## The Hangar Town News

The official newsletter of Valiant Effort LLC and the restoration of Vultee BT-13A 41-21218





## **Restoration Progress on Annie**

We hope all of you out there in airplane land are doing well during this tough winter. Lots of places are getting hit hard, like the AF Museum in Dayton that got nailed with a tornado, and let's all be safe out there, both on the ground and flying. I thought this month that we'd tell y'all what progress has been done on Annie in the last year and give a more realistic date on when we'll be doing engine run-ups and taxi testing. We also want to thank all of our supporters that have been helping us with parts, info, and just plane (pun intended) help with basic stuff to rebuild an airplane. Here we go....

A couple of years ago, one of our members was able to obtain for us an overhauled R-985 to replace Annie's tired engine, and so, we decided to make her as good as new as possible (thanks Sugar Daddy). This required removal of the old 985, transferring the accessories, checking all the exhaust pipes and a bunch of other stuff that needed repairing, replacing or improving. Along with that, the landing gear was rebuilt, brakes redone, lots of lines, wiring, hoses, pipes and other items were inspected or replaced. We're also going to be updating all the nav and communications "stuff" to help make flying an 83 year old airplane as safe as possible. As you all know, rebuilding one of these is a pretty big undertaking!





In this photo, we're cleaning out and replacing all the flex lines for the oil system and transferring all the parts from the old engine to the new one. The engine baffles were inspected and 3 of them had to be replaced due to corrosion, the prop governor was sent out & rebuilt and all related hardware was replaced. Lots of stuff going on in a small hangar!





Here we see Charlie Bellenie and Jim MacDoogle working on transferring engine parts and working on the canopy. Charlie also got the firewall installed with all new hardware, and if you look real close, in the baggage compartment is the "unknown volunteer." Charlie also has his own plane at Livermore, and he's always willing to pop by and give us a hand. He has a classic Stinson of some sort.....if he gets me some photos, I'll stick 'em in one of the newsletters.

We're so lucky to have friends and hangar neighbors come by and give us encouragement, along with a bit of help. One of our "bud's" knew we were working on wiring issues, and gave us 4 boxes of "electrical stuff" he doesn't use anymore.....the warbird / aviation community is absolutely wonderful!!!

## Well, it's crunch time!!!!

After much planning, last fall we had an engine installation - BBQ - Party and boy was it a success! We invited a bunch of friends, and all of the Valiant Effort crew showed up, with their family and friends, and that made the job SO much easier! One of our mechanics, Keith Zimbauer, brought his forklift to the hangar, and now the fun begins. The mags and starter have to be maneuvered into a very tight space, and then all the engine mounting bolts have to be lined up, washers installed, torqued and cotter pins put in place.....takes awhile.





Here, you can see everybody working to line everything up on the mount, and while this was going on, another crew was packing up the old engine and getting it set up in the crate so it could be shipped back to Covington Aviation as a core. This required pulling the old spark plugs so we could use them for spares, and once the engine was on, installing 18 new plugs, and connecting the ignition harness. IN THE MEANTIME, another crew was installing all the tail sheet metal around the tail wheel and there was lots of "advice" going around on how to do things.....gotta love aviation!





Our hangar at LVK (Livermore Ca.) isn't very big, and with Annie inside, there's only 3' from the wing tips to the wall, so you can imagine some of the chaos in getting tools, moving things around and making sure we got the right nuts & bolts in the right place! A well oiled machine for sure!!







Once it was on & secured, it was time to stand around and admire our handiwork! One of our pilots, Martin Michaud, even flew up in a T-6 to see how we were doing!! Naturally, when he was ready to leave, we all had to go out and see the "big round engine thing" take-off! Hell of a day!



We also would like to let everyone know that we've upgraded some of the instrumentation on Annie. After consulting with other warbird restoration specialists, we added the EVM to the flight panel.

These can be seen in many aircraft, but mostly in ones powered by radial engines. The "Engine Vibration Monitor" informs the pilot of a failure of the engine, or if a problem needs addressing. Many thanks to the restoration crew of the A-26K, Special Kay for assisting us on the installation.

## Who we are.....

Here are the members of the Valiant Effort Foundation that are restoring "Annie" to flight status, hopefully in 2024. We are based at Livermore Airport (LVK) in the San Francisco Bay Area, and we want to thank all that have supported us in this immense project!

Administration: Martin Michaud, Taurus Fey, Keith Zimbauer, Alex Esuerra

Flight Team: Martin Michaud, Taurus Fey, Bob Goodwyn, Alex Esguerra, Edgar Xiong

Ground Crew: Greg Ely, Charlie Bellinie, Taurus Fey, Keith Zimbauer, Bob Goodwyn

Support Team: Jerod Flohr - pilot, Tom Nightingale - pilot, Tim Neuharth - pilot, Nick Veronico - writer & book author, Jeff Whitney - mechanic, Mike Flagella - AP,IA, and all of our hangar neighbors @ LVK

**Special thanks to our other supporters** 

**Fagen Fighter Restorations** 

**Association of Professional Warbird Operators** 

**Covington Aircraft Engines** 

**Vintage Aviation News** 

**Johnson Propellers** 

**Mikes Aero Classics** 

**Oakland Aviation Museum** 

You can also find us @ Valiant Effort on Google or Facebook, and contact us at:

shinyplanes @mail.com, elyavhs@gmail.com or

Our new website, "valianteffortllc.com"

We are also proud to announce that the Valiant Effort Foundation is now a 503c3 non-profit organization designed to educate everyone on the sacrifices made by both men and women that went into harm's way during WW II. The Greatest Generation!



**Support your local Annie!!**