

LESSONS FROM THE LUNAR MODULE PROGRAM: THE DIRECTOR'S CONCLUSIONS



Dr. Andrew S. Erickson*

Visiting Scholar, John King Fairbank Center for Chinese Studies, Harvard University


Professor of Strategy, United States Naval War College

andrew_erickson@fas.harvard.edu

** The views expressed in this article are those of the author alone, who welcomes all possible comments and suggestions for improvement via <<http://www.andrewerickson.com/contact/>>. They do not represent the estimates or policies of the U.S. Navy or any other organization of the U.S. Government.*

Lunar Module Program: Challenges & Innovation

AEROSPACE MANAGEMENT
9/63



The **MEN**

JOSEPH G. GAVIN, Jr.

"We don't hire program managers, we grow them," says Grumman's president Clinton Towl. It took them 16 years to grow Joe Gavin into one of the best they ever had, and then he kept right on growing into bigger management shoes. Grumman had rewarded Gavin for his dedicated work on OAO, OGO, and other space projects by making him program manager of their LEM proposal. He showed his appreciation by rolling up his sleeves, setting the industry on its ear, and bringing home the contract. Overwhelmed, Grumman promoted Gavin to Space Programs Director and made him a vice president of the corporation. Now, Gavin is involved in delivering what the proposal promised. He is slowly getting his subcontractors selected and qualified by NASA. The first LEM mockup is just being completed.

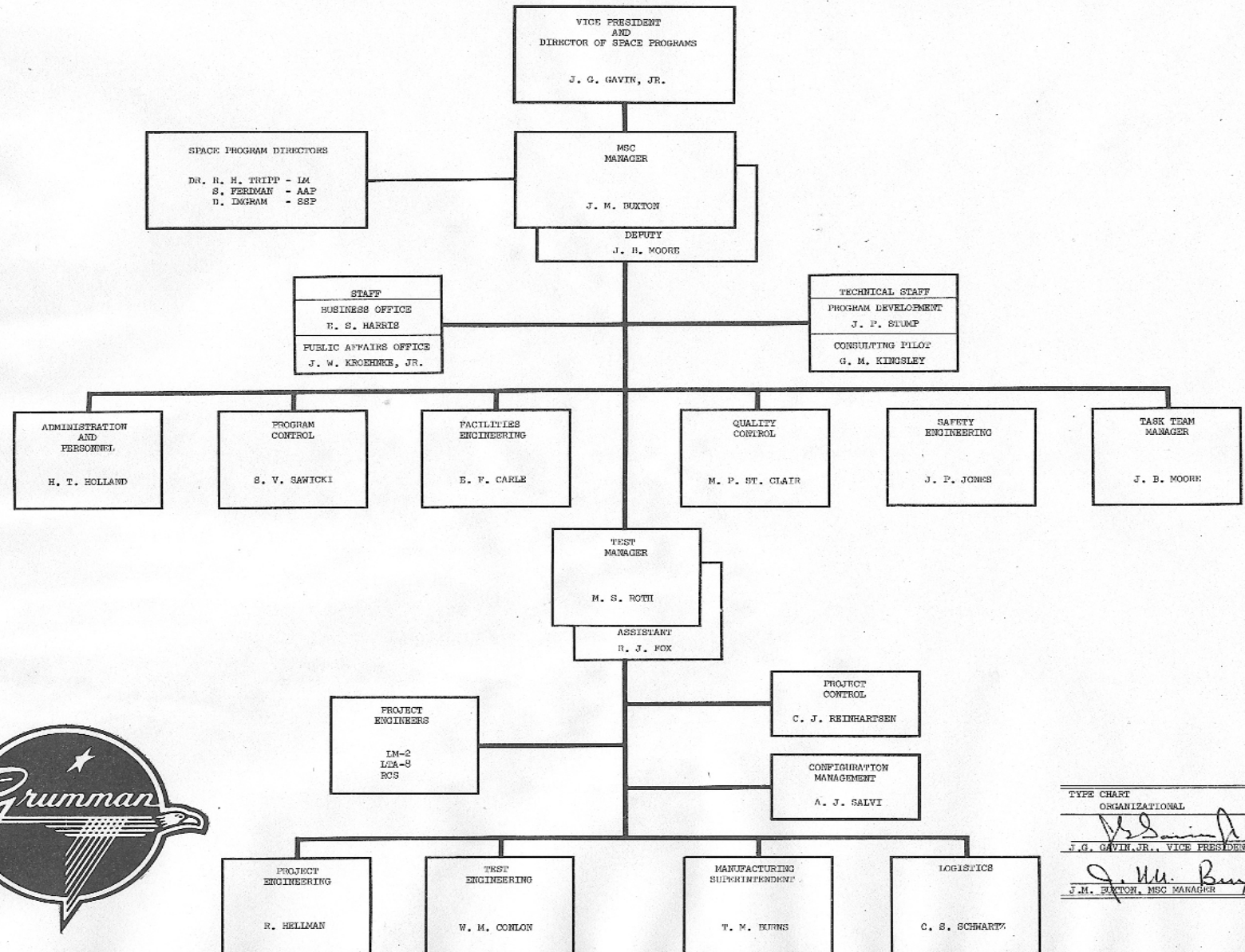
LM Lessons

- (1) Create conditions for success
- (2) Reliability is attainable
- (3) True innovation renders cost and schedule unpredictable
- (4) Don't complicate things unnecessarily
- (5) Remove hierarchical barriers
- (6) Empower individuals
- (7) Share information
- (8) Return the pilot safely to earth



PLANT 52-HOUSTON, TEXAS

GRUMMAN AIRCRAFT ENGINEERING CORPORATION



TYPE CHART
ORGANIZATIONAL

18 NOV

J. G. GAVIN, JR., VICE PRESIDENT & DIRECTOR OF SPACE PROGRAMS

J. M. BUCKTON, MSC MANAGER

Broader Implications & Legacy



MIT CLASS OF 1941 FIFTIETH REUNION BIOGRAPHICAL DATA

Children 3
Grandchildren 3

GAVIN, Joseph G. Jr.
Dorothy Dunklee - 14 Oct. 1943
6 Endicott Drive, Huntington, NY 11743
(516) 427-9078

Career 40 yrs. with Grumman - retired as president, Chief Operating Officer - highlights: direction of the Lunar Module program for Apollo. Member National Academy of Engineering. Member International Academy of Astronautics. Board Member - American Ass'n for Advancement of Science. Worst crisis: repairing the buses - a design we bought from Rohr. Advisor to Dept. of Energy - fusion energy research. Several National Research Council committees.

Volunteer Activities M.I.T. Corporation & Exec. Comm. Huntington (N.Y.) Hospital trustee including 5 yrs. as chairman. Harborfields (N.Y.) School District - Board Member 8 yrs. Long Island United Way Annual Fund Drive.

Hobbies Skiing Vermont cabin
Tennis Family expeditions
Photography History

Comments Aerospace has provided a fascinating career. I met Orville Wright before he died; met Whittle, designer of 1st jet engine during WWII; showed Charles Lindbergh the Lunar Module under construction; survived the anxious hours of Apollo XIII. Couldn't have done it all without Dorothy's interest and support.

1941

1966

1991

FROM THE EARTH

TO THE MOON

THE APOLLO 11 MISSION:

- July 16, 1969 Launch from Cape Kennedy
- July 20, 1969 Landing on the Moon
- July 24, 1969 Return to Earth
- Shipboard Quarantine of the CREW

236,000 miles to the moon

July 20, 1969

The New York Times

LATE CITY EDITION

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NEW YORK, MONDAY, JULY 11, 1969

MEN WALK ON MOON

ASTRONAUTS LAND ON PLAIN; COLLECT ROCKS, PLANT FLAG

Voice From Moon:

Voice From Moon: 'Eagle Has Landed'

A Powdery Surface Is Closely Explored

VOYAGE TO THE MOON

[illegible]

JOE GAVIN, IN HIS OFFICE AT G.A.C. JULY 10, 1969

Apollo 11 Astronauts:
Neil Armstrong, Michael
the Mobile Quiz
on the US

**Celebrating
The 49th Anniversary of
The 1st landing on the
Moon**

TEAM MOON: HOW 400,000 PEOPLE LANDED APOLLO 11 ON THE MOON
The following from Joe Gavin:

HOUSTON,
TEXAS, APRIL 27, 1971

IN THE PLANNING ROOM AT GRUMMAN
FEBRUARY 1968