

The Newsletter of the Portland RVators; Builders and Fliers of Van's RV Series Aircraft



July Meeting

The July meeting was a fly-out affair to Independence, and about 20 of us flew down there in various RVs, spam cans, and one rag-wing (the Champ). A few hearty souls even braved the trip in "ground vehicles". It was a joint meeting with EAA chapter 292, and we had originally planned to mostly just tire-kick with the chapter and see what they were about down there. Which we did, but as it turned out we also had a surprise visitor -- Jon Johansen, the Australian RV-4 builder/pilot who just a week before had become the first person to fly from Hawaii to the mainland in an RV. Jon was on his way from Australia to Oshkosh, and plans to keep on going and circumnavigate the earth. Wow.

John gave a stirring talk, starting with his humble beginnings as a person who was told that he'd never amount to much, and believed it. He described how he got his pilot's license while making \$25 per week as a carpenter, partly because he was "too dumb to know that I couldn't do it". He told of how he struggled through nursing school, then traveled to Thailand to do humanitarian work with refugees, and returned to Australia and worked 80+ hour work weeks so he could afford to build his airplane. He described the modifications he'd had to make to his plane to increase the fuel capacity and efficiency, described his trip to New Zealand which he made to prove to himself that he could make the big one, and wrapped up with an account of the trip up through Palau, Christmas Island, Hawaii, and across "the pond" to Santa-Barbara. He said his motive for making the trip was simply that he wanted to go to Oshkosh, and wanted to do it in his own plane. All of it told in an exceedingly quiet, humble manner. I know I wasn't the only one there who had tears in his eyes.

Most of the rest of the meeting consisted of people crowding around Jon's plane and badgering him with questions about it. The entire back seat, up almost to the top of the canopy is taken up with a fuel tank, the

fiberglass wing tips have been converted to fuel tanks, and there is a header tank. Jon is marketing the wingtip tank conversion to RV-ers, and it looks like a relatively simple installation.

Jon couldn't afford to do this on his own, and has managed to get wide sponsorship, including fuel from BP, a GPS unit from Garmin, and a lot of equipment from other manufacturers, but he told us he could still use some help. We passed the hat and between the Portland RVators and the Chapter 292 members we came up with \$310 to contribute to "the cause".

Due to the fly-out nature of the meeting, there wasn't as big a turnout as usual, but we did get more of the "Flying" RVators than usual this time. My trip back in the Champ, with Dan Benua riding shotgun, was both beautiful and exciting, plugging along at 85 with the sun setting over the coast range, and Don Wentz and Steve Harris buzzing around us like fireflies in their RV-6es.

Meeting Notice

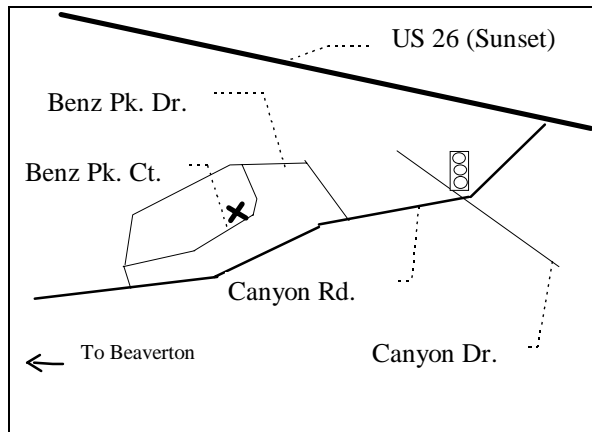
Frank Justice, Meeting Coordinator

Place: Randall Henderson's "Big Ugly" garage/shop
 7233 SW Benz Park Court, Portland
 Date: Thursday August 10
 Time: 7:00 PM
 Phone: 297-5045

The May meeting will be held at Randall Henderson's extendo-garage, a single car garage that has been added to on the front and back since his project started. Randall has just finished fitting up the flap and aileron on one wing, and plans to have the second wing out and prepped for control surface fitting. This can be a tricky part of the project, so it's a good subject for a meeting.

Directions are as follows: **From Portland** take US 26 to the top of the Sylvan hill, then take the Canyon Road/Beaverton exit. Go about 1 block past the first light and turn right on Benz Park Drive. Then turn left on Benz Park Court. It's the first house on the right.

From Beaverton go towards Portland on Canyon Road. About a mile beyond West Slope (West Slope is at the transition point from Auto Dealerships to residential and forest), and turn left on Benz Park Drive, then right on Benz Park Court. From this direction it's the first house on the left.



General Business

Randall Henderson, Editor

Roster

I finally got around to printing up a roster, and have included it in the back of this issue. Sorry about the tiny text -- I'm trying to fit the roster on two pages but there are getting to be an awful lot of us! If your name is not on there it means I don't show that you ever paid for a subscription. If this is in error, *please* let me know! Also any corrections, omissions, etc.

Homecoming

Van's Aircraft Homecoming is fast approaching (September 1-3), and as in the past the Portland RVators will be helping out with directing auto parking. Please sign up at the meeting or give me a call to take a 1/2 hour slot.

Young Eagles Event

On Friday, August 11, a Young Eagles Flight Program has been scheduled from 9:00 a.m. to 11:30 a.m. at Scappoose Airpark. Sixty "Young Eagles" will be arriving from inner city Portland to experience the marvels of flight. They are participants in BPA's Summer Science Camp provided for kids (grades 4-6) who typically do not have access to supplementary learning experiences. The program is conducted in cooperation with the Portland Parks Bureau at various community centers and neighborhood schools.

Approximately \$300 is available to help defray the fuel costs, provided by an individual donor for this event. Due to the large number of kids and the short time frame, 10 or more airplanes are needed to conduct the event. If you are available as an EAA member and carry at least \$100,000 liability on your aircraft, **please sign up by calling Joel Haugen at 231-6861 (home: 543-6879)** and leave your name and type aircraft. The EAA Foundation covers up to \$1 million in liability to protect participating pilots.

This is an opportunity to perhaps truly make a difference in a child's life. Thanks for your involvement! - *Joel Haugen, EAA Chapter 105 Young Eagles Coordinator*

T-Shirts

Yes I still have T-Shirts from the 1995 fly-in. Lots of XL and a few S and XXL. \$12 ea., Get em at the meeting.

Top Ten List

This month's top ten list comes from Robert Boring -- a new builder (or could you guess...)

TOP TEN THINGS A BEGINNING RV BUILDER LEARNS

- 10: Smiley faces on rivets aren't good
9. The 1/100th scale looks like a solid black line to the optically disadvantaged
8. One should read *everything* on the blueprint
7. "AN" describing my riveting stands for "Aw Nuts"
6. A "jig" is what you dance when you drop your rivet squeezer on your toe
5. Bucking bars are so named because they jump around a lot
4. A vise can be other than a sin
3. I can finally have dimples
2. Running the rivet gun on your thumbnail produces a lovely shade of purple
1. This is fun?!

Subscriptions Due:

Look at the date under your address on the cover. **THAT IS THE DATE YOUR \$10 IS DUE.** Mail to me or give it to me at the next meeting (my address is the return address on the cover). If you are paid up but the date doesn't reflect this, please give me a call so I can correct it.



EVENTS CALENDAR

EAA Chapter 105 Meeting Thursday August 17, (third Thursday of every month), 7 PM at Twin Oaks Airpark. Good programs, don't miss em.

EAA Chapter 105 "Breakfast at the Aileron Cafe" Saturday September 2, (first Saturday of every month) at Twin Oaks Airpark, 8 AM.

Corvallis Air Fair August 12 & 13, 9:00 AM - 4:00 PM both days. Food booths, airplane and helicopter rides, neat planes on display, etc. FREE B.G. member Steve Kimura says: *We need more static displays (or even just fly-bys). If anyone has an interesting bird to show and share (or knows of one), please let me know. Anyone bringing in something to display gets a free food pass. (503) 715-8287*

Van's Homecoming Sunset Airstrip September 1-3. Saturday evening potluck, daily fly-outs, Sunday evening Banquet at the Pumpkin Ridge Golf Club. RV-builders/flyers & their families welcome. This year they are trying to get people to sign up so they can better prepare for the number of people who are going. Please call Van's at (503) 647-5117 if you plan to attend. You MUST sign up prior to August 17 if you want to attend the banquet on Sunday.



Arlington or Bust

By Jerald Hall

The plans had been made months in advance. My wife, Kathy, and I were going to Arlington in style. We would borrow my parents' new 29' motorhome, drive to Arlington, turn on the air conditioner and enjoy the airshow as those less fortunate souls endured the rain and heat with nothing more than a pup tent to protect them. Yep, after 4 years of tenting at Sun 'n Fun, this was to be our year....

The urgent email came across my computer screen only days before we were to leave: Don Wentz, world renowned aircraft manufacturer and intrepid pilot, was in trouble. At the last moment, his co-pilot had abandoned him. Without a replacement to balance the load, Don would be forced to adjust the aileron trim on his RV-6. Throwing caution to the wind, I immediately forgot about my own plans and volunteered to help Don through his crisis.

I knew that Kathy would understand.... after eight years of marriage she had learned to be very understanding. That evening, as we met to carpool home, she took one look at my face and immediately said "What did you do?!" When I did not immediately respond she began guessing: "You got a raise?!", no. "You got a bonus?!", no. "Your flying to Arlington with Don, and I get to drive the Jeep up there by myself and we get to sleep in a tent instead of that bulky

motorhome?!", yep. I told you I had an understanding wife.

The night before we were to leave for Arlington, Kathy packed the "essentials" for the trip while I worked on building the jig for my wing kit which was to arrive the following week (Did I mention I had an understanding wife?) We were going to be spending two entire nights in the wilds of Arlington, so Kathy packed two kitchen sinks, in case one of them developed a leak. Always planning ahead she is....

The day of the fateful trip finally arrived. Don and I work together at Intel and the plan was to leave for Arlington immediately after work. Near the end of the day I returned to my desk and found that Don had left a phone message on my machine: "I'm going to the airport to get the plane ready. You know where my hangar is, so I'll meet you there." Well, I knew where the airport was, but I had no idea where Don's hangar was located. No problem, I thought, I'll just get to the airport and wander through the hangars until I find Don. Wrong. County airports aren't the easily accessible places they once were. I arrived at the airport only to find a seven foot high chain link fence with prison style barbed wire along the top and no one around to let me in. My first thought was "Maybe I'll have to drive the motorhome up to Arlington after all.", but NO, Don was counting on me and I was not going to let my friend down in his hour of need. So once again, with total disregard for my own well being, I scaled the fence, maneuvered past the barbed wire, and jumped down on the inside of the prison... uh... airport.

It was just about then that Don drove up to the gate, punched his code on the keypad, and drove in.

We pulled the plane from the hangar, climbed in, and taxied over to the FBO for fuel. After topping off the tanks we taxied to the end of the runway to do our run-up and begin the grueling flight to Arlington.... well, at least that was the plan. As Don ran through the run-up procedures all was looking good, that is until he switched to the left mag. As the RPMs dropped by 300 we looked at each other and groaned. After trying the normal tactics for cleaning the plugs from the cockpit, it became obvious that more serious efforts were needed. So, back to the hangar we went. We pulled the cowl, replaced the plugs, refitted the cowl, climbed in, and once again taxied out to the end of the runway. Holding our breath, Don switched over to the left mag... 50 RPM drop... we were going to Arlington! Take-off was normal RV style... apply power, tail up, lift-off speed, stick back, hello what happened to the ground?

The flight to Arlington was also typical RV... average speed 200-210mph (we had a tailwind). We spent most of the flight talking to controllers. First it was Seattle Approach, then a different Seattle Approach, then Seattle Departure, then Seattle Center, and fi-

nally Arlington Tower. That’s a lot of talking for an hour long flight!

The plan was for Kathy to leave about 5:00 PM from Hillsboro and arrive at Arlington around 9:30 PM after a relaxing four and a half hour drive through the beautiful state of Washington. I would then meet her at Don’s plane and we would tour the planes. Well, what I didn’t know was that Kathy found out a 4:30 PM that she had to teach a class to the Intel New-Hires at 6:00 PM, so she didn’t leave until 7:00 PM. So I waited, and I waited, and I waited.... boy it’s a good thing I’m understanding. Most men wouldn’t wait for two and a half hours for their wife when there were acres of planes to go explore. I think she feels lucky to have such an understanding husband... In fact I didn’t even chew her out too bad about being late.

Earlier, as Don and I toured the campground looking for other RVators, we came across Brent Ohlgren. As we approached, Don leaned over and whispered “Let’s stake off this spot next to Brent’s tent for Kathy to park the Jeep when she arrives... Brent’s the best cook in the campground and he always has plenty of extra food. He’ll be glad to feed you...” Having planned to eat the concession food for two days, the idea of real food cooked by a real cook was just too appealing to pass by. So when Kathy finally arrived around 11:30 PM we had her park next to Brent. Sure enough, the next morning we awoke to the aroma of bacon, eggs, hash browns, and Starbuck’s coffee. Ahhh, this was the life!

This was the first time to Arlington for Kathy and I. We had started building our -6A while working for IBM in South Florida for three years. Now we had returned to the Northwest and were interested in seeing how Arlington would compare to Florida’s Sun’n Fun. I was surprised to find that it compared well. No, it wasn’t as big. No, they didn’t have as many famous airshow performers, No they didn’t have as large of a warbird collection, BUT when it came to Northwest friendliness and swapping of knowledge on homebuilding, the smaller, relaxed atmosphere at Arlington was hard to beat. Having read reports of previous Arlington fly-ins, I was not expecting too much, and as a result I was pleasantly surprised by the good time everyone seemed to have.

The high point of the weekend had to be the RVator picnic held during the airshow on Saturday. Good food, good flying, and good companionship. The low point of the weekend was undoubtedly the rain on Sunday. Dark foreboding skies loomed everywhere. It wasn’t looking good for a return trip to Scappoose. Don stopped by and said “It’s not looking good... I won’t feel like you’re chickening out if you want to drive back with Kathy.” Well, I’m no chicken, but by this time I was feeling a little guilty about having Kathy drive all the way back to Scappoose by herself. As the clouds darkened, my guilt level increased.

Finally, about mid-morning, a moderate rain began. I stopped by the FAA tent to see what the forecast looked like... not good. Several planes had attempted to head south and had to turn around. That settled it, I was NOT going to make Kathy drive all the way back to Scappoose by herself. Once again I would set aside my own needs and help a friend in need. As for Don? He was on his own...

As we drove south through hour after hour of moderate to heavy rains, I was glad I had chosen to help Kathy out. I mean, my god, she could have had a blow out or something, and there would have been nobody around to yell instructions to her while keeping the car warm. Well, we made it back safe and sound. Don also showed up at work the next day... but that’s a whole different story...



EAA Technical Counselor and Flight Advisor Programs

Randall Henderson

As many of you know, the EAA has had a program called the Technical Counselor program for some time now, the purpose of which is to encourage the self-help tradition of airplane builders, as well as to share aviation knowledge and promote safety.

Mostly that is already what we are doing as a group, by visiting each others projects, exchanging tips and tricks, and just lending a helping hand when your buddy needs it. But if you make it “official” by filling out the EAA paperwork on some of these periodic “inspections”, and the “inspector” has signed up as a Technical counselor, it will also get you a discount from Avemco Aviation insurance when the time comes to fly it.

Recently the EAA introduced a companion program called the Flight Advisor program, which is intended to help builders prepare for the first flight of their aircraft. Counselors will help builders prepare for their first flight, by helping them evaluate whether their skills are up to snuff for making the flight themselves, recommending training in similar aircraft, and also to help lay out a flight test program. This brings with it some insurance advantages as well. Avemco will normally not provide hull insurance on your homebuilt for the first 10 hours, but if you participate in this program they will.

In order to qualify as a technical counselor you must be a member of the EAA, have built or restored a plane, or be an A&P, IA, DAR, DER or Aerospace Engineer. Flight Advisors need to be EAA members and have extensive flight experience in applicable aircraft. I expect that in our case that would include any experienced RV pilot as well as CFIs who have some experience in RVs.

So far we have a few takers for both programs. I'd like to get several names so we can share the load. I will be passing around sign-up sheets at the next meeting or two, or give me a call to sign up. I'm still waiting for the paperwork from the EAA, I'll get that to you as soon as I receive it.



Interviews with an RV Builder

by Bob Neuner

Name: Kevin Lane

Occupation: Carpenter; X- computer jock

Pilot Ratings: SEL; 5 months at Evergreen.

Aircraft Building Experience: None

Project: RV6/?

Project Status: Tail complete; Pre-built spar; fast-build kit; both wings in the jig.

Workshop: Basement; (Plans to build an RV workshop addition to his house.)

Special Tools: all new tools!

Profile: Kevin is the first person I know to buy the fast build kit. He finds it's saving him a great deal of time. He did mention that the fast build kit is not completely compatible with Van's pre-drilled wing skin, however. A number of adjustments will have to be made. Even so, Kevin says he is very happy with the fast build kit. He also chose the two piece top skin to save weight. Kevin is now about 60 hours into the project and has both wings in jigs. Having the pre-built spars in the fast build kit has saved a bundle of time as well.

Kevin is a relatively new pilot. He got his license in March of this year at Evergreen Field in Vancouver. Most of his time has been in his friend's beautifully restored T-craft. Even though he now flies a matronly T-Craft Kevin confesses he rolled Don Wentz's RV on the first ride.

Kevin first looked at a Thorp T-18, but after talking to another builder he realized just how hard it is to build that old design. The wealth of local support is what convinced him that the RV was the best choice around. He still needs a little help. Being a carpenter, he thinks Thompson's Water Seal would make a great primer (maybe if he were building a "Fly-Baby"). On the subject of local support, Kevin added that Franks directions have been very helpful so far.

Always thinking ahead, Kevin has already reserved the "N" number for his plane, N3773F. If you turn it up side down. it spells out his wife's name (the "F" is silent).

As a final note, Kevin's brother works for Boeing. He designed the Galley on the new 767. But has NEVER heard of a "Cleco"...go figure.

Best of luck Kevin!



Builder's Tips ...Thanks to all who share them with us!

Enlarged Fuel Tank Vent Holes

After putting fuel in my RV-6 for over 6 years I would like to make a suggestion to those of you building or about to build your gas tanks.

As you know there are holes cut in the ribs to allow for filling the tanks with fuel, and to keep the fuel from sloshing around in the tanks. There is also a small hole in the top of the ribs for air to escape while filling the tanks this is in addition to the aluminum vent line. I would suggest making these holes a little larger due to the fact that the last 3-4 gals take a while to fill because the fuel is gurgling in while the air is escaping through the fuel due to the fact that fuel goes in faster than the air comes out.

This is just a suggestion and maybe the drawings have changed to correct this in the last eight years since I built my tanks.

Jerry Springer RV-6 N906GS First flight July 14, 1989

Firewall Swirleys

For those of you who might want to add a slick look to the engine side of the firewall, try this. I used a 2" blue Scotchbrite wheel to create a "fishscale" pattern on the engine side of the firewall. I made a jig from a piece of lath or you could use a yardstick. I put a half round impression on the side of the yardstick on every inch mark using the side of a drill running in my drill press the same diameter as the shaft of the Scotchbrite wheel. Mark every other inch with a red pen and the other ones with a blue pen. I clamped a piece of 3/4" angle along each side of the firewall as it lay flat on a table (an old closet door on saw horses). These angles were marked every inch. I screwed two small pieces of 3/4" angle into the yardstick the width of the distance between the two pieces of angle clamped to the table. These are used to secure the yardstick to the angle using Cleco clamps, vise-grips or c-clamps. The yardstick will be sitting 3/4" above the firewall parallel to the bottom of the firewall. Place the shaft of the Scotchbrite wheel in the first notch which hits the edge of the firewall and hold for about 10 seconds. This will create a Very bright circle with subtle scratch marks. Move the wheel over TWO inches to the same colored notch (if the first was red move to the next red) and repeat across the firewall. Now move the yardstick up ONE inch. Place the shank of the Scotchbrite

wheel in the ALTERNATE colored notch (if red the last row use blue this row). Keep doing this over the whole firewall and you end up with a beautiful fish-scale pattern on the firewall.

Some builders have used the same process on the engine baffles. These have to be protected with a clear coating since they are aluminum. -- Ross Mickey on the internet (rmickey@ix.netcom.com)

Why you ask? Just because its neat!!



Project Status

I went out to **Dan Benua's** place the other day. I almost had to ask for a barf bag. I've never seen such pretty skins. And don't be fooled, it's not just because of that new plastic stuff they're putting on all the skins now. We all know that the Alclad shows scratches if you breathe on it, but Dan has come up with some methods for keeping them particularly mar-free, and his exceptional workmanship doesn't stop there. He's finished with his right wing, fuel tank, and control surfaces, and is just getting started on the left side.

Calin Brabandt (formerly Earl) is gaining momentum again -- he came over to my place the other night with a load of parts to prime in my "booth". I can tell you, it's pretty daunting to look at all those parts he had yet to fit, trim, drill and rivet, especially in light of the fact that his fuselage is already half done.

Jim and Jackie Eastburn of Hillsboro told me they are "going for the longest recorded time involved for riveting the skins on to the HS of our RV-4."



New Members & Guests

I met **Dave Simpkins** at the EAA state fly-in at Estacata. Dave has completed his RV-6 tail and wings, and is working on the fuselage. Dave says he doesn't get a chance to visit too many other builders as he's kind of remote -- he lives up in Zig-Zag. But as a new member of the group he should be able to track down who's closest.

Butch Walters of Kelso also signed up at the fly-in, and he too is working on his RV-6 fuselage.

New member **Jerald Hall** and his wife have just returned to the Northwest from South Florida where they were building their RV-6A. They have just completed the empennage and will soon be starting on the wings.

Jim Holton of the Snake River Valley EAA (Ontario Chapter 837) heard about the newsletter somehow and signed up. Apparently there are several RV builders out that way.



The Tool Exchange

This section is devoted to listing any tools, jigs, shop space, specialized machines, etc. that are available for loan, or "group property" that is available to pass on to the next builder. Please give me a call (Randall Henderson, 297-5045) to let me know if you have jigs, tools, shop space, etc. to loan, exchange, or otherwise provide, 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. Items for rent or sell should still go in the "Don't Want Ads".

Surveyor's transit level -- makes fast, accurate work of leveling your wing spars in the 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

Wing Jigs (2). Bob Neuner 771-6361

Two airfoil templates, useful for mounting the flaps and ailerons on RV-6 wings. Will bring to meeting. Frank Justice 590-3991

Wanted RV6 Fuse jig. will be needing it in about 3 weeks. Please call Bob, 503 771-6361.



Don't Want Ads

Let us know what you got but don't want, or vice-versa. Ads are FREE.

RV FLIGHT BAG is having a 25% OFF CLEARANCE SALE on everything in the catalog excluding earrings and RV models. Contact Judy VanGrunsvan at 33770 NW Bagley Rd Hillsboro OR 97124-8303 or call (503) 648-3464.

David Clark H10-30 headset with mic. No volume control. Works good. \$90 - Gary -- (503) 591-9040.

I have a used Warneke prop for a Lycoming O-320, 160 HP. It includes prop extension and all the accessories. It is 71"D x 72" P, and worked good on my -6. If any builders need a prop for their project, it would be ideal and less money than new. It has been flying for 3 yrs. and 300 hrs. with no problems. Jim Anglin 642-2797.

O-320 D2G 2024 SMOH by Western Cylinder Ocerhaul, Inc. Hollow crank, can be modified to C/S prop. Chrome cylinders using 1qt in 14 hrs. Will fit RV-4, -6, -6A. \$5500.00. Dave or Bill (503) 829-6379.

40 #8 closed end nutplates for fuel tank access covers - \$44 (my cost). Note that the rivet spacing is different than the standard nutplates supplied with the kits, so if you have already drilled your access plate-reinforcing ring-root ribs like I did, you will have to fabricate new ones to use these nut plates. Also: two brand new old style (steel pot) Stewart-Warner fuel gauge sending units -\$20 for the pair. Rion Bourgeois, 579-8800, 646-8763.

Two not-quite new, old-style (steel pot) Stewart-Warner fuel sending units -- \$10 for the pair. The arms have been bent to fit the RV-6 fuel tank, but they're otherwise unused.

Avionics Work, \$20/hr. Experienced, will work with you. Tim Steele 452-2575

Heated Pitot-tube (Piper blade style), missing heater element, \$35. Brent Anderson 646-6380

3-month old Ilmorrow 920, GPS-North American Continent database. Wally Anderson 623-2328 work, 342-5240 home

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

Looking for a bending brake, and/or sheet metal shear. Or just let me know if you've seen a good deal somewhere on one. I'd like to purchase one in partnership with someone else. Randall Henderson 297-5045.

Before you order a rivet set for your gun, check out Wacky Willy's, they have all shapes and sizes, new surplus, for \$5 each. Also squeezer sets but beware! The shanks are "industrial size" and won't fit most of our squeezers. Also jewelers file sets (handy for deburring tight corners, etc.) for \$5. The number for their west side store is 642-5111.

