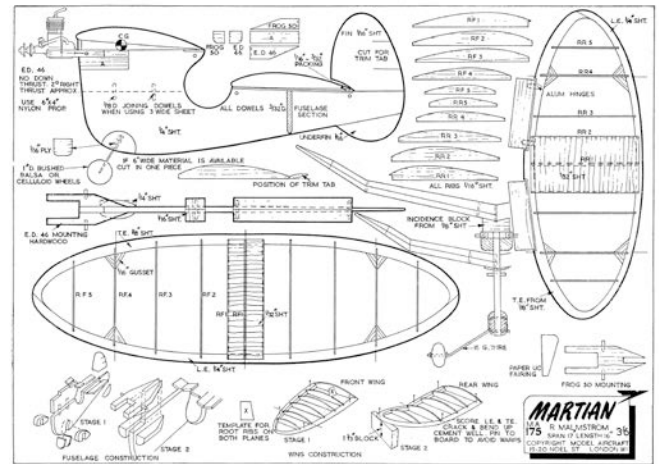
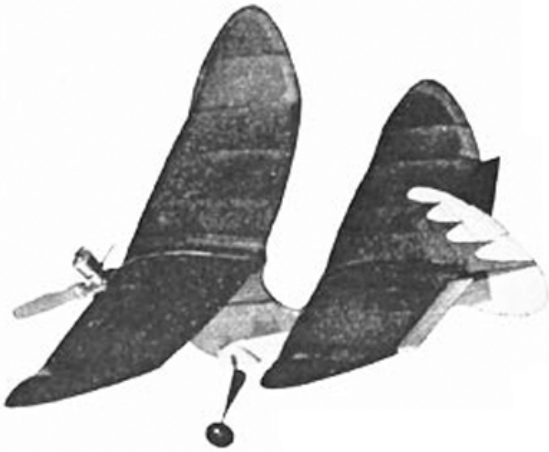


Martian



Strange but true, this little tandem wing job really flies. Any 1/2 c.c. motor will supply ample power by Ray Malmstrom.

I can almost hear the aeromodelling wits murmur- J! ing, on seeing the Martian, " evidently a case of what you lose on the tailplane (non-existent!) you make up for on the wings " Well, frankly, that's about it, and when it comes to real flying, this tiny tandem-wing certainly has no need of a tail- plane. Simple to build, easily trimmed, it has proved to be a very stable little job in the air. The following notes are for the less experienced. To the old hand, resting for a while from the nerve racking business of building contest jobs, the Martian should present no problems, and provide just about a couple of evenings' light entertainment, before this diminutive little job is ready for the wide open spaces.

Fuselage: Trace the shape on 1/4 sheet. The lucky ones with some 6 in. wide stock tucked away can do it in one go. Others with only 3 in. wide sheet handy must make the fuselage in two parts and dowel and cement them firmly together. Add the engine mount, drilled for the engine of your choice, noting here the right thrust (viewing model from the rear). Add blocks A, wing platforms, fin, and the four dowels firmly cemented in, for the rubber bands. Add to this the under cart blocks and 1/16 ply inserts, if you are going to use an under cart. The under cart legs are simply bent from 16 s.w.g. wire with bushed balsa or celluloid wheels retained by small washers soldered on. Round off all edges. Give two coats of clear dope and lay aside.

Wings: Front and rear wings are built in exactly the same way. Leading and trailing edges are cut from sheet. Pin these over plan and add ribs. Set root ribs by means of the template X, provided. A V-cut is made on the leading and trailing edges at the points shown, and the outer panels raised by 1,1/8in. Cement generously at crack, and add gussets. Join right and left wing panels together, supporting at correct angles until dry. Sheet with die two center sections. Cover, water shrink, and give one coat of clear dope. Please see that your wings are absolutely true, and free from warps. This is important. Add the trimming elevator tabs to trailing edges of the rear wing, with aluminium hinges. Cement incidence block (from 1/8 sheet) to L.E. of front wing. Decorate model with either coloured tissue or trim strip, and give one coat of fuel proofer. Bolt engine complete with 6x4 propeller in place, assemble wings and balance model at point indicated.

Flying: Choose a calm day and a field of long grass for your test flying. The model is usually flown without the u/c, and the settings that produced a very satisfactory flight performance with the original Martian, are detailed on the plan. Slight engine right thrust, with the trim tab on the fin offset to the right (model viewed from the rear) about 1 in. The elevator tabs on the rear wing are bent up to the angle shown. The model is very sensitive to these elevator tabs, and they should be adjusted a little at a time. When the correct setting has been found, they should be locked by cementing. A 1/16 - 3/32 packing under the trailing edge of the rear wing was found to be necessary. Naturally the settings will alter from model to model but these from the original model can serve as a

Martian

starting point. Get the glide as shallow and as straight as possible, avoiding any tendency to stall. Violent turning on the glide can be cured by raising the wing tip on the inside of the turn by packing at the center section. Throttle the engine down, or fit the prop, on the wrong way round for your first power flight. The engine torque should give a wide climbing turn to the left. With this first flight successfully logged you can begin to open up. One other thing, avoid power turns to the right. With this type of model they usually build up into a spiral dive.

With a 3/4 full tank (ED 46 engine) the Martian climbs to a dot in the sky. So either limit your power run, or start chasing. You have been warned !

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