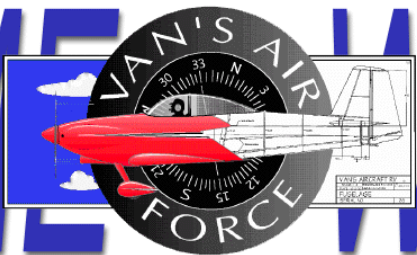


HOME WING



Newsletter of the Home Wing of Van's Air Force — Builders and Fliers of Van's RV Series Aircraft

It's a Tough Job

by *Brian Moentenich*

Who wouldn't jump at a chance to fly an RV on a three week trip across the US with most expenses paid for? Tough duty but My plan was to fly to Denver to attend a business meeting on a Friday, continue on to Houston for a week of training the next week and to attend a trade show the following week in Buffalo, NY. The fact that the trade show ended in time to attend the Oshkosh Air Venture made it almost too good to be true. It would involve a lot of flying by myself. And when Bob Boring asked if he could come along, how could I say no? He wanted to attend a family reunion in Oil City, PA and show off his new RV (613LE). The tail number N013LE was already taken so N613LE was his 2nd choice. He wanted the number to spell *NOBLE* which was to have been followed by the word *ACTION* because Bob is a retired pastor and planned to spread the good word by air.

I flew with Bob in his RV to a Chapter 902 meeting shortly before leaving and noted that it wanted to turn to the right. He thought the nose wheel fairing was cocked over and suggested I fly it again. I did and invited a co-worker (Prof. Murty from U of P) to go along. The right-turning tendency persisted. Bob thought it might be due to the right wheel pant being pointed off to the right a bit (they were installed after painting). As there was no time to fool with the wheel pants, we just attached a temporary trim tab to the rudder with duct tape.

Things didn't work out exactly as planned, however. Because of family issues, Bob decided to fly commercial to PA and have me pick him up for an OSH visit and the trip home. I would still take his plane however since he wanted his family in PA to see it. I departed on July 17th (Thursday morning) with camp gear loaded, full tanks and a clean windshield. The Hobbs meter showed 59.8 hrs TT. It would be close to double that in 3 weeks. The first stop was at Burley, ID which is a bit less than halfway to Denver. It took 2:45 to fly there at 2500 RPM. I needed to know the fuel burn rate of Bob's plane. It was slightly over 9 gph. Burley was hot and I was a bit concerned about vapor lock. My RV has the orifice installed in a Tee on the discharge of the engine driven fuel pump routing fuel and any vapor back to the fuel tank. Bob's does not. Consequently, I open the oil dipstick door as soon as I land to release hot air in the engine compartment. Taxiing out at low rpm, the engine ran rough. At takeoff power, the engine smoothed out. Takeoff is normal and I climb toward the Great Salt Lake. Other than high oil temperature, the trip has been uneventful thus far. As I ventured over the Salt Lake, I can hear an intermittent & unusual noise. Mags, mixture, and power changes have no ef-

Niagara Falls



Jackson Hole

(Continued on page 7)

Events Calendar



Meeting coordinator:
Randall Henderson

503-297-5045
randallh@attbi.com



Sept 2003 Meeting

Project: **Ray Fogg's RV-8A**
 Address: **10020 NW Gordon Road, North Plains (NW taxiway, Sunset Airstrip [1OR3])**
 Date: **Thursday September 11, 2003**
 Time: **6:30 pm**
 Phone: **647-7426**

The September meeting will be at Ray Fogg's house on Sunset Airstrip. Ray is building an RV-8A (slow-build), currently working on the fuselage. Ray recently moved to Sunset Airstrip, which is lucky for us -- its always nice to have a meeting out there in late summer and pretend it's like a Van's Homecoming, pre-Aurora.

Driving

From all points east: Take Highway 26 west to the *Glencoe Road/North Plains* exit. Turn left at the top of the ramp (stoplight), and go over the overpass. Just across the overpass on the right is Beach Road; turn there and take it all the way west to the end where it Ts onto Gordon Road; turn right (north) on Gordon road, Ray's house is the 6th house down on your right.

From Hillsboro, take Glencoe road north, just before the ARCO station turn left on Beach road, follow the rest of the directions above.

Park in the drive way, on the side of the road, or across the road by the oak trees. **Use caution** -- people drive fast on Gordon road.

Flying

Sunset airstrip is northwest of the Hillsboro airport and is on the sectional chart (PVT). The main runway is 6 and 24 which is 3000 X 100 foot grass. Note that the airstrip is just inside the HIO class D airspace and under the ILS approach to HIO. Consequently, pattern altitude is a low (500 feet) and everyone should contact HIO

EAA CHAPTER 105 Pancake Breakfast:
 Learn to eat grits on the first Saturday of every month at Twin Oaks Airpark, 8:00 am, \$5.00 (usually lot's of RVs to look at, too!)
This month: 9/6/2003

EAA CHAPTER 105 Monthly Meeting:
 Third Thursday of every month at the EAA 105 hangar/clubhouse, Twin Oaks Airpark, 7:00 pm.
 www.eaa105.org for details
This month: 9/18/2003

EAA CHAPTER 782 Monthly Meeting:
 Fourth Tuesday of every month at Pearson Air Museum, 7:00 pm.
This month: 9/22/2003

EAA CHAPTER 902 Monthly Meeting:
 Second Wednesday of every month at Mulino Airpark 7:00 pm
This month: 9/10/2003

tower (119.3) as you transition their airspace. Check the windsock and note that the traffic patterns are set up to avoid flying over the big town of North Plains (just north of Highway 26, that means right hand pattern when landing on RWY 6 and left hand when landing RWY 24). The east end of the runway has some tall trees and Van's old prototype shop at the end so use caution when landing to the west. The west end has no obstructions, but there's a road just past the end so watch for cars and don't get too low on short final. After landing, taxi down to the west end, turn right on the north/south taxiway. Ray's is the 5th house on the left.

Plane Pool!

Members who plan to fly to the meeting are encouraged to take this opportunity to share any empty seats with still-building types. A good way to offer or ask for a seat is to use the [oregon-rvlist](#) email list.

Future Meetings

- [October -- Amit Dagan RV-7 Portland](#)
- [November -- Steve Householder RV-6 HIO](#)
- [December -- TBD](#)

This Month's Contributors



Randy Lervold - Randy still handles the newsletter e-mail distribution.



Randall Henderson—monthly meetings and fly-out activities



Kevin Lane—editor, carpenter
<http://home.comcast.net/~n3773>



Mike McGee - editor



Ray Fogg (not pictured)



Bob Haan - shares more of his tips



Brian Moentenich - writes this month's cover article.



It's an RV-pair of threes!



Hey, I saw them too!



All in the family!

Why The Airplane Isn't Done Yet

- Ray Fogg

Here it is, 5 and a half years after starting my RV-8A project, and the first flight is still a long ways off. How can that be? Fortune has smiled on me ... Diane and I have been able to purchase a house on an airstrip, Diane has a great job as a complex case manager for a large insurance company, and I've been able to stay employed (knock on simulated wood-grain) through the worst downturn the electronics industry has ever experienced. So what's the deal? Well, three moves since starting the project haven't helped. And the fact that my middle name is not "Speedy" is certainly a factor. But the real culprits have got to be the animals, all of whom were, ah, inherited. Three four-legged creatures allow us to live in our home with them, and each of them in turn seems to be doing all they can to impede the progress on the airplane.

Nugget is a 9-year old male Cocker Spaniel who joined the household when Diane and I were married. That was in house #3. Born on the 4th of July, this dog thinks his patriotic duty is to protect his humans from, well, human food. To that end, any food left within this dog's reach is at risk. Leave something edible unguarded on the table? Consider it gone. Being a wily but rather short critter, Nugget will push a chair around until he has a path to the tabletop. So the simple act of walking out to work on the airplane gets interrupted by the need to boot a dog off the table and clean up the butter he has smeared around or refill the salt shaker because it has been emptied into a pile with a perfect paw print in the middle.

McKinley is a 5-year-old female Husky-Samoyed mix, insanely jealous of Diane. She chews up sheets, shoes, clothes, cookbooks, and anything else that belongs to Diane. This ball of fur was a puppy when the project started back at house #1. That poor house suffered from:

McKinley chewing through the telephone cable.

McKinley chewing through the video cable.

McKinley chewing through the automatic sprinkler control wires.

McKinley chewing a hole in the hot tub cover.

McKinley chewing the corners off of the deck steps.

McKinley chewing holes in the house siding.

Does anyone see a pattern here? Before I could work on the Horizontal Stabilizer I had to patch up some McKinley-created hole. In house #2 McKinley was relegated to an abandoned pigpen. Before moving into house #3 I built a dog run in back of the shop, and prior to putting McKinley into her new home I put up an electric fence. Sadly, I was not able to witness the first encounter between dog and fence.

Leroy is the last, but most definitely not the least of the 4-legged crowd. Here is a 6-toed cat who seems to think that if he eats enough he'll be able to grow a 7th toe and make it into the Guinness Book of World Records. This cat will eat anything. Cat food, dog food, people food, or fish food. Limiting the food in his dish doesn't seem to do any good. At house #3, Leroy would make the rounds of the neighborhood, consuming whatever he might find appetizing. The fact that it might be food set out for other neighborhood pets didn't bother him at all. Leroy was no doubt mad at us for moving to house #4 because he lost all that free food around house #3. He lost no time in showing us who the boss is at house #4. And that boss would be the cat. As in Leroy the cat. As in the cat who hasn't missed a whole lot of dinners. To say that Leroy has a reasonably large girth would be a mild understatement.

How does having a cat as a boss impact the airplane project? I was changing shoes after work one night, preparing to work on the fuselage. And the heater register meowed at me. Honest! Diane and I removed the register so we could see down into the ductwork, and sure enough, every so often it would shake around and issue a forlorn cat noise. Sounded a whole lot like Leroy. Which of course it was. He was stuck somewhere in there, too portly to move. He was mostly quiet except for when the heater came on and singed his backside. All of which raised two interesting questions.

1. How was I going to get him out of there? And, how the hell did he get there in the first place?? Seemed like question #1 was the top priority. Since we couldn't actually see Leroy from either of the registers, there weren't many alternatives to going under the house and opening up the ductwork somewhere. Which didn't sound like a lot of fun, given that:

2. Our house sits on relatively flat ground,

3. We live in Oregon, and

It's been raining a lot.

Diane bailed at this point, being the intelligent woman that she is and knowing the likely outcome of any combination involving her husband and crawlspace work. She used some flimsy excuse like needing to get Nugget to an appointment with the vet. So I marched past the fuselage (remember the airplane?) and out to the crawlspace entry, ready to rescue a kitty.

I'm not a small person, so award-winning video was probably missed each time I contorted my way into the crawlspace. Happily, the bulb in the trouble light that I took underneath on the first trip lasted as long as it took to get far enough in for it to get dark. OK. That was a dry run. Well, not so dry at that. Back out to discover that I didn't have any heavy-duty bulbs for the trouble light. Replaced the bulb with a standard 60 watt household bulb. More on that later. Trip #2 resulted in some study of the duct work, a lot of tapping, and no response from a kitty. Out of the hole, into the garage, and off with the ever so slightly muddy shoes. Turn on the heater and check for airflow out of the registers in the master bedroom while listening to a rather pissed-off cat. Noted good airflow from one register and none from the other. Heater off, back out to the shop to get a Phillips screwdriver, and then back underneath with a suspicion of where said kitty might be. Crawl back out ... it is raining now ... walk around to the shop and get the straight screwdriver that I need. Back underneath, crawl over to a "Y" in the ductwork and begin to pull the duct tape off of the joints. That would be the point where I dropped the trouble light and the light duty filament broke. It is possible that some colorful metaphors came into play at this point. Back out to get another bulb, back underneath to pull the ductwork apart at the "Y", and half of a kitty becomes visible. Leroy did a fair imitation of a club dancer before he fell backwards on his butt.

And the first thing he wants to do? Saunter over to the ductwork now lying on the ground and try to crawl back in. Uh, words were exchanged between the human and the cat. I won the cat-toss competition with a fairly good throw under the circumstances. Would have been better if the crawl space was deeper. Could have gotten more arch. As it was, Leroy landed close to the crawl-space entrance. He stayed there and observed the entire ductwork reconnect effort, no doubt amused at the rather blue and one-sided conversation between human and sheet metal.

The airplane is at a really neat stage right now. The empennage is being attached and it is beginning to look a lot like a real aircraft. I'm itching to get out there and attach the elevators to the two control sticks via the elevator push-rods. I'll get to that really soon! But first I have to fix a Leroy-sized hole in the ductwork somewhere. And then I need to find the forward control stick that McKinley has absconded with. And what is that I see on the table?



August Meeting at Troutdale

The August meeting was close by for a change(for me), at my hangar. I didn't set my plane on fire this time since I now know how to start it . (don't pump the throttle but once at most). I know of only one builder who took advantage of the free rides offered. If you missed out you have to learn to be more vocal. Most of the pilots seem more than willing to give a motivational ride to an appreciative builder or spouse. I did make the TTD field supervisor mad at me for strapping the entry gate open. He stole my dog leash I used to hold it open. Others were reprimanding me telling me I should have monitored the people coming in. Monitor sounds a lot like profiling to me. So who do I deny access to? "Hey, buddy, sorry, you look like one of those plastic airplane types" Or maybe I should look at headwear and footwear. "Hey, is that a bomb or are you just fat?" Don't think that would work too well. I argued that their secure system only required you wait for someone to leave in order to get in by car. It was useless, I, well Summer, had lost her favorite leash.

I realized later that I hadn't pointed this out to the newcomers, but Brian and I both keep our RV's in that hangar. The ramp is not for maintenance, but to overlap the wings and allow both planes to fit straight into a 39' wide hangar. That ramp, by the way, was constructed from plywood scraps from Van's shipping department. It turns out that the battery powered winches are way cheaper than the 110V, so a couple of free Gary Dunfee batteries, a Harbor Freight winch, and a trickle charger works well. Sharing a hangar with another RV builder has many benefits, especially for company when it is cold and nasty out there, but on top of that, we have saved some \$9000+ in hangar rent over the past 7 years. I know that is pocket change for you corporate guys, but I'm self-employed. That's a bunch of hours pounding nails. :-) Bob Boring has a ramp in his hangar and available space since Chris sold his -6A. Right now I am changing my main gear wheel bearings and brakes. The ramp is really nice, allowing me to work at a height 30" off the floor. Those plywood boxes have proven very handy, both as steps and allowing me to elevate the wing jack and jack up the plane while on the ramp. We also sunk a concrete anchor in the floor for attaching an eyebolt for tying down the tail in order to elevate the nose gear.

There was a fair number of builders who flew in, Jerry, Dan, Randy, and more. Rian showed off his recently completed -7A, which he is flying the heck out of. He has even let his partner, Doug, fly it. What a guy. Larry parked his -6A close by. It may now be a taildragger, but the FAA says it is a -6A, because that's how it was originally configured. BJ Freeman's -6 was on display several hangars over. He is fitting the canopy currently in a definitely slo-build project. Scott Malone didn't make the meeting in time. He was ferrying his newly purchased L-29 across the country. I am so glad that an RV keeps me content., well, two RV's.



-like peas in a pod, the \$9K fit

(Continued from page 1)

fect. Oil pressure and temperature do not change. There is no EGT or CHT gage to look at. It doesn't sound like backfiring and I wonder if the engine is "knocking" due to the high temperature – but that doesn't seem right either. Then it dawns on me – it sounds like the rubber strip at the wing root has become loose and is flopping around. I can't see it but am sure this is the answer. I decide to stop in Ogden to make sure. Yep, that's what it is. I pull it off, get some more gas and depart in the 102°F afternoon temperature. Now there are lots of black marks all over the new white paint job. Hill AFB is immediately to the south but OGD tower offers to coordinate with them for me to transit their airspace and head for Weber canyon where I-84 heads east. F-16s are flying by me 500' above at 6,000 as I head for the canyon. On climb out, I see 240°F oil temp.

Following I-84 east past Rawlins, Rock Springs and Laramie in the late afternoon at 11,500 MSL is boring. I get sleepy. Good thing Bob's wing leveler doesn't work. The reported line of thunderstorms just west of Cheyenne perks me up. I never saw any – just thunderstorm wannabees, a high overcast and occasional light rain. I decide to land at Greeley, CO for fuel because it was cheap there last summer. It still is at \$2.00/gal. Jeffco airport at Denver is 75 miles south. No need to enter the Class B airspace. I tie down at Stevens Aviation and wait in an air-conditioned lounge for Hertz to bring the rental car over. This must be how corporate flying feels.

Saturday morning I return to Jeffco. It a little cooler (80°F) at 9:00 AM. I have brought some tools with me so I remove the strip between the wing and fuselage and re-install the rubber molding before departing. The rental car's floor mats keep my shirt clean when lying on my back to remove and install the screws. It's a short flight to Pueblo, which has three runways (17/35, 8R/26L & 8L/26R). Runways 17 & 8L are in use & LASHO is in effect. After landing on 17, I needed to hold short of 8L for a new Lear jet 31A. I gave him a 6 for landing long. He left his door open so I peeked in. Seats (leather) for 8 plus the drivers. I could do this! It was a cool day for Pueblo (100°F), which had seen two weeks of triple digit temperatures. I chose to stay the night in Pueblo because I had a day to kill and I knew somebody there who was willing to put me up for the night.



They put 12.7 gallons of fuel on board (\$2.69/gal) but didn't charge me for parking. I departed the next day at 9:15 and headed for Houston. After flying for 2:15, I stopped in Childress, TX for no other reason than it was about halfway and more or less on a straight line to Houston. I bought 18 gallons at \$2.30/gal. Wx in Houston forecasted scattered thundershowers in the afternoon (probably a daily occurrence). I was on flight following but no flight plan. Approaching Waco, ATC advised me to file a flight plan unless I wanted to make a major diversion around George Bush's ranch. There is a TFR with a 30 nm radius to FL 180 for folks not on a VFR flight plan and a 10 nm radius for the one who are (and also are on flight following). Fort Worth Center controller asked what type of RV I was flying. We had a nice conversation about my cruise speed, how high my oil temperature is, etc. Turns out his buddy did a first flight in an RV last weekend. I decided to land at David Wayne Hooks (DWH) airport because it had a tower and I figured a manned FBO. It lies under the Houston Class B airspace. When Houston approach handed me off to the tower, I switched the transponder to 1200 as I was no longer in Class B airspace and I was not talking to approach. This resulted in a minor ass chewing by the tower for doing that. Welcome to Texas! It was hot (93°F & 95% humidity). They had a "follow me" golf cart with a cooler filled with cold drinks. In hindsight, I should have landed at Hobby airport, as it was only 12 miles from my hotel. I'm hoping my boss won't question the \$70 cab fare (one way) to the hotel.

I came to Houston to attend a week-long training session. On Wednesday, I learned that the instructor (Dale Raley) is keen on homebuilts, has been subscribing to *KitPlanes Magazine* for years and started on his private pilot ticket but never finished. We talked for a long time. I wanted to fly my plane to Hobby (HOU) and offered to give

(Continued on page 8)

(Continued from page 7)

him a ride if he would drive me out to DWH and pick me up at HOU. It turned out to be a great evening. The thunderstorms and hail had passed through on the drive up. We had dinner at a fine restaurant at DWH, went flying for 30 – 40 minutes with a few aileron rolls included. Dale was ecstatic. After returning to DWH to drop off the instructor, I departed for HOU which is inside Houston's Class B airspace. I ended up landing at night behind a Southwest 737 and adjacent to a FedEx jet on a parallel runway. Landing at a strange busy airport at night alone in Class B airspace will keep you busy with the charts and airport diagrams!

I finished the training Friday morning at 10 AM and took a limousine to HOU (\$30). My plan was to get to Toledo, OH (930 nm) if the weather gods allowed. Departing at 11:30 AM (CDT), the HOU wx was scattered cu (1500' ceilings) with overcast at 5,000'. As I flew NE, the wx got better and better. I stopped for fuel at Dwyersburg, TN (about 50 miles NE of Memphis) after 3:20 of flying. Took on 33.5 gallons – hmmm – better cut back a little on the power as I was legal (30 minutes of flight time left) but like to have an hour of fuel in the tanks. I had been on top of scattered cu at 9,500' over flat terrain with lots of nearby airports so the risk was low. Arrived at Toledo's Metcalf airport at 7:00 PM (EDT). Haven't seen a tailwind since I left Troutdale. Bet I'll see headwinds flying west! I have spent \$400 on fuel thus far.



I departed Toledo at 11:30 AM on Monday morning and headed for Buffalo, NY. It was a short 2 hr flight curving along the southern shore of Lake Erie. No tailwinds today – but the wx continued to be nice. Before arriving, I called flight service and asked about flight restrictions over Niagara Falls. He read them off to me – essentially fly at or above 3,500 MSL clockwise in a racetrack pattern & announce your position occasionally. I didn't realize it's ok to fly over the Canadian side because my WAC shows a restricted area there. I took a few pictures and headed for a small airport 4 miles south of the international airport. I needed to stay out of Buffalo airspace which required flying below 2,200 MSL and keeping out from BUF by 5 nm. I did this but there are some antennas, which reach up to 2,200 MSL too. After arriving I was filling up the tank when I was told Buffalo Approach wanted to talk to me on the phone. They seemed to think I had busted their airspace I guess. I told them I had flew in from the west which seemed to satisfy them as it was somebody who came in from the east who had done the dirty deed. Even though the airport was quite small and run down, they still wanted \$10/night to tie down.

Departure day (Friday) showed up. I planned a 45-minute flight to Franklin, PA where Bob Boring was. At 0900, I had a 700' ceiling with 1-2 miles of visibility so it was time to hang out for a bit. There had been a lot of rain and the ground was moist with lots of ground fog further south. By 1015, the ceiling was up to 1500' and 4-6 miles if I stayed along the southern shore of Lake Erie. I decided to launch. Halfway to Erie, I could see broken clouds with tops at 6,000. I climbed on top and headed south (Franklin was only 70 miles away). There weren't many holes so I decided to complete the trip scud running. The terrain was fairly level and I had about a 1500'-2000' ceiling. I ended up beating Bob to the airport. The FBO guy was one of the unfriendliest folks I have met at an airport. He would barely look up from his newspaper to answer a question. Fortunately, folks like him are few and far between. Even though the towns in this area are small, they all have huge, well-maintained runways.

In the afternoon of the next day, I put two more hours on the Hobbs meter giving rides to nine of Bob's family. I thought they would never stop coming. What kept me going was a vision of cold beers waiting for me. Angela, a cute and very nervous 19-year old co-ed spotted a piece of duct tape holding the glove box door shut. I'm sure she thought the rest of the roll was used to hold the wings on. Upon our return, however, she was all smiles and gave everyone a big "thumbs up". Bob's RV has been performing flawlessly (I was told to write something nice about his RV). Everybody in Oil City is now convinced Bob hasn't been lying about building his plane for the last 8 years. The next morning we planned to be airborne shortly after daylight heading for the 4-hour flight to OSH.

(Continued on page 9)

(Continued from page 8)

Fog, mist, and rain greeted us in the AM. It not only greeted us but also moved in. I figured we needed to leave no later than 11:00 AM to arrive before the field was closed for the air show. This was Sunday, the second-to-last day of the show. We took off at 1:00 PM in the afternoon and flew toward Cleveland. We encountered moderate rain for at least 30 minutes without letup. The visibility was 3-5 miles most of the time. This was a large slow moving cold front, which extended to the western border of Ohio. We decided to abandon heading for OSH. The weather up there looked awful and we couldn't land until after the air show when most folks would be leaving. We figured many of the vendors would be packing up the next day (the last day) so we kept heading west. This turned out to be a good decision as the wx in OSH that night really was terrible.

Needing fuel, we landed at Rensselaer-Jasper Co., IN (a small airport about 100 miles south of Chicago) between two thunderstorms about 20 miles apart. The AOPA Guide indicated fuel was available. The place was locked up tight. Bob called someone who showed up about 45 minutes later. Of course it was raining pretty hard by that time. Taking off, we continued west stopping for the night in Chariton, Iowa for no other reason than it was on our route and we were tired. The FBO was unlocked but nobody was there to get fuel from. Nobody was there the next morning either. We departed at about 8:30 AM and continued west in the clear blue sky. Again needing fuel, we stopped at Greenfield, IA. The AOPA Guide indicated fuel was self-serve. Again, nobody was around and the pumps were locked up. Another 45 minute wait for somebody to come after Bob called. At least the wait was worth it as the price was \$1.98/gallon. They only took cash and couldn't make change. Off we go again. A bit of excitement this time. We heard the pilot of an American Eagle commuter with 47 people aboard declare an emergency. He indicated he did not know what the problem was – the plane was shaking he said. That was the last radio transmission we heard. As there wasn't any news about a crash of a commuter on the news that night, we figured they worked out the problem.

Our route took us near Mt. Rushmore and Crazy Horse Mountain so we stopped at Custer Co. airport for lunch and fuel (no problem this time). There were several thousand bikers in town for their annual gathering for Harley Davidson aficionados at nearby Sturgis. A total of 600,000 were expected to arrive. After flying by Mt. Rushmore and Crazy Horse, we head towards Jackson Hole (JAC). We decide to follow the highway in. The terrain rises so much that the pass elevation for the cars is 9,700 MSL. The weather is perfect except for the very strong head wind. The Tetons are beautiful and I took some pictures. However it is so turbulent that I'm afraid they will turn out blurry. We landed at JAC and got "marshaled" in by a cute girl driving a small tractor. She even gave us a ride to the FBO office a half-mile away (I jumped in next to her). The place is quite plush and corporate jet pilots everywhere. I told Bob his plane is the cheapest one there. The fuel isn't cheap though at \$2.98/gallon. We even had to pay a landing fee based upon max weight (\$1.80). Once they had our money, we had to walk back to the plane. Bob called a friend (Willie) who he hasn't seen for 40 years in Idaho Falls to put us up. Willie tells Bob to land at the Red Baron airport near the main Idaho Falls airport. At JAC, noise abatement procedures are in effect and the sound on the ground cannot exceed 92 DB. I know we were ok as the 180 HP RV is such a quiet thing. Climbing to 10,000' we have to circle around a TFR there 7 miles out with a top of 6,000 AGL as there was no way we could climb that fast to get above it.

We look on the chart and cannot find the Red Baron airport. So we land at the closest airport (Rigby-Jefferson Co.) and call up Willie again. Willie explains that the Red Baron is an FBO At the Idaho Falls airport. This helps a lot. The R-B's hangar is a historic building built out of logs. It used to house the Red Baron's aerobatic team until last year. Also on the field is a restoration shop with a Crusader parked outside. We are told that they usually restore P-51s. Gotta visit that shop before we leave in the morning!

We poked our heads in the restoration shop and immediately established our bonafides (RV Builders). That worked. The Crusader parked outside is a "D" model and has contra-rotating props driven by a turbo-shaft engine in the fuselage. It was the third and last one built and is the only remaining one. Inside there is another Crusader built to haul passengers. These are the planes which provided fire suppression in the Korean War until the choppers could evacuate the crew of a downed fighter. They are huge and can carry twice as much as a B-17 and fly twice as fast. We also saw a P-51, a Corsair, and about 5 or 6 others in various states of completion. Bob had to tear me away from there.

Our final leg home had us staying over I-84 and sloggng our way through rain showers over La Grande. We

(Continued on page 10)

Sept 2003

(Continued from page 9)

lunched in Pendleton before heading for TTD. I had burned about 365 gallons of fuel, which cost about \$950 for an average of \$2.60/gal. The Hobbs meter showed I had put 42.5 hours on Bob's RV (what a guy!).

PS After I returned to work, I had an e-mail from Dale Raley. His interest in building an AC has been re-kindled and he is planning to do it. Also, The next day Dr. Murty asked me if I could recommend a flight instructor so he can learn to fly.
-Brian

Could Ya' Give Me A Haan?

Bob Haan

Flag Labels

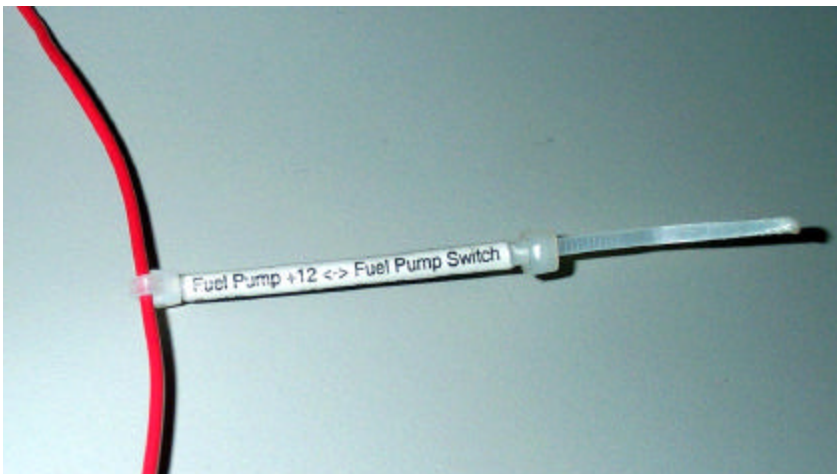
Use flag labels to document items that you can not slide a label over. A good example might be a tube you do not want to disconnect like a brake line. See picture.

To make a flag label, attach a cable tie to the wire, tube, hose, etc. to be documented. Cinch it up tight. Slide a label in a clear heat shrink tube over the tail of this cable tie. To keep the label from sliding off, slide the catch from another cable tie over the tail of the cable tie attached to the wire to be labeled.

Bending Tubing

Purchase soft aluminum welding rods from your local welding supply house. Shape the aluminum rod to create a pattern for the bends required to install the tubing in your plane. Bend the tubing to match the pattern.. When finished straighten the welding rod by rolling it on a flat surface and it will be ready to use on the next project that requires bends in tubes etc.

From: Bruce Gray and the RV-List Server.



Flag label

Home Wing - Van's Air Force

Alternative Choices —

-in my continued campaign to educate the masses as to the state of alternative engine development, I encourage you to visit Tracy Crooks web site <http://www.rotaryaviation.com/> Please note the cost and sophistication of this unit, and compare it to FADEC!

(from the Flyrotary e-mail list)

And on that subject, I just got back from my first flight test when I had time to really check out the latest version of the EC2 software and I am really stoked! It has always worked well but there are a few niggling characteristics that I've wanted to address. One is the requirement to adjust the mixture control from lean to midrange when coming down from cruise to land. Since this is standard practice on Lycomings I let it go up til now but I knew it could be better. If you leave the mixture lean during low throttle operation (descending to land) the mixture tends to wander over a wide range (especially around the stalling point) and if it is too lean, there is an occasional stumble at certain throttle settings. The new program code completely eliminates this and makes the EC2 as close to set & forget as I had ever hoped. Mixture stays dead on where it was set regardless of throttle jockeying, aerobatics, etc. There are also a couple of other improvements to the code but this one is the biggie.

8-19-03 - Dual MAP TABLE

As of this date, the EC2 now has a dual rpm range MAP table. Simply put, this means that two separate tables are used at low and high RPM. The dividing line between these ranges is 2400 rpm. (ed. note- these engines typically cruise at 5100rpm) The main reason for implementing this feature is to allow more accurate mapping of the mixture under all operating conditions.

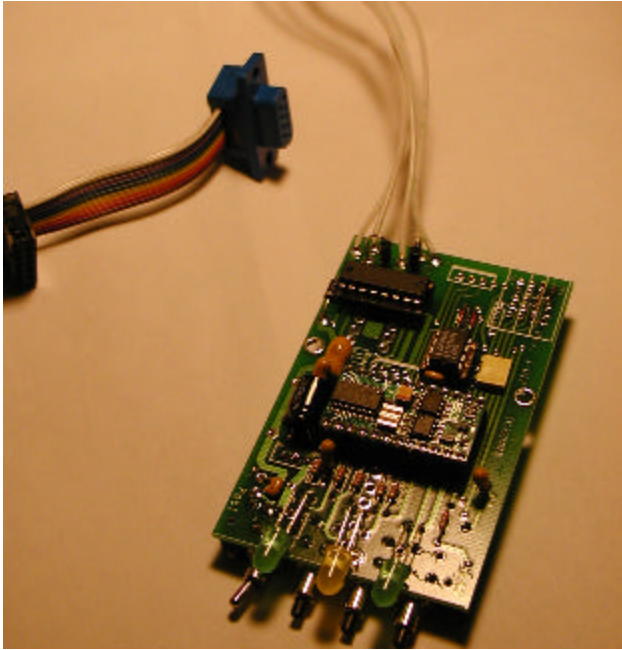
It is possible for the engine to see a low manifold pressure under two very different conditions. The first is when idling. At idle, the manifold pressure is in the range of 12 – 13” Hg. (18 – 17” if read on a vacuum gauge) When on the ground with a propeller for a load, the manifold pressure will always be considerably higher when the engine is running at a significantly higher rpm than idle (typically 1300 – 1700 RPM) The low RPM MAP table will cover this operating condition and is easily adjusted during ground operation with the propeller mounted to the engine..

When in-flight, the engine can see a very different condition. If the aircraft is cruising at high altitude or is descending at low throttle, the engine will now be able to run well above 2400 rpm even at a low manifold pressures. The mixture correction for this condition may be significantly different than what was called for at low rpm. This is the reason for implementing the dual MAP table feature. The selection of which MAP table the EC2 uses is automatic and requires no action from the pilot.

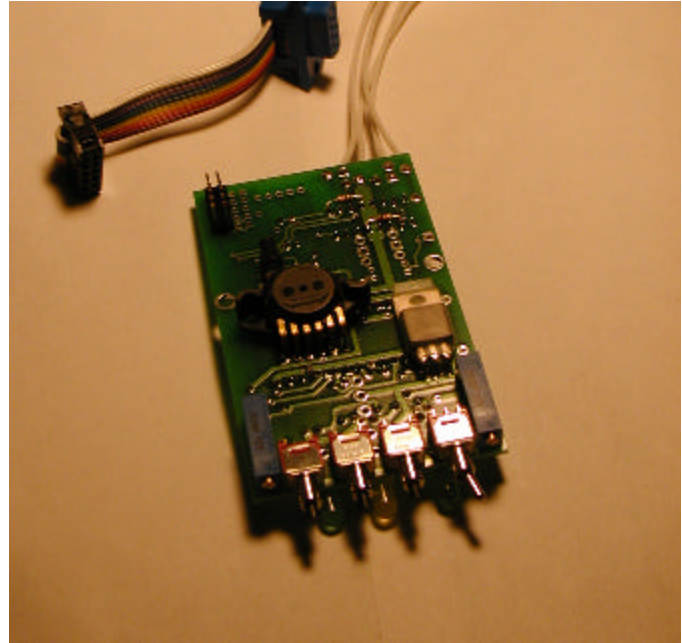
Tracy



EZ-Trim Altitude Hold



*Stamp processor runs the logic
Power/incremental down/incr up/reset
switches*



The unit has it's own altitude sensor

By next month, perhaps, I will report on my ez-trim altitude hold unit that Mike Linse from Corvallis built for me. Some of you guys were quick to point out how it didn't have a gyro built into it, not that anyone had actually tried this unit out, but those run \$1500. Since I can't seem to fly level within 100' I don't think I need 20' accuracy. But, Mike actually built this for me for the cost of parts, his company builds prototypes, (although probably not for the cost of parts too often), which ran \$101 plus a printed circuit board (\$15? Don?). I need to learn how to download the code before I can get it operating. You can find all about this unit at <http://hometown.aol.com/ccady/eztrim.htm>.
-KJL

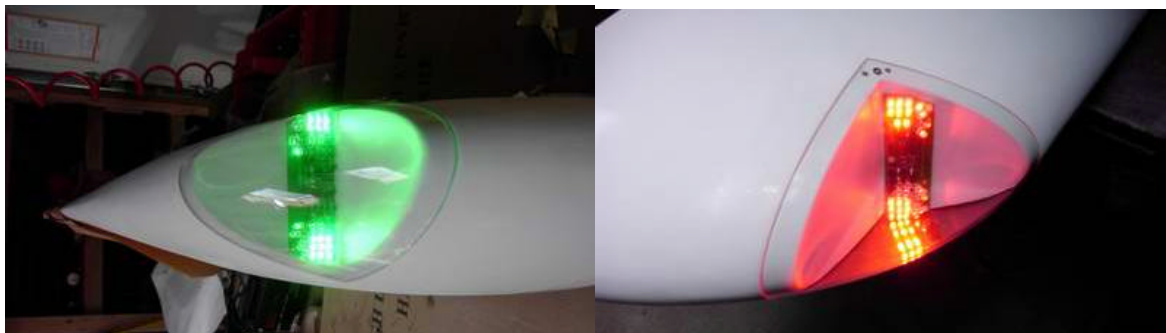


When you've got more to think about than flaps...



Bill Eslick flew in from Texas without any pistons!

LED POSITION LIGHTS for EXPERIMENTAL AIRCRAFT



After looking at the prices of certified position lights for my RV-7 (about \$200 a pair) I looked into the possibility of building my own using high-brightness LEDs. After doing a bit of research into the FAA requirements and then into the available high-brightness LEDs, (These are NOT ordinary LEDs.) I concluded it could be done for less than the cost of "store bought" position lights. I then made a computer model of the FAA candlepower distribution requirements and the light distribution of each LED. After a bit of tinkering, the model produced the proper layout for the array of LEDs needed to meet the FAA specifications. Each kit contains all the parts you need (including the LEDs, regulators, and circuit boards) to build both a red and a green position light. Also included are instructions and solder. There are two styles of boards. The long, thin, rectangular boards (4.5" x 1.43") are specifically designed to fit in the sheared wingtips of Vans aircraft. These are designed to fit in the inside corner of the sheared wingtip against the back surface so that you can mount Bill Von Dane's landing lights in the wingtip as well. <http://www.creativair.com/> The components are mounted toward the inboard edge so that you can shave away some of the center of the board if you need additional clearance for a slightly larger landing light. Notice that the LEDs are mounted on the top and bottom of the board. This allows you to mount a strobe ahead of the board (on the outward-facing surface within the sheared tip) and not block any of the



light.

These compact square boards have the regulator section (optionally) wrapped around the back to give a minimum size of 2.25" x 1.6".

Prices: \$120 + \$5 S&H for: LED Position Light Kit (All the parts for both a red and a green light.) Specify long or square boards. Add \$2 if you want a Soldering Practice Kit. (Recommended for those new to electronic assembly.) Add \$2 Add \$50 for each kit if you want me to assemble it for you. I ship on Saturday. If you wish to pay by check or money order send to: Bill Dube' 2244 Grape Street Denver, CO80207 E-mail me at LED@KillaCycle.com if you have questions. and electrically connected by an in-line header. You can replace the header with a ribbon cable, you can toss the LED portion of the board, and wire the LEDs to the ribbon cable, kind of like Christmas tree lights. Then you can mount them anywhere you like. Simply use the stock LED board as a guide to set the

angle for each of the LEDs. Since the LEDs have a typical lifespan of 100,000 hours, it is a safe bet that you will not have to replace them, ever. Thus, you can mount them somewhat permanently, unlike incandescent lamps. Contact me at LED@KillaCycle.com if you have questions or need help with a custom layout.

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The Tool Crib

Being a current Home Wing entitles you to access the group's tools, a major benefit. The Home Wing owns a growing selection of those expensive and seldom-used tools that are very nice to have access to. This program is managed by The Toolmeister: **Amit Dagan (503) 292-9780** amitdagan@hotmail.com Please help protect the group's assets, observe our Tool Policy:

- Everything goes through Amit — do not give the tool to another member.
- Amit will keep an accurate sign-out sheet for each item so he knows where it is at all times.
- Amit will inspect all tools upon their return. If there is any damage he will ask you to pay for the repair . More ToolCrib rules can be found at the Home Wing website

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Classifieds...

FOR SALE/WANTED

Duckworks Landing Lights - Retro-fittable, light, easy installation. Kits start at \$75, check 'em out at www.duckworksaviation.com

FOR SALE:

RV-3 parts (many)

RV-6, 340 TT, 160 hp O-320, King KX-135A

RV-4, 450 hr. TT, O-320 160 hp.

Contact Bernie Elsner, aviatorone@gorge.net, 509-493-2161
10/03

FOR SALE UPS GX-65 GPS/COM, still in the box \$2400. Magellan SkyBlazer GPS model 42001 (handheld), never used, still in the box. Paid \$600, make offer.

Dave Carlson 503.320.6997 davelcarlson@msn.com 10/03

FOR SALE ANR Headset Pilot Avionics PA 17-79 DNC XL

Wanted: 2 of 4 partners to share in a finished RV-6A tip up, to be based at Twin Oaks - or possibly Aurora or HIO. basic IFR, 160hp ,email us at rv6partnership@yahoo.com

Classifieds are free to Home Wing members. Ads will run for three months. Send to editor by e-mail or mail. Renewals ok, just let editor know. Date at end of the ad is last month ad scheduled to run.

Share hangar at TTD with Bob Boring, room for RV only, split \$237/mo

VIDEO TAPES - RV-6 construction videos by George Orndorff.

-RV-6 Quickbuild, 3 tapes

-RV Finishing kit, 3 tapes

Both sets for \$25, or separately for \$15 each set.

Contact Joe @ 503-829-6333 or jebblank@molalla.net

Home Wing Membership Sign-up/Renewal

To join or renew, fill out this form and mail to **Randy Lervold, 5228 NW 14th Circle, Camas, WA 98607**, along with \$10 for renewals or new subscriptions. *Please make checks payable to either Randy Lervold or Home Wing.* If you are renewing you only need to give your name, payment method, and any other information that has changed. Please don't forget your e-mail address and newsletter distribution method.

Use this form for address changes too!

name – **Payment** – cash() check() (payable to Home Wing)

address – EAA chapter -

city/st/zip-

home phone/work phone- **e-mail address-**

If info change only, such as building status or address change, check here-()

Building – RV3() RV4() RV6()/6A() RV7()/7A() RV8()/8A() RV9()/9A() undecided()

Status – empennage() wings() fuselage() finish() flying() tail number(N)

*note – only e-mail (acrobat PDF format) delivery of newsletter is available for new members, no snail mail (USPS)

- -above info to appear in a member roster listing available to members only

-----fold-----fold-----fold-----fold-----

Return address:

Randy Lervold

5228 NW 14th Circle

Camas, WA 98607