Aeromodeller

JUNE 1979 45p
(U.S.A. & Canada $2.00)

plans
BABY ACE
P-51B MUSTANG

CO_2 - IT'S A GAS

R/C EQUIPMENT EXPLAINED

1/12 scale 750mm span for .5cc motors

North American P-51B MUSTANG

FREE FLIGHT SCALE

Designed by Cedric dela Nougerede

TRIBUTE MUST BE PAID to Stan Cole for his excellent designs of the *Spitfire* (plan MA/376 price £1.10+20p p&p) and *Me 109* (plan MA/355 price £1.35+20p p&p) upon which the design of this *Mustang* was based. The rugged structure is quite easy to build and comes together very rapidly, but because of its clean lines the model will look extremely plain until the paint job is complete. Panel lines and simulated paint chipping are a 'must' if the full effect is to be achieved.

To me, free flight scale is an extension of making plastic kits. A very personal relationship develops between myself and one specific aeroplane, and the desire to make an accurate replica has nothing to do with entering it in a competition. It is personal satisfaction only. Buy, beg or borrow a copy of MUSTANG AT WAR and if you have any feelings for this beautiful aircraft I doubt that you will be able to resist building one of the fine examples in there. Small modifications to the basic model can change it to an RAF Mustang I or III (P51A or C).

Fuselage

Start by cutting two strips 12mm wide from a 3mm sheet of medium balsa. Build the crutch over the plan view (see photograph). Attach all the formers to the forward faces of the crutch spacers. Cut out the spines from 1.5mm sheet and attach them to the formers. The spines will stand proud of the formers by about 1.5mm. Add the centre section ribs, leading and trailing edges and Araldite in the engine bearers. Make but do not fix the wing tongues yet.

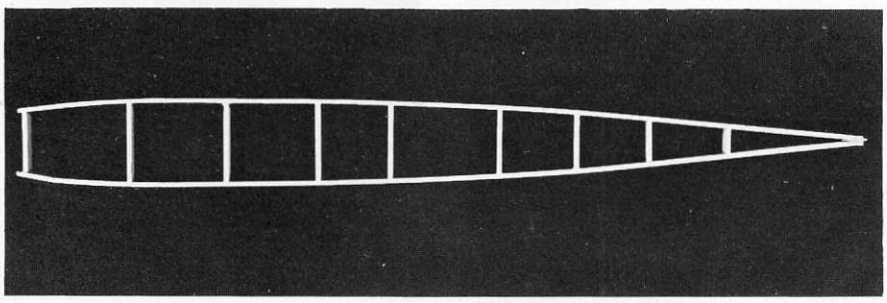
The sheeting of the fuselage was done in eight pieces, two above the crutch and two below, on each side of the fuselage. The sheeting butt joint was made at formers F6 and it might make joining easier if strips of 3mm square balsa are first glued to the rear face of this former. This will give a wider surface on which to make the joint.

Make paper patterns to represent the sheeting by placing the straight edge of a piece of paper along the top of the crutch. Curve the paper over the formers and mark along the spine with a pencil or thumbnail. Cut out the pattern and try it against the fuselage. It might take a few attempts to get it right but it is worthwhile getting one that fits fairly well. Cut the 1.5mm balsa sheet to the paper pattern, moisten the outer surface and hold in place on the fuselage with rubber bands until the wood is dry. Place scraps of balsa sheet under the rubber bands so that they do not bear directly on to the fuselage sheeting as they will mark it. When dry, glue the sheeting in place.

Do not sheet the centre section until the wings have been built and the wing tongues glued in position. Add the three strips of 3mm sheet by 25mm wide under the centre of the fuselage.

Wings

Pin leading edges and trailing edges down over the plan. Glue the ribs in position and add the main spars and the wing boxes. Glue on the soft block wing tips. When the glue has dried, remove the wings from the plan and hold in position on the fuselage



Heading: ***Realistic weathering, panel lines and paint chipping effect makes all the difference when creating the illusion of realism.*** Left: ***Basic crutch from 3 x 12mm balsa simplifies fuselage construction.*** Right: ***Two action flying shots endorse the models captivating performance — the flying scale modeller's bonus.***

using clothes pegs to clamp CS2 and R1 together. With the wings held thus, check the alignment and squareness before glueing the wing tongues in position. Sheet the top of the centre section and the wings between R1 and R2 and the leading edges. Make the diagonal ribs from rectangular strips of 1.5mm sheet, cut to length and the full depth of the wing. Glue in position and when dry, sand to the main rib contour with a wide sanding block.

Finishing

Sand all the sheeted areas smooth and give a coat of sanding sealer. Fill any bad joints with Polyfilla or soft balsa if the gaps are large. Fine sand the whole surface again then cover the fuselage, fin and rudder with lightweight tissue. Cover the wings (including the centre section) and tailplane with heavyweight tissue. Wing root fairings can be made from thin card or acetate sheet but I extended the centre section covering onto the fuselage side to form the fairing. I used cellulose putty to fair in the leading edge. The whole aircraft was painted with matt enamels. (*Note*. Extra coats of dope were needed on the wings and tailplane as the heavyweight tissue is more absorbant than lightweight).

There are so many colour schemes to choose from that I can only describe the one I chose in detail. The olive drab upper surface colour tended to be more brown than green so I used a mixture of Humbrol MATT 29 (brown) with Airfix M21 (green). The underside was Humbrol HU6 (light grey). All the panel lines were drawn in using a Rotring pen with TT ink and the panel chipping effect done with a mixture of silver and white enamels. The whole aircraft was finally given a coat of Blackfriar's polyurethane clear matt varnish. This tends to darken the matt enamels so when mixing your colours try a sample and varnish it before painting the whole aircraft. I cut stencils from thin acetate sheet for all the lettering and insignia. With a sharp soft pencil (2B) the letters are drawn onto the model using the stencil.

Full size copies of this 1/6 scale reproduction are available as Plan FSP/1367 price £1.40 plus 30p postage. Export orders obtainable from appointed agents or directly from Plans Service, PO Box 35, Bridge Street, Hemel Hempstead, Herts. HP1 1EE.

Flying

Test gliding is of great benefit if you are lucky enough to have a long gentle slope covered with deep grass. The CG position can be corrected and the tailplane incidence altered to give a long steady glide with a slight turn to the right. Any tendency to drop a wing should be corrected by increasing the washout on the opposite wing, by twisting over a steaming kettle.

My DC Dart was run at full power with a 7 x 4 prop to produce a steady climb in wide left hand circles. It is the flying that is the bonus for the free flight scale modeller, over the builder of plastic kits, so have fun building and enjoy the bonus too. Good luck.

References: Mustang at War by Roger A. Freeman; Profile No. 100; Revell 1/48th scale P51B.