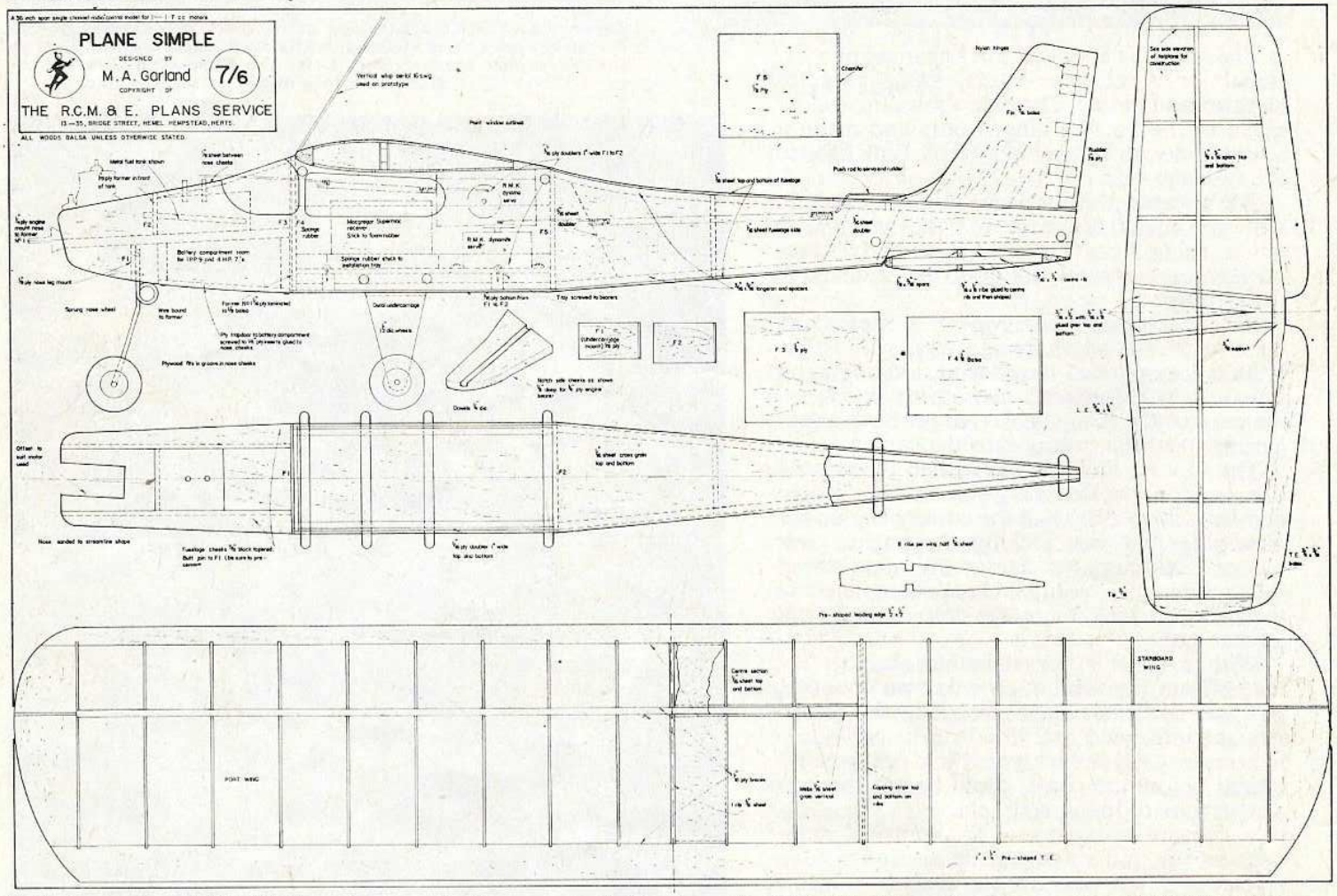
PLANE SIMPLE

By M. A. Garland

A 36in. span model for single channel R/C and motorised actuators



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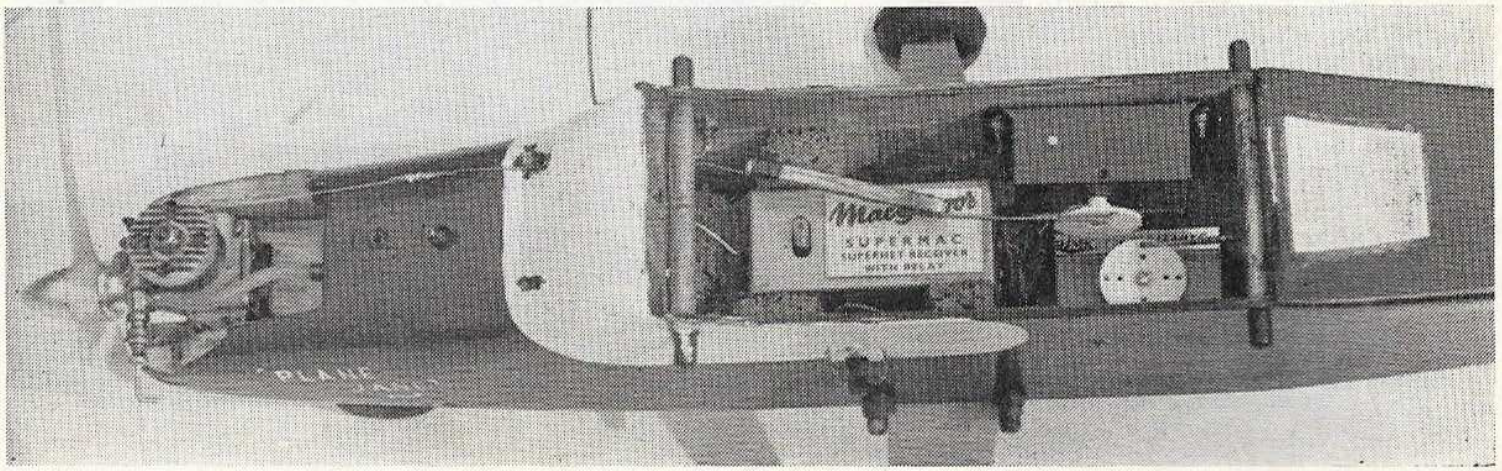

Originally named 'Plane Jane' as the pictures here show. M. A. Garland's model was renamed to avoid confusion with a 'Plane Jane' already in our plans range. Model is ideal for single channel motorised actuator systems and installation showing R.M.K. Dynamite and Dynamo actuators, with MacGregor Supermac receiver can be seen bottom left.

PLANE Simple arose out of the desire to build a compact model yet having enough room to install a single channel superhet receiver and two servos. Originally it was powered by an O.S. 10 motor and performed excellently. Unfortunately this engine eventually wore out and being unable to obtain another O.S.10 I purchased a Webra 'Sport Glo' and modified the O.S. 10 throttle to fit the Webra.

Plane Simple has safe flying characteristics yet is highly manoeuvreable and can be flown near the ground in tight turns, without the fear of suddenly dropping her nose. The model is easy to trim and with the centre of gravity ½ in. in front of the spar, and the incidences as per plan it flew without any alterations.

The receiver chosen was the MacGregor 'Supermac' and two Orient servos, which were mounted with the receiver, on a plywood tray. I personally experienced trouble with this set up, in the form of the motor servo changing speed on its own in the air, but working perfectly on the ground!

The servos were then changed to R.M.K. Dynamo and Dynamite and this problem disappeared. As the R.M.K. servos are a little larger, I was forced to mount the motor servo on its side directly to the fuselage and the rudder servo as before on the plywood installation tray.

The receiver aerial terminates at the 18 s.w.g. brass bush, fitted to the fuselage side and an 18 s.w.g. piano wire whip aerial, cut to the correct length is then soldered into the bush. When not in use, the end is bent back and slipped into the slot from which the servo push rod emerges.

Construction

The fuselage construction is quite straightforward and presents no problems. Evo-Stik resin 'W' glue was used throughout and provided the nose blocks are fitted accurately to the first former, a really strong body results.

Wings

After cutting out the ribs, the leading and trailing edges are laid on the plan and positions of the ribs marked, prior to slotting. I find that if one uses a 1/16 in. flat needle file, the slots are easily formed. The trailing edge is then pinned to the plan and also the lower spar. The ribs are then glued and fitted and also the leading edge and upper spar. Now add the wing tips and leave to set. When the wing halves have set the 1/16 in. sheet webs can be inserted between the ribs remembering to fit them with the grain vertical.

After cutting out the 1/16in. ply dihedral braces, one wing is pinned to the building board and the other tip raised 4 inches and the wing halves are then fitted and glued together. When completely dry the sheeting and capping strips can be added. After glass-papering, the wings fit a piece of 20 s.w.g. wire along the trailing edge to prevent the retaining bands from cutting into the edges near the centre section, the wire being held to the edge with nylon, cemented in place.

Tailplane

This construction is straightforward and if one prefers, ribs can be cut out in preference to the laminated method.

Finish

The fuselage was covered with tissue applied with a thinned down solution of Resin 'W' and when dry was given three coats of clear dope well rubbed down and then finished in dark blue enamel. The wings and tailplane were covered in orange nylon clear doped and then the entire model fuelproofed.

Flying

Having checked that the model balances correctly, it can be hand launched to check the glide, if all is well, the first power flight can be attempted. With the motor running 'flat out' and the model trimmed for a slight left turn, launch into the wind and then keep the model flying straight by giving blips of right rudder.

Having gained experience, try holding on the turns at a safe height and try some aerobatics.