

# EAA 105

PORTLAND OREGON



May 2006





## In This Issue

Save Vernonia Airport.....	2
B-17 "Aluminum Overcast" Tour Stop at HIO .....	3
First Flight—N786DB .....	4
Northwest RV Fly-In .....	4
Next Meet: Van's Aircraft Factory .....	5
Prev Meet: A Look at the Lowry Lancair Legacy.....	6
What Would I do Different.....	10
Safety Thoughts May 2006.....	11
Trivia.....	12
Board Meeting Highlights.....	12
Calendar .....	13
2005-06 Feature Article Index.....	13
Buy / Sell / Trade .....	14
Contact! / TCs+FAs+FI's / Renewal Form.....	15

## Next Meetings

- **May 11<sup>th</sup>** 7:00 PM— Chapter Meeting: Open House at Van's Aircraft, Aurora.

- **May 18<sup>th</sup>** 7:00 PM — Board Meeting: Twin Oaks in the new Project Hangar.

## Newsletter Deadline

- **May 20<sup>th</sup>** — Newsletter article contributions and ads are welcome anytime, but may be held to a later issue if received after the deadline.



## On the Cover

Nice Beaver! This DHC-2 has been occupying the tie-down area at Twin Oaks recently. I expect a good many of us have walked over to have a better look at it.

**Trivia** One (more!) last chance to ponder this month's poser for another moment, since no one picked up on it last month — Name four former chapter presidents who are CURRENTLY involved in the manufacture of parts for RV aircraft.

## Breakfast KP Duty

### Saturday, May 6<sup>th</sup>, 2006

7:00 AM	9:00 AM
Anthony Prutch	Keith Radcliff
Laird Smith	John Trabosh
Terry Smith	Ron VanBladerin
Robert Toppel	Richard Vanderford
Jake Thiessen	Stan VanGrunsven
Jerry VanGrunsven	Robin Wessel
Dick VanGrunsven	Carl Weston

### Saturday, June 3<sup>rd</sup>, 2006

7:00 AM	9:00 AM
Pat Hammell	Peter Van Schoonhoven
Leejay Robles	Greg Vouga
Mike Seager	Art Waldal
Al Strickfaden	Paul Watson
Roy Thoma	Brian Wilkins
Don Wentz	Jim Wilson
John Wilkey	James Mike Wilson

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

The chapter is once again having a party/meeting on Friday night at Arlington. They have a slick online campsite reservation system and we have already reserved a chapter campsite at DL5. Several chapter members also already have sites adjacent to this. Reserve your spot now at <https://www.nweaa.org/secure/camperres/SelectSpace.cfm?Area=D> or use <http://tinyurl.com/cz6el>

## Save Vernonia Airport

Dear Friends,

We had good luck at the council meeting. I stood up and read my letter and there were several other citizens that were there that I did not know were coming. They were very supportive of the airport and strongly oppose any sale of the airport. My feeling is that with a little effort we will have the models and all reinstated. People in general are angry with Robbyn Basset's actions. She was even attacked by the council last night. She must have been mad as she got up and stormed out and drove off and never came back without any explanation. They have now set a workshop on the disposition of the airport for May 15 at 7:00 pm at city hall.

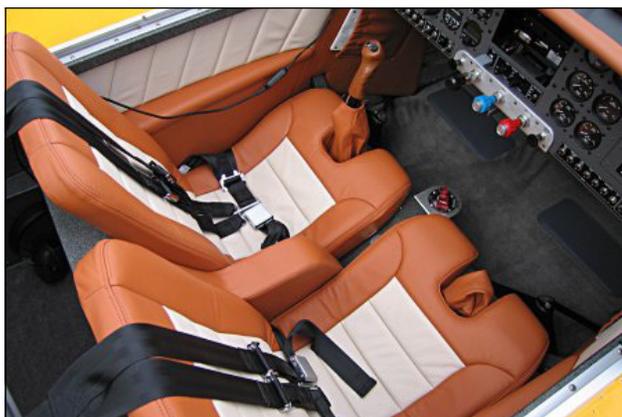
We have three important dates that we need to try to get as many people as we can to.  
[ The first two have already passed --Ed. ]

3 Workshop at 7:00 PM on May 15th to save the airport from being sold. This is a workshop we need 200 hundred people there on our side to help prevent the airport from being sold.

Please tell all your flying and model friends and forward this email to anyone who will help.

Michael Seager





## First Flight — N786DB

Dan Parks

My RV-6A made its first flight on 3/26/06, after 9 years of on-and-off building. It flies straight and fast with no major problems to report. I did a 6A check-out with Mike Seager and it was well worth it. I'm now very comfortable flying it in and out of our short strip. Power is an XP-360 with Ellison TBI and Hartzell blended airfoil prop. Instruments include a Dynon D-10, DigiFlight II AP, Becker comm and xponder, LRI, Monroy Traffic-Watch, UBG-16 and assorted Van's engine gauges. It came in at 1129 lbs. because I put a fairly heavy interior in it for comfortable cruising, with Oregon Aero seats, some sound proofing, leather side-panels and arm rest. It also has a tilt-down instrument panel for easy access to wiring and a sliding canopy with a tilt-up feature to easily toss a couple of fold-up bikes in the back.

I did have a problem with Van's emergency air door at the bottom of the FAB airbox opening during flight and disturbing the airflow into the Ellison. I closed off the Emergency air door for the moment, but I wonder if others have had the same problem.

Thanks to all the great RV builders (and fans) who were always willing to help out or offer knowledgeable advice. It's an amazing plane and a great family to be part of and worth all the years of effort and seemingly never-ending rivets.

The air-to-air shot was from John Pallister's RV-6, taken by RV-8 builder Dan Miller.

Dann Parks

## Northwest RV Fly-In

Saturday June 17—10:00 AM

The premier RV event of the northwest, our RV fly-in regularly brings 100 or more RVs and Rockets from all around the Pacific Northwest -- examples of every model, and then some! Van's crew will be there (prototypes!), and one or more RV squadrons usually show up and treat us to formation flybys. There'll be Young Eagles rides, and vendors, and burgers, and lots of good RV camaraderie. So don't miss out, come join the fun!

We'll be there rain or shine, so even if the weather's sub-par and you have to leave your plane behind, come on in anyway. We can congregate in the hangar, eat burgers, tell flying stories, whatever.

- Pilot information for SPB, [www.airnav.com/airport/spb](http://www.airnav.com/airport/spb)
- More information, contact fly-in leader Joe Blank, [jebblank@molalla.net](mailto:jebblank@molalla.net)

Chapter members (and anyone else who wants) are encouraged to come early (8:00am) and help get set up. We will also be recruiting for help with food, meet & greet, auto parking, t-shirt sales, etc. Please be a pal and sign up for one or two shifts. Everyone pitching in means no one has to spend the whole day working. That way we all get a chance to have some fun!

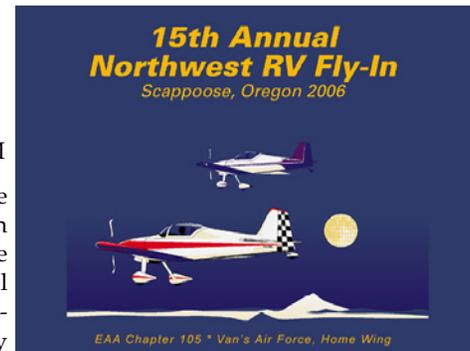
Procedures (air traffic and otherwise)

Please help Scappoose Airport be a good neighbor and fly the published pattern at the published altitude. No low fly-bys or aerobatics. There will be a Young Eagles event staged from the other side of the field this year, so be extra vigilant (and stop by the Transwestern hangar to fly some YEs if able and qualified.)

After landing, monitor ground control on 129.25. Follow the greeter's directions for parking. Please shut down your engine upon leaving the taxiway.

When departing, pull your plane onto the pavement before starting your engine so as not to blow grass and dirt all over everyone else's planes.

Please keep hands off of, and stay out of, other people's planes unless invited to do so, and keep an eye on your kids to make sure they do the same. These are lovingly crafted machines, and their owners deserve to be able to fly them away in the same condition in which they arrived.



Meeting Coordinator:

**Randall Henderson**

503-297-5045  
randall @edt.com

April 2006 Meeting



Program: Van's Aircraft Factory

Address: 14401 NE Keil Rd, Aurora  
South End of the Aurora Airport

Date: Thursday, May 11<sup>th</sup> @ 7:00 PM

Phone: 503-678-6545

### Directions:

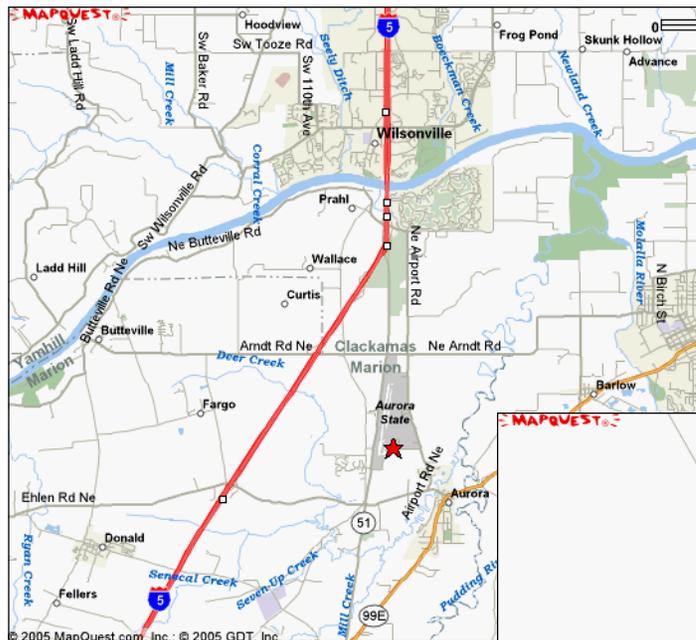
It's become a tradition to hold one meeting each year at Van's Aircraft, and this year is no exception. The meeting will be at Van's Factory on Aurora Airport, where we'll get to hear the latest news, see the factory demos and prototypes, and have a chance to tour the factory and shop. Ya gotta love being based so close to "RV Central!"

### From Portland:

Take I-5 South, take the Canby/Hubbard exit (exit 282A), continue south approximately 2.5 miles, turn left on Keil Road (before the 2nd stop light); Van's is on the left, about 1/4 mile from the intersection.

### Flying:

Aurora (FAA Airport ID KUAO) is well-lighted so it's a good night-flying destination for those who are so inclined. Van's is the large factory building near the south end of the field. Take the taxiway turnoff at that end, jog left, then right at the second taxiway you come to, taxi east between the blue hangars (taking care to avoid obstructions and holes that are right next to the taxiway), park in the center of the paved area or in the grass but NOT in the parking lot (cars go through there too).



### Plane Pool!

Members who plan to fly to the meeting are encouraged to take this opportunity to share any empty seats with still-building types. A good way to offer or ask for a seat is to use the oregon-aea email list. **Be sure to follow the published noise abatement procedures.**

### Future Meetings:

**June - Planes & Projects at Parkside**  
(bbq, 6:30 start)

**July - Hawaii shirts & hangar tales**  
at Arlington fly-in

**Aug - t.b.d.**

### About the meetings:

Meetings are (usually) 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.

# A Look at the Lowry Lancair Legacy

Benton Holzwarth

We met for the April session in Dave Lowry's garage, off Kinnaman Rd in Aloha. The garage was extended to contain his fuselage. After a pleasant 'pre-game show', Randall brought the meeting to order and covered the usual club business.

We had a few guests: Jeff is working on a plans-built Baby Great Lakes; Robert is in the planning stage, considering an RV-7 or -9; Ken is a long time national member just attending a local meeting for the first time.

For Milestones, Joe <missed the last name> has his RV-4 fuse out of the jig. After nine years of building, Dann Parks took his RV-6A up for its maiden flight. His plane features a tip-out panel and a combination slider/tip-up canopy (simplifying loading bikes into the baggage compartment.) He flies out of Parkside Airpark, north of Battleground, WA. Bill Drake, flying out of Parkside as well, also had his RV-6A up for a first flight. Dan Miller, yet again at Parkside with an RV-8 has his baggage compartment and canopy completed, and is now onto gear leg fairings and wheelpants. He's been at his project for just shy of three years.

Member Dave Carlson secured for us (due to our tax exempt / charitable status) a donation of \$500, which his employer, Allstate Insurance, makes available. Thanks Dave for doing the leg work to obtain the contribution. Dave is a local Allstate agent.

Rion reported on the project hangar status: A team of volunteers got together for a weekend work party and painted the walls of the two T-shops. Next up is the electricians completing their work, hanging lights and installing outlets; and to get the baseboard moulding installed. The chapter board is still kicking around op-

tions for floor treatment. If you think you might be interested in using the 'semi-private' individual project space in G-3, drop a note to Rion -- he's about ready to start putting together a waiting list. G-1 is being outfitted as the 'community space' with the chapter library, couches by the good runway viewing, and a fridge and coffee maker to come.

Upcoming events: Our first Young Eagle event of the year will be on Saturday, April 29 at Pearson Air Museum. (Which will probably be behind us by the time this report makes it into print.) The second YE event will be at HIO in conjunction with the visit of EAA's Aluminum Overcast. The YE pilot with the most rides for this weekend event (May 20/21) will win a ride on the B-17 to its next tour stop, Seattle. I rode it last year and it's a \*great\* time. YE coordinator Ron Singh would like to hear from you as soon as you're able to commit to help-

ing either as pilot or ground crew. To help keep everyone safe, he'd appreciate the help of a couple people for ground crew as well as enough pilots to make it fun/easy work for everyone. On June 17 we'll have a YE event at Scappoose with the annual Northwest RV Fly-In and our other YE events will be flown out of Twin Oaks, following the pancake breakfasts in August and September.

And speaking of EAA's B-17 visit, Rion will be looking for volunteers to help man a couple stations for the three days of its visit here, May 19-21 (Friday thru Sunday.) We'll need to provide two people to help with the merchandise trailer and three at the bomber, one helping up the entrance ladder, one to sit in the cockpit to make sure no one helps themselves to any souvenirs, and another at the tail-exit to help folks down the steps. It's light duty (shifts are a half-day; 8:00 to 1:00 and 1:00 to 6:00) and you get to hang around AIRPLANES all day. The Friday slots are more difficult to fill, so if you can work the 19th, Rion would particularly like to hear from you. Also, the bomber volunteers and the rest of the YE pilots and ground assistants will draw straws for two remaining seats up to Seattle. (To qualify for the lottery, you'll need to commit before Friday, rather than just drop in.)

Planning for the Northwest RV Fly-In at Scappoose is moving forward. Randall was speaking for Joe Blank, who couldn't make the meeting. He's still looking to fill out his chart of crew-chiefs and volunteers. You can always offer to help on the day of the event, but Joe



*Dave has had the major assemblies attached and all are now just waiting for final assembly.*



The Continental IO-550 features a super-charger.

would worry less with his slate at least partially filled in ahead of time, and if you talk to him before the day, you'll get more choice of what duty you'd like.

Randall announced the upcoming chapter meetings: May will be the annual visit to Van's Aircraft at the south end of Aurora Airport; June is still TBD; and July will be our new-tradition Hawaiian Luau on Friday evening at the (Arlington, WA) NW EAA Fly-In.

Other chapter news: 902 has a YE event on the same weekend as the B-17 visit, so we'll not be able to expect them to provide any pilots for the event. Aerobatics: IAC-77 (meets at Aurora on the second Saturday of the month and Mike Rainey's hangar) is having their season kick-off. They have a line-up of aero events and contests.



Dave demonstrated a reinforcement on the center console.



The engine was built for Dave by Ly-Con.

They have a 'camp' planned for May, contest in June at Abbotsford, BC, and their chapter contest at Pendleton in August. Mike McGee speaks up for '77 at our meetings, our Robert Toppel is also active with the group.

Randy mentioned the Formation Clinic, planned for June 30 - July 2 at Redmond. He promises to turn up the PR machine as the date draws closer. In the meantime, more info is available at <http://www.romeolima.com/FormationClinic/>

There is also an FAA Safety Clinic scheduled for June 2-3 at Bend. Following inspection, there will be free flight time available with instructors.

That concluded the club business and Dave Lowry took over to describe his project, a Lancair Legacy. Dave related starting his project at Lancair's builder-assist workshop in Redmond. In a few days the molded components were joined together using steel fixtures. This saved months of plywood fixture building not to mention the years it must take for moldless scratch-built designs such as the VariEze. The design makes extensive use of honeycomb sections. The fiberglass and Epoxy by itself isn't very strong in bending load -- so large sections of the fuselage, firewall seat pans, etc, are made up with two layers of glass separated by a web of cardboard honeycomb. This has the effect of holding the load-carrying layers a fixed distance apart, resisting buckling -- like an 'I' beam where the load-carrying flanges are held separated by the central web. Now Lancair will let you build the entire project in their shop (at \$4000/week).



Dave fielding many questions about the engine and project.

Dave says the Lancair workshop assistants work \*really\* fast. There is no time to contemplate where things should go such or where to pierce the firewall, your assistants already have it all in mind and go at it with a vengeance. One week, the major parts and some education were enough for Dave. Tho' the project was started in March, 2001, he says most of his work has been accomplished in the last year with life finally allowing him serious time to invest in the project.

Dave has hung a Ly-Con Continental 'super-normalized' IO-550 on his project. 310 HP is claimed for the system. It's set up to maintain sea-level pressure into the induction system (rather than boost even at sea-level, hence the 'normalized') up to a critical altitude of about 15,000



The landing gear weldments.



*Epoxy components are date coded. The epoxy pump is calibrated to dispense the components in the proper ratio. It's kept in a cupboard to be handy, but away from dust. Dave is careful to use current sets for any structural work, but out-of-date is used on other tasks. The components are mixed thoroughly in a wax-free cup.*

pletely adequate by Dave. Dave wears Nitrile gloves, the blue ones, while working with the chemicals.

Then the glass is loaded with the Epoxy. Dave has a pump set up to dispense the two parts in the right ratio by volume. As much as is needed for the task is pumped into a non-wax cup and mixed. The glass is laid on a small scrap of 1-mil painters drop-cloth plastic, the Epoxy is poured over the glass, in this case a two layer lay-up, and the plastic is folded over the materials. For this small patch working time is ample and Dave was in no particular hurry to move forward, instead allowing the Epoxy components to thoroughly soak the glass cloth. A Bondo spatula was used to spread the Epoxy around the glass thoroughly saturating the fabric. Dave cautions not to use the Bondo spatula to finish the clearing of the excess, as it's easy to scrape too much off the fabric. Instead he switches to a tile-roller which kneads the glass/Epoxy and works the excess off to the side. With the glass and Epoxy sandwiched between the two layers of plastic the tools and bench stay clean. Both benches are covered with a thick sheet of HDPE plastic, which takes the abuse of 'pizza-cutter' fabric cutters and doesn't allow Epoxy to stick.

Dave took time to measure the exact size of patch to be prepared; the fabric was earlier cut to allow plenty of margin. Then with the pizza cutter lopped off the excess fabric, Epoxy and plastic sheeting. The new patch is carried like a piece of cooked lasagna noodle over to the project, one side of the plastic is peeled away and the rest is placed in position. After firmly pressing the reinforcement into place, the remaining plastic is peeled off and a piece of polyester fabric is pressed on top of the patch. This provides several useful things: it wicks a little more of the excess Epoxy away from the patch, and when later removed (the polyester fabric is also called peel-ply and must never be left in place in the finished project, the Epoxy won't bond to it) leaves a rough surface for the next stage or a good surface for sanding, and (Dan Benua points out) removes the surface of the Epoxy matrix

feet. When cruising at 20,000 feet, the engine will effectively be running at 5,000 feet. Dave says the downside of the super-charger (compared to a turbo-charger) is that the super-charger draws not insignificant power off the engine crank, even when running at sea-level. The system uses a pop-off valve after the pump, wasting the work put into the system. Turbo-chargers can vary the input power (derived from engine exhaust) so as to not draw more power than their needed output power calls for. The big upside to the setup is that someone else had already sorted it out and provided bolt-on parts to make it work, and it even fits under the stock cowl. Since it's not running on exhaust, the setup can be more tightly packed with the other accessories rather than having to hang the hot section out in space. Dave is planning an all-electric system and has dual alternators installed.

For comparison, John Halle's Legacy mounts a Lycoming engine, and the newer fixed-gear version of the Legacy is set up to accept both six- and four-cylinder engines from the big two.

Dave took the expected ribbing from the RV gang, but gave as good as he got, pointing out the nose-gear gear retract doors -- "Hey, look, there must be a hundred rivets there." And to the question of how fast will it be, the

reply was that, so far, it's gone about 180 miles in five years.

Though it looks like a lot of work remains, Dave says the major components are all completed and removed, and stored either in his garage, or like the canopy, in his hangar. He's pleased with his progress.

With that, he turned to the promised 'fiberglass clinic' part of the show, and proceeded to apply a reinforcement patch to the center console, talking through the procedure as he worked and answering questions.

Dave has two workbenches. The 'cutting bench' with supplies of fiberglass and carbon fiber is in the other room, away from the dust of the project area. Cut oversized pieces of fabric are brought to the second bench, adjacent to the project, for loading with Epoxy and application.

First the area to be worked on is cleaned with a paper towel and Acetone. The rule is to wipe once, don't scrub, and switch to a fresh surface of the wipe after each pass. The object is to remove dust and oils, not grind 'em in. The solvent is another topic of debate, with other builders preferring MEK and others. Acetone is relatively less toxic than the others, recommended by Lancair and com-



An oversized piece of fiberglass cloth is laid on a piece of thin painter's plastic, and loaded with epoxy. Cheap brushes are used to 'stipple' (dab) the epoxy through the cloth then discarded. At the price, they're not worth cleaning. A Bondo spatula is used first to move the epoxy around, then Dave switches to a 'tile roller' as the spatula is able to get the cloth too dry. Then cut to size through the plastic layers and cloth with a 'pizza wheel' cutter, available at fabric stores. Dave uses Acetone (in the red jug) rather than the more aggressive solvents.

where a particular undesirable chemical component collects (the 'amine blush').

Other points: For cutting carbon fiber once it's set up with resin, use a diamond disk (Harbor Freight -- about 4 for \$10.) Dave tried cutting a piece of formed CF and got about 3" before the bandsaw blade was shot. For the same reason drill bits don't last long either.



• May 4 @ 7:30 PM--**Phil Boyer** **Loose Bits** in Portland 'Pilot Town Meeting' at the Lloyd Center Doubletree Motel.

• May 13 @ 7:30 to 10:30AM -- EAA Chap 391 14th Annual **Vista Field Fly-In** (Kennewick, WA) Breakfast. Info 509-735-1664

• June 23-25--EAA Chap 391 1st annual **Richland (WA) Fly-In**. Fri BBQ Sat/Sun B'fast. Info 509-946-6558

• June 24 @ 9:00 - 3:00 **Aviation Swap Meet** at Astoria Regional at the Bales and Twiss hangars, call Phil Bales, 503-325-6533

• **FAA Written Tests** are now administered at Cirrus Aviation, the FBO at MMV.

• **Leaking ELT Batteries**--FAA Aviation News (March/April 2006) says a mechanic inspecting an ELT found the Duracell MN1300 ('D' cells) leaking. They were well within their date-code, with 24 months in service. Our Joe Miller checked his and also found the cells starting to leak as well. He'd like to hear from anyone else who checks theirs and finds the problem.

• The **Bend Municipal Airport** (S07) has a new AWOS-IIIP/T system. The VHF frequency for the system is 134.425 and the dial-in phone is (541) 382-1477.

• New to me: **www.100LL.com** lists fuel prices, has a radius search.

second annual  
Rogue Valley  
**Air Festival**

**Rogue Valley Air Festival**  
**Medford — June 10-11**

I would like to take a moment to invite you to participate in the 2nd Annual Rogue Valley Air Festival 2006. The event will be held June 10-11, 2006 at the Medford, Oregon airport (MFR) at the North Jet Center (note - dates changed from last year's festival).

We had an excellent turn out last year for our first year and 2006 promises to be even better (we expect 7000 to 10,000 participants). We already have 2 major media sponsors !

Come on out and show off your aircraft and/or your exhibits and businesses. We could use more representation from ultralights, paragliders, balloonists, flying clubs and equipment vendors. We have a few booth spaces left and a few places for aircraft displays. Proceeds go to benefit two local non profit 501(c)(3) organizations.

You might also plan to attend the Warbird Squadron 13 meeting which will be held at 1:00 pm on Saturday, June 10, 2006 right here at our event location (inside the North Jet Center complex). If you are a member of the Warbirds or if you promise to join their group at the meeting (\$10 membership fee) I will buy you lunch at 12:00 pm, just before their meeting. Their wonderful aircraft will also be on display during the weekend.

Check out our website and plan to participate. If you have further questions please contact myself directly via this email (AirFestival@oregonairfestival.com) or my phone number listed below.

Joe Puckett — Air Festival Coordinator

www.oregonairfestival.com  
Office 541-245-0703  
Fax 541-732-1829  
Cell Phone 541-973-4617

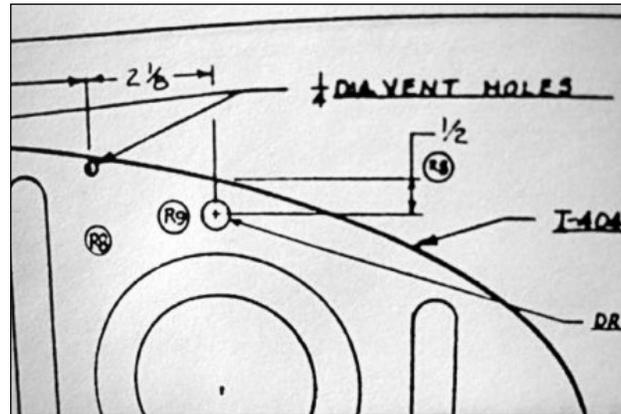
hind a door in the panel, or use sort of hinged or quick-release brackets.

Accessible under panel in general: There are fewer things more uncomfortable than being on your back with a shortie screwdriver trying to remove some gizmo that's buried way up

high behind an RV-6 instrument panel. I wish I'd spent more time making sure things are accessible with a minimum of hassle -- first by mounting things such as the encoder, wig wag flasher, and the aforementioned fuse blocks as low as possible, and by using some sort of quick release clips on these items instead of screws/nutplates. Best would be some sort of easy to remove sub-panels or a drop-down panel. Those are a fair amount of extra work, but with the benefit of hindsight, it would have been worth it.

Larger map box: Mine is 8" across by 5" high. I had room to make it bigger, but at the time I had some thing in my head about not taking up 'future' panel space (which has never been used). Would've been nice to have it a bit bigger.

Accessible ELT: I thought it would be clever to put my ELT under the baggage floor which does keep it out of the way. But my access cover attaches with a number of screws/nutplates, which makes it a bit of a hassle to get to during the annual condition inspection, never mind in an emergency. If I were to do it over again I'd probably just go ahead and mount it in the baggage compartment somewhere, or under a panel with quick-release latches.



Above: Vent holes: Wish I'd made 'em bigger!

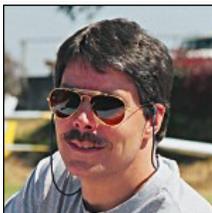
Below: Upholstery: Very nice but also heavier than it could be.

Larger holes in the baffles between fuel tank bays: Owners of RV-4s and -6s are familiar this problem -- that last 2 gallons or so goes in REALLY slow, and there's a tendency for it to back-surge and get fuel all over the wing when filling it to the top. I believe this has been corrected in later models, but for those who have RV-4s or -6's, either drill a couple more of those 1/4" vent holes or drill the two specified larger than 1/4" -- just going to 3/8" would probably be enough to save time and aggravation during fueling.

Lighter weight interior: I hired an upholsterer to do my interior, and it is quite plush. However he wasn't so weight-conscious with his materials and so added several unnecessary pounds to the plane. For example the side panels are cloth and foam over kydek (plastic), vel-

## What would I do different?

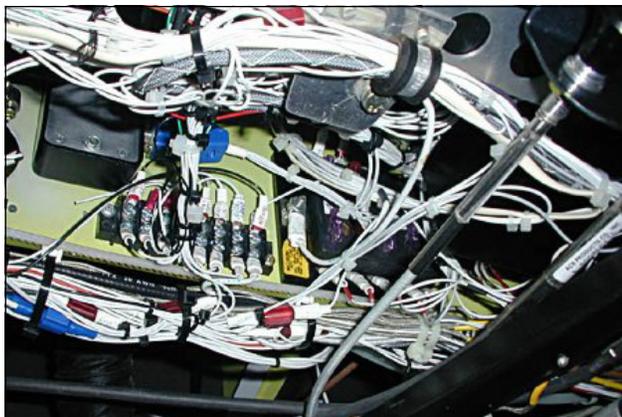
Randall Henderson



I've been asked that question countless times since I got my plane flying, and frankly its not that easy to come up with answers. I'm imminently satisfied with my plane -- whoever called RVs "magic carpets" really hit the rivet on the head.

I have no regrets about going with the tailwheel, or the slider, or the side-by-side -- they're all perfect for what I want in *my* airplane. However if I really think about it...

Accessible fuses: I have both circuit breakers, for things I might want to pull now and then such as the electric gyro, and fuses for the rest of it. The fuses are in fuse blocks that I mounted to the aft side of the bulkhead between the panel and the firewall. It seemed like a good idea at the time, but once that panel was mounted in there, with instruments poking back and wires all in between -- hoo boy, that's a hassle. Doing it over I'd mount the blocks lower down on the sidewalls, or be-

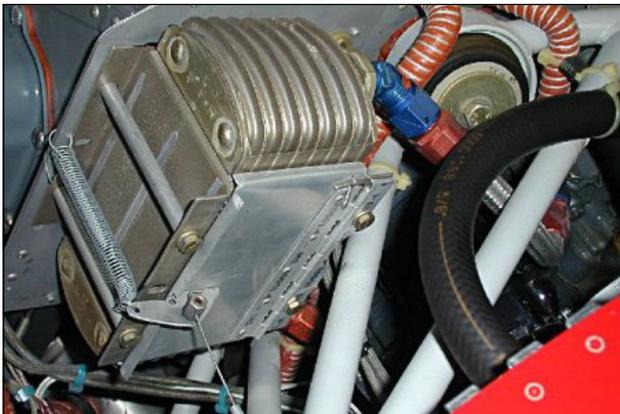


Wow, what a great place to put the fuse block...NOT!



Why the \$@%# didn't I make this stuff easier to get at?

croed to the side skins. Using .016 AL instead of kydek would have saved some weight but doing it again I think I'd just glue the fabric to the skin and call it good. The seat cushions could have been made lighter as well, by using temperfoam only where needed (the top few inches) and lighter-weight stiff foam for the buildup underneath, instead of the heavier temperfoam for the whole thing. One thing I did NOT do was put any cloth or carpet in the baggage compartment. It looks nicer but it's not needed and is just another thing to weigh down the plane.



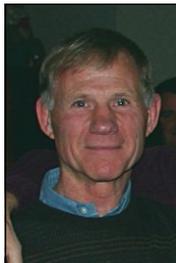
Oil Cooler door. Looks good doesn't it? Too bad it has virtually no effect on oil temperature.

Oil Cooler Blocker Door: It's not unusual on some RV/O-360 installations to have TOO MUCH cooling of the oil, particularly if you spend most of your time flying in the Northwest. My plane is one such, and for much of the year I have a plate bolted to the front of the oil cooler to block it off completely, otherwise it'll never even get into the green (necessary to get the moisture to boil out of the oil.) I tried adding a door to the back side of the cooler but the only thing that seems to work is a plate on the front, which I put on every winter and take off in the summer. One of these days I'm going to redo that and install some sort of plate that can be slid up and down between the cooler and the baffle and operated from the cockpit.

Next month: What I did RIGHT (some of those 'special' custom tweaks that I'm really happy with.)

## Safety Thoughts May 2006

Len Kauffman



### Washington D.C. ADIZ Bust

Anyone who has not read Flight of Mistakes by Thomas B. Haines in the January 2006 AOPA PILOT, please dig out that issue and read pages 71 through 76. It is a very sobering story of the Cessna 150 that penetrated Washington, D.C.'s ADIZ last year causing evacuation of the White House and U.S. Capitol. AOPA interviewed the pilot, who was not an instructor as the news media had us believe, and student pilot. They describe the circumstances of the flight that could have cost their lives and the lives of folks on the ground. As the Cessna approached the ADIZ it was intercepted by a Homeland Security UH-60 Black Hawk helicopter. No communication was established. Then two F-16s began flying racetrack patterns around the intruder and warning flairs were launched. An animated flight path of the Cessna, UH-60 and F-16s can be seen at [www.aopa.org/adizbust](http://www.aopa.org/adizbust) and may send a chill

down your spine. It is easy to think that we would never make such gross errors, but it is essential that we understand how they did. The incident has serious impact on general aviation.

Although we may not have many areas in the Northwest as sensitive as Washington D.C., we certainly have prohibited, restricted and warning areas to avoid – using **current** sectional charts. And, of course, there are very serious TFRs that pop up at any time and place as government officials travel the country. Remembering what happened to those C-150 pilots might help us do more thorough pre-flight planning and more accurate position tracking, especially on flights over unfamiliar territory.

Check our new chapter hangar library if you cannot locate your January 2006 AOPA PILOT. If that fails, call or send an email and I'll get a copy of the article to you. If you are not an AOPA member, please consider joining. Like the EAA, AOPA does much to protect our flying freedom.

Be Careful Out There,  
Len Kauffman

*Image courtesy of AOPA PILOT. Used with permission.*



# Trivia

Rion Bourgeois



## April/May's Question:

Name four former chapter presidents who are CURRENTLY involved in the manufacture of parts for RV aircraft.

As usual, the first member to send me or Benton the correct answer wins a free breakfast at the Aileron Cafe'. Contact info is near the back of this issue.

## Board Meeting Highlights

Your Chapter 105 Board

This evening's meeting was held at the chapter's new project hangar at Twin Oaks on the 20th of April, 2006. The meeting was called to order at a few minutes past 7:00 PM. Attending this evening were: Mike McGee, Jim Mitchell, Rob Hickman, Jenny Hickman, Randall Henderson, Randy Lervold, Dick VanGrunsvan, Ralph Schildknecht, Tom Louris, Rion Bourgeois, Ron Singh and Joe Miller.

The March meeting minutes were approved as amended following their first circulation.

Randy had circulated an agenda ahead of the meeting, and dove right in. Rion offered a project hangar status report summarising what tasks remain, and what bills we're committed to. There's one payment due the electrician. Several members had been tasked with chasing down options and prices in four areas remaining to be accomplished.

• Floor Finishing (Rion): Rion had priced out several options for treating the 2100 sq-ft of floor of the two adjacent 'T' hangars. Prices ranged from \$4500 to \$11k for professionally applied treatments. Rion also chased down materials costs (\$420 to \$1700) for a couple options for us to do the labor, and Dynotile interlocking square tiles (\$4725).

• Cabinets (Randy): Randy described the cabinets available from a source he'd learned of at one of the home remodeling shows. Pacific Northwest Cabinets are a

mid-range product, specializing in fitting out garages, etc. The cabinets are all wood (no particle board) with a plastic laminate covering, and are attractive and functional. He priced out two 4' x 8' x 2' deep units plus a third unit at half that height. Price would be \$3,000. Mike offered that the chapter tools to be stowed require almost 3' of depth.

• Tools (Mike): Mike had learned equipping the shop with a compressor and accessories (7 HP-60 Gal, water separator, regulators, hose, reels, etc for 5 stations) would total up close to \$800, and a 4' shear and 4' brake would add another \$2000. We'd also like to provide a band saw and drill press.

• Furniture and Kitchen (Ralph): Ralph had priced out refrigerators at \$300-\$800, a water cooler (i.e. 5 gal jugs, there's no potable water at the hangar) at \$150 and patio furniture at \$815. (We quickly concluded that a picnic table and some plastic chairs would have to suffice for the time being.)

• The sharp pencils came out and we determined that getting the floor done before all the equipment was moved in, and before it got any more oily made sense and that the space really needs a compressor to be usable by builders so those items were judged to be required before we can expect to bring in tenants. The other items can be postponed.

• Motions were made and passed to 1) lower our earlier set bank account 'hard floor', and 2) approach the Bogardus Trust about either a grant or loan for the balance needed to finish the floor and install the compressor and its equipment. The bank account hard floor was established to give us a cushion against unforeseen expenses or any temporary breakdown in income. The board voted to reduce it from \$12k to \$8k and Rion volunteered to contact the Bogardus Trust to request a grant or loan for \$6000. Playing into the deliberations are the several major events planned for the summer that we expect to profit from, but which require up-front money to produce.

• Insurance: Another option for reducing our expenses was discussed. It was suggested that we might 'self insure' our improvements to the hangar. Liability is covered, but in the event of, say, a fire, we could loose our compressor, tools and the other improvements we've

made. Coverage for our contents can be had for ~\$600/yr with- or ~\$200/yr without theft coverage. The board decided to forego insurance on the hangar contents for now.

• Roster booklets (Benton): I brought a sample of the book, printed two-up on A-size paper. I'd priced out printing of 250 copies at \$122.50 and mailing at \$0.39 each. (They come in at just one oz.) This would cover one per member and leave ~45 copies for sale. The board decided to not send a gratis copy to members, but instead go ahead with a smaller press run (at my discretion, looking for the 'sweet spot' in the coping costs) each to be sold to interested members. We expect to sell them at \$1 each.

• Breakfast pricing: A suggestion was made to raise the price of our chapter breakfasts by \$1 to help improve the chapter's cash flow. Since we'd adjusted prices just a year or two ago this was voted and narrowly failed.

• Jenny and Rob departed the meeting in the same style they'd arrived, by RV-4 from their garage/hangar at Dietz Airpark -D> Twin Oaks, making the rest of us jealous again. One or two items on the agenda remained but Randy and everyone were running out of steam so the meeting was adjourned.

### Post Script

Following the 105 board meeting, the Bogardus Trust was polled by email and agreed to loan the chapter \$6000, to be repaid at \$1000 per year, with zero interest.

The chapter board then, by email vote, agreed to accept the loan, and Rion and Mike were dispatched on their errands to hire out the floor finishing and put together the air system.

## Chapter 105 Young Eagle Events

Date	Arpt	City	Event
20 May	HIO	Hillsboro	B17 Visit
17 Jun	SPB	Scappoose	NW RV Fly-in
5 Aug	7S3	Hillsboro	Chapter 105 Breakfast
2 Sept	7S3	Hillsboro	Chapter 105 Breakfast

# Chapter Calendar

May 6	Pancake Breakfast — Twin Oaks Airpark
May 11	General Meeting—TBD
May 13	<i>First Airmail stamp issued — 1918</i>
May 20	<i>Charles Lindberg flies solo, non-stop from NYC to Paris — 1927</i>
May 25	<i>Lt. James Dolittle flies the first successful outside loop — 1927</i>
Jun 2-3	Central Oregon Fly Safe Clinic, Bend Muni (S07), Pace seminars and inspections
Jun 3	Pancake Breakfast — Twin Oaks Airpark
Jun 3	Lake Chelan 7th Annual Fly-In, Will Mutter 509-682-4109
Jun 8	Chapter General Meeting
Jun 10-11	Rogue Valley Airfestival, Medford (MFR) <a href="http://www.oregonairfestival.com">www.oregonairfestival.com</a>
June 29	<i>First Boeing-built airplane flies — 1916</i>

## 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 '05

- Mike Shaw / Some Things to Watch For When Flying in Canada
- Benton Holzwarth / Less is More—Randy Lervold and his RV-3B

### June '05

- Randy DeBauw / First Flight of N610RV
- Benton Holzwarth / Doug Stenger's Shop; Banks, OR
- Don (Duck) Wentz / Allen Duberstein Memorial

- Gary Dunfee / Young Eagles at HIO
- Benton Holzwarth / Planes, Trains and Automobiles

### July '05

- Benton Holzwarth / Roseburg Warbird Airshow & Bogardus Trophy Presentation
- Joe Blank / 14th Annual Northwest RV Fly-In
- Randy Lervold / Prop Balancing at the Chapter Project Hangar

### August '05

- Benton Holzwarth, Jim Hoak & Randall Henderson / Luau at the NW EAA Fly-In — Arlington
- Jenny Hickman / Poker Run 2005

### September '05

- Benton Holzwarth / Chapter 105's 4th Annual Poker Run
- Joe Blank / TnT: Maintaining Your Oil Temperature
- Benton Holzwarth & Jim Hoak / Open House at Lenhardt Airpark

### October '05

- Randall Henderson / TnT: Breathing Oxygen Mount
- Gary Dunfee / TnT: Comm Antenna Reception
- Benton Holzwarth / Precision Airmotive w/ Alan Jesmer

### November '05

- Pete Forsyth / TnT: MIL-G-81322 Grease
- Benton Holzwarth, Len Kauffman / TnT: Safetying Your SCAT Tubing
- Randy Lervold / Chapter 105: version 2006
- Dean Sigler / Little Gee Bee Photos
- Randy Lervold / Prop Balancer Program Update
- Benton Holzwarth / Len Kauffman's RV-8 Project & Panel Electrical Tutorial
- Don Hammer / Three Summer Fly-out Destinations

### December '05

- Benton Holzwarth / TnT: Oil Leak Tell-tales
- Benton Holzwarth / TnT: Welding Hazard (TCE becomes Phosgene)
- Joe Blank / Avoiding Bird Strikes
- AvemcolnsCo / Bird Strikes: More Than See & Avoid
- Tom Fey / One Second in the Life of a Racer
- Benton H / Luran Paine & Annual Pie Auction
- Don Hammer / Destinations: Columbia California

### January '06

- Brent Anderson / Hats Off To Rion
- Benton Holzwarth / TnT: C-Frame Yoke Shaft Holder
- Bill Costello / Flying Theme Movies
- Benton Holzwarth / Holiday Party at the Hickman's

### February '06

- Randy Lervold / Chapter Currents—Feb '06
- Benton Holzwarth / Ed Hayden's RV-10 Project at Hillsboro Airport (HIO)
- Rion Bourgeois / Trivia—Tom Poberezny movie
- Randall Henderson / TnT: Brake Line Fittings
- Ron Singh / Raffle Results
- Len Kauffman / Safety Thoughts
- Steve Mahoney / Destinations: San Juan Islands
- Sandy Wilson / New Year's Eve 2005 at the Spruce Goose

### March '06

- Benton Holzwarth / Building on a Budget: Greg Halverson's RV-6 Project
- Rion Bourgeois / Trivia — Tom Poberezny Movie
- Randall Henderson / Mandatory SB—AIEEEE!
- Benton Holzwarth / TnT: Heated Shop Floor
- Len Kauffman / Safety Thoughts
- Don Hammer / Destinations: Coeur d'Alene (COE): There is More to ID than Flying the Back Country

### April '06

- Randy Lervold / Planning for Panel Upgrades
- Randall Henderson / Invoice no. 00004853
- Benton Holzwarth / Panel Clinic
- Rion Bourgeois / Trivia — Four chapter Prez's currently involved in RV aircraft parts.
- Len Kauffman / Safety Thoughts: Control Locks
- Benton Holzwarth / TnT: Riveting Nutplates
- Mike McGee / Tool Crib Report from the Tool Meister
- Monte Rhoads / "Okie" J-5 Cub Turns "Oregonian" After a Local Restoration

## 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

**Subaru EJ-22 parts** — offering any local EAA colleagues my Subaru EJ-22 engine parts left over from a helicopter project. The parts are low hour heads and other things in good shape that a builder could take for free. The only stipulation is it's for their build and they must take it all. 360-992-0830 or Del @learningpointinc.com [08/06]

**FREE to Good Home — Wheeled trolley for RV6A** Sets the fuselage at flight attitude with all gear off the ground. Makes it easy to install wings, wheels, pants, etc. Designed for 6, might work for 7. It's in Battle Ground, WA. You'll need a small truck, or it can be disassembled. Wheeled wing storage jig also available. Dann Parks, 360-687-7441. dparks @spiritone.com [07/06]



**For Sale O-360 A3A 180 HP** — Currently in flying RV-6A, New (rebuilt) Carb, Hollow Crank, Comes with accessories except alternator and vacuum pump; 2369 SN — 1092 STO. Asking \$8500 Pat Hammell 503-662-3413 [07/06]

**Remaining RV earrings** for sale by Judy VanGrunsvan, one pair RV-4 sterling in hoop \$48.50; two pairs RV-6A sterling in hoop \$48.50 each pair; one pair RV-6A 14k \$78.00 — call Judy VanGrunsvan @ 503-648-3464 [06/06]

**Rans Coyote S-6S Project For Sale** -- Fuselage, ailerons, rudder, horizontal and elevators ready to cover. Wings almost complete. Rotax 100hp on firewall and pre-wired. Lowrance Moving Map GPS, Icom A200 com radio, Narco transponder, elec. turn-coordinator, airspeed, vsi, altimeter, compass, elec. digital clock and engine instruments (standard). All lit by electronic lighting system. All standard Rans supplied parts and hardware. Built by an A&P mechanic. Pictures available. Asking \$45,500 Contact Martin email PacWest aviation

@verizon.net or phone 360-332-8719, cell 360-201-3034 [05/06]

**Paint for sale 50% off list** — Ranthane polyurethane AN Orange Yellow (a bright, rich yellow) plus catalyst and thinner to make 5 gallons (\$750). 1 gal. Ranthane Tennessee Red (\$150). 4 gal. epoxy primer (\$185 ). 3 qts. Alu-madyne (\$11). 2 qts. metal cleaner (\$15). Dann Parks 360-687-7441 dparks @spiritone.com [05/06]

## 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 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. Mail payment and shipping information to: GSM Machine & Tool Inc; 8750 N.E. Alberta St.; Portland, Or. 97220

**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-



*This Piper Super-Cub motored through during last year's NW RV Fly-In at Scappoose.*

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## EAA Chapter 105

### Membership Registration / Renewal Form



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 24172 S. Skylane Dr.  
 Canby, OR 97013

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 Make checks to "EAA Chapter 105"

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\_\_\_\_\_ yrs, \_\_\_\_\_ \$total

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

Nat'l EAA #: \_\_\_\_\_

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

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

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

Current Project: \_\_\_\_\_

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

Completed Projects: \_\_\_\_\_

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

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



### Next General Meeting

#### VAF-Home Wing / Chapter 105

- Our Annual visit to Van's Aircraft Factory
- Thursday, May 11<sup>th</sup> @ 7:00 PM
- South End of Aurora Airport (map pg. 5)

### Next Board of Directors Meeting

- Thursday, May 18<sup>th</sup> @ 7:00 PM
- Twin Oaks Airpark in the new Project Hangar (G1/G3)

**EAA Chapter 105 / Volume 46 Number 5 / May 2006**

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**First Class Mail**

**To:**

