

# Portland Area RV Builder's Group Newsletter

Issue 93.8

October 1993



## September Meeting:

The September meeting was held at Independence Airpark in conjunction with the Chapter 292 EAA meeting.

Only about 15 of our members showed-up, which is too bad because there were extra seats in an RV-4 and a Mooney at Twin Oaks, and the night flight back was great. It was so smooth and nice that Norm Rainey (who I rode with) couldn't resist a little jaunt out over Vancouver WA for some sight-seeing before landing his RV-6A back at Scappoose.

We basically watched aircraft and gabbed for awhile before their mtg started. They had us talk a little about what the Builder's Group is and introduce ourselves and our projects.

Bill Benedict flew the factory -6T and his passenger was a rep from King Radio. Van's is now set to OEM King products (as with pre-drilled landing gear, this announcement came a week after I ordered my KX-125 from someone else!). His guest talked a little about upcoming King products. We then listened to their mtg and bugged-out.

Steve Johansen is the Chapter pres., and him and his partner had just flown their RV-6A for the first time the Sunday previous. Congratulations!!! Our thanks to the Independence folks for hosting us, they are a friendly bunch!

## Next Meeting:

**Place: Twin Oaks Airpark**

**EAA Chapter 105 Hanger**

**Date: October 14**

**Time: 7 pm**

Member Carl Hay has invited us to visit his RV-6 project. This project has wings, radios, engine, prop, and is basically nearing completion. Many of us have seen it during EAA meetings, but due to conflicts, Carl has never been available to share the knowledge he gained during construction.

For those members of PARVBG who aren't Chapter 105 members, this is a chance to check-out the great hangar that they moved-into less than a year ago.

In addition, Dave Lewis Jr. of Lewis Aviation at HIO has a new builder's assistance program that he would like to introduce and answer questions about for 10-15 minutes. Should be a good meeting!

## General Business:

### **Subscriptions STILL due!!!**

Only about half of the group are up to date. Many are several months past due. Unless I hear from you (I accept good excuses) or get your dues, this will be your last issue.

If your renewal date (you can find your renewal date under your address on the cover sheet) is circled in red, you are due. \$8 for a year, to cover printing/postage.

### New Address list:

It has been a year since we published the last member

list. Since we like to know how to get a hold of each other when we need some advice, this issue contains a new list.

### Builder's Tips:

**Editor's note:** Some of the tips from last month made it into a Missouri newsletter, so keep them coming, people out there appreciate them!

### **Buy the Correct Model Engine!:**

Early-on in my project, I picked-up an O-360-A2G from a salvage yard back east. It sounded great: 12hrs on a Cermet-chrome major, all accessories, only \$9000.00 (including \$400 shipping)! At the time, I never thought about deciphering the model #s to see if it would be compatible with the RV-6 Engine mount, cowl, etc. BIG mistake!

When I opened the crate, I found that it had a rear mounted carburetor, and would definitely NOT fit in the RV-6 mount. Well, no big deal, I'll just sell the carb (which I did) and buy a std bottom carb sump. After some calling around, all I found was one for \$100 (which I sent for and it turned-out to be all corroded and ugly and missing the intake tubes, etc. I sent it back) or one for \$250.

Well, I kind of wanted to try the Airflow Performance Systems Fuel Injection, so I called Don Rivera down there and began asking questions. What I ended-up with was by looking at some RV-6s and doing some estimations, I thought I could adapt the injector in there with no mods to the engine mount, just a custom elbow out of the back of my sump. Don was very helpful and agreed to make the elbow (they cast an elbow any way, he just had to mill the bolt holes slightly differently) for about \$80. So I ordered my injection unit (total cost appx. \$1900 - ouch!. An O-320 is \$300 less as it uses the next smaller unit - that figures) and put it on the shelf.

About a year later (early September '93) after a tough year at my real job where I was working more hours and down to 4 hours a week on the RV instead of the usual 15-20, I *finally* mounted my engine. Guess what?!? The damn elbow didn't quite clear the 1" cross-tube on the RV-6 engine mount! Crap! My "estimations" sucked. Now what? I built-up the elbows and Injection unit to the sump off of the engine and they all fit together so well that I didnt want to look

again for a different sump. This left my only alternative being to cut the mount! I was able to get a hold of Bruce McIntyre, who builds the RV-6 mounts, and he thought it could be done without ruining the mount (Bruce is a great guy, by the way). So I yanked the engine and mount back off the fuse (talk about depressing!) and sent the sump, injection, and mount off to Bruce.

After a week or so, and several helpful discussions with Bruce, back came my mount, which I promptly painted and stuck back-on, and my favorite helper Doug Miner helped me re-hang the engine (we're getting pretty good at it now). The next night I dug-out my new sump gasket and bolted the sump back on, installed the intake tubes, and thought, gee, I ought to test the fit of my new Hi-Country Cross-over Exhaust System. Imagine my excitement as I fitted the front two cylinder pipes on. They fit and looked great! Then imagine my horror at finding the rear intake pipes totally blocking the 2 rear cylinder exhaust pipes!!!! I think I forgot to mention to Larry that I had a "special" sump. Whatever, they didn't fit. After some heart to hearts with Larry, we decided my best option was a 4-pipe unit with some slight mods to fit my stupid sump. That sounded good to me so that is what he built. His systems are great looking (Carl has a xover that you can check-out at the mtg) and weigh about 10 lbs.? Stainless that light?

The end result is a great, fuel-injected, low-time O-360 installation that I think will perform very well. The only problem is it took a lot of extra effort, time, hassle, aggravation, and *money* than it needed to. All part of the fun of building my own airplane, right? One positive outcome is that I got to know some very helpful, great people who build stuff for RVs.

Moral? Listen to Van's when they tell you what model engines to use!!!!!!! Don Wentz

### **Two Part Metal Etching Epoxy Primer**

At the Chapter 105 Builder's forum, there were a lot of requests for information on the primer that many of us use. Since I didn't have the info with me, I promised to print it here:

To order, call Sue Foye at:  
Courtaulds Aerospace 1 608  
Fourth St Berkeley, CA 94710-  
1776 818-240-2060

Ask for - K513x390 Aerospace Kit  
- 020x41 1 Epoxy Thinner

This will get you a 2 gallon kit of primer and hardener, and a gallon of matching thinner, for under \$100

delivered. Not a bad price for an extremely durable and good sticking primer.

ALWAYS be sure to use with high-quality filters and/or fresh-air breathing masks. Nasty stuff if inhaled!

### Such a deal!

You say you're ready to start on an RV project, but you don't have any tools, or you don't have a decent shop, or jigs, or experience, or help?

Well, this will blow all of those excuses out the window. Lewis Aviation at HIO, long-time custom RV builders (45 to date?) is announcing a new program for metal airplane builders. They will provide the workshop, tools, machinery, jigs, and, experienced RV builders to help you, all for appx. \$40 a day! As I understand the program, on a space available basis, you can build all or part of your RV in their shop, using all of their tools, jigs, and considerable experience, and only pay for the days that you actually go in there and work. This doesn't mean that they will work on it while you aren't there (although that is probably another option), but while you are there, if you need some extra hands, or you (like the rest of us) can't seem to figure-out something, they will be there to help.

Now, this may not be for everyone, but I know that I have easily spent \$2000 on jigs, tools, compressor, paint equipment, etc. And, all of their stuff is professional quality, their jigs are beefier, and they have the advantage of having done it all before. Translate that \$2K into days in their shop, and you could have a lot of very productive days, reducing the time spent building a kit.

Be sure and ask Dave at the meeting if you have any questions.

### New T-shirts Available!

Due to popular demand, we're running off another batch of the 1993 Northwest RV Fly-in T-shirts. These were the black on gray shirts that were sold at the June Fly-in at Scappoose airport. To order one of the shirts, send \$12 to:

Randall Henderson 7233 SW  
Benz Park Court Portland, OR  
97225

Or just give it to Randall at the October Builders' group Meeting. He'll need all orders before October 28 to know how many to have made. Be sure to specify the size and the shipping address (the \$12 will cover any shipping), or just pick it up at the November Builders' group meeting. There is a minimum number of each size we can have done; we plan on just getting large and extra large since these are the most popular sizes. Call Randall at 297-5045 (eves) if you really want a different size.

### Project Status:

Evert Evers has his RV-6 back from the paint shop. I haven't seen it 'in the flesh', but the pictures he had looked great!

I finished my radio stack installation, rolled the fuse out into the driveway and tried it out. The radio worked fine, and the Loran told me that Scappoose Airport is 2.3 nm bearing 354 from my house. I installed a speaker as part of my

radio/intercom setup, and couldn't resist leaving it on after I rolled it back in the garage to do some more "work". The panel is done now, proceeding to the other side of the firewall.

Relatively new member Mike Wilson has finished his tail kit. Unfortunately he had an accident and knocked the horz stab/elevator off a bench. The damage was limited to an elevator and his comment was "Oh well, I thinking of redoing that one anyway". Keep at it Mike!

How are the rest of you doing on your projects?

### EAA Chapter 105 Homebuilder's Forum - 9/18/93

Chapter 105 held their first Builder's forum on Saturday 9/18/93 at Twin Oaks Airpark near Beaverton OR. It was fairly well organized and attended by about 70 registered prospective builders.

They had welding, fabric, fiberglass and sheet metal workshops, with hands-on teaching. We also had a range of topics covered in a panel discussion format, ranging from how to choose a project and what to do with it when finished, to FAA involvement, to insurance. I was on the panel discussing workshop hints and builder's group support with Ken Scott and another builder's group member, Dennis Jackson.

Steve Harris, myself, new member Chris Lunde, and Brent Ohlgren did the Sheet metal workshop. It was great. Most of the attendees at the forum came through and got their hands dirty building a small piece of junk that required using many different types of skills, including 4 different types of riveting (squeezing, Avery tool and hammer, back riveting with a gun, and good ol' gun and bucking bar). We answered a million questions and demonstrated our acquired skills and probably (not on purpose) sold a LOT of Avery tool kits!! Especially since Avery supplied a large stack of catalogs (free, Spruce charged us for theirs!) and we had three of his dimple tools in use in our workshop.

Overall it was a lot of fun and I know some guys learned not to fear aluminum and riveting. I also got 10 to 15 more names on the newsletter list for this issue.

#### Don't Want Ads:

Let us know what you got but don't want. Ads are FREE.

Military grips with buttons/wires. These are somewhat smaller (which is good) than some of the others I've seen. Contact Kefton (Blackie) Black for info. 503-621-3125.

Frank Justice has some tail surface jigs available, along with some excellent supplemental RV assembly instructions. 642-5713.

Rion Bourgeois has a LARGE pneumatic squeezer that he used on his spars. Available for loan. 646-8763.

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

A Duckworks customer sent in this ad:

New RV-6A, built to sell by RV-4 builder/pilot,

Factory new O-360-A1A

King KX1 55 w/o GS

Narco AT1 50 xpndr

Corrosion proofed with Boeing Spec primer

Full Dual Controls

Sliding Canopy

3 Blade "Performance" prop

ACK ELT

Narco AR850 encoder

All rivets spaced 1" or less

Full Gyro Panel

Windshield Option