



Dirigo Flyer

NEWSLETTER OF THE MAINE AVIATION HISTORICAL SOCIETY



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Dow Field's Engineer Aviation Regiment – The Army Air Force's "Fighting Seabees"

By David H. Bergquist



Photo courtesy of Dick Shaw

Hollywood's 1944 action movie "The Fighting Seabees" starring John Wayne and Susan Hayward depicts well the fighting conditions under which the Navy's construction battalions worked as they built needed facilities to advance the war against Imperial Japan. But did you know that the Army Air Force had its own construction battalions and that some were briefly stationed at Dow Field during World War II?

The Army's Corps of Engineers have been in existence since 1802. Company C of the 36th Engineer Regiment arrived at Bangor's new air base shortly after Pearl Harbor. Their mission was to help finish the construction work started in early spring 1941 (see photo above). But they were very different than the Engineer Aviation Battalions activated in 1940. Like the Navy's Seabees, this military organization trained and worked under battle conditions.

The Engineer Aviation Battalions were a vital part of the War Department's strategy for winning the war in Europe and in the far east. They were responsible for

constructing the needed battlefield air facilities to press the air attack into enemy territory. Much of what the engineers built were landing strips for fighters and bombers in remote Pacific jungles or in continental Europe, roadways where needed to support the advance of troops and supplies, aircraft hangars, and ammunition bunkers as well as other aeronautical installations.

While at Dow Field, members of the 924th Engineer Aviation Regiment used their time to prepare for battlefield assignment. They spent much of their practice time expanding the length of the Dow Field runways from 5,000 to 7,000 feet. They also built a 2,500-foot runway for medium bombers at Pickerel Pond in Greenfield thirty miles northeast of Bangor.



2,500-foot airstrip built by the aviation engineers - author's photo

There, the aviation engineers bivouacked in tents for long durations and under realistic battle conditions. They learned to use their heavy equipment to the accompaniment of frequent ground strafing, simulated bombings, surprise attacks from adjacent woods, and night alarms. These simulated battle conditions helped to

Continued on Page 3

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The Maine Air Museum is located at
98 Maine Avenue adjacent to
Bangor International Airport

Minutes of Meeting – June 11, 2022

After a great talk [at the Bangor Public Library] by Dr. Joseph Wax on his study of the B-52 crash at Elephant Mountain, a brief meeting was held to address some items. Directors/Officers present for the meeting: John Nelligan, Les Shaw, Joe Quinn, Pauline Sodermark, Don Finnegan, Bob Littlefield.

Bob Umberger has resigned as Secretary, and Les Shaw was recommended to fill the position. It was seconded and approved.

It was determined that John Nelligan will sign the membership cards and they will be left in the office for use. We will be able to renew memberships as well as accept new members [at the museum]. All membership renewals and new applications will need to get to Sarah as she keeps the membership list.

There was discussion on changing the MAHS/MAM logo, but concerns were raised that the old logo is in various documents and even on the building. The thought was that we stay with the old logo.

The talk today on the B-52 crash was a great start to bring back the historical society side of the organization. The discussion was that we should do more to emphasize this side of the organization.

There was additional discussion on being able to accept credit cards at the museum. The discussion was of the cost/benefits. There was a suggestion of getting a Trac Phone and a Square. We will get some additional information and costs for the next meeting.

Where do we get bricks? We need to check to make sure that anyone who purchased a brick has received them or they have been ordered.

John again asked permission to have a coffee and donut day where people can bring their coffee and donuts to the museum and socialize. It was approved.

Submitted by
Les Shaw – Secretary

The Maine Aviation Historical Society regretfully announce the retirement of two key members of the Board of Directors.

David Bergquist, MAHS Historian and frequent contributor to the Dirigo Flyer, has served on the Board since 2018. Dave is moving to New Hampshire for health reasons and to be closer to family.

Robert Umberger, a Life Member, and frequent contributor to the Dirigo Flyer, has been a member since 2003, served as MAHS President 2008 – 2011, and served on the Board since 2007. Bob cites health reasons for his retirement.

Both will be greatly missed.

Maine Aviation Historical Society meetings are held at the Museum on the second Saturday of each month during which the Museum is open. Members are welcome and encouraged to attend.

Continued from Page 1

prepare them for the rigors of real battle. While at Pickerel Pond, the aviation engineers also constructed a practice bombing range in a bog south of the runway.

Bangoreans knew little about the activities of the elusive aviation engineers. They got a glimpse of them as some units marched in the Memorial Day parade in 1943. By July, the engineer battalions began to leave Dow Field and to ship out to combat zones. The first to leave was the 1913th battalion with its destination of the CBI or China/Burma/India theater. The 924th Headquarters and Service section soon followed on its way to Europe. In September, the 1905th left for India to work on the Ledo Road. Finally, the 1906th battalion left the base toward the end of 1943; its destination was also the CBI. The equipment for each departing engineer battalion filled approximately 115 freight cars that traveled on the base's spur to the Maine Central Railroad tracks at nearby Northern Maine Junction in Hermon. From there, trains brought troops and equipment to different ports of embarkation.

Some remnants of the aviation engineers' presence in Bangor can still be seen if you know where to look:



Bomb storage bunker built by the aviation engineers - author's photo



An original WWII aviation engineers building now used as a chapel by the Maine Air National Guard, 101st Air Refueling Wing.

Dave Bergquist is the author of **Bangor in World War II: From the Homefront to the Embattled Skies**.

EXPEDITION UNKNOWN: L'Oiseau Blanc

As previously reported in the *Dirigo Flyer* (Volume XXIX, No. 4 (October – December)), MAHS member Peter Noddin joined Josh Gates and the filming crew from EXPEDITION UNKNOWN for several days trekking through the Down East Maine woods near Ellsworth searching for the missing wreckage of the L'Oiseau Blanc (White Bird).

The episode, filmed last September and titled LINDBERG'S LOST RIVAL, aired on the Discovery Channel on June 15, 2022.

SPOILER ALERT: the fate of the White Bird remains a mystery.

If you missed it on June 15, you could still see it when it is re-aired on the following dates:

Wednesday, June 29, at 6:00 PM

Saturday, July 2, at 11:00 AM

Wednesday, July 6, at 5:00 PM

Wednesday, July 13, at 4:00 PM

Saturday, July 16, at 10:00 PM

The episode can also be viewed anytime on the Discovery+ streaming platform.

Air Marking in Maine



BACK IN THE DAY, before Very High-Frequency Omnidirectional Range – VOR – systems became widely used in the 1960s, how did pilots, especially private pilots without radios, know where they were and how to get where they were going? Quite simply, they looked for landmarks on the ground – and some became lost, ran out of fuel and crashed while searching for their target landing strip.

To correct this situation, the National Air Marking program was established in 1926, under the Bureau of Air Commerce. The program, initially funded by the federal government, involved dividing each participating state into 20 square mile sections. Each section was to contain large signs every 15 miles identifying the nearest town. The signs were either painted on the roof of buildings or – where there were no buildings – constructed of large white rocks laid out on the ground.

By 1936 there were 30 states participating in the program. We can tell Maine was one of those participating states because the online collection of the Maine Historical Society contains an aerial photo (dated 10/31/1930) of the Gorham Normal School with its roof painted to identify the location as Gorham and arrows pointing to Portland and Augusta. Undoubtedly, Gorham was only one of many Maine cities, towns, and unincorporated regions to participate in air marking in the 1930s.

When Pearl Harbor was attacked in 1941, the Civil Aeronautics Administration (which took over the functions of the Bureau of Air Commerce in 1938) ordered all air markings within a certain distance of the east and west

coasts to be blacked out to avoid being used as targets by the enemy. Maine's air markings were among those obliterated.

After World War II ended, the effort to create a system of air markings resumed - in spades. On 3/23/1948, the Kennebec Journal published an article calling for "any Maine resident with a large flat rooftop he is not using to get in touch with the Maine Aeronautics Commission," explaining that "rooftop space is being solicited as part of the Commission's drive to put signposts for aerial travelers throughout the state." The stated goal was to have at least 200 markers across Maine.

The Maine Aeronautics Commission in 1948 published a pamphlet *AIR MARK THE STATE IN '48*, filled with Air Marking Information and instructions. The Introduction to the pamphlet warns that "Because air marking has never been provided generally, the average pilot thinks of a cross country flight as a major undertaking, involving the intricacies of navigation and the danger of becoming lost," and promises that "With every town adequately air marked, aviation becomes as simple and pleasant as driving along a highway, and it will rarely be necessary for a pilot to land for orientation. Moreover, he will find frequent directions to the nearest good airport."

We thank John Miller for providing us with the pamphlet, news articles, and above photo of the porcelain enamel air markers on the roof of the Portland Packing Company in Unity, ME, originally published in the Boston Sunday Herald on January 30, 1949.

The Maine Air Museum: The Start, Plan, and Future (PART 2 OF 3)

Continued from the last issue of the Dirigo Flyer

By Jim Chichetto

2. The Plan

Every idea, no matter how great it is, can not grow and flourish without direct action. To make this action happen, someone has to put some time in planning this course of action. MAHS has been very lucky to have members who have been involved with other air museums and non-profit groups. These people worked with the officers and volunteers to come up with a plan of action to make the Maine Air Museum project become a living, breathing thing. Even while the search committee was doing their work, another committee was set up to study finances, fundraising and building costs. Budgets were considered and linked to the developing one- and five-year plans being put together. Much of this work was done by one or two people who would bring these parts in to the meetings and work to fit them into the overall plan. We knew where we were heading and what we wanted it to be like when the work was done, but it was a lot like making a puzzle, each part had to be moved and shaped to fit the plan. It took a lot of work and many of the folks who started this process burned out before we got it all done. Volunteering is always like that, good ideas and more work than workers to do it. This leads to frustration and early burnout of volunteers.

After much work and struggle, a solid one-year budget was in place. A five-year operating plan was unveiled and accepted by the membership. Floor plans for the current building were laid out and tasks were given priorities. The growth was linked to our ability to raise funds for the project costs. We would work within our means and push forward as we raised money for the materials and equipment.

Under our one-year plan, getting the building cleaned out and under our control was the first task. Next came the work to make it secure and get a fence up. Painting and minor repairs to the outside were done as the weather got warmer. Our progress was slower than we had hoped for a number of reasons, the biggest being lack of funds to buy materials, followed by the lack of able bodies willing to work. A number of people worked during the spring and summer, giving up their vacation time to get the building painted. Part of the fundraising plan was to raise the general public's level of awareness about the MAHS and the Maine Air Museum. The idea of painting the building a bright white was the first major task for the volunteer workers doing the building work. People noticed the painting and then the new sign. It got them talking and the museum location got to be known by those folks who drove by and watched our progress. On workdays we often had visitors for whom we gave tours and answered questions.

The general plan for Building 98 calls for the 11 rooms in the building to be in full use by the end of the first

year of operation. The old 12' x 20' office will be cleaned, painted and updated and used as our office. The current bathroom will be updated to being handicap accessible and used until a new building is erected. The old break room will be used for the same function in the museum. The entryway will be updated with a second door, a glass entrance that will allow the public to enter into the museum and also lighten up this area of the building. The roll up door will be retained for security reasons when the museum is closed. The entryway will house the gift shop and the starting point for the museum tours.

On the right side of the entryway the two blast doors will be kept and they open into the main display area. This area is called Display Area 1 and it was used by the USAF to assemble air to air missiles and warheads during the late 1950s and 1960s. Part of the room will be left stock to show what the room looked like during its Cold War use. Lettering and blast proof fixtures will be retained in this area. The rest of this bay will be used to house the various engine exhibits, artifacts and displays about Maine's flying past. A number of interactive computers will be set up in this bay to allow adults and kids to learn more about flight and special events in Maine's flying history. At the far end of Display area 1 is the smaller Display Area 2. This bay was used by the USAF to load and unload the missiles that were assembled onto dollies that were hauled by tractors to the ready hangars. In the case of the Genie missiles, the warheads were mated to the missiles for 15 days before they were removed and the warhead returned to the bunkers for storage and updating. As Display Area 1 is filled with displays, Display Area 2 will be used to display other artifacts. Behind Display Area 2 is the library. In this room the MAHS collection of books, magazines, papers and photos will be on display and open for the public to use in research work. Computers will be set up in this area to help with the work and allow people to check other resources.

A major part of the five-year plan is to start and develop a hands-on program for children at the museum. Interactive displays, aircraft cockpits, computers and lectures will all be part of this effort. It is our hope that schools will tour the museum and we have an Education Committee working on ideas and programs for use both in the museum and as traveling exhibits which would travel around Maine and visit schools. This out-reach program would allow schools to have a series of lectures and displays in their schools and via computers, both before and after they visit the museum. These visits would be free and it is our goal to have every one of the children in Maine visit the museum and learn about Maine's great aviation history. Joint tours with school groups visiting both the Air Museum and the Cole's Museum may be possible as we grow.

We have enough artifacts and display materials at this time to fill both Display Areas. Once that happens we are converting Bay 1 into Display Area 3. The building has three of these bays. They have double doors on each end and high ceilings. We plan on having the larger displays in these areas. Aircraft cockpits and small aircraft can fit inside these areas. We have some artifacts already in place in this bay.

The next bay, Bay 2, will be used for storage until Bay 1 is full. Then it will become Display Area 4. If we get some of the artifacts that have been offered to the museum, we can fill this bay with quality displays before the start of our second year of operation (2002). Right now we have not gathered in all that has been offered because we don't have the secure space and temperature controlled storage set up.

The last bay, Bay 3, is currently being used for storage and as our workshop. Plans call for a wood working shop, metal working shop and other aircraft and building related work projects. This area will be used by the volunteers to do the actual work of making displays and repairing equipment and artifacts.

The boiler room houses the master electric panels and the heating unit for the museum. We have cleaned that out and are working to update both of these areas. We will be reusing this space when we install the new heating system.

While some folks worked to get the building ready, others were working hard to make the museum better known within the state of Maine and beyond. To accomplish this task, a professional fundraiser was hired to help us come up with a case statement that would put our best ideas forward. Many working meetings were held and a training session was used to help prepare members to go out and work on fundraising.

This past spring and summer, flyers were placed in the airport, Chamber of Commerce, and information booths to educate the public about our project. Newspaper editorials, stories and photos helped us spread the word and we sent out flyers in the *Bangor Daily News* and in the newsletter of the Maine State Society. We also had information at the Maine Air National Guard air show in May along with our display and aircraft. Later we had people attending almost every flying event in Maine with displays and information about the MAHS and the museum. Part of this display effort was made up of a trailer with the museum's 1940's Luscombe aircraft on it. This aircraft was donated and is being restored. It spent much of the 2000 season traveling around Maine to raise awareness for the MAHS and the museum. In 2001 it will be trucked around Maine as a display in between the repair sessions. A fund has been set up and a timetable has been drawn up to bring this aircraft back to perfect condition. It is a two-seat light aircraft that was popular after WWII along with Piper Cubs, Cessnas and other light aircraft. The GI Bill could be used to teach people to fly and many of the people who learned to fly back then flew these types of aircraft all over Maine and by adding floats, opened up the great northern Maine lakes to fishing as we know it today. This aircraft draws people to it and is the best traveling display we have at this time.

The first year from October 1999 to October 2000 saw a lot of progress on all fronts. The plans are in place and we are moving forward. In the next section I will explain the vision we have for the future of the Maine Air Museum.

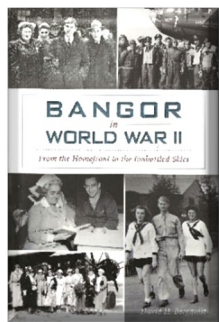
Continued with Part III in the next issue



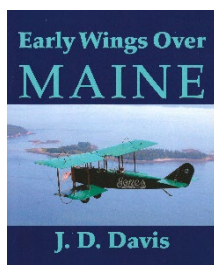
Luscombe ready for 4th of July parade 2001 with Carl Sederquist, Mike Cornett, Les Shaw, Chris McNeel, and John Garbinski.

Mike Shaw photo

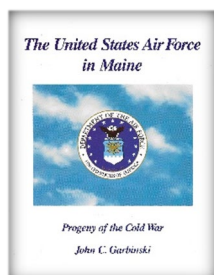
Books by Maine Authors Available at the Museum Gift Shop



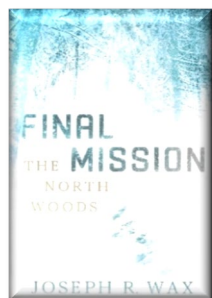
Bangor in World War II *From the Homefront to the Embattled Skies* - MAHS member Dave Bergquist documents in great detail, complete with photographs, the story of Bangor and its “world class air base,” Dow Field, leading up to and through World War II.
\$18.00



Early Wings Over MAINE – Maine native and MAHS member John Davis chronicles the early history of aviation in Maine. Davis concludes the book with a tribute to MAHS founding member Leo Boyle who edited the society’s newsletter *The Dirigo Flyer* for its first 10 years.
\$20.00



The United States Air Force in Maine Progeny of the Cold War – Authored by MAHS Life member John Garbinski and published by the Maine Aviation Historical Society, this photograph-filled history of Maine’s role in the Cold War is exclusively available at the Maine Air Museum or through MAHS.
\$15.00



FINAL MISSION The North Woods – Authored by Joseph R. Wax, a Maine physician and medical researcher, this book tells the story of the crash of a Strategic Air Command B-52 Stratofortress on Elephant Mountain in the North Woods of Maine.
\$15.00

All prices include Maine State Sales Tax

REMINDEER: June 30 is the due date for your annual membership dues. You should have received an email this month from our new President, John Nelligan, reminding you of this date. Of course, we will not turn down your payment if it is a little late, we value your membership. Dues can be mailed to the Maine Aviation Historical Society, P.O. Box 2641, Bangor, ME 04402 or paid in person at the Museum during open hours on weekends. Any questions – contact us at info@maineairmuseum.com.



All dues expire on June 30th of each year. If joining mid-year, pay \$2.00 for each remaining month (\$3.00 for Family Memberships)

Annual membership includes quarterly newsletters

Mail payment to:

Maine Aviation Historical Society
PO Box 2641
Bangor, ME 04402-2641

**Maine Aviation Historical Society
Maine Air Museum * Membership Form**

Name: _____

Address: _____

City, State, Zip: _____

Special Interests: _____

Phone: _____ Email: _____

Membership	Dues	Benefits
Regular	\$25 annual	Newsletter, Museum Admission
Family	\$35 annual	Newsletter, Museum Admission
Corporate	\$100 annual	Newsletter, Museum Admission
Supporting	\$100 annual	Newsletter, Museum Admission

We need volunteers-docents, mechanics, maintenance, librarians and exhibit specialists, etc.

- Please call me. I want to be active in the organization.
 I cannot join now, but would like to help. I enclose a check for _____
 (Contributions over \$20 are tax deductible within the limits of the law)
 I wish to support and obtain membership by purchasing a memorial brick

DIRIGO FLYER

MAINE AVIATION HISTORICAL SOCIETY

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