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# **JAMES SMITH McDONNELL**

*1899-1980*

BY AR THUR E. RAYMOND

**JAMES** SMITH McDONNELL was an aeronautical engineer and businessman whose foresight and dynamic leadership created one of the world's great aerospace manufacturing organizations.

He was born in Denver, Colorado, on April 9, 1899, and died on August 22, 1980, in St. Louis, Missouri. Educated in the schools of Little Rock, Arkansas, he entered Princeton in 1917 and graduated in 1921 with a Bachelor of Science degree and honors in physics.

Deciding upon a career in aviation, he joined the Army Air Corps for flight training at San Antonio, Texas, and was given his wings as a Reserve Second Lieutenant in January 1924. Meanwhile, he had enrolled in the Massachusetts Institute of Technology, the only university offering graduate courses in aeronautics at that time, from which he received a master's degree in aeronautics in 1925, one of a class of four.

For the next four years he worked in various aircraft companies in a number of positions, including that of Assistant Chief Engineer with the Stout Metal Airplane Company of Dearborn, Michigan, designer of the Ford Trimotor.

Starting out on his own in Milwaukee, Wisconsin, Mr. McDonnell and his associates built a two-place low-wing airplane to compete in the \$100,000 Guggenheim Safe Airplane competition in 1929. Though this airplane, which he called the "Doodlebug," was unsuccessful in that effort, he spent a year making demonstration flights around the United States in the hope of finding a market for it

as a popular, inexpensive flying "flivver." The Depression was against him, and after abandoning this effort he became an engineer and test pilot with Great Lakes Aircraft in Cleveland, Ohio, moving on to the Glenn L. Martin Company of Baltimore, Maryland, as a Project Engineer. In five years with Martin he had become Chief Project Engineer for land planes, but he decided the time had come for him to form his own firm.

Starting with \$165,000 from savings, family, friends, and businessmen, the McDonnell Aircraft Corporation of St. Louis, Missouri, was incorporated in 1939. At first it was a struggle and, while the company was developing its own products, it depended largely on subcontracts from other aircraft companies to survive. But by 1943 McDonnell had begun to establish itself as a major long-time source of fighters for the military services, from the FH-1 Phantom to the F-18 Hornet.

In the 1950s the company expanded its work in missiles to cover spacecraft and in 1959 obtained a contract for *Mercury*, this country's first orbital vehicle, following with one for *Gemini*.

In 1967 the McDonnell Douglas Corporation was formed through merger with Douglas Aircraft Company of Santa Monica, California, noted for its famous DC series of commercial airliners as well as numerous Army and Navy combat aircraft and missiles such as Thor and Nike. This merger fulfilled a long-held desire of Mr. McDonnell, who held a high regard for Douglas, because subcontracts from Douglas had played a major part in enabling his company to survive its early years and because each company supplied strength the other needed.

In his business life Mr. McDonnell was noted for his attention to and knowledge of detail, his careful handling of funds, his willingness to speak his mind forcefully and effectively, and his high sense of ethics. He looked upon company products as a result of team effort, insisting that his employees be called teammates and that they think of him as Mr. Mac-or, in his later years, as Old Mac. Unconventionality never bothered him.

Anyone who worked closely with him soon learned he would accept no vague thinking or incomplete preparation. A slight, bespectacled man with piercing eyes, he had the ability to concentrate totally on the subject at hand and would brook no distractions.

Nobody could listen long (and sometimes it had to be long) to Mr. Mac without sensing his enthusiasm and being stimulated to participate in it. He operated in a large area but was also intensely personal. His family meant much to him and he enjoyed family life.

Combined with his strong interest in and contribution to national defense was a conviction that peace is two-sided: armed strength and an effective international peace-keeping organization. He said, "There is nothing contradictory about supporting preparedness as the surest safeguard against war and at the same time supporting the United Nations. On the contrary, these are complementary concepts. They mark the surest road to peace."

Mr. McDonnell devoted much of his life to fostering the United Nations and the North Atlantic Treaty Organization. From 1965 until his death he actively served the United Nations Association of the United States as a member of its Board and was National Chairman from 1975 to 1977. He was a pioneer in granting all his employees a paid vacation on United Nations Day.

His interest in the probing of space was also strong, arising from curiosity about the nature and meaning of the universe and life. He was intensely interested in the human mind, brain, and genetic makeup and in how to realize the human potential. He was at heart profoundly religious in this quest, seeking a better personal contribution toward making the world more peaceful and a better setting for mankind.

Through the McDonnell Foundation and the McDonnell Aerospace Foundation, family and company philanthropic funds, **Mr.** McDonnell oversaw the distribution of millions of dollars for charity and support of medical and scientific research. His philanthropy was in the McDonnell style of holding to large visions, and the major part of it was directed to the Washington University **in** St. Louis in such projects as the McDonnell Center for the Space Sciences as part of the Department of Earth and Planetary Sciences, the McDonnell Medical Sciences Building, and the McDonnell Department of Genetics . His most recent contribution was \$5.5 million in May 1980 to establish the McDonnell Center for Studies of Higher Brain Function. A grant also helped make possible the construction of the McDonnell Planetarium in St. Louis's Forest Park.

Mr. McDonnell was elected to the National Academy of Engi-

neering in 1967. He served on many community, state, and national committees. He was a member of the Advisory Board of the Center for Strategic and International Studies; the Industry Advisory Council of the Department of Defense; President Nixon's Aviation Advisory Committee; the National Alliance of Businessmen; President Johnson's Citizens' Committee; and the Atlantic Council of the United States, to name a few. He actively served on the Board of Trustees of the U.S. Naval Academy Foundation, Washington University, and Washington University Medical School and Associated Hospitals, among others.

He was the recipient of six honorary degrees and many honors and awards, including the 1963 Daniel Guggenheim Medal, the 1966 Collier Trophy, the 1972 Forrestal Memorial Award, and the 1980 National Academy of Sciences Hunsaker Award. He was an Honorary Fellow of the American Institute of Aeronautics and Astronautics and the Royal Aeronautical Society and an Enshrinee in the Aviation Hall of Fame.

The McDonnell Douglas Corporation today is a diversified company with 1979 sales of more than \$5 billion, about equally divided between commercial and government business, facilities in numerous locations within the United States and Canada, and 83,000 personnel.

In accepting the Forrestal Award Mr. McDonnell said:

As I cast my mind back over fifty years, what impresses me the most? It is very clearcut. It is the rapid pace of creative evolution that has been going on, the rapid pace at which the human mind is delving deeper and deeper into the mysteries of this fantastic fairyland universe in which we find ourselves consciously existing. Not only is the human mind using the methods of basic science, technology, and engineering. Man is reworking the evanescent stuff of nature into new patterns and combinations that can be developed into things useful to mankind, and the rate at which it is occurring is pyramiding.

