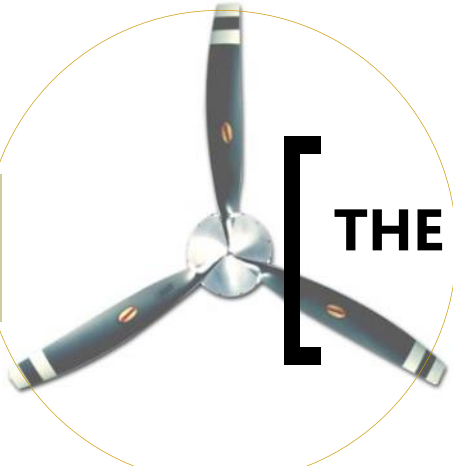


THE SLIPSTREAM

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



PRESIDENTS COLUMN

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SPECIAL POINTS OF INTEREST:

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

Presidents Column:

Technology does not change the rules

I was out flying the other week and heard an interesting exchange on the radio. It seems there were two airplanes at a non-towered field in the local area. They were both in the pattern, and both transmitting their positions. But one was obviously having difficulty seeing the other.

Finally one said "Aircraft in the pattern at XYZ: ARE YOU ADS-B EQUIPPED? [I wrote it in all caps, because that's how he sounded on the radio.]

Then he said "OH DANG, I'M RIGHT ABOVE YOU. I'M TURNING BASE."

This pilot was obviously very intent on looking INSIDE at his fancy display for information about other aircraft in the pattern. It was obvious that he was upset that the other aircraft was not transmitting ADS-B, even though this is not required.

Then the pilot ignored the right-of-way regulations and did not yield to the aircraft at lower altitude attempting to land.

The fact that some airplanes can transmit their location via ADS-B, and some airplanes can see those targets does NOT invalidate the regulations about who gets the right-of-way. More important, after the first of the year, not all airplanes will be

required to have ADS-B, even here inside the Class B veil. Airplanes who don't have to have transponders now, will not have to have ADS-B after the first of the year. Please don't become dependent on the fancy display and depend on it to keep you free of all traffic conflicts. That's what the Mark-1 eyeball is for.

Fly safe.

Brian

Program:

Our program on Monday will be Stan Kasprzyk speaking about how to safely fly in formation with another aircraft.

Brian

Pietenpol Update:

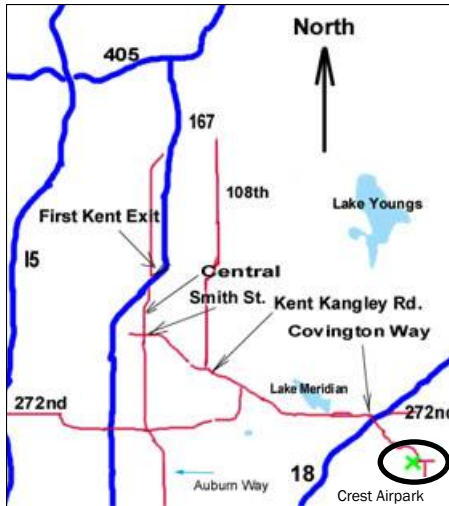
Hello 441,



Progress continues on my 1931 Pietenpol Air Camper project.

This month I continued to focus on the landing gear – in particular the tailwheel and bracket. The "Matco" tailwheel and bracket arrived from Utah and I MAY use it at some point, but I wanted to use the 1931s vintage

WHERE DO WE MEET THIS MONTH?



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



OCTOBER

Safely flying in formation

Program

Our program on Monday will be Stan Kasprzyk speaking about how to safely fly in formation with another aircraft.

2019

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PIETENPOL COLUMN CONTINUED, DARINS RV UPDATE, MUSEUM OF FLIGHT:



“Heath & Co.” bracket I found at the Arlington Fly-In a few years back. I have been unable to locate (so far) a period-correct wheel and tire so I machined a set of bushings on my lathe that allow me to mount the Matco wheel on to the Heath bracket for now. I could also mount the entire Matco bracket at some point if I want to have a castering/locking bracket. (See the picture of the Matco bracket/wheel mounted on the tail spring.) I like the appearance of the vintage



bracket much better and it's 1/2 pound lighter than the Matco. So I have options.

Lots of other parts in-work right

now and I should be able to provide an update on them next month.....!

Enjoying the adventure and learning a lot.....

Regards,
Jake Schultz



Darin's RV Adventures:

Take one item off the list and add three more!

The list keeps getting longer! Every time I tackle one task I find three more that need to be added. Oh well, its lots of fun.



Door struts installed and doors in up position! Very cool!

Much of the build time this week was composed of my trying to figure out where everything will fit under the panel. I made good progress and have fitted the following items. The VPX, Engine bus fuse panel, Accessory bus fuse panel,

backup power bus fuse panel, two ADAHRS, GAD 29, SDS ECU case, two voltage regulators, and the GEA24. I've also located where I plan on putting the backup battery as well as its related parts (solenoid).

To Read More: [Click Here](#)



Darin

Museum of Flight:

Film Screening: Return to Hardwick

Saturday, October 26

1:00 PM to 3:00 PM

Michael Cudlitz from HBO's Band of Brothers and filmmaker Mi-



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.



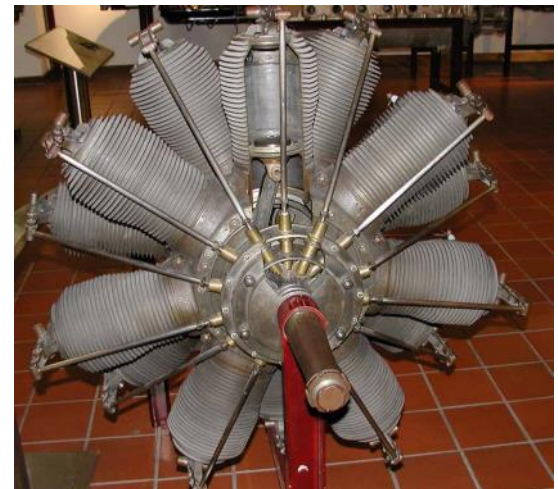
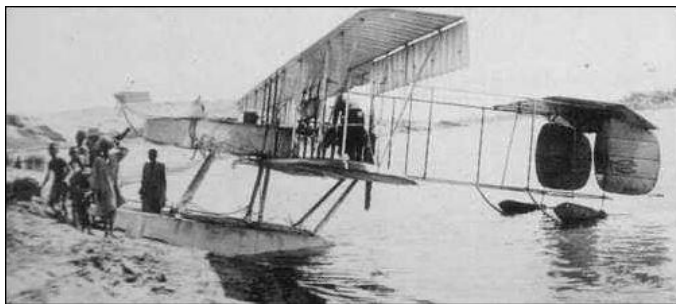
GUESS THAT AIRPLANE; GUESS THAT ENGINE

This months entry:

Go to Page 8 for September's airplane

This months entry:

Go to Page 9 for Septembers Engine



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MUSEUM OF FLIGHT CONTINUES, EAA NEWS:

chael Sellers join us for a screening of the documentary Return to Harwick and a conversation about the 93rd Bomb Group, the most decorated, most traveled and most effective bomb group of WWII.

This event is FREE with Museum admission!

To Read More: [Click Here](#)

EAA News:**NTSB Releases Preliminary Report on B-17G Nine-O-Nine Accident**

National Transportation Safety Board Aviation Accident Preliminary Report:

Boeing B-17 10/2/2019

On October 2, 2019, at 0953 eastern daylight time, a Boeing B-17G, N93012, owned and operated by the Collings Foundation, was destroyed during a precautionary landing and subsequent runway excursion at Bradley International Airport (BDL), Windsor Locks, Connecticut. The commercial pilot, airline transport pilot, and five passengers were fatally injured. The flight mechanic/loadmaster and four passengers were seriously injured, while one passenger and one person on the ground incurred minor injuries. The local commercial sightseeing flight was conducted under the provisions of Title 14 Code of Federal Regulations Part 91, in accordance with a Living History Flight Experience exemption granted by the Federal Aviation Administration (FAA). Visual meteorological conditions prevailed in the area and no flight plan was filed for the flight, which departed BDL at 0947.

On the morning of the accident flight, an airport lineman at BDL assisted the loadmaster as he added 160 gallons of 100LL aviation fuel to the accident airplane. The lineman stated that the accident airplane was the first to be fueled with 100LL fuel that day.

To Read More: [Click Here](#)

Caught on Camera: Scary Approach:

Sometimes the most powerful learning experiences are the ones you wish never happened. On this short flight, two experienced pilots nearly ended up becoming a statistic.

It was only by chance that the cameras were running and caught it all for later analysis. Here's the behind-the-scenes story of the accident that almost—but

didn't—happen.

To see the video: [Click Here](#)

National Geographic joins search for Amelia Earhart:

Ocean explorer Robert Ballard, discoverer of the Titanic, is setting out to search for Amelia Earhart's airplane. Watch a preview of the two-hour National Geographic special premiering October 20, 2019.

To watch the promotional Video, [Click Here](#)

EAA Concerned With Proposed Airspace Legislation:

Last week, Sen. Mike Lee (R-Utah) introduced the Drone Integration and Zoning Act, a bill that seeks to take control of the national airspace out of the federal government's hands and allow multiple parties to divide the lower levels of the airspace in an attempt to integrate unmanned aircraft systems (UAS).

EAA's long-standing position has been that federal preemption of airspace regulation is paramount to a successful and viable national airspace system. Dividing the national airspace into a patchwork of state, local, and tribal jurisdictions will only serve to impede growth and safe UAS integration, and make interstate commerce via the airways impossible.

To Read More, [Click Here](#)

Lilium releases new footage of air taxi as it completes early flight testing and builds first manufacturing facility**Media Releases**

Lilium Jet completes first phase of flight testing, now flying at speeds exceeding 100 km/h

First flying taxi manufacturing facility built, second facility under construction

Industry veteran Yves Yemsi hired to lead Lilium Jet program

Company remains on track to offer full passenger operations in several locations worldwide by 2025

MUNICH 22 October 2019: Lilium, the Munich-based startup developing a revolutionary on-demand air mobility service, has today released new footage of its all-electric Lilium Jet as it celebrates completing its first phase of flight testing, a milestone it has reached less than six months since starting its flight test campaign.

EAA NEWS CONTINUED, EDITORS CORNER, SEPTEMBER GATHERING:

The Lilium Jet, the world's first five-seater, all-electric, vertical take-off and landing jet, was revealed to the world in May 2019 and since then has been put through its paces at an airfield in southern Germany. The emissions-free aircraft, which will be able to complete journeys of up to 300 km in one hour on a single charge, has now been flown at speeds exceeding 100 km/h, in increasingly complex maneuvers.



To Read More: [Click Here](#)

Editors Corner:

I am slowly adjusting to the notion and time flows of retirement. I was speaking with a neighbor who had retired 3 years ago. He asked me how it was going and I said I probably have another 6 months of adjustment to it. He laughed and said that even after three years, he was still adjusting to it.

I am working on getting a slightly more scheduled routine and am not as frantically running around. I have been practicing more Yoga and have started to feel the affects of improved strength and stamina as well as a little bit of weight loss, about 10—13 lbs.

While researching the Lincoln Sport Biplane, I was having some difficulty in getting information on it. I even expanded my search out to the modeling community and found a huge slew of information. That is how I found the website with the specifications for the Lincoln Sport Biplane. The model had used the actual drawings from the Lincoln Airplane company and had several references that I included in the Answer for Septembers Guess that Airplane.

I did not include the reference to the January 1956 EAA Experimenter Magazine. If anyone has a copy

could you bring it to the Gathering this Monday? I would love to look at it.

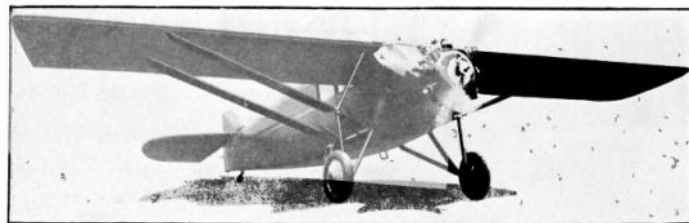
There has been a lot published about Diesel Engines for aircraft lately, but this is really just a modern up.take on the Diesel engines in the late 1920's, see the article following this column excerpted from the August 1929 Science and Invention.

They are also a good read for other areas of science from that time. I encourage you to read them, they are interesting.

Tom and I are looking for anyone else who would be interested in the Luscombe project. Please see either Tom or myself during the meeting

Build Straight

Roger



Exclusive photograph of the Stinson monoplane which flew from Detroit to Langley Field, powered by Packard-Diesel engine.

Article from 1929 about Diesel Engines for airplanes:

At Last. DIESEL ENGINES for Planes By William F. Matthews
NO achievement in the aeronautical world has made such an impression on designers, manufacturers, pilots. government officials, financiers and the ever-increasing air - minded public, as the development of the Packard Motor Car Co. of a successful Diesel aircraft engine which recently powered a Stinson -Detroitter monoplane from Detroit, Michigan, to Langley Field, Virginia, a distance of approximately 700 miles, at the average speed of 100 miles an hour. Hailed as one of the milestones in the progress of aviation, the activity in several of the leading automotive plants of the country. notably the Allison Engineering Co. of Indianapolis (now owned by General Motors), the Ford Motor Company, the Winton Engine Co., the Sperry Development Co.. the American Machine & Foundry Co., not to overlook several European firms, presages ultimate widespread use of this type of motor.

To Read More (Page 311): [Click Here](#)

September Gathering:

New people:

Paul Johnson: checking out the Chapter. Back to this

SEPTEMBER GATHERING CONTINUED, FAA TRANSITIONS TO ICAO FLIGHT PLAN FORMAT:

state started in ultralight tail dragger sold a just airplane wants to get back in flying. Built Kitfox avid pul-sar.

Scott Rinabarger: less airplane s down at Reno last week pvt pilot wheels and float looking at kitfox and rv's

Brett Easter: bought an ultralight store at Crest. Just done some fast taxis.

Carl Reynolds

Scott Emery fly in the 70's member of 326 Built an RV.

Project Reports:

Doug Hoppe started his 33 ford hot rod challenge to find stuff. 6 hours to find a fuel filter.

Ron Wanttaja:: Been at OSH three months in a row, but not during AirVenture writing articles for Kitplanes RV4, RV7 and RV9 had the lowest accident rates. Article appeared in October 2019 Kitplanes Magazine.

Jake Schultz:: going good, ordered HD rims for wheels soon to be delivered and attached to the landing gear.

Norm Paulk: no progress

Bruce working on panel. Presented a show and tell for his instrument panel glare shield lighting: glare shield led strip \$15. Processor 10 power converter \$11.

Tom Osmondson: went flying yesterday 172 no other updates. Baby proofing house.

Bryant's selling home out in a month or two. packing their airplane for storage. Aerocomp. Hate to move downsizing. Table and some other items for sale, lathe and tools and more.

Bill waiting for the tail adsb beacon to get its certification. Supposed to ship on the 20th.

Gerry didn't get his adsb for rv8 the other on its way. Dialing his toe in/out 0 degrees. Tail down.

David: painting his plane. Pulled plane in. Built a paint booth not enough filter, the box fan at even at low was too powerful. Couple more days to complete the job.

FAA Transitions to ICAO Flight Plan Format

Notice Number: NOTC9696

The FAA has transitioned to mandatory use of the international flight plan format for all IFR and VFR domestic and international civil flights, effective August 27 at 0500 EST. The change is part of an effort to modernize and streamline flight planning and supports the FAA's NextGen initiatives.

Benefits of the international form make it easier and more intuitive for pilots to use and will increase safety.

An increase in the size of the departure and destination fields to allow a greater variety of entry types, including Special Flight Rules Area (SFRA) flight plans

Transmission of the supplemental pilot data field, which contains pilot contact information, along with the VFR flight plan to the destination facility, to reduce search and rescue response times

Air traffic control gains access to detailed equipment codes to identify aircraft capability

The international format will also allow for integration of Performance Based Navigation (PBN) and enhance air traffic control services by allowing for easier identification of equipage, which can make greater use of airspace.

With the exception of military flight operations, the international format is required for all IFR and VFR flights across the NAS. Guidance on how to complete an international flight plan is available at www.faa.gov/go/flightservice.

Please contact Flight Service on our feedback email 9-AWA-ATO-SYSOPS-FS@faa.gov if you have any questions



GUESS THAT AIRPLANE:**The Lincoln Sport**

The Lincoln Sport was built in Lincoln Nebraska as both a finished product and homebuilt kit.

Let's face it, biplanes have attracted more people to flying than any other type of airplane. Why? They tweak the strings of our heart and soul, they beckon you to climb in and soar into the heavens. Biplanes dominated the airplane scene for many years; from the Wright brothers to Lloyd Stearman to the Pitts Special, it was biplanes all the way. Almost every pilot in World War I and World War II learned to fly in a biplane. The Curtiss Jenny of WWI and the PT-17 of WWII. Biplanes make ideal primary trainers because they protect the pilot during take off and landing accidents. The two wings and multi struts provide a crush zone for pilot and instructor. The two long wings take the forces in an accident and protect the pilot in the process.

The most popular engine at that time was the three cylinder Szekely

The biplane influence was also very evident in early homebuilt aircraft. Betty Skelton "Lil Stinker" sparked the imagination of many pilots. The question asked why were biplanes so popular with designers of all types of aircraft. The two wings with their struts and guy wires, cables and struts form a box structure which is very strong. Cantilever structures are heavier and harder to build so early designers, almost to World War II took the easy route, biplanes rather than monoplanes. Mid 1930s racing aircraft proved that monoplanes can be as strong as biplanes, faster with same engine, cheaper to build and maintain than complex biplanes.

The all yellow Lincoln Sport was a popular color choice.

To Read or watch videos:

Early Homebuilts: [Click Here](#)

Atlantic Canada Aviation Museum: [Click Here](#)

Wikipedia: [Click Here](#)

YouTube: [Click Here](#)

Science and Invention Magazine July 1926 (Starting Page 242): [Click Here](#)

Science and Invention August 1929 (Starting Page 334): [Click Here](#)

DIMENSIONS

Span both wings, 20 ft.



Chord both wings, 34 in.
Gap between wings, 40 in.
Stagger, 15 in.
Length over all, 16 ft.
Height over all, 5 ft., 7 in.

WINGS

Wing curve, U. S. A. 27.
Total wing area, 108 sq. ft.
Angle of incidence, top wing, 1/ deg.
Angle of incidence, bottom wing, 0 deg.
Decalage, 1/ deg.
Dihedral both wings. 4 deg.

TAIL UNIT

Stabilizer area, 7/ sq. ft.
Elevator area, 5/ sq. ft.
Fin area, 3 sq. ft.
Rudder area 3 sq. ft.
Aileron area, each 6 sq. ft.

WEIGHT

Weight empty, 370 lbs.
Weight loaded, full load, 600 lbs. Wing loading, 5% lb. per sq. ft. Power loading, 17 lbs. per H. P.
POWER PLANT
Anzani 3 cyl. 30 -35 H. P. (preferred) Propeller, 6 ft. dia., 5% ft. pitch. Propeller speed 1;500 rpm. Oil capacity 5 qts.
Gas capacity 6 gal.

PERFORMANCE WITH FULL LOAD

Maximum speed, 90 mph h. Cruising speed, 75 mph
Minimum speed, 35 m. p. h.
Range, 250 miles.
Miles per gallon of fuel, 35.
Climb, 800 ft. per minute.
Factor of safety throughout 11.

GUESS THAT ENGINE:**Bristol Cherub 32 HP:**

The Bristol Cherub is a British two-cylinder, air-cooled, aircraft engine designed and built by the Bristol Aeroplane Company. Introduced in 1923 it was a popular engine for ultralight and small aircraft in the 1930

Cherub I

Initial direct drive version introduced in 1923. Bore and stroke of 3.35 by 3.8 inches (85 mm × 97 mm) for a displacement of 67 cu in (1.095 L). 32 horsepower (24 kW) at 2,500 rpm

Cherub II

Geared down (2:1) version of the Cherub I.

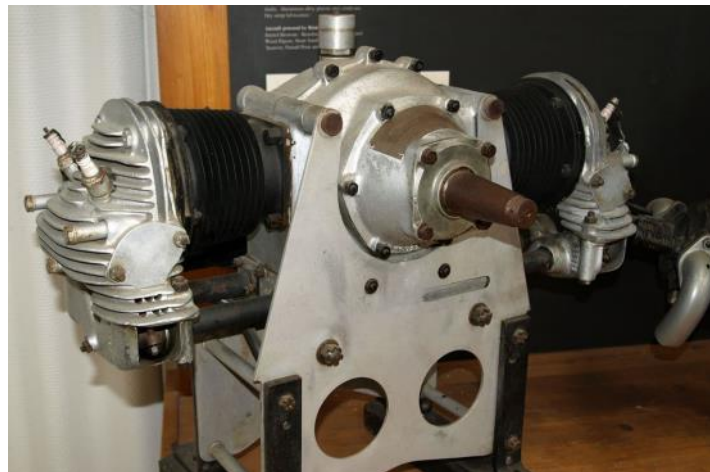
Cherub III

An improved and slightly larger (1.228 L) direct drive version introduced in 1925.

Applications

Avia BH-2
 Avro Avis
 Beardmore Wee Bee
 Bristol Brownie
 Cranwell CLA.2
 Cranwell CLA.3
 Cranwell CLA.4
 Dart Pup
 Everson Evo III
 Granger Archaeopteryx
 Halton Mayfly
 Halton Minus
 Hawker Cygnet
 Lippisch Delta 1
 Messerschmitt M17
 Meyers Midget
 Mignet HM.14 Pou-du-Ciel
 Parnall Pixie
 Pander-DB two Pices
 Powell Racer
 RAE Scarab
 RAE Hurricane
 Short Cockle
 Short Satellite
 Supermarine Sparrow
 Vickers Vagabond
 Westland Woodpigeon
 Westland-Hill Pterodactyl

To Read More:



Wikipedia: [Click Here](#)

All Aerro.com: [Click Here](#)

Discovery National Archives: [Click Here](#)

FlightGlobal.com: [Click Here](#)

Motorsport Magazine: [Click Here](#)

Revolvy.com: [Click Here](#)

General characteristics (Cherub III)

Type: 2-cylinder air-cooled, horizontally opposed, left-hand tractor

Bore: 3.54 in (90 mm)

Stroke: 3.8 in (96.5 mm)

Displacement: 75 in³ (1.228 L)

Width: 25.6 in (650 mm)

Dry weight: 98 lb. (39.5 kg)

Components

Valvetrain: Overhead valve

Oil system: Dry sump

Cooling system: Air-cooled

Performance

Power output: 36 hp (24 kW) at 3,200 rpm

Compression ratio: 5.75:1

Fuel consumption: 2.5 imp. gallons per hour

Power-to-weight ratio: 0.36 hp/lb.