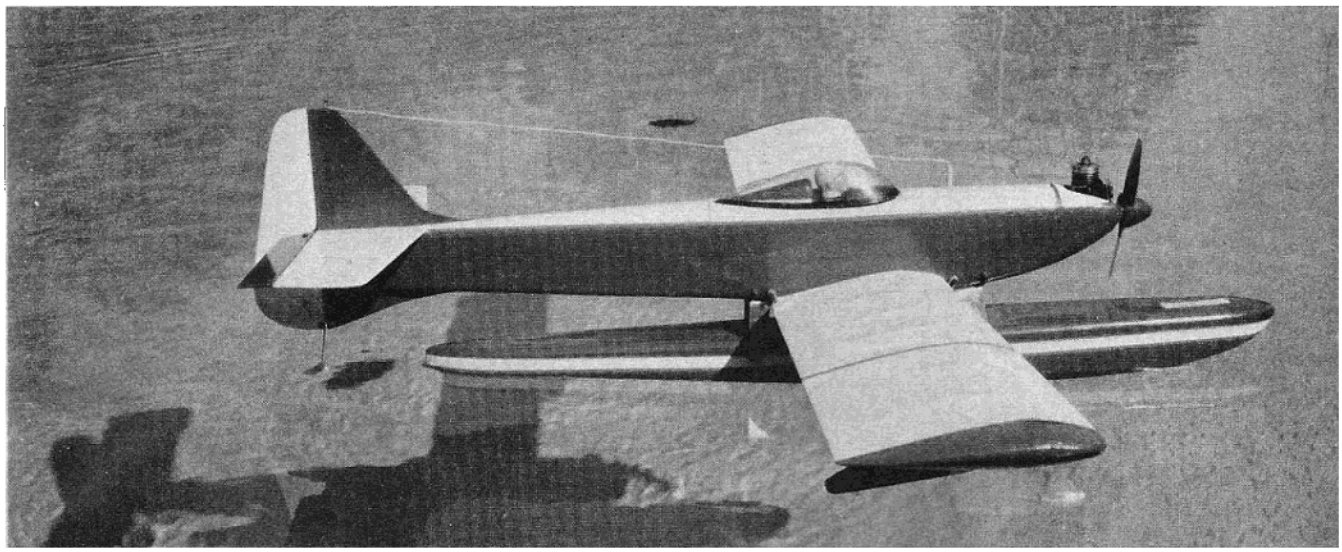


Ken's Islander in seaplane configuration. Side view shows flotation ángle at rest.

THE ISLANDER

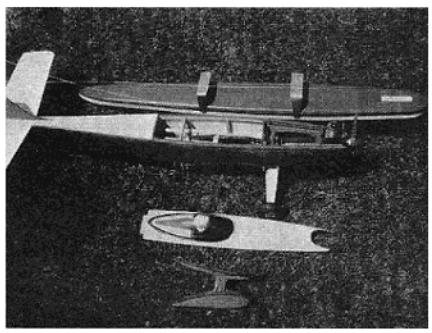
BY KEN WILLARD

In the May issue of RCM I introduced you to the concept of the Islander – a single float seaplane with wing tip floats – as something you could do with any more or less conventional low wing design, so long as the float was big enough to support the model and also had enough upsweep aft of the step to permit proper rotation for water takeoffs.

So here are the plans and a few construction hints. First, though, let me warn you that this model is definitely not the beginner's cup of tea when it comes to flying, even though it is quite easy to build. With that big rudder and those large elevators, it's very responsive, and even though it doesn't have ailerons, it's very easy to fly inverted. It also spins and snap rolls readily, and recovers just as fast.

It's a real pleasure to maneuver on the water. The little water rudder may look too small, but if it were any bigger it would be almost too effective at high taxi speeds.

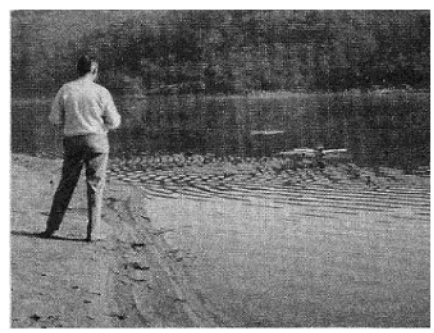
Above: Ken Willard with landplane version. Below, left: Main float with struts; fuselage with landing gear; hatch; and wing tip float. Below, right: Bud Freeman lands the Islander.



Finally, I have not shown the conventional "tail-dragger" landing gear in the plans, since all you have to do is unstrap the float and strap on a Hallco lightweight landing gear, and make a tail wheel to mount in place of the water rudder. If you do want to utilize the landplane version, put the gear on backwards so it slants aft. Since it is mounted forward of the wing, you want to get the wheels as far back as possible to reduce the ground looping tendencies which are accentuated with a forward placed gear.

As you can readily see from the plans, the wing is of standard rib and spar construction. In fact, you probably could replace the wing with one of Midwest's foam wings, although I've never tried it. If you do, I'd suggest the addition of a sharp leading edge spoiler for about five inches out on each panel from the center section to reduce the tendency for tip stalls on landing.

The float is nothing more than a streamlined box, with a nose block and tail block added. By rounding the corners on the top, around the ¼" stringers, you can soften the squarish look, but keep the corners sharp on the bottom, for good planing action. The little spruce blocks, which are glued to the side so the mounting



struts can be screwed on, are butted up against the stringer and the upright. This method of strapping on the float works well on this size model, but if you want to use the idea with a bigger job, be sure the bands holding the struts to the fuselage are sufficiently strong and tight in order to keep the assembly from collapsing due to water loads as the engine pulls the fuselage forward and the float drags backwards. You'd be surprised at just how heavy the stresses can get!

As with the float, the fuselage is a streamlined box, but with a rounded hatch and turtledeck that is provided by using a ½" balsa block carved to shape. For weight purposes, use the lightest grade of balsa for these parts, since they are not subjected to heavy loads.

To hold the hatch in place, a piece of 1/8" plywood is glued to the bottom at the rear. This slides underneath the forward edge of the turtle deck and holds the rear end down. The front end can be held down with a rubber band stretched over two screws on either side of the fuselage.

The engine and tank mount is an integral structure made of 1/8" plywood, shaped to the planform of the fuselage forward of the leading edge bulkhead, and glued in place with retaining doublers on each side. The cutout for the tank lets it cradle in place and, when you put the hatch in place, you'll have to make a cutout in it as shown on the plans, since the tank extends above the side of the fuselage. By tailoring the cutout, you can make it a snug fit, and that holds the tank down in the cradle.

If the wing tip floats look familiar to you, that's because you've seen them before on the Seafoam. There seemed to be no reason to design new ones when these work so well. The strap-on feature is useful if you want to fly the Islander as a landplane, too.

The tail surfaces are of the standard sheet balsa type except for the addition of an 1/8" dowel for a rudder post in order to strengthen the entire assembly. This is particularly necessary for water operation when using the water rudder.

The three servos and the receiver are mounted on a 3/32" plywood tray which is screwed in place on the spruce cross braces. For balance, the 225 mah. battery pack has to be up forward under the tank. Wrap it in several layers of Saran Wrap, since this will not only keep it dry but also cut down the effects of engine vibration. As usual, the servos and receiver are mounted with mounting tape.

If you have larger servos than the KPS-12, you can modify the location of the mounting tray by lowering it slightly. Please note that I have made a small cutout in the hatch so that the ends of the pushrod wires wouldn't rub. Here, again, the method of attaching the pushrods to the servos is to remove the wheel, insert the bent end of the pushrod wire, then reattach the wheel. Make a slight bend in the wire, as shown in the plans, so it will always rest on the top of the servo and, thus, stay locked in place.

Covering, as usual, is a matter of choice. My choice was Mono-Kote – even on the float. If you are very careful to overlap the seams and seal them carefully, this method is just as waterproof as any, and a lot quicker, both to make as well as to repair.

Try to make the wing cradle a good snug fit, and use wing mounting tape, so that when you strap the wing in place with rubber bands, it just about closes up and is waterproof. Spray has a way of getting in wherever the opportunity presents itself!

The Islander is easy to build and a quick way to take advantage of all those lakes around you. Try it for some real flying thrills this summer. ●

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