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by Kevin Flyn

MAX was built around New Year's Day 1970. After many flights with this sheet wing model I decided to use a similar system on a larger glider, and it proved very successful. After hitting the only telephone pole in Topanga Canyon, I can truthfully say it is very strong!

Max has flown in winds gusting to 25 m.p.h. with good penetration. During a trip to the Mojave Desert, I met my friend Jack Arkovitch and he invited me to try thermal soaring. I did not have a model with me but I used Jack's "Windward" model, with which we drove to a tumbleweed covered dust bowl and set everything up. I thought he was nuts, as there was not a breath of wind and I couldn't feel any thermals.

Jack gave me the first flight, but from a beautiful launch right off the top of the line, the model came down almost as quick as it went up. During that brief flight, Jack was running around shouting "There's one, turn now, too late . . . " but I still thought he was nuts – I didn't see anything!

So Jack took the next flight. I chuckled as I launched his model for him, another good launch to about 175ft. altitude off the line straight as an arrow, but this time the model did not sink. Jack said "There's a good one" and instantly put the aeroplane in an almost vertical bank.

It seemed to be chasing its tail, going up and up. I stopped chuckling and sat there and watched. We could just about see it now, so he spun it down and then caught another thermal – this time he let me fly it, unbelievable. I learned a lot from that introduction to R/C thermal soaring and have many thermal flights on "Max" now. This simple attractive little design has paid for itself many times over in the pleasure it has given me, and I know that the design will give just as much enjoyment to you, so clear off that building board and buy in some good balsa!

Below: radio installation, power pack as far forward as possible and receiver positioned between power pack and servos. Right: many readers will recognise an old friend, Jack Headley, posing with the 'Max' for this photograph.

Construction

Wing

Start with the left wing cutting to outline the bottom 3/32in. sheet which is pinned flat to the building board. Add 3/8in. sq. to leading edge and hard 1/8in. sheet balsa spars. When dry add all ribs except the root rib. Then cut the tip blocks to shape and glue into place. Repeat the building operation for the right wing panel.

Let both panels dry overnight. Then, lay one panel flat on building board and block the other up 12 inches under its tip to achieve the correct dihedral angle, glue in 3/32in. ply dihedral braces and add trailing edge blocks to the centre secion. Now carve the leading edge to section, best done with a razor plane. Thereafter, sand ribs and tip blocks smooth, chamfer lower sheeting along the trailing edge and then add top 1/16in. sheet to complete wing. Do not glue fairing block on at this time.

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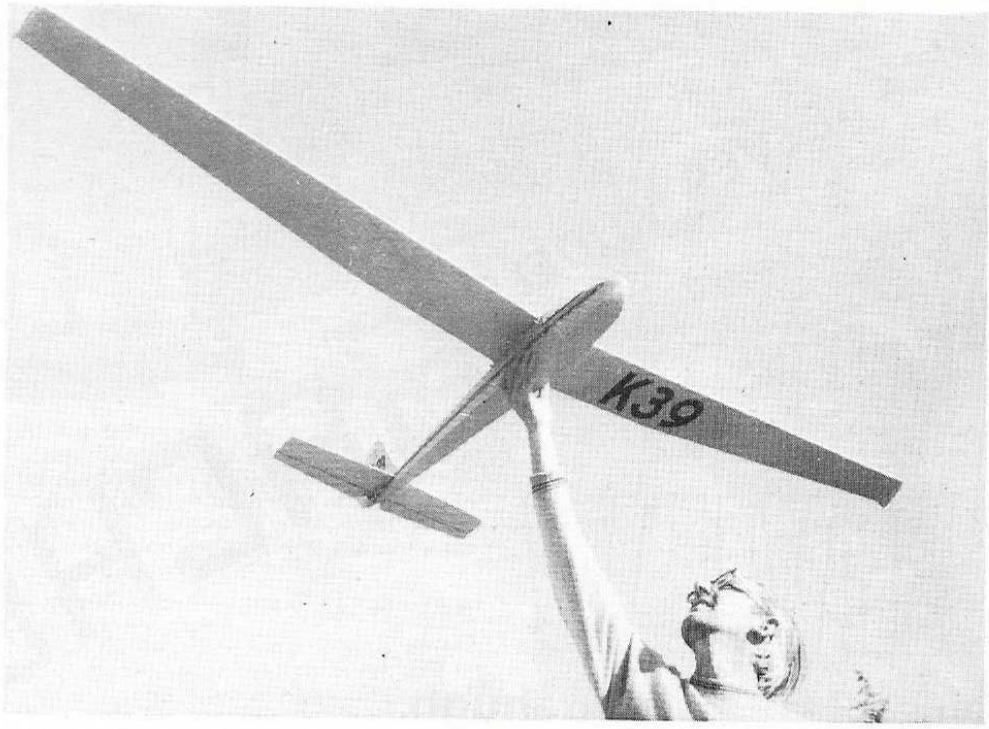

Fuselage

Cut out two sides from 3/32in. sheet, pin to building board and add 3/16in.sq. balsa framework. While glue is drying, cut out the tailplane, fin and rudder from medium sheet balsa. Join the elevator halves, using a piece of 1/4in. × 1/8in. hardwood sanded to airfoil section, set the assembly aside for now. Cut out fuselage and turtledeck formers, crossbraces and noseblock.

The front top balsa block and former F2 are removable for access to radio and ballast. When basic fuselage assembly is complete, sand smooth and glue turtledeck formers in place, add front 1/16in. ply floor and cover the rest of the bottom with 1/16in. balsa. Also, cover turtledeck with 1/16in. sheet. Drill 3/16in. holes and install wing dowels. Next, rest the wing on the fuselage, glue wing fairing blocks in place and sand to contour of fuselage and former F2. Having completed this stage, remove the wing and cut a large canopy to fit and glue in place with contact cement. Glue on tailplane and fin, not forgetting to add the gussets between fin and tailplane. Then, after epoxying in the control surface hinges, the fuselage/tail surface assembly is complete.

Finishing

The best and the lightest finish for this type of model is to cover it with coloured Jap tissue using about four coats of clear dope, thinned 50-50. You can trim the model with contact shelf paper or trim tapes.

Flying

If the model has been built with a medium grade of balsa and equipped with small radio gear, the total weight should be about 2lbs. to 2¼ lbs. With the C.G. as shown on the plan the model should fly 'off the board', assuming that flying surfaces are true.

"Max" has been used for both slope and thermal soaring flight, the longest flight being about 45 minutes. Launch system for the R/C thermal soaring has always been the Hi-start, consisting of two strips of 1/4 × 1/8in. flat rubber, 100ft long and 400ft. of 25 lbs. monofilament fishing line. The rubber was tied to the car as an anchor point and a round key ring used for the tow ring. A word of caution when using the Hi-Start – keep the C.G. a little forward or the model will stall off the line and drop a wing. So, watch out for this. Generally speaking though, Max is a simple model to fly, and if the airframe is built true, should be viceless.

Countless flights have taught me to really appreciate this little model and I do hope you derive as much pleasure from it as I have.