any other airline in the Asia-Pacific region (P&W web page, 2011).

Several ASEAN countries fly CFM56 engines so having a local service depot is great for business for P&W and the airlines. Service depots bring in money for services as well as decrease engine downtime, a measurement used to rate an engine's reliability. Having more reliable engines will increase favor towards P&W when airlines consider future purchases. In September of 2011 the SEC delivered its first overhauled CFM56 engine to Vietnam based Jetstar Pacific Airlines (P&W web page, 2011). This delivery was well executed and is a shining example of P&W's commitment to excellence. Eventually the SEC is expected to perform 300 of these overhauls per year (P&W web page, 2011). P&W will continue to use the SEC as a launch point for capturing business in the region of the South China Sea.

#### 5.0 Conclusion

In order to remain competitive, P&W must keep pace with its rivals' ingenuity and market strategy. This applies domestically and internationally, and no company can afford to ignore the explosion of growth in China. P&W's Chinese ventures in gas turbine manufacturing, MRO of operating engines and avionics manufacturing come at a crucial time for commercial airline expansion. Their position in China should give them an advantage when it comes to winning the next big airline contract which could mean billions in revenue. At the same time, P&W's Shanghai Engine Center is world renowned for its green construction and allows UTC to demonstrate its total solution package. Joint ventures such as the SEC will be the key to gain access to future Chinese markets, and in the middle of a global recession and with a parent company as strong as UTC, P&W is perfectly poised to deliver to what soon may be the world's greatest superpower.

#### U.S. STATE DEPARTMENT ANNOUNCEMENT

U.S. State Department Announces Resolution of United Technologies Corporation Arms Export Control Enforcement Case

Media Note - Office of the Spokesperson - Washington, DC

June 28, 2012

United Technologies Corporation (UTC) has agreed to pay more than \$75 million as part of a "global settlement" with the State Department and Justice Department to address arms export violations to China, false and belated disclosures to the U.S. Government about these illegal exports, and many other compliance failures.

An extensive enforcement review by the Department of State's Office of **Defense** Trade Controls Compliance has addressed several hundred civil violations of the Arms Export Control Act (AECA) and the International Traffic in Arms Regulations (ITAR). The State Department has reached administrative agreement with United Technologies Corporation to terminate and resolve these violations. This settlement highlights the role of the Department in protecting sensitive American technologies from being illegally transferred to, or received by, unapproved foreign actors.

The Department determined that UTC's numerous violations demonstrated a systemic, corporate-wide failure to maintain effective ITAR controls. Since 2006, UTC operating units and subsidiaries (including Pratt & Whitney, Hamilton Sundstrand Corporation and Sikorsky Aircraft Corporation) have disclosed to the Department hundreds of ITAR violations. A number of the violations may have caused harm to U.S. national security and foreign policy interests.

Accordingly, the Department proposed to UTC a consolidated resolution via an administrative settlement which would ensure immediate, comprehensive and effective remedial action across the company's many operating units and subsidiaries. Among the civil violations settled by UTC are several arising from the unauthorized provision in 2002 and 2003 of U.S. origin, ITAR-controlled engine software for **military** attack helicopters in the People's Republic of China. Concurrently with the administrative settlement, UTC has also agreed with the U.S. Department of Justice to resolve criminal charges related to these transactions. UTC subsidiary Pratt & Whitney Canada Corporation (P&W Canada) has pleaded guilty in the U.S. District Court in Connecticut to a criminal violation of the AECA and ITAR, while UTC, Hamilton Sundstrand and P&W Canada have also entered into a deferred prosecution agreement regarding this and other related charges. UTC and the Departments of State and Justice coordinated the resolution of the civil and criminal matters.

Of the \$75 million "global settlement" with the Justice Department and State Department, approximately \$20.7 million of this sum represents fines, forfeiture and other penalties to be paid to the Justice Department. Under the terms of a four year Consent Agreement with the State Department, UTC will pay a civil penalty of \$55,000,000. The State Department agreed to suspend \$20,000,000 of this amount on the condition that the

funds have or will be used for Department-approved pre- and post-Consent Agreement remedial compliance measures.

UTC disclosed nearly all of the ITAR violations resolved in this settlement voluntarily to the Department, acknowledged their serious nature, cooperated with Department reviews, and implemented or has planned extensive remedial measures. For these reasons, the Department has determined that an administrative debarment of UTC is not appropriate at this time.

In response to the criminal conviction, the Department of State is imposing a statutory debarment on P&W Canada. In accordance with the AECA, after a thorough review of the circumstances surrounding the conviction and a finding that appropriate steps had been taken to mitigate law enforcement concerns, the Department determined to exclude certain activities involving P&W Canada from the statutory debarment, as specified in an upcoming Federal Register notice announcing the debarment. Authorization requests for all other ITAR-regulated activities involving P&W Canada will be denied unless accompanied by a "transaction exception" request which will be reviewed and adjudicated by the Department.

## PRATT AND WHITNEY PRESS RELEASES

### PRATT AND WHITNEY-LED ENGINE PARTNERSHIP GETS \$430 MILLION CHINA DEAL

October 7, 2013

International Aero Engines, Pratt & Whitney's multinational partnership, has landed a major jet engine contract from a subsidiary of the Industrial and Commercial Bank of China, company officials say. Under terms of the agreement, ICBC Financial Leasing Co. Ltd. will buy 40 engines, if all options are exercised, for a total value to IAE of \$430 million, IAE President and CEO Jon Beatty said Friday in a statement. IAE's V2500 engines will power 17 firm and three option Airbus Industrie A320 series aircraft, which will be leased to airlines worldwide, Beatty said. Engine deliveries will start in 2015 and continue through 2017, he added. The leasing company has experienced "impressive growth in China and internationally," Beatty said, adding the company has become "one of the largest businesses in the world." ICBC Leasing owns and manages more than 350 aircraft, its website says. Beatty also said that that IAE now has 19 customers based in China operating more than 420 V2500 engine-powered aircraft. In addition to the initial engine sales, IAE also has maintenance contracts for the engines on more than 360 of the aircraft. IAE maintains a total of 12 field offices in China and has a presence at the Airbus final assembly line in Tianjin, China, Beatty said. East Hartford-based Pratt owns two-thirds of IAE, which has its headquarters in Glastonbury. Japanese Aero Engines Corp. and MTU Aero Engines of Germany own the remainder of the partnership. Pratt bought out former major partner Rolls-Royce in 2011 for \$1.5 billion. IAE supplies its V2500 engines to 190 airlines in 70 countries, company background says.

### IAE'S V-SERVICES HELPS MAINTAIN FLEET IN CHINA

Beijing, China, September 25, 2013

Operators' Goals: Improve TOW, Maintain Residuals and Lower Risk

Today 19 customers based in China operate over 420 V2500 engine-powered aircraft. More than 360 of these aircraft are covered by a V-Services Fleet Hour Agreement (FHA).

"Operators in China are committed to keeping their engines operating at peak performance," said IAE President and CEO Jon Beatty. "Their goal is to enhance the engine's reliability, fuel-burn performance and residual value, as well as to reduce their maintenance costs and risk of unscheduled maintenance. IAE's records have shown that engines covered by an FHA have up to 20 percent longer time-on-wing (TOW) between shop visits.

"The large number of V-Services FHAs in China is also an indication of the strong working relationships we have with our customers," said Beatty. "Through customized aftermarket programs we are able to work with operators to better leverage IAE's fleet knowledge in China, identify trends and issues that may affect engines in the future, and proactively manage engines in operation."

Through the V-Services portfolio IAE is able to provide both flexible and optimized engine maintenance/support solutions. The benefits to customers include:

- Predictable maintenance cost
- Optimized engine performance, reliability and fuel burn
- Improved marketability
- Increased residual value

As the number of V2500 engines in service continues to grow, IAE remains focused on providing customers with a variety of options to support their fleets through V-Services initiatives, which are tailored to meet complex customer requirements.

In addition to FHAs, IAE offers Fixed Price Maintenance, Spare Engine Solutions and Lessor Direct Options. All V-Services agreements are centrally managed and run by IAE giving the customer one point of contact. IAE's goal is to increase the percentage of the fleet under service contracts so more customers experience the benefits and customized solutions available.

IAE's long-term commitment to operators in China extends beyond the world-class V2500 engine and comprehensive aftermarket support with a total of 12 field offices in Greater China and support to the Airbus Final Assembly Line in Tianjin, China (FALC).

About IAE:

IAE is a multinational aero engine consortium whose shareholders are comprised of Pratt & Whitney (NYSE: UTX), Pratt & Whitney Aero Engines International GmbH, Japanese Aero Engines Corporation and MTU Aero Engines. To date, more than 5,700 V2500 engines have been delivered and more than 1,600 more engines are on order with close to 200 customers around the world.

#### CHINA SOUTHERN OPTS FOR PRATT AND WHITNEY ENGINES

June 17, 2013

PARIS--China Southern Airlines Co. Ltd. (1055.HK, 60029.SH) has earmarked engines made by Pratt & Whitney, a United Technologies Corp. UTX -1.01% unit, to power 16 Airbus A330 jets it has ordered. "The contract, which is valued at \$1.29 billion, also includes a 15-year Fleet Management Plan for engine maintenance," Pratt & Whitney said in a statement Monday. China Southern Airlines is the largest airline in China and Airbus is a unit of European Aeronautic **Defence** & Space Co. EADS NV .

#### CHINA SOUTHERN AIRLINES SELECTS PRATT & WHITNEY PW4170 ADVANTAGE70 ENGINES

June 17, 2013

Paris Air Show,

China Southern Airlines has selected Pratt & Whitney's PW4170 Advantage70 engine to power its order of 16 Airbus A330 aircraft. Pratt & Whitney is a United Technologies Corp. (NYSE:UTX) company. The contract, which is valued at \$1.29 billion, also includes a 15-year Fleet Management Plan for engine maintenance. "We selected Pratt & Whitney's PW4170 Advantage70 engine because of the environmental and operational benefits provided by this engine," said Su-Guang Dong, executive vice president, Engineering and Maintenance, China Southern. "We are pleased with the performance of our PW4170-powered A330 aircraft as well as the support provided by Pratt & Whitney. The engine provides excellent reliability and significant cost-savings." "Pratt & Whitney is delighted that China Southern has once again selected the PW4170 Advantage70," said Todd Kallman, president, Pratt & Whitney Commercial Engines. "This agreement continues a



valued relationship between Pratt & Whitney and China Southern. We are dedicated to offering unparalleled quality and service to all our customers." China Southern Airlines is the largest airline in China, and the third in IATA's 240 member airlines marked by passengers carried and in terms of fleet size. The airline currently operates more than 500 passenger and cargo transport aircraft, including 11 Airbus 330 aircraft powered by PW4170 engines with a 12th to be delivered in June 2013, two Boeing B747F aircraft powered by PW4062A engines, and more than 280 V2500 engines, making China Southern the largest V2500 customer in the world. The V2500 is produced by the International Aero Engines (IAE). IAE is a multinational aero engine consortium whose shareholders comprise of Pratt & Whitney, Japanese Aero Engines Corporation and MTU Aero Engines. Pratt & Whitney offers the Advantage70 both as a new engine and as an upgrade kit for existing engines. The upgrade includes a suite of technology enhancements that can be incorporated into a fleet during engine overhaul. Advantage70 technology delivers superior engine performance, including a 2 percent thrust increase, more than 1 percent reduction in fuel consumption, increased durability, and reduced maintenance costs.

**PRATT & WHITNEY BUILDS APPRENTICE TRAINING PROGRAM IN CHINA**  
Nov 20, 2012

**Shanghai Engine Center Partners With Shanghai Civil Aviation College**

An agreement for a joint venture has been signed between Pratt & Whitney global service partners Shanghai Engine Center ... known as Shanghai Pratt & Whitney Aircraft Engine Maintenance Company Limited ("SEC"), a joint venture with China Eastern Airlines ... and Shanghai Civil Aviation College (SCAC) to collaborate on apprenticeships and advance license training programs. "The training collaboration between SEC and SCAC is the first training collaboration between a MRO facility and an academic institution in China," said Mike Eller, SEC general manager. "We're confident this collaboration will help strengthen our apprenticeship program and increase our presence as a leading MRO provider in China by attracting top talent from throughout the region." SEC is a state-of-the art facility with extensive part repair capacity that helps reduce engine overhaul costs and turnaround times. Pratt & Whitney, together with joint venture partner China Eastern Airlines, opened the high-technology and environmentally efficient facility in 2009. It is Pratt & Whitney's first engine center in China and is part of the company's Global Service Partners network providing engine maintenance, repair and overhaul (MRO) services to customers worldwide. The approximately 23,000-square-meter (250,000-square-foot) facility meets the Platinum standards of the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) rating system.

**PRATT & WHITNEY GLOBAL SERVICE PARTNERS SHANGHAI ENGINE CENTER PROVIDES APPRENTICE TRAINING PROGRAM FOR SHANGHAI CIVIL AVIATION COLLEGE**

Zhuhai, China, Nov. 14, 2012

The Pratt & Whitney Global Service Partners Shanghai Engine Center, called Shanghai Pratt & Whitney Aircraft Engine Maintenance Company Limited ("SEC"), a joint venture with China Eastern Airlines, recently signed an agreement with Shanghai Civil Aviation College (SCAC) to collaborate on apprenticeships and advance license training programs. Pratt & Whitney is a division of United Technologies Corp. (NYSE: UTX). "The training collaboration between SEC and SCAC is the first training collaboration between a MRO facility and an academic institution in China," said Mike Eller, SEC general manager. "We're confident this collaboration will help strengthen our apprenticeship program and increase our presence as a leading MRO provider in China by attracting top talent from throughout the region." SEC is a state-of-the art facility with extensive part repair capacity that helps reduce engine overhaul costs and turnaround times. Pratt & Whitney, together

with joint venture partner China Eastern Airlines, opened the high-technology and environmentally efficient facility in 2009. It is Pratt & Whitney's first engine center in China and is part of the company's Global Service Partners network providing engine maintenance, repair and overhaul (MRO) services to customers worldwide. The approximately 23,000-square-meter (250,000-square-foot) facility meets the Platinum standards of the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) rating system. Pratt & Whitney Global Service Partners is a total service provider for engines made by Pratt & Whitney, International Aero Engines, General Electric, Rolls-Royce and CFMI.

#### ITAR CHINA VIOLATIONS GET PRATT WHITNEY CANADA ITAR DEBARRED AND COSTS \$75 MILLION PENALTY

##### WHAT DOES PWC'S DEBARMENT MEAN FOR YOUR COMPANY?

July 5, 2012

On June 28, 2012 Pratt Whitney Canada (PWC) pleaded guilty to violating the Arms Export Control Act and making false statements in connection with its illegal export to China of U.S.-origin **military** software used in the development of China's new Z10 **military** attack helicopter.

PWC, its US parent company United Technologies Corporation (UTC), and UTC's US subsidiary Hamilton Sundstrand (HSC) agreed to pay \$75 million as part of a global settlement with the Departments of Justice (\$20.7 million) and State (\$55 million) in relation to the violations. \$20 million of the penalty can be suspended if UTC applies it to enhance its compliance program.

The high dollar penalty and the debarment are a direct result of various aggravating factors. First, PWC appeared to apply its own favorable interpretation that its exports were for commercial or dual-use engines that were used in the Z10 so they were not subject to the ITAR. PWC also provided electronic engine control software, made by HSC in the US and modified for the **military** helicopter. The government said PWC took such actions so it could make money, as opposed to it being an honest misinterpretation of the ITAR. Also, PWC allegedly lied to the US Government many times in its 2006 disclosure to the US Government regarding the violations.

While the financial penalties certainly are a big deal for UTC, HSC and PWC, for the rest of you reading this article, the key issue is how does the debarment of PWC impact your ability to do business with PWC involving "**defense** articles" controlled by the ITAR?

Fortunately, the State Department was quick to act and posted guidance on its website regarding how the debarment of PWC impacts other companies.

Here are the key issues:

1) Who Is Debarred? The statutory debarment is applicable to P&W Canada only and not to UTC or to other subsidiaries and divisions of UTC. Associated restrictions extend to P&W Canada subsidiaries, divisions and business units, and successor entities. P&W Canada subsidiaries include Pratt & Whitney Kalisz Sp. z o.o., Pratt & Whitney Canada International, Inc., and Pratt & Whitney Canada Leasing, LP. The associated restrictions do not extend to entities managed, but not owned, by P&W Canada.

2) What about existing approvals (licenses and agreements)? All licenses and other approvals granted prior to June 28, 2012 are valid and are not affected by the statutory debarment.

3) What about exemptions involving PWC? You may not use ITAR exemptions for activities that involve PWC unless the activities fall within one of the three carve outs.

4) What about new applications? There is a presumption of denial for license applications "involving" PWC unless they fall within one of the three carve-outs, or a request is made for a transaction exemption.

5) What about pending applications? Applications which are pending with the Department as of June 28, 2012, will be Returned Without Action, unless the applicant

submits a carve-out applicability confirmation or a transaction exception request via DTrade2 no later than July 6, 2012.

6) What are the carve outs? Applications for licenses or other authorizations, or use of ITAR exemptions, involving P&W Canada (including its subsidiaries, divisions and business units, and successor entities) that fall within the following three categories, are not subject to the debarment or associated restrictions, and do not require the submission of a supplemental “transaction exception” request:

Transactions in support of:

1. U.S. Government programs.
2. Coalition Operation Enduring Freedom efforts.
3. Government programs for NATO and Major Non-NATO Ally (ITAR § 120.32) countries.

The State Department requests that applicants reference the carve-out(s) from the statutory debarment and their applicability in submissions for authorizations.

7) What are the transaction exceptions? If the carve outs do not apply, you may ask for a transaction exception. If you request a transaction exception you should do your best at demonstrating why your application satisfies one or more of these criteria: Is the exception warranted by overriding U.S. foreign policy or national security interests, Would the exception further law enforcement concerns consistent with the foreign policy or national security interests of the U.S., or Do compelling circumstances exist that are consistent with the foreign policy or national security interests of the U.S.?

Background on the Case

If you want a slightly longer version of what PWC, HSC and UTC allegedly did wrong, here is an excerpt from the US Government press release:

The Counts

...[T]he Justice Department filed a three-count criminal information charging UTC, PWC and HSC. Count One charges PWC with violating the Arms Export Control Act in connection with the illegal export of **defense** articles to China for the Z10 helicopter. Count Two charges PWC, UTC and HSC with making false statements to the U.S. government in their belated disclosures relating to the illegal exports. Count Three charges PWC and HSC with failure to timely inform the U.S. government of exports of **defense** articles to China.

While PWC has pleaded guilty to Counts One and Two, the Justice Department has recommended that prosecution of UTC and HSC on Count Two, and PWC and HSC on Count Three be deferred for two years, provided the companies abide by the terms of a deferred prosecution agreement with the Justice Department. As part of the agreement, the companies must pay \$75 million and retain an Independent Monitor to monitor and assess their compliance with export laws for the next two years.

The Export Scheme

Since 1989, the United States has imposed a prohibition upon the export to China of all U.S. **defense** articles and associated technical data as a result of the conduct in June 1989 at Tiananmen Square by the **military** of the People's Republic of China. In February 1990, the U.S. Congress imposed a prohibition upon licenses or approvals for the export of **defense** articles to the People's Republic of China. In codifying the embargo, Congress specifically named helicopters for inclusion in the ban.

Dating back to the 1980s, China sought to develop a **military** attack helicopter. Beginning in the 1990s, after Congress had imposed the prohibition on exports to China, China sought to develop its attack helicopter under the guise of a civilian medium helicopter program in order to secure Western assistance. The Z10, developed with assistance from Western suppliers, is China's first modern **military** attack helicopter.

During the development phases of China's Z10 program, each Z10 helicopter was powered by engines supplied by PWC. PWC delivered 10 of these development engines to China in 2001 and 2002. Despite the **military** nature of the Z10 helicopter, PWC

determined on its own that these development engines for the Z10 did not constitute “**defense** articles,” requiring a U.S. export license, because they were identical to those engines PWC was already supplying China for a commercial helicopter.

Because the Electronic Engine Control software, made by HSC in the United States to test and operate the PWC engines, was modified for a **military** helicopter application, it was a **defense** article and required a U.S. export license. Still, PWC knowingly and willfully caused this software to be exported to China for the Z10 without any U.S. export license. In 2002 and 2003, PWC caused six versions of the **military** software to be illegally exported from HSC in the United States to PWC in Canada, and then to China, where it was used in the PWC engines for the Z10. According to court documents, PWC knew from the start of the Z10 project in 2000 that the Chinese were developing an attack helicopter and that supplying it with U.S.-origin components would be illegal.

When the Chinese claimed that a civil version of the helicopter would be developed in parallel, PWC marketing personnel expressed skepticism internally about the “sudden appearance” of the civil program, the timing of which they questioned as “real or imagined.” PWC nevertheless saw an opening for PWC “to insist on exclusivity in [the] civil version of this helicopter,” and stated that the Chinese would “no longer make reference to the **military** program.” PWC failed to notify UTC or HSC about the attack helicopter until years later and purposely turned a blind eye to the helicopter’s **military** application.

HSC in the United States had believed it was providing its software to PWC for a civilian helicopter in China, based on claims from PWC. By early 2004, HSC learned there might an export problem and stopped working on the Z10 project. UTC also began to ask PWC about the exports to China for the Z10. Regardless, PWC on its own modified the software and continued to export it to China through June 2005.

According to court documents, PWC’s illegal conduct was driven by profit. PWC anticipated that its work on the Z10 **military** attack helicopter in China would open the door to a far more lucrative civilian helicopter market in China, which according to PWC estimates, was potentially worth as much as \$2 billion to PWC.

#### Belated and False Disclosures to U.S. Government

These companies failed to disclose to the U.S. government the illegal exports to China for several years and only did so after an investor group queried UTC in early 2006 about whether PWC’s role in China’s Z10 attack helicopter might violate U.S. laws. The companies then made an initial disclosure to the State Department in July 2006, with follow-up submissions in August and September 2006.

The 2006 disclosures contained numerous false statements. Among other things, the companies falsely asserted that they were unaware until 2003 or 2004 that the Z10 program involved a **military** helicopter. In fact, by the time of the disclosures, all three companies were aware that PWC officials knew at the project’s inception in 2000 that the Z10 program involved an attack helicopter.

Today, the **Z10** helicopter is in production and initial batches were delivered to the People’s Liberation Army of China in 2009 and 2010. **The primary mission of the Z10 is anti-armor and battlefield interdiction. Weapons of the Z10 have included 30 mm cannons, anti-tank guided missiles, air-to-air missiles and unguided rockets.**

“PWC exported controlled U.S. technology to China, knowing it would be used in the development of a **military** attack helicopter in violation of the U.S. arms embargo with China,” said U.S. Attorney Fein. “PWC took what it described internally as a ‘calculated risk,’ because it wanted to become the exclusive supplier for a civil helicopter market in China with projected revenues of up to two billion dollars. Several years after the violations were known; UTC, HSC and PWC disclosed the violations to the government and made false statements in doing so. The guilty pleas by PWC and the agreement reached with all three companies should send a clear message that any corporation that willfully sends

export controlled material to an embargoed nation will be prosecuted and punished, as will those who know about it and fail to make a timely and truthful disclosure.”

“Due in part to the efforts of these companies, China was able to develop its first modern **military** attack helicopter with restricted U.S. **defense** technology. As today’s case demonstrates, the Justice Department will spare no effort to hold accountable those who compromise U.S. national security for the sake of profits and then lie about it to the government,” said Assistant Attorney General Monaco. “I thank the agents, analysts and prosecutors who helped bring about this important case.”

#### PRATT & WHITNEY SHANGHAI ENGINE CENTER DELIVERS 100TH OVERHAULED ENGINE TO SHANGHAI AIRLINES

Shanghai, China - December 15, 2011

Pratt & Whitney Global Service Partners' Shanghai Engine Center today delivered its 100th overhauled CFM56 engine to Shanghai Airlines. Pratt & Whitney is a division of United Technologies Corp. (NYSE: UTX).

"This engine delivery to Shanghai Airlines marks a new milestone for the Shanghai Engine Center," said Tom Hutton, Pratt & Whitney Global Service Partners vice president. "The Shanghai Engine Center has achieved proven record of service excellence while rapidly expanding its customer base to the third-party airlines and overseas airlines in the Asia Pacific region."

"We are pleased to offer the Shanghai Engine Center's capabilities to Shanghai Airlines," said Li Yangmin, China Eastern Airlines' Party Committee Secretary and Shanghai Engine Center Board Chairman. "The engine was delivered within 65 days and further solidifies our commitment to providing our customers world-class services with high quality and efficiency at competitive costs."

The Pratt & Whitney Global Service Partners Shanghai Engine Center is a state-of-the-art facility with extensive part repair capacity that helps reduce engine overhaul costs and turnaround times. Pratt & Whitney, together with joint venture partner China Eastern Airlines, opened the high-technology and environmentally efficient facility in 2009. It is Pratt & Whitney's first engine center in China and is part of the company's Global Service Partners network providing engine maintenance, repair and overhaul (MRO) services to customers worldwide. The approximately 23,000 square-meter (250,000 square-feet) facility meets the Platinum standards of the United States Green Building Council's Leadership in Energy and Environmental Design (LEED) rating system.

"We appreciate the opportunity Shanghai Airlines has given us to provide them with MRO services," said Aki Nakano, president, Pratt & Whitney China Commercial Engines & Global Services. "Shanghai Engine Center has provided services to the third party customers both in China and in the Asia Pacific region. We're confident the Shanghai Engine Center's strategic positioning will continue to increase our presence in China's MRO market, as well as in the region. We're also ready to expand our service capabilities to include both CFM56 and IAE V2500 engines in 2013."

Established in 1985, Shanghai Airlines is the first commercial airline in China. It has a fleet of 62 aircraft, serving more than 140 domestic and international destinations. Shanghai Airlines entered the merger with China Eastern Airlines in 2009 and the consolidation has strengthened Shanghai's position as an international aviation hub. "We're glad to benefit from the professional services that are provided by Pratt & Whitney Shanghai Engine Center," said Cheng Guowei, Shanghai Airlines deputy general manager. "Their efficiency helped us reduce the lead time and enable us to minimize the service cost."

#### CHINA EASTERN AIRLINES BUYS \$400M AERO ENGINES FROM PRATT & WHITNEY

By Yin Guang

Sept 22, 2011 - China Eastern Airlines Corp (NYSE: CEA, SHA: 600115, HKG: 0670) agreed to purchase \$400 million worth of aero engines and after-sales service from Pratt & Whitney, an aerospace manufacturer owned by United Technologies Corp (NYSE: UTX). Pratt & Whitney will deliver V2500 engines for 50 new Airbus A320 planes of China's second largest carrier by passenger traffic. CSR Corp (SHA: 601766, HKG: 1766), a leading railway equipment manufacturer, said it secured ¥150 million in contracts from Cameroon's national rail company. This is CSR Corp's third contract with an African nation. Nanning Sugar Industry Co (SHE: 000911), China's largest listed state-owned sugar maker, said it received regulatory approval for a ¥506 million private placement to fund production and develop energy saving technology. Shanghai Aerospace Automobile Electromechanical Co (SHA: 600151) said it plans to work with the government of Zhangye, Gansu province to develop a 200MW solar power plant and build a photovoltaic module factory with an annual capacity of 100MW in the next three to five years. The company did not reveal how much money it will invest in the project. Bank of Beijing Co (SHA: 601169) said it received regulatory approval to raise ¥11.8 billion from a private placement to replenish its capital. Lucky Film Co (SHA: 600135), a color photographic materials producer, said it plans to invest ¥135.21 million expanding its factory of solar cell back films within a year starting September 2011.

#### PRATT & WHITNEY CANADA AND AVIC ENGINE HOLDINGS CREATE NEW MRO FACILITY IN CHINA FOR CIVIL-CERTIFIED PT6A AND PW100 SERIES ENGINES

September 19, 2011

Beijing, China - Pratt & Whitney Canada (P&WC) and China Aviation Engine Holdings Corporation Ltd. (AVIC Engine Holdings) today announced the creation of a new joint venture to be located in Zhuzhou, Province of Hunan, People's Republic of China. The new maintenance, repair and overhaul (MRO) will be called Zhuzhou Tonghui Aero Engine Maintenance Company (AEMC) and will provide in-country maintenance, repair and overhaul for civil-certified PT6A and PW100 and series engines. The joint-venture-agreement signing ceremony was attended by John Saabas, President, Pratt & Whitney Canada, Pang Wei, President, AVIC Engine Holdings and Li Zongshun, President, China National South Aviation Industry Co., Ltd. (SAIC). P&WC is a United Technologies Corp. [NYSE:UTX] company.

AEMC will provide MRO services to civil-certified PT6A and PW100 engines installed on civil turboprop aircraft operating in the People's Republic of China and on civil-certified PT6A and PW100 engines installed on Chinese Original Equipment Manufactured civil turboprop aircraft operating in the Asia-Pacific region. Capability will be created in phases, starting with line maintenance, followed by heavy maintenance and, finally, overhaul. Currently, P&WC has some 180 PT6A and PW100 engines flying in China on Y12 and MA60/600 turboprop aircraft.

"China is obviously a key emerging market for P&WC and AEMC will allow us to provide PT6A and PW100 MRO services quickly and efficiently in the country to enhance our market reach," said Mr. Saabas. "AVIC Engine Holdings is our customer, supplier and long-term business partner and we are pleased to expand our collaboration into the turboprop area."

The joint venture will be legally structured through SAIC's subsidiary – General Aviation Engine Company (GAEC) and UTC's subsidiary – United Technologies Far East (UTFE). AEMC will be owned 75 per cent by GAEC and 25 per cent by UTFE. The joint venture agreement is for 25 years with an option for renewal. AEMC's board of directors will consist of AVIC representatives and P&WC representatives. P&WC will appoint its general manager and AVIC, the chief financial officer. The remainder of the management team will be jointly selected by the joint venture partners.

"AEMC will enable operators of PT6A- and PW100-powered aircraft in China to benefit from in-country engine services – from line maintenance to overhaul – providing them with

faster turnaround times and lower costs," said Mr. Saabas. "It will also position us to expand our MRO market in the coming years as our engine fleet grows in the region."

"AVIC Engine Holdings and P&WC have a long history of co-operation," said Mr. Pang, President, AVIC Engine Holdings. "Today, we extend our co-operation into the field of MRO services for civil aviation engines. We believe that our strong collaboration will better serve the Chinese civil aviation market and provide more convenience and efficient services for our end users."

About China National South Aviation Industry Co., Ltd. (SAIC)

AVIC South Aviation Industry Co., LTD, founded in 1951 and belonged to Aviation Industry Corporation of China, is a major supplier of turboshaft, turboprop aviation engines. The company devotes itself to a diversified development, providing products and services of ground gas turbine, optic-mechanical products, automobile parts and components, plane model and car model, etc, for customers in and abroad, and cooperate with international aviation corporations such as Pratt & Whitney Canada, Hamilton Sundstrand in the field of parts and components subcontract business.

#### PRATT & WHITNEY SIGNS MOU WITH COMAC FOR CHINA AVIATION LEADERSHIP TRAINING PROGRAM

Washington D.C., April 27, 2011 – Today, Pratt & Whitney, on behalf of United Technologies Corporation (UTC), signed a Memorandum of Understanding (MOU) with COMAC, Commercial Aircraft Corporation of China, for cooperation on leadership training for senior executives and mid-level management, project management training and Achieving Competitive Excellence (ACE) training. The training programs, conducted by the Pratt & Whitney Customer Training Center in collaboration with Hamilton Sundstrand and Sikorsky, provide targeted curriculum for senior executives, mid-level managers and high potential employees. Training is scheduled to begin mid-year. Pratt & Whitney is a division of United Technologies Corp. (NYSE:UTX).

"We signed this training cooperation MOU with UTC because it offers opportunities for employees at all levels of COMAC to learn critical leadership and technical skills from a trusted and well-respected OEM," said Assistant President and General Manager, Human Resources for COMAC, Mr. Yan Hua. "COMAC plans to leverage the training to develop its world-class workforce."

"In addition to the training offered at our Customer Training Centers in East Hartford, Conn. and Beijing, China, UTC is working with its university partners to conduct a significant portion of the executive level training created with COMAC," said Pratt & Whitney Vice President, Human Resources, Patrick Preux. "We look forward to working together with COMAC to tailor the programs to meet their business needs."

"We are honored to cooperate with COMAC on the China Aviation Leadership Program," said Liping Xie, senior managing director for the aerospace business units in China. "This cooperation provides an excellent opportunity to enhance the relationship between UTC and COMAC."

#### PRATT & WHITNEY (CHINA) SPARE PARTS SERVICE CENTER OF CHINA AVIATION SUPPLIES HOLDING COMPANY

September 30, 2010, Beijing

Pratt & Whitney Engine Spare Parts Consignment Station of China Aviation Supplies Holding Company was founded in September of 1998 by China Aviation Supplies Holding Company and Pratt & Whitney, a subsidiary of United Technologies Corporation. In 2006 it was renamed as Pratt & Whitney (China) Spare Parts Service Center of China Aviation Supplies Holding Company. At present, the center has a storage area of 500 square meters, which is used to store more than 2000 airplane engine spare parts of JT9D and PW4000 series manufactured by Pratt & Whitney. The total value of the spare parts is over US\$ 4 million. The annual turnover is US\$ 4 million. Pratt & Whitney (China) Spare Parts

Service Center of China Aviation Supplies Holding Company was established to provide the engine users of Pratt & Whitney in China with timely and accurate spare parts support services, help users reduce the capital cost of spare parts, shorten the supply cycle of spare parts, improve the maintenance capability of the users, and as a result, reduce the operation cost of airline companies. At present, Pratt & Whitney (China) Spare Parts Service Center of China Aviation Supplies Holding Company is adopting the SAP Management System to work online with Pratt & Whitney. When the Chinese users, as normal, deliver the spare parts orders to Pratt & Whitney, the SAP System of Pratt & Whitney will automatically give a delivery instruction to the Consignment Station, according to the emergency level of the users' demand for the spare parts and the storage conditions of Beijing Pratt & Whitney Engine Spare Parts Consignment Station. Beijing Pratt & Whitney Engine Spare Parts Consignment Station, after receiving the delivery instruction, will deliver the spare parts to the user by the manner required by the users, and then enter the delivery information into the SAP System. The users can learn the delivery process and progress of the spare parts at any time, and this will provide the decision basis to the users for reasonably arranging engine maintenance progress. After the spare parts are delivered from Pratt & Whitney (China) Spare Parts Service Center of China Aviation Supplies Holding Company, Pratt & Whitney will itself handle the payment settlement for the goods. According to the requirements of the Customs, Pratt & Whitney (China) Spare Parts Service Center of China Aviation Supplies Holding Company will periodically carry out the customs declaration and taxation procedure via CB2000 Online Declaration System of the Customs Department. In order to provide the maximum spare parts support to the users of Pratt & Whitney in China, Pratt & Whitney (China) Spare Parts Service Center of China Aviation Supplies Holding Company will periodically analyze the users' demand conditions for the spare parts and take the users' suggestions, adjust the types and quantity of the inventory spare parts, add some spare parts frequently demanded by the users and of great demand, and return some spare parts that are not in demand for a long time or with low turnover rate, and enable the Service Center to play a more important role in the aspect of spare parts support. From the beginning of operation of Pratt & Whitney (China) Spare Parts Service Center of China Aviation Supplies Holding Company, it has regarded "Providing high-quality, efficient, and reliable spare parts support service to the users of Pratt & Whitney in China" as its aim, improved its warehouse management quality through practice, strengthened the quality control, and achieved and maintained the record of 100% accurate delivery rate, 100% consumer satisfaction rate, and accurate spare parts management traceability.

#### PRATT & WHITNEY, AVIC IN TALKS ON MAKING ENGINE PARTS

June 12, 2010 - Pratt & Whitney, a leading aircraft engine manufacturer, said it is discussing the manufacturing of its latest engine components in China with the country's largest aerospace company Aviation Industry Corp of China (AVIC). "We are currently in discussions with AVIC to expand the capacity and scale of engine component manufacturing in the country," said Robert Keady, vice-president of business development & marketing for commercial engines and global services. China, as one of the world's fastest-growing aviation markets, offers more and more market opportunities, according to Keady. The Connecticut-based engine maker is likely to have some of the components of its latest model - PurePower PW1000G - manufactured in China while "assembly will depend on our customers", said Keady. PW 1000G, the latest energy-efficient engine model which is estimated to save \$1.5 million per aircraft annually, is now used in the Mitsubishi Regional Jet and Bombardier CSeries Aircraft and will enter the market in 2013, the company said. China, with 1,400 aircraft, has become one of the fastest-growing aviation markets, eclipsing Japan as Asia's largest, according to the latest figures from the International Air Transport Association. Eyeing the burgeoning market, Pratt & Whitney is devoting more efforts to cooperate with local partners. It is also in discussions with 17



Chinese airlines including Air China, China Eastern and China Southern on further cooperation in the application of its latest engine, according to Keady. "We are also talking with the Commercial Aircraft Corp of China (COMAC) on supplying components for its C919 commercial aircraft," Keady said. COMAC is currently developing the C919 jumbo jet, China's first self-developed large commercial aircraft, which will compete with Boeing's B737 and Airbus' A320 and is expected to make its maiden flight by the end of 2014.

The aircraft maker plans to sell more than 2,000 C919s over the next two decades, indicating a huge market for large components suppliers such as Pratt & Whitney and General Electric. COMAC selected the Leap X engine by CFM International, a joint venture between GE Aviation of the United States and Snecma of France, to power the C919 at the end of last year. GE Aviation, Pratt & Whitney's long-term rival, has already been selected as the engine provider for China's ARJ21 regional jet. Pratt & Whitney is the division of United Technologies Company for aircraft engines used in both civil and **military** aircraft. As one of the "big three" aero-engine manufacturers, it competes with General Electric and Rolls-Royce. The company now has two manufacturing bases in China - Chengdu Aerotech Manufacturing Co and South Pratt & Whitney Aero Engine Company.

#### PRATT & WHITNEY WINS \$260 MILLION V2500 ENGINE DEAL FROM CHINA EASTERN AIRLINES

PARIS AIR SHOW, June 18, 2007 -- Pratt & Whitney, a United Technologies Corp. (NYSE:UTX) company, was awarded business worth more than US\$260 million for the company's share of an order from China Eastern Airlines for International Aero Engines V2500 engines. The order, for installed and spare engines to power 30 new Airbus A320-family aircraft, is backed by a long-term V2500Select service agreement. Pratt & Whitney is a major partner in International Aero Engines (IAE). "We are excited to continue our long relationship with China Eastern by powering the airline's fleet expansion with the dependable V2500 engine," said Todd Kallman, president, Pratt & Whitney Commercial Engines and IAE board member. "We are proud that the performance of the V2500 and the world-class service provided by V2500Select allows us to continue to be a part of China Eastern's growth." China Eastern Airlines has twice been awarded the highest honor of flight safety in Chinese aviation industry, the Golden Eagle Cup, and regularly been commended in the Chinese National Passenger Comments on Civil Aviation. The airline has also been granted official carrier status for the Shanghai Expo in 2010. The 22,000-33,000lb of thrust V2500-A5 is available in seven different thrust settings to power the Airbus A319, A320 and A321 family of aircraft as well as the A319 Corporate Jet. IAE is a multinational aero engine consortium whose shareholders comprise Pratt & Whitney, Rolls-Royce, the Japanese Aero Engines Corporation and MTU Aero Engines. More than 1,300 V2500-powered aircraft have been delivered and the worldwide fleet has accumulated over 40 million flying hours.

#### CHINA NORTHERN SELECTS PRATT & WHITNEY'S PW4000 ENGINES

East Hartford, Connecticut

May 20, 1993

China Northern Airlines has selected the PW4000 engine to power its new fleet of up to 15 Airbus A300-600R aircraft in an agreement worth nearly \$400 million. For its six aircraft on firm order, the airline will purchase 12 installed and five spare engines worth \$153 million. China Northern has options for up to nine A300s and would purchase 18 installed engines and five spares, if it exercises all options. Deliveries will begin in mid-1994 and continue through the year 2000. China Northern, based in Shenyang, serves domestic routes throughout China and offers regional service in Asia. This marks the first time the airline has purchased wide-body aircraft. It currently operates a fleet of more than 20 Pratt & Whitney-powered MD-82s and two leased A300s. "China Northern is one of a number of airlines in China that have selected the PW4000 to power new, wide body

aircraft," said Donald Lang, president of Pratt & Whitney-China. "China is seeing substantial traffic growth and its airlines need larger aircraft. The PW4000 gives them the modern technology they need with superior dependability." Some 1,000 PW4000 engines are in service at 60 airlines around the world, powering Airbus A300s and A310s, Boeing 767s and 747s, and the McDonnell Douglas MD-11. Growth versions of the engine have been selected for the new Airbus A330 and the Boeing 777.

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2012 Zhuhai Directory: Conveniently located 35 miles north of Orlando, Progressive Aerodyne sites on the shores of Lake Idamere in Taveres, FL, also known as "America's Seaplane City." The company has been designing and manufacturing the SeaRey amphibian sport aircraft kit for over 20 years and is proudly holding the dominant market position in the sport amphibian aircraft market with over 500 SeaReys flying all over the world. Progressive Aerodyne will start delivering factory built LSAs from early 2013 into domestic and overseas markets.

# R

## **Raduga - Tactical Missiles Corporation**

### **Raduga State Machine Building Design Bureau by A.Y. Bereznyak**

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2012 Zhuhai Directory: Tactical Missiles Corporation JSC is involved in development and production of tactical air-to-surface high precision guided weapons and unified naval weapon systems that derive from them. The Corporation is entitled to conduct foreign trade operations in respect of its **defense** products, such as export of spare parts, training and auxiliary equipment to earlier delivered products, after-sales servicing and foreign specialists training.

Corporate Website (Extracted in February 2014):

ABOUT TACTICAL MISSILES CORPORATION, JSC

#### **MILITARY PRODUCTS:**

Airborne weapons: The head enterprise of the Corporation manufactures high speed airborne guided missiles such as Kh-31 in the form of anti-radar Kh-31P (Kh-31PK) missile and anti-ship Kh-31A missile; Kh-35E anti-ship guided missile unified under different launch platforms (ship, coast, air).

GosMKB "Vypel" named after I.I. Toropov manufactures air guided missiles of air-to-air type, comprising R-73E (R-73EL) small-range guided missile for a close-in dogfight; RVV-AE, R-27R1 (R-27ER1), R-27T1 (R-27ET1), R-27P (R-27EP) medium range guided missiles; R-33E long-range guided missile. Besides, the enterprise manufactures guided missiles of air-to-surface type and guided missiles for terrestrial and marine air-**defense** systems and imitating them target missiles.

Together with guided missiles, GosMKB "Vypel" manufactures passive jamming sets for aircrafts and UV-30MK helicopters and special support equipment, such as rail and ejection launchers, beam and cluster holders, manufactured for suspension, transportation and forced release almost of all types of air-bombs, blocks and nacelles for small arms and projectiles, lifting devices with lock.

GosMKB "Raduga" named after A.Y. Bereznyak manufactures guided missiles of air-to-surface type among which the most popular are:

“Ovod-ME” missile system with guided missile Kh-59ME; Kh-59MK long-range flight guided missile and also Kh-58E air-anti-radar guided missile. GNPP “Region” manufactures smart air bombs and guided air bombs with different guidance systems.

Samples and weapon systems for Navy Fleet: Russian naval ships as well as foreign ships now days use the following missile systems:

- “Moskit-E” anti-ship attack and defensive missile systems with high speed anti-ship guided missiles 3M-80E (“Raduga”);
- “Uran-E” shipborne missile system with 3M-24E anti-ship missiles (the head enterprise)
- “Bal-E” mobile coastal missile system with anti-ship 3M-24E missiles (Machine-Building Design Bureau). Machine-Building Design Bureau also specialize in development of torpedoes for ships and decoy dispensing systems.

Research & Production Enterprise “Region” JSC manufacturers:

- “Shkval-E” which is high-speed underwater missile system intended for destruction of surface targets;
- “Paket-E/NK” small-sized anti-ship system which has two launching charges. One charge able to hit enemy submarine, the other one – hit and destroy enemy torpedo;
- “APR-3E” air-launched antisubmarine guided missile (“Orel-M”);
- anti-ship smart air-bomb “Zagon-1” and etc.

Energetic efforts are put in redesign of basic product line. For the moment the following below products are on their final stage of development:

- airborne modular tactical guided missiles in the style of Kh-38ME;
- Kh-59MK2 airborne guided missile;
- Kh-58UShK anti-radiation missile;
- KAB-1500LG-F-E corrected air bomb;
- “Moskit-MBE” anti-ship missile weapon system equipped with anti-ship missile 3M-80MBE.

Airborne modular tactical guided missiles in the style of Kh-38ME is designed to engage armored, hardened, easy of approach single or group ground target, as well as surface targets in the shoreline.

Anti-radar missile Kh-58UShKE with all wave passive radar homing head and an autonomous control system is designed to destroy ground-based radars which produce pulsing and continuous waves. Airborne guided missile Kh-59MK2 is designed to destroy unmoved ground targets with well-known coordinates of location without radar, infrared and optical contrast towards nearby surroundings. The missile realizes “launch and forget” principle of work due to autonomous identification of the nearby terrain. KAB-1500LG-F-E is designed to destroy stationary ground and sea surface pinpoint targets such as concrete shelters, railway and road bridges, **military** units, ammunition depots, railway terminals, warships and transport vessels.

Anti-ship missile system “Moskit-MBE” has enhanced range of fire. High supersonic speed (up to 2900 km/h) with maximally low flight level (H=10-20 m) at a terminal flight phase and evasive maneuver guarantee high efficiency of the system in case of anti-missile attacks from the side of enemy.

#### Airborne weaponry

The enterprises of the corporation offer wide range of airborne weaponry.

The head enterprise of the corporation manufactures high-speed airborne guided missiles such as Kh-31 and presented by Kh-31P anti-radiation (Kh-31PK – it’s further updated version) and anti-ship missiles like Kh-31A adapted under different type of carriers (ship, coastal and air), anti-ship guided missiles such as Kh-35E (3M-24E – version to deliver in container).

“State Machine Building Design Bureau “Vympel” by name I.I. Toropov” JSC is the leading Russian developer and manufacturer of guided missiles of air-to-air type, specially oriented on use in close-in dogfight such as R-73E(EL) (short-range missile); of middle and large range such as RVV-AE; R-27R1(ER1); R-27P(EP); R-27T1(ET1); R-33E. The enterprise also delivers guided missiles of air-to-surface type and surface-to-air type for air **defense** systems. Besides, State Machine Building Design Bureau “Vympel” manufactures: UV-30MK passive jamming ejection device,

Nowdays, “Raduga State Machine Building Design Bureau” JSC manufactures guided weaponry of wide range such as Ovod-ME missile system with Kh-59ME missile, Kh-59MK long-range guided missile, and also Kh-58E air-to-radar stations and many others.

One of main activities of Research & Production Enterprise “Region” JSC is manufacture of corrected and guided air bombs (KAB and UAB) with different guidance systems.

Samples and weaponry systems for Navy

The other main activity of the corporation's enterprises is engineering works for the use of Navy. Today, following below ship missile systems are delivered for the use by Russian Navy ships as well as for the use by ships of foreign states:

- «Moskit-E» high-speed anti-ship guided missile 3M-80E (by “Raduga State Machine Building Design Bureau” JSC);

- «Uran-E» with anti-ship missiles 3M-24E (the head enterprise).

The “Bal-E” coastal mobile missile system with anti-ship guided missiles 3M-24E (by “Machine Building Design Bureau” enterprise) have been put through firing and now it is on experimental operation on Navy ships. “Machine Building Design Bureau” enterprise also specializes in development of torpedo weaponry for surface ships, passive jamming devices and many other weaponry.

Research & Production Enterprise “Region” JSC manufactures the following weaponry: -Shkval-E weapon system with high speed underwater missile; -Paket-E/NK small sized antisubmarine system with anti-torpedo has two torpedoes. The small-sized heat-seaking torpedo is designed to engage enemy submarines, and the anti-torpedo is designed to intercept and destroy attacking torpedoes; -APR-3E (“Orel-M”) airborne anti-submarine missile, “Zagon-1” anti-submarine corrected air bomb and some other weaponry.

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2012 Zhuhai Directory: Systems: Helicopter refueling systems (land, ship, offshore platforms), autonomous fueling systems, safety coupling and safety valves for space launchers, air breathers and duplex valves. Fully containerized refueling systems. Fuel systems for engine test benches (aero, marine, automotive). Fuel Filtration (2 to 500 microns): fuel filters and distribution systems, coalescer elements, strainers, engine protection filters, helium filters for space launchers. Hydraulic filtration for turbines: feeding fuel and lube-oil filters. Air filtration: fuel tankers protection filters/hydraulics, starter filters. Used Water Treatment: treatment of used water from aircraft exterior cleaning.

Corporate Website (Extracted in February 2014):

**NAVY** - Automatic self-cleaning filters for diesel engines, lubricating oils and fuel circuits. Water separator filters for diesel engine and turbine fuel circuits. Water separator filters for jet fuel. Duplex filter permutable in operation, equipped with cleanable filter elements. Jet fuel refueling units for aircraft. Cocks, taps and fittings. Some of these filters are actually used in several navy programs: La Fayette, Horizon and Fremm.

**FRENCH ARMY FUEL DEPARTMENT** - Water separator filters for Jet fuel. Coalescence and separator cartridges/kerosene. Jet fuel refueling units for aircraft. Cocks, taps and fitting pouring spout.

**AIR FORCE** - Jet fuel refueling units for aircraft. Fuel supply units for turbo-jet engine tests benches, oil injection units for SNECMA.

#### AERONAUTICS

Water separator filters for Jet fuel. Filters for hydraulic circuit, high and low pressure. Jet fuel refueling units for aircraft. Fuel supply units for turbo-jet engine tests benches, oil injection units. Cocks, taps and fittings.

#### SPACE INDUSTRY

High security coupling fittings and hanger-on device for filling the 2nd stage of ARIANE 4 and 5 launchers with liquid ergols. Helium safety filter for liquid ergols pressurization system.

#### NUCLEAR AND ENERGY INDUSTRIES

Automatic self-cleaning filters for diesel engines, lubricating oils and fuel circuits. Duplex filters permutable in operation, equipped with cleanable filter elements. Miscellaneous filters fitted on liquid circuit under pressure.

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2012 Zhuhai Directory: Rockwell Collins is a pioneer in the design, production and support of innovative solutions for our customers in aerospace and aviation. Our expertise in flight-deck avionics, cabin electronics, mission communications, information management and simulation and training is strengthened by our global service and support network spanning 27 countries. Working together, our global team of nearly 20,000 employees shares a vision to create the most trusted source of communication and aviation electronics solutions, applying insight and foresight to help our customers succeed.

Our aviation electronics systems and products are installed in the flight decks of nearly every air transport aircraft in the world. Whether developing new technology for business jets, delivering integrated electronic solutions for new commercial aircraft or providing a level of service and support that increases reliability and lowers operational costs for aircraft operators throughout the world, we deliver on our commitments. We believe that the closer we get to our customers, based on promises kept, the greater the benefit for all involved. This is how we create value for our customers. And how we build trust, every day.

Corporate Website (Extracted in February 2014): For the past 30 years, Rockwell Collins has been demonstrating our commitment to China. Our growing presence in China has been made possible by our company's significant investments in the country, as well as strong corporate and personal relationships that have been formed over the last three decades. Examples of our company's successful collaborations in China include:

- In June 2013, a Memorandum of Agreement is executed with AVIC Bluesky to establish a commercial simulation joint venture in China that will design, manufacture, market and service flight simulators to address market segments in China and around the world.
- AVIC Leihua Rockwell Collins Avionics Company opens a facility in Wuxi in June 2013. This is a joint venture with AVIC Leihua Electronic Technology Research Institute to develop and manufacture integrated surveillance system products for Commercial Aircraft Corporation of China, Ltd.'s C919 aircraft in China.
- China Electronics Technology Avionics Company enters into a joint venture with Rockwell Collins to develop and manufacture the communication and navigation systems for the C919.

- Xian Aviation Science and Technology Company and Rockwell Collins jointly develop a full-motion engineering simulator for the C919.

Collins Aviation Maintenance Services Shanghai Ltd. is a joint venture between Rockwell Collins and China Eastern Airlines, providing aftermarket services and support of avionics and in-flight entertainment equipment for Chinese airline customers.

Rockwell Collins China has been growing steadily for 30 years. Today we have 80 employees in five locations and plan to continue to grow our employee base.

In 2013, aircraft equipped with authorized Head-Up Displays (HUD), including Rockwell Collins Head-Up Guidance System (HGS), were approved by the Civil Aviation Administration of China (CAAC) for lower landing minima at seven Instrument Landing System (ILS) equipped airports in China. The recognized enhanced efficiency and safety benefits of HUD have led to a larger initiative by the CAAC to encourage airlines to install the technology on their fleets in the years to come.

Collins Aviation Maintenance Services Limited in Shanghai is a CAAC certified MRO facility.

Rockwell Collins provides integrated avionics, communications and cabin systems to business aircraft and all major Chinese airlines, including Air China, China Eastern Airlines, China Southern Airlines and Hainan Airlines. These products provide the most advanced and reliable experience to passengers and are supported with simulation, training and flexible, performance-based services.

From flight deck to cabin to flight information solutions, we provide products and services that enhance all aspects of your aircraft and its operations.

Our Pro Line avionics systems provide pilots with the enhanced situational awareness they need to fly anywhere, anytime, more safely. Passengers stay connected, informed and productive, with real-time information delivered through our industry-leading cabin management systems.

With our new Rockwell Collins Ascend flight information solutions, owners and operators of business aircraft can manage flight operations more efficiently than ever. An integrated, one-stop suite of applications and services—along with state-of-the-art data synchronization between the aircraft and supporting ground system—allows flight departments to more easily access and manage today's ever-rising tide of information, saving time, reducing the cost of operations and enhancing aircraft utilization.

Maintaining and cultivating relationships with customers, as well as strategic collaborations within the aviation industry have provided mutual benefits for Rockwell Collins and China's aviation industry. Rockwell Collins has established close relationships with the Ministry of Industry and Information Technology of China (MIIT), Commercial Aircraft Corporation of China, Ltd. (COMAC), China Aviation Industry Corporation (AVIC), China Electronics Technology Company (CETC), General Administration of Civil Aviation of China (CAAC), Air Traffic Management Bureau of CAAC (ATMB), Beijing Bluesky Aviation Technology and Chinese airlines.

Rockwell Collins is a member of the American Chamber of Commerce in the People's Republic of China, also known as AmCham China. In addition, we participate in AmCham China's Aviation Cooperation Program.

Rockwell Collins investment and opportunities in China continue to thrive, with key original equipment manufacturer (OEM) and airline program wins, strategic alliances and joint ventures. In fiscal year 2012, Rockwell Collins China continuously achieved significant growth in all activities, generating revenue of \$200 million.

Approximately 80 employees work for Rockwell Collins China, primarily in Beijing and Shanghai.

Collins Aviation Maintenance Services Shanghai Ltd., a joint venture between Rockwell Collins and China Eastern Airlines, provides Chinese airline customers with fast and convenient in-country repair service for a variety of products.



In 2011, Rockwell Collins opened our China System Support Center in Shanghai, which features a permanent engineering staff. The center offers technical and management training, consulting and on-site OEM support service to our customers and partners in China.

Our Beijing and Shanghai office activities are primarily focused on sales and support of commercial products to airlines and OEMs.

The first China-based Rockwell Collins service center opened in Shanghai in 1997. In March 2003, this service center was converted into a joint venture between Rockwell Collins and China Eastern Airlines.

Located in the Pudong Waigaoqiao Free Trade Zone, Collins Aviation Maintenance Services Shanghai Ltd. (CAMSSL) covers 1,500 square meters. The facility uses advanced Rockwell Collins testing equipment for communications, navigation, sensors, displays, flight control computers, weather radar and in-flight entertainment systems, as well as non-Rockwell Collins automated test equipment.

CAMSSL is committed to providing customers around the globe with unmatched quality and service in Rockwell Collins and other avionics maintenance support, using the best of Rockwell Collins OEM management systems and advanced technology.

Examples of our service and support customers include:

- Hainan Airlines and China Southern Airlines, which selected our Dispatch program in 2012 to service and support their Boeing 787 fleets.
- Air China, which in 2010 signed a 10-year maintenance agreement with CAMSSL for avionics support.
- Xian Aviation Science and Technology Company, which awarded Rockwell Collins the MA-60 and MA-600 simulator programs in 2009. Rockwell Collins will use our CORE simulation architecture to supply key components of the MA-60 full flight simulator and the MA-600 flight training device.

In addition, our global network of more than 80 locations provides repair and overhaul of avionics equipment for commercial, business, corporate and **military** operations.

Excerpts from the Corporate Website (Extracted in February 2014):

ACQUISITIONS. Rockwell Collins is focused on leveraging its core strengths and expanding them through acquisitions and alliances to provide new capabilities to its current and future customers.

#### LIMITED LIABILITY COMPANIES

AVIC Leihua Rockwell Collins Avionics Company is a joint venture company between Rockwell Collins and China Leihua Electronic Technology Research Institute (LETRI), a subsidiary of the Aviation Industry Corporation of China. The joint venture will initially develop, manufacture and deliver integrated surveillance system products for the C919 program in China.

### HORIZONS MAGAZINE

Rockwell Collins - Horizons Magazine

Volume 18, Issue 3, 2013

#### WHY WE CAN'T STAND STILL IN CHINA

I'm told that there is an old Chinese proverb that says: Be not afraid of growing slowly, be afraid only of standing still. This saying, while written a long time ago, certainly exemplifies our business in China today.

As you'll read in the cover story of this issue of Horizons magazine, China is one of our emerging markets of focus as part of our international growth strategy. Over the next 10 to 20 years, it's projected to be the largest air transport growth region in the world. And

although Rockwell Collins has had a significant presence in China for more than 30 years, we recognize that for us to be successful in the long term, we can't stand still.

That's why we're expanding through joint ventures with in-country partners. We're collaborating with the Civil Aviation Administration of China when it comes to standards and technology roadmaps to improve flight reliability and safety. And we're focused on building new levels of trust with airlines in China.

I've said that my number one priority is to accelerate our company's return to growth. It's no exaggeration to say that global markets play an immense role in defining our future success. Like most companies in our industry, over the last few years, we've been adapting to macroeconomic shifts taking place across the globe.

As **defense** markets in the U.S. and Europe soften and more opportunities arise in emerging markets, we have to consider what will help us grow today along with what will better position our company for the future. Success is never accidental. Moving forward, no matter where you are in the world, your work is critical to our growth strategy.

Full speed ahead

Kelly Ortberg CEO & President

Rockwell Collins - Horizons Magazine

Volume 18, Issue 3, 2013

Main Article:

TAKING FLIGHT WITH CHINA'S RISING MIDDLE CLASS; HOW INCREASED PURCHASING POWER IS DRIVING LONG-TERM DEMAND FOR AIR TRAVEL AND ROCKWELL COLLINS' EXPERTISE

By Annette Busbee and Crystal Hardinger, Senior Communications Specialists at Rockwell Collins.

Inside Rockwell Collins' facility in Shanghai, China, Ron Ho explains some of the economic indicators he looks at to develop our business strategy in China: the country's gross domestic product (GDP), per-capita income and consumer demand for air travel. While each of these data points has different implications for the future, the overall meaning for international corporations like Rockwell Collins is the same: opportunity.

"As the economy and middle class grow in China, the numbers indicate a growth in long-term demand for air transport and business jet travel," said Ho, who is the managing director of Rockwell Collins in China. "That means there will be a greater need for Rockwell Collins avionics and cabin systems solutions, as well as a demand for our simulation and training technology to train additional pilots."

The Chinese middle class – which today includes 307 million people – is expected to grow to 700 million by 2020, driving what's projected to be the largest air transport growth region in the world over the next 10 to 20 years, according to Rockwell Collins strategists. And while China's recent economic growth has slowed at a more dramatic pace than anticipated, the continued expansion of the region's middle class makes China one of the emerging markets of focus for Rockwell Collins as part of our long-term international growth strategy.

Yet, there's more to the story than just economic indicators. The other important data point for Ho is Chinese government investments in the aviation industry. China has a national goal of developing its own commercial aviation industry starting with Commercial Aircraft Corporation of China's (COMAC's) ARJ21 regional jet and the C919 single-aisle aircraft.

"China wants to expand its aviation industry and has the money to do it," explained Colin Mahoney, senior vice president of International and Service Solutions. "Our expertise and long-term relationships in the country put Rockwell Collins in a position to benefit from that expansion."

Expertise respected

For more than three decades, Rockwell Collins has had a presence in China. And before that, our company's avionics solutions were on board Boeing 707s in the 1970s. Today, our avionics are on nearly every aircraft operated by China's airlines, including the new Boeing 787 acquired by China Southern Airlines and the Airbus 350 XWB to be acquired by Air China.

Over the last decade, an integral part of Rockwell Collins' overall strategy in China has been focused on building and maintaining trust with the in-country aviation industry. Along with the Chinese airlines, Rockwell Collins has established relationships with COMAC, Aviation Industry Corporation of China (AVIC), China Electronics Technology Group Corporation (CETC), Civil Aviation Administration of China (CAAC) and the Air Traffic Management Bureau of CAAC (ATMB).

These groups, which were formed with the approval of the Chinese government and administered by China's State Council, are looking to Rockwell Collins for expertise with new technology and proven avionics solutions.

For example, our company's experience with Head-up Displays (HUD) led to a collaboration with CAAC – the equivalent of the Federal Aviation Administration in the United States – to develop HUD standards for lower landing minima at a number of Instrument Landing System (ILS)-equipped airports throughout the country. These standards will help improve flight reliability and safety.

The efficiency and safety benefits of HUDs also have led to a larger initiative by CAAC to issue a roadmap that all Chinese airlines have this technology installed on all aircraft by 2025. Rockwell Collins was the first company to certify its HGS Head-up Display for this operation.

Another example is the COMAC contracts to develop the new C919 single-aisle aircraft. COMAC selected our company to provide communication and navigation solutions, Integrated Surveillance System (ISS), Cabin Core System (CCS), In-Flight Entertainment System (IFE) and the engineering simulator.

As part of the contracts to develop, manufacture and deliver solutions for the C919, Rockwell Collins has established a joint venture (JV) agreement with China Leihua Electronic Technology Research Institute (LETRI). Other relationships being formed to support the C919 program are with the China Electronics Technology Avionics Co. (CETCA), Shanghai Aero Measurement-Controlling Research Institute (SAMRI) and Xian Aviation Science and Technology Company (XASC).

"China is looking for experienced partners to develop its aviation industry, particularly its original equipment manufacturing market. Rockwell Collins is looking for channels to the local market, as well as the ability to expand and support our customers from in-country," said Ho. "It's all about the value each partner can bring."

#### The table-less meeting

A senior vice president of engineering for Air China once told our company's senior leadership, "We make friendships first and then do business." According to Hailin Wen, director of Asia Pacific Commercial Sales and Support in Beijing, this is very much true of all business relationships in China, emphasizing that for international corporations to be successful, it takes patience and an understanding of the Chinese culture.

One example of this is executive-level business meetings. The meetings usually do not take place around a table. Rather, two chairs are positioned in the middle of a room – one for the customer's senior leader and the other for the senior leader from Rockwell Collins. Interpreters are then positioned behind each leader.

The language of business in China is Mandarin Chinese, but an accurate translation often involves an understanding of the country's history, culture and the background of the person speaking.

"For example, 'yes' is not necessarily an affirmation," explained Wen, a native of China who has worked for Rockwell Collins for 13 years. "In Chinese, it can mean 'I'm hearing you' or 'These are things we can try.'"

While translating Mandarin Chinese to English can be challenging, it's part of cultivating and maintaining essential relationships, according to Wen. Chinese customers must trust the people they do business with before they will sign a contract.

**Intellectual property important**

Chinese customers are certainly not alone when it comes to valuing trust long before a deal is finalized. Of all the questions Mahoney receives in his role as senior vice president of International and Service Solutions about Rockwell Collins' growth strategy in China, most are tied to the sharing of Rockwell Collins' intellectual property.

The terms of a joint venture agreement often are complicated – particularly when it comes to the creation, ownership and exchange of intellectual property – because these partnerships are designed to build expertise in country while also providing our company with market share.

Yet, joint ventures only make sense for Rockwell Collins if we gain competitive advantages – not lose competitive advantages – with our intellectual property over the long term, according to Mahoney.

"That means we have to have proper parameters in place when forming joint ventures and trust that our partners in China will uphold the agreements," he said.

In June 2013, Rockwell Collins signed a Memorandum of Agreement to establish a joint venture with Beijing Bluesky Aviation Technology, an AVIC subsidiary, to design, manufacture and market commercial flight simulators, as well as establish a center of excellence for commercial flight simulation in China.

According to LeAnn Ridgeway, vice president and general manager of Simulation & Training Solutions, which is headquartered in Sterling, Va., this agreement came together after years of building confidence and trust with Bluesky through our company's existing simulator programs in China.

"We both have a long-term goal to address the unique training needs of airlines around the world, starting with China's rapidly growing aviation market," said Ridgeway. "There's a lot of value for both groups by combining the strengths of Rockwell Collins technology, such as our industry-leading visuals and scalable CORE Simulation Architecture, with Bluesky's expertise with Chinese commercial aircraft simulation and training."

**Dramatic ascent in the industry**

By 2033, it's expected that Chinese airlines will acquire 5,580 new aircraft valued at \$780 billion, according to projections from The Boeing Company. And in the business jet market, China is forecasted to become the third largest region in terms of deliveries with more than 1,400 business jet deliveries over the next 20 years, according to a recent Bombardier Aerospace Business Aircraft Market Forecast.

This dominant growth in the air all ties back to the rising economy and growing middle class in China that wants to travel, said Ho. And while Rockwell Collins is poised to benefit from the growth over the near term, Ho is even more enthusiastic about the long-term potential in China as the country's aviation industry continues to evolve.

"Customers in China are loyal and value mutual relationships. Once they build trust with you, they will stay with you in the long term," he said. "I strongly believe the foundation Rockwell Collins has established in China will pay off today and in the future."

**Rockwell Collins' commercial aviation milestones in China Aircraft programs in China**

C919 – Rockwell Collins was selected by the Commercial Aircraft Corporation of China Ltd. (COMAC) to provide communication and navigation solutions, Integrated Surveillance System (ISS), Cabin Core System (CCS), In-Flight Entertainment System (IFE) and the engineering simulator for the new C919 family of single- aisle aircraft.

ARJ21 – Rockwell Collins was selected by COMAC to supply the Pro Line 21 integrated avionics system for the ARJ21 and to serve as the avionics system integrator.

MA600 – Building on the success of MA60, the Xian Aircraft Company (XAC) selected Rockwell Collins to upgrade its MA600 aircraft with Pro Line 21 avionics.

MA60 – Rockwell Collins supplies the Pro Line II avionics to XAC for the Y7-200A/B (currently called MA60), including Electronic Flight Instrument System (EFIS) for the display system and many Rockwell Collins communication and navigation products.

K8, Y8 and Y12 – Rockwell Collins equipment is installed on the K8, Y8 and Y12 commercial airplanes. With training and initial assistance provided by Rockwell Collins, engineers at the aircraft companies have successfully integrated the advanced electronic equipment into their aircraft.

AC312 – Our company was selected by AVIC Harbin Aircraft Manufacturing Company to supply display systems and Pro Line 4 avionics for AC312 commercial helicopters and also to serve as the avionics system integrator.

AC352 – Rockwell Collins' Pro Line 21 solutions are equipped on AVIC Harbin Aircraft Manufacturing Company's AC352 commercial helicopter platform, which is primarily used for search and emergency rescue purposes.

#### Joint Ventures

2002 - Rockwell Collins and China Eastern Airlines establish a joint venture (JV), Collins Aviation Maintenance Services Shanghai Limited (CAMSSL), to provide aviation maintenance, repair and overhaul (MRO) services in China. In 2012, the two companies sign a 10-year agreement to renew the MRO joint venture.

October 24, 2012 – Rockwell Collins and China Electronics Technology Avionics Co. (CETCA) sign an agreement to establish a JV to develop and manufacture the communication and navigation systems for the Commercial Aircraft Corporation of China Ltd. (COMAC) C919 aircraft.

June 3, 2013 – Grand opening of AVIC Leihua Rockwell Collins Avionics Company, a JV between Rockwell Collins and China Leihua Electronic Technology Research Institute (LETRI), a subsidiary of the Aviation Industry Corporation of China (AVIC). Located in Wuxi, the JV will initially develop, manufacture and deliver integrated surveillance system products for the C919 program in China.

June 5, 2013 – Rockwell Collins and Beijing Bluesky Aviation Technology, an AVIC subsidiary, sign a Memorandum of Agreement towards establishing a JV that will design, manufacture and market commercial aviation flight simulators. The JV will initially focus on airlines and aircraft manufacturers in China, with future plans to address the global commercial simulation and training market segment.

#### Rockwell Collins - Horizons Magazine

Volume 18, Issue 2, 2013

#### ROCKWELL COLLINS AND CHINA LEIHUA ELECTRONIC TECHNOLOGY RESEARCH INSTITUTE CELEBRATE JOINT VENTURE GRAND OPENING

Rockwell Collins and China Leihua Electronic Technology Research Institute (LETRI), a subsidiary of the Aviation Industry Corporation of China (AVIC), announced in June the formal incorporation and grand opening of a joint venture — AVIC Leihua Rockwell Collins Avionics Company. The new joint venture will initially develop, manufacture and deliver integrated surveillance system products for the COMAC C919 program in China.

"The formalization of our first joint venture with AVIC demonstrates the strongest cooperation yet between our organizations," said Kent Statler, executive vice president and chief operating officer, Commercial Systems. "The creation of AVIC Leihua Rockwell Collins Avionics Company is a major milestone in supporting the COMAC C919 program, as well as another step forward in supporting the growing aviation industry in China."

"The establishment of this joint venture unveils a new chapter of cooperation between Rockwell Collins and AVIC," said Zhang Xinguo, senior vice president of AVIC.

"Together, our companies will further deepen a mutually beneficial relationship that shares the prosperity and growth of China and the world civil aviation market."

Rockwell Collins has been working with the Chinese aviation industry and its suppliers for 30 years. Our company's equipment is installed in many airplanes manufactured in

China, including the ARJ21, MA60/600, Y8, Y12, K8, AC312 and AC352, and is on nearly every western airliner operated by China's airlines.

Rockwell Collins – Horizons Magazine  
Volume 18, Issue 1, 2013

#### SIX RULES FOR BUILDING BETTER BUSINESS RELATIONSHIPS WORLDWIDE

Principal Business Development Manager Ye “Grace” Du has worked in our Beijing office for more than 15 years.

Fifteen years ago, Ye “Grace” Du won the admiration of her university classmates when she accepted a job at Rockwell Collins in Beijing, China. Today, she's winning the admiration of colleagues for her work to establish successful business relationships in China.

Born and raised in Beijing, Du was among the first in China hired to work for our Government Systems business. Yet, for most of her career, she's held various Rockwell Collins roles working with Chinese commercial customers.

In her current role as a principal business development manager in International and Service Solutions, her main focus is establishing joint interests between Commercial Systems and in-country partners. She recently helped support the formation of the joint ventures for the COMAC C919 aircraft program and a renewed maintenance, repair and overhaul joint venture contract with China Eastern Airlines.

“All parties are excited with the strategic partnerships we have established so far, along with other alliances in progress in China,” said Du. “The next step is to further grow the joint ventures to achieve mutual operations success, which will also help Rockwell Collins expand in China's marketplace over the long term.”

Like many of her peers, Du enjoys working for a multinational company like Rockwell Collins because of the opportunities to learn more about Western culture and working styles, interact with people around the world, and develop her critical thinking and problem-solving skills. She also values the people she works with.

“The Beijing office has a good team and many loyal people,” she explained, emphasizing that more than half of Rockwell Collins employees in China have been with the company for more than 10 years. “We have a diverse and inclusive working environment, and much of our success is driven from the fact that we gain a lot of knowledge from each other.”

Throughout her career, Du has learned a number of best practices that have helped her build relationships with customers, partners and colleagues in China and other countries. She recommends those practices to others who want to develop stronger business relationships:

1. Recognize that building a great business relationship – whether with a customer, partner, supplier or colleague – and the benefits that come with that relationship, take time.
2. Get to know each other first. Before jumping to recommendations or conclusions, it's important to truly understand the other party's business, interests and requirements.
3. Be open minded. Both parties often have to be receptive to new ideas in order to grow.
4. Find win-wins. There has to be mutual success for a business relationship to last.
5. Be accommodating. For example, something as simple as scheduling a meeting during the other party's regular working hours shows that you're adaptable and willing to meet others' needs.
6. Make the commitment and deliver it. To build trust, you have to do what you say you're going to do.

Rockwell Collins - Horizons Magazine

Volume 14, Issue 3, 2009

BUILDING TRUST GLOBALLY

Hailin Wen

Nickname: Helen, Title: Sales Account Manager, China

Location: Beijing

China Joined Rockwell Collins: July 2000

Insights for U.S. colleagues:

"Our English may seem a bit outdated to Americans. That's because our English textbooks in China are really out of date. I learned to say, 'How do you do?' But Americans typically say, 'Nice to meet you.'"

"In the U.S., you can be very direct with prospective customers. But in China, you must develop a good *gua-nxi*, or relationship, first."

As a sales account manager based in Beijing, China, Hailin "Helen" Wen works with a staff of 17 in the business development offices there and in Shanghai, China. She also interacts with more than 30 people at the Shanghai Service Center.

After obtaining multiple degrees in electronics and engineering and a Master of Business Administration degree from Rutgers University, she spent 13 months working at our company in Cedar Rapids, Iowa.

"There are a lot of things I learned that I couldn't have known just working in the field," she says. "It really broadened my experience and view."

Wen found that our company's process-driven and business performance-oriented culture helps in China, where the typical state-owned company isn't that process-driven.

"A lot of our Chinese customers really want and request that they go to Cedar Rapids to get training from us, including training leadership in the Life Cycle Value Stream Management and decision process," she says.

Today, Wen is focusing her attention on winning more market share from Chinese airline leasing companies. She also provides help to the Rockwell Collins pursuit team that is working to land business for China's new trunkliner – known as the C919.

"We're trying to make a greater effort from every aspect to grow our China business," she says. "It's essential that the airlines are happy with our solutions and services."

Since 2000, Rockwell Collins' sales in China have more than tripled to greater than \$140 million. And even with the current global economy, Wen anticipates continued growth in the future.

Like Takieddine, Wen also notes cultural differences that her colleagues should recognize when working in China or with the Chinese.

First, Chinese business cards list a person's last name first, then their first name. So, while her card reads "Wen" first, it shouldn't be confused with her first name, Hailin, or "Helen."

She also observes that Chinese customers aren't very direct, so doing business with them requires patience.

"Reformatting proposals a couple of times is very common here," she says, "so patience is necessary to meet all the requirements."

Rockwell Collins – Horizons Magazine

Volume 12, Issue 3, 2007

Various Extracted Passages:

"Common culture – Huashan Chen, a senior software engineer at Rockwell Collins in Cedar Rapids, Iowa, is able to bridge the language barrier between our engineers and those at the Aeronautics Computing Technique Research Institute (ACTRI) Company in Xi'an, China, and the China Aeronautical Radio Electronics Research Institute (CARERI) Company in Shanghai, China. Chen is a native of Shanghai, China."

"In addition, enhancing our business relationships with subcontractors like HCL, as well as the Aeronautical Computing Technique Research Institute (ACTRI) in Xi'an, China,

and the Chinese Aeronautical Radio Electronics Research Institute (CARERI) in Shanghai, China, also provides Rockwell Collins with access to customers who might not have otherwise considered our company.

"I firmly believe that one of the reasons we won the avionics position on the ARJ- 21, a regional jet being developed in China, was because we had already established a relationship with ACTRI and CARERI," said John Baseler, senior engineering manager for Flight Management Systems in Cedar Rapids. "There are always people who will worry that we're sending too much work offshore, but I believe we're doing it the right way. We're using these resources to fill in for our engineering gaps."

Rockwell Collins - Horizons Magazine

Volume 12, Issue 2, 2007

PERSISTENCE, RELATIONSHIPS HELP DIRECT GROWTH IN CHINA

By Sue Nading

Long recognized as a "sleeping giant" of global commerce and trade, China has evolved into a complex marketplace of enormous economic opportunity.

For more than 20 years, Rockwell Collins has maintained operations in this country and established a reputation for excellence and reliability due to our employees' experience and dedication.

"Within the last couple of decades, the Chinese aviation marketplace has been growing at an unprecedented rate in comparison to other countries," said Martin Lin, managing director of Business Development for Rockwell Collins in China. "Our employees have learned to adapt quickly and have been able to meet customers' requirements, and that has led to some very successful relationships and business contracts."

Separate, Yet Focused

According to Lin, Rockwell Collins equipment has been installed in many airplanes manufactured in China, and is on almost every Western airliner operated within the country.

Working with companies such as Xian Aircraft, Harbin Aviation Industries Group and AVIC I Commercial Aircraft Company (ACAC), our employees have been able to supply avionics systems and provide key expertise to engineers in the integration of existing aircraft.

"We also have upgraded the high frequency ground radio stations for the Civil Aviation Administration of China's (CAAC) Air Traffic Management Bureau (ATMB), which is located in the southwest region of China in a town called Lhasa," said Grace Du, a sales specialist for Government Systems in our Beijing representative office. "It was a very significant contract and this installation is probably one of the world's highest at 12,500 feet above sea level."

Sales and support of Air Transport Systems (ATS) in Beijing, Shanghai and Guangzhou provide for the growing aviation needs of China's burgeoning regional airline industry. Head-Up Guidance Systems (HUGS), which allow aircraft to land and take off in low-visibility conditions, is one of the products available to our customers. Recently, Passenger Systems has been added to include passenger in-flight entertainment systems on commercial airlines.

"Our Shanghai office and its 14 employees provide sales and service for communication and cabin electronics solutions to the Chinese airlines and other business and regional aircraft customers," said Ron Ho, sales director of Commercial Systems in our Shanghai office. "While we have more than one location or facility in China with different functions, the goal is the same — to make Rockwell Collins stand out and remain the most trusted name in avionics."

Rockwell Collins - Horizons Magazine

Volume 11, Issue 3, 2006

ROCKWELL COLLINS RADIO SYSTEMS SOAR OVER CHINA



Grace Du, Beijing, China

Photograph not included: Bernard Loth, vice president and general manager of International Subsidiaries at Rockwell Collins, visited the High Frequency (HF) Ground Station in Tibet Lhasa, China, earlier this summer. Pictured (from left) are: Martin Lin, chief representative and managing director of Rockwell Collins-China; Liu Ying, engineer at the CAAC ATMB; Yan Xinxiang, director of the CAAC ATMB; and Bernard Loth.

Rockwell Collins-Australia and Rockwell Collins-China teamed up to capture a significant contract from the Civil Aviation Administration of China (CAAC) Air Traffic Management Bureau (ATMB) to upgrade its ground high frequency (HF) stations in the ATMB Southwest region.

The contract, awarded in October 2005, included the supply of 10 400W HF ground radio systems, which were successfully installed and commissioned in three western China locations in May 2006. Rockwell Collins radio systems are now performing communication services on what is considered one of the world's highest HF ground stations at 3,800 meters (12,500 feet) in elevation.

The systems will enhance the voice communication quality between commercial airplanes and ground air traffic control centers for flights between Chengdu and Lhasa. It enables seamless communication for controller and pilot with accurate, reliable and timely information exchanges.

"We are honored to be selected by CAAC ATMB to provide the total solution for its HF upgrade program," said Bernard Loth, vice president and general manager of International Subsidiaries. "The successful implementation of these HF stations represents a significant milestone for our engagement in China's market segment."

#### ROCKWELL COLLINS PRESS RELEASES

##### ROCKWELL COLLINS AND BEIJING BLUESKY AVIATION TECHNOLOGY SEEKING TO ESTABLISH COMMERCIAL SIMULATION JOINT VENTURE IN CHINA

Beijing (June 5, 2013) – Rockwell Collins and Beijing Bluesky Aviation Technology, an AVIC subsidiary, have signed a Memorandum of Agreement towards establishing a joint venture that will design, manufacture and market commercial aviation flight simulators. The venture will initially focus on airlines and aircraft manufacturers in China, with future plans to address the global commercial simulation and training market segment.

The agreement, signed yesterday by LeAnn Ridgeway, vice president and general manager, Simulation and Training Solutions for Rockwell Collins, and Mr. Jin Dongsheng, chairman, Beijing Bluesky Aviation Technology, will establish a center of excellence for commercial flight simulation in China. The joint venture will combine the strength of Rockwell Collins CORE Simulation Architecture technology and leading visual systems with Bluesky's expertise on Chinese commercial aircraft flight simulation training products and services.

"This is an important day as we extend our long-standing, successful relationship with Bluesky to the next level, and deepen our commitment to the commercial simulation and training market segment," said Ridgeway. "Our combined ability to create simulators with the highest levels of realism, flexibility and life cycle value holds great promise for China and beyond."

"This joint venture marks the continuation of a trusted partnership that we have built with Rockwell Collins over the years," said Mr. Jin. "We are proud to launch this venture in China's rapidly growing aviation market, and look forward to fulfilling our long-term goal of addressing the unique training needs of airlines around the world."

Rockwell Collins and Bluesky have previously developed simulation and training solutions for the MA60, MA600, ARJ21 and C919 programs. Through the joint venture, the companies will expand their work to include a broader range of full flight simulators and

lower level training devices for regional, narrowbody and widebody airline training segments. The joint venture will also provide maintenance and support services.

Pending a final joint venture agreement and subsequent regulatory approvals, the joint venture is expected to begin operation by year end.

About Beijing Bluesky Aviation Technology.

Beijing Bluesky Aviation Technology Co., Ltd. is affiliated with the AVIC Group. Bluesky is a professional high technology enterprise in the flight simulation area of the Chinese aviation industry, combining research and development, production and services. The Beijing Headquarters acts as the research and development center of the whole group.

#### ROCKWELL COLLINS AND CHINA LEIHUA ELECTRONIC TECHNOLOGY RESEARCH INSTITUTE CELEBRATE JOINT VENTURE GRAND OPENING; AVIC LEIHUA ROCKWELL COLLINS AVIONICS COMPANY TO BE BASED IN WUXI, JIANGSU, CHINA

Wuxi, China (June 3, 2013) – Rockwell Collins and China Leihua Electronic Technology Research Institute (LETRI), a subsidiary of the Aviation Industry Corporation of China (AVIC), today announced the formal incorporation and grand opening of their joint venture - AVIC Leihua Rockwell Collins Avionics Company. The new joint venture will initially develop, manufacture and deliver integrated surveillance system products for the C919 program in China.

“The formalization of our first joint venture with AVIC demonstrates the strongest cooperation yet between our organizations,” said Kent Statler executive vice president and chief operating officer, Commercial Systems for Rockwell Collins. “The creation of AVIC Leihua Rockwell Collins Avionics Company is a major milestone in supporting the COMAC C919 program, as well as another step forward in supporting the growing aviation industry in China.”

“The establishment of this joint venture unveils a new chapter of cooperation between Rockwell Collins and AVIC,” said Zhang Xinguo, senior vice president of AVIC. “Together our companies will further deepen a mutually beneficial relationship that shares the prosperity and growth of China and the world civil aviation market. “In the process of becoming a key player in the global aviation supply chain, AVIC is cooperating with well-known international companies to create a highly competitive offering through the combined strengths of these partnerships. This cooperation also demonstrates that AVIC is actively involved in the process of global economic integration in a mindset of openness and self-confidence.”

Executives commemorated the grand opening at a ribbon cutting ceremony held today in Wuxi, where the new entity will be based. Those in attendance from Rockwell Collins included Chairman and Chief Executive Officer Clay Jones; Statler and Colin Mahoney, senior vice president, International and Service Solutions. AVIC executives included Mr. Zhang Xinguo, AVIC executive vice president; Mr. Lu Guangshan, chairman of AVIC Avionics Systems; and Mr. Zhang Lin, LETRI president.

Rockwell Collins has been working with the Chinese aviation industry and its suppliers for 30 years. The company's equipment is installed in many airplanes manufactured in China including the ARJ21, MA60/600, Y8, Y12, K8, AC312 and AC352, and is on nearly every western airliner operated by China's airlines.

About AVIC

Aviation Industry Corporation of China (AVIC) is a Chinese state-owned company of aviation industry, both civilian and **military**. It was founded in 1951 as the Aviation Industry Administration Commission. AVIC's business units cover avionics systems, transport aircraft, engine, general aviation, helicopter, mechanical electronics and aviation techniques.

About LETRI

China Leihua Electronic Technology Research Institute (LETRI) was established in 1970. Located in Wuxi, Jiangsu Province the company researches and produces civil aviation electronic equipment. LETRI is a research division of the Aviation Industry Corporation of China (AVIC).

#### About COMAC

The Commercial Aircraft Corporation of China, Ltd. (COMAC) is a state-owned company, which is formed with the approval of the State Council and jointly invested by the State-owned Assets Supervision and Administration Commission (SASAC) of the State Council, Shanghai Guosheng (Group) Co., Ltd., Aviation Industry Corporation of China (AVIC), China Aluminum Corporation (CHINALCO), Baosteel Group, and Sinochem Group.

### ROCKWELL COLLINS SHOWCASING LATEST INNOVATIONS FOR BUSINESS AIRCRAFT AT ABACE 2013

Date: Apr. 16-18

Location: Shanghai, China

- Pro Line Fusion advanced avionics empower pilots
- Ascend flight information solutions for dependable flight operations, anywhere in the world
- Market-first Skybox cabin offering enables the full Apple experience
- HGS iPad app familiarizes pilots with head-up flying, now in Mandarin

Shanghai (Apr. 11, 2013) – At this year's Asian Business Aviation Convention and Exhibition (ABACE) in Shanghai, China, Rockwell Collins is showcasing its latest offerings for business aircraft, including the first appearance of its new Apple-enabling Skybox solution for cabins in Asia.

Rockwell Collins's team of experts will be on hand at ABACE to discuss solutions for enhancing the flight deck, transforming the cabin and optimizing flight operations, especially in the Asia Pacific region. Attendees are encouraged to stop by the company's exhibit (#P417) to learn more.

Singapore Airshow 2012: Rockwell Collins showcases full spectrum of commercial, **military** solutions

Wednesday, February 15, 2012 Day One of the 2012 Singapore Airshow was a day full of signing ceremonies, very important person (VIP) delegation visits and press interviews for staff at Rockwell Collins.

The exhibit floor didn't open until noon - but meetings and conversation at the our booth started several hours before. VIP delegations that visited the Rockwell Collins booth over the course of the day included representatives from the Korean Air Force, Korean Navy, Thai Navy, Brunei Ministry **Defense** and Bangladesh Ministry of **Defense**.

We hosted two signing ceremonies to commemorate important avionics agreements with ICBC Leasing based in China, and Singapore-based BOC Aviation. (photos below)

Journalists from United States and regional trade publications met with Rockwell Collins Vice President and Managing Director Asia Pacific TC Chan and Rockwell Collins Managing Director for China Ron Ho to understand more about the company's offerings and plans for growth in the Asia Pacific region.

TC Chan, vice president and managing director, Asia Pacific for Rockwell Collins and Tao Mei, executive vice president of ICBC Leasing sign agreement for Rockwell Collins avionics for up to 42 Airbus A320s at the 2012 Singapore Airshow. <http://ow.ly/93P8n>

TC Chan, vice president and managing director, Asia Pacific for Rockwell Collins and Robert Martin, managing director and CEO for BOC Aviation sign agreement for Rockwell Collins avionics for up to 30 new Airbus A320s at the 2012 Singapore Airshow. <http://ow.ly/93Pft>

Tuesday, February 14, 2012 We have two exciting signing ceremonies on the schedule for Tuesday at the Rockwell Collins Stand (Q79) at the Singapore Airshow!

ICBC Leasing: 2:00 PM local Singapore time

- China-based aircraft leasing company selects Rockwell Collins avionics, including its WXR-2100 MultiScan Threat Detection System and GLU-925 Multi-Mode Receiver for new fleet
- Rockwell Collins and ICBC Leasing representatives on hand for a signing ceremony at the 2012 Singapore Airshow

#### OKAY AIRWAYS SELECTS ROCKWELL COLLINS' HEAD-UP GUIDANCE SYSTEM FOR NEW BOEING 737 AIRCRAFT

Beijing (Apr. 2, 2013) – Rockwell Collins' market-leading Head-up Guidance System (HGS) has been selected by Okay Airways for 10 new Boeing Next-Generation 737 aircraft. Deliveries are expected to begin in 2014. Rockwell Collins' HGS displays critical flight information in the pilot's forward field-of-view, eliminating the need for the pilot to repeatedly transition to the head-down instruments. As a result, pilots can keep their attention focused on the outside world, enhancing overall situational awareness and safety. "We commend Okay Airways for adopting HGS in China," said TC Chan, vice president and managing director, Asia Pacific for Rockwell Collins. "The operational benefits of this technology are significant, including access to lower landing minima at approved airports throughout the country, which will help assure timely arrival to these high-traffic destinations." Currently there are seven airports throughout China approved for lower landing minima by the Civil Aviation Administration of China (CAAC) for aircraft equipped with authorized head-up displays (HUDs) such as Rockwell Collins' HGS, including Beijing, Shanghai Pudong, Guangzhou, Chengdu, Xi'an, Qingdao and Jinan. There are 58 additional airports scheduled to be approved for lower landing minima in the next two years. Rockwell Collins was the first company to certify a HUD for this operation. The recognized enhanced efficiency and safety benefits of HUDs have led to a larger initiative by the CAAC to encourage airlines to install the technology on their fleets in the coming years. The recently released "China HUD Application Roadmap" calls for ten percent of capable in-service airline fleets to be equipped with HUD by 2015, and on all airline aircraft where a HUD is offered by 2025. With more than 5,100 Head-up Guidance Systems delivered to date, Rockwell Collins leads the commercial head-up display market segment. Thirty-seven airlines across 23 countries operate the company's HGS every day, along with hundreds of corporate and **military** transport aircraft operators around the world.

#### CHINA EASTERN AIRLINES PLACES MAJOR ORDER FOR ROCKWELL COLLINS' HEAD-UP GUIDANCE SYSTEM

Shanghai (Apr. 2, 2013) – Rockwell Collins' market-leading Head-up Guidance System (HGS) has been selected by China Eastern Airlines for 58 new Boeing Next-Generation 737 aircraft. Deliveries are expected to begin in 2013. Rockwell Collins' HGS displays critical flight information in the pilot's forward field-of-view, eliminating the need for the pilot to repeatedly transition to the head-down instruments. As a result, pilots can keep their attention focused on the outside world, enhancing overall situational awareness and safety. "We are very honored by China Eastern's selection of our HGS, which brings significant operational benefits to the airline," said TC Chan, vice president and managing director, Asia Pacific for Rockwell Collins. "With HGS, China Eastern will now have access to lower landing minima at approved airports throughout China, which means greater probability of landing during low-visibility conditions." Currently there are seven airports throughout China approved for lower landing minima by the Civil Aviation Administration of China (CAAC) for aircraft equipped with authorized head-up displays (HUDs) such as Rockwell Collins' HGS, including Beijing, Shanghai Pudong, Guangzhou, Chengdu, Xi'an,

Qingdao and Jinan. There are 58 additional airports scheduled to be approved for lower landing minima in the next two years. Rockwell Collins was the first company to certify a HUD for this operation. The recognized enhanced efficiency and safety benefits of HUDs have led to a larger initiative by the CAAC to encourage airlines to install the technology on their fleets in the coming years. The recently released "China HUD Application Roadmap" calls for ten percent of capable in-service airline fleets to be equipped with HUD by 2015, and on all airline aircraft where a HUD is offered by 2025. With more than 5,100 Head-up Guidance Systems delivered to date, Rockwell Collins leads the commercial head-up display market segment. Thirty-seven airlines across 23 countries operate the company's HGS every day, along with hundreds of corporate and **military** transport aircraft operators around the world.

#### SEVEN AIRPORTS IN CHINA NOW APPROVED FOR LOWER LANDING MINIMA FOR AIRCRAFT EQUIPPED WITH AUTHORIZED HEAD-UP DISPLAYS; 58 ADDITIONAL AIRPORTS PLANNED FOR APPROVAL IN THE NEXT TWO YEARS

Zhuhai (Nov. 14, 2012) – Aircraft equipped with authorized Head-Up Displays (HUD), including Rockwell Collins Head-Up Guidance System (HGS), are approved by the Civil Aviation Administration of China (CAAC) for lower landing minima at seven Instrument Landing System (ILS) equipped airports in China. The currently approved airports include Beijing (PEK), Shanghai Pudong (PVG), Guangzhou (CAN), Chengdu (CTU), Xi'an (XIT), Qingdao (TAO) and Jinan (TNA). Quindao and Jinan are standard Category I (CAT I) airports and the remainder are Category II (CAT II). There are 58 additional airports scheduled to be approved for special Cat I operation in next two years. The recognized enhanced efficiency and safety benefits of HUD have led to a larger initiative by the CAAC to encourage airlines to install the technology on their fleets in the years to come. The recently released "China HUD Application Roadmap" calls for ten percent of capable in service airline fleets to be equipped with HUD by 2015, and on all airline aircraft where HUD is offered by 2025. Airlines will benefit directly from operational benefits in China, but the capabilities provided by this technology are applicable to aircraft operators in all parts of the world. China's airport infrastructure is largely made up of runways with CAT I ILS. With only the largest airports equipped with CAT II ILS. As the CAAC continues approvals of HUD-only lower landing minima at more CAT I equipped facilities throughout the country, flight reliability will continue to improve. The Special Authorization CAT I HUD minima enables operators to fly CAT I approaches with Runway Visual Range (RVR) of 450 meters to Decision Height (DH) of 45 meters, compared with standard CAT I criteria of RVR 550 meters and a DH of 60 meters.

#### ROCKWELL COLLINS AND CHINA EASTERN AIRLINES SIGN 10-YEAR AGREEMENT TO RENEW MRO JOINT VENTURE IN CHINA

Zhuhai (Nov. 14, 2012) – Rockwell Collins and China Eastern Airlines have extended their joint venture (JV), Collins Aviation Maintenance Services Shanghai Limited (CAMSSL), for ten years. This follows a successful decade of working together to provide aviation maintenance, repair and overhaul (MRO) services in China. A celebratory signing ceremony took place today at Airshow China 2012.

"As one of the top three carriers in China, China Eastern Airlines is working hard to convert from a traditional flight carrier into a world-class integrated aviation service provider," said Mr. FENG Liang, chief engineer of China Eastern Airlines and chairman of CAMSSL, "Collins Aviation Maintenance Services Shanghai Limited is a joint venture between Rockwell Collins and China Eastern Airlines. With the cooperation between the two world-class companies, we are confident that CAMSSL will continue to be a major MRO player for Rockwell Collins' products in China in the future."

"The renewal of this joint venture is a testament to the successful high quality, aftermarket service and support we're delivering to our customers," said TC Chan, vice

president and managing director, Asia Pacific for Rockwell Collins. "As the airline fleets and air traffic modernization efforts continue to grow and mature, this JV will take on even more importance in the next ten years."

CAMSSL, established in 2003, is located in the Pudong Waigaoqiao Free Trade Zone and provides service and support for communication, navigation, sensor, display, flight control computer, weather radar and in-flight entertainment systems.

#### About China Eastern Airlines

China Eastern Airlines Corporation Limited, (formerly China Eastern Airlines established in 1988), was founded in April 1995 with the headquarters located in Shanghai. As one of the three major Airlines in Mainland China, it operates 49 overseas offices and 10 domestic branches. Moreover, it holds controlling shares of over 20 subsidiaries including Shanghai Airlines, China Eastern Yunnan Airlines, China Cargo Airlines Co., Ltd, China United Airlines. In 1997, China Eastern was listed simultaneously in New York, Hong Kong and Shanghai stock market.

#### CHINA SOUTHERN SELECTS ROCKWELL COLLINS AVIONICS FOR 16 NEW AIRBUS AIRCRAFT

Zhuhai (Nov. 13, 2012) – China Southern has selected a comprehensive package of Rockwell Collins avionics for 16 new Airbus A330 aircraft. The agreement was commemorated today at a signing ceremony at Airshow China 2012. The deal includes Rockwell Collins' award winning MultiScan Threat Detection System, the GLU-925 Multi-Mode Receiver (MMR), the industry's first MMR certified for precision landing using either Global Navigation Satellite Systems (GNSS) or Instrument Landing Systems (ILS), and SAT-2100 satellite communications system. "It's been a great pleasure to work with China Southern to create an avionics suite for their A330 aircraft that will bring them high levels of efficiency, safety and situational awareness and world-class service and support," said TC Chan, vice president and managing director, Asia Pacific for Rockwell Collins. "The systems we're providing naturally benefit the passengers with a smoother, more pleasant ride." Rockwell Collins' industry-leading WXR-2100 MultiScan Threat Detection System – with more than 4,100 systems flying on over 145 airlines today – provides superior weather assessment that helps pilots easily discern between threatening and non-threatening weather. It also alerts them to other atmospheric threats that may be invisible to the naked eye, such as the potential for turbulence, lightning or hail, all presented through an optimized, clutter-free display that increases crew situational awareness while reducing pilot workload. The advanced GLU-925 Multi-Mode Receiver is the primary navigation sensor for all phases of flight, and meets the stringent Required Navigation Performance (RNP) requirement of 0.1 nm. As the first-ever certified GPS Landing System receiver, the Rockwell Collins GLU-925 offers rock-solid performance and dependability for Category III ILS and Performance-Based Navigation RNAV/RNP operations. The SAT-2100 is a compact, lightweight and economic Inmarsat satellite communications system that enables real-time information for passengers and crew. It operates multi-channel voice, facsimile and two-way PC data exchange capability. The SAT-2100B also enables up to two simultaneous Swift64 or SwiftBroadband channels using its HST-2110B and HCM-2100B companions. China Southern also selected the following sensors: ADF-900 Automatic Direction Finder, DME-900 Distance Measuring Equipment, HFS-900D High Speed Data Radio, VHF-2100 Very High Frequency Transceiver, CPL-920D Coupling Unit and VOR-900 VHF Omnidirectional Radio. Rockwell Collins is the leading provider of air transport aircraft avionics in the Asia Pacific region. The company's avionics are present across a wide range of airlines, including forward fit positions with original equipment manufacturers COMAC and Mitsubishi.

ROCKWELL COLLINS ESTABLISHING JOINT VENTURE WITH CHINA ELECTRONICS TECHNOLOGY AVIONICS CO. LTD. TO SUPPORT COMAC C919 PROGRAM; JV WILL DEVELOP COMMUNICATION, NAVIGATION SYSTEMS

SHANGHAI (October 24, 2012) – Rockwell Collins and China Electronics Technology Avionics Co. (CETCA) have signed an agreement to establish a joint venture (JV) to develop and manufacture the communication and navigation systems for the Commercial Aircraft Corporation of China Ltd. (COMAC) C919 aircraft.

“Our collaboration with CETCA, a key avionics supplier in China, is sure to deliver many positive outcomes, including deeper relationships in the region, state-of-the-art aircraft systems and a stronger foothold in the growth and development of the Chinese aviation industry,” said TC Chan, vice president and managing director, Asia Pacific, for Rockwell Collins.

Rockwell Collins has a 30-year history of working with the Chinese aviation industry and its suppliers. The company’s equipment is installed in many airplanes manufactured in China (ARJ21, MA60/600, Y8, Y12, K8, and H425), and is on nearly every Western airliner operated by China’s airlines.

In April 2012, Rockwell Collins and China Leihua Electronic Technology Research Institute (LETRI), a subsidiary of the Aviation Industry Corporation of China (AVIC), announced the formation of AVIC Leihua Rockwell Collins Avionics Company to bring the latest surveillance products to the C919.

About COMAC

The Commercial Aircraft Corporation of China, Ltd. (COMAC) is a state-owned company, formed with the approval of the State Council. With a registered capital of RMB 19 billion, COMAC was formed on May 11, 2008. COMAC is headquartered in Shanghai.

About CETC and CETCA

China Electronics Technology Group Corporation (CETC) is a state-owned enterprise group founded in March 2002, administered by the State Council directly. Constituted by 47 institutes, CETC has strong capabilities in the design and production of communications, navigation and surveillance systems for aviation applications. CETC and its subsidiaries have participated in many Chinese aircraft programs including fixed wing and rotary wing platforms. China Electronics Technology Avionics Co. Ltd. (CETCA) is a newly established company within CETC focusing specifically on the C919 and other civil aircraft programs. Rockwell Collins dramatically enhances support and delivery times in China with new in-country asset management program.

ROCKWELL COLLINS ESTABLISHING JOINT VENTURE WITH AVIC LETRI IN CHINA

Cedar Rapids, Iowa (April 2, 2012) – Rockwell Collins and China Leihua Electronic Technology Research Institute (LETRI), a subsidiary of the Aviation Industry Corporation of China (AVIC), are establishing AVIC Leihua Rockwell Collins Avionics Company. This joint venture will focus on bringing the latest surveillance products to the Commercial Aircraft Corporation of China Ltd. (COMAC) C919 aircraft.

A ceremonial signing took place last week in Beijing to celebrate the agreement.

“While this is our first joint venture with AVIC, it demonstrates a deepening and broadening of our trusted and collaborative relationship, which spans nearly three decades,” said Kent Statler, executive vice president and chief operating officer, Commercial Systems for Rockwell Collins. “The signing ceremony signifies an important next step in fully establishing this entity.”

Once the agreement conditions have been satisfied and approval by the Peoples Republic of China examination and approval authorities is obtained, AVIC Leihua Rockwell Collins Avionics Company will develop, manufacture and deliver integrated surveillance system products for the C919 program in China. By introducing Rockwell Collins' advanced

avionics technology and international avionics technical services into China, the joint venture will boost the development and prosperity of the country's commercial aviation sector.

"In support of AVIC's overall strategy, AVIC Avionics Systems has made rapid progress in developing its commercial avionics business and increasing its role in the global commercial aviation industrial chain," said Lu Guangshan, chairman and president of AVIC Avionics Systems Company. "AVIC Leihua Rockwell Collins Avionics Company is one four joint ventures in place for the C919. We're confident that these partnerships can integrate the strengths of both sides to contribute to the program's success."

"This represents a significant milestone for our involvement with the C919 program, and is indicative of our continuing commitment to help grow the Chinese aviation industry," said TC Chan, vice president and managing director, Asia Pacific for Rockwell Collins.

"LETRI and Rockwell Collins have a long-term partnership. This is a win-win agreement for both parties as each brings proven experience and technology to jointly develop integrated surveillance products and provide services for the C919," said Zhou Han, the Secretary of Party Committee of LETRI.

In addition to providing the integrated surveillance system for the C919, Rockwell Collins is also providing communication, navigation, cabin management and inflight entertainment systems for the family of single-aisle aircraft. Additionally, Rockwell Collins and Xian Aviation Science and Technology Company (XASC), an AVIC subsidiary, recently delivered the C919 Engineering Simulator.

Rockwell Collins has been working with the Chinese aviation industry and its suppliers for more than a quarter of a century. The company's equipment is installed in many airplanes manufactured in China including the ARJ21, MA60/600, Y8, Y12, K8, and H425, and is on nearly every western airliner operated by China's airlines.

#### About AVIC

Aviation Industry Corporation of China (AVIC) is a Chinese state-owned company of aviation industry, both **military** and civilian. It was founded in 1951 as the Aviation Industry Administration Commission. AVIC's business units cover avionics, transport aircraft, engine, general aviation, helicopter, mechanical electronics and **defense**.

#### About AVIC Avionics Systems

AVIC Avionics Systems provides whole integrated avionics solution for customers, and relevant products and services for aerospace, ship building, weaponry, electronics and information industries. The main civil products are information and sensor system, IT-based network, communication, micro-electronics, internet of things, as well as intellectual system and industry control, new energy and equipment manufacturing and more.

#### About LETRI

China Leihua Electronic Technology Research Institute (LETRI) was established in 1970. Located in Wuxi, Jiangsu Province the company researches and produces civil aviation electronic equipment. LETRI is a research division of the Aviation Industry Corporation of China (AVIC).

#### About COMAC

Commercial Aircraft Corporation of China, Ltd. (COMAC) is a state-owned limited liability company founded by the State Council of the People's Republic of China.

### CHINA EASTERN AVIATION IMPORT EXPORT CORPORATION TO PROVIDE LOGISTICS SUPPORT SERVICES

Singapore (Feb. 15, 2012) – Chinese airlines and business aircraft owners now have faster access to Rockwell Collins parts and services due to a newly established in-country asset management program with China Eastern Aviation Import Export Corporation (CEAIEC). CEAIEC will provide importing, exporting, warehousing, logistics and customs clearance for Rockwell Collins products and programs within China.



"Having Rockwell Collins' owned in-country spares support will expedite shipping and customs clearance to customers in the region, which means we can respond to our customers' component needs within hours," said Scott Gunnufson, vice president and general manager, Service Solutions for Rockwell Collins. "This arrangement is part of our overarching strategy to better serve our global customer base with a strong local presence."

"Since China represents one of the fastest growing aviation market segments in the world, our ability to provide in country sparing and aircraft on ground support is a major plus for serving our customers and maintaining our leading avionics position," said TC Chan, vice president and managing director, Asia Pacific for Rockwell Collins.

"It is our great honor to be Rockwell Collins' business partner in China," said LI Zhiyong, president, CEAIEC. "Helping our clients to achieve success is our invariable pursuit. We'll be making our best effort to provide top level supply chain service to Rockwell Collins, as well as airlines in China."

CEAIEC, a subsidiary of China Eastern Aviation Group, is a sister company of China Eastern Airline Corp. with which Rockwell Collins established a joint venture with in 2003 to support avionics on air transport, regional and business jet aircraft and in-flight entertainment (IFE) systems for single aisle aircraft.

About CEAIEC

China Eastern Aviation Import & Export Corp. (CEAIEC), located at the Pudong International Airport in Shanghai, China, has been dedicated to the execution of purchase, repair and exchange transactions on aviation parts for 18 years. CEAIEC is a specialist in the supply chain service business of import and export for aviation spare parts. Certified ISO 9001, CEAIEC has a reputation for supplying top-quality services. It has customers in 20 countries in North and South America, Europe, South East Asia, and in Japan. The annual import and export business volume is around \$2 billion. To find out more, please visit [www.ceaiec.com](http://www.ceaiec.com).

#### ICBC LEASING SELECTS ROCKWELL COLLINS AVIONICS FOR UP TO 42 AIRBUS A320s

Singapore (Feb. 14, 2012) – China-based ICBC Leasing has selected a comprehensive suite of Rockwell Collins' communication, navigation and surveillance avionics as baseline for up to 42 new Airbus A320 aircraft. Deliveries of these aircraft are expected to commence later this year.

A signing ceremony to commemorate the agreement was held today at the 2012 Singapore Airshow.

"ICBC Leasing is pleased to select Rockwell Collins as its baseline supplier," said Tao Mei, Executive Vice President of ICBC Leasing. "This will strengthen our position as a provider of reliable and flexible fleet solutions for our global customer base."

"This is the first time that ICBC Leasing is bringing a baseline package of our avionics to their customers, including our most advanced weather radar – MultiScan, and the GLU-925 Multimode Receiver," said Colin Mahoney, vice president, Sales & Marketing for Commercial Systems at Rockwell Collins. "This technology plays an important role in increasing the safety and efficiency of air traffic operations in this regions' evolving airspace."

Rockwell Collins has strategically located service centers in China that can cost-effectively support and service its avionics on ICBC's fleet.

Rockwell Collins is the leading provider of air transport aircraft avionics in the Asia Pacific region. The company's avionics are present across a wide range of airlines, including forward fit positions with original equipment manufacturers COMAC and Mitsubishi.

About ICBC Leasing

ICBC Financial Leasing is a wholly owned subsidiary of Industrial and Commercial Bank of China. ICBC Leasing focuses on three business lines - aviation, shipping and large-ticket equipment. ICBC Leasing has become a pioneer and market leader in the financial leasing industry since its inception in November 2007. With the strong cooperation of its business partners, ICBC Leasing forges ahead with a global vision to build on a market-oriented culture and to offer innovative, tailor-made solutions and professional services. ICBC Leasing owns and manages 72 modern aircraft and has 42 Airbus A320 family and 45 COMAC C919 on order as of January 31, 2012. To find out more, please visit [www.icbcleasing.com](http://www.icbcleasing.com).

#### HAINAN AIRLINES SELECTS ROCKWELL COLLINS AVIONICS FOR 47 AIRBUS A320S

Singapore (Feb. 10, 2012) – Hainan Airlines has selected a number of Rockwell Collins avionics, including its WXR-2100 MultiScan Threat Detection System and GLU-925 Multi-Mode Receiver (MMR), for 47 new Airbus A320s. Deliveries are in progress.

“We have a long-standing, strong relationship with Hainan Airlines – one that now spans twenty years,” said TC Chan, vice president and managing director, Asia Pacific for Rockwell Collins. “Hainan’s choice of our most advanced avionics is a testament to the trust between us, and more importantly, it enables more reliable, safer operations in a fast-growing industry.”

Rockwell Collins’ award-winning MultiScan Threat Detection System is a fully automatic, hands-free airborne radar system. MultiScan provides optimal clutter-free weather information that reduces pilot workload and enhances safety and passenger comfort by minimizing unexpected turbulence encounters.

The advanced GLU-925 is the first MMR certified for precision landing using either Global Navigation Satellite Systems or Instrument Landing Systems. The GLU-925 is the primary navigation sensor for all phases of flight, and meets the stringent Required Navigation Performance requirement of 0.1 n.m.

Hainan Airlines also selected the following Rockwell Collins avionics:

- ADF-900 Automatic Direction Finder
- CPL-920D High Speed Digital Antenna Coupler
- DME-900 Distance Measuring Equipment
- HFS-900D High Speed Data Radio
- VHF-2100 Very High Frequency Transceiver
- VOR-900 VHF Omnidirectional Radio

Rockwell Collins is the leading provider of air transport aircraft avionics – with resources present to provide full-service, cost-effective support – in the Asia Pacific region. The company’s avionics are present across a wide range of airlines, including forward fit positions with original equipment manufacturers COMAC and Mitsubishi.

#### CHINA EASTERN AIRLINES SELECTS ROCKWELL COLLINS AVIONICS FOR 50 AIRBUS A320S

Singapore (Feb. 9, 2012) – China Eastern Airlines has selected a host of Rockwell Collins avionics, including its WXR-2100 MultiScan Threat Detection System and GLU-925 Multi-Mode Receiver (MMR), for 50 new Airbus A320s. Deliveries are expected to begin this year.

“This win highlights the high level of trust that we have built with China Eastern for the last three decades,” said TC Chan, vice president and managing director, Asia Pacific for Rockwell Collins. “The advanced avionics they’ve selected for their new A320s will enable them to fly more precise routes while avoiding inclement weather – which is increasingly important as China’s aviation infrastructure evolves and airline traffic increases in the region.”

Rockwell Collins' award-winning MultiScan Threat Detection System is a fully automatic, hands-free airborne radar system. MultiScan provides optimal clutter-free weather information that reduces pilot workload and enhances safety and passenger comfort by minimizing unexpected turbulence encounters.

The advanced GLU-925 is the first MMR certified for precision landing using either Global Navigation Satellite Systems or Instrument Landing Systems. The GLU-925 is the primary navigation sensor for all phases of flight, and meets the stringent Required Navigation Performance requirement of 0.1 n.m.

China Eastern Airlines also selected the following Rockwell Collins avionics:

- ADF-900 Automatic Direction Finder
- CPL-920D High Speed Digital Antenna Coupler
- DME-900 Distance Measuring Equipment
- HFS-900D High Speed Data Radio
- SAT-2100 SATCOM
- VHF-2100 Very High Frequency Transceiver
- VOR-900 VHF Omnidirectional Radio

Rockwell Collins is the leading provider of air transport aircraft avionics in the Asia Pacific region. The company's avionics are present across a wide range of airlines, including forward fit positions with original equipment manufacturers COMAC and Mitsubishi.

Rockwell Collins established a joint venture with China Eastern Airlines in 2003 to support its avionics on air transport, as well as regional and business jet aircraft, and its in-flight entertainment (IFE) systems for single aisle aircraft.

WXR-2100 Weather Radar System

Overview

Trust the Rockwell Collins MultiScan Threat Detection Weather Radar System in any weather for safer, smoother and more efficient flights. It offers an innovative approach to detecting, analyzing and displaying actual weather-related threats to your aircraft. And has been proven through a set of global flight tests to make optimum adjustments to maximize the "probability of detecting" threats from weather during all phases of flight. Utilizing several ground-breaking technologies, MultiScan provides you with maximum accuracy. Even with the superior benefits and attributes of the current generation of MultiScan, we are dedicated to evaluating and implementing new and upcoming technologies to continue to give you the most accurate weather and threat detection systems into the future.

GLU-925 Global Landing System

Overview

As the first-ever certified GPS Landing System receiver, the Rockwell Collins GLU-925 offers rock-solid performance and dependability for Category III ILS and Performance-Based Navigation RNAV/RNP operations. The system is standard equipment on the Airbus A380 and Boeing 747-8 as well as being certified for most other Airbus and Boeing types – making it a trusted choice for retrofits that bring next-generation navigation capabilities to existing aircraft.

#### FEATURE STORY: ROCKWELL COLLINS OPENING OF CHINA SYSTEM SUPPORT CENTER SIGNIFIES CONTINUED INVESTMENT IN CHINA

Shanghai, China (Jan. 18, 2011) – As China's commercial aviation industry continues to transform into a larger player in the global marketplace, Rockwell Collins, a pioneer in communication and aviation electronics solutions with a presence in China that dates back nearly 30 years, has further expanded its offerings in the region with the opening of a new China System Support Center (CSSC) in Shanghai. The CSSC is housed within Rockwell Collins' recently built Shanghai office – the third facility opened in Shanghai by Rockwell Collins and the company's fifth in China. The CSSC offers Original Equipment Manufacturer (OEM) on-site engineering support, fundamental and advanced engineering

and program management training at customer-preferred locations, overall system integration support, and avionics system consulting to customers and partners in China.

“Having local service and support, especially in China – one of the most dynamic, high-growth aviation markets in the world – means closer, stronger relationships with our customers through the entire product life cycle.” said Greg Churchill, executive vice president, International and Service Solutions for Rockwell Collins at a CSSC celebration ceremony today in Shanghai. “The CSSC stands fully prepared to work with customers on identifying and adopting best operational practices and what’s needed to meet future airspace requirements.” Yiping Song was appointed general manager for the CSSC. Song, a 15-year employee of Rockwell Collins, has a long-standing relationship with the Chinese aviation industry in the areas of OEM program management, avionics system integration support and most recently, commercial systems marketing for the Asia Pacific region. The CSSC opening comes as Rockwell Collins achieved many significant wins in China over the past year, including being selected by Commercial Aircraft Corporation of China, Ltd. (COMAC) to provide communication, navigation, surveillance, cabin management, in-flight entertainment, and simulator components for their C919 aircraft. These wins represent Rockwell Collins’ significant investment and development of strong corporate and personal relationships in China. Rockwell Collins plans to expand its investment and increase its number of employees in China to accommodate future business expansion.

#### ROCKWELL COLLINS ACHIEVES GOLDEN SUPPLIER STATUS FOR PERFORMANCE IN CHINA

Zhuhai, China (Dec. 16, 2010) – Xian Aircraft Corporation (XAC) has awarded Rockwell Collins Golden Supplier status for the company’s performance on the MA-60 and MA-600 aircraft programs. The recognition is based on supplier performance in each of four categories: Product Quality, Delivery Schedule, After Sales Service, and Corrective Action. Rockwell Collins achieved the top ranking in each category. “We are honored to receive this recognition from an important, long-standing customer in China and look forward to continuing our partnership with XAC,” said TC Chan, vice president and managing director, Asia-Pacific for Rockwell Collins. “This award is truly a testament to our employees who work with XAC on a daily basis to provide reliable products and total service solutions.” The Golden Supplier award was presented to Rockwell Collins at the third annual XAC Global Suppliers Conference in Zhuhai, China. Out of 23 suppliers, Rockwell Collins was the only company to receive a Gold Medal in each of the four categories. China-based XAC develops and manufactures medium and large aircraft, including the MA-60 and MA-600 turboprop aircraft, which are equipped with Rockwell Collins Pro Line II and Pro Line 21 avionics respectively. The relationship between XAC and Rockwell Collins has spanned over 20 years.

#### HAINAN AIRLINES SELECTS ROCKWELL COLLINS MULTISCAN AND ADVANCED MULTI-MODE RECEIVER FOR BOEING 737NG FLEET

Zhuhai, China (Nov. 15, 2010) – Hainan Airlines has selected a suite of Rockwell Collins avionics, including the MultiScan Threat Detection System and GLU-925 Multi-Mode Receiver (MMR), for its order of 42 new Boeing 737NG aircraft, with an option for an additional 15 aircraft. Deliveries will begin in August 2011. “We’re honored that Hainan, a long-time customer of Rockwell Collins, continues to depend on our most advanced avionics to provide their passengers with a safer, smoother and more efficient flight,” said TC Chan, vice president and managing director, Asia-Pacific for Rockwell Collins. The award-winning MultiScan Threat Detection System is a fully automatic, hands-free airborne radar system. MultiScan provides optimal clutter-free weather displays that reduce pilot workload and enhance safety and passenger comfort by minimizing unexpected turbulence encounters. The advanced GLU-925 Multi-Mode Receiver is the first MMR certified for

precision landing using either Global Navigation Satellite Systems (GNSS) or Instrument Landing Systems (ILS). The GLU-925 is the primary navigation sensor for all phases of flight, and meets the stringent Required Navigation Performance (RNP) requirement of 0.1 n.m. Hainan Airlines also selected the following sensors from Rockwell Collins: ADF-900 Automatic Detection Finder, DME-900 Distance Measuring Equipment, VOR-900 VHF Omnidirectional Radio, HFS-900D High Speed Data Radio, VHF-2100 Very High Frequency Transceiver, LRA-900 Low-range Radio Altimeter, and Passenger Address Unit (PAU). About Hainan Airlines Founded in 1993, Hainan Airlines carries more than 14 million passengers annually and flies to more than 90 domestic and international cities, including the capitals of every Chinese province. Hainan Airlines international flight destinations include Budapest, Brussels and St. Petersburg, with most recent additions being new services to Berlin, Taipei, Luanda, Moscow, Dubai, Seattle and Honolulu. For more information, visit Hainan Airlines' website at [www.hnair.com/us](http://www.hnair.com/us).

#### TIBET AIRLINES SELECTS ROCKWELL COLLINS AVIONICS AND IFE FOR NEW FLEET

Zhuhai, China (Nov. 15, 2010) – Tibet Airlines' new Airbus A319 aircraft will feature a suite of Rockwell Collins systems including the company's second generation Digital Programmable Audio Video Entertainment System (dPAVES) in-flight entertainment system (IFE), MultiScan Threat Detection System, and GLU-925 Multi-Mode Receiver (MMR). The systems will initially be installed on nine of Tibet's new Airbus A319 aircraft, with an option for nine additional aircraft. Deliveries will begin in July 2011. "Our strategic relationship with Tibet Airlines represents an excellent opportunity for future growth due to the rapid expansion plans for this new venture," said TC Chan, vice president and managing director, Asia-Pacific for Rockwell Collins. "It's a gratifying experience to work with Tibet Airlines on providing advanced, reliable systems that will set the stage for an enjoyable passenger experience and efficient operations." Rockwell Collins' second generation dPAVES system offers the company's latest enhancements including a High Definition Media Server (HDMS), an updated touch screen flight attendant entertainment control panel (ECP) and USB ports for easier data on-and off-loading. The HDMS provides 160 gigabytes of solid state digital audio and video storage capability, integrated pre-recorded announcements and music (PRAM) functionality, and an embedded Airshow moving map application - all in a single 4-Modular Concept Unit (MCU) package. The award-winning MultiScan Threat Detection System is a fully automatic, hands-free airborne radar system. MultiScan provides optimal clutter-free weather displays that reduce pilot workload and enhance safety and passenger comfort by minimizing unexpected turbulence encounters. The advanced GLU-925 Multi-Mode Receiver is the first MMR certified for precision landing using either Global Navigation Satellite Systems (GNSS) or Instrument Landing Systems (ILS). The GLU-925 is the primary navigation sensor for all phases of flight, and meets the stringent Required Navigation Performance (RNP) requirement of 0.1 n.m. Tibet Airlines also selected the following sensors from Rockwell Collins: ADF-900 Automatic Detection Finder, DME-900 Distance Measuring Equipment, VOR-900 VHF Omnidirectional Radio, HFS-900D High Speed Data Radio, VHF-2100 Very High Frequency Transceiver, LRA-900 Low-range Radio Altimeter and RDMI-743 Radio Distance Magnetic Indicator.

#### XIAMEN AIRLINES SELECTS ROCKWELL COLLINS MULTISCAN AND ADVANCED MULTI-MODE RECEIVER FOR BOEING 737NG FLEET

Zhuhai, China (Nov. 15, 2010) – Xiamen Airlines has selected a suite of Rockwell Collins avionics, including MultiScan Threat Detection System and GLU-925 Multi-Mode Receiver (MMR) for 25 Boeing 737NG aircraft. Deliveries will begin in July 2011. The award-winning MultiScan Threat Detection System is a fully automatic, hands-free airborne

radar system. MultiScan provides optimal clutter-free weather displays that reduce pilot workload and enhance safety and passenger comfort by minimizing unexpected turbulence encounters. The advanced GLU-925 Multi-Mode Receiver is the first MMR certified for precision landing using either Global Navigation Satellite Systems (GNSS) or Instrument Landing Systems (ILS). The GLU-925 is the primary navigation sensor for all phases of flight, and meets the stringent Required Navigation Performance (RNP) requirement of 0.1 n.m. Xiamen Airlines also selected the following sensors from Rockwell Collins: ADF-900 Automatic Detection Finder, DME-900 Distance Measuring Equipment, VOR-900 VHF Omnidirectional Radio, HFS-900D High Speed Data Radio, VHF-2100 Very High Frequency Transceiver, LRA-900 Low-range Radio Altimeter and Passenger Address Unit (PAU). For more information about Xiamen Airlines, please visit [www.xiamenair.com.cn](http://www.xiamenair.com.cn).

#### SICHUAN AIRLINES SELECTS ROCKWELL COLLINS AVIONICS FOR AIRBUS FLEET

Zhuhai, China (Nov. 15, 2010) – Sichuan Airlines has selected a host of Rockwell Collins systems including its MultiScan Threat Detection System and GLU-925 Multi-Mode Receiver (MMR) for 28 Airbus A320 aircraft. Deliveries will begin in 2011. The award-winning MultiScan Threat Detection System is a fully automatic, hands-free airborne radar system. MultiScan provides optimal clutter-free weather displays that reduce pilot workload and enhance safety and passenger comfort by minimizing unexpected turbulence encounters. The advanced GLU-925 Multi-Mode Receiver is the first MMR certified for precision landing using either Global Navigation Satellite Systems (GNSS) or Instrument Landing Systems (ILS). The GLU-925 is the primary navigation sensor for all phases of flight, and meets the stringent Required Navigation Performance (RNP) requirement of 0.1 n.m. Sichuan Airlines also selected the company's Programmable Audio Video Entertainment System (PAVES) in-flight entertainment system and the following sensors: ADF-900 Automatic Detection Finder, DME-900 Distance Measuring Equipment, VOR-900 VHF Omnidirectional Radio, HFS-900D High Speed Data Radio, and VHF-2100 Very High Frequency Transceiver.

For more information about Sichuan Airlines, please visit [www.scal.com.cn](http://www.scal.com.cn).

#### ROCKWELL COLLINS HGS APPROVED FOR LOWER LANDING MINIMA ON SHANDONG AIRLINES

Zhuhai, China (Nov. 15, 2010) – Shandong Airlines, using a Rockwell Collins Head-Up Guidance System (HGS), has been approved for lower landing minima at standard Category I (CAT I) airports in China by the General Administration of Civil Aviation of China (CAAC). The initial approval is for operations at Qingdao Airport with other airports in China to follow in the near future. The decision follows successful flight trials that took place in October 2010 with Shandong Airlines, which will be the first Chinese airline to take advantage of the new lower landing minima. The CAT I minima reduction enables HGS operators to complete CAT I Instrument Landing System (ILS) approaches with Runway Visual Range (RVR) of 450 meters and to Decision Height (DH) of 45 meters at Qingdao, compared with a previous RVR of 550 meters and a DH of 60 meters. Shandong Airlines, a long-time customer of Rockwell Collins HGS, is to be commended for their initiative to obtain this important authorization from the CAAC, and for their dedication to the tremendous benefits that HGS provides," said TC Chan, vice president and managing director, Asia-Pacific for Rockwell Collins. "We look forward to further collaboration with other airlines in China to assure that they obtain the maximum benefit from using our HGS -- including better situational awareness, safety and now improved operating margins in China and around the world." "HGS has played a key role in enhancing flight safety and improving the quality of our flights at Shandong Airlines," said Guoqiang Zeng, president of Shandong Airlines. "With the CAAC's approval of HGS for lower landing minima, we look forward to improvements in flight punctuality in low visibility weather at Qingdao Airport,

one of our main bases." Rockwell Collins HGS displays critical flight information in the pilot's forward field-of-view, eliminating the need for the pilot to repeatedly transition between the head-down instruments and the forward view through the windshield. As a result, pilots can keep their attention focused on the outside world, enhancing overall situational awareness and safety. In 2009, a study conducted by the Flight Safety Foundation found that head-up guidance system technology, such as Rockwell Collins' HGS, could have prevented or positively influenced 69 percent of all commercial aircraft takeoff and landing accidents that occurred over the past 13 years.

#### ROCKWELL COLLINS TO OFFER CHINA COVERAGE FOR TAILWIND 500/550

Atlanta (Oct. 19, 2010) – Rockwell Collins has expanded regional coverage for its Tailwind 500 and Tailwind 550 multi-region Direct Broadcast Satellite TV (DBS TV) systems to include TV access for China. The expanded coverage is available immediately. Rockwell Collins' multi-region Tailwind 500 tail-mounted airborne TV system and Tailwind 550 fuselage-mounted TV airborne systems are manufactured at the company's facility in Melbourne, Fla. Both systems provide passengers with more than 475 channels of satellite video and audio programming in multiple geographic regions, including the United States, Europe, the Middle East, India, Russia, and now China. The company anticipates expanding regional coverage to include Brazil (in 2011).

#### ROCKWELL COLLINS SELECTED TO PROVIDE INFLIGHT ENTERTAINMENT SYSTEMS FOR COMAC C919

Shanghai, China (Oct. 18, 2010) – Rockwell Collins has been selected by the Commercial Aircraft Corporation of China (COMAC) to provide inflight entertainment (IFE) systems for its C919 aircraft. The IFE will be optional selectable seller furnished equipment. A letter of intent was signed today in Shanghai. Rockwell Collins C919 IFE solution includes a variety of system configurations ranging from a high definition overhead video system to an innovative client centric in-seat solution with independent control of individual media players. The available IFE options are derived from enhancements to the company's proven digital Programmable Audio Video Entertainment System (dPAVES) with high definition capability. "Customers of the C919 aircraft will appreciate the ability to select an IFE design that meets the unique requirements of their respective airline operations and brings new IFE experience to their passengers," said Tommy Dodson, vice president and general manager, Cabin Systems for Rockwell Collins. Rockwell Collins will team with Shanghai Aero Measurement-Controlling Research Institute (SAMRI) which is based in Shanghai. SAMRI will help design, develop and integrate the IFE system solution into the C919. "This selection reinforces the trust we have built with COMAC, and the confidence they have in the innovative IFE solution we proposed," said TC Chan, vice president and managing director, Asia Pacific for Rockwell Collins.

#### CHINA EASTERN SELECTS ROCKWELL COLLINS DPAVES BOEING 737 SKY INTERIOR

Long Beach, Calif. (Sept. 14, 2010) – China Eastern has selected the Rockwell Collins high-definition (HD) dPAVES 737 Boeing Sky Interior in-flight entertainment (IFE) solution for 30 Boeing 737NG airplanes. With this award, China Eastern will be the first customer to install this system. Deliveries are expected to begin in 2011.

"With more than 130 of China Eastern's aircraft already operating with our dPAVES family of products, we can confidently say our relationship with China Eastern is based on trust and continued innovation," said Tommy Dodson, vice president and general manager, Cabin and ElectroMechanical Systems for Rockwell Collins. "It seems only right to have our first installation of the dPAVES Boeing 737 Sky Interior solution with such an important, longstanding customer of our IFE offerings."

The Rockwell Collins' dPAVES 737 Boeing Sky Interior option, announced by Rockwell Collins in July 2010, includes:

- Retractable 12" 16:9 LCD HD-ready displays
- Enhanced touch screen flight attendant entertainment control panel (ECP)
- USB ports located next to the ECP for easier content loading

At the core of the dPAVES–HD system is the High Definition Media Server (HDMS) offering 160 gigabytes of solid state storage capability for audio and video content, boarding music, and integrated pre-recorded announcements (PRAM) together and embedded Airshow 3D Moving Map functionality – all in a single four modular component unit box. The large capacity of the HDMS stores entertainment content for multiple play periods, and the server automatically selects the new content when the new play period starts. Additionally, non-encrypted content can be handled by airlines independent of the Rockwell Collins content management system, giving airlines the flexibility to replace content locally.

#### ROCKWELL COLLINS SELECTED TO PROVIDE CABIN CORE SYSTEM FOR COMAC C919

Shanghai (Sept. 21, 2010) – Rockwell Collins has been selected by the Commercial Aircraft Corporation of China (COMAC) to provide the cabin core system (CCS) for its C919 aircraft. The CCS will be standard equipment on all C919 aircraft. A letter of intent was signed today. The CCS being developed specifically for the C919 will leverage innovations from Rockwell Collins Venue Cabin Management System which services a wide market of business and regional aircraft. Rockwell Collins will team with Shanghai Aero Measurement-Controlling Research Institute (SAMRI) and Cobham, PLC. SAMRI will support Rockwell Collins in the design, development and integration of the CCS, and Cobham, PLC will provide the public address system. "This is the third major package that COMAC has entrusted to Rockwell Collins for the C919 program - a true honor for our company," said Kent Statler, executive vice president and COO, Commercial Systems for Rockwell Collins. "The flight deck and cabin solutions selected will serve as the next generation backbone that will be featured on this important aircraft." "Our work on this program provides a wonderful opportunity for Rockwell Collins to strengthen and extend our relationships with institutions in this region," said TC Chan, vice president and managing director, Asia Pacific for Rockwell Collins. "Through our work with SAMRI, we will be developing the business connections and technical capabilities that will enable both organizations to be more competitive." Rockwell Collins' CCS allows flight attendants to control all subsystems on the aircraft including in-flight entertainment, passenger connectivity, lavatory, heating/cooling, and lighting.

About COMAC: Commercial Aircraft Corporation of China, Ltd. (COMAC) is a state-owned limited liability company in China.

About SAMRI: SAMRI has been engaged in aero measurement-controlling research and products development. As a subsidiary of AVIC, SAMRI provides a whole collection of products for aircraft and helicopters, including airborne avionics, in-flight controlling, data collection and recording, ground testing and safeguard. In China, SAMRI has built up good relationship with the major aircraft and helicopter manufacturers and is the supplier of some of their products.

#### ROCKWELL COLLINS TO PROVIDE INTEGRATED SURVEILLANCE SYSTEM FOR COMAC C919

Wuxi, Jiangsu (July 15, 2010) – Rockwell Collins and China Leihua Electronic Technology Research Institute (LETRI) have signed a letter of intent with Commercial Aircraft Corporation of China Ltd. (COMAC) to provide an integrated surveillance system for the new C919 family of single-aisle aircraft. The announcement was made during a



signing ceremony that took place to commemorate the agreement in Wuxi, Jiangsu last week. The highly integrated surveillance system combines weather detection, traffic alert and collision avoidance, Mode S surveillance and terrain awareness and warning functions into a single system. In an announcement earlier this week, Rockwell Collins also signed a letter of agreement to provide the communication and navigation packages. Rockwell Collins and LETRI also have signed a memorandum of agreement to establish a China-based joint venture, which is expected to sign the formal supply agreement with COMAC by the end of this year. The company has previously worked with LETRI to assemble and test weather radar, radar antenna mounts and traffic alert collision avoidance system (TCAS) equipment for inclusion in Rockwell Collins' surveillance systems sold to airlines throughout the world. Rockwell Collins has been working with the Chinese aviation industry and its suppliers for more than a quarter of a century. The company's equipment is installed in many airplanes manufactured in China (including the ARJ21, MA60/600, Y8, Y12, K8, and H425), and is on nearly every western airliner operated by China's airlines. Quotes: "The new relationship we're creating with LETRI to develop a reliable, state-of-the-art surveillance system for the C919 platform demonstrates the importance of the China civil aviation market to Rockwell Collins," said Kent Statler, executive vice president and COO, Commercial Systems for Rockwell Collins.

#### About COMAC

Commercial Aircraft Corporation of China, Ltd. (COMAC) is a state-owned limited liability company founded by the State Council of the People's Republic of China.

#### About LETRI

China Leihua Electronic Technology Research Institute (LETRI) was established in 1970. Located in Wuxi, Jiangsu Province the company researches and produces civil aviation electronic equipment. LETRI is a research division of the Aviation Industry Corporation of China (AVIC).

### ROCKWELL COLLINS SELECTED TO PROVIDE COMMUNICATION AND NAVIGATION SYSTEMS FOR COMAC C919

Chengdu, Sichuan (July 12, 2010) – Rockwell Collins and China Electronics Technology Avionics Co. Ltd (CETCA) have signed a letter of intent with Commercial Aircraft Corporation of China Ltd. (COMAC) to provide communication and navigation solutions for its new C919 family of single-aisle aircraft. A signing ceremony took place to commemorate the agreement in Chengdu, Sichuan.

Rockwell Collins and CETCA also have signed a memorandum of agreement to establish a China-based joint venture, which is expected to sign the formal supply agreement with COMAC by the end of this year.

Rockwell Collins has a long history of work with the Chinese aviation industry and its suppliers. The company's equipment is installed in many airplanes manufactured in China (ARJ21, MA60/600, Y8, Y12, K8, and H425), and is on nearly every Western airliner operated by China's airlines.

Governor of Sichuan Province Jiang Jufeng extended a warm welcome to the new joint venture anticipated to be established in Chengdu, Sichuan. He anticipates this venture may help to stimulate the economy in the province.

#### Quotes:

"Rockwell Collins is the industry-leader in development of civil communication and aviation electronic solutions, while CETCA is a domestic supplier specializing in civil avionics solutions," said Jin Zhuanglong, president of COMAC. "I believe, by working together, Rockwell Collins and CETCA will successfully fulfill the mission of developing communication and navigation systems for C919 to meet the requirements of the C919 technical scheme as well as the airworthiness regulations."

"We'll work closely with Rockwell Collins to deliver the world-class systems for C919 program, making it soar in the sky as early as possible," said Wang Zhigang, president of CETC.

"This is an outstanding opportunity to continue our solid track record with COMAC, while further expanding our 25-year commitment in China, which remains a key growth market for our company," said Kent Statler, executive vice president and COO, Commercial Systems for Rockwell Collins.

"The joint venture also will allow Rockwell Collins to put into practice our philosophy of 'building trust everyday,' which will strengthen our 'guanxi' with our partners and COMAC," added TC Chan, vice president and managing director of Asia Pacific for Rockwell Collins.

About COMAC Commercial Aircraft Corporation of China, Ltd. (COMAC) is a state-owned limited liability company founded by the State Council of the People's Republic of China.

About CETC and CETCA

China Electronics Technology Group Corporation (CETC) is a state-owned enterprise group founded in March 2002, administered by the State Council directly. Constituted by 47 institutes, CETC has strong capabilities in the design and production of communications, navigation and surveillance systems for aviation applications. CETC and its subsidiaries have participated in many Chinese aircraft programs including fixed wing and rotor wing platforms. China Electronics Technology Avionics Co.Ltd (CETCA) is a newly established company with in CETC focusing specifically on the C919 and other civil aircraft programs.

#### AIR CHINA CHOOSES ROCKWELL COLLINS AVIONICS FOR 20 A330S

Cedar Rapids, Iowa (April 29, 2010) – Air China Limited has selected Rockwell Collins to provide its MultiScan hazard detection system, GLU-925 Multi-Mode Receiver (MMR) and a suite of advanced sensors for 20 new Airbus A330 aircraft. Deliveries are scheduled to start in 2011.

The selection represents the expansion of a strategic relationship between Rockwell Collins and Air China. Earlier this year, Air China signed a ten-year maintenance agreement with Collins Aviation Maintenance Services Shanghai Limited (CAMSS), a Rockwell Collins joint venture with China Eastern Airlines, to provide service and support for Rockwell Collins equipment on the entire Air China fleet.

The MultiScan system is the first and only weather radar that analyzes and determines actual weather hazards, not simply atmospheric moisture content, to provide flight crews more accurate weather returns. The system, derived from extensive operational experience, is a fully automatic, hands-free airborne weather radar that reduces pilot workload and enhances safety and passenger comfort by minimizing unexpected turbulence encounters, and provides optimal clutter-free weather displays.

The advanced GLU-925 Multi-Mode Receiver is the first MMR certified for precision landing using either Global Navigation Satellite Systems (GNSS) or Instrument Landing Systems (ILS). The GLU-925 is the primary navigation sensor for all phases of flight, including the stringent Required Navigation Performance (RNP) requirement of 0.1 n.m.

Other products chosen by Air China include: ADF-900 Automatic Direction Finder, DME-900 Distance Measuring Equipment, HFS-900D High Frequency Communication System, CPL-920D Coupling Unit, LRA-900 Low-range Radio Altimeter, RAA-700 Radio Altimeter Antenna, VHF-2100 Very High Frequency Transceiver, VOR-900 Marker Beacon Receiver, and GNA-925 Global Navigation Antenna.

VOR-900 VHF Omnidirection Range/Marker Beacon Receiver

The VOR-900 brings you the latest generation of the highly successful Rockwell Collins VOR radios. Using digital technology, the VOR-900 maximizes bearing accuracy

by minimizing effects of temperature variation and aging. Implementation of 30-Hz bandpass filters in firmware gives you improved tracking of ground-station modulation frequency variations, and contributes to increased navigation sensitivity and better rejection of undesired components of received signal modulation. And our attention to its modular design and quality component selection means you get a system that accommodates ground station and environmental anomalies – and tolerates the system environment without nuisance warnings.

#### AIR CHINA SIGNS AGREEMENT WITH ROCKWELL COLLINS TO PROVIDE LONG-TERM AVIONICS SUPPORT

Singapore (Jan. 31, 2010) – Air China has signed a ten-year maintenance agreement with Collins Aviation Maintenance Services Shanghai Limited (CAMSS), a Rockwell Collins joint venture, to provide service and support for Rockwell Collins equipment on the entire Air China fleet.

“This contract award is a result of our long-standing relationship with Air China and the quality service we have provided them over the years.” said Ken Estelle, vice president and general manager, Technical Service Solutions for Rockwell Collins.

Estelle also stated that the contract exemplifies the company’s strategic focus on China and its commitment to serve the region by providing total life cycle support.

He Li, senior vice president of Air China, added, “Air China has progressively built long term strategic partnerships with major suppliers worldwide to ensure we’re operating at high level. Rockwell Collins has been providing excellent services for Air China over the years. They are a trusted supplier and partner.”

A corresponding avionics shop cooperation agreement was signed with maintenance provider Ameco, to jointly support the entire Air China’s installed base of Rockwell Collins avionics equipment under a price per flight hour program for ten years. The two agreements commenced on Jan. 1, 2010.

Additionally, Rockwell Collins plans to establish a global asset management capability in China in mid-2010 that will further support this agreement, as well as other asset-based programs like the Rental/Exchange and Dispatch programs targeted for the Boeing 787, ARJ21 and other aircraft types operated by Chinese carriers.

Rockwell Collins’ global network of more than 80 locations provides life cycle service and support for commercial, business, corporate and **military** operations. Logistics capabilities include asset management, engineering services, on-board services, repair and overhaul, service parts, technical information, and training and simulation systems and services. These solutions are tailored to meet customer operational requirements and reduce total cost of ownership.

Collins Aviation Maintenance Services Shanghai, Ltd. (CAMSS) Rockwell Collins, a world-class provider of aviation electronics and communication solutions, set up its Shanghai service center in 1997. In March 2003, this service center was converted into a joint venture between Rockwell Collins and China Eastern Airlines. Located in the Pudong Waigaoqiao Free Trade Zone, Collins Aviation Maintenance Service (Shanghai) Limited provides service and support for communications, navigation, sensors, display, flight control computer, weather radar and in-flight entertainment solutions.

Aircraft Maintenance and Engineering Corporation (Ameco)

Located at Beijing’s Capital International Airport, Ameco is a joint venture facility operated by Air China and Lufthansa Airlines. The company provides line maintenance and services for Boeing and Airbus aircraft. The facility performs engine overhauls and provides repairs for approximately 10,000 aircraft components including hydraulics, landing gears, wheels and brakes, aviation electronic systems and pneumatics.

#### XASC AWARDS ROCKWELL COLLINS COMAC C919 SIMULATOR PROGRAM

Shanghai, China (Jan. 6, 2010) – Rockwell Collins has been awarded a program to develop components for the COMAC C919 aircraft simulator program by Xian Aviation Science and Technology Company (XASC), an AVIC subsidiary. The simulator will be used by COMAC to support the C919 aircraft development. Under the terms of the agreement, Rockwell Collins will utilize elements of its most advanced full flight simulator technology for the C919 simulator. “Our ability to leverage the basic simulator unit of our latest offering for the C919 program is a key benefit of our scalable and modular design approach,” said Ken Schreder, vice president and general manager, Simulation and Training Solutions for Rockwell Collins. “This is especially critical as we collaborate with XASC to create a simulator that can be easily modified over the course of the development program.”

The award marks the fifth training program in China for Rockwell Collins. The company is also involved with the MA-60 full flight simulator currently in final integration in XASC's facility in Yanliang, Xian; an MA-600 full flight simulator and flight training device for Xian Aircraft Company; and an ARJ-21 flight training device for COMAC. “We're grateful for the opportunity to continue working closely with XASC by adding the C919 simulator program to an already impressive list of joint development efforts,” said TC Chan, vice president and managing director, Asia Pacific for Rockwell Collins. “We're also extremely pleased to add yet another win to our growing list of projects related to the C919.” About XASC Xian Simulation Science and Technology Company (XASC) was established in 2007 with the shareholders from Beijing Aviation Science and Technology Co., Ltd. (BASC) (70%) and China Aviation Industrial Base (CAIB) (30%). With 50 employees, XASC is specialized in the development and manufacturing of flight simulators for civil aircraft indigenous to China including MA-60, MA-600, ARJ-21 and C919. About COMAC Commercial Aircraft Corporation of China, Ltd. (COMAC) is a state-owned limited liability company in China.

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2012 Zhuhai Directory: Rosler is the world's leading producer of surface finishing equipment together with related abrasives and water treatment. Our machine build programme includes shot blasting-shot peening, vibratory and high-energy abrasive finishing systems.

Corporate Website (Extracted in February 2014):

The company plans to exhibit at the following in 2014:

- CHINAPLAS 2014 (The 28th International Exhibition on Plastics and Rubber Industries), April 23-26, 2014, Shanghai New International Expo Centre, China.
- EMTE-EASTPO Machine Tool Exhibition, July 14-17, 2014, Shanghai New International Expo Centre, China.

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2012 Zhuhai Directory: ROSOBORONEXPORT is the sole state company in Russia authorized to export the full range of **defense** and dual-use products, technologies and services. The official status of ROSOBORONEXPORT secures the guaranteed state support in all operations.

ROSOBORONEXPORT is ranked among the major companies on the global arms market and accounts for over 80% of Russia's annual arms sales. Russia maintains **military**-technical cooperation with over 70 countries worldwide.

ROSOBORONEXPORT cooperates with more than 700 enterprises and organizations of Russia's **defense** industrial complex.

ROSOBORONEXPORT aims to develop new lines and forms of **military**-technical cooperation and invites its current and future customers to establish long-term, mutually beneficial relations that will guarantee successful solutions to **defense** and security problems.

ROSOBORONEXPORT highly values its reputation of a reliable partner and strictly abides by the letter and spirit of Russia's international **military**-political commitments including those in the arms control area.

**ROSOBORONEXPORT PRESS RELEASE**

PRESS-RELEASE, November 12, 2012

Airshow China 2012

Rosoboronexport is taking part in the 9th International Aviation and Aerospace Exhibition, "Airshow China 2012", held in the city of Zhuhai, China. This trade show is focused on presenting **military** air systems, munitions and space technologies. First opened in 1996, the Airshow China has become a major regional venue for the promotion of modern aerospace technologies. Rosoboronexport is a traditional exhibitor in the airshow. This year its exposition will be opened in the China Airshow Center of Zhuhai for the seventh time. Promoting modern Russian air systems to markets in the Asia-Pacific region, members of the Rosoboronexport delegation will provide visitors and guests with information on different types of aircraft and helicopters, aero engines, weapon systems and munitions, air **defence** weapons, navigation and communication systems as well as flight simulators designed for basic and advanced pilot training. Russian aircraft are in high demand in the international arms market, accounting for more than a half of Rosoboronexport's sales. Special interest arouses the Su-35 4++ generation super-maneuvrable multi-role fighter designed to gain air superiority and defeat ground and surface targets at any time of day and night in all weather conditions. The MiG-29M/MiG-29M2 front-line fighters, Su-30MK multi-role fighters, Yak-130 combat trainers are also finding their market. Good export potential is stated for specialised air systems such as the Il-78MK-90 advanced air tanker and Be-200 multifunctional amphibian. The latter has distinguished itself as a highly efficient high-capacity fire-fighter aircraft many a time. Rotary-wing aircraft are represented by the Ka-52 reconnaissance-and-attack helicopter, Ka-226T lightweight multi-purpose helicopter, Mi-35M combat transport helicopter (the world's only helicopter capable of performing assault, transport and sanitary missions), Mi-171Sh **military** transport helicopter, and Mi-26T world's heaviest-lift cargo helicopter. In

special demand are air defence systems including the Antey-2500 long-range, Buk-M2E medium-range and Tor-M2E short-range multichannel missile systems, Pantsir-S1 gun/missile system and Igla-S man-portable missile system, as well as other air defence equipment. "China has been our strategic partner for many years now, - says Sergei Kornev, head of the delegation and chief of Air Force department of Rosoboronexport. Russia's share in the Asia-Pacific arms market is around 21 percent. Rosoboronexport offers its partners in this region various modes of cooperation: from delivering big batches of serially produced armaments and **military** equipment, as well as separate assemblies and units, to organising after-sale servicing, setting up servicing centres, implementing joint research and development projects. I am convinced that our participation in the Airshow China 2012 exhibition will give a new impetus for the development of Russia's **military** technical cooperation with China and other Pacific Asian countries".

#### **RPE ELTom, JSC**

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2012 Zhuhai Directory: "JSC RPE ELTom works in interests of the Ministry of **Defence** since 1956. Primary activity is development of a serial production of secondary power supplies and ECB for their production. JSC RPE ELTom production is made completely on domestic element base, relates to products of interbranch application (CPIA) with acceptance MIL and is applied in AMST groups of versio from 1 up to 5.2."

#### **Russian Helicopters, JSC**

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2012 Zhuhai Directory and Corporate Website: Russian Helicopters, JSC is a subsidiary of UIC Oboronprom, which in turn is a part of State Corporation Rostec. It is one of the global leaders in helicopter production and the only helicopter design and production powerhouse in Russia. Russian Helicopters is headquartered in Moscow. The company comprises five helicopter production facilities, two design bureaus, a spare parts production and repair facility, as well as an aftersale service branch responsible for maintenance and repair in Russia and all over the world. Its helicopters are popular among Russian ministries and state authorities (Ministry of **Defence**, Ministry of Internal Affairs, Emergency Control Ministry), operators (Gazpromavia, UTair), major Russian corporations. Over 8000 helicopters of Soviet/Russian make are operated in 110 countries worldwide. Traditionally the demand is highest in the Middle East, Africa, Asia-Pacific, Latin America, Russia, and CIS countries. Russian Helicopters was established in 2007. In 2012 its IFRS revenues increased 21% to RUB 125,7billion. Deliveries reached 290 helicopters. UIC Oboronprom, JSC is a multi-profile industrial and investment group established in 2002. It is a part of Russian Technologies State Corporation. Its main tasks include: helicopter engineering (Russian Helicopters, JSC) and engine-building (United Engine Industry Corporation managing company). Rostekhnologii State Corporation (Rostec) is a Russian corporation established in 2007 in order to facilitate the development, manufacturing and export of high-technology industrial products of **military** and civil purposes. Today it comprises over 663 companies, which form 8 **military**-industrial and 5 civil industry holdings. Rostec's subsidiaries are located in 60 regions of Russia and supply their products to over 70 countries worldwide. In 2012 revenues of the Corporation amounted to RUB 931 billion, net profits were RUB 38.5 billion and total taxation exceeded RUB 109 billion.

## RUSSIAN HELICOPTERS PRESS RELEASES

### MI-171E TRANSPORT HELICOPTERS DELIVERED TO CHINA

November 18, 2013

Moscow - Russian Helicopters, a subsidiary of Oboronprom, part of Rostec State Corporation, announces that four Mi-171E transport helicopters have been delivered to Poly Technologies under a contract signed in 2012 by the Chinese company and Rosoboronexport. Under the contract Russian Helicopters will supply 52 Mi-171E transport helicopters to China. The latest consignment brings the number of helicopters delivered to date to 32, with the final batch expected to be transferred in 2014. Russian Helicopters has worked with Poly Technologies since 2009, when the companies signed a contract for 32 Mi-171Es. The contract was completed in 2011 and formed a good foundation for continued cooperation. The new Mi-171Es produced by Ulan-Ude Aviation Plant, a Russian Helicopters company, are specially adapted to provide high-class performance in mountainous terrain. They are fitted with enhanced VK-2500 engines and Safir auxiliary power plants, modernized transmissions, searchlights, internal fuel tanks and landing seats. The loading ramp and additional sliding door on the right-hand side make transportation tasks more efficient. Chinese crews have successfully completed training at the Ulan-Ude Aviation Plant's training centre, where they learned techniques and rules for piloting the helicopters in various conditions using advanced training methods on the latest Mi-171 flight simulator. The pilots praised the comfort and ease of use of the simulator, its consistency with a real helicopter and the high level of competence of the training centre staff. Mi-171s operate successfully across China, in particular in areas with complex terrains and harsh climates. They are used to carry a wide range of cargoes, including medicines, humanitarian aid and construction materials. In addition, the helicopters are used to support rescue operations and in the aftermath of emergency situations. The Mi-171 flew missions to rescue and extract people following the earthquake in Sichuan province in April 2013. With mountain roads completely destroyed, the helicopter was the only means of transporting and delivering cargoes. Chinese rescue

workers and helicopter operations praised the indefatigability, reliability, durability and ruggedness of the Russian-built helicopters. China is one of the biggest operators of Russian-made helicopters. Most popular of all are helicopters of the Mi-8/17 series. The country has a fleet of about 150 Mi-171s; also operated in China are the heavy Mi-26TS and the multirole Ka-32A11BC. China can provide full material and technical support for Russian-built helicopters, with well-trained flight and technical and engineering staff. In future China plans to expand its fleet of Russian-built helicopters, and Russian Helicopters stands ready to offer its Chinese partners the latest models including the multirole Ka-226T and Mi-171A2.

#### RUSSIAN HELICOPTERS SHOWCASES MULTIROLE KA-32A11BC AND KA-226T IN CHINA

April 18, 2013

Shanghai, China - Russian Helicopters, a subsidiary of Oboronprom, part of State Corporation Rostec and a leading global designer and manufacturer of helicopters, is showcasing the multirole Ka-32A11BC and light Ka-226T helicopters at the Asian Business Aviation Conference & Exhibition (ABACE 2013) being held in Shanghai. The Russian Helicopters display can be found at stand H302.

The Asian aviation market – and China in particular – is one of the biggest destinations for Russian-built helicopters, and deliveries to China have traditionally been a core priority in Russian Helicopters' marketing policy. The Russian company showcases the most in-demand models for the region to regional operators every year at the Shanghai exhibition.

Helicopters are one of the major items that Russia's machine-building industry exports to China. In July 2012, Rosoboronexport signed a contract to supply 55 Mi-171E transport helicopters to China, in a deal that extended a previously fulfilled contract for 32 helicopters.

This year Russian Helicopters is showcasing the medium multirole Ka-32A11BC and the light Ka-226T. These models have great potential for the Chinese market, where demand for all-round helicopters is growing every year. Both helicopters have unique coaxial rotor systems, and can land in tight spaces and manoeuvre in high-altitude mountainous territory and dense urban areas – vital qualities for China's highlands and modern metropolises.

The Ka-32A11BC is essential for delicate construction work and fire-fighting, while the Ka-226T can be used for policing and rescue operations, or to provide emergency assistance and medical evacuation. The helicopter's superb operational capabilities make it suitable for fire-fighting, a capacity in which it plays a crucial role for Russia's Emergency Situations Ministry as well as emergency services in Spain, Portugal, Azerbaijan, Bulgaria, Greece and South Korea.

This model can operate for extended periods in low-visibility conditions of heavy smoke and dust concentration. The Ka-32A11BC's fire-fighting equipment includes an extensive list of additional specialised items such as horizontal water cannon, Simplex Fire Attack belly tanks and Bambi Buckets.

The Ka-32A11BC holds Chinese type certification, and also has certificates of airworthiness in South and North America, Asia, Australia and Europe.

The new light Ka-226T's outstanding flight performance and technical specifications are driven by an advanced avionics suite and two Turbomeca Arrius 2G1 engines, which provide the high power levels needed in high-altitude and hot regions. The helicopter's aerodynamic symmetry makes for ease of piloting, especially important when flying at low altitude. Highly manoeuvrable at all flight speeds, the Ka-226T can fly a range of operations in mountainous terrain and high temperatures, including policing and rescue operations, and emergency medical assistance and evacuation.

As the roll-out of the Company's global service network continues, Russian Helicopters is also briefing visitors to ABACE 2013 on the latest developments in its after-



sales care offering and operational support for operators of Russian-built helicopters at its new service centre in the Chinese city of Qingdao.

The largest event of its kind in Asia, ABACE 2013 is being held at Shanghai Hongqiao International Airport on 16-18 April. Conferences and seminars on industry issues are also planned during the event, with speakers from governments and the private sector across the region with an interest in operating helicopters.

#### RUSSIA MAINLY EXPORTS HELICOPTERS, AEROENGINES TO CHINA

November 14, 2012

An expert with Russia's Centre for Analysis of Strategies and Technologies (CAST) show that Russia's aviation technology exports to China are mainly helicopters and aeroengines. The expert further points out that Russia is less likely to sign bulk contracts on civil aircraft supply with China in a short term. Russia mainly exports Mi-171 and Ka-32 all-weather scouts and multi-purpose transportation helicopters. Russian aircraft manufacturers attend the 9th China International Aviation and Aerospace Exhibition in Zhuhai. Besides, many Russian part producers and companies from metallurgy sector also attend the Airshow China.

#### RUSSIAN HELICOPTERS TO EXHIBIT AT CHINA INTERNATIONAL AVIATION & AEROSPACE EXHIBITION

November 12, 2012

Moscow - Russian Helicopters, an Oboronprom company and a leading global designer and manufacturer of helicopters, will showcase models including the Ansat, Ka-226T and new-look Mi-171A2 at the China International Aviation & Aerospace Exhibition. The Russian Helicopters display at stand A1 1B in hall 1 will show the medium multirole Mi-8/17 range, including the Mi-171(E) which is already popular in China. The company will also exhibit the new light multirole Ansat and Ka-226T, which can fly a wide range of missions; and the new revamped Mi-171A2, combining the finest qualities of the renowned Mi-8/17 family with the latest technology. The company also plans to showcase the Mi-26T, the world's heaviest-lift helicopter, and the modernised Mi-26T2 variant. Russian-built heavy-lift helicopters are in demand in China and are used extensively for transporting heavyweight cargos, as well as equipment and personnel, and also for fire-fighting in at-risk provinces. Russian-built helicopters have always been at their best flying search-and-rescue and medevac missions, and are also highly effective in disaster-relief efforts. The medium multirole Ka-32A11BC is ideally suited to these roles; it is already operated in China, and will be on display at the exhibition. Russian Helicopters is currently remodelling its global after-sales service system. In China, after-sales service is planned to be offered through a service centre being established in the eastern city of Qingdao under the Sino-Russian Helicopter Service Company Ltd joint venture.

#### ROSOBORNEXPORT AND POLY TECHNOLOGIES, INC. SIGN CONTRACT FOR 52 MI-171E HELICOPTERS

September 6, 2012

Moscow - Rosoboronexport and Chinese company Poly Technologies, Inc. in August signed a contract for delivery of 52 Mi-171E transport helicopters to China in 2012-2014. The first eight Mi-171Es are scheduled for delivery in 2012, with the rest slated for 2013 and 2014. The contracts follow on from agreements signed in 2009 by Russian Helicopters and Poly Technologies for delivery of 32 Mi-171Es to China. The contract was highly successful, with the buyer's group of technical experts fully satisfied by the build and component quality in the Mi-171Es, as well as the accompanying technical documentation. Successful completion of the agreement in 2011 paved the way for a deepening of the relationship with Poly Technologies in buying Russian manufactured helicopter technology. Poly Technologies seeks to acquire helicopters with state-of-the-art technical features and

employs very rigorous quality control. At the client's request, the Mi-171Es are equipped with VK-2500-03 engines, SAFIR 5K/G MI auxiliary power units and enhanced transmission systems that allow them to operate at higher altitudes including in mountainous terrain. Mi-8/17 family helicopters have a long and successful record of use in China, carrying out a range of missions from transporting goods and passengers to geological surveying, patrolling, fire-fighting and offshore transportation. The Mi-171E is produced at the Ulan-Ude Aviation Plant, part of Russian Helicopters. It is equipped with search and rescue equipment and for special operations including at night-time. This makes it extremely effective in a wide range of situations, including at mountain altitudes and in hot climates, and able to operate around the clock.

#### RUSSIAN PLANT TO MAKE MI-171 HELICOPTERS FOR CHINA

August 21, 2012

Russian Helicopters' Ulan Ude factory will build Mi-171E multipurpose helicopters under a recent contract with China, a high-ranking **defense** industry source said on Tuesday. Moscow and Beijing signed a contract in late July on the delivery of 55 Mi-171E helicopters to China. The cost of one unit in its basic configuration is estimated at \$10-12 million. "One of the largest helicopter export contracts on the delivery of Mi-171E helicopters to China will be carried out by the Ulan Ude aircraft plant," the source told RIA Novosti. Mi-171E is an advanced export version of the famed Mi-8 transport helicopter capable of transporting 37 passengers to a distance of 610 km (380 miles) at a speed of 250 km/h. Its loading capacity is four metric tons. Mi-171E was specifically designed for operations in Middle East and Asian countries, the source said.

#### REGARDING XINHUA (PRC) PUBLICATION ON CREATION OF JOINT RUSSIAN-CHINESE VENTURE TO BUILD MI-2 HELICOPTERS

February 9, 2012

Moscow - On Monday, 6 February 2012, Russian and international media published information regarding the creation of a joint Russian-Chinese venture to build Mi-2 helicopters. People's Republic of China official mouthpiece Xinhua was cited as the source. In this respect, Russian Helicopters underlines that neither Rostvertol, a subsidiary of the company and the purported partner in this joint venture, nor Russian Helicopters, including any subsidiaries, are taking part in any joint projects in China to build or assemble light helicopters, or any similar projects connected with Mi-2 helicopters. The Mi-2 is not in production by Russian Helicopters and is not included in the modern lineup. There are no plans to jointly manufacture these machines in any foreign state. It is important to note that China and customers from China remain traditional partners of Russian Helicopters: the company has fulfilled and is continuing deliveries under many contracts, covering helicopters of various classes and mission profiles. In October 2011 Russian Helicopters and the Chief Administration for the social security of Ordos City (China, Inner Mongolia) signed a contract for the delivery of a civil all-weather coaxial Ka-32A11BC utility helicopter in its firefighting variant. The helicopter is equipped with the Simplex firefighting system, horizontal water cannon, and VSU-5 water-dumping system. Russian Helicopters won the tender for a firefighting helicopter in August 2011. The delivery to the Chief Administration for the social security of Ordos City is planned for September 2012. Earlier, in September 2011, Ulan-Ude Aviation Plant (UUAP), completed delivery of 32 Mi-171E helicopters to the Peoples Republic of China. The contract for the delivery of Mi-171E civil transport helicopters was signed by Russian Helicopters in December 2009. 8 batches consisting of 4 units each were delivered to the customer during 2010-2011. In accordance with the agreement all helicopters were flown directly from the manufacturer's base at Ulan-Ude to Khailar, China. This solution allowed to cut transportation costs and check the helicopter performance in actual practice. Mi-8/17 helicopters have been very successful

in China, performing a wide range of missions. They are indispensable for cargo transportation, geologic exploration, patrolling and firefighting, and offshore transportation.

#### RUSSIAN HELICOPTERS DENIES CHINA MI-2 PROJECT

February 8, 2012

Russian Helicopters, the holding that combines Russia's rotorcraft design and manufacturing enterprises, has denied press reports that it intends to take part in a joint venture to produce Mi-2A light helicopters in China. RIA Novosti reported on Monday that Xinhua said Russian helicopter maker Rostvertol and China's Xi'ao Aeroplane Manufacturing intended to build a plant in northern China capable of manufacturing 100 lightweight civil Mi-2A helicopters annually. "Russian Helicopters states that neither Rosvertol...or Russian Helicopters or any of its daughter companies are taking part in any joint venture on the territory of China for production or kit assembly of light helicopters or any analogues of Mi-2 type helicopters," Russian Helicopters said in a statement on Wednesday.

#### CHINA STARTS BUYING FIREFIGHTING KA-32A11BC ROTORCRAFT

Ordos, China - October 24, 2011

Russian Helicopters holding company, a part of United Industrial Corporation Oboronprom, and the Chief Administration for the social security of Ordos City (China, Inner Mongolia) have signed a contract for the delivery of a civil all-weather multi-role coaxial Ka-32A11BC helicopter in its firefighting variant. The helicopter is equipped with the Simplex firefighting system, horizontal water cannon, and VSU-5 water-dumping system.

Russian Helicopters won the tender for a firefighting helicopter in August 2011. The delivery to the Chief Administration for the social security of Ordos City is planned for September 2012.

A combination of outstanding operational characteristics inherent in the design of the Ka-32A11BC makes it a solid performer in firefighting, this fact being confirmed by efficient operations experience in Russian EMERCOM divisions, as well as rescue services in Spain, Portugal, Azerbaijan, Bulgaria, Greece, and South Korea.

The Ka-32A11BC is easy to control and very precise in its movements due to its coaxial rotors. No tail rotor and a tail boom shortened to rotor diameter helps to manoeuvre near obstacles and achieve extreme hover accuracy even when working in the zone of fire and in unstable atmosphere. High power capacity allows for the transportation of up to 5 tons of water.

The helicopter can work for prolonged periods in high smoke and dust congestion. The Ka-32A11BC can fight fires on oil-loading tankers and containers, facilities of fuel, chemical, and oil refinery enterprises, in oil and gas rigging areas, and top floors and roofs of high-rise buildings. The helicopter can also be used to create shelter belts in forest fires.

A wide range of additional specialised equipment is available for the firefighting Ka-32A11BC: a horizontal water cannon, hang-on water tanks (Bambi Bucket, Simplex firefighting systems), water-dumping systems such as VSU-5.

The Russian Ka-32A11BC is certified in China; it has received airworthiness certificates in the world's largest regions – in America, Asia, and Europe. Today Ka-32 helicopters of various modifications are successfully operated in Spain, Portugal, Switzerland, Canada, South Korea, Taiwan, Japan, China, and other countries. In South Korea the fleet of Ka-32s exceeds 60 – these helicopters are top scorers in firefighting with the Forestry Service, and in the Coast Guard.

One Ka-32A11BC is currently operated in China. It performs various missions for the Chinese Arctic and Antarctic Administration.

Ka-32A11BC – a multi-role coaxial helicopter designed by Kamov design bureau, a part of Russian Helicopters. The Ka-32A11BC is intended for the transportation of

passengers and cargo in the transport cabin, as well as large loads externally, and also construction and setup operations, logging, search and rescue, emergency and medical evacuation, patrolling and integrity, special service support, pilot training, and other missions. The helicopter is successfully operated in dense city environments, inaccessible mountain and forest areas. It can land on low-displacement ship decks, offshore rigs, and unprepared difficult spots. It can be operated by a single pilot, while the remaining cockpit space may be used for additional functional equipment. Mass production of the Ka-32A11BC is based at Kumertau Aviation Production Enterprise. Over 140 have been built, they are operated in over 30 countries worldwide.

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2012 Zhuhai Directory: The Russian Technologies State Corporation was established in November 2007 to assist Russian organisations, working in various industries, in developing, producing and selling high-technology products in domestic and foreign markets, in conducting applied research into promising areas of scientific and technological development and in manufacturing application of state-of-the-art technologies with a view to bringing Russian designs to a higher level, speeding up and making more cost-effective the creation thereof. The Russian Technologies State Corporation comprises Rosoboronexports, Oboronprom, VSMPO-AVISMA Corporation, Avtovaz, Kamaz, Scartel, Yota Brand, and other organizations.

**RUSSIAN TECHNOLOGIES PRESS RELEASES**

**A UNIQUE LED MANUFACTURER MAY COME TO TOMSK; ROSTEC IS EXPANDING ITS COLLABORATION WITH THE CHINESE ELECTRONICS COMPANY CETC**

December 10, 2013

Rostec and the Chinese corporation China Electronics Technology Group Corporation (CETC) intend to cooperate in developing and producing new kinds of electronic products, software, and information systems in order to gain a leading position in the international market. The first meeting of the joint working group of Rostec and CETC took place in Beijing from December 2-7. Collaboration between the two parties dates back to 2011, when the companies signed an agreement outlining future cooperation. The Beijing meeting led to the signing of the first contract for a joint project, a full-cycle LED production plant in the special economic zone of Tomsk. The two companies also decided to organize project teams for areas of future cooperation, in addition to conducting regular scientific and technical conferences between Rostec and CETC. Rostec deputy general director Nikolai Volobuev headed the Russian delegation, which included representatives of the state corporation's leading electronics enterprises, such as RosElectronics, Shvabe, and Compass. During spring and fall 2013 Rostec and CETC exchanged delegations of technicians, with the Russian specialists familiarizing themselves with the Chinese corporation's companies and research institutions, and the Chinese experts visiting Rostec enterprises and design bureaus in Moscow, St. Petersburg, Saratov, and Tomsk.

KRET AND THE CHINESE COMPANY AVIC HAVE DISCUSSED DEVELOPING ONBOARD AVIATION EQUIPMENT TOGETHER; THE MEETING FOCUSED ON AIRCRAFT MANUFACTURING AND CIVIL AVIATION

November 22, 2013

The meeting, which was held at the Ulyanovsk Instrument Design Bureau, was devoted to discussing onboard aviation systems for civilian use. Russian participants considered possibilities for working with Chinese partners to develop avionics systems for the next generation of aircraft. Technical experts, designers, chief engineers, and research and development specialists from both Russian and Chinese companies participated in the meeting. Various avionics development companies, including KRET, formed the Russian delegation at the meeting. AVIC Avionics Systems and its subsidiaries represented the Chinese delegation. During the event, participants suggested ways to work together to create new equipment, as well as sharing innovative technical developments in the field of avionics. The two sides also discussed creating new onboard aviation equipment, as well as an inertial navigation system and surveillance systems for external flight space. Also discussed were opportunities to cooperate on developing information control systems in the cockpit, onboard informational exchange systems, flight parameters sensors, and sensors to track the condition of planes.

MI-171E TRANSPORT HELICOPTERS DELIVERED TO CHINA; CHINESE HELICOPTER OPERATIONS PRAISED THE INDEFATIGABILITY, RELIABILITY AND RUGGEDNESS OF THE RUSSIAN-BUILT HELICOPTERS

November 18, 2013

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Its helicopters are popular among Russian ministries and state authorities (Ministry of **Defence**, Ministry of Internal Affairs, Emergency Control Ministry), operators (Gazpromavia, UTair), major Russian corporations. Over 8000 helicopters of Soviet/Russian make are operated in 110 countries worldwide. Traditionally the demand is highest in the Middle East, Africa, Asia-Pacific, Latin America, Russia, and CIS countries. Russian Helicopters was established in 2007. In 2012 its IFRS revenues increased 21% to RUB 125,7 billion. Deliveries reached 290 helicopters.

RUSSIA TO INVEST \$1 BLN IN RARE EARTHS TO CUT DEPENDENCE ON CHINA;  
ROSTEC AIMS TO COVER RUSSIAN DEMAND FOR THESE RAW MATERIALS BY 2017

September 10, 2013

Russia will invest \$1 billion in rare earths production by 2018 in a bid to become less dependent on China, which controls more than 90 percent of global supply of the elements used in sectors including **defence**, telecommunications and renewable energy. The United States, Japan and the European Union have complained to the World Trade Organization about China's efforts to control the sector, saying China is trying to use its stranglehold over supply to drive up prices and gain a competitive advantage. Rostec and IST group, an investment company belonging to Russian tycoon Alexander Nesis, have agreed to invest \$1 billion in rare earths production by 2018, they said in a statement on Tuesday. Rostec aims to cover Russian demand for these raw materials by 2017, the company added. "The (Russian) President (Vladimir Putin) and the government have set a task to expand rare earths production as Russia's stocks are almost depleted," a source in state industrial and **defence** conglomerate Rostec told Reuters on Tuesday. "Stocks need to be replenished as the main producer, China, has increased prices sharply," the source said. TriArkMining, a joint venture (JV) between Rostec and IST, has won the right to acquire 82,653 tonnes of monazite concentrate, stored in warehouses of state-owned Uralmonatsit in the Sverdlovsk region of Russia's Urals. The JV plans to extract about 40,000 tonnes of rare earths from the monazite concentrate stored in the warehouses over the course of seven or eight years starting from 2015, the companies said. The stock is rich in heavy rare earths, such as dysprosium and terbium, crucial for high-power magnets needed by the auto, **defence** and clean energy industries. Heavy rare earths are scarcer than cerium and other light rare earths, making them much more valuable. Russia consumes about 1,500 tonnes of rare earths per year and annual demand is expected to reach 6,000 tonnes by 2020, Rostec said. The company, which has eight firms producing a wide range of **defence** products, sees rare earths as a strategic raw material. China will cap rare earth production at 93,800 tonnes for 2013 as part of efforts to rein in unlicensed production in the sector, it said last week. "Russia accounts for only 2 percent of the world's rare earths production. Without new projects, its share in world output would fall below 1.5 percent in the coming years," Sergey Chemezov, Rostec's chief executive, said in the statement.

"Besides that, Russia's high-tech industry will be protected against fluctuations in the rare earths global market." The ICT group will be a managing partner in the JV, using its experience in industrial engineering and construction of mineral processing and hydrometallurgical plants.

#### ROSTEC AGREES TO COOPERATE WITH CHINESE CASIC; THE AGREEMENT WAS SIGNED DURING THE G20 SUMMIT IN ST. PETERSBURG

September 6, 2013

At the end of the first day of the G20 summit, which began on September 5 in St. Petersburg, Rostec concluded a strategic partnership agreement with the China Aerospace Science and Industry Corporation (CASIC). The agreement was signed by Nikolai Volobuev, Deputy Head of Rostec, and Gao Hongwei, Chairman of the Board of CASIC. The agreement was concluded in order to promote the mutual development, production and export of high-tech industrial products as well as trade, investment and cooperation. The specific areas and types of cooperation between the parties will be determined at the meetings of the joint working group and expert groups of the parties. Under the agreement, CASIC shall endeavor to establish special mutually beneficial conditions for the supply of modern CASIC products, solutions and services to address the needs of Rostec. It shall also provide additional warranty and post-warranty service benefits. The parties shall make joint efforts to: develop Rostec's physical infrastructure and (or) organizational structure both in Russia and abroad in order to increase its efficiency; implement trade and economic partnerships in areas of mutual interest; and prepare and implement joint projects.

#### RUSSIA AND CHINA TO MAKE AN EXTRA-HEAVY HELICOPTER; NEW ROTORCRAFT WILL BE WITH THE LOAD CAPACITY GREATER THAN THAT OF MI-26, THE BIGGEST ONE OF ITS CLASS.

August 21, 2013

Russia and China to make an extra-heavy helicopter with the load capacity greater than that of Mi-26, the biggest one of its class. According to Russia's Deputy Prime Minister Rogozin it is a new model helicopter. Mr. Rogozin who is in charge of the preparation for regular meetings of Russia and China heads of governments says that the Chinese part demand such other characteristics which differ from those of Mi-26. "Now it is clear from which segment of heavy helicopters the Chinese party is interested in. The load capacity of such helicopter is almost two times greater than that of Mi-26", Mr. Rogozin is quoted as saying by RIA Novosti. Mi-26 is the world's biggest transport helicopter with a 20 ton payload. "If the Chinese party wants to have a helicopter with characteristics that are significantly different from those of Mi-26, then it must be an extra-heavy helicopter and not Mi-26", said Mr. Rogozin. Dmitry Rogozin expressed hope that the extra-heavy helicopter project would be a success and didn't want to agree with opinions of some skeptics who doubted that such helicopter would ever be in demand on the contemporary market. He said that Chinese specialists are ready to discuss the joint project of developing and manufacturing an extra-heavy helicopter. It should be noted that on Tuesday Mr. Rogozin met Mr. Van Yan, Vice Premier of the State Council of China and co-chairperson of the commission for the preparation for regular meetings of Russia and China heads of governments. The Russian delegation was represented by deputy ministers from the ministry of regional development, the ministry of economic development, the ministry of transport, the ministry of agriculture and representatives of other ministries and departments. Mi-26 is the world's biggest multipurpose helicopter meant for transporting bulky cargoes both inside its cab and with its crane. This helicopter can be used also for evacuating the sick and injured and in rescue operations. It can transport a 20 ton cargo up to 400 km at an altitude of more than 1,500 m. Russian Helicopters (a holding company) is the only developer and manufacturer of helicopters in Russia. It is also one of few

companies in the world that has facilities for developing, manufacturing, testing and maintaining modern civil and **military** helicopters.

## RUSSIAN HELICOPTERS TO DISPLAY MULTI-PURPOSE ROTORCRAFTS IN CHINA; THE HOLDING TO PARTICIPATE IN INTERNATIONAL ASIAN EXHIBITION COMMERCIAL AVIATION

April 17, 2013

According to the company's press-service, Rostec subsidiary Russian Helicopters presents its multi-purpose rotary-wing aircrafts at ABACE 2013 (Asian Business Aviation Conference & Exhibition) which is held in Shanghai on April 16-18.

By estimates, medium multi-purpose Ka-32A11VS and light Ka-226T helicopters have high potential on Chinese market with its increasing demand for universal rotorcrafts. Both machines are based on the unique coaxial rotor system, which allows to land on small unequipped grounds and to maneuver amid highlands and restrained urban conditions. These attributes perfectly suit China with its landscape and modern metropolises.

Ka-32A11VS is essential within installation and construction works of high complexity. The high performance qualities of the machine provide for effective use in firefighting, which is proved by exploitation of Russian Ministry of Emergency Situations, Spanish, Portuguese, Azerbaijani, Bulgarian, Greek and South Korean rescue services.

The helicopter is capable of long-term operations under the conditions of heavy concentration of smoke and dust. Ka-32A11VS firefighting equipment package comprises a wide range of additional special-purpose hardware including water cannon for horizontal fire extinguishing, auxiliary water tanks (Simplex fire-control systems), Bambi Bucket water delivery systems, VSU-5 helicopter buckets.

Ka-32A11VS is certified in China as well as in North and South America, Asia, Australia and Europe.

Excellent aircraft performance characteristics and high reliability of the new Ka-226T are provided by state-of-the-art avionics and two Turbomeca Arrius 2G1 turboshafts. The high power of the engines is crucial for uplands and hot regions. Aerodynamic symmetry facilitates piloting control, which is essential at low-altitude flights. Ka-226T is ideal for missions in mountainous terrains and within high temperatures. The helicopter is also incredibly effective in search and rescue operations, emergency medical response and evacuation.

Within the development of global service system conception Russian Helicopters has informed local rotary wing equipment operators of after-sale service programme and Russian-made rotorcrafts support using the new MRO facility in Qingdao, China.

### Russian Helicopters On Asian Aviation Markets

Aviation markets of Asian countries and, first of all, of China traditionally have had demand for Russian-made rotary wing equipment. The cooperation with China in rotorcraft delivery is one of the priority lines of the Russian Helicopters holding. The company presents unique specimens of multi-purpose rotary wing machines to local operators at the Shanghai exhibition. Helicopters remain one of the principal exports of Russian engineering industry to Chinese markets. In July 2012 Rosoboronexport signed a contract on 55 Mi-171E medium transport rotorcrafts to China. The transaction proceeded the fulfilled contract on 32 machines delivery.

ABACE 2013 is held on the premises of Shanghai Hongqiao International Airport. The exhibition is a big event of the industry sector in the Asian region. Within ABACE 2013 there are conferences and workshops with the participation local government and business representatives interested in cooperation in modern aviation equipment exploitation.

## CELESTIAL EMPIRE TO WELCOME 24 SUKHOI SU-35 JET FIGHTERS; RUSSIA TO SHIP TO CHINA THE LARGEST BATCH OF RUSSIAN ARMAMENTS IN 10 YEARS

March 25, 2013



Russia and China have signed a framework agreement to delivery 24 multi-purpose Sukhoi Su-35 fighter jets and four Project 1640 Amur submarines (export version of Project 677 Lada), RIA Novosti newswire reports citing China Central Television (CCTV). If the sale goes through, it will be the largest Russian arms sale to China over the past ten years. The agreement to sell the Russian weapons to PRC was reached during new Chairman Xi Jinping's state visit to Moscow. Details of the deal are not disclosed. CCTV Channel's website reports that the submarines will be delivered under a two + two arrangement, which implies transfer of two already operational non-nuclear (diesel-powered) submarines and construction of two more submarines under license with transfer of manufacturing technologies. It is quite possible that Russian-Chinese cooperation in the armaments sector will be expanded: China is also planning to buy Russian S-400 air **defense** systems, 117S heavy engines, as well as Ilyushin Il-76 airlifter and Il-78 refueling tanker aircraft. Rosoboronexport and the Chinese **Defense** Ministry signed the preliminary agreement to sell 24 Sukhoi Su-35 fighter planes to China in late December 2012. The agreement provided for start of aircraft deliveries after 2015. The contract value was estimated at US\$ 1.5 billion. Rosoboronexport and China's **Defense** Ministry also signed an agreement on joint design and construction of four Project 1650 Amur diesel-electric submarines (the export version of Russian Lada submarines) at the end of last year. The contract value was estimated at US\$ 2 billion at the time. The original plan was to build two submarines in Russia and two more in China. Sukhoi SU-35 is a Russian supersonic supermaneuverable multi-role generation 4++ fighter airplane designed by Sukhoi Design Bureau.

#### CHINA TO RECEIVE ASSEMBLED SUKHOI SU-35 FIGHTERS; POSSIBLE DEAL VALUED AT AN ESTIMATED US\$ 1.5 BILLION

March 12, 2013

The contract to sell Sukhoi Su-35 fighters to China, which is currently in preparation stage, will be a finished-product delivery agreement, rather than licensing agreement, **Defense** Industry Courier reports. This type of agreement provides for delivery of completely assembled aircraft to the customer. Representatives of the Chinese authorities will visit Russia over the next two weeks, according to Deputy Prime Minister Dmitry Rogozin, to negotiate the contract signing date. Rosoboronexport and China's **Defense** Ministry signed a preliminary agreement to sell 24 Sukhoi Su-35 fighters to China in late 2012. It was reported at the time that a firm contract could be signed within the next two years, and deliveries would start after 2015. The value of the possible deal is estimated at US\$ 1.5 billion. It transpired in the spring of 2012 that Russia had convinced China to purchase 48 new Sukhoi Su-35 fighters, but a final agreement on the number of fighters to be delivered was never reached. Among other things, China was insisting on buying only four Russian aircraft. Russian negotiators said this contract would make little economic sense because of concerns that China may reverse engineer and copy the purchased fighters. China may be interested in purchasing Su-35 fighters because of their AL-41F1S engines (also known as "Product 117S"), AINonline reports. Presumably, through the purchase of Sukhoi Su-35 fighters and a certain number of AL-41F1S engines for them, China would gain access to the Product 117S' underlying technology and replicate them in its own engines for the advanced J-20 fighter.

#### CHINA TO TAKE THE RUSSIAN WINGS AND LEARN TO FLY AGAIN; LAST YEAR CHINA UNEXPECTEDLY BECAME THE THIRD CONSIDERING THE PROCUREMENT CONTRACTS AWARDED WITH ROSOBORONEXPORT

February 14, 2013

Last year Rosoboronexport concluded procurement contracts with China at total price of \$2.1 billion, which made 12% of all the company contracts, total income of the enterprise was \$17.6 billion. Current order portfolio is \$37.3 billion. According to Aleksandr Fomin,

general export order portfolio including the contracts of the enterprises entitled to deliver supply parts and render services was \$46 billion in the end of January. Formally China became the third largest Rosoboronexport customer after India (over \$7.3 billion) and Iraq (\$4.2 billion) in 2012. Although the contracts were concluded, they hadn't come into effect yet. However, the unexpected Chinese demand quadrupling comparing to the preceding years designates considerable phenomenon especially taking into account the torrid growth of Chinese **defence** industry, which resulted in Russian-Chinese **military** cooperation ceasing in the mid 2000s. Last year there were contracts on aviation engines and rotorcrafts delivery awarded and also several agreements on joint armament designing and producing signed. It is known, that \$1.3 billion were spent on AL-31F engines and Mi-171E helicopters, so unidentified \$800 million were meant for the joint armament designing and producing. According to Rosoboronexport representatives, the contracts concern air forces weaponry supply. New contracts on 24 Su-35 fighter planes and 2 Amur submarines delivery and 2 Amur submarines construction in China might also be concluded soon. Overall contracts' cost is estimated at approximately \$3 billion. This detects something renaissance-like in Russian-Chinese **military**-technical cooperation. The demand spike is less ambitious than in 1990s-2000s, but still significant within the world arms market standards.

RUSSIA DELIVERS FIRST OF 10 IL-76MDS TO CHINA; ROSOBORONEXPORT AND AIRCRAFT MANUFACTURER ILYUSHIN HAVE DELIVERED THE FIRST PART OF ORDER

January 30, 2013

Russia's state arms exporting agency Rosoboronexport and aircraft manufacturer Ilyushin have delivered the first of 10 IL-76MD **military** transports to China. A contract for the purchase of 10 was signed in 2010, and by November 2012, Russia had selected seven worthy examples from its inventory. The IL-76s will serve as an interim measure to expand China's fleet of the heavy airlifters until the redeveloped IL-476 version becomes available. The IL-76 can carry a payload of 40 tons over a range of 5,000 kilometers in less than six hours. The aircraft were purchased used and underwent repairs, maintenance and minor modernizations prior to transfer to China. The IL-76s came from various sources: two served with the Belarusian Air Force, and three were used by the Belarusian airline Transaviaexport before Rosoboronexport bought them back. China has traditionally been Russia's primary market for **military** equipment and hardware and has largely served as a convenient prop to the Russian **defence** industry since the collapse of the Soviet Union. China gets 85 percent of its arms imports from Russia, and as recently as 2004, spent nearly \$3 billion a year on Russian arms. As such, the Chinese market previously provided for almost half of all Russian arms exports, making it a crucial area of retention to Moscow.

NO NEGOTIATIONS WITH CHINA ABOUT TU-22M3 STRIKE AIRCRAFTS; ROSOBORONEXPORT DENIED SPECULATIONS ABOUT SUPPOSEDLY COMING PROCUREMENT OF 36 RUSSIAN AIRCRAFTS TO CHINA

January 25, 2013

Rosoboronexport denied speculations announced by a number of Russian media and unofficial Chinese websites about supposedly coming procurement of 36 Russian Tu-22M3 strike aircrafts to China. "Rosoboronexport doesn't have any information on negotiating this issue. No such discussions have ever been conducted", - says corporation representative Vyacheslav Davidenko. "The commentary was made as an exception. Rosoboronexport usual only comments on the statements from the official sources which doesn't include the listed Chinese websites." Another Rosoboronexport anonymous source told that the information "is a clear newspaper hoax". "It's just a wishful thinking. Meanwhile the Tu-22M3 procurement abroad is utterly impossible as the aircrafts are classified as a strategic weapon".

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2012 Zhuhai Directory: Main spheres of manufacturing activity: airborne avionics, armament control systems, antenna systems with electronic beam control and based on them radar sighting complexes for aircrafts MiG-29, Su-27, Su-30 and their modifications, airborne navigation systems for helicopters Mi-17, Mi-8, Mi-35 and their modifications, on-board radar facility for modernized helicopter Mi-28NM. Development and production of high-accuracy weapon control system based on video information and laser technologies, airborne digital computers (ACD) for different type carriers. Production of means of communication, medical equipment, welding equipment, multilayer printed circuit boards.

Corporate Website (Extracted in February 2014): The plant got the new name "Ryazan Instrument-making Enterprise" on the 7th of October 1965. In 2004 it got its current name Federal State Unitary Enterprise "Ryazan State Instrument-making enterprise".

From the end of the 60s till middle 80s of the 20th century the enterprise produced radar stations "SAPPHIR" for fighters MiG-23. The main production of the 80th-90th was radar stations for combat aircrafts of the fourth generation MiG-29, SU-27, SU-30.

During the most difficult economical and political conditions of the conversion epoch, when the **military** orders were abruptly reduced, the management of the enterprise developed the survival conception. It included independent search for foreign markets, modernization of the production, opening up of new technologies. Special attention was paid to the creation of new systems of armament control and modernization of board equipment. For maintenance of stable position for middle and long-term perspective the enterprise takes new steps in development of new ways - elaboration of avionics for helicopters, special technologies for land forces and also production of competitive civil goods.

Nowadays Ryazan State Instrument-making Enterprise has considerable production and technical base, the most progressive technologies, which allow producing unique competitive goods.

Release of civil production today is one of the main business profiles. It not only allows to use the maximum the plant's intellectual, technological and production capabilities, but also to meet the needs of Russian and foreign markets. They are: inverter welding apparatuses "FORSAZH" for all types of arc welding, electronic single and three-phase electricity meters "SET" and "GAMMA", radio stations "ZARYA", atmospheric optical lines of communication "ARTOLINK" with the speed up to 10Gb/s, multifunctional telecommunicational platform "PROTON-SSS" with service capacity from 10 to 30 000 ports, medical equipment for measuring of intraocular pressure through the eyelid, which doesn't have analogues in the world - tonometer "DIATON" and indicator "DIATHERA".

## S

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2012 Zhuhai Directory: Safran, a leading high-technology group in aerospace, **defense** and security. Safran is a leading international high-technology group and a Tier-1 supplier of systems and equipment for aerospace, **defense** and security. Operation worldwide, Safran has close to 60,000 employees and generated sales of 11.7 billion euros in 2011. To meet the requirements of changing markets, the Group undertakes research and development programs that involve over 20% of its workforce and expenditures of 1.3 billion euros. Through its global presence Safran not only enhances its competitiveness, but also builds industrial and commercial relations with the world's leading prime contractors and operators, while providing local services to customers around the world. Working along or in partnership, Safran holds world or European leadership positions in its core markets. Several Safran companies will be present at Airshow China 2012 [Zhuhai Airshow]: Aircelle, Messier-Bugatti-Dowty, Morpho, Sagem, Snecma and Turbomeca.

### SAFRAN MAGAZINE

#### SAFRAN MAGAZINE

#### SPECIAL REPORT: 40 YEARS OF PARTNERSHIPS WITH SAFRAN

April 2012, No. 12

#### KENING LIU, CHIEF EXECUTIVE OFFICER, SAFRAN CHINA

"When China awakes... In fact, China woke up at the dawn of this century, and has become a pivotal market in all sectors, especially aviation and security. Safran has been anticipating this development for over 20 years, and is investing in this Asian giant. The Group has formed very close relations with both public and private customers, as well as universities." Kening Liu, CEO of Safran China, supervises Safran's business in China, and is very pleased to see that the Group's efforts to expand to his native land are bearing fruit. After studying in France and then working as a commercial banker in Asia, he was named managing director of the bank Arjil et Associés (Lagardère group). Kening Liu joined the Group in 2004 to support its development in China.

#### SAFRAN MAGAZINE

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April 2012, No. 12

**CHINA TODAY: THE WORLD'S SECOND LEADING ECONOMIC POWER, CHINA IS BETTING ON HIGH-TECH TO WIN NEW MARKETS.**

€4.48 trillion in GDP 2010

4,004 new single-aisle jets in China by 2030

1.3 billion inhabitants, the most populous country in the world

2<sup>nd</sup> economy in the world since 2010

10% average annual growth since the early 1990s

\$183 billion trade surplus in 2010

**ECONOMY**

Now the world's second leading economic power, China has only realized part of its huge potential. But it has already reached a level of technology comparable in many ways to today's developing countries.

China's gross domestic product (GDP) jumped 10.3% in 2010, reaching \$5.88 trillion and moving it to second place worldwide, ahead of Japan, its leading trade partner. Former French prime minister and senator Jean-Pierre Raffarin is an acknowledged specialist on China, a country he has visited regularly since 1971, forming solid ties in both government and academic circles. He quickly corrects an old preconception about China, pointing out that "Chinese industry is no longer developing according to a low-cost model. It is now betting on high technology and added value to drive its growth."

While still discreet, this trend nonetheless started many years ago, underpinned by massive investments both in China and in international markets. As far back as 1999, China was the world's tenth largest exporter of high-tech products. The transition was also very rapid. While high-tech products only accounted for 10% of Chinese exports in 1992, they rose to 25% ten years later, a rate already very close to that of developed countries.

**A PIVOTAL PLAYER**

China has been investing in its aviation industry for many years to support its development and capitalize on strong domestic demand. As early as 2004, China was already the world's third largest air transport market, in terms of number of passengers and freight carried. By 2020, the Chinese government plans to have 244 airports, including 13 capable of handling 30 million passengers a year. Over the next decade, the government has projected average annual growth of 10% in passenger traffic and 14% for cargo.

Jean-Pierre Raffarin, heavily involved in cooperation between France and China, confirms that the latter has become a pivotal economic player. "But we shouldn't be afraid," he adds. "China is not seeking domination at any price, but wants to collaborate with Europe to ensure its development. It will play a major economic role because of the size of its domestic market and its weight in international trade. Furthermore, it will have a decisive impact on the energy, sustainable development and transport markets, and on high technology markets in general. So we have to team up with Chinese companies, not only to gain access to this huge domestic market, but also to benefit from the international reach that these companies will inevitably gain. And that's how our technologies will endure in the global market."

**SAFRAN MAGAZINE**

**SPECIAL REPORT: 40 YEARS OF PARTNERSHIPS WITH SAFRAN**

April 2012, No. 12

**BIOMETRICS AND DETECTION SYSTEMS UNDER DEVELOPMENT**

The 12th Chinese 5-year plan, launched in early 2011 and running until 2015, provides for a modernization of the country's civil governance, as well as the associated tools and documents. "This will result in the large-scale distribution of biometric ID cards and passports, along with the deployment of the corresponding enrolment and management systems," points out Jean-Luc Hidalgo, chairman and CEO of Morpho China. His company hopes to duplicate its major achievement in India, where it contributes to the one million ID numbers issued every day. Morpho China's teams are already gearing up for the official

publication of the request for proposals (RFP), expected by the end of 2012. Morpho also plans to develop its business for explosive and illicit substance detection systems. "China wants to purchase latest-generation equipment to be sure that its airplanes can fly anywhere in the world," notes Emmanuel Mounier, Chairman and CEO of Morpho Detection International. While the growth of air traffic favors sales, current laws and regulations are still an obstacle. For the moment, they only stipulate X-ray detection systems, whereas Morpho's systems use the higher-performance computed tomography technology. But these regulations should change, opening a market for Morpho that is three times greater than its current market.

SAFRAN MAGAZINE

SPECIAL REPORT: 40 YEARS OF PARTNERSHIPS WITH SAFRAN

APRIL 2012, NO. 12

SPECIAL REPORT: PARTNERSHIPS: WHEN THE CHINESE AVIATION INDUSTRY AWAKENS

Over the last 30 years Safran has formed strong ties with the major players in the Chinese aviation industry. Today, this mutual trust has been rewarded by several strategic partnerships.

COMAC has already booked 235 orders for the C919 (including 60 options), which should make its first flight in 2014. It will be powered by the LEAP-1C from Safran and GE, the sole Western engine for this aircraft.

There's China... and the rest of the world! According to Muriel Duthon, director of the Asia zone at Safran, "In a few short years China will be the global leader in aviation, in terms of industrial development, airport capacity and number of aircraft in service. In fact, China will eventually account for some 20 percent of the global aviation market." Bruno Cotté, Safran Executive Vice President, International, notes that "The Chinese aircraft industry is strategic, and is one of the priorities in China's industrial development. It therefore enjoys an array of financial support, to help the country's aim of eventually taking a place comparable to that of the European and American manufacturers."

These efforts culminated in 2008 when the Chinese government created the Commercial Aircraft Corporation of China (COMAC). Various entities were transferred to this new company, including sections from different aeronautical institutes of the Aviation Industry Corporation of China (AVIC, the country's aviation conglomerate), AVIC Commercial Aircraft (ACAC) and parts of Shanghai Aircraft. In exchange, AVIC received 26% of COMAC's shares. Since then, COMAC has been in charge of the production of the ARJ21 regional jet, as well as the design and construction of the C919, China's first mainline commercial jet. "The first flight of this jetliner will mark the birth of a future aviation giant," says Jean-Luc Doublet, C919 program director at Safran. "China wants to develop comprehensive capabilities to make COMAC the world's third leading commercial jet manufacturer, behind Airbus and Boeing. So they are looking for partners who can help them meet this challenge." COMAC has already chosen the engine to power this new jet: the LEAP-1C made by CFM International, the joint venture of Safran and GE.

Strategic Partnerships

Fully aware of the extraordinary opportunity offered by the Chinese market, Safran sought to tighten its links with different players. In November 2010, this culminated in a general partnership with AVIC, coordinated by a strategy committee comprising corporate officers from both companies who meet regularly.

The original agreement was then implemented in 2011 with the signature of three Memorandums of Understanding (MoU). The first defined the foundations for collaboration on new-generation turboprop and other turbine engines for the Chinese and international markets. The second MoU defined the collaboration between the two companies on avionics for helicopters and airplanes. The third set out the conditions for collaboration on training programs between Safran Corporate University and AVIC University.

The two companies' partnership bolsters the ties that were established some 30 years ago on helicopters, based on the sale of a production license to China for the Arriel 1 turboshaft engine. Safran helicopter engine specialist Turbomeca took advantage of the reenergized relationship between Safran and the Chinese aviation industry to sign a contract in 2010 for 90 Arriel 2C engines to be delivered to China Aviation Technology Import-Export Corporation and AVIC.

In early 2011, wiring specialist Labinal created a joint venture with COMAC subsidiary Shanghai Aircraft Manufacturing Co. Based in Shanghai, this new company will design, develop, produce and support electrical wiring interconnection systems (EWIS). It was also chosen to produce the complete wiring system for the C919, a landmark contract since COMAC projects the production of some 2,000 jetliners in this family. "Following the selection of Safran to supply the complete propulsion system for the C919, this contract marks another major step forward in Safran's role in the success of this new aircraft," notes Yves Leclère, Safran Executive Vice President, Transformation. The new Safran entities being created in China to handle all of this work will be even more effective, since they can capitalize on the experience of established local entities, including Snecma Xinyi Airfoil Castings, Co. Ltd, the turbine blade casting company located in Guiyang, and Sichuan Services Aero Engine Maintenance Company (SSAMC), the CFM56 maintenance, repair and overhaul (MRO) specialist in Chengdu.

#### Flight Data At Hand

Another Safran company, electronics specialist Sagem, signed a landmark agreement in June 2011 with the Center of Civil Aviation Safety Technology (CAST), a division of the Civil Aviation Administration of China (CAAC). Safran will be supplying its Analysis Ground Station (AGS), and will also support CAST to improve the analysis of flight data from Chinese airlines. By enhancing maintenance management, this semi-automatic flight data analysis system will help airlines reduce their costs and improve safety. Already used by 500 operators worldwide, including 135 airlines, the AGS is the world leader in this market.

In exchange for this support, CAST has pledged to support Sagem in its efforts to certify its aircraft condition monitoring systems (ACMS) and wireless data transmission systems. The two organizations also plan to develop Sagem's innovative range of Cassiopée flight data management services for airlines in China, to enhance their flight operations and reduce costs.

The booming China aviation industry offers a host of opportunities, and Safran should have an advantage in seizing these opportunities because of its long-term partnership with key players in the industry.

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VINCENT MASCRE, CHAIRMAN AND CEO, AIRCELLE  
CHINESE NACELLES

At the end of 2010 Aircelle signed a partnership agreement with Xi'an Aircraft International Corporation (XAIC), a subsidiary of AVIC, creating a joint venture dubbed SAVI. This new company will manufacture and assemble Nacelle components on behalf of Nexcelle, the joint venture between Aircelle and Middle River Aircraft Systems (MRAS), a subsidiary of GE. Based in Xi'an, SAVI will supply Nacelles to COMAC for its new C919 jetliner. SAVI calls on three decades of collaboration between AVIC and Safran to fulfill this mission, a key to the transition from design to production. "We need solid foundations, because this is a very heady challenge. Our joint venture will be the first supplier in China for commercial aircraft Nacelles. Capitalizing on the long experience and expertise of Aircelle and XAIC in turning out high-quality aircraft components, this new company will fill the current 'Nacelle Gap' in China." The creation of the new joint venture is a very promising

first step: "This agreement gives us an excellent outlook for meeting C919 production requirements, which could expand even further with work for other aircraft programs." SAVI does indeed give Aircelle a major advantage, namely favored access to the booming Chinese market and a sterling opportunity to expand its global presence.

#### SAFRAN MAGAZINE

##### SPECIAL REPORT: 40 YEARS OF PARTNERSHIPS WITH SAFRAN

April 2012, No. 12

#### SPECIAL REPORT: LOCATIONS: LONG-STANDING INDUSTRIAL COLLABORATION

Safran in China: 1,000 employees

6 Companies

2,800 CFM56 engines in service

Solidly established in China for more than 40 years, Safran can speak with a single voice to both its partners and the government.

In China, local production is a real advantage! While cost is obviously a factor, Safran's presence in China is above all due to the need to be close to its end-customers, and better meet their expectations.

Today six Safran companies are located in China: Safran entities are based in Beijing and Shanghai near COMAC, Messier-Bugatti-Dowty and Snecma in Suzhou, and Turbomeca in Beijing and Tianjin. Rounding out Safran's presence are five joint ventures, in Guiyang, Chengdu, Xian and Shanghai. This strategy allowed Snecma to strengthen its position in China, by expanding operations to Guiyang, where the precision foundry Snecma Xinyi Airfoil Castings, Co. Ltd. makes turbine parts for CFM56 engines.

##### Long-Standing Presence

Safran's presence in China actually dates back to the early 1970s. The Chinese navy had recently acquired Super Frelon helicopters and chose Turbomeca turboshaft engines – the Group's first major contract in China. The pace picked up in the 1980s, as Safran's predecessor companies signed an agreement with AVIC (Aviation Industry Corporation of China) concerning the production under license of Arriel 1 turboshaft engines and autopilot systems for the Z9 helicopter. At that point, the Group decided to open an office in Beijing to facilitate contacts.

The number of agreements has multiplied since then, and Safran has become a top-tier partner to the Chinese aviation industry. More than half of the mainline commercial jets now operating in China are powered by CFM56 turbofans, for a total of 2,800 engines in service, and Turbomeca engines power half of the helicopters in the country. Other Safran group companies have expanded their presence at the same time, including Messier-Bugatti-Dowty, which outfits about one-third of the commercial jets in China with its landing gear and carbon brakes.

##### Growth Of The Safran Brand

In 2008, Safran decided to better coordinate its companies in China. This move was designed to meet two primary objectives according to Kening Liu, Safran China CEO: "We had to group our forces to more effectively counter our American and British competitors. And it was also important in dealings with the authorities, who naturally have a different attitude depending on whether they are dealing with isolated companies, or a world-class group capable of providing a broad, unified offering of products and services."

All personnel from Safran companies in China were therefore grouped in the same premises, part of Safran China. In particular, this office consolidated the support functions and relations with opinion leaders and public authorities. "We have to focus on promoting the Group's name so we can increase its recognition," explains Liu. Building on this new strategy, Safran can start the Year of the Dragon girded for battle.

#### SAFRAN MAGAZINE



SPECIAL REPORT: 40 YEARS OF PARTNERSHIPS WITH SAFRAN

April 2012, No. 12

JOSEPH LIM, GENERAL MANAGER, MESSIER-BUGATTI-DOWTY, SUZHOU  
EFFICIENT TALENT MANAGEMENT

"After seeing production triple between 2002 and 2009, it should double again by 2014. We have taken various measures to ensure that we have the required resources to meet this challenge. For example, our new numerical control machine tools will be fully prepared in the factory so that they can be up and running as soon as we install them. We have also set up a program to detect high potentials so that we can be sure of keeping our top talents. The aim is to identify the most talented employees as soon as possible, so that we can provide special training. This training may include periods in other plants for periods of up to one month. In 2011, we sent several groups of people to our legacy plants so they could familiarize themselves with some of the best machine tools deployed by Safran."

SAFRAN MAGAZINE

SPECIAL REPORT: 40 YEARS OF PARTNERSHIPS WITH SAFRAN

April 2012, No. 12

UNIVERSITIES: PARTNERSHIPS, THE KEY TO LONG-TERM RELATIONS

10,000 Students at the Civil Aviation University of China

23,000 students at Beijing University of Aeronautics and Astronautics

By teaming up with the two leading aeronautical engineering schools in China, plus the corporate university run by the country's leading manufacturer, Safran is further bolstering its credibility.

No company can play a role in the development of the aerospace industry without having engineers and managers who are specifically trained to address the issues of this leading-edge sector. Safran Corporate University has therefore formed solid partnerships with leading counterparts in Chinese academia.

Since 2004, for instance, Safran has supported the education of Chinese students at leading French engineering schools (Ecoles Centrales), and in 2005 it helped create the Ecole Centrale of Beijing as part of the Beijing University of Aeronautics and Astronautics. The first class graduated in January 2012, in a ceremony attended by a number of political and industry leaders from both France and China, including Marc Ventre, Deputy Chief Executive Officer for Operations at Safran.

An active partner in this school, Safran Corporate University contributes to the education of Chinese engineering students by providing supplementary expertise in both scientific and managerial subjects, through courses given by the Group's experts and senior managers. "Safran is heavily involved, and we expect a lot from this program, because our objectives match those of the young engineering graduates," notes Marc Ventre. "A graduate of the Ecole Centrale of Beijing school offers outstanding skills, plus a multicultural, multilingual background. These three qualities make them invaluable assets to help companies develop innovative projects in an international environment." Safran of course promotes the quality of the courses given by contributing its specific competencies, and also supports the professional integration of these engineers by offering internships and jobs.

Bringing Students Closer To Industry

Safran has signed another major partnership with the Civil Aviation University of China (CAUC), with support from the Sino-European Institute of Aviation Engineering (SIAE). In addition to offering internships and participating in conferences, Safran Corporate University runs a media library specialized in aerospace. "Safran is now helping develop a propulsion course as part of the Institute's program," says Aude Guo, Asia relations manager at Safran Corporate University. "We are setting up a hands-on teaching unit, where students can practice what they have learned in the classroom. In 2006 a CFM56-

3 engine was even donated to CAUC so students could become more familiar with how it operates.”

These types of training partnerships will also help strengthen industrial ties between Safran and its Chinese partners, including COMAC and AVIC. For example, Safran Corporate University and AVIC University signed an MoU in 2011 to formalize a collaboration that had already existed for many years. “These training actions have been carried out for AVIC since 1998, but this agreement marks a new stage in our collaboration,” notes Guo. “It is part of the strategic agreements signed with AVIC, and is designed to develop shared managerial methodologies, and support future industrial teaming arrangements between our two companies.”

SAFRAN MAGAZINE

SPECIAL REPORT: 40 YEARS OF PARTNERSHIPS WITH SAFRAN

April 2012, No. 12

JIANG WENCHAO, STUDENT AT ECOLE CENTRALE OF BEIJING

“I discovered the necessary collaboration between industrial partners. Thanks to my six month internship at Safran, I discovered that the aerospace industry isn’t limited to research and production. It also means collaboration with partners, resulting in real win-win agreements. In the West, this sector has made tremendous progress. Now it’s up to China to accelerate its development and contribute to the growth of the global aerospace industry.”

SAFRAN MAGAZINE

June 2011, No. 10

C919 WIRING FROM FRANCE AND CHINA

Already chosen as an engine supplier on China’s new C919 commercial jet, Safran has signed an agreement to create a joint venture with Shanghai Aircraft Manufacturing Co. Ltd. (SAMC), subsidiary of aircraft-maker COMAC, via its wiring specialist Labinal. The new company will design, develop, produce and support electrical wiring interconnection systems (EWIS) for the Asia-Pacific market, and will supply the EWIs for the C919.

SAFRAN MAGAZINE

June 2011, No. 10

SPECIAL REPORT: MARKETS: AVIATION CARDS RESHUFFLED

EXTRACT: “And of course COMAC of China is developing the C919, a 156 to 168-seat aircraft strongly inspired by the A320. “As a brand-new player, COMAC will have to meet a number of challenges,” emphasizes Chen Ghanjun. “Making the transition from challenger to leader is not easy, and given the long cycles in aviation, any major changes take two decades. The C919 is the first step in this long march, but we still have quite a long road to travel.”

SAFRAN MAGAZINE

June 2011, No. 10

SPACE: ARIANE: RISING TO THE CHALLENGE OF SPACE ACCESS

EXTRACT: “Another emerging player is China. With its family of Long March launchers, it already has solid experience in the market, and could eventually be a contender.”

SAFRAN MAGAZINE

February 2009, No. 5

INTERVIEW WITH HIS EXCELLENCY KONG QUAN, CHINA’S AMBASSADOR TO FRANCE

BIO:

1977: Press Officer At The Chinese Embassy In Belgium

1996: Ministerial Advisor To China's Ambassador To France

2001: Director General Of Information, Ministry Of Foreign Affairs

2006: Assistant Minister Of Foreign Affairs

2008: China's Ambassador To France

#### SAFRAN AND CHINA, LONG-STANDING PARTNERS

Established in China for nearly 40 years, the Safran Group has built solid foundations for an exemplary relationship with this country. During Safran Discovery Days, an annual forum for nearly 1,000 newly hired or promoted managers at all Group companies, His Excellency Kong Quan, the Chinese ambassador to France, spoke about the development of the aerospace and security markets in China and their importance in his country's growth. He kindly agreed to speak with Safran Magazine at this event.

**SAFRAN MAGAZINE: WHAT MEDIUM AND LONG-TERM CHANGES DO YOU EXPECT IN FRENCH-CHINESE ECONOMIC RELATIONS?**

Kong Quan: We are expecting positive and encouraging trends. Economic and commercial relations between the two countries have developed rapidly in recent years, and we continue to expand our scope of collaboration. Remember that just three years ago, when Prime Minister Wen Jiabao made his last visit to France, the aim was to reach forty billion dollars in commercial trade within five years. Well, we will meet that goal two years ahead of schedule.

Major French corporations are rolling out their latest technologies in China, especially in markets such as air and rail transport, nuclear energy and the environment. China will always need to work with France in these sectors. I am extremely optimistic when I see the very fruitful industrial partnership taking shape between China and French companies, as for example with Safran operations in Beijing, Suzhou, Guiyang and Chengdu.

**IN WHAT SENSE IS AIR TRANSPORT AN IMPORTANT CHALLENGE FOR YOUR COUNTRY'S ECONOMY?**

K. Q.: The problem is at both the domestic and international level. Because of the growth of income and enhanced life styles in China, planes have taken over for trains and intercity buses. Last year, half of domestic air travel was for personal reasons, and one-fourth of these passengers took more than ten trips during the year, 4.4 percent higher than in 2006. Chinese airlines carried 190 million passengers in 2007, up 16 percent, and four million tons of freight, up 15 percent. There were 1,134 commercial aircraft in service, 136 more than in 2006. China now has 152 airports, five more than in 2006. In short, the Chinese air transport sector is booming!

According to projections by Boeing, China will need 3,710 new airplanes in the next twenty years. This market is worth about 390 billion dollars, or 41 percent of total demand from the Asia-Pacific. Ten percent of these new planes will be jet freighters, which will quadruple our fleet. Among the new passenger planes, 70 percent will be single-aisle models used on domestic routes. Of course, even though China continues to import aircraft, it is also beginning to manufacture them. The Commercial Aircraft Corporation of China, based in Shanghai, will play a pivotal role in this market. I am sure that Safran will make an extensive contribution to this development, due in particular to its local presence.

**IN ITS RELATIONS WITH CHINA, SAFRAN HAS ALWAYS EMPHASIZED COLLABORATION AND TRAINING ASSISTANCE: WHAT DO YOU THINK OF THIS POSITIONING, INCLUDING FOR THE FUTURE?**

K. Q.: In aviation - or other sectors for that matter - a major country such as China has to have its own industry. From this standpoint, we greatly appreciate the long-term international collaboration policy that Safran has always applied. Aviation is becoming increasingly global, and that means each partner has to make its own contribution to the whole.

Training is also a way of investing in the future. Young people who have been trained abroad will form close, even permanent bonds with the country where they were trained.

Not only will they continue to support friendship and collaboration between the two countries, but they will also – and above all – dedicate their talent and commitment to fostering creativity and innovation. This is a combination that guarantees a win-win relationship. Safran sets an outstanding example in China, and deserves to be supported and encouraged.

WHAT ARE CHINA'S CURRENT ENVIRONMENTAL OBJECTIVES AND EXPECTATIONS, AND WHAT DOES THAT IMPLY FOR THE AVIATION SECTOR?

K. Q.: China is facing major environmental challenges. Climate change is already a serious threat to our ecological system, as well as our economic and social development. Nobody today is more aware of environmental challenges than China. Both our political leaders and the public have become aware of the need to better protect our environment, so that future generations inherit a cleaner world.

Independently of the results of international negotiations and commitments by industrialized nations, China has set up its own measures for environmental protection and the reduction of carbon dioxide emissions. From 1996 to 2005, energy efficiency per GDP unit increased by 47 percent. Our aim is for a 20 percent decrease in energy consumption per GDP unit between 2005 and 2010.

In 2007 and 2008, the Chinese federal government financed 681 energy savings projects, representing the equivalent of 25 million metric tons of coal. Local governments financed projects that will generate savings of 60 million metric tons of coal. Today, renewable energies account for 8.3 percent of the energy used in China. This percentage should rise to 10 percent by 2010 and 15 percent by 2020.

While the emphasis in the past was primarily on increasing GDP, today we are focusing on sustainable development, to protect our environment and place people at the heart of these challenges.

Aviation uses a lot of energy and emits large amounts of carbon dioxide. As for the auto industry, we have to create engines that reduce consumption and emissions. There have already been quite a few technological advances in this area, particularly by Safran.

It's true that China is a bit late in this regard. But because of this position, we can transition directly to the latest international environmental standards. For example, in China's major cities, as in Europe, cars must comply with the Euro 4 standard, and the same policy should apply to aircraft. This is both a challenge and an opportunity for engine-makers. If we are able to rise to this challenge, prospects for growth could be enormous.

Safran Magazine, February 2009, No. 5

#### SAFRAN PRODUCTS AND FACILITIES

The Safran Group enjoys a broad presence in China, through sales of its products, industrial facilities and training programs. China is the leading civil market for the companies in the Safran Group. For example, some 1,600 CFM56 turbofans produced by Snecma (in partnership with General Electric) power Chinese jetliners, while half of the country's helicopters use Turbomeca turbine engines. Landing gear by Messier-Dowty and wheels and brakes by Messier-Bugatti are used on one-third of the Chinese mainline commercial jet fleet. Safran has also carved out a position in several **defense**-security market segments, including identification systems, lottery terminals and biometric terminals.

#### Four New Facilities In 2008

The Group's first local operation in China dates back to the 1970s, when Turbomeca sold Turmo III engines for the Super Frelon helicopters purchased by China. Since then, Safran has built other facilities in the country.

For example, committed to remaining a benchmark partner to Chinese industry, Safran opened four new plants in 2008. Snecma built a new plant in Suzhou to produce low-pressure turbine shafts for CFM56-5B and -7B engines. Right near this facility, the Group also built a plant for the production of landing gear parts. Safran inaugurated two other facilities last year with Chinese partners: one dedicated to cast parts for CFM56 engines, the other for the assembly and testing of hydromechanical assemblies for helicopter engines. Safran employs over 600 people in China, through two offices, three joint ventures and three subsidiaries. It also conducts an active training policy, for instance through the CFM International training center created ten years ago in Guanghan.

With the Commercial Aircraft Corporation of China starting the development of a new 150-seat jetliner, Safran, as a top-tier engine and equipment supplier, is clearly confirming its commitment to help Chinese industry meet upcoming challenges.

Safran Magazine, November 2007, No. 2

#### SAFRAN AWARDS 2007 PRIZE TO CHINESE RESEARCHERS

Awarded for the last five years at the Beijing Air Show, the annual Safran Prize for research in China went to Li Zhiping and Lu Xingen this year. The first prize was awarded to Dr. Li for his work on improving unsteady flows in a compressor stage. The second prize was awarded to Dr. Lu for the development of strategies to increase surge margins in axial-flow compressors. The two prizewinners will travel to France to meet Group specialists in their fields and perhaps kick off future joint projects.

Safran Magazine, June 2007, No. 1

#### SPECIAL REPORT: AVIATION, TELECOM AND SECURITY SHIFT INTO HIGH GEAR: CHINA TAKES OFF

##### A PROMISING MARKET FOR HELICOPTERS

Helicopters: One out of every two helicopters in China is powered by Turbomeca, which has agreed to create a joint venture with a subsidiary of AVIC II to make hydromechanical assemblies for engines.

With some 250 engines deployed in both the civil and **military** sectors, Turbomeca is the leading helicopter engine supplier in China. Fully half of all the helicopters operating in China are powered by engines built by Turbomeca or under Turbomeca license. At the end of June 2007, the newly created Beijing Turbomeca Changkong Aero-engine Control Equipment Co. was registered in China. This new company is a joint venture created by Turbomeca and Beijing Changkong Machinery, the leading domestic supplier of aero-engine control systems, and a wholly-owned subsidiary of one of the pillars of the Chinese aviation industry, AVIC II.

The new company will provide assembly and testing services for the hydromechanical assemblies made by the two companies. "This is our first joint venture in China," notes Franck Jeanvoine, head of Turbomeca's Chinese project. "We're keeping it manageable for the moment, with about 20 employees, but it's a very important step in terms of our global strategy and the message we want to convey to AVIC II and the Chinese market. It is designed to showcase our company, based on world-class production and quality standards. Our target is to receive EASA Part 21G certification."

##### Predominant **Military** Market

Turbomeca's presence in China reaches back to the 1970s, when the Chinese army ordered Super Frelon helicopters from Aerospatiale. Turbomeca provided the Turmo III engines. In 1992, the helicopter division of the French group Aerospatiale Matra merged with its German counterpart at Deutsche Aerospace AG, giving birth to Eurocopter.

"These were **military** orders. The Chinese army air arm, whose commander in chief had received some training in France, primarily deployed Z9 helicopters," explains Jeanvoine. The Z9, built by Harbin Aviation Industry, another subsidiary of AVIC II, is a version of the AS 365 N Dauphin II, produced under Aerospatiale license. "At the same

time, Turbomeca negotiated the licensing agreement for the Arriel 1 turboshaft engine with South Aero-engine Corporation.

China was thus able to build both the helicopter and the engine. The license subsequently expired." AVIC II then decided to upgrade the Z9 to the modernized H425: H for Harbin Aviation Industry, and 425 for 4.25 metric tons, the machine's maximum takeoff weight.

Negotiations followed to provide a more powerful engine. According to Jeanvoine, "Turbomeca signed a licensing agreement allowing the partial transfer to China of Arriel 2C production for the H425. At the same time, Turbomeca is stepping up the marketing of our turbine engine family, and we're looking at various collaboration channels to spur sales in other markets, including police forces, search & rescue (SAR), offshore transport, etc."

Civil aviation development in China is held back by the total lack of deregulated airspace, which is under **military** control. But deregulation is a strategic necessity for helicopter manufacturers, and would considerably boost the growth outlook. "In two or three years, any civil sector development will certainly be focused on the Shanghai area, as shown by current acquisitions by the Shanghai police and the many other prospects we have contacted," says Michel Brouquet, managing director of Turbomeca Asia Pacific. In the meantime, China does not offer adequate infrastructures or pilots. The sales forecast for commercial and public sector helicopters is about 300 units over the next ten years – but airspace deregulation could well spur faster growth in this market.

Safran Magazine, June 2007, No. 1

SPECIAL REPORT: AVIATION, TELECOM AND SECURITY SHIFT INTO HIGH GEAR: CHINA TAKES OFF

Business Aviation: Silvercrest, Snecma's Latest

The Silvercrest is a new jet engine designed for business aircraft. Of course, this sector is still very underdeveloped in China, and the national airspace remains relatively closed. According to Olivier Laroche of Snecma's Commercial Engines division, "Certain responsibilities have been transferred from the army to a civil aviation authority. Otherwise, the airspace continues to be tightly controlled, in terms of both assigned altitudes and point-to-point service. The scheduled lines are already packed, and there seems to be some reticence in opening new routes for both structural and historic reasons. Today, we tend to forget that only 20 years ago, for example, nearly the entire country was closed off, with access by foreigners prohibited. Little by little the country has opened up since then, including for the Chinese themselves. And some areas under public authority have even passed to the private sector." In short, that's why it's still difficult for civil helicopters and business aircraft to fly in China. They require a large degree of autonomy to operate at the best altitudes and over the most efficient routes. So these markets will only develop if the sky is more open. "But we are beginning to see a political shift to openness, and that will develop as requirements become clearer," adds Laroche. Furthermore, private aviation will not automatically be the plaything of a few rich businessmen either, as he explains: "For the moment, privately owned aircraft are unusual in China. But for instance, the Anglo-Chinese oil company Sonagol, based in Hong Kong, purchased several Corporate Jets from Airbus because it needed large capacity for trips to Africa to support joint ventures." More specific needs are emerging as well. The Silvercrest could meet some of these, but we have to see how the market develops. Certain public services could opt for this solution, which would accelerate the trend.

Safran Magazine, June 2007, No. 1

SPECIAL REPORT: AVIATION, TELECOM AND SECURITY SHIFT INTO HIGH GEAR: CHINA TAKES OFF

Facts And Figures:

Beijing Airport: In 2006 Chinese airlines carried more than 160 million passengers, 8% of total world traffic.

98% of the world's exports in 2006 came from China.

1.314 billion inhabitants: the world's most populous country.

95% annual average growth in GDP from 1980-2005.

Breakneck Modernization:

Context: The New "Hyperpower" Of The 21st Century, China Today Ranks As The World's Third Largest Economy After The United States And Germany.

For the fourth consecutive year, China – dubbed "the world's factory" – posted double-digit growth in 2006, 10.7% over the previous year. Direct foreign investments reached 63 billion dollars, up from 60 billion in 2005 and 2004.

These figures have fired the imagination of Western economists. After all, in a country with a population of 1.3 billion, "winning just one percent of the market can be highly lucrative," points out Muriel Duthon, regional director at Sagem Défense Sécurité.

But what lies behind this new two-headed creature, seen by some as the new Eldorado and by others as the home of too much Western outsourcing? Muriel Duthon was a student at Beijing University in the late 1970s and began her career in China. She still goes back there at least six times a year. In her opinion, China has experienced a remarkable opening in the past twenty-five years. "When I was a student, any contact between foreigners and locals was forbidden. Chinese students were both workers and soldiers: they spent their 'vacation' working in the rice paddies. Now, if I want to show Westerners around China, we can go into any nightclub and see youngsters dancing to rock music."

Determined to catch up with the rest of the world, "China launched an all-out drive to educate its people in the 1990s", explains Jérôme Périgne. Head of strategic analysis at Snecma's business development department, Jérôme discovered China as part of a Snecma delegation to Southeast Asia. "All-out drive" is no exaggeration: in just five years, the number of university graduates has doubled from two to four million, and thousands of Chinese students are today enrolled at Western universities.

Major Urban Centers

First in line for modernization were the "special economic zones" created in 1979 along China's coastal region, followed by all of the major urban centers. "An estimated 120 million Chinese people now enjoy the same purchasing power as Westerners and an additional 300 million people live in large cities," notes Jérôme Périgne. "In contrast, some 800 million Chinese still live in poverty, mainly in rural areas. Lastly, there are an estimated 100 million 'mingong', or migrant peasant workers." Disparities are worsening just as certain public services such as education and healthcare have undergone de facto privatization. "The poorest families have to go into debt to send their child to school or they may wind up owing money for a generation or two to pay for surgery," says Muriel Duthon. The upshot is growing social unrest. "The Chinese government allows some news about labor disputes to seep through – a sign that it is a very real problem – but the authorities do not intend to run the risk of social instability," emphasizes Jérôme Périgne.

The government is now seeking to restore a balance by encouraging investments in the western part of the country. Beijing is also worried about the risk of growth, driven mainly by domestic investments and exports, running wild. The government is stepping up measures to spur household spending, but savings remain high, mainly to offset the low level of social benefits.

Despite any jolts that may occur along the way, China's economic growth will persist – the upcoming 2008 Olympic Games and the 2010 Universal Exposition in Shanghai are a clear confirmation of this trend. "All too often the Chinese lay their cards on the table, but we tend to remain blind," remarks Muriel Duthon. "They always said that they would give themselves until 2030 to catch up with the West – and they're on their way!"

Safran Magazine, June 2007, No. 1

SPECIAL REPORT: AVIATION, TELECOM AND SECURITY SHIFT INTO HIGH GEAR: CHINA TAKES OFF

Viewpoint: Erik Izraelewicz\*

Author: "When China Changes The World"

IN YOUR BOOK "WHEN CHINA CHANGES THE WORLD", YOU TALK ABOUT CHINA'S "HYPER-CAPITALISM". HOW WOULD YOU DESCRIBE THIS PHENOMENON?

China is currently operating between two economic systems. It moved away from the collectivist approach about 25 years ago, but certain aspects still remain. Alongside this extremely powerful State, extremely powerful billionaires are also emerging. The co-existence of these two trends reminds me of the situation in the United States at the end of the 19th Century. Today, China is more like the "Far West" than an environment of regulated markets. And this is obviously a very effective configuration in terms of raw growth.

WHAT IMPACT WILL CHINA HAVE ON THE GLOBAL ECONOMY?

China's geography and demographics are unique. Changes in China will impact Western economies far more violently than those of other emerging countries. For example, there will eventually be a growing number of fights about standards. China's technological choices will clearly have an impact on the rest of the world.

WHAT RISKS DOES THIS FAST-PACED DEVELOPMENT ENTAIL?

There are several types of risks: a social risk, because of increasing inequalities; an ecological risk; a financial risk, since the current financial system is rather convoluted to say the least; and a political risk: will China be able to remain frozen in its rigid political framework, while its economy opens out to the world, and thousands of young Chinese are attending Western universities? There is also a geopolitical risk, with tensions between China and Japan or Taiwan reoccurring regularly. But China will stay on the path to modernization, for several reasons. First, the Chinese want to make up for lost time, since their recent past had left them on the sidelines of economic development. Next, they have an excellent current crop of leaders, mainly pragmatic engineers. Last but not least, the entire population believes in this development and has embraced it totally.

\* Eric Izraelewicz is the deputy editor of a major French business daily, Les Echos. He is also the author of several books, including "Quand la Chine change le monde", published by Grasset in 2005.

Safran Magazine, June 2007, No. 1

SPECIAL REPORT: AVIATION, TELECOM AND SECURITY SHIFT INTO HIGH GEAR: CHINA TAKES OFF

SPECIAL REPORT: SAFRAN AND CHINA: 30 YEARS OF COOPERATION

With an extensive network of manufacturing plants, sales teams, R&D facilities and training centers, Safran has built up a solid presence in China. The Group also has customers in a wide range of sectors, from aviation to telecom and security.

"Safran has more than 4,000 employees in China today, says Kening Liu, the Safran National Executive in China. "We have eight manufacturing plants, two R&D centers, two technical support centers and a training facility." Safran first gained a foothold in Asia's largest country in the 1970s, when Turbomeca supplied Turmo III turboshaft engines for the Super Frelon helicopters acquired by China. "Actually, our relationship with China goes back much further. It seems that a Chinese delegation visited the Gnome workshop in France in 1910 to see a demonstration of a rotary engine," adds Michel Ah Fa, a member of the Asian team at the Safran international affairs department.

"Many years later, Turbomeca sold an Arriel engine production license for Chinese **military** helicopters. The French company has forged an excellent brand image and is a



leader in its market since one in every two Chinese helicopters is equipped with Turbomeca engines or products manufactured under license.”

Sagem has sold flight control equipment to Chinese customers, while CFM International supplies CFM56 engines to China Southwest Airlines, the first Chinese airline to acquire these engines. “Twenty years later and more than 1,200 CFM56 engines are now in service. In fact, more than half of the aircraft in China rely on the CFM56,” adds Patrick Borel, also Asia zone manager at Safran’s international affairs department. With air traffic set to increase about ten percent annually in the near future, CFM International hopes to sell over 100 engines a year.

#### CFM56 Breakthrough

Chinese customers have spent some €350 million on commercial aircraft engines, and over half of this amount is generated by CFM International. In addition, Safran is engaged in several industrial cooperation ventures, as Patrick Borel explains: “Our operations in China comprise a Snecma Services maintenance facility in Chengdu, a Messier-Dowty production plant in Suzhou, specialized in landing gear components, and an Aero Engine Maintenance Training Center (AEMTC). This training center, which works in partnership with the Chinese Civil Aviation Authority’s Flying College, has already trained more than 5,000 mechanics in ten years.” Snecma also subcontracts machining work to local companies for CFM56 engine parts. “A foundry is about to come on-stream in Guyang, specializing in turbine blades for commercial engines,” adds Michel Ah Fa. Turbomeca is pursuing a similar approach with Beijing Turbomeca Changkong Aero-Engine Control Equipment Company, a joint venture which assembles and tests hydromechanical components. Although China counts just 500 helicopters – two-thirds of which are **military** machines – the market is also expected to grow in the short to medium term. “According to ATMB (China’s air traffic management bureau), China’s currently underutilized lower airspace could open up in 2010, which would spur rapid growth in the number of civil helicopters in operation,” says Kening Liu.

#### Advanced Biometrics and Communications

Growth in China’s security/**defense** market is impeded by continued embargoes in the **military** and space sectors – deemed by the authorities as a “sensitive” subject matter. As a result, the Group has not yet pursued any collaborative ventures in this field. “China’s homegrown Long March launchers are direct rivals to Ariane, since they launch both commercial and **military** satellites,” remarks Patrick Borel. “However, the Group has succeeded in making a breakthrough in the security market thanks to Sagem Défense Sécurité biometrics solutions. We supplied automated fingerprint identification systems to the Tianjin police and the Guangzhou municipal authorities, for example. The 2008 Olympic Games represents another major market as China intends to implement biometric technology for access control to the events.”

Safran has also established a presence in the mobile phone and fax markets via its subsidiary Sagem Communication. In 2002 the French company set up a joint venture with Ningbo Bird, which today ranks as one of China’s leading suppliers of mobile phones. Meanwhile, another joint venture, Photar Sagem Electronics Co. Ltd., created by Sagem and Photar, is already China’s second largest fax manufacturer after barely one year of business. “Safran’s key strengths in China are diversity, thanks to a broad range of activities, a deep understanding of the local market and responsiveness,” concludes Kening Liu.

#### Seven Joint Ventures

Safran is present in China through three representative offices and seven joint ventures. In alphabetical order, these companies are:

1. Beijing Turbomeca Changkong Aero-engine Control Equipment Co. Ltd., founded in 2006. Assembly and testing of jet engine hydromechanical assemblies.
2. NBBSE (Ningbo Bird Sagem Electronics Co. Ltd.) launched in 2002. Manufactures mobile phones.

3. NSBRD (Ningbo Sagem Bird R&D) created in 2005. Mobile phone R&D.
4. Photar Sagem Electronics Co. Ltd., established in 2006. Develops and manufactures fax machines.
5. Snecma Xinyi Airfoil Casting Co. Ltd., launched in 2006. Manufactures turbine blades for commercial aircraft engines.
6. SSAMC (Snecma Sichuan Aero-engine Maintenance Company), launched in 1999. Maintenance and repair of CFM56 jet engines.
7. Wuhan Sagem Tianyu Electronics Co. Ltd., established in 2004. Manufactures smartcards jointly developed and marketed with Wuhan Tianyu Information Industry Co. Ltd.

Safran Magazine, June 2007, No. 1

**SPECIAL REPORT: AVIATION, TELECOM AND SECURITY SHIFT INTO HIGH GEAR: CHINA TAKES OFF**

**SPECIAL REPORT: CFM56 IN POLE POSITION**

With passenger traffic growing more than 10% per year and the advent of new airlines, the People's Republic of China is a highly promising market for civil aviation.

The CFM56 engine is a clear market leader, since it powers the majority of commercial jets with 100 to 200 seats operating in China.

Commercial aviation is booming in China. Supported by the central government, air transport is a focus of development.

Airlines have placed a large number of orders and more carriers are entering the market.

"We're in a market with a regular stream of orders and a strong growth outlook," says Olivier Laroche, head of China operations at the Commercial Engines division of Snecma (Safran Group).

"In addition to the national carriers, there are a dozen regional and municipal airlines with fleets of about 50 planes, and more recent entries planning to acquire a dozen planes or so. In 2006, Chinese airlines carried more than 160 million passengers, equal to 8% of world traffic."

**Half the Chinese fleet powered by CFM**

As of early 2007, there were 1,288 CFM56 engines in service with Chinese airlines deploying the Boeing 737 and Airbus A320 and A340 jetliners, out of a total of 2,086 engines powering mainline jets (over 100 seats) in China. "The CFM56 accounts for more than 60% of all engines now operating in China," notes Laroche.

"CFM International's main competitor, International Aero Engines, or IAE, has about 12% of the market. Two major factors help explain these figures. First, jetliners with 100 to 200 seats form a large majority of Chinese fleets, including the three major carriers. Furthermore, there are a large number of Boeing 737 twinjets, for which the CFM56 is the exclusive powerplant."

The A320, which began to be sold in China after the 737, can be powered by the CFM56 or the IAE V2500. But the CFM56 is the preferred engine, since Chinese airlines have chosen it more than 60% of the time. This reflects the global situation, since overall the CFM56 has won a larger share of the Airbus A320 market than the V2500. Another factor in CFM International's success is the specific nature of the Chinese market, as Laroche explains: "Decisions are often made on a centralized basis. Earning the trust of one airline can influence the others' choice, while commercial aspects and even political considerations also have an influence. Above all, Chinese customers clearly trust the product, its in-service reliability, and the professionalism of the two partners in CFM International, Snecma and General Electric."

General Electric and Snecma, the two founding partners of CFM International, split CFM56 sales and support roles across the world. China is a "GE Zone", so the Chinese are more familiar with General Electric than with Snecma. "Snecma is building its own

credibility through the Snecma Services MRO shop in Chengdu, as well as new products such as the SaM146 engine designed for regional jets,” adds Laroche. China is keenly interested in the SaM146-powered Superjet 100, built by Russian manufacturer Sukhoi Civil Aircraft Corporation.

“The Superjet 100 is in direct competition with China’s own ARJ21 regional jet. But that hasn’t prevented a new regional carrier, a subsidiary of Shenzhen Airlines, from allowing Sukhoi to bid on a contract for 100 airplanes. The new airline, called Kunpeng, plans to start regional service, and the Superjet 100 could well meet its requirements, while allowing it to stand out from other operators.”

Snecma Services, the Group’s aeroengine maintenance specialist, and China Southwest Airlines, subsequently taken over by Air China, created a joint venture in 1999 called SSAMC (Sichuan Snecma Aero-engine Maintenance Company), based in Chengdu. “Our strategy of operating as close to customers as possible gives us a real competitive edge,” claims Jean Massot, vice president strategy and development at Snecma Services. “We opened a facility in Chengdu to provide local support and help our customers manage their fleets more efficiently and reduce costs.” Snecma Services’ strategy also counts on a training center created in 1996 by CFM International with a local university, CAFUC, in Guanghan, about 40 kilometers from Chengdu.

#### Teaming with Air China

CFM International launched an initiative in 2006, based on joint maintenance packages for contracts exceeding three years. The first major success came early this year, as Air China and CFM International signed a partnership agreement covering both the acquisition of new engines and fleet maintenance, including OEM (original equipment manufacturer) parts and repairs for a period of 15 years.

“China is a very attractive market, but a difficult one, all the more so because the excellent growth prospects draw many competitors,” says Massot. “For example, there are already nearly 30 MRO shops worldwide that can propose their services. Of course, the smaller MRO providers generally offer contracts on a case-by-case basis, while the larger providers offer long-term contracts.

Under these conditions, our strength is in-depth product knowledge as the OEM, plus access to fleet-wide operating data.” These business wins and a local service offering should confirm and expand the role of both CFM International and Safran in China, a market that will be flying high for many years to come.

### SAFRAN PRESS RELEASES

#### ARDIDEN 3C/WZ16, THE NEW TURBOMECA/AVIC ENGINE, HAS COMPLETED ITS FIRST RUN ON TEST BENCH

Bordes, November 28, 2013

As planned, the first run of the Ardiden 3C helicopter engine, named WZ16 in China, jointly developed by Turbomeca (Safran) and AVIC Engine on an equally shared basis, was successfully achieved at Turbomeca Bordes (France) plant. This significant milestone confirms the good aeromechanical behavior and performances of this new generation engine and allows engagement in the test and certification phases of the development program. Preliminary testing of its major components has demonstrated the relevance of the technological choices.

This Ardiden 3C/WZ16 engine jointly designed by Turbomeca and AVIC Engine will fully respond to market requirements in the growing 6 to 8 tons helicopter segment. The modular design and dual channel FADEC makes this engine highly reliable and easy to operate, with the benefit of a low fuel consumption.

"This first run reflects the high quality of our partnership with AVIC Engine and is the first concrete step of a long term and sustainable program." said Olivier Andriès, Chairman & CEO of Turbomeca.

Powering the AC352 AVICopter helicopter, the Ardiden 3C/WZ16 engine will provide to the operators an unmatched level of performances, easy maintenance and reduced operating costs enabling their aircraft to fulfill the most demanding missions in a competitive environment.

This Ardiden 3C/WZ16 program is the result of a strong, continuous and long lasting cooperation started 30 years ago between Turbomeca (Safran) and AVIC. Through this partnership, the operators and aircraft manufacturers will benefit from the knowhow and experience of two key players in the field of aircraft propulsion.

Turbomeca (Safran) is the leading helicopter engine manufacturer, and has produced 70,000 turbines based on its own designs since the company was founded. Offering the widest range of engines in the world and dedicated to 2,500 customers in 155 countries, Turbomeca provides a proximity service thanks to its 16 sites, 30 Certified Maintenance Centers, 18 Repair & Overhaul Centers, and 90 Field representatives and Field technicians. Microturbo, the subsidiary of Turbomeca, is the European leader in turbojet engines for missiles, drones and auxiliary power units.

#### SAFRAN INAUGURATES PLANT IN CHINA TO PRODUCE MATERIALS FOR AUTOMOTIVE SAFETY SYSTEMS

Suzhou, China, September 27, 2013.

Jean-Paul Herteman, Chairman and CEO of Safran, today inaugurated a new plant in the Caohu Industrial Park (80 km from Shanghai) that will produce propellants (gas generant tablets) for airbags. The inauguration ceremony was attended by Zha Yingdong, Chief Executive of Xiangcheng District government, Hervé Austruy and Yin Weining, respectively Chairman and Vice Chairman of the new joint venture SMECQ Automotive Safety Technology Co., Ltd., as well as representatives of the Chinese and French governments, and senior executives of Safran companies.

This new SMECQ plant offers 7,000 square meters of floorspace and includes Class A certified buildings. Created in October 2010, SMECQ Automotive Safety Technology Co., Ltd. is owned 51% by Herakles (Safran) and 49% by TaiHang ChangQing (THCQ), a 40%-owned subsidiary of AVIC (China Aviation Industry Corporation). SMECQ aims to produce some 300 metric tons per year of latest-generation gas generator propellants, enough to equip 7 million airbags from now until 2016, to meet growing demand in the Chinese market. Part of this propellant is intended for THCQ, which projects a production rate of 3 million airbags per year in 2016, a business model that gives the new plant a very promising outlook.

"I am very proud to be able to inaugurate this plant today along with our Chinese partners THCQ and AVIC," said Jean-Paul Herteman. Our presence in Suzhou clearly reflects Safran's commitment to China, already one of the leading customers for our civil aviation products. To expand our business in the auto market Safran has made a significant investment in the SMECQ plant, featuring a state-of-the-art industrial design, and compliance with both Chinese and European safety standards."

Herakles (Safran) will bring to this partnership its innovative pyrotechnic materials, proven industrial expertise for guaranteed safety, and mass production capacity for the propellants used in airbag gas generators. The Chinese company THCQ, which already designs and manufactures gas generators for airbags, will contribute its pyrotechnic expertise on first-generation products and its experience in the installation and operation of production units.

According to Hervé Austruy, Chairman of SMECQ, "Herakles, the European leader in energetic materials for propulsion, boasts recognized expertise in the development and production of propellants for airbag gas generators. The opening of this plant marks a

decisive step forward in the development of our automotive safety business in China. Our expertise, combined with THCQ's industrial responsiveness, will ensure the successful and timely production of the products expected by our customers."

SMECQ Vice Chairman Yin Weining added, "As a major player in the Chinese automotive safety market, THCQ is very pleased to see the startup of operations at SMECQ, giving us an excellent opportunity to further expand our business. We will give Herakles access to the Asian market, while benefiting from their proven skills in the design and manufacture of airbag propellants."

The SMECQ plant will be able to meet THCQ's needs starting at the end of 2013, and will then be able to supply other auto parts companies with local operations, including TRW, Takata, Daicel and Nippon Kayaku. The Suzhou plant's production capacity could eventually reach 600 metric tons per year.

#### MESSIER-BUGATTI-DOWTY SELECTED TO OVERHAUL LANDING GEAR ON CHINA EASTERN AIRLINES A340-600 AIRBUS AIRCRAFT

Paris Air Show, June 20, 2013

China Eastern Airlines has selected Messier-Bugatti-Dowty (Safran) for the exchange and overhaul of landing gear on five A340-600 aircraft. The nose, central and main landing gears will be overhauled in Messier-Bugatti-Dowty's MRO (maintenance, repair and overhaul) facility in Molsheim, France.

This latest contract is showing that once more, Chinese A340 operators are trusting Messier-Bugatti-Dowty and reinforces its position as the world's leading supplier of landing gear MRO services for Airbus programs.

Messier-Bugatti-Dowty's MRO division offers an unrivaled range of landing gear overhaul and customer support services, throughout 11 maintenance facilities based in Europe, Asia and the Americas. It calls on personalized monitoring of each landing gear leg and a large stock of replacement landing gear for all Airbus models, ready to be dispatched anywhere in the world through its global support network. The company maintains international approvals from all relevant airframers and airworthiness authorities for the entire range of repair and maintenance operations on equipment produced by Messier-Bugatti-Dowty and other leading manufacturers.

Messier-Bugatti-Dowty (Safran group), is the world leader in aircraft landing and braking systems. Company capabilities encompass the full life cycle of our products, ranging from design and manufacture to in-service support, repair and overhaul. Messier-Bugatti-Dowty is a partner to 30 leading commercial, **military**, business and regional airframers, and supports more than 23,000 aircraft making over 35,000 landings every day. The company employs 6,800 staff working in locations across Europe, North America and Asia.

Messier-Bugatti-Dowty (groupe Safran) Direction de la Communication, Inovel Parc Sud 78, 140 Vélizy-Villacoublay – France [www.safranmbd.com](http://www.safranmbd.com)

#### TURBOMECA CHINA (SAFRAN) RENEW THE CERTIFICATION OF CITIC OFFSHORE HELICOPTER CO LTD AS A CERTIFIED MAINTENANCE CENTER FOR THE CHINESE MARKET

Paris, Le Bourget, June 18, 2013

During the Paris Air Show, Turbomeca China (Safran) announces the renewal of CITIC Offshore Helicopter Co Ltd (COHC) as a Certified Maintenance Center for the Chinese market. This renewal reinforces the proximity support provided to operators in China. Thanks to this renewal, COHC will further benefit from the Field Technicians, trained and qualified by Turbomeca, to support small fleet operators in China defined in the contract, signed in 2011. "This renewal confirms the reinforcement of the collaboration between our two companies, initiated five years ago. To serve Turbomeca customers

effectively in the field, geographical and cultural coverage are essential assets. We combine the COHC experience and leadership in the helicopter business in China and the Turbomeca strategy to offer proximity support in China” said Thierry Mantel, General Manager of Turbomeca China. Today, Turbomeca has a support team of 20 people in China. From September, one Field Representative will be based in Shenzhen to better support COHC and other operators in this region. COHC’s Turbomeca powered helicopter fleet is composed with eight Super Puma (Makila 1A1), 12 EC 155 (Arriel 2C1 and Arriel 2C), two EC 225 (Makila 2A) and 2 AS350 B3 (Arriel 2B1). End 2012, Turbomeca China and COHC celebrated the 400,000 cumulative operation hours of Turbomeca engines powering COHC fleet. Today, COHC is the biggest civil helicopter operator in South-east Asia. Powering 300 helicopters in China, Turbomeca is the leading helicopter engine supplier in China: one helicopter out of two is equipped with Turbomeca engines or licensed products.

**BOC AVIATION PLACES \$460 MILLION ORDER WITH CFM; PLACES FIRST ORDER THE LEAP-1A FOR AIRBUS A320NEO; EXPANDS CFM56-5B FLEET ON A320NEO**

Le Bourget, France — June 18, 2013

BOC Aviation today announced that it has selected CFM engines to power new Airbus A320 family aircraft. The order, which is comprised of 10 LEAP-1A-powered Airbus A320neo and 10 CFM56-5B-powered A320ceo aircraft, is valued at \$460 million U.S. at list price. Robert Martin, managing director and chief executive officer of BOC Aviation, said, “This is our first order for engines for A320neo aircraft. This new order reinforces our customers’ satisfaction with CFM56-powered A320 aircraft as a reliable airframe and engine combination, and marks our confidence in the CFM LEAP engine.”

“We are pleased BOC Aviation has chosen to power its A320neo aircraft with the LEAP engine,” said Jean-Paul Ebanga, president and CEO of CFM. “This engine will prove to be a real asset for both BOC and for its customers. We also appreciated their continued confidence in the CFM56-5B engine.” “We have a great, long-standing relationship with the BOC team,” said Kevin McAllister, vice president of sales for CFM parent company GE Aviation. “We are honored to have been a part of their success in the past and look forward to strengthening that relationship even further as they introduce LEAP-powered aircraft into their portfolio.”

The foundation of the LEAP engine is heavily rooted in advanced aerodynamics and materials technology development programs. The engine is designed to provide 15 percent better fuel consumption and an equivalent reduction in CO2 emissions compared to today’s best CFM engine, along with a 50 percent reduction in oxides of nitrogen emissions, and up to a 75 percent reduction in the engine’s noise footprint. All this technology brings with it CFM’s legendary reliability and low maintenance costs.

The CFM56-5B is the engine of choice for the Airbus A320 family and is popular with major airlines, low-cost carriers, and leasing companies alike. More than 3,250 CFM56-5B engines have been delivered to date to operators around the globe. Primary factors behind the engine’s broad-based market acceptance include this industry’s best reliability, durability, low cost of ownership, and world-class customer and product support. The CFM56-5B is the only engine that can power every model of the A320 family, from the small A318 up to the A321, with the same bill of materials.

**About BOC Aviation**

BOC Aviation is the leading Asia-based aircraft leasing company with a portfolio of 222 owned and managed aircraft operated by airlines worldwide and another 82 aircraft on firm order. The Company has one of the youngest fleets in the industry with aircraft averaging less than four years of age. BOC Aviation is 100% owned by Bank of China, one of the largest banks in the world by market value. The Company has passed its first US\$1

billion in cumulative net profits under Bank of China. It is on target to reach \$10 billion in total assets this year. The company will be celebrating its 20th anniversary this year.

#### AIRCELLE EXPANDS ITS WORLDWIDE SERVICES PRESENCE WITH A NEW PARTS DISTRIBUTION CENTER IN CHINA FOR AIRLINE OPERATORS

Beijing, China, February 19, 2013 - The global services network of Aircelle (Safran) marked a strategic expansion today with the opening of a new parts distribution center in China, which will serve the country's airlines that operate aircraft with the company's jet engine nacelle and thrust reverser products.

Located at Beijing Capital International Airport in its free trade zone, this 400-square-meter warehouse facility is open around the clock to provide spare parts and inventory management – with rapid response capability for urgent aircraft-on-ground services requirements.

“Proximity to the customer is a vital element in Aircelle's services strategy, and our new Beijing distribution center provides a key regional resource for China's dynamic airline industry,” said Aircelle Chairman & Chief Executive Officer Vincent Mascré. “Aircelle will offer a full range of after-sales parts and inventory management, beginning with the servicing of nacelles for Airbus' A330 – which is widely used by Chinese airlines.

This distribution facility builds on Aircelle's already well-established presence in China, which includes an office in Beijing, along with a network of customer support managers and field service representatives – the majority of whom are Chinese.

Aircelle has partnered with SDV, an international leader in logistics and supply chain management, for operation of the Chinese warehouse. Since 2005, SDV has worked with Aircelle in developing the company's spare parts storage and distribution network for 24-hour-per-day support of airlines around the globe. With the latest facility at Beijing, this network now covers eight regions around the world, joining locations in Paris, London, New York, Los Angeles, Dubai, Singapore and Sydney.

Aircelle ensures a full range of tailored solutions for its customers, meeting airlines' requirements for reliable, flexible and responsive services that keep their aircraft flying. The company's offer includes day-to-day technical and logistic support, customer-base located parts, asset management, on-wing support, product enhancement programs, C-Check assistance and nacelle fleet management.

About Aircelle ([www.aircelle.com](http://www.aircelle.com))

Aircelle is one of the leading players in the worldwide nacelle market for aircraft engines. A subsidiary of Safran, it employs nearly 3,000 people on seven sites in France, the United Kingdom and Morocco. Aircelle is the only nacelle manufacturer in the world present on all the market segments, from regional and business aircraft to the largest airliners, including the Airbus A380. Aircelle also is developing the worldwide customer support and service activity for nacelles and their components.

About SDV

SDV, a subsidiary of the Bolloré Group, is a global leader in supply chain management ranking among the world's top 10 in transport and logistics with a network of 540 offices in 93 countries. Our solutions match the complete logistics needs of importers and exporters, upstream and downstream of production: organizing transport, customs and regulatory compliance, logistics, industrial projects and supply chain services. SDV is a specialist in the aerospace and **defense** industries thanks to more than 30 years of experience and a network of 800 experts who are trained to the technologies specific to this sector, with a presence in over 20 countries all operating within structures which are available 24/7.

#### MESSIER-BUGATTI-DOWTY SELECTED TO OVERHAUL LANDING GEAR ON CHINA AIRLINES A330 AND A340 AIRBUS AIRCRAFT

Singapore, November 26, 2012

China Airlines has selected Messier-Bugatti-Dowty (Safran group) for the exchange and overhaul of landing gear on fourteen A330 and one A340 aircraft. This agreement will start in 2013 till 2017. The A330/A340 landing gears will be overhauled in Messier-Bugatti-Dowty's MRO (maintenance, repair and overhaul) facility in Singapore. Messier-Bugatti-Dowty's MRO division offers an unrivaled range of landing gear overhaul and customer support services. It calls on personalized monitoring of each landing gear leg and a large stock of replacement landing gear for all Airbus models, ready to be dispatched anywhere in the world through its global support network. Messier-Bugatti-Dowty (Safran group), is the world leader in aircraft landing and braking systems. Company capabilities encompass the full life cycle of our products, ranging from design and manufacture to in-service support, repair and overhaul. Messier-Bugatti-Dowty is a partner to 30 leading commercial, **military**, business and regional airframers, and supports more than 23,000 aircraft making over 35,000 landings every day. The company employs 6,500 staff working in locations across Europe, North America and Asia.

#### TURBOMECA (SAFRAN GROUP) ENGINES TO REACH 400,000 FLIGHT HOURS ON THE CITIC OFFSHORE HELICOPTER COMPANY FLEET

Zhuhai, November 14, 2012

During the Air Show China, Turbomeca China (Safran group) and CITIC Offshore Helicopter Co Ltd (COHC) celebrate the 400,000 cumulative operation hours of Turbomeca engines powering COHC fleet. Today, COHC is the biggest civil helicopter operator in South-east Asia. Lin Yang, Turbomeca China Customer Support & Sales Director, said: "COHC is one of our most valued customers, with whom we are proud to be associated. We are honoured to support their demanding missions, providing safety, reliability, innovation and proximity, our core values to keep them flying". COHC's Turbomeca powered helicopter fleet is composed with eight Super Puma (Makila 1A1), 12 EC 155 (Arriel 2C1 and Arriel 2C), two EC 225 (Makila 2A) and 2 AS350 B3 (Arriel 2B1). In order to reinforce the proximity support provided to operators in China, Turbomeca China and CGAMEC signed a Service Center contract in 2011. Powering 300 helicopters in China, Turbomeca is the leading helicopter engine supplier in China: one helicopter out of two is equipped with Turbomeca engines or licensed products.

#### GOVERNMENT FLYING SERVICE CELEBRATES 10 YEARS OF SBH CONTRACT WITH TURBOMECA (SAFRAN GROUP)

Zhuhai, November 14, 2012

During the Air Show China, Turbomeca China (Safran group) and Hong Kong Government Flying Service (GFS), celebrate 10 years of SBH (Support By the Hour) contract. 100% of GFS helicopter, powered by Turbomeca engines, is under SBH contract. The main mission accomplished by GFS is Search & Rescue (SAR), GFS providing a 24 hours air ambulance service. It also performs police support, fire fighting, general government support and aerial survey. The Turbomeca SBH contract protect customers from operational issues. It is customized and based on their activity and needs. From basic engine support to fully comprehensive care, SBH offers flexibility and ease of use. Thanks to SBH, Turbomeca engines operators can smooth their maintenance costs, ease their budget forecasting, and benefit quick support to unscheduled removals.

#### TURBOMECA AND THE CHINESE MINISTRY OF TRANSPORT CELEBRATE 10 YEARS OF COOPERATION FOR RESCUE AND SALVAGE

Zhuhai, November 14, 2012

During the Air Show China, Turbomeca is proud to celebrate 10 years of successful cooperation with the China Rescue & Salvage, Ministry of Transport (CRS-MOT). 100% powered by Turbomeca, the helicopter fleet of MOT is dedicated to salvage and rescue missions for the coastline of China. The eight Makila 2 and 16 Arriel 2S Turbomeca



engines power respectively EC225 and S76C helicopters. Lin Yang, Turbomeca China Customer Support & Sales Director, said: "To accompany the development of our customers by a partnership approach is the core of our strategy, especially to a customer like CRS-MOT, the cooperation will certainly continue and be reinforced in future."

#### SPRING EXPANDS CFM56-5B FLEET WITH \$40 MILLION ENGINE ORDER

Adding two additional A320 aircraft

Zhuhai, China – November 14, 2012

China's Spring Airlines signed the agreement with CFM International for CFM56-5B engines to power two new Airbus A320 aircraft. The engine order is valued at \$40 million U.S. at list price and the airline is scheduled to take delivery of the first aircraft in January 2014 and the second aircraft in July 2014.

"We very much appreciate the long-term support CFM has been providing us and we are very happy with the outstanding performance of the CFM56 engines," said Mme. Zhang Xiuzhi, CEO of Spring Airlines. "We look forward to further strengthening this relationship in the future."

"Spring Airlines is a great customer," said Jean-Paul Ebanga, president and CEO of CFM International. "And we are honored that this airline has again put its trust in the CFM56 product line. Our promise is to continue earn that trust every day."

Shanghai-based Spring Airlines, established by Spring Travel in 2005, is China's first low cost airlines. Its entire fleet consists of 33 CFM56-5B-powered Airbus A320 fleet. The airline boasts one of the youngest fleets in the world today and operates more than 50 routes across China. Spring Airlines is also the first private carrier to operate international routes and currently serves destinations in Japan and Thailand, in addition to Hong Kong and Macau.

The two new A320 aircraft of Spring Airlines will be powered by the CFM56-5B Performance Improvement Package engine, which has been the production configuration since October 2011. The PIP improvements, which provide a 0.5% improvement in fuel burn, include hardware changes to the core, including new high-pressure turbine blade, as well as manufacturing changes to the fan and compressor blades and vanes to improve performance retention. The engine also features fewer parts to help lower maintenance costs.

CFM56-5B engines are a product of CFM International, a 50/50 joint company between Snecma (Safran group) and GE. CFM, the world's leading supplier of commercial aircraft engines, has delivered more than 24,200 engines to date. The CFM56-5B engine powers every model of the Airbus A320 family and has been chosen to power nearly 60 percent of all A320 aircraft in service or on order.

#### CFM LOGS \$12.6 BILLION IN NEW ORDERS; TOTAL LEAP ORDERS TO DATE AT 3,752 ENGINES; ORDERS FOR CFM56 FAMILY REMAIN STRONG

Farnborough, England – July 12, 2012

The momentum for CFM Internationals' advanced LEAP engine family continues to build as the company logged orders and commitments for 922 new engines in recent weeks at a value of \$12.6 billion at list price, nearly doubling its total 2012 order book to date, which now stands at 1,792. LEAP engines for Airbus A320neo, Boeing 737 MAX, and COMAC C919: Agriculture Bank of China [China] - 45 COMAC 919 aircraft; Air Lease Corporation (ALC) - 75 firm Boeing 737 MAX aircraft; ALAFCO – 20 Boeing 737 MAX; Aviation Capital Group – 18 Airbus A320neo aircraft; Avolon Leasing – 15 Boeing 737 MAX aircraft; GE Capital Aviation Services – 75 Boeing 737 MAX aircraft; United Airlines – 100 Boeing 737 MAX aircraft (including a service agreement); Virgin Australia – 23 Boeing 737 MAX aircraft. CFM56 -5B and CFM56-7B engines to power Airbus A320 and Boeing 737 aircraft: Avolon – 10 Boeing Next-Generation 737s; GE Capital Aviation Services – 25 Boeing Next-Generation 737s; Juneyao Airlines [China] – five Airbus A321s; United

Airlines – 50 Boeing Next-Generation 737s. LEAP and CFM56 engines are a product of CFM International, a 50/50 joint company between Snecma (Safran group) and GE. CFM, the world's leading supplier of commercial aircraft engines, has delivered nearly 24,000 engines to date.

#### JUNEYAO ORDERS CFM56-5B ENGINES TO POWER A321 AIRCRAFT

Order valued at \$100 million

Expands CFM-powered fleet to more than 30 aircraft

Farnborough, England - July 11, 2012

China's Juneyao Airlines today announced that it has selected CFM International's CFM56-5B engine to power five new Airbus A321 aircraft. The engine order is valued at more than \$100 million U.S. at list price and the airline is scheduled to begin taking delivery in 2013. "We are very happy with the high reliability the CFM56-5B engines have been providing to our entire fleet," said Zhao Hongliang, president of Juneyao Airlines. "We also enjoyed a very good relationship with CFM and the outstanding support they provide to us." Juneyao Airlines began operations in September 2006 and has been one of the fastest growing local airlines in China. Based in Shanghai, Juneyao provides passenger, cargo, and mail service, in addition to business and tourist charter business. The airline currently operates a fleet of 26 CFM56-5B-powered A320 family aircraft. "We are honored that Juneyao Airlines has selected CFM56-5B engines for its newly added A321 fleet," said Jean-Paul Ebanga, president and CEO of CFM International. "We are ALSO excited to bring the benefits of CFM56-5B PIP technology to their fleet." All of Juneyao's A321 aircraft will be powered by the CFM56-5B Performance Improvement Package engine, which has been the production configuration since October 2011. The PIP improvements, which provide a 0.5% improvement in fuel burn, include hardware changes to the core, including new high-pressure turbine blade, as well as manufacturing changes to the fan and compressor blades and vanes to improve performance retention. The engine also features fewer parts to help lower maintenance costs. The CFM56-5B PIP engine maintains the same noise signature as the previous production model and also meets current International Civil Aviation Organization (ICAO) Committee of Aviation Environmental Protection standards (CAEP/6) requirements. CFM56-5B engines are a product of CFM International, a 50/50 joint company between Snecma (Safran group) and GE. CFM, the world's leading supplier of commercial aircraft engines, has delivered more than 23,500 engines to date. The CFM56-5B engine powers every model of the Airbus A320 family and has been chosen to power nearly 60 percent of all A320 aircraft in service or on order.

#### HELIDAX EC120 HELICOPTERS WITH SAGEM COCKPIT DISPLAY SYSTEMS PASS MILESTONE OF 30,000 FLIGHT-HOURS

Paris, April 10, 2012

The 36 light EC120B helicopters deployed by Helidax, featuring Sagem's Integrated Cockpit Display System (ICDS) and autopilots, have passed the milestone of 30,000 hours. Helidax, a joint subsidiary of the DCI group and INAER, was created as a public private partnership (PPP) for the French Army's Light Aviation flight school. The ICDS glass cockpit provided by Sagem (Safran group) for the EC120B perfectly meets the expectations of the **military** flight instructors and student pilots from this school. After completing their training, the pilots will join the French army air arm, air force, navy, national gendarmerie or the Belgian army. The avionics system provided by Sagem for Helidax's EC120B helicopters is operated under certification by the European Aviation Safety Agency (EASA), with a Supplemental Type Certificate (STC). Sagem's ICDS for EC120 helicopters is compatible with night vision goggles (NVG), and is a key to training student pilots in the demanding environment faced by modern combat helicopters (the NH-90 and Tiger in particular), for both day and night operations. The ICDS features a multifunction display (MFD) of flight data, including navigation, engine readings, coupling with the PA85

two-axis autopilot, traffic management map and weather information. This data is also integrated in the digital attitude and heading reference system (AHRS). Depending on the cockpit design, the screens in the ICDS system can be installed in portrait or landscape mode. The ICDS has been certified by the Department of Transportation (DOT) in Canada and the Federal Aviation Administration (FAA) in the United States. Sagem's ICDS has also been chosen to modernize the French air force's Xingu twin-turboprop trainers, and for the AVIC AC311 helicopter in China. Helidax is a subsidiary of the DCI group and INAER, participating in a public private partnership for the Basic Training School of Light Army Aviation. Department of Transportation, and Federal Aviation Administration.

#### ORDERS FOR LEAP-1C-POWERED C919 REACH 165 AIRCRAFT

Dubai, U.A.E. — November 15, 2011

Orders for the Commercial Aircraft Corporation of China, Ltd.'s (COMAC) new C919 airplane, powered exclusively by CFM International's LEAP-1C engines, have now reached a total 165 aircraft with the recent addition of orders from ICBC Financial Leasing Company (45) and from Sichuan Airlines (20). These airlines join Air China, China Eastern, China Southern, Hainan Airlines, CDB Leasing Company and GE Capital Aviation Services (GECAS) as C919 customers. COMAC has forecasted global sales of more than 2,000 C919 aircraft over the 20 years following entry into service. In June, CFM and COMAC reached another major milestone with the signing of the Master Contract for the C919/LEAP Integrated Propulsion System (IPS). The definitive agreement stipulates that CFM will be the sole overseas supplier for an integrated propulsion system (engine, nacelle, thrust reverser) and that the LEAP-X1C engine will be the sole Western powerplant for the new 150-passenger short-to-medium range airplane on schedule to enter service in 2016. As part of the IPS for the C919, CFM will provide the LEAP-X1C engine and, in partnership with Nexcelle, will provide the nacelle and thrust reverser to deliver a complete IPS solution to COMAC. Nexcelle is a 50/50 joint venture between GE's Middle River Aircraft Systems and Safran group's Aircelle that the two companies launched in 2008. The LEAP engine, which was formally launched in 2008, is a totally new centerline engine and the development and testing program has been progressing steadily. The LEAP is on track for the first full engine to begin testing in 2013. In 2010, CFM and COMAC began the Joint Design Phase to define the functional and mechanical interfaces and optimize the integrated propulsion system for the C919. The teams are in the final stages of the Joint Design Phase. CFM has a dedicated team of about 20 people who work directly with COMAC in Shanghai. Hundreds of engineers are also working on the LEAP-X1C engine back at the headquarters of CFM's parent companies, GE and Snecma. The team is building strong relationships with COMAC's team to ensure all the customer's needs are well understood and achieved. Beyond the propulsion system program, CFM has also provided extensive training to COMAC for the last two years. Training sessions for COMAC leaders have occurred at Snecma's Paris location and GE's Cincinnati, OH facilities. CFM has also conducted training sessions at COMAC's Shanghai offices and CFM's training school Aero Engine Maintenance Training Center in Guanghan City, Sichuan Province of China. LEAP is a product of CFM International, a 50/50 joint company between Snecma (Safran group) and GE, and the world's largest commercial aircraft engine manufacturer. Nexcelle is a 50/50 joint venture between Aircelle (Safran group) and GE's Middle River Aviation Systems.

#### ADVANCED CFM56-7BE PERFORMING WELL IN REVENUE SERVICE

Dubai, U.A.E. — November 13, 2011

The first CFM56-7BE-powered Boeing Next-Generation 737 was delivered to China Southern Airlines in July. Since then, more than 120 aircraft have been delivered to 34 operators worldwide. This fleet had logged more than 125,000 flight hours through 31 October without a single engine-related issue. The CFM56-7BE-powered Next-Generation

737 enhanced airplane/engine combination will provide a 2 percent improvement in fuel consumption, which, in turn, equates to a 2 percent reduction in carbon emissions. Additionally, the enhanced -7B will provide up to 4 percent lower maintenance costs, depending on the thrust rating. CFM executed an extensive certification program that included a 60-hour certification flight test program aboard GE's modified 747 flying testbed in Victorville, California. In addition, the CFM56-7BE completed a grueling 150-hour block test at Snecma facilities in Villaroche, France, during which it operated at what is referred to as triple redline: maximum fan speed, maximum core speed, and maximum exhaust gas temperature. This test simulates conditions far more extreme than would ever be experienced in commercial service to validate the reliability and durability of the hardware. The first full CFM56-7BE type design engine completed ground testing in January 2010, and engine operation and performance was as expected. Overall, the engine completed 390 hours of ground testing (including the block test) and achieved all the technical requirements and met the key objectives for performance improvement, acoustics, engine operation and durability. CFM is used advanced computer codes and three-dimensional design techniques to improve airfoils in the high- and low-pressure turbines for better engine performance. In addition, the company improved engine durability and reduced parts count to achieve lower maintenance costs.

#### ICBC LEASING, CFM SIGN MOU FOR \$450 MILLION ENGINE ORDER

Beijing, China – 29 September 2011 — ICBC Financial Leasing Co., Ltd, a subsidiary of Industrial and Commercial Bank of China (ICBC), today signed a Memorandum of Understanding with CFM International to purchase CFM56-5B engines to power a new fleet of 22 firm Airbus A320 family aircraft. The firm engine order, which includes three spare engines, is potentially valued at more than \$450 million U.S. at list price and the leasing company is scheduled to begin taking deliver in 2012. This order represents the largest order by a Chinese financial leasing company to date. Defined as a first trial by China State Council, ICBC Financial Leasing Co. Ltd. is the first banking financial leasing company approved by the China Banking Regulatory Commission. The company is fully owned by the Industrial and Commercial Bank of China and its current asset values approximately \$12 billion U.S. All of ICBC's new engines will be the CFM56-5B Performance Improvement Package (PIP) configuration. The -5B PIP completed extensive ground testing and more than 26 hours of flight testing on the A320. The engine, which will become the new production standard, is on schedule for certification and entry into service by the end of 2011. The improvements, which provide a 0.5% improvement in fuel burn, include hardware changes to the core, including new high-pressure turbine blade, as well as manufacturing changes the fan and compressor blades and vanes to improve performance retention. The engine will maintain the same noise signature as the current production engine. These engines also meet current International Civil Aviation Organisation (ICAO) Committee of Aviation Environmental Protection standards (CAEP/6) requirements.

#### CFM, HAINAN AIRLINES FINALIZE CFM56-5B ENGINE ORDER

Le Bourget – 23 June 2011– CFM International and Hainan Airlines, China's fourth largest airline group, have finalized an agreement for CFM56-5B engine to power 42 new Airbus A320 family aircraft. The entire agreement is valued at approximately \$1.2 billion U.S. at list price, including the firm engine order and a long-term services and support agreement. The airline is scheduled to begin taking delivery in 2012. The MOU was originally announced at the Zhuhai Air Show in November 2010. To support the new CFM56-5B-powered A320 fleet, Hainan has also signed a long-term RPFH (Rate per Flight Hour) agreement with CFM to provide comprehensive engine maintenance service. Under the terms of this agreement, CFM will guarantee maintenance costs on a dollar per engine flight hour basis. Hainan Airlines has been a CFM customer since the airline began

operations in 1993, when it took delivery of its first Boeing 737 aircraft. Today, Hainan operates more than 85 Boeing 737-300/-400/-800 aircraft powered by CFM56-3 and CFM56-7 engines. The airline operates more than 500 domestic and international routes to about 90 cities throughout China, Asia, Africa, Europe, and North America. "We are honored that Hainan Airlines has chosen again to make CFM an important part of its long-term operations," said Jean-Paul Ebanga, President & CEO of CFM International. "We thank them for their trust and offer them our commitment that we will continue to earn that trust every day." The high reliability, long on-wing life, and low maintenance costs of the CFM56-5B make it extremely popular with major airlines, low-cost carriers, and leasing companies worldwide. All of Hainan's new CFM56-5B engines are of the Tech Insertion configuration. This configuration was introduced in September 2007 and, through October 2010, the CFM56-5B fleet of more than 1,600 engines in service worldwide had logged more than seven million flight hours and four million flight cycles without a single engine-related event.

#### SHENZHEN AIRLINES SELECTS CFM56-5B FOR ITS NEW A320 FLEET

Le Bourget, France – June 22, 2011 – In a special ceremony in China last week, Shenzhen Airlines signed an agreement with CFM International for CFM56-5B to power its 10 new Airbus A320 family aircraft. The engine order is valued at \$190 million U.S. at list price and the airline is scheduled to take delivery in 2012 and 2013 together with the engine selection. Shenzhen also signed a Rate Per Flight Hour (RPFH) agreement to provide comprehensive maintenance service for the fleet under which CFM will guarantee maintenance costs on a dollar per engine flight hour basis. "We are so pleased that Shenzhen Airlines has selected the CFM56-5B engines to power its new A320 fleet," said Jean-Paul Ebanga, President and CEO of CFM. "We have established a great relationship with Shenzhen Airlines and we look forward to working more closely with them through the RPFH agreement to service and support its growing fleet." Shenzhen Airlines, which currently operates a fleet of 91 CFM56-powered Boeing 737s and Airbus A319/320s. Shenzhen is one of the fastest growing airlines in China, serving both domestic and international routes. All of Shenzhen's new engines will be the CFM56-5B Performance Improvement Package (PIP) configuration. The -5B PIP completed extensive ground testing and more than 26 hours of flight testing on the A320. The engine, which will become the new production standard, is on schedule for certification and entry into service by the end of 2011. The improvements, which provide a 0.5% improvement in fuel burn, include hardware changes to the core, including new high-pressure turbine blade, as well as manufacturing changes the fan and compressor blades and vanes to improve performance retention. The engine will maintain the same noise signature as the current production engine. These engines also meet current International Civil Aviation Organisation (ICAO) Committee of Aviation Environmental Protection standards (CAEP/6) requirements.

#### TIBET AIRLINES PLACE \$60 MILLION CFM56-5B ORDER TO POWER A319 FLEET

Le Bourget, France — June 21, 2011 — Tibet Airlines Co. Ltd., the newest start-up airline in China, has signed a Memorandum of Understanding (MOU) with CFM International to purchase three Airbus A319 powered by CFM56-5B engines. The aircraft are scheduled to be delivered in the July of 2011 and the engine order is valued at \$60 million U.S. at list price. Based at Konggar Airport, Lhasa, Tibet, the Airlines will start operation of domestic passenger and cargo and services from July 2011. The airline which was established in May 2010, will be the first airline based in the southwest Tibet Autonomous Region.

"We are very excited that Tibet Airlines has selected CFM56-5B to power their new fleet," said Jean-Paul Ebanga, President of CFM International. "We appreciate their trust

and offer them our commitment that we will continue to earn that trust every day. The airline is off to a great start and we're honored to be a part of it."

"We selected CFM56 engines after an extensive technical evaluation," said Mr. Liu Yanping, President of Tibet Airlines. "The reliability, performance and low cost of ownership advantages that the CFM56-5B provides will help ensure our airline of a smooth and successful launch into service. CFM56 engine is also a good choice for the safety of our high-altitude mission."

CFM56-5B engines are a product of CFM International (CFM), a 50/50 joint company between Snecma (Safran group) and GE and the world's leading supplier of commercial aircraft engines. Throughout China, the CFM56 product line has proven to be the engines of choice for new start-up carriers.

#### MORPHO DETECTION ANNOUNCES FIRST SALE OF CTX 5800 EXPLOSIVES DETECTION SYSTEM; CHINA STATE CONSTRUCTION ENGINEERING CORPORATION LTD (CSCEC) CHOOSES CTX 5800 FOR MAURITIUS INTERNATIONAL AIRPORT

Paris Air Show – June 21, 2011

Morpho Detection, Inc., the detection business of Morpho, Safran group's security unit, today announced the first sale of its industry-leading, next-generation, compact design, high-performance CTX explosives detection system (EDS), the CTX 5800, for use by Mauritius International Airport.

China State Construction Engineering Corporation LTD (CSCEC), the main contractor for Mauritius Airport, chose CTX 5800 to be deployed with the airport's new baggage handling system. Designed to assist small- and mid-sized airports take advantage of computed tomography (CT) technology, the CTX 5800 combines industry-leading imaging and data collection in a smaller and lighter solution.

"Morpho Detection is pleased Mauritius International Airport will use the CTX 5800 to help meet its baggage screening requirements," said Dennis Cooke, president and CEO, Morpho Detection, Inc. "We are committed to delivering the technologies needed to help meet the security challenges of all airports, regardless of size and passenger volume, and the small footprint CTX 5800 is demonstration of that commitment."

Mauritius Airport will use the CTX 5800 as an integrated and automated explosives detection solution in its new baggage handling system and terminal building, currently under construction.

About Morpho Detection, Inc. Morpho Detection, Inc., part of Morpho, a business of the Safran group (PAR: SAF), is a leading supplier of explosives and narcotics and chemical, biological, radiological, and nuclear (CBRN) detection systems for government, **military**, air and ground transportation, first responder, critical infrastructure and other high-risk organizations. Following Safran Group's 2009 acquisition of GE Security's GE Homeland Protection, Inc. business, Morpho Detection integrates computed tomography (CT), Raman Spectroscopy, trace (ITMS technology), X-ray and X-ray Diffraction technologies into solutions that can make security activities more accurate, productive and efficient. With industry-leading products such as the Itemiser DX trace detection system, the CTX line of explosive detection systems (EDS), and the StreetLab Mobile hand-held chemical and biological substance identification unit, Morpho Detection's solutions are deployed to help protect people and property in some of the most important and sensitive world locations.

#### SAGEM SIGNS AGREEMENT WITH CAAC TO TEAM UP ON FLIGHT DATA MANAGEMENT IN CHINA

Paris Air Show, Le Bourget, June 21, 2011

Sagem (Safran group) today signed a collaboration agreement with the China Academy of Civil Aviation Science and Technology (Center of Aviation Safety Technology, CAAC) to provide Chinese airlines with world-class systems and services for the management and monitoring of flight data.

The agreement was signed by Guan Wuping, Vice Chairman of CAST (Center of Aviation Safety Technology), and Philippe Petitcolin, Chairman and CEO of Sagem.

The agreement, which applies to all of mainland China, provides for the following: Sagem will support Chinese Airlines by providing its expertise in flight data management for enhanced flight safety and risk management, based on its Analysis Ground Station (AGS) system; Sagem will assist CAST to improve its support for Chinese airlines and other operators concerning the analysis of flight data; CAST will help Sagem receive Chinese certification for its aircraft condition monitoring systems (ACMS) and wireless data transmission systems; Sagem will work with CAST to develop its Cassiopée range of services for Chinese airlines, by optimizing flight phases and operating cost management; Sagem's AGS is a semi-automatic aircraft flight data analysis system, enabling operators to optimize fleet maintenance management and reduce costs (via the MOQA approach: Maintenance Operation Quality Assurance), while also helping to improve flight safety (Flight Operation Quality Assurance – FOQA).

Chosen by more than 500 users worldwide, including almost 135 airlines, AGS has become the world's leading flight data analysis system. It is used and recommended by major aircraft and aero-engine manufacturers.

#### About CAAC

CAAC, the General Administration of Civil Aviation of China, is a ministry-level organ directly under the State Council, which is responsible for the national civil aviation affairs. CAAC is authorized by the Civil Aviation Law of People's Republic of China (PRC) to "enforce the unified supervision and regulation on the civil aviation activities of the whole country, and in accordance with laws and State Council's decisions, to issue regulations and decisions concerning civil aviation activities within its jurisdiction".

For more information: [www.CAAC.gov.cn](http://www.CAAC.gov.cn)

CAST, is a non-profitable research institution directly under the General Administration of Civil Aviation of China (CAAC). The main responsibilities of CAST include: carrying out science research and innovation to improve the management level on civil aviation safety and economy; providing technological support to CAAC when performing industry regulations; and providing integrated services to the development of China civil aviation. For more information: [www.castc.org.cn](http://www.castc.org.cn)

### SAFRAN AND COMAC TO CREATE AIRCRAFT WIRING JOINT VENTURE, STRENGTHENING PARTNERSHIP ON C919

Paris, February 24, 2011

Labinal, a Safran group company, and Shanghai Aircraft Manufacturing Co., Ltd. (SAMC), a subsidiary of Commercial Aircraft Corporation of China (COMAC), today announced that they have signed a framework agreement for the establishment of a joint venture company. The contract was signed in Shanghai by Ms. Karen Bomba, President and CEO of Labinal and Mr He Dongfeng, Vice-President of COMAC & President of SAMC. Also attending the ceremony were Mr Yves Leclère, Safran Executive Vice President, Aircraft Equipment, and Mr Wu Guanghui, Vice-President of COMAC & Chief-Designer for the C919. Based in Shanghai, the joint venture will focus on the design, development, production and support of EWIS (Electrical Wiring Interconnection Systems) for the Asia Pacific aerospace market. The joint venture has been tasked with the execution of the C919 EWIS Program. COMAC has forecasted a global market for more than 2,000 C919 aircraft over the 20 years following entry into service. SAMC will own 51 percent of the joint venture and Labinal 49 percent. "After Safran's selection as supplier of the complete

propulsion system for the COMAC C919, this agreement marks a further step forward in the Group's role in the success of this commercial aircraft," said Yves Leclère.

#### YVES PRETE NAMED PRESIDENT AND CHIEF EXECUTIVE OFFICER OF TECHSPACE AERO

Paris, December 22, 2010

Meeting on December 17, 2010, the Board of Directors of Techspace Aero named Yves Prete as President and Chief Executive Officer of the company, effective January 1, 2011. Techspace Aero, a 55.8%-owned subsidiary of Safran, produces components, subassemblies, modules and test stands for aircraft and rocket engines. Yves Prete replaces Philippe Schleicher, who has been named by Safran to coordinate the planned acquisition by Safran of SNPE's solid propulsion businesses. Yves Prete, 56, graduated from the Université Libre de Bruxelles (1978). He started his career in 1979 with FN Moteurs (which became Techspace Aero), as an engineer with the assembly and testing department. He then held various positions in the production division. From 1987 to 2000, he was successively head of logistics, director of production and director of organization. He moved to Snecma Services Brussels (a subsidiary of Snecma) in 2000 as President and CEO, before being named CEO of SSAMC (a Snecma joint venture in China) in 2005. From 2009 to this latest appointment, he was head of Snecma's MRO division.

#### AIR CHINA AND CFM FINALIZE ENGINE MRO JOINT VENTURE

Chengdu, China – December 17, 2010

In early 2007, Air China and CFM International agreed to establish an innovative maintenance repair, and overhaul (MRO) joint venture. In 2010, after three years negotiations, the two companies cleared the final hurdle and have received Chinese government approval for the formation of Sichuan Services Aero Engines Maintenance Company (SSAMC), a 60/40 joint venture between Air China and CFM, located in Chengdu, China.

SSAMC will combine Air China's extensive expertise with that of CFM to create a truly world-class maintenance facility. The facility, which previously operated as a Snecma Services overhaul shop, completes 60 to 80 engine overhauls annually. The new joint venture will expand Air China's engineering services, which already provides aircraft maintenance, repair and overhaul services.

"Air China's objective is to have the most competitive MRO solutions for its fleet, without any compromise in flight safety", said Senior VP He of Air China. "The partnership with CFM can help both stakeholders to continuously increase their competitiveness globally with their advantages, and to provide the best service for Chinese and worldwide customers."

"This new venture is a perfect example of the type of win-win solutions that airlines and OEMs can implement together", said Eric Bachelet, President and CEO of CFM International. "The combination of Air China's extensive expertise with that of CFM will enable SSAMC to develop and grow to the best level of performance, in terms of quality, turnaround time, EGT margin, and cost."

Air China is the Chinese national flag carrier and has been a long-time CFM customer. In the last several years, the airline has grown and expanded its reach to become one of the leading airlines in the country. In addition to the 20 A320 orders formalized at the Zhuhai Air Show, the airline's current fleet includes 55 Airbus A320 and 118 Boeing 737 family aircraft powered by CFM56-5B and CFM56-3/-7B engines, respectively, as well as six long-range, four-engine Airbus A340-300 aircraft powered by the CFM56-5C.

#### CHINA EASTERN FINALIZES CFM56-5B ENGINE ORDER

Zhuhai, China - 17 November 2010



In a special ceremony here today, China Eastern Airlines and CFM International formalized the airline's order for CFM56-5B engine to power 30 new Airbus A320 family aircraft. The order, valued at approximately \$600 million U.S at list price, was originally announced at the 2010 Farnborough Air Show and the airline is scheduled to begin taking delivery in March 2011. Together with the engine selection, China Eastern also signed a long-term RPFH (Rate per Flight Hour) agreement with CFM to provide comprehensive maintenance service for the CFM56 engines in the airline's fleet under which CFM will guarantee maintenance costs on a dollar per engine flight hour basis. For its existing fleet, China Eastern has also signed a 15-year material agreement that will provide a full range of new, used, and repaired material offerings tailored to the specific requirements of each individual engine overhaul. China Eastern became a CFM customer in 1994 with an order for five CFM56-5C-powered long-range, four-engine Airbus A340 aircraft. Today, the airline is CFM's largest customer in China, currently operating about 500 CFM56-3/-5B/-5C and -7B engines. "We are honored by China Eastern's selection of the CFM56-5B engine," said Eric Bachelet, president and CEO of CFM. "China Eastern and CFM have a long-standing relationship, and this engine selection demonstrates the continued confidence the airline has in our products and services." The high reliability, long on-wing life, and low maintenance costs of the CFM56-5 make it extremely popular with major airlines, low-cost carriers, and leasing companies worldwide. All of China Eastern's new CFM56-5B engines are of the Tech Insertion configuration. This configuration was introduced in September 2007 and, through October 2010, the fleet of more than 1,600 CFM56-5B engines in service worldwide had logged more than seven million flight hours and four million flight cycles without a single engine-related event.

#### HAINAN AIRLINES SELECTS CFM56-5B TO POWER NEW A320 FLEET

Zhuhai, China - 16 November 2010

Hainan Airlines, China's fourth largest airline group, today announced that it has selected CFM International's CFM56-5B engine to power 42 new Airbus A320 family aircraft. The entire agreement is valued at approximately \$1.2 billion U.S. at list price, including the firm engine order and a long-term services and support agreement. The airline is scheduled to begin taking delivery in 2012. To support the new CFM56-5B-powered A320 fleet, Hainan has also signed a long-term RPFH (Rate per Flight Hour) agreement with CFM to provide comprehensive engine maintenance service. Under the terms of this agreement, CFM will guarantee maintenance costs on a dollar per engine flight hour basis. Hainan Airlines has been a CFM customer since the airline began operations in 1993, when it took delivery of its first Boeing 737 aircraft. Today, Hainan operates more than 85 Boeing 737-300/-400/-800 aircraft powered by CFM56-3 and CFM56-7 engines. The airline operates more than 500 domestic and international routes to about 90 cities throughout China, Asia, Africa, Europe, and North America. "We are honored that Hainan Airlines has chosen again to make CFM an important part of its long-term operations," said Eric Bachelet, President & CEO of CFM International. "We thank them for their trust and offer them our commitment that we will continue to earn that trust every day." The high reliability, long on-wing life, and low maintenance costs of the CFM56-5B make it extremely popular with major airlines, low-cost carriers, and leasing companies worldwide. All of Hainan's new CFM56-5B engines are of the Tech Insertion configuration. This configuration was introduced in September 2007 and, through October 2010, the CFM56-5B fleet of more than 1,600 engines in service worldwide had logged more than seven million flight hours and four million flight cycles without a single engine-related event.

#### AIR CHINA FINALIZES CFM56-5B ENGINE ORDER

Zhuhai, China - 16 November 2010

In a special ceremony here today, Chinese flag carrier Air China finalized its order for CFM International's CFM56-5B engine to power 20 firm Airbus A320 aircraft. The engine order, originally announced at the Farnborough Air Show in July, is valued at approximately \$300 million U.S. at list price. Air China, which is scheduled to begin taking delivery of the new aircraft in 2011, is the largest commercial airline in China and has been a long-time CFM customer. In addition to the 20 A320s announced today, the airline's current fleet includes 55 Airbus A320 and 118 Boeing 737 family aircraft powered by CFM56-5B and CFM56-3/7B engines, respectively, as well as six long-range, four-engine Airbus A340-300 aircraft powered by the CFM56-5C. "We are very pleased to continue our long relationship with CFM," He Li, Vice President of Air China noted when placing the order. "We already have a big CFM56-powered fleet of Airbus and Boeing aircraft, and the operating economics and the outstanding reliability of this engine have been enabling us save our costs and assure our customers of the very highest level of service that we can provide." The high reliability, long on-wing life, and low maintenance costs of the CFM56-5B make it extremely popular with major airlines, low-cost carriers, and leasing companies worldwide. All of China Eastern's new CFM56-5B engines are of the Tech Insertion configuration. This configuration was introduced in September 2007 and, through October 2010, the CFM56-5B fleet of more than 1,600 engines in service worldwide had logged more than seven million flight hours and four million flight cycles without a single engine-related event.

CFM56-5B engines are a product of CFM International, a 50/50 joint company between Snecma (Safran group) and GE. CFM, the world's leading supplier of commercial aircraft engines, has delivered 21,450 engines to date.

#### LEAP-X1C LAUNCHED ON NEW C919 AIRCRAFT

AIRLINES, LEASING COMPANIES PLACE ORDERS FOR A TOTAL OF 100 AIRCRAFT

Zhuhai, China, 16 November 2010

Commercial Aircraft Corporation of China (COMAC) and CFM International today announced the launch of the LEAP-X1C-powered C919 Air China, China Eastern, China Southern, Hainan Airlines, CDB Leasing Company, and GE Capital Aviation Services (GECAS) have ordered a combined total of 100 new aircraft with first deliveries scheduled for 2016. "We are obviously honored by the strong show of support from China's major airlines evidenced by these launch orders," said Eric Bachelet, president and CEO of CFM International. "All of them are long-time CFM customers and we look forward to embarking on this exciting new era with them. Over the next few years, we will work closely with COMAC to develop the engine and certify the C919. Ultimately, we look forward to providing these customers with a very smooth entry into service in 2016." COMAC selected CFM's advanced new LEAP-X engine as the sole western powerplant for the C919 in December 2009. COMAC has forecasted global sales of more than 2,000 C919 aircraft over the 20 years following entry into service. The two companies are nearing the completion of the joint definition phase and CFM is on schedule to freeze the LEAP-X design by the end of 2011 and the first full LEAP-X engine will go on test in early 2013. COMAC has opted for a complete Integrated Propulsion System (IPS) for the C919. CFM will provide the engine and, in partnership with Nexcelle, the nacelle and thrust reverser to deliver a complete IPS solution to COMAC. CFM, a 50/50 joint company between Snecma (Safran group) and GE, is the world's largest commercial aircraft engine manufacturer. In 2008, the two companies renewed the partnership to the year 2040. Nexcelle is a 50/50 joint venture between Aircelle (Safran group) and GE's Middle River Aviation Systems

TURBOMECA (SAFRAN GROUP) AND THE CAFUC SIGNED A CONTRACT FOR TRAINING PROGRAMS IN CHINA

Zhuhai, 16 November 2010

Turbomeca (Safran group) and the CAFUC signed a contract for Training Programs in China. Turbomeca (Safran group) has signed a contract with the Civil Aviation Flight University of China (CAFUC), to develop a Turbomeca maintenance training program for qualified engineers and an initial training program to qualify engines maintenance engineers close to Chengdu. The new training programs provide advanced courses in line maintenance and inspection of Turbomeca engines, which power the half of Chinese helicopters fleet with licensed engines.

Xiaoyong Zheng, president of CAFUC, said: "I am very pleased to see that our cooperation with Turbomeca has taken a substantial step forward. CAFUC has contributed herself in a long-term period to civil aviation pilot training and the maintenance training in the field of aero-engine has accumulated a wealth of experience. Our cooperation starts from the initial helicopter engine maintenance training program which provides to China a worldwide standard of engines maintenance engineers, the best we maintain helicopters engines the best we keep helicopters flying!"

Lin Yang, general manager of Turbomeca (Beijing) Helicopter Engines Trading Co. Ltd (TBHE), explains the advantage of this agreement: "Turbomeca aims to support the growing Chinese helicopter industry. We are pleased to take this very important step in fulfilling that commitment and are looking forward to develop a long and fruitful relationship with CAFUC. These new programs will train experienced engineers for the new range of engine in China, and also train new engineers for the future. Efficient training in aeronautics improves flight safety and aircraft availability."

Turbomeca offers the best level standard in training practises and organisation. That is why, as each training center of the network, this new one will work under "Training Know How Manual" based on more than 40 years of experience. It will help the CAFUC to meet EASA Part 147 and local authorities standards requirements. Also by working in a win/win philosophy hand-in-hand with CAFUC to develop it and build also initial program for engines maintenance engineers Turbomeca will to build a long term knowledge and high level of maintenance in China.

This training center will be managed directly by the head of TBHE training recently appointed to ensure continuity of relationships between customers and Turbomeca. Pursuing this line of geographical and cultural proximity, training courses will be conducted in Chinese by a CAFUC instructor, trained and coached by Turbomeca. Powering 300 helicopters in civilian and **military** sectors, Turbomeca is the leading helicopter engine manufacturer in China, where one of two helicopters is equipped with Turbomeca engines or engines manufactured under Turbomeca license.

#### About CAFUC

CAFUC is a prestigious university in worldwide and a leading aeronautic university in China, for the moment a unique characteristic training model and accumulated training experience over the years, specialized in pilots and aircrafts technical engineers and intent to expend its knowledge in helicopters engines technology. CAFUC cooperated with CFM and CAAC to establish the AEMTC (Aero Engine Maintenance Training Center) training center on CFM56 engines from 1995.

#### TURBOMECA (SAFRAN GROUP) AND CATIC/AVIC INTERNATIONAL SIGNED A CONTRACT FOR 90 ADDITIONAL ARRIEL 2C ENGINES

Zhuhai, 16 November 2010

During Airshow China in Zhuhai, Turbomeca (Safran group), leading manufacturer of gas turbines for helicopters, announces the signature of a contract for 90 Arriel 2C engines with CATIC (China Aviation Technology Import-Export Corporation) and AVIC International (AVIC International Holding Corporation) for their respective export markets. The first engines will be delivered this year. "This new contract reinforces the collaboration between Turbomeca and China, which began over 30 years ago. I am confident that this

collaboration will see a bright future, bringing to Chinese helicopter industry reliable power.” said Pierre Fabre, chairman & CEO of Turbomeca.

Arriel 2C: the latest version of the Arriel turboshaft engine family The Arriel 2 features a very simple design, with a reduced number of parts and only five modules for easy maintenance. The Arriel 2 has a TBO (Time Between Overhaul) of 3,500 hours

Turbomeca in China

The engine manufacturer is continuing and creating even closer links between Chinese and French industries. Local presence and proximity support are reinforced with Turbomeca (Beijing) Helicopter Engines, increasing the Turbomeca assistance to the operators locally.

Furthermore, Turbomeca performed industrial worksharing with Beijing Turbomeca Changkong, the first joint company between Turbomeca and an AVIC company, to assemble and tests the hydro-mechanical modules (HCU, FCU) of turbine engines. Powering 300 helicopters in China, Turbomeca is the leading helicopter engine supplier in China: one helicopter out of two is equipped with Turbomeca engines or licensed products.

Turbomeca has established ties with Chinese airframers HAIG (Harbin Aircraft Industries Group) & CAIG (Changhe Aircraft Industry Group), as well as with AVIC's helicopter engine manufacturing entities Dongan and SAIC through various collaboration programs in the 2.5 to 7 ton helicopter market.

#### TURBOMECA (SAFRAN GROUP) AND AVIC INTERNATIONAL/SAIC SIGNED A CONTRACT FOR 80 ADDITIONAL ARRIEL 2C ENGINE KITS

Zhuhai, 16 November, 2010

During Airshow China in Zuhai, Turbomeca (Safran group), leading manufacturer of gas turbines for helicopters, announces the signature of a contract for 80 Arriel 2C engines kits with AVIC International (AVIC International Holding Corporation) under the witness of SAIC (South Aero-engine Industry Corporation). First deliveries are scheduled for 2011.

“In the frame of our cooperation agreement, I am happy to see that SAIC confirm their confidence with this new order.” said Pierre Fabre, chairman & CEO of Turbomeca.

Arriel 2C engine

In 2005, a cooperation agreement was signed with AVIC (China Aviation Industry Corporation), for the delivery of more than 160 Arriel 2C under license. The success of licensed Arriel 2C has been confirmed in 2008 through 80 additional orders.

Turbomeca in China

The engine manufacturer is continuing and creating even closer links between Chinese and French industries Local presence and proximity support are reinforced with Turbomeca (Beijing) Helicopter Engines, increasing the Turbomeca assistance to the operators locally. Furthermore, Turbomeca performed industrial worksharing with Beijing Turbomeca Changkong, the first joint company between Turbomeca and an AVIC company, to assemble and tests the hydro-mechanical modules (HCU, FCU) of turbine engines.

Powering 300 helicopters in China, Turbomeca is the leading helicopter engine supplier in China: one helicopter out of two is equipped with Turbomeca engines or licensed products. Turbomeca has established ties with Chinese airframers HAIG (Harbin Aircraft Industries Group) & CAIG (Changhe Aircraft Industry Group), as well as with AVIC's helicopter engine manufacturing entities Dongan and SAIC through various collaboration programs in the 2.5 to 7 ton helicopter market.

#### SAFRAN AND AVIC SIGN STRATEGIC PARTNERSHIP

Zhuhai, 16 November 2010

Relations between Safran and China started 100 years ago, and have especially deepened and expanded since the 1970s through various industrial collaboration agreements in aerospace. Over the last 30 years this has been particularly true of Safran's relations with the AVIC group, one of its preferred partners. Today, to further extend this collaboration, Jean-Paul Herteman, Chief Executive Officer of Safran, and Lin Zuoming, President of AVIC, signed a general strategic partnership between the two groups. The signing ceremony was held at Airshow China 2010 in Zhuhai, and was attended by Hervé Ladsous, French ambassador to China, and Zhang Xiangmu, Director General of the Procurement Department at the Chinese Ministry of Industry and Information Technologies. The partnership between Safran and AVIC is designed to expand the scope of collaboration between the two groups to include all of their subsidiaries' business sectors. A strategy committee will be created, comprising leaders of the two groups, who will study each new project and determine the best joint response. Safran's experience in aerospace propulsion and equipment, combined with AVIC's industrial capacity and expertise, will enable the two partners to submit more competitive proposals in the Chinese and international markets, and place them in better position to seize the many opportunities arising in the global aerospace market. Safran has several industrial entities and joint ventures in China, based in Beijing, Shanghai, Suzhou, Chengdu, Guiyang and Yangzhou.

**CFM BOOKS \$7.3 BILLION IN NEW ENGINE ORDERS/SERVICES CONTRACTS**  
Farnborough, England — 21 July 2010

CFM International announced new orders for more than 825 CFM56 engines, as well as associated long-term services contracts, in the first three days of the 2010 Farnborough Air Show with a total value of more than \$7.3 billion U.S. Total 2010 CFM56 orders now stand at 1,135 engines. Below is a recap of the orders announced this week (all values are \$ U.S. at list price):

Chilean flag carrier LAN Airlines announced its selection of the CFM56-5B engine to power 70 new Airbus A319/A320/A321 aircraft for delivery beginning in 2011. The airline also signed a Rate Per Flight Hour (RPFH) agreement. The total order is valued at approximately \$2 billion.

GE Capital Aviation Services (GECAS) announced orders for CFM56-7B and CFM56-5B engines to power 40 new Boeing 737-700/-800/-900 aircraft and 60 Airbus A320 family aircraft, respectively. The Boeing aircraft are scheduled for delivery in 2013, while the A320s will begin delivery in 2012. The combined value of these orders is \$1.4 billion.

Air Lease Corporation, the new venture by Steven Udvar-Hazy, ordered 60 CFM56-7B-powered Boeing 737 aircraft. This engine order is valued at \$840 million.

Air Arabia announced its selection of the CFM56-5B engine to power its 44 Airbus A320 family aircraft order announced in 2007. This new engine selection, which will more than double the airlines' CFM56-5B powered A320 fleet, is valued at more than \$620 million U.S. at list price.

Chinese flag carrier Air China today announced that it has selected the CFM56-5B engine to power 20 firm Airbus A320 aircraft, as well as signing a Rate Per Flight Hour (RPFH) agreement. The total agreement is valued at approximately \$600 million. This was a previously counted, but unannounced, order.

China Eastern Airlines also selected the CFM56-5B engine to power 30 new Airbus A320 family aircraft; scheduled for delivery in March 2011, and signed a Rate Per Flight Hour (RPFH) agreement. This announcement is valued at approximately \$600 million. This was a previously counted, but unannounced, order.

RBS Aviation Capital ordered 43 CFM56-7B-powered Boeing Next-Generation 737 aircraft at a value of \$600 million. The leasing company has already started taking aircraft

delivery. This was a previously counted, but unannounced, order.

Norwegian Air Shuttle ordered 15 new CFM56-7B-powered Boeing 737-800s. The engine portion of the order is valued approximately \$210 million.

Avolon, a new leasing company, ordered 12 CFM56-7B-powered Boeing 737-800 aircraft, with an engine value of approximately \$165 million.

China's OKAY airlines orders 10 CFM56-7B-powered Boeing Next-Generation 737 in an engine order valued at \$140 million. This was a previously counted, but unannounced, order.

China's Spring Airlines has selected CFM56-5B engines to power four new Airbus A320 family aircraft in an engine order valued at \$56 million U.S. at list price. The airline is scheduled to begin taking delivery in mid-2012.

In addition to announced orders, CFM also signed an additional order with an as yet undisclosed customer for five A320 family aircraft at a value of more than \$70 million.

#### SPRING AIRLINES EXPANDS CFM56-5B-POWERED A320 FLEET

Farnborough, England - 21 July 2010

China's Spring Airlines has selected CFM56-5B engines to power four new Airbus A320 family aircraft in an engine order valued at \$70 million U.S. at list price. The airline is scheduled to begin taking delivery in mid-2012. Spring Airlines, the first low cost carrier in China, is headquartered in Shanghai. As a subsidiary of the Spring International Travel Service Ltd., one of the leading travel service providers in China, the airline began operation in 2005 and a total of 37 purchased and leased CFM56-5B-powered A320 aircraft, either in service or on order. The airline is currently operating 19 A320s. "We're pleased to continue our relationship with CFM International and are very satisfied with the excellent performance of CFM56 engines," said Wang Zhenghua, Chairman of Spring Airlines. "The engine's low cost of ownership has been a strong contributor to our long-term growth strategy." "We are obviously honored by Spring Airlines' continued confidence in the CFM56 product line," said Eric Bachelet, president and CEO of CFM International, "We look forward to growing and improving this relationship for many more years to come."

#### CHINA EASTERN ORDERS CFM56-5B ENGINE TO POWER A320S; SIGNS LONG-TERM MAINTENANCE AGREEMENT

Farnborough, England - 19 July 2010 - China Eastern Airlines today announced that it has selected the CFM56-5B engine to power 30 new Airbus A320 family aircraft; the airline is scheduled to begin taking delivery in March 2011. The firm engine order is valued at approximately \$600 million U.S at list price. Together with the engine selection, China Eastern also signed a long-term RPFH (Rate per Flight Hour) agreement with CFM to provide comprehensive maintenance service for the CFM56 engines in the airline's fleet under which CFM will guarantee maintenance costs on a dollar per engine flight hour basis. China Eastern became a CFM customer in 1994 with an order for five CFM56-5C-powered long-range, four-engine Airbus A340 aircraft. Today, the airline is CFM's largest customer in China, currently operating about 500 CFM56-3/-5B/-5C and -7B engines. "We are honored by China Eastern's selection of the CFM56-5B engine," said Eric Bachelet, president and CEO of CFM. "China Eastern and CFM have a long-standing relationship, and this engine selection demonstrates the continued confidence the airline has in our products and services." The high reliability, long on-wing life, and low maintenance costs of the CFM56-5 make it extremely popular with major airlines, low-cost carriers, and leasing companies worldwide. All of China Eastern's new CFM56-5B engines are of the Tech Insertion configuration. This configuration was introduced in September 2007 and, through June 2010, the fleet of more than nearly 3,900 in service worldwide had logged more than 17 million flight hours and 9.6 million flight cycles without a single engine-related event. CFM56 Tech Insertion provides operators with a 1 percent improvement in fuel consumption over the life of the product, compared to the base CFM56-5B engine. This

lower fuel consumption also significantly lowers CO<sub>2</sub> emissions. Improved analytic design tools have also enabled CFM to further improve the Tech Insertion combustor such that it emits 25 percent lower NO<sub>x</sub> emissions and meets the current CAEP/6 industry requirements.

#### AIR CHINA EXPANDS CFM56-5B-POWERED A320 FLEET WITH NEW ORDER FOR 20 AIRPLANES

Farnborough, England - 19 July 2010 - Chinese flag carrier Air China today announced that it has selected the CFM56-5B engine to power 20 firm Airbus A320 aircraft. The agreement is valued at approximately \$600 million U.S. at list price, including a long-term maintenance agreement.

In addition to the new engine order, Air China also signed a Rate Per Flight Hour (RPFH) agreement with CFM to provide comprehensive maintenance service for the CFM56 engines in the airline's fleet under which CFM will guarantee maintenance costs on a dollar per engine flight hour basis.

Air China, which is scheduled to begin taking delivery of the new aircraft in 2011, is the largest commercial airline in China and has been a long-time CFM customer. In addition to the 20 A320s announced today, the airline's current fleet includes 55 Airbus A320 and 118 Boeing 737 family aircraft powered by CFM56-5B and CFM56-3/7B engines, respectively, as well as six long-range, four-engine Airbus A340-300 aircraft powered by the CFM56-5C.

"We are very pleased to continue our long relationship with CFM," said He Li, Vice President of Air China. "We already have a big CFM56-powered fleet of Airbus and Boeing aircraft, and the operating economics and the outstanding reliability of this engine have been enabling us save our costs and assure our customers of the very highest level of service that we can provide."

The high reliability, long on-wing life, and low maintenance costs of the CFM56-5 make it extremely popular with major airlines, low-cost carriers, and leasing companies worldwide. All of Air China's new CFM56-5B engines are of the Tech Insertion configuration. This configuration was introduced in September 2007 and, to date, the fleet of more than 2,350 in service worldwide has logged nearly 11 million flight hours and six million flight cycles without a single engine-related event.

CFM56 Tech Insertion provides operators with a 1 percent improvement in fuel consumption over the life of the product, compared to the base CFM56-5B engine. This lower fuel consumption also significantly lowers CO<sub>2</sub> emissions. Improved analytic design tools have also enabled CFM to further improve the Tech Insertion combustor such that it emits 25 percent lower NO<sub>x</sub> emissions and the engine meets the current International Civil Aviation Organization (ICAO) Committee of Aviation Environment Protection standards (CAEP/6) that took effect in early 2008. CFM56-5B engines are a product of CFM International, a 50/50 joint company between Snecma (Safran) and GE. CFM, the world's leading supplier of commercial aircraft engines, has delivered 21,000 engines to date.

#### JOINT C919 DEFINITION PHASE CONTINUES

Farnborough, England - 19 July 2010 - CFM International and the Commercial Aircraft Corporation of China (COMAC) are continuing the joint definition phase for the advanced C919 single-aisle aircraft/engine combination in preparation for entry into revenue service in 2016. The joint definition phase will continue into early 2011. In December 2009, COMAC selected CFM's advanced new LEAP-X engine as the sole western powerplant for the C919. COMAC has forecasted global sales of more than 2,000 C919 aircraft over the 20 years following entry into service in 2016. LEAP-X is a totally new centerline engine formally announced in mid-2008, and the development program has been progressing steadily ever since. CFM is on schedule with engine development work, will begin running a full-scale 5,000-cycle endurance test on the 3-D Woven Resin Transfer Molding (3-DW

RTM) composite fan in the third quarter 2010, as well as initiating testing of eCore Demonstrator 2 in mid-2011. The company recently completed a two-phase, 150-hour test program of eCore Demonstrator 1. This development work will culminate in the first full engine, the LEAP-X1C, going to test in early 2013. COMAC has opted for a complete Integrated Propulsion System (IPS) for the C919. CFM will provide the engine and, in partnership with Nexcelle, the nacelle and thrust reverser to deliver a complete IPS solution to COMAC. "The program is coming along very well," said Eric Bachelet, president and CEO of CFM International. "This agreement is the next logical step in what has been a tremendously successful collaboration between CFM, the Chinese aviation industry, and our Chinese airline customers. Today, we are embarking on an exciting new chapter with COMAC and we are honored to be a part of it." CFM, a 50/50 joint company between Snecma (Safran group) and GE, is the world's largest commercial aircraft engine manufacturer. In 2008, the two companies renewed the partnership to the year 2040. Nexcelle is a 50/50 joint venture between Aircelle (Safran group) and GE's Middle River Aviation Systems

#### SAFRAN SELECTED AS COMAC PARTNER ON CHINA'S C919 150-SEAT AIRCRAFT

Paris, December 21, 2009

The advanced new LEAP-X1C engine offered by Safran and General Electric through their CFM International joint venture has been selected as the sole western powerplant by COMAC (Commercial Aircraft Corporation of China, Ltd.) for its new 150-seat aircraft, the C919. COMAC opted for a complete propulsion system including the engine itself, the nacelle and the thrust reversers. The nacelle, an integral part of CFM's offer, will be produced by Nexcelle, also a joint venture between Safran (Aircelle) and GE (MRAS). COMAC expects its new aircraft to enter service in 2016. The contract was signed today in Beijing by Eric Bachelet, President and CEO of CFM International, and Zhang Qingwei, Chairman of COMAC. Also attending the ceremony were the prime ministers of France and China, François Fillon and Wen Jiabao. Jean-Paul Herteman, Chief Executive Officer of Safran, said: "China will represent the world's largest aviation market within a few years. We are very proud of our selection by COMAC, and of having this opportunity to contribute to the success of a new world-class aircraft. The selection of the Safran-GE alliance on the C919 is the culmination of our strategy based on partnerships and operations in China reaching back over 30 years. Our latest success confirms Safran's excellent position in the commercial aviation market, especially in the single-aisle jet segment." Zhang Qingwei, Chairman of the Board of COMAC, added: "The quality of the proposal was decisive in our selection. We are delighted to form this major partnership with a group that has largely demonstrated its excellence in aeronautical technologies, and has been able to construct a long-standing relationship of mutual trust with our country, spanning both business and industrial aspects." COMAC (Commercial Aircraft Corporation of China, Ltd.) is the Chinese commercial aircraft manufacturer established in May 2008.

#### TURBOMECA (SAFRAN GROUP) SIGNS AGREEMENT FOR TRAINING PROGRAMS IN CHINA

Bordes, 25 September 2009

Turbomeca has signed a Memorandum of Agreement (MoA) with the Civil Aviation Flight University of China (CAFUC). Under the terms of this agreement, Turbomeca and CAFUC will work towards the development of a Turbomeca Maintenance Training Programs, for qualified engineers and an initial training program to qualify engines maintenance engineers at Chengdu.

The new training programs will initially provide advanced courses in line maintenance and inspection of Turbomeca engines, which power the half of Chinese helicopters fleet.



Lin Yang, general manager of Turbomeca (Beijing) Helicopter Engines Trading Co. Ltd, explains the advantage of this agreement: "Turbomeca aims to support the growing Chinese helicopter industry. We are pleased to take this very important step in fulfilling that commitment and are looking forward to develop a long and fruitful relationship with CAFUC. These new programs will be capable to train experienced engineers for the new range of engine in China, and also train new engineers for the future. Efficient training in aeronautics improves flight safety and aircraft availability."

Xiaoyong Zheng, president of CAFUC, said: "I am very pleased to see that our cooperation with Turbomeca has taken a substantial step forward. CAFUC has contributed herself in a long-term period to civil aviation pilot training and the maintenance training in the field of aero-engine has accumulated a wealth of experience. Our cooperation will be started from the initial helicopter engine maintenance training program which will provide to China a worldwide standard of engines maintenance engineers, the best we will maintain helicopters engines the best we will keep helicopters flying! The collaboration will provide a solid helicopter engine maintenance personnel support, but also further reinforce the personnel base for the helicopter flight safety."

Turbomeca Training is a network built to have the best level standard in training practises and organisation. That is why, as each training center of the network, this new one will work under "Training Know How Manual" based on more than 40 years of experience to meet EASA Part 147 and locals authorities standards requirements. Also by working in a win/win philosophy hand-in-hand with CAFUC to develop it and build also initial program for engines maintenance engineers Turbomeca will to build a long term knowledge and high level of maintenance in China.

With 460 engines operated in civilian and **military** sectors, Turbomeca is the leading helicopter engine manufacturer in China, where one of two helicopters is equipped with Turbomeca engines or engines manufactured under Turbomeca license.

#### About CAFUC

CAFUC is a prestigious university in worldwide and a leading aeronautic university in China, for the moment a unique characteristic training model and accumulated training experience over the years, specialized in pilots and aircrafts technical engineers and intent to expend its knowledge in helicopters engines technology. CAFUC is part of the Aero Engine Maintenance Training Center (AEMTC), a Chinese-foreign cooperative training institution.

### AVIC AIRCRAFT AND NEXCELLE ANNOUNCE PLANS FOR A NACELLE JOINT VENTURE IN CHINA

Beijing, China, September 23, 2009

A MOU signed today by AVIC Aircraft Corporation and Aircelle/MRAS/Nexcelle creates the framework for a new joint venture that will design and manufacture engine nacelle and components for a full range of aircraft applications. This MOU, which was signed in Beijing during Aviation Expo China 2009, marks the first step in establishing a long-term alliance focused on engine nacelle technology and the production of nacelle and components to be used on both new and existing aircraft. The accord brings together key aviation industry leaders for collaboration on engine nacelle technology – which is one of the fundamental elements in an aircraft's performance, efficiency and environmental footprint. AVIC Aircraft is responsible for the development of medium/large transport, commercial aircraft and landing gear systems and nacelle in China, while Nexcelle is the nacelle joint venture company created by GE's Middle River Aircraft Systems and Aircelle, a Safran group company. "Our MOU is an important milestone for AVIC Aircraft as we establish new aviation capabilities in China," said Hu Xiaofeng, the president of AVIC Aircraft. "It is important to work with the best partners for crucial technologies such as engine nacelles." AVIC Aircraft and Nexcelle will consider a broad range of nacelle and components manufacturing and design opportunities, including current production

programs and for new aircraft. Categories could range from business jets to large airliners. "We are extremely pleased to join with AVIC Aircraft for this long-term cooperation, which opens new prospects to meet evolving air transportation needs in China and elsewhere," stated Nexcelle President Steve Walters. The joint venture will be a 50/50 shared company, and is backed by the resources of Nexcelle's two parent companies – Aircelle and Middle River Aircraft Systems – as well as their parent companies GE Aviation and Safran groups.

"This is a significant opportunity to rapidly develop new nacelle capabilities in China, and to work with AVIC Aircraft as it performs a vital role in building the country's aviation sector," added Jean-Pierre Cojan, the Chairman and CEO of Aircelle.

#### SAFRAN AND AVIC EXTEND PARTNERSHIP

Beijing, September 23, 2009

Safran and AVIC have extended their long-standing partnership in airplane and helicopter engines to encompass aircraft equipment.

Yves Leclère, Safran Executive Vice President, Aircraft Equipment, and Hu Xiaofeng, President of AVIC Aircraft, today signed a framework agreement concerning landing systems and engine nacelles.

Also present at the contract signing in Beijing were Lin Zuoming, President of AVIC, Jean-Paul Herteman, CEO of Safran, Marc Ventre, Safran Executive Vice President, Aerospace Propulsion, and MA Fuan, AVIC Engine President.

The two partners will collaborate on all aspects of these two product lines, including design, production, assembly, and support. The agreement includes the planned establishment of new facilities in China, based on the partners' existing assets.

Drawing on Safran's leadership positions in aircraft equipment, coupled with AVIC Aircraft's proven expertise and industrial capabilities, the partners will be able to submit competitive proposals for new Chinese aircraft, such as the COMAC C919, as well as other applications.

The partnership between Safran and AVIC was initiated when AVIC Aircraft subsidiaries Landing Gear Advanced Manufacturing Corp., Ltd, Xi'an Aviation Brake Technology Co., Ltd. and The First Aircraft Institute, agreed with Safran group subsidiaries Messier-Dowty and Messier-Bugatti, to submit a joint proposal to COMAC for landing and braking systems on the C919.

The partnership took a further step forward today, with Nexcelle and AVIC Aircraft signing a Memorandum of Understanding (MoU) to create a joint venture for engine nacelles.

AVIC : Aviation Industry Corporation of China, Ltd

COMAC : Commercial Aircraft Corporation of China, Ltd

Nexcelle : Nacelle joint venture created by GE's Middle River Aircraft Systems and Aircelle, a Safran company

Safran operates several industrial facilities and joint ventures in China, located in Beijing, Shanghai, Suzhou, Chengdu, Guiyang, Yangzhou.

#### MESSIER-DOWTY AND LAMC JOIN FORCES TO PROPOSE THE INTEGRATED LANDING GEAR SYSTEM FOR THE CHINESE SINGLE AISLE C919 AIRCRAFT

Paris, June 15, 2009

Pascal Sénéchal, Chairman & CEO, Messier-Dowty, representing also Messier-Bugatti (both SAFRAN Group companies), and XU Jun, President of LAMC, representing also Xian Aviation Brake Technology and First Aircraft Institute, signed on June 5th a LOI (Letter Of Intent) preparing a cooperation between these companies for the Chinese single aisle COMAC C919 program. The signature took place in Shanghai, in the presence of Mr. CHEN Fusheng, Vice General Manager of AVIC Aircraft. This agreement covers the complete landing gear system for the future aircraft, which entails the gear structure,

wheels and brakes, braking and landing systems. The parties have thus committed to an exclusive partnership and joint response to COMAC's upcoming request for proposal. SAFRAN, one of the world's leading aerospace, **defense** and security equipment suppliers, is currently in competition to supply a large range of equipment on the C919 program, which includes, among others, the integrated landing gear system. Moreover, SAFRAN is present in China through several industrial units and joint ventures, including its Snecma and Messier-Dowty manufacturing facilities in Suzhou.

LAMC : Landing Gear Advanced Manufacturing Corp, Ltd.

AVIC : Aviation Industry Corporation of China, Ltd.

COMAC : Commercial Aircraft Corporation of China, Ltd.

#### SAFRAN STRENGTHENS ITS RELATIONSHIP WITH THE CIVIL AVIATION UNIVERSITY OF CHINA BY OFFERING A TURBOMECA ENGINE

Paris, May 25, 2009

Following the collaboration agreement signed by SAFRAN and the Civil Aviation University of China in 2005, today the SAFRAN Group is pleased to offer Turmo IVC engine to the University. The collaboration agreement signed by SAFRAN, an international technology leader, and CAUC, the main aeronautical engineering school in China, started with the inauguration of the media library on November 15, 2005. CAUC and SAFRAN set up a relationship based on open communications in their mutual interest. One of the goals is to develop a SAFRAN Exclusive Publications Room in the CAUC library, along with a SAFRAN Product Exhibition and Practice Hall and personal training seminars. CAUC will mainly invest in infrastructure, while SAFRAN will provide certain equipment and materials. Lin Yang, general manager of Turbomeca (Beijing) Helicopter Engines Trading Co. Ltd, said: "On behalf of Turbomeca and SAFRAN, I am very pleased to offer the Turmo IV C engine to the Civil Aviation University of China. This engine powers the SA 330 Puma twin-engine civil helicopter. It was certified on December 1, 1972. The Civil Aviation University of China (CAUC) is China's leading aeronautical engineering school for civil aviation. SAFRAN, one of today's top international aerospace, **defense** and security groups, has been supporting educational institutions and programs in China for a number of years."

SAFRAN's presence in China reaches back to the 1970's, when the Chinese army ordered Super Frelon helicopters from Aerospatiale (today Eurocopter), powered by Turbomeca's Turmo III engines. Today, 25 Turmo III C are deployed by the Chinese Navy.

SAFRAN has established a strong presence in China through its subsidiaries. It aims to develop even stronger local presence by working with Chinese partners, both airframers and operators, and through industrial partnerships based on local purchasing.

#### CFM INTERNATIONAL CHINA SOUTHERN CHOOSES CFM56-5B TO POWER NEW A320 AIRCRAFT

Farnborough, England — July 14, 2008

China Southern Airlines today announced that it has selected CFM56-5B engines to power a new fleet of 20 Airbus A320 family aircraft, and back the engine purchase with a long-term material services agreement. CFM56-5B engines are a product of CFM International, a 50/50 joint company between Snecma (SAFRAN Group) and General Electric Company. China Southern, one of the largest airlines operating in The People's Republic of China, operates more than 600 domestic and international routes. It is also the first Chinese airline and the only one who is ranked as top five carriers in the world in terms of volume of passenger traffic. The airline was one of CFM's first customers in China and the airline has been operating CFM56 engines for more than 20 years. The aircraft announced today, which will be delivered between March 2009 and mid-2011, will nearly double the airlines current CFM56-powered A320 fleet. China Southern also operates 27 CFM56-3-powered 737 Classics as well as 71 Boeing Next-Generation 737s. An additional

65 737NG are on order, with deliveries scheduled through 2013. "China Southern is a long-time CFM customer and we honored that an airline of this caliber continues to put its trust in CFM56 engines," said Eric Bachelet, president and CEO of CFM. China Southern's new CFM56-5B/3 engines will be the Tech Insertion configuration, which incorporates advanced technologies to provide operators with improved fuel burn and lower maintenance costs. Compared to the base CFM56-5B engines already in the airline's fleet, the Tech Insertion-powered fleet of 20 aircraft could save the airline as much as 275,000 gallons of fuel each year, as well as significantly lowering carbon emissions. Improved analytic design tools enabled CFM to optimize the Tech Insertion combustor so that it will provide 25 percent lower NOx emissions, providing even greater margin to the new International Civil Aviation Organisation (ICAO) Committee of Aviation Environmental Protection emissions standards (CAEP/6 regulations) which took effect in early 2008. The CFM56-5B is popular with major airlines, low-cost carriers, and leasing companies alike. More than 3,150 CFM56-5B engines have been delivered to date, and the fleet is growing at a rate of about 40 engines per month. Primary factors behind the engine's broad-based acceptance include this industry's best reliability, durability, low cost of ownership, and world-class customer and product support. The CFM56-5B is the only engine that can power every model of the A320 family, from the small A318 up to the A321, with the same bill of materials.

#### SAFRAN INAUGURATES THREE NEW FACILITIES IN CHINA

Suzhou, China, April 7, 2008

The SAFRAN Group has established solid, long-standing relations with the Chinese aviation industry, including a growing industrial presence in the country. SAFRAN is now continuing its expansion policy, with the inauguration of three new production facilities in China. SAFRAN Chief Executive Officer Jean-Paul Herteman inaugurated today two new Group plants, Snecma Suzhou Co. Ltd., and Messier-Dowty Suzhou Co. Ltd., in the Suzhou industrial park (80 kilometers from Shanghai). The inauguration ceremony was attended by Shi Heping, vice governor of the Jiangsu province, Yan Li, Mayor of Suzhou, representatives of the Chinese and French governments, and heads of SAFRAN Group companies. These two new plants, spanning some 14,000 square meters, are located on the same site. Snecma Suzhou will produce components for CFM56-5B and -7B engines, while Messier-Dowty Suzhou will make components for Messier-Dowty landing gear. "The plants being inaugurated today reflect our deep commitment to China and the growing importance of our collaborative ventures," emphasized Jean-Paul Herteman. "Today, China is the leading client for our civil aviation products. And it is increasingly a world-class production source for us, under controlled and mutually beneficial conditions." The next inauguration will be on April 10, for Snecma Xinyi Airfoil Castings Co. Ltd., a partnership between Snecma and Guizhou Xinyi Machinery Factory (AVIC I). This new casting factory will make turbine parts for CFM56-2, -3, -5A, -5C and -7B engines.

#### TURBOMECA INAUGURATION OF BEIJING TURBOMECA CHANGKONG AERO-ENGINE CONTROL EQUIPMENT CO. LTD

Beijing, 27 March 2008

Beijing Turbomeca Changkong today launches its new activity. This joint venture assembles and tests hydro mechanical units of turboshaft engines for both Turbomeca and Beijing Changkong, for their respective markets. It is located 50 km North of Beijing in the Chinese partner new plant, located in a high-tech park. A clear demonstration of the entry into operation with its relevant production agreement was given at the occasion. Fuel Control Units (FCU) and Hydro Mechanical Units (HMU) are assembled and tested in this new joint venture. Among the control system concerned, the WZ8C HMU (licensed Arriel 2C) powering the H425 helicopter designed and produced by Harbin Aviation Industry, an

AVIC II company. "Beijing Turbomeca Changkong marks a major advance in the development of Turbomeca's helicopter business in China and the role Turbomeca intends to play, as well as for SAFRAN's expanding range of partnerships in the country," noted Emeric d'Arcimoles, chairman & CEO of Turbomeca. The joint venture obtained the JAR 21G Approval end December 2007. In China, one helicopter out of two is equipped with Turbomeca engines or Turbomeca licensed products. As a reminder, a cooperation framework agreement was signed in 2005 with AVIC II (China Aviation Industry Corporation II), concerning the delivery of 200 Arriel 2C helicopter turboshaft engines to China, along with a partial production license. Turbomeca and AVIC II started working together in the 1980s, with a license for the Arriel 1 engine, initiated by China National South Aero Engine Corporation (SAEC).

About Beijing Turbomeca Changkong: Beijing Turbomeca Changkong Aero-Engine Control Equipment Co. Ltd is the first joint venture company between Turbomeca (SAFRAN Group) and Beijing Changkong Machinery, an AVIC II company.

Turbomeca (SAFRAN Group) is the leading helicopter engine manufacturer, and has produced over 50 000 turbines based on its own designs since the company was founded. With 2,200 customers in over 150 countries, Turbomeca provides a proximity service thanks to its 15 sites, 2 subsidiaries, 25 TurboSupport Centers, 24 repair centers and 90 Field representatives and Field technicians. The Head Office is based in Bordes, Pyrénées-Atlantiques (south-west France). Microturbo, a subsidiary of Turbomeca, is the European leader in turbojet engines for missiles, drones and auxiliary power units. For more information, please visit our Web sites: [www.turbomeca.com](http://www.turbomeca.com) and [www.safraan-group.com](http://www.safraan-group.com). Beijing Changkong Machinery is the leader in the People's Republic of China for the manufacture, assembly, test, delivery and after sales services, overhaul of aero-engines accessories, as control system of tail jet-orifice, and more specifically manufacture, assembly and test delivery and after services, overhaul of fuel governing systems for helicopter turbo-shaft engines.

#### MESSIER SERVICES MESSIER SERVICES ASIA SIGNS A MAJOR CONTRACT AND STARTS MAINTENANCE ON B737 NG GEARS

Singapore, February 20, 2008

Messier Services Asia (SAFRAN Group), has signed a new major agreement with China Eastern covering 24 x Airbus A320 landing gear program for exchange, maintenance and overhaul. The work has already started and will continue throughout 2008 & 2009.

During 2007, several other contracts for exchange and overhaul were awarded to Messier Services Asia :

- China Southern for 3 x Airbus A320 Landing Gear shipsets
- Thai Airways for 6 x Boeing B737-400 Landing Gear shipsets

Following its Boeing certification and the expansion of its facility, Messier Services Asia has started maintenance and overhaul on B737 New Generation Landing Gears. The first overhauled gear was shipped out on the 5th of November 2007 and Messier Services Asia will have the opportunity to increase further the volume this year on this type of gear.

#### CFM INTERNATIONAL CHINA'S SPRING AIRLINES SELECTS CFM56-5B TO POWER A320 FLEET

Evendale, Ohio - January 16, 2008

China's Spring Airlines has signed a Memorandum of Understanding (MOU) to purchase CFM56-5B engines to power its new fleet of 10 Airbus A320 aircraft in an engine order valued at approximately \$170 million at list price, including spare engines. The airline is scheduled to begin taking delivery in March 2009. CFM56-5B engines are a product of CFM International (CFM), a 50/50 joint venture between Snecma (SAFRAN Group) and General Electric Company and the world's leading supplier of commercial aircraft engines.

Spring Airlines, the first low cost carrier in China, is headquartered in Shanghai. As a subsidiary of the Spring International Travel Service Ltd., one of the leading travel service providers in China, the airline began operation in 2005 and has been profitable since then with passenger load factor as high as 95% and its CFM56 fleet has kept a very high safety standard. In addition to the purchased A320s, the airline has also signed an agreement to lease 12 additional CFM56-5B-powered Airbus A320 aircraft, which are scheduled for delivery between 2009 and 2012.

"We're pleased to continue our relationship with CFM International and are very satisfied with the excellent performance of CFM56 engines," said Wang Zhenghua, Chairman of Spring Airlines. "The engine's low cost of ownership has been a strong contributor to our ability to implement a long-term growth strategy."

"We are obviously honored by Spring Airlines' continued confidence in the CFM56 product line," said Eric Bachelet, President and CEO of CFM International, "We look forward to growing and improving this relationship for many more years to come."

#### SAFRAN AWARDS 2007 RESEARCH PRIZE TO CHINESE STUDENTS

Beijing, September 18, 2007

During the Beijing Air Show, the SAFRAN Group awarded today the annual SAFRAN Prize for research in China. This prize recognizes the best theses in Chinese universities concerning the Group's areas of business. The SAFRAN Prize was awarded for the fifth year in a row. The 2007 SAFRAN Prize was given to the two prizewinners today by François Courtot, SAFRAN Senior Vice President, International Development, at a ceremony attended by Yves Leclère, SAFRAN Executive Vice President, Aircraft Equipment branch, René Gaudin, Director of Aviation Program & Cooperation of DGAC, MENG Xiang Tai, Vice President of BUAA in charge of S&T and Jean Dorey, Director of Beijing Central Institute of Technology. The first prize, worth 50,000 RMB (5,000 euros), was awarded to Dr Li Zhiping of the Beijing University of Aeronautics and Astronautics (BUAA) for his thesis on "Experimental Investigation of realizing Unsteady Cooperative flow in Axial-flow Compressor". Dr. Li took an experimental view of unsteady flows through a compressor stage. He showed that adjusting the number of blades between the IGVs and the rotating stage helped improve flow behavior, with a significant improvement in the compressor stage surge margin. This highly original work greatly improves the understanding of the effect of the number of blades on the stability of the compressor stage, and will be very useful in the design of aircraft engines. His thesis advisor was Professor Lu Ya-jun. The second prize, worth 20,000 RMB (2,000 euros), was awarded to Dr Lu Xingen of the Polytechnic University of Northwest Xian for his thesis on "Flow Instability and its Passive Control Strategies in Axial-flow Compressor". He studied innovative strategies to improve surge margins for axial compressors, which is very important in the design of high-performance compressors. His thesis advisor was Professor Chu Wuli. SAFRAN has invited the two prizewinners and their thesis advisors to France to meet specialists in their field and pave the way for future collaboration. The SAFRAN Prize is part of the partnership strategy that the Group has developed since 2002 with Chinese universities, covering training and research. It concerns the training of Chinese engineers in France, and the development of joint research with Chinese laboratories and research organizations.

#### CFM INTERNATIONAL BOC AVIATION ORDERS CFM-POWERED A320 AIRCRAFT IN \$95 MILLION ENGINE ORDER

Evendale, Ohio — July 23, 2007

BOC Aviation today became a new CFM56-5B customer with an announcement that it has selected the engine to power seven firm, 10 option Airbus A320 family aircraft. The firm engine order is valued at approximately \$95 million over the life of the product.

CFM56-5B engines are produced by CFM International, a 50/50 joint company between Snecma (SAFRAN Group) and General Electric Company. CFM is the world's leading supplier of commercial aircraft engines with more than 17,000 engines in service with more than 485 operators. "The CFM56 powered A320 family is popular with airlines from every sector of the business and all geographic regions," said Robert Martin, SALE managing director and Chief Executive Officer. "We are pleased that BOC Aviation will now be able to enter the market for this successful airframe and engine combination." BOC Aviation, previously known as Singapore Aircraft Leasing Enterprise (SALE), is the leading Asia-based aircraft leasing company. Today the company has a fleet of 75 modern aircraft flying with 29 airlines worldwide. The company has a total of 63 aircraft on firm order from Airbus and Boeing for delivery through to 2012, including 20 A320 family aircraft. BOC Aviation is owned 100% by Bank of China. The CFM56-5B is the engine of choice for the Airbus A320 family and is popular with major airlines, low-cost carriers, and leasing companies alike. More than 2,700 CFM56-5B engines have been delivered to date, and the fleet is growing at a rate of about 32 engines per month. Primary factors behind the engine's broad-based market acceptance include this industry's best reliability, durability, low cost of ownership, and world-class customer and product support. The CFM56-5B is the only engine that can power every model of the A320 family, from the small A318 up to the A321, with the same bill of materials.

**CFM INTERNATIONAL CHINA'S QIANTANG AIRWAYS PLACES \$150 MILLION CFM56-5B ENGINE ORDER**

Le Bourget — June 20, 2007

Qiantang Airways has selected the CFM56-5B engine to power its new fleet of 10 Airbus A319/A320 in an engine order valued at approximately \$150 million over the life of the product. The airline will take delivery between 2009 and 2011. CFM56-5B engines are a product of CFM International (CFM), a 50/50 joint venture between Snecma (SAFRAN Group) and General Electric Company and the world's leading supplier of commercial aircraft engines. Qiantang Airways, a new Chinese start up, is the first private airline in Zhejiang Province of China and has been in development since June 2006. The airline is headquartered in Hangzhou, and is scheduled to begin scheduled passenger service in January 2008. "The CFM56-5B engine is an ideal match for our A320/319 fleet," said Chen Xijian, Chairman of Qiantang. "The outstanding quality and reliability of this engine will be a big advantage to our operations as we launch revenue service and begin to win new customers. The engine's low cost of ownership will also be a strong contributor to our ability to implement a long-term growth strategy." "We are honored to welcome Qiantang Airways as our newest CFM56 customer," said Eric Bachelet. "We look forward to working with them as the launch their airplane and we see this order as the beginning of what we hope will become a great and lasting relationship."

**CFM INTERNATIONAL AIR CHINA PLACES \$345 MILLION CFM56-5B ENGINE ORDER**

Evendale, Ohio — January 29, 2007

Chinese flag carrier Air China has selected the CFM56-5B engine to power its new fleet of 24 Airbus A321s. The engine order is valued at approximately \$345 million at list price and the airline will take delivery between 2008 and 2012.

CFM56-5B engines are a product of CFM International (CFM), a 50/50 joint venture between Snecma (SAFRAN Group) and General Electric Company and the world's leading supplier of commercial aircraft engines.

Air China Limited has been a CFM customer since 1986 and operates more than 100 CFM56-powered aircraft, including Airbus A319s and A340-300s, as well as Boeing Classic 737-300s and Next-Generation 737-600/-700/-800 aircraft.

In addition to the engine order, Air China will sign a 15-year maintenance agreement covering engine overhaul and repair of its new engines. For the existing fleet, Air China will sign a 15-year material agreement that will provide the airline with a full range of new, used, and repaired material offerings tailored to the specific requirements of each individual overhaul. Also, Air China and CFM have agreed to establish an innovative maintenance repair, and overhaul (MRO) joint venture that will combine the airline's extensive expertise with that of CFM and its parent companies, Snecma and GE, to create a truly world-class maintenance facility.

"This is a great new phase in our relationship with Air China," said Mike Wilking, vice president, China region, for CFM. "We're honored both by their continued confidence in our products and by the opportunity to be such an integral part of their overall operations going forward."

The CFM56-5B is the engine of choice for the Airbus A320 family and is popular with major airlines, low-cost carriers, and leasing companies alike. More than 2,450 CFM56-5B engines have been delivered to date, and the fleet is growing at a rate of about 32 engines per month. Primary factors behind the engine's broad-based market acceptance include this industry's best reliability, durability, low cost of ownership, and world-class customer and product support. The CFM56-5B is the only engine that can power every model of the A320 family, from the small A318 up to the A321, with the same bill of materials.

About Air China: Air China Limited (Air China) is the national flag carrier of China and a leading provider of air passenger, air cargo and airline-related services in China. Its operational head office is in Beijing. It has an extensive route network serving major Chinese cities and international destinations, with dominant market share measured by total traffic volume for the Beijing Capital International Airport. It also provides airline-related services, including aircraft maintenance, ground services and in-flight catering services in Beijing, Chengdu, Hong Kong and other locations through its own business units and joint ventures. As of 31 December 2006, it operated a fleet of 207 aircraft, serving 77 domestic and 38 international and 1 regional Airports.

Air China was listed on the Hong Kong Stock Exchange and the London Stock Exchange on 15 December 2004 under codes 0753 and AIRC respectively. On 2 July 2006, Air China debuted its American Depositary Receipt (ADR) listing on the New York Stock Exchange under the code AIRYY. On 16 August 2006, Air China was listed on the Shanghai Stock Exchange under code 601111. On 4 August 2004, Air China was designated as the sole official airline partner of the Beijing Olympic Games.

#### SAFRAN FIRST CONTRACT FOR THE BOEING 787 DREAMLINER ELECTRIC BRAKE DEVELOPED BY MESSIER-BUGATTI AND SAGEM DÉFENSE SÉCURITÉ

Paris, November 14, 2006

China Eastern Airlines has chosen Messier-Bugatti (SAFRAN group) to supply the wheels and electric brakes for its entire fleet of 15 Boeing 787-8 jetliners. The first two aircraft in this order are slated for delivery in June 2008, and the last in August 2010. China Eastern is one of the launch customers for the 787 Dreamliner, the first commercial jetliner equipped with electrically-driven brakes. This innovative technology was developed by two companies in the SAFRAN group, Messier-Bugatti, a world-renowned specialist in aircraft carbon brakes, and Sagem Défense Sécurité, a European **defense** electronics and security leader. Sagem Défense Sécurité supplies the Electrical Brake Actuator Controller (EBAC) for the system, reflecting its leading-edge expertise in power electronics and electronic assemblies. This contract was the first selection of Messier-Bugatti's electric brake on the Boeing 787; others are expected very shortly. Messier-Bugatti Chairman and CEO Jean-Christophe Corde said: "Replacing traditional hydraulics with an electrical system reflects a disruptive technology, now considered mature after several years of intensive development work by our top specialists. It also signals a major step forward in



the development of the 'all-electric' aircraft, and is as revolutionary as the introduction of carbon brakes some 20 years ago. In addition the contract consolidates Messier-Bugatti's global leadership in this market." "We are very proud of our selection by China Eastern, one of the leading carriers in Asia, a market that accounts for about half of all orders for the 787 Dreamliner," added Jean-Christophe Corde. Today, Messier-Bugatti supplies the wheels and carbon brakes on 80% of all A320 family aircraft produced by Airbus. Messier-Bugatti has been a supplier to Boeing for nearly ten years and, with the 787 Dreamliner and the 737 Next Generation family, it now offers this technological excellence on two of Boeing's flagship jetliners.

This is an extract:

CENCO INTERNATIONAL SEVERAL TEST ENGINE FACILITY CONTRACTS  
(TOTAL OF 11 M€) FOR CENCO INTERNATIONAL

Liège, November 6, 2006

"Cenco International, a member of the SAFRAN Group and a worldwide leader in the design of aerospace-engine test-cell facilities, concluded recently major contracts in its areas of excellence for a total amount of 11 M Euros."

"Cenco International has also been chosen by Sichuan Snecma Aeroengine Maintenance Center (SSAMC) in Chengdu, China, to add the CFM56-5B and CFM56-7B capability to its existing CFM56-3 test cell."

"Cenco International will supply the adapter kits, the software system, and the slave equipment for testing these types of engines. SSAMC is adding this capability following the recent deal it concluded with Air China for the maintenance of its CFM56-5B and -7B engine fleet."

"SSAMC (SAFRAN Group) is an equity joint venture established in July 1999 between Snecma Services France (51,8%), Air China Group (43,6%) and Willis Lease Finance Corporation (4,6%), SSAMC is specialized in the maintenance and repair of CFM56 engines, conducted in large workshops based on Shuangliu airport in Chengdu, in the Chinese province of Sichuan."

SAFRAN AWARDS 2006 CHINESE UNIVERSITY RESEARCH PRIZE

Paris, November 3, 2006

During the Zhuhai airshow in China, SAFRAN awarded its annual prize for the best doctoral theses in Chinese universities on subjects concerning the Group's businesses. This marked the fourth year in a row that these prizes were awarded. The SAFRAN 2006 prize was awarded to the two prizewinners on October 31 by François Courtot, Vice President International Affairs. Attending the ceremony were René Gaudin, director of aircraft programs and collaboration at French civil aviation agency DGAC, Josselin Kalifa, high-technology advisor with the Economic Mission in Beijing, at the French embassy in China, Tan Ruisong, Vice Chairman of AVIC II, and representatives of the Nanking University of Aeronautics and Astronautics (NUAA), and the Tsing Hua University in Beijing. The First Prize, worth 50,000 renminbis (RMB), or 5,000 euros, was awarded to Dr. Wang Yingyu from NUAA for his thesis on "Fatigue behavior and fatigue life prediction of metals under multiaxial cyclic loading." His work will help improve our understanding of the reliability of metallic parts, and is extremely useful in the design of engines and aircraft equipment. His thesis advisor is Professor Yao Weixing. The Second Prize, worth 20,000 RMB, or 2,000 euros, was awarded to Dr. Zhang Chao of Tsing Hua University in Beijing, for his thesis on "Novel sequence set with zero correlation zone." His work could be applicable to aeronautical communications as well as 4th-generation mobile phones. His thesis advisor is Professor Lin Ziaokang. The two prizewinners, along with their advisors, are invited to France by SAFRAN, to meet other specialists in their field and kick off future collaborations. The annual SAFRAN prize reflects the Group's research and education

partnership strategy with Chinese universities, which started in 2002. The partnership covers the training of Chinese engineers in France, and the development of joint research with Chinese laboratories and organizations.

#### TURBOMECA SIGNATURE BETWEEN TURBOMECA AND BEIJING CHANGKONG MACHINERY FOR A JOINT VENTURE COMPANY

Bordes, 2 November 2006

During Air Show China (Zhuhai, China), Turbomeca (SAFRAN Group) signed a "Joint Venture Contract" with Beijing Changkong Machinery (AVIC II company), in view of creating the first joint venture company between Turbomeca and an AVIC II company: Beijing Turbomeca Changkong Aero-Engine Control Equipment Co. Ltd. This joint venture will assemble and test hydro mechanical units of turboshaft engines for both Turbomeca and Beijing Changkong, for their respective markets. It will be located 50 km North of Beijing in the Chinese partner new plant, located in a high-tech park. Fuel Control Units (FCU) and Hydro Mechanical Units (HMU) will be assembled and tested in this new joint venture. The joint venture entry into operation with its relevant production agreement is targeted to be in October 2007. Among the control system concerned, the WZ8C HMU (licensed Arriel 2C) powering the H425 helicopter designed and produced by Harbin Aviation Industry, an AVIC II company. The joint venture intends to hold the JAR 21G Approval. This agreement marks a major advance in the development of Turbomeca's helicopter business in China and the role Turbomeca intends to play, as well as for SAFRAN's expanding range of partnerships in the country. In China, one helicopter out of two is equipped with Turbomeca engines or licensed products. Today, about 500 Turbomeca engines are being operated in China. As a reminder, a cooperation framework agreement was signed in 2005 with AVIC II (China Aviation Industry Corporation II), concerning the delivery of 200 Arriel 2C helicopter turboshaft engines to China, along with a partial production license. Turbomeca and AVIC II started working together in the 1980s, with a license for the Arriel 1 engine, initiated by China National South Aero Engine Corporation (SAEC).

#### About AVIC II

China Aviation Industry Corporation II (AVIC II), as a major force in Chinese aviation industry, is a super large state-owned enterprise established on July 1, 1999 on the basis of part of former AVIC. With 64 industrial enterprises, research institutes and other member enterprises, AVIC II mainly engages in the development, manufacturing, sales and support of civil and **military** aircraft including helicopter, transport, attacker, general-purpose aircraft, UAV, etc. and their related aero-engines and airborne equipment. Over 50 years, 6,800 aircraft (including over 800 helicopters), 26,000 aero-engines were produced, among which, many aircraft have been exported in about 30 countries. Besides, automobile is its pillar non-aero product.

About Beijing Changkong Machinery Beijing Changkong Machinery is the leader in the People's Republic of China for the manufacture, assembly, test, delivery and after sales services, overhaul of aero-engines accessories, as control system of tail jet-orifice, and more specifically manufacture, assembly and test delivery and after services, overhaul of fuel governing systems for helicopter turbo-shaft engines.

#### SAFRAN GROUP DONATES A CFM56-3B ENGINE TO THE CIVIL AVIATION UNIVERSITY OF CHINA ON THE OCCASION OF ITS 55TH ANNIVERSARY

Paris, August 30, 2006

A delegation from SAFRAN representing the entire SAFRAN Group, led by Jean-Lin Fournereaux, Chairman and Chief Executive Officer of Snecma Services, took part in the ceremony to mark the 55th anniversary of the Civil Aviation University of China (CUAC) and promote the institution, on August 26, in Tianjin. Attending the ceremony were Wu

Tongshui, President of the CAUC, Yang Yuanyuan, Minister responsible for the General Administration of the Civil Aviation of China (CAAC), Yang Guoqing, Vice-Minister of the CAAC, Dai Xianglong, the Mayor of Tianjin, as well as the chairmen of several Chinese airlines, including Air China, China Eastern, China Southern and Hainan Airlines. During this significant ceremony the SAFRAN Group was delighted to present the CAUC with a grant of 10 000 euros, as well as a CFM56-3B demonstrator engine. These donations follow the cooperation agreement signed in September 2005 by the SAFRAN Group and the CAUC. They will enable the opening in the near future of an exhibition room dedicated to SAFRAN products, including this CFM56-3B engine. During the event, Sichuan Snecma Aero Engine Maintenance Co (SSAMC, a joint venture between Snecma Services and Air China) and the CAUC signed a Memorandum of Understanding. Under the terms of the MoU, SSAMC and the CAUC will organize training and seminars on SSAMC MRO (maintenance, repair and overhaul) techniques for CAUC students and teachers.

SSAMC (SAFRAN Group) is an equity joint venture established in July 1999 between Snecma Services France (52.67%), Air China Group (40.33%) and Willis Lease Finance Corporation (7%). SSAMC is specialized in the maintenance and repair of CFM56 engines, conducted in large workshops based on Shuangliu airport in Chengdu, in the Chinese province of Sichuan.

#### SAFRAN WINS EXCLUSIVE 20-YEAR ENGINE MRO CONTRACT FROM AIR CHINA

Paris, December 6, 2005

Air China Company Ltd. and Sichuan Snecma Aero-engine Maintenance Company (SSAMC, a joint venture controlled by Snecma Services, a SAFRAN Group company, in partnership with Air China and Willis Lease Finance Corporation) signed an exclusive service contract for a period of 20 years. The contract covers the maintenance, repair and overhaul (MRO) of all CFM56-5B and CFM56-7B engines powering Air China's fleet of jetliners. This is one of the most extensive engine MRO contracts ever signed with a Chinese airline. Air China already operates more than 200 CFM56 engines, and its fleet is growing quickly. The project was initiated back in October 2004, during a state visit by French President Jacques Chirac to Chengdu, China. Today, the agreement has been finalized, thanks to the long-term vision and solid commitment by both parties. "The contract with Air China is a critical step in our company's development in China," noted Jean-Lin Fournereaux, Chairman and CEO of Snecma Services. "In 1999 we created the first CFM56 repair shop in China along with China Southwest Airlines, which subsequently merged with Air China. Our aim was to develop 'best in class' MRO service along with our customers. We won this long-term contract from Air China due to our local commitment, top-flight expertise, close relationship with the CFM56 engine manufacturer and the technical excellence of the SSAMC workshops." Along with the agreement, Snecma Services will make major capital investments in the SSAMC site, as well as creating jobs in Chengdu, Sichuan Province. The maintenance and repair facility, already specialized in CFM56-3 engines, will extend its expertise to encompass the CFM56-5B and CFM56-7B models. Snecma Services will provide the technical support needed by local teams, as well as the necessary technology and skill transfers. Air China Company Ltd., also expressed its satisfaction with the agreement: "This contract provides solid foundations for a long-term, effective collaboration between Air China and SSAMC. Our top priority is of course flight safety, which has been largely recognized by a number of awards. We will be able to even further enhance flight safety by using proven MRO techniques, and optimizing engine returns to the shop for servicing. We are very satisfied with our partnership with SSAMC, which will help drive the success of our company." Air China is one of the largest airlines in China, with a fleet of over 160 aircraft and the widest choice of destinations, both domestic and international. It is also known for its exceptional service. Based on forecasts of air traffic growth in its market, Air China enjoys an excellent development outlook.

## SAFRAN AND AVIC II SIGN FRAMEWORK AGREEMENT TO COLLABORATE ON HELICOPTER ENGINES

Paris, December 6, 2005

Jean-Paul Béchat, Chairman of SAFRAN, and Zhang Hongbiao, Chairman of AVIC II (China Aviation Industry Corporation II), signed a framework agreement on December 5 concerning the delivery of 200 Arriel 2 helicopter turboshaft engines to China, along with a partial production license. The signing ceremony at the Hotel Matignon in Paris was attended by French Prime Minister Dominique de Villepin, and Wen Jiabao, Prime Minister of the People's Republic of China. This contract marks a major step forward in relations between Turbomeca, part of the SAFRAN Group, and AVIC II. The two companies started working together in the 1980s, with a license for the Arriel 1 engine, initiated by China National South Aero Engine Corporation (SAEC). The contract for the Arriel 2 engine signals the advent of a new era. In particular, this engine is intended for the H 425 helicopter designed and produced by Harbin Aviation Industry, one of the two helicopter manufacturers belonging to AVIC II. A large part of the engine components and modules will be produced under license in the SAEC plant in Zhuzhou, Hunan Province. SAEC, also part of AVIC II, is a leader in the design, manufacture and support of small and medium-power helicopter turbine engines for the Chinese market. Furthermore, the agreement marks a major advance in the development of Turbomeca's helicopter business in China, as well as for SAFRAN's expanding range of partnerships in the country. There are already 28 different versions of the Arriel engine, powering nine different helicopter types developed by the world's leading manufacturers. Turbomeca has produced over 6,000 Arriel engines to date, logging some 19 million hours in flight for 1,300 customers in 100 countries.

## CFM INTERNATIONAL CHINA'S EAST STAR AIRLINES SELECTS CFM56-5B TO POWER A320 FLEET

Beijing, China - November 28, 2005

East Star Airlines, a new start-up carrier in China, has signed a Letter of Agreement to purchase CFM56-5B engines to power its new fleet of 10 firm Airbus A320 aircraft that will be delivered in 2009/2010. CFM56-5B engines are produced by CFM International (CFM), a 50/50 joint company between Snecma and General Electric company. 2005 marks CFM's 20th anniversary in China and, today, it is the leading supplier of commercial aircraft engines to Chinese airlines, with more than 1,100 engines in service powering more than 500 Airbus and Boeing aircraft with 14 airlines in that country. "We selected CFM56 engines after an extensive technical evaluation," said Mr. Lan Shili, Chairman & CEO of China East Star Group Co. Ltd. "The performance and low cost of ownership advantages that the CFM56-5B provides will help ensure our airline of a smooth and successful launch into service." East Star Airlines, China's fourth registered private airline, was established in June 2005. The airline, a subsidiary of China East Star Group Co. Ltd, is headquartered in Wuhan, Hubei Province and is scheduled to begin scheduled passenger service in May 2006. In addition to the purchased A320s, the airlines has also signed an agreement to lease 10 additional CFM56-5B-powered Airbus A319/A320 aircraft. The leased aircraft are scheduled for delivery between 2006 and 2008. "We are honored that East Star Airlines has chosen to power its fleet with the CFM56-5B," said Andy Solem, president of CFM International China. "We thank them for their trust and offer them our commitment that we will continue to earn that trust every day." The high reliability, long on-wing life, and low maintenance costs of the CFM56-5 make it extremely popular with major airlines, low-cost carriers, and leasing companies worldwide. More than 2,000 CFM56-5B engines have been delivered to date, and the fleet is growing at a rate of about 20 engines per month. Primary factors behind the engine's broad-based market acceptance include this industry's

best reliability, durability, and low cost of ownership. The CFM56-5B is the only engine that can power every model of the A320 family, from the small A318 up to the A321, with the same bill of materials, giving airlines a significant commonality advantage.

#### SAFRAN INAUGURATION OF SAFRAN MEDIA LIBRARY AT CIVIL AVIATION UNIVERSITY OF CHINA

Paris, November 15, 2005

The SAFRAN Group of France, represented by François Courtot, Vice President International Affairs, and the Civil Aviation University of China (CAUC), represented by its President Wu Tongshui, recently inaugurated the new SAFRAN media library at the CAUC in Tianjin. The ceremony was also attended by Chu Yang, Deputy Director of the CAAC (Civil Aviation Administration of China) administration office, Alexis May, advisor to the French ambassador to China, Marie-Pierre Van Hoecke, head of the CNRS (French scientific research agency) office in China, Marc Ventre, Chairman of Snecma, and Jean-Lin Fournereaux, Chairman of Snecma Services. The inauguration of this media library marks the first step in the collaboration agreement signed in September by SAFRAN, an international technology leader, and CAUC, the main aeronautical engineering school for civil aviation in China. The media library, for which SAFRAN supplied 20 computer stations, has a two-pronged goal: it reflects the aerospace expertise and products of the SAFRAN Group, and above all it will be a important resource for CAUC students, giving them access, for instance, to extensive information on group products (especially technical documents on CFM56 engines). The collaboration with CAUC should continue with the opening of an exhibition space for SAFRAN products, including a CFM56 engine used for hands-on training.

#### CFM INTERNATIONAL

##### A 20-YEAR SUCCESS STORY: CFM IN CHINA

Beijing, China - November 4, 2005

In 1985, two Chinese airlines, Air China Southwest and China Eastern Yunnan, took delivery of their first Boeing 737s. These airplanes were powered by CFM International's CFM56-3 engines. CFM was a very young company and these were some of its first orders. Since then, China has become one of the largest and most important customer regions for CFM, with 14 Chinese airlines operating more than 1,075 CFM56 engines powering nearly 500 Airbus and Boeing aircraft. CFM International, a 50/50 joint company between Snecma and General Electric, is today one of the most successful aircraft engine suppliers in history; earlier this year, the company delivered its 15,000th engine. "We are both honored and humbled by the continued faith China has placed in CFM products and people," said Eric Bachelet, president and CEO of CFM International. "We owe a tremendous debt of gratitude to them for the great success that CFM has achieved. Both Air China Southwest and China Eastern Yunnan were willing to work with us in the early days. Since then, our relationship with China's aviation industry has continue to evolve and flourish and now goes well beyond customer and engine manufacturer. And we are constantly finding new ways to strengthen those ties." Since the first engines were delivered 20 years ago, China has become an important supplier base for CFM's parent companies, GE and Snecma. In 2005, these companies will purchase more than \$137 million in CFM56 parts from Chinese manufacturers. The quality of these parts has been key to the ongoing success of the CFM product line. One of the world's best aircraft engine maintenance training centers, the Aero Engine Maintenance Training Center (AEMTC), located in the Civil Aviation Flight College, Guanghan City, is a cooperative venture between CFM, the Civil Aviation Administration of China, Snecma, and GE, China Aviation Supplies Imp. & Exp. Group Corporation, Civil Aviation Flight University of China. Since opening its doors in late 1996, the Center has trained nearly 5,000 students. The training provided at AEMTC - a state-of-

the-art 4,500 square meter facility with six engine shop bays and five classrooms - is equivalent to the training at the CFM centers in the United States and France. All three centers are staffed with experienced instructors who facilitate exercises in the classroom and hands-on procedures in the engine shop. Each center also provides computer-based training, both self-paced and instructor-led. Also in 1996, the company opened the CFM Spares Service Center in Beijing. Nearly 2,200 items for CFM56-3, CFM56-5A, -5B, -5C, and CFM56-7 line maintenance are now available to operators in a matter of days, rather than weeks.

#### SAFRAN SIGNS A COOPERATION AGREEMENT WITH THE CIVIL AVIATION UNIVERSITY OF CHINA

Beijing, September 20, 2005

The French group SAFRAN represented by François Courtot, Senior Vice President, International Development, and the Civil Aviation University of China (CAUC), represented by its president Mr. WU Tongshui, signed today a cooperation agreement in the field of education in order to promote a long-term relationship in multi-scope. The signature was witnessed by Jean-Paul Herteman, Executive Vice President, Propulsion Branch of SAFRAN and by Yang Guoqing, Vice-Minister of Civil Aviation of China. The Civil Aviation University of China is the best university in the field of China's civil aviation. SAFRAN, one of today's top international aerospace propulsion and equipment, communication, **defense** and security group has already been supporting education institutions programs in China for a number of years. CAUC and SAFRAN delegates met several times in Beijing. Both sides decided to set up a relationship on the base of free communication for mutual interest. One of the goals is to build up a SAFRAN Exclusive Publications Room in the library of CAUC, a SAFRAN Product Exhibition and Practice Hall and personal training seminars. Mainly, CAUC will invest on infrastructure, and SAFRAN will provide some relevant equipment and relative materials.

#### CFM INTERNATIONAL SHENZHEN AIRLINES PLACES \$60 MILLION CFM56-5B ORDER

Evendale, Ohio - August 26, 2005

Shenzhen Airlines has become the newest customer for the CFM56-5B, placing an order for engines to power three Airbus A320 and two A319 aircraft. The engine order is valued at \$60 million at list price. CFM56-5B engines are produced by CFM International, a 50/50 joint company between Snecma and General Electric Company. CFM is the world's leading aircraft engine supplier, with more than 15,000 engines in service worldwide.

Shenzhen Airlines, which currently operates a fleet of 32 CFM56-powered Boeing 737s, will take delivery of its first A320 later this year. Shenzhen is one of the fastest growing airlines in China, serving both domestic and international routes. The airline has been recognized for its outstanding service, receiving three champions of "National Passengers Assessment on Civil Aviation" and "National Customer Satisfied Enterprise" awards. The CFM56-5B is the only engine that can power every model of the A320 family with the same bill of materials, giving Shenzhen a distinct commonality advantage in terms of training and provisioning. The CFM56-5B's industry-leading reliability, durability, long on-wing life, and lower overall cost of ownership makes it extremely popular with leasing companies, low-cost carriers, and major airlines worldwide. The CFM56-5B core served as the foundation for the development of the CFM56-7B, which power the Next-Generation 737s in the Shenzhen fleet, as well as for the new CFM56-5C/P engine for the Airbus A340 Enhanced aircraft. CFM used advanced three dimensional aerodynamic (3-D aero) design tools to give the 9-stage CFM56 high-pressure compressor better efficiency and improved aerodynamics. The high-pressure turbine also incorporates 3-D aero, active clearance control, and single-crystal N5 material in both the blades and the nozzles for improved

durability, lower maintenance costs, and longer on-wing life. The low-pressure turbine incorporated 3-D airfoils for improved efficiency and fuel burn.

### **Saft**

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2012 Zhuhai Directory: Saft is the world's leading designer, developer and manufacturer of advanced technology batteries for the aerospace industry. Its high-technology batteries, including Ni-Cd and Li-ion, provide power for engine starting or energy for emergency back-up and APU for all types of civil and **military** aircraft, UAVs. Saft is proud to be a long lasting partner of the Chinese aerospace industry and already supplies Ni-Cd batteries for aircraft such as XAC MA60, AVIC ARJ21 or HARBIN Y-12. Cerifications – Manufacturing – Zhuhai Plant, China: ISO 14001: 2004

### **SAFT PRESS RELEASES**

#### **THE SAFT GROUP TO EXPAND ITS ACTIVITIES IN CHINA**

Beijing, November 29, 2013

Saft, the world's leading designer and manufacturer of advanced technology batteries for industry, is looking to expand its activities in China, declared John Searle, President of Saft's management board, in a press conference in Beijing today. Saft is already working with Chinese customers in the aerospace, rail, utility metering, electronic toll collection and back-up power markets, delivering high performance, reliable back-up power in demanding climatic and environment conditions throughout China. Recent major contracts include supplying primary lithium batteries for major multi-year smart metering projects in the gas sector in Hangzhou, and Shenzhen and to the country's leading water meter OEM.

The innovative sectors Saft is targeting in particular are rechargeable batteries for telecom network back-up power, Li-ion energy storage for renewable energy installation, storing regenerative train braking energy, frequency regulation, diesel locomotive starting and high performance primary lithium batteries for the security and tracking, oil exploration and medical sectors.

John Searle, President of Saft's management board said: "Saft's strategy in China has always been to support Chinese industry with high quality, reliable battery solutions, wherever possible manufactured close to our customers. Saft is bringing its 100 year experience to meet the needs of the Chinese market and Saft's entire range of rechargeable and primary battery systems is now available in China. We intend to continue to expand our manufacturing base in Zhuhai to accompany the growth in China". Saft rail batteries provide the essential back-up power necessary to brake high speed trains, open doors and keep communications working in case of power failure on metros, tramways and trains across the country, from Beijing to Tibet to Hong Kong, and is positioned on many of the planned future lines, such as Beijing metro's line 6.

In the aerospace sector, where Saft is also the world leader, Li-ion batteries equip weather and telecommunication satellites for their 15+ year life to power the satellite when it is eclipsed from the sun.

Saft batteries equip 100% of the Airbus and 80% of the Boeing fleets in the world, providing vital back-up power to the electrical and electronic equipment on board. Through its Chinese distribution network the company supplies all the major Chinese plane

manufacturers, including Airbus in Tianjin and the regional jet market (ARJ21, Y12, and helicopters (EC17S/215). Many new aircraft projects are also under final discussion with COMAC, CALGA and Xian for example.

As the worldwide leader in emergency back-up power batteries for industrial installations, particularly in the oil and gas and power generation and distribution sectors, Saft is naturally present throughout China with long-life, highly reliable nickel batteries for on-shore and off-shore sites (Sinopec, CNOOC, CNPC, LNG plant in Shenzhen, etc.).

For the future, Saft is already expanding its manufacturing site in Zhuhai and is looking to increase its work with Chinese industry.

**SAFT ZHUHAI PLANT PASSES 10 MILLION CELL LANDMARK; SAFT'S MANUFACTURING FACILITY IN ZHUHAI, GUANGDONG PROVINCE, WHICH STARTED OPERATION IN 2006, HAS ALREADY PRODUCED ITS 10 MILLIONTH PRIMARY LITHIUM CELL**

Zhuhai, PRC, June 11, 2008 – Saft Zhuhai Free Trade Zone Co Ltd, the wholly owned Chinese subsidiary of Saft, leader in the design, development and manufacture of high-end batteries for industry and **defence**, has just produced its 10 millionth primary lithium cell after commencing operation in 2006. John Searle, Saft CEO, made a special visit to the plant to participate with all employees in the celebration of a remarkable achievement in establishing high volume production at consistently high quality levels. Saft Zhuhai specializes in the manufacture of primary lithium cells, based on the Li-SOCl<sub>2</sub> (lithium thionyl chloride) chemistry, in two sizes: LSG 14250 and LSG 14500. They are used in a variety of applications by Chinese OEMs and end-users, especially in utility meters, including the new generation of 'smart' electricity meters. "Passing the 10 million cell landmark confirms that we have reached the levels of production maturity and quality control that provide our customers in a very demanding Chinese market with complete confidence that our products will perform reliably in the field" said Olivier Amiel, who has just been appointed as the new General Manager for Saft Zhuhai. "The primary lithium cells we manufacture are not only the same design as the LS cells that Saft produces in its European plants, our customers confirm that they offer exactly the same performance, quality and traceability." This important phase in the life of Saft Zhuhai confirms the group's position as the leading supplier in China of high technology batteries for the fast-growing utility meter market.

### **Saint-Gobain Sully**

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2012 Zhuhai Directory: Design, qualification, development, manufacture, sales and customer support of all aircraft and helicopter windshields, passenger windows, canopies, wing tips and light lenses: monolithic or laminated glass/acrylic transparencies, flat or curved, bird impact resistant, thin metallic coating or wire-grid heating systems, EMI protected or armoured features. Technologies: chemically reinforced glass and stretched acrylic for the best compromise resistance/weight. SG Sully is ISO-9001-2000 and PART 21G approved, with two EASA 145/FAR 145/CAAC 145 approved repair stations.

Corporate Website (Extracted in February 2014): SAINT-GOBAIN SULLY Aerospace Division will be pleased to welcome you at the 15th Aviation Expo China 2013 located in



Beijing, from September 25th to September 28th 2013, Booth under GIFAS French Pavillon.

Corporate Website (Extracted in February 2014): For more than five decades, Saint-Gobain Sully Aerospace Division has been designing high quality/high performance Aircraft transparencies. Our core business and corporate mission is to innovate, design, certify and manufacture valued and reliable transparencies for the Aerospace market maintaining a close trustworthy relationship with international Aircraft Manufacturers, M.R.O. and Airlines operators. Our corporate vision is a long-term approach to assure each other's success by jointly creating real and measurable value for our customers.

**Military Vehicles:** Saint-Gobain Sully provides all levels of armouring in accordance with international armouring standards. It is one of the first companies developing the highest Br7 level for European market. All our ballistic make-ups are optimized and pre-tested in our facility and then tested at certified laboratories entitled to deliver official homologation certificates per the ballistic standard.

**Military Vessels:** Saint-Gobain Sully offers a wide range of high performance transparencies for surface warships. It has been working with shipyards all around the world for more than the half of a century.

Saint-Gobain Sully has equipped the most advanced surface warships meeting the strictest and technologically complex requirements from its customers worldwide: Australian Navy, Canadian Navy, **Chinese Navy**, English Navy, French Navy, Indian Navy, Italian Navy, Korean Navy, Scandinavian Navy, Singapore Navy, Spanish Navy, and UAE Navy.

#### **Salut - Federal State Unitary Enterprise**

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Contact: Mr. Vladislav Masalov, Director General

2012 Zhuhai Directory: "Salut" is the greatest machine-building enterprise in Russia, which includes the best experts in design, engineering and serial production of up-to-date aviation engines. FSUE "GTE RPC "Salut" is one of the largest enterprises in Russia, specialized in design, production, modernization, service and overhaul of gas-turbine engines.

The enterprise is involved in serial production, servicing and overhaul of AL-31F turbojet and its modifications (for Su-27 aircraft), AL-31F turbojet and its modifications (for Chinese J-10 aircraft). It is also involved in cooperation with "Motor Sich" JSC, producing AI-222-25 turbojet intended for Yak-130 aircraft, D-436-148/TP engine (for Be-200 amphibian aircraft) and D-27 (for An-70 **military** aircraft). It produces MD-120 gas-turbine engine for "Dan" unmanned target airplanes. "Omsk Machine-building Enterprise of P.I. Baranov's - a branch of our enterprise in Omsk, - performs overall of AL-21F3T, RD-33 (Series 2), TVD-20 engines (for An-3T and An-38 aircraft) and VSU-10 emergency power units intended for Il-88/Il-96 aircraft).

FSUE "GTE RPC "Salut" and "United Engine Corporation" are now involved in co-production of advanced product intended for T-50 fighter of the 5<sup>th</sup> Generation, and our enterprise is responsible for design of angled and cone gears, as well as for production of a gearbox for advanced PD-14 civil aircraft engine.

Corporate Website (Extracted in February 2014): Partners: We entertain varied cooperation ties with numerous Russian enterprises and design bureaus. Salut is also remarkably present in the international exchanges. We enjoy close enough economic ties

with People's Republic of China in what particularly concerns the supply of **military** equipment. It is our intention to expand the relationships with PRC offering our customers there a variety of new civil projects and products. In our vision, there should be a switch-over from the predominantly **military** cooperation projects to a larger and more long-term partnerships in the civil-purpose engineering fields. In July 2000, our company together with OKB Sukhoi presented their products at Farnborough (UK), and in November of the same year, they were displayed at the International Airshow in Zhuhai (PRC). We are planning to further develop cooperation with Ethiopia for the supply of civil-purpose machinery and have to this effect our permanent exhibition site on the Embassy's premises. We are actively involved in business relationships with some other countries, - India, in particular, and foreign companies in France, Canada and Switzerland. FSUE "MMPP "Salut" offers the services for the full cycle of research, development and manufacturing of aviation engines, as well as related maintenance within the whole operation life thereof. Salut is open for cooperation in any engineering undertakings. We have been performing in the international market for many years to supply to our customers the engines for Sukhoi, Tupolev, Beriyev and Antonov aircraft types, spare parts, maintenance and overhaul services, training courses for MRO engineers and technicians, various types of patents. FSUE "MMPP "Salut" will welcome any proposal of cooperation and partnership.

PARTNERS IN CHINA:

CATIC

Shenyang SAC

EXCERPT FROM THE CHRONOLOGY: 2001-2002 – The AL-31FN, a modified AL-31F engine with lower position of the engine accessories gearbox, entering the production phase for the single-engined J-10 aircraft of the Chinese Air Force. The commencement of the upgrading program for the AL-31F by introducing fundamentally new components and assemblies. The completion of the program's first stage resulted in the thrust increase to up to 13,500 kg and improving the engine's time between overhauls.

SALUT PRESS RELEASES

FSUE "GAS-TURBINE ENGINEERING RPC "SALUT" RECEIVES A VISIT FROM COLONEL-GENERAL XU QILIANG, VICE-CHAIRMAN OF THE CPC CENTRAL **MILITARY** COMMISSION

On October 31, 2013, the high dignitary from the PRC heading an official delegation, invited by Sergey Shoygu, Russian **Defense** Minister, visited Salut - one of Russia's largest aircraft engine manufacturer and supplier for a number of foreign customers, including China. During the red carpet reception, Vladislav Masalov, Director General of Salut, emphasized in his speech the importance of cooperation with the PRC in aeroengine-building projects. Colonel-General Xu Qiliang in his turn expressed the willingness to use best efforts toward ensuring that this cooperation be continued on a long-term and mutually beneficial basis. The Chinese guests made an acquaintance tour of the factory visiting its production workshops, engine test facilities and assembly lines, as well as the Museum of Corporate History, where they were offered an overview of Salut's long-standing traditions and corporate values.

VSUE GTERPC SALUT CONCLUDED A CONTRACT WITH CHINESE AIR FORCE FOR SUPPLY OF SPARE PARTS FOR AIRCRAFT ENGINES

November 27, 2012

In the course of the International Airshow China-2012 talks on mutually beneficial cooperation between VSUE GTERPC Salut and representatives of Chinese Air Force,

foreign trade companies and plants repairing aircraft engines of type AL-31F have been held. As a result VSUE GTERPC Salut concluded a contract for supply of spare parts for aircraft engine repair in 2013 with Chinese foreign trade company Tianli. During the show mockups of AL-31FN-M1 afterburning turbofan vectored-thrust engine, AI-222-25 engine for trainer aircraft Yak-130, small-scale engine MD-120 and models of low pressure compressor 1st stage for AI-222-25 engine were exhibited.

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Corporate Website (Extracted in February 2014): Satair, which was founded in 1957, is a world leading supplier of aircraft parts and service solutions for aircraft maintenance.

Satair offers various services, ranging from parts supply and distribution to a selection of tailor-made service provider solutions. In the Asia Pacific region Satair also offers repair service on a broad selection of its product portfolio. Customers include all types of commercial operators and maintenance providers as well as several **military** operators worldwide. Satair is headquartered in Copenhagen, Denmark and serves its business partners globally through sales and warehousing locations in Europe, North America, the Middle East, Asia Pacific and China. We have approximately 360 employees worldwide, and are certified under ISO 9001:2008/EN9120 and various other aerospace standards.

### **SATAIR NEWSLETTERS**

Uptimes News and Insights (Satair newsletter). Winter 2013.

Article: "The MRO market in 2013: challenges and opportunities for suppliers; Principal consultant at ICF SH&E, Richard Brown, sees some structural changes taking place in the aftermarket industry producing new opportunities for MROs as well as suppliers."

Excerpt: "Trend 4: Continued MRO growth from emerging regions The growth in MRO is coming from Asia Pacific (particularly China) and the Middle East where MRO growth is forecasted to be over 7% per year. In contrast, Europe and North America, already mature markets for air transport, will grow at a more modest 1% to 2%. To put it another way, in the next 10 years annual MRO spending in Europe will increase by only around \$1.3 billion, compared to around \$6 billion for China and \$4.4 billion in the rest of Asia-Pacific. The point is that most of the MRO infrastructure is concentrated in Western Europe and North America. Faced with growth in emerging regions, suppliers without footprints in these high growth areas are evaluating their options. MRO suppliers have been signing JVs with local airlines and setting up distribution centres and repair shops in these growth regions. For example, airlines in China prefer to have components repaired in China and when considering customs issues establishing a local presence is often quicker and more cost effective. How to support and win MRO work from emerging regions should be a key focus area."

## NEW FACES FOCUS ON DEVELOPMENT

Uptimes News and Insights (Satair newsletter).

July 2010.

Article: "Implementing One Satair has been the main organizational focus of the company for close to a year: The concept is all about creating the best possible solutions for servicing our business partners – customers and suppliers alike. To support this objective, new resources have been added to the Satair team, Allan Riis as Director – Global Supply Chain and Thomas Kjeldsen as Project Manager – Business Development. Thomas Kjeldsen will initially be responsible for driving two very important initiatives launched as part of One Satair. One is to further develop our logistics solution offerings to OEMs, which, for instance, means enhancing our already successful Direct Line Feed concepts; another is to define aftermarket logistics solution offerings in close cooperation with Supply Chain. Prior to Satair, Thomas worked five years in Asia, primarily China and Hong Kong, where his main focus was on complicated project implementations."

Uptimes News and Insights (Satair newsletter). January 2010.

## ZHU FEI TAKES ON MATERIAL MANAGEMENT AT RIYADH'S NATIONAL AIR SERVICES

"Immediately before going to press, it was announced that Tay Zhu Fei continues his career as Director of Material Management in Riyadh-based NAS (National Air Services). His immediate functions are to provide materials and warehousing support to a current fleet of about 30 aircraft (not including aircraft on order) under the responsibility of the company. The fleet consists of A320 for LCC operation and regional VIP jets such as Gulfstream, Cessna, Hawker etc."

Uptimes News and Insights (Satair newsletter). January 2010.

## SATAIR CELEBRATES 15 YEARS OF SUCCESS IN THE CHINESE MARKET

"Since coming to China in 1995, Satair has seen 15 years of some of the fastest growth rates in its worldwide business. The success has been evident in both the aftermarket and OEM segments. This development has made Satair China one of the best-positioned suppliers in the aerospace industry in this market, and it is a stronghold that the company has been able to secure even in the current economic downturn. Over the last 20 years, China's aviation industry has become one of the three largest single markets in travel volume worldwide. Being a global company with its origin in Europe, Satair fully understands how important it is to adapt its business practices and management to local culture. This has led to the formation of a team of qualified local personals in sales and customer service functions. They all have strong aviation backgrounds and a highly committed service mindset focused on supporting the customers out of the company's Beijing and Shanghai offices. In addition, a warehouse located at the Airbus Customer Support Center in Beijing, where the Beijing office is sited as well, has performed solidly and been welcomed by the customers."

Satair News and Updates (Satair newsletter). June 2009. Lin Hai, Senior Sales Manager, Satair China.

## AEROMART 2009

"Satair exhibited at Aeromart 2009, the world famous one to one business meeting for the aeronautics, space and **defense** industries. The show was held at Tianjin Bin Hai convention & exhibition centre."

Tianjin's role is becoming more and more important in Chinese aerospace industry, due to Airbus' A320 final assembly line as well as China's next generation helicopter production, and R&D have moved here. A lot of Chinese and foreign component enterprises also settled down in Tianjin Bin Hai new area."

The show attracted more than 250 aerospace related exhibits displaying advanced technologies in avionic, components, new materials and other aviation related products.

More than 5,000 professionals attended the show in Tianjin, where Satair displayed a range of products by manufacturers it represents in China; Clickbond bonding fasteners, CBA flexball, Avibank latching systems were among these products.

This show is a good platform to network within the industry, and it brought Satair some good potential customers and opportunities; it was also a chance for Satair to meet with its current business partners to exchange ideas on how to continue developing a good relationship in the future. Satair looks forward to see you at the next Aeromart in China.”

Satair News and Updates (Satair Newsletter). June 2008. Hu Yongdong, General Manager & Chief Representative, Satair China.

#### **SATAIR ENTERS INTO COMPONENTS REPAIR & OVERHAUL MARKET IN CHINA**

As part of its targeted effort to capture a share of the strong growth and strengthen its position within the components repair & overhaul market in aviation in China, Satair acquired a 49% stake in the Chinese company Sichuan Ruibo Hydraulic Component Service (Ruibo) in the beginning of 2008.

Located in Chengdu, the capital of the Sichuan Province, Ruibo was established in 2000 and is specialized in repairs of hydraulic products for aircraft and will initially serve the rapidly growing Chinese fleet. ‘In a few years China may become a major player in a developing central market for aircraft maintenance for companies outside China, and Satair has therefore found it important to establish a foothold here as soon as possible. Satair has had an office in Beijing for the past 12 years, and knows that it has been a major advantage to have been the first to establish a presence in the market ahead of the competitors,’ said John Staer, CEO of Satair.

Satair is already firmly established with a repair facility in Singapore and will with the acquisition of Ruibo strengthen its position within the components repair business in the region. ‘Part of Satair’s growth strategy includes both increasing its market share and developing new service offerings to expand its value proposition. Increased market share can be achieved both by acquisitions and by doing what we do better and offer a bit more. In the past Satair could be viewed as a traditional parts distributor, today, Satair moves towards more service offerings,’ stated Rene Frandsen, Managing Director of Satair Pte Ltd.

Mr. Fan Mingchong, owner of Ruibo and the nearly appointed General Manager of the new JV Company named Satair Services said: ‘the corporation with Satair can strengthen our company’s capability and expand our share in the maintenance market. By joining forces with Satair, we can benefit from its global presence, technology leadership and culture to deliver a more comprehensive service for our users and to create new opportunities for our partners. This partnership will give us the flexibility and resources needed to pursue our goal of building a new platform for serving users worldwide.’

Strengthening its position within the components repair business is one example of many different initiatives Satair has initiated in connection with it delivering 500+ strategy plans for the next three years. Satair Services shall create a new platform for Satair and Ruibo to extend and bring the services offerings to both downstream customers and upstream suppliers to a new level. For further information please contact General Manager, Hu Yongdong at [hyd@satair.com](mailto:hyd@satair.com).

Satair News and Updates (Satair Newsletter). January 2008.

#### **PRODUCT & SALES MANAGEMENT CHANGES**

“Jin Fei Qin (Jeff) has joined Satair as OEM Sales Manager in China where he will develop Satair’s presence in the still growing OEM aerospace market in China.”

Satair (Newsletter). June 2007. Hu Yongdong, General Manager/Chief Representative Officer of Satair China.

#### SATAIR NEW LOGISTICS AND DISTRIBUTION CENTER IN CHINA

"As part of corporate strategy, Satair has recently expanded the logistics and distribution center in Beijing, PR. China to support the fast growing market in the world.

The distribution center is a bonded warehouse located at Airbus/CASC Support Center in Beijing, which has received European Standard for Aerospace Series Quality Management Systems requirements, certificate from Airbus quality and AERO CERT. Furthermore it provides 24 hours/365 days spares delivery.

Mr. Pierre Steffen, VP Customer Support of Airbus China comment: 'During many years the cooperation between Satair and Airbus has continuously developed with the mission to improve the parts service to the customers.

The constant evolution of market requirements and market volume growth calls for simple and cost efficient solutions serving the customer. We must never forget that the parts' unit cost make only 40% of the overall total cost related to the parts ownership and parts management.

Satair delivers solutions which effectively address the total cost situation at the customers' enabling reduced ownership costs and increased service performance.'

Mr. Rene Frandsen, Managing Director of Satair Pte Ltd says: 'We have in Satair always aspired to be on the forefront with developments in support measures towards the aviation industry in China. In 1995, we were among the first parts support providers, who invested in a local China based establishment. We have never looked back, but rather continued our ambition providing superior incountry support solutions, which surpass our business partners' expectations.

This ambition combined with the good alignment of mission/vision as well as business culture between Airbus and Satair made us relocate our China facility to the Airbus Center in Beijing.

We have achieved many years of good experience providing superior support solutions from our base in the Airbus Center. Both when it comes to logistical and other service oriented solutions.

For more information on the Zonal Drying System and its benefits, please contact Mark O'Shaughnessy at [mao@satair.com](mailto:mao@satair.com).

Support capabilities taken into consideration have made us take the next natural step in our support solution development efforts towards the Chinese market place.

We are excited about this initiative, and look forward to being able to provide further improved cost of ownership and uptime solutions to our valued business partners in China.'

Products from Pall Aerospace, Champion Aerospace, Telair, B/E Aerospace Anaheim and GE lighting are ready to be delivered from the new logistics center and other Satair distribution products are arriving soon. We strongly believe that the new logistics and distribution center in Beijing, where both the Satair and the TPA China office have been located as well since 1997, will enhance the product distribution services and strengthen Satair's leading position in China, both in the aftermarket and the OEM segment."

Satair (Newsletter). November 2006.

#### NEW WINDS OVER ASIA PACIFIC REGION

"Mr. Hu Yong-dong will be the General Manager & Chief Representative Officer China. China is a strategic important growth market to Satair. Hu Yongdong, who has played a vital role in developing Satair's position in China, has been with Satair since 1995."

Satair (Newsletter). November 2006.

#### NEW FACES

"Pan Jun De has joined Satair as Area Sales Manager in Satair China. Pan Jun De holds a bachelor degree in Air Transportation from China Aviation University in Tianjing.

Since 2002, he has been serving MTU Zhuhai Aero Engine Overhaul Co. as Sales & Customer Support. Prior to that, Mr. Pan was working in marketing department for two subsidiaries of China Southern group for another eight years."

Satelite (Satair newsletter). June 2006. Allan Rasmussen, Junior Product Manager, Satair A/S.

#### SATAIR AND B/E AEROSPACE WIDEN ITS CO-OPERATION IN CHINA

"We are pleased to inform you that B/E Aerospace, Refrigeration Products (Cage/FSCM 60299) has appointed Satair distributor in mainland China and Hong Kong for spare parts to its refrigeration product portfolio. Satair will be the only distributor appointed by B/E Aerospace, Refrigeration products for the Chinese market.

To optimize our service to our Chinese customer base, Satair will stock all main refrigeration spare parts such as filters, pumps, seals, PC Boards, O-rings, valves etc. mainly at our stocking facilities in Beijing close to our customers. The parts stocked are all certified on Airbus (A300, A310, A320 family, A330 and A340), Boeing (737, 747, 757, 767 and 777), McDonnell Douglas (DC9, MD80, MD90 and MD11), Fokker and Bombardier.

The agreement between B/E Aerospace Refrigeration Products and Satair will enhance customer support through local stocking in China and Singapore as well as an access to 24-hour AoG support with Satair. B/E Aerospace and Satair expect this will improve customer satisfaction in the region.

The new distribution contract is set for one year and was signed during Aircrafts Interiors expo in Hamburg.

B/E Aerospace and Satair have worked together for many years. Satair has been exclusive distributor for B/E Aerospace oxygen Systems (Cage/FSCM 16827) for more than 30 years and since 2002 also distributor for B/E Aerospace Beverage systems (Cage/FSCM 63367), which include the latest beverage maker endura.

Both companies look forward to extending the co-operation between the two companies with yet another product portfolio and have great expectations for the coming year. For more information about the products please contact Allan Rasmussen at [alr@satair.com](mailto:alr@satair.com)."

Satelite (Satair newsletter). January 2006. Camilla Gregor Schuricht, Marketing Manager, Satair A/S.

#### CELEBRATION OF SATAIR CHINA'S 10 YEAR ANNIVERSARY

Photograph (not included): Satair China staff from left: Peter Lundberg, Sun Xiaosheng (Stella), Li Xu (Christine), Zhao Xiaoli, Chen Wen Ying (Chris), Lin Hai, Wu Meng, Zhang Yuan (Jennifer), Hu Yongdong.

"During the days of the China Expo in Beijing, September 21–24, Satair China also celebrated its 10 year anniversary with a gala anniversary banquet.

Approximately 140 people came to celebrate Satair China this evening, of which 120 people were customers representing Chinese OEMs, airlines, Airbus China, CATIC & local press from the industry.

Mr. Hu Yongdong and his team had put a lot of effort into making all the guests feel welcome.

Hostess for the evening was Mrs. Zhang Yuan, Sales Manager in Satair China. During the evening she guided the guests through performance of Chinese acrobatic, a contest with several prizes, saxophone performance by Mr. Hu's son, and speeches by several members of Satair Management team as well as a speech by Mr. Carsten Sørensen (son of Satair's founder Knud Sørensen). Mrs. Zhang Yuan also performed a Chinese song for the guests.

It was a great week in Beijing and the 10th Gala anniversary Banquet was an outstanding success, and everyone had a great time.

Looking back at the past 10 years, the aviation industry in China has been growing at a breathtaking speed, and there is no doubt that it will be the fastest-growing market within aviation over the next decade as well. But Satair is well prepared for this challenge.

Our aftermarket division provides sales and distribution services of aircraft spare parts to all types of commercial operators and maintenance workshops, and our OEM division sells hardware and raw material to manufacturers of commercial aircraft and helicopters as well as complex services related thereto. A particularly important activity is Satair's involvement in the launch/product qualification efforts relating to the new aircraft ARJ21, China's future regional Jet. We have high expectations for this program, both with regard to the OEM division during the production stage, and regarding the aftermarket Division once the aircraft starts up its commercial operations around 2007.

Satair China will continue to play a very important part in the future and we look forward to years ahead of us, as well as the celebration of the 20th anniversary in year 2015."

Satelite (Satair newsletter). June 2005. Hu Yongdong, Chief Representative, Satair China.

#### 10-YEAR ANNIVERSARY FOR SATAIR CHINA

Photograph (not included): Lin Hai OEM Sales Manager, Wu Meng Inside Sales Manager, Sun Xiaozheng Customer Service Executive, Zhao Xiaoli ADM Assistant & Customer Service Executive, Li Xu Sales Assistant, Zhang Yuan Area Sales Manager, Hu Yongdong Chief Representative.

"On 20 June 2005 Satair China celebrates its 10-year anniversary in China.

Since 1988, Satair Asia, Singapore had developed a wide product support throughout the Asian Region, including China, but the fast growing Chinese market called for immediate and firm initiatives in order for Satair to live up to its commitments towards the Chinese customers.

Satair had for a long time actively developed plans to support the rapidly growing aerospace industry in China – not just the aftermarket, but also a large and fast growing OEM market, and on 20 June 1995 Satair opened an office in Beijing, China.

#### SALES MANAGEMENT

In 1995, the office had two employees. Today, under Satair Asia's management, Satair China consists of eight professionals. To service the airline aftermarket, there are two area sales managers and three customer service executives, and to service, primarily, the OEM market one sales engineer and one assistant, but they both assist with different activities in respect to the airline aftermarket.

The office is located at the CASC/Airbus Customer Support Centre in Beijing together with the warehouse, which is integrated with the Airbus warehouse.

#### THE MARKET

The aviation industry in China has been growing dramatically during the last ten years. Traffic growth rate is at 14% over the years. The fleet has been increased from less than 100 aircraft to more than 800 aircraft. Since 2001, around 100 new airplanes have entered the Chinese market each year, and according to CAAC and their market forecast, 1,500 new aircraft will be required to service the increasing demand for travel inside China by 2010. The OEM industry has developed to a phase where both local and subcontracting program have been increasing dramatically.

#### MARKET POSITION

During the past ten years, Satair China has been a part of this market development, and has become one of the best- positioned distributors within the aerospace sector in China. Satair has a very good reputation in the Chinese market, and the Satair brand stands for honesty, openness, service and support.



Satair makes business directly with all the operators, MROs and OEMs in China plus the different import/export organizations, which may be linked to some of the operators and we sell on open accounts.

Furthermore, we are working on developing the normal supplier/customers relation to a more partnership-like relation. This has already been achieved at several of the most important customers by entering long-term agreements, exclusive buying agreement etc

The Chinese market is the fastest growing aerospace market in the world, and will stay this way the next decade to come. Satair has over the past 3-4 years experienced growth figures above 10% annually and with double digit growth well above market growth for year 2005.

Satair's OEM activities in China is steadily increasing and the OEM group is constantly securing Satair principals new applications on many of the existing programs and programs under developed, both on fix wing and helicopter programs.

#### THE CUSTOMERS

Satair China's customers have been increased to 40 in the aftermarket and to 15 in the OEM market over the years.

At the same time Satair has established a good network within customer organizations from low level to top management, including strategic important functions such as engineering, purchasing, planning and repair/overhaul, etc. This network has enabled Satair to work specifically and successfully on special projects like initial provisioning programs for new aircraft and the associated SFE/BFE product selection, retrofit programs and like. On OEM market, Satair has been heavily involved in design and engineering of local programs.

For several of Satair's key customers the close business relationship has turned into long-term supply agreements. As a result Satair is ranked in the top 10-supplier list in terms of revenue at key customers.

#### PERSPECTIVES

Satair's long-term strategy is to enhance its market presence in China, and develop an even stronger business relationship with its customers in the Chinese market.

In the Chinese culture, the number '10' means 'perfect' – Satair do hope that the lucky number will bring the Satair business to another prospective 10 years and in the future.

Satelite (Satair newsletter). December 2004. Hu Yongdong, Chief Representative, Satair China.

#### 15 YEARS AND GOING STRONG

"Ameco Beijing celebrates 15th Anniversary and prolongation of joint venture for another 25 years. September 28, 2004, the Aircraft Maintenance and Engineering Corporation Beijing (Ameco Beijing), a joint venture between Air China and Lufthansa German Airlines, was celebrating its 15th anniversary and at the same time the prolongation of the cooperation for another 25 years.

Located at Beijing Capital International Airport, Ameco Beijing was established on August 1, 1989 with Air China holding 60% and Lufthansa 40% of the registered capital. At that time, the joint venture agreement was signed for a period of 15 years, during which the company experienced rapid development and growth.

Large investments in the infrastructure like the building of the 4-bay hangar and the construction and modification of many other workshops were undertaken. These investments established the base for many records and first-time constructions in the Chinese, Asian and even worldwide aviation industry in the past 15 years.

Ameco Beijing was not only the first joint venture in the aviation sector and an outstanding example of Sino-German cooperation but is, today, with almost 4,000 employees also the most powerful maintenance, repair and overhaul (MRO) provider in China enjoying an excellent reputation worldwide.

In the field of aircraft maintenance the company services almost all modern Boeing and Airbus aircraft. For heavy maintenance, focus is at the moment on various types of Boeing aircraft. Ameco Beijing provides engine overhaul on Rolls-Royce, Pratt & Whitney and CFMI products and offers repair and overhaul services for nearly 10,000 components including landing gears, wheels & brakes, hydraulics, pneumatics, mechanics and avionics/electrics. Furthermore, aircraft painting, engineering and training services complete the product portfolio.

Holding certificates from FAA, EASA, CAAC and 12 other airworthiness authorities Ameco Beijing currently has more than 30 domestic and 40 international customers.

On July 28, 2004 the Ministry of Commerce of the People's Republic of China officially approved the application for the prolongation of the joint venture for another 25 years marking the start of a new era for the still young company. With the prolongation both shareholders also agreed to increase the registered capital of originally USD 87.53 million by another USD 100 million at the same ratio.

Dr. Schmitz explains: 'This capital increase enables us to continue the development of our infrastructure and enhance our capabilities in order to further improve the services to our customers, to generate healthy returns for our shareholders and to be a reliable employer for our staff.' Ameco Beijing is currently working on a number of infrastructure projects including the set-up of a centralized logistics center, a new calibration and testing center and a new plating shop to support the servicing of components and engines. Moreover, with the east extension of the Beijing Capital International Airport also a new maintenance hangar will be under construction until early 2008.

Looking into the future, Mr. He Li says: 'Ameco Beijing is well positioned to accommodate Air China's fleet growth and modernization plans and, at the same time, serve the rapidly growing Chinese and worldwide MRO market. The company is set to continue its success story for another 25 years.'

Being as a leader in aviation industry in China, Satair Asia/China has been supporting Ameco successfully for the last ten years through renovate supply chain concepts and solutions. Our cooperation with Ameco has been build up on long term and mutual benefits and we are confident in a common bright future.

#### NEW FACES

YUAN ZHANG has joined Satair China as Area Sales Manager. Prior to Satair she worked for DeerJet Charter Flight Co as Sales Manager.

XU LI has joined the Sales Department in Satair China. Prior to Satair she worked for China Southern Airlines procurement department.

#### SATAIR PRESS RELEASE

SATAIR WINS HUGE ORDERS FROM CHINA SOUTHERN AND SPRING AIRLINES  
Copenhagen. March 26, 2013

Satair has signed an agreement with Spring Airlines to select the Pall avionics cooling system on their new A320 aircrafts, and China Southern has placed a significant order of Champion V2500 igniters.

Shanghai based Spring Airlines has signed an agreement with Satair for Pall avionics cooling system for their new A320 aircrafts. Satair is to start deliveries in 2014.

China Southern, the biggest airline in Asia and the world's biggest operator of V2500 engines has chosen Champion igniters from Satair to power all their V2500 engines.

"Satair is very pleased to expand the business with both China Southern and Spring Airlines. The new successes are great recognition of high quality, cost effective products and trust in the customer services and support that Satair has provided to our Chinese customers. With the rapid economic development and air traffic growth, we see great

opportunities for increasing our long-term partnerships in the Chinese market,” says Mr. Yongdong Hu, General Manager and Chief Representative for Satair China.

About China Southern

China Southern Airlines is the world's sixth-largest airline measured by passengers carried, and Asia's largest airline in terms of both fleet size and passengers carried. The airline has a fleet of 422 aircraft. Established in July 1988 and headquartered in Guangzhou, China Southern is one of China's “Big Three” airlines. China Southern Airlines is a member of Sky Team.

About Spring Airlines: Established in May 2004 and based in Shanghai, Spring Airlines is the aviation subsidiary of Shanghai Spring International Travel Service. Spring Airlines currently operates 33 A320 serving more than 34 destinations in China and other destinations in Asia. The airline is classified as a budget airline and is now preparing for a listing on the Shanghai Stock Exchange in an effort to fuel its expansion.

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2012 Zhuhai Directory: Schmolz + Bickenbach AG is the world's largest producer, processor and distributor of special-steel long-products. It was founded in 1917 in Germany. The corporate headquarters are in Dusseldorf/Germany and Emmenbrücke/Switzerland. The total melting capacity of Schmolz + Bickenbach AG is over 2 million tons p.a. Schmolz + Bickenbach is worldwide the market leader in the production of tool-steels and stainless-steel long-products and ranks in the top ten for the production of engineering-steels. In 2002 an aggressive expansion strategy was started and in the following years steelmills were acquired in Switzerland, Germany, France, USA and Canada. The Shanghai representative office established in China represents all the Schmolz + Bickenbach companies, providing superior quality products and services.

Corporate Website: This is the Holding company for all our entities in China and Hong Kong, handling administration and consolidation as well as business of all mills of the Schmolz + Bickenbach Group with the Chinese companies. It also serves under Schmolz + Bickenbach (Hong Kong) Trading Ltd., which handles all direct mill business activities in Hong Kong and China. This company operates a representative-office in Shanghai which maintains the link between our customers and the steel-producing and steel-processing companies around the world.

Beginning of 2009 the Ugitech sales branch in China has been integrated into the network of the Schmolz + Bickenbach Group in China. This office maintains the business-link between our customers in Hong Kong and China and our steel-producing and steel-

processing companies. This representative office deals mainly with products in the groups of stainless-steels, engineering-steels and customized forgings.

The Shanghai representative office provides for example:

- Stainless Steel Bar: Brand "UGIMA", 30%-50% increased productivity during machining.
- Special Alloy Steel Drawn Wire: Stainless steel drawn wire, Welding wire, Nickel-base alloy drawn wire, Cobalt-base alloy drawn wire.
- Wire : Spring wire, profile wire, etc.
- Engineering Steel: Aerospace ESR, VAR material, Bearing-, Gear-, Crank-shaft, Axle-steel for heavy industries, drilling-tool material for oil & gas application, non-magnetic steel, etc.
- Free cutting Steel: ETG88/100, HSX110/130 Brand with 1100-1400 N/mm<sup>2</sup> higher tensile strength.

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Corporate Website: Schmolz + Bickenbach Dongguan Co. Ltd. was founded in 1993 in Humen town, Dongguan city, Guangzhou province, China. This was the first company which has been established by our group in mainland China. Schmolz + Bickenbach Dongguan Co. Ltd. employed close to 200 staff and is mainly active in the sales and processing of tool steels. All tool steels are produced within the Schmolz + Bickenbach Group, ensured and guaranteed to provide special-steels on the highest quality level. In Dongguan we stock and supply various grades of tool steels to fulfill the needs of the market, which are categorized as FORMADUR (plastic mould-steels), THERMODUR (hot-work tool-steels), CRYODUR (cold-work tool-steels), stainless-steels, engineering-steels and RAPIDUR (high-speed-steels). We also provide machining-services, advanced vacuum heat-treatment services and metallographic analysis.

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Corporate Website: Schmolz + Bickenbach Jiangsu Co. Ltd. is located in Taicang and responsible for the sales in Shanghai, Jiangsu, Anhui, Hubei and the north area of the Yangtze River. Today, in the Yangtze river-delta economic region, Schmolz + Bickenbach Jiangsu Co. Ltd. has established a very stable co-operation with many local and international customers with superior quality products and services. In Taicang we stock and supply various grades of tool steels to fulfill the needs of the market, which are categorized as FORMADUR (plastic mould-steels), THERMODUR (hot-work tool-steels), CRYODUR (cold-work tool-steels), stainless-steels, engineering-steels and RAPIDUR (high-speed-steels). We also provide machining-services, advanced vacuum heat-treatment services and metallographic analysis.

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## SCHMOLZ PRESS RELEASE

### CHANGEOVER OF FINANCIAL REPORTING TO IFRS/COMPLETE TAKEOVER OF CHINA ACTIVITIES

June 05, 2008

Schmolz + Bickenbach AG intends to change its financial reporting to the International Financial Reporting Standards (IFRS) in the current financial year. This will make the Group financial statements, which were formerly drawn up in accordance with Swiss GAAP FER standards, even more transparent and internationally comparable for the capital market. For the Group financial statements as at December 31, 2008, it is planned to publish complete IFRS financial statements, including the necessary prior year's figures and reconciliation calculations. The half-year financial statements 2008 will again be prepared on the basis of the present Swiss GAAP FER financial reporting standards. For information purposes, in the half-year report we shall additionally publish the figures of the balance sheet and income statement as at June 30, 2008, based on the IFRS standards, and accompany them with explanations of significant changeover situations and effects.

We can also report that Schmolz + Bickenbach AG, Emmenbrücke, through its subsidiary company Schmolz + Bickenbach International GmbH, Düsseldorf, has acquired

the remaining 10% of Schmolz + Bickenbach China Holdings Ltd., Hong Kong, from the former owner. Schmolz + Bickenbach AG thus becomes the sole owner of this company. In the same connection, the share in the five processing and distribution companies in China has been increased from formerly 90% to 100%. These companies, with approximately 1000 employees, own plants for processing steels as well as for heat treatment. The main focus of their activities is on the sale of tool steels, stainless long products, and high-grade engineering steels. Thomas Habeler, formerly head of our subsidiary in South Africa, has taken over as CEO. The companies are now being strategically realigned. Corresponding investment projects have started. From the companies we want to serve demanding markets in China and other countries in this strongly growing economic region, and offer our globally active customers the desired service.

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2012 Zhuhai Directory: The Institute of Aircraft Equipment, a prime institute of the Public Joint Stock Company Aircraft Engineering Concern, performs research and development of integrated avionics suites and systems for airplanes and helicopters, information display systems and controls for manned and cargo spacecraft, orbital stations, as well as full-flight simulators for cosmonaut training. Up-to-date integrated digital avionics suites and systems developed by NIIAO are being operated on Be-200, Il-96-300/400, Tu-204/214, Il-114 airplanes and their modifications. An up-to-date avionics suite for a Ka-226AG helicopter has been developed and delivered for testing. NIIAO participates in all manned space programs, including the ISS. All cosmonauts are trained for space flights on simulators designed by NIIAO.

Corporate Website (Extracted in February 2014): The International Airspace Show in Zhukhae "Airshow China 2006" is the only international show actively supported by the Chinese government. It includes strategic shows of airspace products, demonstrative flights, various forums and seminars. The show was established in 1996 for the first time, since that time it has been held every two years. The show covers the following items: Civil and **military** aeronautical engineering; Avionics; Weapons and ammunition; Maintenance and repair; Fuel systems; Navigation and monitoring systems; Air **defence** systems; Airports and terminal facilities; and Engines. Leading worldwide airspace companies took part in the show. The Institute of Aircraft Equipment exhibited a poster to familiarize the visitors with its airspace products. Some Chinese companies and certain enterprises of Southeast countries showed interest in this production. One of the most perspective partners is AVIC I - China National Aeronautical Radio Electronics Research Institute, and negotiations have been held with its representatives. The participants exchanged their views regarding the current and future evaluation of civil aviation industry and got know about the Chinese institute activity. The parties declared intention to cooperate and agreed to continue the discussion in Zhukovsky during MAKS show in 2007.

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SELEX Galileo Inc.

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2012 Zhuhai Directory: SELEX Galileo, a Finmeccanica company, is a global leader in **defence** electronics and delivers mission critical systems for situational awareness, **electronic warfare** and surveillance. Across air, land and sea the company exploits its core skills in tactical ISTAR systems, sensors, defensive aids, tracks, targeting, navigation, command and control, and simulation.

Corporate Website (Extracted in February 2014): SELEX Galileo Inc. is a US subsidiary of Selex ES, a leader in **defense** electronics and a member of the Finmeccanica group of companies. Leveraging a distinctive strength in airborne mission-critical systems for situational awareness, self-protection, and surveillance, SELEX Galileo Inc. brings a wide range of capabilities and services to our customers that enhance mission success.

**SELEX Galileo Inc. continues to deliver products and services as the partner of choice on various platforms and programs to include: Joint Strike Fighter (JSF); U.S. Army Apache program; DHS Customs and Border Protection Multirole Enforcement Aircraft (MEA) program and the C-550 program; U.S. Coast Guard HC-130H program; U.S. Air Force Special Operations Command AC-130 Gunship; Security Assistance and Training Support Services to members of the Special Operations Forces; United States Coast Guard Avionics 1 Upgrade (A1U); and United States Navy & United States Air Force Electronic Propeller Control System (EPCS) upgrade.**

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Corporate Website (Extracted in February 2014): Selex ES, a Finmeccanica company, is an international leader in electronic and information solutions for **defence**, aerospace, space, security, high-integrity surveillance, network management, information security and mission-essential services. As a world leader in high technology systems and sensors with extensive experience across a range of sectors and domains, Selex ES is able to meet the diverse needs of customers who require first class solutions. **Within aerospace and defence electronics the company's experience includes the design and development of tactical ISTAR systems, C4I infrastructures, electronic warfare equipment and mission critical systems for situational awareness, self-protection, wide-area surveillance and information dissemination.**

SELEX PRESS RELEASES

VESSEL TRAFFIC MANAGEMENT INFORMATION SYSTEM

Extracted February 2014

In the naval and maritime domain Selex ES has developed an integrated network Vessel Traffic Management Information System (VTMIS) to provide advanced solutions for the control and management of safe vessel traffic, maritime environment monitoring, and Search & Rescue (SAR) operations support. The system architecture is based on multiple control layers, identified as: Local, Area and Central, interacting at different operational levels. Each level supports the operational coordination and decision, according to its mission. In this architecture the local stations collect data directly from the sensor sites and interact with maritime traffic. The VTMIS by Selex ES is available in fixed, transportable and mobile versions, all of which guarantee the coverage and management of wide geographical areas such as the Mediterranean basin, which represents the widest application of this system. In Italy, with co-operation from the Coast Guard, Selex ES has created the Italian Nation-wide VTMIS system. The network is a significant development in the application of integrated computing, telecommunication and networking technologies, resulting in one of the largest Vessel Traffic Management Systems in the world. It is also an example of Network-Centric Integration of maritime, operational, safety and security services, guaranteeing full, real time coverage of 7,500 kilometres along the Italian coast, thanks to a National Centre which operates within the General Command of the Coast Guard in Rome, 14 Area Centres allocated within the same number of Maritime Directions which receive information from 82 local sites, 100 sensors sites and three mobile units. In 2011 Selex ES also delivered the first VTMIS training centre in Messina, where VTMIS operators, supervisors and technicians are appropriately trained to operate with the system. Previous years' exports include VTMIS sold to China, to Saint Petersburg, to Poland and to Yemen. The system was also recently acquired by Turkey. The commercial success, together with a wide commercial application demonstrates Selex ES's excellence in design and development of systems for security management and control.

#### SELEX ES ENTERS CHINA NAVAIDS MARKET

Le Bourget 18/06/2013

Selex ES, a Finmeccanica company, through its subsidiary company Selex Systems Integration Inc, will supply Distance Measuring Equipment and Instrument Landing Systems at Sanya International Airport, in China, following a contract signed with the Civil Aviation Air Traffic Management Equipment Engineering Company. The project will entail full turn-key services for three high and low power 1118A/1119A DMEs, including production, delivery, testing, install, commissioning, and training, will commence immediately and is anticipated to be completed by the end of 2013. The company will also supply 2 ILS/DME systems with accompanied training to further augment its navigation and landing capabilities. Sanya International airport was already equipped by Selex ES air traffic control systems which also include the recent supply of a solid state technology primary and secondary radar which will contribute to the radar network managing the ATC over the crowded South Pacific air routes. This contract further expands Selex ES' skills within the Asia region and reaffirms the company capabilities as an integrated airport supplier. Selex ES is recognized world-wide air traffic control and management systems provider with more than 150 countries equipped with ATC systems and our subsidiary, Selex Systems Integration Inc. is one of the leading companies for navigational aids and precision landing systems," stated Selex ES Chief Executive Officer Fabrizio Giulianini, adding: "We are pleased to support The People's Republic of China in its efforts to advance its aviation capability, and look forward to furthering the relationship." In China, Selex ES has more than 30 years' experience with its products delivered for ATC applications. Also in the recent years the company signed several contracts for ATC systems, also including logistic support and systems upgrading in operation throughout the Chinese territory, such as in the occasion of the 2008 Olympic Games.

#### SELEX ES AT WORLD ATM CONGRESS 2013



Madrid, 12th – 14th February 2013

Selex ES, the strategic consolidation of Finmeccanica's **defence** and security electronics businesses (SELEX Galileo, SELEX Elsag and SELEX Sistemi Integrati merged in January 2013), is exhibiting at the World ATM Congress (WAC) taking place at the IFEMA Conference and Exhibition centre in Madrid, Spain, from 12th to 14th February 2013. From meteorological to surveillance sensors, from ground to en-route ATM systems, Selex ES offers a total capability portfolio for global Air Traffic Management. The company is the ideal technological partner for integrated airports, taking on responsibility for designing, producing, installing and setting up all required operational configurations. The wide range of solutions offered by Selex ES has led to its ATC products and systems being selected by 150 countries, with its most recent contract making Selex ES the first supplier of ATC systems to China. The company will provide the Air Traffic Management Bureau of the Civil Aviation Administration of China (ATMB-CAAC) with two complete systems for air traffic control including a primary radar - a modern ATCR33-S enhanced- and a secondary radar - a full mode S SIR-S- which will equip airports in Beijing and Shanghai. Internationally, Selex ES is firmly committed to defining new standards for air traffic management systems. This can be seen key programmes such as SESAR (Single European Sky ATM Research) and Coflight (programme among Italy, France and Switzerland). Subsidiary companies SELEX Systems Integration Inc. (navigation aids) and SELEX Systems Integration GmbH (weather surveillance) further reinforce the ability of Selex ES to provide global solutions in the ATM and airport domains. Selex ES, located at Hall 9 stand number 1139, is displaying its Integrated Surface-En Route ATM system, simulating the one in operation in Kiev. Also on show are the Swim Box, the MGS 100 Multi-mode Ground Station, the D100 series Multi-mode Digital Radio Equipment, the VRC VoIP Remote Control, the ONM100 Open Network Management System. At the same stand, the US subsidiary SELEX Systems Integration Inc. showcases the Model 3300 ADS-B/MLAT. Selex ES is also attending the SESAR Swim Demo, organised by the SESAR JU at WAC (Rooms N109 - N110). Moreover, on 14th February Selex ES is presenting ARGUS (AiR Guidance and Surveillance) 3D results following the three year project funded by the European Commission under the 7th Framework Programme.

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2012 Zhuhai Directory: Based in Stratford, Connecticut, Sikorsky Aircraft Corp is a world leader in the design, manufacture and service of **military** and commercial helicopters and fixed-wing aircraft. Sikorsky helicopters are used by all five branches of the United States armed forces, along with **military** services and commercial operators in 40 nations. Sikorsky's commercial helicopters can be found around the world serving executive transport, airline operations, offshore oil transport, search and rescue and EMS missions. Company revenues in 2011 were \$7.4 billion. Sikorsky helicopters were first introduced in

to China in 1984. Among the intermediate class helicopters (3-7 tons in gross weight), Sikorsky's S-76 is by far the leading model in China's market. Sikorsky provides Chinese customers with high quality aftersales support by offering comprehensive training, spare parts, maintenance and overhaul services. Also, Sikorsky established a joint venture in Shanghai, responsible for spare parts sales and repair service to Chinese customers, which highly improves customer fleet availability.

#### SIKORSKY COMMERCIAL LINKS NEWSLETTER

Sikorsky Commercial Links Newsletter

October 2013

##### LOUIS CHÊNEVERT'S VISIT

Mr. Louis Chênevert, Chairman and Chief Executive Officer of United Technologies Corporation, made a recent visit to the Hong Kong Government Flying Services (GFS). During his visit, Mr. Chênevert toured the hangars, maintenance facility and operations center and was able to discuss the unique mission requirements of GFS with Capt. Michael Chan, GFS Controller. GFS operates both helicopter and fixed wing aircraft and conducts search and rescue operations, with their area of responsibility extending over 800 miles out into the South China Sea. GFS will be releasing a tender for a helicopter fleet replacement program in 2014.

Sikorsky Commercial Links Newsletter

September 2013

##### CHINA HELICOPTER EXPOSITION: ZHUHAI HELICOPTER COMPANY PURCHASE FOUR MORE S-92 HELICOPTERS; CELEBRATE THREE DECADES OF BUSINESS

Tianjin, China – The Chinese helicopter market, while still in its infancy, is growing at a pace that rivals any other helicopter market in the world. The Sikorsky fleet in China has grown along with it and now has more than 100 light, medium and heavy helicopters in service. These aircraft are conducting missions such as pilot training, search and rescue, offshore oil transportation, scheduled airline service and corporate VIP transportation.

Sikorsky expects this growth to continue for the foreseeable future. There are multiple factors driving this growth, but the three key considerations are the expanding offshore oil fields, the growth in the Chinese search and rescue capabilities and the relaxation of the lower altitude airspace regulations.

Sikorsky Aircraft and Zhuhai Helicopter Company marked their nearly three-decades-long relationship on Sept. 6, 2013 and conducted a ceremonial signing for the purchase of four S-92 helicopters at the China Helicopter Exposition. Zhuhai, a fully-owned subsidiary of China

Southern Airlines Ltd., is a leading provider of offshore helicopter service in China, serving both Chinese and Western oil companies in their the ever-expanding oil operations in the South China Sea. The company today operates only Sikorsky helicopters.

When Zhuhai takes deliveries of the new S-92 helicopters, the company will operate nine total S-92 aircraft in addition to 12 Sikorsky S-76 helicopters. The latest S-92 helicopter purchase was announced in June and was celebrated in September at the China Helicopter Exposition.

"Zhuhai is our largest commercial fleet operator in Asia and one of the region's major operators. We are proud to have them as a valued customer and grateful for their trust and loyalty to our products for the past 29 years," said Ed Beyer, Vice President of Sikorsky Global Helicopters.

"Zhuhai Helicopters and Sikorsky have been working together for many years. This latest contract for four additional S-92 helicopters is an indication of the tremendous growth that has occurred at our company.

With the expanding offshore operations in the South China Sea, we expect our fleet and our company to grow with it,” said Mr. Rong Weiguo, President, Zhuhai Helicopter Company.

Sikorsky Commercial Links Newsletter

September 2013

#### JINGCHEN CONTRACTS FOR SECOND S-92 HELICOPTER

Tianjin, China - Sikorsky Aircraft has announced that Yunnan Jingchen Group has signed a contract to purchase an S-92 helicopter for use in transporting corporate and government VIPs.

Yunnan Jingchen Group recently received Chinese government approval to establish a general aviation company named the Ruili Helicopter Group. The new S-92 helicopter will become the second operated by Jingchen, after the first was ordered in 2012 and delivered in June 2013.

The newly ordered S-92 helicopter is scheduled for delivery in November 2015.

“Jingchen is a new and already growing customer. We are excited to be able to support their expansion and are working closely to help ensure a smooth start to their operations by providing initial technical support on site,” said Ed Beyer, Vice President of Sikorsky Global Helicopters, the commercial aircraft business of Sikorsky Aircraft.

Sikorsky will deliver its 200th S-92 helicopter this year. The global fleet is currently approaching 590,000 flight hours. Among the missions performed by the S-92 helicopter are offshore oil worker transportation, Head of State transport, search and rescue operations, and airline service.

Jingcheng also purchased a new Sikorsky S-76D helicopter in September 2012 for delivery in December 2013.

Sikorsky Commercial Links Newsletter

September 2013

#### COHC AND SIKORSKY CELEBRATE ORDER FOR TWO S-92 HELICOPTERS

Tianjin, China - Sikorsky Aircraft and China's CITIC Offshore Helicopter Company (COHC) recently marked the purchase of two S-92 helicopters with a ceremonial signing at the China Helicopter Exposition.

Established in 1983, COHC is a publicly traded company based in Shenzhen, Guangdong, China, where it is the largest provider of offshore operations. The contract was announced in June and celebrated on Sept. 6, 2013 in China.

“COHC is one of our newer customers, so we are proud to say that all three major offshore oil service providers in China will now be operating Sikorsky helicopters,” said Ed Beyer, Vice President of Sikorsky Global Helicopters.

“The offshore oil market in China is growing rapidly, and the S-92 helicopter has proven to be a reliable and safe performer around the world. We are grateful that COHC has chosen Sikorsky, and we are confident that this marks the beginning of a long-term relationship between us.”

The two new aircraft are schedule for delivery in in December 2014 and March 2015.

Photograph Not Included: Liu, Jianxin – Vice President, CITIC Offshore Helicopter Company Limited speaks at a ceremonial signing at the China Helicopter Exposition.

Sikorsky Commercial Links Newsletter

September 2013

#### SIKORSKY AND CHINA'S MINISTRY OF TRANSPORT CELEBRATE THE MOT'S GROWING FLEET OF S-76D SAR HELICOPTERS

Tianjin, China - Sikorsky Aircraft and China's Ministry of Transport's (MOT) Rescue and Salvage Bureau recently celebrated their growing relationship and their two most recently signed contracts for a total of eight Sikorsky S-76D search and rescue (SAR)

helicopters to further enhance the MOT's maritime SAR capabilities. Sikorsky Aircraft and the MOT held a ceremonial event on Sept. 6, 2013 at the China Heli-Expo industry show to commemorate the transactions.

In July 2013, the MOT contracted for four additional S-76D SAR helicopters, following the purchase of four of the same aircraft model in December 2012. The latest SAR contract is the fifth that China's MOT has awarded to Sikorsky for the S-76 series of helicopters since 2000. When these eight aircraft are delivered in 2014, the MOT will operate a fleet of 16 S-76 helicopters, which have formed the foundation of China's aerial SAR capabilities for maritime operations.

"Sikorsky is honored to be selected again by the Chinese government, and we look forward to continuing our 13-year partnership well into the future," said Ed Beyer, Vice President of Sikorsky Global Helicopters. "We are especially proud to support China's maritime search and rescue capabilities with our newest product, the S-76D helicopter."

Sikorsky Commercial Links Newsletter

September 2013

#### SIKORSKY AND CHANGHE SIGN AGREEMENT FOR S-76D CABIN PRODUCTION IN CHINA

Tianjin, China - Sikorsky Aircraft and Changhe Aircraft Industries Corp. have signed an agreement for Changhe to produce S-76D commercial helicopter cabins for Sikorsky. The agreement was signed during the China Helicopter Exposition, with Chairman Yu Feng, Changhe Aircraft Industry Group Co., Ltd., and Senior Vice President, Operations, Shane Eddy representing Sikorsky Aircraft.

Changhe had previously provided cabins for the predecessor S-76C helicopter, under an agreement signed by the two companies in 2007. Changhe will now serve as a second source for S-76D cabins, with deliveries scheduled to begin in 2016 and production volume based on market demand. Aero Vodochody in the Czech Republic also supplies the cabins.

"I am proud to sign this agreement with Changhe Aircraft, which extends our very successful partnership in this strategically important region," said Shane Eddy, Senior Vice President of Operations, Sikorsky Aircraft. "Over the next 10 years, we see the potential for the civil helicopter fleet in China to quadruple, and we are proud to work with such a trusted and respected company as Changhe to serve this expanding market."

"Changhe and Sikorsky will further expand the collaboration from S-92 and S-76C to S-76D products," said Yu Feng, Chairman, AVIC Changhe Aircraft Industry Group, Co., Ltd.

Sikorsky Commercial Links Newsletter

July 2013

#### LONGTIME SIKORSKY CUSTOMER ZHUHAI HELICOPTER COMPANY TO ACQUIRE ADDITIONAL S-92 HELICOPTERS

Sikorsky and Zhuhai Helicopter Company have announced a new contract for four Sikorsky S-92 offshore utility helicopters. Since May 2011, ZHC has contracted for eight S-92 helicopters to support the ever-expanding offshore oil operations in the South China Sea by ZHC's customers.

"We are excited to see Zhuhai's continuing expansion and deeply appreciate their customer loyalty to our products and services," said Ed Beyer, Vice President of Sikorsky Global Helicopters. "After deliveries in 2014 and 2015, ZHC will operate nine S-92 and 12 S-76 helicopters of various models, continuing as the largest Sikorsky commercial fleet operator in Asia and one of the key offshore helicopter operating companies on the Asian offshore oil market."

Over the past decade ZHC's business and reputation have continued to grow, and the company has been expanding continually and upgrading its helicopter fleet, which has been turned into an exclusive Sikorsky fleet.

The multi-mission S-92 helicopter incorporates numerous safety features, including a flaw-tolerant design. The S-92 helicopter was certified to FAA/EASA harmonized Part 29 requirements, as amended through Amendment 47. The S-92 helicopter remains the only aircraft to have been certified to this rigorous airworthiness standard without exception or waiver.

Sikorsky Commercial Links Newsletter

June 2013

#### CHINA'S CITIC OFFSHORE HELICOPTER COMPANY TO ACQUIRE TWO S-92 HELICOPTERS

Sikorsky Aircraft Corp. announced during the Paris Air Show that it has signed a contract with China's CITIC Offshore Helicopter Company (COHC) for two S-92 helicopters to be used for the offshore oil transportation mission. Established in 1983, COHC is a publicly traded company based in Shenzhen, Guangdong, China. It is the largest provider of offshore operations in China. The contract was signed on May 10 in China and announced during the Paris Air Show. "The offshore oil market in China is growing rapidly, and the S-92 helicopter has proven to be a reliable and safe performer in many locations around the world, including China, where Sikorsky products are now being operated by all three major offshore oil service providers," said Robert Kokorda, Sikorsky Vice President of Sales & Marketing. "COHC is one of the newest customers for Sikorsky Aircraft, but we are focused on providing them with world-class products and support, and are confident that this marks the beginning of a long-term relationship between us." Sikorsky plans to deliver the new S-92 helicopters in December 2014 and March 2015.

Sikorsky Commercial Links Newsletter

December 2012

#### AIRSHOW CHINA: ZHUHAI HELICOPTER COMPANY TO ACQUIRE MORE SIKORSKY S-92 HELICOPTERS

Zhuhai, China – Sikorsky and Zhuhai Helicopter Company (ZHC) announced a new contract at Airshow China for two Sikorsky S-92 offshore utility helicopters. The acquisition marks the fourth procurement by ZHC from Sikorsky since 2007.

Zhuhai Helicopter Company (ZHC), a fully-owned subsidiary of China Southern Airlines Ltd., is a leading provider of offshore helicopter service in China, serving both Chinese and Western oil companies. After deliveries in 2013, ZHC will operate five S-92 and 12 S-76 helicopters of various models, making it the largest Sikorsky commercial fleet operator in Asia and one of the key offshore helicopter operating companies on the Asian offshore oil market.

"We deeply appreciate that our longtime customer in China, Zhuhai, continues to have an unfailing loyalty to our products and service, and we look forward to expanding this cooperation to aircraft maintenance service, personnel training, and material distribution," said Ed Beyer, Vice President of Sikorsky Global Helicopters. "The safety and efficiency of these aircraft, combined with solid support, have contributed to the ongoing trend of Sikorsky helicopters flying into China, our fastest-growing market in the world."

Mr. Rong Weiguo, acting president of ZHC, added: "Zhuhai Helicopter Company is experiencing continued growth. As the oldest operator of Sikorsky helicopters in China, Zhuhai looks forward to the opportunities to further develop its relationship with Sikorsky in the future."

Last year, Zhuhai acquired two S-92 helicopters to support the ever-expanding offshore oil operations in the South China Sea by Zhuhai's customers. Zhuhai has used Sikorsky helicopters for about 28 years.

Zhuhai Helicopter has a workforce of 98 pilots and 115 maintainers who work from four main operating bases in northern and southern China. Over the past decade ZHC's business and reputation have continued to grow, and the company has been expanding

continually and upgrading its helicopter fleet, which has been turned into an exclusive Sikorsky fleet.

Sikorsky Commercial Links Newsletter  
December 2012

#### SIKORSKY S-76 AND S-92 HELICOPTERS KEEP FLYING INTO CHINA

Zhuhai, China – Sikorsky and Ruili Jingcheng Group (RJG) at Airshow China have signed two contracts for the introduction of one S-92 helicopter and one S-76D helicopter, marking Sikorsky's first S-92 helicopter sale to a private Chinese operator and the first ever Sikorsky S-76D helicopter sale into China. Both aircraft will be configured for airline use.

"This announcement signals a major milestone for Sikorsky's business development in China," said Ed Beyer, Vice President, Sikorsky Global Helicopters. "We are truly feeling the warmth of the fast-growing helicopter market here as more S-76 and S-92 helicopters keep flying into China. We are even more pleased that our newest customer here has chosen Sikorsky because of the popularity of our products in this market and the high reputation we have built over the past 30 years."

"As China continues to embrace Sikorsky products, we recognize that this is the kind of product acceptance we typically receive in more mature markets elsewhere in the world, and Sikorsky looks forward to continuing its relationship with these customers for many years to come," Beyer said.

Ruili Jingcheng Group, a private conglomerate based in Ruili, Yunnan province in southwestern China, is expanding its business into the aviation sector by establishing three aviation subsidiaries, including a helicopter operating company. RJG will be the newest Chinese commercial customer for Sikorsky, and will be the first operator in China of the Sikorsky S-76D helicopter, the newest S-76 helicopter model. The S-76D was granted type certification by the FAA on Oct. 12.

Sikorsky has been highly successful in China for the past decade. Currently, there are 31 S-76 and four S-92 helicopters of various configurations flying in China. On China's intermediate market segment (7,000 to 15,000 lbs gross weight), the S-76 occupies more than 40 percent (the highest) of the segment.

The S-92 helicopter continues to gain in popularity and is becoming the helicopter of choice among off shore oil companies.

Photographs Not Included: Sikorsky and Ruli Jingcheng Group signed two contracts for the introduction of an S-92 helicopter and S-76 helicopter, marking Sikorsky's first S-92 helicopter sales to a private Chinese operator and the first-ever S-76D sale into China; Sikorsky and Zhuhai Helicopter Co. held a ceremony for the signing of two S-92 helicopters to be delivered in 2013.

Sikorsky Commercial Links Newsletter  
December 2012

#### CUSTOMER APPRECIATION DINNER HONORS AVION PACIFIC LTD.

Submitted by Sylvia Eddy, Sikorsky Marketing

More than 80 people gathered to commemorate and celebrate the 15th anniversary of a partnership between Avion Pacific Ltd. and Sikorsky. Avion offers multiple services, products and operating platforms, including helicopter and business aircraft sales & distribution; spares parts distribution; equipment leasing & financing; operational; safety and crewing support; and professional aviation consulting. Photograph Not Included: Ed Beyer presents Wu Zhendogn from Avion an award to recognize his dedicated work and support over the years.

Sikorsky Commercial Links Newsletter  
May 2012

#### FROM A LITTLE DUCKLING TO A WHITE SWAN

Submitted by Tim Li, Sikorsky Sales, Asia

When the Guangzhou Helicopter Company under Civil Aviation Administration of China (CAAC) was established in 1979, few people realized that a future, major Chinese offshore helicopter operator was born. With two leased S-76A helicopters, the new company barely lifted itself off the ground at the time, to serve the emerging offshore oil market in the South China Sea.

Two years later, the company expanded its fleet when it purchased from French Aerospatiale two Dauphin N1, followed by two more S-76A and two S-61 helicopters leased from overseas. The fleet was significantly enhanced in 1985 when the company acquired from CAAC two Bell 214ST, as well as five brand new S-76A helicopters, all government acquisitions and allocations.

Many internationally famous oil companies made use of the service of the company, which saw the first peak of its development. The company enjoyed another milestone year in 1991, when its head office moved to the city of Zhuhai and the company was restructured and renamed Zhuhai Helicopter Company (ZHC), now a subsidiary of China Southern Airlines. Such a change was driven by China's new policy in turning the command economy into a market economy and CAAC halted direct involvement in everyday business operations.

To better cope with the ever-increasing offshore oil exploration efforts in China and to pursue better financial performance, ZHC management consolidated its mixed fleet by keeping the best helicopter models that had high popularity with customers, and the best performance and customer support. Between 1993 and 1996, ZHC sold its Dauphin and Bell 214ST and returned the leased aircraft, thus becoming an operator of exclusively Sikorsky S-76 helicopters.

The drop in the world oil market beginning in 1997 and a series of mishaps suddenly drove the ZHC into a difficult time, but its belief in Sikorsky products never wavered. At the most difficult moment, ZHC management placed an order for two S-76C helicopters, which played a critical role in protecting ZHC market and bringing in more business in the hard years to follow. The S-76 helicopter proved to be a workhorse in tiding over the company during the difficult decade, and ushered in the new boom of the oil market in mid-2000.

The strong relationship between ZHC and Sikorsky continued. Since 2007, ZHC has acquired six S-76C and three S-92 helicopters from Sikorsky. With 12 S-76 and three S-92 helicopters in its fleet, ZHC has become the largest S-76 operator in China and Asia as well. Later this year, a CAE-made Type D simulator for the S-76 helicopter will begin operation in Zhuhai to train the pilot force, which includes more than 40 young pilots fresh out of flying academies.

Today, ZHC boasts a workforce of 98 pilots and 115 maintainers who serve various Chinese and Western oil companies from four main operating bases scattered in northern and southern China. ZHC has a firm determination to become China's largest offshore helicopter operator and there is every reason to believe such an ambition will come true.

Sikorsky Commercial Links Newsletter

May 2012

**SPOTLIGHT: ZHUHAI'S CAPT LI JIAHUA**

Capt Li Jiahua graduated from CAAC Flying Academy in Guanghan, Sichuan province in January 1982 with a major in piloting. He started his career as a helicopter pilot in the helicopter company under CAAC Guangzhou Regional Administration, which is today's Zhuhai Helicopter Company under China Southern Ltd. In 1986, he was transferred to Flight Wing No. 26 under CAAC Hubei Provincial Administration to fly fixed-wing aircraft, and again in 1988, he was transferred to Flight Wing No. 6 under CAAC Guangzhou Regional Administration. He was promoted to deputy general manager of Shenzhen Airlines' Flight Safety Department and later, general manager. In 2010, he was named President of Zhuhai Helicopter (Branch) Company, responsible for business operation and

flight safety and overall management for operation safety, business management, marketing and human resources.

Sikorsky Commercial Links Newsletter  
February 2012

#### SIKORSKY DELIVERS S-92 AND S-76 AIRCRAFT TO ZHUHAI

Singapore – Sikorsky Aircraft Corp. has delivered two offshore utility helicopters to China Southern Airlines' Zhuhai Helicopter Branch company, with a third delivery to occur next week, to support the offshore oil operations in the South China Sea by Zhuhai's customers. Zhuhai Helicopter Branch is among the major helicopter operators supporting offshore oil operations and other market segments in China. Since 1984, the company has used Sikorsky helicopters to transport oil workers for such companies as China National Offshore Oil Corp., Chevron, and Exxon Mobil. The delivery of the new aircraft brings the total of Sikorsky helicopters in the Zhuhai Helicopter Branch fleet to 16 aircraft: 13 S-76 and three S-92 helicopters. Zhuhai Helicopter Branch operates the largest S-76 helicopter fleet in China and Asia, and was the first operator in China to purchase a commercial helicopter from Sikorsky. "Sikorsky Aircraft is proud to see the rapid growth of Zhuhai, and to have such a loyal customer operating an exclusive Sikorsky fleet for so many years. The mutual trust and support that our two companies have developed have contributed to a better understanding in the region of Sikorsky products as well as the training and maintenance capabilities we offer," said Shane Eddy, Vice President, Global Supply Chain. "Together, our joint efforts are on a path to contribute in a significant way to the future development of the South Sea China offshore oil industry, and Sikorsky is proud to play a role in that potential success." Zhuhai took delivery of its new helicopters in September and December. The aircraft have been put into service and are operating out of the Guangdong province in China.

Sikorsky Commercial Links Newsletter  
December 2011

#### S-76C CHINA FUSELAGE PROGRAM COMPLETION

The Sikorsky S-76C Fuselage China Team celebrated the completion of the S-76C Fuselage Program on Aug. 11 in conjunction with AVIC Changhe Aircraft Industries. The partnership with Changhe began in June 2007 and has produced eight deliveries. The fuselage was slated to arrive in October, and is scheduled to be delivered to the S-76C end customer, Milestone Aviation Group, this month. Changhe is located in Jingdezhen, Jiangxi Province in China.

Sikorsky Commercial Links Newsletter  
October 2011

#### SIKORSKY AND ZHUHAI HELICOPTER HOLD CEREMONY FOR PURCHASE OF S-92 AND S-76 AIRCRAFT

Tianjin, China – Sikorsky Aircraft Corp. and China Southern Airlines' Zhuhai Helicopter Branch company held a signing ceremony on Sept. 16 at the first China Helicopter Exposition in Tianjin for the purchase of two Sikorsky S-92 and one S-76 offshore utility helicopters by Zhuhai Helicopter. The new acquisitions are aimed at supporting the ever expanding offshore oil operations in the South China Sea by Zhuhai's customers. Zhuhai Helicopter Branch is among the major helicopter operators supporting offshore oil operations in China. The company has used Sikorsky helicopters since 1984 to transport oil workers for such companies as China National Offshore Oil Corp., Chevron and ExxonMobil. Currently, Zhuhai Helicopter Branch operates the largest S-76 helicopter fleet in China and Asia, and will have 13 S-76 and three S-92 helicopters in its rotorcraft fleet when the three new aircraft are delivered. Sikorsky Vice President Shane Eddy said, "Sikorsky and Zhuhai Helicopter have enjoyed a very strong relationship for nearly 30



years, based on the safe and reliable performance of our helicopters serving Zhuhai's customers in the offshore oil and other market segments. Since 2007, Zhuhai has purchased nine Sikorsky helicopters including three S-92 medium weight helicopters. We appreciate the continued partnership with Zhuhai and will continue working together to meet the increasing needs of China's offshore oil industry." Capt. Li, Jiahua, President of Zhuhai Helicopter Branch, also expressed a strong interest in continuing to work with Sikorsky for further developing the market.

Sikorsky Commercial Links Newsletter

July 2011

#### ZHUHAI HELICOPTER BRANCH CONTRACTS FOR SIKORSKY S-92 AND S-76 HELICOPTERS

Paris – Sikorsky Aircraft Corp. announced that China Southern Airlines Company's Zhuhai Helicopter Branch has contracted for a S-76C and two S-92 helicopters to support the company's off shore oil customers operating in the South China Sea. Zhuhai is the largest and oldest operator of Sikorsky helicopters in China, having used Sikorsky aircraft since 1984 to transport oil workers for such companies as China National Offshore Oil Corp., Exxon Mobil, and Phillips. When the newly ordered aircraft are delivered starting in September, Zhuhai's fleet will include 13 S-76 and three S-92 helicopters.

Sikorsky Commercial Links Newsletter

January 2011

#### ACCEPTED

China's Ministry of Transport held a ceremony in Shanghai on Dec. 19, 2010, to accept two S-76C search and rescue helicopters. Ken Bates (left) presented the aircraft to the customer. MOT Capt Song praised the high quality of Sikorsky aircraft and the support for MOT from the company.

Sikorsky Commercial Links Newsletter

January 2011

#### CHINA MOT ACCEPTS TWO S-76C HELICOPTERS WHILE WELCOMING FIRST FEMALE SAR CO-PILOTS

The first female rescue co-pilots in the People's Republic of China have begun flying missions for the China Ministry of Transport.

Wan "Peggy" Qiuwen and Song Yin, both age 25 and from Shanghai, began flight training in 2008 after graduating from the Shanghai Maritime University. They are the first female civil aviators in China to hold two commercial helicopter licenses, a CASA license from Australia and an HK CAD license from Hong Kong. They both fly the S-76C and the S-76C helicopters. Each has a degree in marine navigation.

Sikorsky pilot, Stacy Sheard, met Quiwen and Yin when she traveled to Shanghai, China, in December 2010 to perform return-to-service flights on two new Sikorsky 76C helicopters purchased by the China MOT to perform search and rescue missions in China. Sheard conducted a "return-to-service" flight, a routine procedure that is conducted when an aircraft is partially stripped down to remove rotor blades, wrapped, and shipped to another country. When the blades are re-installed, the aircraft must be flight tested before it can be returned to service.

Sheard also conducted demonstrations of the rescue hoist and aircraft capabilities for the China MOT during the visit.

"These female pilots were specially selected to become pilots out of the Shanghai Maritime University, to become China MOT rescue pilots. They had never flown before beginning their training in Australia, where MOT cadet pilots train at a facility called Flight Training Adelaide," Sheard said.

China's CCTV news broadcasted the acceptance of the two new Sikorsky S-76C helicopters, as well as to mark the achievement of China's first women helicopter pilots that fly them on life-saving rescue missions. Photographs Not Included: Wan "Peggy" Qiuwen (left) and Song Yin are Rescue Co-pilots for the China MOT; Song Yin, Stacy Sheard, and Wan "Peggy" Quiwen.

Sikorsky Commercial Links Newsletter

December 2010

#### SIKORSKY S-76 AND S-92 HELICOPTERS FLYING STRONG IN CHINA

Zhuhai, China – Sikorsky Aircraft Corp. has delivered nine new S-76 and one new S-92 helicopters to China in 2010 – the most ever in a single year for China – through a steady stream of deliveries that include the delivery of two S-76C search and rescue (SAR) helicopters to the Ministry of Transport (MOT) China Rescue and Salvage helicopters and two S-76C to Eastern General Aviation Company (EGAC). Sikorsky announced the deliveries from the China Air Show.

In addition to the EGAC and MOT deliveries, Sikorsky Aircraft also delivered two S-76C helicopters so far this year to the Zhuhai Helicopter Branch, a division of China Southern Airlines. Zhuhai is scheduled to take delivery of a third S-76C helicopter this month, the last one for Zhuhai this year.

"Operators worldwide continue to see high value and safety in the S-76 helicopter line," said Scott Pierce, Sikorsky vice president, Asia Sales region.

"The safety and efficiency of these aircraft, combined with solid support, have contributed to the growth of the fleet across Asia and Sikorsky looks forward to continuing its relationship with these customers for many years to come."

The China Rescue and Salvage has been operating the Sikorsky S-76 helicopter in the SAR capacity since 2001 and it has developed into a skillful search and rescue agency, responsible for the entire coastline of China. The Director General, Bureau of Rescue and Salvage, Captain Song Jiahui personally accepted the aircraft from the Sikorsky Global Helicopters facility in Coatesville, Pa., USA.

China Rescue and Salvage, which established its aerial search and rescue capability with the S-76 helicopter, will celebrate its 10th anniversary flying Sikorsky helicopters in 2011.

With the pending December delivery, Zhuhai will operate a total of 13 aircraft - 12 S-76 helicopters and one S-92 aircraft. Zhuhai is the largest Sikorsky fleet operator in Asia, providing maritime helicopter services for domestic and international oil companies in the Bohai Sea, Yellow Sea, East China Sea, and South China Sea.

Located in Tianjin in northern China, EGAC is a large commercial customer of Sikorsky Aircraft in China. It provides both S-76 and S-92 helicopter service to offshore oil companies operating in the Bohai Bay area. Sikorsky delivered two S-76C aircraft to EGAC in June 2010. With the latest addition being delivered to EGAC at Sikorsky Global Helicopters' facility in Coatesville, Pa., USA, last month, EGAC will operate a fleet of eight S-76 and one S-92 aircraft.

Photographs Not Included: Zhuhai Helicopter President Li Jiahua receives a Loyalty Award during Sikorsky Customer Night; Scott Pierce, VP, Asia Sales, and MOT SAR Deputy Director General Mr. Zhang Jinshan.

Sikorsky Commercial Links Newsletter

June 2010

#### CHINA CUSTOMER CONFERENCE

Shanghai Sikorsky Aircraft Company hosted the first China Customer Conference on May 20, with full participation from 100 percent of customers. Among the customer who participated were Zhuhai Helicopter Co., Eastern General Aviation Co., Ministry of

Transportation, Shanghai Kingwing General Aviation Co., Midea Group, and Sany Heavy Industry Co.

Sikorsky Commercial Links Newsletter

April 2010

#### SIKORSKY GLOBAL HELICOPTERS DELIVERS ZHUHAI AIRCRAFT

By Cass Hamby, Sikorsky Global Helicopters

Coatesville, Pa. – Sikorsky Global Helicopters delivered an S-76C helicopter on March 25 to China Southern Airlines through its Zhuhai Helicopter branch, located in the city of Zhuhai in the People's Republic of China. As the largest Sikorsky operator in Asia, Zhuhai Helicopter currently operates 11 Sikorsky helicopters. Mr. Peng Ti Shan, Vice President of Zhuhai Helicopter Branch, led an acceptance team that took delivery of the S-76C helicopter to be used in offshore oil operations in China. The team is scheduled to accept delivery of two additional S-76C helicopters for the offshore oil mission later this year. "We truly value our relationship with China Southern/Zhuhai Helicopter and look forward to further collaboration going forward," said Jesse J. Davis, Commercial Program Manager, Sikorsky Global Helicopters, responsible for the Zhuhai Helicopter contract.

In addition to the Zhuhai delivery, the Coatesville facility recently also delivered four S-76 utility helicopters to Bristow, a VIPS-76 helicopter to Air Ghislaine, and an S-92 helicopter for the offshore oil mission to PHI I.

Sikorsky Commercial Links Newsletter

December 2009

#### FIRST S-76 CIVIL HELICOPTER AIRFRAME COMPLETED IN CHINA

Jingdezhen, China – Sikorsky Aircraft Corp. and AVICopter on Nov. 23, 2009 celebrated completion of the first S-76C civil helicopter airframe produced in China. The airframe is the first to be built under an agreement between Sikorsky and Changhe Aircraft. The airframe will be delivered to the Sikorsky Global Helicopters facility in Coatesville, Penn., USA, for customization. Additional airframes are scheduled to be delivered in 2010.

"This delivery meets a key milestone in executing on international collaborations creating the culture and relationships for long-term success," said John Bishop, Sikorsky Vice President, Strategic Sourcing. "The region has a strong need for helicopters, and as we establish the S-76 helicopter manufacturing presence here, we are proud to celebrate this first delivery. It is a true sign of the strength of this business relationship and the positive path we are on for the future." In 2006, Sikorsky reinforced its manufacturing base in China when it signed a Memorandum of Understanding with China Aviation Industry Corp. II (AVIC II, now AVICopter), parent company of Changhe. The agreement laid the foundation for a business relationship between the two companies that has led to the production of the S-76 civil helicopter airframes from Changhe's facility southwest of Shanghai. Changhe is a supplier for Sikorsky's three largest commercial helicopter programs. Changhe also manufactures tail pylons for Sikorsky's S-92 helicopter, and supplies airframe components and assembles Sikorsky's Schweizer 300CBi aircraft, which are used worldwide for pilot training, transportation, aerial photography, airborne patrol and many other purposes.

Sikorsky Commercial Links Newsletter

October 2009

#### CAREY BOND APPOINTED PRESIDENT OF SIKORSKY GLOBAL HELICOPTERS

Stratford, Conn. – Sikorsky Aircraft Corp. has appointed Carey Bond as president of the company's Sikorsky Global Helicopters business. Bond also retains his previous position as Chief Marketing Officer. Sikorsky Global Helicopters produces commercial and **military** versions of the S-76, S-92, and light helicopter lines. Its subsidiaries include Keystone Helicopter Corp. and Associated Aircraft Group. Bond joined Sikorsky Aircraft Corp. in 2005. He previously served as Vice President and Chief Marketing Officer, as well

as Vice President of Corporate Strategy and Strategic Programs. In that latter role, he oversaw Sikorsky's successful acquisition and integration of Keystone Helicopter Corp. in Pennsylvania and PZL Mielec in Poland. He also orchestrated Sikorsky's increased participation in the Chinese aerospace market by establishing agreements with China's AVIC II. Bond has more than 25 years of industry experience and holds an MBA from Texas Christian University. Prior to joining Sikorsky, he led Bell Helicopter's Worldwide Customer Support and Service Organization.

Sikorsky Commercial Links Newsletter  
December 2008

#### SIKORSKY SALES IN CHINA GROWING

China Southern Airlines' Zhuhai Helicopter Company recently accepted two Sikorsky S-76C helicopters to support offshore oil projects in the South China Sea and Bohai Bay. The acceptance follows a trend of civil aircraft sales by Sikorsky in the region. Last month, Sikorsky signed an agreement with the Rescue and Salvage Bureau of China's Ministry of Transport (MOT) for four S-76C helicopters, bringing the fleet's total to eight and making it one of the largest operators of Sikorsky S-76 SAR helicopters in the world.

Sikorsky Commercial Links Newsletter  
November 2008

#### CHINA ADDS FOUR CIVIL S-76C HELICOPTERS TO RESCUE FLEET

Beijing, China – China's Ministry of Transport's (MOT) Rescue and Salvage Bureau has signed an agreement with Sikorsky Aircraft Corp. for four civil Sikorsky S-76C helicopters to enhance the MOT's maritime search and rescue capabilities. The MOT established China's aerial search and rescue capabilities with the introduction nearly eight years ago of two civil search and rescue helicopters from Sikorsky. Since their deployment, these two SAR helicopters have demonstrated their role in saving human lives.

Following the successful operation of the first two helicopters, the MOT acquired two more civil S-76C SAR helicopters in 2004 for deployment across the Bohai Bay. With many successful life-saving missions, the S-76 helicopter has proven itself as a highly reliable and efficient search and rescue aircraft in China.

"This acquisition of four civil S-76C helicopters demonstrates the trust and confidence the Ministry of Transport has in Sikorsky helicopters," said Scott Pierce, Vice President for Sales, Sikorsky Asia. "The world has witnessed the rapid growth in China's facilities and capabilities for search and rescue since the country introduced the search and rescue helicopters less than a decade ago. Sikorsky is committed to working with the MOT to contribute to the growth of China's maritime search and rescue capabilities."

Photograph Not Included: Sikorsky Regional Sales Manager Ryan McFeaters; Director General of Rescue & Salvage Bureau, China MOT Capt. Song Jiahui; and Vice President of China National Aero-Technology Import & Export Corp Yue Jianjun sign an agreement for four S-76C SAR aircraft.

Sikorsky Commercial Links Newsletter  
November 2008

#### CIVIL S-76 HELICOPTER PILOTS IN CHINA RECOGNIZED FOR RESCUE EFFORTS

Submitted by: Tim Li, Sales, Sikorsky Asia

During a ceremony at the 2008 Zhuhai Air Show in November, Sikorsky Aircraft recognized the pilots and crew members of the Zhuhai Helicopter Company for their efforts to provide swift assistance to victims of the May 12 earthquake in China. The 8.0-magnitude earthquake rocked the Sichuan province, leaving approximately 4.8 million people homeless. Zhuhai Helicopter Company, a branch of China Southern Airlines and a Sikorsky customer, immediately responded to the need for help by transporting supplies

and providing relief to those affected. Vice President for Sales, Sikorsky Asia Scott Pierce presented 30 Winged-S Rescue Awards to Zhuhai Helicopter employees. Sikorsky regularly recognizes the men and women who endanger their own lives to save others wounded in combat, or trapped by hurricanes, mud slides, earthquakes, avalanches or other natural disasters. Sikorsky initiated the Winged-S Rescue Award Program in 1950 to honor individuals who perform rescues while flying a Sikorsky helicopter.

Sikorsky Commercial Links Newsletter  
November 2008

#### WAREHOUSE IN SHANGHAI TO PROVIDE SPARE PARTS FOR CIVIL HELICOPTER OPERATORS IN CHINA

Shanghai Sikorsky has announced it will provide S-76 and S-92 civil helicopter spare parts to civil aircraft operators in China by teaming with Sikorsky Aerospace Services. Spare parts will be stocked in a centrally located warehouse managed by Shanghai Sikorsky. Parts will ship directly from the warehouse to operators in China that fly Sikorsky S-76 and S-92 civil aircraft. The new arrangement with Shanghai Sikorsky reduces the time it takes to get spare parts to customers, which improves customer fleet availability. "Its customers depend on a reliable supply of spare parts to fly, and this warehouse achieves exactly that goal," said David Adler, President of Sikorsky Aerospace Services. "Sikorsky Aerospace Services is excited to expand our globalization initiative via this new arrangement. We look forward to continued success in this critical and vibrant market." "Sikorsky and its partners established Shanghai Sikorsky to provide world-class support for civil rotor aircraft operators," said Harry Huang, General Manager of Shanghai Sikorsky. "This warehouse is another demonstration of Sikorsky's commitment to its customers in China."

Sikorsky Commercial Links Newsletter  
February 2008

#### AVIC II JOINS SHANGHAI SIKORSKY

Shanghai, China – AVIC II, through its subsidiaries Changhe Aircraft Industries Corporation and Shanghai Xinsheng Aviation Industry Investment and Development Company, on Jan. 31, 2008, announced it is joining Shanghai Sikorsky as a shareholder. Shanghai Sikorsky is a civil aerospace joint venture company whose other shareholders are Sikorsky Aircraft Corp. and Shanghai Little Eagle. Shanghai Sikorsky, established in 2003 by Sikorsky and Shanghai Little Eagle, focuses on nurturing the Chinese civil helicopter market and serving its growing vertical lift needs. The venture's business includes civil helicopter sales and support, including services and training, and general aviation services. With Changhe and Xinsheng becoming shareholders, Shanghai Sikorsky will soon expand its business to provide supply chain management services and to serve both Sikorsky's and Changhe's civil fleet in China.

Sikorsky Commercial Links Newsletter  
July 2007

#### SIKORSKY AIRCRAFT SELECTS CHANGHE TO SUPPLY S-76 HELICOPTER AIRFRAMES

Beijing – Sikorsky Aircraft Corp. on July 12 announced the selection of Changhe Aircraft Industries Corp. to supply S-76 helicopter airframes. The agreement is the second to result from a Memorandum of Understanding (MOU) signed June 1, 2006, by Sikorsky and China Aviation Industry Corp. II (AVIC II), parent company of Changhe.

Changhe will build and deliver S-76C helicopter airframes for Sikorsky together with AERO Vodochody in the Czech Republic. With the new agreement, Changhe is now a supplier for Sikorsky's three largest commercial helicopter programs. Changhe manufactures tail pylons for Sikorsky's S-92A helicopter, and in October 2006 signed the

first MOU production agreement to supply airframe components and assemblies for Sikorsky's Schweizer 300CBi aircraft, which are used worldwide for pilot training, transportation, aerial photography, airborne patrol and many other purposes.

The MOU signed by the two companies opened discussions about potential arrangements for helicopter manufacturing, assembly, flight test, engineering design and analysis, and new product development in the light, intermediate and medium civil helicopter classes.

"Today marks another important step in Sikorsky's relationship with AVIC II and in our global expansion," said Carey Bond, Sikorsky vice president for corporate strategy. "This new agreement will strengthen our supplier base, add value for our customers, and enable us to maintain smooth production flow as we continue to see strong demand for the S-76 helicopter line, including the next generation S-76D model now under development."

Bond also noted, "Sikorsky remains committed to the Asian aviation market, and our growing presence and involvement in China provides the foundation for local market expansion. We envision start-to-finish, 'fly-away' production of Schweizer helicopters in China for the domestic civil market as the government takes steps to encourage civil aviation by eliminating air space restrictions."

Photograph Not Included: Sikorsky VP Carey Bond and Wang Bin, President and Chairman of Changhe Aircraft Industries Corp., signed the agreement July 12 in Beijing.

Sikorsky Commercial Links Newsletter

June, 2007

PARTING SHOT

Eastern General Aviation Company (EGAC) customers pose in front of their S-92 at a delivery ceremony at Keystone Helicopter Corp. on Friday, May 25, 2007. EGAC is the first customer to operate the S-92 in China. Members of the Civil Aviation Authority of China (CAAC) also attended.

Sikorsky Commercial Links Newsletter

November 2006

SCHWEIZER SELECTS JIANGXI CHANGHE

Zhuhai Air Show, China—Schweizer Aircraft Corp. has selected Jiangxi Changhe Aircraft Company to supply airframe components and assemblies for the Schweizer 300CBi helicopter. Schweizer Aircraft is a subsidiary of Sikorsky Aircraft Corp.

This contract is the first project completed under the Memorandum of Understanding (MOU) announced June 1 between Sikorsky and China Aviation Industry Corporation II (AVIC II) for collaboration on the development and manufacture of civil helicopters. AVIC II is the parent company of Jiangxi Changhe.

"Sikorsky is excited to see the execution of one of the key strategies outlined in the MOU," said Carey Bond, Sikorsky vice president for corporate strategy and advanced programs. "Sikorsky is committed to investing in China and developing additional strategic partnerships with AVIC II."

Schweizer 300CBi helicopters are used worldwide for training, transportation, aerial photography, airborne patrol, and many other missions. Changhe will ship the airframe and detail parts that it manufactures to Schweizer's Elmira, New York, USA facility, where 300CBi helicopters will be assembled, test flown and delivered to customers.

"This agreement is part of Sikorsky's on-going effort to develop strategic global partnerships and business arrangements that create new opportunities for both parties," Bond said. "Demand for the 300CBi remains strong. Adding Changhe to the supply chain will enable Schweizer to increase its production rate, better meet customer requirements and provide additional customer value for a world-class product."

Under the MOU announced in June, Sikorsky and AVIC II agreed to discuss helicopter manufacturing, assembly, flight test, engineering design and analysis, and new product development in the light, intermediate, and medium classes.

"AVIC II and its subsidiaries have excellent design and manufacturing capabilities, and Sikorsky is proud of this partnership," Bond said. "The MOU laid a strong foundation for cooperation and we continue to discuss additional future strategic partnerships."

In June Sikorsky announced plans to expand Schweizer with a new 100,000 square-foot Rapid Prototyping and **Military** Derivatives Completion Center to serve as the primary completion center for Black Hawk and Naval Hawk derivative aircraft beginning in 2007.

The agreement with Changhe will free resources at Schweizer to meet expected future demand for Black Hawk and Naval Hawk derivatives, covert surveillance aircraft, the RQ-8B Fire Scout unmanned air vehicle, and prototyping work on the X2 Technology demonstrator.

Sikorsky's business relationship with AVIC II dates back more than a decade to the development of the S-92A helicopter, the world's newest medium-lift helicopter.

Jiangxi Changhe manufactures the tail pylon for the S-92A helicopter.

Sikorsky Commercial Links Newsletter

June 2006

SIKORSKY, CHINA AVIC II ANNOUNCE MOU

New global markets and business opportunities are looming for Sikorsky Aircraft and China Aviation Industry Corporation II (AVIC II), as the two signed a Memorandum of Understanding (MOU) to explore the development and manufacture of civil helicopters.

Sikorsky and AVIC II announced the MOU during a joint press briefing in May in Beijing.

"We look forward to exploring many potential projects with AVIC II for both the Chinese and international marketplace. We are excited about the opportunity to execute projects outlined in the current MOU that create additional areas of cooperation in the future," said Carey Bond, Sikorsky vice president for corporate strategy and advanced programs.

Under the MOU, Sikorsky and AVIC II will discuss helicopter manufacturing, assembly, flight test, engineering design and analysis, and new product development in the light, intermediate, and medium classes. The companies will also explore establishing Changhe Aircraft Industry Corporation under AVIC II as a second source for the S-76 helicopter airframe.

"We see this MOU as another step toward opening up new markets and business opportunities for both Sikorsky and AVIC II globally. China is a dynamic country, AVIC II is a company with great technical capabilities, and Sikorsky Aircraft is an international company committed to developing business relationships and strategic partnerships globally," said Stephen B. Estill, Sikorsky vice president and chief marketing officer.

Other potential business opportunities between the companies include aftermarket support and pilot training for the Chinese market.

"AVIC II and Sikorsky have established a good relationship of mutual trust over a collaboration of 12 years," said Shi Jianzhong, vice president, AVIC II. "We share a common wish to expand our cooperation in civil helicopters. We see great potential for future collaboration."

Sikorsky's business relationship with AVIC II dates back more than a decade to the development of the S-92A helicopter, the world's newest medium-lift helicopter. Changhe, an AVIC II subsidiary, manufactures the S-92A tail pylon.

Photograph Not Included: NI Xianping, deputy general engineer of AVIC II (front right), shakes hands with Carey Bond, Sikorsky vice president of corporate strategy after signing the MOU. Also pictured (L to R): Jim Gradoville, president of UTIO China; Harry Huang; Steve Estill, Sikorsky vice president and chief marketing officer; Shi Jianzhong, vice president of AVIC II; Wang Bin, president and chairman of Changhe Aviation

Industries; Tang Hua director-general of international cooperation and trade department of AVIC II; Hu Zijian, director-general of the AVIC II helicopter department.

Sikorsky Commercial Links Newsletter

December 2005

#### CHINESE MOC TO DOUBLE S-76C FLEET

A satisfied customer in China is well on its way to doubling its fleet of S-76C helicopters. The Ministry of Communications (MOC) of China on Nov. 9 accepted two more S-76C helicopters for search and rescue (SAR) operations. The helicopters will be shipped to Shanghai in December and will be put into SAR operations in China this winter. MOC acquired its first two S-76C search and rescue helicopters in 2000 and has been extremely pleased with the helicopters' performance in nearly 40 SAR missions that have resulted in numerous lives saved. Prior to the Nov. 9 acceptance by Capt. DING, Pingsheng, deputy director general of the Bureau of Rescue and Salvage, MOC performed a week-long inspection and flight tests of the S-76C aircraft at Keystone Helicopters. MOC signed the contract for these two additional S-76C SAR helicopters in 2004, after carefully comparing the S-76C to competitive helicopters. The Ministry has a master plan to equip more than a dozen search and rescue stations along China's 20,000-mile long coastline with helicopters.

Sikorsky Commercial Links Newsletter

October 2005

#### CHINA EASTERN AVIATION TO PURCHASE S-92 OFFSHORE OIL HELICOPTER

Eastern General Aviation Corporation (EGAC), a subsidiary of China Eastern Holding Company, has agreed to purchase a Sikorsky S-92 helicopter to serve offshore oil support missions in the Bohai Bay area. Delivery is anticipated for late 2006. "Sikorsky helicopters are proven to be the best offshore oil helicopters and we are adding this S-92 to complement the two S-76C helicopters we just ordered a month ago," said Mr. Li Jianmin, president of EGAC. EGAC is one of the three largest offshore oil operators in China and the one with the longest operating history. Based in Tianjin, China, EGAC has been supporting oil companies in northern China, especially in the Bohai Bay area, for the past twenty years.

### SIKORSKY PRESS RELEASES

#### SIKORSKY AND CHINA'S MINISTRY OF TRANSPORT CELEBRATE THE MOT'S GROWING FLEET OF S-76D SAR HELICOPTERS

September 06, 2013

Tianjin, China - Sikorsky Aircraft and China's Ministry of Transport's (MOT) Rescue and Salvage Bureau today celebrated their growing relationship and their two most recently signed contracts for a total of eight Sikorsky S-76D search and rescue (SAR) helicopters to further enhance the MOT's maritime SAR capabilities. Sikorsky Aircraft, a subsidiary of United Technologies Corp. (NYSE:UTX), and the MOT held a ceremonial event today at the China Heli-Expo industry show to commemorate the transactions. In July 2013, the MOT contracted for four additional S-76D SAR helicopters, following the purchase of four of the same aircraft model in December 2012. The latest SAR contract is the fifth that China's MOT has awarded to Sikorsky for the S-76 series of helicopters since 2000. When these eight aircraft are delivered in 2014, the MOT will operate a fleet of 16 S-76 helicopters, which have formed the foundation of China's aerial SAR capabilities for maritime operations. The S-76D helicopter is Sikorsky's newest aircraft, having received U.S. Federal Aviation Administration (FAA) Type Certification in October 2012. Designed for safety, reliability and efficiency, the S-76D helicopter's standard equipment features include all-composite, flaw-tolerant main rotor blades; an advanced THALES integrated



avionics system and autopilot; health and usage monitoring system; and active vibration control. The S-76D is powered by Pratt & Whitney Canada's compact and light-weight PW210S engine, which delivers the best in class power-to-weight ratio and fuel burn with excellent payload and range benefits. Rotor Ice Protection System for all-weather capability will be available as an option. "Sikorsky is honored to be selected again by the Chinese government, and we look forward to continuing our 13-year partnership well into the future," said Ed Beyer, Vice President of Sikorsky Global Helicopters, the commercial aircraft business of Sikorsky Aircraft. "That the MOT chose the S-76D helicopter to perform such an important mission demonstrates its confidence with Sikorsky's products and service. We are especially proud to support China's maritime search and rescue capabilities with our newest product, the S-76D helicopter."

#### ZHUHAI HELICOPTER COMPANY AND SIKORSKY CELEBRATE RELATIONSHIP AND S-92 PURCHASE

September 06, 2013

Tianjin, China - Sikorsky Aircraft and Zhuhai Helicopter Company today marked their nearly three-decades-long relationship and the purchase of four S-92 helicopters with a ceremonial signing at the China Helicopter Exposition. Sikorsky Aircraft is a subsidiary of United Technologies Corp. (NYSE:UTX).

Zhuhai, a fully-owned subsidiary of China Southern Airlines Ltd., is a leading provider of offshore helicopter service in China, serving both Chinese and Western oil companies in their the ever-expanding oil operations in the South China Sea. The company today operates only Sikorsky helicopters.

When Zhuhai takes deliveries of the new S-92 helicopters, the company will operate nine total S-92 aircraft in addition to 12 Sikorsky S-76 helicopters. The latest S-92 helicopter purchase was announced in June and celebrated today at the China Helicopter Exposition.

"Zhuhai is our largest commercial fleet operator in Asia and one of the region's major operators. We are proud to have them as a valued customer and grateful for their trust and loyalty to our products for the past 29 years," said Ed Beyer, Vice President of Sikorsky Global Helicopters, the commercial aircraft company of Sikorsky Aircraft.

"Zhuhai Helicopters and Sikorsky have been working together for many years. This latest contract for four additional S-92 helicopters is an indication of the tremendous growth that has occurred at our company. With the expanding offshore operations in the South China Sea, we expect our fleet and our company to grow with it," said Mr. Rong Weiguo, President, Zhuhai Helicopter Company.

The multi-mission S-92 helicopter incorporates numerous safety features, including a flaw-tolerant design. The aircraft was certified to FAA/EASA harmonized Part 29 requirements, as amended through Amendment 47, and remains the only aircraft certified to this rigorous airworthiness standard without exception or waiver.

Sikorsky will deliver its 200th S-92 helicopter this year. The global fleet is currently approaching 590,000 flight hours. Among the missions performed by the S-92 helicopter are offshore oil worker transportation, Head of State transport, search and rescue operations, and airline service.

#### COHC AND SIKORSKY CELEBRATE ORDER FOR TWO S-92 HELICOPTERS

September 06, 2013

Tianjin, China - Sikorsky Aircraft and China's CITIC Offshore Helicopter Company (COHC) today marked the purchase of two S-92 helicopters with a ceremonial signing at the China Helicopter Exposition. Sikorsky Aircraft is a subsidiary of United Technologies Corp. (NYSE:UTX). Established in 1983, COHC is a publicly traded company based in Shenzhen, Guangdong, China, where it is the largest provider of offshore operations. The contract was announced in June and celebrated today in China. "COHC is one of our newer

customers, so we are proud to say that all three major offshore oil service providers in China will now be operating Sikorsky helicopters,” said Ed Beyer, Vice President of Sikorsky Global Helicopters, the commercial aircraft business of Sikorsky Aircraft. “The offshore oil market in China is growing rapidly, and the S-92 helicopter has proven to be a reliable and safe performer around the world. We are grateful that COHC has chosen Sikorsky, and we are confident that this marks the beginning of a long-term relationship between us.” The two new aircraft are scheduled for delivery in December 2014 and March 2015. The multi-mission S-92 helicopter incorporates numerous safety features, including a flaw-tolerant design. The aircraft was certified to FAA/EASA harmonized Part 29 requirements, as amended through Amendment 47, and remains the only aircraft certified to this rigorous airworthiness standard without exception or waiver. Sikorsky will deliver its 200th S-92 helicopter this year. The global fleet is currently approaching 590,000 flight hours. Among the missions performed by the S-92 helicopter are offshore oil worker transportation, Head of State transport, search and rescue operations, and airline service.

#### SIKORSKY AND CHANGHE SIGN AGREEMENT FOR S-76D CABIN PRODUCTION IN CHINA

September 05, 2013

Tianjin, China - Sikorsky Aircraft and Changhe Aircraft Industries Corp. today signed an agreement for Changhe to produce S-76D commercial helicopter cabins for Sikorsky, a subsidiary of United Technologies Corp. (NYSE: UTX). The agreement was signed during the China Helicopter Exposition, with Chairman Yu Feng, Changhe Aircraft Industry Group Co., Ltd., and Senior Vice President, Operations, Shane Eddy representing Sikorsky Aircraft.

The S-76D helicopter is Sikorsky's newest aircraft. Changhe had previously provided cabins for the predecessor S-76C helicopter, under an agreement signed by the two companies in 2007. Changhe will now serve as a second source for S-76D cabins, with deliveries scheduled to begin in 2016 and production volume based on market demand. Aero Vodochody in the Czech Republic also supplies the cabins.

“I am proud to sign this agreement with Changhe Aircraft, which extends our very successful partnership in this strategically important region,” said Shane Eddy of Sikorsky Aircraft. “Over the next 10 years, we see the potential for the civil helicopter fleet in China to quadruple, and we are proud to work with such a trusted and respected company as Changhe to serve this expanding market.”

“Changhe and Sikorsky will further expand the collaboration from S-92 and S-76C to S-76D products,” said Yu Feng, Chairman, AVIC Changhe Aircraft Industry Group, Co., Ltd.

Changhe Aircraft Industries Corp. is a subsidiary of China's AVIC, which is a shareholder in the Shanghai Sikorsky civil aerospace joint venture company. Sikorsky has enjoyed a long and productive business relationship with AVIC dating back more than a decade to the development and production of the S-92 commercial helicopter.

The S-76D helicopter received FAA certification in 2012 and is the latest in the family of popular Sikorsky's S-76 helicopters. More than 800 S-76 helicopters in the global fleet have accumulated 6.2 million flight hours during three decades of operation. Designed for safety, reliability and efficiency, the S-76D helicopter features all-composite, flaw-tolerant main rotor blades; a fully integrated THALES glass cockpit; health and usage monitoring system; active vibration control; and powerful Pratt & Whitney Canada PW210S engines, which deliver the best in class power-to-weight ratio and fuel burn with excellent payload and range benefits.

#### LONGTIME SIKORSKY CUSTOMER ZHUHAI HELICOPTER COMPANY TO ACQUIRE ADDITIONAL S-92 HELICOPTERS

June 18, 2013

Paris Air Show - Sikorsky and Zhuhai Helicopter Company (ZHC) today announced a new contract for four Sikorsky S-92 offshore utility helicopters. Sikorsky is a subsidiary of United Technologies Corp. (NYSE:UTX).

ZHC, a fully-owned subsidiary of China Southern Airlines Ltd., is a leading provider of offshore helicopter service in China, serving both Chinese and Western oil companies. Since May 2011, ZHC has contracted for eight S-92 helicopters to support the ever-expanding offshore oil operations in the South China Sea by ZHC's customers. ZHC has used Sikorsky helicopters for about 29 years.

We are excited to see Zhuhai's continuing expansion and deeply appreciate their customer loyalty to our products and services," said Ed Beyer, Vice President of Sikorsky Global Helicopters. "After deliveries in 2014 and 2015, ZHC will operate nine S-92 and 12 S-76 helicopters of various models, continuing as the largest Sikorsky commercial fleet operator in Asia and one of the key offshore helicopter operating companies on the Asian offshore oil market."

Over the past decade ZHC's business and reputation have continued to grow, and the company has been expanding continually and upgrading its helicopter fleet, which has been turned into an exclusive Sikorsky fleet.

The multi-mission S-92 helicopter incorporates numerous safety features, including a flaw-tolerant design. The S-92 helicopter was certified to FAA/EASA harmonized Part 29 requirements, as amended through Amendment 47. The S-92 helicopter remains the only aircraft to have been certified to this rigorous airworthiness standard without exception or waiver.

In February, the global fleet achieved the half-million flight-hour milestone. Off shore oil operators fly the aircraft for an average of 90–110 hours per month in often challenging environments. The S-92 helicopter also performs Head of State missions, search and rescue (SAR) operations as well as a variety of transportation missions for utility and airline passengers. Since entering service in September 2004, the S-92 fleet has grown to 170 aircraft and logged more than 530,000 flight hours to date.

This summer, Sikorsky will formally offer the S-92 platform to the U.S. Government, which is seeking to replace the "Marine One" helicopter fleet that transports the President of the United States.

#### CHINA'S CITIC OFFSHORE HELICOPTER COMPANY TO ACQUIRE TWO S-92 HELICOPTERS

June 18, 2013

Paris Air Show - Sikorsky Aircraft Corp. today announced it has signed a contract with China's CITIC Offshore Helicopter Company (COHC) for two S-92 helicopters to be used for the offshore oil transportation mission. Sikorsky Aircraft is a subsidiary of United Technologies Corp. (NYSE:UTX). Established in 1983, COHC is a publicly traded company based in Shenzhen, Guangdong, China. It is the largest provider of offshore operations in China. The contract was signed on May 10 in China and announced today from the Paris Air Show. "The offshore oil market in China is growing rapidly, and the S-92 helicopter has proven to be a reliable and safe performer in many locations around the world, including China, where Sikorsky products are now being operated by all three major offshore oil service providers," said Robert Kokorda, Sikorsky Vice President of Sales & Marketing. "COHC is one of the newest customers for Sikorsky Aircraft, but we are focused on providing them with world-class products and support, and are confident that this marks the beginning of a long-term relationship between us." Sikorsky plans to deliver the new S-92 helicopters in December 2014 and March 2015. The multi-mission S-92 helicopter incorporates numerous safety features, including a flaw-tolerant design. In February, the global fleet achieved the half-million flight-hour milestone. Off shore oil operators fly the aircraft for an average of 90–110 hours per month in often challenging environments. The

S-92 helicopter also performs Head of State missions, search and rescue (SAR) operations as well as a variety of transportation missions for utility and airline passengers. Since entering service in September 2004, the S-92 fleet has grown to 170 aircraft and logged more than 530,000 flight hours to date. This summer, Sikorsky will formally offer the S-92 platform to the U.S. Government, which is seeking to replace the "Marine One" helicopter fleet that transports the President of the United States.

#### MINISTRY OF TRANSPORT SIGNS FOR FOUR S-76D HELICOPTERS FOR SEARCH AND RESCUE MISSION IN CHINA

March 05, 2013

Las Vegas, Nevada - China's Ministry of Transport's (MOT) Rescue and Salvage Bureau has signed a contract for the supply of four Sikorsky S-76D search and rescue helicopters, with an option for another four next year, to further enhance MOT's maritime search and rescue capabilities, Sikorsky Aircraft announced today from the Heli-Expo industry show. Sikorsky is a subsidiary of United Technologies Corp. (NYSE:UTX). The S-76D helicopter is the newest product from Sikorsky Aircraft. The Federal Aviation Administration (FAA) awarded Type Certification of the S-76D model in October 2012, and the helicopter continues its envelope expansion as the first models move through final modifications for customer deliveries in early 2013. China's MOT first introduced Sikorsky S-76 search and rescue helicopters in 2000, and this is the fourth contract it has awarded Sikorsky for the S-76 series of helicopters. When these four aircraft are delivered, MOT will operate a fleet of 12 S-76 search and rescue helicopters of various versions, which have formed the backbone of China's aerial search and rescue capabilities for maritime operations. "The continuous selection by MOT of Sikorsky's S-76 SAR helicopters among various bidding models clearly illustrates the Chinese government's firm trust and confidence in Sikorsky helicopters," said Robert Kokorda, Sikorsky's Vice President of Sales & Marketing. "The fact that MOT chose to be one of the launch customers of the S-76D helicopter demonstrates its satisfaction with Sikorsky's products and service. We are committed to our customers and will continue to support China's maritime search and rescue capabilities by delivering the best new performer for the mission, the S-76D."

Designed for safety, reliability and efficiency, the S-76D helicopter's standard equipment features are all-composite, flaw-tolerant main rotor blades; an advanced THALES integrated avionics system and autopilot; health and usage monitoring system, and active vibration control. The S-76D is powered by Pratt & Whitney Canada's compact and light-weight PW210S, which delivers the best in class power-to-weight ratio and fuel burn with excellent payload and range benefits. Rotor Ice Protection System for all-weather capability will be available as an option.

#### ZHUHAI HELICOPTER COMPANY TO ACQUIRE MORE SIKORSKY S-92 HELICOPTERS

November 15, 2012

Zhuhai, China - Sikorsky and Zhuhai Helicopter Company (ZHC) today announced a new contract at Airshow China for two Sikorsky S-92 offshore utility helicopters. The acquisition marks the fourth procurement by ZHC from Sikorsky since 2007. Sikorsky is a subsidiary of United Technologies Corp. (NYSE:UTX).

Zhuhai Helicopter Company (ZHC), a fully-owned subsidiary of China Southern Airlines Ltd., is a leading provider of offshore helicopter service in China, serving both Chinese and Western oil companies. After deliveries in 2013, ZHC will operate five S-92 and 12 S-76 helicopters of various models, making it the largest Sikorsky commercial fleet operator in Asia and one of the key offshore helicopter operating companies on the Asian offshore oil market.

"We deeply appreciate that our longtime customer in China, Zhuhai, continues to have an unflinching loyalty to our products and service, and we look forward to expanding this

cooperation to aircraft maintenance service, personnel training, and material distribution,” said Ed Beyer, Vice President of Sikorsky Global Helicopters. “The safety and efficiency of these aircraft, combined with solid support, have contributed to the ongoing trend of Sikorsky helicopters flying into China, our fastest-growing market in the world.”

Mr. RONG, Weiguo, acting president of ZHC, added: “Zhuhai Helicopter Company is experiencing continued growth. As the oldest operator of Sikorsky helicopters in China, Zhuhai looks forward to the opportunities to further develop its relationship with Sikorsky in the future.”

Last year, Zhuhai acquired two S-92 helicopters to support the ever-expanding offshore oil operations in the South China Sea by Zhuhai’s customers. Zhuhai has used Sikorsky helicopters for about 28 years.

Zhuhai Helicopter has a workforce of 98 pilots and 115 maintainers who work from four main operating bases in northern and southern China. Over the past decade ZHC’s business and reputation have continued to grow, and the company has been expanding continually and upgrading its helicopter fleet, which has been turned into an exclusive Sikorsky fleet.

Sikorsky has been highly successful in China for the past decade. Currently, there are 31 S-76 and 4 S-92 helicopters of various configurations flying in China. On China’s intermediate market segment (7,000 to 15,000 lbs gross weight), the S-76 occupies more than 40 percent (the highest) of the segment. The S-92 helicopter continues to gain in popularity and is becoming the helicopter of choice among offshore oil companies.

#### SIKORSKY S-76 AND S-92 HELICOPTERS KEEP FLYING INTO CHINA

November 15, 2012

Zhuhai, China - Sikorsky and Ruili Jingcheng Group (RJG) at Airshow China today announced the signing of two contracts for the introduction of one S-92 helicopter and one S-76D helicopter, marking Sikorsky’s first S-92 helicopter sale to a private Chinese operator and the first ever Sikorsky S-76D helicopter sale into China. Sikorsky is a subsidiary of United Technologies Corp. (NYSE:UTX).

Both aircraft will be configured for airline use.

“Today’s announcement signals a major milestone for Sikorsky’s business development in China,” said Ed Beyer, Vice President, Sikorsky Global Helicopters. “We are truly feeling the warmth of the fast-growing helicopter market here as more S-76 and S-92 helicopters keep flying into China. We are even more pleased that our newest customer here has chosen Sikorsky because of the popularity of our products in this market and the high reputation we have built over the past 30 years.”

“As China continues to embrace Sikorsky products, we recognize that this is the kind of product acceptance we typically receive in more mature markets elsewhere in the world, and Sikorsky looks forward to continuing its relationship with these customers for many years to come,” Beyer said.

Ruili Jingcheng Group, a private conglomerate based in Ruili, Yunnan province in southwestern China, is expanding its business into the aviation sector by establishing three aviation subsidiaries, including a helicopter operating company. RJG will be the newest Chinese commercial customer for Sikorsky, and will be the first operator in China of the Sikorsky S-76D helicopter, the newest S-76 helicopter model. The S-76D was granted type certification by the FAA on Oct. 12.

Sikorsky has been highly successful in China for the past decade. Currently, there are 31 S-76 and four S-92 helicopters of various configurations flying in China. On China’s intermediate market segment (7,000 to 15,000 lbs gross weight), the S-76 occupies more than 40 percent (the highest) of the segment. The S-92 helicopter continues to gain in popularity and is becoming the helicopter of choice among offshore oil companies.

Designed for safety, reliability and efficiency, the S-76D helicopter’s standard equipment features are all-composite, flaw-tolerant main rotor blades; an advanced

THALES integrated avionics system and autopilot; health and usage monitoring system, active vibration control; and powerful Pratt & Whitney Canada PW210S engines. Rotor Ice Protection System for all-weather capability will be available as an option. There have been more than 800 S-76 helicopters delivered to the global fleet since 1979, contributing daily to a growing 6 million-plus flight hours.

S-92 helicopters perform search and rescue (SAR) missions as well as a variety of transportation missions for VIPs including Heads of State, offshore oil and gas crews, utility and airline passengers. The worldwide fleet of 151 S-92 helicopters has accumulated nearly 400,000 flight hours since deliveries began in 2004. The S-92 helicopter was certified to FAA/EASA harmonized Part 29 requirements, as amended through Amendment 47. The S-92 helicopter remains the only aircraft to have been certified to this rigorous airworthiness standard without exception or waiver.

#### SIKORSKY DELIVERS S-92 AND S-76 AIRCRAFT TO ZHUHAI

February 14, 2012

Singapore Air Show - Sikorsky Aircraft Corp. has delivered two offshore utility helicopters to China Southern Airlines' Zhuhai Helicopter Branch company, with a third delivery to occur next week, to support the offshore oil operations in the South China Sea by Zhuhai's customers. Sikorsky is a subsidiary of United Technologies Corp. (NYSE:UTX). Zhuhai Helicopter Branch is among the major helicopter operators supporting offshore oil operations and other market segments in China. Since 1984, the company has used Sikorsky helicopters to transport oil workers for such companies as China National Offshore Oil Corp., Chevron, and ExxonMobil. The delivery of the new aircraft brings the total of Sikorsky helicopters in the Zhuhai Helicopter Branch fleet to 16 aircraft: 13 S-76 and three S-92 helicopters. Zhuhai Helicopter Branch operates the largest S-76 helicopter fleet in China and Asia, and was the first operator in China to purchase a commercial helicopter from Sikorsky. "Sikorsky Aircraft is proud to see the rapid growth of Zhuhai, and to have such a loyal customer operating an exclusive Sikorsky fleet for so many years. The mutual trust and support that our two companies have developed have contributed to a better understanding in the region of Sikorsky products as well as the training and maintenance capabilities we offer," said Shane Eddy, Vice President, Global Supply Chain. "Together, our joint efforts are on a path to contribute in a significant way to the future development of the South Sea China offshore oil industry, and Sikorsky is proud to play a role in that potential success." Zhuhai took delivery of its new helicopters in September and December. The aircraft have been put into service and are operating out of the Guangdong province in China.

#### ZHUHAI HELICOPTER BRANCH CONTRACTS FOR SIKORSKY S-92 AND S-76 HELICOPTERS

June 20, 2011

Paris, France - Sikorsky Aircraft Corp. announced today at the Paris Air Show that China Southern Airlines Company's Zhuhai Helicopter Branch has contracted for a S-76C and two S-92 helicopters to support the company's offshore oil customers operating in the South China Sea. Sikorsky is a subsidiary of United Technologies Corp. (NYSE:UTX). Zhuhai is the largest and oldest operator of Sikorsky helicopters in China, having used Sikorsky aircraft since 1984 to transport oil workers for such companies as China National Offshore Oil Corp., ExxonMobil, and Phillips. When the newly ordered aircraft are delivered starting in September 2011, Zhuhai's fleet will include 13 S-76 and three S-92 helicopters. "Both the S-76 and S-92 helicopters have proven to be the workhorses of the offshore oil and other transport sectors globally. In China, Sikorsky and Zhuhai have a long history of partnering to meet the needs of the country's offshore oil industry. We look forward to continuing this partnership for many years to come," said Carey Bond, President of Sikorsky Global Helicopters (SGH). SGH is a Sikorsky Aircraft company that develops

and produces civil certified helicopters and their derivatives. Its portfolio includes the S-76, S-92 and H-92 helicopters as well as the S-300C, S-300 CBi, S-333 and S-434 light helicopters. Also part of Sikorsky Global helicopters is Associated Aircraft Group (AAG), a provider of charter and fractional ownership services.

#### SIKORSKY S-76 AND S-92 HELICOPTERS FLYING STRONG IN CHINA

November 17, 2010

Zhuhai, China - Sikorsky Aircraft Corp. has delivered nine new S-76 and S-92 helicopters to China in 2010 – the most ever in a single year for China – through a steady stream of deliveries that include the delivery of two S-76C search and rescue (SAR) helicopters to the Ministry of Transport (MOT) China Rescue and Salvage helicopters last week and two S-76C to Eastern General Aviation Company (EGAC) currently being delivered. Sikorsky announced the deliveries from the China Air Show. Sikorsky is a subsidiary of United Technologies Corp (NYSE:UTX).

In addition to the EGAC and MOT deliveries, Sikorsky Aircraft also delivered two S-76C helicopters so far this year to the Zhuhai Helicopter Branch, a division of China Southern Airlines. Zhuhai is scheduled to take delivery of a third S-76C helicopter next month, the last one for Zhuhai this year.

“Operators worldwide continue to see high value and safety in the S-76 helicopter line,” said Scott Pierce, Sikorsky vice president, Asia Sales region. “The safety and efficiency of these aircraft, combined with solid support, have contributed to the growth of the fleet across Asia and Sikorsky looks forward to continuing its relationship with these customers for many years to come.”

The China Rescue and Salvage has been operating the Sikorsky S-76 helicopter in the SAR capacity since 2001 and it has developed into a skillful search and rescue agency, responsible for the entire coastline of China. The Director General, Bureau of Rescue and Salvage, Captain Song Jiahui personally accepted the aircraft from the Sikorsky Global Helicopters facility in Coatesville, Pa., USA.

China Rescue and Salvage, which established its aerial search and rescue capability with the S-76 helicopter, will celebrate its 10th anniversary flying Sikorsky helicopters in 2011.

With the pending December delivery, Zhuhai will operate a total of 13 aircraft - 12 S-76 helicopters and one S-92 aircraft. Zhuhai is the largest Sikorsky fleet operator in Asia, providing maritime helicopter services for domestic and international oil companies in the Bohai Sea, Yellow Sea, East China Sea, and South China Sea.

Located in Tianjin in northern China, EGAC is a large commercial customer of Sikorsky Aircraft in China. It provides both S-76 and S-92 helicopter service to offshore oil companies operating in the Bohai Bay area. Sikorsky delivered two S-76C aircraft to EGAC in June 2010. With the latest addition being delivered to EGAC at Sikorsky Global Helicopters’ facility in Coatesville, Pa., USA, this week, EGAC will operate a fleet of eight S-76 and one S-92 aircraft.

#### SIKORSKY GLOBAL HELICOPTERS SEES STRONG SALES IN 2010

February 23, 2010

Houston, Texas - Sikorsky Global Helicopters, a business unit of Sikorsky Aircraft Corp., is seeing a resurgence of interest in its S-300C and S-300CBi helicopters, with sales activity for the beginning of 2010 showing a 50 percent increase over the same time period in 2009. Sikorsky Aircraft Corp. is a subsidiary of United Technologies Corp. (NYSE: UTX). All incoming orders so far in 2010 have been fleet orders of two to four helicopters each for flight training, patrol, agricultural and wildlife work, and other diverse operations in the United States and around the world. “In lean economic times, more operators have come to recognize S-300 series helicopters as reliable, economic solutions to their mission

requirements,” said David Oglesbee, director, Sikorsky Global Helicopters Light Helicopter Division. “Low operating costs and a strong safety record also have encouraged customers to add S-300 series helicopters to their fleets to grow and diversify their businesses in a soft market.” In the United States, Sikorsky has seen colleges expanding their current rotary fleet or diversifying their aviation programs to include rotary training. Many of these institutions are choosing Sikorsky light helicopters to meet their needs. The University of North Dakota’s John D. Odegard School of Aerospace Sciences, for example, currently operates six Sikorsky light helicopters in its flight training program and has four S-300C helicopters on order for delivery in 2010. UND Aerospace has operated S-300 series helicopters in its training program since 1983. Emerging international markets also have been a source of growth for a variety of missions. Shanghai Sikorsky has 10 civil helicopters on order: eight S-300C helicopters and two S-300C*Bi* helicopters. These aircraft will be used for training, agriculture, and other missions. Shanghai Sikorsky is the distributor for Sikorsky light helicopters in China. After delivering the first Sikorsky light helicopter into Kenya, North East Helicopters of South Africa has placed orders for two more helicopters, which are currently scheduled for delivery in the first half of 2010. There are more than 50 S-300 series helicopters now operating in southern Africa, where North East Helicopters is the distributor for Sikorsky light helicopters. EDRA Aeronáutica of Brazil has two S-300C*Bi* helicopters on order for law enforcement in Brazil. EDRA is another distributor for Sikorsky light helicopters. Seven state police agencies in Brazil operate a total of 11 S-300C*Bi* and S-300C helicopters. EDRA has trained about 75 percent of the police pilots in Brazil and is pursuing future sales to support upcoming international sporting events in Brazil over the next few years. Sikorsky Global Helicopters, a Sikorsky company, produces the S-76, S-92, and H-92 helicopters as well as the S-300C, S-300C*Bi*, S-333, and S-434 light helicopters. Its subsidiaries include Keystone Helicopter Corp. and Associated Aircraft Group (AAG).

#### SIKORSKY SELLS CIVIL S-76C HELICOPTER TO SHANGHAI KINGWING GENERAL AVIATION

February 25, 2009

Anaheim, California - Sikorsky Aircraft Corp. today announced the sale of a civil S-76C helicopter to Shanghai Kingwing General Aviation Company. Sikorsky Aircraft is a subsidiary of United Technologies Corp. (NYSE:UTX). It is the first sale of a Sikorsky product to Shanghai Kingwing General Aviation of China. This aircraft is expected to fly in support of civil onshore rescue missions organized by China’s Ministry of Civil Affairs. Delivery is planned for May 2009. “Sikorsky is pleased to introduce the S-76 helicopter to Shanghai Kingwing General Aviation,” said Carey Bond, Sikorsky Vice President and Chief Marketing Officer. “This aircraft has become a proven performer in a variety of missions, including EMS. We are pleased to provide it to this new customer as we embark on this new relationship that will put the S-76C helicopter to valuable use.” The S-76C helicopter currently in production was first announced in February 2005 as a series of engine, air vehicle, interior and avionics upgrades. Among the product improvements made available at that time were a more powerful Turbomeca Arriel 2S2 Engine, an inlet barrier filter to protect the engine against erosion and environmental contaminants, a new VIP interior, new optional Health and Usage Monitoring System and a quiet main gearbox using Quiet Zone technology that significantly reduced interior noise levels without any weight maintenance penalties. More than 200 operators in 37 countries today are flying S-76 helicopters. The aircraft perform a wide variety of missions, including corporate and VIP travel, emergency medical service, search and rescue, offshore oil crew transport, and civil **defense**. The latest and most advanced model, the S-76D helicopter, is scheduled to enter production in 2010.



## SIKORSKY SALES IN CHINA CONTINUE TO GROW

November 20, 2008

Stratford, Connecticut - China Southern Airlines' Zhuhai Helicopter Company this week accepted two Sikorsky S-76C helicopters to support offshore oil projects in the South China Sea and Bohai Bay. Sikorsky is a subsidiary of United Technologies Corp. (NYSE:UTX). The acceptance follows a trend of civil aircraft sales into the region for Sikorsky. Last month, Sikorsky signed an agreement with the Rescue and Salvage Bureau of China's Ministry of Transport (MOT) for four S-76C helicopters to enhance the MOT's maritime and search and rescue capabilities, bringing the fleet's total to eight and making it one of the largest operators of Sikorsky S-76 SAR helicopters in the world. "Sikorsky Aircraft has been busy in China for the past few years," said Scott Pierce, Vice President, Sikorsky Asia. "In early 2007, we delivered the first S-92 helicopter to China, and soon afterwards, sold another S-92 helicopter in the region. Following that, Sikorsky experienced unprecedented growth in China with the sale of six S-76C helicopters. The trend is sound evidence of the popularity of Sikorsky products among Chinese customers, and is strong affirmation of our strategy for this region." Two of the three licensed offshore oil helicopter operators in China fly Sikorsky helicopters. In addition, two multibillion-dollar Chinese private enterprises have chosen the S-76C helicopter as their corporate aircraft, making the S-76C helicopter the first VVIP helicopter of intermediate class introduced into China. Sikorsky has further invested in the region through a collaboration with Aviation Industry of China (AVIC), which is producing civil S-76 and S-300 airframes and parts. AVIC also has invested in Shanghai Sikorsky, Sikorsky's joint venture in China.

## AVIC II JOINS SHANGHAI SIKORSKY

January 31, 2008

Shanghai, China - AVIC II, through its subsidiaries Changhe Aircraft Industries Corporation and Shanghai Xinsheng Aviation Industry Investment and Development Company, today announced it is joining Shanghai Sikorsky as a shareholder. Shanghai Sikorsky is a civil aerospace joint venture company whose other shareholders are Sikorsky Aircraft Corp. and Shanghai Little Eagle. Sikorsky Aircraft is a subsidiary of United Technologies Corp. (NYSE:UTX). Shanghai Sikorsky, established in 2003 by Sikorsky and Shanghai Little Eagle, focuses on nurturing the Chinese civil helicopter market and serving its growing vertical lift needs. The venture's business includes civil helicopter sales and support, including services and training, and general aviation services. With Changhe and Xinsheng becoming shareholders, Shanghai Sikorsky will soon expand its business to provide supply chain management services and to serve both Sikorsky's and Changhe's civil fleet in China. Sikorsky's business relationship with AVIC II dates back more than a decade to the development and production of the S-92 helicopter. In June 2006, Sikorsky and AVIC II furthered their business relationship and announced a Memorandum of Understanding (MOU) for collaboration on development and manufacture of civil helicopters. In October 2006, Schweizer signed an agreement for S-300 helicopter subcontract production with Changhe, and in July 2007 Sikorsky announced an S-76 helicopter airframe production collaboration with Changhe. "Our increasing partnership with AVIC II demonstrates Sikorsky's commitment to, and confidence in, our partners and the Chinese aviation market. Shanghai Sikorsky, leveraging the support of Changhe, Xinsheng, Little Eagle and Sikorsky, lays the foundation for Chinese market expansion," said Carey Bond, Sikorsky vice president for corporate strategy. Schweizer S-300 helicopters are used worldwide for training, transportation, power-line patrol and many other missions. Both the Sikorsky S-76 and S-92 helicopters are market leaders in their weight classes in offshore oil, head of state, VIP, search and rescue, and commercial transportation. "Demand for S-300, S-76 and S-92 helicopters remains strong. This latest teaming with AVIC II will enable us to offer premier helicopter support and services in China to better meet customer requirements and provide additional customer value," said Bond.

## ZHUHAI PURCHASES ADDITIONAL SIKORSKY HELICOPTERS TO SUPPORT CHINA'S GROWING OFFSHORE OIL INDUSTRY

November 16, 2007

Zhuhai, China - Sikorsky Aircraft Corp. today announced that China Southern Airlines Company's Zhuhai Helicopter Branch has contracted for additional Sikorsky helicopters to support offshore oil projects in the South China Sea and Bohai Bay in China. Sikorsky is a subsidiary of United Technologies Corp. Zhuhai is the oldest operator of Sikorsky helicopters in China and has purchased two S-76C helicopters and an S-92A helicopter. Zhuhai began flying S-76A helicopter models in 1984, and since then has used Sikorsky helicopters to provide offshore oil support for such companies as China National Offshore Oil Corp., ExxonMobil, and Phillips. "This selection shows the trust and confidence Zhuhai and its oil company customers have in Sikorsky helicopters," said Stephen B. Estill, Sikorsky Vice President. "The addition will help promote the offshore oil industry in China. Of the three helicopter operators in China licensed to fly in the offshore oil market, two, Eastern General Aviation Corporation (EGAC) and Zhuhai, are Sikorsky helicopter operators. Both are growing rapidly, and it is anticipated that more Sikorsky helicopters will be introduced into China's offshore market."

## PZL MIELEC SIGNS CONTRACT TO DELIVER 15 M18 AIRCRAFT TO CHINA

October 26, 2007

Mielec, Poland - PZL Mielec, Sikorsky Aircraft Corporation's company in Poland, has signed a contract with the Agriculture Bureau of the China's Heilongjiang Province for 15 M18B Dromader airplanes. Sikorsky Aircraft is a subsidiary of United Technologies Corp. (NYSE: UTX). The M18 DROMADER is a medium-sized, highly efficient crop-duster and fire-fighting plane, designed and manufactured in Mielec. The purchase of the airplanes will be financed from the loan facility extended by Poland's Government to China's Government as part of the two governments' efforts to jointly undertake projects targeted at protection of the natural environment. "China has shown considerable interest in the M18 airplane for several years now, as the type appears to meet the specific requirements and operating specifications for the intended missions," said PZL Mielec President Janusz Zakrecki. "Its 660 U.S. Gal. hopper renders the plane extremely efficient when working large crop and forest areas, where it can be applied in aerial crop dusting and spraying, seeding and fertilizing. The "fire bombing" capability, combined with cost-effective patrolling of areas of identified high fire hazard, position the plane as a valuable element of a total forest protection system." The M18 airplane is powered by a 1000 SHP radial piston engine manufactured in Kalisz, Poland. It features a fixed (non-retractable) landing gear for operation from sod (unpaved) airstrips. The M18 DROMADER holds 15 type certificates, including European Air Safety Agency (EASA), FAA, DOT Canada, and China. The current contract calls for delivery of 15 M18B DROMADER airplanes to the requirement of the Chinese Province of Heilongjiang, where they will be applied in agricultural aerial application and fire-fighting operations. Fourteen of the airplanes represent the standard crop duster/fire fighting model, while one is a two-seater "BS" trainer configuration, offering both flight handling and mission-training capability (reduced-capacity hopper holds 500 kgs of fire-retardant for "water bombing"). The aircraft are expected to be delivered in 2008. This contract is the first major sale of PZL Mielec's indigenous aircraft products to be finalized since the acquisition on March 16, 2007. PZL Mielec is the largest fixed-wing aircraft manufacturer in Poland and cooperates with leaders in the international aviation business such as Boeing, Raytheon, Pratt & Whitney Canada, SAAB, manufacturing aerostructures on a sub-contracting basis. PZL makes airplanes of its own design: M28 SKYTRUCK and M28B Bryza, operated in passenger and cargo transport, paratroop and medevac roles, as well as in special configurations of maritime patrol, reconnaissance,

search and rescue. The special-mission configured airplanes are in service with Poland's Navy Aviation, Airforce and Order Guard.

#### FIRST S-92 HELICOPTER DELIVERED TO CHINA

July 23, 2007

Stratford, Connecticut - Eastern General Aviation Corp. Expands Fleet for Offshore Oil Operations

Sikorsky Aircraft Corp. has delivered the first S-92 helicopter to China. Eastern General Aviation Corporation (EGAC), a subsidiary of China Eastern Airlines Group, recently accepted the aircraft along with two S-76 C helicopters. Sikorsky Aircraft is a subsidiary of United Technologies Corp. (NYSE:UTX). The delivery distinguishes EGAC as the first customer to operate the S-92 in China. The helicopters will be used for offshore oil operations as part of EGAC's plans to expand its business with China National Offshore Oil Corporation (CNOOC) and ConocoPhillips China, Inc., a Joint Venture with CNOOC. The aircraft are upgrades for EGAC's current fleet of three S-76A aircraft. Located in Tianjin in northern China, EGAC is the second-largest commercial customer of Sikorsky Aircraft in China. It provides helicopter service to offshore oil companies operating in the Bohai Bay area, a region in China that is experiencing oil industry market growth. "China is important to us as both a market and supplier base, including for S-92 tail pylons. The aircraft's entry into the domestic market is particularly gratifying and appropriate," said Sikorsky President Jeffrey Pino. "We expect the S-92 will become an important part of China's growing oil industry." The three aircraft were ferried to Tianjin by an Antonov 124 cargo plane, which arrived in Tianjin on June 2. In-country flight training with a Sikorsky instructor has been successfully completed and the S-92 is scheduled to begin contract service with CNOOC and ConocoPhillips China, Inc. on August 1. Avion Pacific Ltd., China sales representative for Sikorsky Aircraft, is conducting flight training for the S-76C in country, estimating completion by August 15. "The introduction of the S-92 marks the milestone of EGAC entering into heavy machines operations and we are very happy with our selection," said EGAC President Li Jianmin. Adding to Jianmin's comments, Captain Ma Qin, EGAC's Chief Pilot of EGAC, said: "The S-92 is a superb machine, the best I have ever flown in my career. We are excited to be flying it."

#### SIKORSKY AIRCRAFT SELECTS CHANGHE TO SUPPLY S-76 HELICOPTER AIRFRAMES

July 12, 2007

Beijing, China - Sikorsky Aircraft Corp. today announced the selection of Changhe Aircraft Industries Corp. to supply S-76 helicopter airframes. The agreement is the second to result from a Memorandum of Understanding (MOU) signed June 1, 2006, by Sikorsky and China Aviation Industry Corp. II (AVIC II), parent company of Changhe. Sikorsky is a subsidiary of United Technologies Corp. (NYSE:UTX). Changhe will build and deliver S-76C helicopter airframes for Sikorsky together with AERO Vodochody in the Czech Republic. With the new agreement, Changhe is now a supplier for Sikorsky's three largest commercial helicopter programs. Changhe manufactures tail pylons for Sikorsky's S-92A helicopter, and in October 2006 signed the first MOU production agreement to supply airframe components and assemblies for Sikorsky's Schweizer 300CBI aircraft, which are used worldwide for pilot training, transportation, aerial photography, airborne patrol and many other purposes. The MOU signed by the two companies opened discussions about potential arrangements for helicopter manufacturing, assembly, flight test, engineering design and analysis, and new product development in the light, intermediate and medium helicopter classes. "Today marks another important step in Sikorsky's relationship with AVIC II and in our global expansion," said Carey Bond, Sikorsky vice president for corporate strategy. "This new agreement will strengthen our supplier base, add value for our customers, and enable us to maintain smooth production flow as we continue to see

strong demand for the S-76 helicopter line, including the next generation S-76D model now under development." Bond also noted, "Sikorsky remains committed to the Asian aviation market, and our growing presence and involvement in China provides the foundation for local market expansion. We envision start-to-finish, 'fly-away' production of Schweizer helicopters in China for the domestic market as the government takes steps to encourage civil aviation by eliminating air space restrictions."

#### SCHWEIZER SELECTS JIANGXI CHANGHE AIRCRAFT TO PROVIDE 300CBi HELICOPTER AIRFRAMES

October 30, 2006

Zhuhai Air Show, China - Schweizer Aircraft has selected Jiangxi Changhe Aircraft Company to supply airframe components and assemblies for the Schweizer 300CBi helicopter. Schweizer Aircraft is a unit of Sikorsky Aircraft, which is a subsidiary of United Technologies Corp. (NYSE:UTX).

This contract is the first project completed under the Memorandum of Understanding (MOU) announced June 1 between Sikorsky and China Aviation Industry Corporation II (AVIC II) for collaboration on the development and manufacture of civil helicopters. AVIC II is the parent company of Jiangxi Changhe.

"Sikorsky is excited to see the execution of one of the key strategies outlined in the MOU," said Carey Bond, Sikorsky vice president for corporate strategy and advanced programs. "Sikorsky is committed to investing in China and developing additional strategic partnerships with AVIC II."

Schweizer 300CBi helicopters are used worldwide for training, transportation, aerial photography, airborne patrol, and many other missions. Changhe will ship the airframe and detail parts that it manufactures to Schweizer's Elmira, New York, USA facility, where 300CBi helicopters will be assembled, test flown and delivered to customers.

"This agreement is part of Sikorsky's on-going effort to develop strategic global partnerships and business arrangements that create new opportunities for both parties," Bond said. "Demand for the 300CBi remains strong. Adding Changhe to the supply chain will enable Schweizer to increase its production rate, better meet customer requirements and provide additional customer value for a world-class product."

Under the MOU announced in June, Sikorsky and AVIC II agreed to discuss helicopter manufacturing, assembly, flight test, engineering design and analysis, and new product development in the light, intermediate, and medium classes.

"AVIC II and its subsidiaries have excellent design and manufacturing capabilities, and Sikorsky is proud of this partnership," Bond said. "The MOU laid a strong foundation for cooperation and we continue to discuss additional future strategic partnerships."

In June Sikorsky announced plans to expand Schweizer with a new 100,000 square-foot Rapid Prototyping and **Military** Derivatives Completion Center to serve as the primary completion center for Black Hawk and Naval Hawk derivative aircraft beginning in 2007.

The agreement with Changhe will free resources at Schweizer to meet expected future demand for Black Hawk and Naval Hawk derivatives, covert surveillance aircraft, the RQ-8B Fire Scout unmanned air vehicle, and prototyping work on the X2 Technology demonstrator.

Sikorsky's business relationship with AVIC II dates back more than a decade to the development of the S-92A helicopter, the world's newest medium-lift helicopter. Jiangxi Changhe manufactures the S-92A helicopter tail pylon.

Sikorsky Aircraft Corporation, based in Stratford, Connecticut, USA, is a world leader in helicopter design, manufacturing, and service. United Technologies Corp., based in Hartford, Connecticut, USA, provides a broad range of high-technology products and support services to the aerospace and building systems.

## SIKORSKY AIRCRAFT TO PROVIDE WYNN RESORTS TWO S-76C AIRCRAFT FOR MACAU AND HONG KONG VIP TRANSPORT

October 17, 2006

Orlando, Florida - Sikorsky Aircraft signed a contract to provide two S-76C helicopters to Wynn Resorts (Macau), S.A., for VIP transport in the Macau and Hong Kong regions, the company announced today at the National Business Aviation Association convention. Sikorsky Aircraft, of Stratford, Connecticut, USA, is a subsidiary of United Technologies Corp. (NYSE:UTX), of Hartford, Connecticut, USA. Wynn Resorts (Macau), S.A, is a subsidiary of Wynn Resorts.

Deliveries are scheduled for 2007. These will be the first S-76C aircraft operating in Hong Kong and Macau.

"No name in the hotel and gaming industry exemplifies style and luxury quite like that of Steve Wynn. We are absolutely thrilled that Wynn Macau will feature two of our new S-76C VIP helicopters as a key element of the resort's customer service and ambiance," said Steve Estill, Sikorsky vice president and chief marketing officer.

The S-76 is a twin turbine, multi-mission medium helicopter used in a variety of roles including VIP, offshore oil, executive, and airline transport. Sikorsky has delivered more than 600 to date.

The current production version is the S-76C, in service since 2005. It features a glass cockpit, dual digital autopilot, superb flight controls and the best combination of speed, range and operating costs in its weight class.

Improvements on the S-76C over the previous S-76C aircraft include:

Turbomeca Arriel 2S2 Engines. The replacement 2S2 provides a 5 to 6 percent increase in engine ratings, 350 to 450 lb increase in Category A takeoff gross weight at sea level 90F, and a barrier filter that provides superior protection against FOD and contamination, resulting in longer time-between overhaul, fewer removals and lower costs.

New VIP interior. A sleek, modern, leather interior, with a three-person aft-facing bench and two forward-facing captain chairs is coupled with an improved soundproofing system using Keystone's SILENCERT technology to meet the highest standards for luxury and elegance.

New HUMS (Health and Usage Monitoring System). The Honeywell VXP HUMS has 25,000 flight hours proven capability as the best-in-class tool for cost management, efficient maintenance scheduling, and vibration based maintenance delivering improved safety, reliability and life-cycle cost reduction.

QUIETZONE Technology. Sikorsky's proprietary Quiet Gearbox technology enables significant interior noise level reductions without weight penalty, increased maintenance and with no increase in time between overhauls (TBOs). With these improvements the interior is 4 dBA lower than with previous transmissions and the cabin has the lowest interior noise levels of any helicopter in the S-76 class.

## SIKORSKY AIRCRAFT AND CHINA AVIC II ANNOUNCE MOU

June 01, 2006

Beijing, China - Sikorsky Aircraft and China Aviation Industry Corporation II (AVIC II) announced today the signing of a Memorandum of Understanding (MOU) for collaboration on the development and manufacture of civil helicopters. Sikorsky Aircraft is a subsidiary of United Technologies Corp. Under the MOU, Sikorsky and AVIC II will discuss helicopter manufacturing, assembly, flight test, engineering design and analysis, and new product development in the light, intermediate, and medium classes. The companies will also explore establishing Changhe Aircraft Industry Corporation under AVIC II as a second source for the S-76 helicopter airframe. Sikorsky and AVIC II announced the MOU during a joint press briefing today in Beijing. "We look forward to exploring many potential projects with AVIC II for both the Chinese and international marketplace. "We are excited about the opportunity to execute projects outlined in the current MOU that create additional

areas of cooperation in the future," said Carey Bond, Sikorsky vice president for corporate strategy and advanced programs. "China is a dynamic country, AVIC II is a company with great technical capabilities, and Sikorsky Aircraft is an international company committed to developing business relationships and strategic partnerships globally," said Steve Estill, Sikorsky vice president and chief marketing officer. Other potential business opportunities between the companies include aftermarket support and pilot training for the Chinese market. "We see this MOU as another step toward opening up new markets and business opportunities for both Sikorsky and AVIC II globally. These cooperative agreements will also have a positive impact on Sikorsky's core business in the U.S.," Estill said. Sikorsky's business relationship with AVIC II dates back more than a decade to the development of the S-92A helicopter, the world's newest medium-lift helicopter. Changhe, an AVIC II subsidiary, manufactures the S-92A tail pylon. Shi Jianzhong, vice president, AVIC II, commented: "AVIC II and Sikorsky have established a good relationship of mutual trust over a collaboration of 12 years. We share a common wish to expand our cooperation in civil helicopters. We see great potential for future collaboration."

#### EASTERN GENERAL AVIATION TO PURCHASE ONE SIKORSKY S-92 OFFSHORE OIL HELICOPTER

September 19, 2005

Shanghai, China - Eastern General Aviation Corporation (EGAC) has agreed to purchase one Sikorsky S-92 helicopter to serve offshore oil support missions in the Bohai Bay area. Delivery is anticipated in late 2006. EGAC, a subsidiary of China Eastern Air Holding Company, signed the agreement today with Sikorsky. This S-92 is configured to carry 19 passengers and two crew. "The S-92 has quickly become the aircraft of choice in the offshore oil market worldwide and we are happy to add EGAC to the growing list of customers for this aircraft," said Stephen Estill, Sikorsky's Vice President for Worldwide Sales. "Sikorsky helicopters are proven to be the best offshore helicopters and we are adding this S-92 to complement the two S-76C helicopters we just ordered a month ago," said Mr. LI Jianmin, President of EGAC. EGAC is one of the three largest offshore helicopter operators in China and the one with the longest operating history. Based in Tianjin, China, EGAC has been supporting oil companies in northern China, especially in the Bohai Bay area, for the past 20 years.

#### SHANGHAI SIKORSKY AIRCRAFT COMPANY - FIRST MAINTENANCE TRAINING COURSE COMPLETED

August 01, 2004

Shanghai, China - Shanghai Sikorsky recently completed the first factory certified maintenance class for their aircraft in China. In cooperation with Schweizer Aircraft Corp. a two week intensive training course was given at Shanghai Sikorsky's facilities in Gaodong, Pudong New District of Shanghai. Schweizer's Chief Mechanic and Maintenance Instructor, Robert Stage, provided a full two week training course that covered all aspects of maintenance of the model Shen 2B and 3A piston powered helicopters. The content of the training course was identical to that provided at Schweizer's New York factory several times each year. Shanghai Sikorsky provided translated textbooks and simultaneous translation throughout the class. A combination of text, lectures and hands-on training provided the students with a thorough understanding of the maintenance requirements of the aircraft. A total of twenty-four people attended the training session which culminated in written examinations and the presentation of factory certifications. Representatives from Guangdong Baiyun General Aviation Co., Guangdong General Aviation Co., Civil Aviation University of China, Hubei Feilong Agricultural Aviation, and the Civil Aviation Administration of China (CAAC) completed the training sessions. Based on the high level of interest and success of this first training program Shanghai Sikorsky will be offering similar sessions for all of their helicopter products on a regular basis. Additional training for

engine maintenance is in the planning stages in cooperation with Textron Lycoming and Rolls Royce. Shanghai Sikorsky Aircraft Company Ltd. ([www.shanghaisikorsky.com](http://www.shanghaisikorsky.com)) is a joint venture between Sikorsky Aircraft Corporation and Shanghai Little Eagle Science and Technology Co. Ltd. Since their business license approval in March of 2003, Shanghai Sikorsky has established a new helicopter company in China, with sales, service, support, engineering and manufacturing capabilities. Shanghai Sikorsky is the exclusive manufacturer and sales agent for the Schweizer Aircraft Company product line of helicopters. With products ranging from two to four seats, powered by piston and turbine engines, Shanghai Sikorsky provides a China-based solution to meet all customer needs for light helicopters. Shanghai Little Eagle Science & Tech. Company Limited is a high-tech company whose mission is to develop a series of light helicopters, which are practical, economical, safe and reliable and meet the needs of the domestic market of P.R. China.

#### SHANGHAI SIKORSKY AIRCRAFT COMPANY - NEW FACTORY ON THE RISE

July 26, 2004

Shanghai, China - Ground was broken last month for Shanghai's first helicopter factory. Shanghai Sikorsky Aircraft Company's new facility has started to take shape. Located in Gaodong, Pudong New District, this modern facility will become the base of operations for the new helicopter company. Designed to house both offices and manufacturing facilities for Shanghai Sikorsky, the state of the art factory will begin producing helicopters later this year. With the support of Gaodong and Pudong's government offices Shanghai Sikorsky selected a site to construct its new factory alongside of the Gaodong Heliport. This heliport was constructed as the base for the Ministry of Communications Helicopter Search and Rescue operations in Shanghai. Flying two Sikorsky's S-76 helicopters from Gaodong, the MOC has been involved in many rescue missions in the Shanghai area since they began operations last year. In addition to the MOC and Shanghai Sikorsky's operations, the Gaodong heliport serves as the operating base for the Shanghai operations of Guangdong General Aviation Co. and CITIC Ocean Helicopter Co. These two operators provide harbor pilot delivery services for the port of Shanghai. The Gaodong Heliport and its professional flight operations team has made Shanghai a leader in this field. They have become the model for other heliport operations throughout China. Shanghai Sikorsky Aircraft Company Ltd. is a joint venture between Sikorsky Aircraft Corporation and Shanghai Little Eagle Science and Technology Co. Ltd. Since their business license approval in March of 2003, Shanghai Sikorsky has established a new helicopter company in China, with sales, service, support, engineering and manufacturing capabilities. Shanghai Sikorsky is the exclusive manufacturer and sales agent for the Schweizer Aircraft Company product line of light helicopters. With products ranging from two to four seats, powered by piston and turbine engines, Shanghai Sikorsky provides a China-based solution to meet all customer needs for light helicopters. Shanghai Little Eagle Science & Tech. Company Limited is a high-tech company whose mission is to develop a series of light helicopters, which are practical, economical, safe and reliable and meet the needs of the domestic market of P.R. China.

#### SHANGHAI SIKORSKY AIRCRAFT COMPANY DELIVERS TWO MORE HELICOPTERS IN CHINA

July 14, 2004

Shanghai, China - Today two Shen 3A helicopters completed acceptance flights in Shanghai. Tianjin's Civil Aviation University of China (CAUC) has completed the acceptance process for two new Shanghai Sikorsky helicopters. The acceptance flights were held at the Shanghai Gaodong Maritime Search and Rescue Heliport, located in the Pudong New District. This heliport serves as the base of operations for Shanghai's Maritime Search and Rescue Flying Service and is operated by China's Ministry of Communications. These two helicopters will next be transported to Tianjin where they will

be used to train the next generation of China's helicopter pilots in CAUC's new pilot training center. These aircraft are fully equipped in a pilot training configuration to allow safe and speedy completion of CAUC's pilot training syllabus. Tianjin's instructor pilots are currently undertaking transition flight training in their aircraft to familiarize them with the operating conditions for these helicopters. The acceptance of these two helicopters brings the total Shen-model helicopter fleet in China to a total of ten aircraft. These helicopters are operating in many different roles throughout China for agriculture, police observation, aerial photography and aerial surveillance in addition to pilot training. Shanghai Sikorsky Aircraft Company Ltd. ([www.shanghaisikorsky.com](http://www.shanghaisikorsky.com)) is a joint venture between Sikorsky Aircraft Corporation and Shanghai Little Eagle Science and Technology Co. Ltd. Since their business license approval in March of 2003, Shanghai Sikorsky has established a new helicopter company in China, with sales, service, support, engineering and manufacturing capabilities. Shanghai Sikorsky is the exclusive manufacturer and sales agent for the Schweizer Aircraft Company product line of light helicopters. With products ranging from two to four seats, powered by piston and turbine engines, Shanghai Sikorsky provides a China-based solution to meet all customer needs for light helicopters. Shanghai Little Eagle Science & Tech. Company Limited is a high-tech company whose mission is to develop a series of light helicopters, which are practical, economical, safe and reliable and meet the needs of the domestic market of PR. China.

#### SHANGHAI SIKORSKY AIRCRAFT COMPANY - SHEN 4T ON DISPLAY AT BEIJING'S POLICE EQUIPMENT SHOW

July 08, 2004

Shanghai, China - On display at the Police Equipment Exhibition in Beijing last month was the newest addition to Shanghai Sikorsky Aircraft's growing fleet of helicopters in China. The Shen 4T turbine engine powered, four-seat helicopter was prominently exhibited at this major event for China's police bureaus. Sharing the indoor exhibit space with automobiles, emergency vehicles, and many different types of police equipment, there was one helicopter, the Shen 4T. This model helicopter is now in use with many police departments as well as with national security bureaus around the world. In the United States, the Shen 4T is being flown by many local police departments. In Mexico, the Shen 4T is being used by the border patrol for airborne surveillance, drug interdiction and law enforcement. In the Dominican Republic the Shen 4T is flying airborne law enforcement missions. The large payload capability of the Shen 4T allows it to carry a large variety of equipment including FLIR, video cameras, loudspeakers, searchlights as well as a cabin full of police officers and a full fuel tank. With more than four hours of endurance, police patrols are not limited in the area that they can observe during their missions. The low cost to purchase a Shen 4T and the very low operating cost have made this helicopter a very popular vehicle for police operations. The Shen 4T can be operated by a single pilot, allowing up to three additional observers in the cockpit, all of whom share the excellent visibility provided in this design. The arrival of the first Shen 4T in China may be a milestone in the evolution of helicopter police operations throughout the country. Shanghai Sikorsky Aircraft Company Ltd. is a joint venture between Sikorsky Aircraft Corporation and Shanghai Little Eagle Science and Technology Co. Ltd. Since their business license approval in March of 2003, Shanghai Sikorsky has established a new helicopter company in China, with sales, service, support, engineering and manufacturing capabilities. Shanghai Sikorsky is the exclusive manufacturer and sales agent for the Schweizer Aircraft Company product line of light helicopters. With products ranging from two to four seats, powered by piston and turbine engines, Shanghai Sikorsky provides a China-based solution to meet all customer needs for light helicopters. Shanghai Little Eagle Science & Tech. Company Limited is a high-tech company whose mission is to develop a series of light helicopters, which are practical, economical, safe and reliable and meet the needs of the domestic market of PR. China.



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2012 Zhuhai Directory: Simplex Aerospace is the world leader in design, manufacturing, and certification of mission equipment for helicopters. Our belly tank systems are manufactured from high-strength low-weight composite material to produce high quality, cost effective solutions for wild land firefighting, high rise firefighting, agricultural spray, power line cleaning, Helipod cargo pods and oil spills response. Simplex holds over 180 US and international certifications.

**SIMPLEX AEROSPACE PRESS RELEASE**

**SIMPLEX AEROSPACE SIGNS DEVELOPMENT CONTRACT FOR CHINESE HELICOPTER FIREFIGHTING SYSTEM; SIMPLEX TO DEVELOP FIRE ATTACK SYSTEM FOR CHINESE AC313 HELICOPTER.**

Portland, Oregon - August 30, 2013. Simplex Aerospace has announced it received an order to develop a Fire Attack system for the Chinese manufactured AC313 helicopter. The development contract, signed between Simplex Aerospace and the Changhe

manufacturing facility in China, is the first development contract for Simplex with a Chinese aircraft manufacturer. The newly signed contract includes the delivery of multiple Fire Attack systems through 2014. The new Fire Attack tank for the AC313 will hold approximately 4,000 liters, nearly 1,050 U.S. gallons, of water. The new AC313 Fire Attack system will use the Simplex Aerospace retractable hover pump. The retractable pump, which was purchased by Simplex Aerospace from Aero Union in 2012, is currently in use on the Sikorsky Firehawk and the Eurocopter EC225. The new Fire Attack system will also use a camera system integrated into a AC313 multifunction displays instead of cargo mirrors providing enhanced visibility to monitor the hover pump and door operations. The tank also incorporates features like data event recording, fire fighting foam capability, newly developed level sensors, and Simplex Aerospace's industry leading door system for wheeled helicopters. Mark Zimmerman, Simplex Aerospace President and CEO, stated, "The new AC313 Fire Attack system will provide a state of the art solution for wild land fire fighting in China". He also commented that the new system meets Simplex Aerospace's goal of working with helicopter manufacturers to provide the highest quality, best value products in the industry. He further commented that the new Simplex Aerospace high rise building water cannon, called Sky Cannon, will be added to the AC313 in 2014. Simplex Aerospace SkyCannon High Rise Firefighting system is the result of several years of research and development into creating the best method for combating the threat of high rise building fires that are beyond the reach of ground based firefighting equipment. Fires in high rise buildings can quickly grow and climb out of the range of conventional ground based fire fighting systems. Using a fire fighting system mounted in a helicopter allows fire fighters to reach the fire before it spreads to the upper floors of the building. The Simplex Aerospace Sky Cannon system gives fire fighters a new tool to save lives and property in the event of a high rise building fire. The Simplex Aerospace SkyCannon will be equipped with a Max-Viz 600 Enhanced Vision System. Simplex Aerospace Fire Attack systems are regarded worldwide as a critical tool in aerial firefighting missions. Simplex Fire Attack systems are trusted by OEM's, private operators and government firefighting agencies for their durability, reliability, efficiency and safety. Simple Aerospace is committed to producing the most technologically advanced certified aerial firefighting systems on the market with the features and quality customers demand.

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2012 Zhuhai Directory: SKF is a leading global supplier of bearings, seals, mechatronics, lubrication systems and services. SKF is represented in more than 130 countries in the world and have about 130 production units in 32 countries. SKF does business mainly through three business areas: automotive, industrial market, strategic industries and the industrial market, regional sales and services. SKF operates in around 40 customer segments, whereof examples include automotive, wind energy, railway, machine tool, medical, food and beverage and paper industries. SKF has more than 5,000 employees in China, 14 manufacturing units, several service units and sales offices, and over 200 authorized distributors and dealers close to the Chinese customers. SKF Aerospace designs and manufactures custom engineered solutions based on airframe,

aeroengine and gearbox bearings, fly-by-wire equipments, structural components such as metallic and composite rods, seals and precision elastomeric devices to the global aerospace market from the OEM to the airlines and MRO.

## HISTORY IN CHINA

1912

Laboratory built in Gothenburg. Agents appointed in Bulgaria, Rumania and Mexico and, through the English company, in India, China and South Africa.

1916

The SKF share introduced on the Stockholm stock exchange. Hofors Bruk, one of Sweden's oldest mining and ore smelting installations, was acquired. In USA, The Hess-Bright Manufacturing Co., Philadelphia was acquired. Subsidiaries formed in Austria and China. Acquisition of Grönkvists Mekaniska Verkstad in Katrineholm, Sweden. New company formed to manage sales in South America. Its first branch offices were opened in Argentina and Chile.

1996

Joint venture with subsidiary of China Railways. New plant for manufacture of wheel hub bearing units built in Aiken, USA, in collaboration with SKF Technical Center in Detroit.

1997

New joint ventures in China, one for the manufacture and sales of spherical roller bearings together with the Wafangdian Group, and the other a new company for the manufacture of oil seals as a joint venture between Chicago Rawhide and ANZAG. Series production began at SKF Hanwha Automotive Components Corporation in Korea. Majority shareholding acquired in Indonesian bearing company PT Logam Sari Bearindo in Jakarta. FlexLink Systems AB sold. SKF and Revolve Technologies Inc. in Canada established a new company, Revolve Magnetic Bearings. Majority shareholding acquired in Lutsk Bearing Plant, Ukraine.

1998

A further joint venture in China was formed with Wafangdian Bearing Co. Ltd. US manufacturer of machine tool spindles, Russell T. Gilman, acquired. Sune Carlsson appointed President and CEO. SKF Group certified to ISO 14001.

2004

Willy Vogel AG, a world leader in lubrication systems, acquired. An Industrial Services Centre was opened in Moscow, Russia. Remaining 40% of Anhui CR Seals Co., Ltd. in China acquired.

2007

SKF celebrated its 100th anniversary. Production started at three new factories in Asia, one in China and two in Korea. Important acquisitions were ABBA, a manufacturer of linear guides with headquarters in Taiwan; S2M, a leading French magnetic bearing company; Baker Instruments, a leading manufacturer of testing and diagnostic instruments in the US; Automatic Lubrication Systems, a service company for Canadian mobile transportation equipment; Preventive Maintenance Company Inc, a US-based market leader in predictive maintenance services. The forging business at the Lüchow plant in Germany was sold. New product and service launches include a new range of energy-efficient bearings which provide at least 30% less friction in the bearing.

#### 2008

Acquisitions in 2008 included American QPM Aerospace's metallic rod business; two factories in China and one in Thailand from the US-based PEER Bearing Company; Cirval S.A., an Argentine company specialized in design, manufacture and sales of centralized lubrication systems. Anders Scharp retired as Chairman of the Board and Leif Östling was elected new Chairman. The energy efficient bearing family was extended with the addition of spherical and cylindrical roller bearings. In light of weakening demand SKF announced at the end of the year that it would be reducing capacity and costs.

#### 2010

The SKF University Technology Centre on Tribology was set up in conjunction with Imperial College London. Two new factories opened in India (Hardwar and Ahmedabad) and one in Russia (Tver). New SKF Industry Service Centres opened: for wind industry in Shanghai and Houston; for oil and gas industry in Aberdeen and Stavanger; for marine industry in Rotterdam. The SKF Global Technical Centre China opened. The network of SKF Solution Factories was extended, comprising 17 units at the end of the year. US-based lubrication systems company Lincoln Holdings Enterprises was acquired.

#### 2011

The cage factory in Gothenburg was sold. The SKF University Technology Centre on Sustainability and Environment was set up together with the Chalmers University of Technology in Gothenburg. SKF Distributor College, started in 2001, awarded its 100 000th certificate. The college offers training to SKF distributors. A Latin American Distribution Centre was opened in Montevideo, Uruguay. A second factory for production of medium size bearings was opened in Dalian, northeast China. Factory in Brazil extended to produce advanced wheel bearings. SKF Global Technical Centre India was opened in Bengaluru, and an SKF University Technology Centre on condition monitoring and asset management was established together with the Luleå Technical University, Sweden.

#### 2012

SKF Group acquired US-based General Bearing Corporations. SKF developed a range of Knowledge Engineering apps for the mobile market. A Guinness World record was set at Liseberg and SKF supported the Kim Källström Trophy during Gothia Cup. The integration and re-branding of SNFA was completed. SKF increased focus on sustainability and launched an aggressive climate strategy and a partnership with WWF to reduce greenhouse gas emissions. The BeyondZero concept was revealed with a portfolio of solutions with significant environmental benefits. SKF celebrated 100 years in China with new investments and inauguration of a new factory in Jinan, China.

SKF PRESS RELEASE

SKF CELEBRATES 100 YEARS IN CHINA AND ANNOUNCES SIGNIFICANT NEW INVESTMENTS

2012 September 10

New SKF Campus designated for Jiading, Shanghai, China

SKF today starts a weeklong celebration of its 100-year anniversary in China holding a number of events. SKF sales in China started in 1912 and today SKF has 18 factories and over 7,000 employees in China.

SKF also announces further investments in this important market through establishing a new SKF Campus in Jiading, Shanghai to support the growth in China and Asia. The investment includes a new automotive factory for wheel bearings for passenger cars, as well as the relocation and expansion of the Global Technical Centre China (GTCC), SKF Solution Factory and SKF College to the new site. The GTCC includes product development, engineering services, global metallurgy and chemistry labs, manufacturing process development, testing and product investigation.

“SKF’s business in China and Asia is very important to the SKF Group and we are confident in its long-term development. This new campus means SKF will further strengthen our manufacturing, engineering, development and testing footprint in the region. It will enable us to even better support our customers locally with higher speed and increased competence and resources,” says Tom Johnstone, SKF President and CEO.

The investment for the land, new factory, and relocation of technical centre is around SEK 700 million. Built according to LEED certification standards, the new automotive factory will manufacture mainly hub bearing units for the automotive market. It will also support SKF Group best practices within global technology and processes; and will enable SKF to further strengthen local supply and engineering services to both Chinese and global customers in China.

“The new SKF Campus brings together SKF’s best practices into one location enabling us to develop local competencies so we can better serve the needs of the customer of this region,” says Erik Nelander, President, SKF China.

The new campus will cover an area of 45,000 m<sup>2</sup> and will employ around 900 people in 2015, of which 400 will be part of GTCC. Located in the Jiading district in Shanghai, the SKF Campus is in close proximity to several major SKF automotive and other customers, as well as technical universities and engineering institutes.

Construction is planned to start in Q3 this year and to be completed in Q4 2013.

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2012 Zhuhai Directory: Skywin is the Aerospace Competitiveness Cluster of the Walloon Region of Belgium. Created in 2006 in order to increase the competitiveness of Walloon enterprises in the Aeronautics and Space sectors. Skywin represents more than 110 members coming mainly from industry, but also universities and dedicated research centers. This represents a total of more than 6,000 direct jobs in the region for about 1 billion Euros turnover. About 80% of the activity is made in the Aeronautics sector, 20% in the Space sector. Skywin’s objective is to foster and promote the technological advance

of the Walloon Region in the Aerospace sector and therefore to supply competitive products and services which are the mainstay of business development, especially in R&D, training and investment activities. Strongly oriented toward industrial projects and benefits, Skywin's biggest task is to organize an annual Call for Projects. Since 2006, through 7 Calls for Projects, Skywin is currently managing 32 R&D and Investment projects comprising more than 200 contributions from businesses, research centers and universities with a total budget of 135 M Euros.

#### SKYWIN WALLONIE PRESS RELEASES

AIRSHOW CHINA 2014, ZHUHAI, CHINA

Date de début: 11/11/2014

Date de fin: 11/16/2014

Here is a report of the last edition, where Skywin was exhibiting together with New Cag Air Academy and AWEX: "This participation to the 2012 China Airshow in Zhuhai was the first one for the Walloon industry (just one Walloon industry was present) and the Walloon aerospace cluster and was mainly a test for a future larger participation of the Walloon industry to the next edition. - the organization seems professional, big halls, good implementation of the stands but some difficulty to find a global map of all the participant and a lot of "non professional" public during the professional days - all the major international OEM and tier 1 and 2 suppliers were present. A lot of Chinese subcontractors (in all domain) were present. Major participation of the **military** Chinese industry. More focus on general and business aviation than on civil aviation. Chinese aero industry is really ambitious but her maturity is not (yet) at the level of the occidental industry. As conclusion, due to the global evolution of the world aero market, the presence of Belgian and Walloon industry to the next China Airshow is a necessity. A local support before the airshow is mandatory, in order to organize and manage some rendezvous and cultural/linguistic differences. The local AWEX support will be a major asset for the Walloon industry but this support needs to be triggered at least one year before the salon to be really efficient. This salon need to be well prepared."

CONFERENCE: "THE SAFETY AND SECURITY OF SPACE ACTIVITIES",  
BRUSSELS

03/19/2014

Salle prigogine - Académie Royale de Belgique - Bruxelles

By Gérard BRACHET, former Director General of CNES, former Chairman of the United Nations Committee on the Peaceful Uses of Outer Space (UNCOPUOS), former Chairman and Member of the Air and Space Academy (AAE). The safety and sustainability of space activities in earth orbit on the long term is a matter of increasing concern for space faring nations and regional space organizations as well as for commercial satellite operators. The accidental collision of two satellites, one of them operational, in March 2009 illustrated the risks associated with the proliferation of space debris, particularly in low Earth orbits. The anti-satellite test of January 2007 in which China destroyed one of its aging meteorological satellite, creating more than 3000 additional debris, reminded the international community that the use of weapons in outer space remains a permanent threat. In addition, the ever increasing number of actors in outer space, both governmental and private, challenges the present system for the management of the finite radio-electric spectrum available and for the allocation of the geostationary orbit slots. All this calls into question our ability to continue operating safely and without interference. Many international initiatives have been taken in the recent years to tackle this issue such as the European Union's proposed International Code of Conduct in outer space activities, the United Nations Committee on the Peaceful Uses of Outer Space (COPUOS) working group on Long-Term Sustainability of Outer Space Activities, whose report and recommendations

should be approved by COPUOS in June 2014, and the report of the UN Government Group of Experts on Transparency and Confidence-building in Outer Space, presented to the UN General Assembly in October 2013. These various initiatives will be described and how they can contribute to a safer and more secure environment for the sustainable use of outer space.

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2012 Zhuhai Directory: Based in the United States out of Southern California, Staco Systems designs and manufactures a variety of LED pushbutton display switches and control solutions, sub-systems, keyboards and keypads for Aerospace, **Defense** and Industrial applications including: aircraft, ships, submarines, specialty vehicles and energy facilities. For over half a century, they have been a pioneer in the industry with reliably built products, on-time delivery performance, short lead times, and innovative technology. They have sales representatives in over 35 countries across the globe and are certified with numerous standards boards, **military** and supplier certifications including AS9100 and Mil Spec.

Corporate Website:

Profile:

David Wilson, Vice President

With more than 25 years of experience, David Wilson worked in both the **defense** and telecommunications industries, principally in the Asia/Pacific and European markets. Enjoying considerable success in the development of emerging markets and non-traditional applications, David has held senior sales management positions in a number of major multi-national corporations including Motorola, NEC and Memotec Inc. David's extensive experience includes work with markets in China, India, Germany, France, the United Kingdom, Russia and the Middle East. David is a Telecommunications Engineer and studied Business at Charles Stuart University in Australia.

### **STACO PRESS RELEASES**

**STACO SYSTEMS SHOWCASES S-300 ULTRA COMPACT LED SWITCH AT AIRSHOW CHINA 2012**

Irvine, CA – November 1, 2012.

Staco Systems will be highlighting its industry leading illuminated Switch, Sub Systems, and Data Entry System products and capabilities at the upcoming China Air Show in Zhuhai, China, on November 13-18, 2012. Staco Systems will be located at stand D1-5, in the US Pavilion. For over 50 years, Staco Systems has designed and manufactured illuminated pushbutton switches, as well as creating Sub Systems and Data Entry Systems divisions in the last 10 years, all for aerospace, **defense** and industrial applications.

Staco Systems will showcase the new S300 LED half switch at the show. The new Series 300 (S300) switch represents an integration of 2-pole switching capabilities, high LED lighting performance, and a sub compact form factor for both **Military** and Commercial Rotorcraft and Fixed wing applications. The S300 provides crisp and detailed legend displays when viewed at extreme angles, both vertically and horizontally, assuring improved readability in cross cockpit viewing conditions.

"Staco Systems is proud to introduce the next generation compact half switch, with state of the art optical switching technology. We listened carefully to our customers' demands in order to provide a custom-tailored solution." said Pablo Ocasio, Vice President, Sales and Marketing for Staco Systems.

Product Briefing on the S300 Ultra-Compact, Half-Switch.

The Series 300 half-switch solves the problem of having a 2-Pole switch in a compact form factor.

Staco Systems' patented lens technology provides superior LED lighting performance, allowing for multiple display solutions, including a large variety of NVIS display options.

Features:

- High Tech LED Switch designed in a compact form factor
- Patented Staco Systems lens technology, which provides for superior optics, NVIS compatability and Sunlight readable
- Smallest 2-Pole illuminated switch on the market
- Long life durability - 1 Million Cycles
- Uniform LED Crimp-Pin, Solder or PCB Termination

Applications:

Helicopters

**Military** Tanks, Ground Vehicles and Aircraft Naval Systems

Commercial Aircraft

Launch Controls

Submarine Vehicles

Industrial Equipment and Control Systems

#### STACO SYSTEMS AWARDED EXPORT ACHIEVEMENT CERTIFICATE

Costa Mesa, CA – April 17, 2009

Staco Systems received an Export Achievement Certificate during a China Roundtable on April 8 with William Brekke, Senior Commercial Officer at the US Embassy Beijing, at the Newport Beach, CA Commercial Service Office of the U.S Department of Commerce. The certificate, presented by William Brekke, was in recognition of Staco Systems' recent export accomplishments in China. Jason Childs, V.P. of Sales and Marketing for Staco Systems and Geoff Garland, Controller for Staco Systems, accepted the award on behalf of the company. Also in attendance were representatives from Oakley, Surefire, and several other key OC companies. "This is an honor for Staco Systems, affirming the success we continue to have internationally. Staco Systems international business has grown significantly over the past 18 months. A new international sales manager, a new office overseas, and the help of the US Commercial Service have all contributed to our growth," says Childs. The export achievement certificate was created by the U.S. Commercial Service of the U.S. Department of Commerce to recognize small and



medium-sized enterprises that have successfully entered the international marketplace for the first time or that have successfully entered a new market. The U.S Commercial service is dedicated to helping companies with their exporting strategies and has offices in 107 U.S. cities and 145 U.S. Embassies and Consulates.

**Sukhoi Aviation Holding Company**

**Sukhoi Civil Aviation Company**

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2012 Zhuhai Directory: Sukhoi Aviation Holding Group covers a full range of competences: **military** and civil aircraft, R&D, production, sales and support. Sukhoi is ranked third in the world's production of fighter aircraft. Main projects: fifth generation aircraft system (PAK FA), Su-35, Su-32, Sukhoi Civil Aircraft Company is a joint venture between Sukhoi (75%-1 shares) and Italian Alenia Aeronautica (25%-1 shares). The company's main project is Sukhoi Superjet 100 aircraft, the other programme – Sukhoi Business Jet. Sukhoi Civil Aircraft was founded in 2000 to develop new regional aircraft projects. Headquartered in Moscow, the Company enjoys several production branches in the cities of Komsomolsk-on-Amur, Novosibirsk and Voronezh.

**SUKHOI PRESS RELEASES**

**SUKHOI DISPLAYS SUPERJET 100, SU-35 AND SU-32 AT THE AIR SHOW IN CHINA**

12 November 2012

Moscow, November 12. Sukhoi Company will present its combat aircraft — Su-35 multifunctional fighter and Su-32 (Su-34 export version) at the Airshow China-2012 international exhibition that opens on November 13 in the Chinese city of Zhuhai. Specialists and visitors of the exhibition will be able to learn the specifications and combat capabilities of the aircraft at the corporate stand of the United Aircraft Corporation (UAC) in the Russian exposition. The civic project of Sukhoi — the Sukhoi Superjet 100 medium-range airliner will be presented at the air show for the first time. The aircraft will be displayed in Yakutia Airlines livery on a static display for the general public and representatives of the regional airlines. Cooperation with China in the field of **military** aviation develops successfully. The implementation of the program of Su-type licensed aircraft production is going on, as well as the delivery of spare parts for previously delivered aircraft. The framework established on the basis of long-term cooperation provides for the transition in the near future to a new level of cooperation on major projects.

**SUPPLIES OF SU-30MK IN 2000-2009 WILL REACH 269 UNITS**

06 April 2009

Moscow, 6 April. Russia's most successful product on the combat aircraft market in the last fifteen years was the Su-30MK aircraft developed by Sukhoi Design Bureau. This

is the opinion of experts of the National **Defense** magazine. Its last issue's article, Anti-Crisis Fighter, noted that after deliveries of the first machines to China in 2000, the year 2009 will witness the shipment of 269 machines of this family. By comparison, during 1992-2007 Russia had supplied foreign partners with 437 new combat aircraft. Of those, 256 machines had been exported in 2001-2007. The "founding father" of the family is the Su-30MKI fighter created under a contract with India. The Su-30MKI was the first Russian combat aircraft with an open architecture avionics. Besides Russian components it uses those manufactured by France, Israel and India. In addition to India, in recent years the aircraft has been supplied to other countries. A batch of aircraft in the Su-30MKM configuration went into service with the Malaysian Air Force. A contract with Algeria is being implemented. Su-30MKK aircraft serve with the Chinese Air Force. Su-30MK2 aircraft are being supplied under contracts to Vietnam, Indonesia, and Venezuela. The weekly points out that the demand for Su-30MK aircraft on today's market is determined not by the competitive price alone. Objectively, these aircraft are the best 4+ generation heavy bombers on the market. Testifying to this are results of the mock fighting staged, during joint exercises, between Su-30MKIs of the Indian AF and the USA's F-16s and F-15s. Another proof is a computer-aided simulation of a dogfight between the US 5th generation fighter **F-35** and Russian Su-35 undertaken in summer 2008. Experts of the USAF concluded that Russian aircraft feature a number of advantages over the **F-35**.

#### ON THE SIGNING OF A CONTRACT TO SUPPLY SIX BE-103 AMPHIBIANS TO CHINA

23 January 2007

The signing of a contract to deliver six Be-103 amphibian aircraft to take place on 21 January this year. The planes will be manufactured by the Aircraft Production Association (KnAAPO), which is part of the Sukhoi holding. The aircraft will be based in the city of (Province) located on the of 's famous (west of). Their delivery is scheduled for the near term. According to director of Sukhoi holding's Civil Project Directorate Igor Chernikov, the contract is the result of great efforts undertaken by Sukhoi in last year. As is known, the Be-103 received the airworthiness certificate in early last year. Then Sukhoi has intensified talks with a number of 's companies interested. Taixian Aviation Technological Company from Huzhou's Economic Development Zone in Province was among them. The recent several years has shown a rapid growth in all industries and infrastructure in this economic zone. The Zone's Administration, in its turn, has taken interest in setting up assembling facilities for these aircraft in its territory. The Be-103 meets the requirements of China's fast-growing market for general-purpose aircraft. This region in southeast of comprises several large and medium lakes; moreover, cooperation on the Be-103 amphibians is a pilot joint project between Huzhou's Economic Development Zone and KnAAPO. It is planned that the assembling facilities in Huzhou will be established with KnAAPO's active assistance. The Russian side will undertake obtaining permits from 's regulators, while the Chinese side will provide required production facilities, skilled personnel and ensure compliance with Russian specifications and standards in aircraft assembling. The Russian side will also provide engineering support to production, training of Chinese personnel, documentation, production tooling and special checkout equipment necessary to set up a Be-103 final assembly line in Huzhou. Sukhoi together with the aircraft's developer, Beriev Aircraft Company, will also provide design and process supervision of the production process as well as assembly quality control. In conjunction with its Chinese partners, the Russian side will participate in aircraft promotion activities in, aircraft after-sales servicing and spare parts supply. Specific agreements on legal and organizational forms of cooperation in setting up and running the assembling facilities will be detailed during follow-up negotiations.

## KOMSOMOLSK-NA-AMURE AIRCRAFT PRODUCTION ASSOCIATION WILL BUILD 100 SUPERJET 100 AIRCRAFT IN 2008-2010

23 November 2006

Vladimir Prisyazhnyuk, Sukhoi Deputy Director-General took part in the enlarged session of the of Khabarovsk Territory's government. This was held in Khabarovsk. In his address to members of the local government he revealed the plans of the Komsomolsk-na-Amure Association, an entity comprised by the Sukhoi Holding Company. V. Prisyazhnyuk said that in 2008—2010 KnAAPO plans to build one hundred new Sukhoi Superjet 100 regional airliners (10 in 2008, 30 in 2009 and 60 in 2010) for the domestic and foreign markets. "The first six aircraft will be received in 2008 by Russian airlines," V. Prisyazhnyuk noted. As soon as next year it is planned to test fly the first prototype of the new machine designed for 95 passengers. Their series production is due to start in 2008. The production of Superjet 100s is scheduled to make up 25% of all KnAAPO output. Also, V. Prisyazhnyuk said that the company has resolved the problem of loading its manufacturing facilities in 2007—2010. In addition to a contract for the production of the Superjet 100, a 3-year deal was signed with the **Defense** Ministry for repair and modernization of Su-27SM aircraft. Of special importance is a program for building a new Su-35 multi-role super-maneuverable single-seat fighter and a fifth-generation airborne platform. Also, new export contracts are expected to be signed with Indonesia, China and Vietnam. V. Prisyazhnyuk noted that KnAAPO intends to invest around 4 billion rubles in the production development and modernization of equipment.

## CHINA'S **MILITARY** TOP BRASS VIEW SUKHOI'S EXPOSITION

01 November 2006

On opening of Air Show China 2006, A.N. Klementyev, Sukhoi Deputy Director-General, head of the delegation at the exhibition, familiarized Boris Alyoshin, head of the Federal Agency for Industry, Alexander Denisov, first deputy head of the Federal Service for **Military**-Technical Cooperation, Colonel-General Tsao Ganchuan, Chinese **defense** minister and deputy chairman of the Central **Military** Council, and Colonel-General Chen Binde, Chief of the People's Liberation Army Main Directorate of Arms and **Defense** Procurements, with the Company's exposition. For the first time in Zhuhai, Sukhoi has demonstrated a trainer system for the Su-35 advanced multi-role super-maneuverable fighter. The visitors to the stand also registered interest in the Su-35 armed with the latest models of air-to-air missiles. The Chinese specialists could assure themselves of the high fidelity nature of the simulator and its efficiency in **military** pilot training. Major-General Yui Jianguo, Head of the Chinese PLA Main Directorate for Transnational Cooperation test tried the simulator. Major-General Vei Gan, Chief of the PLA Main Directorate for Arms and **Defense** Procurements visited the exposition and spoke to the Company's officials about Sukhoi's latest products.

## ON PARTICIPATION OF SUKHOI IN AIR SHOW CHINA 2006

25 October 2006

The Sukhoi Company will participate in the international exhibition, Air Show China 2006, which will take place on 31 October — 5 November 2006 in Zhuhai, China. The Company's stand will present products and services of the Holding, including **military** and civil use items. Also, it will show the trends in their modernization and after-sale servicing. In view of the growing role of this exhibition, not only for China but for the entire Southeast Asia, Sukhoi considers it as a sort of a showcase for promotion of its products to this rapidly developing region. The centerpiece of Sukhoi's display, which is a constituent part of Russia's exposition, will be a new Su-35 super-maneuverable fighter. The guests of the exhibition will see an aircraft prototype, a live Su-35 cockpit demonstrator (displayed in that region for the first time) and an Irbis-E radar for the Su-35 aircraft. The radar is produced by V.V. Tikhomirov Research Institute of Instrumentation.

EPO Signal (Engels-based Instrument-Making Association), Sukhoi's co-participant in the air show, will demonstrate pressure gauges used in Su aircraft. The civil products section of the Holding's exposition includes a new Sukhoi Superjet 100 airliner, Be-103 amphibious aircraft and Su-80GP multi-purpose aircraft for local and regional airlines. Sukhoi's exposition at Air Show China 2006 attests to the multi-faceted nature of its business, high research and manufacturing potential and willingness to cooperate with foreign partners in the field of **military** and civil aviation.

#### SUKHOI SUPPLIES USD 250 M WORTH OF COMPONENTS TO CHINA

Moscow, December 7, 2005 -- Russia's aircraft company Sukhoi has supplied about 250 million U.S. dollars worth of components for Chinese combat planes over the past two years. Sukhoi first deputy chief designer Boris Bregman told Itar-Tass at the LIMA-2005 exhibition on Langkawi, Malaysia, on Wednesday, "In addition to China, Sukhoi has contracts on component supplies with India." Russian **defence** plants have supplied 700 million U.S. dollars worth of components to other countries in 2005. Rosoboronexport accounts for about 400 million U.S. dollars of that sum. The Federal Service for **Military**-Technical Cooperation with Foreign Countries plans to bring this volume to one billion U.S. dollars in the years to come and maintain supplies in the subsequent years at 25 percent of all **military** supplies to other countries.

#### RUSSIAN AMPHIBIOUS PLANE GIVEN ALL CLEAR FOR TAKEOFF IN BRAZIL

06 September 2005

A Russian-made light amphibious multi-purpose plane, the Be-103, has been granted an airworthiness certificate in Brazil on Tuesday. The certificate issued by the Brazilian **Defense** Ministry authorizes sales of the Russian aircraft in Brazil, said Fernando Monteiro, a local representative of the Beriyevev TANTK engineering company. He said Russia planned to sell about 20 amphibious planes in Brazil. Sergei Drobyshev, the deputy director general of the KnAAPO aviation plant, a subsidiary of the Sukhoi aviation holding, said Brazil was the second country to certify Be-10 after the United States did so in 2003. The U.S. has already received three planes. The expert said the Brazilian certificate opened the way for the Be-103 to other foreign markets, including beyond Latin America. China and Canada are considering giving the relevant certificates to the Be-103, and Russia has also applied for a European certificate. The Be-103 is designed for many purposes, but primarily to carry cargo and passenger (up to five people), provide urgent medical aid, and assist in firefighting, and the environmental control of bodies of water.

#### AIR SHOW CHINA 2004 INTERNATIONAL TRADE FAIR

1st-7th November 2004, Zhuhai. China

Su-27/Su-30 series aeroplanes will continue to be sought after in the marketplace through 2020 at least. This is what Aleksandr Klementyev, deputy general director and commercial director of Sukhoi company, said at Air Show China 2004.

According to Klementyev, the Su-27 fighter has a great potential in the market. Specifically, the upgraded Su-27SKM is an avenue that can be explored further with China. "We expect our efforts under this programme to bring about specific commercial rewards," said Klementyev. Commenting upon further prospects for the Su-30 multi-role fighter programme, Klementyev said that "the scope of upgrading we are going to offer for that aircraft over time will not be as extensive as that for Su-27. As of today, the Su-30MK aircraft variant being supplied to the Air Forces of People's Liberation Army of China is a state-of-the-art machine, which meets the current requirements." At the same time, A. Klementyev pointed out that "we have to be geared up for the situation expected to come about between 2010 and 2015 by the arrival of the US new-generation JSF fighter on the market. The market will produce new requirements in that period and we shall have to rise to the challenge."

According to Klementyev, "It is vital to be at all times aware of the fact that new generation aircraft are developed with long-range aims in view rather than in order to provide a 'stop-gap' solution for 4th and 4th+ generation planes." For example, the first delivery of Su-27 aircraft to China took place in 1993. Those were "brand-new" machines, which have not been overhauled until now. The fighters that Sukhoi has supplied to China since 2000 are aeroplanes at the very start of their life cycle with life expectancy of over 20 years. Moreover, they have a very high upgrade potential. "We will certainly offer plans for their upgrading based on new generation aircraft solutions currently on the drawing board," Klementyev said in conclusion.

# T

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2012 Zhuhai Directory: TE Connectivity is a global, \$12.1 billion company that designs and manufactures over 500,000 products that connect and protect the flow of power and data inside the products that touch every aspect of peoples' lives. Our nearly 100,000 employees partner with customers in virtually every industry – from consumer electronics, energy and healthcare, to automotive, aerospace and communication networks – enabling smarter, faster, better technologies to connect products to possibilities.

Corporate Website (Extracted in February 2014): We have nearly 100,000 dedicated employees who are based throughout the world, with approximately 38,000 employees in China alone. By maximizing the commitment of our approximately 8,000 engineers, and the reach of our approximately 6,000-member sales force serving customers in more than 150 countries, we can collaborate with customers to provide highly engineered products and innovative solutions to meet their needs. Our diverse and capable management team is equally dedicated to creating and sustaining those powerful customer alliances – and to earning their business every day.

## **Thales**

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2012 Zhuhai Directory: Thales is a global leader for the **Defence & Security** and the **Aerospace & Transportation** markets. In 2011, the company generated revenues of €13

billion in 67,000 employees in 56 countries. With its 22,500 engineers and researchers. Thales has a unique capability to design, develop and deploy equipment, systems and services that meet the most complex security requirements. Thales has an exceptional international footprint, with operations around the world working with customers and local partners.

## THALES PRESS RELEASES

### CHINA EASTERN AIRLINES SELECTS THALES'S ENTIRE AVIONICS SUITE

09 January 2014

China Eastern Airlines' new Airbus single aisle fleet will fly with Thales's newest avionics solutions. The selection includes surveillance systems, flight management systems and head up displays.

Following Airbus' announcement to integrate Thales's ACSS T3CAS surveillance platform as the preferred solution on all new single aisle aircraft, China Eastern is the first major Chinese airline to select this new generation system.

Also equipped on the aircraft will be TopFlight, Thales's Flight Management System (FMS). This system, developed with GE aviation, is the number one choice for Airbus single aisle jets with over 60% market share.

The Thales Head Up Display (HUD) is the sole solution certified on Airbus aircraft and compliant with the latest Civil Aviation Administration of China (CAAC) roadmap for HUD integration in Chinese registered commercial aircraft.

China Eastern also selected Thales's Low Range Radio Altimeter (LRRR) and Thales's/Kannad's Emergency Locator Transmitter (ELT) as part of their selection package.

Phoenix-based Aviation Communication & Surveillance Systems (ACSS), 70% owned by L-3 Communications and 30% owned by Thales, is a leader in safety avionics systems that increase safety, situational awareness and efficiency for aircraft operators in all phases of flight. The surveillance platform is compliant with existing and future ATM requirements in Europe, US and APAC regions and opens the way for ADS-B IN capabilities. Besides offering an integrated TCAS Change 7.1, a performance based TAWS and an ADS-B capable transponder in a 6 MCU package, T3CAS also offers a full range of Airbus ADS-B IN functions such as ATSA-AIRB (Enhanced Air traffic Surveillance) and ATSA-ITP (In Trail Procedure) on Single Aisle and Long Range aircraft.

The Thales FMS system includes powerful hardware combined with the latest certified Airbus Release 1A software is offering second to none reactivity and unique features such as secondary flight plan, realistic navigation trajectory computations or FMS Landing System capabilities (FLS) to the flight crew.

Key points: China Eastern will equip TopFlight FMS, the market leader in Flight Management systems with over 60% market share on Airbus Single Aisle; TopFlight includes FLS capabilities which no other system can duplicate; The client also selected the next gen T3CAS, a complete surveillance solution now the default platform on all Airbus planes.

### THALES PARTNERS FSL TO DELIVER HELICOPTER TRAINING SERVICES IN CHINA

Paris Air Show

20 June 2013 – As part of its ever growing presence in the Chinese aerospace market, Thales is delighted to announce its partnership with Chinese Enterprise FSL for the delivery of civilian helicopter training solutions in China.

At a ceremony, held today at the Thales Pavillion at the Paris Air Show in the presence of French Minister of Foreign Affairs Laurent Fabius, and Thales CEO Jean Bernard Levy, representatives from both enterprises signed a contract, whereby Thales will deliver its

latest generation Reality H Level D Full Flight Simulator with its cutting edge ThalesView Visual Display system, new Hexaline motion and enhanced environments for mission training, as well as helicopter reconfiguration capability. The company First State Limited acts as a prime contractor and Haite is a China's premier aviation enterprise specialising in the simulator training centres operations as well as providing services within aerospace business. The simulator will be delivered initially with an EC135 cockpit, Civilian Regulated training + EMS (Emergency Medical Services) + SAR (search and rescue) use.

Commenting on the announcement, Jean Jacques Guittard, VP of Thales Training & Simulation said "China is one of the fastest growing aerospace markets in the world. The fantastic demand for highly skilled pilots means there is a constant need for the best and most thorough training and simulation systems in the world. As such Thales is proud that Haite has chosen our state of the art simulator to insure the training of Helicopter Pilots in China within a very demanding regulation context."

Moreover, Frédéric Facquer VP of Marketing and Sales Greater China raises the fact that "Thales becomes with Haite and FSL the precursor of such high level training devices on the Chinese market. The significant expertise of Thales in terms of international standards and regulation will position Haite as a leader on the helicopter pilots training fast growing market in China."

Note to editors: The Thales Reality H Full Flight Simulator, uses innovative Roll-on/Roll-off technology allowing the easy swapping of helicopter cockpits in the same simulator docking station, as well as the revolutionary motion system Hexaline, combined with high-resolution geospecific imagery from the ThalesView image generator. Covering the range from training equipments to turnkey training services, Thales leads the way in both **Military** and Civil training applications. Thales delivers a range of training devices and services for Civil and **Military** helicopter training, from computer learning systems and cockpit procedures trainers (CPT) to Full Mission Simulators (FMS), supporting all types of mission training, such as Tactical flying, Combat Search & rescue, Urban or Confined areas, among others.

#### SUCCESS OF THALES AVIONICS FLIGHT MANAGEMENT SYSTEMS IS CONFIRMED IN CHINA

China Air Show, Zuhai

November 13, 2012 - Thales is proud to announce the selection of its TopFlight Management System by China Eastern and Hainan Airlines. Under these selection agreements, Thales will equip China Eastern 50 future A320 and Hainan Airlines 15 A330 aircraft with Thales FMS. This confirms that Thales Avionics presence in the Asian Airlines market continues to grow and particularly true in China where the company reports several major avionics selection on Airbus aircraft proving their overall satisfaction level on the products. These new aircraft will be delivered with Release 1A, a new software version for the TopFlight FMS certified on the Airbus A320 and A330 Family. It brings new approach capabilities such as Required Navigation Performance with Authorization Required capacity - (RNP AR down to RNP 0.1) or GNSS Landing System (GLS) along with unique functionality on the A320 and A330/A340 families like the FMS Landing System (FLS). The FMS Landing System is a new way to fly non-precision approaches using ILS (Instrument Landing System)-like procedures, thus enhancing situational awareness and reducing drastically training times and costs due to standardization of procedures. Existing features like the multi-revision temporary flight plan with undo function and an enhanced intuitive "What You See is What You Fly" display system remains unique to Thales on those aircraft families. "This choice is confirming that the Thales FMS is a highly attractive alternative for Airbus operators. With more than 60% of market share in China, NFMS Operators like Air China, China Eastern, China Shenzhen, China Southern, and Hainan Airlines are recognizing unique performances of Thales FMS functionality" said Olivier



GUIBERT, President Thales China and North Asia region. Selection agreement with these airlines includes as well Fixed Emergency Locator Transmitter (ELT) and Low Range Radio Altimeter (LRRRA) for Hainan. BOC Aviation also confirmed Thales as their preferred choice for avionics with the selection of Thales FMS & MCDU (Multi Control Display Unit), fixed and survival ELT, LRRRA and AOA (Angle of Attack), under their base line agreement for 30 A320 aircraft. "By continuously selecting Thales products for their fleets, our customers demonstrate that our loyalty to Customer Satisfaction is of the utmost importance to them" says Olivier Guibert. "We always do everything possible to bring the most value to our customers through our wide range of products and services" Olivier adds.

#### T3CAS NOW IN OPERATION IN CHINA

China Air Show, Zuhai

November 13, 2012 – Thales is pleased to announce that the latest integrated surveillance suite known as T3CAS is now flying in China on-board Chengdu Airlines. T3CAS includes TCAS (Traffic and Collision Avoidance System), TAWS (Terrain Awareness Warning System) and Transponder functions all in a single 6 MCU Line Replaceable Unit (LRU). These functions have been integrated into one single unit to save weight, space and improve system reliability.

The T3CAS being installed on Chengdu Airlines includes the latest Airbus solution in ADS-B IN capabilities (Automatic Dependent Surveillance-Broadcast) known as ATSAW (Air Traffic Situational Awareness). This enables airlines to save fuel consumption by better merging and spacing and adjusting flight levels, while providing enhanced situational awareness. The system also includes a Mode S Transponders DO 260A and a certified change 7.1 TCAS which is fully compliant with all future ATM requirements throughout the world.

T3CAS could also potentially allow Required Navigation Performance with Authorization Required capacity - (RNP with AR) approaches in terrain challenging airports thanks to the high resolution terrain Data Base loaded in the T3CAS box.

Chengdu Airlines and several other international carriers, who previously selected T3CAS from THALES/ACSS, are already flying in China with such systems on-board. For example; Juneyao Airlines, is operating its A320 fleet equipped with the first generation system (T2CAS) initially certified in 2005.

As such, all the Chinese runways operated by Airbus planes are included in the terrain Data Base. Coverage will extend with the entry into service of the COMAC ARJ21, where TAWS+ computer from ACSS will be integrated into the avionics suite of this future Chinese regional jet.

"T3CAS delivers the most advanced air traffic surveillance and terrain avoidance capability", said Olivier Guibert, President Thales China and North Asia region. "Through technological advancements, like performance based TAWS, T3CAS is an integrated solution that features more advanced terrain conflict prediction and alerting functions, less weight and volume compared to federated systems, reduced wiring and improved power efficiency, all these translate to significant savings for the airlines" Olivier emphasizes.

#### CHINA SOUTHERN AIRLINES CHOOSES THALES IN-FLIGHT ENTERTAINMENT SYSTEMS FOR ITS B777 FLEET

APEX 2012 Expo - Long Beach, California USA

September 17, 2012 – Thales, leader in In-Flight Entertainment and Connectivity (IFEC) systems, is pleased to announce that China Southern Airlines will install the leading edge Thales TopSeries AVANT IFEC system on its Boeing 777-300ER. The 10 aircraft will be fitted with the system across all classes of service with the first aircraft expected to enter in revenue service in February 2014.

This is the first major sale of the TopSeries AVANT system in the China region and the first selection of this new system for a B777 aircraft. This award represents a landmark victory by Thales in its efforts to further penetrate this significant growth market.

All seats on board China Southern's B777 will be equipped with the award winning Thales TouchPMU handheld device which will allow passengers in all classes to control their IFEC system whilst utilizing the dual screen for multi-task capability like they do on the ground.

Mr. DONG Suguang Executive Vice President of China Southern Airlines commented: "As a leading airlines operating the largest fleet in Asia-Pacific, China Southern is very pleased to introduce Thales IFEC system to its new long range B777-300ER fleet. China Southern attaches great importance to the in-flight entertainment which is to bring new market opportunity and business model. I'm convinced that the selection of Thales IFEC system will further contribute to the improvement of China Southern's long-lasting fine services, enhance passenger experience and add more competitiveness to China Southern Airlines."

Commenting on the milestone, Alan Pellegrini Chief Executive Officer for the Thales In-flight Entertainment and Connectivity business said: "In-flight entertainment systems have a direct and lasting impact on customer perception and service excellence provided by an airline. Airlines such China Southern are enjoying record breaking growth and are therefore very keen to provide their passengers with the best and latest in-cabin experience, it is therefore very gratifying they have chosen TopSeries AVANT over all other products in the market to equip their newest and most advanced aircraft. We look forward to working closely with China Southern to help them in their continued success."

Olivier Guibert Thales Country Director, China added: "China is fast becoming a critical component of the international growth strategy for the entire Thales Group. The cutting edge systems developed by our IFEC business present one of the most visible and tangible proof points of our technological strengths. We are therefore delighted to be working with China Southern on this project, which further demonstrates Thales's leadership position in civil aerospace technology development and service provision across this important region."

#### HUA-OU AVIATION TRAINING CENTRE PURCHASES REALITYSEVEN A320 FFS FROM THALES

May 16, 2012

Thales UK has been selected by Hua-Ou Aviation Training Centre, a joint venture between Airbus China and China Aviation Supplies Holding Company, to provide an Airbus A320 Full Flight Simulator (FFS). This A320 FFS, which will be installed and ready for training before the end of 2012, will be the first Thales latest generation RealitySeven FFS product to enter service in Hua-Ou and in China.

The Thales FFS will be equipped with Rockwell Collins' latest generation EP8000 Visual System. It will be a multi-configuration device, consisting of dual engine fit supporting the CFM and IAE engines and both flight management guidance computer configurations Thales/Honeywell and Thales/General Electric integrated with high fidelity simulated multipurpose control display units. There are four other RealitySeven A320 FFSs already in operation at Airbus's Toulouse and Miami training centres. This simulator will introduce new features including a dual language English/Chinese instructor station, remote instructor operating station via iPad and an enhanced brief/debrief system.

Thales customer support organisation will guarantee the highest possible levels of availability for the training devices, and keep the simulator current with the latest aircraft standards, which accommodates the migration to the new fuel saving A320neo, scheduled for entry into service in 2015.

This will be the third Thales-built A320 FFS to enter into service at Hua-Ou, as the expansion of the Hua-Ou A320 simulator fleet reflects the increasing training needs to sustain the growing number of A320 aircraft in operation in China and South East Asia.

Marion Broughton, head of Thales UK's aerospace business, said: "Thales is very pleased to win this contract award from Hua-Ou Aviation Training Centre demonstrating Thales's ability to meet the demanding simulator performances that Airbus is looking for in order to offer the best training means and training environment to his Airlines Customers."

Olivier Guibert, President of Thales China, said: "We are delighted that Hua-Ou Aviation Training Center in China, has chosen Thales technology once again to accommodate its rapidly increasing pilot training needs."

Image Not Included: Left to right - Ke Jian TAN - General Manager of CASC (China Aviation Supplies Import And Export Corporation), Raymond LIM - General Manager of Hua-Ou and Airbus Customer Support in China, Jean-Pierre POURRE - Sales Director, Civil Simulation, Thales UK

About Hua-Ou Hua-Ou Aviation Training Centre is part of the cooperation joint venture between the China Aviation Supplies Holding Company (CAS) and Airbus China Ltd. The company was founded in 1996 on a 50:50 interest between CAS and Airbus China Ltd. The company together with another joint venture, the Hua-Ou Aviation Support Centre, is housed in a sprawling modern complex in the Tianzhu Airport Industrial Zone, near the Beijing Capital Airport.

The 12,000 square-metre Hua-Ou Aviation Training Centre is the fourth Airbus global training facility after Toulouse Training Centre in France, Hamburg Training Centre in Germany and Miami Training Centre in US. It provides Airbus aircraft operators with Airbus training programs for flight crews, maintenance crews, performance engineers, as well as cabin crews. It is the only Airbus training centre in the Asia-Pacific region, providing high quality training and support services to the airlines.

CFM International is a joint venture between GE Aviation, a division of General Electric of the United States and Snecma, a division of Safran of France. The joint venture was formed to build and support the CFM56 series of jet engines.

IAE is a joint venture company between Rolls-Royce and Pratt & Whitney, formed to develop new engines for the next generation of aircraft.

#### THALES AND CHINA ELECTRONICS TECHNOLOGY AVIONICS SIGN JOINT VENTURE AGREEMENT FOR THE NEW C919 AIRCRAFT

Aircraft Interiors Expo - Hamburg, Germany (March 27, 2012) – Thales, a leader in In-Flight Entertainment and Connectivity (IFEC) systems and China Electronics Technology Avionics Co., Ltd. (CETCA), signed a Joint Venture Agreement that brings together worldclass technology solutions companies dedicated to the new C919 aircraft, manufactured by Commercial Aircraft Corporation of China (COMAC). The official signing took place at Aircraft Interiors Expo, Hamburg (Germany), in attendance of Thales and CETCA senior management. The Joint Venture Operations are expected to begin in third quarter of 2012, following final approval by the relevant authorities.

The partnership supports the integration of the Thales TopSeries system in the cabin of the C919. Designed and built in China, the 156 – 190 seat C919 will first take flight in 2014 with aircraft deliveries scheduled to begin in 2016. The Thales system will be a scalable platform offering services ranging from interactive audio capability through to full in-seat on-demand services, with an emphasis on minimizing weight, cost and power consumption. Future evolution of the system will likely include wireless networks and connectivity.

Thales and CETCA are dedicated to establishing this Joint Venture as a global Center of Excellence which provides capabilities covering research development, production, adaptation, maintenance for the in-flight entertainment market. The Joint Venture will

augment Thales's existing market leading IFEC business based in Irvine, CA. This Joint Venture takes C919 as the first initiative, and sells IFEC systems and equipment to COMAC and other Chinese OEMs. In addition, based on customer requirements, the Joint Venture will provide products and system integration in support of Thales's core IFEC business to related aircraft worldwide.

"The global strength of Thales Group and our investment and growth strategy in partnership with both CETCA and COMAC is a strong combination that will ultimately change the landscape of the civil aerospace marketplace in China. We fully expect that there will be excellent demand for the C919 in China and we are proud to be part of this business arrangement," said Olivier Guibert, President Thales China and North Asia region. Mr. Zeng Li, General Manager of CETCA, stated that the "C919 program is just the start. China's civil aviation industry is under fast development and the partnership with Thales has great potential." Over the next 20 years, the China market is forecasted to deliver 4,330 new aircraft with 71% being single aisle aircraft (excluding retrofit aircraft). The Joint Venture is in a position to leverage and evolve current technologies that optimize offerings for the single aisle and regional markets.

This finalized business partnership underscores Thales's position as an innovator and leading aerospace cabin and systems integrator and its commitment to the China market. Today, Thales airline customers in China include: Air China, China Eastern Airlines, China Southern, Hainan Airlines and its Hong Kong Airlines. For these and other carriers, Thales continues to expand its product support and media integration capabilities in Beijing and nearby areas. Thales is mobilizing more resources and building relationships that provide immediate value to China and its local airlines.

About CETCA: China Electronics Technology Avionics Co., Ltd. (CETCA) is a wholly owned commercial subsidiary of China Electronics Technology Group Corporation (CETC), which is the largest Electronics Manufacturer in the People Republic of China. CETC, as the parent company operates directly under the State Asset Administration, and is the main force in electronic information field in China. In addition it is the prime supplier for electronic information system and equipment in China, which operates 47 Research Institutes and 180 Electronics Information Companies and employs about 100,000 people with 33,000 engineers and 10 academics. The revenue in the year of 2011 is about 70 Billion RMB. CETCA takes the advantages of avionics resources of CETC and related avionics enterprises in western China to have wide international cooperation, hence to build it as an avionics industry base in Western China (Chengdu Sichuan Prov.).

China Electronics Technology Avionics Co., Ltd. (CETCA)

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#### AIR CHINA FLIES WITH ITS NEW B777 AIRCRAFT AND THE THALES IN-FLIGHT ENTERTAINMENT SYSTEM

Neuilly-sur-Seine – August 19, 2011 – Thales, a leader in In-Flight Entertainment and Connectivity (IFEC) systems, announced that Air China has introduced into revenue service its' first of 15 new Boeing 777's with the Thales In-Flight Entertainment System onboard. The aircraft has a total of 311 seats in an 8 First, 42 Business and 261 Economy configuration. Installed at every seat, the Thales TopSeries system will enable passengers to enjoy the experience of accessing a wide range of audio and video on-demand entertainment and information using 23", 15.4" and 8.9" touch screen displays and slim-line tethered passenger control units in First and Business. Air China is the first to fly with the revolutionary Thales 3D moving map powered by Geofusion. This new fully interactive 3D moving map was developed by Thales in partnership with GeoFusion, Inc. a 3D visualization technology specialist. The application allows passengers to track the aircraft in motion as it flies over a high resolution 3D globe represented by satellite imagery and includes a stunning experience of tracking the aircraft in real time while in taxi, take-off,

flight and landing phases. "There is no comparison between the other versions of IFE with this TopSeries system. This one feels almost the same as if we are playing on an iPad. We made a good choice of IFE system," said Mr. QUAN Hong Bing, DGM of Air China Technic. Other new applications on this new aircraft include Connecting Gate and 3D audio capabilities. "Thales is very proud to be part of this important B777-300ER program of Air China and to provide the best IFE system to help serve the flying public with much improved entertainment experience together with Air China," says XIA Jinsong Deputy CEO, Thales China. Air China flies with the Thales system on its 20 A330s and future B787 aircraft.

#### THALES ANNOUNCES JOINT VENTURE TO PROVIDE IFE FOR THE NEW C919 AIRCRAFT

Thales further increases its commitment to the Chinese aviation market

Zhuhai Air Show, China, November 16, 2010 – Thales, a leader in In-Flight Entertainment (IFE) and connectivity systems, announced that it has signed a Letter of Intent (LOI) with Aircraft Corporation of China (COMAC) and a Memorandum of Understanding (MOU) with China Electronics Technology Avionics, (CETCA) whose parent company is China Electronics Technology Corporation (CETC). These arrangements lay the groundwork for the creation of a joint venture company that will integrate the Thales IFE system in the cabin of COMAC's upcoming C919 aircraft. Designed and built in China, the 156-190 seat C919 will first take flight in 2014 with 2355 forecasted aircraft deliveries scheduled to begin in 2016. The Thales system installed will be a scalable platform offering a modular entertainment experience which will include interactive audio solutions through to full in-seat on-demand services. Future evolutions of this system may include wireless networks and connectivity. "The Thales system is the popular IFE solution flying today in China and we look forward to our technical teams coming together for a successful launch on the new C919 aircraft," said Alan Pellegrini, Managing Director for the Thales In-flight Entertainment business. This new business relationship underscores Thales's position as a leading aerospace cabin and systems integrator and its commitment to the China market. Today, Thales airline customers in China include Air China, China Eastern Airlines, Hainan Airlines, Shanghai Airlines (now part of China Eastern) and Hong Kong Airlines. For these and other carriers, Thales continues to expand its product support capabilities in Beijing, establish nearby media distribution centers, and develop new partnerships with application developers. With COMAC and CETCA, Thales now demonstrates its ability to mobilize more resources and build relationships that provide immediate value to China and its local airlines. Mr. Zeng Li, Vice Chief Engineer of CETC stated "C919 program is just a start for a new round of cooperation of both parties. Now, China's civil aviation industry is under fast development, on such background, CETCA believes that the Joint Venture of both parties and C919 program will make a success, and the strategic partnership will be further deepened and consolidated with the joint venture as the platform". "The global strength of Thales Group and our investment and growth strategy in partnership with CETCA and COMAC is a strong combination that can ultimately change the landscape of the civil aerospace marketplace in China. We fully expect that there will be strong demand for the C919 in China and we are proud to be part of this new market entry," said Olivier Guibert, President Thales China and North Asia region.

#### CHINA EASTERN AIRLINES SELECTS THALES IN-FLIGHT ENTERTAINMENT SYSTEMS FOR THEIR AIRBUS AIRCRAFT

Zhuhai Air Show, China, November 16, 2010 – Thales, a leader in In-Flight Entertainment (IFE) and connectivity systems, announced that China Eastern Airlines selected the TopSeries system for 16 of its new A330-200 aircraft. Installed at every seat, the TopSeries IFE system will enable passengers to enjoy the experience of accessing a wide range of audio and video on-demand entertainment and information using a touch screen display sizes 15.4" in business class and 10.6" in economy. In addition passengers

will have Thales slim-line tethered passenger control units for even greater convenience. The first aircraft is scheduled to deliver in November 2011. The system will also provide advanced capabilities that accommodate personal electronic devices with USB connection enabling passengers to view on the in-seat IFE display picture files from their portable consumer products. Other applications that could roll-out in the future include a broadcast 3D moving map for flight status information, electronic books and shopping. This selection of TopSeries system comes after China Eastern Airline's extensive competition. "We are very pleased to be working with China Eastern Airlines for A330 programme. I am confident that passengers will enjoy the flying experience, and that it will pave the way for a growing cooperation," said Alan Pellegrini, Managing Director for the Thales In-Flight Entertainment business. Thales's local presence in China and surrounding areas is expanding under the leadership of a local management team based in Beijing. There, the company has a major repair facility that supports IFE and Avionics services, and is introducing a new advanced technology media centre for content management services. "Our plans to further invest in China for the benefit of local airlines and airport is a priority for Thales. We have proven products and services that will satisfy market needs now and in the future." said Olivier Guibert, President Thales China and North Asia region.

#### DECEMBER 2005: HIGH-PROFILE PROJECTS

January 1, 2005

ChinaSatcom In December 2005, Alcatel Alenia Space signed a contract with ChinaSatcom to design and manufacture next-generation communications and broadcasting satellite ChinaSat 6B. The event marked the second contract to be signed with ChinaSatcom - the first being ChinaSat 9 - in two years, for a total of €200 million in business. As part of his official visit to France, Prime Minister Wen Jiabao of China toured Alcatel's satellite production plant in Cannes, where satellite systems are manufactured, assembled and tested. Also in December 2005, Alcatel Alenia Space announced the signing of a €147 million contract with the European Southern Observatory (ESO) to supply 25 antennae for the Atacama Large Millimeter Array (ALMA) project. The centerpiece of the ALMA project is a powerful telescope of unprecedented imaging capabilities that will be used to study the origins of galaxies and the formation of stars at an observatory in Chile. Galileo navigation program facilities On December 6, 2005, Galileo consortium member companies Alcatel, Finmeccanica, EADS, Thalès, Inmarsat, AENA and Hispasat announced the locations of the facilities that are to participate in the Galileo program.

- Toulouse, France: headquarters
- London, UK: operations
- Fucino, Italy: Constellation Mission Control Station & Performance Assessment Center
- Oberpfaffenhofen, Germany: Constellation Mission Control Station & Performance Assessment Center
- Cebreros, Spain: backup control center
- Alcatel, Finmeccanica, EADS and Thales already maintain offices in Toulouse, known worldwide for its space and aviation industries.

#### THALES SELECTED FOR THE ELECTRICAL GENERATION ONBOARD THE CHINESE HELICOPTER Z8

[No Date Given]

Thales was selected by International AVIC (International AVIC Corporation holding company) to assure the supply of 100 ship-sets over the period 2012-2014, to be installed on the helicopter Z8. The ship-set, as equipment, has 3 starter-generators, 400 A - 12 kW, 3 related GCU1 and 6 CTUs2. The first deliveries are planned for January, 2012. Z8 is a

13-ton helicopter, equipped with three turbines and intended for missions of troop transportation and civil safety. A rate of 30 to 40 helicopters a year is planned over coming the next 10 years. With more than 200 helicopters equipped in China, Thales is the first supplier of starter-generators for helicopters in the country: one helicopter out of two is equipped by our starter-generators.

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NOTE TO READER: Following the acquisition of Thrane & Thrane by Cobham plc in July 2012, a new SATCOM Strategic Business Unit, Cobham SATCOM, has been established under the Cobham Aerospace and Security Division. [www.cobham.com](http://www.cobham.com)

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2012 Zhuhai Directory: Cobham comp Thrane & Thrane is the world's leading manufacturer of equipment and systems for global mobile radio and satellite communication. Since 1981, the company has established a strong position within global mobile communication solutions based on the Inmarsat system. Thrane & Thrane provides equipment for use on land, at sea and in the air. The company's communication products are sold throughout the world under the brands Thrane & Thrane, EXPLORER SAILOR and AVIATOR.

**COBHAM PRESS RELEASE**

22 January 2013

**COBHAM GRANTED HELISAS CAAC CERTIFICATION IN CHINA**

Mineral Wells, Texas – Cobham Commercial Systems has announced a significant milestone for their HeliSAS Stability Augmentation System and Autopilot. The Civilian Aviation Administration of China (CAAC) has granted Supplemental Type Certificate (STC) #VSTC0591 to Cobham, allowing installation of HeliSAS on hundreds of Bell 407 helicopters in that country. With more than 100 systems installed in the United States, Australia, and South America, HeliSAS is making safer rotorcraft flight possible around the world. The two-axis, attitude hold/attitude command flight control system significantly reduces pilot workload and allows pilots to perform many cockpit functions hands-free. HeliSAS' Stability Augmentation System (SAS) enhances flight stability by providing precise control during all modes of flight, regardless of wind conditions or aircraft center of gravity, said Roger Smith, Cobham Commercial Systems' General Manager: "This CAAC approval is truly groundbreaking. China is one of the fastest-growing aviation markets in the world, and we're pleased to be able to make HeliSAS available to hundreds of Bell operators." Cobham's HeliSAS representative in China is DAC International. Visit [www.helisas.com](http://www.helisas.com) for further information.

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Corporate Website (Extracted in February 2014): Timken in China. On behalf of The Timken Company and our Board of Directors, I would like to thank all of you for your attendance at our dinner this evening. I would also like to express my sincere gratitude for your country's hospitality – not just in welcoming us here for our board meetings in Shanghai. I am also grateful for the opportunity we have had over the past several years to build a presence in China and be part of one of the most exciting economic regions in the world. It should be clear to everyone that our decision to bring our entire Board of Directors to China for our annual strategy meetings is symbolic of the central importance of Asia in our company's future. We believe that the economies of this region are still in the early stages of what will be one of the greatest sustained expansions in history, and we are determined that Timken will play an important role in that growth.

Given our relatively short history in China, I would like to take a few moments to make sure you know who The Timken Company is – as both a growing global enterprise and a committed Asian partner. Then I would like share with you some of our priorities for the future.

There are many ways that Timken is known around the world. Investors on Wall Street tend to know us by our numbers. We employ more than 25,000 associates in 26 countries around the world. We generated record sales of \$5 billion in 2006, double the level we achieved just four years earlier. And we are a company that delivered 2006 net income of \$223 million and recently paid our 340th consecutive quarterly dividend to our shareholders.

Numbers alone, however, cannot reveal the full picture. There are many important elements of our identity that are much harder to quantify, but they are just as real to our customers, associates, suppliers and other partners.

Some know Timken as the company whose founder – my great, great grandfather, Henry Timken – invented the tapered roller bearing in 1898, and a company that is still the largest maker of this type of bearing in the world today. Some know us as a company that has manufactured some of the world's cleanest, highest-quality steel for many of the most demanding applications imaginable over the past 90 years. To others, we are an engineering partner with over a century of technical expertise – a company that will work side by side with our customers to develop innovative solutions to friction-management and power-transmission problems, improving the performance, durability and safety of a wide range of machines.

Equally important to me as chairman is the way The Timken Company is known as a valued member of an increasingly global society. Every Timken associate shares our company's commitment to good corporate citizenship in the communities where they live and work – all around the world. And they share an unwavering commitment to reflect our core values – Ethics & Integrity, Quality, Innovation and Independence – in all they do.

This is the nature of the company that first came to China in 1993, opening our first offices that year in Shanghai. We brought with us our heritage of innovation, nearly a century's-worth of engineering and metallurgical knowledge and a customer-centered



approach to technology collaboration. We also brought along our commitment to corporate citizenship and a desire to make a positive contribution to Chinese society.

Across the past 15 years, we have made major investments to grow our business here in China and throughout the Asia-Pacific region. Timken's Asian headquarters are here in Shanghai, and we have offices in cities across China. We have also established a manufacturing plant in Yantai, three in Wuxi and one in Suzhou. And we broke ground on a new aerospace and precision components facility in Chengdu last November. We also have a Technical Training Center in Wuxi and a distribution center in Shanghai.

In addition to this rapidly growing China presence, Timken has also made investments in several other Asian economies. We are now building our second manufacturing facility in India, and have an engineering and technology development center, sales offices, distribution and other operations there. We also have sales, distribution and engineering capabilities in Japan, South Korea, Singapore and Australia.

We now employ over 4,500 associates in Asia, nearly 20 percent of our global total. We also count many Asian companies among our largest customers in the world. As they grow and expand their reach into new markets, Timken will be there with them, supporting them with the full power of our global technology, manufacturing and supply-chain resources.

Since we began growing our own business in China, we have discovered a strong fit between Timken's strengths and the opportunities before us. When we enter a new market, we invest for the long term. And we are determined to build on the success of our Asian operations to date, as we look forward to future growth.

Timken is a global leader in the development of industrial technology to help manage friction and maximize the transmission of power in some of the most demanding industries on earth – mining, energy exploration, power generation, heavy manufacturing, excavation and construction, to name a few. Given the rapid pace of China's infrastructure expansion in recent years, these are areas where Timken has already been able to apply its world-leading expertise and cutting-edge technology to improve the performance of our Chinese and global customers.

As China's economy continues to evolve and expand into new frontiers, Timken is committed to developing its own capabilities to match it. One recent example is the facility we are currently building in Chengdu to develop and manufacture aerospace bearings and precision components. China's domestic aerospace industry is poised for rapid expansion, and Timken is working to build relationships with Chinese manufacturers to meet the needs of this rising industry.

We also have become a trusted partner for many companies in numerous other industries. Our growth across the past several years has been strong and sustained, and we believe we can continue to expand our sales in Asia as a whole at a rate of more than 20 percent annually for at least the next five years.

Seen from the long-term perspective, I would suggest that we are only at the beginning of what we can achieve. The future presents almost limitless opportunities as economies across this region continue to harness even more of their full potential.

We are determined to continue to listen to the needs of our customers so that we can be responsive and adaptable as a partner in their growth and development. We will work closely with them to take full advantage of more than 100 years of engineering experience as we help elevate their performance to new levels. And we will continue to make investments in Asia to match the magnitude of the opportunity.

I thank you for your attendance here this evening and for your partnership. As we grow together, I hope you will continue to find The Timken Company to be a worthy and capable partner.

TIMKEN PRESS RELEASES

**TIMKEN NAMES PETER M. SPROSON PRESIDENT OF CHINA BUSINESS;  
LEONG FANG ANNOUNCES RETIREMENT AFTER 28-YEAR CAREER**

Canton, Ohio, Aug. 28, 2012 -- The Timken Company (NYSE: TKR) announced the appointment of Peter M. Sproson to the position of president for the company's China business, succeeding Leong Fang, who plans to retire at the end of the year after a 28-year career at the company. In this role, Sproson will lead the Timken business in China, the company's second-largest geographic sales region, and report to J. Ron Menning, senior vice president, Asia-Pacific. Sproson most recently held the position of vice president – mobile industries within the Bearings and Power Transmissions segment. He joined the company in 1978 as a sales engineer in Europe and continued to advance his career in a variety of sales and marketing management positions. From 2003 to 2005, Sproson served as director of automotive sales in Europe and was named vice president of commercial transportation systems for Mobile Industries in 2009. He holds a bachelor's degree of science in mechanical engineering from the University of Aston in Birmingham, Great Britain, and completed INSEAD's International Executive program and the University of Virginia Darden School's EDGE executive development program. Fang retires after a long career, advancing to hold leadership positions in the United States and in Asia. Since starting his career in 1984, Fang held various management positions in engineering and sales, advancing to vice president in 1997 and general manager in 2005 of Timken's aerospace business. Fang served as vice president of sales and marketing in China before being named to his current position as president of China in 2007. Fang is a member of U.S.-China Energy Cooperation Program (ECP) Management Board and a board member of Junior Achievement China. He holds a bachelor's degree in mechanical engineering from the University of Glasgow in the United Kingdom and a master's degree in mechanical engineering and applied machinery from the University of Rhode Island.

**TIMKEN TO LAUNCH AEROSPACE MANUFACTURING IN CHINA; INVESTMENT  
LIFTS THE COMPANY'S CHINA PRESENCE TO SIX PLANTS**

Chengdu, China, Nov. 8, 2006 -- The Timken Company (NYSE: TKR) today announced an important investment in its ability to serve the Chinese and global aerospace markets. Timken's new aerospace precision products center, the first investment of its kind by an international company, will initially employ approximately 200 people in aerospace products manufacturing. Across time, it is expected to include sales, engineering support and customer service capabilities for a range of aerospace bearings and other precision products.

Located in the High Technology Development Zone in Chengdu, the capital city of Sichuan province, the new center aligns with China's goal of investing in West China and focusing on key strategic industries for the country. Timken selected Chengdu as the location for its sixth plant in China in part because it is a major Chinese aerospace center with a good technical infrastructure and educated workforce.

"This investment is directly tied to Timken's strategic initiatives to expand our presence in industrial markets in Asia, as well as to build an increasingly diverse portfolio of aerospace precision components and services worldwide," said Michael C. Arnold, president of Timken's Industrial Group. "Timken is proud of its progress in China. The addition of new capabilities and technology to this booming market will help us to serve the aerospace industry in China and around the world."

Initially, more than 200 associates will manufacture ball and cylindrical roller bearings up to 12 inches (30 centimeters) in diameter. The first product shipment from Chengdu is anticipated for late 2007.

"The city of Chengdu is proud to welcome Timken as a new partner in our community and in the rapidly growing Chinese aerospace industry," said Ge Honglin, mayor of Chengdu. "Timken's confidence in our workforce and history of good corporate citizenship,

since their arrival in China in 1992, are the ingredients of a strong future relationship with our city."

Timken's social activities in China have included sponsoring cultural exchange with an exhibit at the Beijing World Art Museum, the Special Olympics, which will hold their world games in China in 2007, and ongoing support to the educational charity, Junior Achievement.

Since its entry into China in 1992, The Timken Company has brought its state-of-the-art products and technology as well as innovation to international and local customers. With China headquarters in Shanghai, Timken has an established network of seven sales offices in Shanghai, Beijing, Shenyang, Wuxi, Chengdu, Hong Kong and Taipei. The company has invested in five large-scale manufacturing sites in Wuxi (3), Yantai, and Suzhou, a logistics center and an engineering training center to better serve its Chinese customers.

"This new location in the capital city of Sichuan province builds on our existing 3,500 employees nationwide, and demonstrates our commitment to help our customers here in China to improve their performance by applying Timken's friction management and power transmission knowledge," said James Gresh, president of Timken in China.

Timken has made significant investments over the past year to expand the range of aerospace components and services it provides to original equipment manufacturers and to the aerospace aftermarket. The company today offers a comprehensive line of products and services, known for consistent performance in critical applications and backed by one of the most stringent quality standards in the world. Timken produces aerospace products that are found in aircraft engines, gearboxes, helicopter transmissions, auxiliary power units, landing wheels, airframes and instrumentation.

#### **TIMKEN WINS NEW MINING CUSTOMER IN CHINA; INNOVATIVE SOLUTION IMPROVES CUSTOMER'S PERFORMANCE**

Canton, Ohio, Oct. 24, 2006 -- The Timken Company (NYSE: TKR) today announced a new customer in China, Jixi Coal Mine Machinery Company (Jixi CMMC), one of the country's largest manufacturers of underground mining machinery. Timken supplies its tapered roller bearings for a wide range of cutting heads on shearers used by Jixi CMMC. This new business relationship was the result of Timken's ability to provide not only a new bearing product, but training and design recommendations that improved the overall performance of Jixi's equipment. Jixi CMMC turned to Timken because of problems with electric haulage shearers. Haulage shearers are used to cut into the earth and extract coal in underground mining operations. Bearings are used in the cutting-head section of the shearers to rotate the blades. Timken's analysis showed that the original-equipment spherical bearings, which were not manufactured by Timken, were unable to withstand the loads of the application. The result was frequent bearing or seal failure and, consequently, end-user complaints. To provide a solution, Timken utilized its global technology resources and determined that power-dense, debris-resistant tapered roller bearings would be a better fit for the shearers and eliminate costly downtime for the customer. Timken then worked with Jixi CMMC to improve the shearers' design for maximum performance with tapered bearings and provided training on the use and maintenance of the bearings. "Our goal is always to improve a customer's total performance by applying what we know about friction management," said Jason Zhu, general industry sales manager, Timken. "From products to engineering to training, we were able to do that with Jixi CMMC and ultimately, that improved their customers' performance as well." Since its entry into China in 1992, The Timken Company has brought to China its state-of-the-art products and technology as well as innovation to international and local customers. With China headquarters in Shanghai, Timken has an established network of seven sales offices in major cities. The company has invested in five large-scale manufacturing sites, a logistics center and an engineering training center to better serve its Chinese customers. With 3,500 employees

in China, Timken is committed to providing expertise in friction management and power transmission in this region.

**TIMKEN PROMOTES THE ART OF ENGINEERING IN CHINA; SPONSORS CLEVELAND MUSEUM OF ART EXHIBIT IN BEIJING**

Shanghai, China, July 10, 2006 -- The Timken Company (NYSE: TKR), a global company known for creativity and innovation in engineering, has announced that it is sponsoring the historic premier of From Monet to Picasso: Masterworks from The Cleveland Museum of Art at the Beijing World Art Museum. In celebration of the sponsorship, the company has also commissioned sculptures using its bearing and steel products by Jiang Qiong Er, an emerging Chinese artist-designer. "As part of our own company culture, we value innovation and creativity and have a history of support for the arts and culture. Sponsoring the voyage of these masterpieces from their home at the Cleveland Museum of Art to audiences in China offers a great connection between two parts of the world where Timken is applying our technical knowledge creatively to improve customer performance," said Roger Lindsay, senior vice president of Timken's Asia Pacific operations. Jiang Qiong Er, a native of Shanghai who is already gaining international recognition for her contemporary artwork, shows her creativity and talent in a wide range of media including painting, sculpture and photography. She debuted in the art arena with her "industrial romance" jewelry collection, which incorporates industrial parts in her designs. The four pieces of Timken-commissioned artwork under creation by Jiang Qiong Er will be displayed in the company's Asia Pacific headquarters in Shanghai and its global headquarters in Ohio. Timken will donate two of the finished pieces in 2007. "Now, through Jiang Qiong Er's work and her fusion of art and engineered products, we are delighted also to have the chance to introduce a contemporary Chinese artist to audiences in the United States," said Lindsay. From Monet to Picasso: Masterworks from The Cleveland Museum of Art, which continues to run in Beijing through August 27, 2006, is one of six such traveling exhibitions from The Cleveland Museum of Art scheduled for presentation at more than a dozen venues over the next four years. The Beijing first leg of the world tour of the masterworks, sponsored by Timken, is currently on display at the Beijing World Art Museum. The traveling exhibition From Monet to Picasso marks a milestone in the Cleveland Museum of Art's 90-year history, as it is the first time that such a preponderance of masterworks from its permanent collection will be on view outside of Cleveland. The exhibition brings together 60 of The Cleveland Museum's most highly acclaimed European paintings and sculptures from the late 19th and early 20th centuries, featuring iconic works by Claude Monet, Edgar Degas, Pierre-Auguste Renoir, Paul Cezanne, Vincent van Gogh, Paul Gauguin, Camille Pissarro, Pierre Bonnard, Henri Matisse, Pablo Picasso, and Auguste Rodin. After traveling to the Beijing World Art Museum, From Monet to Picasso: Masterworks from The Cleveland Museum of Art will open in Tokyo and Seoul. This is the first major show of European Impressionists and Modern masters to travel to these three Asian capitals. Since its entry into China in 1992, The Timken Company has brought to China its state-of-the-art products and technology as well as innovation to international and local customers. With China headquarters in Shanghai, Timken has an established network of 7 sales offices in major cities. The company has invested in four large-scale manufacturing sites, a logistics center and an engineering training center to better serve its Chinese customers. With 3,500 employees in China, Timken is committed to providing expertise in friction management and power transmission.

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Contact: Terry Jiang, Terry.jiang@timet.com

2012 Zhuhai Directory: TIMET (Titanium Metals Corporation), incorporated in 1950, is a world leader in titanium technologies as a fully integrated supplier and distributor of melted and mill products. TIMET supplies the highest quality products to every major titanium market worldwide. Our industry expertise partner within you supply chain. Titanium's unique combination of corrosion resistance, elevated-temperature performance and high-strength-to-weight ratio makes it particularly desirable for use in commercial aerospace industry, we are a leading supplier to this sector. Our products are found in jet engine components (e.g., bulkheads, tail sectors, landing gear, wing supports and fasteners). TIMET's mili and melted products are available for shipment directly from our mills or through our Company-owned service centers (five in the US and three in Europe), which sell our products on a just-in-time basis. The service centers are equipped to sell value-added and customized mill products.

Corporate Website: Fabrication - TIMET-owned LOTERIOS offers a complete range of fabrication activities from design services to custom fabricated equipment. LOTERIOS manufactures pipe and fittings, and fabricates titanium vessels, tanks, heat exchangers, reactors and columns. LOTERIOS is a leading supplier to the offshore industry and has achieved QA ISO 9001 certification and SQLO (China) Manufacturer Approval certification, as well as ASME U and U2 stamps. The company is also a leading supplier of titanium pipe spools for PTA plants and high-pressure acid leaching plants for nickel and gold mining. LOTERIOS offers pipe and fittings manufactured from titanium alloys from ½" – 80" in all different thicknesses from SCH 5S to SCH XXS. Products include elbows, tees, reducers, bends, stub ends, flanges and outlets. With thermal and/or mechanical design capability, LOTERIOS fabricates heat exchangers, reactors, pressure vessels and piping spools. LOTERIOS also offers pre-fabrication of piping spools and the following welding services performed in a cleanroom environment: automatic longitudinal, orbital, manual, GTAW, PAW, SMAW and SAW welding.

**Titeflex Aerospace**

22 Avenue Maurice Chevalier, 77833, Ozoir-la-Ferriere, France

Tel: +33 1 60 18 52 00; Fax: +33 1 64 40 23 37

sales@titeflex

www.titeflex.com

www.smiths.com

Contact: Adeline TRAN

From the Directory and Corporate Website: Titeflex is a subsidiary of Smiths Group plc under the Flex-Tek Division. Smiths Group is a global technology company listed on the London Stock Exchange. A world leader in the practical application of advanced technologies, Smiths Group delivers products and services for the threat & contraband detection, medical devices, energy, communications and engineered components markets worldwide. Smiths Group products and services make the world safer, healthier and more productive. Titeflex Aerospace provides customers with complete fluid transfer solutions in PTFE flexible, rigid, or flex-rigid hybrid assemblies. Titeflex leads the world in steel braided and para-aramid flexible hose, in addition to producing complex rigid assemblies in various metals. Titeflex assemblies support fuel, hydraulics, lubrication, gases, oxygen, or air in

land based turbines, commercial aircraft, **military**, and space applications. Titeflex market segments: aerospace: 76%, space: 12%, industrial: 75, racing: 5%. Titeflex approvals: ISO 9001, EN 9100, NADCAP XRAY & WELDING, ISO 14001, OHSAS 18001; NEDCAP FLUID SYSTEM Planned in 2013.

**TL Elektronik, Inc**

Airport, Building 125, 50341 Hradec Králové, Czech Republic

Tel: +420 49 548 23 92; 420 49 548 23 93

Fax: +420 49 548 23 94

info@tl-elektronik.cz

www2.tl-elektronik.cz

Contact: Mr. Martin Balda

**Distributor:**

BJ Dongying Airfly Aviation Supplies, Inc.

Rm. 504, No. 3 Bldg, No. 6, Chegongzhuang Dajie, Xicheng District, 100044 Beijing

Tel: +86 10 883 64 766; Fax: +86 10 883 64 226

luozheng@yahoo.com

www.cdytx.com

Corporate Website (Extracted in February 2014) and the Directory: TL Elektronik Inc. is a joint-stock company with a basic capital 1.5 million USD. TL Electronic is based in the Czech Republic at the Hradec Kralove Airport which is 100 km east of Prague. Founded in 1995, TL Electronic has become a world leader in the development and manufacture of aerospace instruments and aircraft equipment. Having developed over 40 aircraft systems during its 15 year history TL Elektronik's customer list has grown to include BAE System, BRP-ROTAX (Bombardier), Honeywell, Extra Aircraft and the Redbull Air Race Team. TL Elektronik is also in a design partnership with the Aerospace Department of the Czech Technical University and the Czech Aerospace Research Centre of the Czech Republic.

# U

## **Ufa Instrument-Making Production Association**

30, 50 let SSSR str, Ufa, Russia 450071

Tel: +7 (347) 232-77-58; 232-89-00; Fax: +7 (347) 232-10-76

uppo@uppo.ru, marketing@uppo.ru

www.uppo.ru

Contact: Valuev Nikolay, Head of the Department

2012 Zhuhai Directory: Ufa Instrument-Making Production Association (FSUE UPPO) is a traditional manufacturer of autopilots, automatic control systems, flight control complexes, airborne digital computers for almost all types of Russian vehicles, i.e.: - autopilots for helicopters Mi-8, Mi-17, Mi-171, Mi-26; -automatic control systems for helicopters Mi-24 and Mi-35; - control panels for helicopters Ka-32, Ka-27, Ka-28, Ka-29. The association collaborates with RSC ENERGIA, participates in delivery as a complete set of control systems for cargo and manned spaceships PROGRESS, SOYUZTMA and International Space Station.

## **UKRSPECEXPORT State Company**

36, Dehtiarivska St., Kyiv, 04119 Ukraine

Tel: +380 (44) 461-94-27; Fax: +380 (44) 461-97-59; 489-07-58

aira@ukrspecexport.com

exhibition@ukrspeceport.com

www.ukrspecexport.com

Contact: Vadym Krutyev

Sergey Gromov - Director General of the State Concern "Ukroboronprom"

Oleksandr Kovalenko - Acting Director General of the State company "Ukrspecexport"

Tel: +380 (44) 461-94-27; Fax: +380(44) 461-97-59; 489-07-58

From the Directory and Corporate Website: The State Company "Ukrspecexport", a member of the State Concern "Ukroboronprom", is an authorized state-owned intermediary company, engaged in foreign economic activities for export and import of **military** and special-purpose products and services, including weapons, ammunition, explosives, spare parts and components.

From Corporate Website: Export and import of **military** and special-purpose products and services, including armament, ammunition, **military** and special equipment, spare parts and components, explosives, and other products which can be used for the development and manufacture of armament, **military** and special equipment; Repair, maintenance and upgrade of armament and **military** equipment of foreign customers; Export of up-to-date technologies, design documentation and other research and development products of **military** and special purpose; Designing and construction of specific productions and facilities; Provision of marketing, consulting and intermediary services regarding the foreign trade of arms and **military** equipment.

### **(UN)MANNED AERO**

Sint-Trudostraat 34, 8310 Brugge, Belgium

Tel: +32-50-343326

[www.unmanned.aero](http://www.unmanned.aero)

Contact: Mr. Filip Verhaeghe

Corporate Website (Extracted in February 2014): Verhaeghe Aerospace BVBA is doing business as (UN)MANNED. (UN)MANNED is a trademark of Verhaeghe Aerospace BVBA. Verhaeghe Aerospace BVBA's legal address ("zetel") is: Verhaeghe Aerospace BVBA Sint-Trudostraat 34 8310 Brugge, Belgium. Our VAT number ("BTW") and legal registration number ("RPR") is BE 0894.644.856.

2012 Zhuhai Directory: (UN)MANNED's manned avionics focuses on small-series custom glass cockpits. Our Sol product is a scripting language certifiable up to Level A, e.g. for custom EICAS or PFD. Sol supports ARINC 661 (Cockpit Display Systems), ARINC 667P7 (AFDX), ARINC 429 (communications), serial, discrete, interacting with iPad (e.g. EFB), multi-display or PU redundancy, video mixing, FTP, BIT, and your requested feature. (UN)MANNED provides all certification support, including DO-178B interaction with authorities.

Corporate Website (Extracted in February 2014): Sol is a software scripting language specially designed to have a very simple and intuitive syntax. It is simpler than most other programming languages. If you understand the aircraft design, and already know about certification for DO-178C, then learning the syntax can be done in a training session of just 1 day. Sol is a functional specification language. In a sense, it is a lot like Excel. You need to specify the formula's, and the Sol compiler will figure out how to translate that into working code. Of course, in Sol you also specify your inputs, outputs, screens, etceteras. What you are not doing in Sol, is creating a sequential program to execute. Looping algorithms also work different relative to procedural languages (such as C, C++ and Ada). You need to specify what the problem is you want to solve, not how to solve it. Just apply an operator to a list, no need to manually iterate over the elements of a list. Sol is designed to be portable to any platform and operating system. We provide fixed-price porting to your platform, even if the platform is 100% dedicated to your company and your application. We are continuously adding hardware platforms that are supported by Sol out-of-the-box. Using Sol, it is possible to write any avionics application. Primary flight display (PDF), Engine Indicator and Crew Alert System (EICAS), Flight Director, Mission Computer, all of these applications can be written in Sol.

### **United Aircraft Corporation (UAC)**

Ulansky Side-Street, 22, Bldn. 1, Moscow, 101000 Russia

Tel: +7(495) 926-1420; Fax: +7(495) 926-1421

[Office@uacrussia.ru](mailto:Office@uacrussia.ru)

[www.uacrussia.ru](http://www.uacrussia.ru)

Contact: Alexander Tulyakov

2012 Zhuhai Directory: United Aircraft Corporation was created in 2006 to consolidate key Russian aerospace resources. UAC is comprised of 23 companies-design bureaus and aircraft manufacturers, Irkut Corporation and Sukhoi Company among them. UAC's strategic objective is to become the third leading world aircraft manufacturer by providing a balanced product portfolio in three key market segments: civil, transport and **military**.

### **United Engine Corporation Managing Company**



29, Bld. 141 Vereyskaya St., Moscow, Russia 121357  
Tel: +7(499) 558-16-94; Fax: +7(499)558-01-26  
info@uk-odk.ru  
press@uk-odk.ru  
www.uk-odk.ru  
Contact: Yulia Zavarayeva, Chief Expert

2012 Zhuhai Directory: United Engine Corporation is a leading Russian industrial group for designing and manufacturing civil and **military** aircraft engines, LV propulsion systems, industrial gas turbines for electric power generation, gas pumping units as well as marine engines. UEC integrates more than 85% on the main companies on design, serial production and after market as well as key suppliers of the Russian gas turbine industry. One of the priority directions of the UEC's activity is development of gas turbines engines enterprises adopting new technologies in accordance with International Standards.

**Ural Instrument-Engineering Plant JSC**  
Maxim Gorky Str., 17, Ekaterinburg, Russia 620000  
Tel: +73433711767; Fax: +79221201309  
katgoldy@yandex.ru; shamov\_vadim@list.ru  
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Ekaterina Zolotnitskaya, Senior Export manager  
Tel: +73433711767  
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skype: katgoldy

Vadim Shamov, Export manager  
Mobile: +79221201309  
shamov\_vadim@list.ru  
skype: shamovvadim

2012 Zhuhai Directory: "UPZ" JSC is a competence center for design, manufacture and repair of aircraft gyroscopic instruments and equipment used in navigation and flight systems, flight control of aircraft. Devices, mass-produced at the plant, equipped with most of the **military** and the country's civil aviation, including helicopters Mi-8, Mi-17, Ka-32T, the Mi-26T helicopters and other aircraft. Medical equipment (lung ventilators and ultrasound), manufactured by the enterprise, is diverse. In the line of lung ventilation devices, including lung ventilators on transport presented with the ability to power both the vehicle car ambulance, airplane and helicopter, as well as built-on rechargeable battery.

**Ural Optical and Mechanical Plant**  
Vostochnaya St. 33b 620100, Ekaterinburg, Russia  
kancelariya@uomz.com  
www.uomz.com

**Military** and Technical Cooperation  
Tel: +7 (343) 229-8556, vts@uomz.com

Export Department  
trank@uomz.com

General Director - Serguey V. Maksin  
Tel: (343) 254-81-01; Fax: (343) 254-81-09

2012 Zhuhai Directory: Joint Stock Company "Production Association "Ural Optical and Mechanical Plant" is a leading enterprise in the Russian Federation dealing in the development and manufacture of the optoelectronic systems for equipping aircrafts of Air Forces, helicopters of army, naval and special aviation, and armaments complexes of Land Forces and Navy. UOMZ develops and manufacturers the day-and-night optoelectronic equipment using the cutting-edge technologies of optics, microelectronics, laser, television and thermal imaging techniques, precise electromechanics. Main lines of production: optoelectronic systems for aviation, civil optical surveillance systems, laser rangefinders, and thermal imagers.

### **United Technologies Corporation**

United Technologies Building, Hartford, Connecticut 06101  
Tel: (860) 728-7000  
[www.utc.com](http://www.utc.com)

UTIO-China, Suite 1416, 14F, East Tower, WFC, No. 1, East 3<sup>rd</sup> Ring Middle Road, Chaoyang District, Beijing 100020 China  
Tel: +86 10 59291600; Fax: +86 10 59291500  
[www.cn.utc.com](http://www.cn.utc.com)

2012 Zhuhai Directory: United Technologies Corporation (UTC) is a leader in global industry innovation headquartered in Hartford, Connecticut, USA. It has nearly 200,000 employees and does business in approximately 180 countries. In 2011, UTC net sales reached \$58.2 billion and its annual investment in research and development was \$3.9 billion. United Technologies (UTC) is a diversified company that provides a broad range of high-technology products and services to the global aerospace and building systems industries. Our aerospace businesses are Sikorsky aircraft and the new UTC Propulsion and Aerospace Systems, which includes Pratt & Whitney aircraft engines and UTC Aerospace Systems aerospace products. The company also operates a central research organization that pursues technologies for improving the performance, energy efficiency and cost of UTC products and processes. With a long history in China, UTC has established more than 40 joint ventures and is involved in a range of cooperative programs in manufacturing and servicing. UTC employs about 20,000 people in China, promoting UTC advanced technologies and energy efficiency solutions, in turn, contributing to the development of China's strong and increasingly sustainable economy.

Corporate Website (Extracted in February 2014): Gregg Ward, Senior Vice President, Global Government Relations. Gregg Ward joined United Technologies in November 2008 as Senior Vice President of Government Affairs. He leads UTC's federal and state government affairs activities, advises senior management on government relations, and communicates the company's business interests to key policymakers and organizations. Additionally, he is responsible for government relations in China, the EU and Russia. From 2000 to 2008, Ward held the position of Senior Vice President, Government Affairs, for the Siemens Corporation. While at Siemens he was responsible for the legislative, regulatory and political operations of Siemens' Washington office, and for representing the interests of the company's healthcare, energy, transportation and lighting businesses at the local, state and federal levels. Prior to joining Siemens, Ward was Senior Vice President, Government Relations, for the Chicago Mercantile Exchange from 1995 to 2000. In 1990, Ward was confirmed by the U.S. Senate as Assistant Secretary, Congressional and

Intergovernmental Affairs at the U.S. Department of Energy where he was principal adviser to the Secretary of Energy on major energy-related issues before the 102nd Congress. Before his political appointment at the Energy Department, Ward held a variety of senior positions including Director of Congressional Affairs for the Environmental Protection Agency; Senior Vice President for External Affairs at the American Institute of Architects; and Senior Counsel to the law firm of former U.S. Senator Fred Thompson. Ward has served on a number of Washington-based Boards of Directors including the Ford's Theatre, the Business-Government Relations Council, the Bryce Harlow Foundation, the Smithsonian and the Carlton Club.

July 23, 2013

UTC REPORTS SECOND QUARTER EARNINGS PER SHARE GROWTH OF 5 PERCENT TO \$1.70; INCREASES LOWER END OF 2013 EPS RANGE AND NOW EXPECTS EPS OF \$6.00 TO \$6.15, UP 12 TO 15 PERCENT

Excerpt: "New equipment orders at Otis increased 23 percent over the year ago second quarter, led by 39 percent growth in China. Foreign currency had a favorable impact of 1 point overall and 4 points in China. UTC Climate, Controls & Security equipment orders increased 6 percent organically. Large commercial engine spares orders were up 65 percent at Pratt & Whitney including the benefit from the incremental International Aero Engines share. Organically, commercial spares orders were up 15 percent at Pratt & Whitney. On a pro-forma basis, adjusted to include Goodrich in both years, commercial spares orders increased 4 percent at UTC Aerospace Systems."

#### **UTC Aerospace Systems**

2730 West Tyvola Road, Four Coliseum Center, Charlotte, North Carolina 28217

Tel: +1 704 423 7000; Fax: +1 704 423 5540

communications@utas.utc.com

www.utcaerospacesystems.com

China - Corporate:

Enterprise

333 Jiujiang Road Unit 1701-04A Shanghai 200001 China

#### **CAGE CODES:**

Cage Code: SCA12

Facility Site: Xiamen

Location: Xiamen, China

Tel: +86 (0) 59 2573 0089

Cage Code: SZ086

Facility Site: Xiamen

Location: Xiamen, Fujian, China

Tel: +86 (0) 592 570 3908

george.pan@utas.utc.com

Corporate Website (Extracted in February 2014) and 2012 Zhuhai Directory: UTC Aerospace Systems is one of the world's largest suppliers of technologically advanced aerospace and **defense** products. We design, manufacture and service systems and components and provide integrated solutions for commercial, regional, business and **military** aircraft, helicopters and other platforms. We are also a major supplier to international space programs. In 2012, UTC Aerospace Systems was formed by combining

two industry leaders, Hamilton Sundstrand and Goodrich, creating an organization with key positions on a wide range of aircraft flying today and substantial content on various UAVs, satellites and ground and naval vehicles. Our customers include original equipment manufacturers that build aircraft and helicopters, engine manufacturers, and airlines, as well as **defense** agencies and contractors. Our commitment is to help them develop and maintain safer, lighter, more reliable and more efficient aircraft and other platforms. UTC Aerospace Systems is part of UTC Propulsion & Aerospace Systems, which also includes jet engine manufacturer Pratt & Whitney. UTC Propulsion & Aerospace Systems and Sikorsky Aircraft comprise the aerospace portfolio of United Technologies (NYSE:UTX), a diversified company that provides a broad range of high-technology products and services to the global aerospace and building systems industries. UTC Aerospace Systems employs more than 40,000 people worldwide with approximate annual sales of \$13 billion.

#### Corporate Website

(Extracted in February 2014):

“2013...A Year in Pictures.” Around Aerostructures newsletter. December 2013. Volume 5. No. 4: Employees at Aerostructures’ original equipment facility in Tianjin, China shipped their first products this year – fan cowl bond panels for the CF34-10 engines that power the Embraer 190/195 regional jets. According to Larry Strand, vice president of Industrialization and Integration, the first set of panels shipped to Foley – where the CF34-10 inlets and fan cowls are assembled – “fit beautifully,” demonstrating just how far the China site has come in industrializing in a very short amount of time.

“Introducing Martin Beaulieu...‘We need to look at cost the same way we look at a product’s performance, reliability and weight’.”

Around Aerostructures Newsletter. June 2013. Volume 5. No. 2.

What do you see as Aerostructures’ greatest areas of opportunity and biggest challenges in terms of cost reduction?

The biggest challenge clearly will be to meet our target costs on all of the new programs at entry into service – the A350 XWB, the CSeries, the A320neo, the MRJ, the new Embraer platforms, and the 787. In order to do that, we have to integrate our internal sites and supply chain in the design and development process as early as possible. Also, we will have to manage a lot of transitions from our traditional suppliers to new suppliers in emerging markets such as Malaysia, China and Vietnam. And we must do all of this within a short period of time. The biggest opportunity is to leverage all the new programs that we won over the last couple of years and get very competitive pricing from the supply chain due to increased volume.

#### **UTYOS Joint-Stock Company**

14, Krymova St., Ulyanovsk, Russia 432071

Tel: +7(8422)42-16-98; Fax: +7(8422)42-17-90

info@utyos.ru

www.utyos.ru

Contact: Valuev Nikolay, Head of the Department

2012 Zhuhai Directory: “Utyos Joint Stock company along with the newest aircraft devices we manufacture different kinds of medical equipment, a wide variety of consumer goods, complete equipment for domestic automobile plants.

Corporate Website (Extracted in February 2014): Rostec is expanding its collaboration with the Chinese electronics company CETC. Rostec and the Chinese corporation China

Electronics Technology Group Corporation (CETC) intend to cooperate in developing and producing new kinds of electronic products, software, and information systems in order to gain a leading position in the international market. The first meeting of the joint working group of Rostec and CETC took place in Beijing from December 2-7. Collaboration between the two parties dates back to 2011, when the companies signed an agreement outlining future cooperation. The Beijing meeting led to the signing of the first contract for a joint project, a full-cycle LED production plant in the special economic zone of Tomsk. The two companies also decided to organize project teams for areas of future cooperation, in addition to conducting regular scientific and technical conferences between Rostec and CETC. Rostec deputy general director Nikolai Volobuev headed the Russian delegation, which included representatives of the state corporation's leading electronics enterprises, such as RosElectronics, Shvabe, and Compass. During spring and fall 2013 Rostec and CETC exchanged delegations of technicians, with the Russian specialists familiarizing themselves with the Chinese corporation's companies and research institutions, and the Chinese experts visiting Rostec enterprises and design bureaus in Moscow, St. Petersburg, Saratov, and Tomsk.



**Viking Air Ltd.**

1959 de Havilland Way Sidney, BC Canada V8L 5V5

Tel: (250) 656-7227; Fax: (250) 656-0673

info@vikingair.com; www.vikingair.com

Robert Mauracher, Vice President, Management Executive

Tel: (250) 656-7227; Fax: (250) 655-9581

From the Directory and Corporate Website: Since 1970, Viking has grown to become a dynamic aerospace company, servicing a global customer base with high quality modification, repair, and manufacturing services. In 1983, Viking was awarded the exclusive spares manufacturing distribution contract for de Havilland Beaver and Otter aircraft, and in 2006 Viking acquired the Type Certificates for the entire line of de Havilland heritage aircraft, DHC-1 through DHC-7. In 2007, Viking launched the DHC-6 Twin Otter Series 400 Program, and to date has exported over 15 new aircraft with current backlog exceeding \$400M into 2016. Viking currently operates from 150,000 square feet of manufacturing, assembly, modification and repair facilities located at Victoria International Airport, and a separate 70,000 square foot final aircraft assembly facility at Calgary International Airport. Viking's workforce exceeds 550 employees between the two operations with anticipated growth in the coming years. Viking has the capabilities to fabricate sheet metal components engaging in: hydroform press, solution heat treating, aluminum aging, CNC routing, CNC power brake, power shear, pin routing, punch press, power shrinker, and farnham rolling. Viking preforms precision machining with CNC vertical milling machines, manual milling machines, and manual lathes. Viking has a 16' by 60' paint booth, a rotary cable swaging machine, rigid tube bending machine, and induction brazing machine. Other Viking capabilities include cable proof loading, hydraulic pressure testing, welding of aluminum, stainless steel and low alloys, spot welding, cadmium plating, chromic acid anodizing, chemical conversion coating and passivating. Major clients include Bombardier Aerospace, Bell Helicopter Textron, Boeing, Lockheed Martin, and de Havilland DHC-2, DHC-3, DHC-6, and DHC-7 owner/operators.

**VIKING PRESS RELEASE**

**TWIN OTTER SERIES 400 SALES EXPAND INTO THE CHINESE MARKET AS ORDER BOOK SWELLS WITH 19 NEW ORDERS**

(Farnborough, England, July 10th, 2012)

Following on the heels of a successful Singapore Air Show and South East Asia aircraft demonstration tour, the Viking Twin Otter Series 400 has now broken into the Chinese market with new customers added to the sales roster. The first Chinese company to sign on for the Series 400 Twin Otter nineteen passenger regional commuter is Meiya Air of Hainan Province, ordering five float equipped aircraft with deliveries commencing in 2013. Meiya plans to put the aircraft into service supporting their seaplane flight-seeing, charter, and corporate aircraft operations based in Sanya and the surrounding Hainan region on the South China Sea. Adding to the growing sales list are repeat customers

Zimex Aviation of Switzerland and Loch Ard Otters of Florida. Zimex Aviation was an integral product launch customer, and took delivery of the very first Series 400 Twin Otter two years ago at the Farnborough International Airshow. Since delivery, the Swiss company has been operating the Series 400 Twin Otter on charter operations in Uganda, and are so impressed with the aircraft's performance that they have returned to Viking to purchase a second Series 400 aircraft to add to their fleet. Loch Ard Otters also returns to Viking to order four additional aircraft after the successful delivery of their first three aircraft, making Loch Ard the largest non-military Twin Otter Series 400 customer to date and second only to the twelve aircraft order placed by the Peruvian Air Force. "We believe the Series 400 Twin Otter is ideal for the Chinese market due to its optional landing gear configurations, proven reliability and low operating cost, so to welcome two new customers into this emerging market is a testament to the positive and growing reputation of the aircraft," said Robert Mauracher, Viking's vice president Business Development. When considering the continued growth of the program, he added, "there's nothing more flattering than a repeat customer, so having both Zimex and Loch Ard return to Viking to purchase additional aircraft confirms their confidence and satisfaction with the new Series 400 Twin Otter." With Twin Otter Series 400 sales in 16 countries and a backlog exceeding \$400M, the Series 400 is now confirmed as the best selling next generation 19 passenger aircraft available today. Viking provides OEM support for the worldwide fleet of de Havilland legacy aircraft (DHC-1 through DHC-7) and forms part of Westerkirk Capital Inc, a Canadian private investment firm with substantial holdings in the hospitality, aviation, and real estate sectors.

#### **VSMPO-AVISMA Corporation**

Parkovaya St. 1, Verkhnyaya Salda, Sverdlovsk Region, Russia 624760

Tel: +7 (34345) 6-23-66; Fax: +7 (34345) 2-47-36

export@vsm-po.ru; www.vsm-po.ru

China Contact: Metallic Materials Ltd.

Rm 2006, Bldg A, Phoenix Place, A5 Shuguangxili, Chaoyang District, Beijing 100028

Tel: +(86) 1084554688; Fax: +(86)1084554689

Contact: Lin Bao, Managing Director, linbao@vsm-po-tirus.cn

2012 Zhuhai Directory: PSC VSMPO-AVISMA Corporation is the world's largest manufacturer of titanium productions: ingots and all types of semi-finished products in various titanium alloys. Also, the Company manufactures extruded products of aluminum alloys and semi-finished products of allowed steels and nickel-based heat resistant alloys. The Company is deeply integrated into the world's aerospace industry and is, for many companies, a major strategic supplier of titanium products. Partners of the Company – over 300 companies from 48 countries from around the world, including the world's leading aircraft manufacturers. PSC VSMPO-AVISMA Corporation is a vertically integrated company, the leader in the global high technology aerospace market.

#### **VSMPO-AVISMA PRESS RELEASES**

[Note to Reader: The author has verified the below text is correct and appears on the website]

VSMPO SHARES INCREASED BY 47%

February 22, 2012

In 2011 their quotations increased from 3585 up to 5280 rubles.

**As the analytical agency Investcase informs, such an imposing jerk was conditioned by the effective management and marketing policy.** In particular, PSC VSMPO-AVISMA Corporation entered into agreement for raw materials supply with Universal Stainless &

Alloy Products Company in late 2010. A few months later, after the initial processing it was supplied to the affiliated structure of the company for final manufacture of high value-added commodities. As the correspondent of Uralinformbureau informs, the Russian company managed to sign new or extend existing contracts with its largest customers at Le Bourget and MAKs Air Shows 2011 last summer. In particular, the contracts valued at 250 mln. rubles for supplies of semi-products and disc and ring forgings were concluded with Rolls-Royce till 2015. Also the agreements with Airbus Company have been extended, 60% of its demand in titanium is satisfied by the Corporation affiliate - AVISMA. Besides Airbus, Goodrich and Liebherr-Aerospace signed the agreement for manufacture of forgings for A350 landing gear till 2020. The Corporation entered the project for build-up of Boeing - Next-Generation 737 airplane in October last year. The cooperation for development of light alloys for vehicles which are required for new high-speed trains has been initiated with the world's largest aluminum manufacturer Alcoa. One of the major steps in development of VSMPO-AVISMA was opening of the daughter company in China in May 2011. This step enabled expansion of the sales network not only in the Celestial Empire but in the whole Asian region. The agency agreement for semi-products supply till 2014 has been resigned with China Aircraft Industry Corporation in June. For nine months of 2011 revenues of VSMPO-AVISMA increased by 23.5% - up to 21.94 bln. rubles. The net profit increased by 650% - up to 2.9 bln. rubles. Investors responded to the growth of the financial highlights by buying up the attractive stock. However, according to the analysts of Investcafe, securities of the Corporation still remain underestimated. They keep the potential for growth by 42% in 2012.

#### INVESTMENT IN SVERDLOVSK REGION ARE TO GROW 1.7 TIMES – UP TO 560 BLN. RUBLES BY 2015

February 15, 2012

Ekaterinburg, February 15 – RIA News. The volume of investments into the development of Sverdlovsk region, per forecasts of the regional authorities, shall grow up to 560 bln. rubles in 2015 that is 1.7 times more versus 2012, informed the Governor, Alexander Misharin at the meeting with the representatives of foreign investment trusts. "Last year the volume of investments equaled 250 bln. rubles, this year it shall be no less than 300 bln. rubles. I would like to make a specific emphasis on the fact that already 22% of the total volume of investments is covered exclusively by the foreign companies and joint Russian and foreign ventures," Mr. Misharin said. According to the Governor, the volume of investments in the region shall increase up to 560 bln. rubles by 2015, that more than three times exceeds the level in 2010. Mr. Misharin noted that for the last two years the share of investment in the service segment in Sverdlovsk region significantly increased, which currently equals approximately 15%. The investment share in transportation and communication is approximately 16%, power generation and transmission - approximately 20%. Based on his data, manufacturing operations remain the key investment segment. Previously the Minister of Economic Affairs of the region, Evgeny Sofrygin informed the journalists that in 2012 the volume of investments in the development of Sverdlovsk region shall reach 325 bln. rubles. In 2012 these funds will allow to keep on implementing a series of big projects, such as creation of the special economic zone for titanium production "Titanium Valley" in the city of Verkhnyaya Salda based on VSMPO-AVISMA facility. The delegation of the Russian Fund of Direct Investments and International Financial Institutions, representatives of large foreign investment trusts, including Apollo (USA), CIC (China), Caisse des Depots (France) and others, had a meeting with the authorities and entrepreneurs of Sverdlovsk region on Wednesday.

#### VSMPO-AVISMA AT AVIATION SHOW AVIATION EXPO CHINA 2011

September 21, 2011, Beijing – VSMPO-AVISMA Corporation takes part in the 14th international aviation show Aviation Expo China 2011 that is held from 21st to 24th of



September on the territory of China International Exhibition Center (CIEC). On VSMPO-AVISMA delegation are Marketing and Sales Management of the Corporation and representatives of the associated company VSMPO-Tirus (Beijing) Metallic Materials Ltd.

The Corporation has traditionally represented its products for aircraft and engine applications including machined high-technology products. The exhibition is held since 1984 and is the biggest event in this segment of industry. Sponsors of the exhibition are China Aviation Industry Corporation, China Committee for International Trade Facilitation and etc. This event proceeds with the support of China State Administration of Civil Aviation. It is expected that the exhibition attracts attention of more than 30 000 exhibition visitors.

#### AT THE LE BOURGET AIR SHOW

June 20, 2011 Paris – VSMPO-AVISMA Corporation and AVIC International Holding Corporation, Beijing (People's Republic of China), one of affiliate companies of state owned Aviation Industry Corporation of China (AVIC) signed an Agency Agreement for sales of titanium and aluminium semi-finished products manufactured by VSMPO-AVISMA Corporation in PRC. AVIC International Holding Corporation (before reorganization named as China National Aero-Technology Import & Export Corporation (CATIC) has been an agent of VSMPO-AVISMA Corporation since 2003 when the first Agency Agreement was signed. The Agency Agreement signed yesterday will be the fourth one after commencement of the cooperation between the companies. This agreement will be in force for three years and valid till May 2014.

#### **Vympel State Engineering Design Bureau**

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2012 Zhuhai Directory: Designer and manufacturer of **airborne AAM, ASM and the launchers, missiles for anti-aircraft systems**, passive countermeasures dispensers and other aircraft armament.

# W

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2012 Zhuhai Directory: Wheelabrator Group, manufacturers of cutting edge surface preparation equipment, we develop equipment in close relationships with leading aerospace companies and manufacturers worldwide. Shot peening, peen forming, dry paint stripping equipment and ultra-light frequency peening and straightening mobile units are an integral part of our extensive aircraft manufacturing and maintenance equipment.

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Corporate Website (Extracted in February 2014): It All Started 1952 in a Garage with the First Rotating Beacon. A privately owned company, Whelen has experienced positive growth for over 60 years. The pride and commitment of its work force, whose employment longevity averages over 22 years, is rewarded through a profit sharing plan established by the Whelen family since the company was founded. The development of the first aviation light helped launch Whelen into the automotive safety lighting industry as well. Whelen currently provides safety lighting for Police, Fire, EMS, and DOT professionals as well as many other industries. The production volumes seen in the automotive sector have allowed Whelen to invest in the latest automated assembly equipment in order to compete world-wide. Last year Whelen purchased over 44 million LEDs for use in their extensive family of products. In the 1970s Whelen introduced the Outdoor Warning Siren ... totally electronic and capable of not just warning tones but also high-powered voice messages. The Mass Notification Division has saved lives around the world. At Whelen Engineering, our goal is to bring innovative, life saving products to market more quickly while maintaining strict quality control throughout the process. We have accomplished this through a vertical manufacturing initiative to eliminate or reduce out-sourcing; the use of robotics and state-of-the-art production equipment; and, perhaps most importantly, a motivated workforce of over 1100 employees. This allows us to meet and adapt to our customer's changing needs in the shortest amount of time.

# Z

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2012 Zhuhai Directory: Zodiac Aerospace is a global entity with worldwide activities and leadership positions in its markets: Oxygen systems, electrical power management, cockpit and lighting, interconnect technologies, data systems, and offers a global solution for customer service and support.

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## **ZODIAC AEROSPACE PRESS RELEASES**

### **ZODIAC AEROSPACE OPENS A NEW SEAT ASSEMBLY FACTORY IN TIANJIN**

This first Y/C shipset was delivered today to Hainan Airlines

Tianjin, July 31, 2013 – Zodiac Aerospace has officially opened today its new seat assembly factory in Tianjin, PR China. The first economy class seats shipset, assembled in this facility, has been delivered to Hainan Airlines, a major mainland China Airline. Up to now, the facility was used by Zodiac Services to support its aftermarket activities in China. The new assembly line, operated by Zodiac Seats, is providing the capacity to deliver Chinese Airlines with economy class seats assembled locally. It was a strategic but obvious decision for Zodiac Seats to be present with the right infrastructure in China to support the highest traffic growth for the coming decades in the most adequate manner. The Grand Opening Ceremony occurred on Wednesday, July 31, 2013. Key airlines, aviation industry officials and government conglomerate were invited to a “rollout” ceremony. The day’s activities started with official speeches followed by the ribbon cutting

ceremony and a tour of the facility, before sharing a lunch reception to celebrate this new promising adventure for Zodiac Seats in China.

**ZODIAC AEROSPACE OPENS A NEW SEAT ASSEMBLY FACTORY IN TIANJIN, CHINA**

Aug 1, 2013

Zodiac Aerospace opens a new seat assembly factory in Tianjin

This first Y/C shipset was delivered today to Hainan Airlines

Tianjin, July 31, 2013 - Zodiac Aerospace has officially opened today its new seat assembly factory in Tianjin, PR China. The first economy class seats shipset, assembled in this facility, has been delivered to Hainan Airlines, a major mainland China Airline. Up to now, the facility was used by Zodiac Services to support its aftermarket activities in China. The new assembly line, operated by Zodiac Seats, is providing the capacity to deliver Chinese Airlines with economy class seats assembled locally. It was a strategic but obvious decision for Zodiac Seats to be present with the right infrastructure in China to support the highest traffic growth for the coming decades in the most adequate manner. The Grand Opening Ceremony occurred on Wednesday, July 31, 2013. Key airlines, aviation industry officials and government conglomerate were invited to a "rollout" ceremony. The day's activities started with official speeches followed by the ribbon cutting ceremony and a tour of the facility, before sharing a lunch reception to celebrate this new promising adventure for Zodiac Seats in China.

## **SUGGESTED READING**

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**Barabanov, Mikhail, Vasiliy Kashin, and Konstantin Makienko. *Shooting Star: China's Military Machine in the 21<sup>st</sup> Century*. Moscow: A Report by the Centre for Analysis of Strategies and Technologies (CAST). Published in the US by East View Press, 2012.**

**Cheung, Tai Ming. *Fortifying China: The Struggle to Build a Modern Defense Economy*. Cornell University Press, 2009.**

**Cliff, Roger, Chad J.R. Ohlandt, and David Yang. *Ready for Takeoff: China's Advancing Aerospace Industry*. RAND: National Security Research Division, Sponsored by the U.S.-China Economic and Security Review Commission, 2011.**

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**Easton, Ian. *The Chinese Invasion Threat*. Project 2049 Institute, 2017.**

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**Tsang, Steve, editor. *If China Attacks Taiwan: Military Strategy, Politics and Economics*. Routledge, 2006.**

**Williams, Alan. *Contemporary Issues Shaping China's Civil Aviation Policy*. Ashgate, 2009.**

**Wise, David. *Tiger Trap: America's Secret Spy War With China*. Houghton, Mifflin, Harcourt, 2011.**

**Wortzel, Larry M. *The Dragon Extends Its Reach: Chinese Military Power Goes Global*. Potomac Books, 2013.**

**Yong, Kwek Ping. *Due Diligence in China + Website: Beyond the Checklists*. Wiley Corporate F&A, 2013.**



## **EXHIBITIONS**

**Airshow China (Zhuhai Airshow/November - even years)**  
**[www.airshow.com.cn/en/](http://www.airshow.com.cn/en/)**

**Asian Business Aviation Conference and Exhibition (April/annual)**  
**<http://abace.aero/2014/>**

**Aviation Expo – China (Beijing/September - odd years)**  
**[www.beijingaviation.com/en/](http://www.beijingaviation.com/en/)**

**China Helicopter Exposition (Tianjin/September - odd years)**  
**[www.helicopter-china-expo.com](http://www.helicopter-china-expo.com)**

**China Civil Aviation Development Forum (Beijing/May – annual)**  
**[www.ccadf.cn](http://www.ccadf.cn)**

**China International Business Aviation Show (Beijing/September – even years)** **[www.cibas-beijing.com](http://www.cibas-beijing.com)**

**China International Defense Electronics Exhibition (Beijing/May - even years)** **[www.cidexshow.com.cn/en/](http://www.cidexshow.com.cn/en/)**

**China International General Aviation Convention (Xi'an/October – odd years)**

**Chinese Defense Information Equipment and Technology (September – odd years)**

**Drone World Congress (Shenzhen/Spring – odd years)**

**World Radar Fair (Beijing/October - odd years)**

## **ABOUT THE EDITOR**

**Wendell Minnick (顏文德), B.S., M.A., is an author, commentator, journalist and speaker who has spent two decades covering military and security issues in Asia. From 2000-2006 the author served as the Taiwan Correspondent for *Jane's Defence Weekly*. 2006-2016 as Asia Bureau Chief for *Defense News*.**

**Minnick has attended the China International Aviation and Aerospace Exhibition (Zhuhai Airshow) - 2006, 2010, 2012, 2014, 2016 (5x).**

**Minnick's first book, *Spies and Provocateurs: A Worldwide Encyclopedia of Persons Conducting Espionage and Covert Action, 1946-1991*, continues to be a benchmark for Cold War research on espionage 20 years after publication.**

**Periodicals include *Afghanistan Forum*, *Air Force Times*, *Army*, *Army Times*, *Asian Profile*, *Asian Thought and Society*, *Asia Times*, *BBC*, *C4ISR Journal*, *Chicago South Asia Newsletter*, *Defense News*, *Far Eastern Economic Review*, *International Peacekeeping*, *Jane's Airport Review*, *Jane's Asian Infrastructure*, *Jane's Defence Upgrades*, *Jane's Defence Weekly*, *Jane's Intelligence Review*, *Jane's Missiles and Rockets*, *Jane's Navy International*, *Japanese Journal of Religious Studies*, *Journal of Asian History*, *Journal of Chinese Religions*, *Journal of Oriental Studies*, *Journal of Political and Military Sociology*, *Journal of Security Administration*, *Journal of the American Academy of Religion*, *Kentucky Farmer*, *Marine Corps Times*, *Military Intelligence*, *Military Review*, *Nation Shield*, *National Interest*, *Navy Times*, *Pacific Affairs*, *Powerlifting USA*, *Shephard Media*, *South Asia In Review*, *Taipei Times*, *Towson State Journal of International Affairs*, and *The Writer*.**

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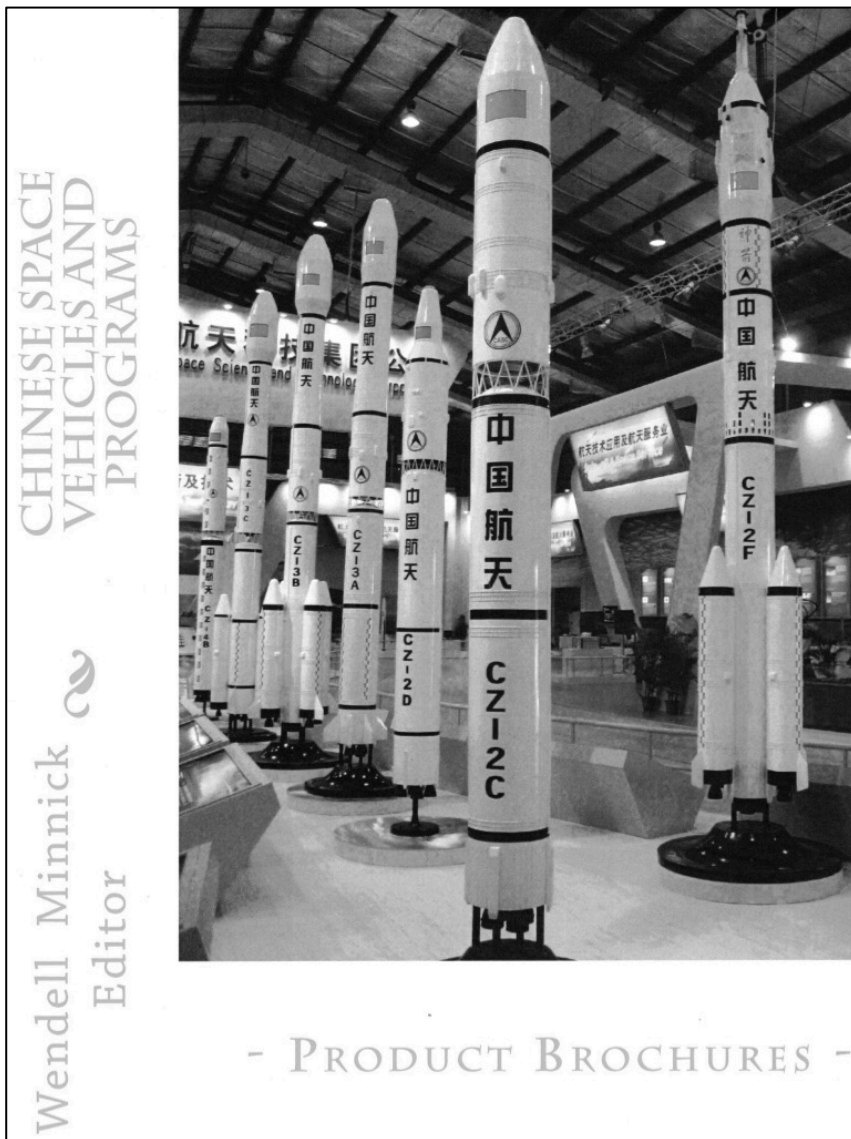
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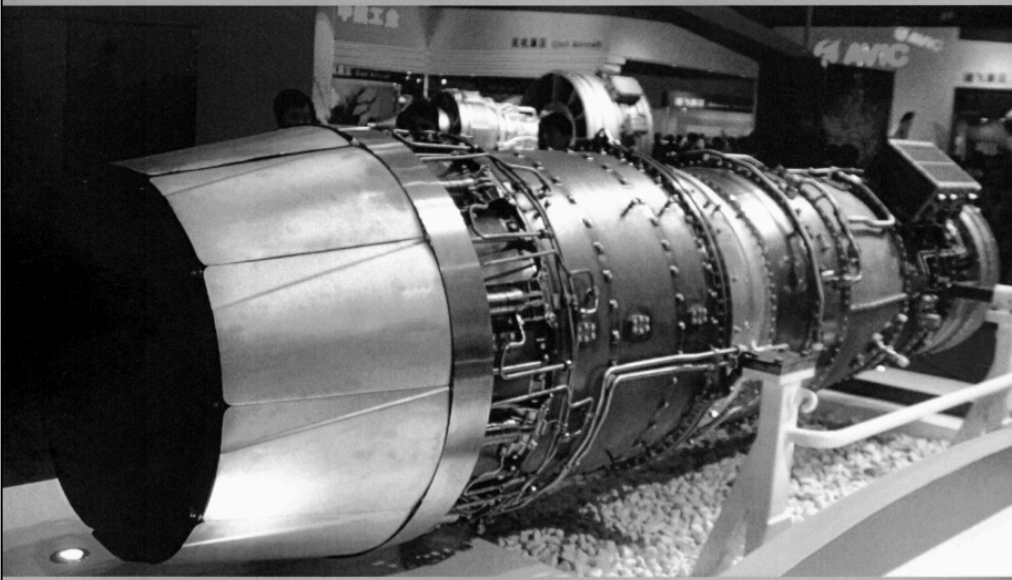
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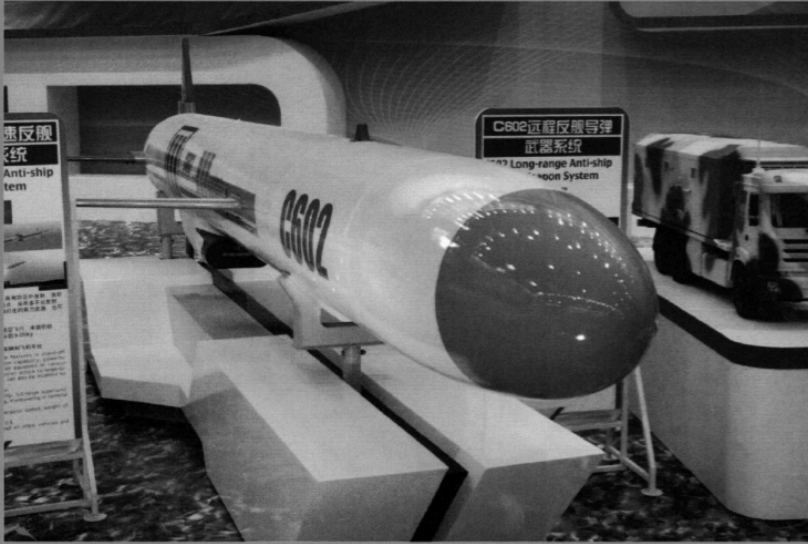
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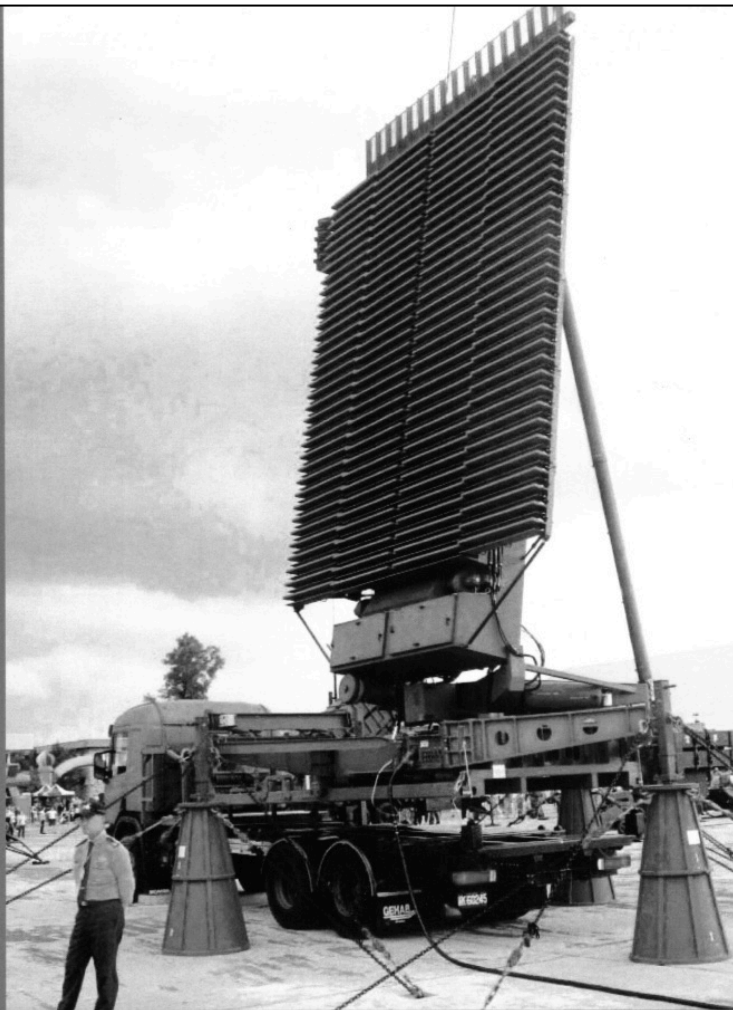
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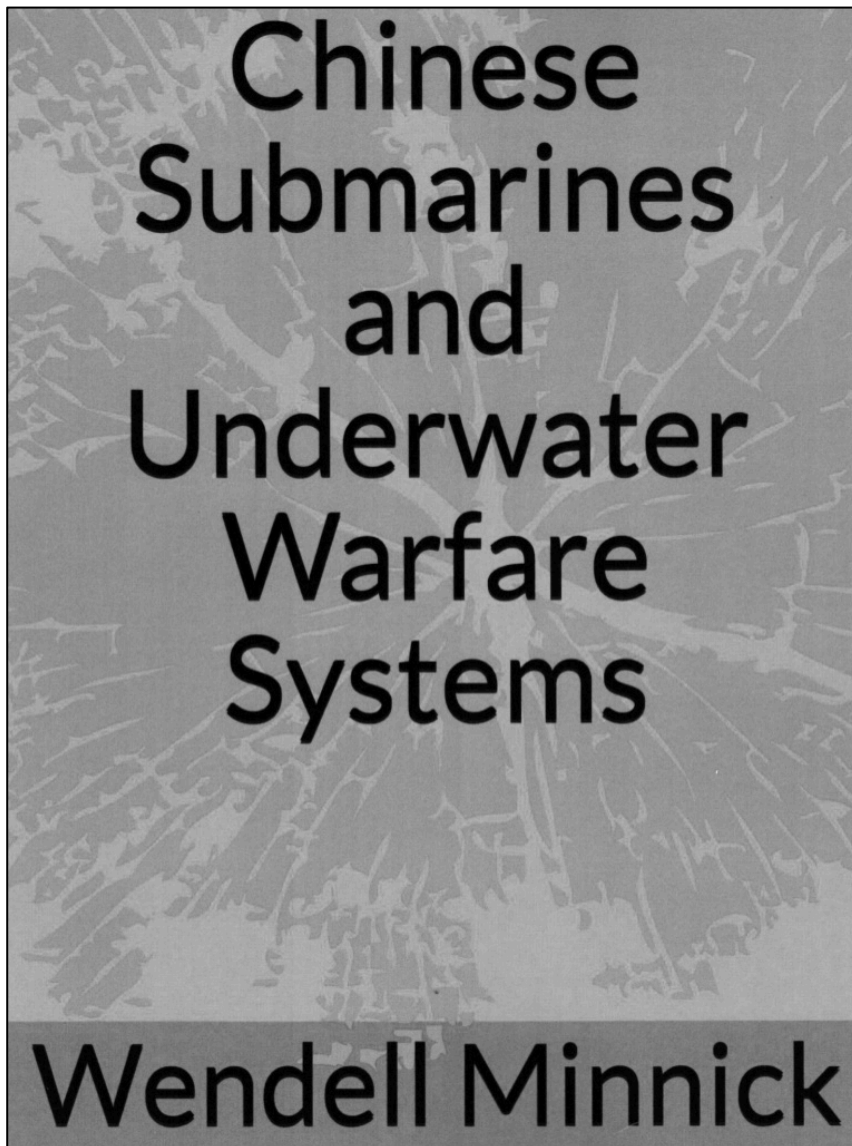


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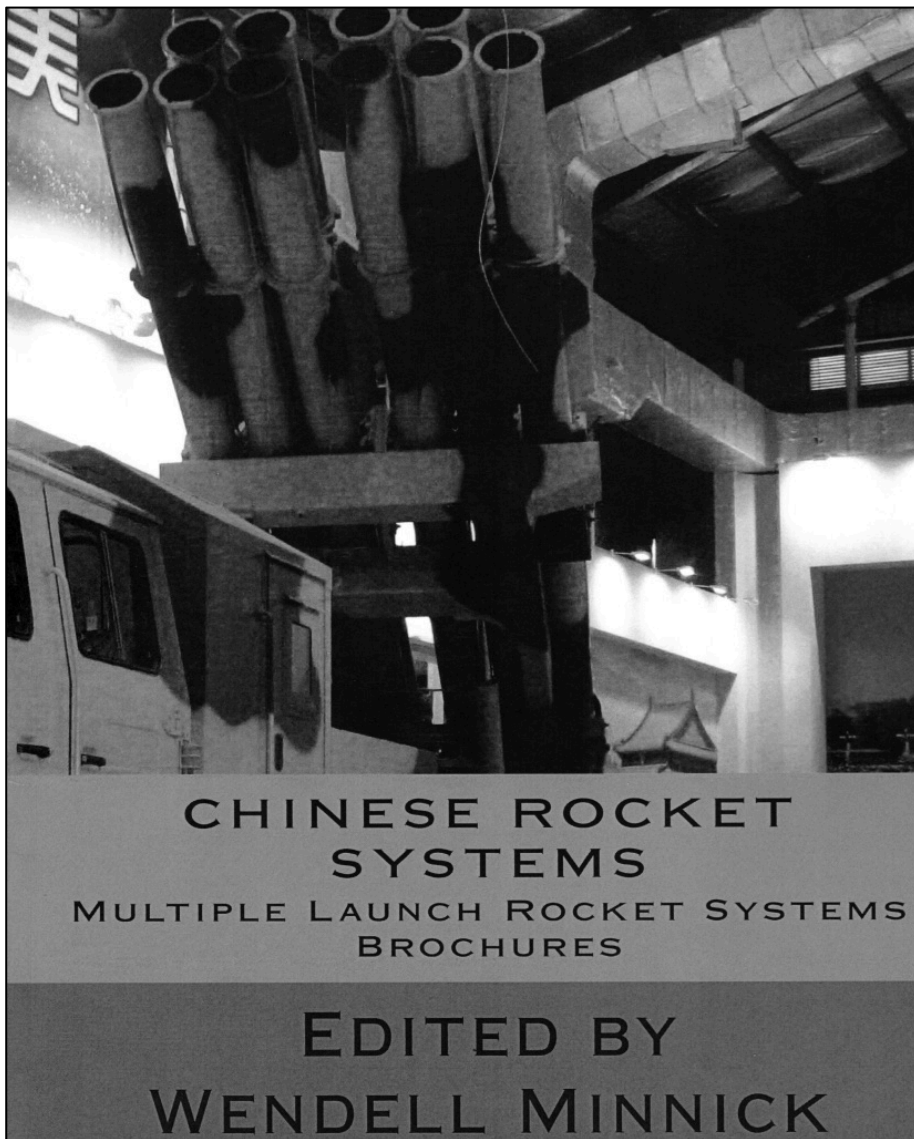
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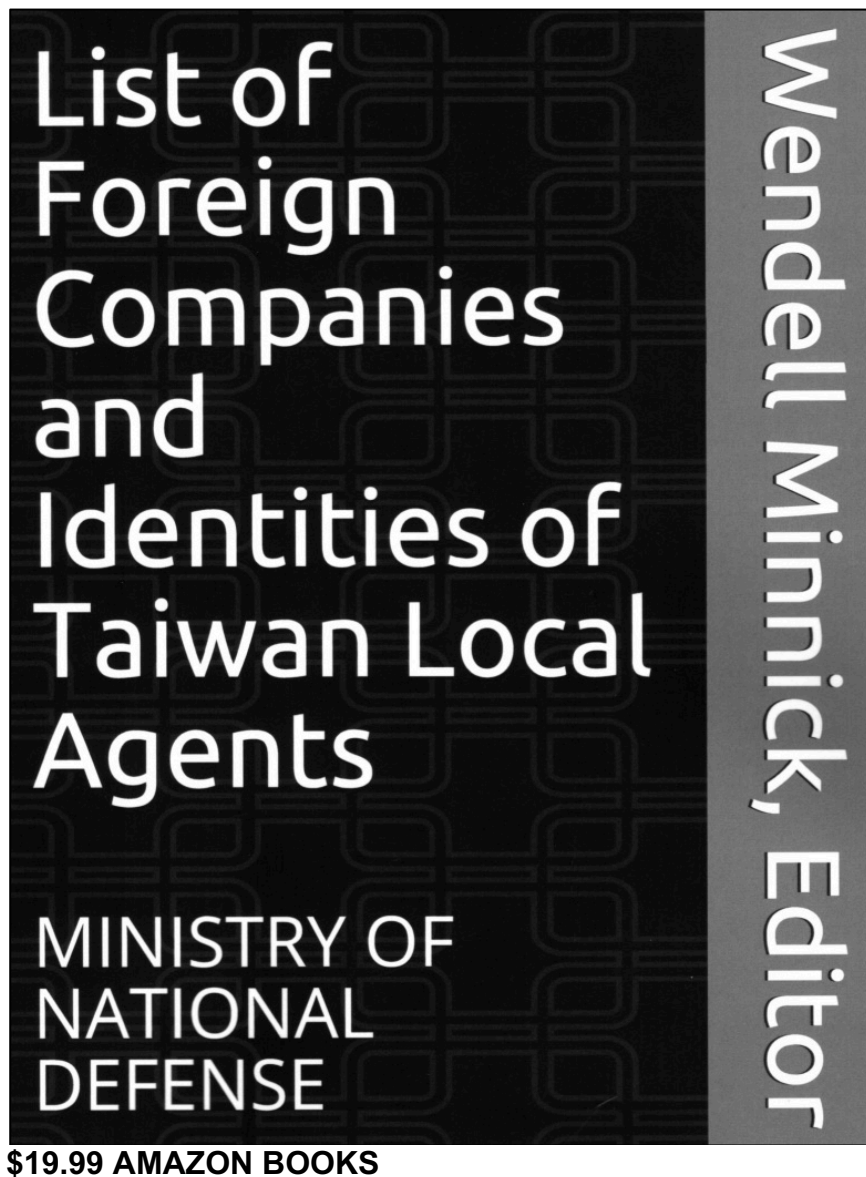
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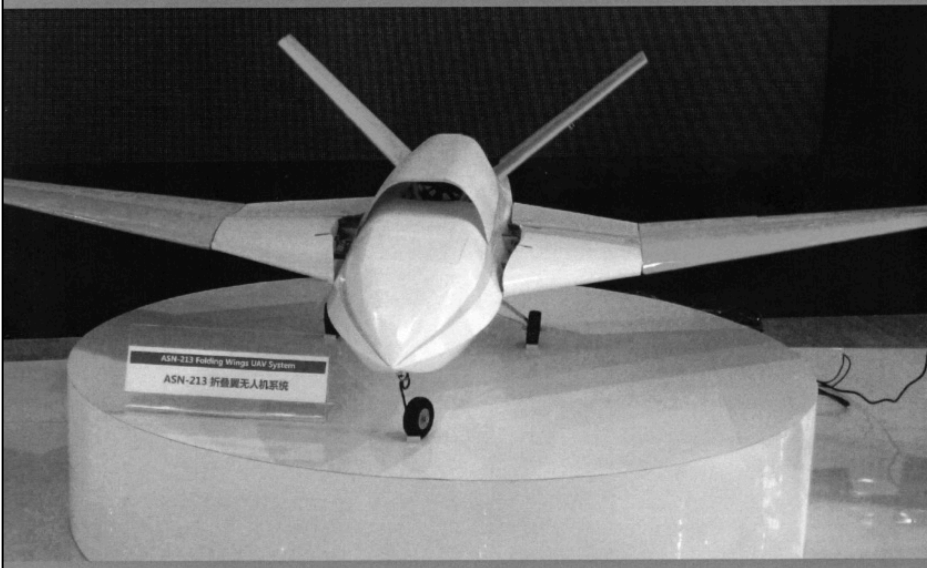
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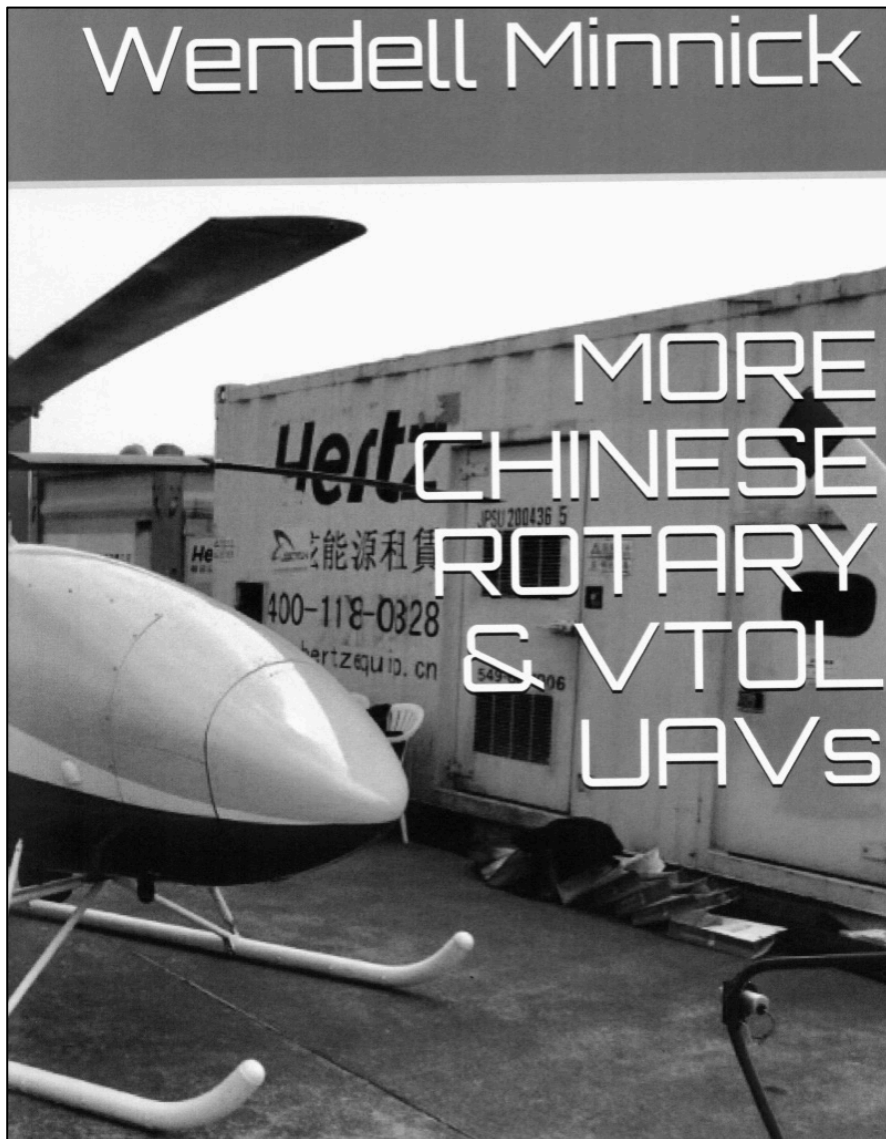
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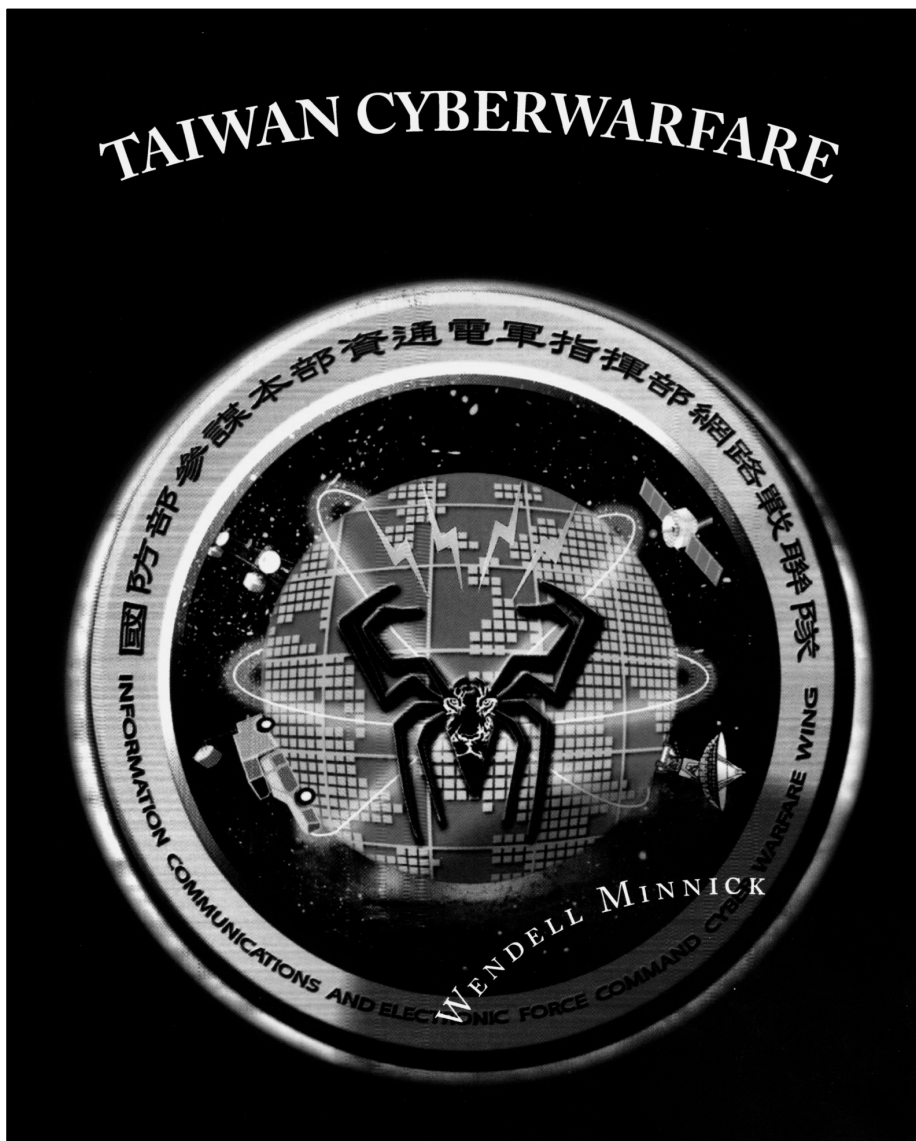
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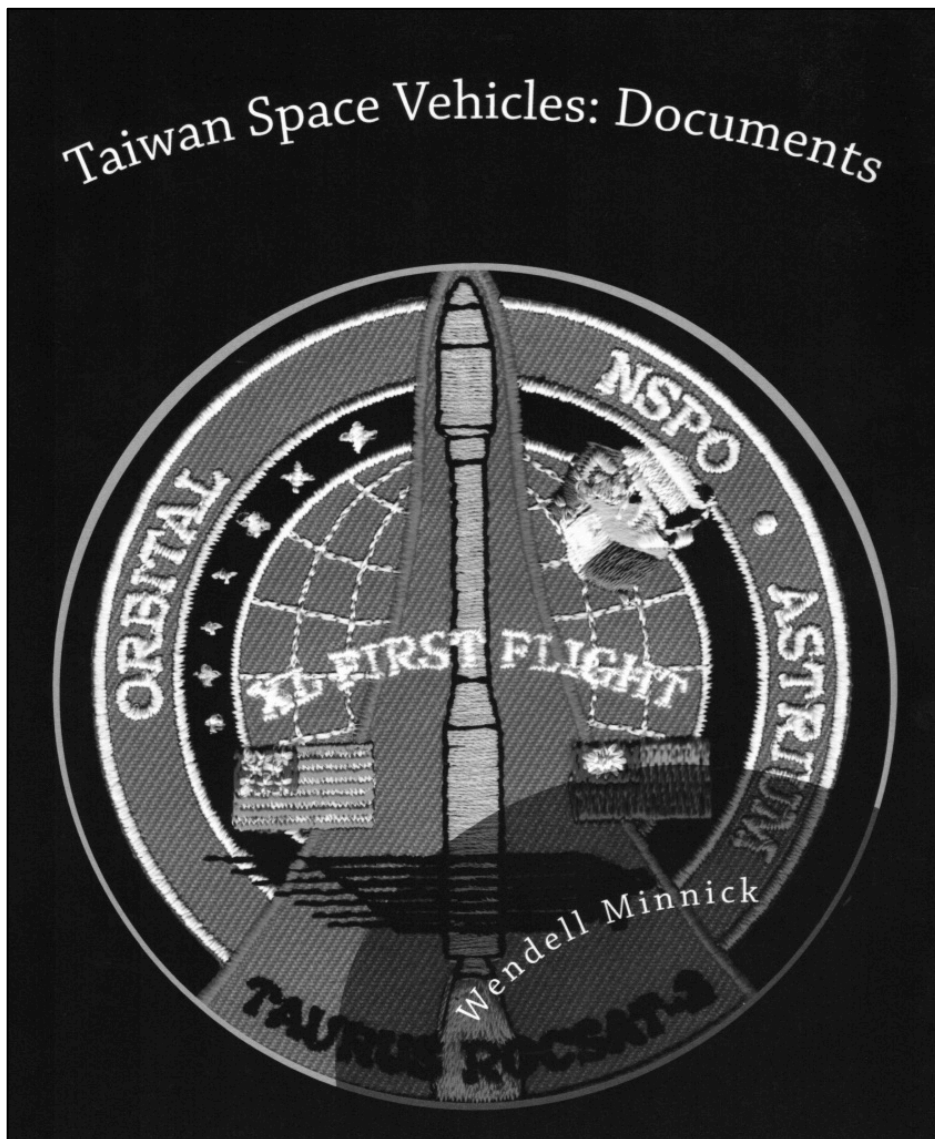
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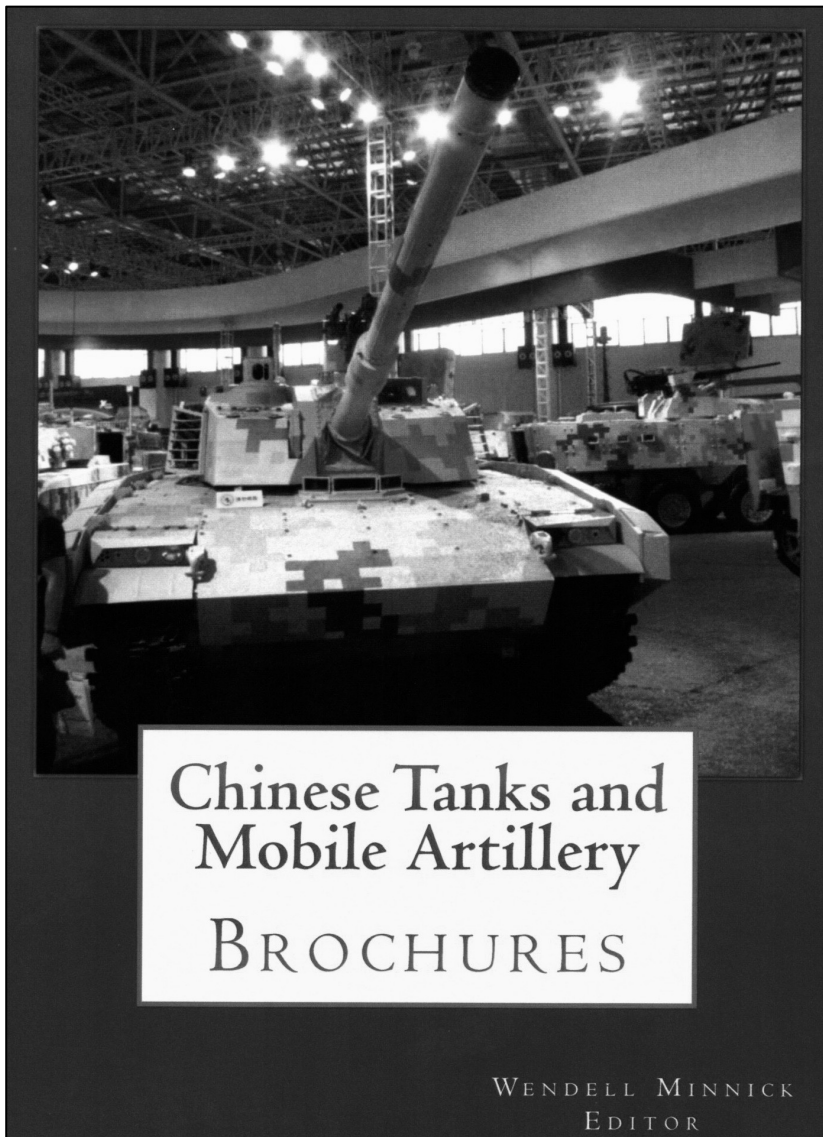


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