

The W wingman

EAA Chapter 495 - Roseburg, Oregon

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Around the Patch

by Joe Messinger
Newsletter Editor

was cancelled. He was snowed in as was Ken Nicholls and that was enough to cancel the meeting since without Ken, we'd starve. For anybody who hasn't been to one of our chapter gatherings, Ken is our chef de cuisine and without him and his able assistant and wife, (the real brains behind the operation) Ester, we'd starve.

About 4:40 on Tuesday, February 21st my phone rang and since I was driving and couldn't get to it, I just let it go to voicemail. "If they really want to talk to me, they'll leave a voicemail," that's my attitude. When I listened to the message a bit later, I found it was our president, Dennis Rose calling to tell me that that evening's meeting

Our next meeting will take place March 21st, weather permitting, and we'll probably discuss the upcoming Young Eagles Rally we're planning. We're looking at April 22nd for that event, again weather permitting with April 29th as a rain date. The board discussed this event at length and decided to keep it smaller since we hope to participate in the bigger national Young Eagles Rally, which will probably be the second or third Saturday in June. Last year it was held Saturday June 11, 2022. We'll be looking at the April event as a warm-up for the bigger national summer event. So try to plan on being there so you'll know what to do when the summer event rolls around. Remember, you don't need to be a pilot to be helpful since we need several ground people for each pilot. The ground pounders do all the work and the pilots just drive the airplane.



If you haven't been there before, behind the door is Dennis's shop and you can see there was a bit of snow on the ground

THE XF-84H THUNDERSCREECH has got to be the loudest fighter plane ever created. The shockwave was so loud it knocked people to the ground and triggered seizures in some. The XF-84H created 15 sonic booms per second and the noise could be heard over 20 miles away. The Thunderscreech was an effort to merge the best characteristics of a propeller and jet-powered fighter. It created one of the most inefficient, nerve racking, and unsafe fighters of all time. Built in 1955, the Thunderscreech was an attempt to create a supersonic propeller-driven aircraft initially intended for use on an aircraft carrier. Only two prototypes were built. The Thunderscreech used an Allison turboprop engine that turned the propeller at a constant speed. While the inner part of the propeller turned at subsonic speeds, the outer exceeded Mach 1. The stresses involved were massive. The Thunderscreech allegedly reached 670 MPH setting a world record for the fastest propeller plane. It was unable to break the sound barrier and soon abandoned for jet engine fighters as the Navy developed steam catapults and aerial refueling. [View a short YouTube video here.](#)



OOPs We made a boo-boo!!

We made an oops last issue and would like to apologize to Dennis's lovely daughter. We misspelled her name in last month's issue. It should be spelled **Moriah**. Dennis tells me there are several biblical references to her name and since I'm not a biblical scholar like Dennis, I'll let him tell you about her name and where it comes from. So, then you'll know the rest of the story.

Chapter Officers

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Rose GlaStar February 2023 Build Report

At the end of last month, I was working on installing the Infinity stick grips onto the control sticks and cutting foam for the seats. After changing out some of the switches and lots of soldering, the grips are bolted to the sticks and foam glued together.



Infinity stick grips



Seat foam

The next task I chose was installing the fuel header tanks and plumbing. Because of my choice of the ULPower engine, with its fuel injection return lines, the fuel system needed to differ from the plans.

Some history: The need for the header tanks differs from the original GlaStar plans. Evidently, the factory discovered that with a low main fuel tank, there was a nose down attitude (such as descending) where the main tank could un-port and stop feeding fuel to the engine. As you may realize, you have to descend to land and running out of fuel then is exciting at the least. So they did some calculations on how much fuel is used in an idle descent and added a header tank for each wing tank holding about a quart of fuel and sold a mandatory refit kit that was included with my purchase.

An additional challenge I have is if I returned the fuel injection return line to the wing tank (up to 31 gph) the header tank would empty even faster. My solution was to tee in the return line between the wing tank and header tank which then required moving the header tank down the fuselage some to make room. I also discovered an optical fuel sensor unit that I wired to activate a warning light on the instrument panel when it goes dry and inserted it between the wing tank and header tank for greater awareness. For any that have run fuel lines, you know the challenge of cutting, bending and fitting 3/8 aluminum fuel lines into confined spaces and can sympathize with the number of re-dos I needed.

Next step was to correct a misaligned wing fuel tank fill port and install the fuel gauges at the wing roots. Once this was done, Bonnie, Moriah and I moved the wings from the saw horse supports to the storage slings. Next stop, the airport for them.



Header tank



Return line tee and fuel sensor



Wings ready to go to the airport

I have the optional electric elevator trim system consisting of a MAC drive motor and control wiring. This took a couple of days to install and wire. It was exciting to see it move with a temporary 9 volt battery



Elevator electric trim



Seat foam, heat pads, lumbar support, seat belts



Seat heater switches

There is also a factory AD to move the shoulder safety belts lower and aft of the original design location, also with an expensive factory retro fit package. With help from Mark Ralston, George Dorius and others, we designed a less expensive alternative that is still in the development stage.

I plan to have electric seat heating pads, so I installed the wiring for them.

Since I am getting close to moving the project to the hangar, which has not had a plane in it for a couple of years, it took several days to organize accumulated EAA, daughter's and my junk essentials to make room for a 35-foot wingspan airplane.

The last task of the short month was bolting in place the control sticks and wiring the grips to the aircraft systems. The elevator was temporarily installed to confirm adequate stick clearance with the seats and instrument panel. Then the scary work of drill holes for the bolts began. Check ten times and drill once and hope it is right. I used electrical connectors at the stick bases for the grip button wires, which required a lot of soldering of very small wires to small connectors that took several days to accomplish. There are 9 wires to the pilot grip and 4 to the co-pilot grip. These activate various trim, radio and autopilot controls. It will be interesting to confirm that they are hooked up correctly when the systems are powered up. There was a lot of room for mirror image mistakes.



Control stick and grip



Amphenol-Tuchel wire connector

Next month, when the snow is gone and there is a break in the weather, the airplane parts go to the airport to complete the fuselage construction before painting.