



LITTLE TOOT

By GEORGE MEYER

Text by Bill Northrop

Exact 2-1/2 inch scale plans of one of the most famous homebuilt biplanes ... by the original designer. Fits requirements of Jerry Nelson's Sport Biplane rules, also Stand Off and "Stand Close" Scale.

• If you've been keeping score, you know this is the third time that MODEL BUILDER has featured a Little Toot construction article. However, we haven't actually been stuck in that much of a rut. Our first Toot was a semi-scale R/C model for .40 engines, by Denny Elder, featured in the September 1972 issue.

In short order, we heard from George Meyer, designer of the full size Toot, and found out in the process that he has been an accomplished modeler for many years. George expressed the opinion that his biplane is a modeler's airplane . . . one that needs no modification to make it an excellent scale flyer. To prove his point, he designed and built the exact scale Peanut Little Toot, which was featured in the July 1973 issue of MODEL BUILDER.

George had previously drawn 3 inch to the foot plans for R/C scale. Glenn Cunningham, a modeling buddy from Phoenix, Arizona, built the ship and entered it in R/C Scale at the 1967 Nationals, but did not place. At 3 inch scale, the typically short bulky fuselage of a perky

little homebuilt becomes a monster. The Toot, was 8-1/4 inches wide at the cheek cowls, 6-3/4 inches wide at the cockpit, and 10-1/2 inches high at the head rest!

The plans published herein are at 2-1/2 inch scale, which seems to be just about right. Although a .40 or .45 would probably do the job, a sport .60 will do better; it'll provide additional *working* ballast to maintain a proper balance point and make available that extra poop which comes in so handy at times. In addition, a .60 allows plenty of spare power to overcome the effects of a really good muffler system; so essential in these days of noise abatement as related to keeping flying sites!

Dimensionally, the 2-1/2 inch Toot meets the specifications for Jerry Nelson's Sport Biplane event, and should be an excellent choice for this competition.

To the best of our knowledge, no ships have yet been built from these plans, but we felt they should be published now for those who would like to get started. Sometimes you can just look at plans for a model and know it's going to perform well.

This is one of 'em . . .

CONSTRUCTION:

This is truly a model for the advanced builder, in that the plans indicate the use of materials and techniques associated with a modeler who is capable of originating, and carrying out, his own construction methods.

Actually, most all of the basic structure is quite elementary. It's when you get further along into details that the going can become difficult.

The fuselage, for instance, is shown as a stick-built, square frame skeleton, as basic as a 10 cent Megow Kit. However, once this is completed, you must cut out and install multiple-piece bulk heads and then strip-plank the entire outer skin.

With the very possible arrival of the Sport Biplane event, it might be worth someone's while (are you reading this, Dwight?) to make a 2-piece fiberglass fuselage (separate cowl or cowl-half) available.

This, plus exact scale wheel pants, would be a big step toward putting the Toot in the hands of more modelers.

Incidentally, although shown as pivoted and sprung on the plans, experience has shown that a fixed, one-piece Cessna type Dural landing gear will be best for this model. You might also prefer to make the cabane struts out of aluminum sheet stock, with hardwood fairing strips epoxied on both sides. Also, nylon bolts should be used to attach both top and bottom wings.

Depending on whether you intend to use your model in...

Excuse the interruption, but let's get something straight. As Sport or Stand-Off Scale has now become an official event, we feel that so-called "AMA Scale" needs another name. To us, it sounds discriminatory to call one scale event "AMA Scale," as if to imply that the much more popular Sport Scale was secondary. Let's give the original, all-out scale event a new identification, such as "Museum Scale," "Absolute Scale," "Stand Close Scale" ... or maybe rename both of them as "Fussy Scale" and "Fuzzy Scale."

Anyhoo, depending on how you intend to use your Toot, the tail surfaces may be built with or without corrugations. If you build it for . . . er, Fuzzy Scale, a few deft strokes of a felt tip pen will make quite realistic corrugations from 20 feet away. When installing the stabilizer, we'd suggest you keep in mind to trim all flying surfaces at zero incidence in relation to one another and maintain the 2 degrees down-thrust. Also, allow for the possibility of adding some right thrust. (Our Sproose Goose needed about one degree of right, and the force set-ups of these two planes are quite similar.)

The top wing is built without dihedral, however, plywood joiners made of 1/16 ply laminations, bent to match the 8 degree sweep-back, are glued in between upper and lower spars. Though not shown, we'd also recommend installation of 1/16 balsa webbing from the center out to the strut bay, on both upper and lower wing.

What can be said about flying? With sensible surface alignment, and starting with the balance point shown, the first trimming flights should come off without too much panic. One important thing to remember... A short-coupled, short span aircraft such as this will react to sudden throttle application by turning and/or rolling left. At takeoff, hold up elevator and right rudder until some speed is built up, then slowly let off on both controls so that the plane can leave the ground in a normal fashion. If you're shooting touch and go's and decide on a go-around without touching, apply throttle carefully and be ready to correct with aileron or you could buy the farm!

Once you get the feel of a tail-draggin' biplane on the ground, and during takeoff and landing, you'll find it the most pleasing type of airplane to fly. We know you'll like it.