

# Wright "B" Flyer, Inc.

## WRIGHT LANDINGS



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Dayton, Ohio

Winter 2016

### Brown Bird Status - Jay Jabour

As you probably heard we had a serious engine failure while flying the Brown Bird last October. For the last two months we have been assessing what we need to do to get it flying again next season. The assessment crew led by Syl Kerstanski included most of our maintenance crew. Our volunteer A&P, Bob Aley, inspected the airplane and Fred Tegarden and Jim Papa conducted engineering assessments. In the mean time I have been working out the "details" which includes how do we pay for the repairs.

We pulled the engine and all the damaged parts in November. It became obvious we needed a new engine and many of the accessories that it has. Also, we felt we needed to determine there was no collateral damage to the airplane structure during the incident. In December we hired commercial companies to strip paint from key joints in the structure and do Non-Destructive Inspection of those joints.

We could not find any damage to the basic airplane structure, so we are confident we can repair the Brown Bird. We have selected a new engine and are about ready to order one from Lycoming. Two donors stepped up to help us pay for the repairs. We will have to do some additional engineering work to fit the new engine in the airplane, and some new parts will be built.

So, it looks like the Brown Bird will fly next season. There is a lot of risk to us meeting the flying schedule next year, there is a lot to be done. Also, the new engine has slightly less power than the old engine had which may impact the way we use the airplane. We hope to be flying in the spring. Everyone on the crew has been working overtime to get us to where we are. When you see them please thank them all for the daily efforts to get the repairs done.



### Check Out Our New Website

We recently launched our new website which already has added features and graphics but also gives us the capability to add many new exciting multimedia highlights. Please take a minute to visit it.

<http://www.wright-b-flyer.org/>

### John Warlick Passing

Long-time Wright B Volunteer John Warlick passed away at the age 91 on November 27, 2016 surrounded by family. Born in Birmingham, Alabama, John was a resident of Beavercreek, Ohio for the last 46 years. During WWII, John was a decorated Navy pilot on three aircraft carriers, including the Coral Sea. He then served in the Navy Reserve for a total of 22 years of service, retiring as a Lt. Commander. John has earned numerous military and civilian accolades which includes being inducted into the Air Force Hall of Fame. The Wright "B" Hanger is named in his and Evelyn's honor.



## **WRIGHT "B" FLYER, INC.**

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### **New Aircraft Update**

#### **EAA Chapter 5 Wing Build**

EAA chapter 5 in Middlefield, Ohio met the Wright B Flyer group at Oshkosh 2015. A discussion of WBF needs and EAA 5 capabilities resulted in a visit by WBF engineering staff to the EAA 5 offices and shop at Geauga County Airport late in 2015. An agreement was reached whereby EAA 5 would build the wings for the new Silverbird.

In February of this year, material started arriving and chapter members led by project manager, Curtis Cook, began cutting out parts for the wing structures. The project was divided in two parts, the steel work and the wood work. The steel framework was laid out first. Simple parts were cut and fitted in the chapter shop. Complex bracket shapes were laser cut by our friends at MetalFab Group in Chagrin Falls, OH.



Spars and compression struts were fabricated and welded by our team of highly qualified welders who had to maintain exacting specs in order to insure that the wings would fit into the center section being built by the WBF engineering staff. Significant obstacles were overcome to fabricate the wingtip bows. All the local fab shops declined the job citing the tight radius and thin wall thickness as reasons the bends could not be made. The EAA 5 team developed a process in-house that overcame the issues and made the bends.

In late 2016 the metal wing ladders were complete and work began on installing the wooden wing ribs. While the steel work was in progress, a separate team of chapter members that specialize in wood work were busy assembling doublers and capstrips on the ribs. As soon as the steel ladder assemblies were complete, the wooden ribs started going in, locking doublers were installed, and stringers glued in place. An aluminum tool was developed to maintain spacing and perpendicularity of the ribs on the spars while the adhesive cured. A unique laser device was designed and fabricated to verify perpendicularity to center-section attached points. This was used to tighten the drag and anti-drag wires accurately.



As of this writing, three wing panels are complete and the fourth wing is getting fitted with ribs as seen in the photo's. All four should be complete and ready for load-testing early 2017.

