


EAA 105

PORTLAND  OREGON

March 2010



Donations needed for chapter hangar — Contact Neil Arney if you can help. 503-639-1263:

Loose Bits

- Industrial shelving

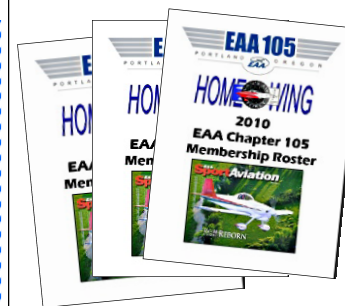
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Breakfast KP Duty

Saturday, March 6th, 2010

7:00 AM — 9:00 AM	9:00 AM — Cleanup
Bill Inman	Steve Young
Paul Johnson	Carl Dugger
Martin Koxxy	Brian Freeman
Greg Long	Denny Jackson
Dave Lowry	Joe Marin
Steven Mahoney	Vince Nartker
Gordon Martin	Bob Patterson
Johnny Pruett	Ron Poe
Shanel Taylor	John Polos
Viktoriya Voloshina	Randy Reinhofer
Ralph Schildknecht - Cashier	John Riser



2010 Chapter Rosters

The 2010 chapter roster books are now available — 40+ pages of contact and project information! Look for 'em at the chapter breakfast cashier or at club meetings. \$1/ea. Or ping Benton for mailing info.

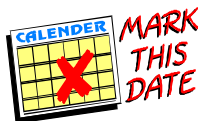
Northwest RV Fly-In: Steve Payne has volunteered to organize this year's NW RV Fly-In at Scappoose on June 19th. He's actively searching for chiefs to help with the various tasks to be accomplished.

The long-lead time aspects are getting the shirt artwork underway and the crew chiefs sorted out, so if you'd like to help with any of these areas Steve would love to hear from you!

RV guys — this is your type-event, and our 19th consecutive year. Time to step up and make this one the best ever! Drop Steve a note at: spayne@alum.mit.edu

Next Meetings

- **Mar 11th** Thursday—Next Meeting: Tour Oregon Aero on Scappoose airport
- **Mar 13th** 6:00 Taco Feed + 7:00 Seaplanes presentation w/ Mike Kincaid at Twin Oaks Hangar G-1
- **Mar 18th** Thursday—Board Meeting at Twin Oaks, Hangar G-1
- **Mar 20th** Newsletter Deadline—NL article contributions and ads are welcome at anytime, but may be held up if received after the deadline.



Saturday, April 3rd, 2010

7:00 AM — 9:00 AM	9:00 AM — Cleanup
Jim Hand	Ted Millar
Lisa Hand	Dave Mercer
Ed Lynn	Tim Prosser
Mindy Lynn	Rob Reese
Daryl Sahnnow	Ken Rentmeester
Dave Salesky	Leejay Robles
Tom Sampson	Bruce Rose
Mike Seager	Steve Rosenstock
Ron Singh	David Sellers
Michelle Smith	Rick Sheldon
Jon Crew—Cashier	Terry Smith

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

On the Cover

Tim Townsend's Cessna 120 N2982N, up from Eugene to visit our March Pancake Breakfast.



Bogardus Little Gee Bee Restoration Project

Norm Durrell has produced a DVD history of the Chapter's restoration of the Bogardus Little Gee Bee, now on display at the NASM Udvar-Hazy Center at Dulles Int'l Airport. If you'd like a copy for your library, contact Norm: durrelln@verizon.net \$10-

Head's UP! Paper pilot certificates will not be valid after March 31, 2010. Upgrades to plastic can be ordered by mail or through the FAA's website. Cost is \$2, or free if combined with changing your cert number away from your SSN. (Also a *very* good idea, if you haven't already.)

Meeting Coordinator:

Dunstan Fandel

dunstan.fandel@sun.com

503-614-9737 (H)



Program: A Tour of Oregon Aero

Location: Scappoose Airport
34020 Skyway Dr, Scappoose

Date/Time: Thurs, Mar 11th
Socializing @ 6:15 PM
Business @ 7:00 PM

Phone: 503-543-7399

Description: Oregon Aero on
Scappoose airport

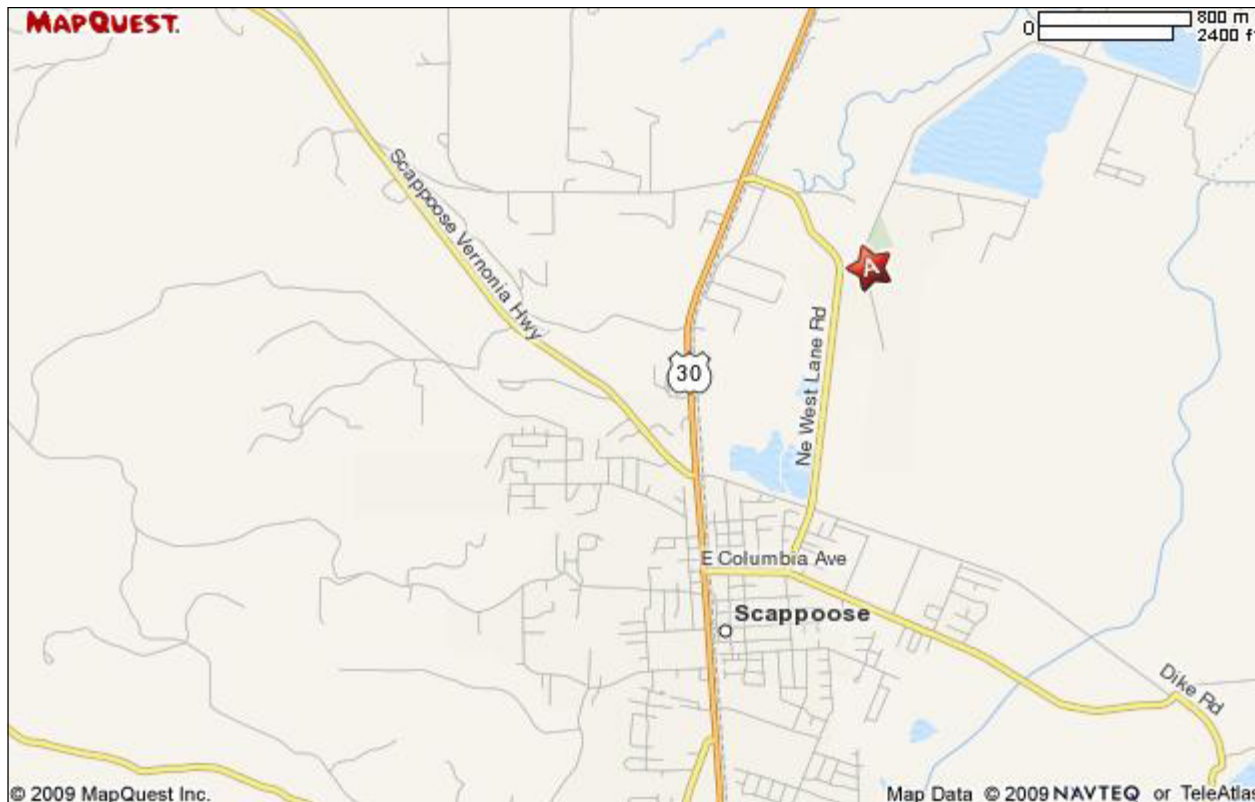
What the founders say: "Customers come to us from many different places. You are private, military, charter and commercial pilots; airborne and land based military forces around the world; law enforcement personnel; aircraft, truck and forklift manufacturers; race car and truck drivers; and bicyclists, office workers, medical and para rescue personnel, even coal miners. And most of you simply want to sit, stand, walk or wear equipment more comfortably in your everyday lives."

Wait! There's more...



Meeting Planning

Dunstan Fandel handles the meeting/project scheduling. If you have a project you'd like to share with the chapter, he'd appreciate hearing from you. dunstan.fandel@sun.com or 503-614-9737 (h).



Besides the tour, there will be a slide show! A raffle! And, if that doesn't tickle the heart of all pilots everywhere, sandwiches and drinks! Such a deal!

You will, however, be required to sign in and sign a non-disclosure form, or you don't get invited on the tour or get any cookies. **And our host also asks that you please don't park in front of Sportcopter.**

Future Meetings

- Apr — TBD, if you have an idea Dunstan would like to hear from you!

About the meetings...

Meetings are the second Thursday of the month, starting at 7:00pm (or a half hour earlier for socializing,) unless otherwise specified and are typically at the site of someone's experimental aircraft project or hangar.

The structure of the meetings is pretty loose. The first 40

minutes or so is generally spent socializing, eating chips and dip, and checking out the project. Then we get down to "business", with introductions of new members and guests, milestones, discussions of group issues, open items, and the host project. After that, it's back to BSing late into the evening.

Be sure to bring any tools, parts, etc. that you wish to sell, loan, give away, etc. And while you're there, throw a couple bucks into the kitty, to help out the host for costs of purchasing the refreshments.

All are welcome, building or not, group member or not. Spouses too!

Previous Hangar Event Movies and Chili

Ken Howe

The second Chapter Movie Night was on Saturday Feb. 20. I counted 16 people digging in to the 5 varieties of homemade chili that were accompanied by several cornbreads and other sides. Chapter president Ron Singh, with bowl of chili in-hand, kicked the evening off by giving everybody an opportunity to introduce themselves and talk a little about their background and projects. Norm led off, and spent some time telling us about the Battle of Britain painting that he had. Norm had met the artist, and in talking with him learned a bit about the individuals portrayed in the picture.

The movie of the evening, The Battle of Britain, was started after everyone had their fill of chili. Filmed without the benefit of all the CGI, green screen, and other effects available today, I found the flying scenes more realistic than recent films. The wartime environment as depicted had a gritty feel to it.

Pictures from the evening are not up to chapter standards, as no one brought a camera; so the few pictures here are from a cell phone.



The Author, M.D. Kincaid, 1980

M.D. Kincaid survived a rewarding career with the Alaska Department of Public Safety. He's lived in Denali Park, Talkeetna, Valdez, Glennallen, Fairbanks, Bethel, King Salmon, Girdwood and Palmer. He's hiked, fished, hunted, skied, snowshoed, mushed dogs, flown Bush planes, built log cabins, and chased bad guys around the Last Frontier. Today, he flies seaplane and writes when the weather grounds him.

March Hangar Event The World of Seaplaning with Mike Kincaid

Date: Saturday, 13 March, 2010

Location: Chapter Hangar

Time: 6:00 pm — Taco Feed

(Please RSVP to Michelle Smith (michelle.smith @eaa105.org) to let her know how many people you are bringing and to coordinate food items to bring)

7:00 pm — Mike Kincaid on the world of Seaplaning

Mike is a retired Alaska Trooper/Pilot who operates Mountain Lake Seaplanes in Coeur d' Alene. He is a Designated Pilot Examiner for seaplanes and author of the Alaska Trooper Jack Blake series and Seaplane Rating Basics. He will bring a few of his books that will be available for purchase.

Leighton Mangles on Fiberglass

Story and Photos:

Benton Holzwarth, Roy Thoma and Leighton Mangles



Leighton Mangles stepped up on short notice to help us with a meeting program, held in our chapter hangar at Twin Oaks, when our planned event had to be cancelled. Hopefully, the closing of Portland TechShop is only temporary, and we'll be able to reschedule it at a later time.

But first, the chapter business: there were two guests attending this evening, one interested specifically in composite airplanes. For milestones and announcements, there was news that Mel Ellis has received his airworthiness cert for his RV-9 project and has renewed his medical. With a BFR he'll be ready to start phase-one flying. He flies out of Hillsboro.



30-40 people turned out for this short-notice meeting on a 'dark and rainy night' when our planned meeting fell through.

Our inaugural Movie Night was a lot of fun, and had a decent turnout. Ron announced the next program for Movie Night -- we'll watch 'The Battle of Britain,' and the plan is for a potluck chili night. Everyone should bring their best chili or a side to go with.

Michelle Smith is getting things rolling for the Young Eagles flying season. She has her email list of pilots from last year, but asks anyone interested in joining in this year to drop her a note and she'll include you in her communications. Her club email address is michelle.smith@eaa105.org. The first YE event of the year will be on March 6 and will include a weather primer for the kids with Dave Salesky.

Brent Anderson is again arranging a home to rent in Oshkosh for the fly-in week as well as ground transport. If you'd like to participate, contact him.

Dick VanGrunsven reiterated the program he's trying to get off the ground, to build an RV-12 in the chapter hangar as a group project. It was described in detail, what details are known, in the February newsletter. Much is still open; if you're interested let Dick know and we'll let you know further information on this program as it becomes available.

With the chapter business out of the way, Roy Thoma introduced Leighton Mangles. With the short notice for the program change and such a rainy night, we were glad to see 30-40 people turn out for the presentation.

Leighton has a load of fiberglass experience, starting with a custom race car (a Formula car when he lived in Texas), helping with a White Lightning, building his personal Lancair 360 and doing the majority building of multiple Lancairs. Leighton came prepared with several samples of the materials and finished layups, and these were passed around the group as he talked.



Leighton displayed several types of material, describing the draping properties and strengths.

Leighton's talk continued with several general observations and rapid-fire tricks and techniques:

- For most of the kits available today, the 'bulk' fiberglass work is already completed at the factory.
- Carbon Fiber is stronger for the same weight, or lighter for the same strength, compared to fiberglass.
- Polyester and epoxy resins have been used in the past, but most aircraft designs use epoxy resin now. Polyester is mostly relegated to shower stalls and boats.
- Gel-coat is just polyester with pigment mixed in. It's sprayed first into a mold before fabric and more resin is added, to form the outer layer of a molded part. It tends to shrink over time, resulting in fine 'spider web cracks.' Leighton's advice, if you encounter it in an airplane kit component is to just take it off. He says he shaved four pounds per wing panel (16 pounds total) by sanding it from a set of 'White Lightning' wing skins.
- One can lay epoxy resin over cured polyester but not polyester over epoxy.
- Styrofoam can be used to make shapes to be covered with fiberglass, but only with epoxy resin since polyester resin dissolves Styrofoam. Also, you'll want to use epoxy resin around Plexiglas (canopies) as polyester resin attacks it. Around Plexiglas, use alcohol rather than acetone as a solvent.

- Leighton showed a gyro-copter v-stab he made using urethane foam, for its more reliable stability over time. NOTE: don't hot-wire urethane like you would styro-foam.

- Both fiberglass mat and carbon fiber can be used with either type of resin.

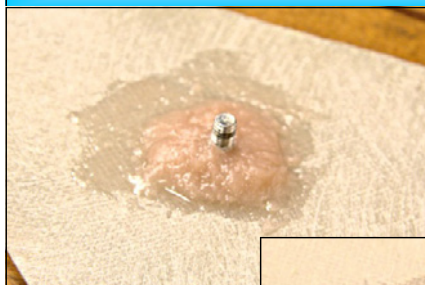
- For very stiff but light panels, pre-preg (pre-impregnated with resin) honeycomb material is available.

- The 'chopped mat' fiberglass material is very easy to form to compound, draped curves but doesn't work well with epoxy as that dissolves the binder used to hold the mat material together.

- Crows-foot weave, which runs fibers over three then under three of the cross fibers is useful for complex, tight shapes.

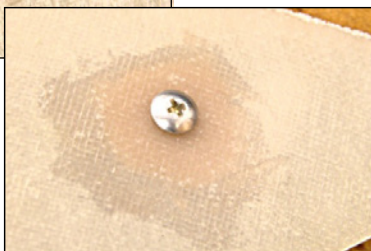
- Tap Plastics and West Marine are both good sources

Tips 'n Techniques



Fiberglass Nut-plates

Cotton Flox is a loose cotton material. When mixed with resin and cured, it forms a very strong, very hard material.



Leighton uses gum-wad size dollops of the material in place of nut-plates. The material is strong enough to drill and tap, and will hold a #10 machine screw. (Obviously you wouldn't use this in a structural application, but for mounting inspection covers and that sort of thing, it works very well.)



A panel was molded from an RV-10 door, with packing tape as the release, to be used by the upholsterer for cabin treatment.

for the raw materials. The easiest way to get the correct mix ratio for the resin is to buy the appropriate pump set to dispense the particular formulation. Also, there are different formulations of resins for use in different aspects of building -- layups vs. bonding subassemblies together. West Systems (not associated with West Marine) makes resins and a variety of fillers.

- Aircraft Spruce is also a good source of materials. ACS has a wider variety of cloth material.

- Be sure to use unwaxed paper cups for mixing. Cup wax will otherwise dissolve in the resin and/or can be scraped up and mixed into the resin, interfering with adhesion.

- Also, both epoxy and polyester resins are exothermic as they cure, giving off significant heat. Further, warming speeds the reaction, so a large pot of material can get hot enough to smoke. (Shop temperature affects cure rate, moreover there are 'slow' and 'fast' catalysts available.) Mix no more than needed for the particular operation, or mix multiple, small batches to accomplish a layup.

- The 'pizza wheel' cutters are available at fabric stores. Olfa is one brand of cutting wheel.

- The 1" brushes come by the box full from Harbor Freight, but note Leighton's trick, he scissors off a half-inch of the bristles from the end to make the brushes more stiff. It helps when 'stippling', to remove bubbles

from the resin worked into the weave.

- A set of 'offset shears' work well for snipping out thin layups, better than regular 'aircraft shears.' For thicker layups or the honeycomb material, a jigsaw with a tungsten-carbide grit blade works well, but note that once used for cutting fiberglass, the jigsaw or bandsaw blades are useless for cutting anything else. Carbide cut-off wheels in a Dremel tool also work very well.

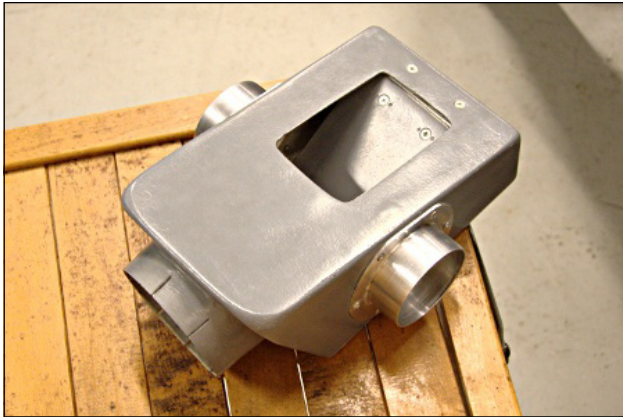
- When cutting fabric to form into parts, arrange as far as possible to align the straight edges of the part at 45-deg to the fibers in the mat, so the threads of both directions in the fabric cross the cut edge, rather than one direction's threads aligned with the cut; this helps keep the fibers from unraveling. This also tends to have the fiberglass strands cross joints, rather than running parallel with the joints. The crossing of the joint is important for strength.

- The fiberglass or carbon fiber makes the composite very strong in tension, but parts depend on their shape and resin for compression and buckling strength.

- Peel-ply is a layer of synthetic fabric, often nylon, with a release agent applied. This material is layed in as the top layer of a layup when the part will need further steps such as bonding of subassemblies or to have a surface that needs less finishing. Once the part is cured, the peel-ply is pulled up (be sure to leave an edge overhang-



A vert-stab for a gyro-copter was crafted from a slab of urethane foam with the attach saddle formed over the member it will mount to, and a rudder pocket formed with a fir stick.



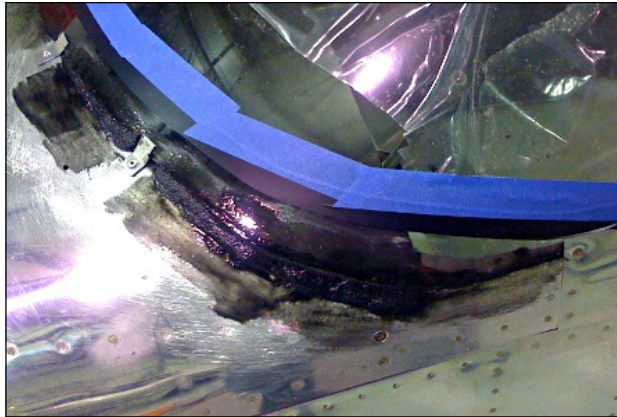
Shapes, sized to fit the available space, are readily made with fiberglass. In this case, an airbox for a Lancair.

ing so you have something to grab onto) leaving a rough surface -- 'good tooth' -- ready for the next bonding step, and pulling up some excess resin (weight) with it. One change in recent years is that the peel-ply is colored (green in the example Leighton brought) making it more obvious when a layer is still included in the layup.

- If peel-ply isn't used and the top surface has a shiny appearance, it needs to be scuffed with coarse sandpaper before further bonding.
- To prime/paint, Leighton first wipes down the part



Leighton complemented the fiberglass work on stock RV wheel pants, but also had suggestions for how to dial in the joint between the front and rear halves.



Leighton has been working with Roy Thoma, building up a really nice intersection in fiberglass and resin between Roy's RV project's cowl and canopy, shown here in four steps.

with an Acetone wetted rag, then paints with a 'high build' primer-surfacer. He uses a roller to force the primer into any pinholes. He used to use PPG K-36 primer-surfacer (at ~ \$200/gal) but has since found the product sold at NAPA works as well if not better for him, and at about \$80/gal. (These are both two-part, catalyzed products.)

The usual sequence is to apply a layer of primer with roller, sand most of it back off once set (if you try sanding before set, the sand paper just loads up) then apply resin/micro in a thin layer to fill in the low spots, sand, then more primer, sand...

- Leighton next talked about a couple different types of

fillers to be used with resins. Cotton Flox is a loose cotton material. When mixed with resin and cured, it forms a very strong, very hard material. (And see the Tips 'n Techniques sidebar.)

Another product commonly used is 'micro balloons', also called 'micro,' which is hollow phenolic spheres. It looks like talcum powder and is very light. It doesn't impart the strength that cotton flox does, but is very light and sandable. When resin needs to be applied to a vertical surface, a little micro can be added to thicken the mix. Micro is the 'moral equivalent' of Bondo, except lighter, and by the way, don't use Bondo on epoxy-resin layups as Bondo is a polyester product (and see above about laying polyester over epoxy.)

For sanding, Leighton suggests very coarse papers. 36 and 40 grit are used in the sticky-back type, applied to sanding blocks. Finer grits, as coarse as 80 even, just load up too quickly. A sanding drum is also handy for knocking sharp flashing off the edges of parts. When sanding, try to avoid sanding down to the fabric, but if you do expose the glass, just apply a little more resin, let cure and sand again.

- Leighton likes the Glasurit line of catalyzed paints. PPG is also good.

- Mandrills can be used for forming shaped parts. The mandrill is covered with 1-mil plastic sheeting, then resin and peel-ply for the first layer, then fiberglass layers on top of that. As an example, a composite 'saddle' piece might be formed in-place on an ultra-light keel tube. Or a rudder pocket on a vert-stab component can be formed over an appropriate sized and plastic-covered wooden stick.

- Plastic packing tape can be used in lieu of plastic sheeting. It comes in both brown and clear types. The brown type is preferred, as it's much easier to see and clean up after the part is lifted off.

By the end of the evening, Leighton had shared a great deal of information, without performing any hands-on demonstrations. All questions were answered as they came up and everyone left a bit more comfortable with the idea of doing our own fiberglass work.

We also learned a good bit about Leighton's current project, a 1950's "Ferrari" which looks like a lot of fun, even if it will be stuck at close to 0 ft AGL.

Leighton can be reached at 503-647-5779 or leighton@teleport.com



Leighton's 'Ferrari' project — the frame is self-built and Chevy powered. The fiberglass body is coming along.

Living the Rock Star Life or The Beauty of Flight and Homemade Gravy in Puyallup

Sandy Bes

I felt like a rock star. My limo was a red and white Zenair Zodiac waiting for me in front of the hangar. Roy stood gallantly in front of the wing, holding out his hand to help me step up and into the right seat of the plane. The stress of the work week slipped away as the faint, comforting smells of engine oil and leather wafted around me. I had attended meetings that day in the Portland office and was taking the opportunity to spend some time with my Sweetheart while I was in town. Now Roy was giving me a ride home to Bainbridge Island. How do Rock Stars get home from a hard day in the office? In an experimental aircraft, of course!

I fussed with the headset, adjusting the microphone so Roy could hear me. Hillsboro ATC droned out information "Tango." "Visibility 10 miles, notice to airmen birds in the vicinity of the airport," the voice repeated. Roy's voice interrupted the monologue, "Experimental N601RT, Tower T's, taxi to the run-up area." A friendly voice responded, directing us across runway 20 to the run-up area. My feet flexed on the rudder pedals. I applied myself to steering the plane out to the run-up area, and avoid bumping across the line of storm drains that run down the middle of the row of hangars, I sat on my



A visitor to the March pancake breakfast. Lovely day...

hands to resist the urge to steer the plane with the stick. At the run-up area I executed a neat 180, rolling up behind a couple of Cessna 150's. Those students are paying for their lessons and their planes are not nearly as fun as the rock star limo. Roy nods his head, indicating he has his feet on the brakes. The engine revs, and echoes a quiet adrenaline buzz in my head. My self-appointed job while waiting for the engine to warm up is to survey weather conditions, a long established habit from sailing. The Cessna's take their turns rolling out to the runway, some of them waddling. With their blue and gray colors they reminded me of fledgling seagulls. Next it was our turn to taxi out. I took my own baby steps managing the rudder pedals and the brakes, while Roy eased in the throttle. One more conversation with the Tower and we are rolling out to the middle of the runway. Wrapped up in my "I can do anything because I am a rock star" persona I took the helm, I mean stick-thingly while Roy managed the rudder pedals and throttle. I kept my feet on the rudders feeling the motion Roy imparts. The runway speeds by, I kept an eye on the Air Speed as we rolled down the runway, then pulled back on the stick. The little plane popped in to the air surprising me with its enthusiasm for being off the ground. The altimeter bounced numbers up and down as I tried to keep our climb rate to less than escape velocity. We were safely over the low range of hills just north of Hillsboro and an astonishingly beautiful landscape unfolded below us. Roy bumped my elbow, pulling my attention back in to the cockpit. He analytically observed that when I looked out the canopy to the right, I moved the stick to the left. I tugged on his sleeve and pointed out the window. The plane banked again, "Look at that," I exclaimed, gesturing to the spectacular scene around us. "How can you not be captivated by all that?" He decided he would fly the plane for the rest of the trip.

It was a perfect evening for flying; the Columbia River was a sparkling hemline flowing around the variegated green skirts and gray waist of Mt. St Helens. Like a queen whose grace was damaged by cataclysm she carried her bonnet less head with stately dignity. Mt. Hood and Mount Adams kept court, their crowns still intact, their white pinnacles reaching to the turquoise and pink sky. Mount Rainer rose in front of us, and was nothing short of imposing. Its massive white dome was the centerpiece of the view, equally lovely green folds mingled

with small dark blue lakes below. Fortunately, Roy was not distracted by the scenery, as it was now time to focus on the airport in front of us. I did not really want this leg of the trip to end, but my stomach was also intent on our destination: the Hangar Inn Restaurant at Pierce County Airport, near Puyallup.

The diner is humble and offers basic, American fare, but had the advantage of being on the way home to Bremerton. And after all, even Rock Stars need some down-home cooking dinner once in a while.

We walked past a large deck on the flight-line side of the restaurant that offered a spectacular view of Mt. Rainer. It would be a great place to sit if the weather were a few degrees warmer. The inside of the restaurant was chintzy '70's diner decor. Only the airport outside, and Mt Rainer beyond, belied that fact that we were not at a truck stop off I-90. The hostess and waiter were very polite and welcoming and we felt right at home as we settled into a booth.

The standard diner offerings on the menu lead me to think I could just skip the menu and order a burger or Cobb salad. Either of those would have been a safe bet. Then the words "Homemade in our kitchen" caught my attention. "What are you getting?" I asked Roy, peering across the table over my readers. "I was thinking about the meatloaf" he replied. "Really? Because it says homemade?" I asked. "Yes," he replied, "that's what it says." The waiter arrived to take our order. When I ordered the chicken fried steak, Roy looked up at me over his menu, startled. I usually opt for lighter fare. "I've got to check out the gravy," I explained. "Homemade?" he asked. "Yes, that's what it says," I replied. "After all, who really makes homemade gravy anymore?" I said. I'm also skeptical on the meatloaf, but didn't want to sound too cynical.

Roy ordered extra steamed veggies instead of mashed potatoes. It seemed like a crime to substitute steamed veggies for mashed potatoes, but I understood. It was part of a long-term strategy to increase the airplane's performance by decreasing relative cockpit density. I followed suit, reasoning that gravy could probably be applied to steamed veggies just as well as it could mashed potatoes. Our food arrived promptly, as if they had anticipated our order. This is not a place to go if you

are looking for 4-star presentation, unless your idea of 4-star is what comes off a line when the cook hollers "order up!" That said, the food looked great. Roy's plate had a healthy slice of meatloaf covered with rich looking brown gravy. The steamed veggies looked fresh and not overcooked. I stuck my finger lightly in the creamy-looking pan gravy ladled across the chicken fried steak on my plate, then in my mouth. "Homemade," Roy asked? Nodding my head in appreciation I replied "Yummy, yes, homemade." The chicken fried steak was not spectacular, but then my basis for comparison is my grandma's chicken fried steak. The gravy on the other hand was surprisingly good. I poked my fork over towards Roy's plate, and he pushed it back with his own fork. "Eat your own dinner," he scowled, teasing, then cut off a good size bite and slide it on to my plate. I reciprocated with a slice of chicken fried steak doused in gravy. I slathered it around on the steamed veggies and dug in. I would like to say that we lingered over dinner, but the gravy was too compelling. We did pause long enough to watch the occasional plane take off and share the events of our day. All to soon, I was mopping up the last bits of gravy with bits of steamed carrots and cauliflower. A side note here is that steamed veggies make a terrific gravy delivery mechanism.

The last bits of the sunset were fading as we climbed back in to the little red and white limo. We left the dark shadow of Rainer behind as the lights of Seattle unfolded before us, stopping abruptly at the waterline of Puget Sound. The darkness was punctuated by the occasional ferry spreading windows of light across the water. I was headed home, back to the hectic pace of work, but for this moment in time, I was suspended in an ether-world of light and space, and I was overwhelmed by the beauty of it. I took a deep breath, closing my eyes and holding on to the moment as we made our descent to Bremerton. What do rock stars do when they are headed back to everyday life? They dream of flying of course, and homemade gravy. If you are feeling like having some down-home comfort food, or just feel like flying someplace, grab your favorite rock star partner and head to the Hangar Inn Restaurant. Tell 'em Roy and Sandy sent you.

<http://www.co.pierce.wa.us/pc/abtus/ourorg/pwu/airport/index.htm>

<http://www.airnav.com/airport/KPLU>

Hangar Inn Restaurant
16919 Meridian East
Puyallup WA 98375-6224
ph. (253) 848-7516
e-mail -- Hangarinn@aol.com

Full-service restaurant and lounge with views of aviation activity and Mount Rainier. Seating on deck on warm days. Special occasion room available for groups up to 45 guests.

Club member, Bruce Eicher, owner of Wilsonville Diamond is now an authorized dealer of Citizen Watch, makers of the third generation SKYHAWK Aviation Watch amongst others. Sale priced at 25% off with an additional 10% off for club members on all Citizens. Please see us for all your jewelry needs. Wilsonville Diamond, Next to Lamb's Thriftway, 503-682-1100
Bruce@WilsonvilleDiamond.com
www.WilsonvilleDiamond.com



Old Pilots

A 65 year old man went to the doctor for his Class II exam and the doctor was amazed at what good shape the guy was in.

The doctor asked, "To what do you attribute your good health?"



The old timer said, "I'm a pilot and that's why I'm in such good shape. I'm up well before daylight, climb all over the aircraft doing my pre-flight inspection, fly all day, etc."

The doctor said, "Well, I'm sure that helps, but there's got to be more to it. How old was your dad when he died?"



The old timer said, "Who said my dad's dead?"

The doctor said, "You mean you're 65 years old and your dad's still alive? How old is he?"



The old timer said, "He's 84 yrs old and, in fact, he built and flies his own airplane! He went flying with me this morning. That's why he's still alive... he's a pilot too!"

The doctor said, "Well, that's great, but I'm sure there's more to it. How about your dad's dad? How old was he when he died?"

The old timer said, "Who said my grandpa's dead?"

The doctor said, "You mean your dad is 84 years old and his father is still living?! How old is he?"



The old timer said, "Grandpa is 102 years old and he's a pilot too."

The doctor was getting frustrated at this point and said, "I guess he went flying with you this morning too?"



The old timer said, "No...Grandpa couldn't go this morning because he just got married and he's on his honeymoon."

The doctor said in amazement, "Got married?! Why would a 102-year-old guy want to get married?"

The old timer said, "Who said he wanted to?"

Board Meeting Highlights

EAA Chapter 105 Board Meeting

The board will meet for our now-traditional all-day planning session in mid-January (which this year was held to a half-day, to allow us to attend Jack Lenhardt's memorial service. Each year, this meeting is devoted to making the broad moves that shape our chapter's season of flying events. If you have ideas for the upcoming season you'd like considered, please do contact a board member with your thoughts.

Attending this evening, Thursday 18 Feb 2010: Len Kauffman, Michelle Smith, Ron Singh, Ron Poe, Rion Bourgeois, Roy Thoma, Bruce Rose, Jenny Hickman and Benton Holzwarth.

The meeting was called to order a moment after 7:00, with the first business being adoption of the January planning session notes. These were approved with two minor changes sent in by Bruce and some discussion regarding the mechanics of posting the notes in the next newsletter before they've been adopted by the board. [The board notes posted in the NL are always 'provisional' until corrected and adopted at the board meeting following publication in the newsletter. Any substantive corrections are published in the following NL as 'corrections.' The alternative would be to hold them until they're six weeks old rather than just two. -- Ed.]

- Some 'old business' being carried along until it is settled was heard next:

- Jenny and Benton are planning to change banks for the chapter checking account, but that hasn't been done yet. The current bank is only an inconvenience for Jenny and Benton.

- Don Wentz has the chapter hangar PC at his home currently, for installation of WinXP.

- John Jessen has a task to update the contact info on the chapter website.

- Benton has been carrying a task to begin compiling a 'policy guide' -- a compendium of the policy decisions taken by the board, and currently scattered across the individual monthly board meeting notes. In an effort

to jump start this task, RonS, Rion and Benton will get together outside of the regular meetings to work on compiling the information.

Rion noted the couple adopted policies he recalls as the 'hangar usage' policy and a 'conflict of interest' policy.

- Michelle has taken on the task of generating a new Young Eagles poster to display in the chapter hangar.

- The bulk of the evening's agenda was devoted to reporting by BobD and JerryV on their research into fly-out opportunities for the upcoming season. Jerry and Bob shared their ideas and Bob added specifics of his research on overnight fly-outs.

- The assembled board selected three events to host for the membership with dates and one fly-out with another club that we will endorse and encourage. 25+ people turned out for last year's trip to Lewiston and the Snake river boat trip so we're not uncomfortable planning for that sort of group at this year's events.

• Nehalem Bay State — June 5 Fly-out / Camp-out

- Depart after the chapter b'fast.

- Members can fly or drive over.

- RonS will chase down details on overnight reservation and fee info.

• Grants Pass Chapter 725 fly-in event — June 26

- B'fast and/or lunch on the field.

- Airport about 7 mi from field, transport may be available.

- The hotels closest to the docks are already booked, but Bob has reserved 6 rooms at The Riverside Inn (\$105) and 9 at The Lodge at Riverside (\$170). Those hotels will need a deposit to hold the rooms for us. We can cancel the reservations by May 26 for a full refund. I.e. front-money, but no risk to the chapter if it's under-subscribed.

- The Best Western still has many rooms available so no reservations were made there.

- Rogue river jet boat ride -- Bob has tentatively reserved 25 seats on the jet boat \$57.50/seat, they need a

deposit to hold seats by 28feb. We can cancel w/o penalty by 12may. (\$719 total req'd.)

- The board approved fronting the money (\$1019 + \$ req'd for R-side Inn) to hold the hotel and jet boat reservations. We can give our chapter members first call on the reserved rooms, and then open the invitation to the other local chapters and clubs if they want to join us.

- Members wanting to participate should contact the hotels and jet boat folks directly and identify themselves as being with the EAA-105 group to claim one of the reserved spots. Also contact Bob Duncan once that's accomplished so we can keep track of who is going and how many spots remain. We'll get brochure info into the newsletter as soon as possible.

• Alvord Desert with the Willamette Valley Soaring Club — July 10-17

- This date is fixed by reservation with the BLM.

- The WVSC has an annual event and is inviting us to join them.

- The board agrees that we should encourage our members to tag along on this fun, different flying/camping opportunity.

- A temporary soaring club membership (\$30) will give you an opportunity to fly the soaring club's tandem glider.



- The 'airport' is at 4000 ft elevation and the weather will be hot, but the runway is 8 miles wide by 13 miles long. Landing on the desert is like landing on water. Set up a mild descent rate and avoid getting into trouble with confused depth perception spoiling your landing.

- Dust/wind storms are a risk, but in inclement weather planes can retreat to the Burns airport. Also, note that the lake bed is alkaline and owners should plan to repack wheel bearings and wash planes thoroughly upon return.

- For entertainment (besides soaring) there is the hot springs, hiking in the Steens Mountains (approached from the 'back side') and exploring an old mine.

- And 3rd, **Orofino, ID (S68) — August 14**

- Elev 1000 ft MSL, rwy length 2500 ft, in a canyon. Pattern alt 1500' above rwy, 200' above ground.

- Orofino is an old mining town.

- Colorful restaurants and a spectacular hotel, built in 2005. Nice patio. Walking distance to town. Prices: Riverview \$95-110/room hot breakfast included, and nice restaurant for dinner. Fuel available. 282 NM from Hillsboro. Float trip is very informal (\$12 per person.)

- [Jerry writes after the meeting that he has called the Best Western Riverview hotel and reserved 10 'river view king' and 5 'river view queen' rooms -- all they had available. They'll hold these for us, without deposit, until 30 days prior to the Aug 14 date. Call 208-476-9999 and identify yourself as being with EAA 105 to claim a room.]

- Other suggestions were considered, and members might organize their own friends for fly-outs to:

- Friday Harbor

- Friday Harbor is a nice town. Hotel is expensive (\$295).

- Lake Chelan

- Cavanaugh Bay

- Nice, but facilities lacking

- Few cabins, primitive camping

- Madras airshow Aug 27-28

- Weekend after HIO Airshow

- Bob Duncan expressed a goal to get (and offered to assist with) a chapter calendar feature re-introduced into the club newsletter. Bruce Rose chimed in with an offer to work on this, and tie it into his plan to start a periodic emailing of chapter events and opportunities.

- **Poker Run:** Date selected: Sept 18-19th.

- Program along the same lines as past years.

- **Christmas party:** The plan this year is to move the party to some hosted location. (The East Moreland Country Club was one suggestion, or investigate whether we could use some space at Pearson.) Cost would be something on the order of \$30/person to include a buffet.

We're hoping to avoid the 'restaurant atmosphere' and find something that allows and encourages folks to mix and mingle. If anyone has suggestions or wants to help scout venues, contact a board member. We'll look for a Friday evening date in Mid-December.

- **Web issues:** Everyone with event/area responsibilities should check the website and suggest updates as needed to John Jessen.

- **NW RV Fly-In:** Steve Payne has volunteered to air-boss the Scappoose fly-in this year. One identified risk is, if Don Wentz sells his plane, we may not have a hangar to use for the lunch operation. As always, the date is the Saturday of Father's Day weekend, June 19.

- **DickV on the RV-12 build group.** There has been some, but not huge interest expressed so far. Three directions would be beating the bushes for more participants, wait a while for more interest to develop or just drop it?

Another possibility might be to structure the project differently, not as a building-club/flying-club, but rather a chapter build to be sold when ready to fly. There are a lot of non-committed people (not committed to their own project) in the chapter. Could push more widely, outside the chapter, tho' participants may need to be chapter members. This didn't seem like a huge issue -- if a person is contemplating becoming a partner in an air-

plane, an extra \$20/yr didn't seem like a hardship.

We could put out some fliers at breakfasts to further advertise the deal and scatter a few at the tables and cashier stand. Benton volunteered to cover this.

- **Director roundtable:**

- RonP - Thinks we're off to a great start for the season

- Roy - Proposes we get some basic handtools for hangar. Bruce suggested a combo-kit from Costco that he liked for ~\$100. The decision was made to add one of these to the chapter hangar kit. [In follow-up mail, Roy says he's purchased the kit, and Bruce will bring it to the hangar soon if he hasn't already.]

- Bruce: NW Av conf coming up. He performed a prop balance w/ RobH on Jim Frisbee's plane. He's going down to San Jose for a conference and will try to drop in on the prop-balancer maker (Dynamic Solutions Systems) to see what he can learn. He suggested we need a microwave and a clock for hangar. We'll see if anyone has a spare uW to donate if the current one needs more than just a new fuse.

- Michelle: 4 Young Eagle events are scheduled. Michelle is planning a kick-off meeting for early in the season, and will let the pilots help pick the dates for the balance of the events.

- RonS: Needs reimbursement for \$556 for a chapter hangar insurance payment made. A topic for a future board meeting would be to share an explanation of what is covered by the policy and consider alternate limits, costs. Rion was tapped to collect and present the information.

- The meeting was adjourned at 9:20.

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 @siletbay.com) or call 503-684-2008. Please let us know when your item sells. Ads will run for four issues (last issue [mm/yy]) and may be renewed or adjusted by contacting the editor.



After 5 years I finally finished my RV-7A. Turns out, however, I must sell it. The airplane is presently located at the Synergy Air hangar at Mahlon-Sweet airport, Eugene, KEUG. Contact Jim Platz: 541-548-9901 [06/10]

O-320-E2D Engine / Prop For Sale S/N - L42229-27A

Mattituck RAM 160 HP Modification; Annual performed May 2008 then "picketed." Immediately available. Pictures available. All logs since new. Presently in Eugene, OR. Hours SMOH - 896 Hrs, Total Time since new 2307 Hrs, No damage - No strikes, ADs current, Compression in high 70s. Accessories: mags, air, starter, carb, plugs wiring, etc. (no exhaust, no mounts.) Fixed pitch land prop - McCauley 1C160/CTM7557M1, matched to O-320-E2D land config with Cessna 172M STCs. Hub, but no spinner. Both are in excellent condition with current engine and prop logs and annuals. Price: \$12,500 FOB Eugene

Contact Dave Wellman 541-984-1442
dhw@wellmansurveying.com [05/10]



A Cub departs Twin Oaks after the March breakfast.



For Sale — RV-6, 180 hp, attractive, fast, and fun. \$60K or may consider partnership. Email dasduck@comcast.net for complete description and equipment list. [04/10]

Lot for Sale at 7S5—Independence Airpark North Annex, Lot 9 on Skyraider Drive 15,959 sq ft. Ideal exposure for solar home design. Call Brent Anderson 503-646-6380 or email brentz.enterprises@comcast.net [05/10]

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2009-10 Feature Article Index

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

March '09

- Randy Lervold / State of the Chapter
- Tom Louris / Port Townsend AeroMuseum Fly-Out
- Snake River Fly-Out and Jet Boat Dinner Run
- Sandy Bes / Fly-Out Dining: Smokey Ray's BBQ
- Benton Holzwarth / Behind the Scenes at Advanced Flight Systems

April '09

- Joe Blank / NW RV Fly-In Planning
- Michelle Smith / Flying Companion's Course
- Benton Holzwarth / Mark Cattell's RV-9A + FG
- Sandy Bes / Fly-Out dining: Side Door Cafe

May '09

- Rick Kriss / TSA Jail
- Benton Holzwarth / Bill Davidge on Magneto Operations, Maintenance and Repair
- Dunstan Fandel / B-17 "Aluminum Overcast" Tour Stop This May 15-17, 2009
- Sandy Bes / Roy 'n Sandy's Fly-To Dining Adventures — EAA Breakfast
- Snake River Fly-Out and Jet Boat Dinner Run

June '09

- Randy Lervold / Propeller Balancer Program Update
- Benton Holzwarth / RV Central (Visit to Van's)
- Randy Lervold / Supporting Your Chapter
- Ron Singh / Young Eagles at Pearson
- Tom Louris / Port Townsend Aero Museum Chapter Flyout
- Bruce Rose / Report on the 2009 CAFE Foundation Electric Aircraft Symposium
- Bruce Rose (Photos: Bruce Rose, Greg Long and Mike McGee) / The Reason for the Permanent Grin on My Face
- Rion Bourgeois / Snake River Fly-Out and Jet Boat Dinner Run

July '09

- Benton Holzwarth / Parkside Paradise
- Photos Benton Holzwarth / The 18th Annual Northwest RV Fly-In
- Randy Lervold / Life turns a page for Randy

- Sandy Bes / Roy 'n Sandy's Fly-To Dining Adventures — Water to Desert and Back Again

August '09

- Greg Long / CubCrafters SW "Sport Cub" Flight
- Michelle Smith / Flying Companions Update and Future Plans
- New Members—Gordon Martin & Pete Kozachik
- JJ Johnson's www.linestretch.net
- Randall Henderson / Gearhart Junction Cafe
- Michelle Smith / Port Townsend Fly-Out Photos

September '09

- Ron Singh / Bruce Rose Appointed to Chapter VP Position
- Benton Holzwarth / An Evening at Lenhardt Airhaven

October '09

- Bob Duncan (Photos: Bob Duncan, Shannon Miller, & Susan & John Mates) / 2009 EAA Chapter 105 Poker Run
- Susan Mates / I Am One Lucky Lady!
- Bruce Rose / 2009 Northwest Art and Air Festival and OPA Annual Meeting

- Bob Duncan / Joe Marin and Tom Sampson's RV-7

November '09

- Benton Holzwarth+Shannon Miller & Ken Howe / RV-12 in a Shoe Box
- Sandra Bes / The Village Cafe at Pacific City—Remembering Good Times and Good Friends

December '09

- Board Notification / Chapter Election Results
- Joe Blank / Vans Airforce 37 Ship Formation at OSH
- Stu McCurdy / Leading the Effort (37 Ship at OSH)
- Benton Holzwarth / T 'n T: Flagging gNATs (Needs Attending To) items

January '10

- Ron Singh / Greetings from President Ron
- Benton Holzwarth / 209's Holiday Party at Casa Hickman
- Dennis Kucera / Hank Bullock and His Auster AOP

February '10

- Dick VanGrunsven / Chapter 105 Hangar Dilemma / Challenge
- New Members—James Bagley, Jr., Jim Frisbie
- Dick VanGrunsven / TeenFlight RV-12 Status — Help

Needed

- Benton Holzwarth / Stephen Rosenstock's KR-2S Project
- Saturday Night at the Movies

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"Contact!" Chapter Officers and Staff

Pres., Dir & Member Coord	Ron Singh ron.singh@eaa105.org	503-646-2144 h
Vice Pres. Dir. & Prop Balancer Program	Bruce Rose bruce@falcondesign.com	503-848-2228 c
Dir, Facilities Mgr & Legal Counsel	J. Rion Bourgeois rion@att.net	503-646-8763 h
Sec., Dir & NL Editor	Benton Holzwarth benton@siletzbay.com	503-684-2008 h
Treas., Dir & Poker Run Coord	Jennifer Hickman jennhickman@aol.com	503-651-2230 h
Meet Coord, Dir & Ad Hoc Projects	Dunstan Fandel dunstan.fandel@sun.com	503-614-9737 h
Librarian	Jim Mitchell jmitchell1@msn.com	503-644-5258 h
Facilities Mgr	Ralph Schildknecht ralphranger@earthlink.net	503-968-0166 h
Dir & Breakfast Crew Chief	Joe Miller jwmcmm@easystreet.com	503-475-7433 c
Dir & Breakfast Volunteer Coord	Len Kauffman lakauf@comcast.net	503-885-1920 h
Quartermaster & Tool Meister	Mike McGee mmcgee@pma-engr.com	503-701-6315 c
Dir & Bogardus Trust Liaison	Dick VanGrunsvan engineering2@vansaircraft.com	503-678-6545 x327
Ad Hoc Projects	Tom Louris tlouris@comcast.net	503-914-8009 c
Director	Jerry VanGrunsvan jjvangrunsvanfly@wifi-nw.com	503-648-3464
Dir & Youth Activities Coord	Michelle Smith michelle.smith@eaa105.org	503-646-2144 h
Dir & Web Master	John Jessen n212pj@gmail.com	503-656-2255 h
Director	Roy Thoma roy@abornthoma.com	503-708-5794 c
Director Fly-out Coord.	Ron Poe ronald.poe@comcast.net	503-636-7242 h
Director Fly-out Coord.	Bob Duncan n6tu@comcast.net	503-970-3092 c

EAA Flight Advisors

Tom Sampson 503-590-6575 (h) thomas.e.sampson@comcast.net, RV-7/9A bldr, Tigard/7S3
Mike Seager 503-429-5103 (h) 503-429-1562 (hangar) rv6cfi@hotmail.com

EAA Tech Counselors

Dan Benua 503-702-5387 danbenua@yahoo.com, RV-6A & RV-10 bldr, HIO-Ptld
Joe Blank 503-784-9755 jblank6@gmail.com, RV-6 + Taylorcraft Bldr, Molalla-Ptld
John W Cox 503-684-6001 johnwcox@pacificnw.com, RV-10 & Lancair, A&P-IA, Ptld
Tom Sampson 503-590-6575 (h) thomas.e.sampson@comcast.net, RV-7/9A bldr, Tigard/7S3
Jake Thiessen 503-606-0569 jaknjoan@minetfiber.com, multiple RV builder, Independence-Salem area
Don Wentz 503-543-3653 dasduck@comcast.net, RV-6 bldr, Scappoose-Ptld

Flight Instructors

James Julia 503-757-8872 jmjula@yahoo.com HIO + SPB,7S3 — CFI, CFII, MEI—Single-Engine Land/Sea, Multi-Engine Land, High Performance, Complex, Tailwheel
Emily Stark 503-502-2448 Emily@twinoaksairpark.com 7S3 — Primary and Tailwheel, High Perf and Complex endorsements



Membership Registration / Renewal Form EAA Chapter 105 — www.eaa105.org

Send to: Benton Holzwarth
9240 SW Millen Dr.
Tigard, OR 97224

For renewals, indicate name & **changed** information only — member info will go into the chapter roster.

Name: _____

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9240 SW Millen Dr.
Tigard, OR 97224-5570

First Class Mail

To:



Next General Meeting VAF-Home Wing / Chapter 105

-
- Thursday Mar 11th @ 6:30 / 7:00 PM
- Map on pg. 3

Next Board of Directors Meeting

- Thursday Mar 18th — 7:00 PM
- Location TBD (Likely Twin Oaks hangar G-1)
- Contact a Board Member if you have ideas you'd like considered or would like to volunteer for an event!

EAA Chapter 105

Volume 50/Number 3/March 2010