

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

JANUARY MEETING

The January meeting was held at Charlie Kaluza's house (estate?). Charlie is just about ready to remove his fuselage from the jig, so it provided those of us just starting on the fuselage with a tantalizing view of what's ahead. Attendance was right around 40 and the fact that it wasn't overly crowded gives you an indication of the size of Charlie's 2nd story "loft" workshop. Discussion during the meeting centered on painting and priming. With all the new ERA regulations, many of the old paints are no longer available, so the merits of various alternatives were discussed. Three upcoming articles will discuss primers, finish painting, and the System III water based paints (Still waiting on the author's to turn in these articles....). And finally, Randall provided details of the new Van's Air Force jackets, see details in his article later in this newsletter.

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

Place: Jerry Van Grunsven's House

33770 NW Bagley Rd, Hillsboro

Date: February 13th (2nd Thursday of the month)

Time: 7:00 pm

The next meeting of the Portland Area RV Builders Group will be at Jerry Van Grunsven's place out at the Olinger Air Strip on Thursday, February 13th, at 7:00. Jerry and Stan are close to completion of the RV-6 project that Stan at one time had taking up two rooms in his house. This is not a good time of the year to be flying in so Jerry plans to host another meeting this summer.

The easiest way to get there if you are not familiar with the area is to start at Glencoe Road. From Hillsboro downtown take First Ave. heading North; this turns into

Glencoe Road. Follow it to where it takes a full 90 degree bend to the left then another to the right; make the left part of the turn but not the turn back. This leaves you traveling West on Wren Road.

If you will be going out highway 26 take the North Plains exit and turn left at the light; you are now on Glencoe going South. Go about two miles to where the road forks; one goes straight and the main road makes a shallow 90 degree turn to the left. Go straight instead of turning, continue on to the stop sign and turn right on Wren Road.

Go 1/2 mile west on Wren Road to Leisy Road and turn left. Go 1/2 mile South and turn right on Bagley which is the road paralleling the airstrip. This road is very rough. Go to the last house on the left.

Parking is very limited here so carpool if you possibly can. Jerry has made arrangements with certain ones of the neighbors to park in their driveways; this should be the house next to his and the second one back from there. There will be signs or someone directing you. Definitely do not park on both sides of the road.

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 Editors a call so they can correct it.*

EVENTS CALENDAR

EAA Chapter 105 Monthly Meeting Thursday, February 20th (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, March 1st (first Saturday of every month) at Twin Oaks Airpark, 8:00 am.

Northwest Aviation Conference and Trade Show

February 22nd & 23rd at the Western Washington Fair Grounds in Puyallup, WA. Admission is free. See below for details.

FROM THE "BIG MESS"

Jerald and Kathy Hall, Editors

Another month already! And what progress we've seen. We officially finished up the wings today and got them hung up on the garage wall. Fuselage here we come! I must say both Jerald and I are feeling pretty proud. What a feeling of accomplishment and satisfaction. As Jerald put it..."now it's time for the fun stuff!" I'm not sure what Katie thinks of the whole thing...we stuck her in her baby swing most of the day while we riveted away. If anyone knows where we can find baby-sized ear muffs, we could sure use them so she can join us as we make lots of noise.

NW AVIATION CONFERENCE AND TRADE SHOW

by Kathy Hall

Coming the weekend of February 22nd and 23rd at the Puyallup Fairgrounds. Enter at the Gold Entrance. Just as you enter, you will find a static display of a large number of aircraft including sailplanes, homebuilts, helicopters, and a Search and Rescue display. The trade show opens at 9am on the ground floor of the Pavilion. Upstairs will be the Airplane Seminars, which include Balloons, Ultralights, Sailplanes, FAA Maintenance Seminars, Floatplanes, ATC Communications, 99's flying companion, and Weyerhauser Corporate Operations and Helicopters. Speakers include Sparky Imeson, Phil Boyer, Tom Poberezny, and many others. This sounds like a great event. Hope to see you there! See Jerald or I at the next meeting to take a look at the brochure.

VAN'S AIR FORCE STUFF

by Randall Henderson

As most of you know, I am the provider for the Van's Air Force T-shirts, hats, mugs, etc. that Van's sells through their catalog. Recently I have had some requests from people who wanted the emblem on something other than the standard gray T-shirts and hats.

I can put the emblem, as it goes on the T-shirts, on most anything you want (it will look best on a light color). You can either specify a specific type of shirt that you would like (color and style, long or short sleeve, or sweatshirt, hooded, etc.), or you can provide me with the 'article' and I will put it on there. (I have a pair of overalls with it on em - looks neat! And my wife has a.... well, never mind about that.) Cost if I provide the shirt will vary with the item, cost if you provide it is \$6 per item, plus shipping if any.

The only catch is you'll have to wait till I do a batch, otherwise the set-up costs are prohibitive. The next run will probably be sometime in March. (Side note: I can't seem to find a record of who asked for what at the meeting - as I recall Dave Locke wanted some sweat shirts, but was there someone else? Please give me a call and let me know.)

I have also had requests for hats in something other than the charcoal gray that they come in. I have no plans to do any other colors, however you can accomplish almost the same thing by purchasing a VAF patch from Vans and sewing it on your own hat. The patch is exactly the same embroidery that's on the hats, the only difference is that it's on a die-cut patch.

And last but not least, I have finalized the design for the Official Van's Air Force Flight Jackets and they are at the manufacturer now. They should be available (again through Van's catalog) around the beginning of March. This is a version of the US Air force MIL-SPEC MA-1 flight jacket, with some custom modifications to bring it up to VAF specs (the USAF MIL-SPEC just didn't cut it!) The jacket is black nylon, with knit sleeves and collar, red inner liner, Van's Air Force patch and pencil pocket on the sleeve, and leather/Velcro VAF patch on the breast. When you walk down the street in this jacket, people will KNOW they're in the presence of an experimental aircraft test pilot!

Note: I'm announcing this just to let people know that they're on the way. Please don't call Van's asking for them until they're actually available (i.e. March).

BUILDER'S TIPS ... *Thanks to all who share them!***TECHNICAL COUNSELORS***by Don Wentz*

There are several technical counselors in the area, many in Chapter 105. As one of those counselors, I enjoy visiting various projects, hopefully giving-out helpful advice, tips, etc. There is one problem that I have had with the program however. Often at a meeting a builder will approach me and mention that they would like me to visit their project. That isn't a problem, but actually scheduling the visit can be.

I have been thinking about this, and I think it would help a lot if, when you approach a Tech Counselor about a visit, you provide a schedule of say a 2 week period when it would be good times to visit. Nothing fancy, just a list of times, and your name and phone number. This way, when your discussion of the visit ends, the Counselor will have the info they need when they get home to setup the visit. Tech Counselor visits can be an important part of the completion of your project, and we wouldn't have signed-up to be TCs if we didn't want to visit your projects, so, help us make the connections and we'll be there.

RV-3 RESTORATION*by Don Wentz*

There have been some faithful helpers each Thursday that have been there to work and learn. On the first night, Jerry Dunlap, who has restored several aircraft (especially Citabrias), was watching the progress as we demonstrated how to countersink holes using a countersink bit in a stop-countersink tool. He exclaimed how much easier some of the things he had done would have been with a tool like that. This is exactly why we took this project on - so that we could have a hands-on opportunity to learn about various methods of aircraft construction. So, if an old hand like Jerry can learn something, I suppose most of us can as well.

The tail feathers have been fitted, the fuselage power-cleaned, the forward skin platenuts drilled and installed, a new canopy partially fit, the elevator control rods partially installed, the engine hung and the cowl fitting is underway. Progress is beginning to show, but we still need more hands, so don't forget to come-out and help us out a little!

Rivet Fan Spacer - A Better Way*by Randall Henderson*

I felt kind of stupid when I came upon this one - I was so proud of myself for coming up with the idea of marking on your workbench or other convenient surface the endpoints of the "fan" type rivet spacing tool at various spacings, providing a way to quickly spread the tool to the desired spacing without fussing with rulers and such every time. Then comes along Doug Stenger, who has been building RVs forever but only recently started using a fan spacer, and I noticed that he had cleverly marked his fan spacer for all the normal spacings, right on the fan itself. He simply extended it to the narrowest normally used spacing (3/4"), and drew a line with a sharpie pen next to the right edge of the leftmost fan segment, onto the underlapping segments. He labeled that segment 3/4", extended it to 7/8", drew a line at the next segment over and labeled it, and so on. One other thing you can do is to number each individual hole, starting with 0 at the left. This can be handy when you're doing wide spacings. For example, if the spacing is 4", spread the fan out to 1", then make the marks at holes 0, 4, 8, 12, etc.

Offset Rivet Sets*by Randall Henderson*

Here is one I actually DID figure out a long time ago, but some recent talk on the internet rv-list indicated that it maybe could stand repeating. A fellow mentioned that he had all but given up on using his offset rivet set since it would swivel in the gun, resulting in mashed rivets and dinged flanges. He finally figured out that all you need to do is wrap some duct tape around the spring and set, to keep it from rotating while it's hammering. This of course also works with angled sets.

YOUNG EAGLES RV-6A DONATIONS

This aircraft would be built at Oshkosh with volunteer labor, owned and operated by the EAA Foundation when completed, for the purpose of a Young Eagles' touring aircraft. Donations can be made by making a check out to the "EAA Foundation", noting on the check "memo:" "EAA Young Eagles RV-6A" and sending the check to Van's Aircraft, attention: Sandy.

IDENTIFYING THE "ADEL" CLAMP

by Robert L Nuckolls, III (from the internet)

I've seen some conversation recently concerning "Adel" clamps and their suitability for use around fuel, high temps, etc. I've pulled the specs and will excerpt some of their contents as follows:

The "Adel" clamp is more properly called an MS21919 aircraft clamp. The company named Adel built a goodly portion of the MS21919 clamps back in the 60's (and may still). The term sort of stuck on these devices in spite of the fact that they are now made by dozens of companies. The full description for these clamps follows the convention MS21919XXZZ where XX (the two letters immediately following the specification number) have the following significance:

DE = Aluminum band, Ethylene Propylene Cushion (21 2F)

DF = Aluminum band, Nitrile Cushion (212F) DG =

Aluminum band, Chloroprene Cushion (21 2F) CE = Corrosion Resistant Steel band, Ethylene Propylene Cushion (275F)

CF = Corrosion Resistant Steel band, Nitrile Propylene Cushion (200F)

CH = Corrosion Resistant Steel band, Silicone Cushion (400F)

CG = Corrosion Resistant Steel band, Chloroprene Cushion (21 2F)

CJ = Corrosion Resistant Steel band, Fluorosilicone Cushion (450F)

F = Low Carbon Steel Band, Nitrile Cushion (212F) (Note 1)

G = Low Carbon Steel Band, Chloroprene Cushion (212F) (Note 1)

H = Low Carbon Steel Band, Silicon Cushion (400F) (Note 1)

Cushion Application and Color Information:

Ethylene Propylene - for use in areas contaminated with phosphate ester hydraulic fluid and other synthetic fluids. Excellent ozone resistance. Not resistant to petroleum based fluids. Color shall be solid purple.

Nitrile - for use primarily in fuel immersion and fuel vapors. Good ozone resistance. Not resistant to phosphate-ester based fluids. Not for use on titanium tubing. Color shall be solid yellow.

Chloroprene - for general purpose use in areas contaminated with petroleum based hydraulic fluids and occasional fuel splash. Excellent ozone resistant. Not resistant to phosphate ester based fluids. Not for use on titanium tubing. Color shall be black with a blue identifier patch.

Silicone - for elevated temperature usage in phosphate ester based fluid and other synthetic fluid contaminated areas. Unaffected by ozone. Not resistant to petroleum based fluids. Color shall be natural white.

Fluorosilicone - for elevated temperature usage in petroleum based fluid contaminated areas. Unaffected by ozone. Not resistant to phosphate-ester based fluids. Color shall be solid blue.

Note 1. Clamps with low carbon steel bands are not recommended for new design and most were purged from stocks back in early 80's . . . however . . . you never know what might show up in the Fly-Market at OSH so I've included the "heads up" here.

The last characters (ZZ) are digits describing the internal diameter of the closed clamp in 1/16ths of an inch. E.G. an MS21219DG4 is aluminum strap inside a chloroprene cushion and sized to support 1/4" diameter bundle of wires, tubing, etc.

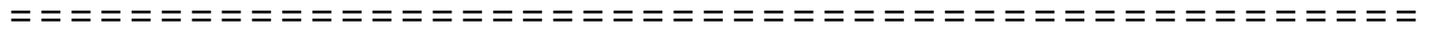
I note that the spec does not speak to the "red" cushions currently being discussed. I recall seeing a number of clamps with red cushions over the years but quite frankly, I don't know if they were MS21919 or perhaps some other part number. It's also possible that the red cushions are very old surplus that are now obsolete (at least in terms of the specification) and are simply no longer described. As I recall the red critters are softer and remind me of silicon based rubber. . . if so, the red cushion clamps are indeed unsuitable for use around areas wet with fuel and/or grease. However, these ARE the cushions of choice for use in high temperature areas. I'll dig around the bins here at Raytheon and see if I can get an identity on the "red" cushion clamps.

Regards,

Bob .. AeroElectric Connection

72770.552@compuserve.com

<http://www.aeroelectric.com>



CLEVELAND'S WEB PAGE

by Mike Lauritsen, Cleaveland Aircraft Tool (from the internet)

Finally after working off and on for a year and a half we have our web page "done". It's nothing fancy but it does have part numbers, prices and descriptions... no pictures yet. The online order form does not yet work, and the domain name "cleavelandtool.com" is not hooked up thanks to my service provider, but you can take a look at this address "<http://www.tdsi.net/~clevtool/>". Please send me your comments and what else you would like to see. (please e-mail me directly not through the list @ clevtool@tdsi.net). Thanks.

HANGAR HUMOR

Too Ten "Natural Laws" of RV Building

by Randall Henderson

- 10. Exactly one week after you take delivery of your subkit, Vans will start shipping the new, improved version.
- 9. When it comes to drilling, there are those that have and those that will (drill into a body part).
- 8. The minute you finish cleaning your paint gun, you will discover a part that you forgot to paint.
- 7. The chances of getting a strip of duct tape stuck to what you want before it sticks to itself is inversely proportional to the length of the strip (this is also known as "The First Law of Duct Tape").
- 6. The first question out of any non-RV builder's mouth will always be "When's it going to be finished?"
- 5. Every modification you make will take three times as long and cost three times as much as you expect it to.
- 4. No matter how much building space you have, you need more.
- 3. There's a right tool for every job, and you don't have it.
- 2. There's nothing you can do that can't be fixed with money.
- 1. Make that money, time, sweat, loss of sleep, high blood pressure, etc.....

WANTED Ads are FREE.

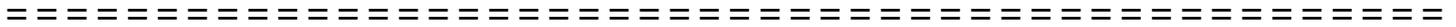
Carburetor suitable for 150-1 60 HP Lye 0-320. Conical Engine mount for RV-4. Russ. 503-606-0342.2/97

Wood prop for RV-6A w/ 180 hp Lycoming. Prefer climb prop, but will consider cruise prop. Russ. 503-606-0342. 2/97

GPS-90 compatible external antennae. Don Wentz. 503-696-7185. 1/97

Looking for used kits, possibly a new tail kit. John Hsu. Hsubox@proxals.com. 12/96

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



FOR SALE/ RENT Ads are FREE.

RV-6 with Lycoming O-320, 160 Up. \$49,000. Farn Reed. 541-471-6289. 2/97

Lycoming O-320 A2B. 150 hp. 1400 hrs on first run. Salvaged from takeoff accident in BD-4. Prop struck mud at low power... crank runout dials okay. Rear carb model not suitable for RV-6A. \$6500. Russ. 503-606-0342.2/97

Two David Clark H10-30 headsets with soft covers. Used approximately 4 hours. \$130 each. Craig Gee. 360-887-0823. 2/97

Apollo Loran Antennae. This is the standard Loran 45 degree whip antennae with the streamlined base. \$130 in several TAP ads - will sell for 1/2, \$65. Don Wentz. 503-696-7185. 1/97

RV-6 Fuselage jig - 2 planes built on it. \$225. Steve Householder. 503-297-8760 days, 503-662-3697 eve. 1/97

Encounter with Impala has re-arranged priorities! RV-8 Empennage, finished. Buyer mounts weights and installs fiberglass. Get a head start on a great airplane. Ken Scott. 503-646-51 17 days, 503-645-1594 evenings. 12/96

25 AH Gel Cell Batteries (used) -Free for the asking. Gary Dunfee. 631-7262. 11/96

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 primered), 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

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

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.

Home Wing Tools available: 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 gap-per, high voltage cable tester, and Plug vibrator cleaner). Contact Brent Ohlgren, 288-8197.

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

THE TOOL EXCHANGE continued...

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, 590-8011

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. Cart Weston 649-8830.

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"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) _____