

MASSACHUSETTS AIR AND SPACE MUSEUM

HORIZONS

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*The Massachusetts Air and Space Museum inspires new generations to explore,
experience, and pursue interests and opportunities in science and technology*

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Massachusetts Air and Space Museum 200 Hanscom Drive Bedford, MA 01730 www.massairspace.org

L. G. HANSCOM FIELD

IATA: **BED**

ICAO: **KBED**

FAA LID: **BED**

It's been known by many names—Hanscom Field, Bedford Airport and Hanscom Air Force Base, to name a few. But L. G. Hanscom Field is the current formal title of this installation as it is now primarily under the control of MassPort. It was named in honor of Laurence G. Hanscom, one of the founders and first commander of the Massachusetts Air Wing of the Civilian Air Reserve, and also a long-time advocate for establishing a significant airfield in the vicinity of Bedford.



Prior to the United States' formal involvement in World War II, the Massachusetts legislature earmarked funds for the establishment of an airfield in



central-Middlesex County. A suitable parcel of land of just over 1,100 acres was carved out of the towns of Bedford, Concord, Lexington and Lincoln in order to construct what has long-been a joint civilian and military air base of operations. It was originally conceived as an ancillary operation center to Boston's Logan Airport.

After the U. S. entered World War II, the base was operated exclusively by the Army Air Corps, and eventually the United States Air Force. As a military installation, Hanscom played host to many aircraft types; both large and small. Prop-driven planes from the nimble P-40 *Warhawk* to the giant Douglas C-124 *Globemaster*, and on into the jet age with the F-86 *Sabre Jet*, Hanscom has hosted a wide and varied array of aircraft types.

This broad list of airplanes that have worked out of Hanscom is matched only by the diversity of the missions that have been undertaken by both the military and civilian organizations alike. The U.S. Air Force, working in concert with [Massachusetts Institute of Technology's Lincoln Laboratory](#), pioneered and perfected both ground and



USAF Thunderbirds

airborne radar systems that have become the benchmark in early warning technologies, and which are still in use today.

In addition to the technological research and development conducted by the premiere land-grant university in the Commonwealth—M.I.T.—Hanscom Field was the spawning ground for many aviation technologies such as DABS (Discrete Address

Beacon System): the forerunner to TCAS (Traffic Collision Avoidance System). [Raytheon Corporation](#) was

also instrumental in bringing [TCAS](#) to fruition in modern aviation. The evolution of TCAS began with the World War II technology known as Identification Friend or Foe ([IFF](#)). Built upon that system, DABS was originally conceived as a way to eventually eliminate air-traffic control ([ATC](#)) with a direct plane-to-plane early-warning proximity system.

Early in the development process, the realities of modern aviation were recognized and TCAS was the result; providing pilots with a cockpit system that could aid in accident-avoidance without the direct intervention of a ground controller.

Having MIT's Lincoln Laboratory and a major player like Raytheon "on-campus," so-to-speak, was instrumental in Hanscom's development as a major technology research and development center for the United States Air Force. Although the air

Wings at Hanscom Field



Fairchild C-119 Flying Boxcar



Bombardier Learjet 75



Beechcraft King Air 350i



Boeing 707 AWACS



Boeing C-17 Globemaster



MIT's Boeing 707 Communications Research Aircraft



Boston MedFlight Airbus H-145

base continued to serve as a major airlift operations center, the ongoing research and development being carried out under USAF Systems Command yielded great advances in defense systems. Air Force Systems Command would eventually be absorbed into USAF Material Command, but the change did not result in any significant reduction in Hanscom's operations. The research and development on next-generation technologies continues. Operating under the USAF Life Cycle Management Center, Hanscom plays a vital role in evaluating the life cycles of America's weapons systems, and makes recommendations to command on what works and what doesn't.

But Hanscom Field is both a military base, and a commercial and general aviation hub in eastern Massachusetts.

Aside from the research and development that is carried out there, commercial and charter air flights are available at the civilian terminal, and general aviation facilities abound. Over the course of this past year, Boston MedFlight has moved its operation center to a new facility in order to broaden its reach to all of New England as an air-ambulance, and to shorten flight times to many metropolitan locations in the Greater Boston area. MedFlight also services long-distant medical transports to as far away as Chicago with fixed-wing aircraft. This new facility in Bedford was built specifically to accommodate its new fleet of Airbus H-145 helicopters.

Corporate aircraft frequent Hanscom Field in order to take advantage of the convenient proximity to

the Route 128 Corridor, and its proximity to downtown Boston. Landing and parking at Bedford is easy compared to the air and ground-space competition at Boston's Logan Airport. Non-commercial, even charter operations, are being moved away from Logan to outlying airports, and Hanscom is among the closest and largest to handle the overflow.

Several of Boston's major sports teams have discovered the virtues of flying in and out of Hanscom. It's an easier commute for players, coaches and staff to find their way to Hanscom for their charter flights than it is to fly out of Logan or even Providence. While the aircraft involved may not as yet be housed or serviced in Bedford, more and more trips originate or terminate there due its convenient location.

Hanscom Field hosts many small and medium-sized businesses that are not related to aviation. [Instrumentation Laboratories, Inc.](#) is a medical-technology corporation that develops and manufactures state-of-the-art medical test equipment that is establishing a new standard for medical evaluations and diagnosis.

The future of technological advancement has been growing exponentially since the advent of the digital age, and Hanscom Field is poised to be the garden for the next evolution in scientific achievement. From computer systems to medical analysis, Hanscom offers fertile ground for revolutionary advances in future technologies, all while offering an abundance of space and services for charter and general aviation.





Anne Bridge Baddour



Aviatrix Extraordinaire!


Recipient of the Prestigious

Katherine Wright Trophy for 2018

The National Aeronautic Association, the oldest national aviation club in the United States, has awarded the coveted 2018 Katherine Wright Trophy to Anne Bridge Baddour of Massachusetts for her personal contribution over her lifetime "... to the advancement of the art, sport, and science of aviation and space flight." Within the citation that accompanied this honor, Anne's six-plus decades of experience in 42 types of aircraft was noted, along with her two-decades work as the first female research pilot for the Massachusetts Institute of Technology. Working in conjunction with the U.S. Department of Defense and the Federal Aviation Administration, she was one of the pioneers who tested the Global Positioning System (GPS) that has become the bulwark of navigation in modern aviation. Anne Baddour also set some 27 speed records between 1985 and 1991, and competed in

more than a dozen air races beginning in 1954.

Her individual achievements in aviation, while impressive, are not her only contribution to the field. Anne has engaged in leadership roles with numerous institutions and organizations that helped sculpt aviation and mold generations of both pilots and ground personnel. She has helped establish scholarships in many schools and organizations such as Daniel Webster College, Society of Experimental Test Pilots, the Ninety-Nines, the Aero Club of New England, the Smithsonian Air & Space Museum.

Massachusetts Air and Space Museum has had many supporters since its inception, but none more stalwart or generous than our own Anne Bridge Baddour. She has helped shape the organization, and has greatly influenced the direction of the museum. The Wright Trophy was bestowed upon the right flyer! 



Eviation Selects Hartzell Props for All-electric Alice

By Chad Trautvetter

All-electric aircraft startup manufacturer Eviation Aircraft has selected Hartzell Propeller as a development partner for its first model—the nine-seat, 565-nm Alice. Under the partnership, Hartzell will provide customized and optimized propellers and support systems.

The all-electric Alice business and regional airplane will have a three-blade main pusher propeller at the tail and two-blade pusher propellers at each wingtip. According to Hartzell, the design and manufacture of these propeller systems will build on technologies developed for its five-blade carbon fiber props and Bantam hub series, providing “the optimal combination of reduced weight and maximum performance.”

“Eviation's new aircraft provides an exciting opportunity to be a part of the next generation in aircraft powered by electricity,” said Hartzell Propeller president Joe Brown.

“The Alice will be test flown at the 53rd Paris Air Show in June 2019,” Hartzell said, but a spokesperson for Tel Aviv-based Eviation told **AIN** that the aircraft will not be flown before the Paris show. Eviation has also not yet publicly announced who will develop electric motor and battery system for the airplane.

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It's MASM Membership Renewal Time

It is again that special season of the year when giving is on our minds. And while Santa is making his list and checking it twice, we make out our holiday gift lists, we need to include a note to renew our memberships in the Massachusetts Air and Space Museum. Your small donation of **\$25.00 per year** has never been more important!

MASM is in the process of finalizing plans for the opening of its physical museum where artifacts can be displayed and the story of the Bay State's aviation and space history can be told. Your membership fee will not only help get this facility up and running, it will continue to support the many initiatives that MASM undertakes.

Horizons interactive quarterly newsletter brings you stories not only from the past, but news of what is happening now, and what the future will bring to Massachusetts. Members who receive the newsletter electronically get the additional video page, with video links that offer all kinds of fascinating videos about aviation and space exploration. In addition, behind ever photograph, chart or illustration is a hyperlink that will offer more insight on the subject of the photo.

MASM's virtual museum accessible online is rich with the history of Massachusetts aviation and space

pioneers. It is accessed from the MASM website and provides viewers with great insights from the past.

Educational outreach is among the museum's most important undertakings. Reaching out to kids and kindling the fire within them to pursue aviation as a career isn't easy, but it is essential if future generations are going to make their mark in this industry.

All of these initiatives cost the museum in dollars and cents. But all are needed to keep you informed, to provide the public with authoritative information and exhibits, and to stimulate young minds to look to the skies and heavens for their future. Your \$25.00 membership renewal will help make these programs a reality. Of course, the museum will graciously accept all donations and urges members to give what they can.

Please send a check or money order in the amount of \$25.00, along with your name, mailing address, email address, and phone number or numbers to:

Massachusetts Air and Space Museum
200 Hanscom Drive
Bedford, Massachusetts 01730

Renew your MASM membership today!

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Join Us Today!



The Massachusetts Air and Space Museum will soon come to life in Bedford, Massachusetts at historic Hanscom Field. Your help is needed to turn this vision into reality. Send your tax-deductible contribution to:

**Massachusetts Air and Space Museum 200 Hanscom Drive
Bedford, Massachusetts 01730.**



Complete the form below and include it with your contribution to get on our mailing list. Your donation of \$25.00 or more will automatically enroll you as a Member of MASM with the benefits as outlined on our web site. You will receive our electronic newsletter "Horizons" which will be emailed to friends of the museum free of charge. This publication is informative and interactive, and online you will find links that will connect you to an entire world of aviation and history.

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What a hang glider!



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