



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

### SEPTEMBER MEETING

The August meeting was at the home of Kevin and Ellen Lane's home in Southeast Portland. Everyone was very impressed by their "antique" house. It is known as the Clayton and Jennie Seaman House, built in 1912, and is listed on the National Register of Historical Places. They did a great deal of renovation on the house, and it truly is a beautiful home.

Kevin has set up two workshops for working on his RV-6, one in the garage (home of his fuselage) and the other in the basement (workspace and wing/tail storage). Kevin showed us his laser guided sledge-hammer contraption, and once the laughter died down, it was apparent that it actually is a pretty neat labor saving device. He also had rigged up his hand squeezer clamped to the bench and operated with a foot pedal, freeing up both hands to hold the part. They both seem worth the effort, so contact Kevin if you didn't get to see them.

Also, since Kevin and Ellen are so very, very tall, we were able to see his ideas for providing more headroom - by lowering the seat 1 1/2" and reducing the rollbar by the same amount. Though my problem is getting enough cushions in to be able to see out, I'm sure many of you can benefit by talking to Kevin about his modifications.

Our honorary Toolmeister, Brent Ohlgren, called for suggestions for what tools the group might buy for itself. Several ideas were offered, and it was decided that Brent would collect ideas and bring them up for a vote at the next meeting.

**Meeting Notice** - Frank Justice, Meeting Coordinator  
(503) 590-3991 [Frank\\_K\\_Justice@ccm.ssd.intel.com](mailto:Frank_K_Justice@ccm.ssd.intel.com)

Place: John Pealtee's Hangar

Hillsboro Airport, Northeast T-Hangar, C10

Date: October 10 (2nd Thursday of the month)

Time: 7:00 pm

The next Portland RV Builders' Group meeting will be held at John Peaslee's hangar on the Hillsboro Airport, starting at 7:00 on Thursday, October 10. John recently finished his RV-4 and had his first flight on July 27. In the two months after that, he put 49 hours on it.

John installed a brand new Lycoming O-360 180 HP and Hartzell CS prop, both purchased from Van's. He has full gyros, King avionics, a Sony CD player and a Garmin 95-XL GPS with moving map. The back seat has full controls (throttle, prop, stick, rudder) except for brakes. He has implemented some drag reduction features on the plane, including custom pressure baffling, sealing the ends of all flying surfaces, and custom wing fillets.

In John's words, performance and handling have been fantastic. The numbers are better than what Van publishes.

John is located at the Northeast T-Hangars at Hillsboro. Look for hangar C10, which faces the street to the east. As usual with airport meetings, we expect several other RV's to show up. Be sure to bring any tools, templates, gadgets for trading, or anything else of interest to show.

### FROM THE "BIG MESS"

*Jerald and Kathy Hall, Editors*

Well, here it is, our first newsletter! At this point, we're both very excited and stressed over this task we've agreed to take on. Most of all, we hope we can live up to the standard that Randall set. We all owe him a debt of gratitude for all the hard work and high quality he put into the newsletter all this time. I think the first thing you guys are going to notice is that I (Kathy) am doing a lot of the editing... so don't be surprised when you see the more feminine side of airplane construction. But Jerald will be here to make sure I don't get carried away with all my ideas for other uses for airplane tools...

**OSHKOSH 1996***by Chris Lund*

We were finally here...I couldn't believe my eyes...The Mecca of Aero Everything...The Abyss...

It all started when American Airlines kindly over-booked my LA to Portland business flight by 45 lucky souls. I received a nice hotel room, dinner, an additional \$300 travel voucher, and a 5 hour layover in Las Vegas, where I won \$375 on the slots. Hmm...things are looking up. After returning to Portland, I called my travel agent to price a round trip ticket to Oshkosh. \$388 Bucks. Merry Christmas! Then later at an EAA meeting, Carl Hay asked if anyone wanted the right seat of his RV-6 for a one way to Oshkosh. No one raised a hand - I figured that they were momentarily stupefied and couldn't believe their ears. I think I knocked everyone over in my row as I tried nonchalantly to race across the room and offer gas, food, first born, etc. The gods were shining on me!

The trip to Osh was spectacular. I had never been east of Montana, growing up in Alaska, and had never experienced flat, non-mountainous terrain. Everything is plotted out and every house looks like Aunt Tillies farm. You need a GPS to fly across town. We flew IFW (I follow Wally). Wally Anderson and his friend Doug led Jim and Kristi Schrock, Don and Janet Wentz, and Carl and myself across America. We flew past the face of Mount Rushmore and up through the Grand Te-tons to Osh in approximately 10 hours, stopping one night in Brookings, SD, land of \$2 Seven & Seven's, and somewhere near the world famous Corn Palace. We were in corn heaven. Yee Haw! After a good night's sleep and small breakfast (Carl seemed to think I over-grossed his airplane), we were off to Oz.

I was here to have fun, and was only disappointed once, when the mosquitoes started in on me. At Osh, the skeeters are designed by Lockheed and fly in formation. I swear! After landing and tying down the airplanes, I bid a temporary farewell to my comrades, all who had nice air-conditioned homes to stay in, and headed to lent city." There must have been 500 tents, all packed in tight and sharing tent pegs. Wild.

No chili tonight. After a nice dinner at a pizza and brew with "the group," all eight of us piled on top of each other in our hailstorm damaged rental car and headed back. I stumbled back to my tent where I quickly fell fast asleep, with airplanes dancing in my head...for about 35 minutes. Then I awoke to the clatter of 2 banjo's, 1 French horn, and about 45 intoxicated individuals who I found out later had been flying to Osh for the last 20 years and were camping right next to me. The rest of the week, I averaged 3-4 hours of sleep per night, one hangover each morning, and the ground around my tent looked like the beer can deposit area in the back room of a Safeway. On top of that, sometime between 6-7 each morning, and 200-300 decibels, they

play a yodeling love song on the loudspeaker to announce "fly time."

I did meet two attractive ladies, 28 and early 30' who each flew their own Bonanza's. Wow. I, of course, am taken, so I exited stage left. I also met Denise VanGrunsven, Van's niece. Mid 30's and flies her own jet. You read me right. Military type go fast thing. I was feeling quite insignificant all of a sudden. Not someone to upset on a 1st date. Strafing runs on your house, car, dog, etc can't make you too happy. Just kidding, of course, she's very nice and obviously quite sharp.

Other highlites included more fun at the Acey-Deucey with Mike Seager, Andy Hanna, Scotty from Giles Aircraft, and our motley crew (read Rion's account from 2 years ago). Along with the rest of my good fortune, I found a crisp, new, \$100 dollar bill on the floor, and because of my big mouth, had to buy drinks for 2 days. Also, after a staple of ice cream cone's (best buy), Van's banquet was very impressive. If you do ever get there, don't miss the EAA museum. I went back twice.

By the way, our very own Carl Hay was honored at Osh and flew with other Homebuilts of Distinction for the crowd. He then went on to Atlanta for the Handicapped Olympics where he spoke and flew his plane. Wally Anderson from Eugene also won a Bronze Lindy. Pretty impressive!

Don ended up using his plane for a demo ship at Van's tent, and had people in lines waiting to crawl inside of it and see if it "fit." As for me, I flew back commercially on a, yes overbooked, flight. Looking forward to next year.

**OSHKOSH - PART 2***by Don Wentz*

The time passed very quickly, we had a great time pal-ing around with the rest of the crew, and soaking up the sights and sounds and people of Oshkosh. Since us pilots get to spend so much time at fly-ins, and see so many airshows, none of us really wanted to watch the afternoon shows, except Janet. She was really disappointed that we didn't sit down on Saturday or Sunday and watch the whole show. Go figure! Member Carl Hay did get invited to fly in the Homebuilder's showcase one day, which was pretty cool. We got invited to display our -6 in front of Van's booth, which I considered an honor. But it was hard work, keeping people from jumping in it. I didn't mind spending all day getting compliments and describing the project, and how lucky new builders are today to have so much 'easier' kits to build! We also showed-up each day around 1 to spell some of Van's crew for a lunch break. That was fun, but what a long busy day those folks work!

We attended the Technical Counselor's breakfast the Homebuilder's Barbecue dinner (which I had to eat scraps at, since the line was so long by the time I caught-up with the crew), and Van's banquet. The ban-

quet was good, several speakers (including Andy Hanna, the guy from the Philippines who runs the quick-build factory, Bill Benedict, and yours truly) who kept it short, and the main speaker, Jon Johanson. One unexpected pleasure was the LARGE reserved table for "RV-Listers", the internet group. I had to introduce myself to each and every one, many of whom I have exchanged mail with in the past. We also met MANY Duckworks customers while there, which is always a pleasure.

We did the Acey-Deucey thing one night, but fortunately Daddy came back for us at about 11pm before we had a chance to hurt ourselves too badly. Chris was determined to get us in trouble, buying straight shots of Tequila, and when a swaggering (staggering?) pilot came by and the subject of the 'Mile High Club' came-up, I told him Janet didn't know what that was (which I definitely paid for later!!). He was some character! Mike Seager was also in rare form, and Andy Hanna was working on his 'looking thru the beer glass' maneuver.

Another evening we went over to see the Seaplane Base, which was a very pretty spot. A very friendly and tightly-knit bunch, those Seaplaners. We enjoyed watching a few water takeoffs and landings on the calm, beautiful lake with a purple sky in the background, and even a 'high-speed' pass by a 182 on floats. Since we missed the corn feed, we asked a local where to go for dinner. They recommended the Went fish house about 5 miles down the road. As we drove, we saw what looked like smoke over the road, but it turned-out to be these massive clouds of bugs! We thought they were mosquitoes, but we found out (much later) that they were lake flies or some such thing. The swarms were amazing tho.

The specialty of the house was Lake Perch filets, which were quite tasty. The waitress had warned us about the mosquitoes coming-out at dusk, so we sat inside. We had them on the brain I guess, because soon we had a contest going - 1 point for a clean kill, 2 for one squashed on someone else. Janet jumped to a quick lead, and soon the whole table was into it. I thought we were getting too boisterous, but the table next to us, and even the waitress got into it and started squishing them as well. One of the best kills was when Carl saw one on Janet's cheek (so he claims ©) and went for it! We heard the smack as he backhanded her on the chops! We were rolling on the floor then! Too bad for Carl, he couldn't find the carcass, so we didn't count it. But he did tell the waitress that "he almost scored big!" The final score? Janet - 4.5, Wally - 3, the rest of us - 1. All you planning to go to Oshkosh 97, I am going back there for dinner 1 night if you want to tag along for some "Captain Morgans Rum" on the rocks, or the yummy (and large) 22 ounce schooner of Bock beer.

What does all of that have to do with airplanes? Well, nothing, but it does illustrate what a great time we all had hanging-out together. Just another reason to 'get away' to Oshkosh with some friends or acquaintances.

The WX was basically very good, not toooo hot, but Monday was very hot, very humid, with a 25 mph wind howling up the runway from the South. 2 warm fronts were headed in from the West, with clouds, rain, and hail. We had planned on an early start, but forecasts were for improving conditions and VFR to the West after noon. Our decision to wait was confirmed by Harmon Lange and passenger Richard Squires (a very lucky 17 year old who works in Harmon's machine shop part time) when they returned from trying to go West in Harmon's RV-4 in the morning. They ended-up joining us for the return trip.

By the time we left, they had closed the N-S runway for the day, so we had to use the crosswind 9-27, which was no mean feat in that wind! We had to dodge the clouds until well into SD, but once again Wally and Doug led us thru in great shape.

We liked Brookings so well, we stopped there again to fill-up, then headed for Rapid City. We fought huge headwinds, over 20mph, and about cooked after letting down too soon. A quick fill-up, a short debate about where to go, and we headed for Casper. This climb-out Jim and I got too hot and had to take it easier, but once level things cooled down. We made Casper just at dark, and after convincing the line boy that we only paid \$10 to put our planes in the hangar 2 years earlier, he gave us a break from \$20.

The next morning the WX was less than perfect, so we took our time. When we finally left, as we neared what we thought was smoke from forest fires, it started to rain so we diverted, but still ended up a little close to a big, ugly cloud! What followed was 10 minutes of the worst turbulence I've ever experienced. Not bad enough that I was worried, but still not fun. Almost the whole day was bumpy, and again strong headwinds, but the skies were clear and the scenery was great. A final fuel stop at Burley (still the best looking "line-boy" in the west) and we parted ways over Boise, Jim & Kristy, and Wally & Doug headed back towards Eugene, Harmon & Richard and Janet & I back to Scappoose. Mt Hood was beautiful in the sun as we passed the north side, and we took some photos and video. As we neared home, we broke off and circled the house so Grandma and the kids would see we were home, which was funny to see recorded in the GPS moving map after we landed!

We both had a tremendously good time, and are already looking forward to planning our return next year. Travel by RV, especially in a group, is sure a lot of fun. So, back to your shops you slackers, we're all going next year!!!



The RV-6's 'shadow' in the grass at Oshkosh

Here are some details from the trip, starting from Scappoose:

To	Time	Gals	Fuelscan Gals	gph	Cost/gal
Idaho Falls	3:04	26.3	24.7	8.8	1.98
Rapid City	2:40	20.6	20.7	7.6	2.00
Brookings	1:47	15.4	14.9	8.8	1.86
Winona	1:25	13.0	13.1	9.3	2.05
Oshkosh	1:05				
Brookings	2:56	28.6	27.3	7.2	1.86
Rapid City	2:02	15.0	15.2	7.5	1.89
Casper	1:20	11.1	11.1	8.3	2.13
Burley	2:45	19.0	19.2	6.9	1.93
Scappoose	3:04	22.2	23.8	7.3	1.68

So, total flying hours: 22:08 (10 out, 12 back due to headwinds)

Total fuel burned: 171.2 gals

Some things to note, the higher fuel burn rates were typical of full throttle settings (like the first leg), or of low altitude cruising (like the leg into Winona). The really low rate (Casper to Burley) was the result of very low throttle settings due to turbulence. The discrepancies in actual fuel pumped compared to Fuelscan readings are mostly caused by different line personnel. One would leave the tanks a few tenths below the filler ring, while some (like the guy at Brookings) would dribble it in until it was so full putting in the cap would cause a little overflow! On these fill-ups, you had to remember to switch

tanks every few minutes to burn them down, otherwise after 15 minutes in the sun, you would notice fuel running down the wing behind the cap!

One final thing - Wally Anderson won a bronze Lindy award for his RV-6! It arrived a week or so after we got back, and he was one proud papa! There are only 10 Bronzes given at Oshkosh, so that says a lot about his homebuilt. Congrats Wally!

The Duck.

=====

**BUILDER'S TIPS** ...Thanks to all who share them with us!

**Fly Cutter using a Hand Drill**

by Randall Henderson

I got this one from Eustace Bowhay. The access holes in the top of the floats are in the middle of a big sheet, so it is impossible to use a drill press with the fly-cutter. Eustace removed the short pilot bit from the fly-cutter and replaced it with a standard length of drill bit (you may have to grind a flat spot into the butt end of the bit in order for it to fit). He backs up the work with a good thick piece of wood so the bit won't bottom out. Using a longer bit stabilizes the flycutter and makes using it with a hand drill much more manageable.

**Debarring Bits for a Cordless Drill**

by Jerald Hall

Several tool supply houses are now selling deburring bits which fit into a cordless screwdriver or drill. After doing my entire tail section with a manual deburring tool, I finally broke down and bought one of these bits before tackling the wing kit. Boy what a difference! I initially used the bit in a cordless screwdriver and it performed well, just a little slow for all those holes in a wing skin.... now I use it in a cordless drill and deburring goes blazingly fast. I just finished deburring the top and bottom skins of one wing and all of the main ribs in about two hours. Of course some practice is needed with the drill before attacking a wing skin, since it is easy to over do the deburring.

**Nutplate Installation**

by Jerald Hall

After installing the first 2 thousand nutplates for my fuel tanks, I decided there must be a better way. The following procedure was fast and accurate, saving considerable time on the remaining 5 thousand nutplates.

1. Make a hole locator tool as follows:
  - a. install a screw into the back of a nutplate (reverse direction from normal. Screw it in completely so that the threads extend out the face of the nutplate.
  - b. increase the diameter of the threads by wrapping with one or two wraps of tape or other means.
2. Drill the hole for the screw in the material that the nutplate is to be attached to.
3. Insert the taped portion of the hole locator tool into the hole you just drilled. The tape increases the diame-

ter of the screw just enough to keep the tool centered in the hole.

4. Backdrill through one of the rivet holes in the nut-plate.
5. Cleco the nutplate in place.
6. Backdrill through the second hole and you're done.

Once you get into a rhythm it is easy to move from hole to hole: insert tool, drill, cleco, drill...

=====

**SUBSCRIPTIONS DUE:**

Look at the date under your address on the cover. **THAT IS THE DATE YOUR \$10 IS DUE.** Use the form at the back of this newsletter to subscribe or renew. A short note updating the editor on your status would be appreciated too. *If you are paid up but the date doesn't reflect this, please give the Editor a call so he can correct it.*

**EVENTS CALENDAR**

**EAA Chapter 105 Monthly Meeting** Thursday October 17th (third Thursday of every month), 7:00 pm at the EAA 105 Hangar/Clubhouse, Twin Oaks Airpark.

**EAA Chapter 105 "Breakfast at the Aileron Cafe' "** Saturday October 5 (first Saturday of every month) at Twin Oaks Airpark, 8:00 am.

**HANGAR HUMOR**

by unknown

On my first solo cross country, I was flying north through the San Fernando Valley and trying to keep track of traffic callouts.

Apparently, there was a controller with a similar problem. He had managed to confuse a commercial jet on approach to Burbank with a private plane that was transitioning south across the valley. For a period of about 90 seconds, he was calling out instructions to them that weren't quite what they wanted...and finally the commercial jet pilot inquired as to where he was being sent.

There was a brief exchange about intentions, followed by an "oops" and 30 seconds of silence. The next voice I heard on that frequency said:

"Attention all aircraft. Previous controller no longer a factor."

**FIRST FLIGHTS/STATUS REPORTS**

**Walt Cannon, RV-6**

Walt's first flight was on 6/29/96. He is using a Lycoming O-360 engine with a constant speed prop.

**Butch Walters, RV-6**

Butch has been flying for 41 .5 hours - all is well so far!

=====

**THE TOOL EXCHANGE**

*The new toolmeister is Brent Ohlgren, 288-8197. Let him know if you have jigs, tools, shop space, etc. to loan, exchange, or otherwise provide - at NO COST, or if you are looking for something specific to borrow. And whether your item is listed here or not, go ahead and bring it to the meeting.*

Cutting wheel mandrel, custom made by Stan VanGrunsven to use for cutting your canopy. Knob on the outside makes it much easier to hold steady and not screw up that expensive piece of Plexiglas. Mike Seager currently has one of them, I have the other. I also have some graduated diameter screw dimple dies that Stan made - useful for dimpling the tight spaces in the wing spar aft of the fuel tanks. Randall Henderson 503-297-5045.

Joggle tool. Rion Bourgeois. 646-8763

PropTach (optical electronic tach, use to calibrate your tachometer) - Butch Walters had it last - 360-636-2483

Engine Stand - Don Wentz 503-696-7185

Engine Hoist. Norm Rainey

Aileron bracket locator tool. Adjustable aileron push-pull tube (for measuring the exact length to cut the real ones). Randall Henderson 503-297-5045

Precision chemical scale, for measuring pro-seal. Brent Anderson, 646-6380. Surveyor's

transit level - handy way to level wing and fuselage jigs. Bill Kenny, 590-801 1

Back Riveting Contraption - large, counterweighted bucking bar and suspension system, and offset back rivet sets. (See "Back Riveting Wing Skins, December 1994 issue). Bob Neuner 771-6361

Lead crucible with electric heating element for melting lead for the elevator counterweights. Doug Stenger, 324-6993 Table saw taper jig, for tapering wing spar flange strips. Carl Weston 649-8830.

**WANTED Ads are FREE.**

Volunteers: For all of you RVers out there, as you may know, we are rebuilding the original RV-3 for donation to the EAA museum this summer. Gary Standley has it in his garage, and with some occasional help, has gotten a long way on it. But he NEEDS HELP. Now that summer is over, we need some able bodies to spend some time working on the fuselage to get it finished. One or two ramrods that would organize helpers would be great as well. Contact Don Wentz (696-71 85) or Gary 10/96

New RV builder in need of tools. Please write with list of tools available and prices. Rich Anthes, 2541 Richert Ave. Clovis CA 9361 1 9/96

Wanted: used 14v electric attitude gyro. John Anderson - Summer 208-558-7475. Winter 702-294-0853. 5/96

**FOR SALE/ RENT Ads are FREE.**

New left & right slick mags - \$400 obo. RV-6 bottom cowl (std) - make offer. Wing tip lens kit - \$10. KX-99 handheld linear amp and Flitecomm intercom - \$500. Butch Walters 360-636-2483 10/96

Blaisdell Saw, at SE 42nd & Division, has used, sharpened #30 & #40 bits, 12" long with the quick release for \$2.25. Kevin Lane. 10/96

Finished tail kit (with all the fiberglass work done and primed), and the wing kit which has the spars done. Excellent workmanship. Includes set of plans. Asking \$4,150 for both fob Eugene. Wally Anderson 541-683-2328(w) or 541-342-5240(h) 10/96

EGT CHT instrument with single probes for \$50, a dual gauge for \$30, and a compass for \$20. Wally Anderson 541-683-2328(w)or541-342-5240(h) 10/96

Hangar space at HIO, suitable for a small airplane, RV would be best. Must fit with RV-4 and TriPacer already there. \$95/month (might be less if I get the wrecked airplane back and store it in the back) Ken Scott 648-1594h, 647-51 17w 9/96

RV-6/6A Empennage & Wing kit. Prepunched, wing spars finished, \$2300. Gary, (503) 293-5648. 9/96

RV-4 empennage and wing kits. Empennage completed, wing 50% completed (Phlogiston spars). \$2300.00 Call Jim at 503-629-9867 8/96

2 1/2" yoke for Tatco squeezer \$50. Randall Henderson 297-5045 7/96

Landol 35 amp lite weight alternator with Lycoming mount & voltage reg. New, never used \$75. Butch Walters (360) 636-2483 5/96

RV-4 Wings Available. Newly constructed wings include one-piece top skins, extended range fuel tanks (38 gallons), and foam-reinforced wing tips. Subassemblies for other RV models available. Art Chard 647-9803. 4/96

"Duckworks Landing Lights. Retro-fittable, light, easy installation. Kits start at \$69 (discount for Rid RVators). Don Wentz, 503-696-7185 for info.

**"Home Wing" Newsletter Subscription/Renewal**

Please fill out and mail to **Jerald & Kathy Hall, 32034 J.P. West Rd., Scappoose, OR 97056-2600**, along with \$10 for renewals or new subscriptions. Please make checks payable to Kathy Hall. If you are renewing, you only need to give your name, date, payment method, and any other information that has changed. Use this form for address changes too.

Name \_\_\_\_\_ Spouse's Name \_\_\_\_\_

Address \_\_\_\_\_ Home Phone \_\_\_\_\_

City, State, Zip\_\_\_\_\_ Work Phone \_\_\_\_\_

Pmt (\$10/yr) Check  Cash  Info change only  E-mail Address.

Project (RV-3, 4, 6, 6A, 8)\_\_\_\_\_ Comments?

Progress:

Tail In Progress  Finished

Wings In Progress  Finished

Fuselage In Progress  Finished

Finish In Progress  Finished (i.e. flying)