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PLANS!



*Little Monster really has the spirit of the late '40s when affordable engines made models like this very popular. In the days of the original Frankenstein a good U/C was essential because a wooden prop cost a week's pocket money!*

# LITTLE MONSTER

**Dave Banks has built this smaller version of an old favourite and finds it a super flyer just like its big brother**

Writing this on a cold dark night in the middle of the worst recession I can remember, it is comforting to allow my mind to wander back to the warm, balmy evening when I first saw the inspiration for "Little Monster". Hopefully, many readers will have

experienced, either as spectators or participants, the evening fun-fly sessions at the control line nats at Barkston Heath before the move to Fairford. During these carefree periods the field would resemble a latter day Northern Heights Gala.

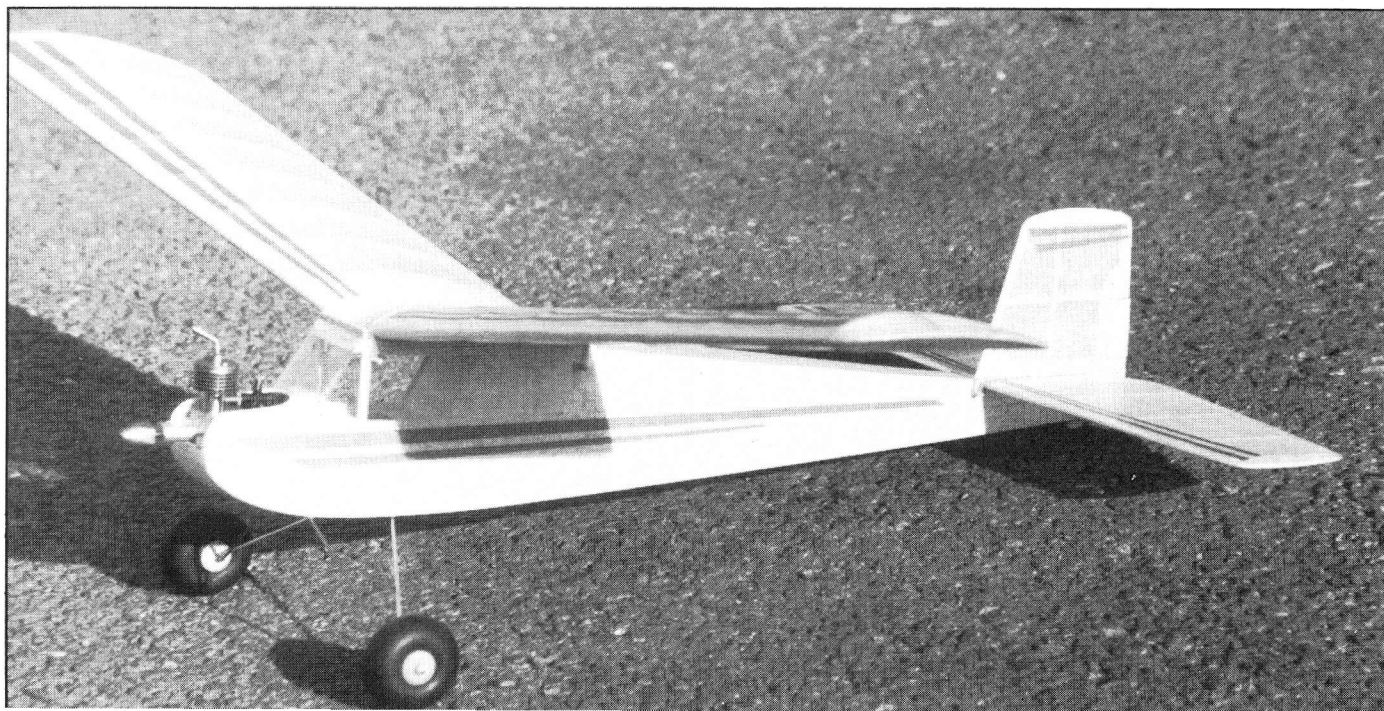
It was on one such evening that I witnessed the flying by an unknown modeller of an APS "Frankenstein" powered by a D.C. Spitfire. It flew time after time in a most stable manner, much to the delight of the crowd.

Looking back at the design it is easy to see why – dihedral angle, aspect ratio and tail area all combine to perfect sport model proportions. The designer obviously knew what he was doing.

Presented here is my approximately half size version for the Clan .24cc motor (it is equally suitable for the Knight and Pridham KP01 electric motor). Construction is simple and flying equally satisfying as its big brother. Fit a new blade in your modelling knife and we are ready to go. Construction is very straightforward.

## Fuselage

Cut two sides from soft 1/16" "C" grain sheet, add 1/16" longerons, 1/32" ply doubler to the windscreen upright and 1/16" sheet gussets, making sure you end up with handed sides. Cut formers F1 to F6 and the 3/16" ply motor



mount. Glue the mount to F1 as a sub-assembly, then glue this, together with F2 and F3 to the fuselage sides, checking that all is square. Draw the extreme ends of the fuselage together, add 1/8"x1/16" diagonals to the sides. Then glue in formers F4 to F6. Add 3/16" sheet to the nose and 1/32" top and bottom, note the grain runs lengthwise. Cut the slots for the rear u/c legs and sand the fuselage smooth (the sides can be thinned to approx. 1/20").

## Wing

Cut the ribs using the sandwich method. Pin the lower spar to the plan and assemble the ribs (omitting the root rib) making sure that the bottom of them is in contact with the building board. Pack up R2 with scrap 1/32" sheet, add the leading and trailing edges and top spar. Glue in the 1/16" ply dihedral brace after trimming R2 to clear it. Don't forget to angle the rib for the dihedral angle. Add the tips, curving them to follow the mean camber of the ribs. When it is all dry remove it from the plan, pack it up for dihedral and build the opposite wing panel.

## Stab and fin

These are simply flat plate sections built directly over the plan and sanded to section. Keep the tail as light as possible. The trim tab is hinged with soft copper wire to enable it to be bent for trimming.

## Covering and finishing

The original was covered with Jap tissue, lightly sprayed with water to shrink and then given 4 coats of thinned dope (30/70 dope to thinners). Tissue trim was added and a coat of 50% thinned banana oil used as diesel fuel

proof. At this stage you can add the windscreen. You may find the sharp bends where the screen meets the fuselage difficult but if you use the fuselage as a jig you can bend the screen to shape by holding it close to an electric light bulb. This is a safe method of heating plastic as you can feel it give as it reaches temperature. I used balsa cement to attach the screen, but use your own favourite method.

Now add the rear u/c legs, checking to see that they are free to move in the fuselage slots. Fit the wheels and engine and you are ready to fly.

## Trimming

Check that all the flying surfaces are flat and true and that there is about 2 degrees of down and slight right thrust on the engine. Balance so that the C. of G. is on the main wing spar, erring, if anything, towards nose heaviness. Use the trim tab to get a straight glide. Put the prop on backwards and launch the model on low revs. Look out for any strong turning tendencies and correct with the trim tab. Repeat until you get a straight or wide right pattern. Reverse the propeller and increase the revs. This should give you a slow right climb turning to a left hand glide.

***In the editor's club, quite a few Frankensteins were built for some very early experiments with R/C. It made them far too heavy and the radio did not work most of the time. Half-scale F/F version should have none of the hang-ups of its famous parent!***

