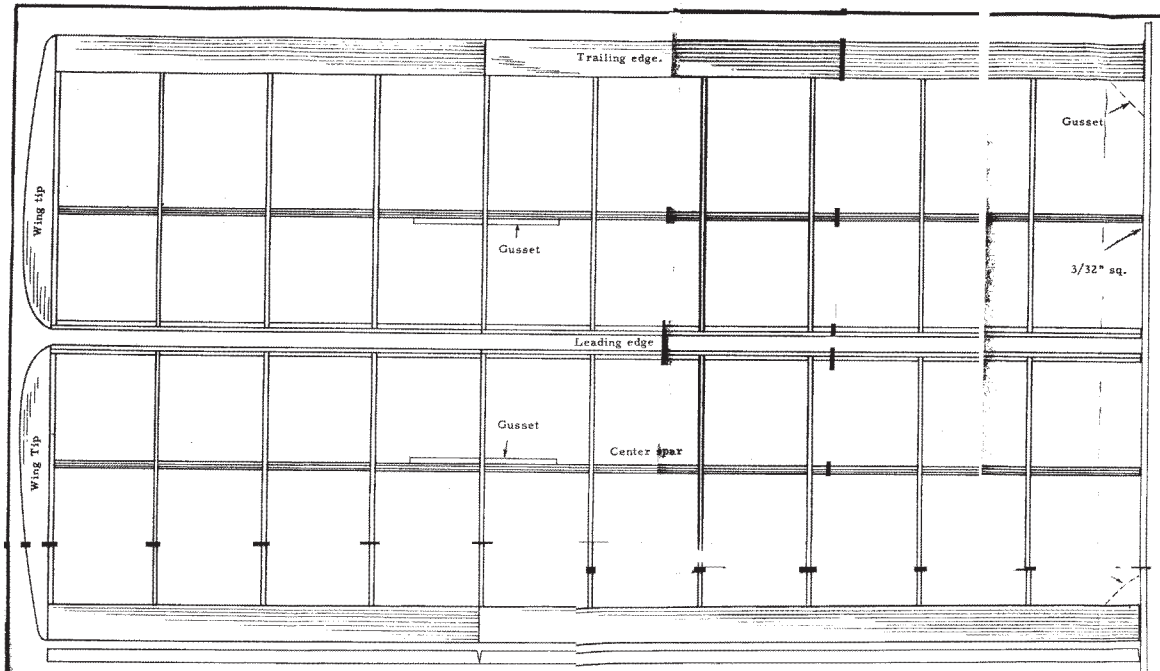
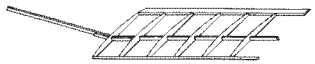


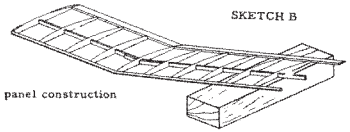
WING CONSTRUCTION

SKETCH A



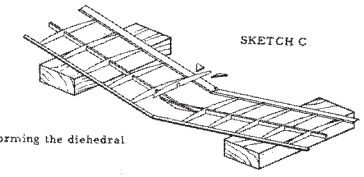
Center panel construction

SKETCH B



Tip panel construction

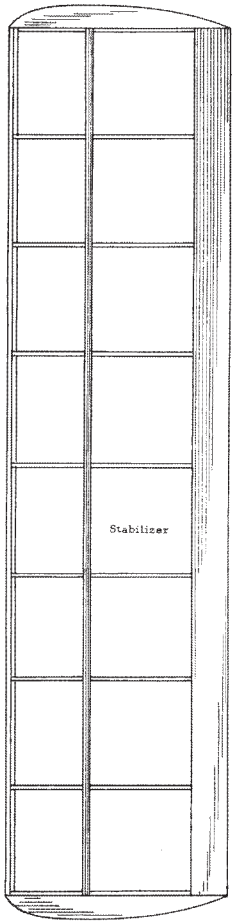
SKETCH C



Forming the diehedral

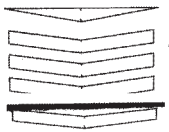
SKETCH D

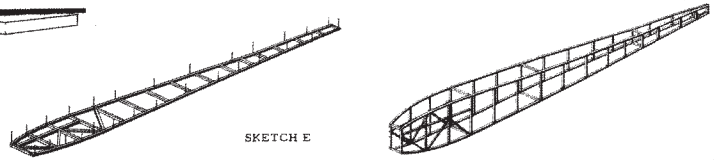
Reinforcing the center section



Hi-Start Method of Launching

Wing gussets patterns.





SKETCH E

Use rubber bands to help cross braces be inplace after gluing.

DIRECTIONS

Wing

The wing is made in two halves and then cemented together. To prevent warp from sticking to the plans rub dry soap over the drawing.

Cement a 3/32 balsa strip on the plan to act as a stop for the wing spars. Glue the paper wing gussets patterns on 1/16 balsa and cut out. Carefully cut the wing spars, leading and trailing edges to size and angle.

Glue the two center spars for one wing half together with a gusset. Lay down the center spar on the drawing and place gusset along side of it to hold it in place. Cement the two outside ribs in place and then the leading and trailing edges using pins along side of them to hold them in position. Glue in the rest of the ribs. Do not cement in ribs where the wing spars touch the 3/32 balsa strip. See Sketch A.

After the cement is dry raise up the wing panel with a block until the tip spar is flat on the drawing. Use pins to hold it in place. Cement on the end rib and then the leading and trailing edges. Then cement in the rest of the ribs and wing tip. See Sketch B.

In the same manner make the other half of the wing. Carefully join the two wing halves together, trim if necessary any excess wood and then glue them together with the center gusset. Allow the cement to dry then glue in the center rib, the gussets and some 3/16 balsa strips between the center rib and the first rib on each side of it. See Sketch C and D.

Stabilizer

Cut the leading and trailing edges to size. Lay down the trailing edge on the drawing and place pins along side to hold it in place. Cement the center rib in place and hold it in place with pins. Then cement in the two end ribs and the leading edge using pins again. Allow the cement to dry and then glue in the rest of the ribs, the tips and finally the top spar.

Rudder

Cut out the paper template of the rear of the rudder and cut its outline on a piece of 1/16 balsa. Sand it lightly with sandpaper. Cut out the tab and then glue it back again. Just apply cement only on the very top, and on the bottom. glue copper wire to attach the ends together leaving about 1/32" space between the two. See drawing. Finish the rest of the rudder and lay it aside.

Fuselage

Soak the drawing. Splice the rear of the longerons to make them longer and then pin them down to the drawing. Crack the top longeron to make the sharp bend in the rear. Cut the cross braces to size and glue them in. Leave the fuselage side on the drawing and pin the second set of longerons on it. Cut and glue the cross braces into place. Remove the fuselage sides from the drawing and cut them carefully apart with a razor leaving the rear tips of the fuselage sides together. Glue the front top and bottom cross pieces and then allow to dry hard. Using the drawing for size cut the top and bottom cross pieces. Put in the cross pieces in the fuselage as shown in Sketch E. Then add the remaining cross pieces and nose block. After the cement is dry cut and sand the nose block to size. Glue the wing pegs on, front and rear.

Paper Covering

Sand the model lightly with fine sandpaper. A very useful tool is a sandpaper pad. Glue some 6% sandpaper on a piece of wood 2"x3"x1/4" and use it to sand the model. Go over all the wood work especially where the ribs meet the leading and trailing edges. Glue on the rudder and cover the model with paper. Then dampen the paper with a piece of cotton and allow it to dry. This will tighten and smoothen the paper. Then give it one coat of dope only. The rudder is the only exception. Do not dampen or dope it or it may warp. Glue the 1/32" wing rests at balsa strips on top of the fuselage and the skid on the bottom of the fuselage. Put the wing on top of the fuselage with rubber bands and then glue in the stabilizer. Use the wing as a propers at lining up the stabilizer. When the rudder was glued on be sure that it was on straight, otherwise you will have trouble flying the model.

Make the three wire hooks from paper clips and glue them in place. Then glue on some small pieces of gauze over the hooks to prevent them from being pulled out when the model is towed.

Balancing

The model needs about 1/4 ounce of weight in the nose to balance it. Glue in some nails and ends of metal scrap like nuts, washers or nails until the model is balanced approximately where shown on the drawing. Use clay for holding it over some heat like a bread toaster or pot of hot water and twist the warp out. The heat will soften the surfaces and allow them to be straightened. Get expert with this method for you will be always using it.

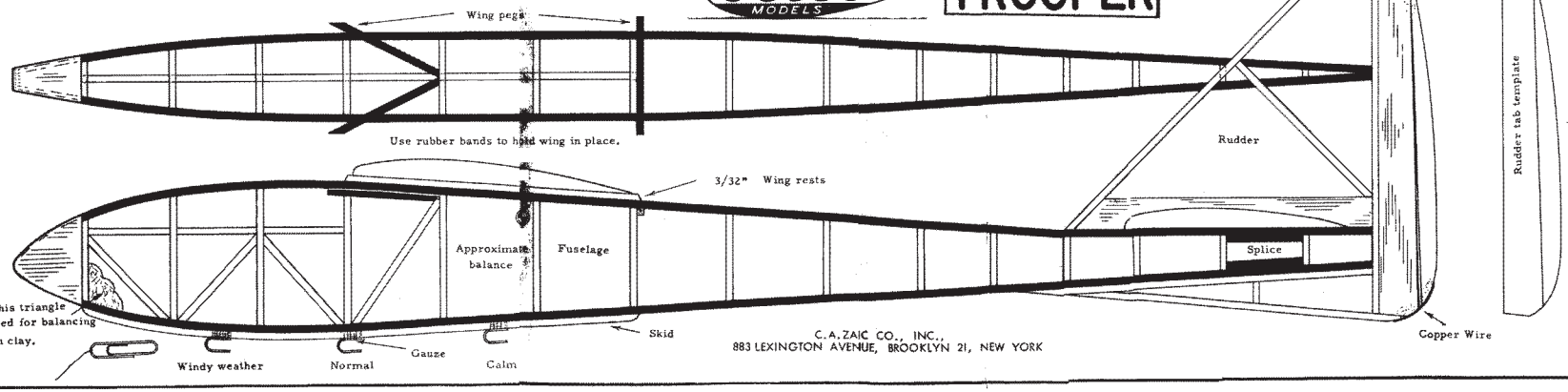
Flying

Select a calm day or evening to test and adjust the model. Glide the model, observe how it goes. If it stalls, add clay to the nose until it glides smoothly. If the model dives, take some weight out of the nose or add some weight to the tail.

The Hi-Start system is the best way to fly the model. To one end of a thirty foot string tie a paper clip and to the other end a 15 foot of 1/8" rubber. Have someone hold the rubber end then hook the paper clip to the model. Walk back about 15 feet, facing the wind squarely, and release the model. The model should soar overhead and release itself and start gliding. Observe the takeoff carefully. If it does not go straight up but has a tendency to go off on one side, clinch the wind direction and look if you have any warps in the model. Bend the rudder to make the model turn in the opposite direction and then fly again. After the model is adjusted, a much longer string can be used. The model can also be flown by the string alone. Just run with it and when the model is high enough - stop, and the model will release itself and start gliding. The model should be adjusted for large turns.

Jetco MODELS

TROOPER



C.A.ZAIC CO., INC.,
883 LEXINGTON AVENUE, BROOKLYN 21, NEW YORK