

HORIZONS

A publication of the Massachusetts Air and Space Museum

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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Granville Brothers Airplane Sets World Speed Record with Jimmy Doolittle at the Controls

A bulbous tear-drop-shaped fuselage with stubby short wings below, a tiny cramped cockpit imbedded in the tail, an almost nonexistent horizontal stabilizer, and an enormous radial engine came together to create the *Gee Bee R-1*; an airplane



Gee Bee R-1

that was destined to be nothing short of a revolutionary step forward in aviation.

There were a number of *Gee Bee* aircraft designs; all the idea of five brothers from a small hamlet in central New Hampshire. The Granville brothers: Zantford, Thomas, Mark, Robert and Edward, were the creators of the *Gee Bees*. “Gee Bee” actually

stood for “Granville Brothers.” Zantford was the eldest son and was affectionately called “Granny.” He was also the natural leader of the family group. Building only 24 airplanes during the brief span of only five years that the company existed, Gran-

ville Brothers Aircraft managed to push the technological envelope in aviation through a quantum leap in progress.

The brothers Granville migrated south to Massachusetts where they worked on their first airplane. Like any growing company, Granville Brothers Aircraft



needed room and financial backing to expand and turn their dreams into reality. Fortunately for the brothers, there was a Massachusetts family that was just as enthusiastic about innovative aviation as they.

It all began at what was then known as the East Boston airport, where the Granvilles constructed and tested their first *Model A Gee Bee*. Shortly after that flight in 1929, the Tait brothers of Springfield,

Massachusetts invited the Granville boys to build their airplanes in their city, at their airport. The Tait brothers provided the financing, their family farm was the ground on which the air-

port was located, and a former dance hall was moved to the site to serve as the Granville's production facility. The brothers took up residence in the town of Chicopee and would walk to their nearby shop to do their work.

In the fall of 1929, the New York Stock Exchange suffered a crash which led to the great depression. After the crash, very few Americans were in positions to dabble in this new diversion known as aviation, much less have the means to purchase their own airplane. Small companies like the one started by the Granvilles were hard-pressed to market their airplanes. But there was another way to draw attention to their airplanes, and collect revenue at the same time. The late 1920s and the early 1930s was the era of airplane races, and "Granny" Granville had an idea.

In consultation with chief engineer Howell "Pete" Miller, and a professor at NYU, wind tunnel tests were done that brought the *R-1* design to life. It was actually an airplane



Dut and About



MASM Steering Committee member **Mary Lou Bigelow** (third from the right) recently appeared at the Aviation Museum of New Hampshire with nine of her colleagues from Pan Am Airways. As you can see, the crew was dressed for success in their original Pan Am uniforms. They screened the recent television special "[I Was a Jet Set Stewardess](#)" that aired on the Smithsonian Channel, spoke of their adventures working for Pan Am during the golden age of jet travel, and took questions from the audience.

To view "I Was a Jet Set Stewardess," click the television screen below. You'll see some familiar faces!



<https://www.youtube.com/watch?v=jmKtTggeVXk>

M.A.S.T.M. Outreach



Joe Dini and Harry "Buzz" Gillogly recently staffed the MASM information booth at a student expo held in a hangar at Logan Airport. The purpose in the event was to stimulate student interest in the many career paths available to them in the aviation industry. In addition to the many institutions that presented an array of options for students, a number of vintage and contemporary airplanes adorned the hangar allowing attendees an opportunity to get up close and personal with real aircraft. More than 100 exhibitors were on hand for the 2,000+ crowd that attended.



Young men and women crowded the MASM booth with questions about aviation. They were all anxious for the day the museum opens its doors.



MASM was well-represented at the recent Girl Scouts of America Eastern Massachusetts S.T.E.M. (science, technology, engineering and mathematics) conference. Stimulating interest in aviation among young people is a primary mission of the museum, and both leadership and staff welcome such opportunities to interact with students.

MASM officers recently participated in the AOPA-FAA-ACONE "Crash Course"



The Charles River Museum of Industry and Innovation in Waltham will play host to a grand MASM exhibit starting June 5th. [Click this link for directions.](#)

CRMII



Future Home of M.A.S.M.

Proposed site at Hanscom Field for the Massachusetts Air and Space Museum.



When people contemplate the idea of a museum, they often think of a building with stuff in it, and very little more. But the Massachusetts Air and Space Museum (MASM) promises to be so much more than a

simple building with stuff in it. In order to educate, we must look to our past to see from whence we came. Historic exhibits that demonstrate man's ascent into the sky and eventually the heavens are essential toward enlightening those who did not experience the history involved. There will, of course, be exhibit areas where treasures from the past will be displayed.

But MASM's intent is to be a living, breathing entity that not only catalogs aviation's roots, but embraces leading-edge technologies that are shaping the industry today and well into the future. Being situated next to the ramp at Hanscom Field, MASM will be able to entertain new and exciting venues in aviation that will speak to every generation. We need your help to make it happen. Remember, your contributions to MASM are tax-deductible and will help us make the dream a reality!



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fuselage built around a giant Pratt & Whitney R-1340 radial engine that delivered roughly 600 horsepower.

In 1930, a *Gee Bee R-1* took second place in the Cirrus All American Flying Derby with a speed of less than 117 MPH. Although not a sweeping victory, it proved that the *Gee Bee Racers* had game, and that Granville Brothers Aircraft was undaunted by the depression.

In 1931 the people in and around Springfield, MA funded a new *Z Model* racer that was painted yellow with a black nose and dubbed "*City of Springfield.*" With a 535 horsepower Pratt & Whitney engine aboard, this helped make



Springfield live up to the nickname it had been given – the city of firsts. Along with three other Gee Bees, one piloted by Maude Tait, the daughter of James Tait, the Granville brothers made their way to Cleveland, Ohio and the national air races. The Granville airplanes were entered in eight different races. That year they brought home six first place, two seconds, two thirds and one fourth place win.

In 1932 the R-1 took the Thompson Trophy with none-the-less than Jimmy Doolittle at the controls. Throughout his long flying career, Doolittle would remark that the Gee Bee R-1 was the most unforgiving airplane he ever flew. "You had to fly it all the time ..." he would say. His average speed in that race was over 250 MPH.



By 1934, with a collection of world speed records and a fist full of trophies,

the Granville Brothers



Aircraft Company filed for bankruptcy. Of the mere 24 airplanes built by the Granville boys, only two remain today in museums. But aviation enthusiasts have lifted the torch back up and built replicas of the Gee Bee Racers. One was featured in the 1991 Disney movie "*Rocketeer.*" And not to be outdone by the real thing, the Disney animated movie "*Planes*" featured a Spanish-

speaking *Gee Bee* named *El Chupacabra.*

The five Granville brothers left a big mark on the world of aviation. They made their aviation dreams come true, right here in the Bay State in the 1930s.✪





MASM Hosts 1st Annual General Aviation Forum

May 9th—Massport Terminal, Worcester Airport

This event is a milestone in Massachusetts Air & Space Museum's (MASM) history and future as it was the first public event organized by the museum. Keith Young, member of the MASM steering committee and self-proclaimed "Aviation Ambassador," organized the statewide forum. Invited were all Massachusetts-based airport managers as well as many of the groups that support general aviation (GA) throughout the Bay State. These groups included all Massachusetts EAA chapters, several pilot's associations, the ACE Camps, Bridgewater State University, ACONE, The 99's, the Civil Air Patrol, MAMA and AOPA. State and federal agencies such as the Massachusetts Aviation Board and the FAA, both the Boston and Windsor Locks FSDO's, were invited to speak as well as several businesses which are supporters of MASM.

Joe Dini, MASM chairman, and Al Mundo, former chairman, gave an overview of the history and status of the museum. Andy Davis, Massport Worcester Airport Manager, gave a history of Worcester Airport. He also pinch-hit for Rectrix whose representative was unable to attend. Rectrix is soon to open an FBO at Worcester Airport (ORH).

Bill Allen of Commerce Bank spoke of the state of financing GA aircraft. Things are beginning to loosen up from the recession of 2008. It is also worth noting that Commerce Bank made a generous donation toward the breakfast and luncheon which, in turn, allowed MASM the ability to make the event free to all attendees.

Presenters included Loren Herren of Bridgewater State University, who had planned to travel in a Cessna 172, but weather forced the use of ground transportation instead. Barbara Jagla represented EAA 106 based at Lawrence Airport (LWM). She outlined the summer events the chapter is sponsoring, including the arrival of EAA's B-17 on Memorial Day weekend. The Fitchburg Pilots Association/EAA 1454 was represented by Louise Anderson who spoke about their work with the Young Eagles program and their Wednesday Night Fly-outs to area airports within a 100 mile radius. Jim Engberg of the Worcester Area Pilots Association gave an update on the activities in which the association is engaged.

David Dineen, president of the Massachusetts Airport Managers Association, hosted a round table discussion about the current state of General Aviation on Beacon Hill and many airports around the state. Sean Collins, eastern representative for AOPA, spoke of AOPA's work for the GA community at the federal level, including third class medical reform and efforts to reduce the in-plane equipment costs to meet the 2020 ADS-B mandate.

MASM plans to make this event an annual occurrence and to expand participation. MASM would like to recognize and thank both Andy Davis and Jeannine Driscoll of Massport-Worcester, without whose cooperation and generous donation of the facility, audio/video setup, chairs, podium and personnel, this first GA Forum would not have been such a success.



Requests for additional information may be directed to Keith Young at kyoung@massairspace.org

MASSACHUSETTS AIR AND SPACE MUSEUM

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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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