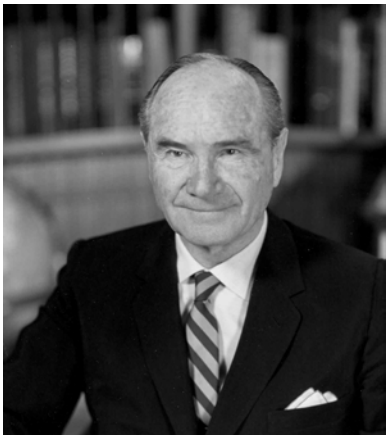
MEDALIST FOR 1963

For lifetime contribution of outstanding nature in the design and development of military aircraft, and for pioneer work in space technology.



JAMES SMITH MCDONNELL

James Smith McDonnell early in life decided to become a builder of aircraft of his own design. The result has been a long series of major contributions to aircraft development, and to space flight advancement as well.

Born April 9, 1899, in Denver, Colorado, he entered Princeton University in 1917 and was graduated in 1921 with the degree of Bachelor of Science. He entered Massachusetts Institute of Technology to study aeronautical engineering, and at the same time applied for admission to the Army Air Corps Flying School in San Antonio, Texas, where he learned to fly. He received his Master's degree from MIT in 1925.

He began his aeronautical career as a test pilot with the Huff-Daland Aircraft Company. In late 1924 he joined Consolidated Aircraft Company in Buffalo, New York, as stress analyst and draftsman. A year later he became assistant chief engineer of the Stout Metal Airplane Company, and in 1926 chief engineer of Hamilton-Aero Manufacturing Company.

In 1928 he formed McConnell and Associates in Chicago to design and build a small monoplane for the Guggenheim Safe Aircraft Competition. The plane, The Doodlebug, performed well on flight tests, but the engine failed twice during preliminary trials, putting the plane out of the Competition. He repaired it later and used it successfully in a barnstorming tour.

In 1933 he joined the Glenn L. Martin Company, where he became chief projects engineer for land planes. In 1938 he organized McDonnell Aircraft Corporation in St. Louis, Missouri. Within a few months McDonnell had boldly entered an Army Air Corps design competition for a bomber-destroyer airplane. The bid led to research and development contracts, and the eventual purchase of a very small factory.

In 1943 McDonnell Aircraft received its big opportunity: an invitation from the Navy to develop a jet fighter that would operate from an aircraft carrier. By the war's end the company had not only designed and built a successful carrier-based jet fighter, but also a pilotless aircraft missile, and the world's first twin-engine helicopter. Subsequently, the company built 800 F-2

Banshees and 500 F-3 Demons for the Navy and 800 F-101 Voodoos for the Air Force. In 1958 it won a competition for the F-4 Phantom II Navy fighter, later manufacturing this aircraft for the Air Force as well. It produced the Air Force's Quail missile and the airframe and propulsion units for the Navy's Talos Missile.

In 1959 McDonnell Aircraft was selected to design, develop, and construct the first U.S. manned spacecraft for the National Aeronautics and Space Administration's Project Mercury. It subsequently received a contract to build the two-man Gemini spacecraft for NASA. Its ASSET glide re-entry vehicle for the Air Force was successfully flown in September 1963. McDonnell died August 22, 1980.