VOLUME 21, ISSUE 8

THE SLIPSTREAM

THE NEWSLETTER OF GREEN RIVER EAA CHAPTER 441 KENT, WA

AUGUST 2019

INSIDE THIS ISSUE:

SPECIAL POINTS OF INTEREST:

ALL IFR FLIGHT PLANS WILL BE USING THE ICAO FORM STARTING 27 AUGUST.

PRESIDENTS COLUMN

Presidents Column:

Oshkosh 2019

Oshkosh is in the books for another year. According to the numbers, it was a good year. I found it hot and sticky, but all in all, a good time.

Getting there was sort of interesting. I went early, so as to avoid the Rip-on arrival, leaving early Thursday morning, and planning to go in one day. Had to file out of Auburn, it was about 1200 overcast. On top at 8500, just this side of Ellensburg. I chose to go at 13000 to take advantage of the howling tailwind. Over the Continental Divide, the tops of the clouds came up to meet me. In the tops of the cumulus clouds, I started getting ice. The leading edges and spinners turned white. Knowing the tops were not far above, I asked for a block 13-15, and it was granted. Pushed the power up to climb, and didn't get much climb. Airspeed was decreasing. Prop heat to the rescue, a climb was established, and soon I was again in the clear.

But that howling wind was still howling. My first fuel stop, Great Falls was reporting 240 at 27G47. You read that right: forty-seven knots! I landed on runway 22. Interesting challenge. Next stop: Minot, ND to drop off some cargo for Jonathan. There, the wind was only 18G36. I thought "After Great Falls, this will be easy!". Unloaded the boxes, hugged the grandkids, and off to Princeton, MN for inexpensive (less than $4) fuel. But the runway was so rough I think I lost a filling. The briefer could not seem to decipher the weather from Minnesota into Wisconsin, so I just filed an IFR flight plan and went on my way. Turns out the weather was not particularly bad, but it's good practice to fly "in the system", even if you don't have to.

Topped the tanks and tied down at OSH. It rained Thursday night, but not bad. Friday night it really rained. Jack Pelton said 2.5 inches. Saturday morning showed not many puddles on the pavement, but the low-lying areas in the grass were really wet, and the water in the ditches was running. Saturday morning, I volunteered at the Chapter 252 pancake breakfast. I was on my bicycle on the perimeter road when the storm hit just before noon. That one produced 6 inches of rain. They say an average thunderstorm lasts 90 minutes. That one was 75. I spent those minutes standing under the eve of the shower building in the North 40.

The campground was a sloppy mess. Like 2010, campers were parked on every paved spot all over town: the Walmart parking lot, the abandoned strip mall, everywhere, until about Tuesday afternoon, when things began to dry out.

This year, I served as a homebuilt judge, and looked VERY CAREFULLY at lots of airplanes. Perhaps I'll prepare a presentation on that experience. It was a good one. The judges work very hard from 08:00 till 5PM

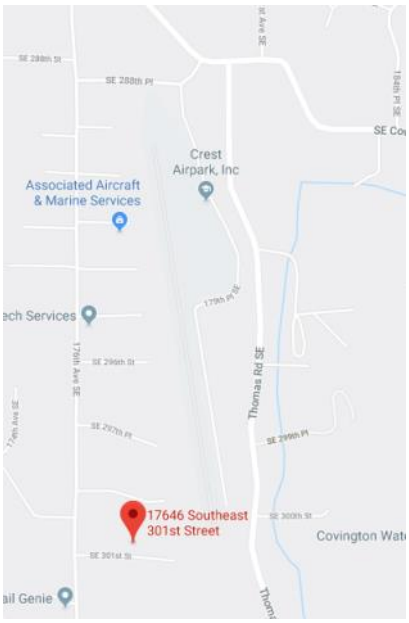
WHERE DO WE MEET THIS MONTH?

7 PM

Bill Jones Hanger:

17646 Southeast 301st St

Kent, WA



AUGUST PROGRAM

TIG Welding Demo

Program

Meeting this month is at a different location: we'll meet at Bill Jones' hangar. See the address in the notice. Bill will talk to us about welding, specifically TIG welding, and give anyone the opportunity to give it a try.

2019

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PRESIDENTS COLUMN CONTINUED, PIETENPOL UPDATE:

every day. Honestly, I did not get much free time to "observe", but I did look at a lot of airplanes. I'm planning to do that again next year. The judges are a great group of characters, and what a wealth of knowledge! Wow.

The trip home also went through Minot, with more goodies for Jonathan. Wind was not much of a factor going westbound, for which I was thankful.

Back home, all enthused about building again. Eager to get back into the shop.

Fly safe.

Brian

Meeting this month is at a different location: we'll meet at Bill Jones' hangar. See the address in the notice. Bill will talk to us about welding, specifically TIG welding, and give anyone the opportunity to give it a try. Should be fun. I'm looking forward to it.

Another note: FAA has decided that all IFR flight plans will be using the ICAO form starting 27 August. You may recall we did a brief training event on the form when FAA threatened it last time. They say they're serious this time. A "simplified" set of instructions is available on the FAA web site. Similar information is in the new AIM: make sure you've brushed up on that. FSDO folks I talked to at OSH did not know the change was scheduled. Many just said they use Foreflight or similar, and just fill in the blanks. Many also said the flight service briefers should be trained, so let them hold your hand when you need to file. I can hardly wait.

Next Meeting:

Our next meeting will be Monday August 26 at 7pm. The location is still Crest Airpark but at the opposite end of the runway: 17646 SE 301st St Kent, WA 98042 for those driving. Taxiway India (4th house down on south side) if flying. The topic will be a discussion of welding/frame building with emphasis on TIG. Following this, anyone interested will be given the opportunity to practice TIG welding on steel. If you would like to weld, best wear or bring a long sleeve work shirt. Everything else will be provided.

Pietenpol Update:

Hello 441,

Been a busy month on the 1931 Pietenpol Air Camper project.

Spent a good deal of time getting the landing gear support structure cut and fit. This is the structure below the main gear legs when the springs are mounted. The welder (Mike from Ready Weld) came by and spent the better part of the day doing his magic. In addition to the landing gear supports I had built components to support the tailwheel spring and a side step. All went well and these parts are now test

fit in place on the plane. Attached are a few images of the progress…

In addition to the progress on the Piet, Denise and I took our camper to Arlington and had a real nice time. We ran into quite a few people from 441 including Mark and his brother, Ron, and Bruce & Diane. Of particular note

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.

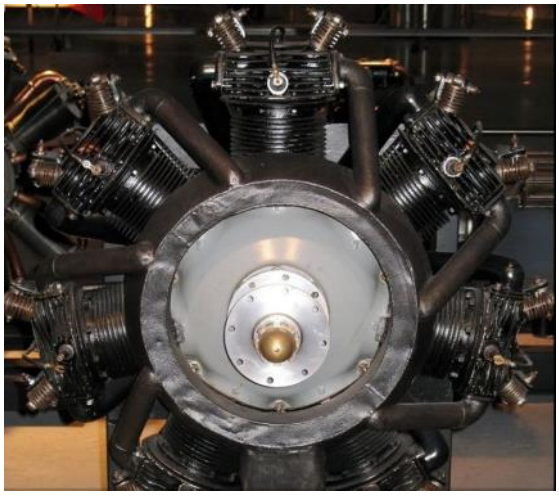
GUESS THAT AIRPLANE; GUESS THAT ENGINE

This months entry:

Go to Page 8 for July's airplane

This months entry:

Go to Page 9 for July's Engine



PIETENPOL UPDATE, CONTINUED:

was the outstanding Spirit of St Louis replica built by John Norman and his wife Heather. It had flown for the first time about two weeks before the show. This was a nine year project and the research included three separate trips back to the Smithsonian with unfettered access to the actual plane. If you ever get a chance to see it I HIGHLY recommend you do so! Attached is a photo of John and I next to his beauti-

ful creation. I also met up with the gentleman who is building up my Model B Ford engine. Elton is also involved with the Spirit of St Louis replica project and in fact, flew John Norman's first Pietenpol (he has built four!) exactly 35 years to the day prior to the Spirit's first flight! Thx for all the good information that has been shared recently between projects!

Having fun a learning a lot…….

Jake Schultz

Darins RV Adventures:

Sturgis - Motorcycle Rally

Granted it was on the bottom of the list but I checked another item off the bucket list. Jeff and I flew to Sturgis SD for a couple of days during the motor cycle rally. We took off Thursday evening and had a nice evening flight to Helena Montana where we stayed for the night. Got up early Friday morning, had a good breakfast, and launched for South Dakota. Sturgis doesn't have a weather station (ATIS) so we had to use Rapid City weather which is a little further east and they were reporting overcast at 300' due to some fog. As we approached we could see that it was breaking up over Sturgis but that Rapid was still socked in. No biggie as we had just enough ceiling at that point to land and set up camp.

Jeff has been here before and knew of the best camping spot on the field. We were protected from much of the weather if any showed up and more importantly we were out of the morning sun! Great spot!

After setting up camp we hitched a ride into town with a friendly local who dropped us off at the end of

DARINS RV ADVENTURES, CONTINUED, STRATUS ADSB OFFER, EAA NEWS:

a long city street filled with motor cycles. Lots to see in the pictures below but let me give you my impressions of Sturgis. That place was nuts! Some of it was not so good (everybody smoked it seemed), but overall the people were friendly, happy, and proud to be American which was very obvious everywhere you looked.

Anyway, here are a few of the pictures we took.

Doors - the beginning

Based on the experiences of others I have decided to do the doors next. This will allow me to fit the strut brackets before I install the overhead console. As such this post begins what I expect to be a couple of months worth of door posts...

First step is to trim the door skins to a more reasonable size and then begin the process of fitting and (even more) trimming to fit the opening in the cabin. The initial trimming is complete, the doors are bonded together, and the final door assembly has been trimmed yet again to fit into the opening. The hinges have been attached and the doors actually operate as intended!

One other item of note is I've moved the fuselage over to the big side of the main garage bay and I've disassembled the divider wall. I can still fit both cars in the garage and I now have room to install the motor mount, tail components, and maybe even the engine (without the tail installed). I did have to order and install a new garage door opener for the small bay and while I was at it I decided to upgrade the lighting in the garage to all LED.

To Read More: Click Here

Stratus ADSB Offer:

Jim Weir has requested we get the word out to EAA Chapters. He's offering a special deal on a Stratus ADS-B package.

https://www.pilotsofamerica.com/community/threads/adsb-in-and-out-oshkosh-special.120763/

His web page has more information, and says that an additional deep discount will be available for EAA members.

Click Here: http://www.rstengineering.com/rst/products/adsb/adsb.htm

Ron Wanttaja

EAA News:

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.

The petition, which was filed with the U.S. Department of Transportation in July, seeks exemption from Title 14 of the Code of Federal Regulations Parts 61, 91, and 135 to permit operations under a Part 135 air carrier operating certificate to be conducted using an unmanned aircraft system (UAS).

Additionally, Amazon seeks an exemption from requirements in 14 CFR 135.25 that a civil aircraft operated in air commerce have an airworthiness certificate, in lieu of final certification for its "MK27" delivery UAS.

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.

EAA Article: Click Here

Prototype Bearcat may have been found:

In 1945, a pilot vanished when he crashed his plane

EAA NEWS CONTINUED, EDITORS CORNER, JULY'S MEETING MINUTES:

in the Chesapeake. Now, the Navy might have found it.

On March 18, 1945, Lt. j.g. David L. Mandt took off from Maryland's Patuxent River Naval Air Station to test out the guns on an experimental fighter plane, the XF8F-1 Bearcat.

A Grumman test pilot is seated in the experimental fighter plane XF8F-1 Bearcat. Navy Lt. j.g. David L. Mandt, who is not pictured, was flying it when he crashed in the Chesapeake Bay on March 18, 1945.

Mandt was a veteran aircraft carrier pilot who had flown in battle off the deck of the USS Bunker Hill in the Pacific. He had shot down Japanese planes. He had been on numerous raids on enemy forces. His plane had been riddled in combat.

To Read the Article: Click Here

Student pilot certifies her teacher: 'I feel like everything comes full-circle'

By Drew C. Wilson

dwilson@wilsontimes.com | 252-265-7818

Five years ago, 15-year-old Abby Martin climbed into the back seat of Frank Kidd's Piper PA-18 Super Cub for her first flight in a small plane.

Fast forward to Monday, when Martin, 20, a certified flight instructor, signed off on Kidd's Federal Aviation Administration-required two-year flight review.

"I feel like everything comes full-circle," Martin said. "I got my certified flight instructor (license) in July, and I haven't used it yet, so he will be my first signature as a CFI, the first person who ever took me flying, so that's pretty cool."

Martin, who is the daughter of Dr. Lew Martin and former state Rep. Susan Martin, is currently a junior at Middle Tennessee State University.

To Read the article, Click Here

Editors Corner:

July has always been the fly-in month for our Chapter.Many of you have gone to AirVenture, (I still want to call it "Oshkosh"), some opf you have stayed local and went to Arlington. Thanks to Jake for the photos from Arlington. I really enjoyed the photo of the Spirit of St. Louis. In the background was a Stinson Reliant (AKA Stinson "GullWing"). At first glance, I had thought that it was a Howrd DGA 15. But I kept thinking, no the wing is shaped wrong as well as the rudder is not quite right, there is only one lift strut versus two on the Howard. Mystery solved.

During July, I bought all of the components for the Stratus ADSB and Heads-Up display as presented by our May Presenter: John Marzulli. I stumbled a bit on getting the software for it and I would appreciate just a bit of help to complete that part of the project.

I am looking forward to our meeting on Monday and getting a chance to get some hints on TiG welding. I hope to see you then.

Build Straight

Roger

July Gathering Minutes:

There was no offical meeting in July as many of our Chapter are out of town for the AirVenture and other local flyins. If you managed to get to AirVenture or one or more of the local flyins, please share your experience, a couple of sentences and a couple of photos. How has it changed, what were the interesting sirplanes that you saw, etc.

Stinson Reliant

GUESS THAT AIRPLANE:

de Havilland Puss Moth
The de Havilland DH.80A Puss Moth is a British three-seater high-wing monoplane aeroplane designed and built by the de Havilland Aircraft Company between 1929 and 1933. It flew at a speed approaching 124 mph (200 km/h), making it one of the highest-performance private aircraft of its era.

Design history
The unnamed DH.80 prototype which first flew in September 1929 was designed for the flourishing private flying movement in the United Kingdom. It was a streamlined all-wooden aircraft fitted with the new de Havilland Gipsy III inverted inline engine that gave unimpeded vision across the nose without the protruding cylinder heads of the earlier Gipsy II engine.

After the prototype was tested, the aircraft was redesigned with a fabric-covered steel-tube fuselage and as such redesignated the DH.80A Puss Moth. The first production aircraft flew in March 1930 and was promptly sent on a sales tour of Australia and New Zealand. Orders came quickly and in the three years of production ending in March 1933, 259 were manufactured in England. An additional 25 aircraft were built by de Havilland Canada. Most were fitted with the 130 hp (97 kW) Gipsy Major engine that gave slightly better performance.

The Puss Moth was replaced on the production line by the de Havilland DH.85 Leopard Moth that, with a plywood fuselage, was both cheaper to build, and lighter weight. Being lighter, the Leopard Moth had better performance on the same rather modest 130 hp (97 kW) Gipsy Major engine.

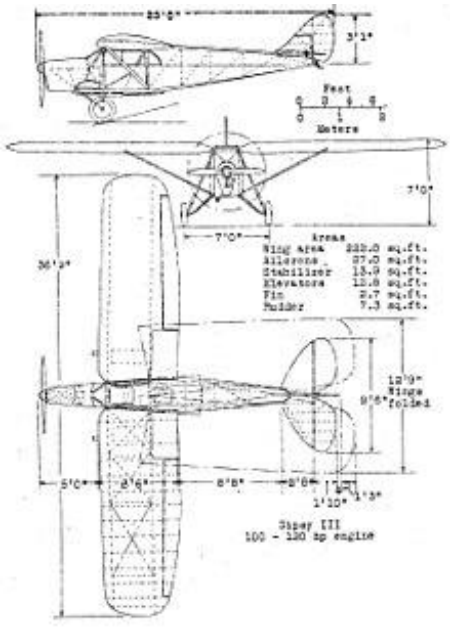
To Read More:
Wikipedia: Click Here
BAE Systems: Click Here
Pilot Friend: Click Here
Canada Aviation and Space Museum: Click Here
This Day in Aviation: Click Here

Specifications (DH.80)
De Havilland Puss Moth 3-view drawing from NACA Aircraft Circular No.117
Data from British Civil Aircraft since 1919 (Volume 2)

General characteristics
Crew: 1
Capacity: 1 or 2 pax
Length: 25 ft 0 in (7.62 m)
Wingspan: 36 ft 9 in (11.20 m)

Height: 7 ft 0 in (2.13 m)
Wing area: 222 sq ft (20.6 m2)
Empty weight: 1,265 lb (574 kg)
Gross weight: 2,050 lb (930 kg)
Powerplant: 1 × de Havilland Gipsy III 4-cylinder air-cooled inverted in-line piston engine, 120 hp (89 kW)
Propellers: 2-bladed wooden fixed=pitch propeller

Performance
Maximum speed: 128 mph (206 km/h; 111 kn)
Range: 300 mi (261 nmi; 483 km)
Service ceiling: 17,500 ft (5,300 m)
Rate of climb: 630 ft/min (3.2 m/s)



GUESS THAT ENGINE:

Rolls-Royce Eagle

The Rolls-Royce Eagle was the first aircraft engine to be developed by Rolls-Royce Limited. Introduced in 1915 to meet British military requirements during World War I, it was used to power the Handley Page Type O bombers and a number of other military aircraft.

The Eagle was the first engine to make a non-stop trans-Atlantic crossing by aeroplane when two Eagles powered the converted Vickers Vimy bomber on the Transatlantic flight of Alcock and Brown in June 1919.

Design and development

Development of the new 20 litre engine was led by Henry Royce from his home in Kent. Based initially on the 7.4 litre 40/50 Rolls-Royce Silver Ghost engine, and drawing also on the design of a 7.2 litre Daimler DF80 aero engine used in a 1913 Grand Prix Mercedes that had been acquired, the power was increased by doubling the number of cylinders to twelve and increasing their stroke to 6.5 inches (170 mm), although their bore remained at 4.5 inches (110 mm) of the 40/50. The engine was also run faster, and an epicyclic reduction gear was designed to keep the propeller speed below 1,100 rpm. To reduce inertia and improve performance the valvetrain design was changed from side valves to a SOHC design,[3] closely following the original "side-slot" rocker arm design philosophy used on the contemporary German Mercedes D.I, Mercedes D.II and Mercedes D.III straight-six aviation powerplants.

To Read More:

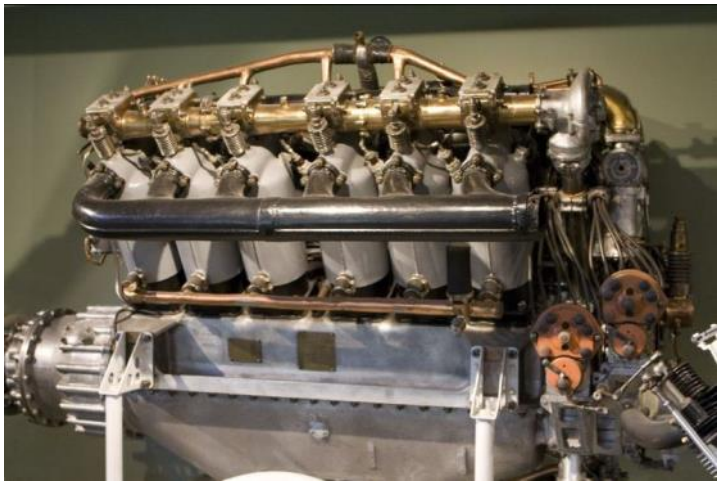
Wikipedia: Click Here
Flight Global: Click Here

Smithsonian Air and Space Museum: Click Here

Specifications (Eagle IX)

General characteristics

Type: 12-cylinder liquid-cooled 60° Vee aircraft piston engine
Bore: 4.5 in (115 mm)
Stroke: 6.5 in (165 mm)
Displacement: 1,239 in³ (20.32 L)
Length: 72.6 in (1,844 mm)
Width: 42.6 in (1,082 mm)
Height: 46.4 in (1,178 mm)



Dry weight: 900 lb (408 kg)

Components

Valvetrain: Overhead camshafts
Fuel system: Twin Claudel-Hobson carburettors
Cooling system: Liquid-cooled

Performance

Power output: 360 hp (268 kW) at 1,800 rpm
Specific power: 0.32 hp/in³ (13.4 kW/L)
Compression ratio: 5.22:1
Fuel consumption: 24 gallons per hour (90 Litres per hour)
Power-to-weight ratio: 0.40 hp/lb (0.66 kW/kg)