

MEDALIST FOR 1996

For lifelong contributions to aeronautics in industry and academia from the aerodynamics of the flying wing to the invention of the adaptive wind tunnel.



WILLIAM REES SEARS

Dr. William Rees Sears' life as a consummate proponent of aeronautics and astronautics is exemplified by his fundamental contributions to aeronautical engineering science and management, to education as a professor, author and editor, and as an enthusiastic pilot.

Dr. Sears was born on March 1, 1913 in Minneapolis, Minnesota, earning his B.S. degree from the University of Minnesota in 1934. He did graduate work in Aeronautical Engineering at the California Institute of Technology under Professor Theodore von Karman who was to have strong influence on his life and career. He was awarded his Ph.D. in 1938. While at the California Institute of Technology he also supervised the training of private pilots, learned to fly and became a dedicated pilot, flying his own plane to many conferences and meetings and logging over 8000 total hours.

He went to work for Northrop Aircraft Corporation and became Chief of Aerodynamics and Flight Testing. He headed the team that designed the first flying wing aircraft and the P-61 "Black Widow." He also served in the Naval Reserve on special assignment in 1945 debriefing German scientists and engineers.

He joined the faculty of Cornell University in 1946 and founded the Graduate School of Aeronautical Engineering and became its first Director. In 1962 he was named the J. L. Given Professor of Engineering and in 1963 founded and became director of Cornell's Center of Applied Mathematics. Working with his many graduate students, he did pioneering research on unsteady flow, wing theory, magneto-hydrodynamics, and wind tunnel design for the study of transonic flight. Professor Sears was also editor of the Journal of Aeronautical Sciences from 1955 to 1963.

He joined the faculty of the Department of Aerospace and Mechanical Engineering at the University of Arizona in 1974 and was named Professor Emeritus in 1978, a position he held until his death on October 12, 2002.

Daniel Guggenheim Medal

Sears, one of Theodore von Kármán's earliest and most renowned doctoral students at Caltech, was a member of the National Academy of Sciences, the National Academy of Engineering, American Academy of Arts and Sciences, as well as the Academia Nacional de Ingenieria of Mexico. He received many awards and honors including selection as an Honorary Fellow of the American Institute of Aeronautics and Astronautics and recipient of the Prandtl Ring from the German Aeronautical Society.