



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

JUNE MEETING

Well, there was no meeting because of the fly-in...see Randall and Don's article on page 2 for all the details!

Meeting Notice - Frank Justice, Meeting Coordinator
(503) 590-3991 Frank_K_Justice@ccm,ssd.intel.com

Place: Kevin Lane/Brian Moentenich's Hangar
Troutdale Airport, Troutdale OR
Date: July 10th (2nd Thursday of the month)
Time: 6:00 PM

This month's meeting will be held at 6:00 PM. We will be having a barbeque dinner to eat up all the fly-in leftovers. Come hungry!

By car, travel East on I-84 to the Troutdale exit #17. Turn left and go under the freeway. You'll come to a T facing the airport. Turn right and drive around to the North side of the airport. Turn left at the base of the tower. Go through the gate by Aero-West (code 193). Turn left at the dark blue PLS hangars. Theirs is the Northernmost one. Hangar #D10. Park on the grass, not blocking other hangars.

By air, tell ground control you're proceeding to the PLS hangars in the Northeast corner.

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. *If you are paid up but the date doesn't reflect this, please give the Editors a call so they can correct it.*

EVENTS CALENDAR

EAA Chapter 105 Monthly Meeting

Thursday, July 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, August 2nd (first Saturday of every month) at Twin Oaks Airpark, 8:00 am.

Northwest EAA Fly-in in Arlington, VVA

July 9th - 13th in Arlington, WA. For information, call 360-435-5857, or look up www.nweaa.org/nweaa/.

EAA Oshkosh '97

July 30 - August 5. See Bill Benedict's article inside for an RV update. For information, look up www.eaa.org and link to the fly-in convention page.

FROM THE "BIG MESS"

Jerald and Kathy Hall, Editors

Oshkosh...oh my oh my...it's coming up so fast we can just feel it in the air. So many preparations to make, so much to do...

We'll be wanting lots of articles next month from all of you who attend...not to mention Arlington! So much airplaning it makes your head spin....

The joys of summer!

6TH ANNUAL VAN'S AIRFORCE HOME WING FLY-IN*By Randall and The Duck*

8:05am Saturday, I'm pulling in to the airport, dejected as it's already raining lightly, gray menacing skies, figuring our flyin is 'hosed', totally. But wait, what's this? Is that - could it be? Incredibly, there is already an RV-6 sitting at the head of the line! Butch Walters made it in from Kelso! And, there's Mark from Van's ready to set up his annual accessories booth. And, some other die hard Home-Wingers, asking me what needs to be done! My spirits lift - at least I won't be the only 'duck' sitting in the rain hoping a few more RVs show up.

Shortly the coffee pot is perking, Red Standley is off to buy cups (I never remember EVERYTHING), Randall has the T-shirt booth set-up, and Butch and I are off with Mark's sons for their YE rides. It wasn't raining (much) so I figured we better get them in while we could, as it could get worse. When I return from a trip to the gas pumps, durned if there aren't 25 RVers milling around, munching the donuts. Jerry Springer had landed while I was waiting to take off for the YE flight (no teasing him for THAT landing), Norm & Donna Rainey (rainey, hmmm, it fits!) had rolled their RV-6A over from their hangar, and with mine, we had 4 RVs on the line!

What's that sound coming from the West? Sure enough, with stories of 'the sun's shining everywhere but here, been to breakfast at HIO', Mike Seager and the original RV-6 make it in from Vernonia. He taxis in to where my hangar is, to park in front of the hangar housing his beautiful 'new¹ Mooney, and gives us (well, someone, Norm?) an idea - since we're only going to have a handful of planes, let's park them all in here where we can see them from the relative comfort of the hangars.

Ken Scott calls Janet to report that he's driving over, the crew at Van's is seriously doubtful since the pass is totally obscured in black wetness. As we head over to move our planes, Denny Jackson blasts in - "Just made it out ahead of that monster!" OK! 6 RVs on the line. No, make that 7. Mike Wilson's hangar opens to reveal an extremely bright green RV-4 named "Pure Pleasure". Paul Riddle had flown in the night before while Mike, Jerald, Kathy, Mike's son Ben, Douglas, and I were doing the annual 'table and Pop machine' relay. He was fortunate to be able to park in Mike's (hopefully not for long) empty hangar. Oh yeah, Paul had flown in via Texas and So Cal from Cheboygan WI! Chris Lund was so impressed, he commissioned a "Long Distance Award" trophy engraved with the 6th Annual RV Flyin on

it. We'll forgive him for the Cherokee on it, for some reason RVs STILL aren't well known in the general public.

About this time the clouds started to get darker, and the "monster" that Denny snuck in ahead of moved over the field, complete with thunder, lightning, wind and rain. Being Oregonians, we don't pay the rain much mind, nor do we have enough sense to take shelter from the lightning, and most people just hung out and watched the show. And what did we see once the "show" started dissipating? Tom Green in his RV-6, coming in to land! I'm not sure where he originally hails from, but I'd have to say this guy is a TRUE Oregonian! Shortly thereafter, the crew from Van's finally made it - John Morgan, Bill Benedict, and Van, in two RV-8s and an RV-6A.

Earlier I had been telling Scott Condon that since he is such a big guy, he should be looking at the RV-8, but that it wouldn't be here due to the WX. So it was great when Van and crew came taxiing in. Jerry and Judy came in and started unloading a casserole and dessert from their -4. Oops, didn't I mention that we were 'buying' all the food? Oh well, in spite of there being a dozen big containers of chocolate chunk cookies, Judy's dessert was gone in a flash.

Steve Johanssen, Jake Theissen, and Jim & Kristy Schrock actually made it in from down south. Jim and Kristy ended-up hosting Paul (from Cheboygan - yes Mike, there really IS a town named Cheboygan, it isn't something the movie folks made-up!) one night, and I ran into him the following Tuesday as he was headed for points north.

Believe it or not, I lost track of exactly how many RVs made it in, but at one point I counted 16 out on the ramp. A pretty impressive turnout all things considered. The weather actually broke up a bit around 1:00, and we had some glimpses of blue sky, so the hundred or so people who made it (yes there were a lot of drive-ins) were able to come out and walk the flight line. The grills were fired up, cole slaw, chips and cookies laid out, and for a while there was even a LINE at the food table.

Randall, who had been looking pretty worried that he might not sell many of the souvenir 1997 fly-in T-shirts, actually ended up doing a booming business, and only had 10 shirts left out of the 80 he brought with. He'll be bringing those to the next meeting of course! Oh yes, Janet was pleased with the color choice - white.

So the storm is over, the skies are clearing, people are out walking the flight line, and this is looking like a pretty good fly-in after all. But what's this? The wind's picking

6TH ANNUAL VAN'S...CON'T

up, it's starting to rain, and.... HAIL! Everyone runs for the food hangar, and for about 15 minutes we get to listen to the deafening roar of hail on a metal hangar roof. John Morgan, who's taxiing out to leave, shuts it down on the ramp and waits it out. Van mumbles something about being glad he has .020 elevator skins. People have to move further and further back into the hangar to avoid the rain and wind that's blowing in. Eventually this too blew through and people were finally able to take their planes and high-tail it for home.

Yes, it was pretty bad. But frankly, I was amazed to find that even in the worst weather, the kind that you'd think would keep EVERYONE away, the RV people are a die-hard bunch, and those who made it had a pretty darned good time in spite of it all. Thanks everyone who showed up!

Now we're in the clean-up mode. A few folks stay behind to help load tables and things for the trip back to where they were borrowed from. Thanks for those of you who pitched-in to help, and an extra special great big GIANT thanks to Joe and Char Miller, who brought a bunch of tables and benches from ch 105 and hauled the pop machine back to my place. They were a huge help (as always).

Finally the hangar is empty; enough food to feed 200 is stuffed into the refrigerator that I had been storing there. Looks like we need to plan another gathering, SOON, to use it up. I roll the -6 in and remembering the dousing that a YE got when I throttled for takeoff (you should have seen the look on his face!!), I lift the tail as high as I can and pour the water out of the vent intakes. Yes, the WX was the worst we've had, and many of the usuals (especially the folks up north) weren't able to make it, but all in all we still had a good time, and we'll hope for better next year, for the 7th Annual!

REDS WALLOWA HORSE RANCH

by David Cheney EAA 219&604

1 720 Gray Lynn Drive
Walla Walla, WA 99362
5095221743
cheneyd@wwics.com

As you probably know, Reds is a historic mountain airstrip that is located in the Eagle Cap wilderness area of the Wallawas. It was purchased by the forest service a few years ago and they don't maintain it. It is a maintain it, use it, or lose it situation for the pilots and others who

use the area. I flew in yesterday to survey the situation for this years operation and found the runway to be useable full length, although it hasn't been mowed yet. Larry Brandvold, the forest ranger in charge, and a pilot, has no funds available. He is very cooperative and does what he can. He will move forest service mules in this Wednesday and the Back Country Horsemen will get the strip mowed as soon as they can. A caretaker will be in soon so some of the buildings will be open for inspection. Last year, members from EAA 219, 604, and a few other pilots did all of the runway maintenance that was done. During the winter, water runs down the center of the runway, and year before last washed part of it out. Last summer we cleaned ditches on the upper end of the field and hauled a little gravel. What we did was very helpful, but we didn't get it all done. Our goal for this year is to get all the ditches cleaned out and haul a little gravel for the worst of the low spots. We need help. Our first work day is this Saturday, June 14th. I know that this is short notice so I don't really expect anyone but local people to show up (and not many of them) but if any group anywhere could form a work/camping /recreation party on any date I would arrange my schedule to conform to yours on that date.

Sincerely,
David

P. S. Check the article in the April 1997 issue of Mountain Pilot

More on Reds

by Jim Moran, OPA Immediate Past President

Just a related note on Reds Wallowa Horse Ranch..... The OPA has taken the charge, at Bob Bement's (OPA member from Eastern Oregon) encouragement, to assist in publicizing the need for help in keeping the airstrip open. OPA, through its executive committee members, have worked with Bob, written letters, and provided information to the editor of Mountain Pilot. The OPA would like to encourage its members to assist David Cheney, Bob Bement and other interested pilots in their efforts to preserve this unique landing facility.

And yet some more...

by Randall Henderson

Reds is a really neat place, it would be a shame to lose it.

FROM TIME TO TIME*by Scott McDaniels**(he works in the prototype shop at Van's)*

While my RV-6A sat Idle for 3 months (flying weather here is nothing like Arizona) I figured it was a good time to get the annual condition inspection done. We had decided to put our airplane up for sale; so I decided that the bad flying weather of winter was a good time to complete it. I wanted to do a very extensive annual because of plans to sell and it ended up taking a good part of that 3 months to complete (Interior hanger temperature is also nothing like Arizona). To make a long story a little shorter I'll quickly mention that after sitting for 3+ months with out the engine being run, but after all the work to get it in tip top shape, the engine would not start! I cranked it for probably 2 1/2 to 3 min. (I do have a very good battery) using all the usual techniques, but no go. I had been having an occasional hard start problem during last 25 to 30 flying hours (particularly when hot) but now it was a no starting problem.

Right away it was apparent that it must be ignition related, but what exactly? The mags (Slick 4200 Series) were rebuilt to like new when the airplane was being finished. The airplane now had about 500 hours with engine tach time of about 435 hours. I called up my Magneto rebuilder friend, and after telling him what times in service were, he asked what I had done to them during that time? Should I have done something to them?, I asked (I think by then I already knew the answer to that question).

Turns out that Slick (and I believe also Bendix) recommends regular service at intervals of (you guessed it) 500 hrs. What happens as the mags operate, is that the point contacts, and the cam follower block wear. This wear causes a shift in the magnetos "internal" timing. The mag. is designed so that the energy wave that is induced by the rotor magnet is at its highest level at the time the points open and cause the spark plug that is currently selected by the distributor rotor to fire. If the internal timing causes enough of a shift, the energy wave may no longer be strong enough to fire the plug hot enough to start the engine in certain conditions.

When you do a mag to engine timing check and find that you need to readjust; have you ever wondered how it changed? Very possibly a shift in mag internal timing. Which probably means a decrease in mag output voltage. Slick service bulletin 1-70A calls for a max. "Bumping" of magneto to engine timing to be + or - 5 Degrees. 5 Deg. corresponds to about an 1/8" rotation

of the mag. The only way to know how much bumping you've been doing is to keep a record in the log book of when the timing has been bumped, and how much. If you suspect that you have gone beyond 5 deg. since new or rebuilt condition then it may be time for an internal timing adjustment on the mag. This is called the E gap adjustment.

Some people mistakenly believe this point gap adjustment can be done with a feeler gauge. The adjustment is for the moment of point contact opening to happen on a specified degree of rotation of the main rotor shaft, not necessarily a specific amount of gap at max. point opening. Slick and Bendix both have special tools available for doing the E-gap adjustment, but if you have a mag. timing light you can still get it very close.

For a Slick mag. (with it removed from the engine), Install an indexing pin in the pin hole for your engines rotation direction (same as if you were going to install it on the engine).hook the timing light ground lead to the case and the + lead to the P-lead terminal. When you lightly rotate the rotor shaft, rocking it against the pin, the points should be just open and closing at that point. If not, then you need to readjust. To do so, remove the screws that hold the case halves together, and without rotating the rotor from its indexed position, lift off the rear case half. Immediately take note of the position of the rotor magnet assy, (mark it in some way if you have to) and adjust the points so that they just open at the point (use the timer to check). Reassemble and double check using the index pin. It may take a couple of tries to get it right on.

Bendix is basically the same procedure except the points are more accessible. Remove the back cover to access the points . Then remove the plug from the viewing port on the side. Hook-up the timer and adjust the points so that they just open as the Red indexing gear tooth passes the center point in the window.

Reinstall the mags, using the normal engine/mag, timing procedure and you are ready to go. One quick note... If any of this is at all confusing, but you suspect you may need the adjustment, it might be best to get help from an experienced mechanic. Magnetos are the life blood of our engines and we need to make sure that they will keep it alive, if you know what I mean!

For more information on magneto's in aircraft ignition systems (and a source for some of the info in this article), try "The Magneto Ignition System" by John Schwaner. It's available from Sacramento Sky Ranch.

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FROM TIME TO TIME...CONT'D

By the way, after adjusting the E-gap and reinstalling the mags, my engine started on the second blade (and that's even without recharging the battery). Hmm, maybe this working on airplanes stuff isn't so difficult after all!

OSHKOSH UPDATE

by Bill Benedict G.M. <vans@europa.com>

The following are the activities planned for Oshkosh. If you plan to attend, this will help you schedule your activities. We would especially like as many people to attend the gathering on Saturday evening as possible. We continue to receive notes from RV pilots who plan to attend (too many to list) and our goal of 250 airplanes looks achievable — there may even be more. We are planning a wild party in the RV aircraft parking area for Saturday evening about 7 p.m. There will be an open bar, live hard rock music, exotic dancers....yeah, sure. How about a "reception" with light refreshments, etc. We certainly hope that RVers can stay for this gathering - it may be the only real chance for factory personnel to meet customer/friends and see the airplanes.

NQ need volunteers to man the hospitality tent in the RV parking area. Boy, do we need them, particularly in the morning hours Wednesday through Saturday. We have had some very attractive 25th Anniversary stickers made to present to those who fly in (suitable for vertical stabilizers, etc.) and we'd like to "register" arrivals by name and aircraft registration. This is your chance to meet a bunch of interesting people and get a first look at some fine airplanes. If you can volunteer a couple of hours, please contact Ken Scott at Van's. As a reminder, camping is not permitted in the RV showplane parking area, just as it wasn't in our parking area during previous years. We may be able to work out some camping arrangements, including setting up in Showplane Camping, a few hundred yards to the south.

Details will be at the hospitality tent in the RV area. Camping fees and registration requirements will be the same as for any other airplane camping. The banquet will be at the Pioneer Inn Sunday, Aug. 3. Because of the limited seating and the high demand, we recommend you order your tickets early. Cut off date for or-

ders from Van's is July 28. If there are any tickets left, they will be available first come first served at Van's Oshkosh booth.

Forums are:

RV-3/4/8; Saturday, Aug. 2 11:30 am-12:45 p.m. Tent 3.

RV-6/6A Thursday, July 31, 10-11:15 am Tent 3.

An added Oshkosh note: Please do not bring your technical or building questions to us in the booth. We are just not adequately equipped to give you good service in this area.

BUILDER'S TIPS

Used Pneumatic Squeezer

by Pat Kirkpatrick Rio Rancho, NM

6A- starting to skin both wings

N97WK (res)

PKIRKPATRICK@FAB9.INTEL.COM

OR, KUFU@SWCP.COM

I got my used pneumatic squeezer from Bill Williams Tool Co. in Fort Worth TX. It is a Chicago Pneumatic 214. Cost me \$250.00 with whichever yoke I wanted. It isn't pretty but it works fine. Bill Williams specializes in surplus tools. They have all kinds of stuff including clecoes at the best price (.16) I've found. A little warning on the clecoes... They are definitely surplus. Some have paint on them others Pro Seal type stuff. Out of the last order I got, 98% were usable, that's better than the new ones I purchased in February from Avery's, but they will not guarantee them. They will guarantee their tools to work though. I should get a order of clecoes today (30 dozen) I'll let everyone know if the quality has gone downhill.

The phone number is 817-838-2601.

They do have an Avery catalog so they can cross reference part numbers. Yokes are only \$50 for any size.

WANTED Ads are FREE.

Volunteers: We are rebuilding the original RV-3 for donation to the EAA museum this summer. It is now in the Chapter 105 hangar and work parties meet every Thursday night. Contact Don Wentz (696-7185) or Gary 10/96

HANGAR HUMORTop Ten GOOD Things About The 1997 Northwest RV Fly-In*by Randall Henderson*

Yes, this year's fly-in was a bit of a washout. But it wasn't all bad.

10. No one had to bust their butt directing cars or greeting airplanes.
9. No one actually got struck by lightning.
8. Those who did manage to fly in stayed much later than usual. (The weather gods saw to that.)
7. Plenty of cookies left over for the next builder's group meeting.
6. Everyone got a chance to leak test their canopies.
5. No Blackjacks showing off and making the rest of us feel inferior.
4. No need to hassle with ordering more T-shirts for people who didn't get one.
3. The water never got high enough to carry Chris Lund's car away.
2. Most of us like the _small_ fly-ins better than the big ones anyway.

And the number one good thing about the 1997 Northwest RV Fly-In....

- 1 . "Bonus" work day for builders who stayed home (the bums).

THE TOOL EXCHANGE

The club 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.

Home Wing Tools available: HVLP Paint Sprayer, Hole template for instrument panel, Wire crimping tool and die, Brake lining rivet set tool, and Tune-up and Annual Equipment (Compression check, Mag timing light, Timing dial, Mag adjustment tool, Plug gapper, high voltage cable tester, and Plug vibrator cleaner). Brent Ohlgren 288-8197.

Packaging for a Lycoming Engine - cast styrofoam case and shipping stand. Ken Scott 503-648-1594.

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 360-636-2483.

Engine Stand. Don Wentz 503-696-7185.

Engine Hoist. Norm Rainey 360-256-6192.

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 590-8011 .

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.

FOR SALE/ RENT Ads are FREE.

Air brush kits. Handy and cheap. \$9 each. Stan Van Grunsven 360-254-3492. 5/97

O-360-B1A 180 hp, overhauled by A&P-IA and Premier in Troutdale. Conical mounts, constant speed capable, new fuel pump, new Slick mags (AD), new oil pump gears (AD). Engine looks great. O-SMOH. Includes starter, alternator, MA4-5 carburetor. Everything signed off and yellow tagged. \$15,250. Also have IO-360 200 hp engine O-SMOH. Same quality workmanship, out of Mooney. Call Jim at (503) 637-6621 or email at RV6Jim@juno.com. 5/97

RV-6 kit. \$8,000 Complete. Also an RV-6A Conversion kit that has been started - other extra's included. Harmon Lange 503-397-1478. 3/97

ATS Hand Rivet Squeezer, 2" deep swivel head yoke. Model 5011-1. \$75. Bill 503-829-2856 after 6pm. 3/97

Duckworks Landing Lights. Retro-fittable, light, easy installation. Kits start at \$69 (discount for Rid RVators). Don Wentz 503-696-71 85.

"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 Kathv 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 Q Cash Q Info change only U E-mail Address.

Project (RV-3, 4, 6, 6A, 8) _____ Comments?__

Progress: _____

Tail In Progress _ Finished _ _____

Wings In Progress _ Finished _ _____

Fuselage In Progress _ Finished _ _____