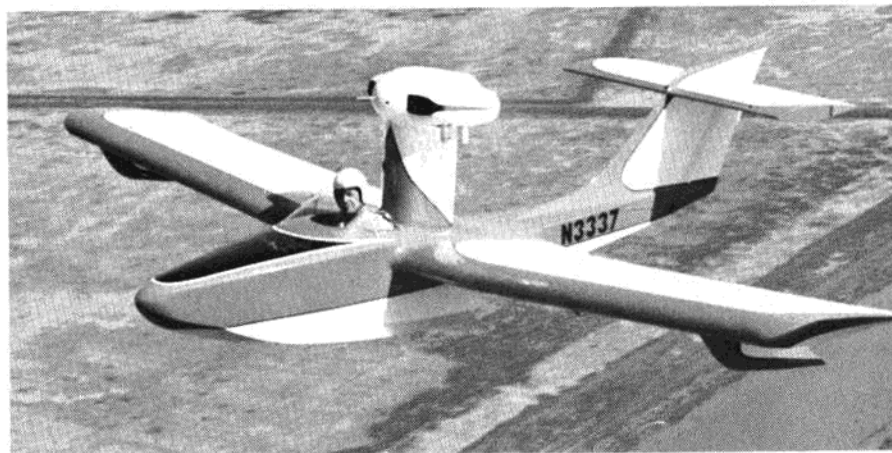
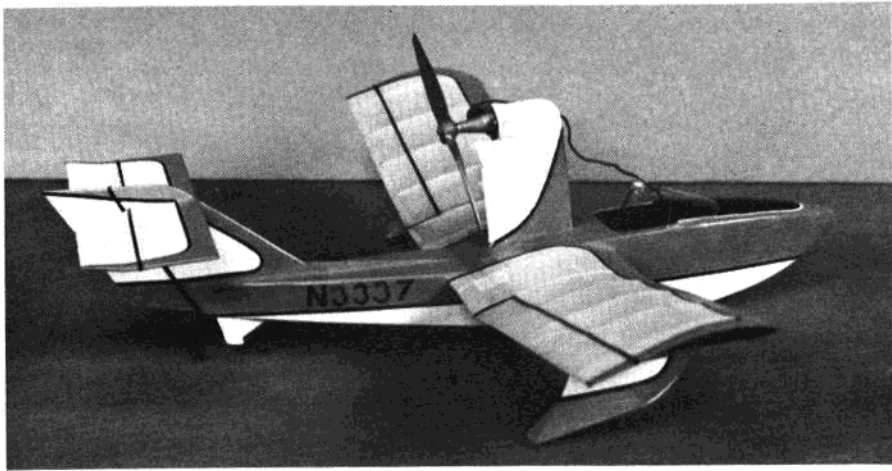


OSPREY

Bob Peck's novel Sport seaplane is the subject of article starting on next page.

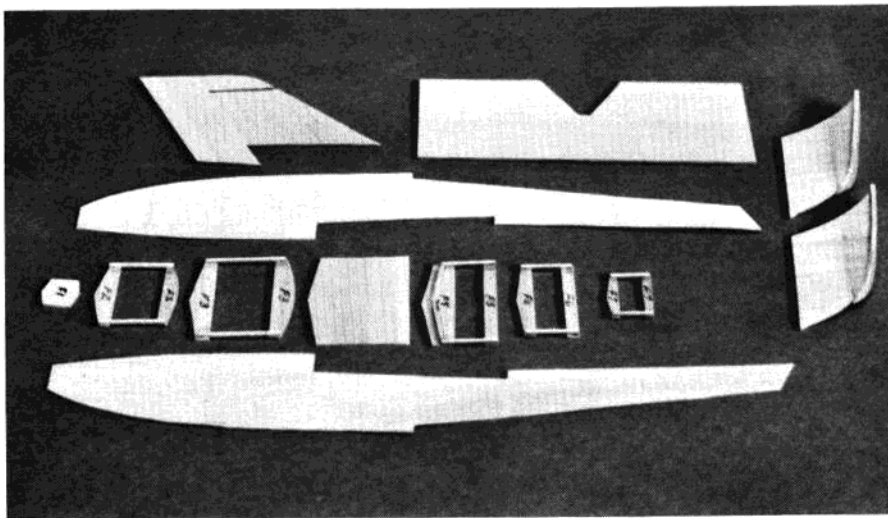


OSPREY



Top: Model is trimmed entirely with colored Jap tissue to avoid unnecessary weight build-up as would occur with color dope. Yet it is nearly waterproof. Above: The original full-size Osprey in flight. Many replicas have been made. It has no wheels, and has only one seat.

Parts cut out for all but the wing construction. Use very light balsa throughout.



The Osprey "1," a homebuilt, sport seaplane designed by George Pereira of Sacramento, California, is powered by a 90 hp Continental engine and has a cruising speed of 125 mph.

Fifteen years ago I designed a similar model seaplane with which I had a lot of trouble—it lacked directional stability. The pusher prop caused too much turbulence over the rudder making any rudder adjustments useless. The problem was solved by adding tip rudders, but I feared that I might have to do this to the Osprey also and ruin its scale appearance. I was happy to find that the Osprey was very stable and reacted normally to rudder adjustments. For this I must give credit to George Pereira for a well-engineered design.

The model lends itself well to the Brown CO₂ engine for a number of reasons. The CO₂ engine will run backwards which is necessary for the pusher configuration. The standard Cox 4½" dia., two-pitch propeller mounted backwards can also be used. The CO₂ engine is also easily started which is a help in the confined area in which it is mounted.

The only deviation I made from the full-sized design was the tip floats. They have been modified to reach down closer to the water so the model will not tip to one side or the other while taking off. This prevents it from taxiing around in circles in the water. I tried several float designs before coming up with the one shown which works quite well. The design shown, with the extended tip floats, is very stable, and I have had hundreds of fine flights with it.

Construction

Keep the construction light. It takes approximately twice the power to ROW (rise off water) as ROG. Any excess weight exacts a double penalty and may make ROW impossible. Avoid using white glue because it is not waterproof and the water will dissolve your glue joints.

Start the fuselage by gluing the formers and sides together and then sheeting the bottom. Before adding the top sheet, coat the inside of the fuselage with thinned dope to help waterproof the plane—tissuing the bottom of the fuselage also helps. Do not try to completely waterproof the plane as that much dope would add too much weight.

Do not add the top sheeting until the wing is glued into place. I found that covering the forward decking is easier if you do it in two pieces: from former F1 to F3, and F3 back to the wing, as there is a slight compound curve.


The wing construction is straightforward but be sure to sandwich the motor support in between the center wing ribs before sheeting the center section. The tips are 1/32 sheet glued into place to conform to the top surface of

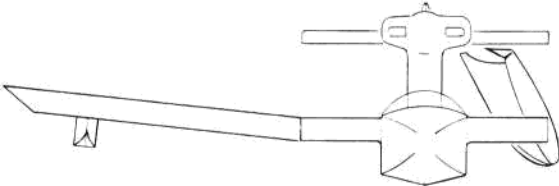
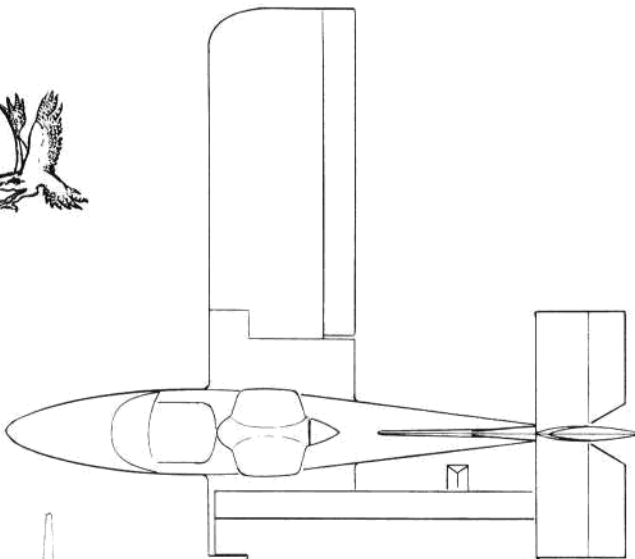
One of the most attractive seaplanes
 ever built, makes the neatest flying CO₂ model.
 It will ROW, too. / by Bob Peck



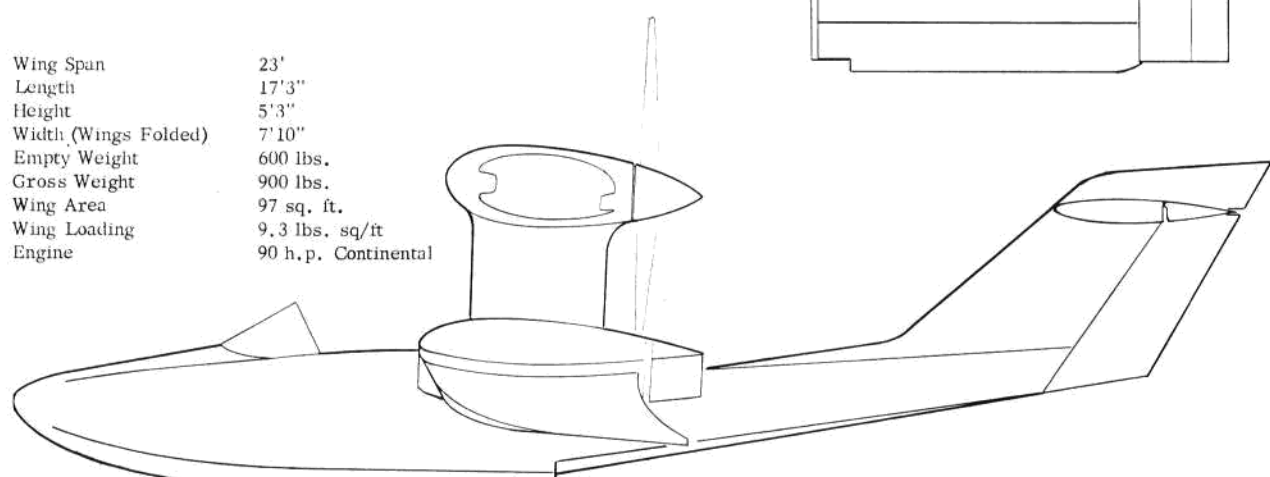
When hull is completed to this stage, apply two coats of thin clear dope to interior for waterproofing.

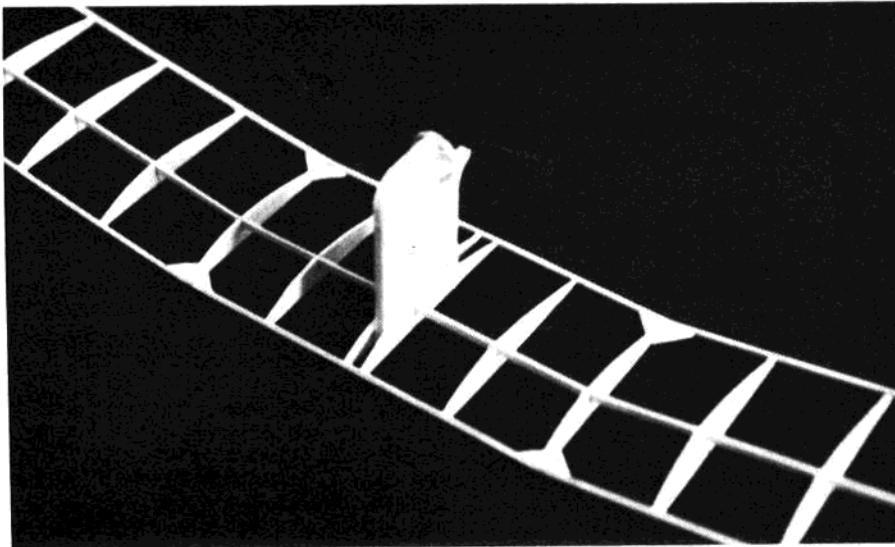
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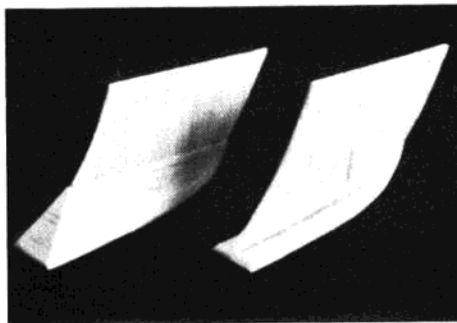



Wing Span	23'
Length	17'3"
Height	5'3"
Width (Wings Folded)	7'10"
Empty Weight	600 lbs.
Gross Weight	900 lbs.
Wing Area	97 sq. ft.
Wing Loading	9.3 lbs. sq/ft
Engine	90 h.p. Continental





Above: Wing is ready for center section planking, then covering. Right: Tip floats are slightly longer than scale to insure straight ROW takeoff. Assemble in two steps. Finished float at left.



outside wing rib. Cover with jap tissue and shrink with a fine spray of water or carefully wipe with wet cotton. Apply two coats thinned clear dope. Check for warps and steam out any that may have developed. About 1/16 wash-out at each tip helps smooth out stalls but it is not necessary.

The rudder and stabilizer are cut from 1/16 sheet balsa. Just be careful to align them squarely when gluing them into place.

Build the main part of the floats first then add the triangular shaped area made of 1/64 or 1/32 sheet balsa as shown in the photo. If you do not intend to fly your plane ROW, you may want to leave the floats off for improved performance.

The color of the original Osprey is white and orange with a thin black strip separating the colors. The deck in front of the cockpit is black with a white line around it.

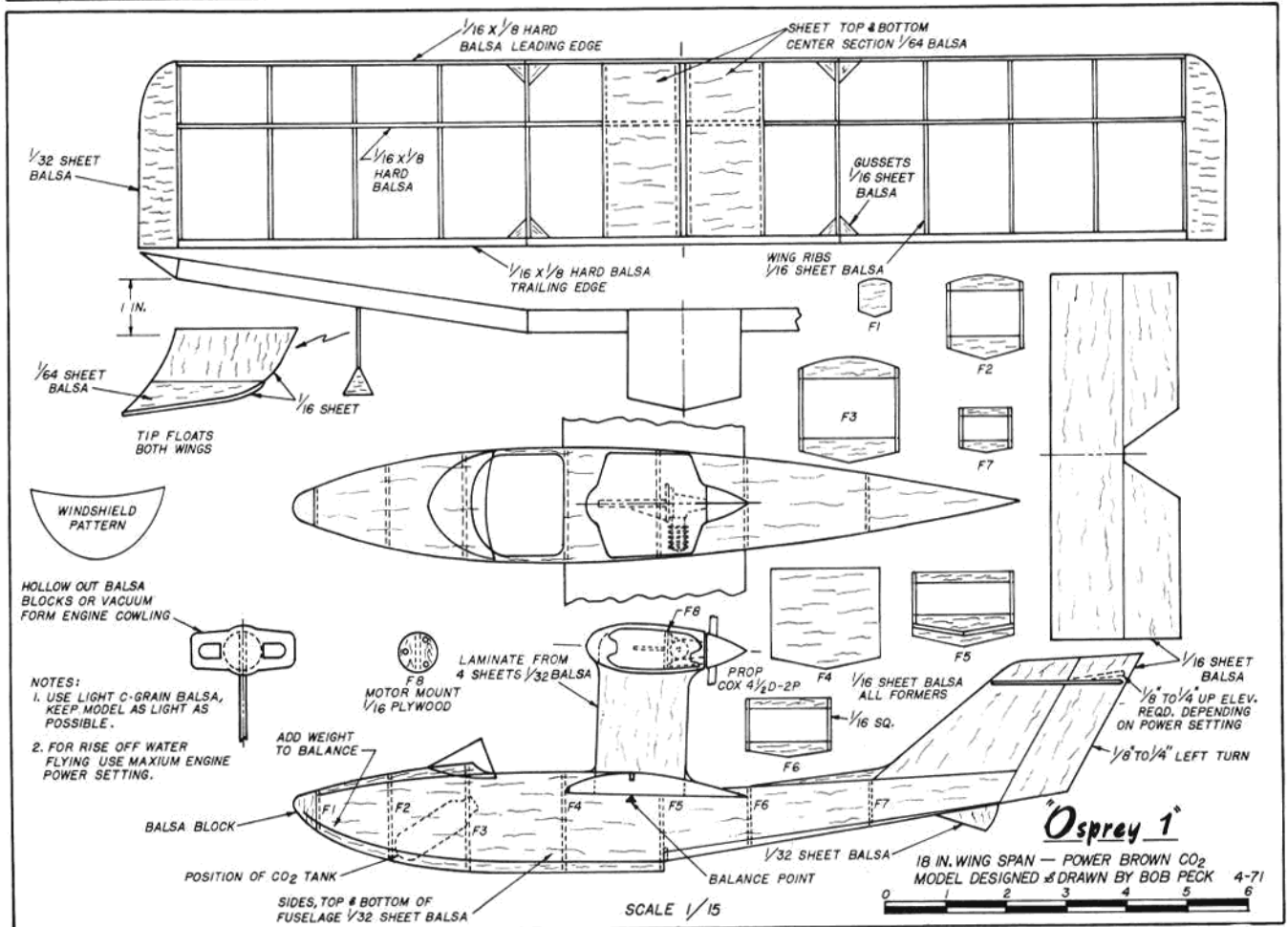
Flying

Start by adding weight to the nose until the plane balances as shown on the plans. Test glide until it is just about to stall by adjusting the elevator. Adjust the plane so that it is nearly stalling in the glide, for under power the high engine mount will try to force the plane down. Adjust the engine for medium power and hand launch the plane until you have it flying well.

You are now ready to try ROW which requires a little experimenting.

FULL-SIZE PLANS AVAILABLE—SEE PAGE 84

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OSPREY

(Continued from page 38)

First regulate the engine for maximum power by screwing the cylinder head down as far as you can while the engine is running. Adjust it while running so as not to screw the cylinder down too far and possibly damaging the engine. You must have absolutely maximum power if you expect your plane to take off from the water. Until you have tried flying off water you will not believe the amount of power it requires. With the increased power you will have to add more "up" elevator and left rudder to counteract the tendency of the engine to try to force the plane down.

When launching ROW, there is one trick that makes the difference between success and failure. When a CO₂ engine is first started, the first ten seconds or so, the engine is delivering its maximum power and this is when you want to launch your plane off the water. So hold it just off the water and as soon as it starts, launch it. When launching, always get the plane out of the water as soon as possible to keep it from absorbing any more water than necessary.

You should have lots of fun with your Osprey because of its sound design; its novel configuration will always stir up lots of interest when you're at the flying field.

You may obtain an information packet on the Osprey "1" by sending \$3.00 to Osprey Aircraft, 3741 El Ricon, Sacramento, California 95825. The packet contains photos, three views, and statistics about the plane. You might end up wanting to construct a full-sized Osprey.