

## Wings of the Past: Curtiss Driole

## By Neal Strange

When his lucrative orders for military aircraft were greatly reduced following the end of WW 1, Glenn Curtiss, founder and president of the Curtiss Aeroplane and Motor Corporation, turned his attention to the civil market that the aircraft industry optimistically expected to blossom right after the war.

Although aviation was still in its infancy, the highly publicized role of airplanes and heroic exploits of their pilots during "the war to end all wars" stimulated a moderate public curiosity in this new realm of travel.

Barnstorming pilots in their government supplus Curtiss "Jenny" trainers further aroused public enthusiasm as they toured the countryside during the early post-war years.

Surplus military training planes, the only practical aircraft available at the time, were designed for the sole purpose of teaching novices to master the art of flying with little or no concern for their personal comfort. Nearly all trainers were only two place which limited the barnstoming pilot's revenue to one paying passenger at a time, confined in a narrow, open cockpit with minimum protection from the elements.

It appeared to Curtiss and his engineering staff that an aircraft designed specifically for civil aviation buyers, incorporating features attractive to both commercial operators and the general public, would soon be in great demand.

In June 1919, Curtiss unveiled his first post-war aircraft designated the "Oriole." It was also the first in a series of early Curtiss productions to be marketed under a bird's name rather


A Curtiss wing Oriole flown by "Casey"Jones in many air races in the early 1920 s.

"Casey" Jones (left) and an unknown admirer at Stroudwater Field 1925-26 beside Curtiss Oniole. (Sherman Tinkham Photo via Neal Strange)
than a model or type number. Some subsequent names identifying later aircraft designed by Curtiss included Hawk, Thrush, Robin, Falcon, Tanager and Condor.

While similar in appearance to its JN-4D (Jenny) forebear, the Oriole differed in basic design and construction methods. The fuselage was made up of laminated wood veneer in monocoque configuration instead of truss braced longerons used in earlier Curtiss designs. Its seating arrangement, pilot in rear cockpit and room for two passengers sitting side by side in the front with their ease of entrance provided by a small door at the side, became the standard for practically all three seat biplanes built up to the mid-1930s. Enlarged windshields and leather upholstered seats added appeal and comparative comfort to both passenger and pilot.

The convenience of an electric starter as standard equipment was an innovation that did not catch on with other light commercial aircraft manufacturers for nearly a decade later.

Powered with a 160 HP Curtiss C-6 (6 cyl.) water cooled engine, the Oriole cruised at 77 mph with a maximum speed of 97 mph . A 40 foot wingspan and 399 square feet of wing area provided superior short field performance.

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P.O. Box 2641, Bangor, ME 04402
web site: acadia.netimahs/ telephone: 207-941-6757
1-877-280-MAHS (in state only)

ASSOCIATION OFFICERS

President<br>Peter Noddin (\#295)<br>East Millitrocket, ME 04430<br>207.746-5166 e-mail: petef86a@midmaine.com<br>Vice President<br>Leslie Shaw (\#331L)<br>Brewer, ME 04412<br>207.989-4168<br>e-mail: les_shaw@umit.maine.edu

Recording Secretary
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Bar Harbor, ME 04609
207-288-5654
e-mail: townsendeacadia.net

Treasurer
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Levant, ME 04456
207-884-7188
e-mail: jwquinn © adelphia.net

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> Monithly meetings are held at 10 a.m. on the second Saturday of each month at various locations.

> See calendar for details.

## Maine Aviation Historical Snciety Maine Air Museum <br> Monthly Meeting: January 10, ROD4

Call to Order. The January 2004 meeting of the Maine Aviation Historical Society was called to order by President Noddin at 10 a.m. at the Maine Air Museum in Bangor, Maine. Thirteen members and guests were present.

Treasurer's Report. Treasurer Quinn passed out a copy of the Jan. 2003 through Dec. 2003 profit and loss statement. The Society had a net income of $\$ 2,481.21$ in the year 2003.

Membership Report. Boyle was not present. There was no discussion but it was pointed out that a significant number of renewals are due at the beginning of the year. Renewals have been coming in at a good pace.

Secretary's Report. Townsend was not present at the last meeting and the meeting notes as compiled by Cornett were accepted in lieu of minutes. Web page information was also reported at this time. The new web page is still under construction but is nearly complete. (See notice below.)

President's Message. President Noddin read prepared remarks to the group. A copy will be made available and will be attached to the Secretary's minutes.

Museum Report. Comett passed around pictures he had taken of the Antonov AN-224 and the Concord that had visited Bangor this fall. A listing of various fighter groups that had been stationed in Maine has been made and inquires are being made of them to see if we can obtain any histories, pictures, or artifacts. The Stevens balloon has been received and historical info is being compiled. A SAR (search and rescue) suit from Brunswick Naval Air Station has been donated.

Fundraising. An additional $\$ 800$ has been raised from brick sales since the last brick order was filled. These have been our most successful fundraising function so far.

Physical Plant. Al Cormier has been sidelined by health problems this past month and no additional work has been done on the museum.

Crash Sites. Site investigations are currentlv inactive due to the winter conditions. Several sites are being considered for memorials. Land owners and local residents are being contacted during the off-season. There was some discussion on the status of current SAC crash sites in Maine.

Aircraft Acquisition. No new info has been received on either the P-3 or the jet engine.
New Business. Armstrong updated us on "White Bird" search information. It is possible that the Great Spruce Mountain crash site is not a valid site and results from conflicting Army Air Force reports in WWII. A check of junk metal dealers indicates that if an aluminum engine similar to that of the "White Bird" had been found in the 1930s it is probable that it would not have been recovered since aluminum had little or no scrap value at that time.

Adjournment. The meeting was adjourned at 1127 hours 10 Jan. 2004.


The Maine Air Museum and the Maine Aviation Historical Society have a newweb page address: www.maineairmuseum.org Connecting to the old site should give you a link to the new one. Please help us to spread the word!

## MAHG • MAM Board of Directors Meeting January 10, enn4

## Mystery Photos of the Month

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Marquis Lippo Gerini's Loening amphibian at Kennebunk Beach, in front of the Sagamore. Does anyone know who the Marquis was, and why and when he was here?

"Oriole," con't from page 1
Early sales of the Oriole confirmed Curtiss' predictions - even at the price of $\$ 9,450$ - but unfortunately, as more government surplus trainers were released to the market, their huge price differential ( $\$ 500-\$ 1000$ ) overcame the appeal of Oriole's improvements. Curtiss eventually slashed the price to $\$ 4,800$ but sales still continued to decline and in less than three years production ceased.
C.S. "Casey" Jones, Curtiss test pilot, service manager and prominent air race pilot of the era, strived to promote Oriole sales to the general public by touring small airfields and grass strips, displaying the aircraft and demonstrating its performance to prospective buyers. Just how many Orioles were produced and sold remains unknown, but due to the uniqueness of the aircraft and its brief debut in history, at least one has been restored and is on display at the Curtiss Museum in Hammondsport, New York.

During the summer of 1926 "Casey" Jones, ventured into Maine, landing at Stroudwater Flying Field, near Portland where he spent several days demonstrating the Oriole and praising its merits to local pilots and curious spectators.

However, there appears to be no record of an Oriole sold in Maine.


Aiplane enthusiasts (and young boys) at Stroudwater Field in Port land about 1926. Third pilot from left is Clifford Strange, founder of the aiport. Nielson's bam is in background. (Neal Strange Photo)

## Sanford and Maine Lose Two Pioneers

ERNEST N. KOSTIS

Ernest Kostis, 79, passed away in Sanford on December 24, 2003. He enlisted in the U.S. Army Air Force in April 1943 and became one of the youngest $\mathrm{B}-17$ pilots of the war. He was attached to the 457th Bomb Group, the 749th Bomb Squadron, in Glatton, England. As a squadron commander, he led 19 successful missions deep into Germany including Hamburg, Berlin and Dresden. Mr. Kostis' formation was once attacked by the first German jet fighters of the war. Upon Germany's surrender, he flew throughout Europe picking up English POWs. When he returned to the U.S. on leave in 1945, he twice flew his B-17 at tree-top level down Main Street in Sanford.

Mr. Kostis retrained as a B-29 pilot in Roswell, New Mexico, for deployment to the Pacific Theater but remained stateside when the war ended. After the war, he flew military transport planes. He was instrumental in forming the SanfordSpringvale Civil Air Patrol and served as squadron commander for many years. Mr. Kostis retired from the U.S. Air Force Reserves in 1984 after 41 years of service with the rank of Lt. Colonel.

Among his survivors is his son, N. William Kostis of Sanford. Billy is well-known in the area and is the restorer of the U.S. Navy Control Tower at the Sanford Airport, a work in progress.

## HAROLD W. CLARK

Harold W. Clark, 95, passed away at Goodall Hospital. He was born in Springvale on August 2, 1908 and was a longtime resident of North Shapleigh and the Sanford area, according to the Joumal Tribune. The article went on to say that Mr. Clark "loved flying and attended Spear Flying School, making his first solo flight in 1928 from Scarborough Airport in a Challenger aircraft."

During World War II, Mr. Clark was a lieutenant in the Sanford Civil Air Patrol; and later on he was an aerial photographer taking pictures of the Maine coast and the SanfordSpringvale area.

Thanks to Bob Umberger for the above.

## Maine Air Museum Books and Uniforms on Display



Our erstwhile flbrarians, (above (eff) members Camille and Lyndie Lee Cyr with some of their handiwork. They have done a fantastic job with our library.(above) Part of our exhibit at the Bangor Public Lbrary set up by Bill Cook and Mike Cornett for the 100th anniversary of flight. (right) Bill Cook in his WWI original Lafayette Escadrille uniform. (left) Bill Cook's uniforms on exhibit at the Bangor Public Library. (Mike Comett Photos)


## Setback for Maine Aviation Manufacturing

## By Bob Umberger

For those who may not have caught up with the situation here in Maine, I thought I would recap for the MAHS folks.

Regrettably, 2003 was not a great year for amphibian aircraft activities in Maine. January/February 2003 spelled the end of production in Maine of Lake Amphibian aircraft. After fifty-plus years of production in Sanford, Maine of the Lake models by Aero Fab (purchased and renamed ManAero during 2002), all operations were closed and relocated to Ft. Pierce, Florida.

Nearly on the eve of losing the Lake aircraft business came the announcement of plans to develop and produce the Centaur Amphibian under the banner of Warrior Aero Marine, the U.S.-British venture formed to build the prototype, with production of the aircraft to follow. Operations were set up in a hanger at Sanford Regional Airport while the composite fuselage manufacturing was taking place in Richmond, Maine. I'm sure many saw Warrior's displays and brochures the past two years at aviation gatherings such as the International Sea Plane Fly-In in Greenville, the Portland Jetport 100th Anniversary of Flight Open House, and other events.

For those not familiar with the concept six place Centaur, the design has several innovative features besides using high strength composites throughout, which virtually eliminates corrosion concerns inherent in seaplanes and amphibians, past and present. The most interesting and significant features are the folding wings and a low-speed waterjet thruster, making the aircraft capable of "going almost anywhere a 40 foot boat can go, as well as the possibility of being berthed in marinas and other tight spaces" according to the developers.

In November, after various delays, the fuselage for the first


Aero Fab hangar at Sanford Airport being torn down in 2003. Norm Houle Photo)

Centaur prototype was delivered to Sanford, and finally it appeared that a flying prototype would soon be gracing the skies of southern Maine, much as the Lake Amphibian had done approximately half a century earlier. However, just before Christmas it was reported that financing issues caused the shutdown of Centaur Amphibian activities by Warrior Aero Marine.

We can only hope Warrior Aero Marine can get further backing in order to bring the Centaur Amphibian, a truly unique aircraft, to fruition. Further, that the company's future resides in Maine, and that the Centaur Amphibian will also become a contributor to Maine's aviation heritage well into the twentyfirst century! On a positive note, the heads of Warrior Aero Marine still believe the Centaur can be a success.

## We Get Letters

Leo,
I received the December Flyer here in Mesa today. Thanks for the trouble. The picture of the B-18 with Maine Air Freight markings is intriguing. Where was it taken, when and does George Tinker have an e-mail address so that I might ask him directly? I suspect it would be in the winter of '47-48, conceivably the next year. Did he have any connection with the operation?

I have learned that there are three $\mathrm{B}-18 \mathrm{~s}$ remaining on the U.S. Registry, one of which is in Alaska. Last summer I spoke on the phone with an elderly Mudgett woman listed in the Bangor phone book. She knew about Larry but referred me to her son who had the family records. I think his name was Bill. I called him. He immediately acknowledged a relationship, but asked for time to look up the records that he had. He called back in a matter of minutes, verifying the family connection, but he had no information about Larry's activity. There had been no contact for years. He did have an old address, somewhere in Northern Califormia.

In the meantime, I had looked on a disk of phone numbers dated in the middle '90s showing Larry Mudgett. With a later phone number and address I thought about doing so but I didn't
call the number. Somewhere, I picked up the information that he was born in 1917, so it's questionable if he's still with us. After I send you this message, I'll look at that disk and if I tind his number and address r'll send it to you.

Member Jim McCarthy

## A Royal Visitor



A Royal Air Force Vickers VC-10 tanker just outside the museum recently. (Mike Cornett Photo)

# Buy a Brick and Support the Maine Air Museum 

## The Maine Air Museum is proud to announce the new Memorial Pathway Program. Here's how it works:

To successfully carry out and reach the museum vision, and to refurbish building 98, the Maine Air Museum needs the financial support of business and public community leaders and individual private citizens. Your interest in preserving the rich Maine aviation history will require funding presently not available to the museum effort. To this end, the museum board has established the following contribution plan for receiving your monetary donation and recognizing your gift permanently in the museum pathway and wall of honor. Remember: your donation is fully deductible.

## $\star$ Stratocumulus Member (Sc) — \$100 Donation

Entitles the gift giver to a one-year membership and two-year museum pass and a benefactor's engraved 4 " $x 8$ " $\times 2.5^{\prime \prime}$ red clay brick with up to two lines ( 14 characters/line, $65^{\circ \prime}$ high) of commemorative text in the name of the gift giver or his/her memorial to others. Brick to be installed on the museum grounds, walkway or building facade.

## * Altostratus Member (As) - \$150 Donation

Entitles the gift giver to a two-year membership and three-year museum pass, copy of The United Slates Air Force in Maine, and a benefactor's engraved $4^{\prime \prime} \times 88^{\prime \prime} \times 2.5^{\prime \prime}$ red clay brick with up to two lines ( 14 characters/line, $65^{\prime \prime}$ high) of commemorative text in the name of the gift giver or his/her memorial to others. Brick to be installed on the museum grounds, walkway or building facade.



See Order Form on Page 7

* Altocumulus Member (Ac) - \$250 Donation

Entitles the gift giver to a five-year membership and five-year museum pass and a benefactor's engraved 4 " $x 8$ " $\times 2.5$ " pearl gray marble brick with up to two lines ( 14 characters/line, .65" high) of commemorative text in the name of the gift giver or his/ her memorial to others. Brick to be installed on the museum grounds, walkway ot building facade.
$\star$ Cirrus Member (Cj) — \$2500 Donation
Entitles the gift giver to life membership status and a benefactor's engraved three foot white marble setting bench with one line (27 characters/line, $2^{\prime \prime}$ high) of commemorative text in the name of the gift giver or his/her memorial to others. Bench to be installed in the museum building or on the museum grounds.

## The Maine Air Museum is wholly owned and operated by the Maine Aviation Historical Society.

The Maine Aviation Historical Society's First Book by Member JOHN C. GARBINSKI

The United States Air Force in Maine Progeny of the Cold War
$81 / 2 \times 11$ softbound, 134 pages, 151 illustrations Published by the Maine Aviation Historical Society $\$ 20.00$ (plus $\$ 3.00$ postage and handling)

MAHS Book Order Dept. 101 Monroe Ave., Westbrook, ME 04092-4020

## Upcoming MAHS Meetings and Events



February 14 ............... 10 a.m. ........ MAHS Meeting, Maine Air Museum, Bangor, Maine.
March 13 ................... 10 a.m. ........ MAHS Meeting, Maine Air Museum, Bangor, Maine.
April 10 $\qquad$ $10 \mathrm{a} . \mathrm{m}$. $\qquad$ MAHS Meeting, Maine Air Museum, Bangor, Maine.

## Got Ideas?

MAHS meeting sites are flexible and we're always looking for guest speakers and new program ideas. If you have any ideas or if you can be of help, call Les Shaw at 1-877-280-MAHS.

## Welcome, New Member

462. Col. Frank R. Schroeder

158 Hart Road
Warren, ME 04864

## Got E-Mail?

Don't forget to send us your e-mail address if you want it listed in the Dirigo Flyer. It's a great way to keep in touch with other members, share information quickly and stay current on aviation issues and happenings.

## We Still Need Valunteers

We still need volunteers to work in the museum! We need people to work on our engine displays, touch up and production of historical displays, office work, computer filing, and, of course, yard work. We also need a serious model builder to assist in repairing, cleaning and constructing models, dioramas and other displays.

To volunteer, call 1-877-280-MAHS. To check the dates on which we need help, link to:

MaineAirMuseumvolunteerschedule.org

## $\psi \psi+$ CDME JDIN US and CATCH THE EXCITEMENT $\psi+\psi$ Join the Maine Aviation Historical Society Today Help Preserve Malne's Aviation History for Tomorrow For more information, call 207-941-6757 or 1-877-280-MAHS (in state) or check out our NEW web site at www.maineairmuseum.org

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| Supporting | $\$ 100$ annual | Newsletter, Decal, Museum Admission, 4 Free Passes |
| Lifetime | $\$ 500^{*}$ | Newsletter, Decal, Lifetime Membership Number, |
| * (2 annual $\$ 250$ payments) | Museum Admission, 10 Free Passes |  |

Maine Aviation Historical Society
P.O. Box 2641

Bangor, ME 04402

## January Meeting

February 14, 2004 10 a.m.
Board Meeting to follow
Maine Air Museum Bangor, Maine

