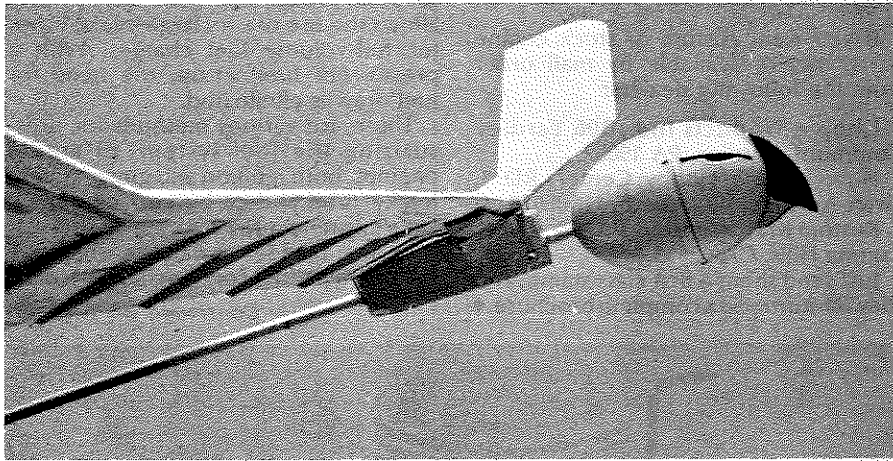


PERCY

THE PULSING PARROT

PHOTOS BY AUTHOR

By JACK HEADLEY



A good view of the wing mounting block and how the wing fits onto it. The block is slid back and forth on the arrow shaft until the model balances, then is epoxied in place.

• This is a single-channel model which can be built in a few evenings, requires no complicated construction, and uses very little in the way of materials. In fact, you may have all that's needed already on the workbench. If not, and you're looking for something to fly this weekend, rush out and collect the following items:

Two sheets 3x1/16x36 medium hard balsa.

One sheet 3x3/32x36 medium hard balsa.

Two lengths 1-1/4x5/16 trailing edge strip.

Two lengths 1/2x3/8 hard balsa strip.

One arrow shaft (1/4-inch diameter).
One L'egg Egg (You may have to buy some pantyhose to get this plastic container, but who knows, this may earn you a Gold Star!).

After a few basic knife cuts, a glob or two of glue and epoxy here and there, the above items will instantly turn into Percy, the Pulsing Parrot, which may well turn out to be the single-channel equivalent to the 'Obie 'Awk.

The following sketchy notes suggest which bits to stab the balsa knife into first.

WINGS

The all-sheet wing uses the Jedelsky airfoil, which consists of a small chord main wing section followed by a large chord flap. In our model the main wing section is made from the 1/2x3/8 strip plus the 1-1/4 inch trailing edge piece. The flap portion is simply 1/16 sheet, cemented on top of the trailing edge strip, then stiffened at intervals with small triangular ribs. Four panels made in this way are used to construct the complete wing.

Each of these four panels is made in a similar manner, and construction begins

by cutting an appropriate length of trailing edge stock, plus a similar length of 1/16 sheet. These two are then cemented together, and the ribs attached next. (The wing panels are built upside down, as shown on the plans.) When all four panels are completed they are epoxied together, with the aid of the plywood wing joiners, and at the correct dihedral angles. Add the 1/2x3/8 leading edge after this assembly has dried, then sand to the final airfoil section, as shown on the plans. The final item is a triangular gusset at the center section, which gives the wings a little more rigidity.

WING MOUNTING BLOCK

Select a small block of balsa, slightly oversize to the dimensions shown on the plans, and drill a longitudinal hole through this (1/4-inch diameter) for the arrow shaft. Now trim down the block to its final size. Make the wing platform from 3/32 ply, score down the middle, then gently crack to the center section dihedral angle. Apply epoxy over this crack. Trim the wing block to accept the platform, then epoxy it into place. A couple of small triangular pieces, used to give additional support to the wing platform, can now be glued into place.

RADIO INSTALLATION

The plans show an installation for the Ace radio and the Baby Twin actuator, and if you're going to fit this system I suggest you follow this scheme, as it took me quite a long time to work it out! For any other radio I would suggest a little doodling on the plans before attempting an installation, as there's not much room in the plastic egg.

Back to the Ace system. The first item to make is the ply/balsa/ply sandwich, which holds the actuator in the correct

position relative to the arrow shaft. On the front of this sandwich is a small platform onto which the actuator is bolted. Epoxy this sandwich onto the arrow shaft, and when dry assemble the actuator and torque rod, and check for free actuation. Cement into place the 1/8 sheet frames, which support the rear portion of the egg, then epoxy this portion of the egg shell into place.

The locations of the receiver and battery are indicated on the plans, and these are packed in place with scraps of foam rubber. Drill a small hole in the egg shell for the antenna wire.

MODEL ASSEMBLY

With the radio installation satisfactory, the pieces can now be removed from the inside the egg, and the remainder of the model completed. Cut the tailplane from 3/32 sheet and also the fin and rudder, then assemble the fin and tailplane. Hinge the rudder to the fin with carpet thread.

Now slide the wing attachment block onto the arrow shaft, and locate roughly in place. Epoxy the tail assembly on the rear of the arrow shaft, making sure that it's correctly aligned. The radio pieces are now replaced in the egg shell, and the torque wire fitted finally, and checked out. When the rudder pulses in a satisfactory manner, the final step, that of balancing the model can begin.

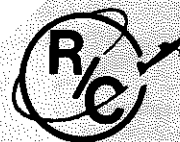
Strap the wings onto the attachment block, then slide this block up and down on the arrow shaft until the CG is as shown on the plans. Mark the location of the attachment block on the shaft with a pencil, then slide the block back, coat the shaft with epoxy, then slide the block forward to the pencilled position. Again check that the wings and tail are in correct alignment before the epoxy sets up.

FINISHING

Decorate as desired with the usual caution about adding too much weight on single-channel models. My prototype was given two coats of clear dope on the wings and the tail, the egg being sprayed silver, after which the face was painted on. The eggs do come in various colors, however, and so even this last step may not be required.

FLYING

Pin the rudder in the central position, then try a few hand launches into a grassy area before attempting serious soaring. Correct any tendency to stall or dive with small changes in the wing incidence or small weight additions. Next try a few short soaring flights, to check the rudder control. After this it's all yours, so happy pulsing!



**MODEL
BUILDER**

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