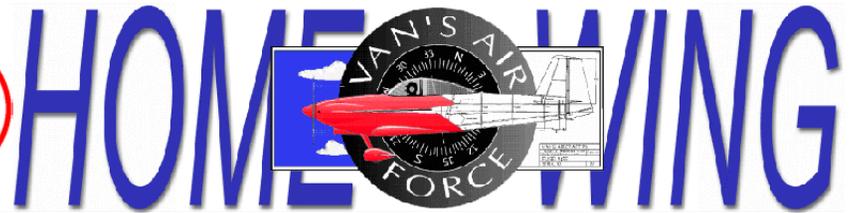


# Experimental Aircraft Association

## Chapter 105 Portland, OR

Twin Oaks Airpark—7S3 [www.EAA105.org](http://www.EAA105.org)

The Purpose of EAA Chapter 105 is to Promote Aviation Education, Construction, Recreation and Safety for Enthusiasts of All Ages.



### Next Meetings



- May 12<sup>th</sup> — Chapter Meeting: Visit to Doug Stenger's shop at Banks, OR. Harmon Rocket, RV-6 and Cessna 180 restoration projects.
- May 19<sup>th</sup> — Board Meeting: 7:00 PM; New Project Hangar @ TwinOaks.
- **Newsletter Deadline — May 21<sup>st</sup>**
- Newsletter article contributions and ads are welcome anytime, but may be held to a later issue if received after May 21<sup>st</sup>.

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### 122.75

J. Rion Bourgeois, Chapter President

#### Allen Duberstein

Chapter member Allen Duberstein died Monday, April 25, 2005 of a massive heart attack at the age of 55. Allen was a 22 year veteran at Intel, and is survived by a wife, two daughters and two sons. Allen owned an RV-6A which he flew in the chapter flyby at the Hillsboro Airshow last year, and was involved in the chapter formation flight SIG (aka Home Wing Squadron). We've lost another one. Stay close.



Allen Duberstein at the stick of his RV-6A.

#### B-17 Coming Memorial Day Weekend

Don't forget we are hosting the EAA's leased B-17 Memorial Day Weekend at HIO. We hope to fly lots of Young Eagles in conjunction. If you are willing to help in any capacity, please

send me an e-mail and let me know which day you want to help. There are still slots available for Friday, Saturday and Sunday. Jim Pace has charmed the gals at the nearest Starbucks and promises unlimited coffee.

### Breakfast KP Duty

#### Saturday, May 7<sup>th</sup>, 2005

7:00 AM	9:00 AM
Tom Louris	Stephen Rosenstock
Brian Moentenich	John Tainter
Mike Robertson	Jake Thiessen
Terry Smith	Robert Toppel
Al Strickfaden	Stan VanGrunsven
Roy Thoma	Greg Vouga
Jerry VanGrunsven	Mike Waters

#### Saturday, May 7<sup>th</sup>, 2005

7:00 AM	9:00 AM
Ken Scott	John Pallister
David Sellers	Dan Miller
Phil Spingola	Leejay Robles
Chris Stone	Paul Runyan
Richard Vanderford	Peter VanSchoonhoven
Richard VanGrunsven	John Warren
Art Waldal	Terry Wellner

Note to Volunteers who cannot serve: Please arrange replacements for yourselves, or contact Len Kauffman. [lakauf@comcast.net](mailto:lakauf@comcast.net) or 503-885-1920

## Benton Has a New Toy

Our own Benton Holzwarth couldn't wait to finish his Bearhawk, and has recently become the proud owner of a Piper Tri-Pacer. Looking forward to seeing it at all the events this flying season. [ I prefer to think of it as my engine and instruments escrow account. —Ed ]

## Chrome-Moly Steel Designation Changing

Suppliers are switching over to a new designation for our familiar 4130 steel. In the future, you'll order AMS6350 for 4130-A or AMS6345 for 4130-N in sheet and plate, AMS6360 for 4130 tube, and AMS6370 for 4130-D rod and bar.

## GlaStar Sportsman 2+2

Jim Pace received brochures and a 20 minute DVD of the GlaStar Sportsman 2+2 in action. They'll go into the club library, if you'd like to take 'em home for a look-see.



## Some Things to Watch Out For When Flying in Canada...

Mike Shaw



[ Mike posted his Canadian flight information on the Short Wing Piper Club mail list, and has graciously OK'd republishing here. I added the tinyurl short links to his web-references.

Our chapter also has a checklist, assembled by Randal Henderson, of good information to have in hand when crossing the border on our resources page:

[www.eaa105.org/Resources/resources.htm#UsefulInfo](http://www.eaa105.org/Resources/resources.htm#UsefulInfo)

—Ed.]

## Whose the Ruler?

The FAA expects you to abide by the FARs even when flying in Canada, UNLESS the Canadian regulations are more restrictive, then follow the Canadian rules. We call our flying rules the Canadian Aviation Regulations, or the CARs, (which suggests they are well grounded.) It is the same for Canadians flying in the USA. We can't take advantage of some of you more lax rules. In a nutshell, if you can't do it at home you shouldn't do it in other countries either, even if the other country's pilots do do it, cause your certifying authority (FAA) sets the rules for your certificates...

## Picture the Area Forecasts FAs

Canada's Area Forecasts (FA) are graphic. There is one for each of six regions of the country. We call them GFAs. Each GFA contains six graphic forecasts representing 12 hours divided such that there are three for clouds and weather and three for icing and turbulence for each time frame, current forecast, 6 hours and 12 hours. The US is looking at changing their FA to a

graphic product too. I understand it will be improve on Canada's efforts and be a real knock out.

## Airport Directory

The official list of Airport facilities in Canada is contained in the Canada Flight Supplement (CFS). Technically the term "airport" in Canada is reserved for "aerodromes" that are certified by the government as meeting appropriate standards. To Canadians they are all airports. The CFS contains much more than just airport info. One thing that I like about it is that it lists all airports in alphabetical order by city name, making it relatively easy to find an airport even if you are not sure in which Province it is located.

(I find the American practice of listing things by State, e.g., airports, interstate exits, you-name-it, extremely

## Langley, BC Fly-In

The Langley Fly-in will be held on Saturday, June 4, 2005. This is the annual fly-in for VAF Western Canada Wing. Our web page is

<http://www.vansairforce.org/CYNJ>



Photo: Rob Prior, AirFrame Aircraft Portraits, [www.airframe.ca](http://www.airframe.ca)

inconvenient, even to the point of degrading safety when in flight. That is the biggest failing of the Flight Guide Airport Directories, they expect everyone to know the state for every airport just to find it in the book. And then they divide them up again by big and small. The structure of these guides is insane! Surely pilots in up state NY don't always know if a small town/airport is in Indiana or an adjacent state? Foreign pilots sure as hell don't know which state to check first. Rant over!

### Going in Circuits

Canadians call the "pattern" the "circuit" and we nearly always fly it at 1000 feet above the airport's elevation, unless another altitude is published in the Canada Flight Supplement (CFS).

Canadian don't often join the circuit on a 45 degree cut to the downwind leg. We normally join the downwind leg from the non-circuit, or upwind side, of the runway. (Use the 45 degree entry if parachute activities are in progress unless you want a surprise passenger.) Canadians over fly airports 500 feet above circuit height to check for other traffic and the windsock. Once we have chosen a runway we fly to the non-circuit side, descend to circuit height and cross the runway and join the downwind with a 90 degree turn in the appropriate direction. You can join straight-in on the downwind leg too, but this assumes you already know about all traffic, the active runway and the winds. At towered airports (and those with MFs (see next)) you can join the circuit on base leg or even final.

### Mandatory Frequency Areas

Mandatory Frequency (MF) areas are frequent gotchas for visiting US Pilots. At airports where there is insufficient traffic to support a control tower, but a mix of types that could cause occasional problems (IFR/VFR large/small), Canada has established Mandatory Frequency

MFs. PILOTS MUST CALL ON THE MANDATORY FREQUENCY before entering the area. Usually there is a FSS located at the field and all communications are directed to the FSS as in, "Good morning Kingston Radio, Colt Foxtrot November Delta Sierra, VFR, four thousand five hundred feet, ten northeast landing..." Treat these airports like they have a control tower, even though the FSS doesn't issue clearances, rather they ask for your intentions. Look for MF on the chart and in the Canada Flight Supplement (CFS).

### Aerodrome Traffic Frequency (ATF)

The Common Traffic-Advisory Frequency in the USA equals the Canadian ATF. Generally we use the same UNICOM frequencies as in the US, e.g. 122.8. There is always a radius distance and altitude associated with an ATF, but some are irregular rather than circular.

### Flight Plans

Canadians regulations, the CARS, require pilots to file

*"Flying in Canada" continues on the next page.*



*This is the view from my office window. This Beautiful LA4-200 just landed and taxied up to the beach for a burger. I am having a really hard time working today :- ) I can't believe the weather here in Kirkland WA today (Mar 14). It's like 65 degrees! Damn those Lakes are loud on takeoff. I love it! Dr. Kevin P. Leathers [ Dr. Leathers is a Bearhawk "Patrol" builder up in the Seattle area. —Ed. ]*

## ...and Some Local Color

*[ I forwarded Mike Shaw's write-up to a few local friends. One replied with his advice for crossing into British Columbia. — Ed. ]*

I fly up to Canada at least once a year. My ritual before going is to get my US Customs Sticker (needed for the return crossing into US), order a Canada Flight Supplement (if only US would adopt its format!) and make sure I have the original copy of my aircraft insurance policy with Canada endorsement in my flight bag.

I also carry a tattered copy of a border crossing checklist that contains toll-free numbers for the various facilities on both sides of the border where one can/must get transponder codes, file flight plans, contact customs. This sheet also has the identifiers, nav aids and frequencies for the scattering of aerodromes on either side of the border I usually use. (I particularly like Oroville, WA on the way back to US because the security agent seems to be a reasonable human being and also sometimes an old guy walks into the FBO and gives me a sample bag of their famous apples).

I find the Canadian system a bit nicer to use once you learn a few simple rules (as detailed in your note). The only problem is that like US, they have eliminated their walk-in flight service stations in favor of "centers" like the one in Kamloops that now handles a huge amount of western Canadian real estate. The flight service station area in Penticton is now an empty room. Outside the room is a single CRT terminal with modem, allowing you to contact Kamloops and get your weather. Sigh.

John

flight plans unless they are staying within 25 nautical miles of their departure airport. They can be filed on the phone with any FSS by dialing 1-866 WXBRIEF (I hate alpha-numeric phone numbers, here is the real number 1-866-992-7433.) Canada's flight plan form is long and potentially confusing, but fortunately pilots all pay the FSS person to know it, they will prompt you on the phone for the correct info. Although you have to file a flight plan, it does not have to be with the FSS, you can file it with a "responsible person", like your wife, BUT the responsible person MUST agree to act on it if you are late arriving and it must contain appropriate information. Whether we like it or not, we are paying the FSS system to monitor our flight plans, why not use them! Do I sound like a government person?

### Enroute Frequency

Unless one is getting flight following from ATC the enroute frequency in Canada is 126.7. It is used to blind broadcast location information to area pilots, to get weather, file position reports, etc. In some areas it can be quite busy. It is the equivalent of Flight Watch on 122.0, but the call sign is "So-and-So Radio".

### Undercast

VFR Over-the-top is more restricted in Canada. You must have 5 miles visibility and be 1000 feet vertically from any cloud. If you are between layers they must be separated by 5000 feet. The weather forecast in the TAF for your destination must be scattered or fewer clouds, no TS and no precipitation for one before and two hours after your ETA. If no TAF exists for your destination airport then the area forecast (GFA) must show these conditions to extend for three hours after your ETA. The aircraft needs IFR equipment and the pilot needs to be IFR certified, or to be a commercial pilot or to have a special VFR OTT rating on a private certificate.

### Transponder Code by Phone

In the airspace around several major centers in Canada you are required to get a transponder code on the phone before flight. Some locations have a special number to call, e.g. in the Ottawa area we call 866-VFR-CODE. If you file a flight plan you can get your code at that time. This requirement is listed under the PRO heading in the Canada Flight Supplement for the major airport and a cross reference is under each other affected airport in the area. If you don't get the code in advance you might face a delay, but you won't be denied access to the area.

### ABCs of the Air

We use the same terminology as the USA for classes of airspace. There are differences but they are not that noticeable, except the Xponder requirements in some Class D airspace in Canada. Get flight following and it's no big deal.

### How far can you see?

There are some differences in cloud clearance and visibility for VFR in the various airspace classes in Canada. Unless you are a frequent scud runner they don't mean much. In an emergency they don't matter...

### Useful Websites

For Canadian weather and NOTAMS browse to <http://www.flightplanning.navcanada.ca>  
<http://tinyurl.com/2u9gh>

For the Canadian AIM browse to <http://www.tc.gc.ca/CivilAviation/Regserv/Affairs/AIP/pdf.htm>  
<http://tinyurl.com/8hahs>

For airport diagrams browse to <http://www.navcanada.ca/NavCanada.asp?Language=en&Content=ContentDefinitionFiles/Publications/AeronauticalInfoProducts/>

default.xml

<http://tinyurl.com/a2cj5>

and look for Canadian Aerodrome Maneuvering Surfaces (CAMS) near the bottom of the page.

For a Canadian Flight plan form browse to [http://www.flightplanning.navcanada.ca:80/cgi-bin/CreePage.pl?Langue=anglais&NoSession=NS\\_Inconnu&Page=flight-plan-form&TypeDoc=html](http://www.flightplanning.navcanada.ca:80/cgi-bin/CreePage.pl?Langue=anglais&NoSession=NS_Inconnu&Page=flight-plan-form&TypeDoc=html)  
<http://tinyurl.com/abgfs>

Questions, comments...don't hesitate to contact me.

Mike Shaw  
Orleans, Ontario  
Colt CF-NDS  
VP St. Lawrence Seaway Chapter  
Short Winger 6643  
airmail@rogers.com



Paul Tidball's '46 Luscombe 8A (N72072) rolling out at Lenhardt's Airpark.

Meeting Coordinator:

**Randall Henderson**

503-297-5045  
Randall @edt.com



May 2005 Meeting

**Program: Doug Stenger's Projects**  
**Address: 20465 Mrosik Road, Banks**  
**Date: Thursday, May 12<sup>th</sup>, 2005**  
**Time: 7:00 PM**

**Program:**

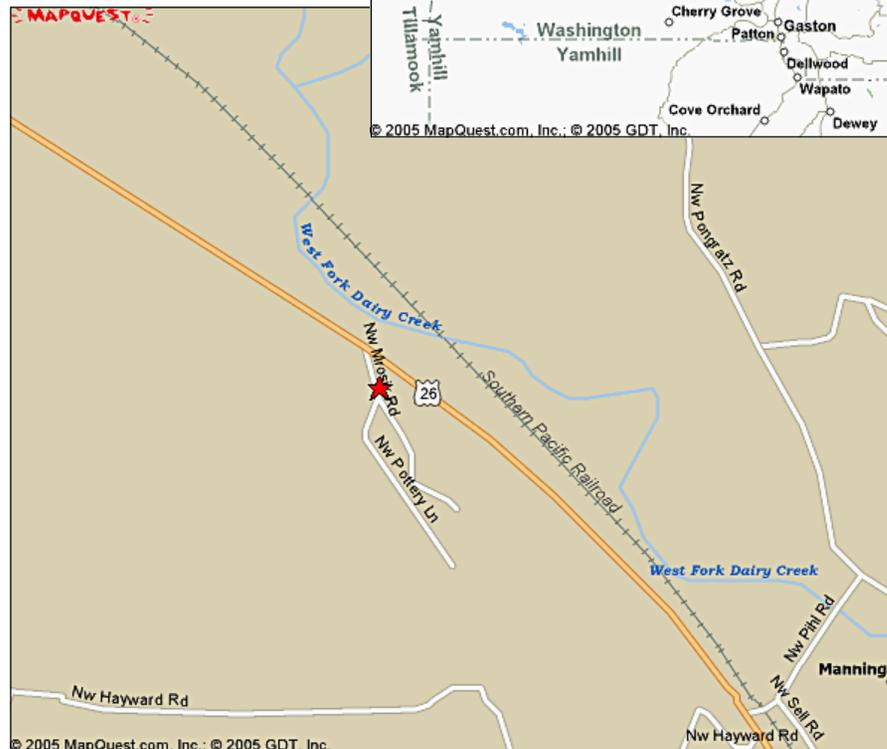
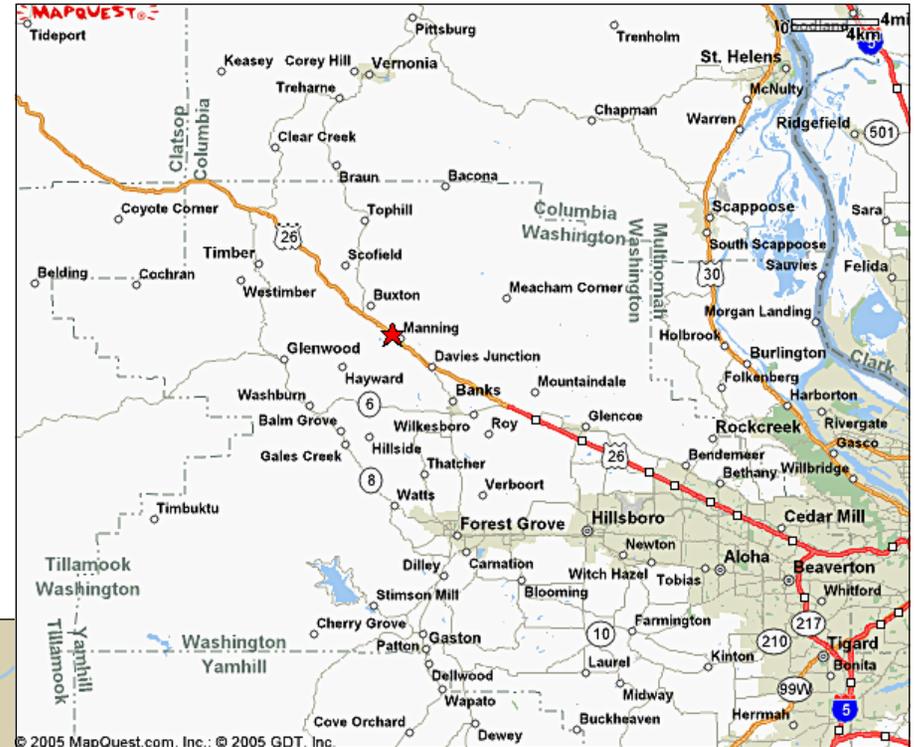
The May meeting will be held at Doug Stenger's shop out in western Washington County. Doug is an A&P Mechanic who has been building RV components for quite some time, and is well known in the area for his expertise and attention to detail.

On display will be several projects that Doug has in the works, including a Harmon Rocket airframe project, an RV-6 under construction, and a Cessna 180 restoration.

**Directions:**

Doug's place is just off highway 26 about four miles west of Banks. Go past Manning, which consists mainly of the Dairy Queen and a couple of other buildings, and look for Mrosik Road on the left. There is a sign that says Wright Pottery there. Stay to the left on Mrosik road and go to the beige house with the brown trim. The meeting will be in the shop.

Mapquest map: <http://tinyurl.com/agbqh>



## Future Meetings

June 9th: TBA!!!

July 8: Arlington Camping Area <<< Friday

Aug 12: TBA!!!

### About the meetings

Meetings are the second Thursday of the month, starting at 7:00 PM, unless otherwise noted, and are typically at the site of someone's experimental aircraft project or hangar.

**IMPORTANT:** The Van's Air Force Home Wing and EAA Chapter 105 newsletter is in no way a publication of Van's Aircraft or any other corporation. All products reviewed or mentioned are not necessarily recommended for use by the Home Wing or EAA Chapter 105, but are included for informational purposes only. All building or flying tips represent only the means by which the builder whose name is associated with the tip chose to build or fly his/her aircraft. Builder's tips are not meant to replace the plans and instructions from Van's Aircraft or any other company. All information is presented only as a source of information, and this newsletter is a forum for exchange and the sharing of ideas and construction methods only. NO responsibility or liability is assumed, expressed, or implied as to the suitability, accuracy, safety or approval thereof. Any party using the suggestions, ideas, or examples does so at their own risk and discretion and without recourse against anyone. The editors of the Home Wing and EAA Chapter 105 newsletters and the builder's tips submitters are not responsible for any product, incorrect construction, design failure, unsafe aircraft operation practice, nor any other peril. Any material printed within may not be reprinted without specific, written permission, and then should include credit to the original source and author. The Home Wing and EAA Chapter 105 newsletter is published monthly. A complimentary issue for new builders is available upon request. Mail or e-mail all subscriptions, ideas, tips, tricks, and articles to the newsletter editor.

## Russ Werner's Harmon Rocket II

I have been an out-of-area home wing member for a few years and finally finished my Harmon Rocket II. More photos are shown on <http://www.wernerworld.com/rocket>. This plane was built over a period of 12 years, 11 of which were on Maui. Now I'm based at Heber City, Utah and living in Park City. I'll try to fly it up to the Scappoose event. Russ Werner [ *I'm trying to hook up with Russ for more details on his plane. — Ed. ]*



## Chapter 105 Flight Instructor Listing

Along with the Tech Counselor and Flight Advisor lists on the chapter website, we're adding section for our chapter flight instructors. If you'd like to include your name on our new list, forward your information to our web-meister, randy @romeolima.com. Please include skills (Instrument training? Tailwheel transitions?) and the airstrips you work from, along with your contact information.

And when considering flight training, do consult our list for instructors who may be best able to cover your type-transition needs.



A Piper PA-12 Super Cruiser, I believe, I didn't catch the N-number. Wheels just touching down at Lenhardt's Airpark.

# Less IS More

## Randy Lervold and His RV-3B

Benton Holzwarth

Members attending the April general meeting were treated to a look at Randy Lervold's RV-3B, his shop arrangement and all the new information available on this venerable design.

Following the socializing time, Randall called the meeting to order. Five folks identified themselves as guests and one even offered that he was looking into something other than an RV. (Scandal!)

Dick VanGrunsvan stepped up to update us on the Bogardus Little GEE BEE project progress. Both surfaces of the wings are covered with fresh fabric; the control surfaces remain. On the fuselage, the cabling is being sorted out, and there are some questions on the elevator trimtab that need to be answered before that part can be wrapped up. The engine is being cleaned up at the community college aviation shop and the prop has been returned to Sensenich for restoration. The canopy frame is an upcoming task area. The plane is destined for the new Udvar-Hazy center of the National Air and Space



*Did anyone fly into the meeting at the Lervold's?*

Museum near Dulles airport in the Washington, DC, area.

In other chapter business,

- the EAA's B-17 will be at the Hillsboro airport on the Memorial Day weekend, providing rides,
- on the new chapter project hangar: Plans are moving forward on a mezzanine area. It was a topic of discussion at the last board meeting and will be a topic at the upcoming April board meeting as well.

- a reminder: Mike McGee is temporarily covering the 'tool-meister' tool crib filling in for Amit Dagan who needed to drop out when he took a new job.

- following the May 7 pancake breakfast, we'll be hosting Builder Motivation Day. Members interested in taking in a ride in a type they may be considering building are invited to sign up with Randy Lervold who is organizing the rides. If you're interested in providing rides, you're also invited to hook up with Randy.

- and an observation that came out of the prop-balancing operation: in the course of balancing one engine/prop it was found that the plane's tach was off significantly, and rather than flying just outside of the engine/prop set's 'keep out' RPM region, he was regularly cruising square in the center of the red-band. **\*\*Have**



*Greg Miller offers improved brake pads, proven on his 35 inch tire Maule.*

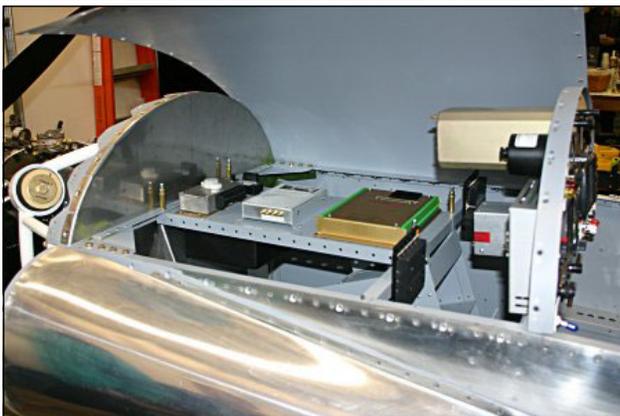


*Chapter VP Randy Lervold is enthusiastic and articulate. Being his second RV project, he's able to move forward rapidly with less time spent wondering how pieces and assemblies relate to each other.*

you checked your tach recently?\*

Greg Miller described a new product he has available. He operates a machine shop in NE Portland and has developed high-performance brake pads as an outgrowth of one of his other contracts, rotor brakes used in the aerospace industry. He's been using and abusing them in his Maule for several years -- since 2001 -- and finds they last about 5x longer than standard pads, and further that they don't eat up brake rotors. He has pads





*With limited panel space, the instruments were carefully selected and viewing angles were checked before holes were cut. The 'brain shelf' makes a tidy installation with good access and short cable runs.*

available for Cleveland type -105 and -106 (two and three rivet styles) disk brakes at \$60/set. These are strictly for experimental aircraft. [See his ad in the classified section of our newsletter.]

With that, we moved to the evening's topic: Randy's RV-3B. He emphasizes that it's a -3B; the distinction is important to the FAA and especially the insurance companies. The suffix designates a ship with the redesigned wing. The new wing is essentially a scaled down RV-8 wing, as it followed that ship's development. Randy's

kit, then, is formed of a set of Quick-Build wings and the original design fuse and tail kits. Counting both types, the FAA registry shows 221 completions and 173 currently flying. Randy's goal for this project is to 'do one right.' Less is more is his build philosophy.

He reports the instructions have been easy to work with, but he brings his previous experience building his RV-8 to the table. There are some errors, but they tend to be easy to spot -- like a 2" dimensional error rather than 3/32". The omissions tend to be more of a problem, but this is where his previous experience comes to the rescue. He has a pretty good grasp of what steps need to be done before others, and makes the leap to that even when the directions don't make it clear.

The 'less is more' aspect comes into play when you realize a goal empty weight is around 800 pounds and gross is 1200 pounds. As an aerobatic and formation mount, any weight saved translates into better performance. Randy has mounted an XP-320 engine using Precision Airmotive "Silver Hawk EX" fuel injection, and a Whirl Wing "151" constant-speed prop weighing in at 28 pounds. Compare this prop weight to the alternate Hartzell at 59 pounds.

He's using a tip-up canopy and is not customizing this aspect, but has put a great deal of thought into consoles for best ergonomics, and the 'brain shelf' electronics bay forward of the panel. He's also building in electric flaps so that he can place his seat symmetrically, and not take space on one side for a flap lever. Electric trim will allow for a smaller cable through the horizontal stabilizer, and it'll be easier to find space for a switch than the limited options for a trim wheel.

Randy began work last summer, and began working on the fuse on Labor Day. He's been working now for about 11 1/2 months without feeling like he's rushing,

enjoying the tasks. Things that are making the project go well are that it is his second RV, and that he already has all the tools he'll need and experience using them. The other thing he credits is his 'shop habits'. As he comes to the shop to work, he already has a plan for what he wants to accomplish. He's working on parts out of the normal sequence, having done the tail first, then fuse and panel. The QB wings will be last. His thought is to work on what is interesting to you rather than (try to) force yourself to work on the tasks that just aren't talking to you. He works two or three hours on two or three evenings a week plus one full day each weekend. He's saving the fiberglass and Plexiglas work until the warmer weather to minimize risk of cracking (and because it doesn't 'talk' to him?) Another suggestion: batch up parts needing priming to get as many pieces shot as possible for each time you need to clean the gun.

With that the floor was opened for questions. Randy opened with one of his own -- he's looking for a better solution for a stop for the tip-up canopy than the typical cord or hinged arm tied to the roll-bar.

Since the wing is based on the -8 design, the fuselage fuel tank is removed in favor of the usual wet-wing tanks forward of the wing spar. The RV-3B will carry 15 gallons of fuel on each side, 30 gallons total.

He's planning to use piano-hinges and wire



*Randy likes his tail lift. Many operations require the plane to be leveled, and the winch saves his back.*

to join the upper and lower halves but cam-locks to join the cowl to the fuselage. He and a couple others emphasized they prefer Sky-Bolt C-Lock brand cam-locks. Asked whether he ever finds it useful to remove just one half of the cowl, Randy, echoed by others, replies that whenever the cowl is opened up, almost always both pieces are removed, so there is little advantage in making it easy to pull just one half.

For tricks applicable to any RV project, Randy offers that sometimes the fuse-skin to former rivets will be slightly

over pressed, depressing the skin in the area. A few strokes with the rivet gun on the inside, or even a tap with a dowel and mallet can raise the skin back out to flush with the surrounding surface.

Randy displays more information and ongoing progress at his project website, <http://www.rv-3.com>

## Little GEE BEE Restoration Photos

This month's restoration photos were taken by Tony Halford, who comes into our group via Joe Miller. These were taken at the March 19 work session. By now the wings and fuse are well along the way to being covered with polyester fabric.



*The engine was built by Aeroport Power in Kamloops, BC, Canada and uses Precision Airmotive fuel injection. It spins a light (28 lb) Whirlwind model 151 constant-speed prop.*



*The aileron looks flimsy, but becomes much more rigid when the fabric is cemented down and shrunk. Ken Rentmeester is the name I was struggling to remember last month. I may still have it misspelled. Stan and Jerry work on the cabling back to the empennage. The bare wing with aileron in place.*





CW from Upper Left: Martin Koxxy is usually so intent on his task, it's unusual to catch him looking up! While this tire size may have been common at one time, the one Joe Miller holds now is almost impossible to find these days. Ken Rentmeester, Benton Holzwarth and Dick VanGrunseen flip the wing over to continue LE skinning and touch-up. Stan and Jerry trial-fit the elevator into place. Even the old magazine photos are drafted for information on how the components were originally arranged. Martin, Jerry and Stan compare the photos taken as the Little GEE BEE was dismantled for clues on where the pieces need to be reattached.

## 2005 Aviation Calendar

May 19-21	Hayward, CA (HWD) Hayward Proficiency Air Race 925-784-7128
May 20-22	Annual Old Fashioned Fly-In; Concrete Muni Airport; Bill Adams 360-826-3139
May 21-22	Fun2Fly—Linn Co. Fair & Expo; Gwen Graham at 503-381-0997 or <a href="http://www.fun2fly.org">www.fun2fly.org</a>
May 27-29	Watsonville, CA; Watsonville Fly-In; 831-763-5600 <a href="http://www.watsonvilleflyin.org">www.watsonvilleflyin.org</a>
Jun 4	Langley, BC RV Fly-In tedd@vansairforce.org <a href="http://www.vansairforce.org/CYNJ">http://www.vansairforce.org/CYNJ</a>
Jun 4	Frederic, MD; AOPA Fly-In; 800-USA-AOPA
Jun 6-7	6 <sup>th</sup> Annual Lake Chelan Fly-In; EAA 424; spot landing, static displays; Jan Liberty 509-682-3741
Jun 10-12	Balloons Over Bend — Bend Airport; 800-899-9882; <a href="http://www.balloonsoverbend.com">www.balloonsoverbend.com</a>
Jun 12	Pendleton Air Show; Eastern Oregon Reg (PDT); 541-276-7411
Jun 12	8 <sup>th</sup> Annual Kelso Wings & Wheels Fly-In; Jim @ 360-925-4531
Jun 12-13	Thunder on the Prairie; Coeur d'Alene, ID (COE); Military, warbird and antiques on display, fly-bys; 208-762-1185
Jun 13-15	Paris, France; Paris Airshow 2005
Jun 17-18	2005 Apple Cup aerobatic contest; Ephrata Muni (EPH); <a href="http://www.iac67.org">www.iac67.org</a> ; John Coffey <a href="mailto:john.coffey@cingular.com">john.coffey@cingular.com</a>
Jun 18-19	Gathering of Warbirds, Olympia, WA (OLY); <a href="http://www.olympicflightmuseum.com">www.olympicflightmuseum.com</a>

Jun 25	Grants Pass Airport Day Fly-In w/ EAA 725 Experimentals, Classics & Antiques; camping; Steve Martin @ <a href="mailto:samlam60@aol.com">samlam60@aol.com</a>
Jul 4	Cascade Warbirds Fly-In; Pearson Air Museum; Pearson Field (VUO) 360-694-7026
Jul 6-10	Arlington, WA; EAA Arlington Fly-In 360-435-5857 <a href="http://www.nweaa.org">www.nweaa.org</a>
Jul 17-18	OPA pancake Breakfast at Mulino Airport
Jul 18-21	Vancouver, WA; ShortWingPiperClub Convention, <a href="http://www.columbiariverswpc.org/ConventionPg.htm">www.columbiariverswpc.org/ConventionPg.htm</a>
Jul 25-31	Oshkosh, WI; EAA Oshkosh Fly-In; 920-426-4800 <a href="http://www.airventure.org">www.airventure.org</a>
Aug 5-6	Stearman Fly-In; Cottage Grove, OR, Jim Wright Field; Larry Tobin 253-728-0123
Aug 6-8	Orcas Island Fly-In; dinner fri/sat, b'fast sat/sun; camping; Jim Newland 360-376-2696
Aug 19-21	McMinnville, OR; NWAAC Antique Aircraft Fly-In; <a href="http://www.nwaac.org">www.nwaac.org</a>
Aug 26-27	Beaver State Championship aerobatic contest; Pendleton OR; <a href="http://www.iac77.org">www.iac77.org</a> CD Greg Howard <a href="mailto:grhoward@hotmail.com">grhoward@hotmail.com</a> 503-626-8152
Sep 3	Prosser, WA; Prosser States Day Celebration & Fly-In 509-786-3177 <a href="http://www.prosserchamber.org/states_day.htm">www.prosserchamber.org/states_day.htm</a>
Sep 9-11	Hillsboro, OR; Oregon Int'l Airshow—Hillsboro; 503-629-0706 <a href="http://www.oregonairshow.com">www.oregonairshow.com</a>
Sep 15-19	Reno, NV; Reno Air Races; <a href="http://www.airrace.org">www.airrace.org</a>
Nov 3-5	Tampa, FL; AOPA Expo; <a href="http://www.aopa.org/expo/2005">www.aopa.org/expo/2005</a>

## Chapter Calendar

May 7	Pancakes & Grits Breakfast; Twin Oaks
May 7	Builder Motivation Day, following the breakfast. Contact Randy Lervold to sign up. <a href="mailto:randy@romeolima.com">randy@romeolima.com</a>
May 12	Chapter Meeting; Doug Stenger's shop, Banks, OR
Jun 18	Van's Air Force-Homewing / EAA 105 RV Fly-In
Jul 8	Chapter Meeting @ NW EAA Fly-In; Arlington, WA
Aug 13	EAA 105 Poker Run

## Board Meeting Highlights

Your Chapter 105 Board

The meeting was held at the new Chapter 105 project hangar, at Twin Oaks Airpark, on April 21, and was called to order at 7:10 PM. Attending this evening were: Dick VanGrunsven, Jenny Hickman, Rion Bourgeois, Tom Louris, Randy Lervold, Ralph Schildknecht, Jim Pace, Joe Miller, Jim Mitchell and Mike McGee. The location was a change from what was published in the NL and I hope we didn't leave anyone behind at Baja' Fresh. There aren't any lights yet, so we were on a schedule.

First business was a presentation by two young men, Jeremy Bartells and Jon Dornfeld, soon graduating from Gresham High. They presented their science fair project and told the story leading up to it. They'd started their adventure back in 8th grade deciding over lunch one day that they ought to try designing an airplane. Since then they've done the research to put together their first craft, a glider, and continue working with the concept and trying to adapt a donated 8 HP engine to power the ship. They're now working through the prop research trying

to design a blade that will extract the most power from their engine. They admitted the project didn't score well at the science fair; apparently most of the judges didn't know quite what to make of it. Both are planning to attend Embry-Riddle college next year.

The presentation capped their petition for the chapter to sponsor the two for a ride to Oshkosh and the week long EAA Air Academy session straddling the annual AirVenture. The board discussed the costs and agreed that we could cover one. Both were directed to make arrangements (reserving plane tickets and making application to the EAA/Oshkosh folks for the session). We'll approach Chapter 902 about covering the other young man, and if they can't help, we'll find another way to pay it, perhaps through the Bogardus trust.

- The March meeting's minutes were approved as submitted.
- TNSTAAFL -- There's no such thing as a free lunch, the next question before the board is whether there's a free breakfast. In particular, over the years and depending on whom was asked, the volunteers called to assist with the pancake breakfast either were offered their breakfast gratis, or expected to pay (since this is a fund-raising operation, after all.)

Randy made a particularly impassioned plea for three things at the breakfast that can strengthen the volunteerism: Name tags for everyone working to help with introductions, Make sure the new folks are actively adopted in to the group, and that the least we can do is offer workers a free breakfast. His arguments carried the day: I (Benton) will sort out name tags and through Len have the list of names almost as soon as anyone. Also, with the strong attendance we've been seeing since Len took over the notification, we think we can safely drop the volunteer call-up to seven persons per shift rather than

the eight we've been drafting in the past.

- Expired memberships: Randy brought up the question of how best to deal with late renewers. We're trying to figure out how to offer a gentle reminder, without putting anyone on the spot. Ideas like listing the overdue folks in the NL were shot down on those grounds. The best we could come up with is for Randy to send a specific email (outside of the normal monthly NL available note) to the overdue folks, but given that the NL announcement already includes the renewal date, we're not sure how much it'll help. We're open to other ideas.
- Tom Louris reported on his progress with the mezzanine we're planning to add to the new hangar. The regulation basis changed recently so everyone from the county folks on down are getting used to how the new rules work. Having seen the costs for similar constructs in steel, Tom suggests we look into building from wood. We'll still want a design with a PE's stamp, just for liability.
- Builder Motivation Day: Eight people have signed up, hoping for a ride; no pilots have signed in yet. That should change as the day approaches. The event starts at 10:00 AM, following the regular P&G breakfast.
- Upcoming meetings: Randall wasn't here to defend himself, but meeting status was reported -- May: we'll meet at Doug Stenger's shop in Banks; for June we're trying to set up a session with Alan Jesmer of Precision Airmotive (makers of certified FI and carburetors in Marysville, WA); Mike Wilson is reserving space for our July chapter meeting/party at Arlington. Last year was so much fun, we didn't see how we could not do it again.
- We're still in need of a volunteer to head up our Young Eagles program. Louise Lane is ready to continue assisting. Connect up with Rion or Harvey Cheney if you'd

like to explore what's involved.

- Hangar Sign: No report. No one's seen Woody in a while. In the meantime, it appears our 'sandwich board' stand-up sign that used to sit out at the end of the driveway announcing the breakfasts has also disappeared.
- Roster: Randy says it's about time to send out the roster again. Renewals for the new year have settled out.
- Prop Balancer fund: Members have been paying \$10 per balance to cover 'consumables'. A surplus is developing to the tune of \$70 at this point that Randy would like to apply to some additional tools for the balancing kit. Three more pilots/planes are signed up for a 'tune-up' this weekend.
- Annual Northwest RV Fly-In: Organization continues to fall into place. Joe Blank has signed on to ram-rod the event as Mike McGee will be out of town that weekend. Leads for car parking and plane parking are still needed. Grounds setup will also need to be covered.
- EAA B-17 visit: JimP reports that Starbucks is willing to help support our effort when the -17 comes a callin'. They have a whole range of options and we're still grappling with just what to ask for. At the very least it sounds like they're willing to provide a coffee stand under our 'umbrella' tho' it isn't clear just how the proceeds are split or what they expect from us. This is being organized through the (one of the?) Starbucks stores adjacent to HIO.

The May meeting will be at the new project hangar at Twin Oaks at 7:00 PM.

## 2004-05 Feature Article Index

This section chronicles our contributors for the previous 12 months (thank you authors and photographers!) and in the January issue provide a complete index to the previous year's articles. —Ed.

### May '04

- Carl Dugger / Chkalov Update
- Mike Robertson / OK, NOW What Did I Do?
- Randy Lervold / A Perspective on Testing
- Mike McGee / April Meeting: Ralph Hudson's Strojnik S2 Motorglider
- Bob Duncan / Lobbying at the Port of Portland
- Amit Dagan / A Methodology for Planning Your Wiring Process
- Randy Lervold / Window of Vulnerability
- Denny Jackson / Denny Jackson Takes Flight

### June '04

- Joe Blank / N6810B's First Flight
- Don Hammer / What I Did on My Summer Vacation: Three Days on Lake Washington
- Jenny Hickman / It's Poker Run Time Again!!!
- Carl Dugger / Excitement Builds for the Russian Visit to Chkalov Days Celebration
- Mike McGee / Getting Ready for the 13th Annual Northwest RV Flyin
- Amit Dagan / Do You want To Do It On The Table, Or Would A Mattress Be More Comfortable for You?
- Mike McGee / May Meeting: the Hillsboro Airport — Mike McGee's Alternative Engine Showcase
- Nat'l HQ / Pilot and Actor Harrison Ford Accepts Chairmanship of EAA's Young Eagles program
- Benton Holzwarth / AOPA Fighting for Crosswind Runway at Mahlon Sweet Field, Eugene
- Jess Frost / Benefit Dinner for Chkalov Cultural Exchange Committee
- Bob Duncan / Port of Portland -- Community Meeting on HIO Airport Noise and Helicopter Issues

### July '04

- Jerry VanGrunsven + Jerry & Judy VanGrunsven, Paul & Joan Good / Alaska!
- Amit Dagan / NW RV Flyin—"On a Day Like This You Should be Flying."
- Benton Holzwarth / NW RV Flyin—A First-Timer's Visit to the VAF Homewing Fly-In
- Amit Dagan / A Custom Ground Block
- Benton Holzwarth / June Meeting: Dietz Airpark — Ken Scott and Ken Krueger's Scratch Built Pipsqueak Project

### August '04

- Mike McGee / The Third Annual Chapter 105 Poker Run
- Jerry VanGrunsven + Jerry & Judy VanGrunsven, Paul & Joan Good / Alaska! Pt. 2

### September '04

- Ann Marie Smith / IAC-67 Event Notice!! Earn Your IAC Smooth Patches!
- Marcy Lange / Thank You, Thank You, Thank You
- Randall Henderson / Hillsboro Airshow EAA Flyby
- Randy Lervold + Cassie Lervold / Formation Flying
- Amit Dagan + Gail Dagan / First Flight -- The Toolmeister's RV-7
- Mike McGee + Dunstan Fandel / Aug Meeting: Aurora Airport -- Kent Byerley's RV-9A

### October '04

- Carl Battjes / The Joy of Slow and Simple
- Randy Lervold / Formation Flying Materials Now Available
- Benton Holzwarth / Progress Report: Randy Griffin's RV-8

### November '04

- Randy Lervold / New Prop Balancer Program!
- Amit Dagan / WHEN'ZITGONNABEDONE?
- Mike McGee / Oct Meeting: Hillsboro Airport — Condition Inspection with Randall Henderson, Dan Be-

nua and Randy Lervold

### December '04

- Randy Lervold / Are You Off Balance?
- Amit Dagan / Phase 2, First Flight or The Next Question After the Whenzitgonnabedone
- Brian Moentenich / A Review of RV Accidents in the Last Year
- Benton Holzwarth / Nov Meeting: Twin Oaks Airpark -- Mike Robertson on LSA & LSP Rules and our Annual Pie Auction

### January '05

- Amit Dagan / Thermodynamics and Applied Material Sciences in Plexi-land *or* What Size to Drill the Holes in the Canopy
- Dick VanGrunsven / Little GEE BEE Restoration Project
- Don Hammer / Demystifying the Taildragger (Part One of Two)

### February '05

- Amit Dagan / Can You Hear Me Now?
- Benton Holzwarth / January Meeting at the VanGrunsven Sunset Shop: History Lessons and Restoration of the Bogardus Little GEE BEE
- Don Hammer / Making Sense of the Enigmatic Wheel Landing (Part Two of Two)

### March '05

- Randy Lervold / Builder Motivation Day
- Benton Holzwarth / February Meeting at Dan & Sun Benua's Shop; RV-10 in Progress & Metal Working Tips
- Randall Henderson / Conferences and the Puyallup Air Fair

### April '05

- Mike Linse / Threaded Static Port Fitting
- Randy Henderson / Stuck on Orcas Island
- Benton Holzwarth & Jim Hoak / An Evening at Van's Aircraft Factory
- Mike McGee / How Smooth It Is! (Prop Balancing)

## Buy / Sell / Trade

Ads are free but are subject to editing. Aviation related ads are given priority. We reserve the right to refuse any ad. Submit to the Editor, Benton Holzwarth (benton@siletzbay.com) or call 503-684-2008. Please let us know when your item sells. Ads will run for four issues, and may be renewed or adjusted by contacting the editor. Last issue indicated by [mm/yy].

## Classifieds



**125 HP Lycoming Ground Power Unit** — 10 hours SMOH, asking \$5000. Contact Jim Vanek at 503-543-7000 [08/05]

**RV-3 for Sale** — 0-290 power, about 900 hours engine and airframe, free of electrical system, lights, and avionics, finished about 1982, flew through summer of 2002. \$13,000. call Irv Kurz, 503-621-9649 [08/05]

**Completed RV 6 Kit** — Professionally assembled by 3 time RV kit builder. Airplane is up on the gear. Canopy completed, wings installed and rigged, tail installed, electric flaps installed, heated pitot, all controls and push rods completed and installed. This plane is ready for your engine and instruments. Well above average quality. This kit would be perfect for someone considering a quick build or custom built airplane. This kit is well past the quick built stage, which cost is \$26,500 today. Price is firm at \$30,000. Mike Seager 503-429-5103 (home), 5034429-1562 (hanger) or 503 709-5975 (cell) [07/05]

**Amit's Stuff For Sale + Offered to the Local Group First** Check the retail price and make me an offer: Position lights (Aeroflash, non PMA) one green, one red (Wicks 073-0529g12, r12) for 12 Volts; Over-Voltage protection module (B&C OVM-14); Large starter button with special boot (ACS P/N SPB01); Glare shield guard (Cleveland acft tools P/N GSE54 ); Magneto wires pass through the baffles with this wire seal (two-wire) (ACS #375); Rudder cable fairings (2 pairs, made from alumi-

num); VHF (Comm) bent whip antenna (ACS P/N 11-00647); 3/32" clecos (silver, from Van's) 1 or 2 hundred; 1/8" clecos (copper, from Van's) 1 or 2 hundred. Amit Dagan 503-292-9780 or amitdagan@hotmail.com [05/05]

## Open for Business

**Top Flight Interiors** — Fine Aircraft upholstery, impeccable quality, custom interiors, leather specialist, imported textiles. Jesse Cary at Twin Oaks or 503-475-1036.

**Web Sites, Applications & Desktop Publishing** — Oregon Media, Phil Spingola phillip@OregonMedia.com or 503-201-4896

**Duckworks Landing Lights** — Standard kits start at \$75. Round Halogen and Xenon HID lights are available for new installations and upgrades of our kits and others. For details/pricing see [www.duckworksaviation.com](http://www.duckworksaviation.com) or call 503-543-2298

**Bill Esther Engraving** — Contact Bill for help with your custom engraving project. See sample work at [http://www.rvproject.com/esther\\_engraving.html](http://www.rvproject.com/esther_engraving.html) [ecaps.1@juno.com](mailto:ecaps.1@juno.com) or 503-851-6375

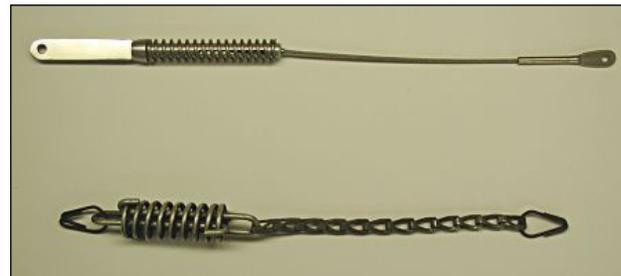
**Long-life Brake Pads** — For Experimental Aircraft only (Not FAA/PMA/TSO or STC'd at this time.) Made from Organic Mat'l, in use 4 years on multiple acft -- last ~ 5X standard linings, w/o wearing disks. Available in Cleveland -105 (2 rivet) and -106 (3 rivet) types. \$60 plus shipping / set of 4 pads + rivets. If not completely satisfied in the first 100 hours return for a refund. Contact Greg Miller at 503-257-2573 or [mauleguy@aol.com](mailto:mauleguy@aol.com). Mail payment and shipping information to: GSM Machine & Tool Inc; 8750 N.E. Alberta St.; Portland, Or. 97220

**Vacation Home Rental For Pilots** — San Juan Island, WA, Roche Harbor Skyways, sleeps 6, tiedown in front, loaner car available. For photos & details see our website <http://www.lobsterfarm.biz>. Call Tony & Linda of EAA 393 at 925-674-1001 [07/05]

**AEROFRAME Gallery — Aviation Merchandise and Custom Picture Framing** — Located at the intersection of I-205 and 99E (McLoughlin Blvd.) in the Oregon City Shopping Center, AEROFRAME Gallery offers a huge selection of collectible airplane models, aviation art, and aviation related items for all ages. Non aviation art is also available. Visit the gallery and/or the website to view the gallery, its items, and the custom frame selections. 503-557-1333 [www.aeroframegallery.com](http://www.aeroframegallery.com)



**Brentz Enterprises — Tail Lynx** — Tail steering springs made from aircraft-grade materials. Small, strong, streamlined and all Stainless steel. Now available through Van's Aircraft — [www.vansaircraft.com](http://www.vansaircraft.com) or 503-678-6545



George Manley's '99 RV-8A (N323MS) (Not for sale...)

## “Contact!” Chapter Officers and Staff

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## Portland/Twin Oaks EAA Chapter 105

### Membership Registration / Renewal Form



Dues: \$20/yr e-delivery of newsletter, \$25/yr for mailed paper newsletter  
 Make checks to “EAA Chapter 105” please

Send to: Jennifer Hickman  
 24172 S. Skylane Dr.  
 Canby, OR 97013

For Renewals, indicate **changed** information only  
 Check: New \_\_\_\_\_ Renewal \_\_\_\_\_  
 E-delivery (\$20) \_\_\_\_\_ Paper delivery (\$25) \_\_\_\_\_  
 Renewing multiple years: \_\_\_\_\_ yrs, \_\_\_\_\_ \$ total

Name: \_\_\_\_\_

National EAA #: \_\_\_\_\_

Address: \_\_\_\_\_  
 \_\_\_\_\_

Own / Fly: \_\_\_\_\_

City/St/Zip: \_\_\_\_\_

Project (Let us know what you're working on): \_\_\_\_\_  
 \_\_\_\_\_

Home Ph: \_\_\_\_\_

Completed: Yes / No / 90% done 'n 90% to go: \_\_\_\_\_

Work Ph: \_\_\_\_\_

Comments: \_\_\_\_\_  
 \_\_\_\_\_

Cell Ph: \_\_\_\_\_

E-Mail: \_\_\_\_\_

Spouse's Name: \_\_\_\_\_



Russ Werner's Harmon Rocket II — representative of one of the projects we'll see at Doug Stenger's shop.

### Next Meeting

#### VAF-Home Wing / Chapter 105

- Doug Stenger's shop
- Banks, OR
- Thursday, May 12<sup>th</sup>—7:00 PM
- Map & Info—Pg 5

### Next Chapter 105 Board of Directors Meeting

(Everyone is welcome to attend!)

- New Project Hangar @ Twin Oaks Airpark
- Thursday, May 19<sup>th</sup>—7:00 PM



Editor:  
Benton Holzwarth  
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9240 SW Millen Dr.  
Tigard, OR 97224-5570

To:

**HOME WING** **EAA Chapter 105**  
Portland, OR — Twin Oaks Airpark 7S3

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