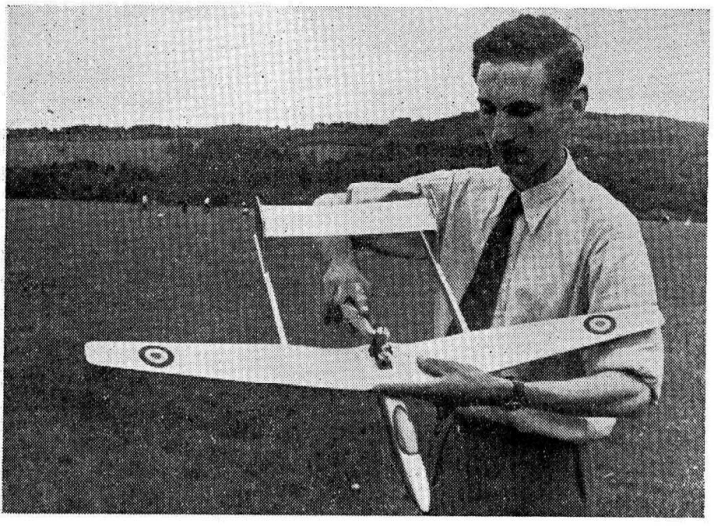

AERO MODELLER

An all-sheet balsa sport model for ·75cc

——— FREE FLIGHT

VAMPIE

By Lt. Cmdr. T. E. Naughten

IT WAS AT THE Northern Heights Gala that we first noticed one of these all-sheet sport models, when we came across the Abingdon and District M.F.C. encampment, and found a whole squadron of Vampie's. This design was created by Lt. Comdr. T. E. Naughten, M.B.E., R.N., Retd., to be an *unbreakable* flyer calling for a minimum of constructional time, and such a specification also obviously called for a model made from solid sheet, but the problem was would it be too heavy to fly?

Although the wing loading was obviously high, the first version used a Frog 50 and flew magnificently. Subsequent models have been flown with undercarriages, using an Allbon Dart, there is a 6 ft. version having a Mills 1.3 and another was made for control line with an Elfin 2.49. The pusher arrangement is a perfect propeller-saver, and the robust construction has survived all crashes. No wonder the idea has caught on like wildfire among the Abingdon clubsters.

If you have a .5 c.c.-1 c.c. engine lying spare, and would like to get some enjoyable hours in, regardless of the weather conditions, "Vampie" is the ideal project for you.

Be certain to choose balsa with straight close grain and if in doubt over the quality, choose a hard grade for preference. Start with the wing, cut from a $\frac{3}{8}$ in. sheet and divided in the centre for the dihedral angle. Carve to airfoil section from the booms outboard and with one half lying flat on the building board, lift the opposite tip 6 in. and glue the centre joint secure.

Cut two fuselage sides from $\frac{1}{2}$ in. sheet, making up the 16 s.w.g. skid bound to $\frac{1}{4}$ in. square spruce mountings, and sandwich the centre $\frac{1}{4}$ in. balsa fuselage core with the sides. Chamfer the fuselage to take the wing which is now fitted and securely glued (slow drying cement can be used if joint is "pre-cemented").

Drill the engine bearers to take your engine, bolt them to the engine and then attach them to the wing centre section having been chamfered on the underside to fit. Note that the .5 c.c. or lighter engines should be mounted just behind the trailing edge, heavier engines go farther forward. Whilst drying, make up the tail booms on either side of $\frac{1}{8}$ in. strip and sheet core, and chamber to fit the under surface of the wing.

The engine bearers should now be firm and we can fill in the scrap fairings between and on either side, rounding off the front edge. Finish off the wing centre section shaping to section DD and cut out fins and tailplane from sheet. Note that the $\frac{3}{16}$ in. square tailplane seating rail is at negative angle.

Insert the fins in the tail booms, and fit the booms to the wing. To ensure that they are square, pin the tail in position temporarily and view from above before finally setting aside to dry. Tailplane can be permanently fixed after being sandpapered smooth and the whole Vampie should be covered with lightweight tissue and given at least two coats of clear dope.

An attractive final finish is all silver with R.A.F. roundels, and the optional commercial canopy fitted to the fuselage can be occupied by one of the moulded Team Racer pilots.

For the side port Mills or Amco engines fit a normal airscrew in the reverse manner (front facing the engine) and run the engine clockwise. The model must turn to the left under this arrangement whilst with a rotary induction engines like the Allbon, Frog or E.D. series, we use a pusher prop, or reverse the pitch of a plastic prop by holding it in hot water and twisting. To launch Vampie after balancing with lead in the nose, the best method found so far is to hold the two tail booms under the wings and give a hefty push whilst running forwards. It is a fast flyer and will withstand many a tumble, giving you hours of fun without even one broken prop.

Heading shows A. J. Howe of the Abingdon Club who has built and flown many Vampies—a variety of them are seen at right