

The Newsletter of Chapter 26, Experimental Aircraft Association ❖ Seattle, WA ❖ Volume XXXI No. 8 ❖ Aug 2023

President's Letter

Terminal
Building at
Boeing Field
7259 King County
Airport Access Rd,
Seattle, WA 98108

Second Thursday At 7:30 PM

Since our last meeting we made our annual trip to Oshkosh. The trip is always an adventure. For years I have made the trip in one day. It makes for a long day but it is do-able in three hops; Crest to Helena, MT, to Bismarck, ND, to Oshkosh. Some of the flight legs are routine and some are a little more exciting. The biggest issue each way is weather; rain storms not thunderstorms. We flew on IFR flight plans mostly so we could get guidance from the controllers. They helped us going into Oshkosh and several times on the way home. We had to go the 13,000' from Helena to Seattle. That is the minimum from Helena to Missoula but we stayed there for the entire leg because it smooth and nice with the ground speed about 230mph. We were solid IFR for the first 30-40 minutes but then it was better. Up above the pretty, puffy, scattered clouds, we might as well have been an airliner. As we got to Moses Lake and headed toward Ellensburg, Seattle Center advised us we were heading into significant weather. We asked them to divert us around it, so we were guided significantly north. The visibility was poor (about 3 miles) but we could see straight down. Once we got over the mountains, they lead us south till we recognized home.

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This month:

Discussion of Summer Flying Adventures

By Everybody!

IN PERSON AT BOEING FIELD

Thursday @ 7:30

Also meet online: <u>meet.google.com/jvg-uchh-ecu</u>

President's news (Continued)

The red airplane got lots of attention this year. On Monday, some guy driving a golf cart stopped and said he wanted to do an article about us so we needed to go to a briefing for an air-to-air photo shoot. We went to the briefing and were scheduled to fly Wednesday morning. There was an incoming thunderstorm so it was rescheduled for Sunday morning. Then on Thursday, a guy from Kitplanes wanted to interview us. It was posted online on Saturday: https://www.kitplanes.com/grand-champion-falco-passes-1750-hours-at-airventure/. On Friday a couple of guys from EAA Video wanted to interview me. It was short and simple, but I have no idea where/when that piece will show up. My Falco buddies are calling me 'Hollywood' again.

We are happy to be home and would love to hear lots of sharing of pictures and stories of your summer flying adventures. Hope to see you Thursday (8/10), at 7:30 for the meeting. ~Dave



2023 OFFICERS

President: Dave Nason

Vice Pres: Steve Crider

Secretary: Don Davis

425.822.3439

Treasurer: Jason Sorenson

Newsletter Clayton Chase

Web Editor: Tom Osmundson Tech Counselor: Tom Osmundson

Tech Counselor: Dave Nason

253-631-0191

Flight Advisor: Ross Mahon

206.550.9526

Rossair@aol.com

EAA Chapter 609 Fly-in BBQ, potluck and camp-out

WHAT:

Come join us for a fun night of camping at KCLS. Saturday evening will consist of a BBQ/ potluck. Burgers and brats will be provided, please bring a side to share. We will enjoy the comradery of fellow aviation friends.

Sunday morning we will have doughnuts, coffee and orange juice provided.

WHERE:

Chehalis-Centralia Airport (KCLS) 900 NW Airport Rd. Chehalis, WA 98532

CONTACT US:

Jeri Mainero, Event Coordinator

907-539-1980 Or letsfly609@yahoo.com





AirVenture 2023 Avgas Update

July, 2023 — EAA AirVenture Oshkosh 2023 provides the general aviation community with the ability to attend a number of forums and to learn about many different topics, subject matters, and issues. Those interested in hearing the status of the industry's transition to an unleaded fuel will have the opportunity to hear from a number of different perspectives. These begin with an update from the FAA and industry's Eliminate Aviation Gasoline Lead Emissions (EAGLE) initiative in the Theater in the Woods today at noon. Included in the forum will be an update provided by each of the four sponsors developing a candidate unleaded fuel as a potential replacement for 100LL. Throughout the week, there will also be a number of forums presented by fuel sponsors and engine manufacturers highlighting their views on the issue.

EAGLE Initiative: Commitment TO AN UNLEADED FUEL

The general aviation industry trade associations, the American Petroleum Institute, and the Federal Aviation Administration established the EAGLE initiative in 2022 with the goal of eliminating the use of leaded aviation fuels as soon as practicable without adversely impacting the safe and efficient operation of the existing GA fleet, but no later than the end of 2030.

Four Fuels Pursuing UNLEADED SOLUTIONS

There are two pathways available to obtain FAA authorization for the use of a new fuel: (1) an FAA aviation fuel fleet authorization process established by Congress through a collaborative industry/government testing program called the Piston Aviation Fuels Initiative (PAFI); and (2) the traditional FAA aircraft supplemental type certification (STC) process. There are two active fuels in the PAFI test program as part of the development and testing process: fuel producers Afton Chemical teaming with Phillips 66, and LyondellBasell partnering with VP Racing. Both recently adjusted the treat rate of their respective octane-enhancing additives to better balance engine performance and fuel production. Both fuel developers are continuing in the program and shipped fuel to undergo critical detonation and endurance testing with expected completion this summer before moving into full scale fleet authorization testing. There are two fuel developers pursuing traditional FAA STC approval of high-octane unleaded fuels: General Aviation Modifications Inc. (GAMI) and Swift Fuels Inc. On September 1, 2022, the FAA issued an approved model list supplemental type certificate (AML-STC) to GAMI for G100UL unleaded avgas. This AML-STC represents the first FAA authorization for use of a high-octane unleaded fuel for general aviation piston aircraft and marks the beginning of the complex work that remains to identify a commercial pathway for production and distribution necessary for the fuel to be viable in the marketplace and become available at airports across the country. Swift is also developing a high-octane unleaded fuel and has made application to the FAA while working to obtain an AML-STC for eligible aircraft and engines. Swift has publicly stated that it hopes to achieve initial FAA STC approval for a 100-octane unleaded fuel (100R) in 2023.

EAGLE Commitment to SUPPORTING ALL UNLEADED FUEL CANDIDATES

EAGLE's efforts to support all fuel sponsors continue as member companies of the sponsoring associations provide technical support to the PAFI testing of the Afton Chemical/Phillips 66 and LyondellBasell/VP Racing fuels. Additionally, GAMI and Swift Fuels are supported in their efforts as sponsoring associations and member companies, including producers, distributors, FBOs, and manufacturers that continue to work to facilitate stakeholder understanding of the fuels to enable support for deployment and use. EAGLE supports each of the fuel developers Afton/Phillips 66, LyondellBasell/VP Racing, GAMI, and Swift Fuels. EAGLE understands that each company makes its own business decisions in choosing what path to pursue for FAA approval/authorization and its approach to commercialize and deploy into the market. However, regardless of their approach, FAA safety approval/authorization and acceptance and support of key stakeholders who must make the business decision to produce, purchase, transport, store, dispense, and use a new fuel in order to be successful in commercialization and deployment into the market are necessary.

EAA Webinars

8/23/23 7 p.m. CDT Swift Fuels Unleaded Avgas Qualifies for FAA WINGS and AMT credit. By Chris D'Acosta

Chris D'Acosta, Swift Fuels CEO, will discuss current and future Swift Fuels plans for the transition to an unleaded fuel for piston aircraft. Chris will share what's happening with their high-octane 100R unleaded avgas product and their premium UL94 unleaded avgas.

8/30/23 7 p.m. CDT Introduction to Siemens Solid Edge CAD Program By Doug Stainbrook

Doug Stainbrook with Siemens Solid Edge provides a basic program overview and demo of the Siemens Solid Edge computer-aided design (CAD) program made available to EAA members by Siemens. Learn how to take advantage of this powerful 3D modeling tool and create complex 3D models using a variety of parametric and direct modeling techniques.

9/6/23 7 p.m. CDT Legal Interpretations Qualifies for FAA WINGS and AMT credit. By: Mike Busch

We all love the FARs, right? Those regulations are written and maintained by a large team of FAA lawyers who work for the FAA Office of Chief Counsel. If you have a question about the meaning of a particular rule, you can request a "legal interpretation" and usually the responsible FAA attorney will draft one for you. More than 1,000 of these legal interpretations can be found online. Some are quite surprising and counterintuitive, and some significantly alter what most of us thought the regulations mean. In this webinar, Mike Busch, A&P/IA, reviews some of the most interesting, surprising, and significant ones that pertain to aircraft maintenance.

9/13/23 7 p.m. CDT

Dealbreakers - Lessons Learned from Prebuy Examinations Qualifies for FAA WINGS and AMT credit.

By: Prof. H. Paul Shuch

Over the past decade, Prof. H. Paul Shuch has performed several dozen preflight examinations of used light sport and experimental aircraft. In this FAA Safety Team WINGS and AMT award qualifying webinar, he shares flaws found, lessons learned, and new insights he has gained into when to walk away.

On the Wreckord

Hummel Ultra Cruiser - Florida: The pilot failed to activate the the airplane's auxiliary fuel pump prior to takeoff. This would have replenished the header fuel tank with fuel from the airplane's two main wing fuel tanks. About 5 minutes later, the airplane's engine lost power when the fuel supply in the header tank was exhausted. The pilot attempted a forced landing, but as he maneuvered the airplane to avoid a tree, the airplane stalled and descended into the tree. The pilot was seriously injured and the airplane's fuselage and wings were substantially damaged.

The pilot reported taking gabapentin prior to the flight. Gabapentin carries the warning, "patients should be advised that gabapentin may cause dizziness, somnolence and other symptoms and signs of central nervous system depression." It is likely the impairing effects of gabapentin contributed to the pilot's failure to turn on the fuel pump, which led to fuel starvation and the loss of engine power. (10/15/2018)



On the Wreckord

Avid Flyer - Florida: The pilot was in cruise flight when the engine lost partial power, then total power. He restarted the engine and briefly regained partial power, but shortly thereafter, the engine again lost all power. The pilot performed a forced landing to a road, during which the airplane sustained substantial damage.

A test run of the engine indicated no anomalies; however, further inspection revealed a stuck float needle in the carburetor and a clogged carburetor vent line, which could have led to an excess vacuum in the carburetor and restricted fuel flow. It is likely that this restriction caused a transient condition that resulted in the loss of engine power that was not replicated during the test run. (10/13/2018)



On the Wreckord

Van's RV-8 - Virginia: The accident pilot was performing as part of a two-airplane demonstration team that was conducting a night aerobatic display about 55 minutes after the end of civil twilight. Both airplanes were equipped with streamer- and flare-type fireworks that were discharged throughout the 5-minute routine. The pilot of the lead airplane stated that the night of the accident was "a little bit on the darker side" and that they had chosen to perform their display around 700 ft above ground level (agl) rather than their typical 500 ft agl altitude. They were in the middle of the routine when the accident occurred; the accident airplane was in trail behind the lead airplane as they each performed two aileron rolls. Video footage showed that, after completing the second aileron roll, the lead airplane began to climb. The accident airplane completed its second aileron roll to an inverted attitude, but rather than continuing the roll to an upright position, entered an inverted descent that continued until ground contact.

The dark night conditions, combined with a lack of cultural lighting on the ground in the vicinity of the airport, would have increased the difficulty associated with the task of maintaining awareness of the airplane's attitude in relation to the horizon and its height above the ground. In addition, the multiple point-source glare from the pyrotechnics off the lead airplane during the final moments of the flight may have impeded the pilot's vision and affected his ability to maintain his orientation during maneuver, particularly without a discernable contrast between earth and sky under the dark night conditions.



