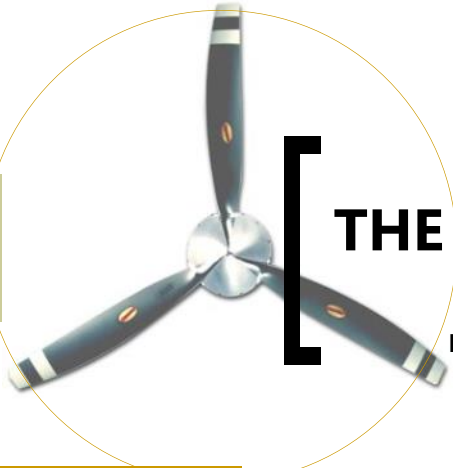


THE SLIPSTREAM

THE NEWSLETTER OF GREEN RIVER EAA CHAPTER 441 KENT, WA
DECEMBER 2019



PRESIDENTS COLUMN, KITFOX UPDATE

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SPECIAL POINTS OF INTEREST:

ADSB-Out Reminder:
 New Years day is one week away. If you haven't equipped with ADSB-Out, yet, it might be tough to fly next week. Because we live within the Class B veil, ADSB-Out will be REQUIRED after 1 January. See the AOPA article for details:
<https://www.aopa.org/news-and-media/all-news/2020/january/pilot/ads-b-in-2020>

Presidents Column:

The Winter Solstice is finally here! The shortest day of the year. This year, it's accompanied by the 5th wettest period in recorded history in the Northwest! The combination of short radiated sunlight AND heavy cloud cover made things particularly dark.

I'll admit I think I am adversely affected by SAD. The gloom of winter here in the Northwest, when we go to work in the dark, come home in the dark, and experience poor visibility in between is just plain exhausting. I feel tired more of the time. Motivation to get out into the shop after dinner wanes (or maybe it's the need to be in bed by 9PM to support a 04:30 alarm the next morning...both seriously dark). For whatever reason, I find it just icky.

This past week was particularly bad for me not just because of the darkness, but the torrential rain we've endured for the past several days has made the commute almost unbearable. Two and a half hours to get home in the afternoon after work is quickly becoming unacceptable.

But, and this is the best part of 21 December: The shortest day of the year and the longest night of the year is followed immediately by more and more daylight EVERY day from now until the Summer Solstice. Hurray!

Days are getting longer, lighter, and my mood is bound to turn around.

With the holiday break from work upon us, I feel a suddenly renewed motivation. I have written a list of things I want to accomplish in the shop over the next week. It's still dark outside, but I can make it lighter in the shop. It's still chilly outside, but I can wear a sweatshirt and put the heater on.

As Jake reminds us, there is the flying season and then there is the workshop season. We are smack in the middle of the latter, and I'm starting to get excited about it. Roger will tell us to "build straight", and that's so when the flying season comes around I can remind everyone to "Fly safe".

Build safe.

Brian

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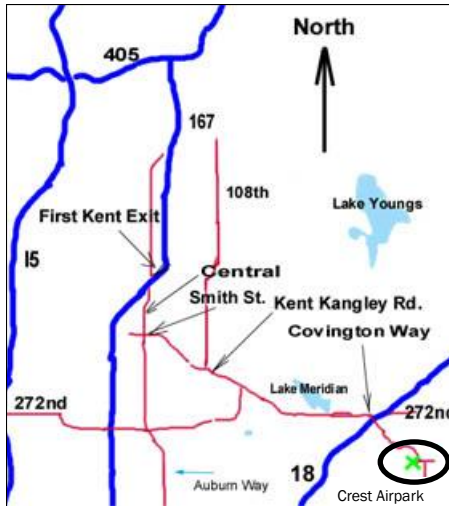
We got the Tail Beacon installed in the baby Cessna just before Christmas, and got the FAA performance report on Christmas Eve. Whew!

Brian

Kitfox Update:

When painting it's important to not forget an interim step. The water-

WHERE DO WE MEET THIS MONTH?



Meets 4th Mondays 700 pm
17605 SE 288th PL, Kent
The Mellema Hanger



DECEMBER

Christmas Party

Program

Christmas Party that occurred on December 14, 2019

We return to the normal meeting in January

2019

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KITFOX UPDATE CONTINUED, DARINS RV ADVENTURES, PIETENPOL UPDATE:



borne Stewart System uses a strong soap followed by wiping with alcohol to prep the surface. In my case I forgot the alcohol step and found the paint peels off in sheets. I guess peeling it off it easier than having to hand sand it all. Fortunately, I only did this on the lower cowling.

Happy Holidays!

Steve

Darin's RV Adventures:

Prepping for last skin riveting

Much of my time recently has been focused on getting tasks complete that will allow me to rivet the forward top skin to the fuselage. This

skin is the last skin and major riveting job on the airplane! I think I'm about there.

One task that is not shown below in pictures is some time I spent (on a nice sunny day) sanding and forming both doors for an 1/8" gap around the perimeter. This gap will be filled with some 1/8" thick high density foam and then a layer of epoxy/micro will be added to both sides to make a nice consistent and even door to cabin top transition (after lots of sanding.)

I installed and torqued the rudder pedals. I also fabricated and installed the brake lines. I used PTFE -4 stainless braided hose and I replaced the plastic Tee with an aluminum one. Because my master cylinders are behind the

pedals it was a little harder to find a routing that would not put excessive stress on any part of a hose or impede movement of the rudder pedals.



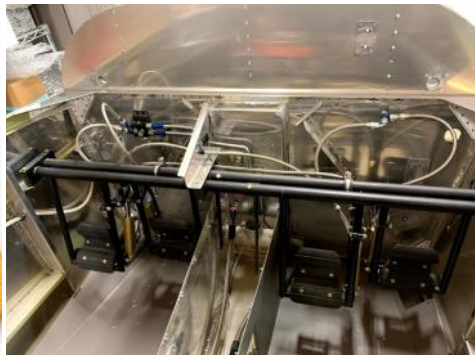
This is a picture of the back side of the pedals. You will notice that in the lower ports I used 90 degree fittings and the upper ports I used nipples with the 90 degree fitting on the hose. No particular reason other than that I had the fittings available and I was hoping this would allow for more room for the hoses to pass each other during the swing. I don't know that it made a difference but it didn't hurt anything either.

Darin

To Read More: [Click Here](#)

Pietenpol Update:

The Christmas gathering was a nice afternoon. Thx to whoever contributed the vintage cockpit light...! My mahogany propeller is being created as we speak but have no other direct progress to



TECH COUNSELORS AND FLIGHT ADVISORS



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.



GUESS THAT AIRPLANE; GUESS THAT ENGINE

This months entry:

Go to Page 9 for November's airplane

This months entry:

Go to Page 10 for Novembers Engine



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PIETENPOL UPDATE CONTINUED, EDITORS CORNER, NOVEMBER GATHERING MINUTES:

report on the Pietenpol.

Jake

Editors Corner:

The Christmas party was great and the conversation flowed really well. Naturally the white elephant gift exchange was the highlight. There were a couple of steals and I had fun stealing a book from one of the ladies who ultimately stole it back from me, well played! The December issue will focus on the Christmas party, enjoy the photos.

Of course the Christmas party marks the end of the year. This one, also marks the end of another decade. Since the average length of a resolution is only about 3 weeks, I don't want to belabor resolution making, but since a new decade is upon us, I would like to suggest a review of what you want to accomplish during the next decade.

What new flying, maintenance or building skills are you interested in learning? Is there a different airplane in your future? Will it be the same, or maybe at the other end of flying? Add an example, I really like seeing Brian doing something with gliders. I would like to do something with electric motors, maybe combining gliders and self launch via electric motor.

December for me was consumed with elder care, but that is settling down as the flurry of nurse and therapy visits are coming to a close. It is more time to restart my building process.

I'm really looking forward to the next decade.

Build straight

Roger

November Gathering Minutes:

Brian:

Signed a few log books for flight review based on the gathering program. Talked about the white elephant gifts from years past.

Normandy aircraft to operate out of tent Auburn. Need hanger space for tinkertot. Moved twin into another hanger.

Looking for help cleaning out the shop. Talked about annual reviews.

Rouse interested in kit plane RV9

Steve Cameron last visit 2011. Ordered highlander should be delivered in four months

Scott still looking at kitfox, rv's

Mel: lots of house work.

Mark: flying into Darrington following Andy to get tacos. Mt east of airport supposed to land to east take off to west. Recounted wheel pants

Doug: working on hotrod kit close to starting engine. Brakes work. Has Garmin 96 portable had kg radio 155. Auburn Christmas party Dec 13.

Stan: new tires for warrior

Ron: thought he would have airport to himself after retirement Writing on accident with fires for Kitplanes 30% fatal.

Brett: had engine out issue. Talked about it

Norm: have aluminum sheet, plate c and z angle various lengths and thickness for sale by pound

Bruce: some flying, working on panel.

Tom: flew Saturday

Steve: nothing

David hooking up led lights plans to fly it after first of year

Sam: on the team that bedded down the F-16 in Germany.

Bill tail adsb beacon installed

December Christmas Party:

Here are a few photos from the Party.

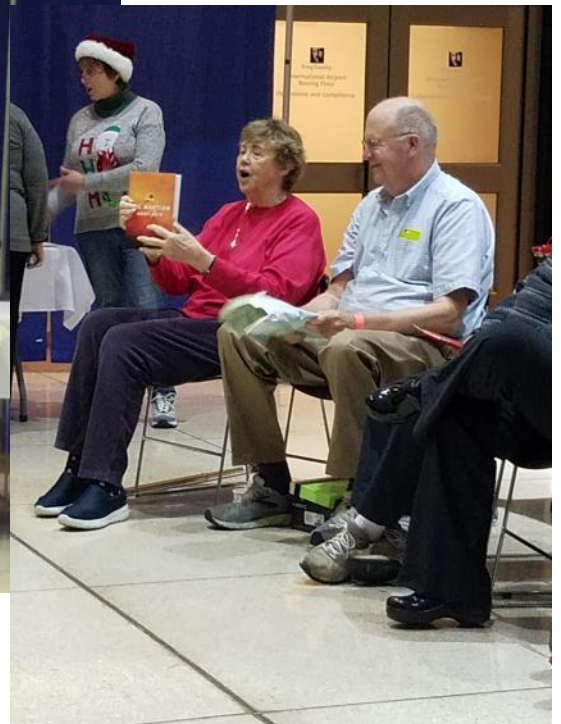
Sorry Jerry, just missed getting you in.



CHRISTMAS PARTY PHOTOS:



DARINS RV ADVENTURES, CONTINUED, EDITORS CORNER:



DECEMBER CHRISTMAS PARTY:



A WWI Front line Aerodrome set-up: both German and Allied



A Steal about to happen!



GUESS THAT AIRPLANE:**The Saunders-Roe SR.45 Princess**

The Saunders-Roe SR.45 Princess was a British flying boat aircraft developed and built by Saunders-Roe at their Cowes facility on the Isle of Wight. It has the distinction of being the largest all-metal flying boat to have ever been constructed

The Princess had been developed to serve as a larger and more luxurious successor to the pre-war commercial flying boats, such as the Short Empire. It was intended to serve the transatlantic route, carrying up to 100 passengers between Southampton, United Kingdom and New York City, United States in spacious and comfortable conditions. To achieve this, it was decided early on to make use of newly developed turboprop technology, opting for the in-developed Bristol Proteus engine to power the aircraft. The project suffered delays due to difficulties encountered in the development of the Proteus engine

On 22 August 1952, the first prototype Princess, G-ALUN, conducted its maiden flight. Between 1952 and 1954, the first prototype performed a total of 47 test flights, including two public appearances at the Farnborough Airshow.[3] This work was carried out under a development contract for the Ministry of Supply, the intention being that this would lead to a contract for the aircraft from British flag carrier British Overseas Airways Corporation (BOAC). Although the initial development contract had been successfully met, BOAC eventually decided to focus on its land-based routes using the jet-powered De Havilland Comet instead. The era of the large flying boat had effectively ended prior to the aircraft's completion.

To Read More:

Wikipedia: [Click Here](#)

Air and Space Magazine: [Click Here](#)

World War Wings: [Click Here](#)

Military Factory: [Click Here](#)

General characteristics

Crew: 2 pilots, 2 flight engineers, radio operator and navigator

Capacity: 105 passengers in tourist and first class cabins / 137,000 lb (62,142.2 kg) disposable load



Length: 148 ft (45 m)
 Wingspan: 219 ft 6 in (66.90 m) with wingtip floats retracted. 209 ft 6 in (63.86 m) floats extended.
 Height: 55 ft 9 in (16.99 m)
 Wing area: 5,019 sq ft (466.3 m²)
 Airfoil: "Saro-modified Goldstein section" to "modified N.A.C.A. 4415 Series" at tip[27]
 Empty weight: 190,000 lb (86,183 kg)
 Gross weight: 330,000 lb (149,685 kg)
 Max takeoff weight: 345,025 lb (156,501 kg)
 Fuel capacity: 14,000 imp gal (63,645.3 l; 16,813.3 US gal) in four integral inner wing tanks.
 Powerplant: 4 × Bristol Coupled-Proteus 610[a] turboprop, 5,000 hp (3,700 kW) each + 1,660 lbf (7.38 kN) residual thrust at 10,000 rpm at sea level[28][b]
 Powerplant: 2 × Bristol Proteus 620 Turboprop engines, 2,500 hp (1,900 kW) each + 820 lbf (3.65 kN) residual thrust at 10,000 rpm
 Propellers: 4-bladed de Havilland constant speed, quick-feathering Duralumin propellers.[30], 16 ft 6 in (5.03 m) diameter

Performance

Maximum speed: 380 mph (610 km/h, 330 kn) at 37,000 ft (11,000 m)
 Cruise speed: 360 mph (580 km/h, 310 kn) at 32,500 ft (9,900 m)
 Stall speed: 113 mph (181 km/h, 98 kn) flaps and floats down
 Range: 5,720 mi (9,210 km, 4,970 nmi)
 Endurance: 15 hours
 Service ceiling: 39,000 ft (12,000 m) absolute
 Rate of climb: 1,900 ft/min (9.7 m/s) at 184 mph (296 km/h; 160 kn) at sea level

GUESS THAT ENGINE:**Salmson 9 AD**

Emile Salmson's French general engineering firm entered the aircraft engine field in 1911. Its earlier engines were water cooled radials based on a Swiss Canton-Unne patent. The Société des Moteurs Salmson introduced the air cooled 9AD in 1925. Private pilots in the United States and Europe used it extensively in light sport aircraft. A French Albert TE-1 aircraft equipped with a 9AD captured a light plane altitude record in 1926 of 6,096 meters (20,000 feet).

Design and development

The 9 AD followed Salmson practice after the First World War, of being air-cooled and utilizing the Canton-Unne epicyclic geared crank-case system. The major attributes of the engine include a bore of 70 mm (2.76 in) and stroke of 86 mm (3.39 in).

To Read More:

Wikipedia: [Click Here](#)

Wikipedia: [Click Here](#)

Air And Space: [Click Here](#)

Flight Global: [Click Here](#)

Books: [Click Here](#)

General characteristics

Type: 9-cylinder air-cooled radial piston aircraft engine

Bore: 70 mm (2.76 in)

Stroke: 86 mm (3.39 in)

Displacement: 2.979 l (181.79 cu in)

Dry weight: 68 kg (150 lb)

Performance

Power output: 33.56 kW (45 hp) at 2,000 rpm

Photo lower right:

French aviation pioneer Maryse Hilsz (1903–1945) holding the propeller of her Mauboussin M.122 is about to attempt a new flight altitude record in 1935. Agence Meurisse

