

TIPO TOO

A biplane mouse for all seasons from the drawing board of DAVID BODDINGTON and the building and resuscitation board of KEN SWAILES, who tells the story here in his usual oh-so-reverant manner!

The original monoplane *Tipo* (Italian for mouse), was the subject of a full size *Premium Plan* presentation in *AMI May '96* issue and has proven popular with both free flight and R/C wallahs alike.

Since it's always best to work in the principle that you can never get too much of a good thing, El Boddo drew up this biplane version to extend the fun value even further.

For two channel R/C, it will fly on any good .049 motor, while for three function R/C operation, with throttle control, just up the engine capacity to a

1cc diesel - ah, that smell! The P.A.W. 1cc diesel, retrofitted to Tipo Too, improved the aerobatic performance to a lively degree. Loops, barrel rolls, stall turns are all possible without losing height and the high degree of manoeuvrability allows flying in a small area. It all adds up to a lot of fun per penny.

So, go balsa chibblin' !

The construction is light, simple and no too hungry for wood. The example you see here is the test prototype originally flown with .049 and

three servo R/C system. It flies fine and is mildly aerobatic with the .049.

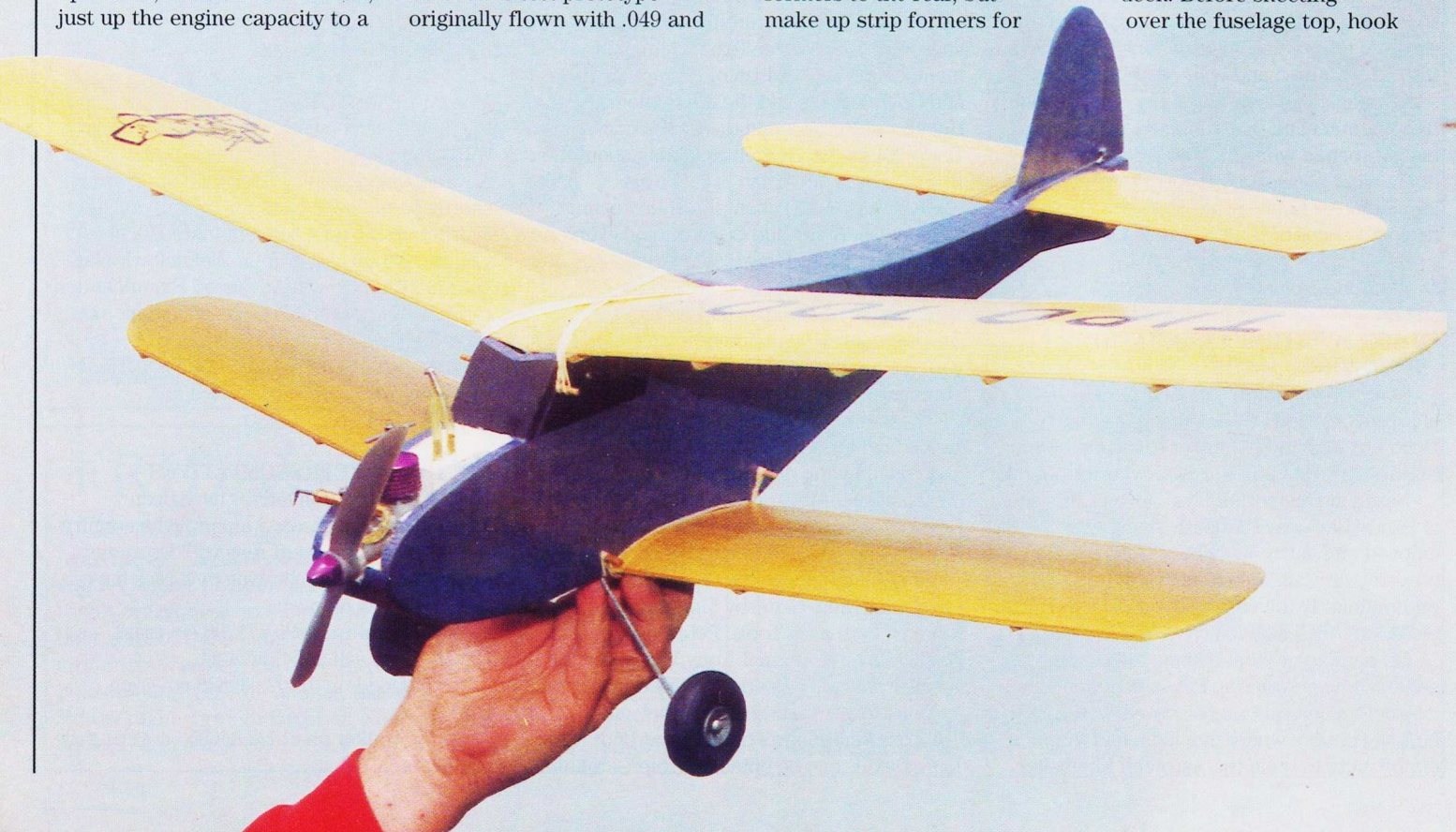
As with all small models, the choice of wood is important. Light, straight grained wood - please, no oak! Cut two fuselage sides and turn one over to mirror the other so you get one left and one right hand sides. Mark out the former positions and add the balsa strips, using the formers to space the vertical ones.

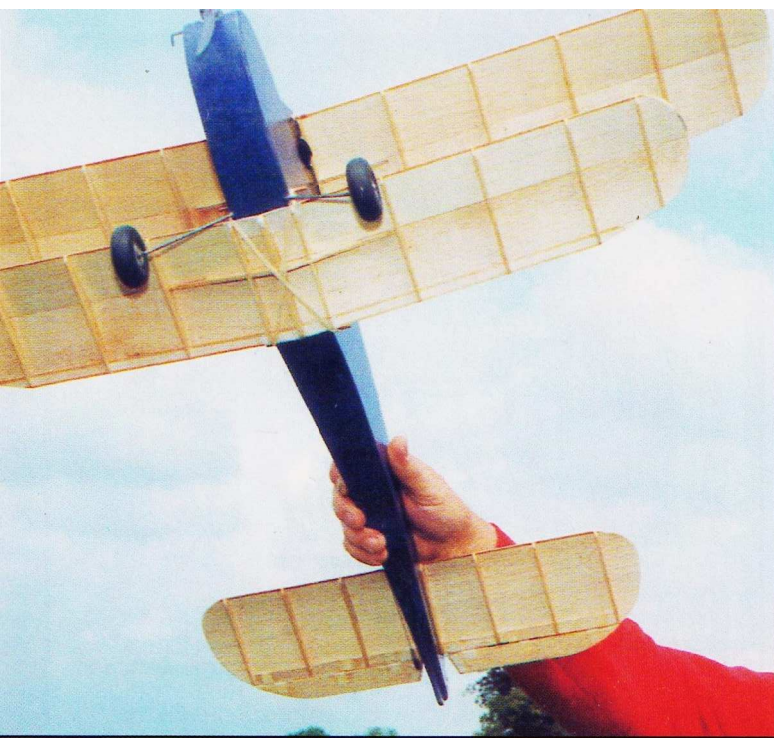
If you are making the free flight version, use all-sheet formers to the rear, but make up strip formers for

the radio version.

Complete the fuselage, except for the top sheeting. Make up the tailplane and fin and glue into place for the R/C version. For free flight, the tailplane should be banded on, so provide dowels for the bands.

Radio gear should be positioned well forward. Rudder control movements are transmitted via closed loop lines which exit to the rudder horns via the fuselage top deck. Before sheeting over the fuselage top, hook





up the rudder control runs and mark onto the fuselage sides the exit points for the control cables.

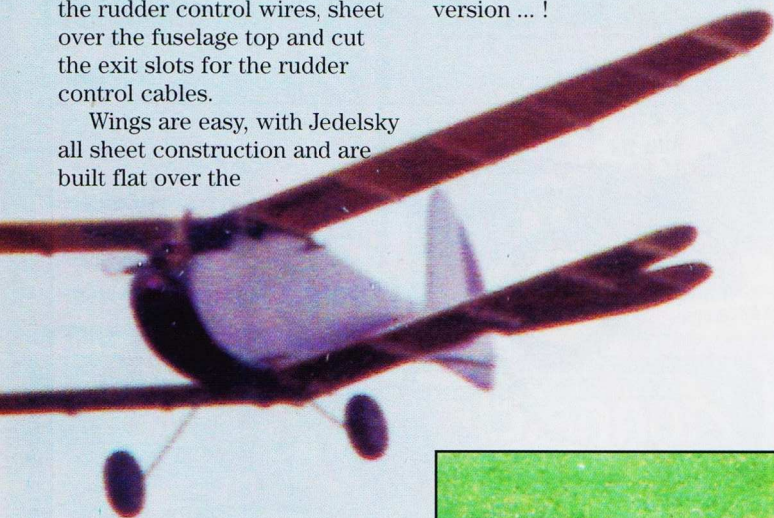
Also, install the elevator push rod and cut the exit slot in the fuselage side. Then, remove the rudder control wires, sheet over the fuselage top and cut the exit slots for the rudder control cables.

Wings are easy, with Jedelsky all sheet construction and are built flat over the

the R/C version should be $\frac{3}{8}$ " each way for rudder and $\frac{1}{4}$ - $\frac{5}{16}$ " each way for elevator.

Take-offs are perfectly feasible if the wheels are not too small.

... now for the TRIPLANE version ... !



plan, before separating the two halves at the centre line to set the dihedral angle. Don't be put

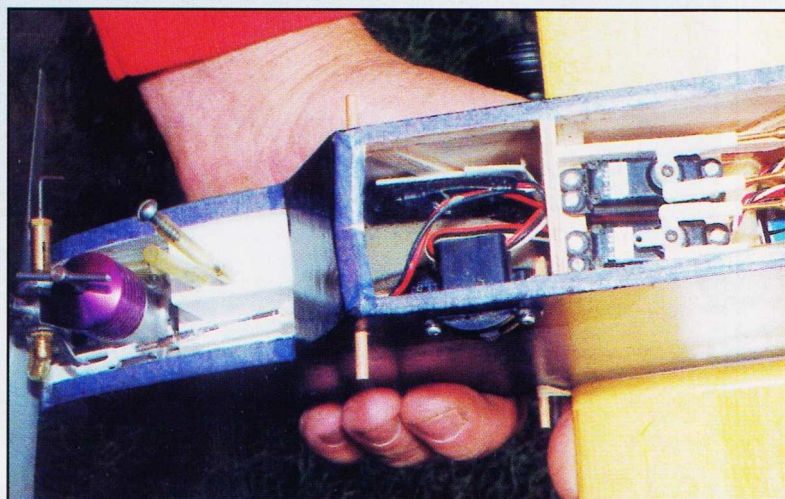
off by this type of wing construction - it is simple and very effective! Dope bandage onto the top of each wing to stiffen the centre section. Clear dope (non shrinking type) the bottom of each wing panel and the tailplane and tissue cover all other surfaces using normal shrinking dope, thinned 40% with cellulose thinners.

Follow up with a further coat of non-shrinking dope to fill the pores. Finally, decorate to taste.

Control surface throws for



Top left: underside view shows the Jedelsky all-sheet construction of the wings and tailplane. This method has more than enough rigidity for this type of model. Above: the all sheet construction of Tipo Too should reward the builder with a lot of fun for just a few evenings of building work. Wings are banded in place, but for the R/C version the tailplane must be glued on.



Above: here is the three function radio installation, with throttle equipped P.A.W. 1cc. motor in place for a tasty sport-aerobatic performance.

