



Chapter 1344

P.O. Box 582

McPherson, Kansas 67460

CALENDAR OF EVENTS

Chapter Meeting

08-17-06 7 p.m.

McPherson Airport

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Thanks!

I don't know about the rest of you, but I really enjoyed the presentation by Joe Gonsalves at the meeting last month. Even though I'm not building a plane yet, I'm sure the information Joe gave us will be invaluable when I do get started. If anyone needs to contact him or the FAA FSDO, his email address is: joseph.gonsalves@faa.gov and his phone number is: 316.941.1259. Joe said he especially likes working with experimental planes and will personally come inspect for our area if at all possible.

Russ Malm says progress is very slow because of the heat. His shop has no A/C and un-insulated doors so it gets very hot inside. He'll be making more progress again when temperatures cool a bit.

Paul Teague still hasn't started anything and with some health issues may not ever start, either.

Mike L. has been working many hours over-time and hasn't made much progress on his plane, either. Once his over-time ends, he'll be back to work on the plane.

Jerry's sale fell through but he has another man coming to look at it and do a pre-buy sometime next week. Good luck, Jerry.

Mike B. has been doing a little flying in the club plane, too. He and his wife went to Ellsworth recently for a

breakfast fly-in.

Steve M. has been taking flight lessons for a powered parachute, and the last I talked to him he thought he had traded his Rans for a second powered 'chute that will be for sale.

I received an email from Rick Lanman and he says he's landed on his feet and will be taking a new position in OKC early in September. He says he'll be sending info on location and job description as soon as he's settled.

Tom S. has taken and passed his written test, and his instructor is prepping him for the oral exam, so he's well on his way to having his license. Go, Tom!!!

That's about all for this month. I'll not be at the meeting this month as I'll be in Dallas visiting my daughter that is soon to give birth to twins. See y'all next month.

Area Events

1st Saturday of every month – Ponca City Airport Pancake Breakfast (PNC)

2nd Saturday of every month – Beaumont Hotel (SN07) All-You-Can-Eat Pancake Breakfast

2nd Saturday of every month – Lufkin, TX (LFK) Fajita Fly-in 10 a.m.-2 p.m. Angelina County Airport

3rd Saturday of every month – Alva Regional (AVK) Alva, OK

4th Saturday of every month – Augusta Municipal (3AU)

4th Saturday of every month – EAA Chapter 455 Fly-in Breakfast at Enid Woodring Regional (WDG) from 8:00 a.m. – 10:30 a.m.

8-19-06 – Zenith Aircraft Company 15th Annual Open Hangar Days at Mexico, MO
For more complete information send an email to info@zenithair.com

8-27-06 – Falls City Rural Firemen’s 5th Annual Fly-in/Drive-in Breakfast at Falls City, NE (FNB)

9-1&2-06 – “When Pigs Fly” BBQ Contest and Fly-in and EAA Chapter 1344 “Young Eagles” Day
McPherson County Airport (MPR) www.mcphersonairport.com 620.241.0684

9-9-06 – 7th Annual Friends of the Colby Airport Fly-in Pancake Breakfast and Airport Open House
(CBK) 7 a.m. – 3 p.m. 785.460.4438 mcas@st-tel.net

9-9-2006 – 4th Annual National Radial Engine Exhibition Colorado Plains Regional (AKO) Akron, CO
720.272.4356 DANJ1_2000@YAHOO.COM

9-22&23-06 – 50th Annual Tulsa Regional Fly-in Bartlesville Municipal (BVO) 918.622.8400

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While working as a controller at Ellsworth Approach Control in the 80's, I heard this exchange.

ATC: Western 474, Ellsworth Approach Control is utilizing a certain phase of the radar called circular polarization, which allows us to depict only the most severe areas of weather on the radar display.

[Long Pause...]

Western 474: Approach, say again, please.

[Without error, ATC repeated the alert, (which I had never heard before!)]

[Second Long Pause...]

Western 474: Approach, we don't know what's going on down there, but the co-pilot seems to think that somebody just circumcized a polar bear.

The aviation documentary film “One-Six Right – The Romance of Flying” will be showing in Wichita on September 28, 2006. Tickets will be available online only! Here’s the link so you can keep up to date with it if you’re interested in going. <http://www.onesixright.com/> Possibly there would be some interest in the chapter going as a group to see it. Just a thought.

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Confessions of An Airplane Nut

Part 4

Sorry to be so long getting to this next installment but I have been, as they say, “kind of busy!” A big chunk of that busyness is involved with flying lessons or as “J” says, “learning to drink out of a fire hose.” The difficult aspects of flying are starting to come a little easier though, and crosswind landings are even becoming somewhat fun. But!, could someone PLEASE help me decipher those metreps? And tell me why we have to tell time the way the Zulu’s do? Flying solo through – THAT’s why I got into this thing in the first place and night flying – WOW!

I actually started this column with the intention of talking about building a Pietenpol Air Camper so maybe I should spend some time on that. It is amazing how often the in-air conversations I have with my instructor revert to how this or that will relate to flying (or building) the Piet. For instance, the Cessna 152 we are flying has wing flaps while the Piet does not. How do you compensate for those high-lift, high-drag devices? A typical General Aviation (GA) airplane has a reverse airfoil on the horizontal stabilizer (i.e. lifts down rather than up) but the Piet stabilizer is flat on top and bottom with a zero angle of incidence. Why does that work? Why is the Air Camper wing section undercambered? If you’re having trouble tracking straight down the runway with tricycle gear just imagine what it will be like when you’re landing with a tail wheel.

All of these questions are coming at a very good time in the building process as I can take a good long look at my building practices with an eye to building a plane that I will feel safe in. For instance, all of my instruments, no matter how inconsequential, are going to be internally lit with a rheostat for adjusting panel brightness. Why? Because I have already experienced a night flight where the cabin was so dark that I had only the vaguest hints of what the instruments were reading. The overhead light provided just enough illumination to see my altitude and airspeed but not enough to see the attitude indicator or VOR needle. Forget the fuel gauges altogether, they were somewhere down by my knees. On the good side, though, the lightning did occasionally let me catch a quick glimpse. The nice man at the Flight Service Center told me that the storm was moving away from my flight path but it never actually seemed to accomplish that feat.

“Build light, build strong,” is going to be my mantra during this project with the understanding that ‘strong’ supersedes ‘light’ if necessary. Light will make the plane fly better, i.e. climb faster, descend slower, maneuver with a little more responsiveness. Strong, however, will make it stand up to my landings (which I’m sure will get better with practice.) Mr. Cessna did a fine job on the landing gear of this particular C-152.

Actual construction started in November, 2004 with the first pieces being the fin (vertical stabilizer) and rudder. This was quickly followed by the horizontal stabilizer and the two elevators (aka “flippers” to the Air Camper building crowd.) All of these parts were laid out on a 4 foot by 8 foot building board on top of a full-size CAD drawing drawn from the official plans which I purchased from the Pietenpol family. Building material was 100% aircraft grade spruce purchased from Aircraft Spruce and Specialties. Top quality materials, good service, nice folks to talk to, %^\$*# price. Material grading and selection was one thing that I did not want to study at this point in time and run the risk of getting it wrong. All of the parts are held together with ©T-88 aircraft grade epoxy. It has the look and feel of a very large radio controlled model. After consulting with the experts (the very knowledgeable guys on the Pietenpol forum at Matronics - <http://www.matronics.com/emaillists/>), I chose to protect the finished product with ACE Latex Spar Varnish. I have since learned that this product will lift during the fabric covering process when using the Stits© system so a second layer of epoxy varnish will have to be added. (Darn, that won’t help my “light” goal.) The hinges can be homemade but the same guys put me on to a gentleman named Vitalis Kaepler who produces a custom set of cast aluminum hinges just for the Piet. Mr. Kaepler is a personal friend and associate of the late Bernard Pietenpol so what could be more appropriate? The hinges were filed and smoothed for correct fit and then anodized for corrosion protection prior to installation. These items are all ready to cover just as soon as some small metal fittings are fabricated and installed.

As I think I mentioned earlier, the engine is going to be a 110 HP Corvair engine modified appropriately for use in an airplane. I will discuss this in depth later. When finished with the conversion, the engine should end up costing in the \$3,000-\$3,500 range which is pretty inexpensive when compared with the cost of most aircraft engines. Horsepower will be more than adequate for an airplane which was originally designed to be flown with a 40 HP Ford Model A engine. It has the added advantage of being air cooled so no water weight to deal with or hot antifreeze blowing in the face of your ship’s Captain. Once again this is a power plant that was pioneered by Mr. Pietenpol in this very airplane so historical authenticity is maintained. To date the engine core has been stripped down and cleaned, the crank has been ground “10-10”, the case has been painted, the heads have been cleaned and a valve job done. Cylinder jugs, pistons, rings, and the camshaft will all be replaced with new units. The whole job is being done to the system developed by William Wynne, “The Corvair Authority.” Many of these engines are out there in airplanes today with an enviable record for reliability. No new ground being broken here!

All of the ribs for the wings are complete and hanging in a corner waiting to be joined up with the two $\frac{3}{4}$ " x 4" x 14' spars (per wing panel) which are waiting patiently on the garage floor. I haven't talked Sharon into letting me work on these in the basement yet but I'm wearing her down. I 'think' they will fit back out the basement window once assembled. The ribs are all assembled out of $\frac{1}{4}$ " x $\frac{1}{2}$ " x 6' spruce cap strip material with the joints glued, again with T-88, and covered on top and bottom with 1/16" aircraft ply gussets. There are 43 separate pieces to each standard rib, all cut to fit tightly and properly sanded and cleaned before gluing. Since I did these in a single rib jig this process took the better part of a year before the ribs were complete. Other things occurred at the same time, however.

Concurrent with all of this, the propeller was being carved. I should say, "it is being carved" as it is not yet complete. I will probably expound on that project a lot more later as well since it is a little complicated and many otherwise kind folks think me a fool for even trying this for myself. But, hey – I am what I am.

Last but not least, my aircraft engineer son assisted in training me how to lay up fiberglass. We picked a simple project – the wing center section fuel tank. This is a hollow object with absolutely no straight lines in it anywhere. I have a ton of photos on this project in my builder's log which you might want to check out.

http://www.eaa1344.com/Projects/Stinemetze/wing_center_section.htm

That's all for now.

The Airplane Nut

