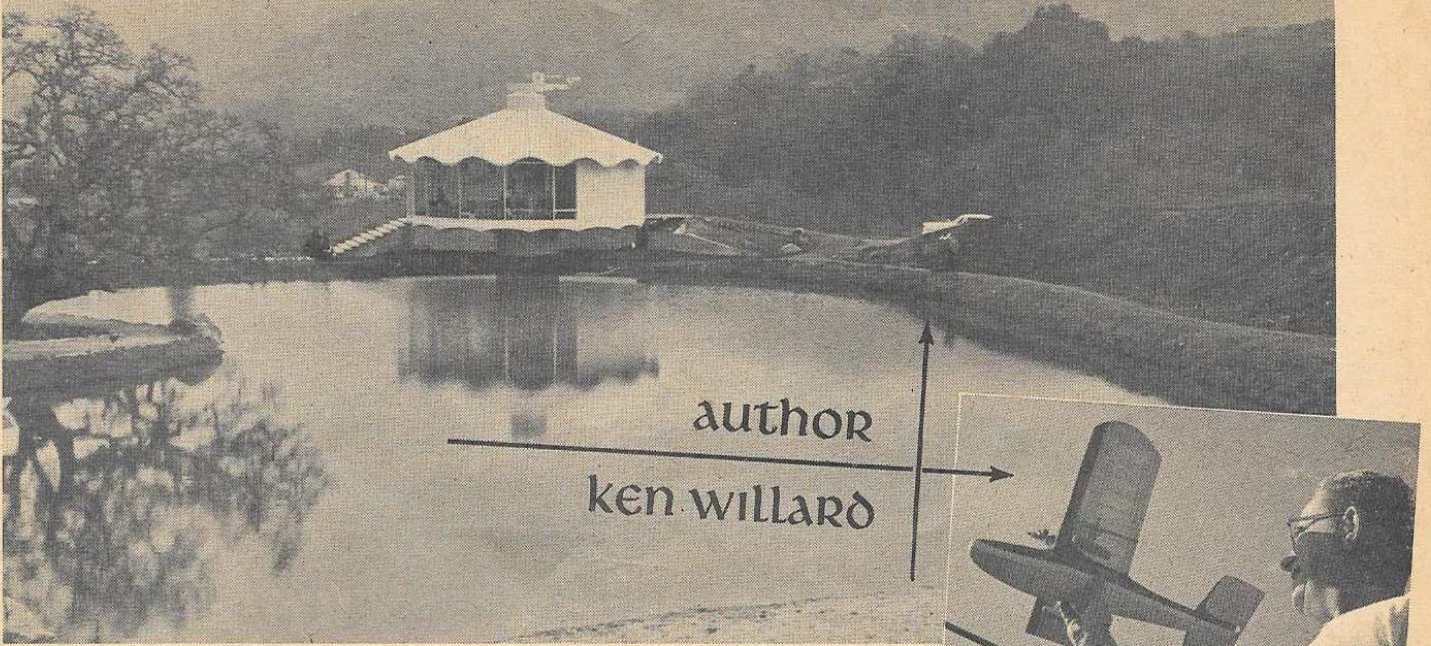


teahouse of the hydrohoney



■ "Hydrohoney" was the result of a very unusual challenge by my friend Jack McCutcheon. Jack lives up in the hills near San Francisco. His neighbor, a retired contractor, has a little man-made lake in his back yard, 150' long and 80' wide, with a big tree overhanging one side. There is a beautiful party pavilion on the end. The sides slope up from the lake about fifteen feet, so the whole setup is a sort of oversized bowl of broth with hazards all around.

Says Jack, "Let's see you make a radio controlled seaplane that can take off from the lake, fly around and land back on that water!"

I looked at the small pond, the big tree, and that expensive expanse of glass in the party house—this was quite a deal!

The model had to be small in order to maneuver inside the bowl, so I figured an .020 powered job would be just about right. I figured the basic hull design of my old Dreamboat would scale down all right.

First test flights were made at the Pioneer's flying site in Sunnyvale. I figured I had better be pretty darn familiar with the model before I tackled that lake. The job flew very well, and I could see that it had plenty of power, so with a few practice flights with radio under my belt, I went up to Jack's and we tried the lake.

The first seven or eight tries were failures. Every time the model got up on the step and started to skip along, for one reason or another the wing tip floats, first on one side then the other, would dip into the water and spin the model around. I was about ready to give up, even though it was apparent that I had plenty of power, when I got an idea. I took the wing floats off and tried again. This time, at the start of the run, the left tip of the wing dipped in the water,

but as the speed picked up, the tip lifted out, and away she went.

Hydrohoney skipped over the water to the middle of the lake and then lifted off just as pretty as you please with the water dripping off the hull as she climbed—right towards those plate glass windows, I let her go until she was about twenty-five feet from the house and ten feet off the water, then pushed right rudder. I knew the turning radius was good from the test flights so as soon as the model was headed away from the house, the next obstacle was the grassy bank, and the model wasn't quite high enough to clear it, so another tight right turn and she was headed right back towards me. Now everything was under control insofar as obstacles were concerned so I

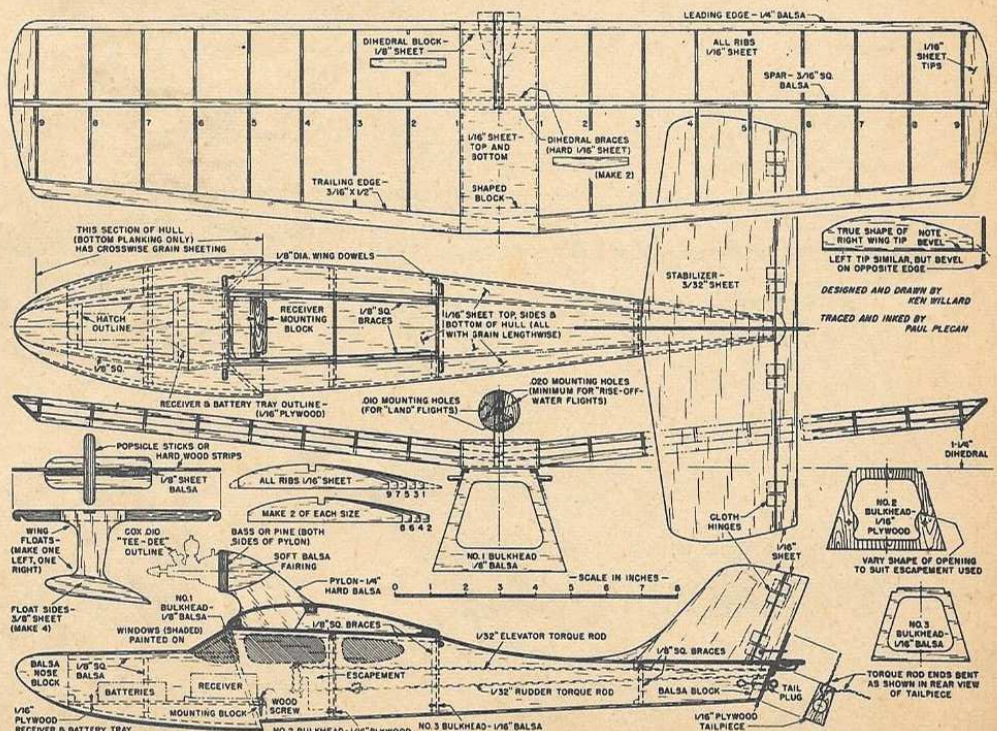
let the model climb on out, then flew it around until the engine quit, brought it in over the side of the lake away from the party house, and landed. Hydrohoney was a success.

Since then a lot of flights have been made. With a larger body of water it is one of the greatest little seaplanes for having fun that you'll ever build. And, of course, you can always fly in over grass. It skids in on the grass very smoothly—much better than small landplanes with their tiny wheels which get caught in the grass and cause a noseover.

(Continued on page 48)

Full size working drawings for Ken's R/C Hydrohoney appear on Hobby Helpers' Group Plan #562A (85c).

American Modeler — June 1962



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Hydrohoney

(Continued from page 33)

So hop over to the hobby shop and pick up a few cents worth of wood. Hydrohoney goes together very easily, and you can have a lot of fun with it, either at the flying field, or up at whatever lake you like to go to for relaxation.

HULL. Trace sides off plans. Although they have a slight slope, the side view shown is a vertical projection for ease of building. Glue 1/8 square side braces in place. Cut out bulkheads, put sides together with tail block and escapement bulkhead first, then bulkhead at wing leading edge which slopes down and back to step, finally cut and fit noseblock by pulling forward ends of the two sides in, gluing them to noseblock. Install wing dowels, escapement, and fit torque rods in place before covering top and bottom of hull. Also, locate mounting blocks for your radio and battery tray. On the bottom, forward of the step, run balsa grain across hull. Elsewhere it's fore and aft.

After hull is together, cut hatch in front of windshield, brace it with 1/8 square strips around edges. The hatch isn't absolutely necessary, but it's tricky getting radio and batteries in and out without it.

Note rear end of escapement rubber attaches to hook buried in tapered balsa plug. Tension of rubber pulls plug tight; with a little grease (I used shortening) on the plug, it stays pretty dry inside.

TAIL SURFACES. No problems here. Cut sheet balsa in sizes shown, install cloth hinges after doping, glue assembly in place on hull.

WING. Conventionally constructed single spar tapered type. Note wing tapers in planform but not in thickness. There is a very slight reflex in the trailing edge. Build wing on flat surface, then cut spar, leading and trailing edges in two and add dihedral. No washout. Since wing tapers in plan but not in thickness, wing section is proportionately thicker at the tips. Also, due to slightly steeper slope down to trailing edge at rear of tip rib, the reflex is more pronounced. Both of these features—thicker wing section and more reflex—tend to retard the stall at the tips. This makes for a very good flying characteristic.

ENGINE PYLON. Because the .010 and the .020 both have very little vibration, the pylon can be of hard balsa and still have more than enough strength. For mounting engine, two shaped pieces of either basswood or white pine are glued to front, then faired into pylon with soft balsa. Engine can be mounted with small wood screws. It makes a plenty strong enough pylon for this size model.

WING FLOATS. These, optional, are the "knockoff" type, with mounting strut and cross brace from Popsicle stick wood. Strut extending down to float is balsa. Float is made by glueing two pieces of balsa on either side of strut, shaping assembly as shown.

The floats, if used, should be strapped onto the wing fairly close in to the hull—about the second rib bay out. If farther out they'll make the model "water loop" and prevent it from taking off.

FINISHING. Dope entire model sufficiently (about four coats of clear) so water can't seep through the wood, otherwise the balsa blots up the water and you'll have trouble. Rim wing mounting area with sponge rubber so when you snub wing down in place, the rubber helps seal the hull. You'd be surprised how

water finds the tiniest hole . . . so don't leave any open! Spreading shortening around the tailplug and the forward hatch also helps to keep the water out. It's tedious if you must let the model dry out after each dunking. A little care in finishing and closing all opening tightly will let you have a lot of flights off the water before any gets inside—unless you dive her in.

FLYING. Test flights should be made over land—preferably tall grass. If you plan to use an .010 for land flying and a .020 for water flying (the .010 needs ideal conditions to lift her off water), mount the .010 at an angle—say pointing at two o'clock, viewed from the front, the .020 pointing at ten o'clock. Then the mounting holes will be separated from each other.

Keep rudder travel minimum for early few flights. Hydrohoney is a responsive model; after you get used to her you'll find that she makes the tightest turns you ever saw, but the high thrust line does make her nose drop in the turns. However, as soon as you let up on rudder, she straightens right out.

Over-land test flights are pretty conventional. It's that first water takeoff that's a real thrill. The model is pretty small so wait for a fairly quiet day when the ripples are minute.

Put the wing floats at the second rib bay for the first trials. You'll find that they work pretty well there. Later on, if you want to experiment, try other locations—or leave them off like I did.

If you don't use kickup elevator, you can break Hydrohoney loose from the water by letting her get up to speed, then rapidly flicking right and left rudder.

Plan your landings ahead so that you don't make any turns close to the water. It's very easy to drop a wing and dunk the model if you try that last little correction. But with a straight in approach, the model glides in fairly flat, hits on the forward bottom of the hull, skips along like a flat stone, then settles down in the water, ready for another flight.