MEDALIST FOR 1983

For a lifetime of significant contributions to the theory and practice of aeronautical structures design as an outstanding engineering scholar and educator.

NICHOLAS JOHN HOFF

Dr. Nicholas Hoff was learning to fly gliders during the same era as the Wright brothers were making history at Kitty Hawk. He was a stress analyst, designer and project engineer for a Hungarian aircraft company, and for a sideline taught gliding. If that wasn’t enough, he found time for scientific research when other work was slow. Arriving in the USA prior to World War II, he obtained his Doctorate at Stanford under Dr. S.P. Timoshenko. Hoff continued research at Stanford, serving on many important scientific boards for the Government. Even after retirement, he was a consultant on major space programs for various aerospace companies.

His degree in Mechanical Engineering was obtained at Polytechnic Institute of Zurich. In the mid-'30s he worked in Germany designing the mounting of the Hungarian Gnome-Rhone engine to be installed in the Junkers JU-86. This gained him much experience in monocoque structure, which continued into the complex structure design of sandwich and thin-walled reinforced aluminum shells. This evolved into the study of aerodynamic heating and the thermal stresses occurring at supersonic speeds and in outer space with its lack of atmosphere for conducting heat away from the structures.

The U.S. Government elected Dr. Hoff to the Scientific Advisory Board of the Air Force; the Advisory Group for Aeronautical Research to NATO; and various boards and advisory committees of the Navy, NASA and USAF. He was elected member of the U.S. National Academy of Engineering.

Until his death in 1997, Nicholas Hoff continued active participation in several major manufacturing companies doing design consulting on the Polaris, Poseidon, Saturn and Apollo space vehicles. He wrote and presented over 200 technical papers, authored and edited at least a half dozen books, along with serving chairmanships of several international conferences.