

3. John Wright, Long Beach, CA
558.00 Barnstormer, McCoy 40
4. Lou Crane, Sierra Vista, AZ
547.00 All American Sr. Fox 35
5. Lou Wolgast, Tucson, AZ
533.00 50 Plymouth Int. Winner

**Nostalgia/Classic Stunt
(Current AMA Pattern)**

1. Bob Whitely, Fountain Valley, CA
1048.50 Panther
2. Tom Dixon, Marietta, GA
1013.00 Lark, Magnum 40GP
3. Kaz Minato, Torrance, CA
998.00 All American Sr. Fox 35
4. Lou Wolgast, Tucson, AZ
937.50 Smoothie
5. Chris McMillin, Huntington Bch., CA
898.50, P-63 Profile

Also:

Long-Distance Award: Dick Wolsey - No. Reading, MA

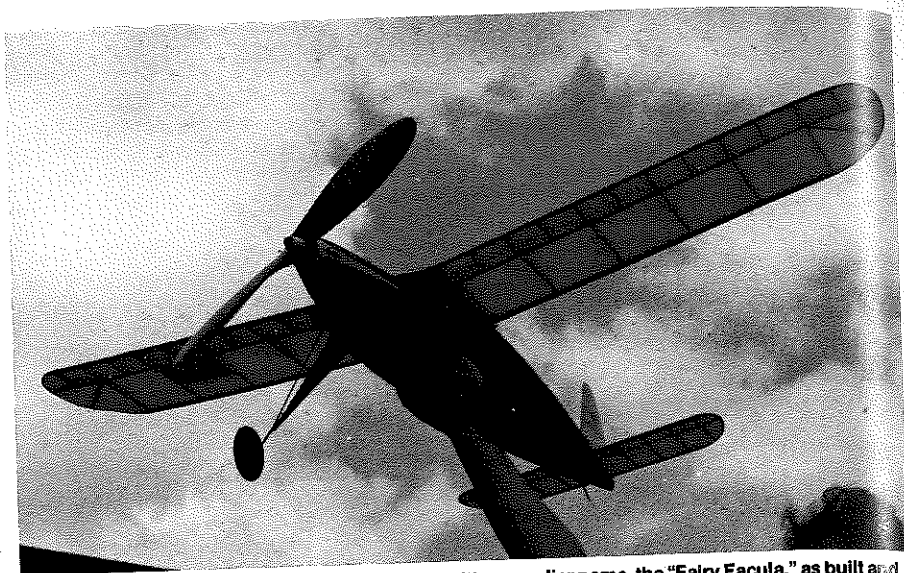
"Spirit of '52" Trophy: Jim Levell, Highland, CA

1947 "Super Zilch," kit by Galaxie Model Co.

Concours d'Elegance: Kaz Minato - Torrance, CA

AA SR., Fox 35 (Yeah, the inboard panel is a bit short, but ya had to see the finish . . .)

By the way, if this O/T stuff turns you on, Mike Keville sez to mark your calendar for the 2nd Vintage Stunt Champs on February



15. Good looking vintage English rubber design with a peculiar name, the "Fairy Facula," as built and flown by Bob Jones of SAM 41. Covering is silk and tissue. Photo by Jim Alaback.

24-25, 1990, at Whittier Narrows again!

ENGINE OF THE MONTH

For this month's rare engine, we are again indebted to our old friend, Karl Carlson of San Jose, California. In addition to this, we must acknowledge Gus Munich and Art DeKalb as sources of information.

As far as can be ascertained, this larger 29 Bantam engine was the product of Ben

Shereshaw's inventiveness. Although some production was undertaken, about 12 to 24 castings (at most), were made up. When the Herkimer Tool Co. (manufacturers of the OK engines) bought up the rights to the famous Bantam 19, all materials were transferred to the new owner.

Continued on page 90

**OLD TIMER
Model of the Month**

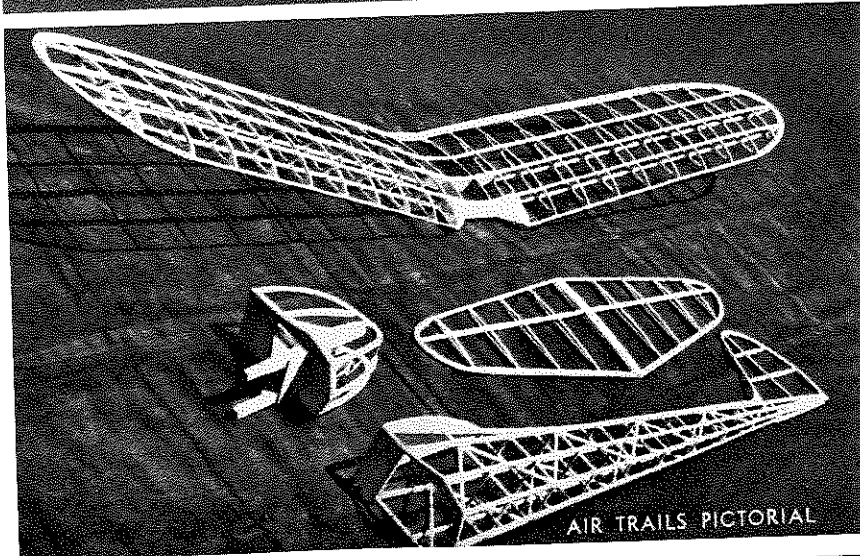
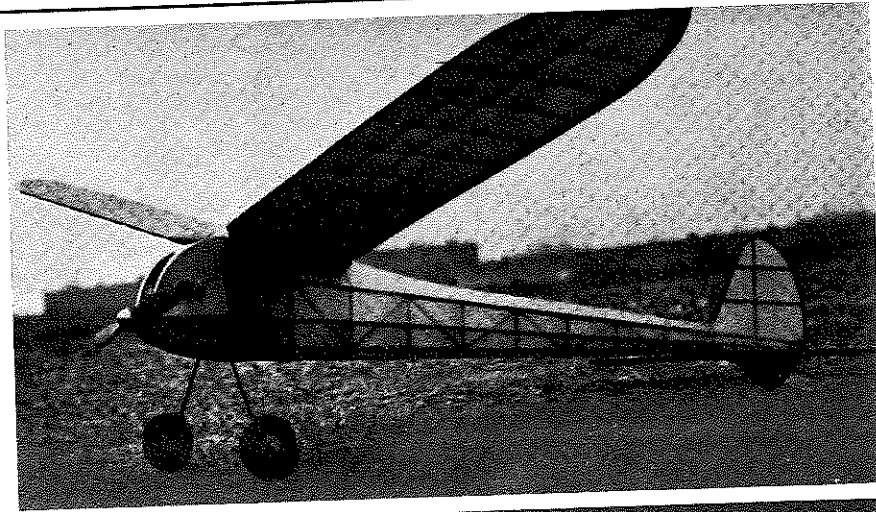
**PINCH
HITTER**

**Designed by Paul Plecan
and Gil Shurman. Text by
Bill Northrop.**

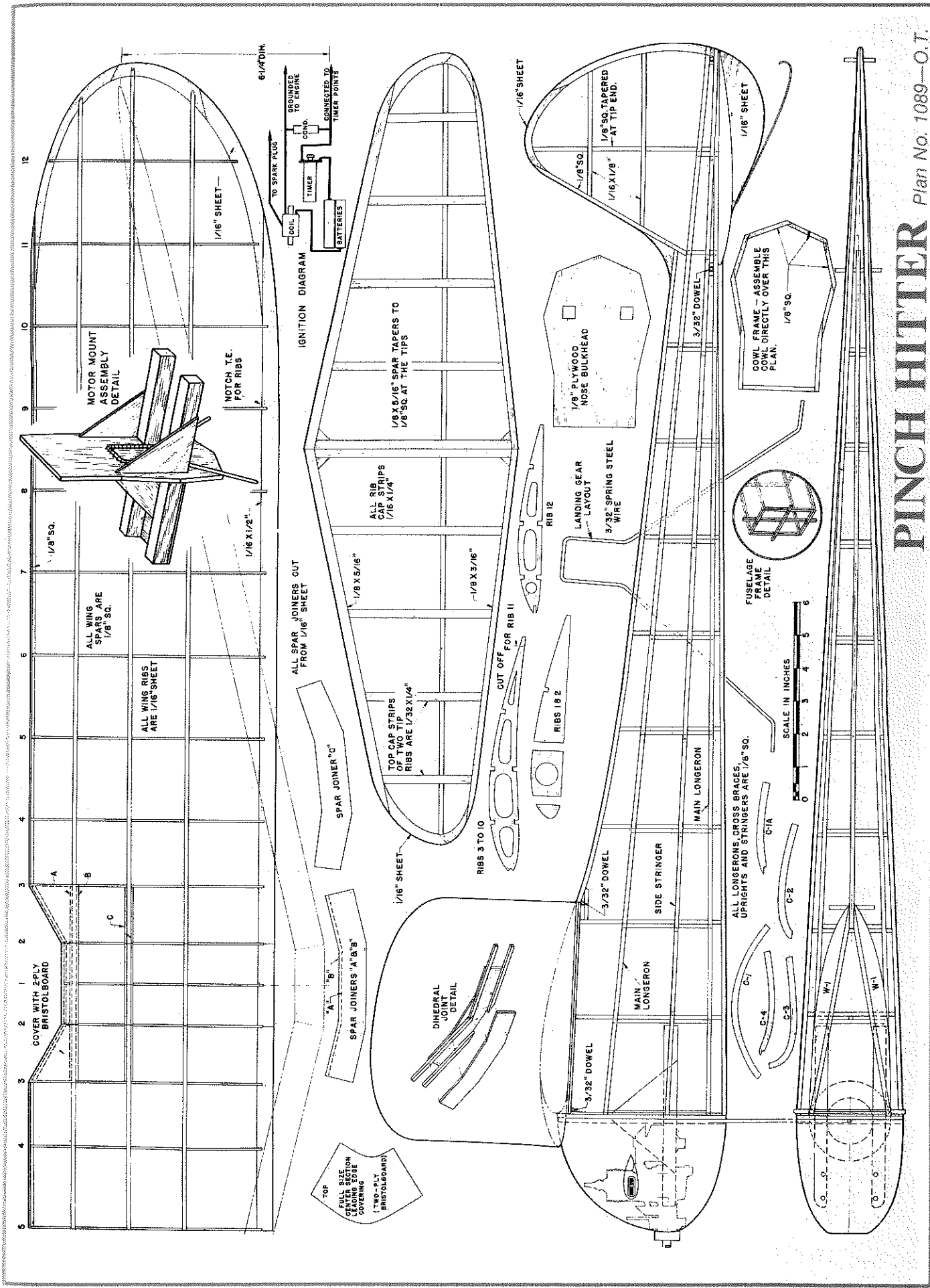
• On page 28 of the November 1942 issue of *Air Trails* there was an article written by Claude McCullough, whom you possibly have heard of, entitled "Exit Balsa—Enter Basswood." We were in the midst of World War II, and it was a time of rationing . . . butter, gasoline, tires . . . balsa . . . some items were really in short supply because of wartime priorities . . . others items the government purposely rationed just to make sure everyone felt some effect from the situation . . . "There's a war on, you

Continued on page 66

Photos at right were shot directly from the original magazine, as was the plan on the facing page. With its clean lines and simple construction, the Pinch Hitter could be a real sleeper for F/F and R/C O.T. competition. Span is 56 inches, wing area is around 390 square inches, and the overall length is 36-1/2 inches.



AIR TRAILS PICTORIAL



PINCH HITTER

Plan No. 1089—O.T.

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ning would lessen their value.

PiperContinued from page 19

some work, and have a better looking cowl to boot, for only \$20.00 plus \$3 shipping.

For the radio, my trusty Futaba was drafted into service with standard size servos on all four controls. Recommended power is .45 to .60 two stroke, and .60 to .90 four stroke. I found an O.S. FS .61 fit in the cowl quite nicely.

Generally I build for go, not show, so I chose to cover the model with MonoKote. After filling some pinholes, the cowl was painted with Formula-V. I was fortunate to have the opportunity to copy the simple paint scheme of a local, full-size Super Cruiser, which got me a little flight time in the real one. You reap what you sow!

When finished, with everything installed, I found the model to be very nose heavy and had to add several ounces of lead to the tail. This is due, no doubt, to the long nose and heavy engine. Installing the radio as far to the rear as possible will help. Total weight came to 9-1/2 pounds. The 85-inch wing has 1,040 sq. in. of area and this gave me a wing loading of 21 ounces per sq. foot.

After owning a full size J-3 back in the mid-fifties, and having built several model J-3s over the years, I thought I had a handle on the upcoming first flights. I was right . . . almost. The model did fly "right off the board" and I found it to be quite similar, though faster, than the other Cubs I had built. As long as both rudder and aileron are used in the turns, the model flies very well and will loop and spin easily on the power of the .61. However, on the third takeoff I got an unexpected opportunity to test the structural integrity of this model when I pulled it off the ground too fast in a crosswind. The ensuing cartwheel resulted in a broken elevator, crunched wingtip, and some popped MonoKote. She's a tough one!

Overall, I found the model challenging to build, nice to look at, and fun to fly. What more could I ask?

A special thank you to Chris Kidd for his help with this article.

Manufacturers supplying products for this article: Davey Systems, 675 Tower Lane, West Chester, Pennsylvania 19380; Fiberglass Master Inc., Rt. 1, Box 530, Goodview, Virginia 24095.

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EnginesContinued from page 34

. . . but the rear was through a drum valve intake! The East Europeans favor the rotating drum valve inlet for high performance speed engines. Czechoslovakia's MVVS factory today makes racing .40s (6.5 GRRT ABC) with this more intricate intake and it's seen on homemade Russian control line speed engines. Now the Soviets are using the drum in 2.5cc MARS diesels that have been factory produced since '84-'85. The drum is complicated to machine, adds weight as well as rotating mass, but it has the advantage of a precisely timed huge intake window and a huge hollow channel for atmospheric combustion air to rush in

to satisfy, or relieve, the negative pressure caused by the rising piston. If we tried to use the same size intake window and same inside diameter hollow channel in today's conventional front intake engines the crankshaft's would simply be too weak. The drum valve is an alternate to a too weak crankshaft.

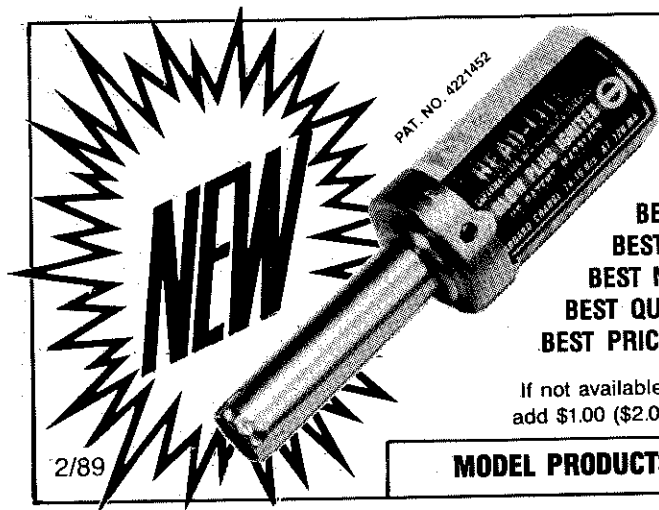
We are indebted to the golden hands of Jiri Patrman for being able to show you two different intake systems . . . in jewel-like similar miniature engines which he makes at home.

Both engines score 10 points on manufacturing excellence, score 10 points for design excellence, but the engines have not been run for performance ratings as they are highly collectable rarities. Run-

Old TimerContinued from page 40

know." Claude's article explained that balsa had "gone to war," and would pretty much be in short supply to those few modelers who, because of age, physical disabilities, military exempt jobs, etc., were still able to indulge in the hobby.

On the other half of that very same page (the magazine was 10-3/8 x 13-3/8 in those days) was the beginning of a construction article for a gas model, with the appropriate name of "Pinch Hitter" . . . appropriate in that there was not one snitch of balsa in the whole thing. The article suggested the use of spruce or pine, and the wood sizes were reduced from what would normally



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be used if it were constructed of balsa. If you were familiar with the late Paul Plecan's "Simplex" design (see our August '89 issue), you could spot the origin of some of the basic, straight-lined construction and the essentially pleasing lines . . . really kind of a slimmed-down and leaner Simplex. Paul's byline was shared by Gil Shurman, a close friend and equally well-known designer of the prewar modeling era.

The construction is quite basic and should need no explanation for experienced builders. Here's a good chance to try the use of spruce. It's really nice to work with, and several suppliers, Sig for example, offer it in the sizes required. It should be a simple job to switch to balsa, if you prefer . . . just increase sizes in the appropriate locations.

There was one omission on the drawing, having to do with the cowl. It's easy enough to use chunks of balsa to duplicate the shape, but if you want to be authentic, you'll note that only the cowl outline is shown . . . no details. But also note those mysterious curved pieces located under the side view, just aft of the landing gear, and labeled C-1, C-2, C-3, etc. These were apparently cut from 1/8 sheet hardwood and assembled directly over the cowl frame, which is shown just under the aft end of the side view, forming an open structure which was then to be covered with "two-ply bristol board" and finished with silkspan and dope. Might be fun to try to put this jigsaw puzzle together!

The original model was designed around the Rogers 29. No information was given

on flight characteristics, and the luxury of a specified balance point was also denied. The Sal Taibi Pacer-style inverted stab is in a difficult position for dethermalizing. It may call for splitting in two halves and pivoting at the spar location.

We'll be watching for your "Pinch Hitter" in John Pond's Plug Sparks column! ●

PeanutContinued from page 53

The spar carry-thru tubing goes across the center section near the top, just behind the main spar. Note the location of this and the holes for the drag pins in the 'R-1' ribs. Be sure to make one extra 'R-1' to be cut down for the centerline rib in the wing center section.

There is a tail notch at the aft end of the fuselage to accept the horizontal tail. It does not go all the way to the leading edge of the tail, but it accepts the notch in the leading edge of the tail.

The rudder sockets in the fuselage are just holes in the balsa to accept the short lengths of pin that extend down from the front and rear of the vertical tail. The aft pin sticks down through the horizontal tail and keeps it in place. Strut tubes are located at each lower longeron just forward of the landing gear. Notice the crosspiece that leans forward like the strut. Two crosspieces that lean aft accept the main landing gear. When installing them in the fuselage frame, put a piece of matchbook cover, or equivalent, between them to allow for the thickness of the gear wire.

The nose gear merely plugs into a balsa

block built into the bottom center at the proper location. Where wires simply plug into holes in balsa, the holes can be hardened by the application of a little thin cyano adhesive. If done very carefully, the surrounding balsa is hardened without the holes being filled.

The wing panels have tubes to accept the carrythru, a bamboo drag pin and tubes to accept the upper end of the struts. Note that the tube hole in the 'R-2' rib is lower than in the 'R-1' to allow for the wing dihedral. The bamboo drag pin penetrates 'R-1' and extends to 'R-2' and is cemented to it at the 'X.' The drag pin should extend from the panel root about a quarter of an inch. Make a smooth point on the free end of the pin so it will penetrate the center section 'R-1' rib easily.

The struts are made with a round bamboo leading edge long enough to extend into the fuselage strut tube at the bottom, and the wing strut tube at the upper end. The balsa part completes the streamlined strut and is made to fit between the fuselage side and the wing panel bottom surface. The bamboo at the upper end of the strut may have to be bent to align with the wing tube. A little misalignment will not hurt because it tends to make friction between the bamboo and the tube and thus more secure struts.

The particular ITOH 62-160 modeled, JA3216, has a blue and white color scheme. The model was completely covered with white tissue which was water shrunk and given two coats of thin dope. The blue color was achieved by double covering with blue tissue, carefully cut to the pattern on the plan. Registration numbers are also blue tissue. Surface outlines were made with a fine, permanent felt pen. There is a black "N" in the circular blue sky surrounding the swan on each side of the vertical tail.

Thin, clear acetate sheet (.003) was used for the windshield. The pattern shown is a good starting place, but all models vary a little, so first cut one out of paper for a trial fit.

The side windows are simulated with black tissue. Pilot and passenger silhouettes are cut out of the black tissue, thus leaving white silhouettes when the tissue is doped over the white tissue. Pilot and passengers were then drawn in with colored felt pen, with just a touch of white correction fluid