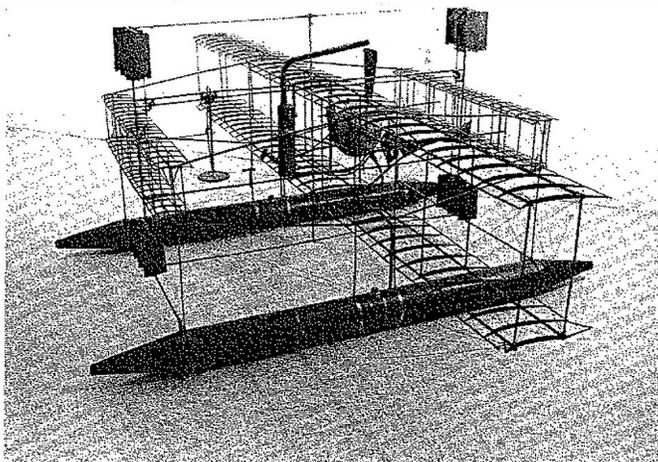


GALLAUDET SEAPLANE MODEL

One of the most prized possessions in the CAHA collection is the large seaplane model built by Edson Gallaudet, probably early in 1910. This makes this artifact the second oldest surviving piece of Gallaudet hardware, pre-dated only by the 1898 Gallaudet kite glider, presently on exhibit in the National Air & Space Museum, Washington, DC.

Dr. Edson Gallaudet, an important Connecticut aviation pioneer, became interested in aeronautics well before the turn of the century. A graduate of John Hopkins University, where he gained his doctorate, Gallaudet investigated the principles of warping wing control systems as far back as 1897, while he was an instructor at Yale College.

An innovative genius, Gallaudet formed his own company in 1911 to further his theories in aircraft design -- which tended to be unconventional to extremes. His 1912 "Bullet" had the propeller behind the tail surfaces and driven by an extension shaft from the engine which was located amidship in the streamlined fuselage. Perhaps he is best known for his revolutionary designs where the airplane's propeller blades were mounted on a rotating ring around the fuselage, behind the wings. The story of the "Gallaudet Drive" and the first aircraft to incorporate this concept, the Gallaudet D-1, appears on Page 18 of this Newsletter.

During World War I, the Gallaudet Aircraft Corporation obtained modest contracts with both the Army and the Navy, and after the war, the company shared in the DH.4 modification program. Gallaudet designed a multi-engine nacelle involving two Liberty engines geared to a common propeller, which was proposed for the Barling bomber.

A number of financial setbacks dealt a death blow to the shaky structure of the Gallaudet Aircraft Corporation and by the end of 1923, control of the company passed from Edson Gallaudet to Major Reuben Fleet. Within two years, Fleet had reorganized the defunct company into Consolidated Aircraft, parent of the giant Convair industrial complex.

The seaplane model is a biplane with an open frame fuselage and two biplane horizontal tails and two sets of rudders located at either end of the fuselage. The model is mounted on two side-by-side cylindrical floats. Two pusher propellers are driven from a centrally mounted flat cylinder which appears to be a steam turbine. It is approximately five feet by six feet, a big model by any standards.

CAHA acquired this historic model in June 1973, when CAHA's Gallaudet expert Bob Gordon attended an auction at the Varnum House Museum in East Greenwich, Rhode Island. Among the items offered for sale, Bob recognized the importance of this model and successfully outbid everyone to bring the model home.

Bob Gordon has identified this model from a patent drawing on Patent #1,074,256 which was issued to Edson Gallaudet on September 30, 1913. This patent, "System of Aerial Control," reads in part: "The invention is for the purpose of maintaining the lateral balance of flying machines of the aeroplane type. In its preferred form a single auxiliary plane is mounted centrally above and a second plane is mounted centrally below the main fixed wings of a monoplane or multiplane machine, and the lateral balance of the machine is controlled by causing both upper and lower auxiliary planes to tilt differentially to one side or the other to the required degree."

The perspective drawing on this patent, which had been filed by Gallaudet on April 3, 1910, is identical in every detail to the model. The patent drawing is so detailed and so different from other Gallaudet drawings and sketches, that it must have been copied from the model itself. This dates the manufacture of the model to early 1910 or before.

When we received the model, it was not in good condition. There was no fabric left on the wings and tail surfaces. The wings were bent, a few parts were broken and the entire model was covered with rust.

Hamilton Standard restored the model to displayable condition, and it now looks like it may have looked when it was built over seventy years ago. The fabric covering was left off of the wings and tail surfaces to better show the construction details.