Van’s latest...

In a complete departure from the way Van’s Aircraft has introduced products in the past, the RV-7 was debuted on March 22nd as a completed and flying model with kits available for order immediately. Seemingly moments after completing it’s first flight and photo mission, the RV-7 was debuted on the front page of the Van’s web site. Isn’t the Internet wonderful?

According to the web site:
“The RV-7/7A is designed for much the same mission as the RV-6/6A. However, it will accept Lycoming engines from 150-200 horsepower, giving the builder more options. It uses many parts in common with the RV-8/8A and RV-9A, which keeps production and inventory costs down. Legroom, headroom, and useful load are all greater than the RV-6/6A. The span and area of the wing has been increased. The Vne (never exceed speed) has been increased to 230 mph. Fuel capacity went from 38 gallons to 42.”

See www.vansaircraft.com for more!
MONTHLY MEETING:
(2nd Thursday every month, various locations, 7:00 pm)

Place:      Jeff Jasinsky’s RV-8 project
            2112 NW Hood Drive
            Camas, WA
Date:       Thursday, April 12th, 2001
Time:       7:00 pm
Phone:      360-834-6315

The April meeting place is scheduled to be at Jeff Jasinsky’s house. Jeff is building a Quick Build RV-8, currently mounting the empennage. You can see more at www.rv-8.com/JeffJasinsky.htm

DRIVING DIRECTIONS:
From Portland: Take Hwy 14 (on the Washington side of the Columbia river) east from either I-5 or I-205 heading toward Camas. Heading east on Hwy 14 you want to take the BRADY RD exit, which is 4.2 MILES east of the I-205 Bridge. Brady RD exit is a left turn only exit so you want to be sure you are traveling in the left lane on Hwy 14 once you pass the 164th exit. Once on Brady RD, head up the hill until you reach a 4-way stop sign. At the stop sign TURN RIGHT onto NW 16th Ave. Continue up the hill on NW 16th Ave. At the top of the hill the road will veer to the left, at this point the road turns into NW Hood St. Continue STRAIGHT on NW Hood St. until you come to NW Hood Dr. (third street) turn right. Jeff’s is the second house on the right hand side.

Future meeting schedule:
May:  Mark Kruskopf’s RV-9A project (tentative)
June: 10th Annual Northwest RV fly-in, SPB
July: Phil Spingola’s RV-6 project (tentative)
Aug:  Pacific Coast Avionics (tentative)

Meeting places are always needed: if you’d be interested in hosting a meeting please contact Randall Henderson at 503-297-5045 or randallh@home.com

EAA CHAPTER 105 Pancake Breakfast:
First Saturday of every month at Twin Oaks Airpark, 8:00 am, $5.00 (always lots of RVs to look at too!)
This month: 4/7/2001

EAA CHAPTER 105 Monthly Meeting:
Third Thursday of every month at the EAA 105 hangar/clubhouse, Twin Oaks Airpark, 7:00 pm. See www.eaa105.org for details
This month: 4/19/2001

EAA CHAPTER 902 Monthly Meeting:
Second Wednesday of every month at the Mulino Airport in the OPA building. For info call Bob Boring at 503-661-7627
This month: 4/11/2001

Subscription Due Dates
Mail subscribers: Your renewal date is in the upper right corner of your mailing label. Use the form at the back of this newsletter if there are any changes, otherwise just mail a check to the editor, or pay at a meeting.
E-mail subscribers: Look for your name and renewal date in the e-mail that the newsletter is attached to.

All subscription data is tracked in an Access database. Data entry errors can happen - if you find an error in your renewal date please contact the editor.

Newsletter Delivery
I’d like to encourage those still receiving b/w snail mail to switch to email delivery. Some of the benefits include...

• Faster delivery: you receive the newsletter 2-3 days ahead of snail mail.
• Full COLOR: with the increasing use of photos this adds another dimension you don’t want to miss.
• Storage flexibility: you can print it on your own printer, or leave it stored electronically, or both.

If you’re interested but unsure let me send you a test copy. Just send me an e-mail (randy@rv-8.com) and I’ll send you a test copy.

Lastly, I would encourage ALL members to make sure I have your e-mail address even if you don’t get your newsletter that way. I occasionally send out e-mail to all on important notices.

Thanks!

...Randy
March Meeting Recap

Our March meeting was hosted by Robert Boring in Gresham where he is building an RV-6A. He has been at it for six years and now is well into the finish kit with his engine mounted and panel completed. Bob reports that Home Winger Brian Moentenich has been especially helpful doing most of the panel work for him.

Scott McDaniels gave a very informative presentation on Lycoming oil systems. Special attention was given to the vernatherm: what it does and how it functions. Yes, there is still a small amount of oil flowing through your oil cooler even when the vernatherm is closed!

Thanks to Robert and Carol for their hospitality!  

...Randy

Editor's Hangar

It’s going to be a busy spring of first flights for the Home Wing. I’ve heard of several Home Wingers getting close to first flights: Chris Lund, Mike Wilson, Dale Wotring, and of course your humble editor to name a few that I’m aware of.

A couple of weeks ago Randy Griffin and I transported my project to the hangar at Pearson (VUO). Note the novel method we employed. Randy fabricated a special trailer hitch post designed to capture the tailwheel axle bolt (featured in a previous article). We’ve used it before to transport his fuselage to my house for painting, but this was a bit different due to the weight of the finished fuselage, the longer distance (approximately 12 miles) and the fact that this time it was my plane. Anyway, Captain Griffin expertly piloted the tow vehicle via the back roads at 10-25 mph and we arrived perfectly intact. As I followed nervously about 20 feet behind I could see that RV-8 gear legs don’t absorb bumps well. Good thing they’ll be in the air 99% of the time.

Presently I am immersed in all of the final assembly details. I’m making a concerted effort to pace myself, not rush, and allow plenty of time for unexpected delays. That aside, it’s hard to believe that I’m actually getting close to flying.

There’s a lot to think about as you get close, not only finishing the airplane and making sure that every single detail has been attended to, but dealing with the non-plane stuff such as insurance etc. I’ve also been giving lots of thought to first flight scenarios from the odd airspace I have to deal with at Pearson.

The Home Wing has been a great resource throughout the construction process, but now that I need some specialized and expensive equipment such as our club’s scales I’m sure glad we have access to these resources. The Home Wing also now owns a set of wing jacks which Randall introduces later in this issue. All just part of the RV experience I guess!

...Randy

Wouldn’t you turn your head if you saw this combo cruising down the road? It amazed me at how few people actually noticed. I guess the general population just doesn’t have the interest in airplanes that we do… I know, it’s hard to imagine.
Determining the Weight and Balance of Your RV
by Brian Moentenich

We all know that the FAR’s require that weight and balance information be available for the pilot (the “W” in “AROW”) where the acronym refers to Airworthiness Certificate, Registration, Operating Manual, and Weight and Balance. Moreover, when a DAR is inspecting your airplane for issuance of an airworthiness certificate, he/she will/should want to see your weight and balance calculations.

As you load your airplane with yourself, a passenger, fuel, and baggage, or any combination of these, the location of the center of gravity changes. The designer of every airplane determines the forward and aft limits of the center of gravity. For RV-6 & 6A’s, the forward and aft limits are 8.7” and 16.6” behind the wing leading edge when the main longeron is level. Because it is convenient not to have negative dimensions, a datum has been established at the spinner nose (on Van’s first one anyway). It does not matter one iota where the datum is located as long as the locations of all loads are referenced to it. The location of the datum Van selected is exactly 60 inches ahead of the wing leading edge (the RV-8 is 70”...ed).

Van has also determined where the center of gravity of a pilot (or passenger) would be as well as the locations of the centers of gravity of fuel and baggage would be. They are:

- Pilot or passenger 87.4” aft of datum
- Fuel 70” aft of datum
- Baggage 117” aft of datum

Determining the location of the center of gravity of your loaded airplane is what is meant by “balance”. If you know the weight of your empty airplane and the location of its center of gravity (when empty), then it is a simple calculation to determine the CG location of the loaded airplane. Stuff you normally carry (like head sets, charts, etc.) should be on board.

Determining the location of the CG is nothing more than applying the equations of static equilibrium as an engineer would to determine the reactions of a simple beam (your airplane) due to applied loads. The only difference is that you know all of the applied loads, you just don’t know the location of one of the applied loads (the one applied by gravity). Since you know where the fuel is located, your airplane need not be empty of fuel when you do “weight and balance”, but you do need to know exactly how much fuel is aboard.

It is easiest to use the racing car scales the Home Wing club owns to measure the weight under each of the three wheels. Make sure the canopy is closed when weighing. In the example below, an RV-6A was used. The exact same procedure is used for an RV-6 only the locations of the wheel loads will change. Regardless of what type plane you have, you must measure the wheel locations relative to the wing leading edge when the main longeron is level.

Now you need to determine the distances from each wheel from the datum. This is called the “arm” or “lever
Refer to the sketch... I measured the following on my RV when it had 38 gal. of fuel on board:

<table>
<thead>
<tr>
<th>Item</th>
<th>Arm (in. from datum)</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nose Wheel</td>
<td>30.35</td>
<td>372</td>
</tr>
<tr>
<td>Left Main Wheel</td>
<td>84.5</td>
<td>493</td>
</tr>
<tr>
<td>Right Main Wheel</td>
<td>84.7</td>
<td>484</td>
</tr>
<tr>
<td>Fuel</td>
<td>70.0</td>
<td>224</td>
</tr>
</tbody>
</table>

The plane’s empty weight will be the sum of the weight readings from the scales:

\[372 + 493 + 484 - 224 = 1,125 \text{ lbs (yes, its heavy).}\]

The distance to the empty CG will be:

\[\text{Distance} = \frac{(372 \times 30.35 + 493 \times 84.5 + 484 \times 84.7 - 224 \times 70)}{1,125} = 69.6\text{".}\]

The total moment of the empty airplane (referred to the datum will be:

\[\text{Moment} = 1,125 \text{ lb} \times 69.6 \text{ in} = 78,300 \text{ in-lb}.\]

Using a spreadsheet program like Excel, you can now prepare professional weight and balance graphs and tables to make quick work of checking your weight and balance.

Example calculation for my plane:

<table>
<thead>
<tr>
<th>Item</th>
<th>Weight</th>
<th>Moment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Empty A/C</td>
<td>1,125</td>
<td>78,300</td>
</tr>
<tr>
<td>Pilot</td>
<td>180</td>
<td>16,000</td>
</tr>
<tr>
<td>Passenger</td>
<td>170</td>
<td>15,000</td>
</tr>
<tr>
<td>Fuel (30 gal)</td>
<td>180</td>
<td>13,000</td>
</tr>
<tr>
<td>Baggage</td>
<td>25</td>
<td>3,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1,680</td>
<td>125,300</td>
</tr>
</tbody>
</table>

Ok, wt & cg are within limits!

Proper weight and balance management is crucial to safely operating your RV. I hope this has helped you understand a bit more about it.

...Brian
Speed
By Dan Benua

All RV builders and flyers agree: “SPEED is GOOD!” We endlessly compare performance numbers and gloat about leaving most of the factory-built piston singles in our dust. Many of us stepped up to RV’s from much slower aircraft and are awed by our newfound ability to go “so far, so fast.” Recently I encountered two situations (in the same day!) that reminded me that not everyone out there is blessed with “total performance”. Along with higher speed comes the need to adjust our pilot technique and procedures to deal with slower traffic, and not just in the pattern.

The first “incident” occurred as I was coming in to land VFR at Eugene. Visibility was 7 miles in haze, with a few scattered clouds between 1,000’ and 3,000’. Just an hour earlier, the field had been IFR. EUG is a class D field with radar approach control located in the tower. In my past experience, the Approach controllers there aren’t always very friendly to non-commercial VFR traffic. Since the weather seemed reasonable, I skipped Approach and called the Tower with the ATIS from 10 miles out. The Tower immediately sent me to the Approach frequency, which turned out to be fairly busy. By the time I got my call in, I was inside of 7 miles. The radar controller gave me an immediate 360 and spent most of the next two minutes berating me for not calling in from much further out. He strongly implied that I had caused an unsafe situation with an IFR Cessna that he had been vectoring for practice approaches (in VMC). I had to bite my tongue to keep from reminding him that I was VFR in class E airspace and hadn’t done anything illegal or even abnormal. That’s when the light went on in my head. His anxiety was the result of the large difference in speed between my RV and the Cessna, plus the fact that my course passed very close to the ILS final approach path. Even though my operation was completely legal, next time I’ll remember that there might be much slower aircraft ahead and call Approach earlier, particularly when I am positioned for a straight-in to a runway with an instrument approach.

The second “incident” occurred that evening in beautiful clear night conditions. We were returning to HIO from the south, again VFR. I was using flight following as we approached Newberg VOR from the south. Seattle Center called unknown traffic dead ahead.

Wing Jacks!

We are pleased to announce the addition of a new tool to the Home Wing’s collection: a pair of wing jacks, plus extensions, that will fit the RV-4 through the -9A.

After some research, we settled on jacks from Know Howe Weld and Machine, Inc. in Minnesota. Since we’re a builders group, Knowe Howe recognized that we are “high-visibility” with many RVers around the world, and offered us a discount on the jacks, which we happily accepted. The total cost the pair, including shipping, came out to $417.87.

Unextended, these jacks stand at 21 inches tall, and have a throw of 13 inches. Since tie down points for the RV-9A (the tallest model) sit 32” above the ground, it will be necessary to use extensions for it and probably also some other -A models. No fear, we’ve also acquired extensions from the same outfit, so the jacks will work with all RV models, with the possible exception of the RV-3.

Gary Graham is working on a set of attachments that will provide for jacking from the bottom engine mount tube instead of the wing tie down points. This method reduces the possibility (certainty!) of major damage if the plane ever fell off the jack. Due to the design of the firewall/cowl attach on most models of RV however, these will likely not be usable with any model except the -4, although we are looking into the possibility of doing something similar for the -6 mount. Regardless of which method you use, be extra careful out there!

Toolmeister Brent Ohlgren will be in charge of the Jacks; contact him if you want to use them. And of course be sure to abide by the rules of use for these and all other builders group tools.

...Randall
I believe that Mark Twain once said: "there are liars, damn liars, and statistics. In my estimation, it is invalid and misquoted statistics which deserve this tainted reputation. Valid statistics, properly applied, are a valuable resource and tool.

In comparing ground traffic and aviation accident data, the writer made one obvious mistake. In converting raw accident data to accident rates and ratios, he neglected to consider that there are vastly differing numbers of drivers than there are pilots. Let me dissect the first "bite" listed: A PILOT IS 67 TIMES MORE LIKELY TO BE KILLED IN A TRAFFIC ACCIDENT THAN IN AN AVIATION ACCIDENT. This was based on the raw data that there are 41,471 traffic fatalities per year and only 617 aviation fatalities. Dividing 41,471 by 617 does yield a ratio of 67 : 1. However, in order to determine a valid risk, we must take into consideration the number of persons being subjected to that risk. Since I don't have the data readily available, lets make a couple of conservative assumptions. 1. There are 100,000,000 drivers subject to traffic fatalities. 2. There are 1,000,000 pilots subject to aviation fatalities.

Thus, 100,000,000 / 41,471 fatalities = 2411 drivers per fatality. 1,000,000 / 617 fatalities = 1620 pilots per fatality. This would show that driving is slightly safer than flying, not 67 times more dangerous. However, even this is not a fair measure of risk because it does not factor in the amount of time which the driver or pilot is exposed to that risk during the year.

Another way of looking at the above data and assumptions is that since there are 100 times as many drivers as there are pilots, only 1/100 of the traffic fatalities will (on the average) involve pilots. Thus only 414.7 fatal auto accidents will happen to the pilot population, whereas 617 of them will be lost to aviation accidents.

My point? Don't twist data around to arrive at "feel good" conclusions. It would seem from the presentation, flying is safer than just about anything else. So why worry? If it is that relatively safe, why be concerned? Don't use misquoted statistics to lull you into a false sense of security! Sure, I too normally feel more safe flying my small planes than I do in some driving situations.

True, the author admitted and concluded that he didn't consider himself to be the ultimate pilot and that he was still striving for greater levels of safety. But, the number could lead other to complacency.

...Dick VanGrunsven
Fast Easy Wire Labels
By Bob Haan

Here’s a way you can use Excel, your computer printer, and clear heat shrink tube to produce electrical wire labels.

Word the label with a description of the connection to the left then the 3 symbols < - > followed by a description of the connection to the right. For example, “Fuel Pump +12V” < - > “Fuel Pump Switch.” The same label can be used at each end of the wire.

Use clear heat shrink to attach the label to the wire. Orient the label so that the label points toward the connections that would be at that end of the wire. Note that to accomplish this, the label must be flipped from end to end when it is heat-shrinked to the other end of the wire.

Use words on the labels to: (1) Understand the function of the wire and where it should be routed. (2) If the wire came loose, it would be clear where it should be reconnected.

Next create a strip of 12 identical labels by using Microsoft Excel to repeat the text for the label down a column for 12 rows. Print the labels using a font size of seven points.

Cut 4 rows out of this column and roll them up around a 1/16 drill shank from an old 12 inch drill creating a paper tube with 4 labels on it. Insert this paper tube into a long piece of clear heat shrink. Cut the heat shrink tube about 3/8 longer than the label. Center the label in the clear heat shrink tube and slide it over the wire. For the majority of wires, I used 1/16’ or 1/8’ diameter clear heat shrink tube depending on the size of the wire.

It is easiest to insert the rolled up labels into the heat shrink tube first and then insert this assembly over the wire remembering to orient it so that the label points toward the connections at each end of the wire. Apply heat and enjoy.

To attach labels to wires where you cannot slide a heat shrink tube over the end of the wire, attach a cable tie to the wire. Synch it up tight. Slide a label in a clear heat shrink tube over the tail of this cable tie. To keep the label from sliding off, slide the square end of a scrap cable tie over the tail of the cable tie attached to the wire to be labeled.

Labels printed on colored paper and/or colored printing can be used to record even more information about your project.

...Bob
Flying Activities

Coordinator: Randall Henderson, N6R
randallh@home.com, 503-297-5045

The summer flying season is fast approaching, so it's time for the flyers among us to start planning for all those important engagements! I'm still hoping to put together a fly-out camping rip this year, so anyone with ideas for destinations please contact me. I also happened to fly in to Silverwood ID last year and had a look at the theme park that Rob Hickman was hoping to get a group out to. Neat place!

Any and all other fly-out activities, send them my way and I'll put them in here. Also be sure to look at the calendar for other events.

...Randall

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Description</th>
<th>Contact</th>
</tr>
</thead>
</table>
| TBD      | Silverwood ID (S62)    | Carryover from last year -- Rob Hickman is still hoping to get a group together for a day trip to Silverwood ID (S62). This is a theme park with its own airstrip right there -- pretty neat, especially for the kids. See their web site at www.silverwood4fun.com/static | Rob Hickman  
503-524-3190  
RobHickman@aol.com |
| 16-Jun   | Tenth Annual Northwest Rv Fly-in | Should be a good one this year! Don't forget to sign up and help out! | Don Wentz  
503-543-2298  
jwentz@columbia-center.org |
| 17-Jun   | V.A.F. Western Canada Wing Father's Day Air Affair | Not confirmed that it will be happening this year, but in years past they had a Spaghetti dinner Saturday night and fly-in Sunday. Would be a fun trip to make after our own fly-in on Saturday -- make a weekend out of it. | TBD |
| July 7-9 | Jackpot Air Races      | We're hoping to get a gaggle of Home Wingers to Jackpot this year. If you've read Randy Lervold's write-up about it in the August 2000 newsletter, you no doubt want to go -- sounds like a blast! | Gary Hanson  
slhanson@teleport.com |
| Sept. 13-16 | Camp Out!               | As always, some Home Wingers will no doubt be going to the Reno Air Races. Anyone wanting to coordinate, let me know and I'll put names down here. | Anyone? |
| TBD      | Dawn Patrol            | Didn't manage to get that fly-out camping trip together last year, but this year, I'm really going to do it. Give me a buzz if interested, we can talk about locations. I'd like to make it some place a little further out than our normal Saturday breakfast excursions -- anyone ever been up to Sullivan Lake, Wa? | Randall Henderson  
503-297-5045  
randallh@home.com |
| Saturday mornings | Dawn Patrol every Saturday morning (weather permitting). Meet on 122.75 or over Bald peak at 7:30am and we'll decide where to go. | 122.75 |
Two Brents

This is a test... can you name these fine looking dudes spotted at a recent Home Wing meeting? Brent Ohlgren is our beloved Toolmesister, and Brent Anderson is a former President of Chapter 105 and flew his RV-4 last fall after a ten year construction period. Which is which? Hint: one is taller than the other... hmm.

Hey, I recognize that plane! Seems our own Denny Jackson has hit the big time.
CLASSIFIEDS...

FOR SALE

Engines for sales—Two IO-320-B1A fuel injected 160 hp engines from twin:
- 1,322 SMOH, $9,900
- 455 SMOH, $11,900
Both Dynafocal II. Contact Bill Drake 360-687-1698 or Al Strickfaden 360-687-3119, 3/01

For sale - D Square 3 1/8” Accelerometer -4.5 to +12G reconditioned in 1994 and used in a Cessna 182 for kicks – it’s like the proverbial old lady’s car --- hardly used. $175 contact John Warren at 360-263-7848, 3/01

RV-6/6A Empennge Kit - $850 (not pre-punched). Includes plans, drawings, hardware. Ernie Johnson @ 503-544-5555 or msg 503-274-6876, 7/01

Salvage Sale — Wagabond, damaged in off-field landing. O-320-A2C with 400 hours since new. Prop was turning and was bent, engine was not putting out any power. Don’t know the cause of the engine failure. Entire airplane as where is $13,000. Panel is full and all instruments are in place, radio is a Mark 12 . $1k spent on new spring gear and axles included. Recover quite a bit of your investment by parting out the remainder of the project and get a good engine core. Contact Allen Potts Lakeside MT 406-844-3464, 6/01

Duckworks Landing Lights - Retro-fittable, light, easy installation. Kits start at $69, discount for Home Wingers. Don Wentz, 503-696-7185

BACK ISSUES are available at $2.00 each including postage for hardcopy. Limited availability, contact newsletter editor. Adobe Acrobat versions free to members.

WANTED

RV Partnership Wanted — Seeking party interested in establishing a partnership and purchasing a flying RV, any model OK. Prefer to be in the Hillsboro area. Please call 503-628-2317, Lou Armbruster, 6/01

Tools Wanted - Just starting 9A project and need a few tools to complete emp kit, 3” hand rivet squeezer, 3/32 vise grip dimpler, flush swivel rivet set, 1/4” air drill, 1/8” and 3/32” clecos. If you have any of these and would like to sell them, please contact Nelson Lyon at 503-692-0930 or n.lyon@verizon.net, 7/01

Use ‘em!

Members are encouraged to take advantage of the classified section. Since it’s free why not take a stab at unloading that unused airplane stuff. Besides, it’s kind of interesting to look at all the odds ‘n ends for sale.

Please note that the date at the end of each ad is the expiration date. They run for three months and then are dropped unless you want them renewed by notifying me.

...Randy

EAA Technical Counselors

Listed below are our Chapter 105 Tech Counselors:

Dan Benua  
503-621-3323, danbenua@mail.com

Randall Henderson  
503-297-5045, randallh@home.com

Dave Lewis, Sr.  
503-690-8237

Bill Truax  
360-582-0558, goonybrd@olypen.com

Don Wentz  
503-543-2298, jwentz@columbia-center.org

EAA Technical counselors wanted! If you’ve finished an RV, or hold an A&P rating, or are otherwise qualified under the EAA Technical Counselor guidelines, please consider signing up for the program, and adding your name to the list of EAA Technical Counselors available to the Home Wing and local EAA chapters.
THE TOOL EXCHANGE

The Home Wing owns a selection of tools for use by its members. The Toolmeister is: Brent Ohlgren, 503-288-8197, obrento@aracnet.com. Please observe our Tool Policy:

Home Wing Tool Policy

- Everything goes through Brent — do not give the tool to another member.
- Brent will keep an accurate sign-out sheet for each item so he knows where it is at all times.
- Brent will inspect all tools upon their return. If there is any damage he will ask you to pay for the repair (with the threat of public humiliation if you fail to be a grown-up).

The ability to have use of these expensive tools is a real membership benefit, let’s respect the group’s assets.

<table>
<thead>
<tr>
<th>Item</th>
<th>Owner/lender</th>
<th>Phone / e-mail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Custom cutting wheel mandrel (for cutting your canopy)</td>
<td>Stan VanGrunsven</td>
<td></td>
</tr>
<tr>
<td>Prop tach (calibrate your tach)</td>
<td>Mike McGee</td>
<td>503-534-1219, <a href="mailto:jmpcrfr@teleport.com">jmpcrfr@teleport.com</a></td>
</tr>
<tr>
<td>Engine stand</td>
<td>Don Wentz</td>
<td>503-696-7185</td>
</tr>
<tr>
<td>Surveyor’s transit level (handy way to level wing and fuselage jigs)</td>
<td>Bill Kenny</td>
<td>503-590-8011</td>
</tr>
<tr>
<td>Back riveting contraption (large, counterweighted bucking bar and suspension system and offset back rivet sets)</td>
<td>Bob Neuner</td>
<td>503-771-6361</td>
</tr>
<tr>
<td>Lead crucible (for melting lead for elevator counterweights)</td>
<td>Doug Stenger</td>
<td>503-324-6993</td>
</tr>
<tr>
<td>Table saw taper jig (for tapering wing spar flange strips)</td>
<td>Carl Weston</td>
<td>503-649-8830</td>
</tr>
<tr>
<td>48” pan brake located at hanger PLS D-10 at Troutdale if an RV builder needs some metal bent.</td>
<td>Kevin Lane</td>
<td>503-233-1818, <a href="mailto:n3773@mciworld.com">n3773@mciworld.com</a></td>
</tr>
<tr>
<td>Aircraft tire bead breaker, for tire removal</td>
<td>Kevin Lane</td>
<td>503-233-1818, <a href="mailto:n3773@mciworld.com">n3773@mciworld.com</a></td>
</tr>
<tr>
<td>Special letter drill used to ream rear spar bolts/straight reamer for rear spar/</td>
<td>Kevin Lane</td>
<td>503-233-1818, <a href="mailto:n3773@mciworld.com">n3773@mciworld.com</a></td>
</tr>
<tr>
<td>Lasar T-300 magneto timing tool.</td>
<td>Randy Lervold</td>
<td>360-817-9091, <a href="mailto:randy@rv-8.com">randy@rv-8.com</a></td>
</tr>
<tr>
<td>Precision Steel Fuselage Jig for RV-6/6A</td>
<td>Bill Drake</td>
<td>360-687-1698, <a href="mailto:rv6134WD@uswest.net">rv6134WD@uswest.net</a>,</td>
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<td>Compound lever action lug crimper (for battery wires) and engine hoist</td>
<td>Gary Dunfee</td>
<td>503-631-7262, <a href="mailto:gary.dunfee@gte.net">gary.dunfee@gte.net</a></td>
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Home Wing info:

A non-profit volunteer organization dedicated to building and flying Van’s RV Series Aircraft

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