



## Newsletter – first quarter 2007

Volume 2, No. 1

To one-and-all, Waldo wishes everyone a **HAPPY AND PROSPEROUS NEW YEAR!** To usher in the New Year Waldo has slightly changed the appearance of his 1931 New Standard D-25A by adding a new bonnet to the nose. Check out the installation of a Townend cowl around the engine on the next page. These cowlings date back to 1929 when the National Advisory Committee on Aeronautics (NACA) did some wind tunnel testing of engine cowlings that could effectively decrease drag around radial engine installations. The answer was the Townend cowl, a narrow section of round cowling that surrounded the cylinders of the engine. This cowl smoothed out the airflow around the cylinders and reduced parasite drag. Waldo has noticed an increase in airspeed of about 5 miles per hour, so now the ship cruises at 80 mph instead of 75! A huge increase in the efficiency of the ship!

Below, from the U. S Coast Guard website (<http://uscgaviationhistory.aoptero.org>) comes this rare photograph of a New Standard designated NT-2, circa 1934-1935. Here is shown an original installation of a Townend speed cowl with a Hamilton Standard propeller. The ship appears to have a blind flying hood covering the rear cockpit.



To the right is shown Waldo's very nice installation of a Townend cowl on his New Standard. Cowling installations like this are quite rare on these ships since there are so few that are flyable. But the installation dresses out the nose and makes for a very nice profile. Below is a rare photo from the Bruce Huppert collection of a Metropolitan Aircraft Corporation 1934 rebuild of New Standard D-25, NC929V after a landing accident in 1932 by pilot Ben T. Jones. Note Townend cowl, air wheels and a 12X4 pneumatic tail wheel.



Ironically, Ben T. Jones would acquire the Type Certificate for New Standard D-25 ships after the company went into bankruptcy in 1931. The Ben Jones Aircraft Corporation of Schenectady, New York would assemble another 5 model D-25 aircraft in 1937 and early 1938. The Jones manufactured aircraft could be recognized by a "J" at the end of the serial number; an example being serial number 158J, NR18986. White Aircraft Industries acquired the Type Certificate from Ben Jones and manufactured another 5 model D-25B ships for the Department of Agriculture in 1940 – 1942. These were the last model D-25 ships produced and could be recognized by a "W" included in the serial number, such as 167W. NR25313, bringing a total of 72 of these fabulous barnstorming planes produced by 3-different manufacturers. To those who may be interested in the history of Standard and New Standard companies, David B. Stevenson wrote an excellent story in the fall 1996 Journal, American Aviation Historical Society.

Now, you may ask where and when was the ring cowl developed. To answer this, one must go back to the days before NASA (National Air and Space Administration) to its predecessor, the National Advisory Committee on Aeronautics (NACA). A young engineer by the name of Fred Weick (pronounced Wyke) worked in the Langley Aeronautical Laboratory in Virginia. NACA had a large low speed wind tunnel that Weick put to good use experimenting with a fairing that would surround a radial engine. His research showed if the engine was covered with a cowling, drag was reduced.



The upper photograph from NACA archives shows the large wing tunnel with a full size plane suspended. Note the size of the man standing in wind tunnel. This facility was used for testing new inventions for airplanes. Right is a Boeing XP-15 with a ring cowl the same as is now on Waldo's New Standard.



In the above Boeing-USAF photographs, the unmodified Boeing XP-15 is shown on the left and Fred Weick's speed ring cowl installed on the same airplane on the right. Performance of the XP-15 was reported to be a top speed of 178 mph for the unmodified ship and 185 mph at 8,000 feet altitude for the modified ship.

The next phase of cowlings was the full pressure cowl, which enclosed the entire nose of the aircraft resulting in not only drag reduction but also an increase in cooling.

The first plane to fly with a full pressure ring cowl was the Curtiss AT-6, a biplane of course. The pressure cowling was a speed ring cowl with aluminum wrapped around the ring to fair it more to the fuselage, which had to be modified to a round section.



Above, NACA official photograph of the Curtiss AT-6, left unmodified with engine exposed and right with Fred Weick's pressure cowling.



Left, a close up view of the cowling. Note the smooth lines if the aircraft compared with the original configuration in upper left photograph. Weick experimented with the full pressure cowling and found it increased both the speed and range of the plane. Perhaps one of the most famous planes of the era was Lockheed's Vega. It was a single wing monoplane and was quite fast for its time. John Northrop, who

worked for Lockheed at the time, designed the plane shown below.



Left, the Lockheed Vega of 1928 with no engine cowling and right, the Vega with Fred Weick's full pressure NACA cowling. The Vega shown at right is the famous "Winnie Mae" flown by Wiley Post around the world. You can see an example of this fine aircraft at the Fantasy of Flight Aviation Attraction where we fly.

## THE BARNSTORMERS

In the last issue of our newsletter I made a serious mistake by identifying a contributor of rare photographs to Waldo for publication, calling Eric Strauss “Christopher” Strauss. Waldo apologizes for the error and wishes to add a few more photographs of his grandfather “Uncle Buck” Leighton supplied by Eric Here is an example of an early aviator who took the path of many others. Barnstorming as a young man, with flying and all its adventures a big part of his life.

Buck Leighton in his surplus Curtiss JN-4 “Jenny” no doubt ready for a day of barnstorming in Texas. Like many early fliers he gravitated to a career flying commercially in passenger carrying airplanes.



Elmer “Buck” Leighton was one of the first airmail pilots as these following photographs show. The history of early airmail is most interesting and worth researching via book or Internet.



I want to thank Eric Strauss for sharing all these wonderful scanned photographs and newspaper stories about his grandfather, “Uncle Buck.” There are so many that a person could easily write a book about Buck Leighton’s adventures. A true and magnificent aviation pioneer was Elmer “Buck” Leighton. Thanks to you, Eric!

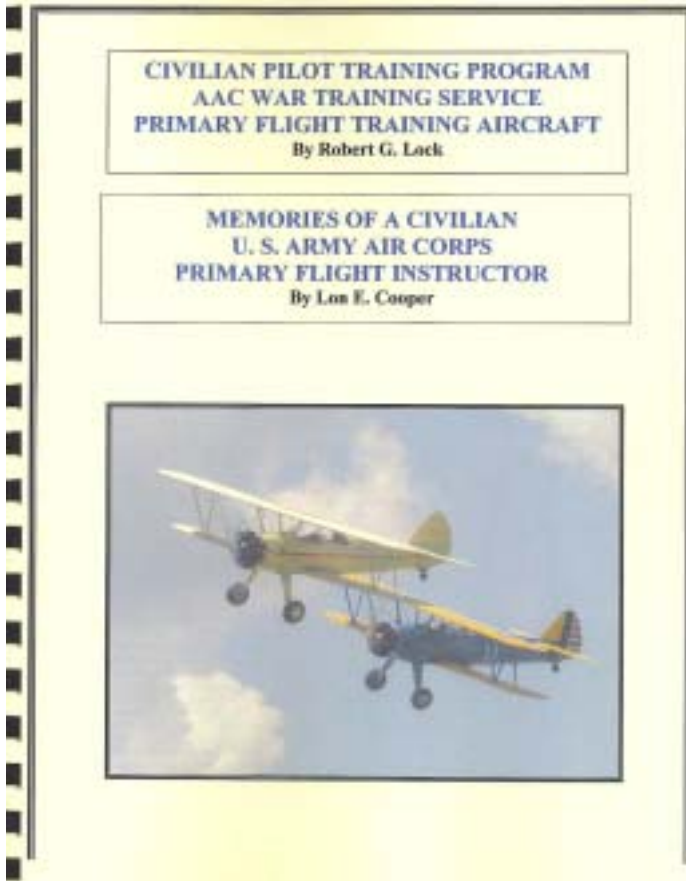
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Well airplane fans, I want to conclude this issue of Waldo’s newsletter by bringing you all up-to-date with the happenings at Fantasy of Flight. Our rides in the New Standard continue to be very popular as we see friends from all over the world who ride with us. The Boeing Stearman “hands-on” flights are a huge seller, with many taking the “stick” for the very first time. Let me state that about 75% of the people who fly the Stearman with us have little or no flight experience. Some fly because they always wanted to fly an open cockpit biplane, others fly to experience what their father or grandfather

experienced when training for combat flying in WW2. Here, reprinted with permission, is an e-mail from Mr. Ike Landau who recently flew the Stearman. For we at Waldo Wright's, this is what flying is all about!

To: waldowrights@aol.com  
Sent: Tue, 16 Jan 2007 7:52 PM  
Subject: Sunday 17 Jan Stearman Flight

Dear Lock Family, Especially Rob, I am certain you have received thousands of emails from folks all over the country thanking you for the flight experience. My name is Ike Landau. I had on a green flight jacket with a large "Stearman" patch on the rear of my flight jacket. I flew with Rob at 1300 hrs, 17 Jan 2007 with my Wife Betty attending. I don't know if it possible to explain what that flight meant to me. I have "flown" since I was a mere child and knew speeds, engines and armaments of almost all WWI I aircraft by the time I was 13. I have always admired the Stearman. To me, it exemplifies fight in its purest form. I have read, cover to cover, The Stearman Flight Manuel many, many times. I have had an aerobatic ride in a Stearman for my 40th Birthday and it was sensational. But, I must add, the flight this past Sunday with Rob was by far an experience I shall *NEVER* forget. My wish was, before I die, to actually fly the Stearman and Rob made my wish come true. I am 60 now and will probably never be able to attain my "ticket" because of cost, etc. I am indeed fortunate to at least make this part of my wish come true. I told Rob he had the BEST job in the world and really meant it. IF I COULD and lived near by (I live in Plantation), I would be up for a flight every month AND offer to wax the Stearman for nothing less than the true joy of being next to the "thing" I envy and admire most. Please forgive my rambling but I wanted you ALL to know what the flight has meant to me. You have a great Mom, Dad, Stearman Pilot (Rob) and of course..the biplanes!! Rob, thank you so much for making my dream come true. I hope to meet and fly with you again one day soon. G-D Bless you all, on the ground and in the air. For you "Have surely touched the face of G-D...." Most Sincerely, Ike Landau,



For those who may want a little extra in the way of knowledge of WW2 combat pilot training, Mr. Lon Cooper and I have collaborated on a book giving history of the Civilian Pilot Training Program from 1938 through 1945 and Army Air Corps primary flight training from 1941 through 1945.

Mr. Lon Cooper taught primary flight training in Stearman's at nearby Lakeland, Florida from 1943 to 1945. His experiences and remembrances are detailed in this book. Lon's memory of his flying activities is remarkable and his description of all maneuvers taught to cadets is in great detail and carefully recorded. We have printed a limited number of copies of this neat book. The cost is only \$20.00 plus shipping, which is usually less than \$5.00

from Polk City, Florida. You may e-mail me at: [waldo997E@aol.com](mailto:waldo997E@aol.com) Please type "book" in the subject so I know before opening the e-mail. If you want to purchase a copy please send check to me, Bob Lock at P. O Box 165, Polk City, Florida 33868 and I'll put a copy in the mail back to you.

That's all for this quarter folks. Stay tuned for the second quarter newsletter when we take a look at some of the early barnstormers. Perhaps more of Buck Leighton and some very early pictures of the Curtiss Flying Service operation in Miami, Florida. Also the reassembly of our beloved New Standard #21 after a deep and thorough inspection of the entire airframe. See 'ya!

Ol' Waldo..