

CHINA'S STRATEGIC OBJECTIVES AT SEA

CHAPTER

THREE

China is changing rapidly from a land-oriented power to a hybrid land-sea power, reflecting its increasingly widespread interests. As its overall national power grows, Beijing faces mounting domestic and international pressure to safeguard these interests. China is incrementally trying to secure outstanding territorial and maritime claims in the Yellow, East and South China seas (the 'near seas'), while more slowly developing the capacity to protect its interests and increase its influence farther afield (the 'far seas').¹ The latest developments include multi-layered military operations in the near seas and enhanced operational capabilities beyond. As Beijing's interests, capabilities and forces continue to radiate outward, consolidate and integrate, China's naval and other maritime forces' ability to sustain high-intensity combat under increasingly contested and uncertain conditions, at ever-greater distances from the mainland, is likely to advance. Creating true combat capabilities against other major navies in the far seas is challenging, however, and will require considerable focus, resources, effort and time.

HIERARCHY OF NATIONAL-SECURITY AND MARITIME PRIORITIES

China's maritime strategy is part of an evolving hierarchy of national-security priorities, led by regime survival, and followed by domestic legitimacy and stability in core Han-dominated areas.² A tertiary concern is firm control of Han-minority or -plurality border areas. These are underpinned by Beijing's foreign policy and defence strategy, which continue to centre on the principal goals important to Communist Party of China legitimacy of political continuity, territorial integrity and sovereignty as defined by party narratives, domestic and regional stability, prosperity and prestige. Since the end of the Cold War,

success with respect to internal land-based objectives has allowed a more intense focus on Taiwan and other unresolved claims in the near seas. Meanwhile, Beijing's broader near-seas strategy, most clearly seen in the South China Sea, includes pressing disputed claims where possible (for example, Scarborough Shoal), delaying the resolution of more intractable sovereignty disputes (such as regarding the Spratly features occupied by others) and coercing potential opponents while limiting escalation.³

Until the end of the last century, Beijing's strategic goals and the available means to pursue them necessitated a relatively selective defence and foreign-policy agenda, which permitted China to maintain a low profile internationally and focus on domestic development. Now, however, Beijing's burgeoning interests are giving rise to increasingly diverse challenges for the government. China's need for popular legitimacy amid rising domestic expectations and a slowing economy may incentivise assertiveness even in the face of neighbouring countries' own strategic extroversion. At the same time, Chinese citizens, businesses, assets and investments are proliferating overseas, particularly in unstable areas. Although precise figures remain unavailable even to Beijing, the number of Chinese citizens living or working abroad is large and growing. For example, civil war forced China to evacuate almost 36,000 Chinese nationals from Libya in spring 2011.⁴

In addition, China's rapidly growing economy, which remains manufacturing-focused and energy-intensive, requires tremendous imports of natural resources. Growing demand for resources and access to them, as well as pricing instability and possible scarcity, pose further challenges to China. For example, the country's oil imports accounted for 60% of its supply in 2015, of which 83% transited the

Malacca Strait and the South China Sea. If demand keeps rising, oil-import dependency will probably increase further as domestic crude-oil production begins to decline, potentially reaching 80% of China's supply by 2035.⁵ China's reliance on Middle Eastern energy is growing as the United States' is decreasing. Land-based pipelines cannot offset China's seaborne crude-oil-import volumes, and are vulnerable to sabotage and precision strike.⁶ This dependency, and that on imports of other natural resources and strategic commodities such as soybeans, imposes a premium on secure sea lanes in the Indo-Asia-Pacific.

Beijing could attempt to address its expanding overseas interests while minimising foreign opposition by enhancing the country's capacity to use international law and diplomacy, as well as by using its armed forces to both protect its citizens and offer such public goods such as disaster relief.⁷ For example, some Chinese public intellectuals view such non-traditional security issues as terrorism, piracy and the environment as offering potential for enhanced Sino-American cooperation.⁸ Some Chinese scholars and analysts suggest that Beijing should make greater contributions to the current international system, improve its image as a responsible power and gradually enhance China's role as a burden-sharer and rule-shaper.⁹ However, Chinese President Xi Jinping favours more assertive, ambitious, wide-ranging approaches. His vigorous



China's Liaoning aircraft carrier with Shenyang J-15 fighters and helicopters takes part in a training exercise in the South China Sea, December 2016

leadership and apparent use of high-level People's Liberation Army (PLA) corruption investigations to engineer a mandate for change are propelling major new developments in China, including the largest reorganisation in modern Chinese military history.¹⁰ In particular, Xi places special emphasis on ensuring China's ability to wage and win modern conflicts at all levels, stressing that 'combat effectiveness is the only fundamental standard'.¹¹

Significantly, for the first time in its history, Beijing is now willing and able to focus consistently on developing its sea power. This is reflected in the maritime content in the latest edition of China's most authoritative and comprehensive national planning document, the Five-Year Plan. The 13th edition (covering 2016–

Map 3.1: China's strategic maritime environment and oil-supply routes



Source: IISS

NEAR-SEAS EFFORTS REMAIN AT THE CORE OF CHINA'S MILITARY STRATEGY TO ASSERT GREATER CONTROL OVER SOVEREIGNTY CLAIMS



A J-15 fighter prepares to take off from the deck of the Liaoning aircraft carrier during naval exercises in the Bohai Sea, off China's northeast coast, December 2016

20) directs that China should build itself into a great 'maritime power', further develop marine resources, strengthen near-seas forces and overseas-interests protection, and promote China's '21st Century Maritime Silk Road'.¹² China's increasing overseas defence and security activities reflect this mandate, and geographically and operationally, naval and other maritime-security force activities are leading the way.

AUTHORITATIVE SOURCES OUTLINE MARITIME STRATEGY

Important recently released doctrinal sources reveal that China's leadership under Xi is placing unprecedented emphasis on Beijing's increasingly complex, far-ranging maritime interests and operations to sustain them, and therefore on maritime-force development, integration and utilisation across a wide range of peacetime and wartime contingencies. The PLA is charged with safeguarding these interests through a comprehensive approach emphasising the armed forces' peacetime maritime presence and posture as well as their combat readiness.¹³

Two sources are particularly relevant. Firstly, Beijing's 2015 defence white paper, 'China's Military Strategy', stresses the imperative of safeguarding 'critical' domains – namely 'seas and oceans', 'outer space', 'cyberspace' and 'nuclear forces'.¹⁴ The white paper also declares that the 'traditional mentality that land outweighs sea must be abandoned' and that 'great importance has to be attached to managing the seas and oceans and protecting maritime rights and interests'.¹⁵ The white paper conveys China's new classified 'Military Strategic Guideline', which stresses 'winning informatised local wars' amid accelerated worldwide use of advanced long-range precision weapons.¹⁶

Secondly, according to the 2013 version of the occasionally updated strategy textbook *Science of Military Strategy*, which is issued by the PLA's centre for strategy analysis, China's southern and eastern

maritime approaches are the most likely geographic axes along which maritime conflicts may occur.¹⁷ Given this near-seas context for potential conflicts, the 2015 defence white paper emphasises the need to prepare for a full spectrum of maritime operations from peacetime to wartime. To operationalise such efforts, the document stresses a comprehensive approach, incorporating both traditional and non-traditional security measures, peacetime pressure on rival claimants to disputed features and maritime zones, and combat readiness. It also highlights crisis management, 'active defence' and coordinated joint operations between the services.

However, while near-seas efforts remain at the core of China's military strategy to assert greater control over sovereignty claims there, the white paper also calls for the gradual development of a geographically diffused outer layer of capabilities. This would ensure that Beijing could safeguard growing national interests by influencing events in a panoply of overseas areas and reach out to address emergency situations virtually anywhere.¹⁸ In the maritime realm, this takes the form of a blue-water navy with growing power-projection capabilities. As the *Science*



A Chinese Type-056A Jingdao II-class corvette launches a missile during a military exercise near China's Hainan Island, 8 July 2016

of *Military Strategy* explains, China's national interests now transcend the country's territorial seas and include distant waters, space and the electromagnetic realm.¹⁹ Accordingly, for the first time ever, the white paper tasks the PLA Navy (PLAN) with adopting a new two-part naval strategy involving 'the combination of "near seas defense" and "far seas protection"'.²⁰ The *Science of Military Strategy* elaborates on this doctrinal evolution, stating that 'defense' means resisting enemy attacks, while 'protection' encompasses a much larger range of contingencies, including the protection of Chinese-owned ships and assets far from China.²¹ This reference to more distant maritime interests is part of an emerging zone of focus for the PLAN that centres on the 'Western Pacific Ocean' and the 'Northern Indian Ocean' – beyond the first island chain – as well as surrounding sea areas, which together comprise more than two-thirds of the world's oceanic space.

In terms of potential Chinese interests that could influence far-seas missions, the *Science of Military Strategy* singles out sea-lane protection as a key mission. It notes that sea lanes are 'the "lifeline" of China's economic and social development' and that being able to protect them will burnish Beijing's credentials as a generous public-goods provider and bolster China's 'voice and influence in international maritime security affairs'.²² This mission remains largely aspirational because, as the strategy document itself acknowledges, the PLAN does not yet have the capacity to sustain high-intensity combat missions far from home. Yet the goal itself is important because the rising emphasis on combat capabilities beyond China's littoral provides support for proponents of a more muscular navy and provides a reason for additional PLAN platform modernisation and training.

HIGH-LOW EXECUTION WITH THREE SEA FORCES

To fulfil its maritime objectives, China is developing, deploying and utilising three principal forces. Already the world's second-largest navy, the PLAN is on track to become the second-most capable. From 1985 to 2005 the navy shrank from a sprawling outmoded fleet, in large part by shedding obsolete missile patrol craft and diesel attack submarines, to a smaller force of increasing quality and capability (see Table 3.1). Subsequently, the PLAN has further improved by both measures. The China Coast Guard, the world's largest civil maritime force, already dwarfs the combined coastguards of its regional neighbours and is continuing to grow rapidly in size and sophistication of both equipment and the subset of advanced personnel.²³ Finally, China possesses the world's largest, and virtually the only offensively

ALREADY THE WORLD'S SECOND-LARGEST NAVY, THE PEOPLE'S LIBERATION ARMY NAVY IS ON TRACK TO BECOME THE SECOND-MOST CAPABLE

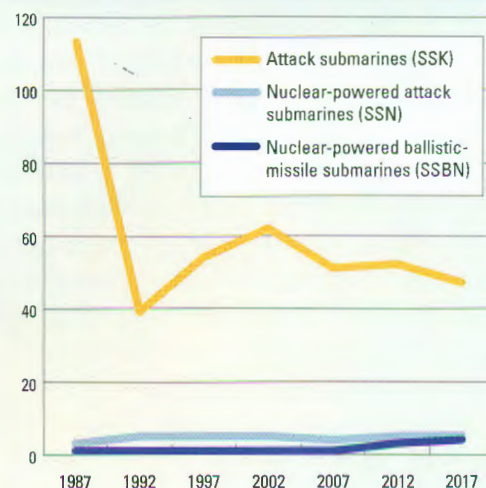
focused, maritime militia force.²⁴ The 2015 defence white paper envisions these three forces collaborating within the framework of a 'combined, multi-functional and efficient marine combat force structure'.²⁵

The critical dynamics of China's maritime-force development and deployment may be described as a 'high-low' approach, offering extra rungs on the escalation ladder. Beijing's vision appears twofold. Firstly, within deterrence relationships, it seeks to persuade its potential opponents that in a crisis or outright conflict it would have far more fine-tuned and credible responses available, particularly at the level of advanced conventional strike.²⁶ Secondly, in peacetime, it seeks to 'salami slice' at disputed claims at just below the level that would trigger determined foreign intervention or pushback.

High end: near-seas counter-intervention

At the high end, China is developing and deploying powerful counter-intervention capabilities, designed to impose prohibitive costs on US and allied forces in a worst-case-scenario regional contingency, such

Figure 3.1: PLAN submarine fleet, 1987–2017



Source: IISS

Table 3.1: People's Liberation Army Navy fleet, 1987–2017

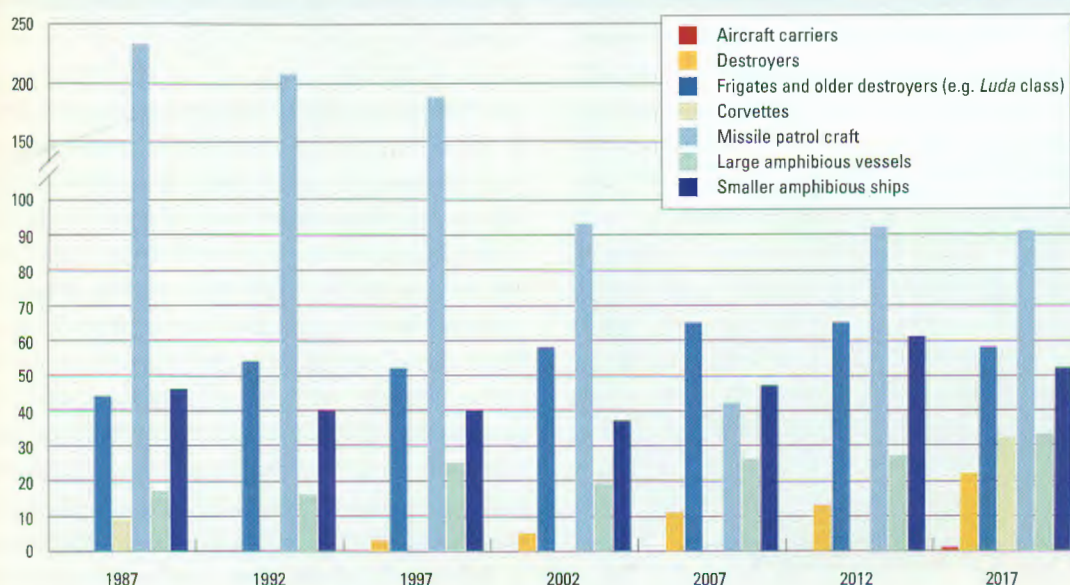
	1987	1992	1997	2002	2007	2012	2017
Submarines							
Nuclear-powered ballistic-missile submarines	1	1	1	1	1	3	4
Nuclear-powered attack submarines	3	5	5	5	4	5	5
Attack submarines	113	39	54	62	51	52	47
Total	117	45	60	68	56	60	56
Surface vessels							
Aircraft carriers	0	0	0	0	0	0	1
Destroyers	0	0	3	5	11	13	22
Frigates and older destroyers (e.g. <i>Luda</i> class)	44	54	52	58	65	65	58
Corvettes	9	0	0	0	0	0	32
Missile patrol craft	233	207	188	93	42	92	91
Large amphibious vessels	17	16	25	19	26	27	33
Smaller amphibious ships	46	40	40	37	47	61	52
Total	349	317	308	212	191	258	289
Total vessels	466	362	368	280	247	318	345

Source: IISS

as a conflict concerning Taiwan. This accords with its doctrinal emphasis on presenting a deterrent to promote its objectives in peacetime and, failing that, using 'active defence' (the ability to deny opponents a given area without controlling it oneself) to force potential adversaries to operate farther from Chinese shores, thereby winning 'Local War under Informatized Conditions'.²⁷ As the *Science of Military Strategy* emphasises, the likelihood of intervention by 'the powerful enemy' (the US) 'depends upon his

trade-off [analysis] between war risks and costs'.²⁸ Accordingly, Chinese strategists believe that when confronting foreign maritime threats they must take a sequential approach that calls for 'controlling seas by relying on land, and controlling oceans by using seas'.²⁹ This is part of an ongoing effort by Beijing to create a strategic buffer by planning to engage adversaries as far from the mainland as possible to prevent enemy operations from trapping the PLAN in the near seas.

Figure 3.2: People's Liberation Army Navy surface fleet, 1987–2017



Source: IISS

This counter-intervention strategy is helping to drive China's emphasis on the development and deployment of submarines, long-range aircraft like its *Flanker* derivatives and the new Chengdu J-20 heavy fighter, and cruise and ballistic missiles, including the anti-ship variety. In addition, Beijing's intention to create a forward line of defence – as articulated in the *Science of Military Strategy* – and gain the initiative in shaping events before and during a potential conflict also probably helps to motivate Beijing's campaign to reclaim features and augment multiple reefs in the South China Sea and build military infrastructure on them.

Collectively, these counter-intervention efforts comprise China's traditional active-defence strategy. This mission requires defensive and offensive measures to deter enemy intervention by nuclear and asymmetric conventional means, safeguard resources, defend major wartime sea lines of communication (SLOCs) and uphold sovereignty claims (for example, to Taiwan). For the PLAN, near-seas active defence requires at minimum being able to hold enemy forces at risk within certain parts of the near seas and their immediate approaches, and ideally to hold opposing forces at risk throughout China's immediate periphery.³⁰

While China has made fast progress over the past two decades in implementing its ongoing core focus on traditional active defence, the authors of the *Science of Military Strategy* highlight several key areas for further improvement. They include offensive operations, a sea-based nuclear component, and command, control, communications, computers, intelligence, surveillance and reconnaissance (C4ISR) capabilities. The document charges the PLAN with extending 'key information awareness nodes' outward, and improving networking information systems and data fusion.³¹ This is probably a reference to space- and aerospace-based C4ISR platforms, as compared with the prior era of modern military history when sensing platforms were almost exclusively on land and at sea.

Chinese military doctrine also holds that 'future maritime local wars must rely on offensive operations to win the initiative and strive for victory'.³² Significantly, analysts from China's Academy of Military Science believe that acting first confers significant advantages, and emphasise submarine-led blockades, maritime joint-strike operations, airstrikes and the use of special-operations forces to conduct infiltration and sabotage missions.³³ The 2015 defence white paper is apparently referring to such efforts in its directive to 'enrich the strategic concept of active defense'.³⁴

Furthermore, China's active-defence efforts are bolstered by the PLAN's nuclear-deterrence and

ADDING A SEA LEG TO CHINA'S NUCLEAR DETERRENT IS DIFFICULT TECHNOLOGICALLY, AND ENTAILS OPERATIONAL COMPLEXITIES AND DETECTION RISKS

counter-attack mission. As the *Science of Military Strategy* explains, the PLAN must develop and maintain a seaborne nuclear-deterrent capability to 'actively carry out nuclear deterrence and nuclear counterattack missions'.³⁵ This remains a work in progress, with China concerned about the noise of its nuclear-powered submarines³⁶ and the capabilities of US and allied ballistic-missile-defence systems.³⁷ Adding a sea leg to China's nuclear deterrent is difficult technologically, and entails operational complexities and detection risks that the large, well-established PLA Rocket Force does not face on land. Nevertheless, developing such a dyad offers at least the theoretical prospect of achieving further redundancy and the ability to stress US ballistic-missile defences in new ways. In October 2015, then-commander of US Strategic Command Admiral Cecil Haney stated that he had to 'assume' that China's Type-094 nuclear-powered ballistic-missile submarines (SSBNs) are conducting deterrence patrols 'when they go out to sea'.³⁸ To connect its deterrence and counter-attack components effectively, China may continue to strengthen and integrate its C4ISR capability.

Low end: near-seas grey zone and far-seas protection

In peacetime, China is engaged in joint-service maritime activities in the near seas and low-intensity naval operations in the far seas. In the near seas, China's three sea forces increasingly operate together, with maritime militia and coastguard forces deployed forward, supported by PLAN forces. These are so-called 'grey zone' operations, wherein Beijing employs paramilitary forces as unobtrusively as possible to alter the status quo with respect to outstanding regional maritime claims in its favour without triggering armed conflict. The coastguard and militia afford the Chinese government the option of coercing rival claimants without resorting to conventional warfare. In recent years, the two forces have been involved in significant international mari-



PLAN hospital ship Peace Ark takes an emergency-response crew to the Philippines after Typhoon Haiyan, 22 June 2013

BEYOND THE NEAR SEAS, CHINA IS IMPLEMENTING THE OUTER LAYER OF ITS TWO-LAYER STRATEGY, USING NON-TRADITIONAL SECURITY MISSIONS TO SUPPORT 'STRATEGIC PREPOSITIONING'

time incidents in which their actions appeared to be closely coordinated with the PLAN, and which naval officers appeared to monitor carefully and perhaps even direct in a capacity that US government reports termed 'overwatch'.³⁹

The PLAN would typically lead and coordinate any joint maritime-security activity. The coordination aspect is especially important. By integrating the PLAN, coastguard and maritime militia, China's leadership is seemingly creating a unique capacity for exerting substantial coercive force to shape facts in the sea, while maintaining a high degree of ambiguity and plausible deniability that allows considerable latitude for diplomatic and political manoeuvring. In that respect, such close coordination between the naval, para-naval and irregular maritime forces aligns closely with the *Science of Military Strategy's* position that 'integrated joint operations are the foundation for forming systemic advantages in maritime local wars and are the primary form of the Navy's operations in the near seas'.⁴⁰

Beyond the near seas, China is implementing the outer layer of its two-layer strategy, using non-traditional security missions to support 'strategic prepositioning' in the form of enhanced overseas access and logistics points. Such missions span a wide spectrum and include an anti-piracy deployment in the Gulf of Aden that the PLAN has sustained for approximately eight years, Mekong River security patrols since 2011, the 2011 Libya non-combatant evacuation operation that was supported by the PLAN and the PLA Air Force, and the PLAN's evacuation of nearly 600 Chinese and 225 foreign nationals from Yemen in 2015.

Although these missions have taught China's maritime forces valuable operational lessons, they have not demonstrated a capacity to engage in major combat operations far from China. Chinese strategists are determined to make further progress; specifically, to push the potential point of battle to a safer distance from China's immediate maritime periphery and,

more generally, to safeguard China's burgeoning overseas interests.⁴¹ To maximise operational depth, the *Science of Military Strategy* calls for an integrated approach 'organically linking the three strategic areas of coastal mainland, near seas and far seas'⁴² in a seamless, mutually reinforcing fashion wherein operational progress in each can relieve pressure on Chinese forces in the other. Under this concept, the PLAN aims to be able to conduct 'a variety of simultaneous or alternating patterns of warfighting' in the near seas, and 'relatively independent operations under conditions of joint operations, highlighting the use of submarines and long-range air assaults focused on striking the enemy's important nodes and high value targets' in the far seas.⁴³

Enhancing far-seas operations

Waging major combat operations far from China will depend on mastering the variants of sea and air control, without the land-based redundancy and workarounds applicable to China's more immediate periphery. The PLA would need to effect a broader transformation from the traditional active-defence strategy to more comprehensive manoeuvre warfare



The 20th PLAN anti-piracy escort task force departs for the Gulf of Aden to relieve the 19th escort task force, 3 April 2015

Table 3.2: Comparison of regional far-seas navies: major ships, 2017

Vessel type	China	India	Japan	United States (total US Navy fleet)
Nuclear-powered ballistic-missile submarines	4	0	0	14
Nuclear-powered attack submarines	5	1	0	55
Attack submarines	47	13	19	0
Aircraft carriers	1	1	0	10
Helicopter carriers	0	0	4	0
Cruisers	0	0	2	23
Destroyers	22	14	32	62
Frigates	58	13	9	8
Large amphibious ships	33	6	3	33
Auxiliary replenishment vessels	11	3	5	18

Source: IISS

akin to the United States' development of network-centric warfare to support blue-water operations.⁴⁴ Chinese sources describe the effort to enable such warfare as integrated 'information systems-based system of systems operations' (ISSO).⁴⁵ This concept was first endorsed by then-president Hu Jintao in 2005, but 'not fully articulated and operationalized by PLA strategists until after early 2010'.⁴⁶ ISSO is part of a larger effort to transform the PLAN into a US-style navy capable of waging forward, high-end operations.

As part of its overall reorganisation, Xi has charged the PLAN with improving the structure and efficiency of its commands and forces to optimise them for future naval-warfare requirements. The navy's organisation is mandated to shift from a service-based to a mission-based structure, with new combat and support forces developed and special-operations and amphibious forces expanded. This emerging mission-centric focus and its operational concepts are beginning to manifest themselves publicly, starting with the country's high-profile aircraft-carrier programme. Describing carrier groups as 'a strategic "fist" for mobile operations at sea', the *Science of Military Strategy* states that 'the Navy's developmental focus will be placed on large and medium surface combatants with aircraft carriers as the core'.⁴⁷ The goal is to create 'a three-dimensional strike capability that combines undersea, surface, and aerospace, and long, intermediate, and close ranges'.⁴⁸ Some leading PLA thinkers believe carrier groups can 'form maritime operations systems' to fill strategic space in multiple domains through ISSO.⁴⁹

In contrast to these ambitions, most distant Chinese maritime operations to date have involved skill sets that differ substantively from, and hence are not readily transferrable to, joint and integrated high-intensity firepower operations. Modest naval

deployments have helped the PLAN master basic tasks, including seamanship, navigation, formation keeping, command and control, sector monitoring, and search and rescue, but low-intensity, out-of-area operations do not translate into an ability to engage in major combat operations there. The barriers to creating such capabilities are formidable and require strategic focus, resources and time. To be capable of credibly conducting distant, high-intensity maritime-combat operations, the PLAN would need to be able to conduct force protection and sustainment, coordination, and anti-submarine warfare (ASW) and air defence.

With respect to force protection and sustainment, a major challenge to projecting power is the 'tyranny of distance'.⁵⁰ To cover greater geographic areas while fulfilling existing missions, China would need to bring more major ships into service. Nevertheless, qualitative improvement has already been rapid. Examples include radar (for example, active electronically scanned array/AESA) and other technology (such as the universal vertical-launch system/VLS, which enables the firing of both anti-ship missiles (AShMs) and land-attack cruise missiles). In addition, gradually increasing deployments to distant areas are slowly raising mission familiarity and readiness. A related difficulty is sustaining missions of extended duration. Driven in part by its Gulf of Aden experience, China is already developing logistic support for long-duration operations. A network of China Ocean Shipping Company suppliers and husbanding agents has facilitated resupply in foreign ports.⁵¹ The PLAN has also made substantial progress in fruit and vegetable preservation and the generation of potable water.⁵² Stocks are better managed, and less perishable Western food supplies have even been considered. Supporting longer-range operations would further require additional high-speed oilers



and replenishment ships, which China's shipbuilding industry has already started to construct and has the capacity to build faster if required.⁵³

The establishment of overseas military bases is an option for equipping, servicing and other support beyond replenishment, but one that imposes high political costs and risks of operational vulnerability. One solution could be overseas-facilities access, which Beijing is already realising to a modest degree in seeking to use neutral ports – for instance, in the Indian Ocean and Gulf of Aden – to facilitate supplying the PLAN. Through Chinese port development in the Indian Ocean region, efforts are under way to 'strengthen construction of large and medium sized ports and core airports focusing on strategic home ports to fulfil the stationing, mooring, and supply needs of carriers, strategic nuclear submarines, and heavy destroyer-escort formations'.⁵⁴ Although China is also developing naval-supply hubs, most notably in Djibouti,⁵⁵ Beijing's enduring non-interference policies will likely constrain the acquisition of US-style bases for the foreseeable future.

To better support extended operations, China could develop the ability to conduct sophisticated ship repairs remotely, either through tenders or overseas repair facilities. It has already made significant advances in its previously substandard maintenance culture.⁵⁶ Looking ahead, if China wished to maintain a limited posture focused on day-to-day operations in peacetime or simply the ability to participate in non-traditional security operations, it would not need tenders;⁵⁷ any ship needing sophisticated repairs could be sent back to China. However, tenders would be required to conduct significant blue-water SLOC security missions unless the PLAN deployed technicians on ships, obtained access to technologically sophisticated port facilities or both. For example, the US Navy possesses two submarine tenders based in Guam because of its large forward presence and a requirement to conduct a full range of fleet combat operations (although it has retired its destroyer

tenders and conducts most overseas repairs in host-nation shipyards, such as Yokosuka in Japan). An extensive global infrastructure supported by dozens of negotiated agreements also allows the US armed forces to move ship parts around the world. China would presumably require a comparable network to support similar levels and types of naval operations, as well as a much-increased operations budget.

Foreign navies have pioneered other approaches to far-seas resupply and maintenance that China could consider. Developing 'service squadrons', for instance, is technologically and politically feasible. In contrast, the stopgap Soviet practice of anchoring tender and supply ships just outside other states' territorial waters could damage the benign political image that Beijing attempts to project, although this solution could be employed when absolutely necessary. Far less likely in the foreseeable future is China's adoption of two other foreign approaches. Swapping crews instead of ships is risky because personnel confront an operational learning curve; instead, China could use its capable shipbuilding industry to build more vessels. Of course, any significant surge seaward would impose mounting costs from construction, operations, maintenance and upgrading.

Meanwhile, to facilitate detecting, reporting and directing activities over the Pacific and Indian oceans, China is developing an increasingly complete, integrated C4ISR network.⁵⁸ Ground-based ISR systems (radar, electronic surveillance, automatic-identification-system stations) as well as sea-based ones can provide continuous and accurate surveillance up to 180–200 kilometres from shore.⁵⁹ Farther out, though, ship-based sensors, and air- and space-based systems, would be needed. In any case, utilising technical intelligence to coordinate forces and operations is still a conspicuous PLA weakness. The premium on Communist Party control of the armed forces and medium- and long-term policy implementation apparently hinder real-time crisis

management, decision-making and joint-military-operations capacity. Sudden breakthroughs are therefore unlikely in the near term.

However, for the homeland and near-seas contingencies that are of most concern to Beijing, the need for joint-force coordination can be reduced through stopgap measures that segregate forces (e.g. aircraft and surface-to-air missiles/SAMs) by time and space. China's C4ISR for out-of-area operations development – particularly the critical coordination of sensor architecture and the collection and processing of the data it yields – is therefore likely to lag. Nevertheless, in order to enable space-based systems with expanded geographic coverage for expeditionary operations, a Chinese C4ISR infrastructure renaissance is under way.⁶⁰ China is rapidly developing a constellation of remote sensing, communications and data-relay satellites second only to that of the US in aggregate scope and capability.⁶¹

Yet deploying more naval assets farther from the Chinese littoral would increase their vulnerability. To ameliorate this dilemma, China could enhance its limited open-ocean ASW with increasingly quiet long-range nuclear-powered submarines, and new maritime-patrol aircraft and helicopters. Building nuclear-powered attack submarines (for example, the anticipated next-generation Type-095) and deploying more of these and other significant ASW-capable platforms could help greatly. The speed, range and relative stealth of capable nuclear-powered submarines, together with their complement of anti-ship weapons, make them especially useful for blue-water sea-lane defence. However, their high cost and the requirements of highly trained crews and sophisticated maintenance facilities make them only worth acquiring in substantial numbers if Beijing intends to prioritise sea-lane defence missions and/or the interdiction of shipping.

Finally, task forces operating in high-intensity conflict environments far from Chinese shores would likely face significant air and missile threats. The PLAN's growing inventory of warships with sophisticated anti-aircraft and -missile capability, including the *Luyang* II and III (Type-052C and Type-052D) destroyers and the *Jiangkai* II (Type-054A) frigates, could help protect expeditionary missions operating beyond the range of China's land-based SAMs. Meanwhile, Type-055 cruisers are now under simultaneous construction, with at least four hulls visible in imagery of the Dalian and Jiangnan shipyards, and the first one is likely to be in the water as early as 2018. It is likely that they will be fitted with S-band AESA radar enabling '360-degree situational awareness',⁶² which would allow them to also undertake the power-projection role with fully fledged

TASK FORCES OPERATING IN HIGH-INTENSITY CONFLICT ENVIRONMENTS FAR FROM CHINESE SHORES WOULD LIKELY FACE SIGNIFICANT AIR AND MISSILE THREATS

defence and strike capabilities. Type-055s are large, multipurpose ships with air-defence, ASW, anti-ship and land-attack capabilities. Like the 64-tube Type-052D, Type-055s have universal VLS tubes capable of accommodating YJ-18 ASHMs or HHQ-9 SAMs; however, they are likely to have a much greater number of VLS tubes – perhaps up to 128.⁶³

CONCLUSION

China's overall strategic maritime goals – asserting increasing control over disputed features and extending maritime claims in the near seas, while projecting increasing influence and reach in the far seas beyond to safeguard growing interests there – are clearly expressed in Chinese military doctrine and strategy documents, and there is much evidence of efforts to achieve them. However, the prospects for meeting these objectives within the current PLAN shipbuilding procurement timeline – less than 20 years out – remain uncertain. One area in which China will probably continue to lag the US, even by the 2030s, is submarine capabilities; here progress tends to be slow and expensive, and the US retains tremendous advantages, particularly in acoustics and propulsion. Meanwhile, however, there is potential for continued robust growth in China's economy – and by extension its overall national power. The US National Intelligence Council's (NIC's) 'Global Trends 2030' report, for instance, posits a China-centred Asia largely returning to its pre-1500 powerhouse status.⁶⁴ In this forecast, by 2030 Asia will have 'surpassed North America and Europe combined in terms of global power, based upon GDP, population size, military spending, and technological investment',⁶⁵ with growth in China and India powering that outcome.

Yet there is also the possibility that China's economic growth will slow further and drop below expected levels as it labours under a range of structural complications, including an ageing population and severe environmental problems.⁶⁶ In this



China's refitted aircraft carrier Liaoning, then known as Varyag, at Dalian Shipyard, Liaoning Province, 19 March 2012

scenario, slowing growth could not only constrain military budgets, but also potentially shift China's domestic political environment in unpredictable and possibly disruptive ways, with commensurate effects on foreign and security policies. Regardless of the country's trajectory, however, territorial disputes of importance in the near seas are likely to persist and Beijing will likely continue to prioritise them, while the deployment of the three major Chinese maritime forces there allows for manifold approaches, including grey-zone operations.⁶⁷

Nevertheless, China has the world's second-largest economy and defence budget, and the NIC projects that by 2030 it will be close to being a peer competitor of the US in science and technology.⁶⁸ It may develop capabilities for disruptive innovation, particularly in the space, missile and defence-electronics sectors and in specific frontier technologies in which the US and other established economies do not enjoy an exceptional lead, such as various specialised missiles, hypersonic-glide vehicles and directed-energy weapons. Even if these projections prove too optimistic, China's military, technical and industrial activity is already generating potent military capacity. In terms of China's development trajectory and ability to operationalise its strategic goals, over the next two decades it will likely make great strides in the global arena. Led by naval and broader maritime development, the PLA will probably have largely modern military platforms and well-trained personnel, and could be able to field armed forces and project power with a significant degree of global reach and influence. China is also projected to have the world's largest civilian- and military-shipbuilding industry by tonnage (although not in sophistication), and the capacity to build advanced vessels of all types. A growing network of overseas access points could support China's growing maritime power and influence. China is likely to have a more comprehensive and active presence around the world, including in areas of special and growing stra-

tegic importance such as the Arctic and the Antarctic, should its economy enable wide-ranging and long-term military deployments and sustainment.

Already, the PLAN is the world's second-largest navy,⁶⁹ and could become the world's second-most capable blue-water navy after the US Navy in the foreseeable future. Sometime between 2030 and 2050, in hardware terms, parts of China's combat naval fleet could qualitatively be in the same league as that of the US. Although operational proficiency and the capability to engage in high-intensity operations in the far seas would likely lag, new indigenous systems could afford the PLA the capability of holding US land-, sea- and air-based forces at risk not only in the Western Pacific, but also in Hawaii and a number of overseas locations. In the future, Chinese platforms could also be able to engage in regular high-intensity intelligence gathering off not only Guam and Hawaii but also the US west coast. Although Washington accepts such activity, its intensification might result in a significant shift in bilateral military activities, which have so far been concentrated near China. Chinese SSBN patrols may also extend from the South China Sea into the Indian Ocean. In a most ambitious scenario, Beijing might even conceivably challenge Washington for naval hegemony in the Indo-Asia-Pacific, competing with the US for primacy in building maritime coalitions, and in policing the commons and securing major sea lanes.⁷⁰

Within the next several decades, China could well be a maritime great power of global significance. Beijing's actions over the next two decades will most likely be informed by a defence- and foreign-policy calculus that is far more multidimensional and flexible in practice than the approaches it has taken to date. As well as rivalry with the US and other regional maritime powers in the far seas, such evolution could bring positive developments, including increased security support to the United Nations and greater Chinese contributions to international efforts to manage threats from non-state actors.

NOTES

- 1 Andrew S. Erickson, 'China's Blueprint for Sea Power', *China Brief*, vol. 16, no. 11, Jamestown Foundation, 6 July 2016, pp. 3–7, <https://jamestown.org/program/chinas-blueprint-for-sea-power>.
- 2 Andrew S. Erickson, 'Dreaming Big, Acting Big: Xi's Impact on China's Military Development', *Asan Forum*, 15 October 2015, <http://www.theasanforum.org/dreaming-big-acting-big-xis-impact-on-chinas-military-development>.
- 3 M. Taylor Fravel, 'China's Strategy in the South China Sea', *Contemporary Southeast Asia*, vol. 33, no. 3, 2011, pp. 292–319.
- 4 '35,860 Chinese Evacuated from Unrest-torn Libya', *Xinhua*, 3 March 2011, http://news.xinhuanet.com/english2010/china/2011-03/03/c_13759456.htm.
- 5 US Department of Defense, 'Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2016', p. 47, <http://www.defense.gov/Portals/1/Documents/pubs/2016%20China%20Military%20Power%20Report.pdf>; Gabriel Collins, 'China Peak Oil', *Diplomat*, 7 July 2015, <http://thediplomat.com/2015/07/china-peak-oil-2015-is-the-year>.
- 6 Andrew S. Erickson and Gabriel Collins, 'China's Oil Security Pipe Dream', *Naval War College Review*, vol. 63, no. 2, Spring 2010, pp. 89–111, <https://www.usnwc.edu/getattachment/95f307db-6ad1-4399-9234-30e851a8235a/China-s-Oil-Security-Pipe-Dream--The-Reality,-and-.aspx>.
- 7 Jonas Parello-Plesner and Mathieu Duchâtel, *China's Strong Arm: Protecting Citizens and Assets Abroad*, Adelphi 451 (Abingdon: Routledge for the IISS, 2015), pp. 145–55; Ren Haiping, 'A Great Power Navy's Assumption of Responsibility – Writing on the Five-Year Anniversary of the People's Navy's Escort Fleet Expedition', *Navy Today*, no. 12, December 2013, p. 3; Zhang Ming, 'Security Governance of the "Global Commons" and China's Choice', *Contemporary International Relations*, no. 5, 2012, pp. 22–8.
- 8 Andrew S. Erickson, Lyle J. Goldstein and Nan Li (eds), *China, the United States, and 21st Century Sea Power: Defining a Maritime Security Partnership* (Annapolis, MD: Naval Institute Press, 2010).
- 9 Wang Jisi, 'China in the International Order: A Contributor or a Challenger?', in *China International Strategy Review* 2015, pp. 1–23; Wang Yizhou, *Creative Involvement: The Evolution of China's Global Role* (Beijing: Peking University Press, 2013); Xu Jingjing, 'Why We Want to Escort: Interview with Ju Chengzhi, Head of the Ministry of Transportation's International Cooperation Department', *Sanlian Life Weekly*, no. 3, 19 January 2009, pp. 92–5, <http://www.zsnews.cn/News/2009/01/16/1018431.shtml>.
- 10 Phillip C. Saunders and Joel Wuthnow, 'China's Goldwater-Nichols? Assessing PLA Organizational Reforms', *Strategic Forum*, no. 294, National Defense University, Institute for National Strategic Studies, April 2016, pp. 1–3, <http://ndupress.ndu.edu/Portals/68/Documents/stratforum/SF-294.pdf>.
- 11 'Xi Jinping Stressed: Firmly Grasp the Strong Military Goals of the Party in the New Situation', *Xinhua*, 11 March 2013, http://www.gov.cn/2013lh/content_2351851.htm.
- 12 'The Thirteenth Five-Year Plan for China's National Economic and Social Development', *Xinhua*, 17 March 2016, http://www.china.com.cn/lianghui/news/2016-03/17/content_38053101.htm; Ryan D. Martinson, 'The 13th Five-Year Plan: A New Chapter in China's Maritime Transformation', *China Brief*, vol. 16, no. 1, Jamestown Foundation, 12 January 2016, <https://jamestown.org/programme/the-13th-five-year-plan-a-new-chapter-in-chinas-maritime-transformation>.
- 13 Andrew S. Erickson, 'Doctrinal Sea Change, Making Real Waves: Examining the Naval Dimension of Strategy', in Joe McReynolds (ed.), *China's Evolving Military Strategy* (Washington DC: Jamestown Foundation, 2016), pp. 99–102, 108, 116–26.
- 14 State Council Information Office of the People's Republic of China, 'Section IV: Building and Development of China's Armed Forces', in 'China's Military Strategy', May 2015, http://www.chinadaily.com.cn/china/2015-05/26/content_20820628.htm.
- 15 *Ibid.*
- 16 M. Taylor Fravel, 'China's New Military Strategy: "Winning Informationized Local Wars"', *China Brief*, vol. 15, no. 3, Jamestown Foundation, 2 July 2015, <https://jamestown.org/program/chinas-new-military-strategy-winning-informationized-local-wars>.
- 17 Academy of Military Science Military Strategic Research Department, *The Science of Military Strategy* (Beijing: Military Science Press, 2013), p. 101.
- 18 Peter Dutton, 'Three Disputes and Three Objectives: China and the South China Sea', *Naval War College Review*, vol. 64, no. 4, Autumn 2011, p. 58, <https://www.usnwc.edu/getattachment/feb516bf-9d93-4d5c-80dc-d5073ad84d9b/Three-Disputes-and-Three-Objectives%20China-and-the>.
- 19 Academy of Military Science Military Strategic Research Department, *The Science of Military Strategy*, pp. 7–8, 73, 84–5, 105, 108, 147, 262, 265.
- 20 State Council Information Office of the People's Republic of China, 'China's Military Strategy'.
- 21 Academy of Military Science Military Strategic Research Department, *The Science of Military Strategy*, pp. 206–18.
- 22 *Ibid.*, p. 218.
- 23 US Office of Naval Intelligence, 'The PLA Navy: New Capabilities and Missions for the 21st Century', 9 April 2015, pp. 40–2, http://www.oni.navy.mil/Portals/12/Intel%20agencies/China_Media/2015_PLA_NAVY_PUB_Interactive.pdf?ver=2015-12-02-081058-483.
- 24 Ronald O'Rourke, 'Maritime Territorial and Exclusive Economic Zone (EEZ) Disputes Involving China', US

- Congressional Research Service, 31 May 2016, pp. 24–5, <https://fas.org/sgp/crs/row/R42784.pdf>.
- 25 State Council Information Office of the People's Republic of China, 'China's Military Strategy'.
- 26 IISS, 'China's Ballistic Missiles: More Systems; Improved Designs', in *The Military Balance 2016* (Abingdon: Routledge for the IISS, 2016), pp. 11–15.
- 27 Timothy Heath and Andrew S. Erickson, 'Is China Pursuing Counter-Intervention?', *Washington Quarterly*, vol. 38, no. 3, 2015, pp. 143–56, https://twq.elliott.gwu.edu/sites/twq.elliott.gwu.edu/files/downloads/TWQ_Fall2015_Heath-Erickson.pdf.
- 28 Academy of Military Science Military Strategic Research Department, *The Science of Military Strategy*, p. 101.
- 29 *Ibid.*, p. 102.
- 30 Nan Li, 'China's Evolving Naval Strategy and Capabilities in the Hu Jintao Era', in Roy Kamphausen et al. (eds), *Assessing the People's Liberation Army in the Hu Jintao Era* (Carlisle, PA: Army War College Press, 2014), pp. 276–80, <http://www.strategicstudiesinstitute.army.mil/pdffiles/PUB1201.pdf>.
- 31 Academy of Military Science Military Strategic Research Department, *The Science of Military Strategy*, p. 213.
- 32 *Ibid.*, p. 216.
- 33 *Ibid.*, p. 216.
- 34 State Council Information Office of the People's Republic of China, 'Section III. Strategic Guideline of Active Defense', in 'China's Military Strategy'.
- 35 Academy of Military Science Military Strategic Research Department, *The Science of Military Strategy*, p. 211.
- 36 Andrew S. Erickson, Jonathan Ray and Robert T. Forte, 'Underpowered: Chinese Conventional and Nuclear Naval Power and Propulsion', in Andrew S. Erickson (ed.), *Chinese Naval Shipbuilding: An Ambitious and Uncertain Course* (Annapolis, MD: Naval Institute Press, 2016), pp. 238–48.
- 37 Li Bin and Tong Zhao (eds), 'Understanding Chinese Nuclear Thinking', Carnegie Endowment for International Peace, 28 October 2016, http://carnegieendowment.org/files/ChineseNuclearThinking_Final.pdf; Li Bin, 'China and the New U.S. Missile Defense in East Asia', Carnegie Endowment for International Peace, 6 September 2012, <http://carnegieendowment.org/2012/09/06/china-and-new-u.s.-missile-defense-in-east-asia-pub-49297>.
- 38 'Transcript: Admiral Cecil Haney, Commander STRATCOM, Defense Writers Group', Defense Writers Group, Center for Media and Security, 22 October 2015, <http://www.airforcemag.com/DWG/Documents/2015/102215Haney.pdf>.
- 39 US Department of Defense, 'Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2016', p. 69.
- 40 Academy of Military Science Military Strategic Research Department, *The Science of Military Strategy*, p. 216.
- 41 Andrew S. Erickson and Joel Wuthnow, 'Barriers, Springboards and Benchmarks: China Conceptualizes the Pacific "Island Chains"', *China Quarterly*, no. 225, March 2016, pp. 1–22.
- 42 Academy of Military Science Military Strategic Research Department, *The Science of Military Strategy*, p. 214.
- 43 *Ibid.*, p. 217.
- 44 Nan Li, 'China's Evolving Naval Strategy and Capabilities in the Hu Jintao Era', pp. 257–300.
- 45 Lin Dong, 'Development Concepts on Information Systems-based Military Force Systems', *China Military Science*, no. 1, 2011, p. 22; Li Dapeng, Tan Lezu and Yang Genyuan, 'Warship Formation Network Centric Cooperative Antimissile Under Early Warning Aircraft Support', *Modern Defense Technology*, no. 41.1, February 2013, pp. 9–14.
- 46 Nan Li, 'China's Evolving Naval Strategy and Capabilities in the Hu Jintao Era', pp. 257–99.
- 47 Academy of Military Science Military Strategic Research Department, *The Science of Military Strategy*, p. 213.
- 48 *Ibid.*, p. 214.
- 49 Lin Dong, 'Development Concepts on Information Systems-based Military Force Systems', p. 22; Li Dapeng et al., 'Warship Formation Network Centric Cooperative Antimissile under Early Warning Aircraft Support', pp. 9–14.
- 50 *Ibid.*, pp. 19–21, 32, 40–6; Ely Ratner et al., 'Charting China's International Security Activism', Center for a New American Security, May 2015, pp. 29–42, https://s3.amazonaws.com/files.cnas.org/documents/CNAS_ChinaMoreWillingAndAble_Final.pdf.
- 51 James Kynge et al., 'How China Rules the Waves', *Financial Times*, 12 January 2017, <https://ig.ft.com/sites/china-ports/>; Andrew S. Erickson and Austin M. Strange, 'Six Years at Sea ... and Counting: Gulf of Aden Anti-Piracy and China's Maritime Commons Presence', Jamestown Foundation, 2015, pp. 50, 123–34, 169–82.
- 52 Pang Wenqiang, Chen Hongjun and Deng Xianwei, 'Purifying Salt Water: The Lifeline of Far Seas Warships', *People's Navy*, 27 February 2012, p. 4.
- 53 Andrew S. Erickson and Christopher P. Carlson, 'The PLAN Evolves its Expeditionary Logistics Strategy', *Jane's Navy International*, 9 March 2016, http://www.janes360.com/images/assets/822/58822/Sustained_support_the_PLAN_evolves_its_expeditionary_logistics_strategy.pdf.
- 54 Academy of Military Science Military Strategic Research Department, *The Science of Military Strategy*, p. 214.
- 55 Andrew Jacobs and Jane Perlez, 'U.S. Wary of Its New Neighbor in Djibouti: A Chinese Naval Base', *New York Times*, 25 February 2017, https://www.nytimes.com/2017/02/25/world/africa/us-djibouti-chinese-naval-base.html?_r=0; Ministry of Foreign Affairs of the People's Republic of China, 'Foreign Ministry Spokesperson Hong Lei's Regular Press Conference on January 21, 2016', <http://>

www.fmpc.gov.cn/mfa_eng/xwfw_665399/s2510_665401/t1333741.shtml.

- ⁵⁶ Dale Rielage, 'Fit to Fight', *Proceedings Magazine*, vol. 140, no. 4, US Naval Institute, April 2014, <http://www.usni.org/magazines/proceedings/2014-04/fit-fight>.
- ⁵⁷ Andrew S. Erickson and Christopher P. Carlson, 'The PLAN Evolves its Expeditionary Logistics Strategy'.
- ⁵⁸ Eric Heginbotham et al., *The U.S.-China Military Scorecard: Forces, Geography, and the Evolving Balance of Power, 1996-2017* (Santa Monica, CA: RAND, 2015), pp. 32, 153-65, http://www.rand.org/content/dam/rand/pubs/research_reports/RR300/RR392/RAND_RR392.pdf; Andrew S. Erickson and Amy Chang, 'China's Navigation in Space: What New Approaches Will China's Space Tracking Take?', *US Naval Institute Proceedings*, vol. 138, no. 4, April 2012, pp. 42-7.
- ⁵⁹ Andrew S. Erickson, 'Chinese Anti-Ship Ballistic Missile Development and Counter-intervention Efforts', Testimony at Hearing on China's Advanced Weapons held by US-China Economic and Security Review Commission, Washington DC, 23 February 2017, https://www.uscc.gov/sites/default/files/Erickson_Testimony.pdf.
- ⁶⁰ Andrew S. Erickson, 'Chinese Air- and Space-Based ISR: Integrating Aerospace Combat Capabilities over the Near Seas', in Peter Dutton, Andrew S. Erickson and Ryan Martinson (eds), 'China's Near Seas Combat Capabilities', *Naval War College China Maritime Study*, 11 February 2014, pp. 87-117, http://www.andrewerickson.com/wp-content/uploads/2014/02/China-Air-Space-Based-ISR_Chinas-Near-Seas-Combat-Capabilities_CMS11_201402.pdf; Kevin Pollpeter, Testimony at Hearing on China's Advanced Weapons, USCC, 23 February 2017, https://www.uscc.gov/sites/default/files/Pollpeter_Testimony_o.pdf; Elsa Kania, 'Chinese Advances in Unmanned Systems and the Military Applications of Artificial Intelligence - the PLA's Trajectory towards Unmanned, "Intelligentized" Warfare', Testimony at Hearing on China's Advanced Weapons, USCC, 23 February 2017, https://www.uscc.gov/sites/default/files/Kania_Testimony.pdf.
- ⁶¹ '2016 Space Launch Statistics', *Spaceflight 101*, 31 December 2016, <http://spaceflight101.com/2016-space-launch-statistics/>; Kevin Pollpeter et al., 'China Dream, Space Dream: China's Progress in Space Technologies and Implications for the United States', US-China Security and Economic Review Commission, 2 March 2015, https://www.uscc.gov/sites/default/files/Research/China%20Dream%20Space%20Dream_Report.pdf.
- ⁶² Jeffrey Lin and P.W. Singer, 'China's Largest Surface Warship Takes Shape', *Popular Science*, 20 October 2016, <http://www.popsoci.com/chinas-largest-surface-warship-first-type-055-destroyer-takes-shape>.
- ⁶³ *Ibid.*
- ⁶⁴ National Intelligence Council, 'Global Trends 2030', December 2012, p. 16, <https://globaltrends2030.files.wordpress.com/2012/11/global-trends-2030-november2012.pdf>.
- ⁶⁵ *Ibid.*, p. 2.
- ⁶⁶ Gabriel Collins and Andrew S. Erickson, 'China's S-Curve Trajectory', *China SignPost*, no. 44, 15 August 2011, <http://www.chinasignpost.com/2011/08/15/chinas-s-curve-trajectory-structural-factors-will-likely-slow-the-growth-of-chinas-economy-and-comprehensive-national-power>.
- ⁶⁷ Office of the Director of National Intelligence, 'Global Trends: Paradox of Progress', January 2017, pp. x, 21, 31, 35, 44, 55, 91, 111, 120, 151, 152, 216, <https://www.dni.gov/files/images/globalTrends/documents/GT-Main-Report.pdf>.
- ⁶⁸ *Ibid.*, p. 103.
- ⁶⁹ Andrew S. Erickson, 'China's Naval Shipbuilding Sets Sail', *National Interest*, 8 February 2017, <http://nationalinterest.org/feature/chinas-naval-shipbuilding-sets-sail-19371>.
- ⁷⁰ Office of the Director of National Intelligence, 'Global Trends: Paradox of Progress', pp. 40, 80, 219-20.

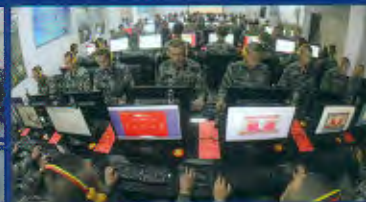


ASIA-PACIFIC REGIONAL SECURITY ASSESSMENT

2017



Key developments and trends



ASIA-PACIFIC REGIONAL SECURITY ASSESSMENT 2017

Key developments and trends

The International Institute for Strategic Studies

ARUNDEL HOUSE | 13-15 ARUNDEL STREET | TEMPLE PLACE | LONDON | WC2R 3DX | UK

DIRECTOR-GENERAL AND CHIEF EXECUTIVE **Dr John Chipman**

EDITORS **Dr Tim Huxley, Dr William Choong**

ASSOCIATE EDITOR **Nicholas Payne**

CONTRIBUTORS **Dr David Capie, Dr Matthew Cottee, Dr Andrew Erickson, Dr Euan Graham, James Miles, Ankit Panda, Dr Rajeswari Rajagopalan, Dr Michael Raska, Dr Ben Schreer, Dr Brendan Taylor, Jens Wardenauer**

RESEARCH SUPPORT **Lucie Béraud-Sudreau, Henry Boyd, Monty d'Inverno, Amanda Lapo, Tom Waldwyn**

EDITORIAL **Alice Aveson, Jill Lally, Holly Marriott-Webb, Chris Raggett**

GRAPHICS COORDINATOR/RESEARCHER **Jo Halford**

DESIGN AND PRODUCTION **John Buck, Martin Lubikowski, Kelly Verity**

This publication has been prepared by the Director-General and Chief Executive of the Institute and his staff. It incorporates commissioned contributions from recognised subject experts, which were reviewed by a range of experts in the field. The IISS would like to thank the various individuals who contributed their expertise to the compilation of this dossier. The responsibility for the contents is ours alone. The views expressed herein do not, and indeed cannot, represent a consensus of views among the worldwide membership of the Institute as a whole.

First published June 2017 by the International Institute for Strategic Studies.

© 2017 The International Institute for Strategic Studies

COVER IMAGES: Main image: A Chinese anti-aircraft missile is launched during a drill in the East China Sea, August 2016 (Xinhua/Sipa USA/PA); top, l-r: Chinese J-15 fighter jets being launched from the deck of the *Liaoning* aircraft carrier during military drills in the Yellow Sea, December 2016 (STR/AFP/Getty); A test launch of the *Hwasong-10* ballistic missile at an undisclosed location in North Korea, June 2016 (KCNA/AFP/Getty); China's aircraft carrier, the *Liaoning*, during military drills in the Pacific, December 2016; (STR/AFP/Getty); bottom, l-r: The combat information centre of the USS *Harpers Ferry* in the South China Sea, August 2016 (US Navy/ Zachary Eshleman); A Philippine Coast Guard anti-terrorist unit during an exercise near Manila, May 2015 (Reuters/Romeo Ranoco); Chinese soldiers using desktop computers at a PLA garrison in Chongqing, China, November 2013 (Imaginechina).

Printed and bound in Singapore by KHL Printing Co Pte Ltd.

All rights reserved. No part of this book may be reprinted or reproduced or utilised in any form or by any electronic, mechanical, or other means, now known or hereafter invented, including photocopying and recording, or in any information storage or retrieval system, without permission in writing from the publishers.

British Library Cataloguing in Publication Data

A catalogue record for this book is available from the British Library

Library of Congress Cataloging in Publication Data

A catalog record for this book has been requested

ISBN 978-0-86079-215-4

About The International Institute for Strategic Studies

The International Institute for Strategic Studies is an independent centre for research, information and debate on the problems of conflict, however caused, that have, or potentially have, an important military content. The Council and Staff of the Institute are international and its membership is drawn from over 100 countries. The Institute is independent and it alone decides what activities to conduct. It owes no allegiance to any government, any group of governments or any political or other organisation. The IISS stresses rigorous research with a forward-looking policy orientation that can improve wider public understanding of international security problems and influence the development of sounder public policy.

CONTENTS

PREFACE	5
CHAPTER ONE	
Asia-Pacific Policy Challenges for the Trump Administration	7
CHAPTER TWO	
China's Domestic Challenges and their Security Implications	23
CHAPTER THREE	
China's Strategic Objectives at Sea	37
CHAPTER FOUR	
American and Asia-Pacific Responses to China's South China Sea Actions	51
CHAPTER FIVE	
India's Evolving Strategic Response to China	67
CHAPTER SIX	
Australia's Uncertain Regional Security Role	81
CHAPTER SEVEN	
The Trajectory and Implications of North Korea's Nuclear and Missile Development	95
CHAPTER EIGHT	
Managing the Asia-Pacific's Nuclear Dynamics	111
CHAPTER NINE	
Military Cyber Capabilities in the Asia-Pacific	125
CHAPTER TEN	
Responding to Intensifying Security Threats in the Sulu Zone	141
CHAPTER ELEVEN	
Implications of a Weakening Regional Security Architecture	157
CHAPTER TWELVE	
Regional Defence and Security Dialogues	171
CONCLUSION	183
INDEX	187

PREFACE

On 2–4 June 2017, The International Institute for Strategic Studies (IISS) convenes for the sixteenth time its Shangri-La Dialogue (SLD), the Asia-Pacific region's foremost annual intergovernmental defence and security summit, for the sixteenth time. Each year since 2002, the SLD has brought together defence ministers, military chiefs, the most senior defence officials and other leading members of the national-security and foreign-policy establishments of Asia-Pacific states – as well as other countries vitally involved in the region – for intensive discussions on the most important contemporary regional security problems, as well as emerging and long-term security challenges. Key decision-makers from the 28 countries that regularly send delegations have come to see the SLD as an indispensable element of their regional and wider international defence diplomacy.

Since 2013, with the aim of further strengthening its contribution to Asia-Pacific regional security, the IISS has expanded the SLD from an annual summit meeting into a larger process. This has involved appointing two Shangri-La Dialogue Senior Fellows for Asia-Pacific Security at the IISS-Asia office in Singapore; inaugurating the annual Fullerton Forum: Shangri-La Dialogue Sherpa Meeting for senior officials and officers from countries that regularly participate in the SLD; and establishing an SLD publications programme.

The *Asia-Pacific Regional Security Assessment 2017: Key developments and trends* is the fourth IISS Strategic Dossier in the SLD publications programme. As in

the earlier three volumes in the series, each chapter combines focused, empirically based analysis with a substantial array of graphics. In common with its predecessors, this Dossier examines a wide range of important regional security questions, complementing the analysis of Asian strategic, military and security developments published in the Institute's annual *Strategic Survey: The Annual Review of World Affairs*, *The Military Balance* and *Armed Conflict Survey*.

This Dossier focuses on four broad categories of regional security concerns, all of which are closely relevant to the discussions among ministers, senior military officers and defence officials, and the expert community, at the SLD in 2017: the challenges faced by the United States and China in developing their regional security strategies; the reactions from other states to China's growing regional security tensions, particularly in the South China Sea; emerging questions relating to nuclear, missile and military cyber capabilities; and the prospects for regional security cooperation in its various forms.

The IISS intends that, together with the Fullerton Forum: Shangri-La Dialogue Sherpa Meeting and relevant aspects of the Institute's research programme, the annual *Asia-Pacific Regional Security Assessment* will reinforce the intellectual underpinnings of the SLD, and help to frame discussions there among its ministerial and other delegates as they confront the increasingly complex security challenges of the Asia-Pacific region.

ASIA-PACIFIC REGIONAL SECURITY ASSESSMENT 2017

Key developments and trends

Each year since 2002, the International Institute for Strategic Studies has organised the Shangri-La Dialogue in Singapore. At this intergovernmental regional security summit, defence ministers, military chiefs and other leading members of the national-security establishments of the Asia-Pacific states – and other countries vitally involved in the region – meet to discuss the crucial regional security matters of the day. The Dialogue has become a fixture in the calendars of key defence decision-makers from the 28 countries that regularly send delegations.

The *Asia-Pacific Regional Security Assessment 2017* is the fourth IISS Strategic Dossier to be published in association with the IISS Shangri-La Dialogue. It focuses on four centrally important groups of regional security themes relevant to the policy-focused discussions that can be expected at the Dialogue in 2017 and beyond:

- The evolving roles of the United States and China in Asia-Pacific security.
- Responses by the US and regional states to regional security tensions, particularly in the South China Sea.
- Emerging security questions relating to nuclear weapons, missiles and military cyber capabilities.
- The prospects for regional security cooperation, including the challenges for the ASEAN-centred architecture.

The International Institute for Strategic Studies (IISS)

The IISS, founded in 1958, is an independent centre for research, information and debate on the problems of conflict, however caused, that have, or potentially have, an important military content.



ASIA SECURITY SUMMIT

*IISS Shangri-La
Dialogue*

ISBN 978-0-86079-215-4



9 780860 792154 >

The International Institute for Strategic Studies

Arundel House | 13–15 Arundel Street | Temple Place | London | WC2R 3DX | UK
t. +44 (0) 20 7379 7676 f. +44 (0) 20 7836 3108 e. iiiss@iiiss.org w. www.iiiss.org

The International Institute for Strategic Studies – Americas

2121 K Street, NW | Suite 801 | Washington DC 20037 | USA
t. +1 202 659 1490 f. +1 202 659 1499 e. iiiss-americas@iiiss.org

The International Institute for Strategic Studies – Asia

9 Raffles Place | #51-01 Republic Plaza | Singapore 048619
t. +65 6499 0055 f. +65 6499 0059 e. iiiss-asia@iiiss.org

The International Institute for Strategic Studies – Middle East

14th floor, GBCORP Tower | Bahrain Financial Harbour | Manama | Kingdom of Bahrain
t. +973 1718 1155 f. +973 1710 0155 e. iiiss-middleeast@iiiss.org