

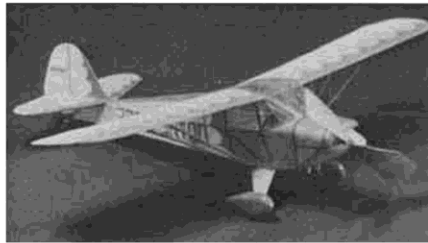
TAYLORCRAFT

By HOBIE CLAY. . . If you are looking for a Peanut to compete with the Lacey and Fikes, here it is. Properly balanced and trimmed, the Duane Cole Taylorcraft flies with the best of 'em!

• Duane Cole has been flying airplanes forever. In the years before World War II he was an aerobic competitor and was US National Champion in the mid-30's. An author and teacher, he's still very much in the middle of things. He attends the big EAA fly-in at Oshkosh, Wisconsin, every year and does his aerobic routine. He also books in to air shows around the country to take part and put on a show for the spectators. He does this in a much-modified, 1938 Taylorcraft which is the subject of this article. I have been fortunate to watch him at the annual air show and fly-in at our hometown airport, chat with him about the ship, and get some measurements and photos.

The model is drawn as it appeared on June 7, 1981, when I last saw it. Duane is constantly modifying the details and told me the next change would be to enlarge and strengthen the old fashioned trim vanes at the tail post under the stab. His short-wing modification allows the scaled-down Peanut to have a much longer fuselage than the barn door version originally designed by Gilbert Taylor.

The lightest and simplest model plane fuselage can be made by building the upper side stringer into the framework. After the sides have been fastened together at the tailpost, they are first connected with cross-members at this stringer long enough to obtain the widest width shown on the top view. The top longerons are then pulled together and connected with the shorter members shown. The bottom longerons are similarly connected last. Doing it in this sequence best preserves the wing/stabilizer relative incidence angles. Now smear a little cement around the upright stringer joints to stiffen them. When the fuselage has been finished,



Cole's T-craft Peanut is covered in red and white tissue. Reg. numbers are rub-ons.

covered, and dope has cured, the center spreaders starting from the wing trailing edge to the tail can be removed to keep the tail end light and allow the rubber motor to thrash around a little.

Patterns for the three fuselage top formers are traced from the front view and cut from 1/20 sheet. Sheet the top of the cowl all the way to the instrument panel and the sides back to the first upright. Very soft balsa can be used in lieu of foam for the bottom cowl and nose blocks. If a source for good, dense-textured styrofoam is hanging you up, try using supermarket meat tray material sanded flat and laminated to thickness with white glue. Seal it well with several coats of diluted white glue before covering and using any dope or paint to prevent solvent attack. The side and bottom stringers can be put on. The top stringers go to the rear wing spar and are not put on until the wing and rest of the fuselage are all finished and mated together.

Scale rib spacing is shown with the top leading edge sheeting. Strip ribs help hold down weight. The nose is relatively short, so the tail feathers should be kept light. I vacu-formed the wheel covers and turned the wheels from foam. This is easier for me, and gives me better assurance they will be the same.

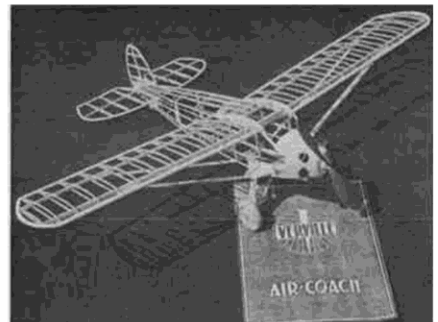
Both can, of course, be made from balsa. Wheel covers must be kept thin to stay in scale.

The prop shown is an inch too long for take-offs but is needed for decent flights. A plastic prop can be used but the pitch can't be easily changed by steaming like this one can. Blades should be twisted to approximate helical pitch by soaking and wrapping on a two-inch diameter can or bottle at about fifteen degrees forward skew and baked dry. Block up the leading edges three-fourths of an inch at two inches from the center to get initial eight-inch pitch. I find the blades can best be tacked to the hub with Ambroid while held in the pitch jig and the joints reinforced with a little epoxy. Nose thrust bearing and rear motor peg are 1/16 aluminum tubing.

Cover with lightweight white and red tissue, and dope one coat of nitrate thinned fifty percent and plasticized with a few drops of castor oil or your favorite retardant. The lettering and scallop trim are cut from red tissue, the 1/32 wide control surface and cowl panel lines from black. Set into place with acetone on a small brush. Tail numbers are black, 10-point rub-on style. I line them up on clear "sticky-back" mylar, trim closely, peel off the backing, and set them in place.

Don't forget to put on the black anti-glare panel on the cowl behind the windshield and build-up the 1/32 round

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Here's a sneak preview of Walt Mooney's next Peanut project. Stay tuned!

exposed fuselage framework before mounting the thin acetate windshield and windows. Skylight and windshield trim can be made from narrow strips of Scotch tape painted red before mounting. Door outlines are put on after the windows.

Start flights with 3/32 wide rubber strip if your plane has finished out at less than seven or eight grams. As longer loops are tried or pitch is reduced, you may want to go for wider strip. This model flies well when properly balanced and adjusted. Mine is more dependable than the flat-winged Fikes and Laceys and a lot more unusual and colorful. Try changing the prop pitch for increased performance. Pitches at 1.5 to 1.75 times prop diameter seem to be best for my light scale models. ●