



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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The First Lady Pilot of Worcester



There are giants that have evolved throughout the history of aviation in Massachusetts, but few who could clearly see the present in stark relief to the future. Marie Graziadei Lepore was such a giant. As the

first licensed female pilot in Worcester, Marie Lepore was a ground-breaker. But her contributions toward furthering aviation didn't stop with her flying.

Continued on Page 2

Continued from Page 1



Marie Lepore was a local social worker in Worcester who joined the Civil Air Patrol (CAP) during the years of World War II and flew countless observer missions which

earned her an US Armed Forces active-duty service ribbon. Her continued work with the CAP found her organizing a cadet squadron in 1943 which grew to a contingent of some two hundred cadets. Lepore's cadet drill teams won eleven state competitions within a nine-year period. During her tenure, Marie Lepore served in every conceivable capacity from squadron adjutant to public information officer, executive officer, recruiting officer, and ulti-

mately as commander, eventually attaining the rank of colonel.



Marie Lepore enjoyed affiliations with many organizations including being a founding member of the International Organization of Women Pilots. She worked with Camp Fire Girls, the Worcester Art Museum and the Massachusetts Aeronautic Association. Although her active and full life, that traversed nearly an entire century, was rich with one significant accomplishment or contribution after another, Col. Lepore had one major regret – Massachusetts was the only state in the

union that had no museum dedicated to preserving the Commonwealth's aviation history. Her contention was that a museum could be developed at Hanscom Field in Bedford and Lincoln, home to Hanscom Air Force Base..➔





MASM to Host 2nd Annual General Aviation Forum March 25, 2017 Massport Terminal at Worcester Airport

Keynote Speaker: Dave Pascoe, Founder/CEO of Live ATC

Following the great success of the General Aviation Forum in 2016 at the Massport Terminal at Worcester Airport, participants from all over Massachusetts are anxious once again to come together to talk aviation. Keith Young of the MASM Steering Committee is again coordinating this extraordinary effort to bring together the leaders in general aviation from across the state. The forum will be held on **March 25, 2017** from **8:00 Am to 2:00 PM.** Keep checking for updates on our website at:

<http://www.massairspace.org/>



This is a great opportunity to learn about the future of general aviation firsthand from industry leaders. Plan on attending. ***You can even fly in!***

AMERICA'S FIRST TRIPLE ACE LEARNED TO FLY IN THE BAY STATE

While America prepared for the advent of war, a young enlisted man from New Hampshire was serving his country in the US Army at Fort Devens in Ayer, Massachusetts. Every chance he got to leave the post he found his way to Fitchburg where he continued to take flying lessons at the local airport. Although he wasn't considered the best student pilot by his instructor, Joseph McConnell eventually managed to transfer from the medical corps into flight school. After weeks of study and training, Flight Cadet McConnell's dream of becoming a pilot was dismissed when he was assigned to serve as a navigator aboard a B-24 Liberator in the European Theater of Operations.

Joe did his duty, serving as navigator flying 60 missions. At war's end, he remained in the Army Air Force and was eventually enrolled in pilot training in 1946. He was awarded his wings in 1948 and began serving as a fighter pilot with a number of fighter squadrons and groups.

In June of 1950, North Korean military troops crossed the 38th parallel of latitude which marked the border

between North and South Korea touching off the Korean War. This became a test of fire for the newly-minted international organization, the United Nations. The UN supported the government of South Korea while China

and Russia supported the north.

It became a test of wills between western democracies and the two major communist countries of eastern Europe and Asia. The primary contributor to the military contingent sent by the UN was the United States, and the newly-formed United States Air Force was right up front doing the fighting.

Among the many military organizations that conducted operations against North Korea was the 51st Fighter-Interceptor Wing. Joe McConnell was assigned to the 39th Squadron in the fall of

1952. Although he saw action during those first few months, his flights to fame didn't start until January 14, 1953 when he downed his first Soviet-built MiG-15. Over the course of the next few months, McConnell went on to shoot down a total of 16 North Korean MiGs, plus rendering severe damage to 5 more—all in



the space of 4 short months. His record as America's first triple-ace in jet-to-jet warfare still stands. One other US pilot achieved triple-ace status in Korea: Major James Jabara from the 334th F-1 Squadron.

Captain Joseph McConnell flew three different versions of the F-86 Sabre Jet during his service in Korea. The first two were named "*Beautiful Butch*," in honor of his wife. *Butch* was his pet nickname for his wife, Pearl Brown McConnell. After being shot down and rescued from the Yellow Sea, he climbed back into a third Sabre Jet the following day and scored another air victory against a MiG. This airplane bore the name "*Beautiful Butch II*" and was adorned with 16 bright red stars to denote each of the enemy aircraft Joseph McConnell shot down.



McConnell was rotated home soon after his sixteenth victory and sent to the White House where President Harry S. Truman awarded him the Distinguished Service Cross for his actions on May 18, 1953. The DSC is our nation's military decoration for valor, second only to the Medal of Honor.



Joe and Pearl Butch McConnell settled in the town of Apple Valley, California where their neighbors in that community gave

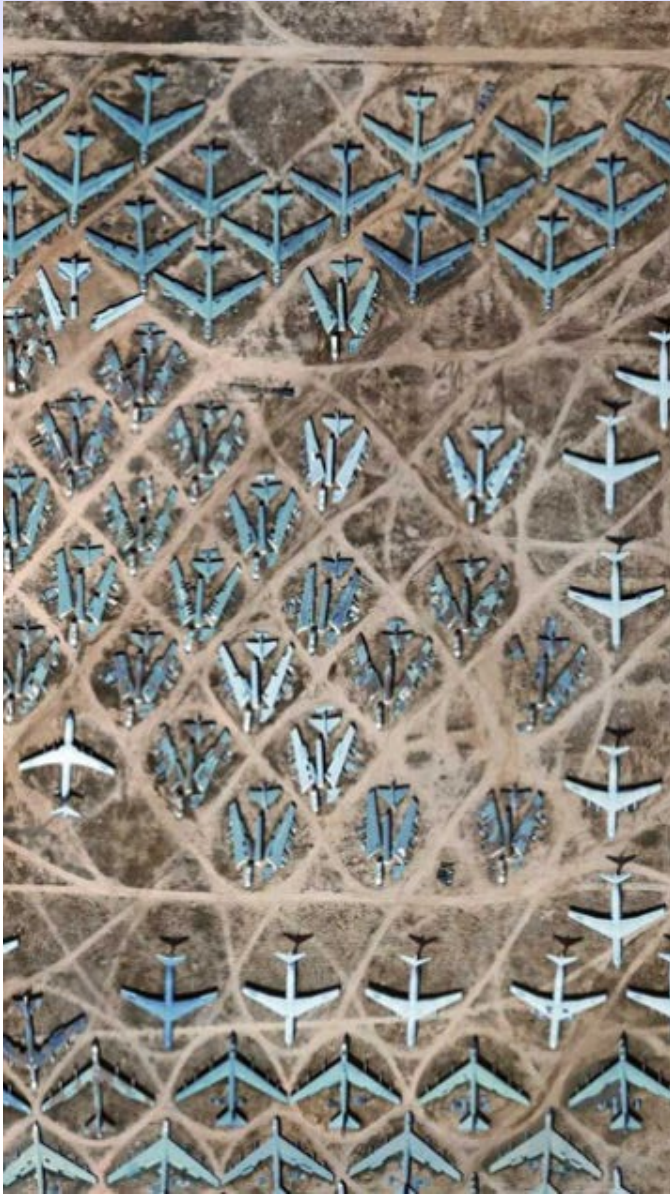
them their house in appreciation for Joe's service to his country. The land, the house and the labor to build it were all donated by the community. The house was constructed in under two full days.

McConnell was assigned to the 445th Fighter Squadron where he continued to fly the F-86 Sabre Jet. He was subsequently assigned as a test pilot to evaluate the latest version of the airplane, the F-86H Sabre. This was designated as both a fighter and a bomber, and was capable of

delivering a nuclear weapon. It was during his testing of this new jet that Joseph C. McConnell, Jr. died in an air crash. Major Chuck Yeager, who later went on to be the first pilot ever to break the sound barrier, investigated McConnell's crash and was able to experience the same malfunction. Yeager was at a much higher altitude at the time and recovered in time to land safely. It was determined that the problem that caused McConnell's crash was a missing bolt in one of the control surfaces. Joe McConnell is not only remembered for his combat flying, but for his dedication to testing the latest US Air Force hardware that was to be flown by aviators that followed his lead. ➔



Mosaics on the Desert Floor



Whether they find their way to a museum, or are sent to a reclamation center for recycling, virtually all aircraft eventually wind up being retired from service. A lucky few stand as to memorials of bygone eras in aviation history; testimony to man's determination to overcome gravity and fly like the birds. Like all of man's technological achievements, airplane technology evolves, and evolves rapidly. In less the half a century, man went from being confined to the ground, to flying faster than the speed of sound. He continued his pursuit to slip the surly bonds of earth and found his way to the surface of the moon. Simultaneously with his efforts to conquer space, man set speed and altitude records that rose to over 85 thousand feet for a sustained flight, and 2,193.2 miles per hour (roughly Mach 3.3); a far cry from the less-than 7 MPH accomplished by the Wright brothers less than a century before.

What all this progress means is that everything that came before it becomes obsolete, and obsolete objects either end up in a museum where they can be studied, or on the scrap heap. Aircraft are no different. What is different is how and where man deals with the obsolescing air frames that are no longer useful. Airplane graveyards can be found all over the world, often in arid places where the elements of nature do not significantly deteriorate the metal structures that once flew in the skies above.

Many know of Davis-Monmouth Air Force Base south of Tucson, Arizona, which is probably the largest airplane reclamation center in the world. It is known as the *Boneyard*.

But upon conclusion of World War II, Kingman, Arizona in west-central Arizona, was where the War Assets Administration set up shop and went about chopping up the

former bomber fleet and turning the aluminum into beer cans. This was truly the beginning of the large aircraft graveyards.

There are other large repositories of obsolete airplanes where reclamation and recycling is undertaken. Some of these aviation graveyards also serve as parking lots for serviceable airplanes that are destined to fly again. These select few are mothballed and readily available for reactivation with a minimal amount of effort.

The terms *graveyard* and *boneyard* imply they are burial sites for obsolete airplanes and that all one needs to do is exhume the airframe from the desert dust. While it's true that many of these centers have collections of formerly-used airplanes strewn about, in time all of these airframes are dismantled and recycled for their materials. *Boneyards* and *graveyards* are not museums where retention of old planes is the objective. They are kinetic factories where the raw materials are found in old airframes.

Airplanes that have become obsolete are unlike other things. The forward march of time and pro-

gress demands innovation, and the rules of evolution require that only the strongest survive. Nowhere is this more evident than in commercial aircraft. The competition for customer satisfaction is a daunting challenge and requires constant upgrade in methods

and equipment. The "out with the old and in with the new" philosophy is the underlying reason for the creation of the graveyards. Since the inception of commercial aviation just 100 years ago, beating the competition has meant always employing the cutting edge in technological achievement. While a taxi cab fleet can afford to maintain a large reserve of previous year's models of cars, passenger airlines cannot. The rapid changes in that industry require airlines to cut their losses and squeeze as much out of their capital expenses as is possible. Scrapping outdated airframes and selling them for spare parts and raw materials is part of doing business.



The simple rule-of-thumb for those interested in taking a close up look at obsolete airplanes, is to pay a visit to one of these enormous graveyards. But do it quickly, before the airplane you want to see no longer exists! ➔

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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:

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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. A copy of the 22nd edition of *The Flying Yankee 2017* calendar will be mailed out to all new and renewing members.



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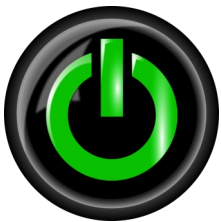
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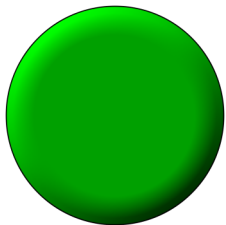
Mojave Airport—Airplane Graveyard



Aerodynamics of 747 demonstrated



ROSWELL



THE "BONEYARD"



TREASURE HUNTING