



L J Adams

LAURENCE J. ADAMS

1921–2008

Elected in 1988

“For exceptional engineering leadership in space vehicle systems.”

BY ALBERT WESTWOOD

LAURENCE J. ADAMS, former president and chief operating officer of the Martin Marietta Corporation, was born in Madelia, Minnesota, in 1921, and died on February 13, 2008, at the age of 86. He was elected to the National Academy of Engineering in 1988 for “exceptional engineering leadership in space vehicle systems.”

Larry Adams’ choice of a career in aerospace was foreseen when he left the farm on which he was born and joined the U.S. Naval Reserve in 1942 to train as a pilot. He became an outstanding aviator, and so was chosen to become one of the first of the Navy’s pilots to fly nighttime submarine spotting missions off the decks of the small aircraft carriers that served as convoy escorts in the Atlantic. Fortunately, most of his later career challenges were considerably less risky than landing a Grumman Avenger onto the heaving deck of a relatively small ship guided by just a few handheld torches.

After completing his active military service in 1946, Larry learned that he could apply his service credits toward a degree in aeronautical engineering at the University of Minnesota. This he did, graduating with his bachelor’s degree in 1948. During that time, he also met Marguerite “Peggy” Gaetz, the lady who would later become his beloved wife for 56 years.

After graduation, Larry joined the Glen L. Martin Aircraft Company in Baltimore, Maryland, as a stress analyst, and began work on a variety of projects including the Matador/Mace Guided Missile, the Viking Sounding Rocket, the Oriole Air-to-Air Guided Missile, and a tactical bomber for the U.S. Air Force. His capability for, and tenacity in, solving tough engineering problems did not go unnoticed, and when the company (by then the Martin Company) was awarded the contract to build the Titan 1 Intercontinental Missile, and the company decided to build it in Denver, Larry was invited to transfer there as head of the stress analysis group. He later said that he made the decision to accept this position "in about ten milliseconds."

Upon his arrival, he found that his first challenge was to develop the technology to weld the strongest aluminum alloy of that time, ST14 . . . which was generally considered to be unweldable . . . and then to solve any problems likely to arise when the now welded ten foot diameter test tank contracted on being filled with liquid nitrogen or, later, liquid oxygen.

Many of the challenges Larry's group had to overcome are described in the book *Raise Heaven and Earth* (Simon and Schuster, 1993) by William Harwood. They included, for example, how to simulate the gravity force that the propellants and tankage might be subjected to at the point of maximum dynamic pressure as the rocket soars from the launch pad. Harwood also describes some of the spectacular calamities that befell his team when the tests they ran did not work out quite as expected!

The next few years of Larry's career read like the index to a book on the U.S. space program. He quickly advanced from program manager for the Titan II to technical director for the Titan III, IIIA and IIIC space launch systems, and program director for the Titan IIIM.

In 1965, Larry was promoted to director of engineering for the Denver division of the company and, over the next few years, was responsible for leading the teams that developed, for example, the multiple docking adapter for NASA's Skylab, the Viking Mars Lander, and the engineering integration tasks

for the latter's incredibly successful mission. Other promotions followed, including vice president for special projects, for operations, and then general manager of the Denver division.

In the latter position, he was responsible not only for various ongoing Titan III missions, but also for developing the foundation technologies for a variety of emerging strategic missile and military information systems. Along with others, Larry exemplified the Martin culture of always accepting personal responsibility for things that, on occasion, went wrong . . . and then for promptly fixing them to achieve "mission success."

Larry's quiet managerial style, incredible technical and organizational competence, and string of successful major projects, made him the logical choice to become the next president of the aerospace division of the company, which, by 1976, had become the Martin Marietta Corporation, a diversified, multibillion dollar conglomerate, with major businesses in aerospace, cement, aggregates, dyestuffs, metals and, by virtue of its management responsibilities for the Oak Ridge National Laboratories, nuclear energy. So Larry transferred from Denver to the headquarters of the corporation, in Bethesda, Maryland, and assumed responsibility for the increasingly diverse operations of the aerospace company, including new and expanded research and development programs in microelectronics, materials, propulsion, guidance and control, software, robotics, and a variety of other advanced technologies.

By 1982, Larry had become executive vice president and COO of the corporation. But in August of that year, the Bendix Corporation, led by Bill Agee, decided to make an offer to acquire Martin Marietta. The corporation's battle to fight off Bendix is legendary in the business world. Larry became a member of the eight person team that the chairman of Martin Marietta, Tom Pownall, then put together to defend the corporation's independence. Larry's primary responsibility, however, was to keep the company running smoothly and efficiently, while the rest of Pownall's "A-Team," focused first on defense, and then on counterattacking Bendix using an

approach now widely known as the Pac Man strategy which, in essence, involves endeavoring to take over the company that is trying to take you over.

Clearly, this requires having the resources to do so . . . and Larry was then called in to persuade certain financial houses that this would be a good investment. William Harwood describes this situation beautifully as follows: "If you were casting in Hollywood, you couldn't find a more convincing model of a corporate chief operating officer than the silver-haired, square-jawed Adams. His straight-arrow, deliberate approach conveyed the confidence the bankers were looking for; obviously, there was a firm hand on the day- to- day control of Martin Marietta's businesses."

After the Bendix confrontation, Larry was promoted to president and COO of the corporation and, working with Pownall and other senior staff, helped the company to divest most of its commercial operations, and to refocus its energy on its roots in aerospace, electronics and information systems, thereby setting in place the basis for its current reputation as a world leader in these areas of technology.

In 1986, Larry Adams retired from Martin Marietta, and began a very active second career as a technical and management consultant . . . and philanthropist.

His first consulting assignment was a portent of things to come . . . he was appointed to the committee to determine the cause of the Challenger disaster and to redesign the boosters used in the Space Shuttle program. He remarked later that this was the most difficult task with which he had ever been involved. However, over the next twenty years, as a member of the Air Force Scientific Advisory Board, he served on panels dealing with such issues as space power, hypersonic vehicles, and electronic combat systems. He also served on National Research Council committees concerned with space policy and transportation systems. He was chair of the Committee on Small Spacecraft Technology and of the Committee on the Global Positioning Satellite system . . . the committee that recommended elimination of some of the security features that degraded non-military uses . . . a recommendation that has permitted the now

widespread use of GPS-based automobile navigation systems. He also was a member of the NASA Advisory Council and Space Station Advisory Committee, and of the U.S. Information Agency's committee to review the design of its worldwide shortwave radio broadcasting system. And the list goes on and on.

Over the course of his long career, Larry received numerous honors. Among them, he was elected president and Fellow of the American Institute of Aeronautics and Astronautics, and was a three time recipient of NASA's Public Service Medal for his contributions to the Viking Mars Lander Program, the Titan Centaur Launch Vehicle, and the Titan III program. He served as Chairman of the Board of Trustees of the National Security Industrial Association, of the National Conference on the Strategic Management of Research and Development, and of the Challenger Center for Space Science Education.

Larry was very much aware of the difficulties that developmentally disabled persons have in finding meaningful work in a supportive environment. This concern led to his fifteen year involvement with the work of Western Maryland College in this area, and specifically with the graduate program on Human Service Management that focuses on the developmentally disabled. Larry became a trustee of the college (now known as McDaniel College) in 1989, and in 1992 the College established the Laurence J. Adams Chair in Special Education for graduate students. In 1993, he was the very proud recipient of an honorary Doctorate in Humane Letters from the college.

A devoted family man, Larry was the father of two sons and three daughters. Wife Peggy says that, despite his many other responsibilities, he was never too tired to listen and to offer positive advice. In his later years, he considered his seven grandchildren to be his "greatest jewels." And, for relaxation, he was for many years an enthusiastic supporter of the Baltimore Orioles.

When speaking with friends about Larry Adams, the word "gentleman" always enters the conversation, for Larry was a gentleman in every positive connotation of that word. He was also a great leader . . . and to be such, others must be willing to

follow. For those of us so blessed, to follow Larry was a pleasure, a privilege, and an adventure.

Larry Adams is survived by his wife, Marguerite "Peggy" Adams of Potomac, Maryland; five children, Stephen Adams of Aurora, Colorado; Michael Adams of Potomac, Maryland; Mary Louis Sterge of Malvern, Pennsylvania; Teresa Hayes of Collegeville, Pennsylvania; Susan Adams of Gaithersburg, Maryland; and seven grandchildren.

