

# Project Pioneer: Donald Eastman



AEDC Fellow Donald Eastman's AEDC career started in 1951 as the assistant chief of the project office when he began working on design and construction of wind tunnels and engine altitude test facilities.

By the time he retired in 1975 as AEDC's chief scientist, his technical involvement successfully contributed to the establishment of the Propulsion Wind Tunnel (PWT) complex, the Engine Test Facility (ETF) and the von Kármán Gas Dynamics facility. During his career, he was involved in technical management, research and development programs and development testing activities in wind tunnels, altitude engine testing facilities, and space environment facilities for aircraft, missiles, spacecraft and their propulsion systems. Specifically, he was responsible for the Air Force decision to build the PWT transonic and supersonic wind tunnels with

16-foot rather than eight-foot sections.

Mr. Eastman, who earned a bachelor of science degree in aeronautical engineering at Georgia Tech, contributed firsthand to the conceptual planning of AEDC while assigned to the Office of Secretary of Defense, serving from 1947 to 1951, as the director of committee on Aeronautics, Research and Development Board.

He also participated in the design, construction, operations, and future planning of the center while in several key positions. From 1951-53, he was the assistant chief of the Projects Office. In 1954, he was promoted to the director of test operations and held that position until 1957 when he was assigned as AEDC's technical director. In 1961, he became AEDC's director of research and in 1964, he was named the center's chief scientist.

He was at the forefront of critical decisions during the construction phase and initial operations of AEDC. For example, just after the ETF basic plant became operational in 1954, the DoD reviewed the process and was not complimentary in their evaluation. Mr. Eastman spearheaded a successful effort for funds and approval by the Deputy Chief of Staff for Research and Develop for the Air Force to construct an ETF addition - test cells J-1 and J-2.

While many people contributed to the building of the Aeropropulsion Systems Test Facility (ASTF), Mr. Eastman played a major role. As the AEDC chief scientist. He presented, advocated and defended ASTF at more than 30 high level meetings. At one

particular Scientific Advisory Board (SAB) meeting attended by the Secretary of the Air Force, Chief of Staff, SAF members and others, the conclusion was reached that ASTF should not be built and the NASA Lewis Research Center should be augmented for additional test capability.

Mr. Eastman strongly objected to this conclusion pointing out the fallacies of such a decision. As a result, the "Kerrebrock" committee was formed and after a thorough review of the requirements, the committee concluded that the ASTF should indeed be built and should be built at AEDC.

Mr. Eastman was exceptionally well-known for his management capability. He was well-respected by his superiors, peers and subordinates alike and was responsible for making many top-level management decisions. While he was deputy chief of staff for operations, Mr. Eastman was responsible for the concept of the Air Force representatives being assigned to the major test complexes at the center, a system which continues today.

Mr. Eastman was instrumental in the establishment of data exchange agreements with European allies - leading the effort to establish five agreements - one with England, two with France, one with Germany, and one joint agreement with France and Germany.

He was a member of the American Institute of Aeronautics and Astronautics and the University of Tennessee Space Institute Advisory Council. In addition, he was a member of the Technical Advisory Group to former Tennessee Congressman Jim Cooper.

He was inducted as an AEDC Fellow in June 1989.



A 2005 aerial view of ASTF.