

TAYLORCRAFT — Building instructions



Wingspan ----- 83-1/2" (clipped wing) 108" (long wing)
Length----- 69"
Wing Area ----- 1336 sq. in. (clipped wing) 1678 sq. in. (long wing)
Wing Loading ----- 20 oz./sq. ft. (clipped wing at 12 lbs. 19.3 oz./sq. ft.
(Long Wing at 14 lbs.)
Weight ----- 12 to 14 lbs. (approx)
Recommended Engines ----- .91 to 1.2 2cyc., .91 to 1.8 four cyc., G23gas

INTRODUCTION

The Lanier R/C Taylorcraft is not the ordinary venerable Taylorcraft. It is a scale version of the Taylorcraft's modified and made highly aerobatic by Mike Swick at the Aero County Airport just north of Dallas, TX. Mike starts with a standard Taylorcraft airframe and completely rebuilds it to better-than-new standards. Larger control surfaces, increased fin and rudder area has been changed along with a clipped wing to optimize aerobatic performance. The key to the Lanier R/C Taylorcraft's outstanding agility is a 1/4 scale version of the Swick design allowing you to do amazing maneuvers and a whole lot more.

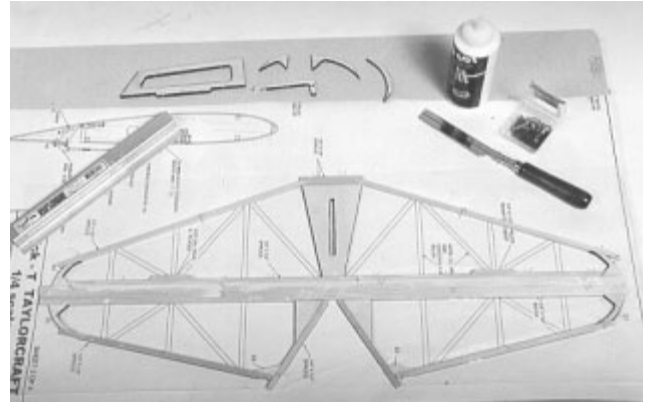
For those who are not interested in an all out aerobatic airplane, we have included plans and material for a set of long wings. Your choice, build the clipped wing or build the long wing. You will have to decide before building

This is not a beginners airplane kit. We assume you have average building skills and are familiar with the building techniques required to successfully build this airplane. However, before beginning construction we urge you to read through these instructions to familiarize yourself with the building requirements. Note: It is wise to leave all the parts in the laser cut sheets and cut them out as needed. It will make them much easier to find; preventing unnecessary confusion on your part.

BUILDING THE STAB AND ELEVATORS

Begin by getting all the materials necessary to build the tail. Locate sheet 1 of the laser cut parts and cut out E1, E2, E3, E4, E5, FN1, FN2, FN3, RU4, RU5, and fillet. When cutting out these parts, cut the micro tabs holding them in place with a sharp X-acto knife and the part will fall out. **Do not try to break them out.** Find (2) 1/4" x 1/2" x 36" balsa sticks, (3) 1/4" sq. x 36" balsa sticks and (3) 1/4" sq. spruce sticks to be used on the stab and elevators. Find (1) 1/4" x 1/2" x 36", (2) 1/4" sq. x 24" balsa sticks and (1) 1/4" sq. x 36" spruce stick to be used on the stab and rudder.

We recommend using a good grade Aliphatic white glue for gluing like PICA Gluit, Elmers, Titebond. Any of these will do a good job. Of course CA glue can be used to help hold the part while the white glue is curing. Pick out a flat building surface, spread out the plans for the stab and elevator and tape them down. Lay a piece of wax paper over them and you are ready to start building.



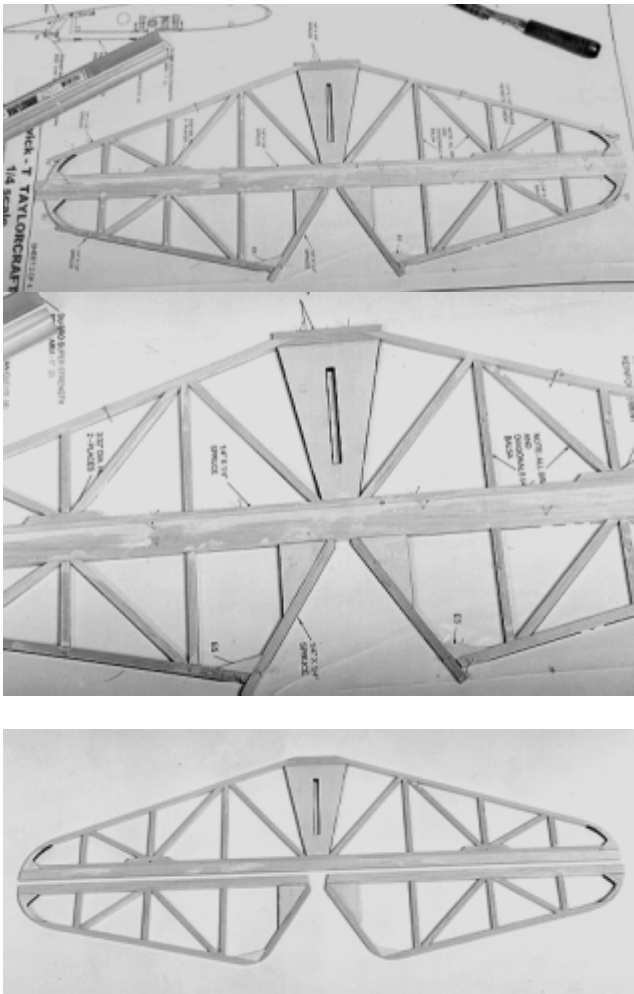
1. Pin down the stab TE and elevator LE on the plans.

Glue in E1, E2, E3, E4 and pin E5 in place. Note: before gluing, remove the burned char from the gluing surface with a sanding stick for better adhesion.

2. Cut, fit, and glue in the 1/4" hardwood stab TE Spar. Cut, fit and glue in the short tail strut reinforcement pieces.

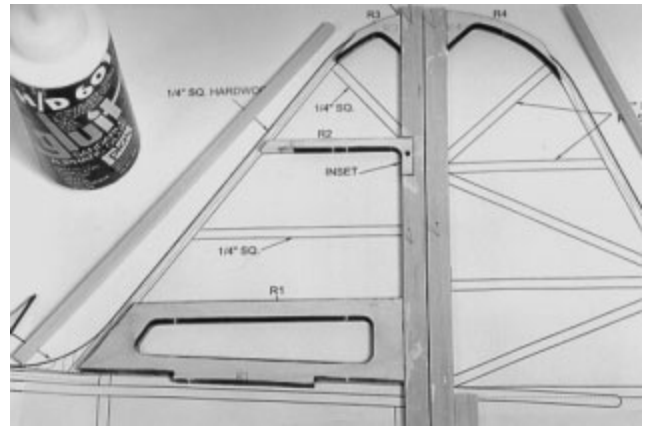
3. Cut the 1/4" hardwood LE and TE piece to rough length. Fit and glue them in place around the perimeter.

4. Finally glue in the 1/4" balsa ribs and diagonals. Make good square cuts and fit them close for good strong joints. When cured, remove them and shape to match the plans. Drill two 3/32" holes where shown on the plans for the tail braces.

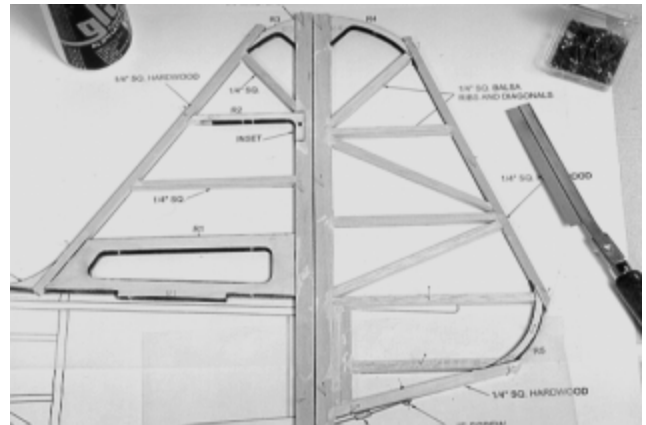


BUILDING THE FIN AND RUDDER

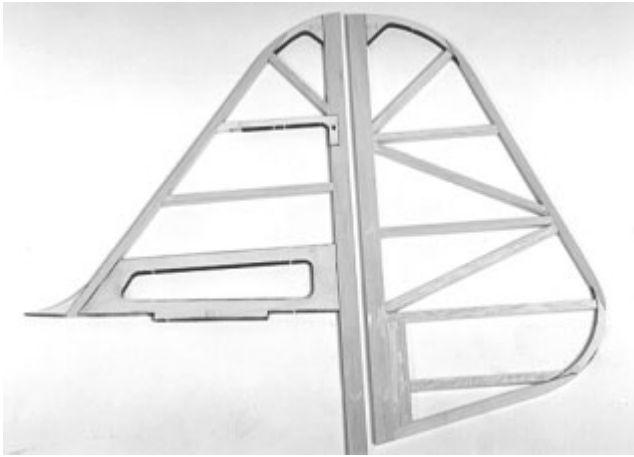
Building the fin and rudder is very similar to the construction of the stab and elevators. Locate FN1, FN2, FN3, RU4, and RU5. You should have them cut out already. Sand the charred edges where glue is spread on each piece for better adhesion. Locate (1) 1/4" sq. x 24" spruce stick. Also locate (1) 1/4" x 1/2" x 36" balsa stick and (2) 1/4" x 24" balsa sticks. You are now ready to build the fin and rudder.



1. Lay the fin and rudder plan down on a flat building surface covering it with wax paper. Pin down the fin TE and the Rudder LE. Cut them roughly to length. Now, cut out the notch inset for R2 in the fin TE. Glue R1, R2, R3, and R4 in place. Pin R5 in its location. Install the short piece of 1/4" x 1/2" balsa backup at the base of the rudder and glue in place.

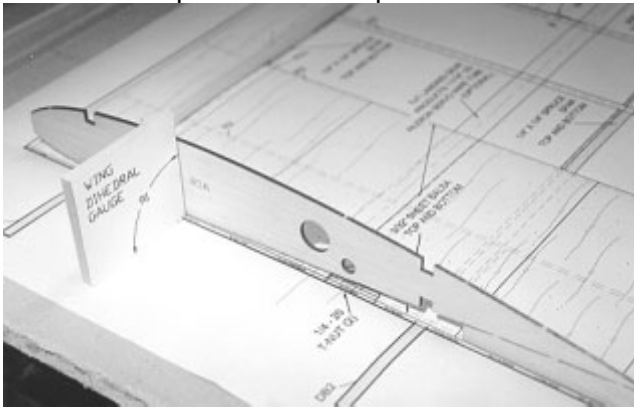


2. Using the 1/4" sq. hardwood, cut and fit the fin LE and the rudder TE. Now cut and fit in the 1/4" balsa ribs and diagonals. Finally, glue the fillet on the fin LE. Use white aliphatic resin glue for all joints. When cured, remove from plans and shape edges to the configuration shown. Set aside for final sanding and shaping of LE and TE surfaces.

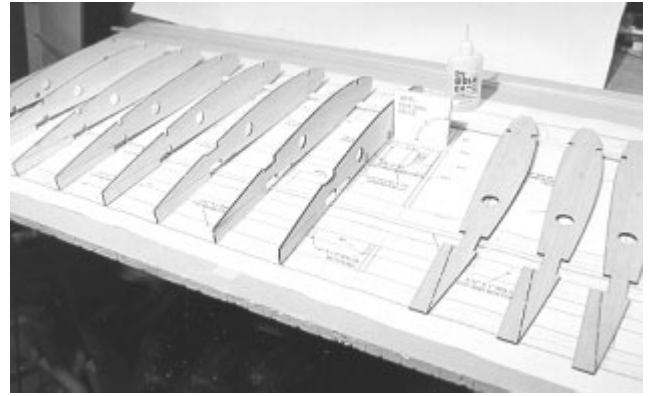


BUILDING THE SHORT WING

(also see building the long wing) Begin by laying the plans down over a flat surface building one panel at a time. No need for wax paper to protect the plans because the front lower spar is shimmed up with 3/32" strips.



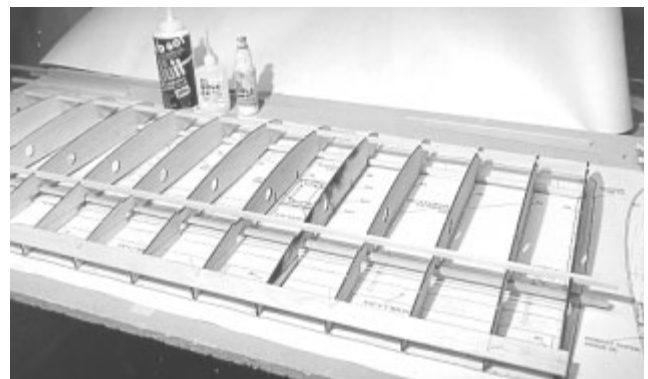
1. Pin down the lower front 1/4" x 1/4" spruce spar shimming it up with short pieces of 3/32" x 1/4" balsa rib capping. Place 2-1/2" lengths under the spar beginning at the first rib bay and then at every other bay including the end bay. Use a long straightedge to make sure the spar is pinned down straight.



2. Locate and cut out all the ribs to build the wing panel. Lay them out in position over the plans to keep in order so as not to glue in the wrong rib by mistake. Find the wing dihedral gauge (laser cut sheet 11) and cut it loose. Use it to place Rib 1A at the proper dihedral angle of 1 degree. Do this carefully. Use thick CA to tack the rib in place pinning it at the back edge to the plans. Now glue the rest of the ribs to the spar. Use the other edge of the dihedral gauge to make sure the ribs are perpendicular.

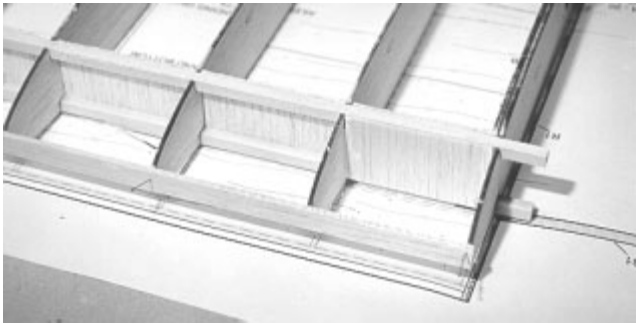
3. Locate 3 more 1/4" sq. hardwoods spars and glue them in the top front and upper and lower notches. The lower rear spar must be slid in under the ribs and pushed up into the slots. Make sure you do not disturb the 1 degree angle on R1A.

4. Locate and glue on the 3/32" x 1" trailing edge. It should overhang the back edge of the rib support by .040.



5. Glue and fit in the 3/32" vertical webbing on the backside of the front spars and on the front side of the back spars. Cut (13) 1-1/2" pieces to be used for the front webbing. Cut (13) 1-1/8"

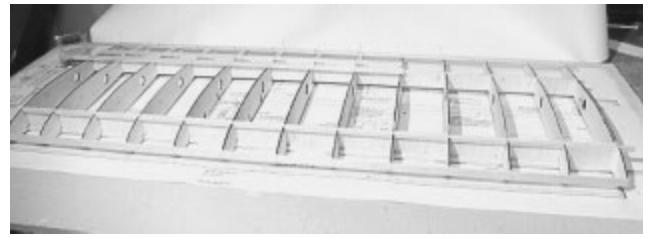
pieces to be used for the rear webbing. Note: 6. A piece of webbing is required on both sides of the spars in the first rib bay to retain DB1 and DB2. Keep glue blobs clean in this area.



7. Cut and glue on the 3/32" x 1" wing TE sheet just ahead of the aileron. Now glue on the aileron leading edge aligning the front edge with the top-protruding end of the aileron. Cut the sheet a little long letting the ends rest on the ribs at both ends. Do not glue sheet to these ribs. Now find the 3/32" x 1/4" rib capping and cap the aileron ribs. Do not cap the end ribs at this time.



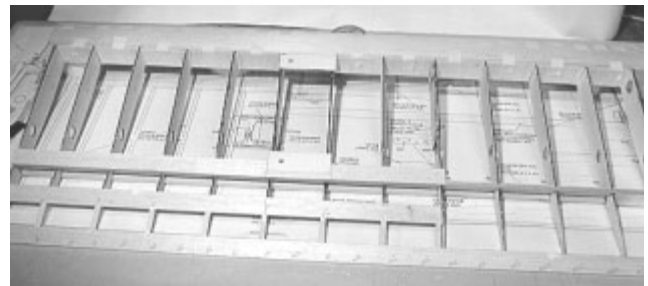
8. Locate and glue on the 1/8" x 1/2" sub leading edge. Center it on the front of the ribs. This fits close in order to minimize the sanding required to bevel both top and bottom edge to conform to rib configuration.



9. With a 3/32" x 3" balsa sheet, true up one edge, so that it is straight. Trim off the other edge so that you have a 2-1/2" wide sheet. Now do another three sheets. Put a pencil mark, on each end of the front top spar, 1/8" back from the front edge. Spread white glue on each rib and along the front sub-LE. Spread thick CA along the spar where the sheeting will come in contact. Align the sheeting on the marks and allow CA to cure before pulling it down to the sub LE. Use masking tape to hold in place until cured. Now lift up the wing from the plans and sheet the other side as described above. Make sure the wing is weighted down on a flat surface to cure and not warp.



10. Locate the 3/32" x 1 stock and glue on the lower TE sheeting. Pin it to a flat surface in order to keep it flat and straight until cured. Prop up the LE keeping the TE flat. Use white glue.



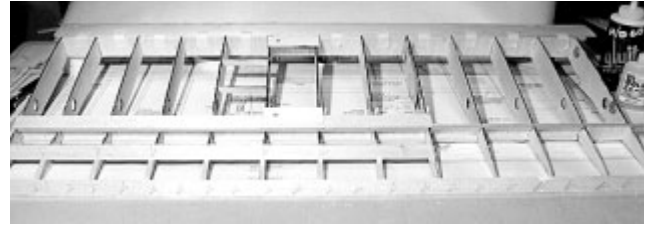
11. While the wing is curing find (2) R1B and install the 1/4-20 blind nuts in them. Push the nuts in flat against the surface. Make a LH and a RH part and apply thick CA around the edges to hold them in. Find (4) WS1's and install 8-32 blind nuts in them. Lastly find the (2) R2A. Using epoxy, center the metal fittings ST4 on the centerlines, indicated on the part. Roughen the sides to be glued and allow the epoxy to flow through the holes to pin them in place. The holes should extend 5/8" below the rib. You will need a LH and RH part here. Be sure.



12. Install R1B with blind nuts on the inside of R1A using white glue. Clamp if necessary to make the prongs on the blind nut penetrate the balsa. Now glue in the two WS1 with blind nuts. Locate and glue in the R2A with the jury strut retainers. Glue on the 3/32" x 1" wing TE sheeting. It's your choice. You can notch out the sheet to fit around WS1 or you can butt the sheet up against both sides of WS1 and fill in the gap.



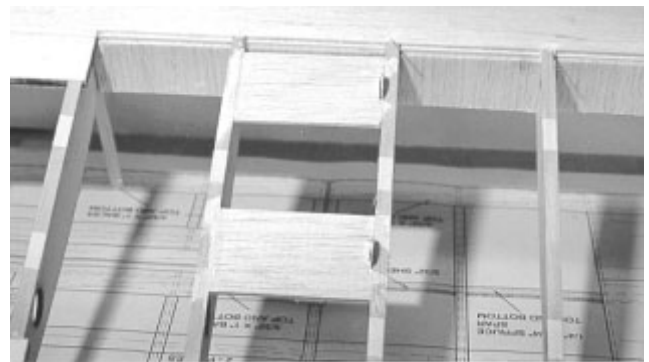
13. Locate (2) A1 on laser cut sheet 5. Cut the micro joints to free them. Using a 1/16" shim for spacing, glue them in at each end of the aileron. Some sanding may be necessary to fit them completely into the trailing edge. The top front edge should line up with the upper sheeting.



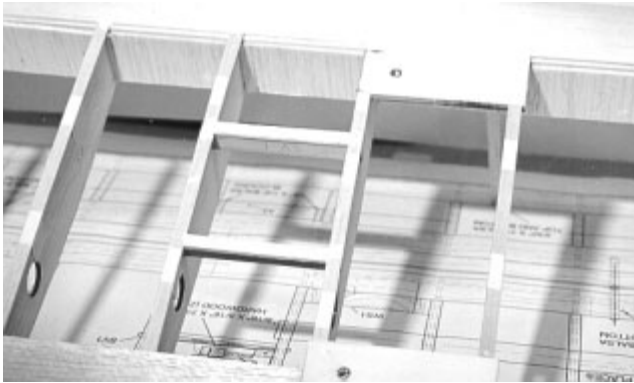
14. Install the 3/32"x 1" lower aileron sheet aligning it with the ends of A1. Cut it to fit and glue on to the aileron end A1.



15. Sheet the first 2 rib bays with 3/32" x 3" sheeting. Starting from the TE and working up. Fill in the last small opening next to the LE sheeting. Now cap all the ribs with 3/32" x 1/4" balsa.



16. Fill in between the jury strut supports and the adjacent rib. Cut 2 pieces of 3/32" sheet balsa 1-3/4" wide, notch the end to fit around the support ST6, and glue in place.



17. Glue $3/32"$ x $1/4"$ capping to the servo well cross supports. Make the edges flush with the inside surfaces of the well.

18. Now turn the wing over and sheet the root section, as on the bottom side, and cap all the ribs with $3/32"$ x $1/4"$ balsa capping.



19. Cap the wing end rib, next to the aileron, with $3/32"$ sheet cap on top and bottom side. It is a very narrow strip, be careful, the end rib is very fragile and easily broken off.

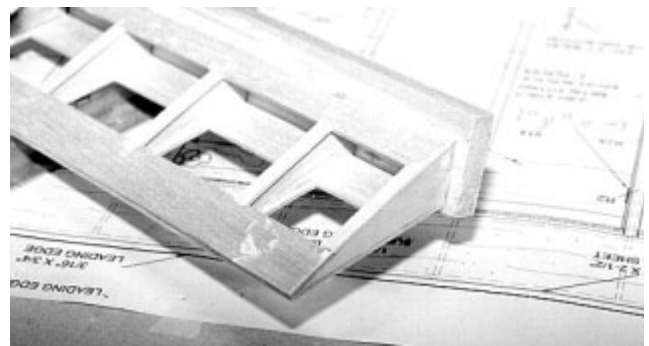
20. Now is the right time to cut out the aileron. Using a razor saw, cut through the $1/16"$ gap between the aileron and wing at both ends. Now cut through the ribs just behind the wing TE. Remove the aileron and set it aside.



21. Block sand the wing trailing edge smooth with the spars and cap with a $1/4"$ x $1-3/8"$ x $24"$ piece. You will have to trim the ends and fit it. Use white glue and masking tape to hold it in place. When cured sand flush with surface.

22. Cut off the extending ribs on the aileron at the proper angle. The angle is defined by drawing a line from the edge of the top sheeting to the edge of the bottom sheet. Use a razor saw and support the work on an edge of the bench.

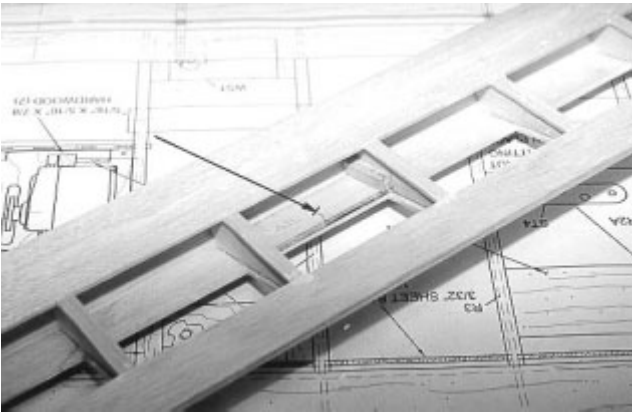
23. Block sand the angle surface with a long sanding stick. Now cap it with a piece $1/2"$ x $1-3/4"$ x $24"$ balsa. Lay the cap on a flat surface. Pin down if necessary. Line up the bottom edge of the aileron with the lower edge on the cap leaving all the material towards the top of the aileron. This will assure you enough material for the angle required at the top. Use white glue and pin down in place.



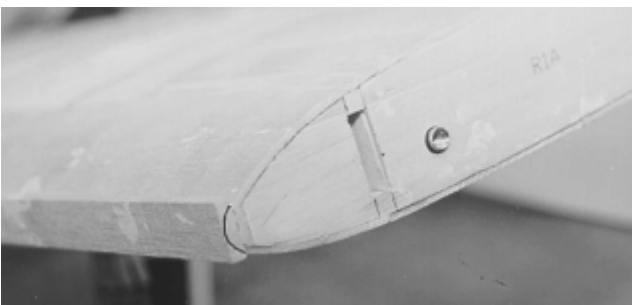
24. Cut or plane off the excess balsa and sand flush at each surface maintaining the same surface plane.



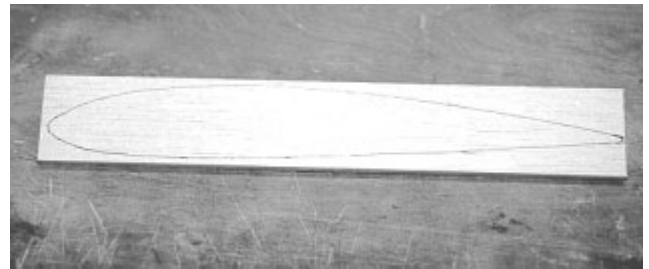
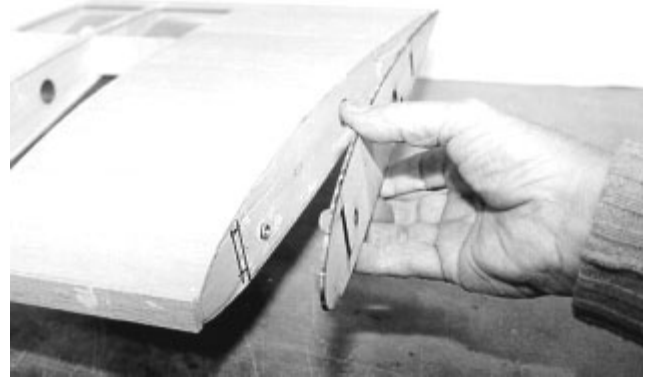
25. Install AIL3 found on sheet 5, as shown on the plans, with white glue. Glue in a short piece of 1/4" sq. reinforcement at each end as shown on the plans.



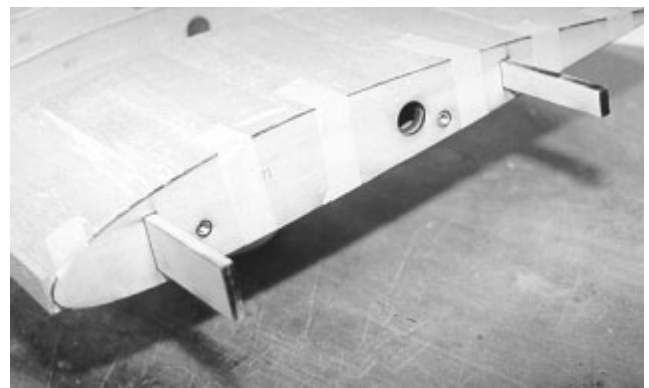
26. Plane and sand the wing LE sheeting flush with the sub-LE. Now glue on the 3/16" x 3/4" leading edge. Use white glue and hold in place with masking tape. When cured, remove tape.



27. Locate the 1/2" x 2-1/2" x 16" balsa block. Stand the wing panel on end and trace the airfoil configuration on the block. Cut out the wing tip, slightly outside the line, and glue it in place. Use white glue and masking tape to hold. When cured, shape the tip by rounding the corners and rounding the front where it meets the LE.



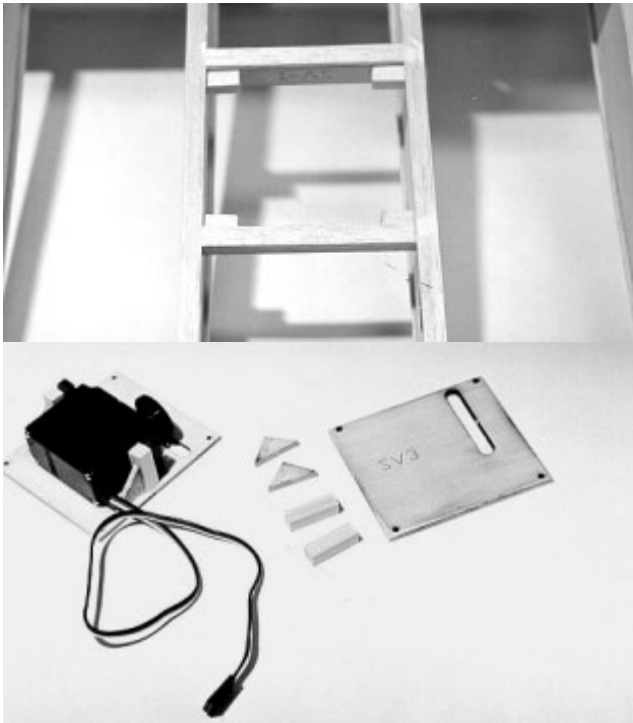
28. Before gluing on R1, the root rib, draw a line on R1A from top to bottom wing spar, front and back side. Cut out the balsa between the lines of each set of spars to provide an opening for DB1 and DB2.



you can remove the balsa between the spars, if you find it more desirable, after R1 has been glued in place. Now glue on R1. 29. Locate DB1 and DB2 on the laser cut sheet 1. Cut them out and trial fit them in their respective slots. They may need a slight amount of sanding to fit do to building tolerances. **Do not glue them in at this time.**

BUILDING THE SERVO MOUNT

1. In the wing servo opening, cut and glue in (4) 1/4" x 1/4" x 1/2" blocks in each corner of the opening. Set them below the surface 1/8".



2. Locate (4) SV2 on sheet 5 and 2-SV3's on sheet 8 of the laser cut parts. Lay one SV3 on a flat surface with wax paper and center the servo output arm in the slot. Also center the servo from side to side. Note the correct orientation of the servo. Place a small square of doubled sided servo tape under the servo to hold it in place.

3. Cut 4 pieces of 1/4" 1/4" x 3/4" hardwood. With the servo in place epoxy one under each servo mount. Apply epoxy to the end of each piece only. Now glue in a gusset SV2 behind each mount and allow to cure.

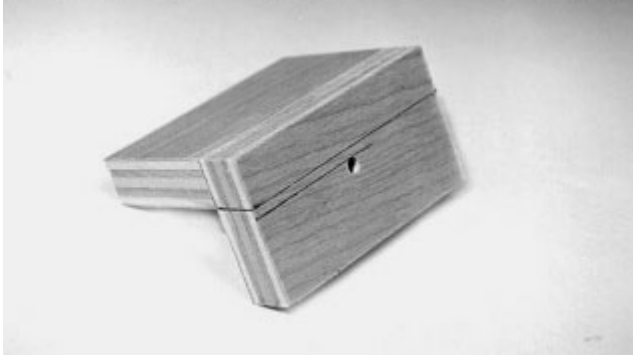


4. Mount the servo mount in place with servo mounting screws, available from Micro Fasteners. They require a ball wrench to drive them into a 1/16" dia hole. The servo wire tube, shown as an option, can be purchased from TnT Landing Gear Products, Swanton, OH., or your hobby dealer. It has another function; tying the ribs together for added strength.

HINGING THE AILERONS

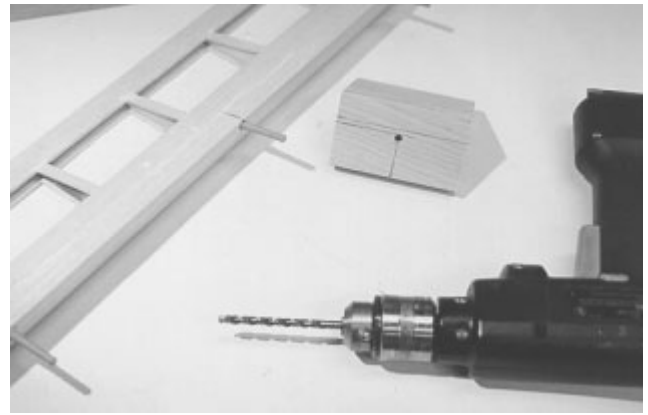
Before hinging the ailerons it is a good idea to build a simple drill fixture (not included). The edge of the hinge hole falls at the bottom edge of the sheeting on the wing and aileron LE. Impossible to drill without a fixture. It can be made from 1/2" ply and won't take any time to build. The reason for 1/2" ply is that it will support the drill bit better assuring the hole to be drilled where you want it. Cut two blocks from 1/2" ply 1-3/4" x 3". Glue one on the top edge of the other one, as shown in the photo. When cured, drill a 3/16" hole in the center of the block locating the center of the hole 3/16" down from the lower edge of the block on

the opposite side. This is important so take your time and be accurate with the hole location. Cover the surface in contact with the sheeting with sandpaper to keep from slipping



1. Before locating and drilling the hinge holes, glue in the 4 – 1/4" x 5/8" x 1" hinge backing blocks at the wing trailing edge as noted on the plans.

2. Align and tape the aileron in the wing opening and mark each hinge location by striking a line on the wing and aileron. Now carry the lines down the front surface of the aileron and wing TE. Mark the center of the hole on the fixture down and around to the same hole location on the other side. This will enable you to line up the centerlines on the fixture and the part before drilling



3. Using the drill fixture align each hole to be drilled with the scribed lines. Make sure the top surface of the fixture is flat on the wing/aileron surface. Drill carefully. Note: you will be drilling holes through the upper rear wing spar. No need to worry, there is plenty of beef around them. Do not glue in the hinges until the wing and aileron is fully covered



4. Align the aileron control horn with the servo output arm. Use a straightedge scribe a line on the aileron for its location. Locate AIL4, on sheet 5 of the laser cut sheet, and cut it out. Tack glue it to the aileron noting the forward edge is slightly ahead of the aileron LE. Now place the control horn on top, align, and mount using servo mounting screw. A 1/16" dia. drill is fine for the screw pilot holes. Make up the aileron push rod with the components specified on the plans. Final adjustment can be made later. Remove the control horn

and AIL4. It is much easier to cover AIL4 and then glue it on making the aileron easier to cover as well. Soak the two forward holes of the control horn mount with thin CA to harden the balsa. Note: as you progress, keep all the hardware in one container. It will be easier to locate later on.

This completes one wing panel. Now build the other one using the same instructions. When through set them aside for sanding, covering and fitting with the fuselage, the next building project.

BUILDING THE FUSELAGE

Before building the fuselage, cut out 2 each of the following parts from laser cut sheet 1. FS1, FS2, FS3, G1, G2, FT1 and FT2. Cut only the micro joints and they will fall out.

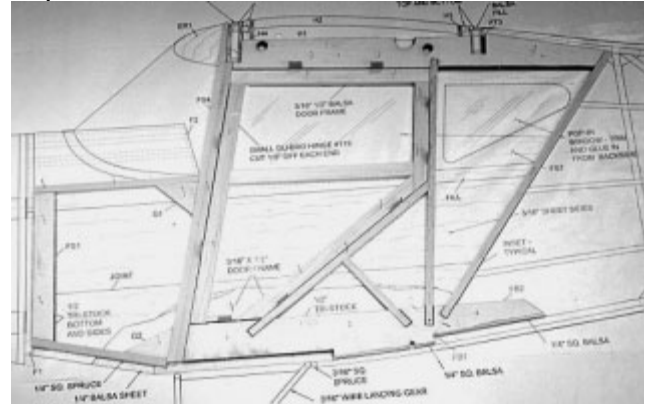
1. Locate a 1/4" x 1/4" x 48" piece of spruce and cut 4-10" lengths from it. You will need (2)FT1 and (2) FT2 to build the wing joiner retaining box.

2. Lay down a FT1 and glue a 10" piece of 1/4" sq. to the top edge and one to the bottom edge making the ends flush with one end of FT1. Now glue another FT1 on top and weight it down. **Wipe off excess glue on the inside edges so that DB1 will fit and side in smoothly.** When cured, sand off the other end flush with FT1.

3. Now build the FT2 wing joiner retainer box as described above. **Be sure to remove the glue from the inside edges before it cures. It will prevent trouble when trying to install DB2.**

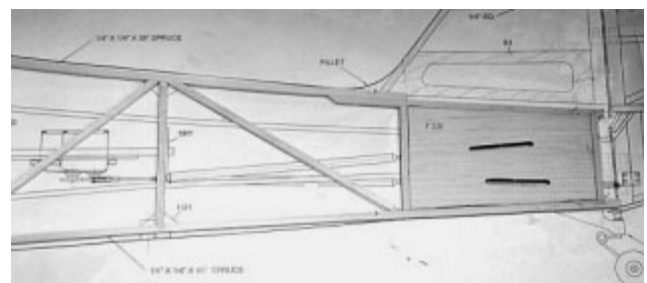
4. Lay down the fuselage side plan on a flat building surface and cover it with wax paper. Pin down FS1, FS2, and FS3 in their respective places. Locate a 1/4" sq. x 48" spruce stick and cut 2- 24" pieces. Now cut a 11-1/4" length from each 24" piece. These

will be the front door posts. Cut and fit them in place.



5. Locate a 1/4" sq. x 48" spruce stick, cut, fit and glue in the fuselage upper and lower front longerons. Save the rest of this stick for the other side and the upper aft longeron extension. Find a 1/4" sq. 36" balsa stick. Cut, fit, and glue in the uprights between FT1 and FT2. One stick should do it. Now glue in G1 and G2.

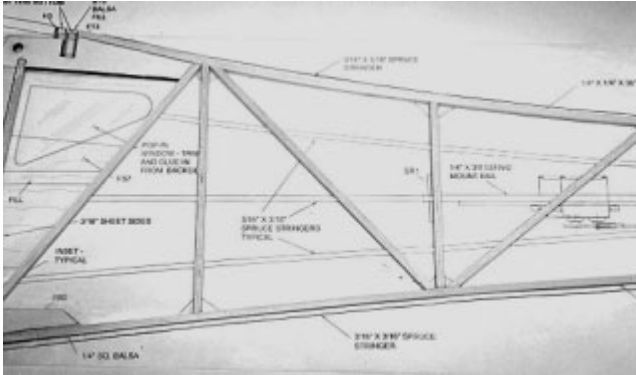
7. Build in the door frame while you are working in this section. Locate a 1/4" x 1/2" x 42" balsa stick. Cut, fit, and glue in the pieces of the door frame. Find the laser cut sheet 13 and cut small strips from the scrap to shim between the door and door opening for clearance.



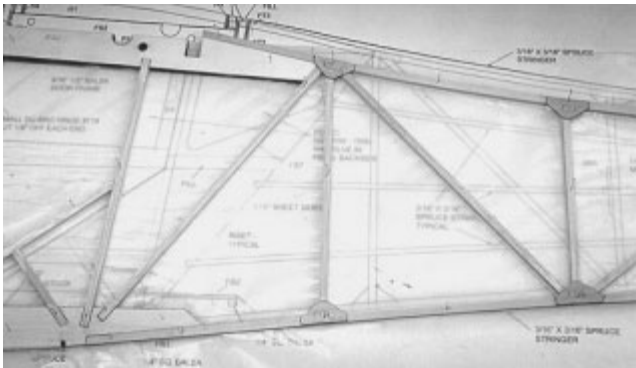
8. Locate a 1/4" sq. x 48" spruce stick and pin down the lower fuselage longeron. Glue it to FS3 with white glue. Using a 1/4" sq. x 36" spruce stick, pin down the upper fuselage longeron and glue it to FS2. Now glue on the upper fuselage longeron extension. Cut (2) FS8, on sheet 9, and

glue in between fuselage longerons. **Make sure it is flush with the top surface.** Now glue in the fuselage end balsa upright.

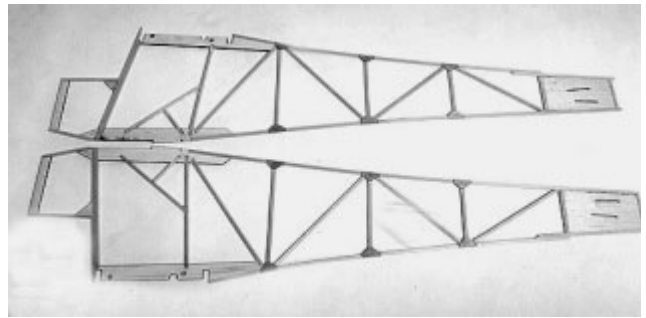
9. Using 1/4" sq. balsa, cut, fit and glue in the uprights and diagonal fuselage pieces.



10. With one fuselage side completed, build another over it so that you have matching sides. Lay wax paper over the side to prevent gluing them together. The one exception is, **FS8 is glued in flush with the bottom surface.** Locate the FG1 gussets and glue them in as shown on the plans. This side will be the **RH** side.



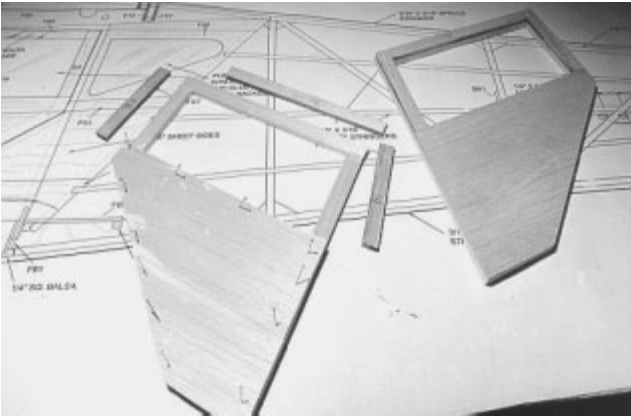
11. When cured remove the pins and turn the bottom side over. Glue on the FG1 gussets, as before, and pin them in place. You should now have a **RH** and **LH** side.



12. Lay the LH side over the plans and build in the door frame as described in step 7 above.

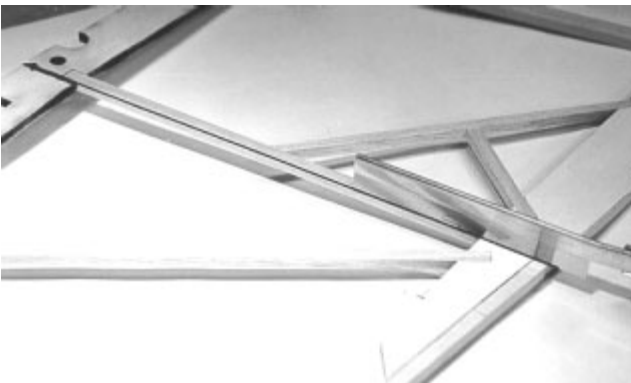


13. Sheet both doors as follows: Cut out D1, D2, and D3 from laser cut Sheet 9A.. Find (1) 3/16" x 3" x 36" balsa sheet. Cut off a piece 8" and one 5-1/2". Start the sheeting edge flush with the windowsill. Add the next piece below it. Pin and glue in place. When cured, trim flush with the frame. **Don't forget you will need a LH and RH door.**



14. Now locate D1, D2, and D3. Glue them in place as shown on the plans to complete the window frame. Lay aside until the fuselage is complete.

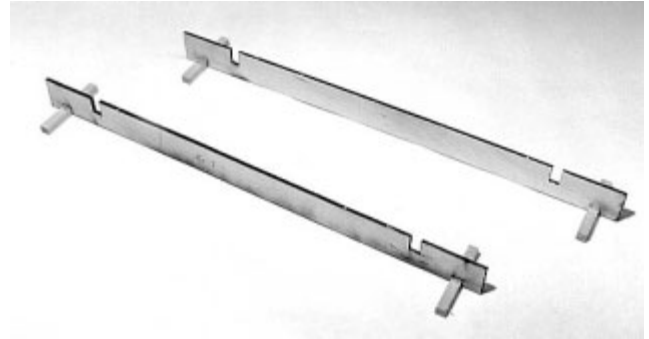
15. Before assembling the sides, it will be necessary to cut and "crack" them at the proper place. With one side laying on a flat surface, and the outside facing up, use a razor saw to make a cut in two places. Make a cut in FS2 at the rear edge of the doorjamb and in line with it. Now make a cut in FS3 along the same line. Cut about 3/4 to 7/8 of the way through. Do this carefully. Now lay the cut over a sharp edge on the bench, hold, and bend it down until you hear it crack. Now do the other side



16. Taper the tail post, on the inside of each side. A 1/8" x 3/4" taper should do it. The sides are now ready to assemble.

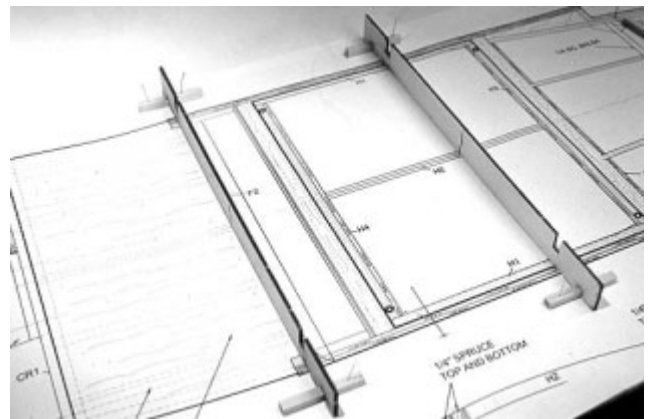
17. Before joining the sides some more

preparatory work is required. Cut out the JG1 and JG2 pieces from laser cut sheet 8. Cut 4 pieces of 1/4" sq. balsa, 2" long. Glue each in a notch at the ends of the JG1's. Make sure they are square with JG1 in both directions.



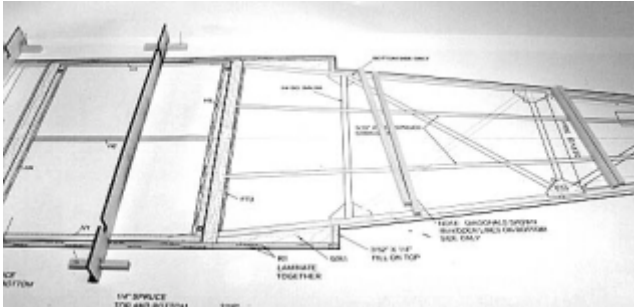
18. Locate (4) R1 on laser cut sheet 5 and Cut them out. Laminate two with white glue, align and weight down until cured. Now laminate two more.

19. Get some of the parts together required to assemble the fuselage sides. Cut out F1 and LG1 from sheet 10. F2, FT3, and FB1 from sheet 8. FB2 from sheet 12, and TW1 from sheet 1. You will also need the FT1 and FT2 you assembled earlier along with several sticks of 1/4" sq. balsa.

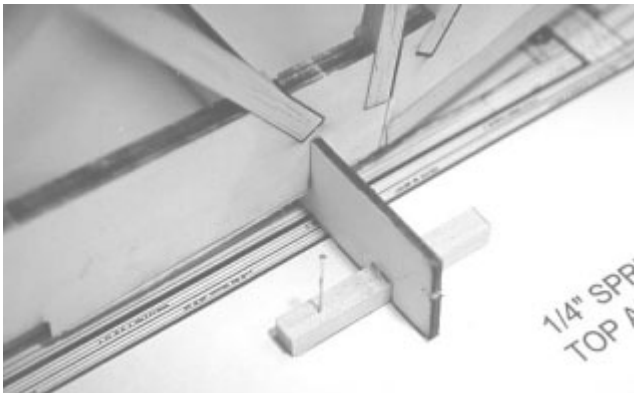


20. Lay down the top view of the fuselage plan on a flat surface. Place the JG1 feet in the location shown on the plans. Pin them in place making sure the centerline on JG1 is

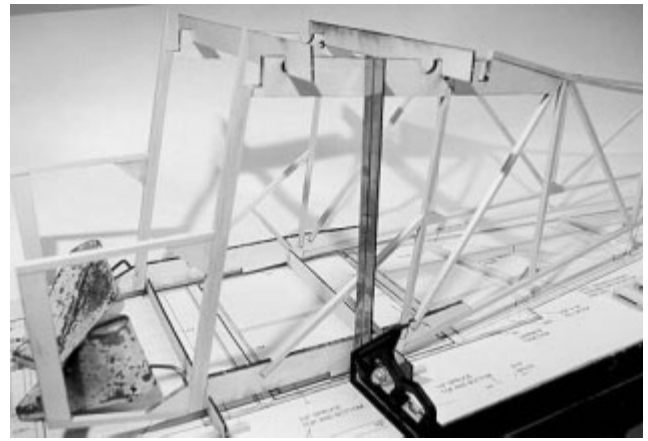
on the centerline drawn on the plan. Cut two sets of rear fuselage cross braces from the top view of the plans and set them aside.



21. Place the small notch on the fuselage side, in FS3, in the notch on JG1. Now do the same with the other side. Place the two JG2 at the top, over FS1, to hold the sides somewhat square. It will be necessary to weight the fuselage sides in front so that they will sit firmly in the two JG1's.



22. Using a square, make sure the sides are perpendicular to the building surface. Now epoxy in FT1 and FT2 assemblies. The FT2 assembly is centrally located in the notches with the ends flush with the straight sides on FS1. . **Note: Do to the fact that 1/8" lit-ply is not 1/8" thick, it will be necessary to face the front side of the front wing joiner box with 1/16" balsa to locate it properly.**



23. Find FB1 and glue a 1/4" sq length of balsa on one edge, trimming it flush on both ends. When cured, glue it in on the centerline of the rear doorjamb and flush with the bottom fuselage longeron.

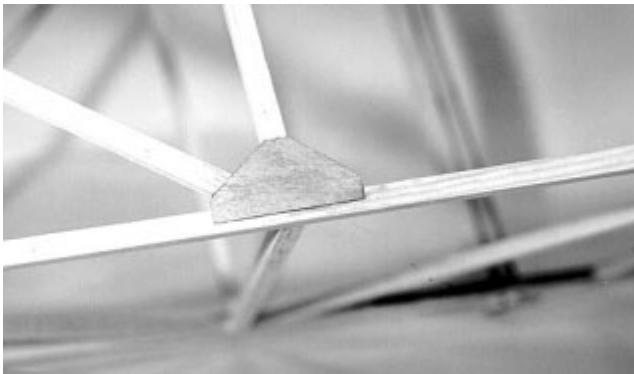
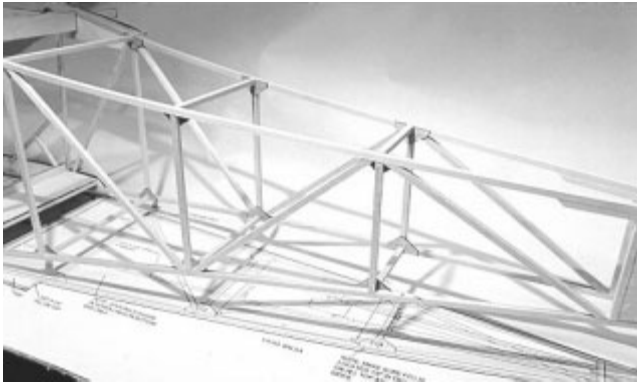
24. Locate FB2 and glue a length of 1/4" balsa on the fore and one on the aft surface, on one side, flush with the edge. When cured glue in flush with the top edge of FS2 and against FB1. The 1/4" sq. pieces are facing down.



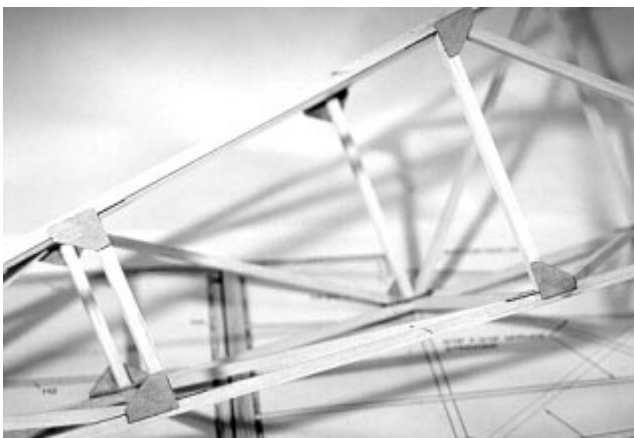
25. Glue in the 1/4" sq. balsa cross brace top and bottom and the diagonal braces on the top side from the TE of the wing aft.

26. Find the FG1 gussets on the laser cut sheet 13 and glue them on each joint as shown on the top view. Note that they are set in from the edge of the longeron 1/8".

When fuselage is fully cured, lift it and turn over to bottom side.



27. Glue in the 1/4" sq. diagonals on the bottom side. Now glue on the FG1's on the bottom side. Note how they are modified around the bottom hatch opening. They can be easily cut with scissors.



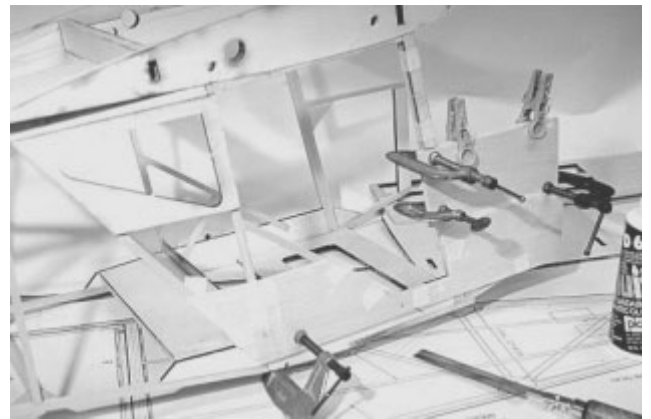
28. Now glue on the laminated R1 to both sides of the fuselage. Use DB1 and DB2 to align them in place. Be careful not to glue

them in. Clamp the R1 to the fuselage until cured.



29. Locate and glue in the WR1's on eachside. They should be flush with the bottom of R1 and against the fuselage side. Sanding to fit may be necessary here because of building tolerances. Now add the 3/32" x 1/4" balsa fill on top at the end.

30. Before sheeting the sides sand the reardoor jamb surface in the same plane as the aft fuselage sides. Use a sanding bar with very little sanding required.



31. Locate FS4, FS5, and FS6 on sheet 9A and cut them out. Also cut out the 2- FS7 window frames on sheet 9. Glue them on the fuselage side where located on the plans.

32. Find two 3/16" x 3" x 30" balsa sheets. Using one cut a length 6-1/2" long. Glue this piece on the upper forward end of the

fuselage. Hold in place with pins or tape. Now cut a 16" length and temporarily pin in place below the first sheet. Mark the door-opening outline on the backside. Draw a line marking the front edge of the rear doorjamb. Now remove the sheet and cut out the door opening. Make a saw cut on the doorjamb line and "crack" it over a sharp edge. Now glue in place.

33. Use the last piece of the sheet to fill in the space below the window frame using the same method as described above.

34. Locate the 3/16" x 3/4" x 24" balsa stick. Cut into two 12" lengths. Glue one on the very bottom to complete the side sheeting. Now sheet the other side as described above.

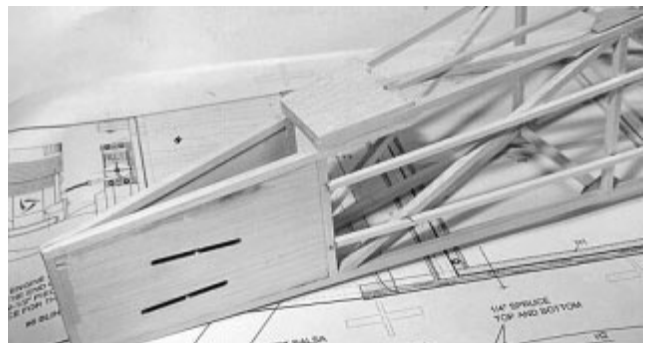
35. Locate the (8) 3/16" x 36" stringers. Install them on the sides first, then the top and bottom last. Locate their position, using a pair of dividers, transferring the location from the plans to the airframe. Inset them into the 3/16" sheet balsa in the cabin area as shown on the plans. At the aft end, butt glue them to the upright allowing half of the stringer to stick up beyond the surface. Notch out the diagonal so the lower stringer can be butt glued the same way. They will be sanded down later on.



36. Locate a 3/16" x 1/2" x 24" balsa stick. Cut 2 lengths 9-3/4" long and glue them on top of the FT1 and FT2 assy. Now sand them to the wing root rib profile.



37. Find FT3 and glue it in place. The top edge is flush with the root wing rib. Now glue on FT4 at the tail. Glue on the top 3/16" sq. stringers. They should run in a straight line between the two fore and aft notches.



38. When both the top stringers are installed, sand a taper from the outer edge of the stringer to the fuselage longeron, on both sides. Now sand a taper from the front edge down to the lower back edge FT4.



39. Now for the bottom stringers. Cut a piece of 1/4" sq. spruce 10" long. Glue it to LG1 5/8" forward of the rear edge. Mark the location of the two stringers on LG1. CA each stringer here first with it aligned properly at the back. Now glue them in place with thick CA. As before they butt glue 3/32" below the surface leaving half the stringer above. One diagonal in the rear will have to be notched some to achieve this.

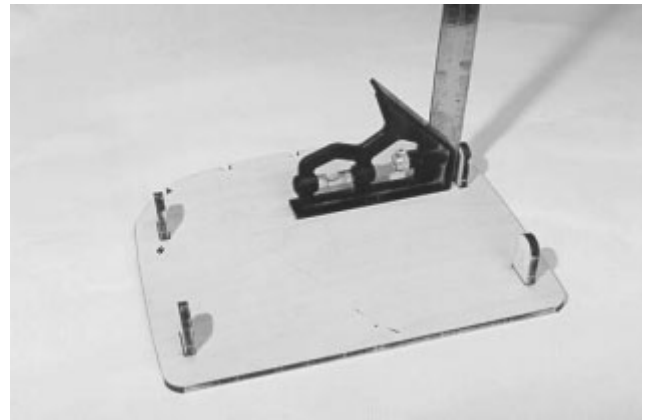
40. With all the stringers installed, sand and taper them down to the surface at the tail.



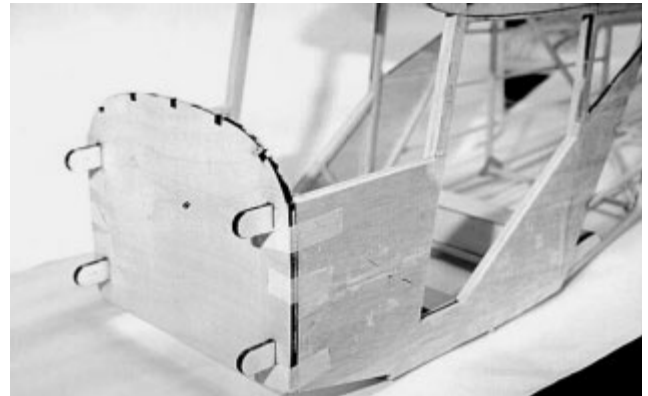
41. Cut out the stringers over the hatch area on the bottom side. Save them for the hatch cover.

42. Before installing F1 square up the fuselage front end with a sanding bar. Also find CW1 and cut out the 4 on sheet 11.

43. Lay down a piece of wax paper about the size of F1 on a flat surface. Scrape the inside of the square hole with a blade to remove the charred wood. Lay F1 on the wax paper and weight down. Epoxy a CW1 in each of the holes. Use a square to make sure of perpendicularity. Note: the blind nuts, retaining the engine mount, can be installed at this time, otherwise install later.



44. Epoxy on F1 and hold it in place with tape. Align it so the small notches at the top are flush with the top rail. The sides should be flush with the maximum curve height on F1.



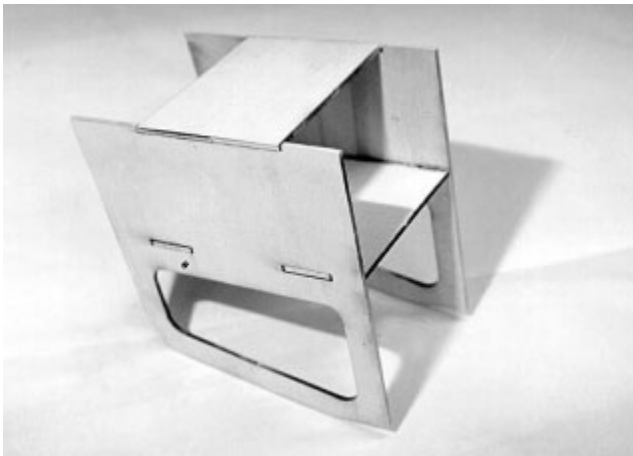
45. Locate the 1/2" tri-stock and cut two

pieces 5-1/2" long. Epoxy them in to brace F1 with the fuselage sides. Make the ends flush with the top longeron.

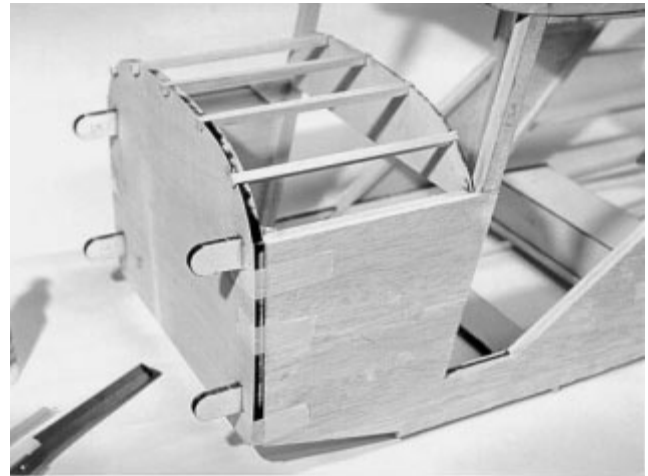
46. Epoxy on the 1/4" sheet balsa front bottom between F1 and LG1. When cured , add the front bottom 1/2" tri-stock bracing and side bracing. Epoxy in the bracing over LG1 on both sides.

47. Before installing the stringers and sheeting the top front, make up the fuel tank support. Locate sheet 12 and cut out FU1, FU2, and FU3. Assemble these parts keeping the side's straight and square. Assemble it completely then install it. Center it between the fuselage sides and glue in place. Glue in small pieces of 3/8" tri-stock at the front edge and bottom edge on each side to help reinforce it.

48. Locate and cut out F2 from sheet 8. Glue in place at the angle shown on the plans.

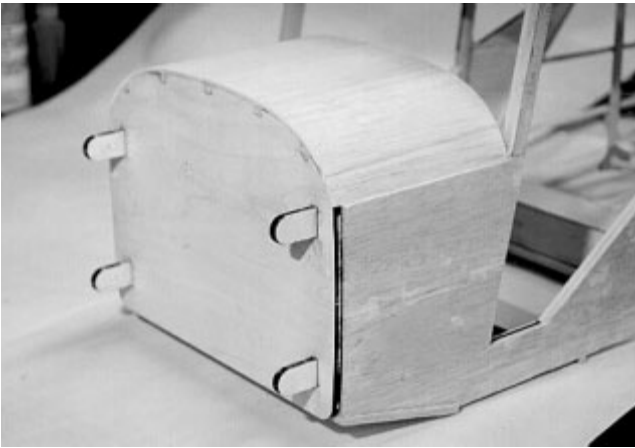


49. Glue on the 1/4" sq. balsa front stringers. Cut them a little long and trim them with a razor saw when cured. Now sand them flush at each end.



50. Locate a 1/8" x 3" x 24" sheet and cut to length four 6" pieces. Using CA edge glue one to the top longeron. Let it cure. Hopefully it is not a hard piece. If so, wet it with ammonia and water to help bend it.

51. Apply thick CA to structure and bend down. Hold until cured. Now do the other side. CA in the rest of the sheeting, trim the ends and sand flush.



52. On sheet 12 cut out the four SR1 and the servo tray. Find and cut the 1/4" x 3/8" x 18" spruce mounting rails in two equal lengths. Locate them as shown on the plans gluing in the four SR1 pieces to support the rails. Lay the servo tray aside until you are ready to mount the servos.

53. Let's build the hatch on the aft bottom fuselage side. Find the 1/4" x 18" balsa sheet and cut it in two. Edge glue the two pieces together making a sheet size of 6" x 9". Cut and fit it to the size of the hatch opening allowing some clearance around the edges.

53. Cut off 4 – 1-1/2" pieces from the 1/4" x

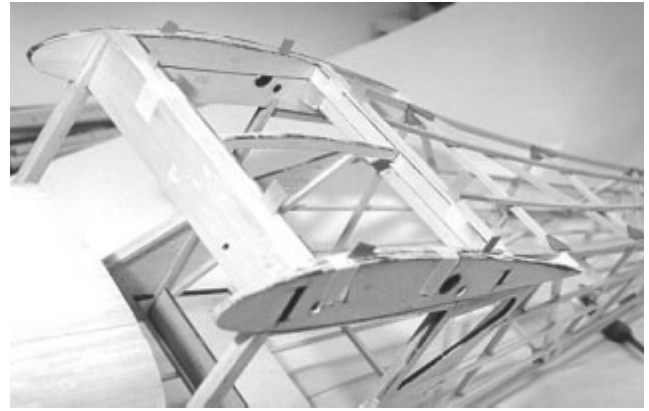
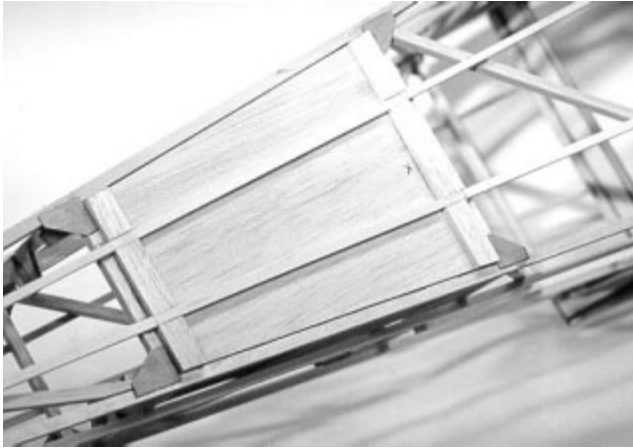
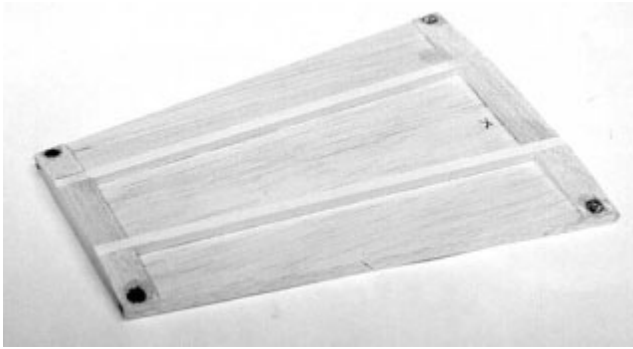
3/8" stock left over from the servo mount rails. Locate and glue them in position shown on the plan.



54. Place the hatch in the opening and glue on the stringers, saved from step 37. Now glue in the 3/16" x 1/2" balsa hatch ends. Before tapering them down, as shown on the plans, drill the 1/4" holes to mount the hard points. Cut 4 pieces of 1/4" dowel 3/8" long and glue the in, flush with the bottom of the hatch. When cured, drill a 3/32" dia. hole through the center of each dowel using a drill press. Well, as close to the center as you can get. Now taper down the top sides as shown in the section on the plan.



55. Although the photo of the finished hatch does not show it, additional pieces of 3/16" x 1/2" balsa must be added to the forward and aft edge of the hatch hole. Taper them on the sides to match the hatch.



56. Cut and fit 3/16" x 1/2" pieces and glue them in between the stringers at the forward and aft edge of the hatch hole. This is not shown in the above photo but note on plans.

BUILDING THE SKYLIGHT

Building the skylight is very much like building the doorframes. You will need to shim the sides with pieces of scrap 1/32" ply on all four sides, and tape them in place. This will give the proper clearance needed.

1. Locate and cut out H1 and H2 on sheet 1 of the laser cut parts. Also cut out H4 and H3 on sheet 12. Scrape the char from the edges to be glued.

2. Place each H1 against the root rib, resting on FS2, shimming it out, and centering it end to end. Tape in place to hold.

3. Cut 1/4" sq. spruce the length of H3 and H4. Glue it to one edge of H3 and likewise to H4. Note: H3 and H4 have been made a little long so you will have to sand the ends to fit them. Glue in, shimming them out 1/32" and tape in place.

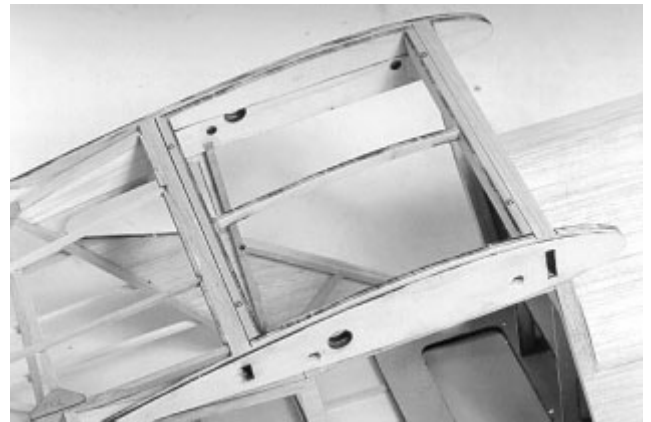
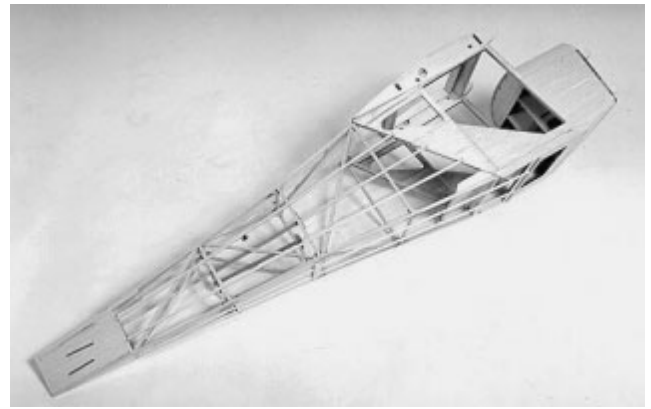
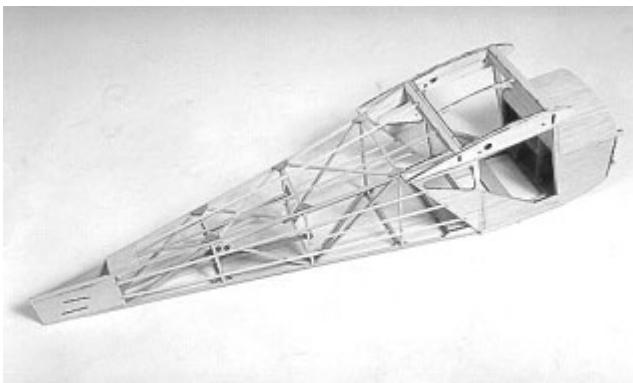
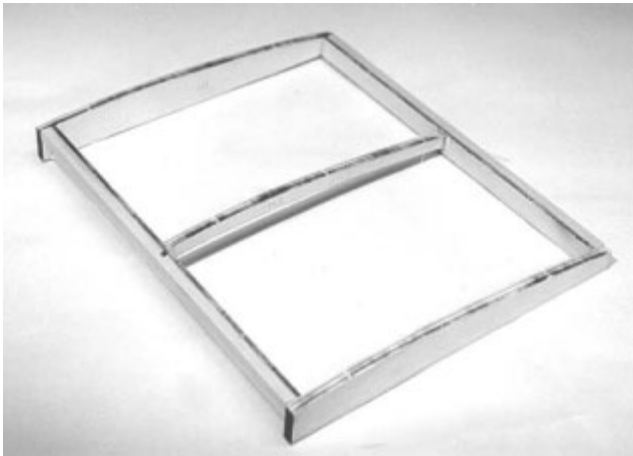
4. Find the center of the hatch and glue in H2. You may have to sand and fit this piece. Keep the top edges flush.

5. Turn the fuselage up-side-down and glue 8" long 1/4" sq. spruce strips in the forward and aft slots of the skylight. Glue them to FT1 and FT2 only, being careful not to glue the skylight in place. Make sure they are down against the top 1/4" rail of the skylight. When the skylight is removed add more glue to the bottom edge of them

6. Cut out the ER1 from sheet 1 and glue

in place on the inside of the forward end of the wing root on both sides.

7. Drill the mounting holes and fasten with 4 -#2 x 9/16" servo mounting screws to hold it in place.



This completes the fuselage. See special sanding notes for more information.

SPECIAL SANDING NOTES

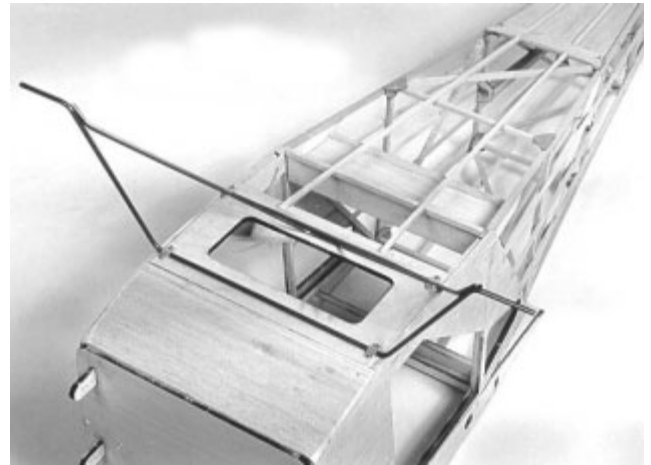
There are places on the fuselage that need explanation about how to sand and form. Below is a summary of how to do it. Sand the front side sheeting to conform to F1. The sides are slightly curved at the front then blend in to the flat.

1. On the fuselage side where the stringers meet the rear landing gear strut strip. Taper this area from the stringer to the fuselage side, on both sides. Make it blend in with the flat surface. Likewise at the top.
2. The aft end of the 3/16" fuselage sheeting is tapered from the stringer to the edge of the fuselage side, both top and bottom. Blend in taper to flat side.
3. The side and bottom stringers at the back of the fuselage should be sanded in a gentle curve and flush with the tail sheeting.
4. Sand FT3 as follows. Extend a line along the outside edge of each stringer. Sand a taper from that line to the fuselage side, both sides. Now taper it from the forward edge of FT3 to the back edge.
5. Sand the edge of FG1, that's set back 1/8" from the edge, at a shallow angle so as not to interfere with the covering. An angle less than the taper from the top of the stringer to the fuselage side. This is done on both top and bottom sides of the fuselage.
6. Sand the whole fuselage rounding off the longeron corners. Use 220 paper and final sand with 400 for a super smooth airframe to cover.

ASSEMBLING THE LANDING GEAR

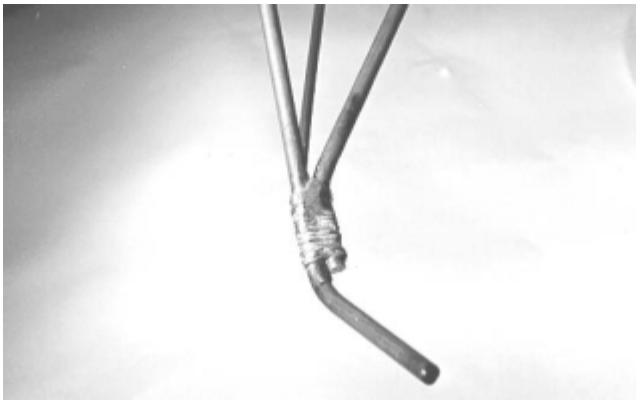
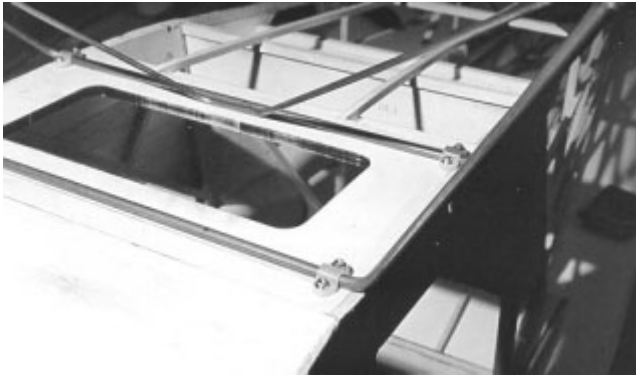
Soldering the landing gear struts is much easier if you mount them on the fuselage before hand. It also gives you the freedom to position them.

1. Locate the landing gear struts and clean the ends to be soldered. Sand them with a fine sand paper to make sure they are clean.
2. Before mounting the rear strut against the stop, sand a taper on the stop from the stringer to the fuselage side, on both sides. Now draw a line, parallel to the stop, 4-7/16" from it. The front edge of the front strut will be in line with this mark when mounted.
3. Mount the rear strut against the stop and hold it in place with two Du-Bro 3/16" Landing Gear Straps, mount them 1/2" from the side on center. Use #2 x 7/16" servo mounting screws to anchor them in place. Likewise mount the front strut with the front edge on the mark.



4. Locate the 1/8" wire strut and align it in place. Tape one end to the other two struts to hold it in place. Now align and wrap the other end and two struts with 22 ga copper wire and solder. Use Stay Brite flux and solder for best results. A torch is required to heat the parts in this application. Now

remove the tape and do the other strut. Clean off the flux with a brush and water.



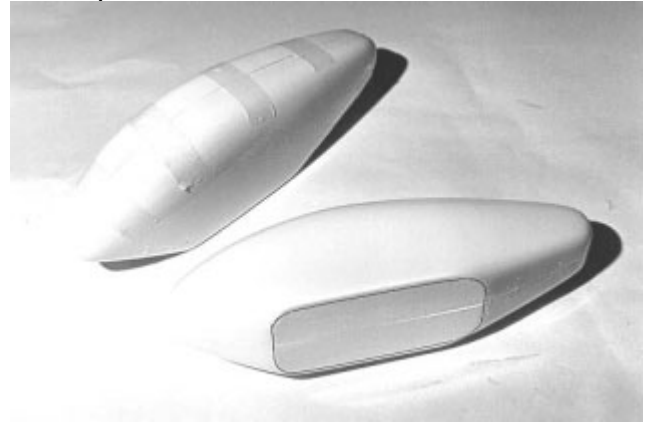
5. Cut out LG2 and LG3 on sheet 9B and edge glue them together. They will only fit one way. Now epoxy this piece in between the landing gear struts. This may take some fitting due to building tolerance. Now do the other side. Using 5 min. epoxy is fine for this task. The landing gear is now complete and ready for painting.

WHEEL PANT ASSEMBLY

1. Find the wheel pant halves and pair them up. **You will need a RH and LH pant so don't screw up.**

2. Block sand the mating edges of each half and remove the flashing. Mate the halves and tape them to hold while aligning the seam. Now thin CA the seam where the

tape isn't applied. Remove the tape and CA those places.



3. Mark the wheel opening on the bottom of the pant with a felt tip pen. Leave a 1/8" flange on each side making the length 4-1/2" allowing 1/4" on each side of the wheel. Round the corners to suit.

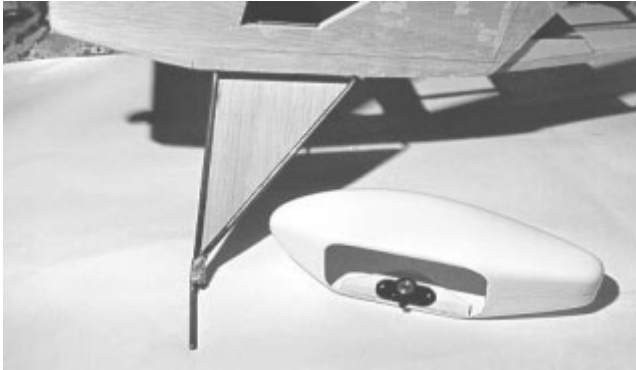
4. Cut out WP1 on sheet 8. Round off the bottom edge of each to fit inside radii on the pant. Find the center of the opening and thick CA WP1 in against the flange centering it.



5. Remove the plastic to expose the holes in WP1 using a #11 blade. Now mount a Sig Wheel Pant Mount, SH-720, using the screws supplied with it.

6. Here are a couple of things you can do to make your wheel pants last longer and look better: Reinforce the seam on the inside with 2oz fiberglass cloth using pvc cement to glue it in place. Use Bondo Body

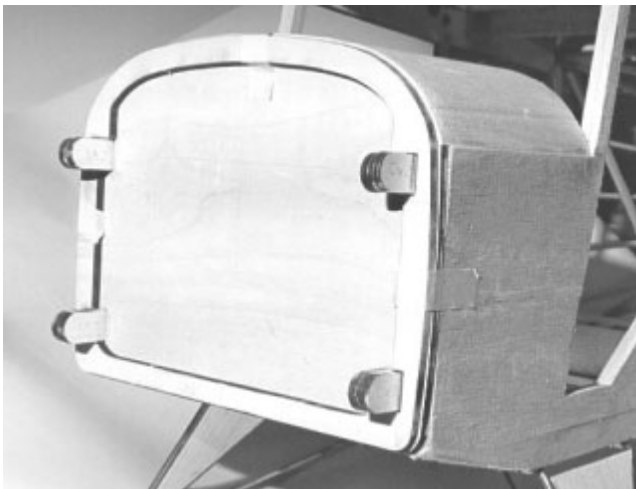
Filler on the outside seam to fill and blend in the miss alignment where necessary and , of course, the seam itself.



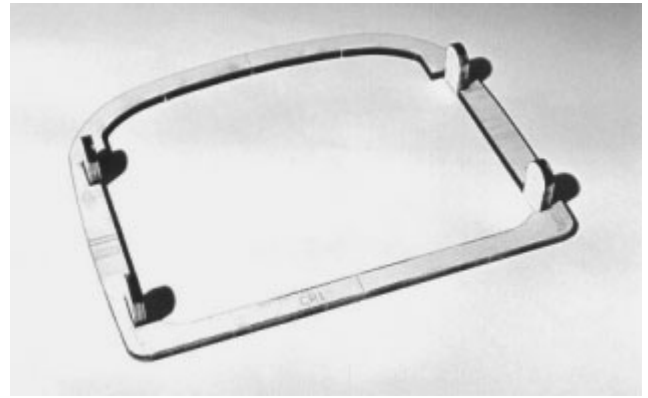
7. The pants are now ready for painting. Sand them with 220 paper ending up with 320. Apply primer and paint with any of the popular model paints available on the market. Stick with the same brand primer and paint to stay out of trouble.

BUILDING THE COWL

1. Locate the upper and lower cowl halves, the CR1 and CW2's on sheet 11 and CW3 on sheet 8.



2. Clean up the edges of CR1 and slide it over the CW1's mounted on F1. Now align it with the centerline, side to side, and tape it in place.

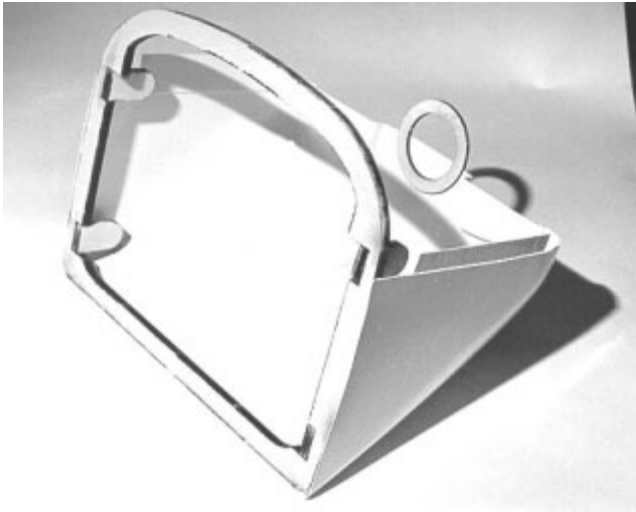
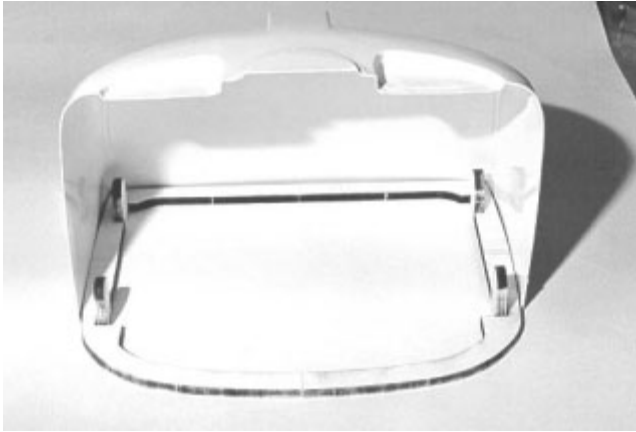


3. Glue in the four CW2 pieces with epoxy being careful not to glue them to the adjacent part.

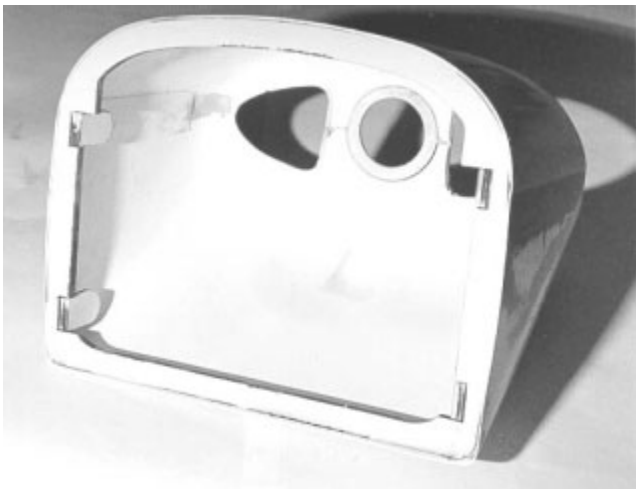


4. Cut off both cowl halves to 6-3/8". Placing a cowl half on the floor with the spinner end against the door is a way of doing it.. Align it so that it is square and tape it in place to hold it. Now measure from the door and mark several places. Construct a line through these points. Cut off the excess to this line. Do the upper piece the same way.

5. Sand a taper on the bottom edge of CR1 assembly to match the cowl. Lay it on a flat surface and tack glue, with thick CA, the lower cowl half in place. Weight it down if necessary. Locate CW3 and glue it in the spinner well at the front.. Using the excess plastic make up to pieces 1" x 4". Glue these on the sides as joiners to tie in the upper half. Leave 1/2" overlap.



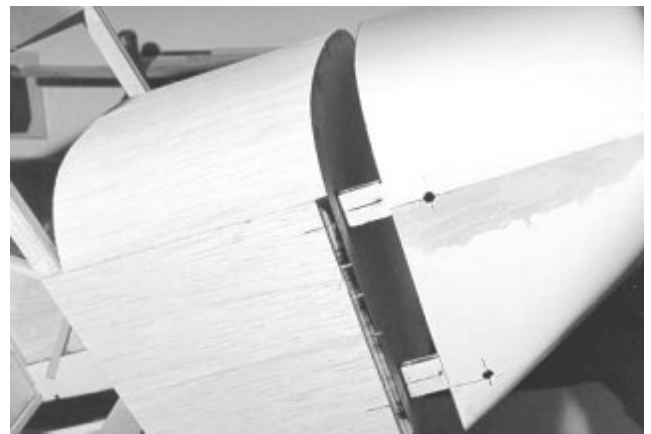
6. Now lay the upper half in place and trial fit the length of the sides. Use tape to temporarily hold it while checking. It may be necessary to trim them for a good fit. When satisfied, glue on the top cowl half.



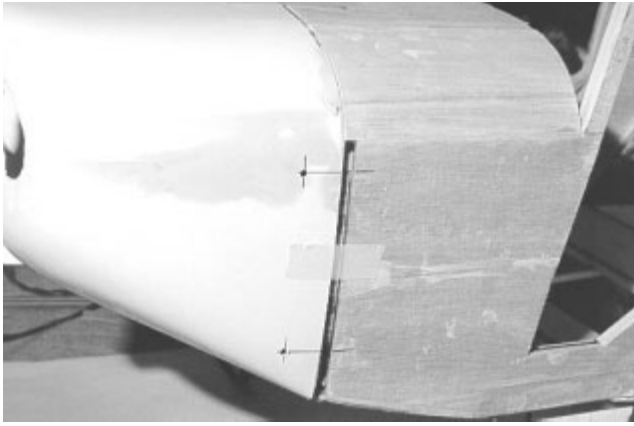
7. Mix up some Bondo and fill the seams all the way around. When cured, sand and blend in. Do not paint until engine is mounted. Access holes for the glow plug, needle valve, muffler exhaust and mounting bolts are required.



8. Make a scribed line midpoint on the cowl hold down block. Transfer this line to the fuselage sides. Install the cowl and tape it in place. Transfer these lines to the cowl. Make a mark 7/8" from the back edge of the cowl along each line. This will be the center of each mounting hole.



9. Using a #28 bit, drill all four holes completely through. Make sure the drill is square to the surface and **drill carefully**. Now remove the cowl.



10. Drill out the four holes with a 3/16" bit and install a 6-32 blind nut in each hole. Apply glue to each.

11. Drill out the holes in the plastic cowl with a 1/4" bit. Be careful here **and don't let the bit go all the way through**. Lay the cowl aside until engine is installed.

BUILDING THE WING STRUTS

1. Locate the four pieces of basswood strut material, 3/8" x 1/2" and 3/8" x 3/4". Also the strut metal parts, ST1, ST2, ST3, ST4 and ST5.

2. Mount the ST1's on either side of the fuselage up against the rear strut. Before doing so measure a brake line 1" from the rounded end on each. Place in a vise and bend to a 30 degree angle.

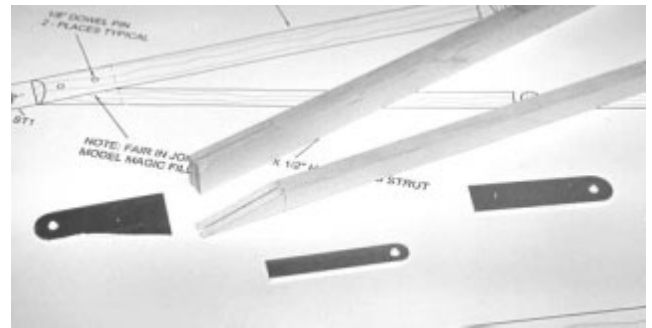


3. Place the fitting on the fuselage and

match drill the two holes with a #28 bit. Drill out the holes to install 6-32 blind nuts in each hole and glue them in place. With the fitting in place install a 6-32 x 1/2" cap screw with washer and lock washer in each hole.

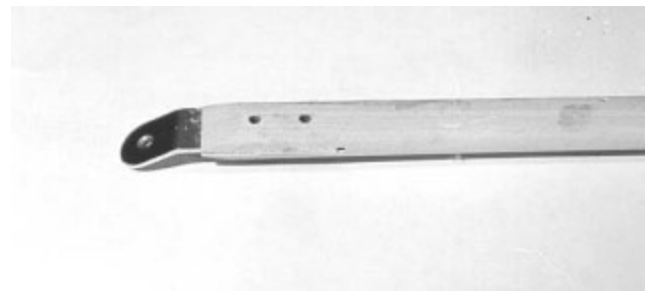
4. Before shaping the struts, lay them on the plan (either short wing or long wing) and cut them to the length as drawn.

5. Using a band saw slot each end, of each strut, on the centerline. Make the slot 1-3/4" in length and wide enough to fit the metal fitting keeping it on the center.



6. Draw a line indicating the centerline on both sides of each strut. Plane and shape the strut configuration. The centerline will help guide you. A good rounding on each side will be ok.

7. Locate strut fittings ST2, ST3, and ST4. The fittings ST3 and ST4 must be bent to a 30-degree angle. Measure back 5/8" from the rounded end and scribe a line. Place in a vise and bend to 30 degrees. Now do the rest of them.

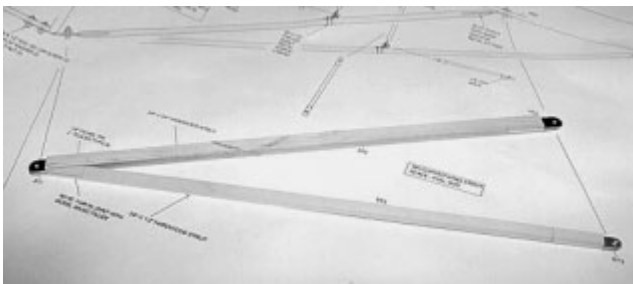


8. Roughen the sides of each fitting that slide into the slots of the struts. Now mount them on the wing and on the fuselage fitting. Mount the wing on the fuselage using DB1 and DB2. Use 1/4-20 x 1" nylon bolts to retain the wing against the fuselage to maintain the correct dihedral.



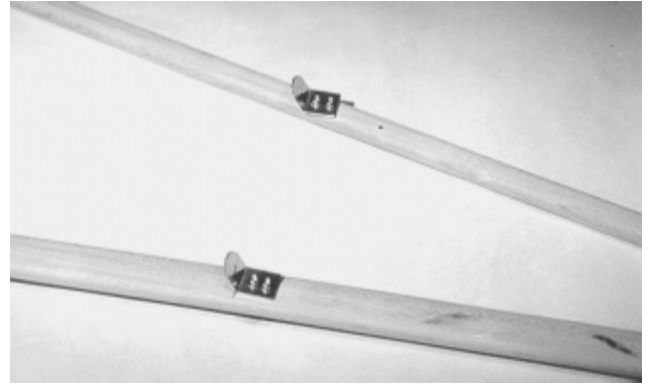
9. Spread a thin coat of 5 min. epoxy on the sides of the fittings and install, position and align the struts in place. The slots in the struts have intentionally been made long to allow for building tolerance. Fill the voids on the slot end with epoxy.

10. Before removing the strut, mark the position, on each strut, where the jury strut fitting will be located. Locate it straight down from the fitting in the wing, on both struts. Locate the ST5 sheet metal parts. Bend at 5/8" from the end with hole at 60 degrees. Mount them on the struts with #2 x 1/2" sheet metal screws.



11. The jury struts are made from 3/16" dia.

aluminum tubing, not supplied. It is best not to take the lengths off the plans but instead build them with the main strut installed. Typically a strut is made by measuring the overall distance required. Flatten the ends in a vise and drill a 1/8" dia hole in each end. By measuring the actual requirements, the struts will fit more accurate thereby eliminating building tolerance. Use the hardware indicated on the plan.

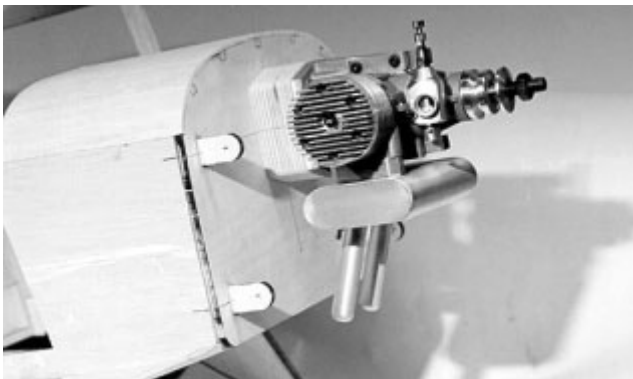
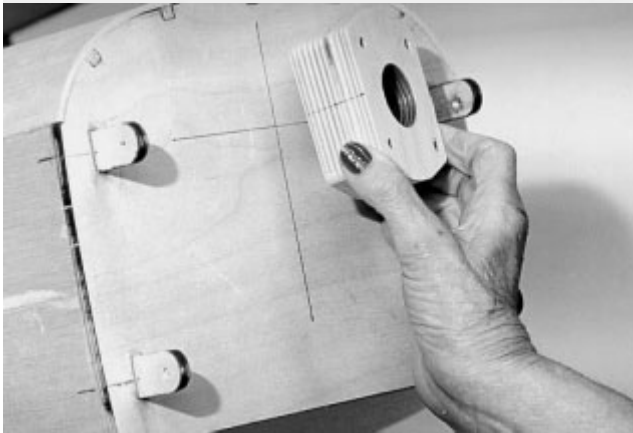


MOUNTING THE ENGINE

We have shown the AviaStar 1.20 on the plans. You may choose to install your

preference of power in which case the spacer, spacing the engine out from F1, may be of a different length. We have shown what is required to install the AviaStar, a quality built engine with good reliability.

1. Space the engine out 1-1/4" from F1. This can be done with pieces of plywood (not included) the shape of the mount or you can use standoff's.

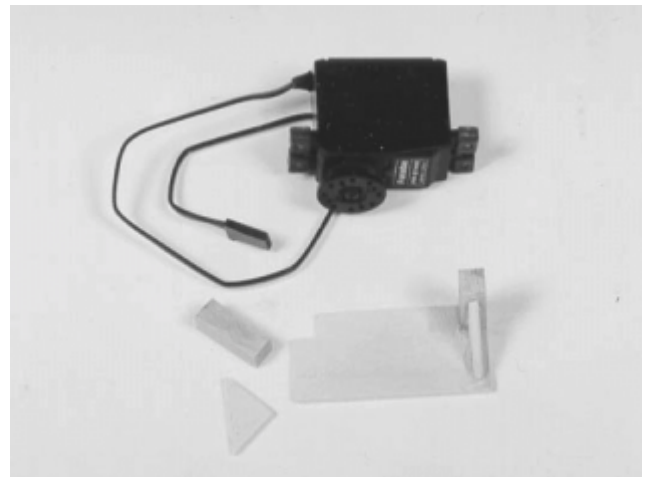


2. Match drill the engine mount holes in F1 making sure it is centered on the

centerlines. Install 10-32 blind nuts on the far side. Mount the engine mount with four 10-32 x 2" soc. hd. cap screws. Shim the engine mount with washers to center the crankshaft in the cowl. This will give you the right amount of side thrust required.

INSTALLING THE THROTTLE SERVO

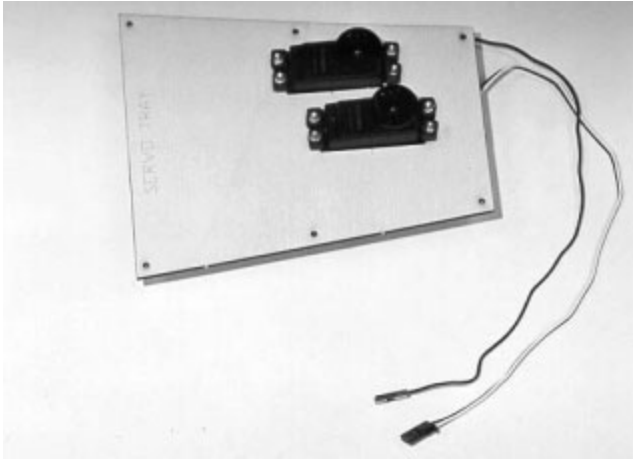
1. First it will be necessary to construct a simple servo mount. Locate the laser cut pieces, on sheet 8, and the 5/16" sq. stick. Lay down a small piece of wax paper on a flat surface. Mix up some 5-min epoxy. Glue the beams into the notches making sure they are square. Now glue in a gusset under each beam.



2. Mount the servo using 2-56 servo mounting screws. Place the servo mount in position, align, and hold in place with double



sticky Carpet Tape. Once the location is determined, glue it in place. Hook up the throttle arm and the servo output wheel with linkage shown on the plan.



3. Mount the elevator and rudder servo on the servo mounting tray, laser cut sheet 12. Backup the mounting screw location with small pieces of scrap 1/8" lite-ply on the back side. Mount the servos with #2 x 7/16" servo mounting screws. Build and hook up the linkage with hardware as shown on the plans.

MISC. INFORMATION

Do not fit and install the windshield and side windows until the airframe is covered. Do not glue on the stab, elevator, fin and rudder until they are covered. Then remove the covering where it comes in contact with the gluing surface.

It is a good idea to install all the hardware before covering. Then remove it and cover the airframe. Then reinstall it again. This way everything is located without having to work on a finished model. It is a simple matter of re-assembly; you have already been there.

Tail bracing can be made with metal landing gear straps, 2-56 pushrods, and clevises.

However, we recommend the Sullivan Tail Bracing kit, S546. It has excellent hardware and is much lighter when installed. And, you have your choice of Kevlar or steel cable for the struts

Note: the stab leading edge has been set to a positive position on purpose. This is to zero the wing incidence thereby making the airplane less power/trim sensitive.

All metal strut fittings will have to be rounded off on the end for better appearance.

WINDSHIELD AND SIDE WINDOWS

1. Locate the windshield and trim off the excess plastic along the mold line. Place in on the model and tape in place. With a felt tip pen mark the overlapping places, sides and top. Now trim off and check it again. When ready to glue in place, after covering, use Pacer Formula 560 Canopy Glue. Use tape to hold it while the glue is curing.

2. Rough trim out the side windows from the plastic sheet. Now carefully trim and leave a 1/8" flange all the way around. Slightly round off the inside edge of the window frame. Install the window from the inside applying glue to the flange.

3. Sand and paint the skylight. Glue on the clear plastic sheet supplied and trim off flush all the way around. Re-drill the hold down holes.

4. Fit the doors and install the two hinges. Note that the slot for the hinge is near the outer surface edge end angled inward about 15 degrees. After the door is covered, install the window and glue in the hinges with Zap Hinge Glue. Install the door in the fuselage after the fuselage is covered. For door latching see the plans.

COVERING AND FINISHING

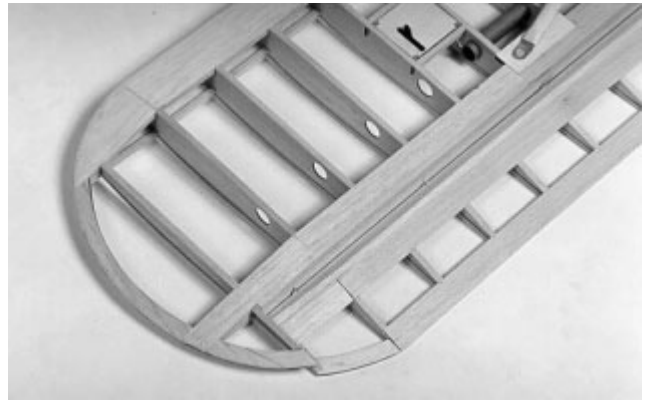
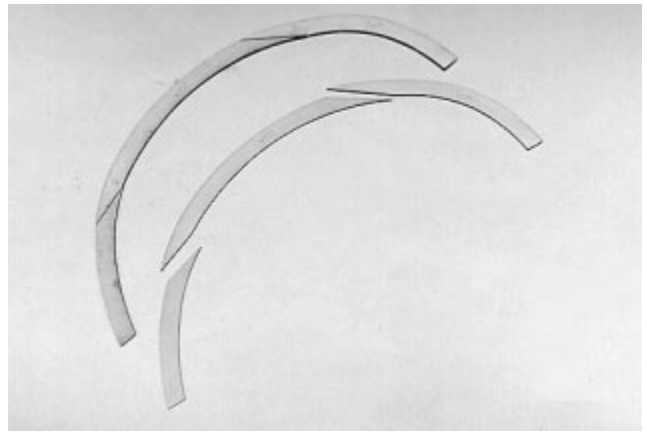
We recommend covering the model with a film covering such as UltraCote. The color choice is yours. A good way to cover it is with one color, for example white. Then order the color graphics from Model Graphics. This will save you from dreaming up a trim scheme and you are sure to end up with a good-looking model.

Paint the landing gear, cowl, wheel pants and struts with any of the model paints on the market. eg. Ultrapaint., Lustercote, etc. Always stick with the same brand primer, paint, and thinner to stay out of trouble.

BUILDING THE LONG WINGS

The long wing is built exactly the same as the short wing except for the tip. Read through those instructions so that you will be better informed on the building procedure. The only difference is in the tip, aileron, and a few more added ribs. The materials to build these wings are in this kit. However, you must make the choice to build only one of the two sets.

1. Locate WT1, WT2, WT3 on sheet 5. Laminate each of the parts with white glue. Now starting with WT1 mate with WT2 and finally WT3 to form a bow. WT1 is the forward end. Place a weight on them to keep them flat.



2. Glue the bow to the end rib centering it at the front and back end. The forward end will overhand the leading edge and will have to be trimmed off flush with the end of the rib. Prop the tip up 1-3/8" at the center so that the upper rear spar carries straight through. Cut and glue in the other spars in accordance with the sections shown on the plans.



3. Find sheet 6 and cut out R7 and R7A.

Glue these in where shown on the plan noting the top marked on each.



4. After the wing has been sheeted, glue WT4 and WT5, sheet 7, on both sides of the tip to fill in between the sheeting.

Follow the plan carefully and refer to the short wing instructions when needed.

PRE-FLIGHT NOTES

Before the first flight, and to ensure some longevity in your Taylorcraft, you will do well to check out a few things before heading to the flying field.

1. Balance the Taylorcraft at the indicated CG point shown on the plans with the fuel tank empty. Depending on your type of flying you may want to adjust it. It is shown at 25% of the wing chord. When properly balanced the nose should tip down slightly at the CG.

2. Check the control surface travels. We have given you a starting point however, they need to be fine tuned to meet your flying needs.

3. Run the engine and check the idle. Have it ready so you don't encounter a power failure at the most inopportune time.

4. Turn on the radio with the engine running to make sure there are no intermittent glitches. Give it a good range check.

5. Check all hardware to be sure it is secure. There is nothing worse than losing an airplane on the first flight because of a loose nut or clevis.

Hopefully by now you are ready. You will be thrilled with your first flight and that it will be most successful. From now on - Happy Fly'in an good luck!

Although I have not covered every infinite aspect of building I assume the builder of this kit will have the experience necessary to complete it with no difficulty. The building techniques required in this kit are traditional with building a light airframe. An experienced builder will encounter no difficulty with the instructions and plans and should find it easy build however; more building time will be required. I hope you enjoy building and flying the Lanier Taylorcraft. A set of floats would set it off just great!

Jerry Smith

MATERIAL SUPPLIED WITH KIT

1. Plans, 4 sheets
2. ABS Cowl, upper and lower half
3. Windshield
4. Side windows
5. Skylight, .020 clear plastic, 9" x 10"
6. ABS wheel pant, RH and LH pairs
7. Prebent landing gear, front strut, rear strut, inner strut
8. Laser cut sheets, 1, 2, 2A, 3, 4, 5, 6, 7 8, 9, 9A, 9B, 11, 12, 13

WOOD MATERIAL LIST FOR TAYLORCRAFT**WING**

3/16" X 3/4" X 48	(2)	Wing LE
1/8" x 1/2" x 48"	(2)	Wing sub-leading edge
1/4" x 1/4" x 48 Spruce	(8)	Wing spars
3/32" x 3" x 48"	(4)	Wing leading edge sheeting
3/32" x 1" x 48"	(6)	Wing trailing edge
3/32" x 1" x 30"	(4)	Wing trailing edge
3/32" x 3" x 36"	(4)	Wing center section sheeting
1/2" x 1-3/4" x 24"	(2)	Aileron leading edge
1/4" x 1-3/8" x 24"	(2)	Wing trailing edge (ahead of aileron)
3/32" x 1/4" x 36"	(18)	Wing rib capping
1/2" x 2-1/2" x 16"	(2)	Wing tip for short wing
1/4" x 1/4" x 6"	(1)	Servo mount
3/8" x 3/4" x 36" Spruce	(2)	Wing strut
3/8" x 1/2" x 36" Spruce	(2)	Wing strut
3/8" Tri-stock x 6"	(1)	Wing strut reinforcement
3/32" x 3 x 42"	(2)	Wing spar webbing

TAIL

1/4" x 1/2" x 36"	(2)	Stab TE and elevator LE
1/4" x 1/4" x 36" Spruce	(3)	Stab TE backup and perimeter of stab and elevator
1/4" x 1/4" x 36"	(3)	Ribs and diagonal bracing in stab and elevator
1/4" x 1/4" x 24" Spruce	(1)	Fin and rudder
1/4" x 1/2" x 36"	(1)	Fin TE and rudder LE
1/4" x 1/4" x 24"	(1)	Fin and rudder ribs and diagonal bracing

FUSELAGE

1/4" x 1/4" x 36"	(9)	Fuselage bracing
1/4" x 1/4" x 48" Spruce	(3)	Lower fuselage longeron and skylight
1/4" x 1/4" x 36" Spruce	(2)	Upper fuselage longeron
1/4" x 1/4" x 48" Spruce	(1)	Front fuselage door post
3/16" x 3/16" x 30" Spruce	(7)	Fuselage stringers top and sides
3/16" x 3/16" x 36" Spruce	(2)	Fuselage bottom stringers
3/16" x 3/16" x 48" Spruce	(1)	Skylight cross members
1/4" x 1/4" x 36"	(1)	Fuselage front top stringers under sheeting
1/8" x 3 x 24"	(1)	Fuselage front top sheeting

1/4" x 1/2" x 42"	(2)	Door frame
3/16" x 3" x 30"	(2)	Fuselage front sheeting
3/16" x 3/4" x 24"	(1)	Bottom side sheeting filler
1/4" x 4" x 12"	(1)	Fuselage front bottom sheeting
1/4" x 1/4" x 36" spruce	(1)	Fuselage front longerons and upper longeron ext.
3/16" x 3" x 30"	(1)	Door sheeting
3/16" x 1/2" x 48"	(1)	Fill strip on top of FT1, FT2, and fuselage hatch end fill
1/2" x 48" tri-stock	(1)	Fuselage bracing
1/4" x 3/8" x 30" spruce	(1)	Servo mounting board rails
3/8" x 24" tri-stock	(1)	Fuel tank support bracing
1/4" x 3 x 18" sheet	(1)	Rear fuselage hatch
1/4" x 3" hardwood dowel	(1)	Hard points on hatch cover
5/16" x 5/16" x 3" spruce	(1)	Throttle servo mount

Note: all material not specified is Balsa

Notes:

HARDWARE REQUIRED TO COMPLETE THE TAYLORCRAFT

Engine mounting:

1. 10-32 x 2" soc. hd. cap screw (4)
2. 10-32 blind nut (4)
3. # 10 lock nut (4)
4. #10 flat washer (4)

Landing gear mounting

1. 3/16" Landing gear straps (5) Du-Bro
2. #2 x 9/16" servo mounting screws (10) Micro Fasteners
3. Wheel pants mounts (2) Sig #SH-720
4. 4" wheels (pair) Sullivan
5. 3/16" wheel collar (2) Du-Bro

Wing

1. Servo arm (2) Du-Bro super strength, 1"
2. 4-40 clevis with keeper (4) Sullivan (aileron linkage)
3. 4-40 x 4" pushrod threaded both ends (2) Sullivan (aileron linkage)
4. 5/16" control horn (2) Robart ball link (aileron linkage)
5. 1/4-20 x 1" nylon bolt (4) (wing fastener)
6. 1/4 x 20 blind nut (4) Du-Bro (wing fastener)
7. 8-32 blind nut (4) Du-Bro (strut fastener)
8. Robart Super Hinge (8) (aileron)
9. #4 hex nut (4) (aileron linkage)
10. #2 x 9/16" (8) servo mounting screws, (Micro Fasteners)

Tail

1. Hinge (9) Du-Bro #117 (elevator and rudder)
2. Control horn Lh and RH Sullivan S-557 (elevators)
3. Control horn (1) Sullivan S-556 (LH) (rudder)
4. Clevis with keeper (5) Sullivan S-526 (elevator and rudder linkage)
5. # 4 hex nut (3) (elevator and rudder linkage)
6. 4-40 threaded rod (assorted) Sullivan S-494 (elevator and rudder linkage)
7. Tail Wheel Bracket, Sullivan S-861
8. Tail wheel, 1-1/4", Sullivan S-353
9. 3/32" wheel collar, Bu-Bro #138
10. Tail Bracing Kit, Sullivan S-546

Fuselage

1. #6-32 blind nut (4) Du-Bro #136 (strut fitting)
2. #6 x 1/2" soc hd. screw (4) (strut fitting)
3. #6 lock washer (4) (strut fitting)
4. #6 flat washer (4) (strut fitting)

Wing Strut

1. 8-32 x 3/8" soc. hd. screw (6)
2. #8 flat washer (4)
3. #8 lock washer (4)
4. 8-32 self locking nut (2)

16 oz fuel tank, Sullivan S-443 or Du-Bro # 416

Manufacturers list

Du-bro

P.O. Box 815, 480 W. Bonner Rd.
Wauconda, IL 60084
1-800-848-9411, e-mail rc@dubro.com

Sullivan Products

1 North Haven St.
Baltimore, MD
410-732-3500, e-mail
sales@sullivanproducts.com

Maxx Products

815 Oakwood Rd, Unit D
Lake Zurich, IL 60047
1-800-416-6299

Model Graphics

121 Cove Rd.
Hemphill, TX 75948
409-787-2875

Micro Fasteners

110 B Hillcrest Rd.
Flemington, NJ 08822
1-800-892-6917 e-mail www.microfasteners.com

Lanier R/C

Fiberglass cowl and wheel pants

1/4 Taylorcraft

WARNING! THIS IS NOT A TOY!

**THIS IS NOT A BEGINNERS
AIRPLANE**

This R/C kit and the model you will build from it is not a toy! It is capable of serious bodily harm and property damage. It is your responsibility, and yours alone - to build this kit correctly, properly install all R/C. components and flying gear (engine, tank, radio, pushrods, etc. and to test the model and fly it only with experienced, competent help, using common sense and in accordance with all safety standards as set forth in the Academy of Model Aeronautics Safety Code. It is suggested that you join the AMA and become properly insured before attempting to fly this model. If you are just starting R/C modeling, consult your local hobby dealer or write to the Academy of Model Aeronautics to find an experienced instructor in your area.

Write to : Academy of Model Aeronautics,
5151 Memorial Dr, Muncie, IN 47302

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