



The Boston Aeronautical Society 1895-1915

Post Office Box 1197

Boston, Massachusetts

Their motto: Si vis scire experire If you want to know, experiment

Executive Committee Members 1895: J. Means, W. H. Pickering and Albert A. Merrill

The first American aeronautical society, the Boston Aeronautical Society, was founded in Boston on March 19, 1895 by three leading aeronautical experimenters: James Means of Boston, Albert A. Merrill of Hyde Park, Boston and William H. Pickering of Cambridge. The Society's objective was for members to engage in, and support basic aeronautical research and experimentation. The Society's Constitution stated that its goal was to "encourage the work of aeronautical experimenters and their study of heavier than air aerial machines and to advance the science of aerodynamics". Meetings were to be held every two weeks where research papers were to be presented by members on their current experiments and to explore and comment on new aeronautical ideas and theories. Subsequently, meetings were scheduled on a monthly basis to provide members more time to document and present the results of their experiments. Membership was limited to twenty experimenters and to honorary members who were active in the aeronautical research field. New members would be nominated by the Executive committee and approved by vote of the membership. Mechanics and personal assistants were hired by individual members to construct and help test full scale and model gliders, and experimental kites for the Society. Experiments utilizing these aeronautical devices were made in various Massachusetts and New England locations: Canton, Sharon, Manomet Point in Plymouth, Morris Island in Chatham, and Boston Light on Little Brewster Island in Massachusetts, York Harbor, Maine and on Mount Willard in Whitefield, New Hampshire.

The founding members included:

Robert Day Andrews, Architect

Samuel Cabot, Chemical engineer, President Cabot Corporation

Henry Held Clayton, Meteorologist, Superintendent, Blue Hill Observatory

Greeley S. Curtis, Consulting engineer

B. L. Dorr, Engineer, Boston Public Works

Sterling Price Ferguson, Meteorologist, Blue Hill Observatory

S.C. Keith Jr. Professor, Boston Tech, (M.I.T.)

Gaetano Lanza, Professor, Boston Tech, (M.I.T.)

*James Means of Boston, retired shoe manufacturer, publisher of the Aeronautical Annals

*Albert A. Merrill, Bank manager, accountant and lecturer on aeronautics

Edward Morse, Wine merchant

Josiah Byram Millet, Publisher

Edward Charles Pickering, Astronomer, professor, Harvard University

*William Henry Pickering, Astronomer, professor, Harvard University

Abbott Lawrence Rotch, Director and Founder, Blue Hill Observatory

David Todd, Astronomer, Professor, Amherst College

* Executive Committee Members BAS Aeronautical Society

Honorary Members:

Octave Chanute, Chicago

Samuel P. Langley, Washington D.C.

C.F. Marvin, U. S. Weather Service, Washington D.C.

Francis Herbert Wenham, Marine engineer, England

Lawrence Hargrave, Australia

Edward Chalmers Huffaker, Nashville (subsequently BAS joined as a regular member)

Personnel Notes:

BAS Mechanics:

Albert B.C.Horn of Needham 1885-1887,Gustave (Weisskopf) Whitehead of Boston 1885-1887

Resignation: James Means resigned from the BAS on December 18, 1896 after a dispute with the other members of the BAS Executive Committee. He however continued his experiments with models and kites and published and shared that information. He also wrote aviation articles for the local and national press and continued his work as editor and publisher of aeronautical research papers received from around the world for publication in the Aeronautical Annals in 1895, 1896 and 1897. Means issued the final edition in 1910 the Epitome of the Aeronautical Annual containing the most important articles of the original three volume series.

Aeronautical test sites:

Aeronautical Test Ground 1896: The Hemenway Estate, Blue Hills, Canton, MA.

This site, a summer home and farm on Washington Street, Canton, a short distance from the Blue Hill Observatory, was owned by Augustus Hemenway. He was a close friend of many of the members of the BSA and when asked, he welcomed them to use his property for test flights.

In the Spring of 1896 the hills and open fields of the estate were used by the Boston Aeronautical Society to test two flying machines: the Boston glider, a self propelled biplane with an ornithopter mid wing and a custom built Lilienthal type glider. These two flying machines were constructed by the BAS mechanic Albert B.C. Horn of Needham and Gustave (Weisskopf) Whitehead of Boston. Upon completion they were to be flown by Whitehead. He attempted to fly the human powered ornithopter but was unsuccessful. He was however able to make a few short, low and slow flights in the Lilienthal type glider.

Morris Island, Chatham, MA

Samuel Cabot visited in 1895 with Hiram Maxim in England and then with Otto Lilienthal in Germany to see their workshops and flying machines and to discuss his own gliding experiments on Cape Cod. He brought back plans for constructing a basic Lilienthal glider. Cabot also provided Lilienthal a sum of money to assist him in completing his pioneering experimental work. Cabot as a founding member of the BSA had been experimenting with primary gliders for a number of years. He engaged Gustave (Weisskopf) Whitehead in the summer of 1896 to assist himself and Cape Cod carpenter James A. Crowell, in constructing and flying Lilienthal type gliders at Cabot's summer home at Morris Island, Chatham, MA. Cabot reported at a BAS meeting in the Fall of 1896 that these glider tests with Whitehead in 1896 were not successful.

Mount Willard in Whitefield NH, Boston Harbor, Plymouth MA and York Harbor, ME

James Means tested model gliders and kites in November 1893 at Boston Light on Little Brewster Island in Boston Harbor and in the Spring of 1894 at Manomet Point in Plymouth with generally good results. He subsequently began testing his soaring model gliders using kites to take them to high altitudes. The model soaring was made possible by attaching the model glider to the high flying kite with a timing gadget equipped with a slow burning match which burnt through the line that held the model and freed the model to soar. In order to get the models to higher altitudes Means moved the test flights up to Mt. Willard near Whitefield, NH in September 1894. However when the variable air currents on the mountain sides damaged eight of his twenty models Means decided that the experiment was over. In early 1895 Means established his family for the summer in a cottage in York Harbor, ME. The next three summers of 1895-1897 assisted by Charles Bowles MIT '94, of Canton, Means focused on experiments with Malay, Malay-Eddy, double Malay, triple Malay and Hargrave kites in the York, ME area.

Sources: Means, James Howard MD [James Means and the Problem Of Manflight](#) Smithsonian Institution Washington, D.C. 1964; [Boston Daily Globe](#), 9 May, 1897, p.29