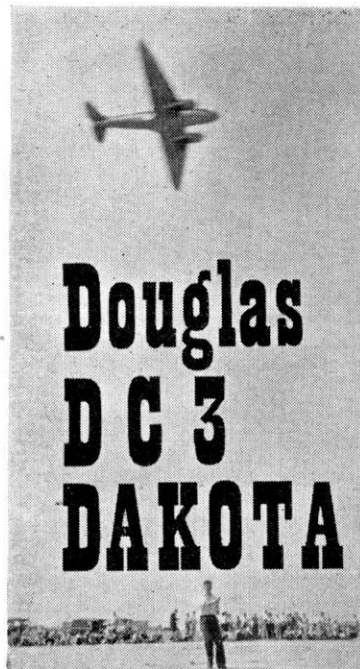


*A true-scale control-line model
of the famous workhorse of the
air, for a pair of 1.5c.c. engines*



Designed by
J. LAST and made
by **J. M. BODEY**

and we are sure that the majority of modellers will be able to locate a Dakota at their nearest commercial aerodrome to sketch a local subject.

The prototype model flies extraordinarily well on either of its two A.M.15s, but it should be emphasised that it is *definitely* a twin-engined model and not one for single installation with a dummy prop. Stage-by-stage photographs illustrate the simplicity of the structure, which only diverts from true scale in the size of the upper cowling intakes in order to fully hide the model engine cylinder heads.

Construction details follow in abbreviated style and the design is to be recommended to anyone with the experience of at least one successful control line model.

THIS MODEL represents the combined efforts of AEROMODELLER Plans Service's brightest stars in multi-engined control line scale model design, whereby J. Last (well known for his D.H.88 *Comet*) was commissioned to design a true scale "Dak" for Maurice Bodey to build. As those who witnessed the flying scale events at the recent National Championships will agree, the flying of this Dakota was the outstanding feature even though it could not match the extensive detail of some of its competitors.

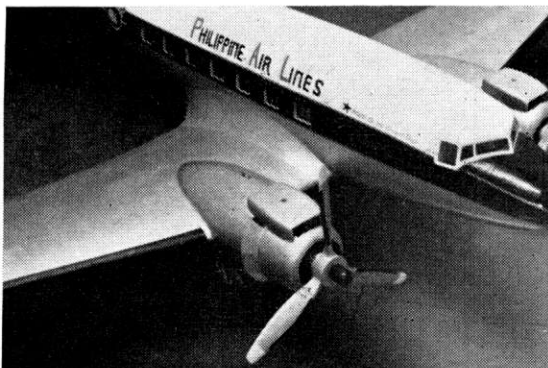
We do not have to extol the virtues of the D.C.3 here, for they are too well-known. The dear old Dakota has for so many years been the stand-by of Airlines large and small throughout the world, as well as being a prominent transport in World War II, playing a very important part in the invasion of Europe.

For the scale modeller it lends itself to a greater variety of colour schemes than any other type we can call to mind, Maurice Bodey chose the unusual Philippine Airlines decor and on the plan we show what is probably the brightest C-47 in the American forces, recently based at Bovington, Hertfordshire, and which is used for the AACs (Airways Air Communication System) Branch of MATS to check instrument flying aids at various air bases. Its bright day-glo orange, white, blue and silver colour scheme are most attractive. Many other colour schemes can be found in the "BP Book of Airlines"

Heading shows how well the "Dak" was demonstrated by Maurice Bodey at the Woodford and Nationals meetings on a pair of A.M. 15's. Close up at right illustrates the slight adjustment from scale, to enclose cylinders in enlarged carb: intakes over cowlings

Construction

Cut fuselage keels F.21, F.26, F.23, F.29, from $\frac{1}{4}$ -inch balsa sheet. Pin to plan and add half formers F.1 to F.6, and F.11 to F.16. Make up former F.18 as shown on plan and cement in position. Remove completed half from building board and add other half formers. Cut out and add window sheeting sections. Cement in position F.24 and F.25. At this stage, lay fuselage aside until the wings have been completed. (Continued on page 429)



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Wings are built up in three sections — centre and two outer panels. Commence with centre section first. Build up the two main spars F.10 and F.8 as shown on Plan. Temporarily, thread them on to F.27 and F.28. These serve as a guide to enable accurate construction of wing. Cement in position all ribs W.1 and W.2. Follow this by wing trailing edge which should be pre-shaped beforehand. Add leading edge, put aside and allow to set. While waiting, the outer panels can be built in the normal way. The bellcrank assembly should be added at this stage. F.27 and F.28 can now be cemented in permanently. Thread on lead outs and push rod, soldering all joints well. The outer panels of the wings can now be joined to the centre section, checking that each tip has same amount of dihedral. The completed wing can now be joined to fuselage, cementing all joints well.

Tailplane and elevator are made from $\frac{1}{4}$ -inch hard sheet balsa. Sand to a symmetrical section. Fin and rudder are constructed from $\frac{1}{2}$ -inch sheet balsa, also sanded to symmetrical section. Cement in position on fuselage F.30 and F.20. Follow this by cementing tailplane, checking it is true. Connect push-rod to elevator horn. Plank complete fuselage with $\frac{1}{2}$ -inch by $\frac{1}{16}$ -inch balsa strips. Add block tail fairing. Block, nose and cockpit top are from soft block, and sand complete fuselage to shape. Firmly cement into position fin and rudder at this stage.

Start nacelle construction by threading the $\frac{5}{16}$ -inch by $\frac{3}{8}$ -inch hard wood bearers through formers F.8 and F.10. Cement firmly in position N.5, N.6, N.7 and the $\frac{1}{2}$ -inch balsa tank seat. 15 c.c. fuel tanks are fitted between N.7 and F.8 on top of the bearers. Add N.4 of $\frac{1}{16}$ -inch ply and N.10 of $\frac{3}{32}$ -inch ply, after firmly binding 12 s.w.g. main undercarriage legs to N.10. Bind 16 s.w.g., bracing legs to N.11, and glue in position. The undercarriage can now be bound and soldered. Add remaining formers N.2 and N.3, together with N.8 and N.9. Drill engine bearers to suit engine and completely plank nacelles with $\frac{1}{16}$ -inch sheet. When completely dry, sand to a smooth section. Formers N.1 can now be cemented to N.2 and sanded to section.

Bind and cement guide-line into position at wing tip, and add lead weight to opposite wing. Wing can now be covered with $\frac{1}{16}$ -inch sheet and sanded smooth. Add wing-root blocks, top and under-side nacelles blocks, and carve to shape. Completely sand construction smooth all over.

Wing-tip fillets can be made either from block or several sheet sections. We found the latter version more satisfactory. Cut cowling sheeting between N.3 and N.4 and remove cowlings to enable engines to be installed, replace cowlings and add top intake cooling gills, and oil cooler.

Cover the completed model with lightweight Modelspan and finish as follows: one coat clear dope followed by a light sanding. Two coats sanding sealer, sanding between each, followed by three coats of Belco primer. A satisfactory surface should now have been obtained. The choice of Airline colour scheme is left to the builder but the original was finished in Philippine Air Lines. It is important to remember that all window glazing should be carried out *after* painting the model.

Stage by stage assembly photographs help the builder. At top, the basic centre section with parts to key into the fuselage structure, added in next view. Third photo shows the tip panels added, together with nacelles and bellcrank control in a check assembly prior to final glued fitting. Next, the complete airframe before planking and at bottom, the prototype awaiting a test flight

