



The designer's daughter looks a little worried with dad's original model.

## M. F. HAWKINS' FAIREY FULMAR

A free flight scale  
model for the  
Cox .010

At a first glance there would seem to be dozens of scale prototypes suitable for the Cox Tee Dee .010, but the little brute is so powerful that a span of at least 30 in. is required to handle it. This immediately eliminates radial engine prototypes, since most models of this size have a cowling so big that the 3 in. prop could fit inside! The *Fulmar*, however, has a slim nose, while its simple straight lines, plus a cockpit that requires no moulding, make it suitable for anyone who has built a F/F model before.

The original aircraft was used by the Fleet Air Arm up to 1941. In the Mediterranean they did well against the Italians, but were at a disadvantage when the Luftwaffe appeared. In the Far East, in March, 1941, the *Fulmars* from H.M.S. *Hermes* were destroyed on the ground at Trincomalee in Ceylon, by Japanese carrier planes of the Naguma Force. Shortly afterwards, the defenceless carrier itself was sunk.

### Construction

**Wing.** The halves are built separately, then joined using the spar braces, with the two dihedral jigs pinned firmly to the building board under W.7, to check the angle. The top and bottom leading edge sheeting is added, then the capping strips. The wing is now covered with light Modelspan, given two thin coats of dope and, as soon as the surface is dry, pinned firmly down at the centre section and the tips and left for 48 hours. If your building board is flat, the wing just cannot have warps!

**Tail.** Cut to shape from soft  $\frac{1}{8}$  in. sheet, remove the centre

lightening pieces, add the  $\frac{1}{8}$  in. sq. ribs, cover, dope and pin down flat. The rudder and elevators are attached to the fin and stabiliser with aluminium hinges, after the latter have been cemented to the fuselage. After trimming, cement the control surfaces permanently in place.

**Fuselage.** First cut the basic frame from  $\frac{1}{16}$  in. sheet, pin down to the plan and add the fin and half the soft block tail fairing. Add formers from F1B to F9, then cover with soft  $\frac{1}{16}$  in. sheet, back to F4. Now add F10 (see sketch) and the tailplane mounting sheet F11. The stringers can now be cemented in place and, when dry, the fuselage half is taken off the plan and the other half built onto it. Sheet the cockpit floor with  $\frac{1}{32}$  in. sheet and "Evo-stick" the tailwheel strut to F9.

F1 and F1A are cut from  $\frac{1}{16}$  in. ply, F1A being sanded down on one side to give the correct amount of right side thrust. Bolt the engine in place and solder the nuts to the tin strap, then remove the motor and stick F1 to F1B.

Carefully fit the wing to the fuselage using plenty of cement and make a fairing with plastic wood, smoothed down with a finger dipped in thinners. Add the radiator and cover the fuselage with tissue, build up the cockpit and then carve the cowl from soft block—the top half is detachable.

The nose weight—about 1 oz.—is cut from sheet lead, which can be bought from a builders merchant.

**Decor.** Colouring was dark green and dark earth on top and duck egg blue underneath. Red and blue markings were on top of the wing; red, white and blue underneath, with a yellow ring round the fuselage marking. Unit markings were in white. The aircraft from H.M.S. *Victorious* carried the number 6 and a letter. Serial numbers for the Mark I were N4017 to N4065.

I painted my *Fulmar* with gloss Humbrol enamel as it's fuel proof, and used gummed label transfers for the markings, finishing off with Paripan Eggshell Flat Varnish to give a matt surface.

**Flying.** The c.g. should be on the mainspar. Test glide over long grass and trim for a gentle right turn, using the wing tab and keeping the rudder straight. For first power flights use a D.C.  $5\frac{1}{4} \times 3\frac{1}{2}$  in. prop to keep the power down and set the motor rich at first. Under power the model should turn left. The prop can be cut down to 4 in. dia. later to increase power. Fifteen per cent. Nitromethane is required, but at only 1 c.c. of fuel per flight, one can will last a lifetime.

I feel that this type of model is better off without an undercarriage—it certainly looks better in the air.

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