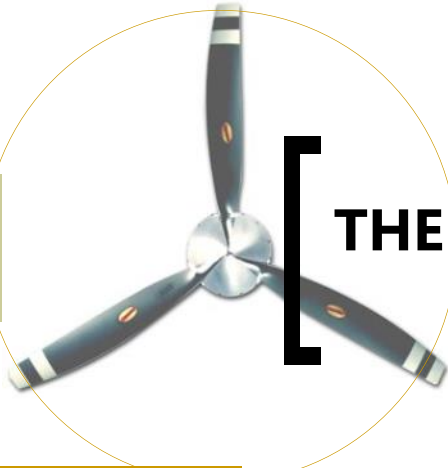


THE SLIPSTREAM

THE NEWSLETTER OF GREEN RIVER EAA CHAPTER 441 KENT, WA

MARCH 2019



PRESIDENTS COLUMN, PIETENPOL UPDATE

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SPECIAL POINTS OF INTEREST:

Wings and Wheels
Fly and Drive in
Saturday August 17, 2019
Richland, Washington
See Poster on Page 7

EAA 292 From Independence
Oregon Fly-In and STOL Expo
August 16-18 2019
See Poster on Page 9

Presidents Column (reprinted from March 2016)

Daylight Savings Time

A week or so ago, the US rolled the clocks forward and we all lost an hour of sleep in shifting our workday to later in the daily solar cycle. Even while our days are getting longer, we now have more daylight in the evenings. Personally, that combination improves my outlook. It means that even though it's still dark when I go to work in the morning, at least it's light when I come home, and even for a bit after dinner.

Now, Jake would say that this signals the end of the "workshop season", but to me, the workshop season is not over. What this means is that I don't need to squint in the dark at what should be the middle of the day. I can open the garage door and let some light in. Hopefully, soon, the rain will let up, too.

Daylight savings time also means there's an opportunity to fly in the evening without having to guess where the trees are (they don't put lights on trees when it's not Christmas, and those things are really hard to see in the dark). As we move towards April, I begin to look for an opportunity to get my approaches current again. Most of you know that Dave and I serve as safety pilots for each other every April and October and make sure we meet the currency re-requirements whether we need to or not. It's a good tradition.

Another benefit of Daylight Savings Time around here is that we won't need to feel our way along in the dark to get to our Chapter 441 meeting. It'll be dark when we get done, at least for another couple of months, but at least we can find our way to the hangar in the light. This also makes it easier for visitors or new members to find us. Bring a friend this month! See you all on Monday. Fly safe,

Brian

Pietenpol Update:

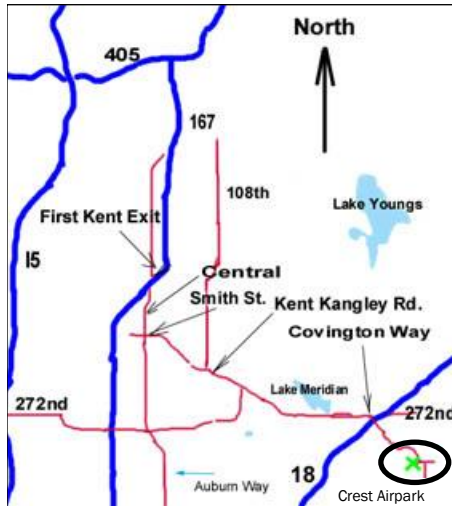
Hello 441,

Progress continues on the 1931 Pietenpol Air Camper. This month I continue to advertise the Rotec R-2800 engine. Two more deals fell apart for different reasons so the process goes on.

Denise and I went to Tucson for a Boeing event and were able to spend a little time exploring the Pima Air and Space Museum. We had work activities at the museum so we only had a short time to see the 85 ACRES and 350+ airplanes in their



WHERE DO WE MEET THIS MONTH?



Meets 4th Mondays 7:00 pm
 17605 SE 288th PL, Kent
 The Mellema Hanger



MARCH PROGRAM

Steve Waterman builder and flier of an RV 7A will talk about his build, test flights and talking photos.

Program

March Program

Steve Waterman have been flying since 2005, private certificate and about 300 hours, around half in RVs.

His grandfather was a pilot and flight instructor and Steve served aboard an aircraft carrier so flying is in his blood. Stave served am past president of the Paine Field chapter of the WPA and past VP west of the state WPA. He started building an RV-7A in 2011 and completed in 2018 and flew back to Oshkosh last summer. Steve recently got into aerial videography and can share his early results with you. You can get a sneak peek on his YouTube site. Search Steve Waterman Flight Videos.



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PIETENPOL UPDATE CONTINUED, CHAPTER 441 VMC, EAA NEWS:



collection...! Safe to say we only got to see a small part of it all! Attached are photos of some of the



larger airplanes that are part of the outdoor “loop.” Denise saw one and said, “it looks like that one is pregnant!” It is indeed the “pregnant guppy” so we had to stop and take a selfie.

We also got a chance to tour the Titan II Missile Museum – which we both really enjoyed. It is the LAST Titan missile silo in existence because all the remaining ones were blown up to comply with international treaties. They choose a person from each tour somewhat a random to run a simulation – so Denise got to “turn the key” and launch a Hydrogen bomb...!

I will be in South Carolina during the March meeting but I look forward to seeing everyone in April.

Enjoy the journey....

Jake Schultz

Chapter 441 VMC:

Announcing the first EAA 441 VMC program meeting. April 17th starting at 6:30 pm at the home of Jerry Patterson at Crest Airpark.

This is a monthly armchair hang-er discussion of various flying scenarios provided by the EAA. As we plan the first meeting, please share your willingness and desire to participate so we can plan for attendance. We will talk more about it during our meeting on Monday but if you have any questions please call or email.

I am bringing pizza to the first meeting.

Ma1owens @comcast.net
 Mark Owens
 29002 176th Ave. SE
 Kent WA 98042
 Cell 206-390-0520

EAA News:

Theater in the Woods:

Themes Announced for AirVenture 2019

As in years past, after an eventful day at EAA AirVenture Oshkosh 2019, attendees will be able to wind down with nightly programming at Theater in the Woods. The preliminary schedule for this year’s Theater in the Woods programming is as follows:

Sunday, July 21 – An Evening With Champions: Enjoy an evening listening to a variety of speakers who’ve made an impact in aviation.

Monday, July 22 – Oshkosh 50th Anniversary: A look back on 50 consecutive years in Oshkosh,



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 10 for the February airplane

This months entry:

Go to Page 11 for the February Engine



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EAA NEWS CONTINUED, DARINS ADVENTURES:

celebrating the airplanes and the people who brought them here.

Tuesday, July 23 – An Evening With Innovators, The Founder's Innovation Prize: A Shark Tank-style faceoff seeking innovative ways to solve in-flight loss of control.

Wednesday, July 24 – WomenVenture — Celebrating Powerful Pilots: A panel of female aviators discuss their experiences flying the most celebrated and known civilian and military aircraft.

Thursday, July 25 – Aerial Firefighting: How brave men and women fly ordinary and extraordinary aircraft to combat forest fires around the globe. Boeing 747 and Concorde 50th Anniversary: Celebrating two of the most historic civilian aircraft with the men and women who flew them.

Friday, July 26 – Apollo 11 50th Anniversary Celebration and Developing the Apollo Lunar Module: Celebrating the 50th anniversary of the first manned lunar landing and the lunar module that transported the astronauts to the moon's surface.

Saturday, July 27 – A Salute to the U.S. Air Force: Celebrating U.S. air power and air superiority with key Air Force personnel.

To Read More: [Click Here](#)

South 40 Area at AirVenture to be Expanded, Improved:

The South 40 area of the EAA AirVenture Oshkosh grounds will be expanded and its facilities improved for the 2019 convention this July.

With an additional seven acres to work with in 2019, there will be expanded aircraft parking and camping, as well as facility upgrades in the area to improve the experience for attendees. Shower facilities, bathrooms, a convenience store, water and power hookups, charging stations, Wi-Fi hot spots, and additional lighting will all be in place this summer. The tram routes will also be extended to the south to transport attendees from the area to other parts of the grounds.

In 2020, an additional 22 acres of aircraft camping and an entrance facility on County Hwy N are expected to be added as well.

With this expansion of the South 40, EAA has additional volunteer opportunities especially in aircraft

parking and marshalling roles.

"For anyone thinking about volunteering in the South 40, it's a great opportunity to come and be a part of something new," said Den

To Read More: [Click Here](#)

2019 Founder's Innovation Prize Now Accepting Contestants:

EAA's Founder's Innovation Prize competition aims to reduce the rate of in-flight loss of control accidents in experimental amateur-built aircraft by challenging EAA members to come up with a solution. Submissions range from technology to training and are evaluated based on effectiveness, ease of installation, and cost. Presented by Airbus, contest winners are awarded a total of \$40,000 to advance their innovations

To Apply: [Click Here](#)

Darin's RV Adventures:

Cleaning up a bit:

I got a little help from some friends this past week...well actually two weeks ago to get the fuselage moved over to the new stand. Harry also helped me finish riveting the aft top skin on the tail cone. I'm almost ready to join the two but as I mentioned in my last post I want to try to keep things in the small garage bay. That means its spring cleaning time! I sold a few things, moved a few things, and trashed quite a few things. Now there is enough room for the fuselage with the tail cone attached and it leaves me about 12" of space to walk around one



DARINS RV ADVENTURES, CONTINUED, EDITORS CORNER, WINGS AND WHEELS:

end. I hope this is enough for a while anyway.

Not much for pictures this week simply because of the clean up work but here is the garage almost ready to get back to work.

Steps are in:

After spending at least two months on section 29 I felt kind of weird when I was able to finish up section 30 in just a few work sessions. Section 29 is not technically complete but its close. This week I did get the gear weldments bolted in and that was quite a project. Those weldments require a little "persuasion" to line up properly but I had already created a small AN3 persuasion tool (AN3 bolt with the threads removed and a tapered end) so I was ultimately successful.

The steps were not too terribly hard to install. I did remember to install those bushing I turned on Ben's lathe a few months go. They fit nicely and I think the steps will stay nice an tight....or at least I hope so because getting those bolts back out will be a bugger with the floor installed on the baggage area.

Finally I finished off the week by building a fuselage stand that I will use for the remainder of the build (until I finally get it up on the gear). I had grand plans of building a all metal adjustable stand that would last generations but after a few hours of cutting, a few welds, and a trip or two to the welding supply store I gave up on that project. The design I used will allow me to use jacks to raise the entire fuselage high enough to put the gear in and that's all I really need.

To Read More: [Click Here](#)

Editors Corner:

How is everybody doing? It has been a crazy start to what seems like a crazier year than ever and we are already a quarter of the way through it.

We have a couple of opportunities for fly-ins on the same weekend in August. One south in Oregon (page 9) and the other east in Richland (page 7). I hope that we can support them by flying to one or both. Remember that we can share the flight with someone if expense is an issue. Or maybe even do a Eagle flight, keep your instrument rating current by shooting a couple of approaches at the destination and on returning home.

Consider joining the VMC meetings, everyone has

some wisdom to impart, whether it is about how to line up on final, making spot landings, prepping for a cross country and what kind of excitement that surprised you on that cross country.

There are a couple of changes I would like to incorporate into our newsletter: Tech tips for building, how did you solve that problem? I The second one is "I learned about flying from that." It doesn't have to be long or sophisticated.

An example of a tech tip is Mark Owens article about his Dynon ADAHARS alignment issues back in October 2018.

Build Straight

Roger

The 3rd Annual Wings and Wheels at Richland Airport (KRLD), Richland, Washington, hosted once again by The Port of Benton.

We are spreading the word to over 100 organizations from Washington, Oregon, Idaho, Montana and British Columbia and after an turnout of nearly 2,000 at our 2018 event, we expect this years' event to be even bigger. Once again, admission to the public and participants is FREE and entry of aircraft and vehicles for judging is FREE.

With military vehicles and warbirds, vintage cars and trucks, antique aircraft, modern show machines, motorcycles, hot rods and experimental aircraft we expect there to be something for everyone to appreciate. EAA Chapter 391 will be hosting a pancake breakfast from 7:00 to 9:30, and multiple food trucks and vendors will be on location for the remainder of the event. Hope to see you there!

For more information, please contact Scott Urban at (509) 551-0432 or John Haakenson at (509) 375-3060

Wings Over the Willamette:

Fly-in and STOL Expo
August 16-18 2019
Vans Homecoming
Independence, Oregon &S5
Sponsored by EAA 292
For more information, [Click Here](#)

WINGS AND WHEELS FLYER:



WINGS & WHEELS

2019

**FLY AND DRIVE IN DAY
SATURDAY AUGUST 17TH
7:00AM TO 2:00PM**

STAGING STARTS AT 7:00AM
AT THE RICHLAND AIRPORT (KRLD)
1903 TERMINAL DR., RICHLAND WA.



EAA BREAKFAST 7:00 - 9:30AM - ALL ARE WELCOME
WAR BIRDS & EXPERIMENTAL & ANTIQUE AIRPLANES
HOTRODS & CLASSICS CARS
MOTORCYCLES & MILITARY VEHICLES
FOOD VENDORS & NO ENTRY FEE
FREE TO THE PUBLIC



For More Information Contact: Scott Urban 509.551.0432 or John Haakenson 509.375.3060

FEBRUARY MEETING MINUTES:**February 2019 Meeting Minutes**

Brian: made iPad into a knee pad. Asked about the trade show decided to wait for the tail light adsb may rewire the tail light to a separate switch.

Mark gave a report on the chapter boot camp. we are only doing about 3%. Could do more with young and old eagles. Background check is required for the Young Eagles. Have to have own insurance EAA will cover with a policy that doesn't cost the pilot when flying the YE.

We're are not eating, enough food at the beginning of the "gathering" to socialize. Sponsor pancake breakfast on the weekends. John Eagan and Kyle from EAA national lead the discussion.

Scholarship programs. We need to do our preparation to participate. Need an active youth program.

Imc and vmc clubs. Most be affiliated with the chapter, but separate from the "gathering"

Jerry, mark, Tim Yonkers are interested in the VMC working on our website, social media. Facebook Twitter, etc.

Chapter in Logan Utah. He is the chapter. But he came to the boot camp. He is working to build a chapter in Logan, Utah.

Logan Sheppard had an open house last summer. 30 airplanes flew in. Wants to do another open house and we will participate, second week in June.

There are State Legislative Bills we should beat up our state representative about. Bills 1455, 1456, and 1457.

1457 sales tax to get some of the aviation fuel taxes back into aviation.

Free 6 months membership in EAA.

Discounts at office depot and office max.

Jake to come up with words for Logan's open house. Flyer.

Jake bought David Clarke headset.

Mark painted and doing some sanding.

Tim looking for a hanger.

Tom: needs to do more work on a partnership. Contact Steve Fribbly.

Ron: not a lot of flying last month. Cataract surgery

Andy not flown since Jan first. Mark encouraged him to update Garmin

Doug: oil temp got up to 230 and oil pressure went up on a flight. Days to research issue and was concerned that there is something catastrophic in engine. Got gauge problems, electrical ground, he actually had a bad oil filter. Seems to have resolved the issue. It had a leak in the seam, so it was starting to come apart.

Jerry enjoying the gathering. Had cataract removed

Bruce experiment with addressable LEDs. May be a program for the chapter.

Steve: EAA441 checking account doing well 4220.

Col Jackson memorial



WINGS OVER WILLAMETTE FLYIN AND STOL EXPO:

Wings Over the Willamette

Fly-in & STOL Expo
Aug 16-18 *Van's Homecoming*

2019



CUBCRAFTERS  **LIGHTSPEED**  **VAN'S AIRCRAFT**
TOTAL PERFORMANCE

Independence, OR 7S5
EAA 292 for info go to: eaa292.org/fly-in

©rockerr

GUESS THAT AIRPLANE:

Vakhmistrov Zeno:

One of the most strange and bizarre looking aircraft that ever took to the air has to be the Zveno composite bomber/fighter design by Vakhmistrov. The concept first took shape in the mid-twenties, when the Soviet Air Force were looking at ways to both, shoot down incoming enemy bombers and to supplement the ground troops in the battlefield. Many new concepts and designs came forward, but the most intriguing to the Tupolev Bureau of Aircraft Design, was the Zveno. The concept was fairly straight forward. Utilizing the largest bomber of its day, the massive TB-3, different combination of fighters and dive-bombers were attached to its fuselage and wings, to provide the bomber with its own defensive capabilities.

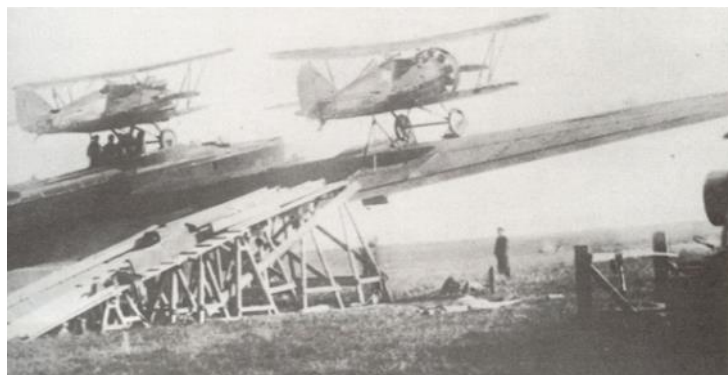
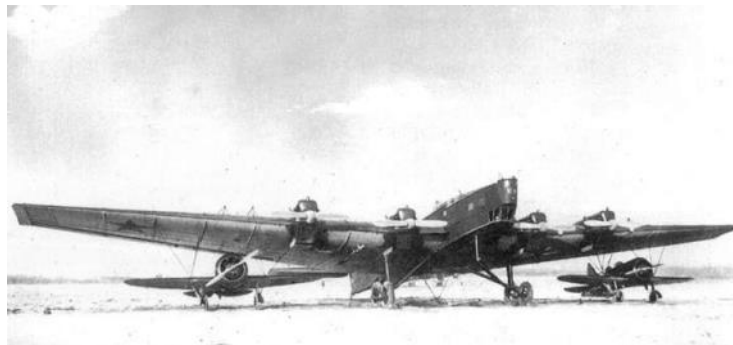
After experiments conducted with gliders attached to the "mother ship", the Polikarpov R-1, designer Vladimir Vakhmistrov proposed a radical new concept that eventually developed into one of the world's first "parasite" configurations. In the late twenties, Vakhmistrov persuaded the then infant Soviet Air Force, that a heavy bomber can carry fighters for its own protection and release them when necessary, and also produce a ground attack aircraft capability. The first of these combinations, named the Zveno 1 or Z-1, involved carrying a modified I-4 fighter above each wing. The airplane was placed in position using wooden ramps and ropes to haul them onto the wing. The initial trials proved successful and, after the design had been adapted to carry the larger I-5 fighters, the bomber designation change to Z-1a. The Z-2 consisted of a TB-3 with three I-5s, one on each wing, and a third above the fuselage. The TB-3 proved to be an excellent carrier platform. The next model, the even more ambitious Z-5 featured a Grigorovich I-Z suspended beneath the TB-3 on a steel trapeze. The airplane could then be recovered after their release using a system similar to that used by the Curtiss F9C.

To Read More:

Wikipedia: [Click Here](#)

AeroStories: [Click Here](#)

Aviation History: [Click Here](#)



GUESS THAT ENGINE:

The Shvetsov M-11 is a five-cylinder air-cooled radial aircraft engine produced in the Soviet Union between 1923 and 1952

Design and development

The Shvetsov M-11 was designed under a 1923 competition in the Soviet Union for a new engine to power trainer aircraft. It is a single-row five-cylinder air-cooled radial piston engine with aluminum cylinder heads. Like the American Kinner B-5 5-cylinder radial of similar size, the M-11 had individual camshafts for each cylinder, operating the pushrods, rather than a single central cam ring. The initial versions of the M-11 suffered from a short service life of only 50 hours. The basic M-11 engine had a power output of 100 hp (73 kW), the newer M-11D variant was higher at 125 hp (92 kW). The ultimate version, M-11FR, introduced in 1946, increased power output to 160 hp at 1,900 rpm on takeoff and 140 hp at cruise and had provisions for a variable-pitch propeller, accessory drive (for vacuum pumps, compressors, generators, etc.) and featured a floatless carburetor.

To Read More:

Wikipedia: [Click Here](#)

Military Wiki: [Click Here](#)

YouTube: [Click Here](#)

General characteristics

Type: 5-cylinder air-cooled radial engine

Bore: 125 mm (4.92 in)

Stroke: 140 mm (5.51 in)

Displacement: 8.6 L (525 in³)

Dry weight: 165 kg (363 lb)

Components

Cooling system: Air-cooled

Performance

Power output:

82 kW (110 hp) at 1,650 rpm for takeoff

75 kW (100 hp) cruise

Specific power: 9.5 kW/L (0.21 hp/in³)

Compression ratio: 5:1



Power-to-weight ratio: 0.5 kW/kg (0.3 hp/lb)

