

**FREE!**  
**SUPERPLAN**  
**WORTH £5**

Build our pretty

58" span Jodel 117,

designed by

Keith Humber

**T**he Jodel 117 came about from a chat with your editor when he commissioned me to design a suitable model for the December 'Superplan'. A scale model was required but not too complicated, so, after a bit of thought, the Jodel 117 came to mind. It is a pretty little aeroplane with any amount of colour and canopy variations for the individual modeller to produce differing models.

It is also a good flying aircraft with quite a bit of inbuilt stability with the tip dihedralled wing. The paper size dictated a model of about 58in span – certainly no larger! This in turn suggested 40-48 four-stroke or 35-40 Surpass power but would be a bit more sprightly with an OS 48 Surpass. Still, the 40 is quite adequate.

The basic model is accurate, or reasonably so. Surfaces, etc., are as near as possible but the horns, hinges, etc., are



# French Fancy

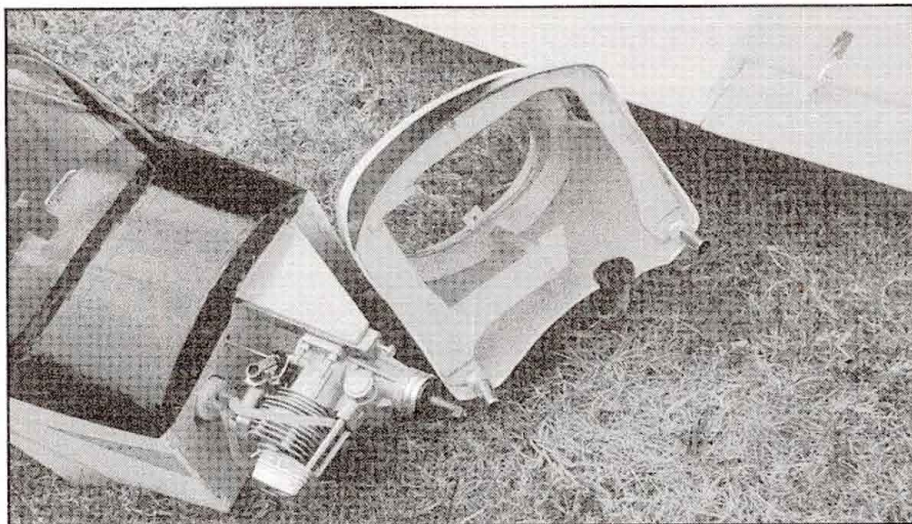


simplified for ordinary mortals like myself! The really dedicated modeller could, of course, go the whole hog and produce a really superb scale model by dressing up my original plan/model with additional detailing – very nice indeed.

### Get building!

The construction is not rib-for-rib as the full-size, but I have endeavoured to simulate the large box spar of the original Delmonte wing by splitting the sheeting down its length and lapping and rejoining same. Also the ribs are in the correct relationship as the full-size, ie. any construction which is under fabric is as the full-size and therefore shows through the fabric in a very convincing manner. Which leads me on to a brief resume of the more tricky parts of the construction and even

*Designer's wife Margaret gives scale to Keith's prototype; FREE plans come with this issue!*



*Cowling is all wood and removes thus, to reveal Suprass 40.*

The elevator is purely an open framework with a 14swg reinforcing bridge epoxied into position. The engine cowling is made from two 1/8in ply formers covered with 1/32in ply sheeting. Cut C1, C2 from 1/8in ply, frame up on 1/4x1/4 longerons and clad same with 1/32in ply. Face up C1 with 3/8in laminations to form the cowl front then shape with plane and sandpaper. The cowl is retained on my model with two screws through two 1/8in ply plates into the front ends of the hardwood engine bearers. The model is covered with Solartex and Solarlac, fuel proofed with Tufcote.

The C/G should be at approx 25% – not much further back or you may have a tiger by the tail! Finally, I do hope anyone who builds the 117 will enjoy her as much as I do mine – and don't forget some photos...

## Flying

As mentioned earlier, the C/G should be positioned at approx 25% chord measured back from the leading edge. My model wanted 4oz or so of lead bolted to a ply plate which in turn was epoxied and screwed to the front of F1. The control movements were

these are not really complicated.

Commence by cutting the basic fuselage sides from 1/8in sheet and the 1/32in ply doublers as shown. Glue the doublers with either contact adhesive or white glue making sure they are handed. Cut formers from 1/8in ply and make up the 1/8in balsa formers over the drawing. Frame up the engine bearers and F1-F2 using epoxy. When dry glue sides to this basic unit using good epoxy. Make sure the triangular fillets are in position before continuing the rest of the fuselage construction (fuselage sides are rather bowed and will spring away unless there is good glue area on the formers F1, F2 and F3).

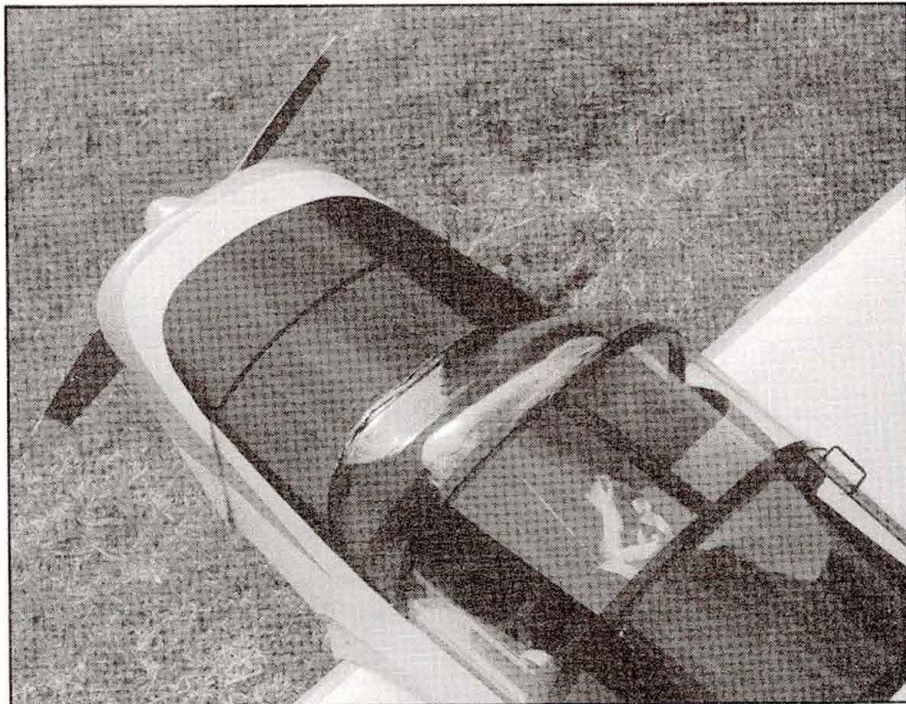
Fix the rest of the formers and bottom sheeting. Make up the stern post and 10swg rudder pivot and glue into position. Make up the tail unit and glue into position with epoxy. Insert pushrods and plank rear turtle deck with 1/8in sheet cut about 3/8in in width. Front decking is sheeted with flexible 1/8in sheet, the rest of the fuselage construction is self-explanatory.

## Wings

The wings are, perhaps, a bit more tricky. Start by cutting all the ribs from 1/16in balsa except the dihedral break ribs. These are 1/8in sheet. The leading edge is 3/8in sheet cut oversize. The centre panel is framed up first over the bottom 1/4x1/4 spruce main spar. Glue the ribs into position on the lower spar (over the drawing) then fit and glue the 1/16in trailing edge ditto followed by the top 1/4x1/4 spruce main spar. Then glue into position the 3/8in sheet leading edge.

I then built the tip panels jointed into position with epoxy and 1/8in ply braces (do make sure the 1/4 washout is built in). The ailerons are flat i.e., no washout or twist (this is as full-size). Remove basic wing structure from drawing and sheet the false box mainspar portion top and bottom followed by the leading edge sheeting top and bottom. Finally capstrip and fix the false riblets from scrap 1/16in sheet then sand and plane leading edge to fair in. And that is the wing except I have forgotten to mention the undercarriage blocks which, of course, should be positioned before the final wing sheeting is fixed! The ailerons are built up using the 1/16in

sheet core method, 3/8in sheet leading edge and 1/8in half ribs. They are top and bottom hinged with mylar tape or similar. In hindsight I suppose the individual builder could do away with the false mainspar and use a conventional model 'D' box leading edge construction – though I must say I do like the simulated full-size appearance of the dummy spar.



*Plenty of scope for super-detailing if you wish – be our guests!*

The rudder is conventional except that it has a plastic tube pivot bearing inserted between two halves of 3/8in soft sheet as a leading edge, and a rather natty bottom hinge made from 1/8in ply i.e., the bottom 1/8th tail wheel ply unit is slightly longer than the fuselage bottom which enables a 3mm pivot bolt to be locked into position into the similar 1/8in ply plate glued to the rudder bottom ribs. This arrangement supports the bottom of the rudder and stops vertical movement fouling the elevator bridge.

set up as follows: Ailerons 1/2in up, 3/8in down; Rudder 1.1/2in either way; Elevator 1/2in up, 1/2in down. My prototype is a super flyer on these settings; the rudder may be just a touch on the powerful side but, once you get used to her, it is super. In fact, I rolled and looped the model within half a minute of take-off followed by rolls off the top, spins, inverted and bunts with the odd flick roll thrown in to boot. Rather too manoeuvrable for a Jodel but you don't have to do this! If you want to fly sedately and slowly past, it looks so scale. This was all on the maiden flight; the Jodel just doesn't have any vices and really did fly 'straight off the board'!