



February 2025

THE SLIPSTREAM

THE NEWSLETTER OF GREEN RIVER EAA CHAPTER 441 KENT, WA

Volume 27 issue 2



Next Meeting

Thursday, 27 Feb. 7 PM

This Month's Program

Flying in the BUFF

Steve Cameron will tell us of his experiences flying the Big Ugly Fat, uh, Fellow....also known as the B-52 Stratofortress!



If you no longer want to receive the newsletter, email me at ron@wanttaja.com

Guest Editorial

Humility

Back in ancient Rome, if the commander of a legion gained a great victory, he would be allowed to enter the city in a triumphal parade. Wagons would show the haul of loot, prisoners would be dragged wailing in their chains, and the General himself would ride in full armor, his polished glory on a great war-chariot.

But with the General rode a slave. The slave was assigned was to keep the great victor humble. He'd remind the General that he was a human being, not a god. He'd claim the General's lorica made his butt look big, claim every good-looking woman who winked at the hero was actually a man, and wrinkle his nose suspiciously every time the chariot passed a stockyard. All during the great parade, the slave would remind the General that he put his toga on one fold at a time, like any other man.

Two thousand years later, we don't have slaves. We have airplanes, instead.

I hadn't been having a real good day (to start with) and decided to fly to Crest for a visit. I traditionally have trouble landing to the south there. The slope always throws me off, and with winds it's sometimes a bit tricky

All of that didn't occur to me as I entered the pattern for runway one-five. I had some slight trepidation, but mind was still someone distracted by the other problems of the day. And I'd been flying Fly Babies a long time.

Then on short final, I hit the sink.

The bottom dropped out. Airspeed evaporated like dry ice in the Sahara. The stick hit the aft stop. In the last, fleeting microsecond, I realized we were aimed for the very lip of the asphalt and wondered if it would flip us.

WHAM!

We hit with a slam I haven't felt for years. Moonraker rebounded into the air. Instinct finally woke up. The Continental roared. I kept us from hitting again, establishing a climb. My gaze shot left and right. Both wings in place, landing wires no slacker than normal. No shouts on the radio about parts left behind. Doubts warred. I had plenty of runway left. Should I pull the power, land, and check the airplane over?

Just then I looked down into a face of a man who had been working on his airplane. I could see the grin. There had been two airplanes waiting to take off behind me.

(Continued next page)

Sad to say, that clinched the decision. I didn't want to be seen; I wanted to climb under a rock somewhere and curse the Wright brothers. I kept climbing and headed for home, just seven miles away.

In retrospect, I feel less guilty about my decision not to try salvage the landing. I was *definitely* rattled. I could have brought the plane around for another approach, but would have had to face the sink again. Probably better I took ten minutes to settle down on the way back to a familiar runway.

The weather had continued to deteriorate. Raindrops splattered the windshield as I entered on the 45 for Auburn. The wind had veered, and was now a strong crosswind.

I was still jittery. I ended up staying much too high on approach, and ended up in a prolonged slip to get down on short final. We dropped towards the asphalt. I overflared. The crosswind waggled the nose. I added a bit of power, and managed to ease the wheels onto the runway.

My mind eased as the 'Baby rolled out normally. Roll down to the hangar, spin the tail around, kill the switches

And then for the first time, I remembered it. Moonraker's G Meter. I looked.

It was pegged at the maximum reading: +4.0 Gs.

With a feeling of dread, I unfolded myself from the cockpit and walked around the wing to examine the gear.

No damage. The axle *might* have a slight bend to it, but I couldn't swear the bend hadn't been there before. No cracks in the wheels, no gouges out of the tires, no stripped bolts, no broken welds, no snapped wires, and the bottom longerons where the gear legs attach flowed with nary a kink. The battery was still out of sight; it hadn't punched out the belly. I noticed the rubber cuff around the gas-tank filler tube. The cuff was about an eighth-inch above the level of the surrounding sheet metal. Either the gas tank flattened slightly on impact, dragging the tube down, or the metal skins flexed and shoved the cuff up.

Either way, that is one *strong* homebuilt.

I'd been feeling like hot stuff lately. Touch and goes had become routine in an airplane that many find difficult to land smoothly. Maybe I've been so full of myself that I haven't been listening; perhaps the airplane decided that whispering in my ear wasn't enough. There's nothing like a nearly-bent bird to point out both one's flaws and one's mortality.

Any landing you can learn from is a good landing. On that basis, maybe I didn't do too bad....



Chapter Officers

President: Brian Lee
(253)-639-0489

Vice-President: Mark Owens
(206) 390-0520

Secretary: TBD

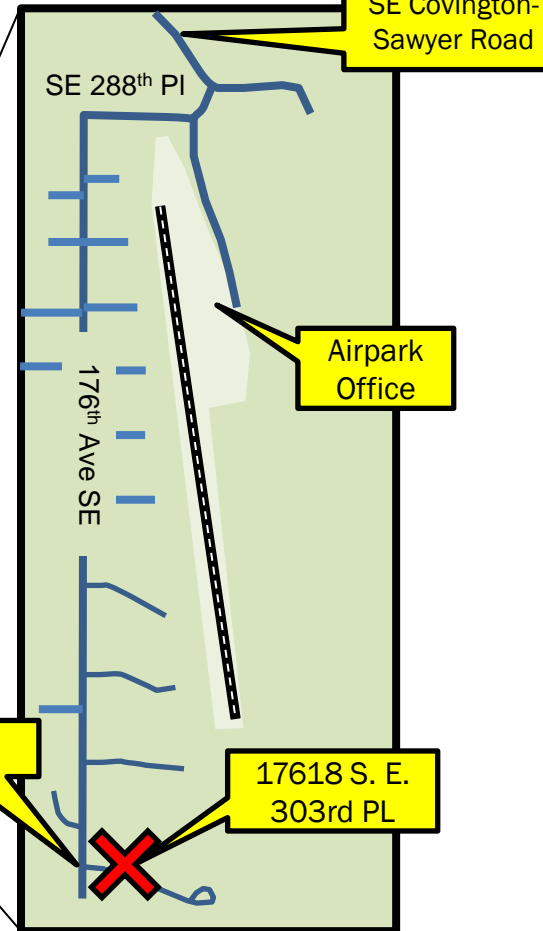
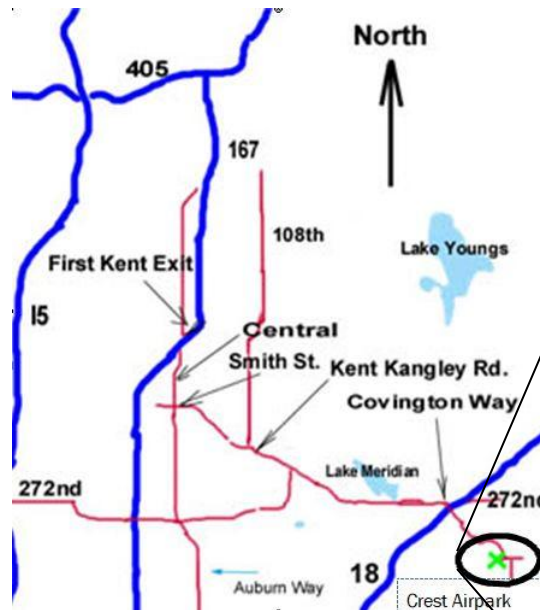
Treasurer: Steve Crider

Tech Counselors/Flight Advisors:
Brian Lee (253)-639-0489
Dave Nason
Jonathan Lee (253) 508-1376

Newsletter Editor: Ron Wanttaja
(253) 833-7394
ron@wanttaja.com

Meeting Address:
17618 S. E. 303rd PL
Kent 98042

Getting Here



What did we talk about Last Month?

All about the Gweduck

Note: Deadline for Newsletter articles is Sunday evening before the meeting.

Park along side of road at 303rd, meeting is at the second house. Walk down the driveway between the garage and the house, and go downhill to the hangar

Field Reports Highlight Need for Owners to Assess E-AB Aircraft Prior to Using G100UL

Recent news reports and forum posts have brought to light potential concerns experienced by aircraft using G100UL avgas, an unleaded high-octane fuel supplied by General Aviation Modifications, Inc. (GAMI) that is now for sale at two airports in California. GAMI and the FAA are investigating reports of damaged paint and degradation of fuel tank sealant on both certified and experimental amateur-built aircraft (E-AB).

G100UL has been authorized by the FAA for use in most certified aircraft through the issuance of an Approved Model List Supplemental Type Certificate (AML STC). It is important for owners of E-AB aircraft to remember that STCs only apply to type-certificated aircraft.

As the builders and owners of E-AB aircraft, we are in the unique position of making our own determination with regard to the use of any new fuel. These industry reports highlight the need for each owner to assess the potential impact of using G100UL or any other new fuel on their aircraft before they introduce it to their tanks. This should include a review of the materials used throughout their fuel systems, including fuel tank sealants, gaskets, O-rings and hoses, as well as any other materials which could come into contact with the fuel either through normal operation or in the event of a spill or leakage.

EAA Submits Comments to FAA Concerning Proposed Piper ADs

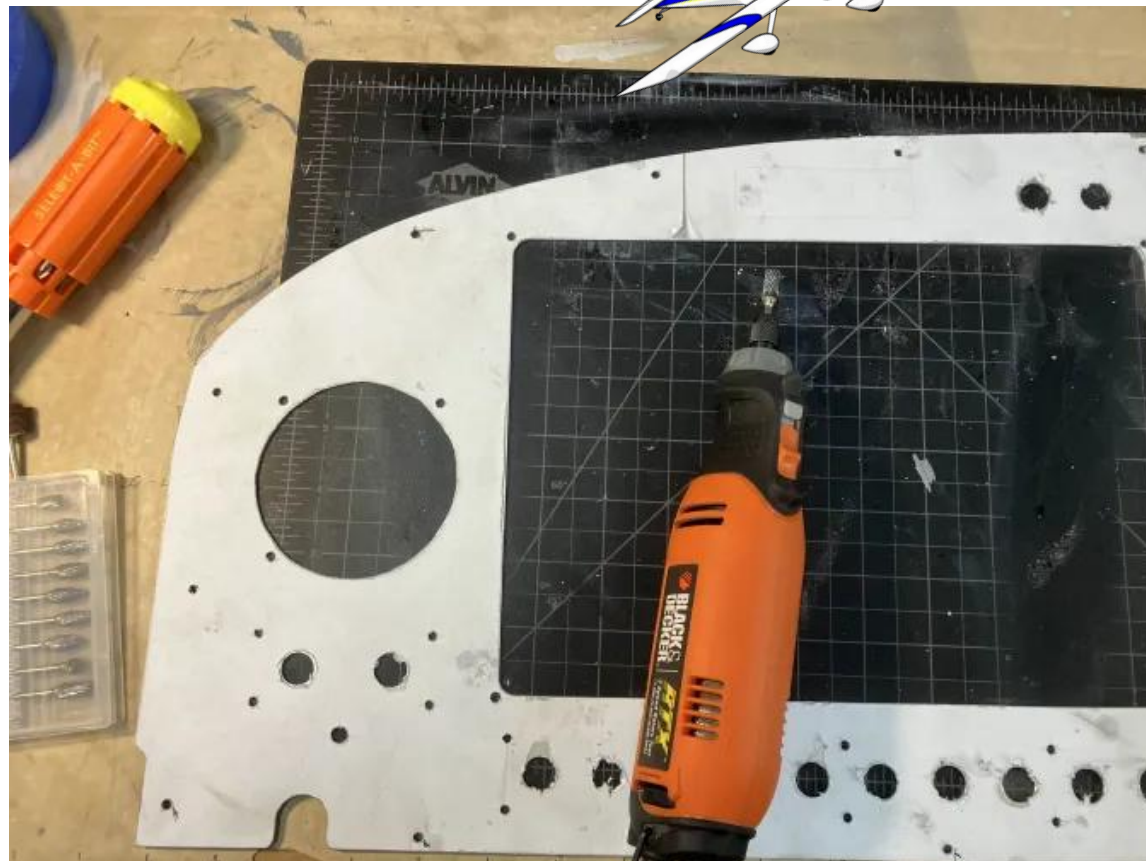
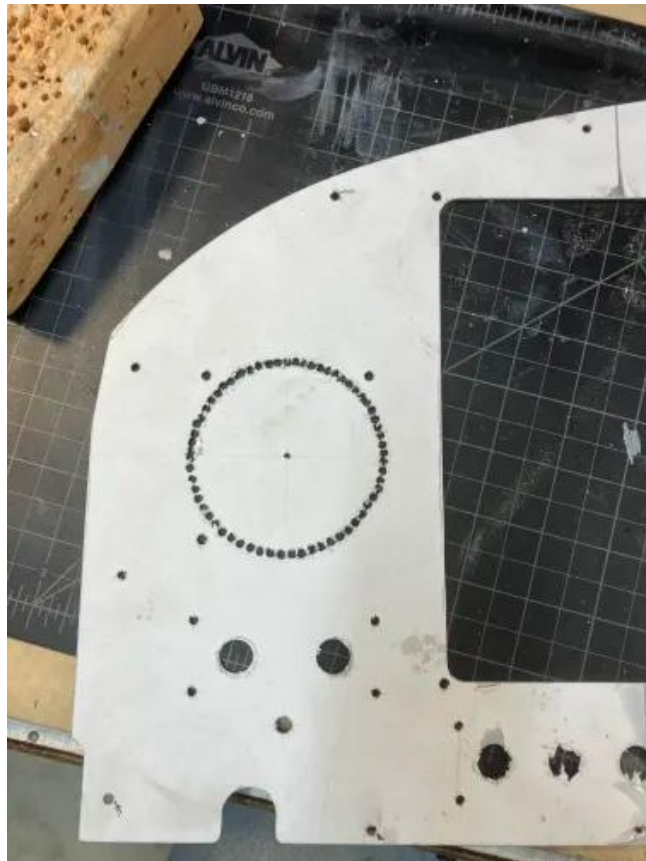
EAA, supporting the concerns raised by Piper Aircraft and many commenters, submitted comments asking the FAA to rescind two proposed airworthiness directives (AD) that would affect certain PA-28 and PA-32 series aircraft. If implemented, the two ADs would expand the main wing spar inspections already mandated by previous FAA action. EAA and others are concerned that the FAA has failed to properly consider the safety risk and financial burden of the proposed additional inspections.

EAA is concerned that neither proposed AD, as put forward by the FAA, addresses all technical aspects regarding the hazards of expanded inspections and that inspection data gained from AD FAA-2020-26-16 does not support the conclusions drawn by the FAA.

Proposed AD FAA-2024-2142 modifies the formula for calculating the applicable time for eddy current inspections of the lower main wing spar bolt holes, affecting 10,665 airplanes. Damaged wing spars would require repair or replacement. Proposed AD FAA-2024-2143 would require reviewing airplane maintenance records to determine if an eddy current inspection of the lower main wing spar bolt holes was completed. If no previous inspection has been completed, a one-time eddy current inspection of the lower wing spar bolt holes would be required at 12,000 hours.



After first considering a hole punch to install his Garmin G5, Andrew went “Old School”!





Initial ship power check was done in January but I quickly found it was pretty hard to get much in the way of troubleshooting and configuration checks done in a 20 - 30 minute battery power cycle before the bus voltage dropped below what I want to see. After a few adventures troubleshooting wiring and harness connections only to realize the issue was with the avionics configuration, I decided to wire in external avionics power with a standalone 30 Amp, 13.6 V ham radio power supply which went live without any squawks. Claire decided to join me for the first full cockpit lighting test.





I'm using an AGM battery and my charger has a 10 Amp 12 volt power supply mode I was planning on using, but between drawing 8 Amps with the panel fully on and expecting to go over 10 when testing probe heat and landing lights and some concerns I'd read about the automatic maintenance mode of the charger not being overly friendly to sensitive electronics (as well as a somewhat dubious lack of mode verification until it was connected and powered on) I decided \$75 for a dedicated power supply with non-compatible connectors between it and the charger was cheap insurance.

As for the overall progression - getting wings on does great things for motivation to get out and build; I somehow managed to log 120 hours on the build in January without really thinking I was spending that much time on it. As mentioned in a few of the earlier posts there were lots of smaller and larger jobs that had needed the wing installation to be able to move forward on, and as those moved over to the completed pile it opened up space for others. Current focus is firewall forward routing and sensor hookups but work has recently been getting in the way of things so February won't be nearly as productive as January was. Key things to do at this point are wrap up the firewall forward wiring, make and connect the fuselage to wing tank fuel lines, finish the last bits of the wingtips and install them, finish up the interior of the cowl and install the baffle seals, fit the alternate air door, service the brakes, complete the oil door, and start looking toward engine runs and final rigging.



A late add to the electrical system - decided to keep the external avionics power hooked up and give it a proper plug. Now to figure out where and how to secure it.

Open Cockpits in Seattle Winters

A lot of people seem amazed when they see me in my open-cockpit Fly Baby on a brisk winter day.

Yet... For the first thirty years, aviation seemed to get along just fine without closed cabins. This includes flying in the Russian winters. Shoot, the Spirit of Saint Louis had an enclosed cabin, but the side window openings didn't have any glass! Lindberg thought the icy blast would help keep him awake.

So from the earliest days, pilots learned how to stay alive...if not fully comfortable... in open-cockpit airplanes.

And, frankly, we're talking about SEATTLE winters. Rarely dips below freezing here. The coldest I've flown has been 15° (on the ground). That's when the picture of my Fly Baby with the ice-bound Agwagon at Puyallup was taken.

How do I survive? Like the aviators of a century ago, I dress for the occasion. I have two leather flying jackets, which I wear depending on the temperature. One is a replica A-2, the lightweight jacket from WWII. That's the one you see me in with the Fly Baby patch. My modern reproduction has insulation, and does well down to about 40°.

My other jacket is another reproduction of a WWII flying coat, a B-3. These are commonly called "bomber jackets," as it's what the waist gunners wore in the open side-gun positions on B-17s. It's basically the outside of a sheep, wool and skin, turned inside out. The cold just doesn't get through.

(Continued on next page)



The other factor is that the Fly Baby is an open-cockpit plane, but in reality, the cockpit is mostly enclosed. I'm not exposed directly to the wind blast. While the Fly Baby's snug cockpit keeps most of the wind blast from hitting me, there are still eddies of cold air wafting past me. The most important part of staying comfortable is to ensure bare skin isn't exposed.

This takes various steps, depending on how cold it actually is. There's an old Swiss saying, "If your feet are cold, put on your hat." You have a ton of blood vessels in your scalp, trying to keep your brain warm, and if the cold reaches it, you'll feel it more. So I always wear a leather helmet. If the temperature gets much below 50°, I wear a ski mask under it.

The other factor is protecting one's neck. A scarf isn't just a stylish accessory; it acts as a "gasket" to keep the cold from shooting down inside the jacket. A silk scarf doesn't scrape your sensitive neck skin.

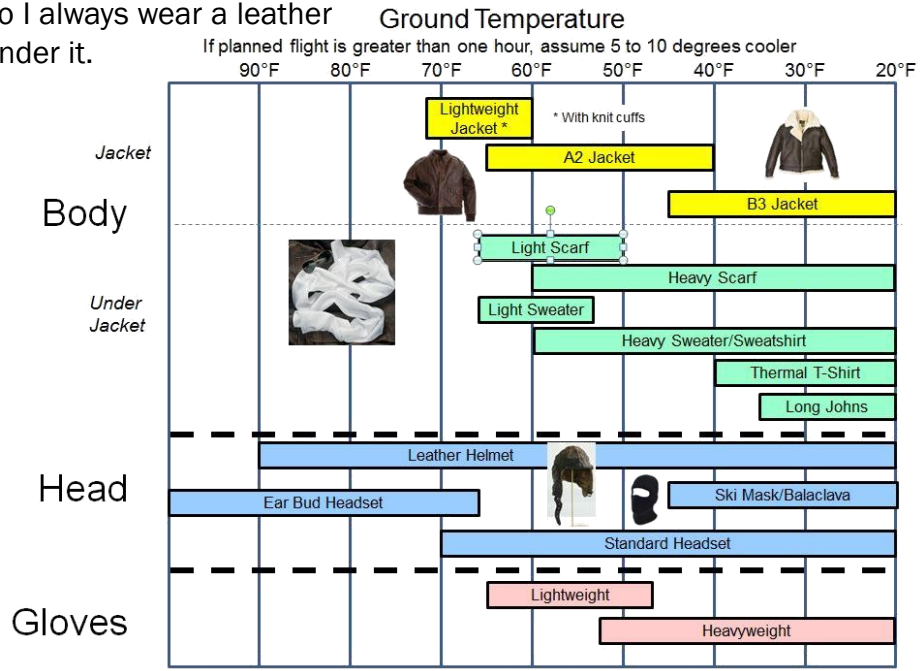
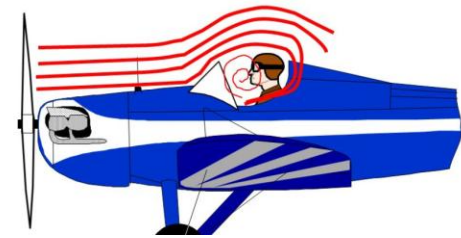
Beyond that...well, it's just layers. Sweaters, thermal underwear, etc. as the temperature gets colder.

The chart indicates what level of protection I use for given temperatures. Other folks, of course, have more or less tolerance for cold and will adjust their wear.

I'll admit to "milking" people's reactions, when they see me flying in the cold. When I climb out of the cockpit afterwards, I often unzip my jacket and waft it, like I was too hot.

Favorite story came about ten years ago, when I called "Fly Baby 848 on the 45" on a cold day. One voice came back..."Fly Baby? Isn't that an OPEN COCKPIT AIRPLANE????!!!!!"

I came back with "Wait a minute...I'll check." After a few seconds, I transmitted, "Hey, you're RIGHT!!!!"



How to Select Clothing for Open-Cockpit Flying Ron Wanttaja 11/2019

Ross Mahon, as told to Ron Wanttaja

When Pete Bowers' original Fly Baby, N500F, was restored by Chapter 26 in 1982, it was decided to fly it back to Oshkosh for the 20th anniversary of the Fly Baby. Ross Mahon, not long out of high school, volunteered. He didn't have a whole lot of money, so he brought his camping gear along and slept with the plane every night. He had the usual set of adventures, culminating at the very last stop before Oshkosh.

He arose that last morning, started preflighting, and noticed the right tire was flat. A massive blow-out had occurred, shredding a section of the right tire as well as the tube.

The airport didn't have any tires and tubes in the 800x4 size. Ross sat down by the plane and started trying to figure out a way out of his fix. He was only eighty or so miles from the biggest fly-in in the world...if he could just GET there, they could probably fix him up. One takeoff, one landing. The tire had only to retain pressure for an hour.

As he sat there, he noticed a tire resting on its side in the grass. Like many airports, it was used to mark the location of a tiedown rope. He rushed up and looked at it. Nope, not 800x4. He went though all the tires. No luck.



Just then, Ross had an amazing inspiration. He crossed the street to the local discount store and bought a bicycle-tire repair kit. He used all the patches in the kit to close the torn tube.

Then...Ross grabbed the nearest discarded tire. He cut out a section of it matching the location that was blown on his tire, with a generous overlap. Then he laid it over the torn section on the Fly Baby tire and stitched it in place. With safety-wire, of course.

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The Horrifying Conclusion of **Frankentire!**

(Continued from previous page....)

Insert the tube and assemble the wheel. Incredibly, the Frankentire held air. Ross propped the Continental to life, climbed aboard, and started taxiing to the runway. He could feel the thud every time the wheel went around. Line up on the runway, hard left with the stick, and go to full power.

Thud. Thud. Thud thud. Thudthud. Thudthudthudthud...

...and the Fly Baby was airborne.

He half-expected the tire to be flat when he landed at Oshkosh. It wasn't. He taxied up to the "Emergency Aircraft Repair" area (thud...thud...thud) and the whole staff came out to shake their heads at the safety-wired contraption.

The chief told Ross to go to the vendor area, where they'd have new tires to purchase. Ross went...and was astounded at the prices. If he bought a new tire and tube, he wouldn't have any money for gas to get home.

He went back to the repair area, kicked pebbles, and said he couldn't find any new tires for sale. The staff took him to a large old-tire disposal area. There, he found a fairly decent-looking 800x4 tire, and that's what he flew home on.

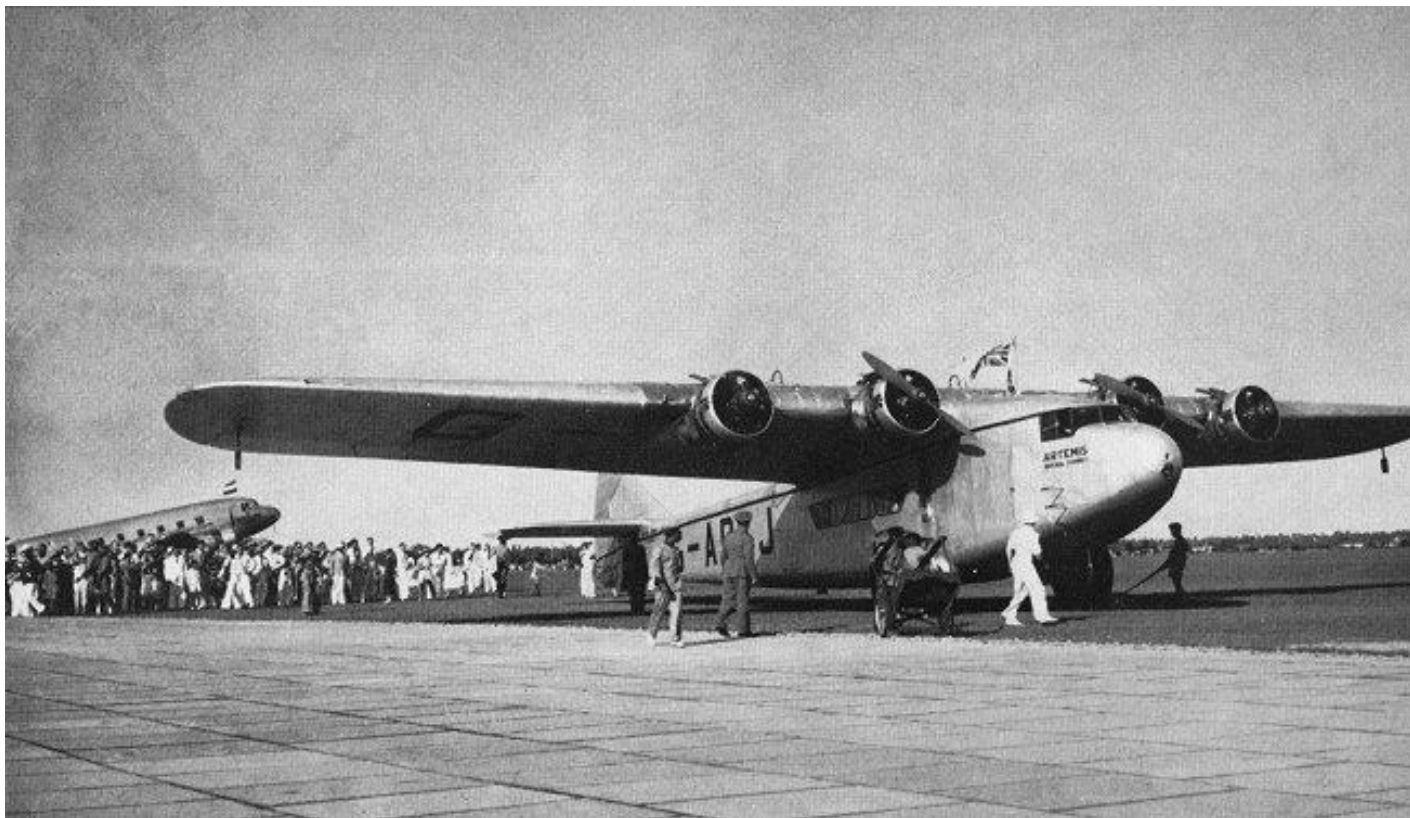


Postscript: About ten years later, I had a flat tire in N500F. It wasn't the junkyard one that Ross had installed....





This Month



Bellanca P-100 Airbus



The first Bellanca Airbus was built in 1930 as the P-100. An efficient design, it was capable of carrying 12 to 14 passengers depending on the cabin interior configuration, with later versions carrying up to 15. In 1931, test pilot George Haldeman flew the P-100 a distance of 4,400 miles in a time aloft of 35 hours. Although efficient, with a cost per mile figure of eight cents per mile calculated for that flight, the first Airbus did not sell due to its water-cooled engine.

The next model, the P-200 Airbus, was powered by a larger, more reliable air-cooled engine. The P-300 was designed to carry 15 passengers. The final model, the "Aircruiser," was the most efficient aircraft of its day, and would rank high amongst all aircraft designs. With a Wright Cyclone air-cooled supercharged radial engine rated at 715 hp, the Aircruiser could carry a useful load greater than its empty weight. In the mid-1930s, the Aircruiser could carry 4,000 lb payloads at a speed of between 145 and 155 mph, a performance that multi-engine Fokkers and Ford Trimotors could not come close to matching.

In 1934, United States federal regulations prohibited single-engine transports on United States airlines, virtually eliminating future markets for the Aircruiser.

Information from Wikipedia

Bellanca 77-140



The Bellanca 77-140 Bomber was a bomber aircraft built in small numbers in the United States in the 1930s. It was a derivative of Bellanca's successful Aircruiser civil transport in which the Aircruiser's single, nose-mounted engine was replaced by twin engines on the upper wing.

The United States military were not interested in the type, but the Colombian Air Force bought a small number, including a float-equipped version dubbed the 77-320 Junior. This version also differed from the landplane in having a fully enclosed nose turret in place of the open turret of the 77-140.



This Month





Breda Ba.65

The Breda Ba.65 was an Italian all-metal single-engine, low-wing monoplane that was used by Aviazione Legionaria during the Spanish Civil War and Regia Aeronautica in the first half of World War II. It was the only Italian ground-attack aircraft that saw active service in this role. It saw service almost exclusively in the North African and Middle-Eastern theatre. In addition to more than 150 aircraft operated by the Italian forces, a total of 55 were exported and used by the air forces of Iraq, Chile and Portugal.

General characteristics

Crew: 1

Length: 30 ft 6 in Wingspan: 39 ft 8 in Height: 10 ft 6 in

Wing area: 253 sq ft

Empty weight: 5,291 lb Max takeoff weight: 6,504 lb

Powerplant: Fiat A.80 R.C.41 18-cylinder twin-row air-cooled radial 1,000 hp

Performance

Maximum speed: 270 mph

Range: 340 mi

Service ceiling: 20,700 ft

Armament

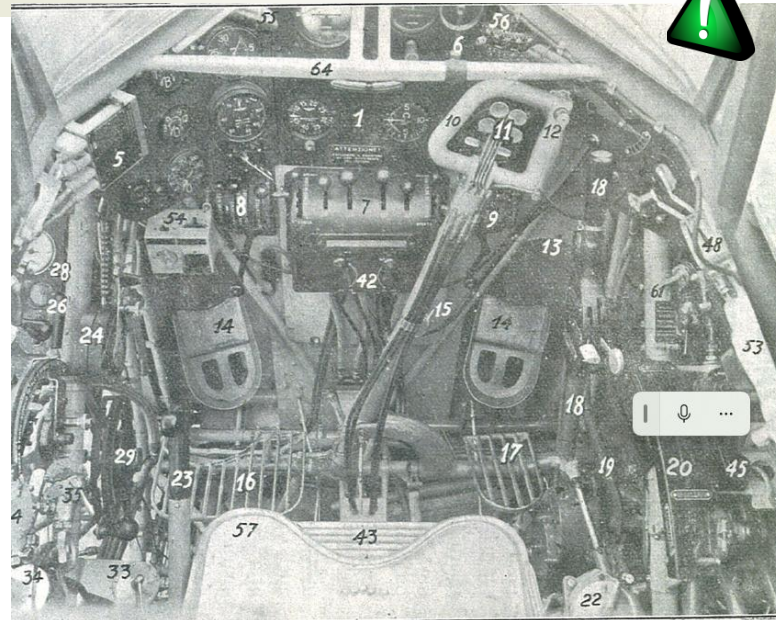
Guns:

2 × 12.7 mm (0.500 in) Breda-SAFAT machine guns

2 × 7.7 mm (0.303 in) Breda-SAFAT machine guns

Bombs:

1,100 lb of bombs



KR-2 – Florida: The pilot was flying a Phase 1 test flight. Ground operations were normal, including the engine run-up. Shortly after takeoff, about halfway down the runway, the engine sputtered, hesitated, and then lost partial power. The pilot had passed the point at which he could land the airplane straight ahead on the runway, so he looked for a place to conduct a forced landing. During the forced landing, he turned the airplane to avoid nearby houses and then steepened the turn due to wind that was pushing the airplane left. The airplane subsequently collided with the ground and fragmented into multiple sections.

The pilot did not recall the impact sequence due to injuries he sustained during the accident. The fragmentation of the airframe was consistent with an in-flight loss of airplane control before ground impact. Examination of the engine, including a full disassembly, did not reveal evidence of any preaccident mechanical malfunctions or failures that would have precluded normal operation. (6/30/2017)



RV-7 – Arizona: The aircraft was in cruise flight when radar contact was lost. Wreckage and impact signatures revealed that the airplane impacted the ground in an inverted, leftwing-down, nose-down attitude. The cockpit canopy, vertical stabilizer, and rudder were found about 1 mile from the main wreckage.

Examination of the engine found no abnormalities that would have precluded normal operation. Examination of the airframe revealed biological matter in a dented section underneath the horizontal stabilizer, as well as bird feathers in the cockpit under the passenger seat. DNA and microscopic examination of the specimens were consistent with a rock pigeon. All fracture surfaces examined were consistent with overstress failure; there were no indications of any preexisting damage such as cracks or corrosion. It is possible that the pilot made an evasive maneuver before or during impact with the bird, that in combination, resulted in an overstress structural failure of the, vertical stabilizer and rudder. (6/27/2017)



Zenith CH-701 – Colorado: During initial climb after takeoff, the airplane's engine experienced a partial loss of power. As the pilot attempted to return to the airport, the engine lost total power. He subsequently conducted a forced landing on rough terrain, during which the right wing and fuselage sustained damage.

Postaccident examination of the engine revealed that the fuel hose from the left wing tank had deteriorated from the inside, which would have restricted the flow of fuel to the engine and led to fuel starvation and the subsequent loss of engine power. (6/18/2017)



Douglas Keen is clearing out a hangar at Vashon Airport for a man who passed away. Included are a Murphy Rebel kit and a Belight (part 103) kit. He's rather sell the kits at a very discounted price than ship them home to Michigan. **He will be shipping them no later than February 28th so this is a limited time deal.** He's open to offers on either airplane

The Murphy Rebel Kit factory price is \$31,500; he's asking \$15,900. This is a complete kit less engine and instruments.

The Belight Kit factory price is \$28,600. He's asking \$10,900. This is a complete kit less engine and instruments.

Doug Keen
734-709-0249



Hi fellow EAA members,

I am currently selling my unfinished S-18 project. No engine. Considerable amount of aluminum sheet and tubing included. \$12,000. If you or someone you know who is interested, please contact me at:

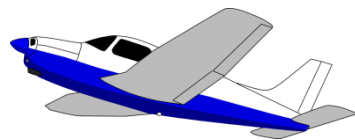
Norm Pauk: Tel: 253-561-4801

Email: Npauk@msn.com





EAA 441 has a dedicated online forum using the Discord server. It's a free service without ads or spam content, and can be accessed via mobile apps or on your PC via a web browser. To sign up, email Edwina Sharp: ebsharp@centurylink.net.



Chapter 441 is fortunate to have two tech counselors. Feel free to call Brian (253)-369-0489 , or Dave Nason any time. You don't need to wait for some significant milestone in your project.

Remember, this is not an "inspection". The shop doesn't need to be cleaned for a visit. All are quite used to looking at pieces, parts, and assorted bits, and will be happy to answer questions, offer advice, and generally talk about projects, building, flying, or whatever.