

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

NOVEMBER MEETING

The November meeting was held at Frank Justice's home. Frank is almost done with his RV-6A, and I'm sure everyone had a great time, but since I was busy having a baby, I don't have any details to send out this month...she's worth it. I'll do better this month.

Thanks to Don and Randall for running the meeting for us on such short notice.

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

Place: Rod Kimmel's Home
2090 SW Pheasant Drive;
Date: December 12th (2nd Thursday of the month)
Time: 7:00 pm

Rod is building an RV-6, and has just started his wing kit. He is currently mounting the left wing ribs. He will also have his Garmin 195 GPS receiver out and running for all to play with.

< Map didn't scan well >

From Sunset Hwy (I-26), take the 185th Ave exit and turn south. Continue southbound approximately 2-3 miles, then turn left on Pheasant Lane. Take the first right on to Pheasant Drive and continue until it dead ends.

From TV Hwy, turn north on 185th, continue northbound about .9 miles. Turn right on Pheasant Lane. Take the first right on to Pheasant Drive and continue until it dead ends.

Phone 848-6636 if you get lost.

As always, remember to bring in any tools or other things you are ready to loan out, give away, or sell.

FROM THE "BIG MESS"

Jerald and Kathy Hall, Editors

The baby won! If you recall, it was a race between having our little girl and Jerald finishing the wing kit. He seems to think I cheated, though, because completion was dependent on my helping rivet the skins on. And I was too busy being very, very pregnant to help out much those last few weeks. For those of you interested, Katherine Elaine Hall was born on 11-11-96, at 6:30pm, weighed 9 pounds, and being a true builder, my husband and doctor pulled out their tools and cut her out. Something about her being too big... but they sure seemed to be having a good time. ..enough of those details.

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.*

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EVENTS CALENDAR

EAA Chapter 105 Monthly Meeting Thursday, December 19th (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, January 4th (first Saturday of every month) at Twin Oaks Airpark, 8:00 am.

EAA Chapter 105 "Winter Banquet"

When: Friday January 10, 1997; 7-10pm
Where: Rheinlander Restaurant, Sandy Blvd, PtInd
Who: Chap 105 members
Cost: \$21 per person covers full meal with desert, choice of entrees.
Program: Little more than passing of the Gavel to the 1997 Chapter Prez, and lots of good socializing.

CHECK SIX

by Don Wentz

Now and then I communicate on email with an RV builder who always ends his mails with "Check Six!" As it happens that is good advice for around here. Recently Rion and I were flying out near the coast and saw a flash. Immediately going to full throttle and intercept angle, I found it was an RV-4 doing some aerobatics. As he finished a loop and began a long sweeping turn, I cut inside him, tuned the local airport freq, and "fired"! When he began evasive maneuvers, we both new I 'got' him!

We ended-up on his wing and went into Pacific City for lunch at Fat Freddy's. He commented that we were the second RV to 'jump' him in the last two weeks!

A couple weeks later, a few minutes after I announced my approach to the tower at HIO, I 'checked six'¹ and saw an RV-4 sweeping in on my tail. I broke just before he had a chance to 'shoot', but it just goes to show that when flying an RV, it's a good idea to "Check Six!"

The Duck

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

Equipment List

by Don Wentz

When you're building your RV, if you're like me, you may have never owned a plane. This tends to cause us

to not have a realistic idea of just what equipment we really need to install. I know now after 360 hours in my -6 that many of my preconceived notions about what I would need or how I would use my RV have proven incorrect. So, here is my opinion on some items that I consider good or bad choices:

EGT - Initially, I had a 4-channel Electronics Intl EGT. When I added my Fuelscan I put it in the EGT hole and removed the EGT. As I used the Fuelscan more and more to strive for lower fuel burn, I found that not having the EGTs made me concerned about whether or not I was leaning properly. For our Oshkosh trip, I temporarily re-installed the EGTs and found that using them along with the Fuelscan; I could easily and rapidly set the minimum burn rates with some confidence in my leaning. Note that 50 degrees of EGT can make a very significant difference in fuel burn at cruise! I had found that I really missed the data that the EGTs provide.

In addition to helping to save fuel, the Fuelscan really takes the guesswork out of determining ultimate range and endurance as well. At any time it will indicate how much fuel is left, how long it will last at current throttle settings, etc. A fun and useful instrument.

Conclusion? EGTs are highly recommended as std equipment to aid in safe, thorough leaning, equating to lower fuel burns. While not necessarily recommended as STD equipment, the addition of a fuel totalizer will teach you a lot about the importance of altitude and leaning as they relate to fuel burn. I know one RVer who thought my -6 was burning way more fuel than his basically identical -6, when I related some Fuelscan numbers to him. As I suggested, he found-out that he was burning more than he thought, once he installed a fuel totalizer as well! Again, not required, but definitely one for the wish list.

The Duck

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BOEING SURPLUS

by Jerald Hall

For those who haven't yet discovered it, Boeing Surplus has a lot to offer plane builders, especially those trying to build a plane on a budget. In this article we will examine what's available at Boeing Surplus.

Before we jump into the details of what's available, let's be sure you can find the place. Being a surplus outlet, you're not going to find a golden "B" to direct you to the store. The store is located on the corner of S. 208th and 84th S. in Kent, Washington. Below is a map on how to get there [Don't confuse this with the earlier map to Rod Kimmel's house. As a typical RV builder, Rod probably

has as many tools and supplies as the Boeing Surplus outlet, but most of it isn't for sale.... ed].

stuff by the labels on the spools and by the printing on the wire.

Bucking Bars: Hit-or-miss on selection, but generally they have a good variety of shapes and sizes. We've bought all but one of our bucking bars here. Price is in the \$1-\$5 range.

Scrap Aluminum and Aluminum Sheets: Excellent selection of scrap aluminum. Most sizes and thickness' are available and the price is much less than other sources, especially if you were going to mail order it and pay shipping. Large, full sheets, of aluminum are also available in a variety of thicknesses.

Titanium and other Exotic Metals: Not sure why you'd need Titanium on your RV, perhaps those of you who constantly forget to "check six" could use it as a bullet shield..... In any case, it and other exotic metals are available in the outside yard for exorbitant amounts of money. As I recall, Titanium was selling for more than \$80 a pound..... Makes you wonder what the hull on a nuclear sub costs....

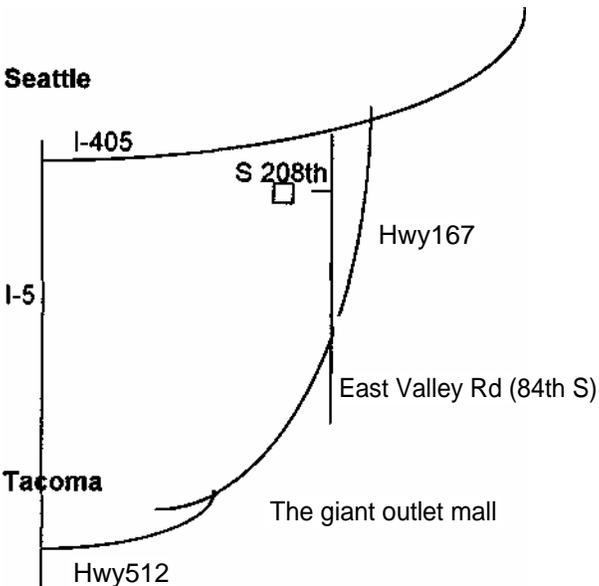
Drill Bits: This is one area that is not really hit-or-miss, the "Tool Crib" has a huge selection of all sizes from "I can't see through the hole" to "I could walk through that whole". 6" and 12" lengths are also readily available. Not sure why, but these bits seem to drill better than even our cobalt bits.

Pneumatic Tools: Fairly disappointing selection on air tools. While they have several hundred to choose from, most are not applicable to RV building. Occasionally, they do have something show up which is a bargain and they have an air hose available for testing the tools.

Wire-Tie Tools: This is the tool which Kathy says epitomizes how spoiled I am, but for \$5 how could I resist??? It's actually a very neat tool which normally sells for over \$100 new (I know, I checked so I could show Kathy what a good deal it was. It helped a little...). After wrapping the tie-wrap around the objects to be tied (e.g. a bundle of wires), the tool, which looks a bit like a pistol, is fitted onto the loose end of the tie-wrap. A quick squeeze of the handle and the tie-wrap is snugged up to exactly the right tension and trimmed right at the bundle. Ok, Ok, maybe I am spoiled.....

Heatshrink Tubing: Price is great, but only a few sizes to choose from. Last time we were there the selection consisted of mainly 1/2" and larger tubing.

Office Furniture: Good prices on used office furniture. We bought an industrial strength lab bench (5ftx30in) for \$125. This is the heavy duty stuff with inch thick table top and non-mar surface.



Boeing Surplus: 206-393-4060

The store is broken into three major sections. The first section you encounter is about the size of a medium grocery store and contains the bulk of the small surplus items sorted into bins as well as the wire and upholstery fabric. The second section contains the surplus furniture and world famous "Tool Crib". The last section is a large outdoor area containing the surplus aluminum, steel, titanium, and other weather tolerant items.

Now, to justify a 5-6 hour round-trip [1.5 hours in an RV... : () there had better be some good bargains. Sure enough, especially for those who have not yet stocked their shop, there is more than enough bargains to pay for the trip. And even for those who are well into construction, the outlet has plenty of bargains.

Here are a few examples of what you can expect to find and about what you will pay. Keep in mind, however, that this is a surplus outlet and the selection changes daily.

Wire: about a \$1 a pound instead of 25 cents a foot for Tefzel coated aviation quality wire. They always have plenty of quantity, but the selection is hit-or-miss. Small 22-28 gauge wire is generally available in a variety of colors/coatings. 18-20 gauge wire is also available in more limited selection. For gauges less than 18, selection is poor and generally not aviation quality wire. Remember, this is a surplus outlet for all of Boeing, including their facilities group, so some of the wire is surplus telephone wire or surplus factory wiring for the 240v machinery. It's usually easy to tell the aviation quality

Issue 96.1 2

Upholstery Fabric: We keep hoping we will find a decent fabric pattern. The fabric is surplus from covering seats on airliners, so it is lightweight and tough, but so far the only patterns we've found are REALLY ugly.

Micro-Stop Countersinks: Industrial quality micro-stops in good condition are generally available for much less than you will pay for new, lesser quality micro-stops. Just be sure to check the shaft and ensure that it doesn't have any wobble.

Other Stuff: Pliers, no-mar pliers, used computer equipment, used office equipment, milling bits, etc., etc.

Also, for those of you wondering how you can coax your spouse into making this a "family outing", one of the largest malls in the northwest is located just a few miles South of the surplus outlet. Not just bigger, the mall contains many stores that are not generally seen in a normal mall.

(Kathy's Note - this is a wonderful place to go Christmas shopping, it's a giant indoor outlet mall. Very much worth letting your husband make the trip to the surplus store - but allow at least 2 hours at Boeing, and then as many mall-walking hours as possible at the mall).

HANGAR HUMOR

Instrument Flying for Animal Lovers

Found on the Internet

Having detailed the concept of attitude control, there is another method which you may prefer. For reasons that will become apparent, it is recommended for those pilots whose airplanes have large, easily cleaned cabins. Known as the "Cat and Duck Method" of instrument flight, it has received much publicity and is considered to have a great deal of merit by those who have not tried it. No reports have been received from those who did try it, and none are expected. Pilots are invited to assess its merits objectively.

Basic rules for the C&D Method of instrument flight are fairly well known and are extremely simple. Here's how it's done:

1. Place a live cat on the cockpit floor, because a cat always remains upright, it can be used in lieu of a needle and ball. Merely watch to see which way the cat leans to determine if a wing is low and if so, which one.
2. The duck is used for instrument approach and landing. Because of the fact that any sensible duck will refuse to fly under instrument conditions, it is only necessary to hurl your duck out of the plane and follow it to the ground.

December 1996

There are some limitations to the C&D Method, but by rigidly adhering to the following checklist, a degree of success will be achieved which will surely startle you, your passengers, and even an occasional tower operator.

_ Get a wide-awake cat. Most cats do not want to stand up at all. It may be necessary to carry a large dog in the cockpit to keep the cat at attention. _ Make sure your cat is clean. Dirty cats will spend all their time washing. Trying to follow a washing cat usually results in a tight snap roll followed by an inverted spin.

_ Use old cats only. Young cats have nine lives, but old, used-up cats with only one life left have just as much to lose as you do and will be more dependable. _ Beware of cowardly ducks. If the duck discovers that you are using the cat to stay upright, it will refuse to leave without the cat. Ducks are no better in IFR conditions than you are.

_ Be sure the duck has good eyesight. Nearsighted ducks sometimes fail to realize that they have been thrown out and will descend to the ground in a sitting position. This maneuver is difficult to follow in an airplane.

_ Use land-loving ducks. It is very discouraging to break out and find yourself on final for a rice paddy, particularly if there are duck hunters around. Duck hunters suffer from temporary insanity while sitting in freezing weather in the blinds and will shoot at anything that flies.

_ Choose your duck carefully. It is easy to confuse ducks with geese because many water birds look alike. While they are very competent instrument flyers, geese seldom want to go in the same direction as you.

FAA Christmas Spirit?

>Also Found on the Internet

Santa Claus, upon trudging out to his sleigh for his annual night freight trip around the world, was surprised to find a guy with a shotgun standing next to his rig. Santa asked him why he was there, the man replied, "I'm from the FAA, and this is an unscheduled 135 inspection. I'll ride right seat." Santa responded, "With all due respect, sir, I've been doing this flight for over 700 years - but if you insist, well, let's go." As they both climbed into the sleigh, Santa noticed that the FAA inspector brought his shotgun along with him, placing it in his lap, with his finger on the trigger. Santa queried, "What's the shotgun for?" To which the FAA inspector grumbled, "You're going to lose two on takeoff..."

TECHNICAL COUNSELORS AND FLIGHT ADVISORS

by Scott Rider

The Technical Counselors nearby are:

Name	Phone	Comp	Metal	Wood	Tube	Firewall	Fwd	Location
Bill Benedict	503 649-8707		m					Aloha
David Lewis, Sr	503 312-5757		m		t			Beaverton
Wally Anderson	541 342-5240		m			f		Eugene
Robert Palmer	503 344-1986							Eugene
Anthony Hoffman	503661-7712		m		t			Gresham
Ernest Moreno	503 838-6878	c			t	f		Independence
Patrick Henry	503 899-7881		w		t			Jacksonville
Kenneth Gooch	503 882-5856		m		t			Klamath Falls
FW Butch Milani	503 779-5485	c	m	w	t	f		Medford
Ralph Hudson	503292-3913	c						Portland
Michael DeHate	541 923-6453	c	m	w				Redmond
Fergus Fay	503 440-3804	c	m	w	t	f		Roseburg
Don Wentz	503 543-2298		m					Scappoose
Jeff Donaldson	503 626-6044		m					Tigard
Michael Seager	503429-5103		m					Vernonia

And the nearby Flight Advisors are (most are tech counselors too):

<u>NAME</u>	<u>ADVISING PREFERENCE</u>	<u>LOCATION</u>	<u>PHONE NUMBER</u>
David Lewis Sr.	(floats, .multi engine, high/low pert, tail)		
Butch Milani	(no preference listed)		
Fergus Fay	(under 200 hp)		
Uwe Britsch	(multi engine, high or low perf.)	Klamath Falls	503 882-8980
Patrick Henry	(under 200 hp)		
Michael DeHate	(floats, multi engine, high performance, tailwheel)		

Updated lists are available from EAA at (414) 426-4821.

FIRST FLIGHTS/STATUS REPORTS

Ken Scott, RV-6 - Currently being repaired, and hopes to have it in the air for Oshkosh 97. Ken is selling his completed RV-8 tail kit...see for sale section below if interested.

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.

THE TOOL EXCHANGE (CONTINUED)...

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, 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, 590-8011

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.

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FOR SALE/ RENT Ads are FREE.

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. 503-646-5117 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

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

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

WANTED Ads are FREE.

50 year old RV-6 pilot looking for woman co-pilot/companion. I'm 5'9/160 lbs, enjoy flying, camping, and jogging. It helps if you're (plane) crazy. Call Steve Johansen 503-363-5687. 12/96

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

New RV builder in need of tools. Please write with list of tools available and prices. Rich Anthes, 2541 Richert Ave. ClovisCA93611 9/96

"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)