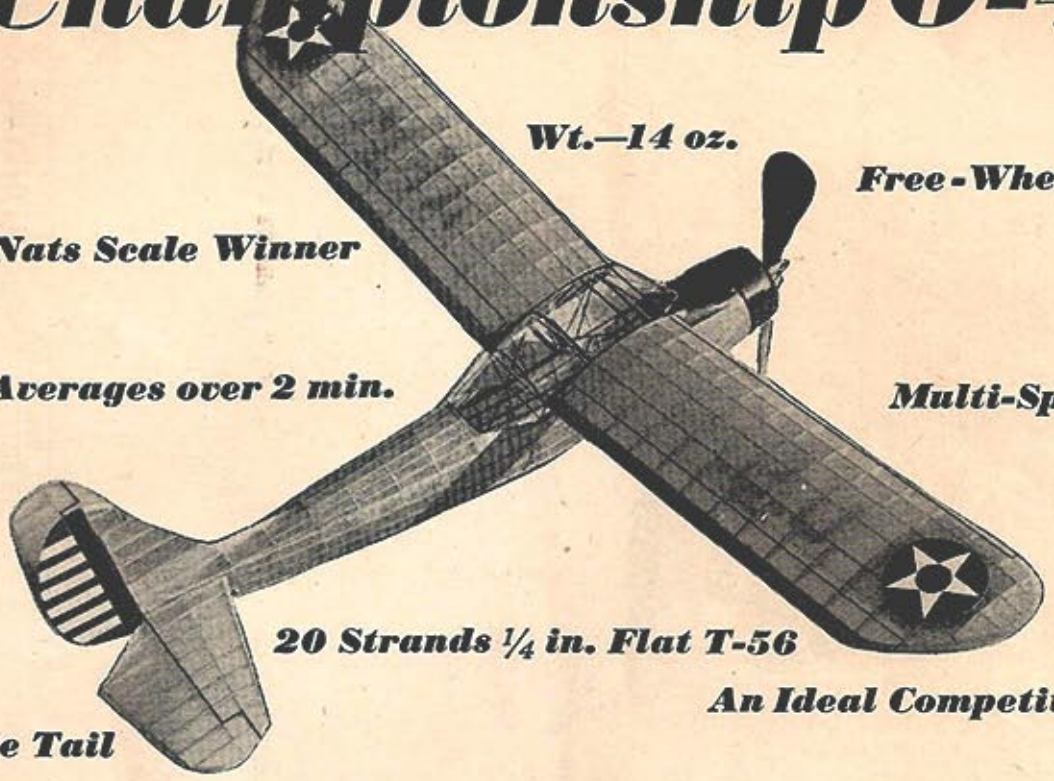
Championship 0-49



by DEL SWARTZ

DESIGNING of the Stinson 0-49, tagged model No. 74, began in 1939 and the plane was released in the latter part of 1940 to the U. S. Army. It is a two-place job having a span of 50' 10-3/4", a length of 33' 6-1/2", and a height of 9' 10". It is powered by a Lycoming R-680-E3A, 280 hp engine of 9 cylinders. The ship has a long tail moment arm, and a stabilizer approximately 25% of the wing area, which all adds up to a fine flying scale ship.

Flying scale times at the 1949 "Nats" were not too spectacular due to the terrific wind that seemed to be blowing straight down, just as it was in 1948. Many of the scale fliers walked home with an extra sanding job (from scraping the concrete!) that they didn't have before they flew. Were those runways rough! The best time on the 0-49 was 50 secs., with four strands broken and the prop flopping around the gear. After getting back to sunny California and away from the field "just across the road from the wind belt," I wanted to see what the model would do in normal flying weather. It turned in flights averaging over two minutes. The model flew best with 1/4" wash-in in the left panel, 4° left rudder, 7° downthrust and 7° right-thrust.

For a competition ship such as this, construction must be neat and clean, but the model is not too difficult if you follow the plans and instructions.

Start with the fuselage construction. The longerons are 1/8" square with 3/32" square cross braces set flush with inside of longerons to keep covering from sticking to the cross bracing. After main structure is completed, next comes the greenhouse construction. Make two base ribs from 3/32" sheet and two jigs—dimensions taken from front view—from 1/16" sheet. Tack lightly with cement at the point where the main spar runs through, and also between the points where the diagonal window bracing joins. Sand about three 3/32" square lengths of balsa to a round shape to represent tubing. Use a talcum powder and dope mixture for a filler, applying a couple of coats of clear first to give a base for the filler. Cut the lengths to size by trial and error, and cement in place. When dry remove jigs and cement remaining tubing structure and 3/16" aluminum tubing for wing connections. This type of rigging was used for easy handling and to take up the shock of nasty landings, and it has proved out very well. For the main spar, the ship has extra large tubing running through the greenhouse, which affords a clean housing for the bands that hold the wings together.

The nose is formed from medium blocks and these are left solid to help balance the model. Finish the fuselage with bulkheads and stringers, sanding bulkheads between stringers after drying, as shown on the plan, to assure neat covering.

(*Turn to page* 41)