



Experimental Aircraft Association Chapter 27 News



Next meeting Sunday, March 18, 2001, 10 a.m., Meriden-Markham Airport, Meriden

Secretary Report

Sunday, February 18, 2001

Club meeting started at ten sharp with president Caputo and all board members present.

We had 4 guests: Mike Okrent, John Boyce, John Guaino, and Greg Paulson. Two were from Bethany EAA chapter.

Treasurer's Report: November 50/50 raffle came in for \$31 and \$90 on Calendars. The club Christmas party fees and payments came in and out that month too. The club balance for January 31 2001 comes to \$1983.74. We sold 13 Van's Calendars at the meeting today. Chris Kohler won the 50/50 raffle today for \$19.

Young Eagles: Fran Uliano reported that we flew 107 youngsters last year and our goal for 2001 will remain 110. Several club members were highlighted in *Sport Aviation* magazine for flying 10 or more kids. This year's Young Eagle day at Meriden will be Saturday, June 9 to coincide with International Young Eagles day.

Old Business: The hanger committee did not meet the last two months. Jude Steel said he would chair the committee. Rick Beebe and Bob Upson would join the group as well. Maurice Libson bought plans and diagrams of the Wallingford/Meriden area.

We still have some Van's calendars left. They're \$12 each. They're quite well done, so grab yours before any more of the year slips away.

Bob Upson, and Bob Rouch volunteered to be the refreshment chairs. Bob will make coffee, and the other Bob will bring donuts.

Christmas party for this year: Maurice suggested the Yankee Silversmith Restaurant for a change of venue. He said the price was the same but the menu was more varied. Margaret has contacted George's II as well. The members voted to pursue the Silversmith idea. We need a commitment from 40 people to reserve the large room.

Fred said to count on first-of-the-month fly-outs for the summer.

New Business: Our 2001 **Fly-in picnic** is set for June 24th. Alan Ortner said he would chair the picnic again this year. Thanks Alan. It will be POT LUCK again with enough for visiting flyers. Bring a dish to eat and a dish to share. There was a brief discussion about alternate locations, but the group voted to stay at Meriden.

Chris Kohler brought a birthday cake for Club 27's 45th year. Our most venerable chapter was founded in February, 1956. Quite an achievement. Thanks for remembering our birthday Chris!

Fred read a letter from the EAA about our honoring our commitment to the home club. Chapter 27 members must also join the EAA. This appears to be a change in the previous policy that didn't require club members to belong to EAA unless they were officers. Mike Okrent, our new member, said the EAA would refund new members dues to the club if we claim it.

The EAA will hold a Safety Fest on May 12th at the UTC hanger in East Hartford. Fred said he and Jim Simmons need volunteers for the sheet metal and wood demonstrations. A fuller description of the event was in last month's newsletter

or call Joe Gauthier at (860) 635-4058 for more information.

Fred passed out service awards for the year 2000 and one for 1999. Margaret and I got one for Treasurer and Secretary. Fred got one for being president. Fran Uliano got one for the Young Eagles. Oscar Duff got one for 1999.

VP Steve Socolosky asked for ideas for club seminars. The April meeting will be at the New England Air museum (see the announcement on page 3). Another may be at the Bradley Tower. Jim Simmons said he would host a meeting at his home to show he progress on his GP-4. Perhaps meet here then go to Jim's house.

The normal April meeting date falls on Easter so we changed it to the following Sunday: April 22 at the New England Air Museum.

Bethany Airport Club wants a Piper Cub for display. It need not run, and will provide a tax credit.

Our **Seminar** this month was about Model Rocketry. Steve Socolosky and his son built several rocket models. One was a Honest John, another a Super Big Bertha. The class was so interesting that I did not take many notes.

Jim Maher reported he is making progress on his Dyke Delta. He showed a video tape about running his engine. We compared notes on my progress with the same type engine. Jim will make a formal presentation at the March meeting.

Ed Morris, we want you up and flying with your engines running smoothly again. Keep those Wing Tips up during your chemotherapy. We are all thinking of you.

Jerry Bass

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Chapter 27,
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596JB

Jerry Bass

In April of 1996, I started looking for a new project. When I was younger I had built 19 boats and two aluminum go-karts. A friend in California said to look at Van's Aircraft in Oregon. I called Van's and asked for a list of builders in the Northeast. They sent a list of 50 or 60 builders. I then sent letters to several builders around my home. Fred Caputo responded. He was building an RV6A in his one car garage.

The service desk at Van's said the RV6A has a depth behind the cockpit of 34". A critical factor if I should elect to build the project in the basement of our home. The tunnel going out is only 36" wide.

In May, I ordered the empennage kit. I had not flown in 18 years. While building the empennage I took flying lessons at Robertson Field. I wanted to know if I could still fly and pass the medical before spending more money on the kit. I flew over the winter of '96 and into the spring of '97 when I got my license.

The empennage revealed my poor metal working skills. The riveting was more difficult than I expected. The air pressure was probably too strong and the metal lighter than I had used before. It has more dimple wells than the other parts. Other parts behaved better once I invented a hold-down dimpler.

The wing kit came next. Van's people said making the spar was easy. I asked them about renting their pneumatic riveter that drives the 3/16" rivets. They said the waiting list was three months—longer than I wanted to wait. I cleaned, de-burred, etched, alodined, and primed each spar piece. I started each rivet with my size 2 hammer and finished it with a 3-pound single-jack on the floor.



Photo courtesy Van's Aircraft

The dimple frame and 3/16" dies did the job. Once each spar was finished, the wing fixture took shape. Two 4x4s from a shipping skid made up the posts for the tail and wing fixture. The tedious job of cleaning the wing ribs holes and dimples took the most time. I added steel angles for wing hangers and I was off and riveting. Several people helped rivet at this point. Each signed the wing section he or she helped with.

Fred Caputo had finished his fuselage and was willing to share his fixture. When my fuselage kit arrived I got Fred's fixture, leveled it up and started adding parts to it the next day. It would have taken a month to build a wooden jig—that was a great time saver. My wife Margaret helped a great deal with the fuselage riveting. She did a great job while I crawled inside to buck them.

By the time the fuselage started to take shape, I was dreaming of the engine. I first looked at Subaru's horizontally opposed 4 cylinder. Some people selling them were quoting 200 HP. Unfortunately, they were nearly as expensive as a Lycoming. At Oshkosh I met Tracy Crook, who had a Mazda 13B in his Van's RV4. He had written a book on converting the Mazda to aircraft use. His installation had taken him on 600 hours of safe flying trips at that point. His stated cost for converting the Mazda to his aircraft was \$4000. A great difference from the \$25,000 price for a four-cylinder Lycoming engine. He quoted 200+

MPH in his ship with gas mileage being about the same as similar planes with Lycomings.

My engine came from a local auto salvage yard and Margaret said it

smelled like a barnyard when I brought it home. I completely rebuilt it and added a gear reduction unit, propeller from Prince Props, and various engine room parts. The total cost of the engine was \$4500. The Prince Prop has tiptlets, which makes it sexy looking and quiet. The prop has Scimitar blades, which bend as you apply power. They act like a variable pitched prop: flat for climb and steep for cruise.

While building the fuselage, I started to collect parts for the instrument panel. Each piece was off-the-shelf, except for the fuse block and flap motor controller. I made up fuse blocks with PTC's: Positive Temperature Coefficient chips. The PTC acts like a resettable fuse, and comes in a variety of sizes. The flap controller works like the one on a Boeing 777 with a lever you move and the flap follows.

The panel has a GPS, VOR with glideslope, wing leveler and a transponder. A Grand Rapids Technology engine monitor watches 14 different engine parameters. I was able to tune the Bradley VOR in the basement and test the wing-leveler, but not the GPS. I used Tracy Crook's engine controller, which had two CPU's with one backing up the other. His injected controller costs \$850 as opposed to \$5000 for a controller for a Lycoming. In all, I have 8 computers on the panel. Even the altimeter has a computer that figures density altitude when you press a button. Many details were finished while

A flashlight is a case for holding dead batteries.

The male pilot is a poor, confused soul who talks about women when he's in an airplane...and talks about airplanes when he is with a woman.

New Date! New Location!

The April meeting will be held at the New England Air Museum in Windsor Locks on **April 22** at 10:00 a.m. Attendance will cost \$5.00 which includes admission to the museum after our meeting. The third Sunday of the April falls on Easter, so we're meeting a week late. After the meeting Steve Socolosky will be taking us through the restoration building (not normally open to the public) where we will see a B-29 being restored. The entire restoration crew is working on the B-29 which will be the flagship of the Air Museum's new hangar. So come along, enjoy our regular meeting and see a part of the New England Air Museum that most folks never get to see! After that, you're free to tour the rest of the museum as well.

Sun 'n Fun Approaches

Don't forget that the 27th Sun 'n Fun Fly-In will be held April 8 - 14, 2001, at Lakeland Linder Airport in Lakeland, Florida. Sun 'n Fun traditionally "kicks off" the international fly-in and air show season. Last year, more than 650,000 people and 8,000 aircraft participated. Education remains the focus of Sun 'n Fun's weeklong activities. Forums covering topics that range from aircraft construction, maintenance and restoration to buying insurance and hundreds of topics in between will be presented by aviation experts from around the world. Workshops, sharing a wide range of hands-on instructions with builders, will run continuously from Sunday through Saturday. Additional areas will be offered in a discussion and demonstration format.

Aircraft of every size, shape and description can be found along Sun 'n Fun's flightline, including vintage, aerobatic, ultralight, Warbird, rotorcraft, experimental-category and everything in between. Activities include a superb daily air show featuring the world's top performers and a full line-up of evening programs.

In addition, more than 450 commercial exhibits representing the leading edge of aviation technology will offer everything from aircraft kits to components.

Sun 'n Fun, one of the world's largest convention for pilots, airplane builders, restorers and all aviation enthusiasts, is open to the public. For more information, access the Sun 'n Fun web site—
www.sun-n-fun.org.

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the ship was still in the basement. I mounted, plumbed and fitted out the engine compartment without the prop. The cabin has hot water heat because the engine is water-cooled. I ordered a Mustang heater from JC Whitney Co. then installed it in-line with the side air vents

The finish kit was next. It arrived about August '98. It included the canopy, wheels, brakes, and wheel pants, nose bowl and other parts to complete the kit. Cutting the \$1000 canopy was quite a thing. My first cut was to remove the selvage around the edges of the canopy. It took 6 passes to get it to fit correctly. The wheels on the canopy frame would not roll. I called Van's about it and they had me machine out the plastic rollers to clear the axles.

We had a great time moving the fuselage, wings and engine from the basement to the garage. It rained that day and I thought we would have to postpone the move, but mother nature smiled on us. Eight men and their wives came over to help. We removed the steps from the wooden deck, and removed the hatch doors. Blankets over the concrete prevented scratches as we manually hoisted it out through the hatch with mere inches to spare. Once in the garage on

sawhorses we each gave a great sigh of relief, then started the barbecue party.

In the garage I mounted the engine again, and attached the landing gear and tail. Jim Maher and Stan Chaffin came over and we started up the Mazda 13B engine. Jim has a 13B on his Dyke Delta too. After fooling around with the fuel flow circuit, it started. It ran roughly at first, and without my tachometer working it was difficult to know the details. But was a great sensation once it leaned out and started to purr.

Next, Ed Morris, our Technical Advisor, came over and we ran the engine again. I had changed the engine monitor chip to a different version to make the tachometer read correctly. Ed's handheld tachometer read 2200 rpm with the engine tachometer showing 6250. Just right with the 2.85:1 gear reduction. I called Prince Prop and asked them to compare the 2200 static rpm with a Lycoming. He said we were getting about 175hp. Great! Now the engine monitor reads correctly including H_2O for CHT and *Bloc* for block temp. Grand Rapid Technology changes the code to match my recording labels.

Once past my concerns about engine performance, I installed the wings, flaps,

ailerons, and other components. Painting followed, just as Fall 2000 set in.

Bob Upson, president of Simsbury EAA Chapter and a member of Club 27 in Meriden, helped move the fuselage and wings to Barnes [BAF] in Westfield, Mass. It took three days to mount the wings and put all the bolts through the spar. Bob Upson and Jim Simmons helped by holding the wing as we worked them in place. Engine ground testing continued for several cold winter days. My final inspection was on December 3rd. The weight and balance figures came out nearly the same as most RV6A's, at 1073 pounds empty and the CG was just right.

My goal was to fly in 2000 and I just squeaked it in. The first flight occurred December 27, 2000. Shortly after the first flight the engine failed—on the ground, thankfully.

I removed the engine and sent it to Bruce Turrentine in North Carolina. He completely rebuilt it and now I have it ready to test again. The engine cost has risen to \$7500 including gearbox. In May I will have been at this for five years. I kept records all the way along and wound up with 2200 hours plus 350 on the engine conversion.

Everyone at Club 27 has helped immensely. Thank you all for your faith and support.

I paid too much for it, but its worth it.

Kitplanes on TV

The show *Flightpath* on the *Discovery Wings* channel, is currently running an episode about the Zenair kit plane. This tough little kit plane from Ontario is chasing poachers in Africa and carrying medicine to a Venezuelan jungle tribe. Hailed as the Sky Jeep of the Third World, Zenair is the domain of aircraft engineer Chris Heintz. It's on March 19 at 11:00 pm, March 20 7:00 am and again at 3:00 pm. Check local listings for channel number.

For Sale Wanted

Somebody sent me an ad—they're selling some Glasair parts. Unfortunately, I lost it. If your For Sale ad is supposed to be here, please re-send it to me and I'll get it in the next newsletter. If you're looking for some Glasair parts, let me know and I'll forward you your own private copy of the ad when I get it.

Rick Beebe

Wanted

Aluminum a/c building tools.
What do you have?

Contact Jude Steele at 203-630-0219 or online at
pilotjudman@aol.com

*The deadline for submission of materials for the April newsletter is April 5, 2001.
Send them to Rick Beebe, 360 Mountain Road, Hamden, CT 06514 or via email to rick@beebe.org.*

2001 EAA CHAPTER 27 MEMBERSHIP FORM

Please fill in the following information and mail with your dues to:

Margaret Bass, 20 Pine Glen Road, Simsbury, CT 06070

(Dues are \$15.00 per year, make checks payable to: EAA Chapter 27)

Name: _____ Phone: _____

Street: _____

City _____ State _____ Zip _____

Email address: _____

EAA Membership No: _____ Pilot rating held: _____

Do you own an aircraft?: _____ Make & Model: _____ Registration No: _____

Are you building an aircraft?: _____ Make & Model: _____ % completed? _____



The Leader in Recreational Aviation

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*Meetings held on the third Sunday of the month at Meriden-Markham Airport,
Meriden, CT at 10am unless otherwise noted.*