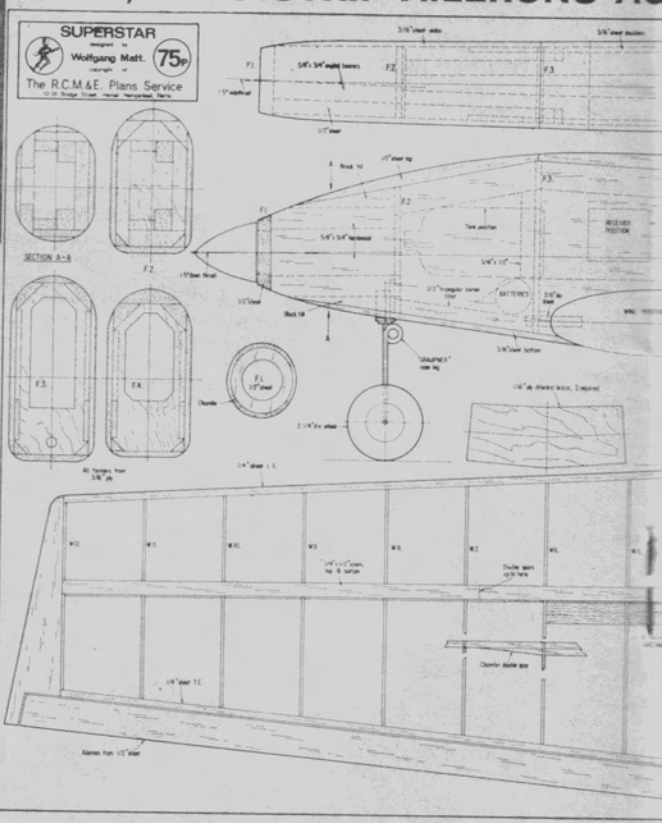
Super

LOOKING FOR THE CLASSIC EURO CONTROL MODEL? WOLFGANG DEEP, FISH-SHAPED FUSELAGE WING, PLUS STRIP AILERONS AG



SUPER STAR is an aerobatic radio controlled model designed specifically for best performance in the F.A.I. aerobatic schedule. The shape and construction of this model hides innumerable compromises, essential for best all-round performance.

Since the model is designed for out-and-out performance, I do not recommend Super Star as a beginners' model, although this machine can be flown over a wide speed range, while still maintaining positive control. Despite its remarkable all-out aerobatic ability, you will be astonished at Super Star's ability to fly perfectly satisfactorily without aileron control, using just rudder, elevator and throttle controls, the only modification necessary to fly in this mode being to increase the dihedral angle to 7½ degrees.

Full size copies of this plan, shown at 1/7th reduction, are available from Radio Control Models & Electronics PLANS SERVICE, price 15/- including post. Please quote plan RC/1056.

by Wolfgang Matt

Star

ROPEAN STYLE AEROBATIC RADIO MATT'S SUPER STAR OFFERS E, THICK TAIL SURFACES AND GAIN.

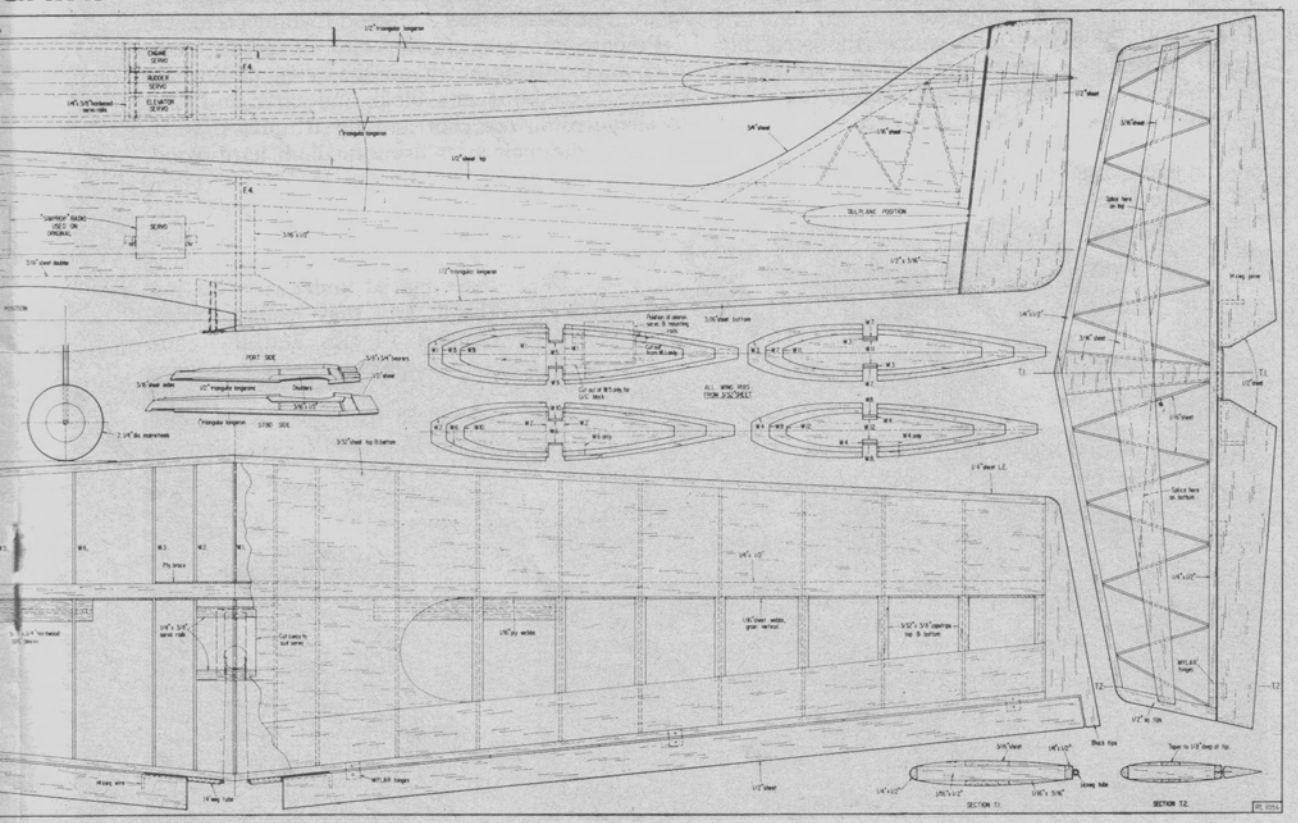
Super Star has been flown successfully using a wide range of 10 c.c. power plants, including the Rossi 60, Webra 61, Enya 60 and Super Tigre 60 RV etc.

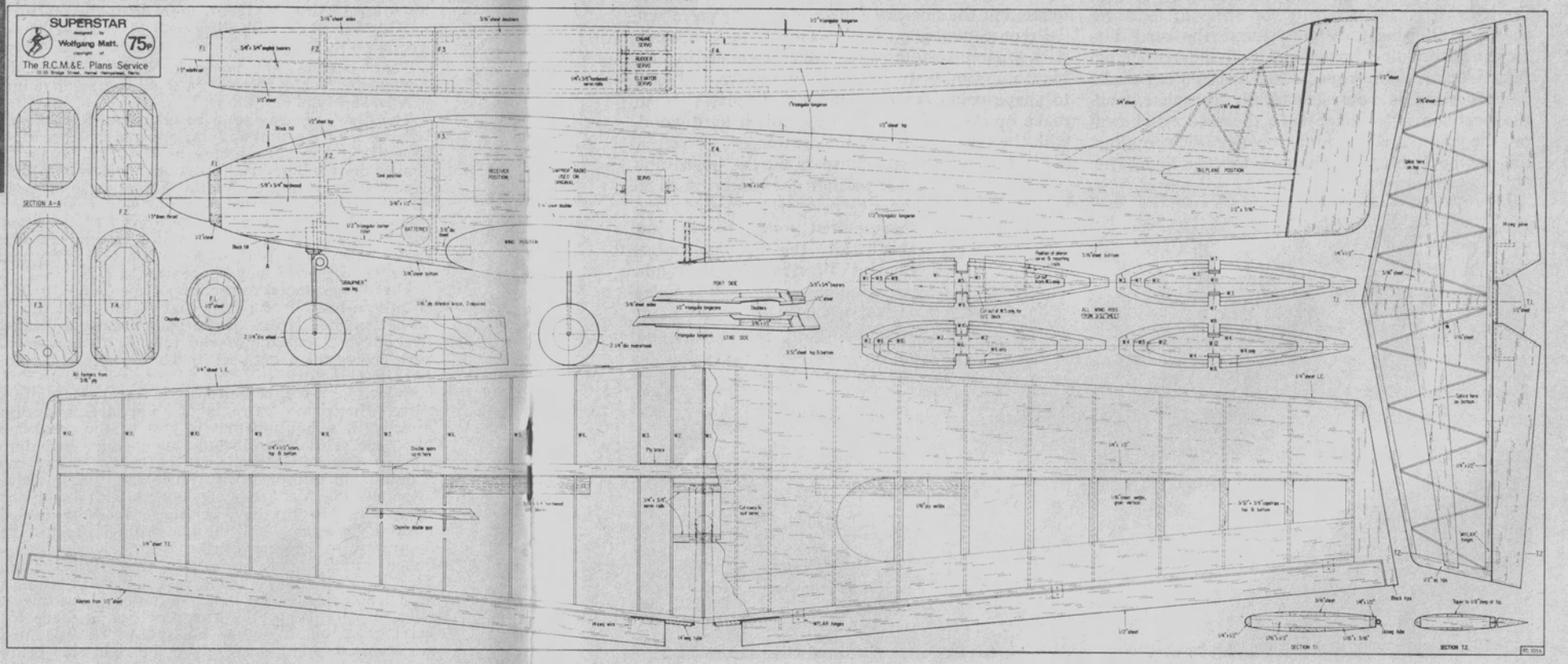
Now for the construction notes, which are limited to the essential points of construction, since I feel that anyone attempting this type of model can reasonably be presumed to have the necessary building ability to complete this model without much prompting.

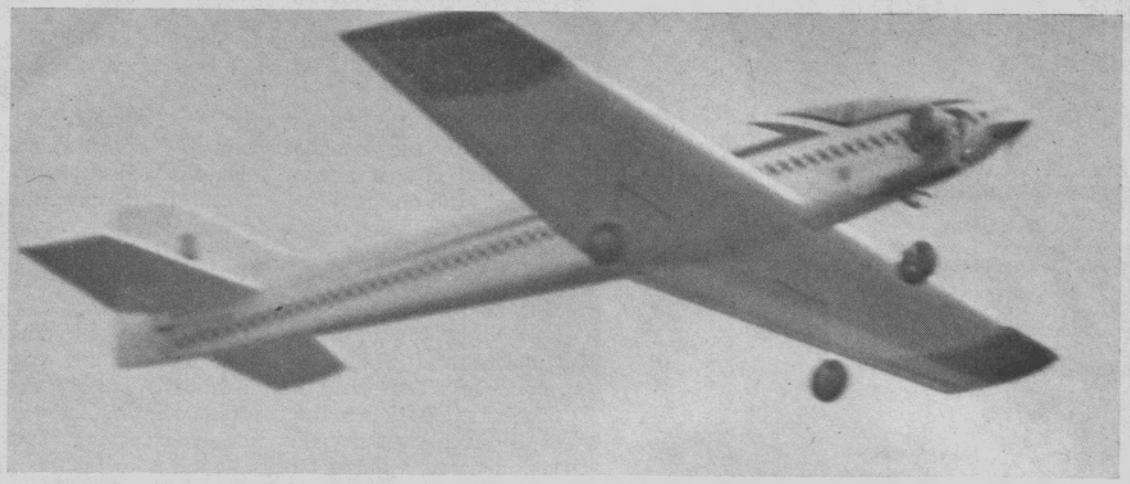
Fuselage

Prepare the fuselage sides on a flat building board, making sure that you are building two opposite sides – not two identical! Follow the construction sketch on the plan, adding the top and bottom triangular longerons, wing seat doublers, and filling blocks at the nose including the engine bearers to make up two basic fuselage side structures ready for joining.

Naturally, every model builder has his own constructional techniques. To ensure true alignment, I assemble the fuselage directly over the plan, which I cover with plastic sheet. An alternative method is to draw the plan view of the fuselage on the building board and assemble the fuselage over this.




SUPERSTAR
designed by
Wolfgang Matt.
75p
copyright of
The R.C.M.&E. Plans Service
10-28 Bridge Street, Hemel Hempstead, Herts.
SECTION A-A
F1.
F2.
F3.
F4.
RECEIVER POSITION
BATTERIES
SERVO
TAILPLANE POSITION
WING POSITION
ALL WING RIBS FROM 3/32" SHEET
PORT SIDE
STBD SIDE
SECTION T1
SECTION T2
T1.
T2.



Assemble the fuselage over the plan upside down, laying the fuselage top deck on the board and gluing the fuselage sides to it. Use right angle to true up the sides and clamps to hold them against the formers. While this assembly is drying, construction can be taken a stage further by adding the fuselage underside sheet, grain across the fuselage for strength. At the nose, filling blocks are then added and finally the ply floor.

When all glue has set, remove the assembly from the building board and add the remaining filler blocks at the front of the fuselage top deck. The fuselage is now structurally complete, and the next job is to shape it to the sections shown on the plan, first drawing the side view outline on to the balsa and shaping to this line. The fuselage is then rounded off, preferably using an electric drill and sanding disc, then finally hand sanded to finish.

Wing

The wing is best built in one piece using two perfectly true building boards set to the correct dihedral angle. It can be built in two separate halves and eventually joined using the dihedral brace, but the one piece method is to be preferred.

Prepare two sets of wing ribs using the 'sandwich method' as shown on the plan, cutting rib blanks, assembling as a block and carve and sand to shape using the root and tip templates. Next, make up the mainspars using medium hard wood, with the spar doublers in the centre.

Pin the two lower mainspars on the board and then position the wing ribs. Align the ribs using a purpose cut jig sheet placed under the ribs just ahead of the leading edge. Cement all ribs and then add the leading and trailing edge spars. The jig pieces incidentally are cut in half span lengths and cut to shape, but transferring the board-to-rib rises at root and

Pictures here taken at 1969 World R/C Champs. in Bremen show the elegant lines of Super Star. Wolfgang Matt placed 6th, a final position repeating his 1967 performance in Corsica. Quite a coincidence! At left is the complete Liechtenstein contingent, pilot Wolfgang Matt; far left, brother Gunther the mechanic in centre and team manager Wieland Meier at right.

tip to the jig sheet and cutting the jig sheet to shape along the line joining the rise points. This correctly aligns the ribs and compensates for the wing taper.

Add the top ply spar braces and, when the structure is dry, begin to add the top surface sheeting. The plan shows a partially sheeted wing structure with cap strips to the ribs where sheeting is not shown. For those who prefer it, however, the wing can be fully sheeted.

When all top surface sheeting is complete, leave the structure to dry thoroughly. The next step is to remove the structure from the building board and add the remaining ply centre section braces. Then add the front centre rib strengtheners around the wing locating dowel.

Finally, complete the undersurface sheeting, add the wing tip blocks and sand to a final shape.

Tailplane

The structure shown for the Super Star tailplane is one that has been popular for many years, and little comment on construction is required, except perhaps to add that an alternative method would be to use a foam core arrangement.

Finish

Finishing a model is a subject in itself, and every modeller has his own personal technique. I would only advise an initial covering of the fuselage framework with tissue or silk to harden off the surface.

A few words about test flying

First, and most important, ensure that any model balances correctly. Switch on your radio and check that all control surfaces centre correctly and that the strip ailerons have equal throw.

The most important part of trimming concerns loops and outside loops. In the case of the inside loop, if there is a tendency for one wing to drop, the wing should be balanced, with weight in the lighter tip.

Screwing out of outside loops is corrected with engine thrust line adjustments, usually about 1.5 degrees one side or the other to compensate.

That's about it as far as Super Star goes. It's a good machine and you should have fun with it. Build more than one!