



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

DECEMBER MEETING

The December meeting was held at Rob Hickman's house. Rob's RV-4 is nearing completion and the workmanship is excellent. As if building the RV wasn't enough of a challenge, Rob decided midway through the project to design and build his own engine monitoring system, complete with backlit LCD display and download capability to a PC. Rob is thinking about marketing his design once it's fully debugged, so stayed tuned. Special thanks to Jennifer for the wonderful food and hospitality. ...it made having a baby at the meetings a pleasure!

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

Place: Bill Kenny's House 503--590-8011

16420 SW Beef Bend Rd; Sherwood

Date: January 6th (2nd Thurs: of the month)

Time: 7:00 PM

To get there from the north and east, go south on either Murray Blvd or 217 and turn right on Scholl's Ferry road, 210. The road changes to Old Scholl's Ferry Road before you get to Murray Hill and Scholl's Ferry goes off to the left at a traffic light. Go straight to be on Old Scholl's Ferry. Just after Scholl's and Old Scholl's rejoin, turn left on Beef Bend Road.

If you are coming from the Hillsboro take River Road to 210 (Scholl's Ferry Rd) and go straight at that intersection. Stay on Scholl's Ferry until you reach Beef Bend Road. Turn Right.

Proceed on Beef Bend until you reach Laisch Lane (just before reaching the sharp turn at the bottom of the hill). Bill's house is on the Right-hand side.

EVENTS CALENDAR

EAA Chapter 105 Monthly Meeting

Thursday, January 1 5th (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, February 7th (first Saturday of every month) at Twin Oaks Airpark, 8:00 am.

SPECIAL MEETING NOTICE (PRESENTATION)

Thursday, February 26th at Twin Oaks Airpark: "The Parachute - its use in sport aviation safety."

7:00 pm - 9:00 pm (General Seminar, 2:-45 min segments), 9:00 pm - on (examine several styles of parachutes, aero belts, etc).

Speakers: Alien R. Silver from Hayward, CA (Silver Parachute), and Dan Taraslevich from Arlington, WA (Para-Pernalia, Inc).

See article on page 2...

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.

EMERGENCY BAILOUT PROCEDURES (part 1 of 3)

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submitted by Gary Graham

rewritten with permission from Alien R. Silver (SILVER PARACHUTE) and Dan Taraslevich (PARAPHERNALIAJNC.)

Please see Alien's web page for his bio and articles he has written, www.pia.com/silver/index

PART 1 "IT ALL BEGINS WITH ATTITUDE AND PRE-PLANNING" Your parachute system will save your life in an emergency bailout situation, but you have to give it every opportunity to do so. Due to a very tragic accident in which a nationally known aerobatic pilot fell out of his apparently improperly adjusted parachute harness after a successful exit from his disabled aircraft, I decided it was time to head back to my word processor. This will be the first in a series of comprehensive articles on your safety and survival. I hope this three-part series will shed some light on some of the myths and stigmas about wearing and having to use your emergency parachute. While these articles address almost every aspect of safety and basic procedures, they are not intended as a substitute for survival or parachute jump training. At the very least, have your rigger go over these procedures with you until you are familiar with them. This first installment will cover your attitude and pre-planning toward bailing out, proper storage of your parachute and preflight inspection in order to insure that you have complete confidence the parachute you strap on your back will function properly. This is the same reason you preflight your aircraft. Your attitude plays a major role in your survival. To paraphrase Yogi Berra, "Ninety percent of a successful parachute jump is half mental." Preflighting your thinking about emergencies could save your life. I strongly urge you to prepare now in the unlikely event you'll have to use your "expensive cushion". During an emergency is not the time to brush up on your emergency procedures. You should plan in advance what will work best for you and your aircraft configuration. The primary cause of most unsuccessful emergency bailouts is waiting too long to make the decision to bailout and not being prepared. This is your last option, but always make sure you keep it open as an option. Become familiar with your particular aircraft's escape procedures and practice them often until they are second nature. You must be able to react instantly to save valuable time, altitude and your life. **MOST IMPORTANTLY DO NOT GIVE UP.** Your life is much too important to you and your loved ones. So don't throw

in the towel. What didn't work the first time may work well the next time. A confident, positive attitude will be a recurrent theme throughout this series of articles so DP gin to develop the mind set that, "I can and will bail out of my disabled aircraft should the need arise." This positive attitude and confidence in your equipment begins with proper storage at all times and a thorough preflight inspection prior to every use. Unless you have personally and positively checked its condition each time you put on your parachute how can you totally trust that it will save your life? Keep your parachute in a cool, dark place off the floor. Your parachute should be kept in a storage bag, when not in use between the 120 day recertification and repack. Avoid storing it for a prolonged time in areas that could be extremely hot, such as your cockpit, the trunk of your car or even the back seat on a hot, sunny day. Your garage where the hot water heater, washer or dryer may be located is also not a good storage area. Heat and humidity play a very important role in how long your parachute will last. Excessive heat can cause the rubber bands to deteriorate (melt) over time and permanently damage the canopy material and/or lines. I have seen two canopies this past year turned into car covers because of this problem. Maybe your parachute deserves a special place inside your home or office. Avoid greasy areas or areas that may have sharp surfaces. Keep it away from liquid or dirt. Your car trunk may be convenient, but an exceptionally bad area to keep your parachute. Not only can it be very hot but batteries or jumper cables with battery acid residue may have been or still are kept there. Battery acid can mean instant death to your parachute. Lockers are generally all right, but if there's a way for mice or insects to enter I would look for a different location. Mice like to chew up the parachute for nesting material and can do severe damage in minutes. If you are going to store your parachute for an extended period of time (six months or more) you should pull the ripcord and remove the lines from the rubber bands used to hold them in place. Put everything in the carrying bag or other suitable container to protect it, such as a heavy duty plastic bag. If you have any doubts about the condition of your parachute contact your rigger or the manufacturer. Most manufacturers' manuals for parachutes in use today discuss how to perform a preflight inspection and I urge you to become familiar with them. If you do not have a manual, get one from the manufacturer or copy a friend's, if they have the same type and model of parachute. Let's begin by visually checking the carrying bag (if your parachute is in one) for obvious signs of damage or contamination before you remove your parachute. This could be an indication of damage to your parachute inside. Now, remove your parachute from the bag and carefully check it for damage that may have been caused by such things as fuel, oil or sharp objects in your aircraft that may have punctured or be abrading the parachute container. If you have shai surfaces, including the hook portion of velcro tape, in your aircraft, particularly on seats with the cushions

EMERGENCY BAILOUT PROCEDURES (cont'd...)

removed, you must smooth these areas by padding, taping or filing them. Be careful of tape because the chemicals on the adhesive may damage your parachute harness/container. If the hook portion of the velcro tape is on the seat back remove it or put a piece of the velcro pile on it. Inspect all the snaps (leg & chest) for proper function and appearance. They should be free from corrosion and dirt. A very small amount of lubricant such as WD-40 or silicone spray can be used on snaps to keep them working freely, but be careful to prevent any from getting on the surrounding webbing or fabric. It may be best to let your rigger know of problems in this area. Check all the other metal fittings for corrosion, broken or missing parts. Locate the ripcord pocket and make sure the spring, elastic or velcro holds the handle securely in place. Open the ripcord pin protector flap and make sure the pins are properly seated. Generally they should extend about 1/2 to 3/4 inches beyond the cloth loops or metal cones they go through. Check that the ripcord cable moves freely in the cable housing it runs through by gently pulling back and forth on it. This is done by taking a hold of attaches the ripcord handle to the cable with the other hand. Now gently pull them back and forth to make sure the ripcord cable above the top pin before it enters the cable housing with one hand and holding the ball that there is freedom of movement and nothing has become lodged in the ripcord cable protective housing. Make sure the velcro or snaps (not leg and chest snaps) that may be used to keep the various container flaps closed are properly fastened. If they are undone you can refasten them, but be careful not to catch any parachute material. Check the harness to make sure it's not damaged and that the webbing is routed property with no twists. There should be elastic keepers or other means to stow the free ends of the webbing to keep them from snagging on anything, especially during an emergency bailout. If you are in doubt about anything consult your manual, the manufacturer or your rigger. That's what they're for. If at any time your ripcord is accidentally pulled or the parachute canopy is partially out of the container DO NOT attempt to close it on your own. Contact your rigger for his or her advice. Now that the groundwork has been laid to get you in the right frame of mind to believe your parachute will save your life I'll leave you. In the next issue I'll take you up to the point of being suspended under an open canopy. This will include properly donning and adjusting your parachute, exiting your disabled aircraft and deploying your parachute system. The final installment will cover steering the canopy, avoiding obstacles and proper landing procedures. Until then, Blue Skies and safe flying. Please don't hesitate to call or write, if you have any questions or parachute needs. Ask me about a safety seminar for your flying group. I'm here to make sure that you survive. I can be reached at (510) 785-7070, Monday-Friday 8am-4pm (PST).

ALIGNING CONVENTIONAL GEAR FAIRINGS AND WHEEL PANTS

by Randall Henderson

This tip came from Blackie, via Don Wentz. I was getting ready to install my gear leg fairings and wheel pants, and lay up the wheel pant intersection fairings, and stewing about having to string up all those alignment strings, when Don told me that Blackie told him that if you do it before you have the engine mount on, they can be easier to align by just leveling the mount horizontally on the bench and then using plumb-bobs to align the fairings and pants. I tried it and it worked quite well. I started with the gear leg stiffeners, and put a plumb-bob on both ends of a piece of string, then hung the string over the leg and used it to align the trailing edge of the wood stiffeners (I put the stiffeners on the backs of the legs, held on with fiberglass wrap per the plans). Once those were attached, I put the gear leg fairings on and lined them up the same way, then clamped them at the bottom with an attachment tab and hose clamp (again per the plans). The wheel pants don't have a straight line on them, so I "best guessed" the horizontal centerlines and drew them on the pants, then used plumb-bobs and sighting by eyeball to line them up vertically before drilling the holes for the attach plates. At this point both the pants and the legs were aligned "in trail". I then built up the clay mold and got the glass ready to lay up, I pulled the bolt at the top of the gear leg and rotated the leg so the wheel pant was more or less horizontal (being careful not to disturb the alignment of the fairing). This made it easier to lay up the glass, since it was now laying flat instead of vertical.

The above worked fine for the wheel pant, but what about the fuselage? Remember that the alignment at the top of the gear leg fairing is fixed in place by a hole in the bottom skin that the hinge pin sticks up into. To get this right, I rechecked the alignment of the gear legs with the whole thing on the bench as before, then made alignment marks on the fairings and legs at the top. Then I put the mount on the plane, put the fairings on, lined up the marks, and drilled the hole where the hinge pin wanted to go through the fuselage. Simple!

This brings up another point, which is that several builders who have flown their planes for a while have told me that the steel hinge pin has enlarged the hole in the fuselage skin over time, due to all the vibration. To avoid this, I riveted a #8 nut plate over the outside of the hole. I had to offset it a bit and grind off most of the threaded section due to the angle that the pin goes through the hole, but the result is a nice steel collar that will hold the pin in place.

AVIATION LOGIC

submitted by Mike Wilson... written by an AA employee who was formerly a bush pilot in Alaska

It's better to be down here wishing you were up there, than to be up there wishing you were down here.

An airplane will probably fly a little bit over gross, but it won't fly without fuel.

Speed is life, altitude is life insurance.

If you're ever faced with a forced landing at night, turn on the landing lights to see the landing area. If you don't like what you see, turn 'em off.

Never let an airplane take you somewhere your brain didn't get to five minutes earlier.

Too many pilots are found in the wreckage with their hands around a microphone or holding onto a keyboard. Don't drop the aircraft in order to fly the microphone.

An airplane flies because of a principle discovered by Bernoulli, not Marconi.

Fly it until the last piece stops moving.

No one has ever collided with the sky.

Any attempt to stretch fuel is guaranteed to increase headwinds.

A thunderstorm is nature's way of saying "Up yours."

Keep looking around, there's always something you missed.

Remember, you're always a student in an airplane.

Any pilot who does not at least privately consider himself the best in the business is in the wrong business.

It's best to keep the pointed end going forward as much as possible.

Hovering is for pilots who love to fly, but have no place to go.

The only time you have too much fuel is when you're u.i fire.

A jet fighter in the air is a dual emergency: Low on fuel and on fire.

A single engine jet is a triple emergency.

The only thing worse than a captain who never flew copilot is a copilot who was once a captain.

A terminal forecast is a horoscope with numbers.

Takeoffs are optional. Landings are mandatory.

The first thing every pilot does after making a gear up landing is to put the gear handle down.

A "good" landing is one which you can walk away from. A great landing is one which lets you use the airplane another time.

A good simulator check ride is like successful surgery a cadaver.

Good judgment comes from experience. Good experience comes from someone else's bad judgment.

An airplane may disappoint a good pilot, but it won't surprise him.

Learn from the mistakes of others. You won't live long enough to make them all yourself.

Things which do you no good in aviation:

- Altitude above you.
- Runway behind you.
- Fuel in the truck.
- Half a second in history.
- Approach plates in the car.
- The airspeed you don't have.

A smooth touchdown in a simulator is about as exciting as kissing your sibling.

Fuel is life.

RANDALL'S TOP TEN NEW YEARS RESOLUTIONS*by Randall Henderson*

10. Don't rest until everyone in the group is wearing a Van's Air Force jacket.
9. Always hold the corner of the part away from the direction the scotch-brite wheel is spinning.
8. No more TV until the plane is done.
7. Resist the urge to buy every tool I see.
6. Do good at work, get a raise, buy more tools.
5. Quit being such a perfectionist.
4. Quit modifying everything.
3. Quit adding things.
2. Quit drooling over that RV-8.
1. Finish it - THIS YEAR!

FROM THE "BIG MESS"*by Kathy Hall, Co-Editor*

Oh, the holidays are over! I am really looking forward to a normal week! Hope everyone got what they were wishing for...although I'm sure there are several of you that did not use the wish list in the November newsletter, and hence were a bit disappointed...Jerald included...he did get several new shirts and socks...

The top skins are being put on the fuselage, and the bare instrument panel is about to be installed...discussions on the price of Intel stock are becoming more frequent as the purchase of an engine nears...and Jerald keeps bringing up the topic of upholstery (aargh!).

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.

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. WHO HAS THIS? Call Brent Ohlgren 288-8197.

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.

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.

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THE TOOL EXCHANGE (COIMT'D...)

Table saw taper jig, for tapering wing spar flange strips. Carl Weston 649-8830.

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FOR SALE/ RENT *Ads are FREE.*

Narco LRN-840 Loran. Works perfectly, includes tray, antenna, manual. Cheap navigation, only \$200. Randy Lervold, 360-944-3702 1/98

FREE...wing jig and control surface making device. Jan Martin 360-834-5008 12/97

O-320E3D, 1000SMOH, Carb and filtered airbox, fuel pump, Slick mags and harness, 55amp alternator, baffles and exhaust, heat muff, starter, 4" prop ext, 12" diameter Harold spinner, Pacesetter 200 prop, \$8750. John Morgan 503-628-2076 12/97

Engine mount (dynafocal I), short gear legs, single piece wheel pants, fixed pitch cowling, all are for RV-4, best offer. John Morgan 503-628-2076

H10-30 David Clark headset w/microphone. Used 5 times. \$100. Gary Standley 503-591-9040 12/97

Three wheel, 12" bandsaw plus several blades (the Harbor Freight model). Barely used. \$40 obo. John Kimmel 503-794-1827. 7/2/97

For Sale: Two new military surplus stick grips. Real military grips with all the cool buttons, triggers, etc. No coolie hat, but could be added. \$50 ea. Randall Henderson (503) 297-5045 11/97

IO-360 200hp OSMOH out of Mooney. Includes new pistons, rings, valves, oil pump gears and housing, bearings, fuel pump and f.i. \$17,900 or make offer. This engine is overhauled by Premier in Troutdale. Jim (503-637-6621 or jheadric@aol.com) 11/97

Van's Air Force Apparel, Home Wing member discount. Limited edition VAF hats, gray crown with black bill. Four color 100% embroidered jacket patches. Van's Air Force jackets, MA-1 style black w/red liner, VAF patches on shoulder and breast, pencil pocket, optional name patch. Randall Henderson (503) 297-5045, or catch me at a meeting.

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

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WANTED Ads are *FREE*

Looking for an engine for an RV-8 that's in progress. Any ideas? Bryan Stauter oasis@oio.net

Set of RV-3 plans. David Ohnsager expat@premier1 .net

Glastar Builder looking to purchase Sheet Metal Tools. Gary Clay 503-653-6897. 10/97

Desperately seeking workspace for RV project. Please call Don Wert at 503-295-6455. 8/97

"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 a Cash a Info change only a 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)	—