



Oregon Aviation Historical Society

Newsletter

Vol. 14 No. 1 • P.O. Box 553 • Cottage Grove, OR 97424 • April 2005

Annual Meeting Set for April 23 Events begin at 11:30 a.m.

*The Oregon Aviation Historical Society
and
The Oregon Antique & Classic Aircraft Club
invite you to a joint meeting with program and dedications
at the Oregon Aviation History Center,
2475 Jim Wright Way, Cottage Grove, Oregon
beginning at 12:45 p.m. on April 23, 2005*

A no-host lunch will be available starting at 11:30 a.m.

When was the last time anyone could remember shaking hands with an airmail pilot who flew a Contract Air Mail (CAM) route of 1929? Well, now you can do just that by simply attending our annual meeting on April 23rd at the History Center.

Addison Pemberton, "a little unknown aviator" is responsible for the program. He soloed at 16, holds certificates of private, commercial, CFI, with SEL, MEL, SES & Instrument ratings. He has 9800 hours tail wheel time, with 3000+ behind round engines. Addison began restoring aircraft with PT Stearman projects, then the Speedmail, which he still owns along with a 450HP Stearman, Beech Staggerwing, Cessna 185, and a Piper Super Cub. Additionally, the Boeing 40C project he acquired from OAHS is well along the way to completion. Addison instructs in the "old stuff" and proudly taught his wife Wendy and sons Jay and Ryan to become competent old airplane drivers as well. He, his family and stable of aircraft are all based in Spokane, Washington.

Addison Pemberton, along with OACAC member Ben Scott of Reno, not only flew CAM 18 from Reno to Iowa City in 1993, they were sworn in as official air mail pilots and carried 3,000 letters! He will regale those in attendance with those exploits as our program for the day. He may arrive in the very Boeing Speedmail biplane flown on that commemorative flight, weather permitting. I wonder if Post Office revolvers had to be on board!



1931 Boeing Sr. Speedmail

Prior to our re-living of yesteryear, you are encouraged to join us for a no-host luncheon at the History Center beginning at 11:30 a.m. Following lunch we will assemble around the recently erected airway beacon tower at 12:45 p.m. for a formal dedication. A short annual meeting is next with our program starting at about 1:30 p.m. The events of the day will conclude with a quarterly meeting of the Oregon Antique & Classic Aircraft Club.

Also available will be tours of the archival storage and work room on the mezzanine and the Hedberg Aviation Resource Library. That is a full schedule of activities we believe will be enjoyable for all. Be sure to be there.



Board of Directors

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www.oregonaviation.org

Random Flight

by Roger Starr



Exhort, cajole, implore, urge. Those are just some of the words Mr. Webster has defined that express my desire to see you on the 23rd. Each year we bring a program that we feel is interesting and educational to our members and guests, and this year is certainly no exception. Since one of the feature events of the annual meeting will be to dedicate our airway beacon tower (aka the flag pole), we thought hard and long for a program tied into the dedication. I can not think of a more fitting presentation than the stories of two airmail pilots who flew their original airmail ships along an original airmail route originally studded with airway beacon towers and lights.

We are immensely grateful for the work that has gone into bringing our airway beacon tower to an upright position beside the History Center, from the helicopter transport of the tower from the Creswell Butte in 1988, to its erection in 2005. In between were many hours of cleaning, painting, wiring, excavating and permitting.

The site of our tower lies nearly underneath the original Contract Air Mail (CAM) 8 route that ran between Seattle and San Diego. It is wonderful to have our flag atop the tower waving to all the intrepid pilots, past and present, flying the route of old CAM 8.

My personal thanks to those members who have been kind enough to support our Society beyond a nominal membership contribution. Your confidence in our ability to carryout a very important mission is truly appreciated. Also noteworthy is the outside support received as reported in this newsletter.

There are two main ingredients necessary to fulfill our mission. One is people power and the other is funding. At times I am reminded of trying to get the bread and jelly to come out equal. At times there is too much jelly for the bread and vice versa. And so it is with OAHS. At times we have the funds but not the people, and then the manpower shows up and the purse is nearly empty.

Now in my case, the bread usually lands jelly side down. At a time like that, it is good to have a faithful dog to call upon before the wife returns home! Come tell me on the 23rd how you handle this situation.

Join the OAHS!

If you're not yet a member, we invite you to join the Society in its efforts to preserve and celebrate Oregona Aviation History. Fill in the blanks and return to:

Oregon Aviation Historical Society
PO Box 553
Cottage Grove, OR 97424

Contributor - \$100 Sustaining - \$50 Family - \$35 Associate - \$25

Name _____ Date _____
 Address _____ Home Phone (____)____-_____
 City _____ State _____ Zip _____
 Current/Former Occupation _____
 I am Interested in Volunteering _____
 Skills and Interests _____

OAHS Grants Activity

Money Assists Mission Compliance

President Roger Starr announces that the Board of Directors of the Oregon Community Foundation has named the Oregon Aviation Historical Society a 25% beneficiary of the Dorothy Hester Stenzel Fund for a ten year period beginning in 2006. The funds are for general support of OAHS programs and are anticipated to be approximately \$1,100. per year. In addition, we have received a one time 2005 payment of \$3,546. from the Hester Stenzel Fund.

Dorothy was a valued member and supporter of OAHS prior to her death in 1991. Please refer to our December 2004 newsletter for a brief history of her many awards and accomplishments.

The Society is most grateful to Dorothy's family for making this support possible. If you would like more information pertaining to the Oregon Community Foundation and their programs please contact us.

Pictured here is Ron Boehi of the Oregon Community Foundation presenting a check from the Douglas Wagner Fund to OAHS Treasurer, Gretchen Bencene. The \$2,400 grant



was received in late 2004 and reported in the last newsletter.

This photo shows Society Archivist Carol Skinner filing documents on the shelving purchased in part with the money received from the Wagner Fund.



We were also notified recently that we have been awarded an Oregon Museum grant, according to President Starr. This grant program is administrated by the Oregon Heritage Commission. Ninety-four qualifying organizations share equally the \$25,000. available for the 2005 program. This is the first year that OAHS has made application for consideration of the award.

From Nose to Tail and Everything in Between

by Roger Starr, OAHS President

The subject of these pictures and the pictures themselves are the product of board member Rex Hume of Williams, Oregon. His craftsmanship is readily apparent. Additionally his commitment to the restoration of the Society's 1934 Stinson SR-5E is nothing short of phenomenal.

Rex's fine achievement has been funded almost entirely by members of the Oregon Antique & Classic Aircraft Club. The Club's support is guided by that organization's purpose "to promote and encourage the restoration and preservation of Oregon aircraft" as well as "to preserve

Oregon's aviation heritage by supporting the establishment and perpetuation of a museum of Oregon aviation history."

Once the project is finished, the plan is to campaign the airplane around the northwest in order to gain attention for both organizations and other major contributors who have helped to bring this beautiful project to completion. This is a superb example of the continuous support provided by a great group of Club members.

Thanks Rex, and OACAC members.



Late Breaking News Beacon Tower Raised by Volunteer Group



It may have been a rainy day, but from the smiles all around you would have thought the sun was shining brightly. The History Center airway beacon tower was finally transferred from the horizontal storage position in which it languished for so long to the proud vertical flag standard that it deserves to be.

On Wednesday, March 21st volunteer operator Jim Davis brought a lifting crane donated by John Hyland Construction, Inc. and moved the top two tower sections and beacon lights from the parking lot to position them over the base section that was placed earlier.



With hand signals, alignment spikes and lots of anticipation, a group of volunteers scurry up each leg to affix the attachment bolts, and, there it is, standing erect at last.

OAHS Vice President Wilber Heath raises our Nation's flag over the completed project!

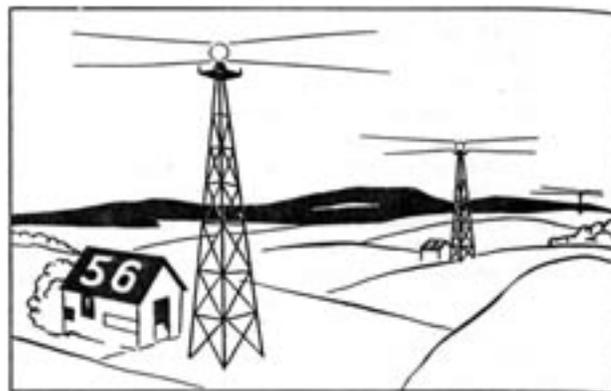


Federal Airway Beacon System: the Beginning of Night VFR Navigation

by Carol Skinner

In the early days of flight, there were no navigation aids to help pilots find their way, so they flew by looking out of their cockpit window for visual landmarks or by using automobile road maps. But that was only for daytime and the air-mail pilots flew around the clock. The first navigational aids, used by the Army Air Service in 1919, were bonfires lit along the prairie between Chicago and North Platte, Nebraska by Post Office staff, farmers, and the public.

Beginning in 1923 the Post Office began work on a system of transcontinental airway beacons placed on towers spaced 15 to 25 miles apart and bright enough to be seen for 40 miles in clear weather. On July 1, 1926, the Aeronautics Branch of the Department of Commerce took over responsibility for building lighted airways and by 1933, 18,000 miles of airway and 1,500 beacons were in place. By the time the system reached its heyday in the 1950s, there were more than 2,500 beacons lighting over 30,000 miles of federal airways.



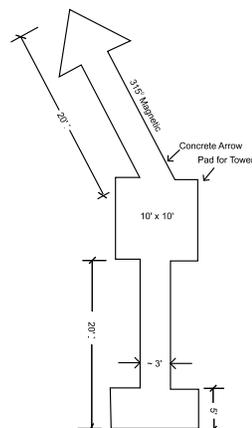
Night flying uses coded beacons set at 10-mile intervals along airways.

Each tower, which was installed at approximately 10 statute mile intervals, had site numbers painted on it for daytime identification. At night, the beacons flashed a designated sequence so that pilots could match their location to the printed guide that they carried. Beacons were numbered sequentially from west to east, and south to north along their respective airways. For example, Beacon 37 on the airway connecting San Diego and Seattle was approxi-

mately 370 miles north of the beginning of that airway. Course lights also repeatedly flashed a letter of the alphabet in Morse code to enable the pilot to identify which beacon he was observing. So, in addition to providing cross-track guidance, airway beacons helped establish a pilot's position along an airway. The place of the beacons on the airway was identified by a rather strange sequence of letters; W, U, V, H, R, K, D, B, G, and M. The sequence was repeated after each 10 beacons and covered approximately 100 miles of an airway. Pilots remembered the sequence of letters by learning the code, "When Undertaking Very Hard Routes, Keep Directions By Good Methods."

Lighted beacons rotated but did not throw out a green and a white beam as airport beacons do, but instead had a single white rotating beam. On a clear night, several beacons could be seen at the same time, ahead, below, and behind the airplane's direction of flight. Each beacon had a red course light to show the direction to the next lighted beacon on that airway and could be seen clearly only from a certain angle or direction, which is the direction of the airway. By lining his airplane up with the course light in the direction he wished to fly, the pilot could hold a straight path to his destination.

Pilots soon found that the original 18-inch beacons were not large enough so the next beacons designed were 24 inches in diameter. They were a projector type using a glass parabolic mirror with a plain glass in the front door. This beacon projected a single beam a few degrees wide and was revolved at 6 r.p.m. giving a flash every 10 seconds. It was effective at a distance but difficult to locate from overhead. Zenith light panels were added to the top of the drum to give direct light upward and a special upward deflecting front door glass was designed to project about 20% of the beam at an angle upward of about 25 degrees. To insure reliability of operation, the later 24-inch beacons were equipped with automatic lamp changers which put a spare lamp into the circuit in proper position upon failure of the first lamp. The tower stood in the center of a concrete slab, approxi-



mately 70 feet in length, shaped in the form of an arrow. The arrow, black along its edges and yellow in the center, pointed in the direction of the next higher numbered beacon. On the feather end of the arrow stood a small shed containing either a generator or emergency equipment.

OAHS member Ron Bartley of Ashland furnished an article from the October 25, 1929 Roseburg News Review with the headline "Big Air Beacon at Glendale is Ready for Test." The 24-inch beacon was placed on the highest peak over Stage Gulch "as an aid to night flying and its revolving rays will be plainly seen from this city (Glendale, OR) and by the people of the surrounding country many miles distant." The article further states, "The flying route between Roseburg and Redding is considered one of the most difficult flying routes in the United States, according to aviators, because of the extreme roughness of country flown over, prevailing fogs at winter seasons and the bumpy nature of air in flying over the mountains."

The Aviation Historical Society's beacon tower was originally located on Creswell Butte, eight miles north of Cottage Grove. After determining that the United States government had abandoned the beacon, the board of directors proceeded to make arrangements for the tower to be moved to Cottage Grove for placement beside a building to be constructed there in the future.

On July 22, 1988 the tower was lifted off the Butte by an air crane furnished by Jack Erickson, owner of Erickson Air Crane in Central Point, and piloted by Lifetime OAHS member Guy Martin. It was placed beside the Cottage Grove airport and stored until it was moved to the History Center where volunteers have restored the tower and the 24-inch beacon. The first section was put in place several months ago in preparation for the remainder of the tower which had to be re-engineered to meet federal earthquake and wind shear requirements. The tower will be equipped with a lighted flagpole bearing the United States flag.

(Compiled from articles published by Aero Digest, AOPA Pilot, U.S. Centennial of Flight Commission and "Bonfires to Beacons." Ron Bartley contributed to this article.)

The Society is in Need of These Items

DVD Player
Scroll Saw
Mannequins
Jig Saw
In-Focus Projector
Milling Machine (sm)

Easels
Belt/Disc Sander Combo
Metal Brake/Shear
Die Grinder
English Wheel
Variable Speed Band Saw

Solvent
Spray Gun
6' Rollaway Toolbox
Drop Work Lights
maybe other stuff, too.

Please remember OAHS if you have a surplus of any items on this list.

Oregon Aviation Historical Society
PO Box 553
Cottage Grove, OR 97424

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