

EAGLET

X2

Raison d'être

The Eaglet x 2 design was chosen originally as a suitable vintage aircraft for my old FROG 175 petrol engine. For the prototype I used a single channel with an old Elmic Commander escapement, which eventually, in its customary manner, jammed and sent the Eaglet spinning to earth.

I rebuilt the fuselage front end and replaced the escapement with a servo; but still using the escapement torque rod system. This works well. Eventually the FROG 175 was changed for my old FROG 100 diesel and in this form the model was taken to Old Warden for the Golden Era gathering.

To my surprise a gentleman, heavily disguised as a Black and White minstrel, presented me with a cup!

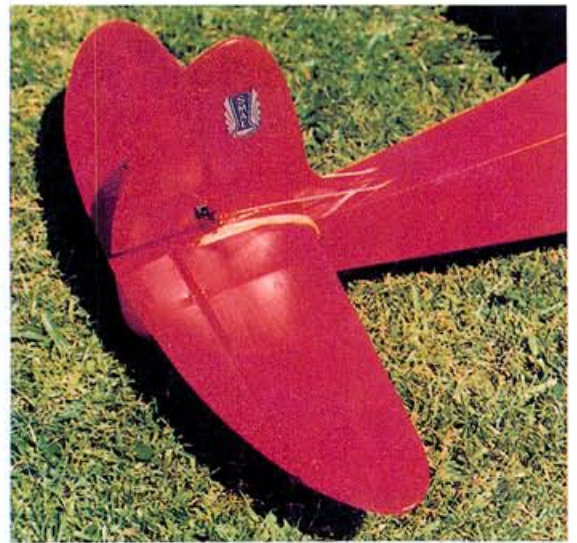
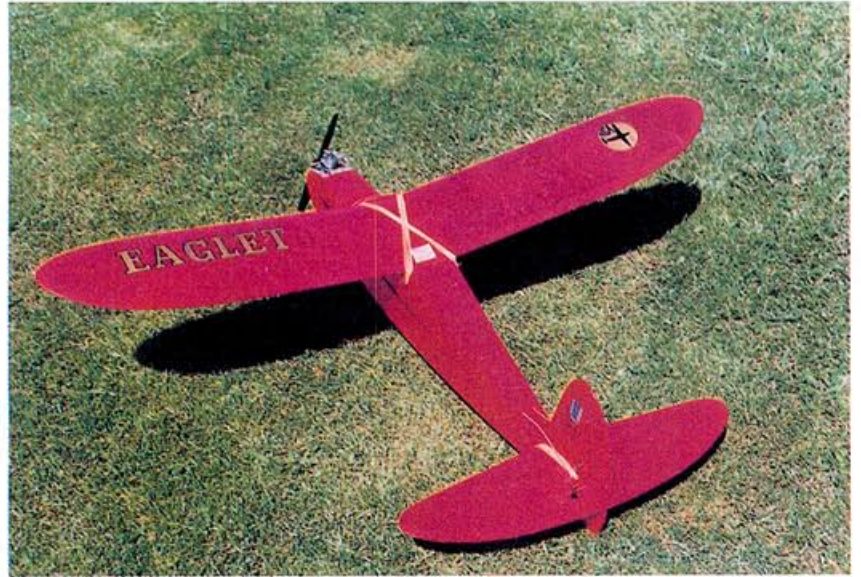
The possibility of the Eaglet's appeal to other people prompted me to design a MkII.

PETER IS A VERY MODEST GENTLEMAN, although he has many inspiring designs to his name – not least the Micro Mold 'Lark' helicopter. In his write-up for the 'Eaglet' he did not mention the flying qualities of the model. Having had a 'twiddle' on the sticks I can assure readers that it is a delightful aeroplane to fly. It performs very much like a well bred trainer, indeed it would be excellent for that purpose. Control responses are positive without being vicious and the 'Eaglet' has a modest flying speed.

Design of the 'Eaglet' follows the prototype in philosophy and essence, resulting in a light but strong structure. The undercarriage has been shortened and the wing incidence reduced, otherwise it follows the lines of the original. Our thanks to Amerang Ltd for giving us permission to publish this design.

Vintage design based on the Keil Kraft 'Eaglet' rubber powered model. 47 in. wingspan for one to three function radio and 1.00 to 1.49cc engines. By Peter Valentine

Peter Valentine's first prototype model, top left, was for rudder only control and fitted with an original Frog 100 diesel engine. The remaining illustrations are all of his mark two version designed for three function radio and a PAW 1.49cc engine.



This had elevators and throttle control incorporated. Since few people still have old Frogs in working order, a P.A.W. 1.49 with throttle and silencer was fitted.

Fuselage

The 1/4in. sheet parts can be transferred to the balsa using the tracing paper/carbon paper system. Cut them out oversize and sand to shape in pairs.

Build one fuselage side first over the plan protected with a sheet of polythene. Cover the finished side with a further sheet of polythene (Solartex backing) and build the second side over this.

Wings

The trailing edge is laid flat as the original rubber model.

Epoxy the spruce spars (Balsa Cabin) together, using the 1/32in. diahedral braces before constructing the wings.

Pack up the spar as indicated on the plan. Build the 1/4in. sheet tips before fitting them to the wing.

Tailplane and fin

The whole tailplane and elevators assembly is sanded to an aerofoil shape (flat bottomed) after construction. It is a good idea to pin the elevators to the tailplane while sanding.

To attach the rudder to the fin and the elevators to the tailplane I use 100% polyester thread, stitched on in a figure of eight in the positions shown on the plan; but after covering — ask the wife first!

Covering

The original models are covered in vintage Solartex. Make sure the weave goes spanwise to avoid any warping.

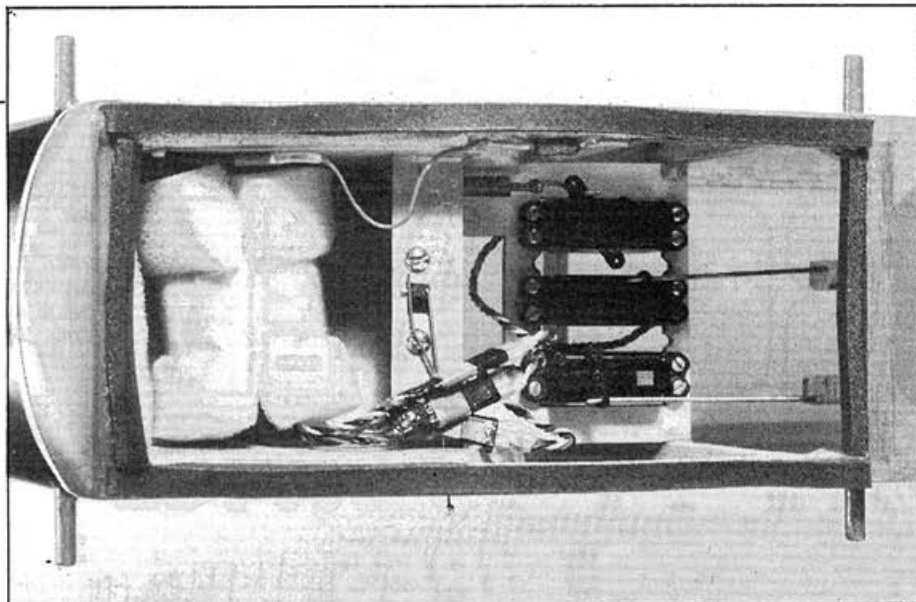
Paint the inside of the cabin windows with Humbrol matt black. Fit blue acetate sheet windows, obtainable from a good art shop. Make a paper pattern first or it will drive you mad. I use UHU cement to stick the windows in place, held in position with bits of Sellotape. The edges of the windows can be finished using a fine lining tape obtainable from M.F.A. or an artshop. I gave the Solartex one coat of dope and, after fitting the transfers, one coat of Tufcote.

Radio

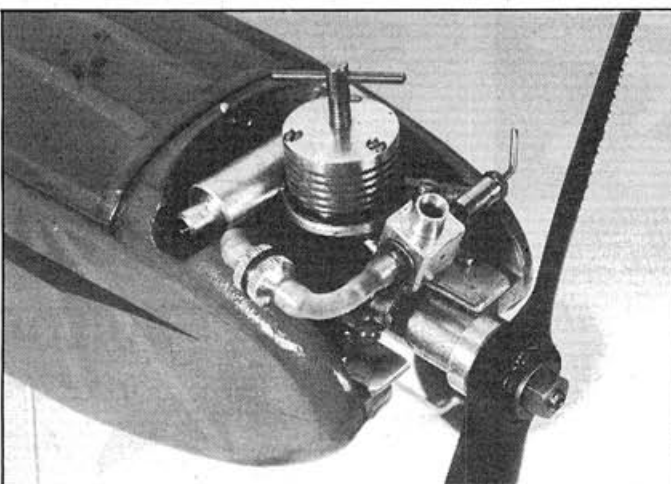
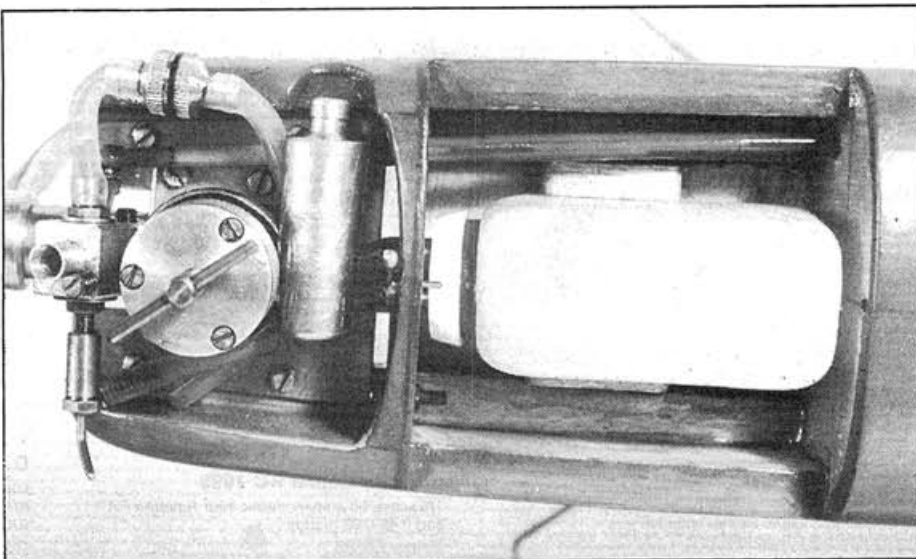
Any lightweight radio can fit. The radio compartment floor also acts as a servo tray. This will need reinforcing with extra ply strips, epoxied underneath, to take the servo screws. A partition of 3/16in. sheet balsa should be fitted across the fuselage to separate the receiver and battery from the servos.

Engine

A 2oz Mercury tank is fitted to the original. The hatch is tailored around the tank to hold it in place.



Although miniature servos were fitted in Peter's model there is ample room for standard size units. Note the choke fitted in the aerial (above servos) so that the aerial length could be reduced.



Engine is mounted on a plate — allows using alternative engines — fuel tank in a separate bay with hatch over. PAW silencer makes for a neat, unobtrusive installation.

