THE WINDSOCK

July, 2023

Editor: Frank Huber | Layout Editor: Frank Huber

The President's Flight Deck

Hello Chapter Members! It is that time of year that we all look forward to, the great migration to the east where we embark on AirVenture! For those of you attending in person, I hope you have wonderful weather, although I hear temperatures in the 90s are expected. Stay cool! EAA 237 will neither be hosting a common camping area this year, nor offering the pasta feed, but expect to do so again next year.

Also, we will not be hosting a July Chapter meeting at our Chapter building, but look forward to a fun August meeting.

Thank you to those members that signed up at the last Chapter meeting for the Website/Tech support, Food Service, Building maintenance, and Fund raising committees. Your assistance is greatly appreciated, and I will be reaching out to you after AirVenture to discuss the needs of each committee.

Wishing you the best at AirVenture!

Kevin

On Saturday, July 8th, the chapter held a successful Young Eagles event. We had seven pilots with a variety of aircraft giving rides, including a Piper Cub, a Piper Cherokee Six, three Cessna 172s, a Citabria and a Cozy. Over a hundred young people received Young Eagle rides on a beautiful sunny day. We had excellent ground support as usual, including some of our Ray Scholarship recipients. Our next Young Eagles event will be held on Saturday, August 12 from 9am until 2pm. Come on out and enjoy the fun flying Young Eagles, helping with the ground operation, talking aviation with the parents or just watching the kid's excitement of going flying.

HOMEBUILDERS WHAT OUR MEMBERS ARE BUILDING, RESTORING AND FLYING

CHAPTER 237/237TH AERO SQUADRON ZENITH STOL CH 701

The Chapter 237 Zenith STOL CH 701 project received an airworthiness certificate on Saturday, July 1. DAR Steve Wagner found a few minors things that needed correcting, which were fixed immediately. We are using the new FAA approved Task Based Flight testing program that was created by EAA. This program allows you to test all the areas of aircraft performance and handling, which gives you the data to create an Aircraft Operating Manual. It replaces the previously required 40 hours of test flying.

The first test flight the next day was scrubbed because we determined there was a cooling issue with the water cooled engine. After removing the cowling it was apparent that while we had a good airtight intake plenum, there was not an adequate cooling plenum downstream of the radiator. So we spent the next week fabricating a new airtight downstream cooling plenum. Ground testing showed that the new plenum took care of the cooling issue.

I flew the first test flight on Tuesday, July 18. On takeoff I noted that the rpm was significantly below the full power rpm we expected. The aircraft accelerated ok, so I continued the takeoff and climbed to 3,500 feet and circled the field. The engine ran great and the coolant temperature stayed in the normal range. The flight revealed a few things that needed fixing. I had a heavy left wings, which was fixed by adjusting the right flaperon down. The trim was inadequate for the slower speeds, so that was adjusted. The pitch of the ground adjustable IVO propeller needed to be lessoned to allow the engine to get up to a higher rpm. I also noticed a difference between the indicate airspeed and the ground speed when taxing back after the flight. We lengthened the pitot tube to address this issue.

A few other adjustments were made, so the second test flight was made on Friday, July 21. The power on takeoff was somewhat improved, but still below full power rpm. I again climb to 3,500 feet and circled the field. I did the test card for the operation of the flaps and found little pitch change with the selection of flaps. I flew a third flight on Saturday, July 22 to do the airspeed calibration test card and the compass calibration procedure. Unfortunately the compass system was not working on this flight. The airspeed calibration test showed significant difference between indicated and actual airspeed, especially at slower speeds. So we will have to work through those issue and adjust the prop pitch to get full power out of the engine.

As you can see, building and flying an experimental aircraft can require adjustments to get it operating correctly. As we solve these issues the flight test program will continue to completion so the members of the 237th Aero Squadron flying club can start flying the aircraft. *By Frank Huber*

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GPS vs. DMEDistance for IFR Flying
https://rb.gy/exj2j

How To Circle-To-Land From An Instrument Approach
https://bit.ly/473m1Vc

boldmethod

Quiz: Do You Know These 6 Rules Of Thumb?
https://rb.gy/od49t

How To Fly A Perfect Short Field Landing
https://rb.gy/ashh5

How To Correct A Late Or Rapid Flare During Landing
https://rb.gy/irfzk

Pilot Loses Control on Landing After Passenger Steps On The Rudder Pedal
https://rb.gy/80a81

Light Crosswind Causes Three Landing Accidents
https://rb.gy/80a81

QUICK LINKS

AIR FACTS

My Secret Forced Landing *by Bill David*
https://rb.gy/58q1z

Strong Crosswinds Offer a Lesson In risk Management *By Jay Wischkemper*
https://bit.ly/3KbFSb1

THIS IS A HUGE CHANGE TO THE LIGHT SPORT AIRCRAFT RULES BROUGHT TO US BY AOPA AND EAA

LIGHT SPORT ENVELOPE EXPANSION PROPOSED AT LAST

FAA PUBLISHES MOSAIC'S UPSHOT

July 19, 2023 *By Jim Moore AOPA*

The FAA released a long-awaited rule making proposal to do away with light sport aircraft weight limits and other restrictions on pilots who fly them, though sport pilots will still be limited to only one passenger at a time. The rule making proposal released for public inspection July 19 is the product of a years long effort to modernize aircraft certification. The FAA invited collaboration with pilots and industry on the Modernization of Special Airworthiness Certificates (MOSAIC) initiative, an effort to overhaul the current rules established in 2004 and enable certification of new technologies that lead to safer and more capable aircraft. AOPA pushed hard to expand the light sport aircraft definition, relax most current operating limitations, and allow certain operations for hire heretofore reserved for certified aircraft. The FAA scheduled the rule's publication for July 24 in the Federal Register, which will start a 90-day public comment period.

The rulemaking proposal extends to more than 300 pages, with effects on experimental amateur-built aircraft and restricted category aircraft. It also proposes changes to right-of-way rules around Class G airports to eliminate present distinctions among various types of “powered” aircraft currently referenced in FAR 91.113. AOPA is analyzing the details of this first major overhaul of aircraft certification rules in two decades and will provide comment.

“Modernizing the light sport category for the thousands of our members that fly these aircraft is something we’ve been long pushing for, and it just makes sense,” said AOPA President Mark Baker. “We’re pleased to see the FAA take this first step to help modernize the general aviation fleet and provide more options for pilots.”

At first glance, there is much to like. The agency eliminated any weight restriction and instead applied limitations to performance-based criteria:

- Increase the airplane stall speed to 54 knots.
- Increase the maximum speed to 250 knots calibrated airspeed.
- Allow controllable-pitch propellers.
- Allow retractable landing gear.

The increase in stall speed will enable increased aircraft weights for more robust airframes, installation of safety enhancing equipment, higher fuel capacity, and more seating capacity. The change also will allow airplane designs up to about 3,000 pounds to be included in this rule making. The FAA also proposes allowing sport pilots to fly four-seat aircraft, but the current limitation of one passenger remains unchanged: “To enable the design and manufacture of light-sport category aircraft that are safe to fly with increased capacity and ability, this proposal would apply new design and manufacturing requirements,” the FAA wrote. “This would allow growth and innovation within performance-based safety parameters. This proposal also expands aircraft that sport pilots can operate. Under this proposal, sport pilots could operate airplanes designed with up to four seats, even though they would remain limited to operating with only one passenger.”

Pilots operating under sport pilot limitations will be able to do so while meeting all sport pilot requirements, to include a valid driver's license as long as the most recent medical was not denied and any special issuance medical has not been withdrawn. Sport pilots will also be able to take advantage of controllable-pitch propellers, retractable landing gear, and night VFR operations with appropriate training and endorsements under the proposal.

The agency also agreed with AOPA's request to allow sport pilots flying light sport aircraft to perform certain commercial operations, such as product demonstrations for engines or other modifications. These privileges would also extend to experimental aircraft that have flown at least 50 hours, provided that the applicant has established an inspection and maintenance program.

The agency noted that, since the 2004 rule, light sport aircraft "have shown a lower accident rate than experimental amateur-built airplanes. The FAA considers that the successful safety record of light-sport category aircraft validates certification requirements established in the 2004 final rule and provides support for expanding the scope of certification for light-sport category aircraft and operations."

The noise limits would be broadly applied. "To provide flexibility and reduce burdens of compliance with these noise limits, the FAA is proposing options for compliance: conventional noise testing per [P]art 36 or means of compliance via FAA-approved, industry consensus standards," the agency wrote.

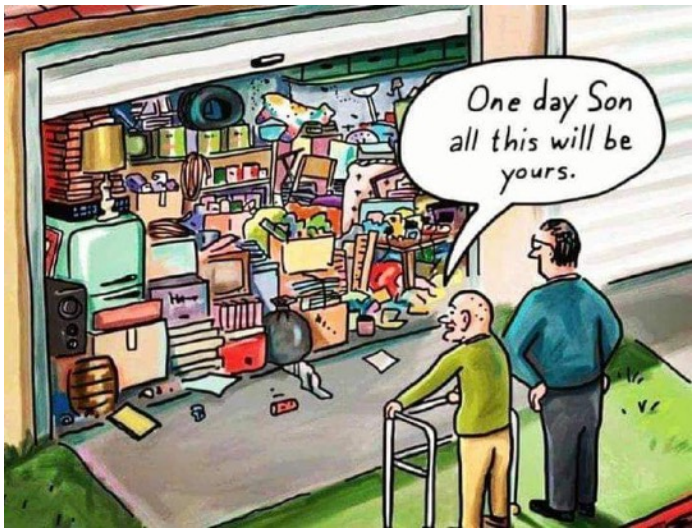
"The FAA intends for these expansions to increase safety by encouraging aircraft owners, who may be deciding between an experimental aircraft or a light-sport category aircraft, to choose aircraft higher on the safety continuum and, therefore, meet higher aircraft certification requirements," the agency wrote. "This rule would amend aircraft, pilot, maintenance, and operational requirements to increase both the safety and performance of these aircraft while mitigating risk. The FAA recognizes that this is a balancing act—where the risk is increased due to greater capability in one area, mitigations may be required from the other areas."

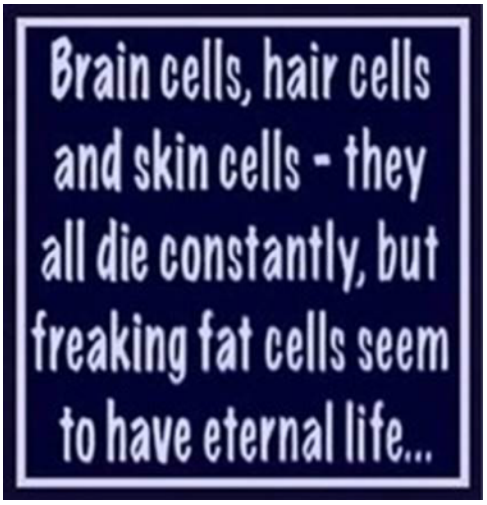
The FAA has lagged behind the European Union Aviation Safety Agency, its European counterpart, in the modernization of aviation regulation. Europe long since cleared the way for a generation of sleek, speedy aircraft such as the JMB VL3 AOPA Pilot Editor at Large Dave Hirschman flew and wrote about in the January 2022 issue.

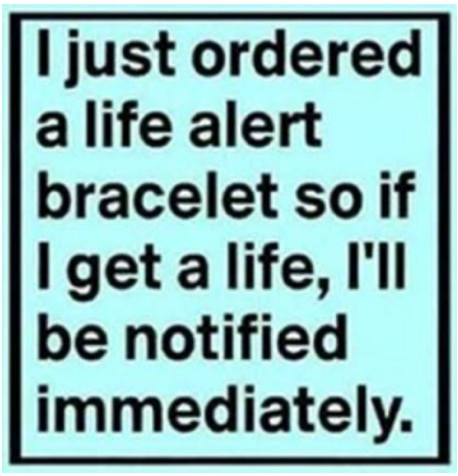
Chapter 237 Coming Events

* Chapter 237 Young Eagles Event at Atlantic Aviation on Saturday, August 12 10 from 9am to 2pm
* Chapter 54 Corn Feed at Lake Elmo Airport
* VMC/IMC Meeting on Tuesday, August 22 VMC begins at 6:30 pm and IMC at 7:30 pm
* Chapter Meeting on Monday , August 28 beginning at 6pm with dinner, meeting to follow at 7pm
* Chapter 237 Young Eagles Event at Atlantic Aviation on Saturday, September 9 from 9am to 2pm
* VMC/IMC Meeting on Tuesday, August 19 VMC begins at 6:30 pm and IMC at 7:30 pm

On The Lighter Side







In future Windsock editions, I plan to showcase aircraft that our members are building, restoring and flying. Please email me with the aircraft you are building, have completed building, are restoring or have purchased and are flying. I will follow up with you to provide a questionaire and will come out to take pictures to include with your article.

If you have a story or photo you would like to see in our newsletter, contact
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To view past issues of The Windsock, visit www.eaa237.org and select newsletters.