

MEDALIST FOR 1995

For lifelong technical contributions and technical leadership in academia, industry and government as NASA Deputy Administrator during the Apollo program and in several other government positions.



ROBERT CHANNING SEAMANS, JR.

Robert Seamans played a major role in the Apollo Program, which brought preeminence to the United States as a “manned space faring nation.” He graduated from Harvard with the class of 1940. He and a fellow classmate decided to look into the possibilities of an advanced degree in engineering from MIT. Seamans was admitted as graduate student Professor Draper’s multi-disciplinary program called “The Instrumentation Program” program. This was the beginning of a long and fruitful relationship between Draper and Seamans, who ultimately earned an SM and ScD in Instrumentation in 1951. His thesis involved the dynamic coupling between an airborne gunsight and airplane dynamics. Typically, for a Draper supervised thesis, Seamans verified his calculations with a flight test program, in which he innovated the use of a rapid change of the position of a control surface followed by a rapid restoration to the original position, which enabled him to determine the aircraft dynamics from flight data. This control motion has become standard and is called a “doublet.”

During WWII Seamans was an instructor in the Department of Aeronautics and on the staff of the Draper Laboratory. He taught members of the Navy V-7 program and worked on or led several important classified fire control projects for the Navy and the Army Air Corps.

In 1950 he became program manager of a joint MIT-Industry project to develop an air to air missile, which was called the ‘Meteor.’ In 1954 he was hired by RCA and established the Airborne Systems Laboratory. In 1960 Mr. Glennan, the Administrator of the newly formed National Aeronautics and Space Agency, sought out Seamans for the position of Associate Administrator, which corresponded to the position of General Manager in industry or Vice Chief of Staff in the military, with all that implied. Seamans remained in that position under Mr. Webb, a Kennedy appointee. During Seamans’s tenure as Associate Administrator, the Apollo Project was established with the goal of landing on the Moon within the decade. The goal was met in 1969.

Seamans resigned from NASA in 1967, and returned to MIT with a joint appointment in the Sloan School of Management and the engineering school. In the school year 1968 to 1969 he

Daniel Guggenheim Medal

was appointed the Hunsaker Visiting Professor in the Aeronautics and Astronautics Department. In December 1968 he was named the Secretary of The Air Force, a position he held until 1973. During his tenure as Secretary, he played an important role in the modification of the C-5A and the F-111. Also during this period, the Air Force initiated the acquisition of the B-1, F-15, the AWACS and the A-10 as well as the lightweight fighter that eventually became the F-16. The A-10 was a controversial close support airplane that has proved its worth over the years.

In May 1973 he became the President of the National Academy of Engineering, a position he held until he resigned to become the first Administrator of the Energy research and Development Agency. He held this position for two years, resigning just prior to President Carter's inauguration.

In 1977 he became the Luce Professor for Environment and Public Policy at MIT. During the period 1978 to 1981 he was Dean of Engineering at MIT. He resigned from the Luce professorship in 1984, to become a Lecturer in Aeronautics and Astronautics. He remained in that position until June 1996. In 1981 he was elected chair of the board of trustees of Aerospace Corp.

He died on June 28, 2008 in Beverly, Massachusetts.