

EAA Mount Rainier Chapter 326 Newsletter

Thun Field - September 2005

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Meeting Notice

**Tuesday, September 13th, 7 PM
CAP Building, Thun Field**

Program: War Story Night. Dean Hunter

Refreshments: Arlene and Mike Dougherty

First Flight - Alan Reiter

On Wednesday afternoon, August 30, I flew my first flight in my RV-7A. The day before, Charlie Cotton had come up to Auburn Airport and pronounced it fit to fly. The next morning I went to the airport with the thought I would put on the fairings and panels and then fly on Thursday. But my wife Sue, Curt Bryan and his wife Sandy, and Dick Migas and his wife Karen all showed up at the hangar around 2 pm with cameras and informed me that unless I flew that afternoon I wouldn't be able to sleep that night.

I was confident in flying the plane. Last week I flew three hours with Mike Seager. He has a very comprehensive and professional program that is a must if you are new to RVs. The butterflies come from wondering if all those months of work produced a machine that would run like a Swiss watch. The plane flew beautifully; all systems worked as advertised, and after 40 minutes of flying I taxied in with a huge "RV Grin".

For those interested in the particulars, it is an RV-7A quickbuild that I started in November 2002. I chose the 7A instead of the 8 because my wife and I thought it would be a better setup when we went cross country together. The QB choice was for two reasons. I built the wings and tail of an RV-4 back in the mid 1980s and vowed I would not build another set of wing tanks! (They are still flying with no leaks!) Also, I wanted a flying machine within a reasonable amount of time. I still have around 1600 shop hours and countless "thinking" hours invested in the project. One of the advantages of being in an EAA chapter like ours is that there is always someone you can ask if you run into a problem or just have a question. That helped me immensely.

The engine is an O-360-A1A with a blended Hartzell CS prop and two mags. The empty weight came in at 1099 lbs. A Garmin 430 and a GTX 330 transponder are a couple of toys I have in the panel even though I plan to fly it solely VFR. The 430 is able to display traffic that have operative transponders through the 330. The screen is similar to TCAS but without the avoidance commands. On my third flight I tried it out and saw several planes on the screen at 12 miles (max) before I picked them out in the air. It works when you are within the approach radar system of large airports like SEA.

The hardest part of the project for me was first devising an instrument layout that suited my purpose while also being compatible with Van's tip-up canopy structure, and then wiring the aircraft once that was done. I never had any "blue smoke" but the first engine start gave me some grey hairs when there was no oil pressure. We were confident there was pressure and sure enough, the only 2 wires I crossed in the whole wiring scheme were the power and ground wires from the oil pressure transducer to the gauge.

If I were starting today I would build the same plane in the same way. It flies beautifully and I am looking forward to traveling around the country and going to fly-ins with my wife.

Al Reiter

There and Back Again. A Pilot's tale, by Andy & Drew Karmy

After days of clouds and weather in the Northwest, just 12 hours since we dodged our way to Portland and back, the morning dawned calm with a large clearing over the Auburn / Kent area. With the plane loaded to the max, two daring aviators were ready for a 6 am liftoff. The forecast was for tailwinds the entire route east so things were looking good, just how good we were yet to find out! Climbing over the cascades at 11.5K we picked up 40kts on the tail as the big push eastward began. First stop was over 600 miles away in Lewistown MT. Neat; we still had over an hour of fuel left at the first stop. On we go to the next stop of Watertown SD, where we hit our first real heat; 95 deg on the ground sure got your attention. Next our course is north of Minneapolis with a final stop just outside of Oshkosh to ensure full fuel on landing. The day is running long at this point as we approach Ripon at 7:15pm. A quick check of approach control reveals that the field is closed due to a mass Mooney arrival; 50+ planes are already in the holding patterns around every small lake south of Oshkosh. We slow down our speed to give them time to clear out.

Arriving at Ripon, Oshkosh is now open with 30 min left of tower operation for the day, a quick merge into a line of airplanes as far back as you can see has us over the famous railroad tracks heading inbound to Fisk. White RV, rock your wings... Nicely done... Turn right and enter the crosswind for 18L... switch to tower on 126.6, ok here goes nothing. On crosswind now, then downwind, now the 2 planes in front of us extend downwind beyond the tower. Oh no, that's not good... As I pause, not wanting to cut in front of them on base, now we are in the bad zone of runway 9, BLUE TOP RV, RIGHT 180 NOW, rejoin downwind! Yikes, that's us; around we go, this time to make a text book approach to 18L. Welcome to Oshkosh, I hope you all are having as much fun as we are! Now that's a controller who loves his job.

All tied down in the homebuilt camping area with our campsite set up, we are at Oshkosh! Sunday, the day before official opening day, was a cooker with a heat index of 105. By mid day we headed for the air-conditioned units of Kevin & Angela and Dave & Kathy. Back to the tent finished our 2nd day. Now Monday saw the arrival of Spaceship One carried to the show by White Knight. What a neat part of flying history to see. Monday night brought a monster storm into the Oshkosh area. Three inches of rain, small hail, tornado warnings, 60 mph winds, lighting & thunder. After trying to wait it out, 5 hours into the storm Drew and I bailed to Dave's motor home for the night. Our tent stayed dry and plane stayed tied down, but it was nice to have some walls around us for the night.

Tuesday was cool after the storm passed through, but weather held up the next attraction. Wednesday brought Steve Fosset's Global Flyer in to Oshkosh. It is another amazing airplane to be parked beside Spaceship One. Tuesday night's theater in the woods program was amazing. Paul Allen, Sir Richard Branson, Burt Rutan, Mike Melville, Brian Binne, all talked about what had been accomplished with the Spaceship one program and then talked about the future of space tourism! Watch for Virgin Galactic the first space tourism operator in the coming years!

Thursday the HondaJet flew in to Oshkosh while Drew and I took a trek out to the seaplane base to see how the web footed aviators flew to Oshkosh. Attendance numbers were large this year with a reported 700,000 people, 10,000 airplanes, including 2900 show planes! Nimble in the air, but ground bound our travels were limited until Darrin met up with us to spring us offsite for dinner. Wed & Thurs evenings we had great fun wandering the streets of Oshkosh trying to follow his cell phone directions!

All too soon it seemed it was Friday and time to leave. Packed up and ready to leave by 9 am, we got an escort to taxi us out of the camping area. Fired up and rolling down the main taxiway to 36L we took one last long look at all the airplane and people. Three planes in front of us was a B25. B25 to Tower, I need to do a quick run up before departing, Tower, go ahead after turning at that taxiway. B25, I'll blow over those tents and some of those airplanes, Tower, OK, hold on the runway for your run up. The 2 other planes departed, then the B25. The nice lady in the pink shirt cleared a small blue and white RV9A to depart behind that nice polished B25, so we climbed steeply and stayed above his wake as we both climbed above Lake Winnebago. So long Oshkosh...

With headwinds all the way home we stayed low and flew the entire route at 1500-2000 AGL. Bouncing all the way across the heat soaked country we made it back to Lewistown for the night. Being 5:30 pm on Friday everyone had already headed home so we hitchhiked into town, tried a couple of motels, before finding what must have been the last room in the town. Saturday morning saw us leaving for the final two legs home. We flew about 20 hrs over the 7 days, took almost 900 pictures, saw some history making aircraft, and just had a blast getting There and back again. Till next time!

Andy & Drew

Earl Gruer

(As told by his wife)

Earl says he is too busy to send this in because he is getting his RV 9-A ready to paint while it is still relatively warm and dry. This atmosphere of a consuming importance has pervaded our household for about three years now, so I am used to doing these kinds of things, along with such tasks as bills, taxes, well, you know the story.

Earl has been flying airplanes since he was a child during WWII. First it was the cereal box plane with a penny in the spinner, then he graduated to balsa gliders, then to the countless rubber band stick models. He was a child plane "spotter" in Oklahoma and had all the cards with the silhouettes, especially the enemy ones. Later, in San Antonio, his father worked in instrumentation at Stinson Field and so Earl hung around a lot and copped a few rides in J-3 Cubs and early Cessnas.

Earl's Military career was sort of convoluted, but he did have an adrenaline pumping experience over Salisbury, Maryland on his Mother's birthday, Dec. 2, 1957. He was flying right seat, navigator, in a Navy Skyraider AD-4N. The engine quit due to lost oil pressure and ultimately the decision was made to bail, so out he went. On a moonlit night he managed to parachute safely into a freshly clearcut forest trail. The nearby farmer took him to hook back up with the crew -- all were OK. He was presented with a caterpillar and the parachute D-ring -- it has made every move with us!

As a young person, Earl could see that everyone was going to depend on the automobile and other mechanical things, so he got his degree in mechanical engineering and began his life long love affair with tools. He began doing the work on his own cars and has a real do-it-yourself approach to everything. He has done car restorations, built boats, finished houses, carved wood, and fixed almost everything imaginable (and has the tools to do all these), with emphasis on the design and construction of many projects. For thirty years, he worked as an R & D facilities design engineer and was a task leader in the conceptual design of both U.S. nuclear waste repositories (WIPP and Yucca Mountain) for Sandia National Laboratories in Albuquerque, which is where I met him. We talked about taking flying lessons even back then, but were too busy with, well, life, kids, and other passions like marathon runs and sailing.

When we retired in 1991, we left Albuquerque and moved onto a sailboat in Mexico and it was our home for seven years. We sailed from Mexico to Hawaii, to Puget Sound, Alaska, Mexico again, through the Panama Canal, and up the East Coast to the Chesapeake Bay. Having dodged hurricane Bertha and many more Eastern U. S. "weather disturbances," we decided to come back where we think the sailing is the best, and trucked the boat back here. It languishes a little right now, along with the mossy roof and the weedy yard! Earl is the one person I would go to sea with. Near the end of the three and one half week trip from Hawaii to Washington, the electrical part of the fuel pump quit, and he concocted an external pulsating switch so that we could still use the diesel engine which was vital for our safety because we were at the entrance to the Straight of Juan de Fuca. We found ourselves in a lingering dense fog bank, over offshore La Perruse

fishing bank among hundreds of fishing boats randomly plowing with long lines, and huge container ships staging for the straight. Thus we very much needed the radar which requires more continuous electrical power than batteries can provide. So guess who got to be the pulser for several hours until we were safely into the straight and off to the right side out of the path of the ships! Needless to say, the boat now has a boost fuel pump.

So, actually getting the Private Pilot License came fairly recently; finally, after a lifelong interest in aviation. Then came the decision to build the RV, which seemed to end up being my idea. How did that happen? Thus, building the RV 9-A has been a real highlight of Earl's life. He got to buy a whole bunch of new tools and learn how to use them. He is especially enjoying the design aspect of building the 9, as there are so many opportunities to design and construct jigs, parts, tools, electrical systems... But most of all, he enjoys the camaraderie he has found with other builders. If flying "de Bur'd" is as satisfying as building it, all will be well.

Linda Lee Gruer

Co-pilot

(Linda got her Private Pilot License along with her first Social Security Check)

Garmin 396

I've had my 396 for a week now and here are my impressions. First, I hate cords around the cockpit, so you can tell I like the 396 because it has one, two, three, four of them and I am still using the unit. Quite a challenge to get them all running the proper directions so the stuff they go to works and the cords don't get in my way. The GPS antenna and the XM antenna are completely separate and the GPS antenna cord is a lot longer. This makes me wonder if Garmin, as much as I respect them, knows much about their customers.

The GPS antenna is quite easy to place. You may not even need the external antenna, but if you do, that antenna can go pretty much anywhere, like just up on the glareshield. This is the one that has the long cord. The XM antenna has a short cord but it needs much better sky coverage to work well and just to make things really challenging, Garmin put a strong magnet in it with an admonition to not open or tamper with the unit (like to pull the stupid magnet off). The magnet means you cannot, at least in my plane, put the antenna anywhere near the glareshield, yet the cord is not long enough to put it much of anywhere else. There is an extension supplied for this antenna, but that makes the cord really really long with way too much cord to deal with.

The magnetic base on the XM antenna is probably so you can slap it on the roof of your car to go storm chasing, but I find it works well inside the car just slung up on the dash under the windshield.

Experimenting a bit I finally hit on the idea of using the magnetic base to attach that antenna to the base supplied with the GPS antenna, that is intended for suction cup mounting. There is room there and everything. Oops, that base is aluminum, just like my airplane and so the magnet is worthless, again, except to mess up the compass.

So I have ended up with the 396 mounted on Garmin's marine mount that is in turn mounted to an instrument hole cover that is in a convenient place. This leaves barely enough XM antenna cord to run back to the pilot's seat back along the side of the cockpit. There the GPS antenna with its mount is velcroed to the top of the seat back, partially under the upholstery and the XM antenna is insecurely wire tied to that same mount. The two cords are wire tied together. I really think integrating the two antennas or a least making a mount that can accept both of them would be a better idea.

Another cord hooks up to the audio system for the XM radio audio and the aural warnings. I have subscribed to the radio to see if I use it or not. So far I like it (I also have XM radio in my car). I have used an iPod in the plane with the miniature earbuds under my headset. I found that the iPod fidelity is lost in the noisy airplane, and the earbuds hurt after a while. I enjoy the XM radio through mono aircraft headsets, just as well as the iPod, at least at a low level. And some nice classical music while showing passengers the wonders of the canyons of the Guadalupes should be great.

The other cord is power. The 396 has a useful, rechargeable, battery and for now I plan to carry the power cord but only use it as needed. If you are flying all day, you will need it, at least at high screen backlighting levels.

I am finding the screen extremely readable under all conditions. I have done quite a bit of testing of the obstruction and terrain alert functions. This is a big reason I got this unit and it has worked flawlessly. Even if you are not on the terrain page, a little window comes up showing the obstruction in relation to the airplane, with distance rings. At the same time Mrs. Garmin warns you about the obstruction or terrain aurally.

The biggy, of course, is weather. I'm completely hooked on that part. It is amazing to fly along with such situational awareness. There is the lightning, there is the rain, there is the front and there are the TFR's. A significant drawback is that the weather is not available immediately but the important things are available pretty quick. The weather is downloaded sequentially and some items are not updated very often. The other day I made a 20 minute flight where the satellite photo never did appear. What did appear though, were the thunderstorms and lightning along my route, in relation to terrain and towns and roads and how the cells were moving. I do find it a little disorienting that the pure weather products, like winds aloft forecast, are always north up, whereas the navigation map superimposed weather is course up or north up, whatever you have chosen.

I won't comment on the many other functions such as auto-routing with voice guidance, astronomical and all the other Garmin stuff that always works well.

Other than all the cords and the nonintegrated antennas and useless magnets and the supplied stick on mount that will not attach to anything on the GPS, I am pretty well stunned.

Larry Pardue

End

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