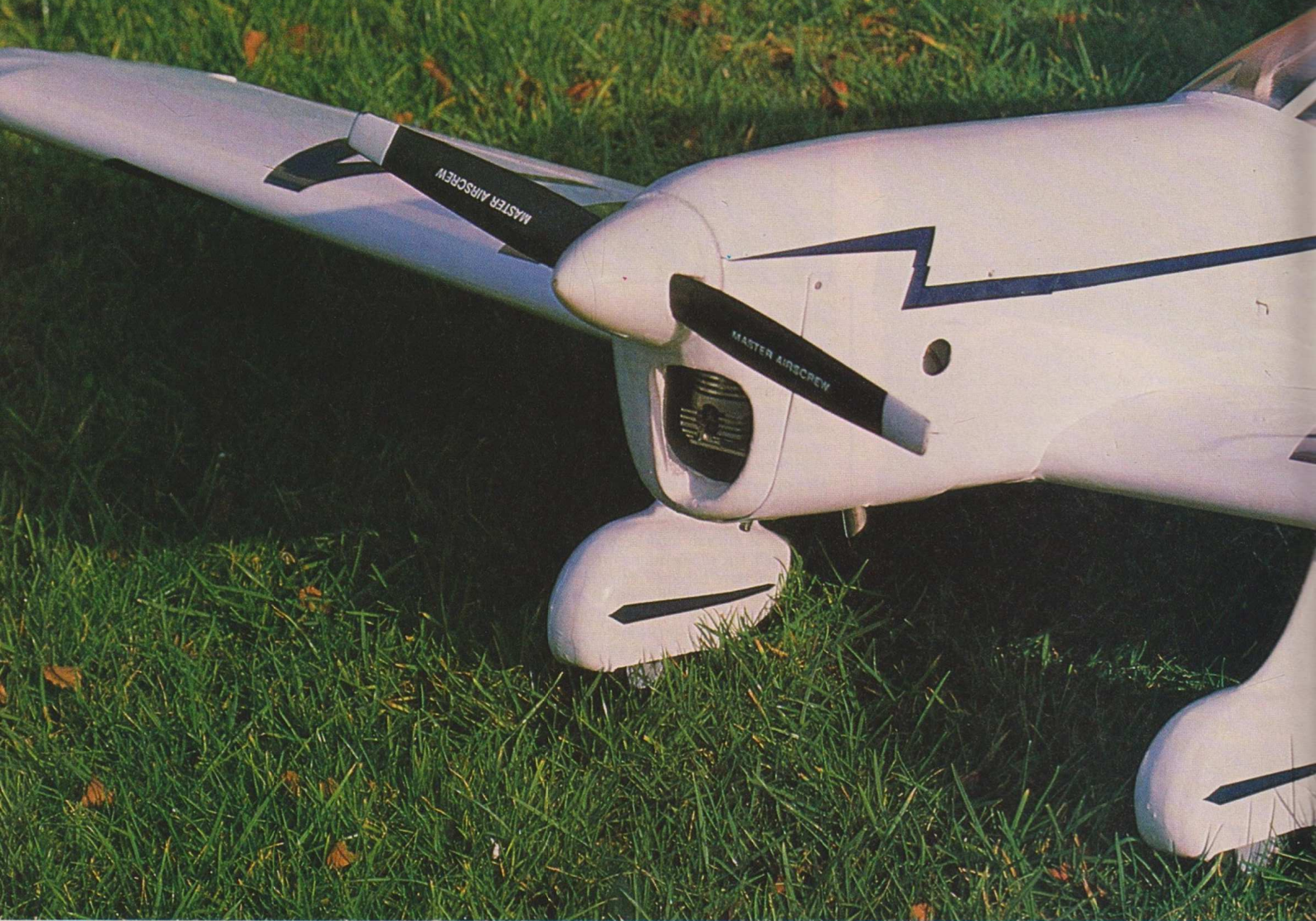


Chorus Gull



It's great! It's fabulous...! No, not this design, but just being able to build a model without having to constantly refer to photos, drawings, checking every line, shape, detail, etc! 'Chorus Gull' was designed in a day after numerous scribbles and built over two weekends with the evenings in between.

There is no secret as to the identity of the model's origins, being based on one of Edgar Percival's pretty creations, the G3H, and I hope just as attractive. She's designed for carefree flying by the average flyer without any naughty habits! The following notes will help builders but are not exhaustive so do study the plan before commencing.

Wings

Construction is commenced by cutting the ribs by the sandwich method - yes it *does* work! Simply add an 1/8in to the leading and trailing edges of the 1/8 ply templates. Cut blanks only for W2-W10 (9) from 3/32 sheet and bolt between the two templates then carve and sand to shape. Cut only the main spar slots at this stage and be sure to cut a left and right-hand 'pack'. Next, place each blank over the plan, trim to length by locating over the main spar and cut the rear spar slots. Cut W1 and W11 direct from the templates. Cut the u/c slots and add the ply

reinforcing for the bearers. Cut the holes for the push rods and slots for bellcrank mount.

Assemble over the plan and main spar, packing the trailing edges with 3/8in strips under rear spar position to give the correct washout. Now add the 1/8in false leading edge, top spars, leading edge sheeting, trailing edge sheeting and top cap strips then remove panel and add the lower rear spar, 3/16 trailing edge strip and trailing edge sheet. Fit the undercarriage bearers, leading edge sheeting and cap strips, but not the centre section sheeting at this stage. Add the tips and balsa braces from 3/16in and leading edge from 3/8 strip. Sand panel. Mark out and cut free the aileron, fit end ribs, spar facings and leading edge to aileron then add hinge and horn blocks from 1/2in sheet.

The two panels are joined by 1/8in birch ply dihedral braces behind the top and bottom main spars. The centre-section sheeting, servo box and 1/8in ply servo platform can be fitted together with ply patches for the wing bolts with holes drilled for 1/4in dowel which should be a good tight fit in W1. The undercarriage legs are bent up from 8g piano wire, to the pattern shown, with small brass strips soldered to each leg. The fairings are laminated from 1/4in balsa, and the brass strips stop these

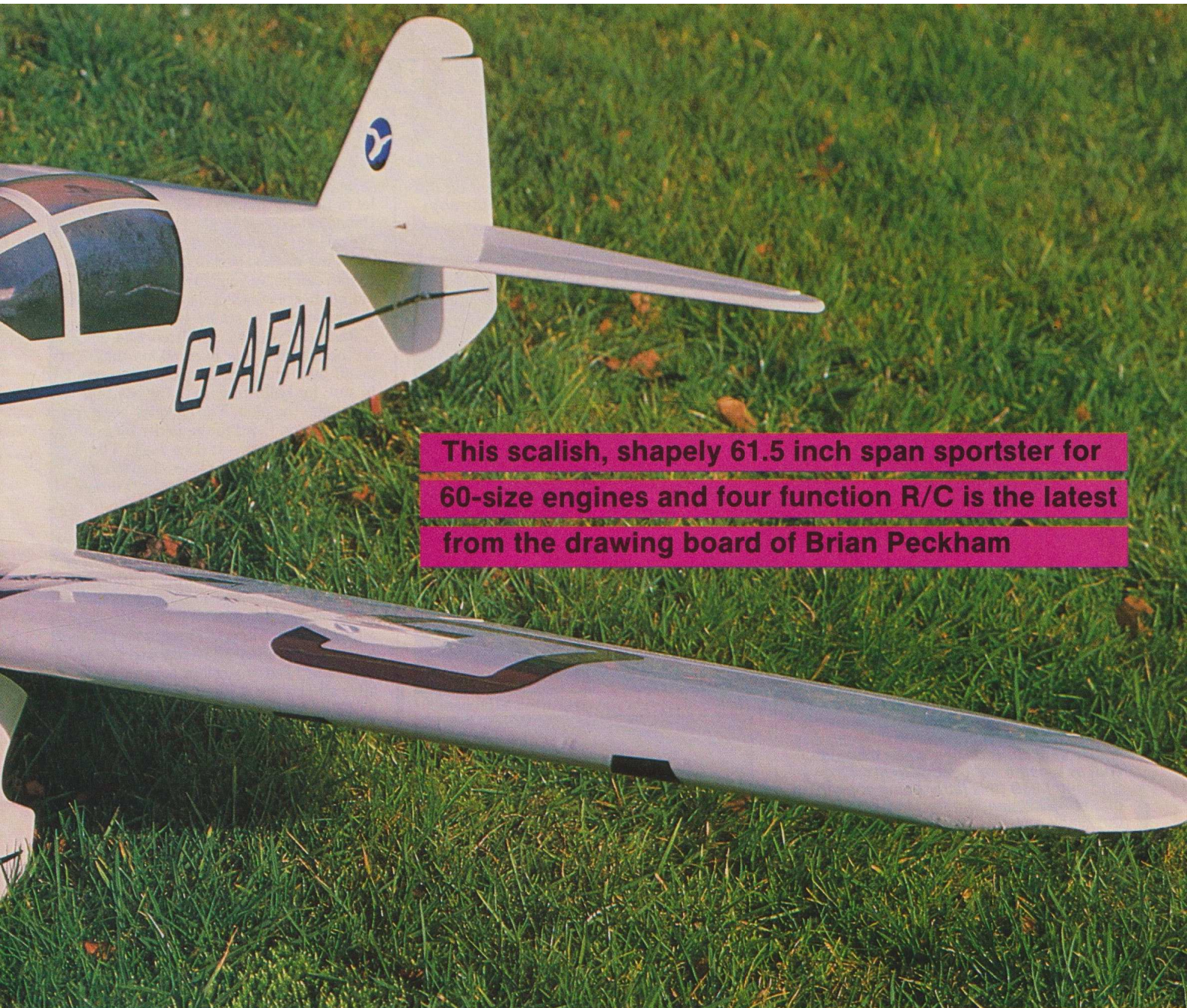
twisting. The spats are built up from 1/2in and 1/4in laminations, the width being adjusted to suit the wheels. They are finished with 1/16in ply facings as shown, the outer facings added after fitting the wheels, then all sanded to shape.

Back-end bits

The tailplane and elevator are good, stiff 1/4in sheet, with cross-grain tips to the tailplane, and use a 14g joiner with internal horn. The fin has a 1/4in rear spar, 1/8in ribs and 1/8in x 1/4in false leading edge with soft block top. The rudder has a 1/16 sheet outline, 1/4in either side at the leading edge with 1/8in ribs and 1/16in x 1/8in leading edge and 1/4in base each side with reinforcing blocks at the horn position. The horn is cut from 1/16in glass fibre sheet and cyanoed into the slot.

The bit inbetween

The fuselage is the usual balsa box with decking; make up the sides, one left-hand, one right-hand from 1/8in x 4in sheet with ply doublers, longerons, etc., and upper rear sides. It will be necessary to splice on a couple of inches for the extra length at the tail end, unless you use 3mm x 100mm x 1.0m long as I did. All the formers are cut from 1/8 lite ply except F1 and C1. The



This scallish, shapely 61.5 inch span sportster for 60-size engines and four function R/C is the latest from the drawing board of Brian Peckham

sides are assembled to F2-F6, pulled in to the stern post at the rear, formers F7-F9 added, and then pulled together at the nose for F1 which is epoxied in. It is preferable to assemble the engine bearers and braces to F1 before fitting to the fuselage.

Locate and drill for the wing dowel, fit the bolt plate for retaining bolts, bolt wing in position after gluing in place the 1/64 ply fairing outline, and glue into position the 1/32 ply fairing piece at the trailing edge. Build up the fairing from 1/2in soft sheet, fit the 1/2in sheet nose underside and small fairing to the wing leading edge on the underside and shape up together. Finally shape the wing fairing after removing the wing.

Fit the upper central longerons and decking then dry fit the tailplane, gluing in place the small fairing blocks over the tailplane; remove the tailplane and sand to profile. The fin seat is a piece of 1/2in balsa shaped to fit over the fuselage profile with the top flat to accept the fin base.

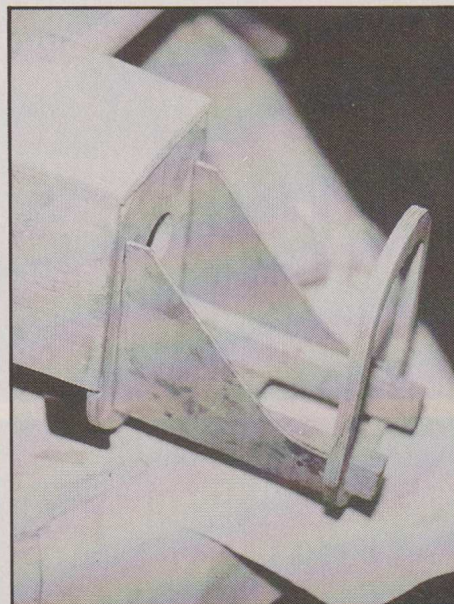
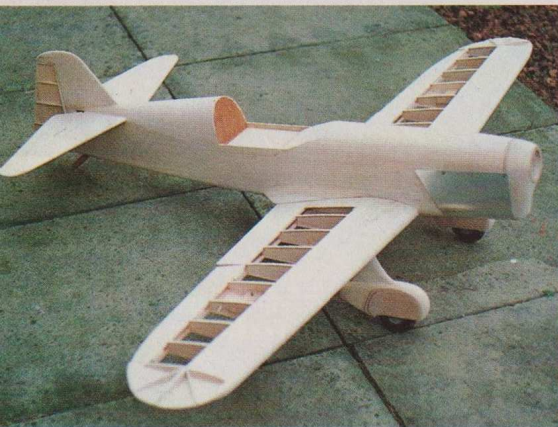




Prototype **Chorus Gull** flew straight off the board (as they say!) requiring hardly any trim correction.



Distinctive Mew Gull lines are in evidence from whichever angle you view Peckham's sportster. Before we settled on **Chorus Gull** as a name we toyed with *Mocking Bird* and *MGB* (this latter being something of an in-joke standing for *Mew Gull Bodge* but really referring unkindly to the editor's restored sportscar!) What will yours be called?



Make up the cowl front from 1/2in balsa laminations on 1/4in ply, shaping as shown; the cowling top is also from 1/2in sheet and triangular section strip. The removable part of the cowl is bent up from litho plate, cut from a pattern of stiff paper. I made and rivetted in place a louvre each side for cooling but a simple hole will suffice, plus holes for exhaust, needle valve, etc. The cowling is attached by 3/8in countersunk wood screws into C1 and F1. Now you can glue the tailplane into the slot and leave a 1in long slot behind for sliding the elevator joiner through later.

Finishing off

The drawings show bearer spacings to suit the Laser 61: if other engines are used, respacer to suit - with 40 or 60 size two-strokes it may also be necessary to extend the nose by 1in or so, to reduce the need for ballast. The canopy and cowling are both available from ASP - see the caption on

page 9 for price details. They'll save you a lot of fiddling and are well worth the extra. Cyano the canopy in position after painting the interior and/or fitting driver, any finishing method overlapping the canopy. Finish can be by your favourite method - out of sheer laziness I used Solarspan with Solartrim canopy frame and lettering.

Radio, servos, etc., all fitted where shown on the plan but bear in mind my comment about light motors; this could be re-arranged to suit, for ballasting up to the position shown on the plan. The elevator push rod is made up and fitted to the joiner by fiddling it through the slot - it does work! The rudder is operated by closed-loop using nylon covered fishing trace. The aileron servo is retained by an ali strap over it and screwed to the ply plate in the servo box.

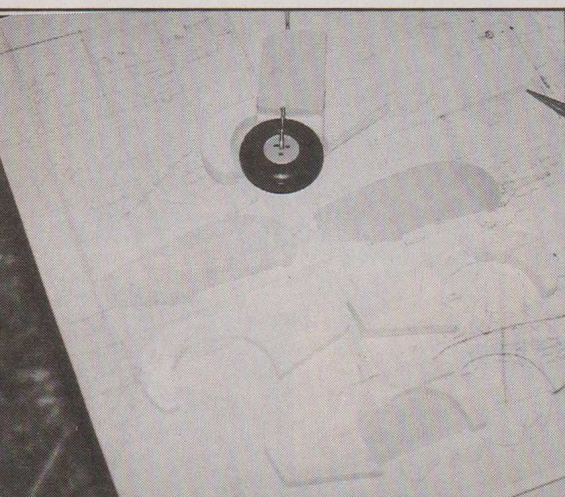
My colour scheme imitates that of one of the well-known Mew Gulls; as a matter of interest, Gulls came in quite a variety of colours and markings - red, blue, gold white/black, etc., as well as with foreign and British markings. There were not that many, it's just that they changed hands quite a bit! But any colour scheme is OK - after all, it's just a fun model.

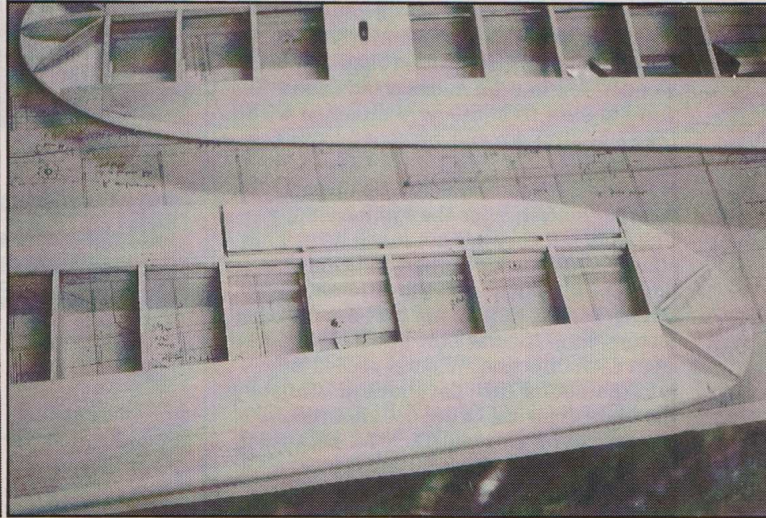
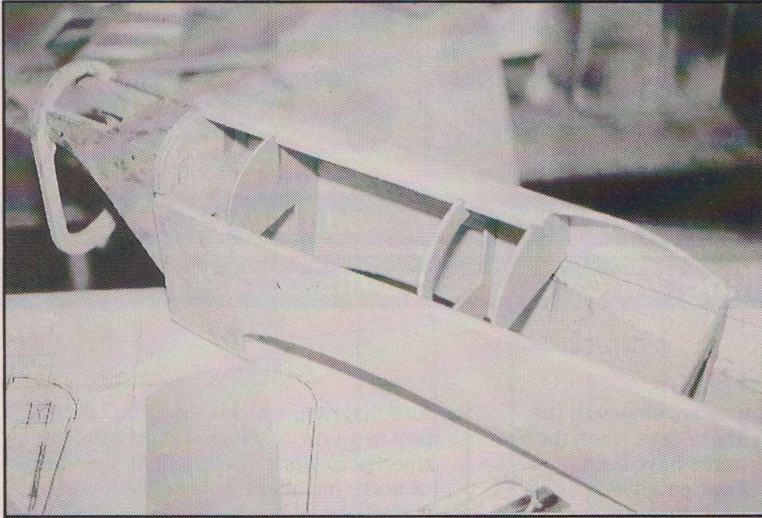
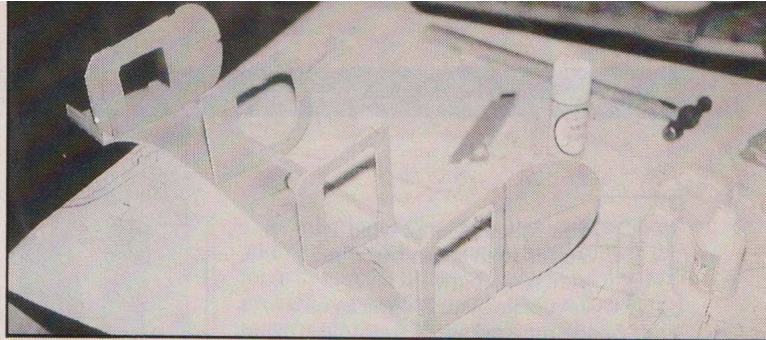
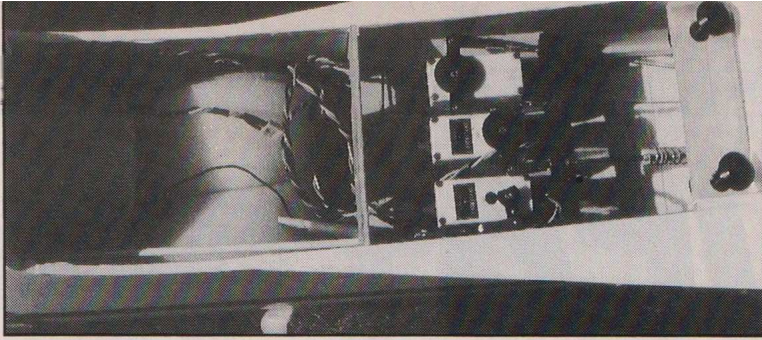
Up and away!

Now, ready for the off? Check the balance point; this is important for the first flight - after that, adjust to suit your particular flying preference. Control movements on the prototype were as follows:

- Ailerons - 1in up, 3/4in down
- Elevator - 1.1/2-1.3/4in up and down
- Rudder - 2in each way

As a point of interest, all-up weight was 7.3/4lbs with the bare airframe coming out at 4lbs. If your model is over this weight






and/or the balance point is aft of that shown, you are on your own! This is not a warning but I do get letters and phone calls about some of my designs not performing and one of the above is usually a cause, especially overweight.

Anyway, 'Chorus Gull' is a real pussy cat. Take off with up elevator keeps the tail down until speed builds up then ease off and just a touch of up to lift off keeping her heading straight with the rudder. As set-up

she will perform most common aerobatic manoeuvres with ease, but experiment as I said before with c.g. and trims to suit your own flying style. Landings are a piece of cake; line up on finals, ease back the throttle and flair out at about three and a half feet.

That's about it. Get cracking - even a slow builder could be in the air before summer... 

*If you've built from a plan before, **Chorus Gull** will present no problems. Wing tips can be finished as above or filled in with soft block to maintain the smooth curves right out to the tips. You'll find they cover more neatly that way, too!*