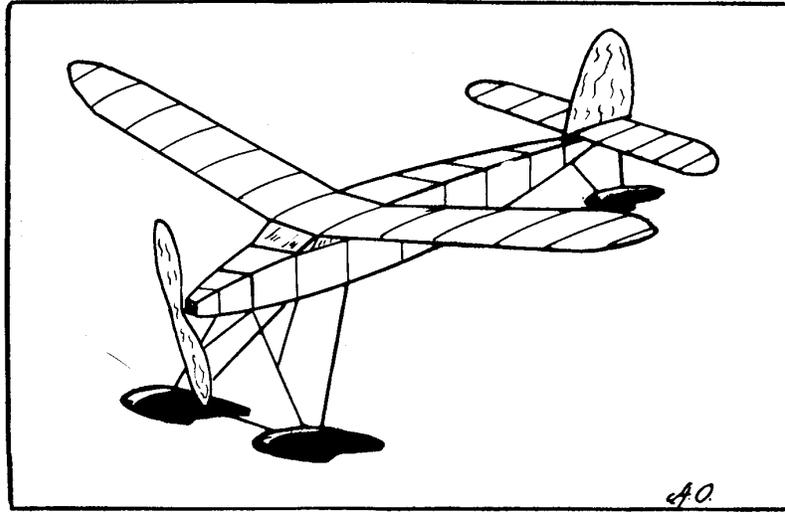


A Record Hydro Fuselage Model

How You Can Build a Reliable Over Water Flier That Will
Make Vacation Days More Enjoyable

By ALAN ORTHOF



How your model will look when it is completed

LATE in August, 1936, record trials were held at Van Cortlandt Park for seaplanes.

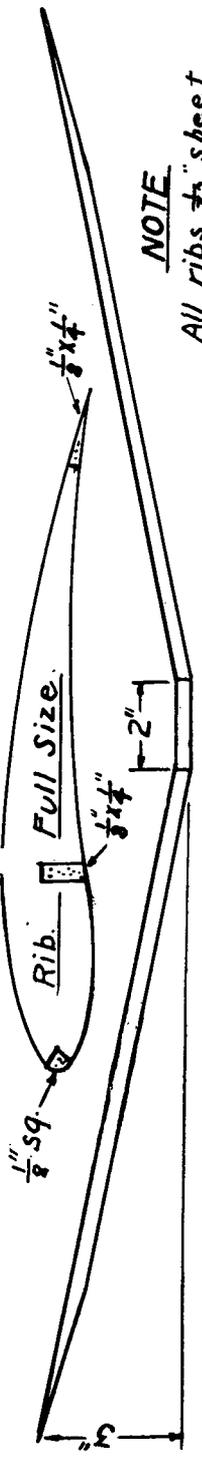
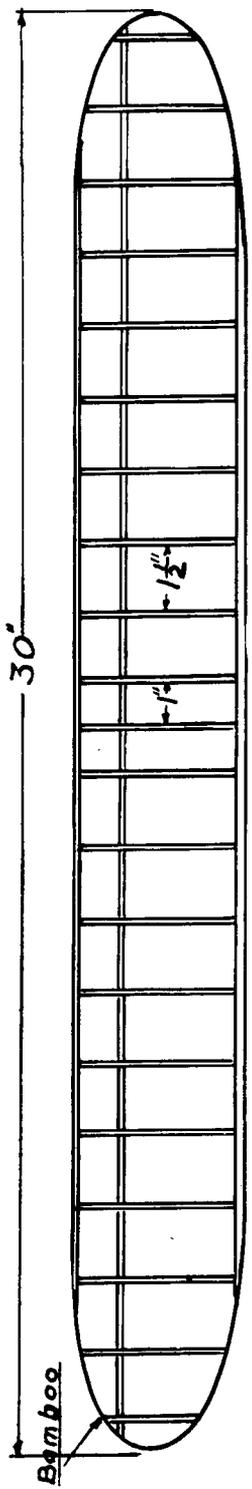
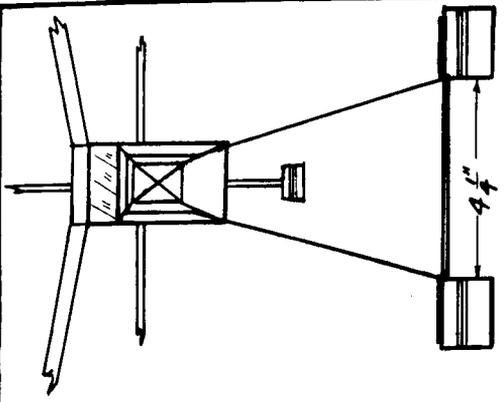
The day before the trials, I decided to try out for the record. I took a fuselage model that had given good performance as a landplane, and equipped it with a pair of very simple floats.

About 5 o'clock I took the plane over to one of the lakes at Central Park. After gliding the model a few times to get the proper adjustment, the rubber was wound up about 500 turns and the model was placed on the water.

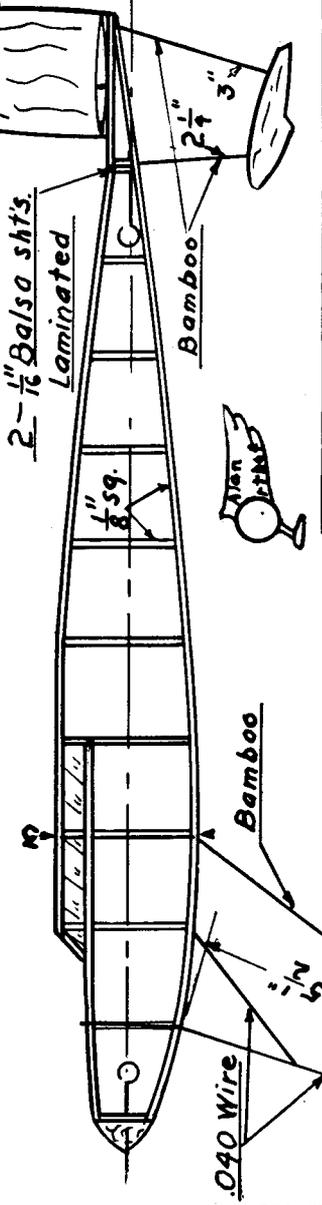
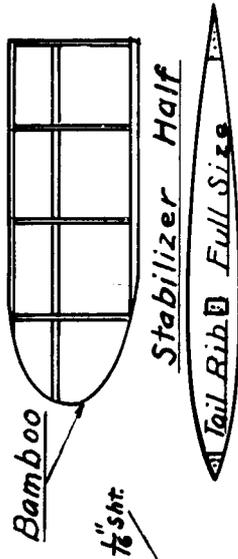
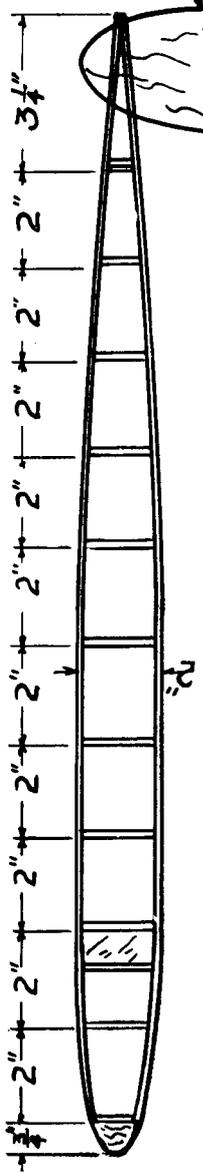
Upon releasing the propeller the ship taxied about 12 inches and

shot up into the air circling gracefully. After 4 min. 20 sec., the model stuck in the top of a large tree. By the time the ship was retrieved it was too late to make any further flights.

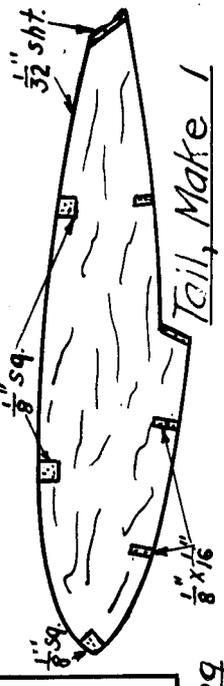
On the day the trials were held the weather was very bad with wind and rain hindering our flying. About two o'clock, without any improvement in the weather, I decided to fly the ship. With about 600 turns in the rubber the model was set on the water. The ship took off slowly with none of the zip it showed the day before. After circling for about 45 sec., it glided in for a landing making the time of 1 min. 7 sec., establishing the record.



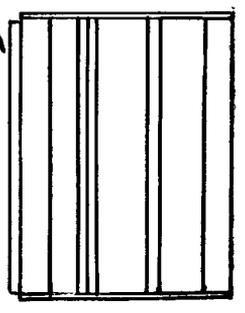
NOTE
All ribs 3/2" sheet



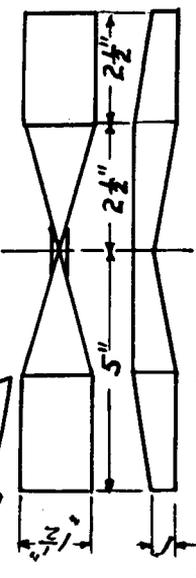
Floats - Full Size



Alum. tubing



Scale 4" = 1"



Make 2



Although the time was not half as good as expected, under the prevailing conditions I was not dissatisfied with the ship, for the next day it was lost from sight after a time of 7 min. 3 sec.

Now let us start construction.

Fuselage

This is constructed completely of square hard balsa.

Draw the fuselage out full size on a large sheet of paper. Lay a piece of wax paper over the plan to prevent the frame-work from sticking to it. Pin the square strips to the plan and cement the upright braces in place. When dry, re-move from plan and construct another side exactly as you did the first. When both sides are dry, assemble them by cementing the cross braces in place as in top view of fuselage.' Now bend rear hook from No. 040 wire and cement it to the rear former as shown.

Wing

The first step is to make a template of the rib section. This is made by tracing the rib on a piece of thin tin. Cut the tin to shape and smooth it off with a file. Now using the template, cut 21 ribs from medium 1/32 sheet balsa. Now draw up the wing full size and pin in place where shown. Cement ribs in place and attach 1/20 sq. bamboo tips in place. Allow time to dry. Next crack the spars at the center section where shown and place 3" dihedral under each tip. Cement firmly.

Tail

The rudder is cut from soft -h sheet and sanded to a streamline section. The stabilizer is constructed in the same manner as the wing, except that there is no dihedral added.

Floats

The floats are very simple in construction. First cut 4 sides from 1/16 sheet for the main float and 2 from 1/32 sheet for the tail float. Now assemble the sides as you did the top view of the fuselage.

Landing Gear

This is bent from No. .040 wire and completely encircles the fuselage at the section shown. Bend the axles at the end of the landing gear as you would for wheels. The bamboo brace is added later.

Propeller

The propeller is carved from a block of hard balsa 1 1/2 x 1 x 10. Taper block as shown. Carve the rear of the block first and in about 1/8 inch cup. Now carve the face; when finished sand smooth with fine sandpaper.

Covering

The fuselage is covered in four sections, top, bottom and the two sides. Attach tissue to framework with banana oil. Spray fuselage lightly with water and allow it to dry thoroughly. This removes any wrinkle in the tissue. Now apply 3 coats of banana oil; this will protect the tissue from spray. Wing and stabilizer are covered in the same

manner. The floats are covered on all sides with a double coat of tissue and are given 2 coats of cement and 2 of banana oil.

Assembly

Cement firmly a piece of aluminum tubing to the top of the main floats as shown. Now insert the spreader bar of bamboo between the two floats.

Next cement the wire landing gear securely in place and attach the floats by sliding the axles through the tubing. Cement the bamboo brace in place. Cement rudder in place on top of stabilizer and attach to fuselage with rubber band. Wing is attached in the same manner. Put nose block and prop in place, slide 10 strands of flat brown rubber in place and the model is ready to fly.

Flying

Glide the model a few times in some high grass to protect the floats. After the right adjustment has been found, wind the rubber up about 400 times and set the model on the water, release the prop. The ship should take off and climb gracefully and finally glide to a perfect landing. Now put about 900 turns in the rubber and prepare yourself for many pleasant surprises.

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