



# CHAPTER 81

## SKY WRITER

November 2010 Newsletter

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### **Notice – November Chapter Meeting 20 November, 10 AM, Ryan Field Admin Bldg**

#### **2010 EAA 81 Dues Payment Status**

Annual dues are \$20. As of 12 Nov, 97 of 107 regular members are paid-up. Checks should be made payable to: EAA Chapter 81 and sent to Mick Myal, 2900 E. Weymouth, Tucson, AZ 85716, or brought to a chapter meeting.

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#### **EAA Chapter 81 Meeting Minutes October 16, 2010**

Meeting was called to order at 1115 by President Duane Boyd at the garage/workshop of Ken Rice. It was announced that the Copperstate Fly-In would take place the following week, running Thursday through Saturday. As always, volunteers are welcome, particularly for clean-up on Sunday. Several Chapter 81 members present had already volunteered.

**Old Business:** Joe Seibold is seeking candidates for Builder Profiles. He will go to your hangar and do all the photography. He also reminds us that his trailer is available to anyone who needs it, but that the new bed, just applied last year, is warping. He is looking for a supply of diamond aluminum sheeting to resurface it.

There was no New Business.

The Project Presentation began at 1120. Ken Rice has been building his Lancair Legacy for just under 10 years. He retired last year, so progress has become much more rapid recently. Although he is quite accustomed to flying jets, he admits that he does not own his own oil well and decided to build a very fast piston-engine plane instead.



He built a custom garage, but sized it for the Lancair 360 he had originally ordered. The Lancair factory folks persuaded Ken to upgrade to the larger, faster Legacy, so the shop had to be enlarged.



Already installed is its Performance Engines-built Continental IO-550 six-cylinder engine, fuel-injected, ported and polished, and making a claimed 370 HP. Prop is an M-T composite hydraulically controlled constant-speed 3-blade. The aircraft features a Grand Rapids Avionics suite and GPS and a Vertical Power Systems electronics coordinator for power distribution and switching, with an emergency backup system. With a two-screen system and synthetic vision, this panel has more capability than that of a Boeing 777 (and Ken would know because he flew the Big Birds for a living).



This Legacy is a semi-quick build kit. The original-design gas canopy struts have been replaced with an electric opener with a keyless entry system (and an emergency manual opener for when the battery in the remote dies). Ken has installed an openable left rear window for use as an escape hatch. The rudder pedals have been made adjustable for fit, and so that

one can stretch out with feet below them. With all his customization, he has moved the hydraulic pump three times already. When pressed for performance numbers, Ken modestly pointed out that the plane hasn't yet flown, but cited the numbers from Pete Goudinoff's Legacy, which differs mainly in that it spins a Hartzell metal three-blade CS prop. Pete has more than 100 hours on his new bird and sees 242 knots true airspeed at 10,000 feet. Economy cruise is 220 knots at around 10 gallons per hour (25 MPG!) and initial climb is 2000 feet per minute. It is still climbing at 800-900 FPM at 10,000 feet. With its 66 gallon fuel capacity, range is 1500 miles. Of course, with its high-speed comes high-altitude cruising, typically up to 16,000 feet, and the Legacy has a built-in oxygen system. Landing approach is at 95 knots, although 90 might work better; Pete is still working out the details. Ken is hoping that he will have the last of the "home" building done by spring, and several present offered to help him move it out of its now-crowded shop to his hangar.

We all applaud Ken for his craftsmanship,



inventiveness, and sheer ambition and persistence in making his first project such a complex one. We also applaud the wonderful barbeque provided by his son, a professional caterer, and a significant upgrade from the usual donuts (not that we don't like donuts).

The meeting ended at about 1300. Next meeting will be at the Ryan Field meeting room on Saturday November 20 at 1000.

Respectfully Submitted by  
Secretary Bob Miller

### ***Classifieds***

Buck Clippard has his recently fully restored (300 hours since restoration) J-3 Cub on the block and is asking \$30K. Contact Buck at [cdclip@aol.com](mailto:cdclip@aol.com), (520) 742-3636

## Useful Information

(From <http://www.eaa.org/experimenter/issues/1010.html>)

### Notes of Interest

From Buck Clippard, a link to a unique travelogue – a photo journal of a 32 day round-trip from California to the Atlantic and back via Piper Cub, with the types of low-altitude scenic views we all enjoy. Includes two passes through Arizona.

<http://www.vintageflying.com/page24.html>

Here are some photos from the journal.

**Why not buy Buck's Cub and create your own low-level travelogue?**



**Q. I'm thinking of purchasing an already flying homebuilt, and I was wondering what kind of restrictions are placed on experimental aircraft. I've been reading FAA regulations, specifically § 91.319, which spells out operating limitations for aircraft with experimental certificates. That regulation seems awfully restrictive, yet I see homebuilts flying all over the place, even using instrument flight rules (IFR). What's the deal?**

**A.** Yes, § 91.319 is quite restrictive on the face of it, but there's more to the story. Section (c) of the regulation holds the key in its first sentence: *"Unless otherwise authorized by the Administrator in special operating limitations..."*

When an experimental airworthiness certificate is issued to a homebuilt aircraft, it comes with a set of operating limitations. These limitations expand the aircraft's operational capability beyond what is stated in § 91.319. The operating limitations will spell out several things specific to that aircraft, such as where the initial flight testing must be done and for how long, whether the aircraft is allowed to perform aerobatics or not, whether the aircraft is allowed to be operated at night or under IFR, etc.

When you're shopping for your homebuilt, it's important to check the operating limitations that have been issued to the aircraft you may be considering in order to make sure the aircraft is authorized to perform the type of flying you wish to conduct. The operating limitations are a part of the airworthiness certificate and must be carried in the aircraft at all times, so it shouldn't be hard for the seller to find them and show them to you. Operating limitations are a part of the aircraft's permanent file at FAA; if the seller finds that they've been lost, he can have them replaced by calling the FAA Aircraft Registration Branch in Oklahoma City, Oklahoma. It's a toll-free call: 866-762-9434.

If the aircraft you're considering was certificated some time ago, it may have a more restrictive set of operating limitations as compared to those that are issued today. If that's the case, you can apply to the FAA to have the operating limitations updated to the more current format. For example, if the operating limitations don't allow flight at night or under IFR, but you would like to operate the aircraft at night and/or under IFR and it can be equipped for those operations, you can apply for new operating limitations that will allow night or IFR flight. Just be aware that you must follow the operating limitations that have been issued to that particular aircraft regardless of when they were issued. They don't automatically update to the most current version.

**Q. I own a homebuilt airplane that I didn't build. A friend who is an airframe and powerplant (A&P) mechanic is performing the condition inspection for me, and he asked for the equipment list. I told him that I'm not required to have one. He thinks I'm supposed to have an equipment list, though. Who is correct?**

**A.** There's no regulatory requirement for an equipment list on an experimental aircraft. In fact, there's no requirement for a flight manual or any other document other than the FAA-issued operating limitations. The FAA (and the EAA) recommends that builders/owners of experimental aircraft develop flight manuals and equipment lists for their aircraft as a "best practice," but they aren't required documents.

The condition inspection is just that – an inspection of the physical condition of the aircraft. There's no document or standard to compare the aircraft to other than its physical condition. The only document that directly applies is the operating limitations, which is where the requirement for the inspection is found and also where the correct sign-off for the inspection is found as well. Don't let the A&P/inspection authority sign the inspection off as an "annual," because it doesn't meet that requirement called out in the operating limitations. Make sure he refers to the operating limitations for the proper entry in the aircraft records.

**Q. There has been a lot of discussion regarding the need to replace your paper pilot certificate with a plastic one by March 31, 2010. What about my repairman certificate? Do I need to replace it as well?**

**A.** Ultimately you will have to replace your paper mechanic and repairman certificates with the new plastic versions, but you have a bit more time. 14 CFR 65.15(d) spells out the requirement:

"(d) Except for temporary certificates issued under §65.13, the holder of a paper certificate issued under this part may not exercise the privileges of that certificate after March 31, 2013."

You'll need to replace your amateur-built or light-sport aircraft repairman certificate (and your mechanic, dispatcher, air traffic controller, and/or parachute rigger certificates if you hold them) by March 31, 2013. The process for replacing these certificates is exactly the same as for your pilot certificate. Information can be found at the [FAA Airmen Certification web pages](#). You can request replacements for *all* your certificates simultaneously, so if you haven't already replaced your pilot certificate, you can take care of replacing your repairman or mechanic certificates at the same time.

That's all for now.

Please send items of interest, classifieds, (<mailto:newsletter81@eaa81.org>) or to Erik's address on front page.  
**Erik Fjerstad, Newsletter Editor**

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**Check out the Chapter Website at <http://WWW.EAA81.ORG/>**

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