

EAA Mount Rainier Chapter 326 Newsletter

Thun Field – February 2007

98

Meeting Notice

Tuesday, February 13th, 7 PM
CAP Building, Thun Field

Program: New line of light Sport Aircraft by Aerolab.
Presentation by Bill Sayre, a dealer in Gig Harbor.

Refreshments: Paul Yarbrough

We need additional program ideas for 2007. Please contact John with suggestions.

Jeff Liebman

Greetings all, I am Jeff Liebman, your new chapter president for the next couple years. I was born in Cape May, New Jersey (don't ask me what exit, I think it is Exit 4) in the great year 1965. After about six years in "Jersey" we settled down in Pompano Beach, Florida which is just north of Ft Lauderdale. I thought my days of shoveling snow were over until later assignments in life brought me back to snow ridden areas. I graduated from Pompano Beach High School in 1983 and then headed off to the University of Florida for four years to try to get even smarter (can't tell you if it worked). After switching majors a couple of times, I graduated in summer of 1987 with a B.S. in Geography. While at U of Florida, I was enrolled the whole four years in Air Force R.O.T.C, made it to the end and was commissioned a 2nd Lieutenant in the Air Force. Now to the always juicy aviation part.

While I was in high school, I started taking flying lessons funded by my job as a stock boy at a major grocery store in Florida. I soloed in August 1981 at 16 years of age, skipped school on my 17th birthday to take my private pilot checkride which I passed and officially joined the ranks of licensed pilots. When I gave my sick note to my homeroom teacher the next day, he patted me on the back and congratulated me on my new license, obviously knowing I wasn't sick. My training was done in the good ole' Cessna 152 and then I moved up to the C-172 thinking that was "heavy time". I managed to fly a few hours here and there during my four years at the University with whatever money I could scrape up as a starving college student.

February of 1988 found me driving through the front gate of Laughlin AFB, TX as a new student pilot for the Air Force. The new journey had begun and still continues. For 52 fairly grueling weeks, myself and a class of about 30 other guys went through the trials and tribulations of learning to fly instruments, aerobatics, and formation in the Cessna T-37 "Tweety Bird" and the Northrop T-38 "Talon". What an exciting time looking back on it now. To those who have had the opportunity to fly the T-38, what a kick in the pants that ride is, with afterburners and the whole mess. February of 1989 I received my hard earned Air Force pilot wings. After about a month of water and land survival training at Fairchild AFB, Spokane, WA during a very cold winter with lots of snow out in their training area, I drove through the front gate of Scott AFB, IL. Being in the military always seems to be about driving through the front gate of lots of different bases!

My first real assignment at Scott AFB was flying the C-9A "Nightingale" aeromedical evacuation airplane (civilian version is the Douglas DC-9-32F). Three years and about 1800 hours of

From the Secretary

EAA chapter 326 meeting minutes: January 9, 2007

Tonight's presentation is a project review of Jeff's RV8 project.

Jeff called the meeting to order for his first time as our new president.

Dues are due for 2007. Please contact Norman with your details and check to get current for this new year. What a value at \$15 for a year.

Visitors:

Mike Bailey – interested in buying a light sport aircraft
Dave Gooden – Building a RV9A – working on the tail kit
Doug MacArthur – Building a RV9A
Jeff Bloomquist – Building an RV7
Todd Cameron – Building an RV7A
Randy Crothers – Building an RV7A

Joe Andre had his RV8 first flight in December. Now has four hours TT on the plane. Everything is working great thus far.

Feb is the NW Aviation conference. The chapter has a booth and will need volunteers to greet the public. We are looking for a project that we could take out to the show. So if you have something that we could use and move to the fairgrounds please contact Jeff. This year the admission will be \$5 per head. We get free admission as part of the booth crew.

Thun Field Advisory Commission is continuing to meet. The next meeting is January 18th. If possible any and all should consider attending to provide some alternate views on aviation and the uses of the airport.

Let's build a Rivet Buddy list. This will be a resource for builders to draw on when they need some additional help. Watch for an update in the newsletter. The website will have a place to update your status as a volunteer.

very joyful flying was accomplished in the "Nine". I left Scott AFB as a new Captain and instructor aircraft commander. I also got to do functional test flights in the C-9A after they came out of depot level maintenance. Learned a lot about flying performing those test flights. Never knew you could get a bigger jet down to below 90 knots before stall until those test flights checking the stall warning system. Exciting!!

April of 1992 found me driving through the front gate of McChord AFB after 3 months learning to fly the C-141B "Starlifter" down at Altus AFB, OK (another front gate driven through). Short and sweet, I flew the C-141 for 9 years and about 4000 hours all over the world to include landing on an ice/snow runway on Antarctica. I finally figured I have every continent covered now. Still have lots more "pins" to put on the map though.

September of 2001, I again found myself driving through the front gate of Altus AFB, OK to begin training on the Boeing C-17A "Globemaster III". Time to enter the world of glass cockpits and computer airplanes. Very interesting time in all our lives as I was in training when 9/11 happened and flying in the U.S. came to a grinding halt for a while. We were back flying in about four days. Back to McChord AFB life became very busy for us C-17 drivers flying lots of troops and cargo all over the place to include Afghanistan, Qatar, Iraq, Germany (all over Europe). We got to log a lot of time over the North Atlantic during those busy times which are still kind of going on. I should add that I transitioned from active duty to the reserves in 1997 while still in the C-141. Our squadron was called to active duty in February of 2003 to help with airlift for the war effort. I am still in the reserves at McChord actively flying the C-17 though not as much as during our call-up. If you see a C-17 landing at Thun Field, it's probably me preparing for my court martial!

FINALLY, I have been eagerly building a Van's RV-8 since 2000. Never built an airplane bigger than a balsa wood flyer before this. We all know that airplane building is a true journey in one's life. I think I am in the home stretch and might fly on Tuesday. Just don't know what Tuesday. Come by and visit hanger #16 for show and tell if you haven't seen my rig yet. I look forward to serving the best I can as your new chapter president and fellow builder/flyer. Aircraft Flown: C-152, C-172, Beech F-33A Bonanza, 1.5 hours in Lake Buccaneer sea plane, T-37, T-38, C-9A, C-141B, C-17A, B-727 flight engineer. Whew!

First Flight

**Joe Andre
RV-8 N84JA
Dec 22, 2006**

The first flight of RV-8 builder number 80602 started a long time ago. The tail kit was purchased in Jan. 1998, almost started, then stored until May 2001, when I retired and moved to Tacoma. Building got serious in the basement of my house and progressed smoothly through empennage, wings, and fuselage. The fuselage was first displayed at the 2004 Northwest Aviation Conference, then to a hangar at Thun Field. In 2005 we returned to the NW Av. Conference to show a year of progress. Along the way an

engine was found in need of an airplane project then radios, instruments, seat cushions, prop, prop governor, etc. etc....

With all the paperwork complete, Charlie Cotton proclaimed the assembly of aluminum parts, to be "an airplane" according to F.A.A. standards at the end of Sept., so the plane is ready, but I am not!

NO. I need a B.F.R. as well as transition training with Mike Sager in Oregon. Between schedules, cancellations, reschedule, bad weather, trip to California more bad weather and three trips to Oregon (under questionable weather), I have 6 hours with Mike and a B.F.R. A look through the logbook revealed that I hadn't landed a plane in seven years. No wonder I was so rusty.

On December 22, 2006 I ran out of excuses. I opened the hangar door, told Bernie Sanders of my intentions; Robert Bara pulled up and asked if this was the day. Smitty also drove up, I asked Smitty to fly chase. The hangar door was open so he pulled his RV-6 out, he and Robert got in, and followed me out to 'run up.' He called on the radio to remind me that my flaps were still down. Run up complete I taxied onto RWY16, lined up with the center line, and questioned my readiness, the airplanes readiness, my skills, the weather, whatever else... It is too late, the stick was eased, the throttle pushed forward, the stick pushed forward, to raise the tail, the stick pulled gently, surprise of surprises. It does fly. 110 MPH and straight. Smitty radioed for me to slow down so he could catch up. A couple of large "S" turns, and he was closing in. I announced to Smitty that I was going to level off at 3500 ft, so I thought; I lowered the nose, throttled back to 22 in. manifold pressure, set the prop to 2200 RPM. Smitty called to say that he was at 3500 ft. and I wasn't. My altimeter was now reading 5500 ft. This time I nosed over to 3500 ft and set the trim to stay. Smitty looked my plane over from all sides and said that all looked OK. He asked if I had a heavy wing, I raised both hands to show that my plane flies straight and level. A vibration (buzz) started, it was quite loud, but I have no idea what. It sounds like aluminum skin or sheet in the airstream?? It didn't take long to decide to return to the field, so I made a big turn around and started back, still trying to figure out what was that noise. Smitty asked where I was going. I replied back to home base. He laughed and said that I had already passed the field. I started another turn over Bonney Lake, returned, entered the 45, and proceeded to a respectable landing. Roll out was not so pretty due to over use of rudder pedals. I noticed a taxiway lined with EAA Chapter spectators, one with a camera that followed me back to the hangar. Hearty hand shakes and congratulations all around, after which we looked everything over, speculated, and suggested. It was even suggested that it might be my knees knocking that made all that noise. I will try duct tape on everything and fly another day.

A strip of foam around the edge of the canopy solved the problem. Now to engine break-in, and further flight testing.

The GPS says that the first flight only lasted 11 minutes. How could so much happen so quickly?

Engine; Lycoming AEIO 360 H1A 180HP (same engine as Super Decathlon 180HP)
Hartzell Constant speed Prop
Christian inverted oil

Flop tube in left fuel tank
AF2500 engine monitor
ICOM A200 radio
Garmin 327 transponder
Garmin 196 (hand-held) GPS
No paint

Lessons learned:

- Stay current while building.
- Follow checklists.
- RVs are fast so try to keep up
- There are no secrets when it comes to a first flight.
- I didn't know that an RV-grin could be spread so wide across one fuzzy face.
- Of my several accomplishments, I have never experienced the genuine sincerity of the congratulations that I have received, from those who know the feeling of accomplishment of building an airplane and flying it.

I have to thank all those who helped, encouraged, suggested, and even criticized. I have never heard of anyone who has built and flown an airplane to say: I wish that I had spent more time watching TV.

Brake Fires

My search for information on wheelpan fires was prompted by a friend whose Extra 300 burned. Apparently he had a fuel drain that exited on the wheel pant, which somehow caught fire. This interesting story was sent to me.

I had a brake fire on an RV-8A last weekend. Tidy combination of operator error and design issues, much of which is specific to the 8A and /or castering nosewheel, steer-with-the-brakes airplanes in general. However, research did turn up a few items perhaps everyone should know.

The fire started after an overheated caliper leaked fluid on a hot disk. The fluid flashed and lit the resin in the fiberglass wheel pant, as well as the tire sidewall. The brake worked fine, with only slightly higher pedal pressure required even when on fire.

I've posted a photo to the vault (yep, a bystander had a digital camera). In the photo, I'm holding pedal pressure while shutting down for the fire crew. Note the fire on the ground under the pant, believed to be fluid and dripping resin. I don't recall any additional pedal travel.

When something like this happens I get curious. Why did the seal leak at some temperature well below a failure temperature for the rest of the brake? And why did the fluid catch fire?

Fast forward: It turns out the Cleveland piston seal for the little 30-9 caliper is an ordinary MS28775-218 nitrile o-ring. Nitrile's temperature rating is - 65F to +275 F. We found the seal to be brittle and flaking when we dismantled the caliper. A caliper seal with a 275 F temp limit is below automotive standards, but that's another story.

As for fluid, Cleveland's tech manual specifies either Mil-H-5606 or Mil-H-83282 as acceptable. Both are listed in AC-43 and

the A&P texts. Turns out that Mil-H-83282 was created because the military was tired of setting its airplanes on fire. Mil-H-5606 is the standard red hydraulic fluid sold by Spruce, Wicks, Chief, etc. It is petroleum based, and turns out to have a very low flash point. The Mil-H-83282 is also red, and compatible with 5606 fluid as well as seals created for 5606. However, it is a synthetic, with much higher flash and burn points, and is self-extinguishing when removed from the ignition source.

You can download complete specs for Aeroshell Fluid 41 (Mil-H-5606) and Aeroshell Fluid 31 (Mil-H-83282) at: <http://193.113.209.166/aeroshell/aeroshellhydraulicfluids.pdf> Note the flash points of the two fluids. Aeroshell 41 is 104 C, which is only 219 F. Aeroshell 31 is 237 C, or 458 F.

A flash point of 219 F means that when a Cleveland caliper seal fails at something above 275, the fluid is already hot enough to light when it hits a hot disk and vaporizes inside the pant. Makes for an interesting combination.

Live and learn. I always assumed standard "mil-spec red brake fluid" was something special, and I doubt I was alone in this assumption. It's not. It's just another one of those "always done it that way" things prevalent with light airplanes. Note that the Shell literature declines to even refer to it as brake fluid.

Spruce, etc, doesn't sell Mil-H-83282 fluid, but they should. I've already ordered a gallon of Fluid 31 from the local Shell distributor. Since the old and new fluids are compatible, switching is as easy as draining the old, flush with new, refill, and bleed.

Ed Anderson (maybe...I lost the original source)

Note: I believe this incident is several years old. How come I'm still using 5606. I don't do hard braking but I drag the brakes a lot during taxi which is probably a lot worse. Somebody talk to me about brake fluid. jb

Rivet Buddy

President Jeff initiated a new program that makes it easier to get help with your project. Go to our website <http://www.eaa326.org/> and look in the members section. It lists volunteers with areas of expertise to contact. You can see their home location to help select someone that is in your general area. **Please don't be shy about calling these members!**

For Sale

Pair of David Clark H10-20 Headsets

One regular \$150

One with ANR \$250

Contact John Brick 253-846-2617 or jebbrick@comcast.net

New FAA Motto: We're not happy till you're not happy

end

Chapter 326 Staff

President	Jeffrey Liebman	253-531-6123	
Vice President	Robert Barra	253-988-2676	
Secretary	Andy Karmy	253-333-6695	
Treasurer	Norman Pauk	253-630-6396	
Newsletter Editor	John Brick	253-846-2617	jebrick@comcast.net
Photographer	Drew Karmy	253-333-6695	
Webmaster	Andy Karmy	253-333-6695	

Young Eagles Coordinator	Vacant	
Technical Counselor	Harold Smith	253-752-5480
Technical Counselor	Charlie Cotton	360-893-6719
Chapter Flight Advisor	Terry O'Brien	206-244-3619
Chapter Flight Advisor	Jim Triggs	360-438-1482
Chapter Flight Advisor	Marv Scott	253-691-5496
Program Coordinator	John Brick	253-846-2617
Biographer	Vacant	
Property Custodian	Vacant	

Chapter 326 Website <http://www.eaa326.org>

EAA Mount Rainier Chapter 326
C/O John Brick
8304 242nd St. E.
Graham, WA 98338