

# The Leading Edge EAA Chapter 154 Newsletter



March 2025 Regina and Southern Saskatchewan https://chapters.eaa.org/eaa154

# **Presidents Message**

Hello 154.

Welcome to the "Almost, Not Quite Yet Spring" edition of The Leading Edge. Weather has turned on us from the -400s to something a little more reasonable lately. That being said, in like a lamb could be out like a lion - don't put your woolies away yet! But at least now we should be able to get some flying in. And if not, at least get some more building done.

A reminder for those thinking of Oshkosh: Little Canada is getting organized. Book early for a spot. Goto to eaa.org and search for "Canadian Campers Guide" for all the info.

COPA Flight 4 is once again having its "Fools Fly In" on April 5 in Regina - more info to come.

Dependent on weather and runway conditions, also look forward to a fly in coffee and donuts at Disley in the latter half of April. Date tbd soon.

Also don't forget to check out our virtual Monthly Meetings and VMC Club gatherings. We are planning a redo of last year's aborted in person monthly meeting at Doug & Dave's RV10 Factory. Likely in May or June stay tuned for more info.

Stay safe,

Dave S.

#### **VMC Sessions**

To Join the Zoom Meeting <a href="https://us02web.zoom.us/j/82306156903?pwd=Qm91c">https://us02web.zoom.us/j/82306156903?pwd=Qm91c</a> <a href="https://us02web.zoom.us/j/82306156903?pwd=Qm91c">UthODYza0FDRFVtTHZ0R0ExQT09</a>

Meeting ID: 823 0615 6903

Passcode: 817364

This month's scenario has you on a cross country with an instructor when you notice #3 cylinder is running

hot. You are an hour and a half from your destination. What do you do?

At age 32 you decided to change careers and chose to follow an aviation path. Nine months ago you joined a flying club and started taking lessons in a G1000 equipped C172. The flying club is in Jamestown ND which is in the middle of the prairies and a small population. You now are instrument rated, have 130 hours and are working towards your commercial license. Tonight you will tackle the duel day and night cross countries with a 220nm trip to Williston ND (KXWA). It's a clear day but brutally cold when you take off and enter the "Direct To" into the GPS. You reach cruise altitude of 6500' and set RPM to 2500 for about 70% then lean for rich of peak. You sit back and watch the autopilot follow the magenta line. After about 90 minutes you are bored and ask your instructor if he knows how to use the lean assist function on the G1000. He says no but have a look now. You switch to the lean page with the individual cylinder view and you see that #3 EGT is way higher than the other cylinders. #3 is 1650F with the others at 1420F. All the other gauges are in the green. Maybe a failed EGT probe? The #3 CHT is 15F lower than the other cylinders at 325F. You don't know if this is normal for this plane as you have not looked at this page before. You ask the instructor if he thinks the engine is running rougher and he says maybe?? Or is it nerves? You look at the map. You could land at Parshall-Hawkins (Y74) 6 miles in front of you. It's a small grass strip with no services. You don't know if anyone is there. You will have to shut the engine down in the frigid weather. When you try to start the cold engine you may do more damage and you don't want to be outside either. Williston is 70nm away and has maintenance services and heated hangers. Minot (KMOT) has the same services and is 40nm away to the north. You could be on the ground sooner. You would have to circle if you wanted to count this as a 2

hour cross-country. All of these options will put you away from home with an unknown issue that might take weeks to fix. Maybe you should return home to Jamestown. Getting back would take 80 minutes but you could alter your course to fly over Garrison, Mercer and Bismarck in case of an emergency. Of course this would eliminate your plan to get in a cross-country and 30minutes to sunset and it's getting colder. You ask your instructor and he says it's your call. What will you do?

- 1. Land now at Parshall-Hawkins (Y74) as this could be a serious issue
- 2. Continue to Williston (KXWA). This is a minor or non-issue and the mechanic can confirm that when you get there.
- 3. Divert to Minot (KMOT) and circle to get your 2 hours cross country time in then land and check with the mechanic.
- 4. Divert to Minot (KMOT) land and check with the mechanic. Forget about the cross-country.
- 5. Turn back for home to Williston ND (KXWA) and change course to pass airports in-case the problem worsens.

Our group discussed the cause of the high EGT and the lower CHT. We talked about varying the mixture and throttle to see if it changed anything before deciding what to do. We decided on option 1 or 4.

The Expert said the option she would choose is option 3. Might as well get the cross-country in and you probably will need to spend the night to get it worked on. She said when a temperature probe fails it usually reads high. She would guess the problem is a leaky exhaust valve. Hot gas is getting out of the cylinder too early so the CHT is lower and the EGT is higher. Besides it is getting dark and an emergency landing would be very undesirable and even dangerous due to the cold. The expert panel also likes option 4 and 5.

## **EAA154 Members Meeting Highlights**

The February meeting was held over Zoom meetings on Monday February 10. The meetings are open to all

members through the link above on the second MONDAY of the month.

Our meeting discussion opened with welcoming a new member Raj. We want to remind memberships are due now. Thank you to all who have sent yours in. We then again discussed the tool crib and the need for a large metal cabinet to store the tools in. On the list to purchase is a prop balancer. Still more work to do on that one. We discussed the possibility of an April fly in at CDS2 Disley. Some members need tail wheel training and requested contacts of who might be in the position of providing that. Discussion took place on the different types of brakes on traditional landing gear aircraft. Toe brakes may cause you to apply more brake during stopping due to forward pressure. Heel brakes are easier to control and combat that forward force. Hand activated brakes don't' allow differential braking and require removing your hand from the throttle. Ron then gave an up-date on the 701.

### **Pipistrel Alpha 1 Trainer**

I got the opportunity to fly a Pipistrel Apha 1 Trainer at AirAmerica in Daytona. I met Nikole Bordones at the flying club. He was born in Italy and took flight training both in Italy and in the US. Nikole is a demo pilot for Pipistrel and Tecnam aircraft in Daytona and a professor at Embry-Riddle University. The Alpha 1 is in a hanger right at the office and not a golf cart ride away like the Cessna 172s rental flock. The workmanship on the Alpha 1 is really professional. The composite wings and fuselage are streamlined and all possible drag like at wing attachment points are taped with a special system. We did the pre-flight and Nikole showed me all the inspection points. The unique ones are the drain holes, the ballistic chute exhaust port, the floating disk Beringer brakes, and the fuel tank behind the left seat. A solo pilot must be over 120 lbs to meet the weight and balance. It is powered by an 80HP Rotax 912 UL with a wooden 2 blade propeller. The new models have a composite prop. Although the landing gear is described as strong and robust the wheels and structure looked light to me. I asked Nikole if he had landed off hard surface runway and he had not. The seats are fixed but the rudder pedals are adjustable. I took a foam pad to sit on. I was sitting high enough but found

my arms not long enough to hold the control stick comfortably. There is a bulb to add air to the backrest for support but it was not enough for me.

The avionics are all glass comprised of Garmin G3X and GNC with a full autopilot. Everything is on the glass panel including primary flight instruments, engine monitoring, coms and GPS. The flapperons are a lever style on the floor between the seats like a piper Cherokee. The throttle, brake lever and trim are on the centre console. No toe or heal brakes. The pre-flight check on the Pipistrel is the standard verification of flight controls, check for anything loose or broken, check the oil level and burp the engine by turning the prop backwards until you hear the air blead out of the oil system giving a burp sound. Time to get out of the hangar. There is no tow bar. To move the aircraft grab the tail and push. It's a "T" tail so it's easy to grab.

Time to get into the plane. First thing I noticed is the arching dash. It gives good view out the side and to the left of the front. The way the cowl is shaped into a cone I was unable to see the front end of the nose. There is a body line that can be used as a reference. The gauges are all in front of you on the Garmin but it took me a few seconds every time I looked for a reading. The touch screen worked well but I was a little too short to comfortably reach the screen. In Daytona Class C you need contact Clearance Delivery, ATIS, Ground, Tower, Departure north and south and Approach north and south. There are no names associated with the frequencies so I needed a paper defining them. Then you need the frequencies of your destination. After getting all the frequencies programmed the engine temperature was in the green. The engine is air cooled with water cooled heads. It does not like sitting on a taxiway waiting for clearance. After "cleared to taxi" the Alpha rolled nicely down the hard surface with a light touch on the rudder pedals. The braking is with the hand brake so let go of the throttle to use the brake. There is a parking brake function to use on the run up. When we got to the run up area the standard procedure was completed with rpm at 4000 for the mag check. The Rotax has its magneto magnets in a housing around the crankshaft. That means it runs without any electricity. After the run up we were still waiting for clearance so the standard procedure is to shut down

the engine to keep it cool. Five minutes later we were cleared to hold short runway 25R for a northern departure. To configure for take-off add 1 notch of flapperons, set trim, remove the emergency chute safety pin and switch frequencies. A few minutes later tower provided "cleared for departure". The 700lb plane travelled nicely on the take-off run but was tossed around a little by cross-winds. The WOT rpm was 5800. Rotate at 60kts and climb out at 75. At about 500' remove the flapperons. Departure instructed us to maintain runway heading followed by north heading approved.

The Alpha is light on the controls and the trim is right at your right hand by the throttle and brake. The controls are nicely proportional for elevator and aileron movement. It did not take any rudder to initiate a ball centred turn. Cruise rpm is around 4500 and that got 85kts. During the flight I got a chance to ask Nikole what the minimum altitude over the ocean. He said you need to stay 500' above people and ships but other than that there is no minimum. It was about then that we flew over a super cub pulling a banner. We turned around at St Augustine to return to DAB. Our flight was at 4000' (DAB 34' above sea level). It was a little work descending as the glide ratio is 15 To 1. Approach cleared us to join right base for 25R a 10,500' runway. ATIS indicated an effective crosswind of 13G18kts. I asked Nikole to take control. Usually landing configuration has 1 or 2 notches of flapperons but in a crosswind and a long runway a no-flap landing is safest. At DAB Nikole came in really flat at 80kts and basically flew it onto the runway. The Alpha floated for a long way and came to a soft landing. After we were off the runway ground cleared us to the hangar. We talked about benefits of the Alpha as a trainer. The Alpha is LSA certified and fully approved for Day/Night VFR operations with benign stall characteristics. It is equipped with a ballistic parachute rescue system offering peace of mind. And purchase cost is \$175K compared to a new 172 at about \$775K and a 3 year waiting list. My opinion is that it's a good looking plane, it flies nice with good visibility and good performance. It has a high quality fit and finish with well thought out features. One feature I did not use is the airbrake. It's a bar that rises above the wing spar to decrease the 15 to 1 glide ratio for landing. I would need to add some seat

cushions and get used to not seeing the nose. Some training and a good manual would be required to get proficient with the GX3,GNC and autopilot. The placard inside says maximum luggage 20 lbs.











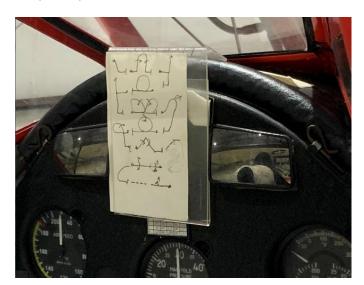
Choke - Throttle - Trim - Brakes



#### Valiant Air Command - Titusville FL

The war bird museum originally has opened in 1977 to display military aircraft. I have tried to get there every few years as the aircraft and the tour guides change. This year they had their actively flying flagship aircraft the C47 Tico Belle in for maintenance to prepare for the busy summer schedule (The head maintenance A&P is a farmer from Manitoba). This aircraft was active in WWII at D-Day and various other military operations. A few jets were displayed including an F- 14 Tomcat. Our guide Jim told us of his experience of his 1100hours in Tomcats in the 80's stationed in California. A "Real Top Gun"! He would only say it was very exciting and that he was always away from home. It's hard to have a relationship.

An exciting thing for me was finding another member of the original Red Baron aerobatic team. This one has a private owner and stores it in the War Bird hangar. A nice example of the Super Stearman with a wing walking apparatus and harness. The card with the aerobatic figures from the last routine is still clipped to the pilot's panel.







There were many common war birds displayed including an Piper L4-J and a Tiger Moth. There was one I had not seen before. French built Fouga CM.170 Magister. This is a 2 seat jet trainer that was manufactured in the early 50's. It proved to be a good trainer with only a little "Dutch Wobble" from the V tail. It was produced in West Germany, Finland, and Israel. The trainer did see some combat action in Central Africa. After its retirement by the French Air Force, Magisters were purchased by several private-owner pilots in the US and have since been operated in the experimental category. Maximum speed is 386 kt/h at 30,000 ft. This aircraft was rebuilt by the volunteers at the Valiant Air Command. This is a non-flying static display.







# **Excess Cargo**

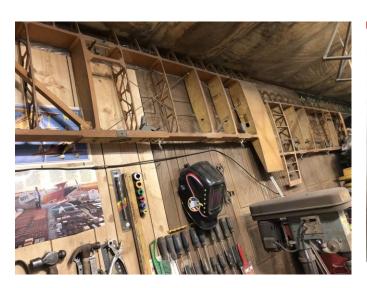
S1T-Ultimate Pitts project for sale:

Fuselage Wings Tail feathers Spring gear Lots of extra parts \$6500.00

Contact: Leonard Sebulsky 306 272-7261 lenair@sasktel.net









#### 1942 Boeing Stearman - SOLD

Wood Prop 68/68 with four flights on it - \$800.00. New six inch homebuilders tail wheel with round spring \$700.00.

MGL V6 radio with wiring harness, like new - \$1,500. 500x5 Cleveland wheels and brakes with axles, tires And tubes, like new - \$1,500. Call Vic Zubot @ 306-731-2249 or 306-535-7078

#### Skybolt Project for Sale

Skybolt project on tall gear. NEW: Hawk tires and tubes, Commanche style fibreglass nose bowl, Cleveland Discs, Calipers, brake pads, and Cleveland master cylinders, two place bubble canopy in light smoke UV tint, rear canopy bubble for single slider, two open cockpit windscreens, aluminum leading edge and vacuumed formed laminated plywood leading edge, Gascolator, Dukes fuel pump, fuel tank switch valve, baffled main tank with sending unit and flop tube, upper wing tank, All wing hinges, bellcranks and bearings from Steen Aero. Brunton flying and landing wires, tail brace wires, drag and anti-drag wires, wing internal antenna kit, battery box and Barry engine isolators.

Steen Aero built up ribs, laminated spar and precut material wing kit, Steen Aero building jig for wings. Tip up canopy. Originally built in Ohio by a Surgeon who was also an A+P. Started in 1994, brought to Canada in 2000 and has been in storage since. Has an engine mount for lycoming 540. \$15,000 Canadian FIRM.

Email: <a href="mailto:skyboltfever@gmail.com">skyboltfever@gmail.com</a>







