EAA 485 FEB. 2024

HOME OF THE "PANHANDLE PELICANS"

PRESIDENT'S NOTES: Contact: Ralph Moser

Sorry I missed the January meetings. It sounds like the VMC/IMC meeting was excellent. Thanks to Mark Rogers for running the membership meeting, which I hear was also well attended. And thanks to Stephen and Dianne Bond for preparing the burger lunch.

I plan to be back to run the February meeting. There is not enough room in this letter to thank all of you who checked up on me, and wished me well during my recent heart surgery and recovery. I am so impressed with the miracles of modern medicine! Trust me, I'm coming back as fast as I can !

Our February meeting will be a special one. Now that the Navy Museum is once again open to the public, we plan to hold one chapter meeting/year there. And that will be our Feb. 10th meeting. See the agenda in this newsletter for details. Note that since NAS security doesn't allow anyone into the west gate until 09:00, we will hold an abbreviated VMC/IMC meeting 08:30-09:15 AT THE CLUBHOUSE. Then the main meeting will take place in the Naval Museum Little Theater (to the immediate right of the Cubi Bar Café) at 10:00. Please be in your seats by then.

I have invited members of the Crestview chapter to join us. The meeting will be abbreviated (no guest speaker) so that we can all enjoy a guided museum tour by our very own Drano. This year he will focus on the new hangar, post-WWII aircraft. Then at noon anyone interested in lunch can join us in the West Pac Room of the Cubi Bar Café, which we will have reserved.

Other guest speakers we have tentatively lined up this spring: A female Navy Flight Surgeon in March, a "Hurricane Hunters" C-130 crew member from Biloxi in April, and Virgil Zetterlind in May to talk about Go Pro camera installations inside and outside your aircraft.

Sharing the airspace with drones is the new norm, whether we like it or not. Perhaps one of our chapter Part 107 certified drone pilots could talk about that certification process and what it's like to fly recreational drones. I'm still working on getting the Pensacola Police Department to give a presentation on their drone program.

Please note the flyer in this newsletter for the Crestview chapter event March 16th. Looks interesting, and they are serving pancakes!

See you at the February 10th meetings!

—Ralph

Oil Cooler Swap (Part 3)

Filling the new oil cooler with oil was difficult since both the In and Out ports are pointed slightly down. This necessitated disconnecting both oil lines from the engine accessory case and in order to do that the Left Pmag ignition needed removal. The Pmag installation is simplified compared to a standard aircraft mag since it's installation in any position and retimed electrically from that position is a very easy process compared to traditional mags.

Using a modified funnel with a hose attached I managed to get about 8 oz. into the cooler system. It was a slow process aided by the fact that I'm using Phillips 20w-50w oil which flowed better than a straight 50w in the cooler temperatures.

I used both lines for filling until both lines were full. I was positive that the cooler wasn't full but it was a start. I'm sure there is air in the system and it should work it's way out over several flights.

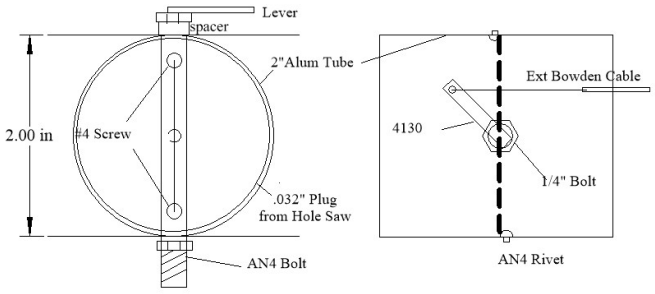
I took the plane outside un-cowled and ran the engine for a few minutes, shutdown, and checked for leaks. When I didn't find any, I started up again and ran it for about 15 minutes till 140 degrees oil temperature, did my normal engine runup at 1800 rpm, and then took it up to 2700 takeoff power. Everything checked fine. Once again I checked the engine for leaks and left it open overnight.

A few days later the weather was OK to fly, about 70 degrees temperature. I let the engine warm up to 160 on the ground and went flying. It was a bumpy ride down low. Once clear of the Class C airspace I setup my normal climb of 110-115 KIAS, full power, and 2500 rpm. I leveled off at 8500 feet and had 216 oil temp, within Lycoming's normal range. I went over to Mobile and did some high work.

I tested the cabin heat valve by opening the firewall valve. This system was completely "re-plumbed", and it produced warm air. I then did some sightseeing in a slow descent into Jan's making two full stop landings and another full stop at Shields—at one point I saw 219 on the oil temp. The old cooler would have been at 240 or more

I haven't got a chance to fly the last two weeks due to the weather and some other commitments. I decided to move on to the last project on the cabin heat. The idea is to control the constant loss of cylinder cooling air to the cabin heat system when not in use. The cabin heat system constantly is providing the "heat muff" with warm air from the aft engine baffle and then deposits hot air on the firewall. This robs cooling air from the cylinders and heated hot air inside the cowling at the lower firewall.

All that's necessary is to control the air going to the heat muff with some type of shutoff. Initially I worked on using a knife valve similar to what's used in wood shops to vacuum at the tools using a manually operated valve that adds that tool to the vacuum system. I even purchased one but that would require a lot of room for the valve and adding 2" for the "knife" movement. I decided I'd roll my own "inline" valve.



The "SCAT" tube slips over a 2" aluminum tube. I had some aluminum tubing in the hangar so I was set. During the Thatcher build we have cut some holes in aluminum sheet and I save these aluminum scraps. I found a 2" one laying around and it fits inside the tube perfectly.

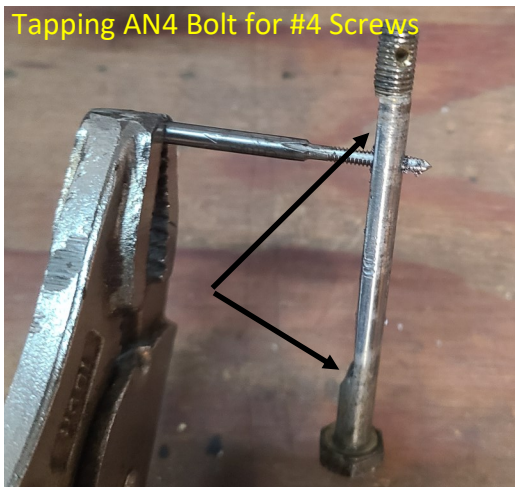
Oil Cooler Swap (Part 3) cont.

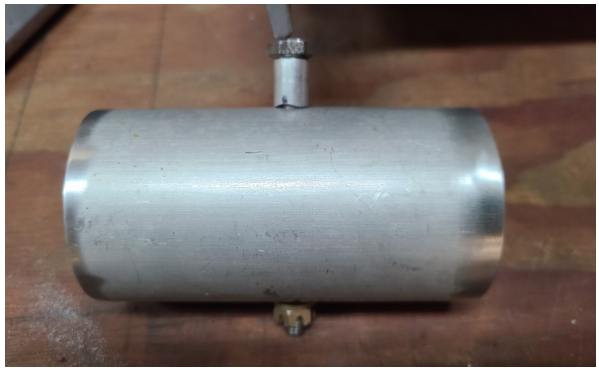
I went to my "collection" of AN bolts, washers, nuts, etc. that were replaced or just not pretty enough for an aircraft. I found a good AN4 bolt that was the right length to use. I now had the basic components to make the valve.

The hardest part of the process was to "whittle" the inside portion of the bolt nearly 1/8" down flat. The only way to do this was with vixen files. It took a good bit of time but ultimately I had a good surface to work with. I pre-drilled holes in the aluminum disk to act as a template for marking the AN4 bolt for attachment holes. I used spacers on both ends of the bolt to get the flat side centered inside the tube.

Two holes were drilled and tapped to #4 size screws fixing the plate to the AN4 bolt.

I also reduced the outside of the disk slightly to allow a minimal gap on the sides with the tube. This not only eliminates any binding of the valve but additionally a small amount of air to circulate through the SCAT tube and heat muff system. This normally wasted air is now available for engine cylinder cooling. In my opinion a win - win solution. John





Meet Dan Gryder

Come Meet Gold Seal CFI, "Probable Cause" Channel Host, and Accident Prevention Influencer Dan Gryder

When: 16 March, 2023
Where: KCEW–Bob Sikes Airport

9:00 am: Pancake Breakfast Social
10:00am: Dan Gryder

RSVP at the Link to Help Us Plan
http://tinyurl.com/Gryder

See More About Dan:
https://www.dangryder.com/
https://www.youtube.com/@ProbableCause-DanGryder

FLY-IN | DRIVE-IN | PANCAKES

Chapter Meetings:

Saturday, January 13th, 2024
VMC/IMC Club at 0830-0930.
VMC: Bounced Landing
IMC: Garbled Transmission

General Membership Meeting 1000-1100: Pledge
Guests
Officers Reports: President, Vice- President, Secretary, Treasurer/M'Ship
Roscoe Field Upgrade
Chapter Officer Awards
Young Eagles Recap – Eric Goldman
Over 100 Young Eagles flown in 2023
Ray Scholarship – Craig Spoke

We will be awarding two Ray Scholarship in 2024.

2019-2023 Chapter Scholarship Winners Where are they today?

Nick Hansen- Air Force Reserve, flying with Eglin Aero Club working toward Instrument rating.

Brian Harris- A&P working for PSA at PNS.

Mariah Stebbins- UWF EE degree working at Austal in Mobile.

Elisabeth Maas- Living in MKE. Working and going to school. Flying with the CAP.

Will Curd- Working part time. Full time UWF and AFROTC.

Gabe Davenport- Self initiated elimination from program due Manifestations of Apprension.

Samantha Watkins- Finished the program and passed her Private pilot checkride.

Jacob Abston- PPL and attending A&P school with goal of Missionary Bush Pilot.

Emily Bond- PPL and a Senior in High School. Flying for currency. Cody Rhoades- PPL and very close to completing his Instrument Rating.

DRANO'S PROGRESS: ZENITH 750

Update on my Zenith 750 project.
I was working to fabricate the small deck that will hold the flight data computer of my future EFIS and EMS systems. It is located in that crowed, dark, wire spaghetti area deep behind the instrument panel. Doing this required me to get into the hard -o-see and awkward-to-access areas of the upper firewall on the cockpit side. It's dark up in there and required a shop light.

Well, what to my wondering eyes should appear but a loose castle nut that should not be here. The bolts in the picture go through a stringer. The welded structure the bolts are meant to hold in place is the upper engine mount. Yikes!

This is no place for a castle nut, let alone a loose one. The fix was simple enough—just clear out the debris that can be seen between the stringer and the engine mount base then replace the castle nut with a nylon lock nut like the one next to it according to the plans.

Things like this scare me since it is sloppy work on an arguably key area of connection between the airframe and the engine. It also cannot be seen without contorting one's self to get well into the lower forward portion of the cockpit and then looking up.

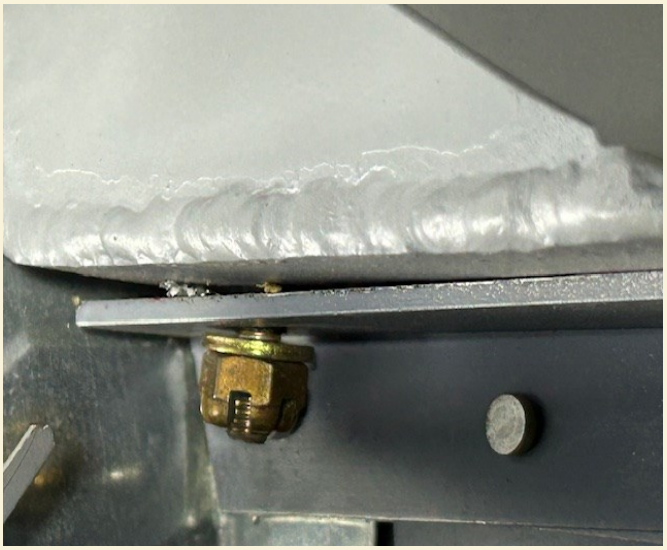
In my experience with taking over partially built aircraft projects, this is called a clue. If the original builder was willing to deviate from plans and safe practices on something so simple and so easily done right, what else is there lurking, waiting, and needing to be found and corrected?

I'll keep you posted.
Drano

Why Do Builders Do Some of the Things They Do?

My Zenith project is going to need a pitot mast and boom so while I was between a couple larger efforts in the build, I decided to try and make a pitot tube. To order a simple L-shaped pitot static tube made of bent aluminum tubing costs about $40. To order a mast and tube capable of providing AOA costs well over $400. I thought if I got a salvage pitot tube, I might be able to make something that would work.

My first attempt was the picture you see below. I acquired a salvage tube, formed and riveted a mast to fit, then tried to aluminum stick "braze" a mounting plate to the mast. It was a disaster for several reasons. I used two different types of aluminum in my scrap bucket to do it and they were two different thicknesses so getting even heating was a big challenge. I kept "burning" the thinner aluminum base. The main reason this did not work is simply that I am absolutely no good at this, and after spending all of an afternoon goofing around with it, I gave up. —Drano



Ray Aviation Scholarship report for February

The last couple of months have been a great start for chapter 485 and the Ray Aviation Scholarship. Early January, our chapter was officially accepted for two matching Ray Aviation Scholarship awards for this year. During this month's meeting at the museum we will announce the first of this year's scholarship recipients. What a great venue for this announcement. Be ready to congratulate this young person as they continue with their aviation goals. We should be able to get some great pictures to send to the EAA Ray Scholarship office.

In the next few months, our scholarship committee will be meeting to start planning the process for awarding the second scholarship. I will be reaching out to the various local aviation groups for candidates. If any of our members have a good candidate (16-19 years old), please let me know. —Craig Spoke

Pilots Need to be Generalists, Not Specialists

November 20, 2023 by John Zimmerman (part 2)

So what does range look like for a pilot in 2023? It's a bias towards new experiences and a curiosity about the entire aviation industry. Remember, you're building your mental library of prototypes, so it won't always be easy. Here are eight types of range to pursue.

Airplanes. This one is obvious, but for good reason. Every airplane is a teacher if you pay attention, even if you're in the right seat and can't log the flight. Notice how the systems are designed, how the airplane feels through the controls, and how the checklist flows. Does the airplane have a personality? How do you get to know it?

Avionics. Glass cockpit vs. steam gauges is probably the first thing that comes to mind, and having experience with both types is definitely helpful. But there's more to avionics experience than that. You can also compare integrated glass cockpits (like a G1000) to more federated ones (like one with dual Aspens and dual GTNs), or contrast rate-based autopilots to attitude-based ones. Even changing a few settings on your GPS can be educational.

Pilots. It's easy to get stuck in a rut with a single instructor, especially early in your flying career, but this will almost guarantee you develop blind spots. That's why stage checks and independent flight reviews are so valuable. Even if you can't find a different CFI from time to time, just go flying with other pilots. Some of my most meaningful flight lessons have been with non-instructors, as I observed how more experienced pilots approached weather or IFR procedures. Resist the temptation to judge the other pilot and simply observe like a scientist. Write down questions you can ask after the flight, or topics to research.

Weather. For pilots who learned to fly in popular flight school states like Arizona or Florida, weather might mean nothing more than checking density altitude. For pilots in Cleveland, weather means thunderstorms in summer and ice in winter. Experiencing both extremes should be high on the list of any aspiring professional pilot. Understanding weather theory is underrated among pilots, but it must be complemented by real world experience. I've come to believe there is always something to learn about weather… always.

Geography. While it's often overlooked, where we fly has a big impact on what we learn. By mixing up the destination for your next $100 hamburger flight or taking that long cross-country that's on the edge of your comfort zone, you expose yourself to new terrain, weather, airspace, chart symbols, and even controller accents (bonus points for international trips). If nothing else, this variety prevents complacency and is usually a lot of fun.

Pilot's Need to be Generalists, Not Specialists Cont.

Airports. Beyond simple geography, different types of airports can deliver different lessons. If you fly out of a non-towered airport, plan a flight to Big City International and get comfortable with the complicated airspace, taxiway layout, and communication procedures. It goes the other way too. Are you proficient at picking up an IFR clearance over the phone, via an RCO, and in the air? Do you know how to use self-serve fuel pumps? Have you ever borrowed a crew car before?

Time of day. Most GA pilots fly almost exclusively during the day, but night flying is a great mental workout. It exposes your weaknesses with instrument scan and cockpit familiarization, and forces you to fly more disciplined procedures. Sunrise, when weather can change quickly, is another great time to gain experience.

Time of year. While not as important as total time logged, there is something to be said for calendar time as a pilot, since flying through multiple years allows you to experience different seasons.

There are dozens more examples of valuable aviation experience, so especially early on there's no point in being picky. If an experienced pilot invites you to ride along while he flies a Malibu to O'Hare at night, or if a taildragger pilot offers an hour of free instruction on a grass runway, embrace the opportunity—even if you don't completely understand what's going on. Not every flight will lead directly to a new skill and not all of them will be fun, but you may be surprised at how each one builds on the previous. Patterns will start to emerge and once confusing concepts might start to make sense once you understand the broader context. You may even find yourself sounding like an old timer: "this reminds me of one time when…"

I've had the great fortune to log over 4000 hours in my flying career, but the variety of hours matters much more to me than the quantity. Riding along with an experienced corporate pilot early on taught me how to approach every flight like a professional, no matter what I was flying. Flying a Cessna 172 from California to Ohio taught me what mountain wave felt like, something no textbook or Midwest flight school could ever do. Earning a glider rating taught me how to read clouds and visualize glides, even though I'm nowhere near current in gliders. Practicing autorotations in a helicopter finally made the concept of energy management click. Flying with kids made me consider passenger comfort in a way I never had before.

There's a lot to learn by venturing beyond your local area—sometimes far beyond.

I'm not suggesting the FAA create a new rule to mandate variety in pilot training, but anyone who wants to get the most out of a career in aviation should have a restless curiosity and a long bucket list. Flight schools and flight instructors can help, by encouraging pilots to pursue a range of flying experiences and creating the opportunity for that whenever possible. Organized fly-outs with multiple pilots, mandatory international cross-countries, and regular stage checks are a great place to start. Experienced pilots can help too, by inviting new pilots to fly with them on interesting trips or in unique airplanes.
Logging 1500 hours can land you a job, but it won't automatically make you a great pilot. Like most things in flying and life, it's about the journey, not the destination.

EAA and Local Chapter Sites

EAA 485 EAA 1265

EAA HDQTRS EAA 108

Interesting Links

Blue Angel 360 Way cool

Making the First Airbus 220 Time Lapse

Jetman Unleashed in Dubai

Boeing 737 Time Lapse Build

F-18 Low Level

High Speed Carrier Maneuvering

Miscellaneous

1800wxbrief.com

FAA Notams

Barnstormers

Skyvector.com Flight Planning, Charts

AirNav.com Airport info, Fuel Prices

2024 Officers and Committee Chairmen

President:	Ralph Moser (847) 736-4603
Vice President:	Mark Rogers
Tech Counselor	(251) 228-0356
Flight Advisor:	
Secretary:	Jacob Abston (251)424-5004
Treasurer/Membership:	Scott Swanson (309)267-9710 711 Marlinspike Dr. Pensacola, FL 32507
Ray Scholarship Coordinator:	Craig Spoke (251) 550-5795
Young Eagles Coordinator:	Eric Goldman (317) 910-2513
Webmaster:	Doug Francisco (850) 453-5501
VMC Club / IMC Club	Donna and DeWitt Barker (850) 572-0288
Newsletter Editor:	Courtney Wielander (305) 917-5557
Tech Counselor	John McKiernan
Flight Advisor	(850) 291-4134
Thatcher CX4 Build	

Normally meetings will be held at Roscoe Field Airport **(82J) (Uni 122.8) on the Second Saturday of each month at 10:00 AM unless otherwise posted. If flying in, check NAS Pensacola (KNPA) NOTAMS for possible TFRs and the Roscoe Field Airport website under the Arrivals tab for important arrival and departure information.**

Driving: From Hwy 98 go past the main airport entrance and take the next left. Go thru the gate and make a left on the gravel road. Make a right past the T hangars you'll see our building down on the left side. Anyone interested in sharing general aviation, aircraft building, maintaining and restoring is welcome.
For more info contact:

Ralph Moser (847) 736-4603

Home Of The
PANHANDLE PELICANS
EAA 485 Pensacola, FL

Get Your Chapter Ballcap

We have ballcaps with chapter logo for sale for $20. Get yours before the price hike. The next batch will be more expensive so don't wait!

If you haven't seen them worn at the meetings, this is the one I just got! —Courtney

Upcoming Events

(CHAPTER EVENTS IN CAPS):

Spring 2024 Young Eagle Rally- date TBD

OSHKOSH ALERT!

UW-Oshkosh Dorm Room Reservations

Open Now for Air Venture 2024
Jul 22-28

Chapter Meetings:

Saturday, February 10th ,2024

VMC/IMC Club at 0830-0930 will be held at the clubhouse as per usual.

General Membership Meeting 1000-1100 will be at the National Naval Aviation Museum small auditorium beside Cubi Cafe. Then guided museum tour, followed by lunch in Cubi Bar Café (reserved room) around noon.

Rusty Chapter 485:

Winter Project

Rusty has been neglected for quite a while. Our mission is to have Rusty ready for our 2024 flying season and Young Eagle flights. It's time we have a crew to get Rusty cleaned up and in good working order for next year. It would be great if we can have the simulator ready for next years Young Eagle season for those younger siblings that don't qualify for YE flights due to age. Let me know and we'll get a group together for making Rusty Ready.
John