



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



February Meeting

The February meeting was held in Mike Fredette's garage, the site of another RV-4 project, this one just getting underway. Mike's horizontal stabilizer spars were on display and Frank Justice gave a mini-program on how to set it up in the jig. This was an appropriate program given the number of new builders that have joined up lately.

Also discussed was the "Prop incident" written up in the last newsletter. Ken Scott filled us in on the details as Steve Harris wasn't there. For example, it may not have been clear that it was *Ken's* RV-6 that Steve was flying. Also clarified was the fact that it was *Van's* prop that got chewed up. Still no luck finding someone who will repair it. It may end up as a nice clock for someone's wall....

We chose a date for the Fly-in (June 10), and started making preliminary plans.

Thanks for hosting the meeting, Mike!

<u>Meeting Notice</u>
Place: Dan Benua's garage/shop 2730 SW Schiller Terrace, Portland
Date: March 9 (2nd Thursday of every month)
Time: 7:00 PM

The next meeting will be held at Dan Benua's place on Thursday March 9th. Dan is the first builder I know of in the area who has bought Van's prepunched wing skins. Although there are some minor reservations, Dan seems very pleased with the results so far. Come see for yourself. As always, bring any special tools or fixtures you can loan out. By the way, I've lost track of my RV-6 stabilizer jigs again; anybody seen them lately?

Directions to Dan Benua's shop, 2730 SW Schiller Terrace, 297-4045:

From Beaverton

Take 217 to Canyon Road (Rt. 8). Drive east on Canyon Rd. just over a mile to Canyon Lane, turn left at the Dairy Queen. Follow Canyon Lane up the hill to the first 4-way

stop, turn left onto Valley View. At the T, turn left onto Schiller Road. Take the second left onto Schiller Terrace. Third house on the left; the big red box. Park along the left side of Schiller Terrace or out on Schiller Road, it will get congested. Walk around the left side of the garage to find the shop door.

From Portland

Take the Sunset Highway west to the Canyon Road (Rt. 8) exit. Turn right onto Canyon Lane at the first traffic light. Follow Canyon Lane to the second 4-way stop, turn right onto Valley View. At the T, turn left onto Schiller Road. Take the second left onto Schiller Terrace. Third house on the left; the big red box. Park along the left side of Schiller Terrace or out on Schiller Road, it will get congested. Walk around the left side of the garage to find the shop door. -

Frank Justice, Meeting Coordinator

General Business

Randall Henderson, Editor

Rate Hike!

I've been putting this off, not wanting to be the new newsletter editor who raises the dues right off the bat, but I've added up the receipts and I can't put it off any longer -- I HAVE TO RAISE THE DUES. To Ten bucks. This is mostly due to the increase in postage rates and printing costs, but also a result of some changes I've made, both to improve the look and to streamline the printing/mailling chores.

SO -- from now on new subscriptions and renewals are \$10.00 please. Thank you all for being so understanding.....

Science Bowl

Don Wentz gave a heartwarming speech (written by ghost writer Rion Bourgeois) in presenting the winners of the regional Science Bowl with their 2nd prize of an EAA Young Eagles flight to a "regional location" that has relevance to engineering and science. The tentative destination is the Boeing Museum of flight (with the honor of parking your plane right at the museum), or if the weather doesn't cooperate, we'll try for the Blimp museum at Tillamook, or a tour of Mt. St. Helens. RVs are needed! April 1, at Twin Oaks

Airpark, after the Breakfast. As an EAA Young Eagles event, Pilots who fly kids are required to be National EAA members and to carry at least \$100,000 of liability insurance. Of course if you just want to "fly with", no such requirements apply. If you think you can come, please notify Don Wentz at (503) 543-2298 (home) or 696-7185 (work).

T-Shirts, Patches, Decals

I have a few "Portland RVators" T-Shirts left, mostly XXL. They may not be your size, but you could always use one for a night shirt....? I also have a few "Van's Air Force" T-Shirts in XL (same design, different text).

We have about 20 takers so far for 12" x 7" "Portland RVators" decals for \$15 each. I'll be passing the sign-up sheet around again at the next meeting or two, and once I'm sure there will be at least 50 I will order some. The price will be cheaper if we get more of them.

As I've mentioned before, I've made a "generic" version of the logo ("Van's Air Force") and am providing Van's with a range of items that they'll be selling through their catalog, including T-Shirts, coffee mugs, decals, hats, and eventually patches. I plan to start bringing some of these items to the meetings and will sell them at a discount to B.G. members.

Top Ten List

Rion Bourgeois and I just spent several building days pro-sealing and riveting our tanks. Of course I couldn't let such an experience go without coming up with a list of the

Top Ten Things we managed to get Proseal stuck to when sealing our fuel tanks

- 10. Five coffee mugs
- 9. 247 surgical gloves
- 8. More clecoes than I ever hope to have to clean again
- 7. The *inside* of my coveralls
- 6. Rion's mustache
- 5. The neighbor's cat
- 4. My favorite compact disk (Jethro Tull, "Aqualung", if you must know)
- 3. My wife's new white couch
- 2. Every tool I own
- 1. Oh yeah, I almost forgot -- the fuel tanks

Subscriptions Due:

Look at the date under your address on the cover. **THAT IS THE DATE YOUR \$10 IS DUE.** Mail to me (**Randall**) 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 March 16, (third Thursday of every month), 7pm at Twin Oaks Airpark. Good programs, don't miss em.

EAA Chapter 105 "Breakfast at the Aileron Cafe" - Saturday April 1, (first Saturday of every month) at Twin Oaks Airpark, 8am.

Science Fair Winners Fly-Out - Saturday April 1 (after the breakfast) at Twin Oaks Airpark. RVs wanted!

EAA Sun-N-Fun Lakeland Fla. April 9-15

Fourth Annual Northwest RV Fly-In - Saturday June 10, at Scappoose Airport, 10:00am, Lunch at 12 noon.

EAA Oshkosh July 27-Aug. 2. Carl Hay is looking for anyone interested in making a "group flight" of RVs.



4th Annual Northwest RV Fly-in

Don Wentz, Fly-In Leader

This will be our fourth year hosting this event as a builder's group. In the past we have averaged about 40 RVs, with many other aircraft flying-in from all over the 3-state area.

We have dropped all contests/judging in favor of ALL attendees being able to just hang out and enjoy RVs. This is just an informal get-together and great opportunity for builders to view different paint schemes, instrument panels, tri-gear, taildragger, tip-up/tip-over/sliding canopies, el-basic to totally crammed airframes, you name it. All in a comfortable, one-on-one setting with a great bunch of RV pilots/builders/enthusiasts. A real highlight of the fly-in season for me.

Due to scheduling conflicts with many other events, we seem destined to have our fly-in on the same day as Intl. Young Eagles Day. Last year was our first on IYE Day, and in spite of our initial concerns, it worked-out very well. Hopefully we will get more pilots to volunteer this year so Van's can concentrate on demo rides. I plan to spend 1 hour flying YE kids, some more of you should volunteer so a few pilots don't carry the whole load.

Things we need help with:

- Flyers: Randall will be making up a flyer, and Mike Seager has agreed to mail them again. We will spend part of 1 meeting doing the folding and stapling as a group, and mail to some portion of the 3-state list that Van's can supply. Randall will be contacting Western Flyer to get it in their schedule. Other distribution ideas? Not a big deal, we mainly want to do what we can to get plenty of RVs to attend.
- Food: Janet Wentz has volunteered to handle this again this year (she did great last year!). Hiring the teenagers from a local church worked well, and we agreed to try them again this year. We'll see what Janet proposes for

a menu for this year. Rion, are you able to handle the sodas again?

- Set-up: The group will be responsible for getting necessary equipment to airport (tables, tents, signs, etc.) and getting volunteers to help do the set-up. This is a large effort, mostly done the day of the event, and needs lots of volunteers!
- Parking: We need volunteers to direct auto parking. Also several folks to run "Scappoose Ground" and park aircraft. Need to sign-up to do 1 hour shifts, 2 people at a time, as well as a "Crew Chief" (mainly to handle sign-ups).
- T-Shirts: Randall plans to design a new Fly-in T-shirt, and we'll need people to take 1 hour shifts (or 1/2 hour if enough people sign up) to sell them. Proceeds will go to the group fund.
- Clean-up: We need some bodies to help after everyone leaves, mostly just hang-around and it doesn't take long.

Let's have some discussion about this at the next get-together. It generally goes very smoothly, just BE SURE that you participate so a few of us don't get stuck doing it all!

Blackie Does a Crash-and-Go

Randall Henderson

It was time to come home after a routine mission, and Kefton Black (Blackie to his fellow officers) was on final approach to the squadron base. The glidepath he chose was somewhat high due to the telegraph wires that had been hastily strung along the supply line road that ran perpendicular to the field. Blackie completed the landing checklist, and looked ahead to make sure that Mikey, his wingman, was clear of the runway. He had just started to reduce power for the final let-down when all hell broke loose.

The plane shook violently and plunged toward the earth, as if an unseen hand had suddenly hurled it out of the sky. Blackie barely had time to scream "I'm Hit!", into his microphone before the plane slammed into the ground at one hundred and twenty miles per hour. Dirt flew and metal screamed as the craft careened across the road, leaving deep scars in the cobblestones, and swept through the concertina wire that was strung across the end of the runway. Several strands of the razor sharp wire wrapped themselves around the front of the plane, shattering the canopy and sending shards of Plexiglas into Blackie's face and arm. He waited for the plane to slow, but suddenly realized that the engine was racing and the plane was not slowing at all, but was instead climbing back into the air! He reached frantically for the throttle to reduce power but found his left arm wouldn't move, due to a large piece of the canopy that had pierced his left arm and pinned it to the seat. Unwilling to let go of the stick with his right hand for fear of losing what little control he still had, he reached down and grasped the shard with his teeth, ripping it free in a spray of blood. Pain shot up his arm, and he fought to retain consciousness as he thrust his hand towards the throttle. But as he did so he looked

outside with his good eye, just in time to see that he was airborne again and the runway was already flashing by!

Well OK, maybe it wasn't quite like that. But it was such a harrowing story I couldn't help but add a little "writer's embellishment". Here's the real story, as related to me by Blackie and Mike Seager.

It was a Sunday morning last July, and Blackie and Mike were on their way back from a pancake breakfast fly-in in Winthrop, Washington. They had decided to make a stop at Twisp, a 2700', unpaved strip about five miles south of Winthrop. Mike had just landed his Mooney and Blackie was on final approach in his RV-4, about 20 feet off the ground, when he hit what he says "must have been some kind of wind shear". As he tells it, "I came down like an elevator -- the stall warning horn didn't even go off". He hit the ground still doing 80 mph or so, and took out a wire fence before proceeding across the road and leaving "50 foot skid marks", according to Mike. Of course the road was a two lane country road, not more than 25 feet across, but I wasn't there so who am I to argue. Maybe he was talking about Blackie's shorts. At any rate, Blackie soon encountered a barbed wire fence on the other side of the road, and commenced to take it out as well, including a steel fence post that left a 8" deep notch in the leading edge of his right wing. The wire itself somehow avoided getting tangled in the prop, and instead dragged itself across the canopy, doing pretty much what I described above in the "embellished version" (save for the part about the large shard pinning his arm to the seat). Blackie describes the experience as being "like machine gun fire" of little pieces of Plexiglas flying at him as each barb ripped across the canopy. The force of the crash bent and compressed the landing gear to the point that the right wheel faring made a dent in the bottom of the fuel tank before partially springing back. The motor mount was also bent, and a side effect of this was that both the throttle and the mixture control were stuck at 2000 rpm, so he didn't have much choice but to pull it back into the air and keep flying.

He climbed up to pattern altitude and found that with the throttle stuck where it was he couldn't go much slower than 110 mph straight and level. The firewall was crumpled at the bottom, rendering the rudder pedals unusable. Surprisingly, the controllability didn't seem to be otherwise adversely effected, and as far as he could tell the prop and engine were not effected either. He circled the airport a couple of times, and Mike looked the plane over from the ground and informed him that the gear was still on and nothing seemed to be leaking. (He later found that the gascolator was in fact leaking fuel, in frighteningly close proximity to the exhaust pipes). Since the plane still had fuel and was still flying well enough, he decided against attempting to land at Twisp due to the absence of emergency equipment, not to mention trying to fly a damaged airplane through potential windshear again.

He informed Mike that he was heading back to Winthrop, and Mike took off and they headed North.

While enroute, they radioed ahead and told the ground crews of the emergency, and by the time they arrived the trucks were out and ready to roll. Mike landed, and Blackie

performed a curious bit of power management to slow down on final -- switch on for power, off to glide a bit, on again for more power, off to glide. As he switched the engine off the last time on short final and the propeller shuddered to a stop, both prop tips separated from the airplane. Talk about timing!

Blackie described the landing as "uneventful -- a three pointer". That is until the wheels actually touched the ground. At that point the uneven bend to the landing gear caused the plane to begin to veer to the right. Since the rudder pedals wouldn't work he compensated for the veer with left brake, which was less than precise, and the plane veered to the left. He proceeded to s-turn down the runway as the plane slowed down. The last "veer" was to the right again, directly towards a taxi light, and the plane stopped just short of the light.

The switches were already off when he stopped, and Blackie said "I didn't even touch the wing on the way out", and was out of range in a hurry, but fortunately there was no fire.

The plane was trucked back to Blackie's shop, but before he could start repairs on it, he had to finish the wings for his *second* RV-4 in order to get them out of the way before he could start in on the repairs on this one! He has since replaced the engine mount, gear legs, fuselage stiffeners from the main spar to the firewall, the two front side skins, the firewall, canopy, right wing leading edge, and the wheel pants. The prop has been replaced with a new Pacesetter. He has also taken the opportunity to add several improvements, specifically a panel-mount GPS, an autopilot, electric aileron trim, and electric flaps. He hopes to have the plane back in the air by the end of the month.

Prepunched Wing Skin Report

Dan Benua

I've just finished drilling all the pre-punched skins for the first (left) wing of my RV-6A. Other builders considering the pre-punched route might be interested in my experience.

When you think about the implications of pre-punched skins, you quickly realize that the accuracy of the spar/rib skeleton assembly is critical. Since you can't move any of the holes in the skins, your spar and rib flanges **MUST** be in the right place.

Fortunately, the accuracy of the kit parts is impressive. The pre-drilled holes in the spar that determine the rib locations were all right-on. I carefully measured for the locations of all rib webs, clamped the stiffener angles to the spar at those points and drilled for the AN3 bolts that hold the angles to the spar. All the holes came out right in the center of the stiffener angle flanges. Van's pre-punched skin instruction sheet makes suggestions for handling mis-alignments here, but they were not needed.

Drilling the main ribs to the rear spar offers another opportunity to screw-up. There are no pre-drilled holes in the rear spar to help cross-check your measurements. I managed to let some small errors creep in here and ended up with some rib webs not quite vertical with respect to level flight orientation. The end result at assembly was that some skin rivet

holes in the wing walk area ended up closer to the rib webs than I would have liked. Fortunately there was enough clearance remaining that I could still get a flat-sided dimple die in next to the web to dimple the rib flanges.

Another thing to look out for is sag in the center of the spar as it sits in the jig. Make sure to brace under the center of the skeleton and use the taut string method to make sure that the spar is absolutely straight before attempting to apply any skins. Also plan on correcting the rib fluting during the skin drilling process. For example, after drilling the main skins to the spar, I marked through the skin holes onto the main ribs anywhere I couldn't see my flange centerlines. After removing the skin I went at those places with fluting pliers and hand seamer to try moving things into perfect alignment.

A minor problem I ran into that I couldn't blame on my own sloppy technique was a hole along the trailing edge of the outboard top skin which just nicked the edge of the flange on the W-607E rear spar reinforcement (near the inboard aileron mount). Before I can rivet this hole, I'll have to remove the W-607E and trim 1/4" off the flange so it won't interfere with the shop head at that location.

Mounting the tank skin was the greatest test of the whole drilling process but also the greatest triumph. Since all the other skins are in place when the tank is drilled, any accumulated mis-alignments have to be corrected if it is to fit well. I had the tank skin on and off about 15 times as I fiddled with the size of the spacers behind the tank baffle and filed the edges along the joints with the leading edge and bottom skins. The ratcheting cargo straps that some builders use for holding the leading edge skins down for drilling really paid for themselves here. When I finally drilled, the lines of screw and rivet holes along the rear tank baffle came out perfectly straight and centered on the hidden spar flanges. Yes!

So at this point I'm pretty happy with the pre-punched skin option. However, there are certainly pros and cons. There are several points on the pro side: First, all my rivet lines are perfectly straight with exactly even spacing. I know I would not have achieved that level of perfection with a hand layout. All worry about rivet layout and plans interpretation is eliminated. This was particularly valuable when drilling the tank skin. The factory joggle around the inspection hole is a nice touch that eliminates some assembly complexity in that area and looks good. Finally, I'm sure I saved a ton of time. I can't say exactly how much, since I've never built a wing any other way, and I'm not really an "hour counter" anyway. Nevertheless, it was definitely worth the money paid.

On the con side, the pre-punched skins take away some of your options to repair mistakes made earlier in the building process. If you mount a rib off-center, or you start drilling before things are perfectly square in the jig, you could be hosed. In an extreme case, you might have to start over with a non-punched skin. Another issue to consider is that single piece top skins are not available pre-punched. I decided to go with the two-piece top skins both for weight savings and so I could take advantage of the pre-punched option.

Anyway, with those minor reservations, I would recommend the pre-punched option to any builder willing to pay a little more for faster and easier wing assembly. If you're planning to "customize" anything, (or just love drawing rivet layouts ☺) you should stick with the standard skins.

Proseal Proseal Proseal!

Randall Henderson

At a builder's group meeting recently an "old hand" told me "I don't know why everybody complains so much about that proseal, it's not that big a deal, you just smear it on there and rivet the parts together...." Yeah right. I just spent the better part of THREE DAYS prosealing and riveting the skin stiffeners, skins and ribs, and various parts on three fuel tanks (one -6 tank and two -4 tanks), with Rion Bourgeois, and frankly, I'm BEAT.

Rion helped me a few months back with my left fuel tank, and by the time I got the right one ready to go he was ready to do both of his, so we decided to pool our efforts and get together for a few wild and wacky evenings of pro-sealing. It took us three full evenings to do the fuel filler necks, drain plug flanges, skin stiffeners, and assorted parts on the end ribs, then it was time to rivet the skins to the ribs. We started bright and early Saturday morning, hoping to get both of Rion's RV-4 tank skins riveted to the ribs that day. We *almost* accomplished our goal, but not quite -- it was 12:45am (Sunday) before we were done. 14 hours (including lunch and dinner breaks, during which we watched "The RV Story" video). Whew!



"TAKE US TO YOUR LEADER"

The next day we decided to get started a little later since we only had one tank to do (albeit a -6 tank with one more rib). Plus we were getting to be old hands by now, so it shouldn't take us nearly as long, right? Well, we *did* get it done before midnight anyway. Man what a chore!

We followed Frank Justice's instructions (and the plans of course), and since those are available elsewhere I won't repeat them here, but here are some other things that we learned along the way:

- Get both tongue depressors AND popsicle sticks. We found the wider tongue depressors (about 3.4") to be the most useful. Square off one end with a belt sander, and wipe them clean. We covered the shop heads of all the rivets with proseal after riveting, and spent a lot of time at it until I came up with the idea of cutting out a notch in the end of a squared off tongue depressor to clear the shop heads of the rivets. This made it go much faster,

and you could probably use a similar trick when spreading proseal over the dimples in the skin

- We laid black electricians tape over the outside of the holes while spreading the proseal. This kept the proseal from going out the back side as much.
- Get LOTS of disposable surgical gloves. Rion and I went through *three* boxes of 100. But that was partly due to the fact that Rion "Mr. Clean" Bourgeois couldn't stand to have a speck of pro-seal on his gloves, as he was afraid it might get smeared on the outside of his nice clean tank skins (it did anyway). He got over this by the time we got to MY tank, however.
- Get LOTS of disposable cloths. We found the ones that worked best were "Scottpure wiping cloths" ("chemically pure, lint free, absorbent") available at Quality Paints.

We tried using "box o' rags" disposables from Home Base but they tore easily and disintegrated in the MEK. Red shop rags work for pre-cleaning but not as well for cleanup, as they tend to leave lint in the pro-seal.

- BE PREPARED. There's nothing more frustrating than getting all this crap set up and half way through riveting something and then running out of popsicle sticks, gloves, clean rags, MEK, etc.
- Get a GOOD respirator and plenty of ventilation. The pro-seal isn't bad but the cleaners are. Not to mention the fact that we both ate beans the night before.

We used three types of solvents:

- MEK -- the most powerful, seems to clean the best but also most toxic smelling and the scariest warnings on the label. We used it for cleaning skins/parts/rivets prior to riveting. USE A RESPIRATOR and VENT THE ROOM
- Acetone -- less powerful, less smelly, less effective, we used it mostly for clean-up. But still use a respirator!
- Lacquer thinner -- somewhere in between. Doesn't seem as smelly and seems to clean better than acetone, but it'll eat through a pair of surgical gloves in no time.

So now I can finally say to all you poor schmucks who haven't done it yet: Hoo boy, wait till you get to that proseal!

Political Agenda

Randall Henderson

I attended a talk by FAA administrator David Hinson a couple of months back, and he was campaigning heavily for the ATC Corporation proposal. At one point he named off several other countries who have "successfully" implemented similar schemes, including -- get this -- New Zealand! Just talk to Ken Scott, who visited there recently, and you'll find out what a "pilot's utopia" that is. When the mike goes click, the meter starts running. They send you a bill at the end of the month. Eeeek!

I urge everyone to write to whatever political animal you can think of, expressing your opposition to the plan, and support for the AOPAs alternative plan, just don't forget:

The Honorable Elizabeth Furse
Hatfield
U.S. House of Representatives
Washington, DC 20515

The Honorable Mark O.
United States Senate
Washington, DC 20510

The Honorable Bob Packwood
United States Senate
Washington, DC 20510

Believe it or not, our political representatives DO notice when they get letters from us. They actually don't get a lot of letters on most issues, so when they receive 20 or 30 letters about a specific issue, it can have a positive effect.



Builder's Tips

Thanks to all who share them with us!

Incompatible Fiberglass

I just finished a rebuild of the lower cowl on my RV-6, made necessary because I originally used epoxy to laminate the scoop on. Only later did I discover that you shouldn't use epoxy resin on polyester in the engine compartment because the combination of heat, oil and incompatible materials makes for a weak bond and resulted in delamination. The end result being that I had to grind all the old material off of the inside and outside of the joint and redo it using polyester resin and cloth. One thing I did during the rebuild was to add a couple of one inch wide strips of corrugated cardboard stiffeners to the inside of the cowl exit area to eliminate vibration and flexing that can lead to weakening of the cowl and firewall area. - Don Wentz

Deburring Technique

Lately there has been a lot of discussion about proper deburring techniques on the internet rv-list forum. Gil Alexander



Project Status

Don Wentz is about done with his repairs and modifications on his RV-6. He says "We got the painting done Saturday & Sunday, so I am now beginning to finish the 'annual' portion of my downtime. Maybe I will be flying by the next EAA chapter mtg! Sure hope so..."

Prototype RV-3 restoration: To those still wondering whether or not they want to get into this metal airplane building thing: **Gary Standley** is ramrodding the restoration of the ORIGINAL RV-3 by EAA Chapter 105 for donation to the EAA museum in

der, of Los Angeles, CA (gil@rassp.hac.com) finally went and dug up the MIL-SPEC on the subject, and posted the following:

Guys ... I seem to have started this thread by quoting the MIL spec. I will copy some sections below:

3.2.1 Rivet holes

3.2.1.1 Drilling

Oversize, oblong and irregular-shaped holes shall be cause for rejection. Rivet holes shall be drilled in accordance with the following requirements:

a. All holes shall be drilled normal (at 90 degrees) to the working surface.

b. Extreme pressure shall not be applied and holes shall not be punched through with the drill.

c. When drilling through more than one sheet, hold the sheets securely together so there is no misalignment of holes due to shifting or separation (sic) of the sheets.

3.3 Installation

3.3.1 Clean mating surfaces.

Before parts are riveted together, all chips, burrs and foreign material shall be removed from the mating surfaces. Burrs may be removed from rivet holes by chamfering to a depth not to exceed 10% of the stock thickness, or 0.032 inch, whichever is less. Disassembly after drilling and before riveting, in order to deburr fraying surfaces, shall not be required.

Note that sharp edges are apparently OK, and a rep. from Allfast Fasteners, maker of Cherry-type structural rivets, actually complained that homebuilders use a chamfering tool. Apparently, in a production setting, with the precise tool settings needed to set some of these pull-type rivets to get a perfectly flush surface, any hole chamfers make the inner stem not sit flush with the surface of the rest of the rivet.

The key here is probably to deburr, but not with the adjective "aggressively".

SPECIAL OFFER (Blue Light Special):--- If you send me a large Self Addressed Envelope, I will send you a copy of this MIL Spec. 8 double-sided pages, and well worth reading.

Gil Alexander
4434 Stewart Av.
Los Angeles, CA 90066

... there's 13,000 of them, let's get them right ... Gil

Oshkosh. This is the original RV-3 built by Dick VanGrunsven way back when. It was rolled into a ball in a wheat field in Idaho in the mid-80's (fuel depletion) and is undergoing MAJOR restoration in Gary's shop, which he holds open two Wednesday nights and two Saturdays for anyone who wants to try their hand at drilling, deburring, filing, riveting etc. Any experienced builders who want to see and feel the original should also drop by. Contact Gary at 591-9040. -jrb



New Members & Guests

New member **Kevin Lane** told me "I had an expensive 'free' ride in an RV-6 the other day and now I'll probably have to build one!"

Russell Neeper saw my write-up of the newsletter on the internet, and signed on. We probably won't be seeing him at too many meetings though -- he lives in College Station, Texas!

As for guests -- I keep forgetting to ask guests to introduce themselves at the meetings -- shame on me! I'd also like to apologize to any new members I've missed mentioning in here -- give me a call and tell me about your project (whether it's real yet or still a dream) and I'll be sure to stick it in here.



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 provide for free, 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 (for shame!) 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

For loan: lead crucible with electric heating element for melting lead for the elevator counterweights. Rion Bourgeois, 579-8800, 646-8763.

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



Don't Want Ads

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

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 -\$18 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. Randall Henderson, 297-5045

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

NEW Com 810 720 channel w/tray, \$935. Van's Aircraft 647-5117

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

Std RV-6 elevator trim control knob/cable. Slightly used, sell for \$\$ less than new, Evert Eyres, 648-3564.

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

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.

