

Daniel Guggenheim Medal

MEDALIST FOR 1933

For contributions to the science of aerodynamics, to the science and art of aircraft design, and to the practical construction and utilization of rigid airships.



JEROME CLARKE HUNSAKER

The contributions of Jerome Clarke Hunsaker to the development of flight and the flight sciences are so many and varied as almost to defy classification. He was born August 26, 1886, at Creston, Iowa; educated in the public schools of Detroit and Saginaw, Michigan; at the United States Naval Academy, from which he was graduated in 1908 at the head of his class, and at Massachusetts Institute of Technology (MIT).

Hunsaker was early interested in aeronautics, but airplane design as an engineering art did not then exist in this country. With the aid of Mrs. Hunsaker, the former Alice Avery, he translated Eiffel's pioneer work on wind tunnel testing of airplane models, and in 1913 went to Paris to join Eiffel's assistants. Returning the following year, he inaugurated wind tunnel research at MIT to determine the aerodynamical data necessary for rational aircraft design. This work formed the basis in October 1914 for a graduate course in aeronautical engineering at MIT, the first in the United States. In 1916 MIT awarded him the degree of Doctor of Science for wind tunnel research on dynamical stability.

In 1916 he was put in charge of the Aircraft Division of the Navy Bureau of Construction and Repair, and soon was responsible for the design, construction and procurement of all Naval aircraft. In 1918 he was charged with two special engineering projects: to build a Zeppelin, and to design and build a flying boat to cross the Atlantic. The flying boat project became known as the "NC" (Navy Curtiss) and four units were built. Three started from Newfoundland in May 1919; two were wrecked near the Azores, but the NC-4 under Commander A. C. Reed continued on to Lisbon and Plymouth, the first crossing of the Atlantic by aircraft of any type. The Zeppelin project resulted in completion of the airship Shenandoah, the first Zeppelin-type ship to employ helium as the lifting gas.

In 1921 Hunsaker was transferred to the newly organized Navy Bureau of Aeronautics, and here had an opportunity to realize practical results from the great accumulation of research and experimental data obtained during the war. In 1923 he was detailed as Assistant Naval Attache at London, Paris, the Hague, Rome and Berlin, remaining on this duty until 1926, when he resigned to join the research staff of the Bell Telephone Laboratories in New York, as Assistant Vice President. He there developed wire and radio communication services for civil aviation, beginning with a system organized for the Daniel Guggenheim Fund for the Promotion of Aeronautics.

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In 1928 he became a Vice President of the Goodyear-Zeppelin Corporation, which had been formed to build the Akron and Macon for the Navy. Following completion of these airships he returned to MIT as head of the Departments of Mechanical Engineering and Aeronautical Engineering. In 1941 he was elected Chairman of the National Advisory Committee for Aeronautics, and was reelected annually for sixteen years. He died on September 10, 1984.