WIND IN THE WIRES

The Newsletter of Chapter 26, Experimental Aircraft Association ❖ Seattle, WA ❖ Volume XXVII No. 9 ❖ September 2019

President's Letter

This Meeting:
12 September

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

This summer on our trip to OSH we got lots of practice with the FlyQ app on the iPad using the flight planning and tracking the magenta line as we went along. I have not used the weather part very much. This past week I started to play with it to see what I could see. Since our oldest daughter's family has moved to the coast of Georgia, I started watching the weather and the path of the hurricane. They lucked out and had no damage. Saturday night's thunderstorm gave me some time to watch the weather locally. As the lightning flashed outside our windows here at Crest, I could watch it on the iPad. Seeing the METARs and Forecast is really very good to get a picture of what the weather is and should be coming up.

(Continued on page 3)

This month:

Thursday 12 September
7:30 PM
Boeing Field Terminal
East side of the field

Meeting Topic:
Early Jet Engine Development
by
Reiner Decher

FUTURE EVENTS
10 October 2019

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SOLIDWORKS Education Premium Now Free for EAA Members

Marie Planchard of DS SolidWorks notified EAA that its members would now have access to a version of SOLIDWORKS that had previously only been made available to engineering schools — SOLIDWORKS Education Premium.
The new version extends the functionality to include all modules requested by EAA members including but not limited to:

- Simulation Flow and Simulation Premium
- Electrical Professional Schematic and Electrical 3D
- Visualize Professional
- PCB EDU Edition

View the full version comparison: **SOLIDWORKS Product Matrix**

EAA Preparing Comments on Amazon Petition for Exemption From Part 135

EAA is preparing public comments based on a petition filed by Amazon last month for an exemption for its drone delivery program from a host of rules, covering topics from airworthiness certification to operations policy.

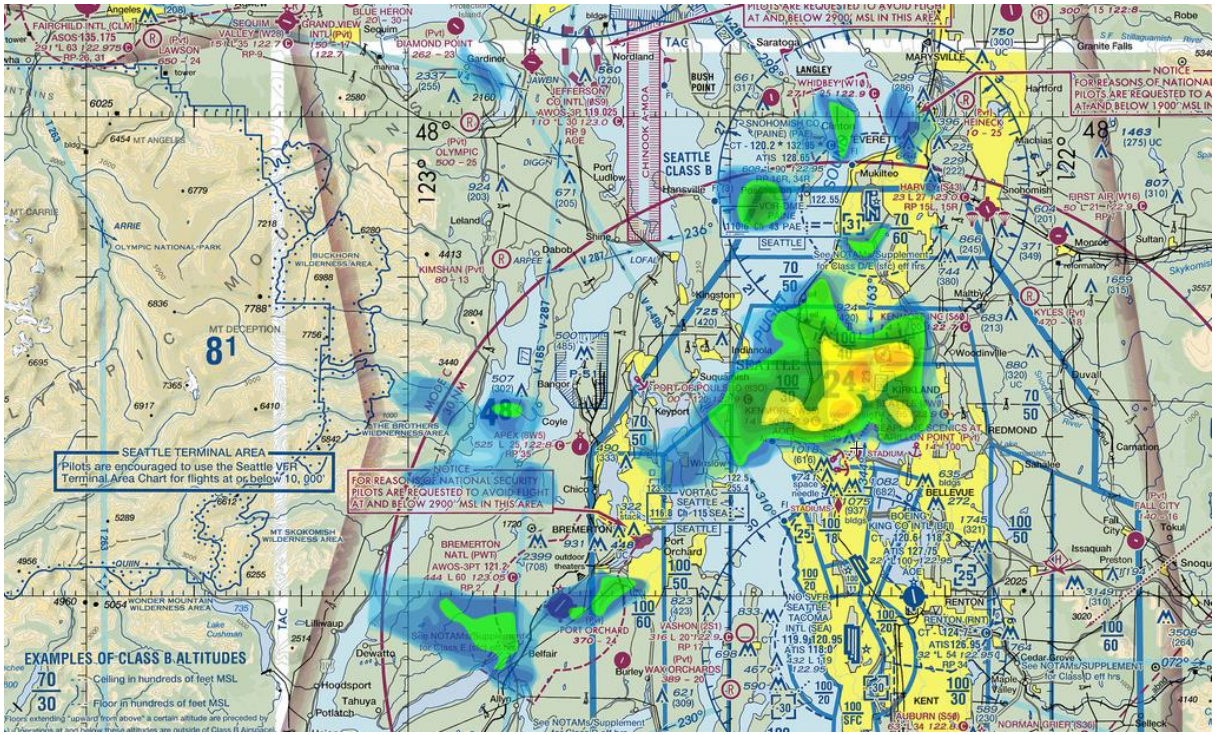
As always when UAS is concerned, EAA's position is that GA gets the absolute right of way over UAS, retains the freedom to fly everywhere that GA pilots currently can, and receives no new equipment mandates. EAA is reviewing Amazon's petition with a critical eye toward any elements that would infringe on any GA user's ability to safety navigate the airspace.

President's Letter (Continued)

The storm was building and moving pretty fast. I watched it from 8:00 to about 9:30. I could see the progress and watch the colors changing. I am not sure how much delay is on the picture but if you were trying to fly into or near this weather you would have a better idea of what to expect. It was dark and the clouds were all over, so any kind of flying in it would have been bad. An airplane came close over Crest just about 8:15, before the lightning got too close. I hope it landed! The weather made a bee-line right to the red TFR circle over the Husky football game and shut it down for about two hours. At about 8:00 the weather was fine in Seattle. We were listening to the game on the radio and the announcer had commented on the lovely weather for the game. In less than thirty minutes the line of weather just went right up over the game!

The more I use this iPad, the more info that is there, it is quite impressive. I am still using paper charts as back-ups and call weather on the phone. Too old school I guess, but they don't overheat and quit.

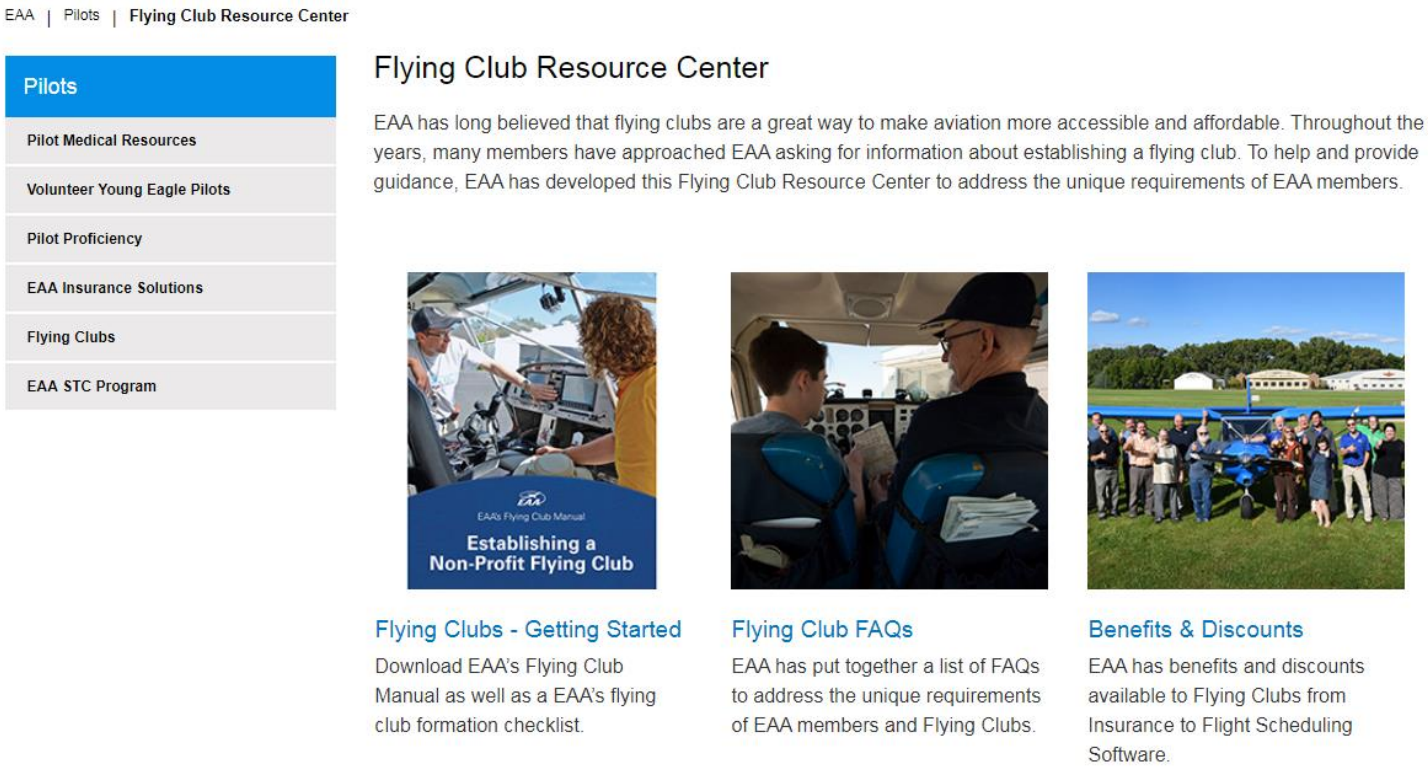
A few months ago we had a couple of docents from the Museum of Flight as visitors. They had some interesting stories so we asked if they would come back and share sometime. The time has come! Our meeting this month is presented by Reiner Decher. He will give a personal history of the early jet engine.



Should the members of EAA Chapter 26 make a flying club?

A Proposed Flying Club Inside Our Chapter
Who would like a low cost flying club inside the chapter? Needed are interested, capable people to make it work.
EAA national will allow a flying club within an EAA chapter only if the chapter does not own it or run it. But people within the chapter can form and own a flying club and airplane.
I am interested in buying a suitable homebuilt two-place airplane for use by a flying club. The flying club would require its members to also belong to Chapter 26.
I have investigated buying an airplane, that I can do. But I realized our chapter would need volunteers who want to fly and would be willing to do the people part of making the club work. People who would be responsible for the flying club members, the airplane and all it would take to make a club be successful and flourish.
I think in a city of half million people, like Seattle, there must be people who want to fly and to learn to fly. But are there people in our chapter willing to make it happen?

-Ron Borovec



1933 interesting aircraft – Stipa Caproni

The Stipa-Caproni

Also known as the “Flying Barrel”, this unique airplane was the brainchild of Italianaviation engineer Luigi Stipa and still is counted among the strange aircrafts that actually existed. After deeply studying the principles of fluid dynamics, he believed that if the engine and propeller were to be enclosed in a tapered tube like structure, the overall thrust output would be increased. He called his design the “intubed propeller”.

To test his theory he approached renowned Italian airplane maker Caproni in 1932, and began working on the prototype. The Stipa used a 120 hp De-Havilland Gipsy 3 engine, attached to a twin blade wooden propeller. The whole assembly was enclosed inside the over-sized tubular fuselage of the airplane. The results of the test flight proved that the new design was an aerodynamic miracle. Despite the weak engine and short wingspan of the test airplane, the aircraft showed great stability. It was however unable to attain a high speed because of the large amounts of drag generated by the fuselage. This restricted the top speed of the airplane to just 81 miles per hour. However Luigi did not care about the top speed. The readings proved that his design was fit to be applied to engines of larger aircraft such as personnel carriers and commercial airliners.

Luigi then approached the Italian Government and requested for funding to take his intubed propeller design to the next level. Even though the test pilots confirmed the benefits of his design, the government was more interested in speed, owing to the renewed interest in military aircraft design. Hence the Stipa Caproni project was scrapped.

On The Wreckord

By: Ron Wanttaja

Sonex – North Carolina: During initial climb for the local flight, about 3,000 ft mean sea level, the propeller separated from the airplane and fell to the ground. The pilot turned the airplane toward an airport that had a longer runway than the departure airport and attempted to glide the airplane to the runway. However, the airplane did not have sufficient altitude, and it subsequently impacted trees about 600 ft short of the runway. No injuries to either of the two occupants.

Photographs of the crankshaft revealed that it fractured just aft of the propeller mounting hub/flange. The fracture surfaces on the hub exhibited features consistent with fatigue crack propagation through the wall thickness of the crankshaft and the subsequent overstress fracture of the remaining portion of the crankshaft. Review of maintenance records revealed that the airplane had sustained a propeller strike about 7 years before the accident. After that event, the pilot/owner, who performed his own maintenance, replaced the propeller; however, he did not disassemble the engine or otherwise document any inspection or replacement of the crankshaft in the airplane's maintenance records.

On The Wreckord

By: Ron Wanttaja

Kitfox – Michigan: While on the downwind leg of the traffic pattern for landing, the pilot heard a "clunk" sound from the front of the airplane; however, the propeller continued to rotate and the engine appeared to be operating normally. The pilot continued to the base and final legs of the traffic pattern and attempted to add engine power, but the engine "overreved." The airplane lost altitude as it neared the runway and touched down on the parking apron, then continued into a ditch, where it nosed over and came to rest inverted. A postaccident examination revealed that the propeller gearbox had failed in flight. All of the drive gear and propeller drive teeth were either worn or destroyed, and the gearbox drive gear displayed discoloration and heat signatures consistent with oil starvation. Additionally, there was no usable oil present in the gearbox, and no evidence of an oil leak. Although the airplane owner stated that he had added oil to the gearbox before the flight, it is likely that the flight departed with an insufficient oil supply in the propeller gearbox, which resulted in subsequent oil starvation. One minor injury. (11/3/2015)

On The Wreckord

By: Ron Wanttaja

Zenith CH-701 – Florida: The pilot was positioning the airplane that had neither been flown nor received a condition inspection in about 4 years. Witnesses near the accident site reported that the airplane was rocking back and forth when one or both wings folded up and back. The airplane entered an uncontrolled descent, impacted the ground in a residential area, and was destroyed by a postcrash fire.

Metallurgical examination of the wings' front and rear struts revealed severe internal corrosion in all the struts and multiple separations. Lack of bending deformation suggested that the initial failure of the wing struts occurred in the left wing forward strut, likely as a result of normal operational loads applied to a severely corroded strut with a severely reduced cross-sectional area. One fatal. (11/6/2015)

NEWSLETTER

Chapter 26

EXPERIMENTAL AIRCRAFT ASSOCIATION

September 2019

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