

EAA Mount Rainier Chapter 326 Newsletter

Thun Field – February 2008

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Meeting Notice

**Tuesday, February 12th, 7 PM
CAP Building, Thun Field**

Program: Washington Air Search and Rescue

Refreshments: Doug MacArthur

we'll try to fix that by extending their membership through next year.

In the same vein, let's put our wife's / kid's name alongside ours on the roster. A few are there already but not many. You can do this yourself.

On our website, go to the members section and log in.

Click on "List & Edit Chapter Members"

Click on your name.

Go to bottom of screen and click "Edit ____"

When finished, click "Save Entry" at the bottom.

From the Secretary

EAA Chapter 326 monthly meeting
January 8, 2008

Jeff called the meeting to order for the evening.

Refreshments were provided by Sandy.

Tonight's program is by Allen Jesmer - Precision Airmotive. Fuel Injection systems, & Carbs

Visitors: Don Hatler – Has a Glastar
Jim Duffin – Restoring 1946 Funk
Chris Kleen – Has an RV6

Chapter dues are due. \$15 is cheap entertainment for a year's worth of fun. Get them paid up as soon as you can please!
Treasurer report \$5656 on the books.

NW Aviation conference 23rd & 24th of February start planning to sign up and help work the booth. Smitty will bring out his T51 project and Kevin will bring his RV9A fuselage.

In June we have Young Eagles coming again. Start thinking about which one of us would like to be the coordinator for this year.

Alan gave a good overview of the legal situation that caused Precision to stop the manufacture and support of the Carb line of products. He then gave an overview of their new experimental only fuel injection system. Looks to be an interesting system, and Kevin will be installing it on his RV when the time comes.

- Andy Karmy

The Ram Restaurant & Brewery

The ever-growing group of malcontents have voted to try the Ram instead of Ruby's for our last Thursday of the month club. Joe Andre is the ring leader and the one to blame if we get thrown out. Not known for sophisticated dining habits, you can bet Joe will have us seated in the Brewery.

The Ram is on the east side of Meridian, across from South Hill Mall, in the same parking lot as Home Depot.

Regs and Refs

Initial building

- 21.191 Basic definition of amateur-built
- 21.175 Classification of airworthiness
- 21.193 Needed information for experimental testing
- 45.22 "N" number special rules
- 45.23 Experimental display
- 45.29 Size of "N" number
- 47.15 General information / "N" number
- 47.33 General information / Registration
- 91.205 Instrument and equipment requirements
- Advisory Circular 20-27F
- Advisory Circular 20-139
- Advisory Circular 21-12A

Flight Testing

- 91.305 flight testing area
- 91.319 Operating limitations
- Advisory Circular 90-89A

Normal Operation

- 21.181 Duration of airworthiness
- 91.25 Accident reporting
- 91.207 ELT requirements
- 91.319 Operating Limitations

Maintenance

Membership Policy

This is a family friendly Chapter. You only need to pay for yourself. Your membership includes your immediate family, wife, kids, girlfriend.... A few of our members overpaid; and

21.93 Major change
Part 43, Appendix D
Advisory circular 65-23A

Sale

21.179 Transfer of airworthiness

Go to the EAA Website <http://www.eaa.org/>

On the top right of the page click on member login.

After logging in, click "Homebuilts" in the top row.

Much of the stuff listed above is under "Govt"

While you are there, poke around the other menu items. There is a ton of good info there.

Chinese Cessna

Cessna is taking a lot of heat for deciding to manufacture their Cessna 162 "Skycatcher" in China. Here is part of their response to the avalanche of criticism. Or maybe it was just Skinner.

First and foremost, it needs to be understood that the SkyCatcher will be designed, tested, constructed, and serviced to the same Cessna quality standards that enabled us to become the world's largest manufacturer of general aviation airplanes. Cessna backs the SkyCatcher completely, the same as any other aircraft we produce. We have complete confidence that Shenyang Aircraft Company (SAC) will build the SkyCatcher to Cessna's rigorous standards for safety, quality, reliability, value, and performance. So much so, that we are putting Cessna's brand on the aircraft and our reputation behind it.

The global aerospace industry, regardless of country of origin, is one of the most highly regulated for quality and safety. China is not exempt from these rules. Cessna engineers, based in Wichita, are conducting the complete design for the SkyCatcher, and will be responsible for all ASTM compliance work. In addition, Cessna employees will be on-site at SAC to oversee manufacturing, quality assurance and technical design. Make no mistake; this will be a Cessna aircraft.

SAC was chosen to manufacture the SkyCatcher only after an exhaustive global search that included every region of the U.S. Our requirements were simple, but aggressive: produce a high-quality aircraft, in very large volumes, which conforms to global safety and performance standards. In addition, to allow the product to be priced competitively in its category, we needed a partner willing to make a significant investment in manufacturing infrastructure.

SAC came out on top in all areas of measure. They offer proven aviation expertise and the capacity Cessna needs to deliver up to 700 SkyCatchers each year. In business since 1951, SAC has a long history of producing complete aircraft and major assemblies for the global aviation industry's largest manufacturers, including Boeing, Airbus, IAI, and Bombardier.

Like most consumer products today, it's difficult to classify a product as being from a single source country. Is a Toyota Tundra manufactured by U.S. workers in San Antonio, Texas, a Japanese automobile? Is Harley-Davidson an all-American

motorcycle even though components are sourced from the U.S., Mexico, China, Japan and Australia? The SkyCatcher was designed in the U.S. and will be assembled in China primarily from U.S.-sourced components, including the engine and avionics. The market for manufactured goods has truly become global for nearly everything we purchase today. It applies to automobiles, televisions, aircraft, clothing and a myriad of other goods. And that's a good thing, because it provides value which consumers demand, and the business relationships help improve political stability throughout the world.

Many people expressed concern that Cessna would be taking valuable jobs and sending them outside of the United States. While it seemed to go unnoticed amongst all the recent news events, Cessna announced in November that we will be adding 1,500 new jobs at our U.S.-based facilities in 2008. This represents a 10% increase in our global workforce. The biggest challenge we face today as a corporation is filling this demand for qualified employees.

The importance of the success of the SkyCatcher to the U.S.-led aviation industry cannot be overlooked. The population of licensed pilots has dropped roughly 30 percent since 1980. The light sport aircraft market is based on providing an aircraft priced low enough to counteract the rising costs of owning and flying aircraft and attempt to reverse this trend. At less than half the price of a new C-172 Skyhawk, the SkyCatcher will bring the cost of flight training down to a level accessible to a much greater number of people. This will result in a significant increase in new pilot starts, as well as enable pilots who have been priced out of the market to fly a new aircraft.

By entering this market, Cessna will be creating an entirely new generation of aviators and customers. It is a global economy now, and the demand for flight training isn't just in the United States. In fact, the largest flight training demand today is coming from countries outside the U.S., like China and India. To provide future growth and employment stability, Cessna must ensure our products are offered competitively in all growing markets.

Tom Aniello
Cessna Vice President, Marketing

Internet Search and Rescue

Volunteers collaboratively analyzing aerial satellite imagery to assist in search and rescue efforts

Getting Started

If you are interested in joining us in this Internet Search and Rescue effort, you will need to [register first](#). You will also need to have a broadband Internet connection (dialup will be too slow to download imagery) and a current version of Google Earth (GE) installed on your computer. You can [download Google Earth here](#).

Once you have registered and are logged in, click on the "Get Automatically Assigned Imagery to Review Here" link which will open a dialog box asking if you want to open the KML overlay file. Click on "Open" and the KML overlay will download in GE. These images that are downloaded were taken after the plane (or other searched for object) went missing. They

are overlaid on the older GE satellite imagery that was taken before the plane or other object went missing.

Use a systematic pattern to scan the downloaded images at an "eye alt" of about 500 feet. If you see anything that looks like it could be a possible plane crash site (or the searched for object), you will need to check to see if the suspicious object was there previous to the plane's or object's disappearance. To do that, you need to click the downloaded overlay off to see if the object is still there in the older imagery. This is located under the "Temporary Places" in the "Places" box on the left in GE. It helps to toggle back and forth a few times. If the object is there in the old imagery, it does not need to be reported, as it wouldn't be the object we are looking for.

If the object is not on the older imagery, and can't be identified as an unrelated vehicle or building, then it should be reported. Click on the yellow pushpin assigned to the overlay in GE, which will open a dialog box. Click on the "Report Objects of Interest Here" link at the top. Or as an alternative, go to the InternetSAR.org website and click on the "Report Objects" link and follow the reporting directions.

If you are new to this effort, please check out the tutorial (**this will be coming soon**), which will show photos of plane crashes, terrain and other imagery to help you with your identification process.

Again, if you would like to join us in the InternetSAR.org effort, please [register here](#). Everyone is welcome. You do not need any professional training to participate, just a good set of eyes, attention to detail, and some extra time to devote to the search. If you are interested in joining or reading our forum discussion, it is located on the [Google Earth Community website](#).

Alternator Wire Broke

Replaced alt bracket & thru bolt. Wasn't torqued to spec.
Gear leg fairings sliding down. Anchored to fuselage.
Replaced tail wheel bearing. Probably a bi-annual event.
Installed electric aileron trim.
Made control locks for aileron and elevator.
Replaced wheels & bearings. Corrosion on wheels probably due to wetting the floors during painting.
Michelin Air Stop tubes / filled with nitrogen instead of air.
Oxygen: added Mountain High system.
Replaced David Clark's with Bose headsets.
Cracked FAB cover plate. Replaced with heavier alum and added brace from sump to front of cover.
New Alt Air door. Designed my own as others kept failing.
1/8 shims under lower engine mounts.
Tweaked restrictors in fuel injectors so all cylinders would peak at same fuel flow. Very lengthy process but worth it.
Replaced prop spinner rear bulkhead anchor plates. A good fix for a design problem on early Whirlwind spinners.
Added automatic pitch trim to TruTrak autopilot.
Added second rudder trim tab.
Sidewall upholstery to insulate rear seat pax.
Aileron push tube boots to block air coming into cabin.
Made rudder lock for X-C parking.
Added com antenna switch box for handheld Icom.
Repainted boot cowl. Touchup paint on wing tip LE.
Anywhere Map: Installed for backup gps nav and pocket plates.

I ain't done yet either... but hopefully getting close. Two years and 350 hours. I love this airplane. John Brick

Done Yet?

Your first flight is a crowning achievement but are you really done working on the plane? Most people leave a few minor things unfinished but not me. My RV-4 was finished when I moved it to the airport. All the fairings were done, upholstery was done, and it was painted. Just had to put the wings on and fly, fly, fly. Well not quite! Here is a list of "improvements."

Alternator Belt:

Pulley rubbed cowling. Had to remove prop to put on shorter belt.

Wing root rubber fairings:

Came loose under wing. Pop riveted to fairing strip.

Heavy right wing:

Aileron squeezing didn't work. Used aileron trim wedge underneath left aileron

Rudder trim wedge.

Hot Strip Sump Heater.

Baffle seals blowing out.

Static system plumbing: moved from pitot tube to fuselage.

Wired easy access for battery charger.

Auto pilot / Radio interference. Replaced oscillator in TruTrak.

Installed G meter.

Baffle in front of cyl #1

Balanced prop.

Compression Tester: How does it work?

This quoted part is from AC43.13-1b: "Differential Pressure Compression Test. The differential pressure tester is designed to check the compression of aircraft engines by measuring the leakage through the cylinders caused by worn or damaged components. The operation of the compression tester is based on the principle that, for any given airflow through a fixed orifice, a constant pressure drop across that orifice will result." {The measuring element is the restriction orifice and the leakage in the engine is compared to the flow of this orifice. There will be a pressure drop across the orifice and another across whatever leaks in the engine. Since the meter and engine are connected in series, the flow is the same across both. }

"The restrictor orifice dimensions in the differential pressure tester should be sized for the particular engine as follows: Engines up to 1,000 cubic inch displacement: 0.040 inch orifice diameter, 0.250 inch long, 60-degree approach angle. Engines in excess of 1,000 cubic inch displacement: 0.060 inch orifice diameter, 0.250 inch long, 60-degree approach angle."

Reported in the Rvator
615 new RV's took to the sky in 2007

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