



The full size "Little Toot" that took three trophies the first year it appeared at the Experimental Aircraft Association Fly-In, 1957.

LITTLE TOOT

This is really getting it directly from the horse's mouth! Who could be a better authority on the scale accuracy of a model than the designer of the original full size aircraft? Model "Toot" meets Peanut rules, and features same rib spacing, etc., as the full scale ship. Three-views on page 28. By GEORGE MEYER.

This is an accurate peanut scale model of Little Tool with all rib spacing, etc., the same as my full scale aircraft. Weight can be cut and flying improved by eliminating half of the ribs and fuselage bulkheads and substituting 1/16 x 1/32 stringers from back of the cockpit to the tail post, spacing them approximately 1/4 inch apart, tapering the spacing to the tail post. This will still be accurate scale since the full scale Little Toot can be built with a metal monocoque or tube and stringer construction. In fact, most of the full scale aircraft are of the tube and stringer type.

My model is powered with an old Buzz CO2 engine I have had for many years. The Brown CO2 is the same size and can be used, or 4 strands of 3/32 rubber as shown on the plans.

The only deviation from scale is in the tail surfaces, which had a symmetrical airfoil on the full scale, but I built the model surfaces of flat 1/16 thick, which is more common for peanut scale models.

The model is built in the conventional manner, with a box made of light 1/16 square balsa; the bulkheads added and

then covered with light weight 1/32 balsa sheet. Give the 1/32 sheet a thinned (50-50) coat of dope on the inside to keep it from getting bony after the covering is installed.

The plans show two types of engine cowling. The solid lines are to the scale of the big aircraft using the 125 to 200 hp

engine as now installed on the full scale ship. The dotted lines are of the original 90 hp version and Arlo Schroeders Hawk Pshaw (the most beautiful Little Toot built so far). There are also two-cockpit types shown.. the open with headrest as Little Toot originally, and the full canopy type as Little Toot is now.



When it comes to scale detailing, you can't do better than to own the plane you're modeling! Note the similarity in this photo to the one above. Note CO₂ fill nozzle under fuselage.



George Meyer and his "Little Toot", one of the most famous of homebuilt biplane designs. George has been a modeler for many years, and in fact, built a model of the "Toot" before the full size one was even started. The model actually helped in finalizing the working drawings.

The nose cowling is carved from balsa blocks, the center one first, then the cheek cowls and the carburetor air scoop. After it is completely carved, glued and properly faired in, hollow the whole thing out with a Dremel motor tool. Use a cutter until you get it down to about 3/16 inch thick and then use a coarse 1/2 inch ball grinder and cut the thickness of the cowling to approximately 1/16 inch. The ball grinding wheel cuts balsa very fast and smooth and is easy to control.

The wing and tail surface outlines are built up using two pieces of 1/16 x 1/32 railroad stock soaked in water and then glued with Titebond thinned 50-50 with water, then wrapped around cardboard forms as previously explained in past issues of *The Model Builder*.

The wing ribs are of the sliced type, from 1/32 balsa sheet. Assemble the wings by pinning the outlines on the plans, glue in the top half of the ribs, then turn the wing over, add the 1/32 thick spars, and then put in the lower half of the ribs. Clip the trailing edge of the main ribs to form the ribs used in the lip sections of the wings. Put the dihedral in the lower wings as shown on the plans; the upper wing remains flat. As you probably already know, the sweepback in the upper wing gives the same effect as dihedral, plus helping the directional stability of the model.

The tail surfaces are built up of light weight 1/16 square balsa, within the laminated outlines.

Cover the wings and tail surfaces with light weight Japanese tissue. Decorate them with colored tissue or decal paper.

My plane is white trimmed with red.

Cut away the lower planking on the fuselage to the wing saddle section of the lower longerons and install the wings. Make fairings on the lower wings of 1/64 sheet balsa and use dope and balsa dust around the leading edge of the wing.

Cut a slot in the sheeting in the back section of the fuselage and install the stabilizer. Now install the fin and rudder. The landing gear is .020-24st aluminum bent as shown in the front view of the model. Drill a few 1/8 inch holes in the center of the landing gear to epoxy it to the 1/16 hard sheet installed in the front of the fuselage between the lower longerons.

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Little ship has excellent proportions for flying scale.. Peanut or otherwise. Since drawings are to exact scale and follow full size construction, they could be blown up for R/C scale.

Toot..... *Continued from page 11*

Drill the legs of the landing gear and install a straight pin with a washer soldered on the outboard side to make the axle rigid to the landing gear. Be sure to install the gear in the fuselage before the axles are installed or you won't be able to thread the gear thru the slots in the fuselage.

The wheels are built up of plywood with balsa sheet on both sides and a length of 1/16 aluminum tube for a bearing, all sanded to correct shape. Wheels can be made on a Mattel Vac-U- Form over a hardwood block, turned on a lathe to correct wheel shape. The wheel pants are made on a Vac-U-Form over a matched pair of blocks. The tail wheel is a slice of 3/8 inch dowel. The tail spring is 1/32 music wire between 1/8 inch strips of bond paper to simulate the flat springs of the big airplane.

Rig the wings with 6 lb. monofilament spinning line.

I gave the fuselage fin and rudder a light coat of white dope to color the bare balsa wood, then trimmed it in red as used on the big airplane.

The model is very stable, as is the original full scale aircraft. First glide and adjust by bending the tail surfaces or adding clay as needed. Then hand wind with a couple of hundred turns and try it under power. If you happen to have a new Brown CO2 engine, this is ideal power for this model. Even with the old engine I am using it is no problem to get a one-minute run with enough power to fly the model nicely.

So get with it and build a true scale Little Toot and have yourself a ball. #