



September 2024

Volume 26 issue 9

THE SLIPSTREAM

THE NEWSLETTER OF GREEN RIVER EAA CHAPTER 441 KENT, WA



Next Meeting

Thursday, 26 Sept. 7 PM

This Month's Program

**Homebuilt Judging Standards
How Oshkosh winners get picked!**

President's Column

Going Dutch

Last week I found myself at an FAA/EASA/TCCA/ANAC meeting, in Amsterdam. Since I was there over the weekend, we found our way to the Dutch National Aerospace Museum. Interesting place, sort of a combination Aviation Museum and Theme Park. Definitely very family friendly, but chock full of aviation history. Most of it consisted of the history of Anthony Fokker's contributions to the industry and the very long and rich history of the Royal Dutch airline, KLM.

I had no idea just how prolific Fokker was in the early days of aviation. A shrewd businessman, having moved his production to Germany before WWI, and very quickly and quietly moving it back to the Netherlands at the end of the war. And there were lots of innovations like folding wings on large transport aircraft, of course, the interrupter gear which allowed firing machine guns "between" the propeller blades, and many more.



If you ever get a chance to visit, I highly recommend it.

On another subject, have you ever been curious about how airplanes get selected for the coveted "Lindy" awards at OSH? Or any of the other workmanship awards, for that matter? This month, I'll review the process, the procedures, and the judging standards. We have at least one Grand Champion in our chapter (I was not a judge then, so can't take credit for that one). See you on Thursday.

Brian

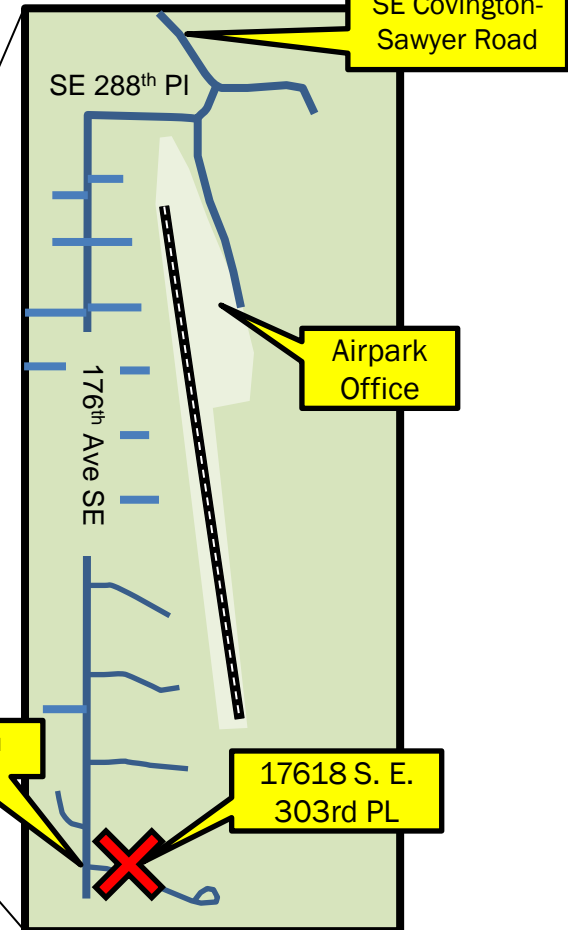
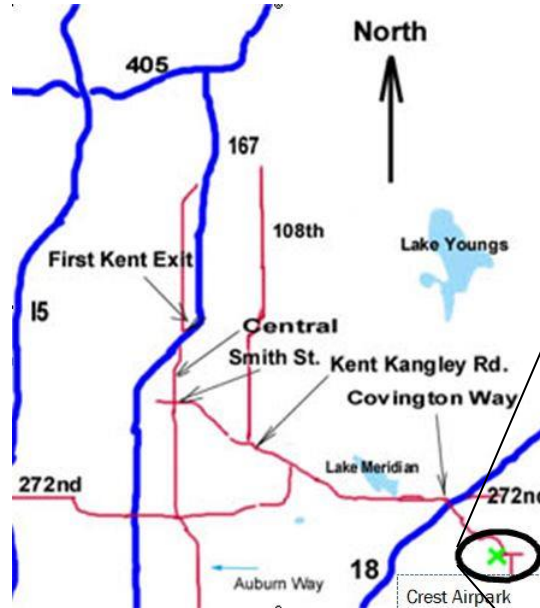
If you no longer want to receive the newsletter, email me at ron@wanttaja.com

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Getting Here



What did we talk about Last Month?

Summer Flying Reports

Park along side of road at 303rd, meeting is at the second house. Walk down the driveway between the garage and the house, and go downhill to the hangar

Note: Deadline for Newsletter articles is 11 PM the Sunday before the meeting

EAA introduces 2024 Sport Aviation Halls of Fame class

The Experimental Aircraft Association Sport Aviation Halls of Fame continue to grow as six new inductees will be honored as part of the 2024 class. The six inductees each represent a different area of aviation – homebuilders, ultralights, the International Aerobatic Club, the Vintage Aircraft Association, and EAA Warbirds of America.

The 2024 inductees include:

- EAA Homebuilders Hall of Fame: Sebastien Heintz
- International Aerobatic Club Hall of Fame: Linda Meyers Morrissey
- Warbirds of America Hall of Fame: Frank Strickler
- Vintage Aircraft Association Hall of Fame: Dave and Jeanne Allen (posthumous)
- EAA Ultralights Hall of Fame: Dave Goulet (posthumous)

The EAA Sport Aviation Halls of Fame were established to honor the outstanding achievements of men and women in aviation who share the spirit of EAA and its community.

EAA will honor the new inductees at a dinner ceremony on October 16, 2024, in the Eagle Hangar of the EAA Aviation Museum.



EAA Aviation Museum introduces ‘Inside The Hangar’ self-guided, behind-the-scenes information

Visitors to the EAA Aviation Museum in Oshkosh can now easily get more in-depth information on museum exhibits as the initial set of self-guided QR codes have been added to select aircraft exhibits.

The “Inside The Hangar” tour offers visitors the opportunity to scan a QR code via their smart device and receive additional background regarding the exhibit, without downloading a special app. The Synthesia software can be opened to extra features such as the exhibit’s background, archival photographs not on display, and other information not found on museum signage.

EAA museum visitors will find the first QR code at the entry to the museum, explaining the self-guided tour option and its benefits. Current QR codes are available at some of EAA’s “foundational” aircraft, such as the Mechanix Illustrated Baby Ace, Little Audrey, and Little Bonzo. It is also available at the Huey helicopter exhibit in the Eagle Hangar.





The latest update of the paint saga.. When I got home from Kona in early August I started prepping the tail components for paint; sanded down the high build sanding primer with 150 and 220 dry down to hitting the underlying zinc chromate layer on the high spots, then 320 wet and applied a dry guide coat. That highlighted a couple of sanding scratches in the primer, so with the memory of the scratches I found with the fuselage paint still fresh in mind I reached for the red glazing compound and filled the scratches.

As I sanded that down I started to find tiny little red dots in the gray primer surrounding the scratch and on closer inspection I realized that in that area, despite feeling smooth to my fingertips and not having any clear indication with the guide coat, the sanding primer coat hadn't been thick enough to fully fill all the texture of the underlying base primer texture.

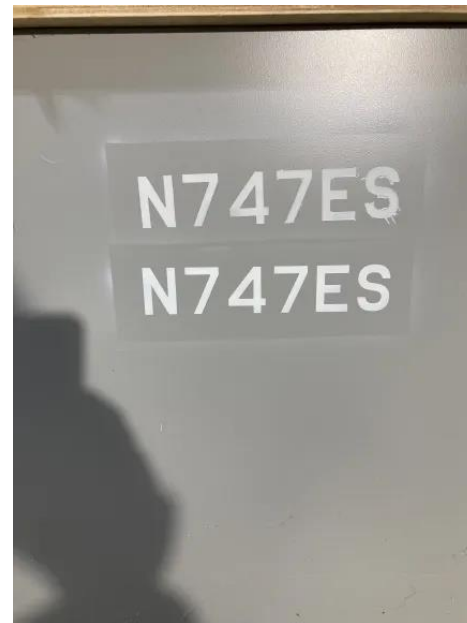
I got some blue pigment and tinted some of the sanding primer enough to differentiate from the usual gray color, then applied a couple more thin coats on all the pieces and started over with the sanding sequence. I took it down to the same point as I had with the prior coat, and overall it seemed to have been enough to fill all the remaining texture as well as highlighted some areas which hadn't quite fully feather-edged during the previous sanding. I then finished up with 500 grit wet and shot a seal coat of 1:1 thinned zinc chromate before starting the paint. I had planned to shoot the top sides on Sunday but the humidity was a bit too high for it.



Detail of the final blue primer over gray primer over zinc chromate... with one of the high spots that sanded through for good measure.



It's looking like an airplane!



Fun with stencils... Used flex stencil film in the Cricut cutter to make them; top picture was a practice on the back of a file cabinet - learned that even with the half size one I made that trying to do it without transfer tape was a mess, ended up with lots of wrinkles and associated leaks. Bottom version was the same with transfer film and had no issues.





Well, I guess it beats cursing the darkness.

When Auburn Airport did its runway re-work in May, all the existing lighting was replaced. The removed hardware was dumped next to the airport office, and airport denizens were invited to take home any bits they wanted.

I managed to grab an old taxiway light. The mounting tube from the fixture went down into a big, heavy, steel anchor plate. It wasn't even flat on the bottom...it had an electrical junction box on the bottom that kept the plate from being used as a base. Had to replace it.

The tube from the light had rusted in place, so I used a bandsaw to cut the tube off just above the flange on the plate. Then all the old wiring was removed, including the bulb and socket. This was a bit tough, since it was heavily embedded in rubber to ensure a watertight seal.

I got a small candelabra socket from the hardware store, and installed it under the glass dome. I happened to have some spray paint that was a close match for the original color. I used a bit of masking tape to protect the label.

Which left me needing a base. I bought a wooden "bun foot" table leg, and attached it to a 6" wooden disk. Drilling down through the assembly was awkward. The tube is an off-size... a 1 1/8" bit was too small, a 1 1/4" bit was too big. Eventually got a good friction fit by drilling down with the too-large bit, and interfacing it with the too-small bit.

However, this left an unsightly gap where the tube exited the bun foot. I designed a fake flange to hide the interface...drew it up in CAD, and printed it on the 3D printer. It's just a friction fit on the tube, there's no hardware holding it in place.

Used metallic dark bronze paint, and the whole assembly came out pretty good.

Even if it DOES look like a fancy toilet plunger..... 🤖





This Month





Last Month: Dewoitine 510 (D.510)

The Dewoitine was a French design developed to meet the French Air Ministry 1930 design specification to replace the Nieuport 62. The initial model was of the D.500 was introduced in 1935. The D.510 was one variant that had a more powerful Hispano-Suiza 12YCRS powerplant. The D.510 was a relatively popular aircraft during the interwar period.

Unfortunately like most aircraft designed during the inter war period, the D.510 was considered obsolete when WWII began. There were still significant D.10's in service with three *Groupes de Chasse* (Fighter Groups), two *Escadrilles Régionale de Chasse* (Regional Fighter Squadrons in North Africa), and two *Escadrilles de Aéronautique Navale* (Naval Aviation Squadrons).



https://en.wikipedia.org/wiki/Dewoitine_D.500

<https://weaponsandwarfare.com/2020/06/05/dewoitine-d-510/>

http://aviastar.org/air/france/dewoitine_d-510.php

<https://www.youtube.com/watch?v=xcuFCKqvLoM>

General Characteristics:

Crew: One

Length: 26 ft 1 in Wingspan: 39 ft 8 in Height: 7 ft 11 in

Wing area: 178 sq ft

Empty weight: 3,298 lb

Gross weight: 4,253 lb

Powerplant: 1 × Hispano-Suiza 12Ycrs V-12 liquid-cooled piston engine, 860 hp

Propeller: 3-bladed Ratier metal propeller

Performance:

Maximum speed: 250 mph at 16,000 ft

Range: 430 mi

Service ceiling: 36,000 ft

Rate of climb: 2,923 ft/min

Time to altitude: 3,300 ft in 1 minute 19 seconds

Wing loading: 24 lb/sq ft

Power/mass: 0.201 hp/lb

Armament:

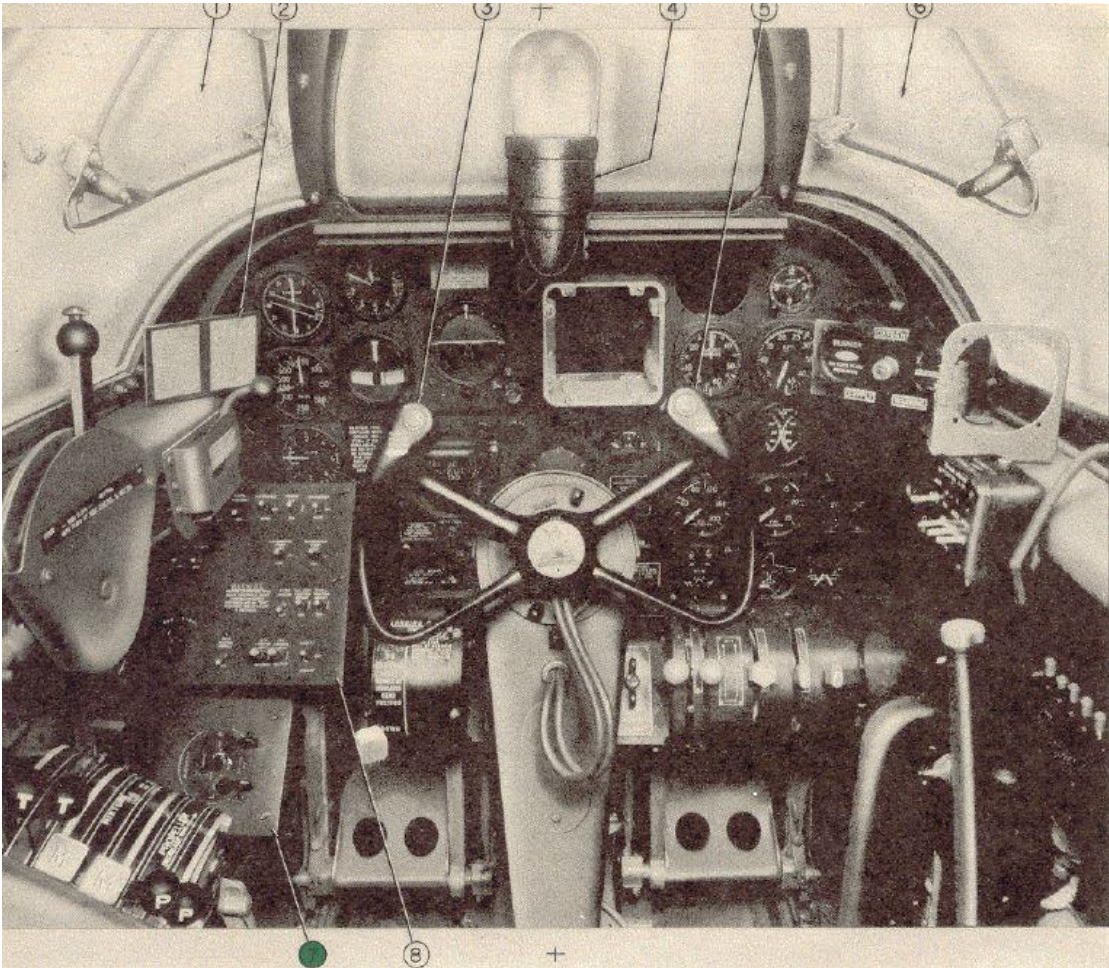
Guns:

1 × 20 mm (0.787 in) Hispano-Suiza HS.9 cannon, 60 rounds

2 × 7.5 mm (0.295 in) MAC 1934 machine guns, 300 rpg



This Month





Last Month: Blohm & Voss BV 138 Seadrache (Sea Dragon)

The Blohm & Voss BV 138 Seadrache (Sea Dragon) was a trimotor flying boat designed and built by the German aircraft manufacturer Blohm & Voss. It served as the Luftwaffe's primary seaborne long-range maritime patrol and naval reconnaissance aircraft operated by the Luftwaffe during the Second World War.

Originally designed to be powered using two engines, the trimotor configuration was adopted prior to flight testing due to engine difficulties. Development would be protracted due to multiple redesigns being enacted.

The Sea Dragon has one claim to fame: A squadron of them flew the Luftwaffe's last mission, a month after Germany surrendered!

<https://www.youtube.com/watch?v=wc9E0muVmZQ>

General characteristics:

Crew: Six

Capacity: up to 10 passengers

Length: 65 ft 1 in Wingspan: 88 ft 5 in Height: 19 ft 4 in

Empty weight: 25,948 lb Gross weight: 31,967 lb

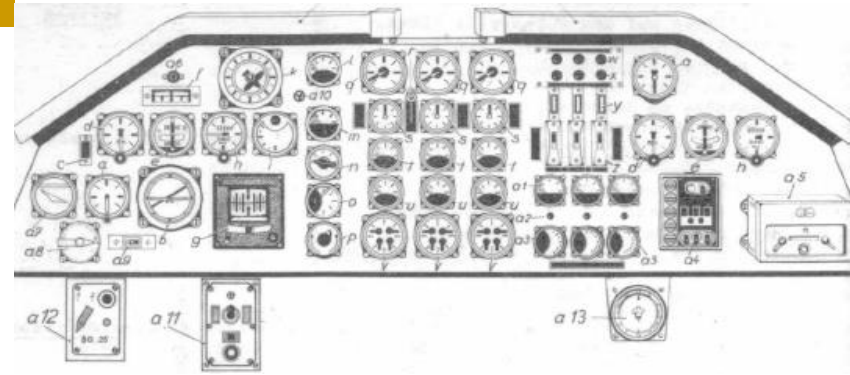
Performance:

Maximum speed: 177 mph at sea level Cruise speed: 146 mph at 3,300 ft

Range: 760 mi, 660 nmi) at 121 mph

Ferry range: 2,700 mi with max fuel

Endurance: Five hours and 30 minutes/ 18 hours in ferry configuration



Ultra Pup- Kentucky: The plane made several attempts to land. On climb-out after the last, the right wing dropped and it disappeared behind the trees and crashed. Examination of the wreckage revealed no evidence of any preaccident mechanical malfunctions or anomalies that would have precluded normal operation.

The pilot purchased the airplane about 5 months before the accident, and the accident flight was his first flight in the airplane. He had not recorded a flight review in about 25 years. About 3 years before the accident, the pilot applied for a Federal Aviation Administration medical certificate, which was denied for multiple physical and mental health reasons, and the pilot did not appeal the denial. Thus, the pilot was ineligible to fly any aircraft. (10/5/2017)



RV-6- California: About 25 minutes into the local personal flight, with all systems appearing to operate normally, the pilot noticed that the batteries (located near his right foot) were getting hot and that the system voltage indicated about 15.5V, which was above the normal value of about 13V. Almost immediately thereafter, the engine lost total power. The pilot activated the bus manager emergency power switch and independently selected each of the two engine control units but was unable to restore engine power. He chose a rural road for a forced landing but changed his path to clear a truck on the road; the airplane impacted a vineyard on the side of the road, nosed over, and came to rest inverted.

The pilot had recently decided to change the carburetor and conventional magneto ignition systems to electronic versions for "performance and efficiency improvements." He purchased a kit that included an electronic fuel injection system and replaced the magnetos himself with a fully electronic ignition. The only nonimpact-related anomaly discovered during the engine and airframe examination was that the swage/crimp of the terminal to the conductor of the primary alternator ground cable was loose, and the conductor and terminal bore evidence (black residue) of electrical arcing. The appearance was consistent with that residue having been caused by the looseness of the swage/crimp and as having been loose for an extended period before the accident. This looseness and arcing indicated that there were transient power interruptions. (10/30/2017)



Long EZ- Alabama: While in cruise flight, the airplane "violently began shuddering," and the pilot immediately shut down the engine and attempted an emergency landing. The airplane was unable to reach the selected runway and landed about 200 ft short of the runway threshold in a rough, grassy area. After exiting the airplane, the pilot discovered that a portion of the trailing edge of the wood propeller had separated and penetrated the lower half of the right rudder control surface.

A postaccident examination of the remaining portion of the wood propeller determined that the propeller was manufactured from laminations of defect-free hard maple lumber that showed no signs of decay. According to the propeller manufacturer, the propeller was carved by hand and assembled using an adhesive that is advertised as "ideal for interior wood application." However, the adhesive had not been tested for applications in which extreme temperature fluctuations, pressure, and vibrations would be expected, such as those experienced during airplane operations. (11/11/2017)



Hi fellow EAA members,

I am currently selling my unfinished S-18 project. No engine. Considerable amount of aluminum sheet and tubing included. \$12,000. If you or someone you know who is interested, please contact me at:

Norm Pauk: Tel: 253-561-4801
Email: Npauk@msn.com



I have an extensive RV12 project for sale. Thank you for sharing this information with your members. Here's what's included:

Wings are completed, including landing light and strobes

Tail group and fuselage cone are completed

Fuselage is 80% complete, including controls, wiring, canopy

Panel completed, including Avidyne/Garmin/ELT package with 2 axis autopilot

Finishing kit includes landing gear, brakes, tires, fairings, wheel pants, control cables, seat belts, plexi, etc. (This the most expensive kit on the airplane).

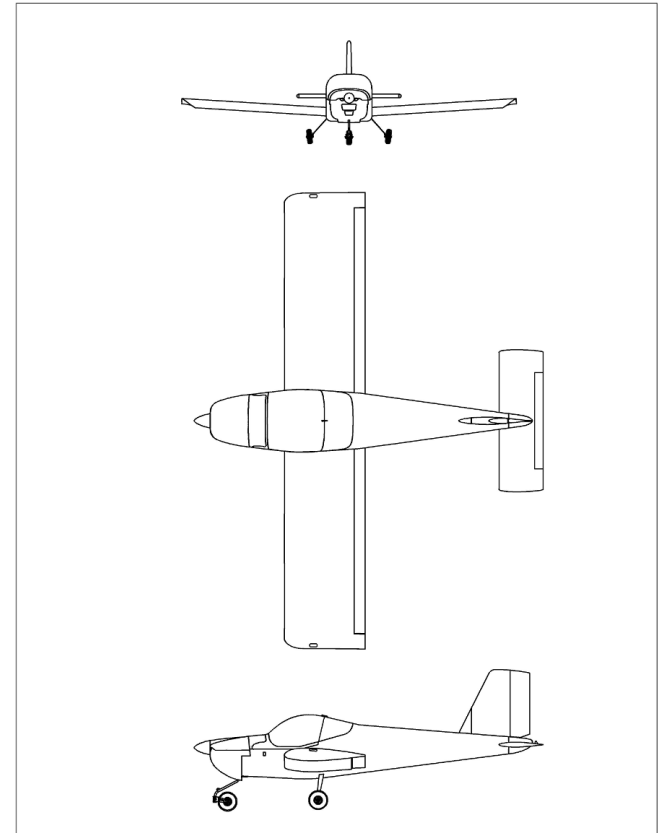
Factory built fuel tank.

Interior kitupholstery, side panels, sound proofing.

This is RV12 #616. It is designed for the carbureted 100 HP Rotax, and cannot be converted to the injected version. The kits were purchased 2011/2013. My cost was over \$50K. Duplicating today would be over \$75K. Price for all is \$45K.

Project is safely stored and available for thorough viewing in Anacortes.

Jeff Robinson
360-961-2482






EAA 441 has a dedicated online forum using the Discord server. It's a free service without ads or spam content, and can be accessed via mobile apps or on your PC via a web browser. To sign up, email Edwina Sharp: ebsharp@centurylink.net.

EAA 441 # project-updates

February 15, 2023

Steve Cameron 02/15/2023 11:53 AM
So, my big honkin' capacitor showed up... I thought it would have the screws included, but didn't. Headed to Tacoma Screw to get some short M5 screws and washers. Also, now I think I need to make some sort of nifty box to hold it for mounting, given the external side is negative polarity. It is way bigger in person than I had thought!




Mark Owens 02/15/2023 11:55 AM
It is huge.... I am sure a physically smaller one will work.... Adel clamps or hose clamps mount them nicely

@Mark Owens It is huge.... I am sure a physically smaller one will work.... Adel clamps or hose clamps mount them nicely

Steve Cameron 02/15/2023 12:06 PM
Thanks!

Mark Owens 02/15/2023 12:10 PM
Would you like to test with this one



Message #project-updates



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.