



R. D. DeLauer

Richard D. Delauer

1918–1990

By Ruber F. Mettler

Richard D. Delauer—engineer, naval officer, corporate executive, government official, and entrepreneur—died in Los Angeles on April 22, 1990, at the age of seventy-one. The scope and diversity of his experience and his contributions to society were extraordinary.

Dick was born in Oakland, California, on September 23, 1918. Upon graduation from Oakland High School, he was admitted to Stanford University across the bay. His boyhood interest in science and mathematics led him to choose an engineering major, and in 1940 he received a B.S. in mechanical engineering.

He began his career at the Glenn L. Martin Company in Baltimore as a structural aircraft designer, where he worked on the Mars flying boat project. Returning to California in 1941, Dick joined the Northrop Black Widow night fighter project as a structural engineer. In 1942 he returned to the bay area to take a job as a test engineer at the Moffett Field Naval Air Station. The next year he received a commission in the U.S. Navy and joined the staff of the Commander, Fleet Airships Pacific, as an aeronautical engineering officer. For the remainder of the war years, he was involved in engineering development, modification, and installation of innovative applications of weapons and fire control systems for the Navy's blimp fleet, both at Moffett Field and the Naval Airship Station in Lakehurst, New Jersey.

In 1947 Dick was posted to the Naval Postgraduate School, then at Annapolis, where he not only earned a degree in aeronautical engineering but also coached the Naval Academy baseball team. His outstanding record at Annapolis earned him an assignment to the California Institute of Technology in 1949. In his first year he earned an A.E. in aeronautical engineering, followed in 1953 by a Ph.D. in aeronautics and mathematics.

For the next five years he was assigned to various engineering projects, including the Sparrow and Bullpup guided missiles, and as Navy project officer for the interagency Kiwi-A nuclear rocket reactor experimental test program at Los Alamos Scientific Laboratory. His final navy assignment was as a project officer at the Naval Air Special Weapons Facility in Albuquerque. Dick's pioneering work in nuclear rocket propulsion is documented in two books that he coauthored with Robert W. Bussard: *Nuclear Rocket Propulsion* (McGraw Hill, 1958) and *Fundamentals of Nuclear Flight* (McGraw Hill, 1965).

In 1958 Lieutenant Commander "Dog" DeLauer retired from the navy and Dr. Dick DeLauer joined the fledgling TRW Space Technology Laboratories as an assistant laboratory director. He participated in the design and development of several of the first U.S. satellites and space probes, including the early Explorer and Pioneer space vehicles. In 1960 he was appointed director of the Titan Program Office, where he managed a multidisciplinary technical team that provided systems engineering and technical direction to the Air Force Titan ICBM associate contractor team. He later assumed program management oversight responsibility for the Atlas and Minuteman programs as well as Titan.

Dick was named vice-president and general manager of TRW's Systems Engineering and Integration Division in 1965. He led this division into new fields based on ballistic missile technology, including transportation systems engineering, advanced energy research, and sophisticated computer-based information systems applications. He was promoted in 1968 to vice-president and group general manager with executive responsibility for all of TRW's defense, space, electronics, and information systems activities.

In 1970 Dick was elected an executive vice-president and sector executive of TRW Inc., and in 1972 was elected to the TRW board of directors. For the next decade, he led the defense and space systems, energy, and information systems activities of the corporation. He spearheaded significant technical advances in alternative energy research and production; pollution monitoring and control systems; petroleum exploration and production technology; defense command and control systems; data fusion technology; military, commercial, and reconnaissance spacecraft design, development, and orbital operations; and innovative international engineering ventures in defense, space, and commercial technology.

Dick accepted the post of under secretary of defense for research and engineering in 1981, in which position he was the principal technical adviser to the secretary of defense. As under secretary, he was the senior Department of Defense executive for research and development policy, acquisition management, and defense atomic energy programs. He continued this assignment through 1984, and during his tenure was able to make significant improvement in the timeliness and efficiency of the defense acquisition process.

Always an outspoken advocate of defense policies he felt to be in the national interest, Dick never hesitated to take issue with those who espoused contrary views. It is a fitting tribute to Dick's integrity, dedication, and persuasiveness that he nearly always emerged from these confrontations with his reputation enhanced in the eyes of his opponents. It could be said that, although Dick may have stepped on a few toes when he felt it was necessary, he very rarely made an enemy as a result.

When Dick left the Department of Defense at the end of President Reagan's first term, he founded the Orion Group, Ltd., an international consulting and technical services firm. He also rejoined the Defense Science Board, of which he had been a member during the 1970s, and therein continued to provide technical advice and consultation to the Office of the Secretary of Defense. Late in 1989 he was invited to become the chief executive officer of Fairchild Space and Defense, which he managed until his untimely death.

Dick DeLauer was elected to membership in the National Academy of Engineering in 1969. His membership in the NAE always gave Dick great satisfaction. He enthusiastically supported the Academy's programs and projects, serving as organizer and chairman of the 1970 Symposium on the Food-People Balance and as chairman of the Nominating Committee in 1978. When Dick was asked why he felt qualified to undertake a searching examination of world food production, population trends, and related socioeconomic factors—a subject far removed from ballistic missile and space technology—Dick's answer was simple and direct: He said that world hunger was a quantifiable and definable problem, and engineers are trained as problem solvers.

Besides the National Academy of Engineering, Dick's favorite professional organization was probably the American Institute of Aeronautics and Astronautics. A member since his student days at Caltech, Dick took part in virtually every aspect of the AIAA program, from technical committee chairman to vice-president and director of the Institute. In 1968 Dick's many contributions were recognized by his election as a fellow of the AIAA.

He also found time to participate in an impressive number of other professional and community activities. He was a member of the board of governors and chairman of the Aerospace Technical Council of the Aerospace Industries Association. He was founding chairman of the American League for International Security Assistance. He served as vice-chairman of Governor Reagan's 1968 Task Force on California Transportation and was a regional chairman of the National Alliance of Businessmen. He was a vice-president and director of the Los Angeles Area Chamber of Commerce and a member of the California Council on Science and Technology.

Dick was a trustee of the University of Redlands and chairman of the board of overseers of its Johnston College. He was member of the Advisory Committee to the Stanford School of Engineering and of the Engineering Advisory Council of the University of Southern California. He served as a regional chairman for the United Way of Los Angeles and was a member of the Advisory

Committee of the Institute for the Advancement of Engineering. He served on the Board of Visitors of the Defense Systems Management College. An ardent and supportive alumnus of both Stanford and Caltech, Dick participated as an active fundraiser for both schools in addition to his membership in the Caltech Associates and the Stanford Cabinet.

He also served on the National Aeronautics and Space Administration's Advisory Committee, the Air Force Scientific Advisory Board, the National Research Council's Air Force Studies Board, the Naval Research Advisory Committee, the Energy Research Advisory Board of the Department of Energy, and the Army Materiel Acquisition Review Committee.

He was the recipient of an honorary doctor of letters degree from the University of the Redlands. He was recognized by the National Conference of Christians and Jews for distinguished service in the field of human relations. He received the Herbert V. Roback Memorial Award of the National Contract Management Association for outstanding contributions to the defense acquisition process. He was decorated by the government of France for his contributions to the cause of world peace and security.

Dick DeLauer's boundless energy, contagious enthusiasm, zest for life, positive approach to problems and their solutions, steadfast loyalty to friends and associates, lifelong dedication to the profession of engineering, and never-wavering devotion to the cause of human freedom and national security are inspirational in their extent and extraordinary in their diversity. He lived his life in a manner that brought both honor and credit to the profession of engineering, to his associates, to himself and his family, and to the aerospace industry.