



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

Vol. 6 Issue 1

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

**WE ARE
OPEN!**

While the Commonwealth of Massachusetts has always been at the very forefront of innovation in both

the aviation and space industries, it now joins the other 49 states of the Union in opening an air and

space museum. Located in the Village of Hyannis in Barnstable at The Landing (formerly Cape Town Plaza), the museum opened its doors on Saturday, February 15th to an enthusiastic and varied group of guests that included local residents, out-of-staters, and shoppers who were pleasantly surprised to discover a new museum in town. Those who strolled in who were not affiliated with MASM were astonished to discover there was a museum in their midst.

Like all museums, it is a work in progress. The exhibits that have been moved into place are authentic, in-



Cockpit of a Grumman Albatross



formative and interesting.

Visitors will find a complete cockpit of a Grumman Albatross, an amphibious twin-engine rescue aircraft used by the military (US Coast Guard & US Air Force) and civilian services alike. There are informative and fascinating displays, models representing the entire age of aviation, memorabilia and artifacts, books and archival material that help tell the story of the prominent role the Bay State and many of its residents played in the development of the two industries that lifted man off the face of the earth and catapulted him into the heavens. There are hands-on simulators that put people into the cockpit and truly test the skills of any pilot, novice or

pro.

For those who would rather test their piloting skills on a drone or a radio controlled aircraft, there's even a simulator that offers that experience.

The Board of Directors of the Massachusetts Air & Space Museum have worked long and hard to make the dream of a museum a reality. Years of preparation have gone into this initiative, and the facility in Hyannis was made possible by the generosity of patrons and corporate sponsors who shared the vision of a vibrant museum. In addition, MASM had recently absorbed the holdings of the Massachusetts Aviation Historical Association. In so doing, it picked up the baton of preserving Massachusetts aeronautical and aerospace history, which is plentiful. Just cataloging everything that has been acquired was monumental.

But now comes the opportunity to share the precious historical data with the public. Very few Bay Staters have a clue as to the depth and texture of historical significance that lies here. Many people marvel at the rockets being launched into outer space, but only a small number know that the first liquid-fueled rocket ever was launched from a field in Auburn, Massachusetts. Fewer still know that the first U.S. licensed female pilot,



F-106 SIMULATOR



Harriet Quimby, was killed in a flying accident in East Boston. The more familiar name of Amelia Earhart won fame around the world, but did you know she lived in West Medford?

Massachusetts has been in on the ground floor of every major leap in both aviation and space from the beginning. Aside from stimulating new innovation through a sound educational system, the creative spark that has been needed for technological advances in all fields has always been prevalent in Massachusetts. The Massachusetts Institute of Technology is world-renowned for the number and variety of technological questions to which it finds answers and solutions. Several successful high-tech companies are actually spin-offs from MIT. MIT itself was intimately involved in the manned-space program, providing real-time support with computer programs that were an essential part of the Apollo program.

Heat shields for the Mercury, Gemini and Apollo spacecraft were all fabricated in the Merrimack Valley. Even the shield for the upcoming Orion spacecraft designated for travel to Mars and back was made in Massachusetts.

The museum is located in The Landing (formerly the Capetown Plaza) at 790 Iyannough Road in Hyannis. ✈

Museum Admission and Hours

Fridays: 4:00 to 7:00 PM

Saturdays & Sundays: 10:00 AM to
4:00PM

Adults: \$8.00

Children (ages 5 to 11): \$5.00

Active Military with ID: *Free*

Piper Cub Simulator →



R.C. (radio controlled) aircraft and drone simulator

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**Lived in
W. Medford, MA**

MADE IN MASSACHUSETTS



Dr. Robert Goddard


Father of Modern Rocketry

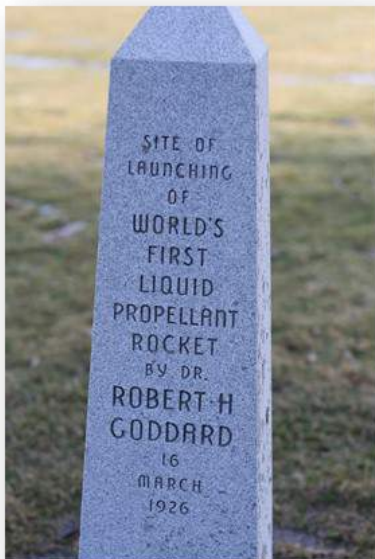
Until the early months of 1926, rocketry had been pretty much confined to the dry, solid propellants first employed by the Chinese around the 9th Century. Although liquid fuels had been commonplace in automobiles for almost forty years, the idea of powering a projectile skyward by igniting a combustible cocktail and focusing the resulting thrust downward became the vision of Dr. Robert Goddard.

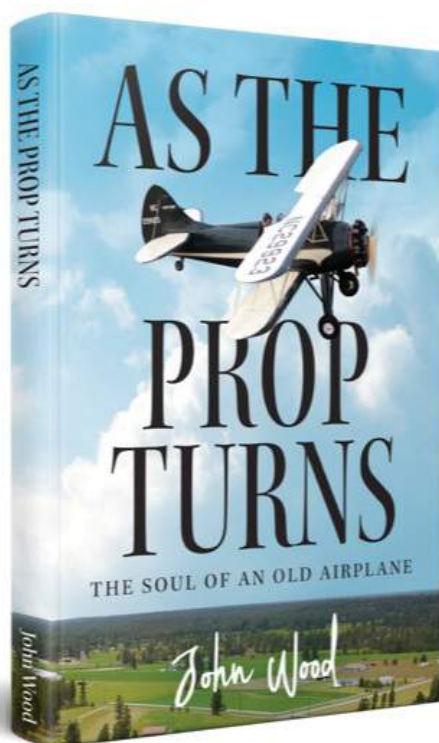
In a quiet field southwest of Worcester, Massachusetts, where

now a golf course reposes, Dr. Goddard carried out a series of initial tests with experimental craft that by 21st Century standards seems more the equivalent of children's toys. Despite the primitive look of these devices, the tests he continued in Auburn and at Camp

Devens in Ayer, Massachusetts

proved his theory that thrust can be generated by focusing combusted gases. The theory proved so dynamic that it has lifted men to the moon and back, remotely explored other planets, and has projected a manmade satellite beyond our solar system. 





As The Prop Turns **The Soul of an Old Airplane** **by John Wood**

Review by Georgia Pappas

This is an amazing book which chronicles historical biographies and aviation tales. Experience open cockpit flying with the men and women who flew the antique Waco UPF-7, NC29923, a 1940 biplane still flying today.

What makes this so engaging are the escapades of the pilots; a freight dog, a tax evader, a missionary dentist, a prominent woman sculptor, and a drug smuggler.

A chapter for pilots describes the Waco's handling and provides operational tips. With thousands of research hours, 228 pages and more than 130 photographs, drawings, and maps, this airplane's memoir is sure to top the true adventure list. It's a great read!

As the Prop Turns is available through Amazon and on sale at the MASM Museum gift shop.



The restored Waco N29923

CAVU.

Most people familiar with aviation know that the abbreviation “CAVU” stands for “*Ceiling and visibility unlimited.*” In this recurring feature of *Horizons*, your ability to see clearly into the history of aviation will be tested through identification of flying machines that once were. The first reader who submits the correct answer will be entitled to bragging rights and have their name and answer published in the subsequent edition of *Horizons*. Submit your name, the name of the aircraft, the type or version (if applicable), and the country where it was manufactured to the editor-in-chief of *Horizons* at: horizons@massairspace.org

Here is your challenge for this edition:



December 2019 Edition's Answer:



Antonov An-2 “Colt” - USSR

Two-crew utility transport—**Max. speed:** 160 MPH (258 km/h)

Ceiling: 14,435 ft **Range:** 559 miles (900 km)

Dry weight: 7,606 lb (2,450 kg) **Max. take-off weight:** 12,125 lb (5,500 kg)

Dimension: Wing span: 59 ft 7.75 in (18.18 m); length 41 ft 9.5 in (14.24 m); height 13 ft 1.5 in (4.0 m); wing area 770.72 sq ft (71.6 m)

Powered: one 1,000 hp (746 kW) Shvetsov Ash-62IR radial piston engine

Payload: 12 passengers or 2,866 lb (1,200 kg) of freight

Correctly identified first by Laura Poulin, Aerospace Engineer and Physics teacher at Newman School, Boston



Current Resident or:

The Massachusetts Air and Space Museum has come to life in Massachusetts on Cape Cod. Your help is still needed to keep this vision alive and growing. Send your tax-deductible contribution to:

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

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 (www.massairspace.org). You will receive our electronic newsletter "Horizons" which will be emailed to all friends of the museum free of charge. This publication is informative and interactive, and viewing it online you will find links that will connect you to an entire world of aviation and space history. You will also receive periodic electronic updates through the "Air-Mailer."

If you want to join us in supporting the museum right now, go to:

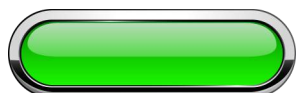
<https://www.massairspace.org/join/>

Fill out the form, including your email address, and start enjoying the benefits of membership right now. Your personal information stays with the museum and used only to bring you news and information about museum activities. Join us today!

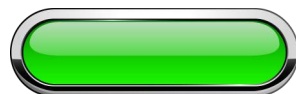


VIDEO PAGE

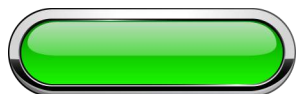
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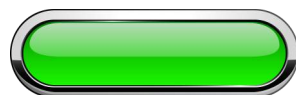
"Flying Bathtub"



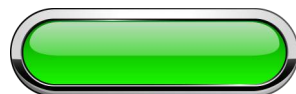
Albatross



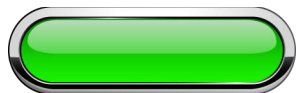
Flying Cars?



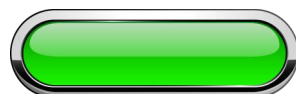
One WACO-factory tour



ELECTRIC AIRPLANES



FAA Part 103 Aircraft—No License Required!



Sentimental Journey