Volume 26 issue 10

THE SLIPSTREAM

THE NEWSLETTER OF GREEN RIVER EAA CHAPTER 441 KENT, WA

October 2024

Next Meeting

Thursday, 24 Oct. 7 PM

This Month's Program

Flying Wings! Including the B-2.

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

President's Column

ADs and Homebuilts

Here's a popular question which is always ripe for a good debate: If I have a certified component (engine, propeller, mag, avionics, you name it) on my homebuilt, and there's an AD against that component, do I have to pay attention to that? That is, do I need to comply with the AD?

I was talking to a friend from another EAA chapter, and he mentioned that his chapter had an FAA maintenance guy for their chapter program this month, and that topic came up. The story from the FAA guy is to remind everyone that when they (as builder, or even as a mechanic) sign off a condition inspection and sign the return to service, they are attesting that the airplane is in an airworthy condition and is safe for flight. Now, an AD is a statement that an "unsafe condition" exists. Note that this is not a question of compliance to regulations or that the AD means the component no longer complies. An AD documents a known unsafe condition.

This comes down, I think, to a judgement about what is safe. When a homebuilder chooses to use a non-certified component, like an engine, the homebuilder takes the responsibility of determining or judging that the non-certified engine is indeed "safe" or at least "safe enough" for its intended function in that homebuilt airplane.

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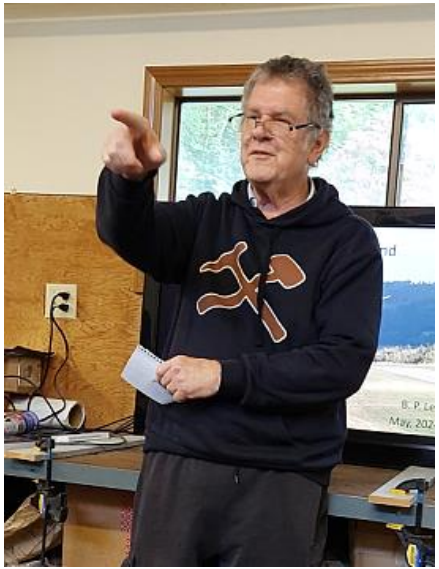
ADs and Homebuilts (Continued)



This is not a question of compliance to the regulations (it is, after all not certified in the first place), but a judgement about safety in a particular context. At that point, nobody has declared (with authority) that the particular installation in question is "unsafe". It might not be certified, so it has not been shown to be safe, but it has not been shown to be unsafe.

On the other hand, if we start with a certified component, like an engine, and there's an AD released against it, there is now a "known unsafe condition". The homebuilder, upon signing a condition inspection, it seems, should be expected to address the "known unsafe" condition. Of course, compliance with the AD would do that. Simply ignoring it I suspect would not be prudent.

Be careful out there.

Fly safe

Brian

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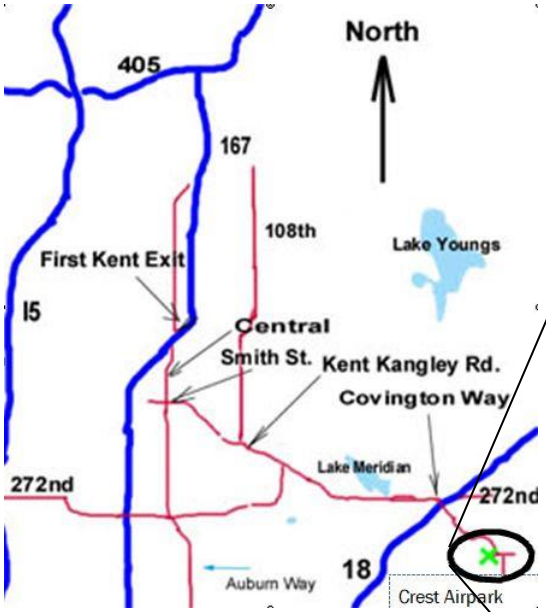
What did we talk about Last Month?

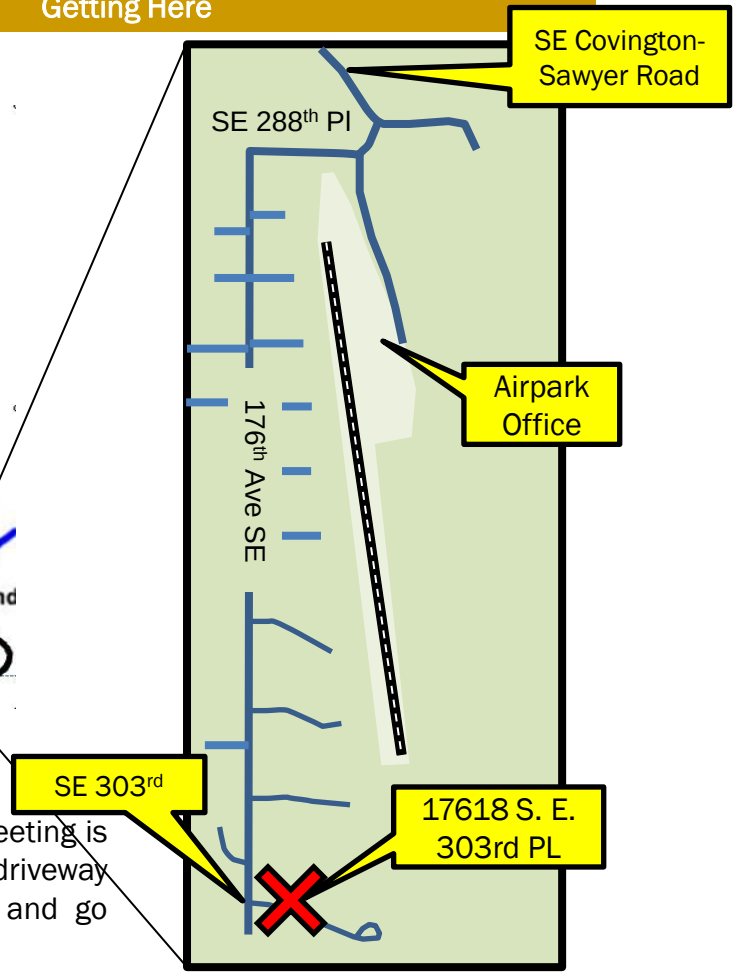
Oshkosh judging standards

Note: Deadline for Newsletter articles is 11 PM the Sunday before the meeting, or until I receive the regular contributor's inputs.

Meeting Address:
17618 S. E. 303rd PL
Kent 98042

Getting Here





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

November

No meeting in November! The date is the same as Thanksgiving.

December

December Meeting is the Christmas party. It'll be at a different location, on Saturday, December 7th. More information in next month's newsletter.

FAA Publishes Long-Awaited Flight Training Rule

The FAA has published a long-awaited rule that will make transition training and other specialized instruction easier in experimental, primary, and limited category aircraft.

The rule codifies the final resolution to a legal situation that arose three years ago that briefly made it impossible to pay an instructor to train in one's own aircraft.

The rule allows instructors with experimental aircraft to offer training under a LODA for endorsements, primary training toward a sport pilot certificate in certain cases, and re-enables experimental light-sport aircraft (E-LSA) to be used in compensated training. These changes were championed by EAA over almost a decade of advocacy.

The new rule adds important training avenues in some of the lightest aircraft in the community. Under this change, a flight training operation with a properly issued LODA may offer training toward the operation of an ultralight vehicle, including student solo, and may offer an upgrade path to a sport pilot certificate, all while using an E-LSA or other experimental aircraft to provide the training.

The rule becomes effective on December 2. An advisory circular further explaining the rule and detailing the application process for a LODA will be issued in the coming months.

EAA Works to Correct Change in FAA Phase I Flight Test Policy

EAA is concerned about a significant change that appeared in new FAA guidance that sets operating limitations for Phase I flight testing in all experimental aircraft. This change would severely curtail the number of airports an experimental aircraft can utilize during flight testing, negatively impacting safety and effectiveness of flight testing.

The new language only permits operations out of one airport within the designated flight test area. The policy notes that "a second airfield may be listed with valid justification of a specific flight test or safety requirement." Previous guidance had no specific limitations on number of airports, only requiring that all authorized airports for flight testing be listed by the designated airworthiness representative in Phase I operating limitations.

Most importantly, there should never be any doubt in a pilot's mind whether an airport is available for a precautionary landing in the case of weather or the slightest hint of mechanical trouble. We want to be clear that we are aware of no enforcement action ever being undertaken by the FAA in a case such as this and encourage all pilots to exercise their authority under FAR 91.3, but this unnecessary limitation in available airports would add needless complication to an already stressful situation.

EAA is already engaging the FAA to ensure this policy is swiftly reversed.

Back in June, Chapter 26 joined with Chapter 441 to donate a bench to Auburn Airport, to be installed in front of the Peter Bowers memorial mural. This bench has arrived and is in place. The picture shows Chapter 26 President Dave Nason (left) and Chapter 441 President Brian Lee (right).

Tamera Nason Photos

Homebuilts Completed in 2023

It's easy enough to compute how many homebuilt aircraft exist on the FAA's registry: Just count how many are licensed as Experimental Amateur-Built

However, when you're trying to determine how many were ADDED in a particular year, it's a bit tougher. Because comparing the numbers from year to year leaves out an important factor: Hundreds of homebuilt aircraft are typically REMOVED from the registry in a given year. The comparison between years gives you the NET change…not the total number that were completed.

For instance, the net change between 2022 and 2023 was 760 homebuilts…but in actuality, almost 1,400 homebuilts were added to the registry!

But some weren't actually new! Over a third were planes that had previously been on the active list, had been deregistered for some reason, and were re-registered in 2023.

I've taken those 1,400 planes and broken them down into type and model. The table includes only those homebuilt types that had ten or more examples added in 2023.

Type	Model	New EAB	Re-registered EAB	Total
Aircam	All EAB	8	5	13
Bearhawk	All EAB	10	0	10
Challenger	All EAB	3	13	16
Cozy	All EAB	8	5	13
Cubcrafter	All EAB	93	5	98
	CCK-1865	10	3	13
	CCX-1865	2	0	2
	CCK-2000	15	0	15
	CCX-2000	30	2	32
	CCX-2300	36	0	36
Glasair	All EAB	4	10	14
Glastar	All EAB	6	4	10
Harmon Rocket	All EAB	7	3	10
Just		20	2	22
	JA20	12	1	13
	JA30	3	1	4
	JA35	5	0	5

Homebuilts Completed in 2023 (Continued)

Type	Model	New EAB	Re-registered EAB	Total
Kitfox	All EAB	27	30	57
Lancair	All EAB	10	15	25
Legend	AL18	11	0	11
Magni	All EAB	25	1	26
	N16	6	0	6
	M24	18	1	19
	M26	1	0	1
MTOSport	All EAB	10	0	10
Pitts	All EAB	4	8	12
Rans	All EAB	37	15	52
	S-6	1	2	3
	S-7	8	5	13
	S-9	0	2	2
	S-12	0	4	4
	S-16	1	0	1
	S-19	3	1	4
	S-20	4	1	5
	S-21	20	0	20
Rotorway	All EAB	11	7	18

Type	Model	New EAB	Re-registered EAB	Total
Rotorway	All EAB	11	7	18
Rutan	All EAB	7	12	19
	Long EZ	5	7	12
	Varieze	0	3	3
	Q2	0	2	2
	Q-200	2	0	2
Searey	All EAB	4	7	11
Sling	All EAB	34	0	34
	Sling 2	3	0	3
	Sling TSI	31	0	31
Sonex	All EAB	17	8	25
	Sonex	7	8	15
	Sonex B	2	0	2
	Onex	1	0	1
	Waiex	3	0	3
	Xenos	4	0	4
Stolp	All EAB	4	6	10

Homebuilts Completed in 2023 (Continued)

So, you had to wait until the last page to verify that Vans had "won."

Note that the RV-12 listing here is ONLY for -12s registered as Experimental Amateur-Built. It does not include the masses of RV-12s licensed as Special Light Sport or Experimental Light Sport. For those keeping score, about 45 Light Sport RV-12s were added in 2023.

The effect of the return of the re-registered EABs is fairly obvious. For instance, 24 RV-4s were added to the registry in 2023…but 15 of them had previously been de-registered.

One sees the same thing with other older types, as well.

Type	Model	New EAB	Re-registered EAB	Total
Vans	All EAB	216	62	278
	RV-3	2	3	5
	RV-4	9	15	24
	RV-6/6A	18	15	33
	RV-7/7A	57	7	64
	RV-8/8A	24	11	35
	RV-9/9A	18	3	21
	RV-10	42	5	47
	RV-12 (EAB)	4	2	6
	RV-14/14A	42	1	43
Velocity	All EAB	8	7	15
Zenair	All EAB	55	27	82
	CH-250	0	1	1
	CH-601	2	13	15
	CH-650	4	0	4
	CH-701	13	7	20
	CH-750	34	3	37
	CH-801	2	2	4
	Cricket	0	1	1

Getting my arm well and truly stuck in the four-hour saga to install the two cap screws holding the stall warning vane switch assembly in place.

Repurposing a button spacer as a rivet spacer for the wingtip aft rib

Using a wood lathe and files to turn a starting taper on the wing install guide pins

From the Chapter 441 Discord Forum

I caught Steve test-running his engine at Auburn Airport last week. He reported losing power in one of his cylinders on a test flight. Turns out the power lead for that cylinder's ignition coil had been resting on a sharp aluminum edge…and it cut through. All fixed, now.

This Month

#1

Bonus Guess that Airplane!

#2

The Vultee P66 Vanguard

The P66 was designed for the USAAF in 1938 by Richard W. Palmer. The original prototype was designed with a tight-fitting cowling to give a more pointed and aerodynamic airflow. Palmer and his design team had four projects that used the same wing design and similar fuselage structure. They were designed for a basic trainer (BT-13), advanced trainer (model BC-51, which lost out to the North American T-6/Harvard) and the Model BC48 Pursuit fighter which became the P-66 Vanguard.

The aircraft featured a metal covered, semi-monocoque fuselage with retractable landing gear. It was powered by the P&W R-1830 engine. The first prototype flew in September 1939 piloted by Vance Breeze. The NX number NX21755 was given to this aircraft. The lengthened propellor shaft and tight nose cowling were changed back to the shorter nose and less tight cowling. The aircraft were ordered by Sweden for deliver in 1941. However, the USAAF kept them and were eventually diverted to China and India.

https://en.wikipedia.org/wiki/Vultee_P-66_Vanguard
https://www.defensemedianetwork.com/stories/vultee-p-66-vanguard/
https://www.youtube.com/watch?v=cmbEXfXY91U

General Characteristics:

Crew: 1
Length: 28 ft 5 in Wingspan: 35 ft 10 in (10.92 m)
Wing area: 196.8 sq ft (18.28 m2)
Empty weight: 5,237 lb Max takeoff weight: 7,384 lb
Powerplant: Pratt & Whitney R-1830-33 14 Cyl twin row radial, 1,200 hp (890 kW)
Propeller: 3-bladed Hamilton Standard hydromatic

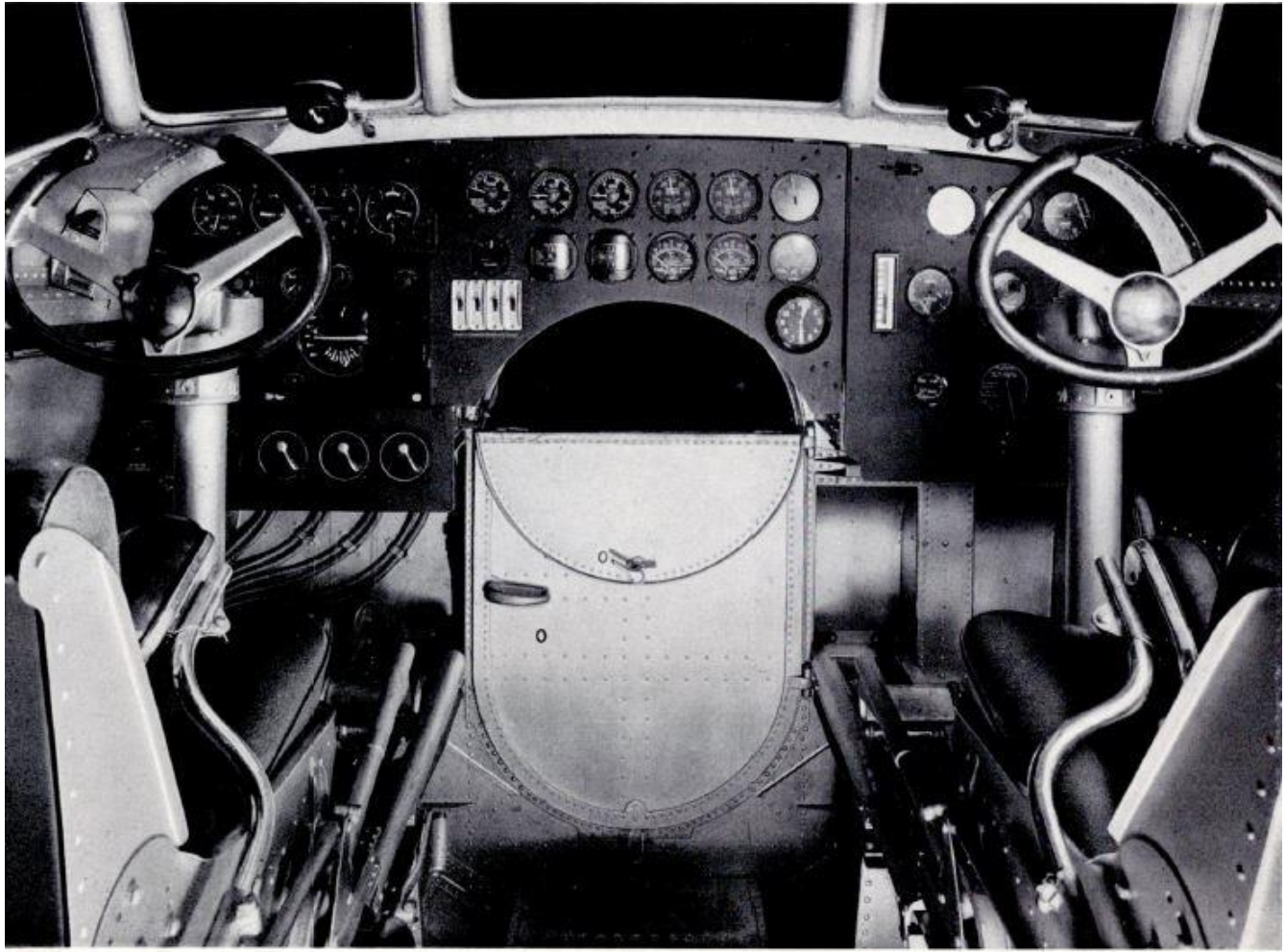
Performance:

Maximum speed: 340 mph at 15,000 ft
Cruise speed: 290 mph at 17,000 ft
Stall speed: 82 mph
Range: 850 mi
Service ceiling: 28,200 ft
Rate of climb: 2,520 ft/min

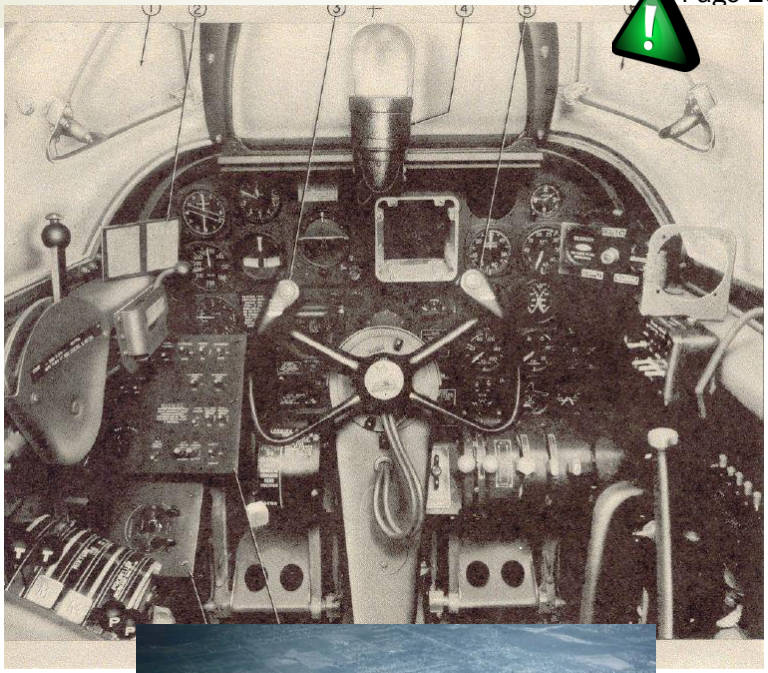
Armament:

Guns:
4 × .30 in machine guns; 2 × .50 in machine guns

This Month



Northrup P-61 Black Widow



The P-61 was designed in 1940 as a night fighter and named the Black Widow. It was an all metal twin engine, twin boomed design. First flight occurred on 26 May 1942. Production aircraft rolled off assembly line in October 1943. The airplane was used in Europe, Pacific, China Burma India theaters.

Although not produced in the large numbers of its contemporaries, the Black Widow was operated effectively as a night fighter by United States Army Air Forces squadrons in the European Theater, Pacific Theater, China Burma India Theater, and Mediterranean Theater during World War II.

On the night of 14 August 1945, a P-61B of the 548th Night Fighter Squadron named *Lady in the Dark* was unofficially credited with the last Allied air victory of WWII.

General characteristics:

Crew: 2–3 (pilot, radar operator, optional gunner)
Length: 49 ft 7 in Wingspan: 66 ft 0 in Height: 14 ft 8 in
Wing area: 662.36 sq ft
Empty weight: 23,450 lb Max takeoff weight: 36,200 lb
Powerplant: 2 × Pratt & Whitney R-2800-65W Double Wasp 18-cylinder air-cooled radial piston engines, 2,250 hp each
Propellers: 4-bladed Curtiss Electric constant-speed feathering propellers, 12 ft 2 in (3.72 m) diameter

Performance:

Maximum speed: 366 mph at 20,000 ft
Range: 1,350 mi
Service ceiling: 33,100 ft (10,100 m)

Armament:

4 × 20 mm cannon in ventral fuselage, 200 rounds per gun
4 × .50 in M2 Browning machine guns in remotely operated, full-traverse upper turret

Baking Deuce – Arizona: During the landing roll and as the pilot pulled the power to idle and lowered the tail, the airplane then encountered a dust devil that caused it to weather-vane. Subsequently, the airplane veered off the right side of the runway, the main landing gear collapsed, and the airplane came to rest nose down. (4/1/2017)

Sonex – Virginia: Prior to takeoff, the pilot checked the weather conditions before departure for the personal flight, and he noted that it was drizzling but that the cloud/ceilings were "good." Once airborne, the weather conditions began to deteriorate, and the pilot chose to return to the airport. While the airplane was on final approach to land at 700 ft above ground level (agl), the engine "just stopped." The pilot attempted to restart the engine to no avail, and he subsequently initiated a forced landing just short of the runway.

Postaccident examination of the engine revealed no evidence of any preimpact mechanical malfunctions or failures that would have precluded normal operation. Weather conditions reported at the time of the accident were conducive for serious icing at cruise power. The pilot acknowledged that the weather conditions were conducive to carburetor icing but that he did not apply carburetor heat until he tried to restart the engine, and even then, that he did not use full carburetor heat. (4/22/2017)

Bounds Bearcoupe – Utah: The airplane was designed and built by the pilot; it was a mid-wing tailwheel design. The pilot reported about 296 hours of flight experience in the airplane, He was flying with an instructor, and let the other man land the aircraft. Due to the instructor's lack of prior experience flying the airplane, which had foot pedals that were raised off the floor, he inadvertently applied pressure to the toe brakes, which resulted in the airplane nosing over immediately on touchdown. (5/5/2017)

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

For Sale – RV-12 Project

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

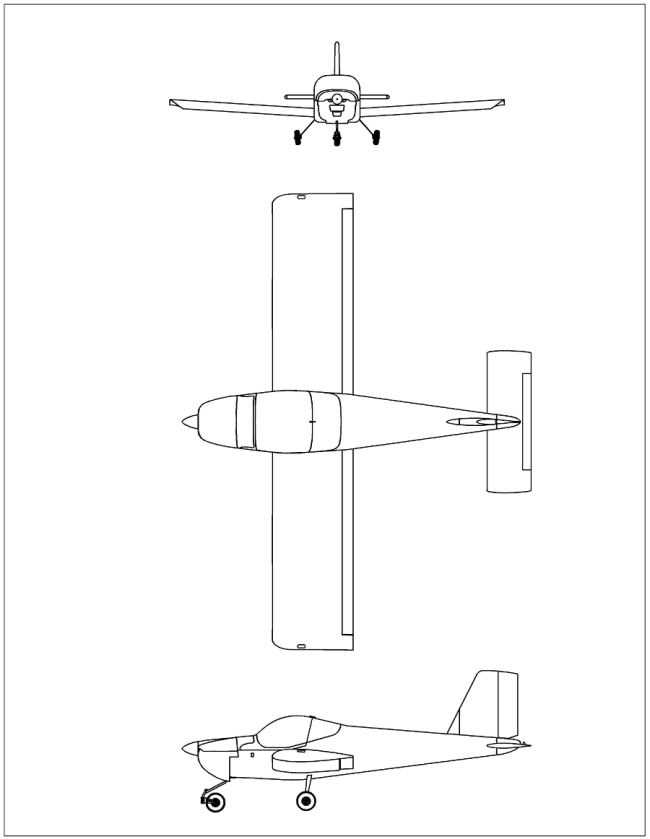
Finishing kit includes landing gear, brakes, tires, fairings, wheel pants, control cables, seat belts, plexi, etc. (This the most expensive kit on the airplane).

Factory built fuel tank.
Interior kit ….upholstery, side panels, sound proofing.

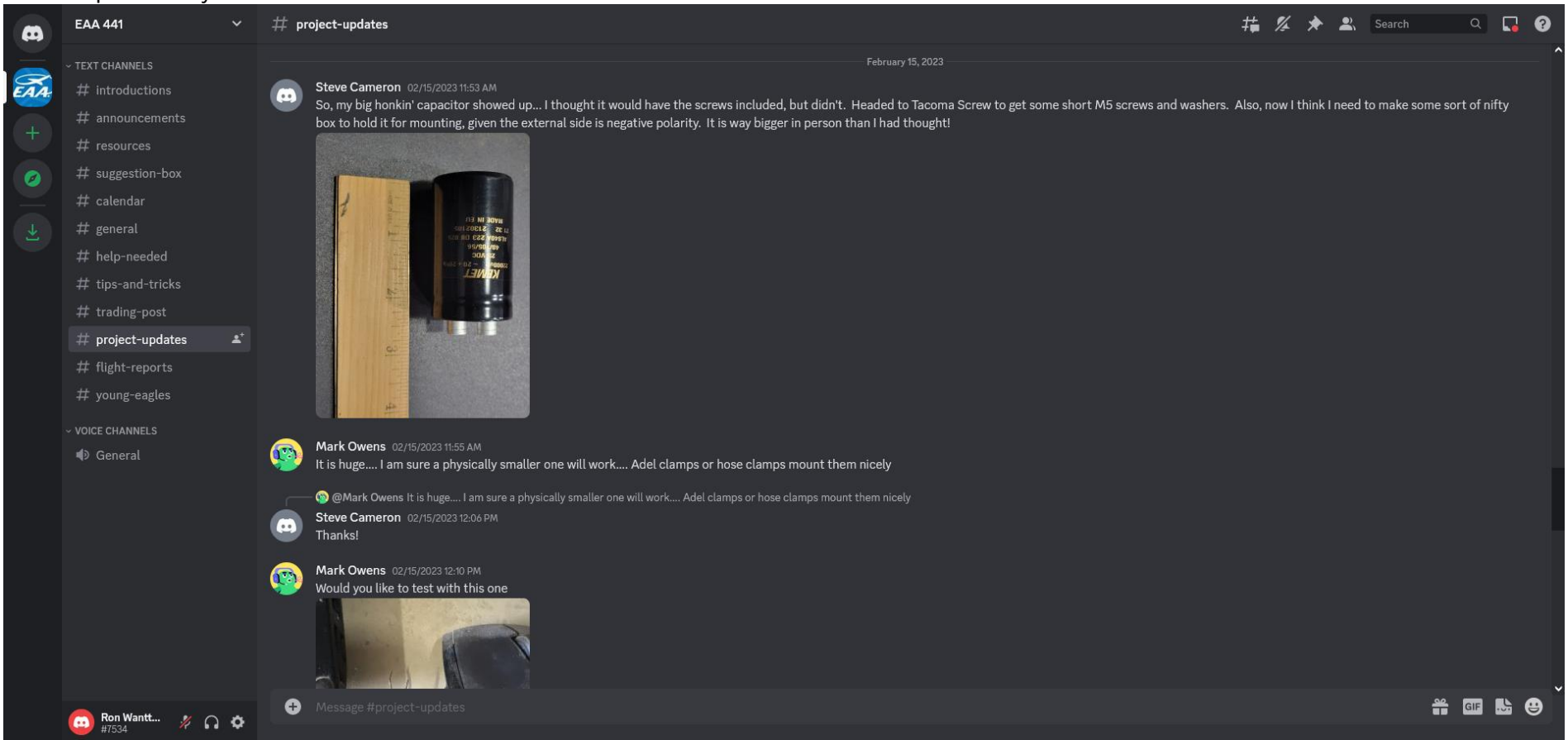
This is RV12 #616. It is designed for the carbureted 100 HP Rotax, and cannot be converted to the injected version. The kits were purchased 2011/2013. My cost was over $50K. Duplicating today would be over $75K. Price for all is $45K.

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

Jeff Robinson
360-961-2482

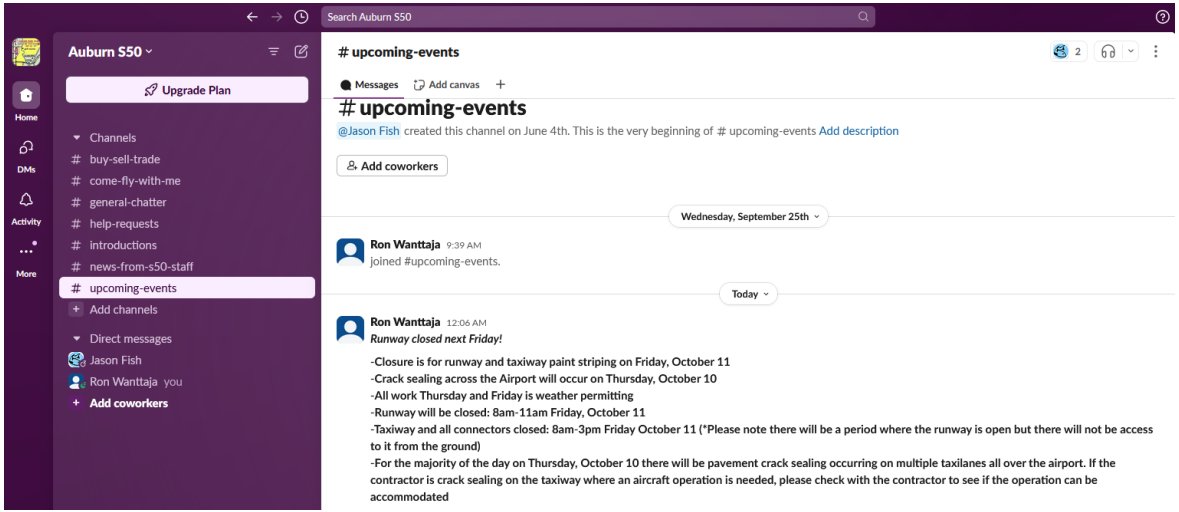


EAA 441 has a dedicated online forum using the Discord server. It's a free service without ads or spam content, and can be accessed via mobile apps or on your PC via a web browser. To sign up, email Edwina Sharp: ebsharp@centurylink.net.



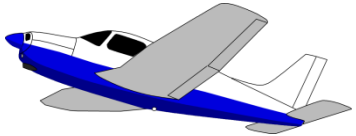
Jason Fish, a Chapter 441 member, has set up a Slack account for those who base out of or fly from Auburn Airport.

Slack is similar to Discord, forum software that helps persons with similar interests meet.



You can join using this link:

https://join.slack.com/t/auburns50/shared_invite/zt-2k30jsf2t-8q~H_BUJye6MeoVHqIPvww



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.