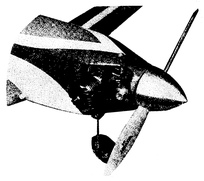


FUSELAGE CONSTRUCTION

1. Glue the ¼"x¾" at the top edge of the 3/16" sheet fuselage side. Glue the 3/16" sheet doubler under the ¼"x¾" between section A and C. Glue the ¼" square at the bottom of the fuselage from section B to the tail.

Glue in the 3/32" plywood wing seat stiffener. Now glue the four ¼" square fuse side stiffeners.

Glue the ¼" square under the ¼"x¾" and the servo board mounting rails at the location of the servos.

Make the left side of the fuse the same as the right side.

2. Drill the holes for the engine mounts and nose gear in the 3/16" plywood firewall and install the 4/40 blind nuts, also drill the holes for the tank outlets.

3. Set the two fuse sides up vertically and epoxy the 3/16" plywood firewall to the fuse sides, making sure it is square. Cut four cross pieces ¼" square to 2-3/8" long and glue between the ¼"x¾" at the top of the fuse sides. The remaining ¼" square cross pieces may be added working back to the tail of the fuselage.

Shape the tail cone block and glue in between the fuse sides.

Cut to length two pieces of the 3/4" angle and epoxy into place at the corners of the fuse sides and the 3/16" plywood firewall.

Shape the fuse bottom block under the tank space to fit and epoxy into place.

Sheet the bottom of the fuse with 3/32"x3" sheets running the grain crosswise.

Set the fuse up vertically and glue the cross formers F-1, 2, 3, 4, 5, 6 to the ¼"x¾" cross pieces. With a sanding block sand an angle to the top edge of the fuse sides as shown in cross section C-C and D-D, being careful not to sand the edge of the fuse between section A and C; this edge has to be square to glue the balsa block above the tank on.

STAB

4. Cut one 1/16" sheet to shape of the stab plan. Cut the 3/8"x3/8" leading and trailing edge to length and the 3/8" square at the ends of the stab.

Mark the location of the stab ribs on the leading and trailing edge, pin the 3/8" square leading and trailing edge to the 1/16" stab sheet. Cut the stab ribs to length and glue into place on the 1/16" sheet.

After the stab has dried, drill the holes in the stab ribs for the rudder linkage with a long piece of 3/32" music wire.

Using two clevises and .045 wire, make the rudder linkage according to the plan.

Using 1/16" music wire, bend the L-shaped horn that fits into the rudder-push rod bellcrank, bind with soft copper wire and solder, using the plan for correct location. Glue in the bellcrank support block.

Sheet the other side of the stab with a 1/16" sheet. Install the 3/48 blind nut in the small piece of plywood and glue to the stab. Epoxy the elevator horn into the elevator.

RUDDER

5. Drill a 1/16" hole in the end of the rudder fenilite horn, cut a small slot in the rudder and epoxy in the rudder horn.

Glue fins to each end of the stab, epoxy works good for this, making sure the angle of the fins is correct.

Do not hinge the rudders or elevator until after you have covered and doped them.

Epoxy the stab to the fuse, and add the ¼" angles under the stab at the fuse sides.

6. Cut the fuse top 1/8" sheet to shape allowing the edges to protrude over to be sanded off after assembly.

Glue the top 1/8" sheet on with white glue or epoxy. This gives you more time to work than model cement. Apply the glue on the beveled edges of the fuse and the formers and hold in place with masking tape, running the strips of tape across the top and down the sides of the fuse.

Now glue the solid block on forward of F1. When the glue has dried, using a sanding block shape the top block and 1/8" sheet top.

Shape the headrest balsa block and cut out for the cockpit.

7. Sand a slight angle to the cowl blocks and epoxy together. Shape down to the spinner after the glue is dried. Cut a half-moon hole for access to the nose gear bearings. Drill holes for the 5/16" dowel to hold the wing bands, but do not install until after covering.

FINISHING

After the model has been thoroughly sanded and there are no uneven joints, apply two coats of clear dope on the bare wood to seal the wood. When dry, sand lightly with fine sandpaper.

The complete model (and that includes the ailerons, rudders, and elevator) should be covered with silk.

Apply the silk wet, smooth out all wrinkles, and brush on a coat of dope, making sure to pull the silk out tight. Cover in panels one-half the top side of the wing and so on.

Brush on about two coats of clear dope, making sure the silk is stuck down good in all places.

You probably have had some problems of the dope shrinking and warping up the planking seams, especially on the wing sheeting. Sig Low-Shrink Dope does away with this problem.

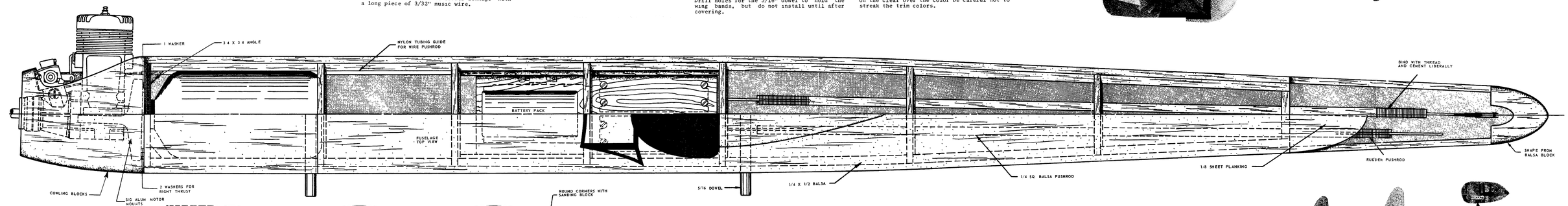
Apply about six coats of Sig Low-Shrink Dope and rub down with #400 wet sandpaper or the Scotch brite scouring pad, the red one is medium texture, they can be bought at the supermarket.

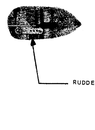
When you have the clear dope sanded smooth apply your color dope.

After the trim colors have been applied, spray on a coat of clear dope. If you brush on the clear over the color be careful not to streak the trim colors.

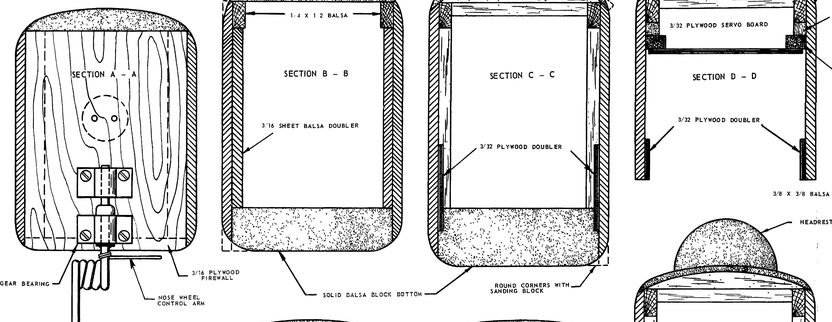
After the model is completely finished, cut the slots for the nylon hinges in the ailerons, rudders and elevator. Fasten in with cut-off pins or toothpicks. Hold the aileron in place on the wing, mark where the slots are to be cut for the hinges in the wing, and fasten the same way.

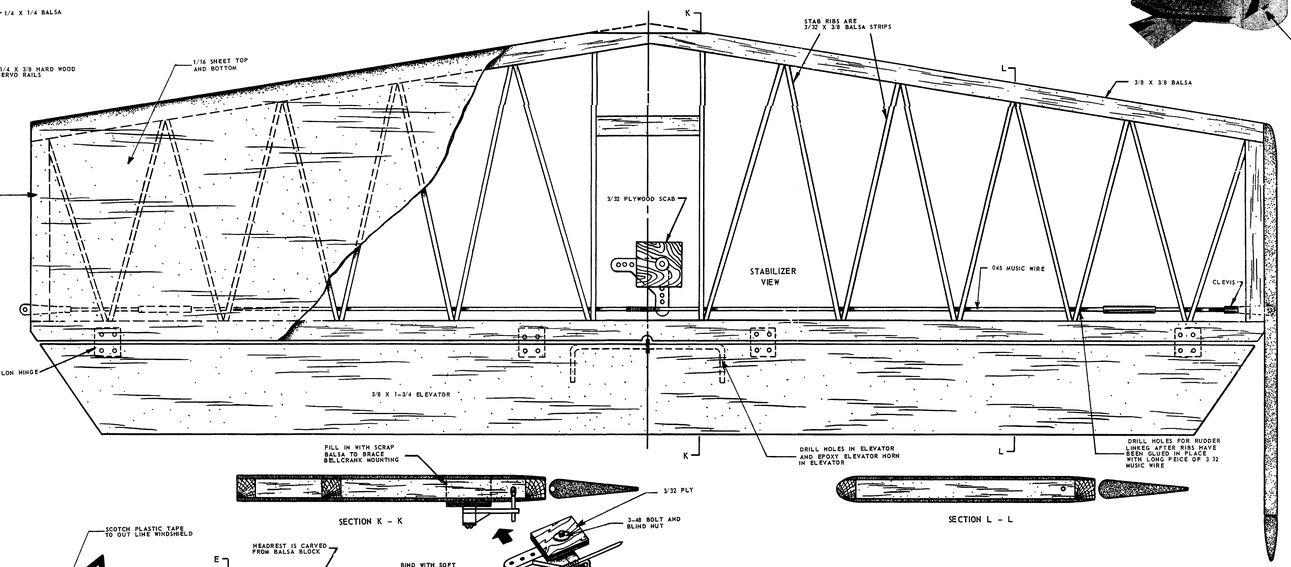
The C.G. is not real critical--one-fourth inch either way is o.k.

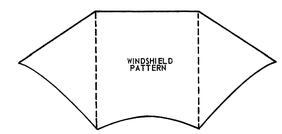




RUDDER HORN







BUILDING HINTS.

To properly build a model, you should use at least three kinds of glue. Some work better in certain places than others.

Sig-ment works very well gluing in the ribs to the spars, trailing edge and leading edge. It is fast drying and strong. Sig-ment does not cut hard and brittle.

Sig Epoxy is proclaimed by modelers from coast to coast as being the best there is.

Epoxy works best on plywood and blocks. Model cement has to air dry, where epoxy after mixed will dry without air, and will sand with the block leaving a smooth joint. Gluing nose blocks is a very good place to use epoxy.

White glue is another one that should be used. It doesn't dry as fast as model cement and allows for more working time.

Gluing on wing sheeting is a good place to use white glue as it takes time to pin the wing sheets in place.

CAUTION

The Stratus flies just as well with a 45 engine as it does on a 60 engine. The 60 just makes it fly faster but not any better. What is important, don't use more power than you are used to handling. If you are not used to flying a fast model, a slower one will be much easier for you to handle. If reed equipment is used I would not advise more than a 45 engine.

DIHEDRAL VIEW

SIG MANUFACTURING CO., INC. MONTEZUMA, IOWA

STRATUS

DESIGNED BY MAXEY HESTER	WING AREA 720 SQ. IN.
DRAWINGS BY CLAUDE MCCULLOUGH	WING SPAN 70" POWER 45 TO 60
PRODUCT ENGINEER MAXEY HESTER	DESIGN WEIGHT 6 1 2 TO 7 1 2 LBS.

WING CONSTRUCTION

The wing can be built in two separate panels and joined together after the right and left wing panels are completed. A better way is to build the wing on a wing jig. A simple jig consists of two pieces of 3/4" plywood, 12"x33". Each end of the jig is blocked up to the correct dihedral. With this method the wing can be built joined together and the top completely sheeted before removing from the jig.

Step 1. Cement the ¼"x½"x12" spar doublers on the ¼"x½" spars at one end. Make four. Sand the spars to the correct dihedral angle at the center section, and pin the bottom spars over the plan.

Glue the die-cut jigs to the plan at ribs No. 1, 4, 6, 8, 10 and 12; the largest one at No. 1 rib and on to the smallest one at rib 12. Glue the shaped ¼" trailing edge on the 3/32"x2" bottom sheet. Pin the 3/32"x2" sheet to the jigs. Glue the ribs to the bottom spar and the 2" bottom sheet. Glue the 3/16" tapered leading stock to the ribs.

Using the pattern, shape the center spar splice block and glue in between the No. 1 ribs on top of the bottom spars.

Sand the ends of the top spars to fit at the center section and glue to the ribs. After the glue has dried, using a sanding block shape the 3/16" leading edge and ¼" trailing edge to the ribs.

Start the wing sheeting on top of the 3/16" leading edge with the edge of the 3/32-x3" sheet flush with the front edge of the 3/16" leading edge, sheeting to the trailing edge. Cut the third 3/32"x3" sheet flush with the trailing edge and use the end that is cut off to complete the wing sheeting that is left at the center.

Step 2. After the glue on the sheeting has dried, using a sanding block sand the front edge of the sheeting flush with the 3/16" leading edge. Now glue the tapered ¼" leading edge stock to the leading edge of the wing. Glue the wing tip blocks to each end of the wing.

Sand the leading edge and wing tips to conform to the wing and all wing sheeting joints. A sanding block at least 10" long is best for this. Soak the celastic in dope thinner and apply at the center joint of the wing sheeting.

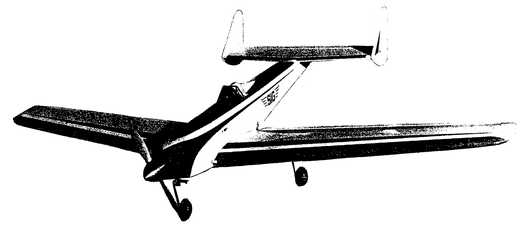
The ailerons can now be cut to length and shaped at the ends. Epoxy the aileron control horns into the ailerons.

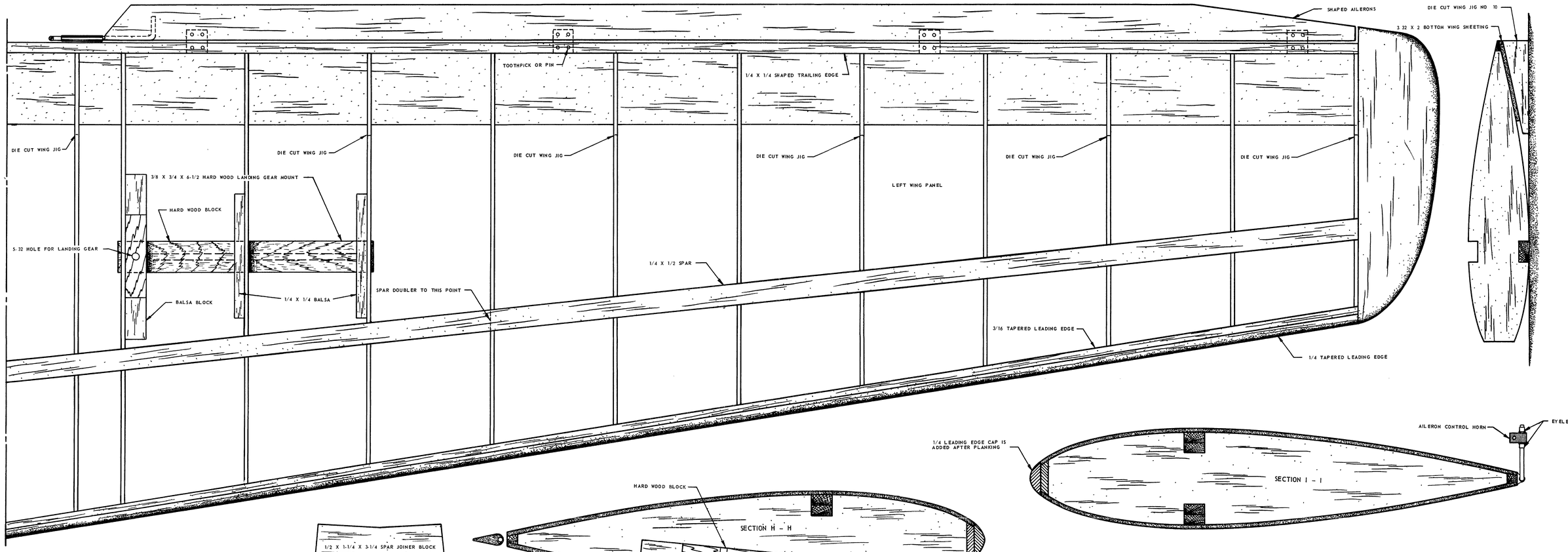
Do not hinge the ailerons until after covering and doping the wing.

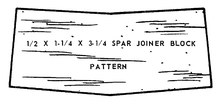
After glue has dried on the wing sheeting remove the wing from the jig and turn upside down. Glue into place the 3/8"x3/4"x6½" hardwood landing gear mount to ribs 2, 3 and 4. Glue the hardwood block under the landing gear mount along side the No. 2 rib, and also the balsa block at each end of the hardwood block.

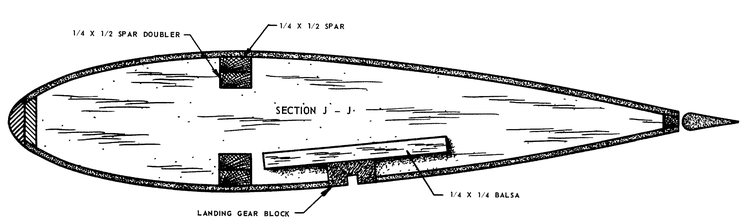
Glue the ¼" square under the landing gear mount along side No. 3 and 4 ribs. Start the bottom 3/32" sheeting at the leading edge the same as the top sheeting.

Cut the end of the second and third 3/32"-x3" sheet to join the 2" trailing edge sheet.









Rib #5
should be
9 7/16 long

Rib #4
should be
9 15/16 long

Rib #3
should be
10 7/16 long

Rib #2
should be
10 7/8 long

Rib #1
should be
11 1/16 long

Rib #12 should be 6 1/8 long

Rib #11 should be 6 9/16 long

Rib #10 should be 7 1/16 long

Rib #9
should be
7 1/2 long

Rib #8
should be
8 long

Rib #7
should be
8 1/2 long

Rib #6
should be
9 long

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