

ADVENTURE NEWSLETTER #4

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GOIN' PLACES The Adventure prototype attended the 1980 Sun-N-Fun gathering at Lakeland, Florida in mid March for a little break from the Kansas winter. The weather was great all week long and the Adventure spent most of it hot-footing around the flyby pattern. We spent a total of seven hours in the pattern for a total of about 400 flybys. I get dizzy just thinking about it! The Adventure was unquestionably the most active airplane in the flyby pattern by far. We had

at least one active builder in attendance and next spring expect to have some company in the flyby's.

The Lakeland trip was the Adventure's longest crosscountry jaunt to date, covering a round trip total of over 2300 miles. We were trapped by weather on the trip home and spent a restfull day in Pine Bluff, Arkansas. If you have to wait on weather someplace, Pine Bluff is a good spot. Friendly folk abound and the chef at the Admiral Benbow is an artist with liver and onions.

The Adventure will be at Oshkosh again this summer. Seminars are planned for those interested and possibly we'll do some demonstrating in the workshops.

MATERIALS KITS

Aircraft Spruce and Specialty Company is offering a full bill of materials for the Adventure airframe. All foams, fiberglass, fillers, metals, wood, hardware, and specialty items like the canopy retainers and trim quadrants are included. Through the end of August the whole package will sell for only \$1980. If you buy all of this stuff piecemeal it will run about \$2350.

If you are ordering materials from Aircraft Spruce or Brock, be sure to identify yourself as an Adventure builder. Both Brock and Spruce have a wide range of materials for all kinds of homebuilts. Identifying yourself may help avoid any potential confusion.

STYROFOAM

Sears, Roebuck, and friends offer a big block of Dow styrofoam for the builders of floating boat docks. A couple of people have asked if this material is suitable for use in the Adventure. Well, maybe yes and maybe no. The results aren't conclusive. The Sears foam is Dow brand B.B. (boyancy billet) and according to Dow, no efforts are made on their part to insure anything other than the proper flotation. Dow indicates that warpage, surface defects (cracks, dents, etc.), and internal variations in the Sears foam may be common. The material stocked by Aircraft Spruce is Dow brand F.B. (fabrication billet), and according to Dow all of the evil things possible in the Sears foam have been screened out. The gist of it all is that the material is the same, only the quality control varies. The price difference isn't all that great, the B.B. material from Sears costs about 43¢ per board foot and the F.B. materials are about 51¢ from Aircraft Spruce. Aircraft Spruce takes great pains to pack their foam securely against shipping damage while Sears ships their foam bare. The cost advantage in the Sears foam could easily be lost to shipping damage. Use your own judgement. It is possible to save a little buying Sears foam and the material that I've seen looks ok, but you just might get stuck.

The ½ inch thick foam sheets called for in the Adventure plans are a real bitch to ship. The distributor who supplies foam to Aircraft Spruce advises us to expect a large percentage of breakage in the full 96 inch lengths. The distributor suggests that we send out 48 inch lengths and have the builders join two pieces. We will be doing just that. The spare joint doesn't reduce the strength of the airplane and isn't much trouble to splice. So, those of you ordering ½ inch foam from Aircraft Spruce should expect to get ½x24x48 sheets instead of ½x24x96.

Another means of getting undamaged ½ in. foam is to buy thicker blocks and use your hot wire cutter to plane off ½ inch sheets after you get the thick material in house. The thicker sheets are far more durable in the shipping environment. The hotwire setup is simple. You just clamp the hotwire frame to your workbench so that the wire is parallel to your table top about 0.55 inch above it. Heat up the wire and push the thicker slabs of foam across the table top to slice off a ½ inch slab.

OILITE BUSHINGS

The Adventure plans call for 3/16 I.D.-1/4 long flanged oilite bronze bushings in eighteen places. The distributors are having a hard time locating the critters, so, I'm allowing them to ship bushings that are 3/8 long in the kits. The extra length isn't a problem in most cases. There are ^{two} bushings in the elevator crossover assembly that need to be cut down to the 1/4 inch length, otherwise the 3/8 length is OK.

LEAD BALANCE WEIGHTS

The plans call for lead balance weights in the elevators and ailerons. The material sizes listed in the plans are hard to come by unless they are specially cast, which costs more money. Ken Brock has a 0.6 X 0.8 inch rectangular bar of lead in stock. This bar can be used in 3.5 inch pieces for each aileron and three 1.2 inch lengths for each elevator. Ken is offering a 15 inch length to the Adventure builder that will provide enough materials for all the surfaces.

SAFETY EPOXY

There has been a good bit of recent information published about a new epoxy system produced by Applied Plastics which is essentially non allergenic. This new material is marketed under the name of "Safe-T-Pox" and the APCO numbers are 2410 resin/2183 hardener. This material, as it now exists is not suitable for Adventure construction. The reasons for it's unacceptability are twofold, first it is difficult to work with due to its viscosity and secondly the material has an overpowering odor. APCO is working on both of these areas and may well have a new answer before most of you read this newsletter but for the time being I don't want to encourage anyone to start a new project using the 2410/2183 system. This material can be used as a last resort to try and complete a project already well along If you should develop a sensitivity problem. So, until further advised stay with the 2426 resin/2176 or 2177 hardener system.

ALUMINUM ANGLE

The nose gear support structure calls for 6061-T6 aluminum angle 1X1.5X.125. The material in this size turns out to be more expensive than 1.5X1.5X.125 angle, even though there is more aluminum in the equal leg angle. Beats me as to why, but the 1.5X1.5X.125 angle will be supplied by Aircraft Spruce in an effort to save the builder a buck. You can use it full size or cut it down to the 1X1.5 size as you prefer.

SEAT BULKHEAD COVER

If you want to use the area behind the seat as a baggage box you can construct a light weight barrier to keep the baggage from tangling the elevator control system and a cover for the hole in the seat bulkhead from .016 aluminum sheet. If you do cover the hole, make sure that you hinge the cover or use camlocs to make the baggage easily accessible.

LANDING GEAR SPRINGS

The Rutan Aircraft Factory is now offering its Vari Eze and Long Eze builders a beefed up landing gear spring. Apparently a large number of standard VE builders are opting for the heavier gear spring which is creating a number of surplus VE gear springs as used on the Adventure. The Eze main spring is usefull to you but the nose gear spring is not. Anyone interested in haggleing with the VE troops for a gear spring shou'd drop me a SSAE for a current list of VariEze builders with springs for sale and possibly send Rutan a note to include in his Quarterly newsletter. Until the surplus Eze gear springs are used up MEC won't tool up for another production run of mains. The Adventure nose gear springs will be available from Mead Engineering. Don't try to adapt the heavier, more costly Long Eze main spring to the Adventure, the weight penalty is unacceptable and it will give you a hard riding airplane.