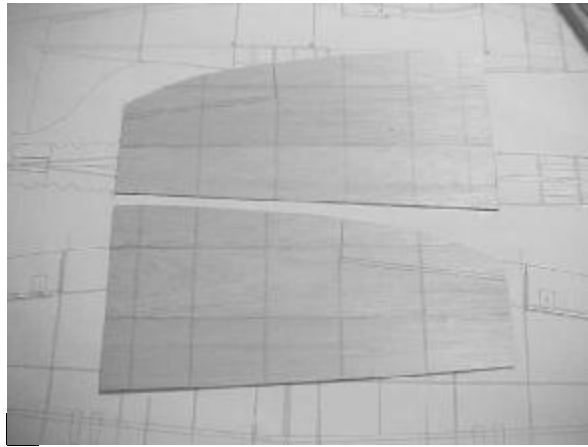


# Fairey Firefly FR.Mk.4

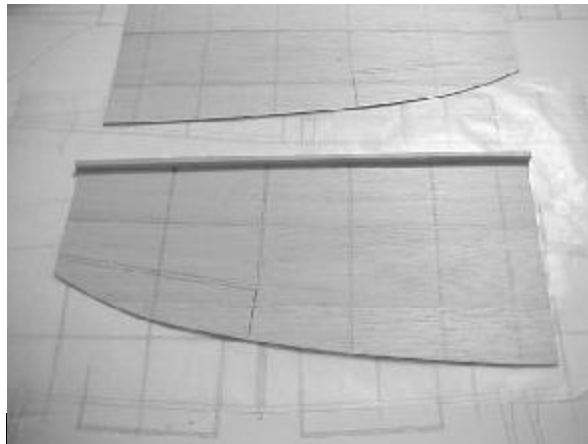


Designed by David Collins

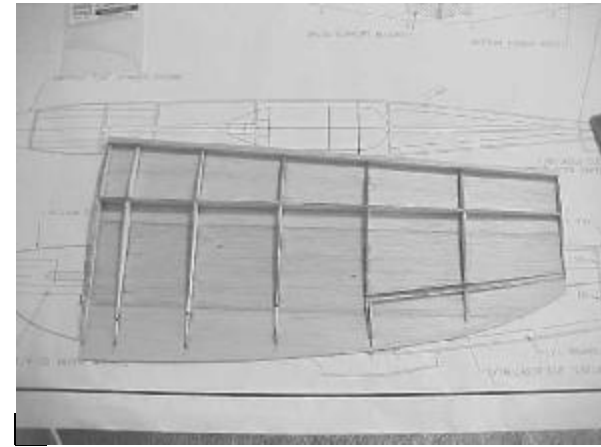
## WARBIRDKITS.COM



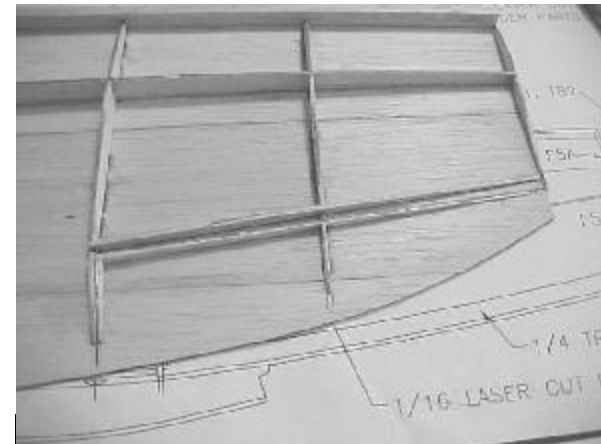
1. Glue the bottom laser cut wing skins together. Then make duplicates from 1/16 sheet balsa, to be the top skins. Make the top skins about 1/8<sup>th</sup> inch wider (chord-wise).



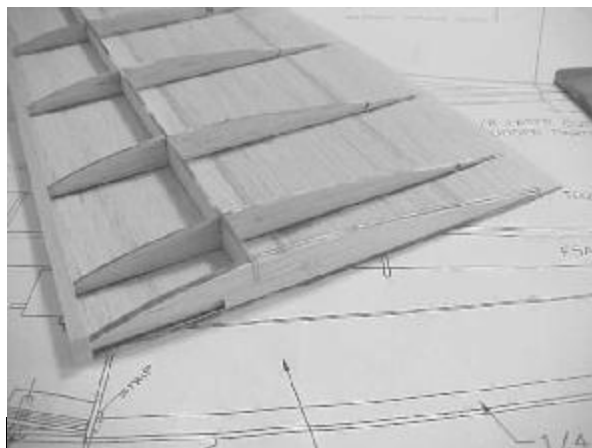
2. Pin down a 3/16 x 3/8 strip. Butt the bottom wing sheet up against this strip and glue.



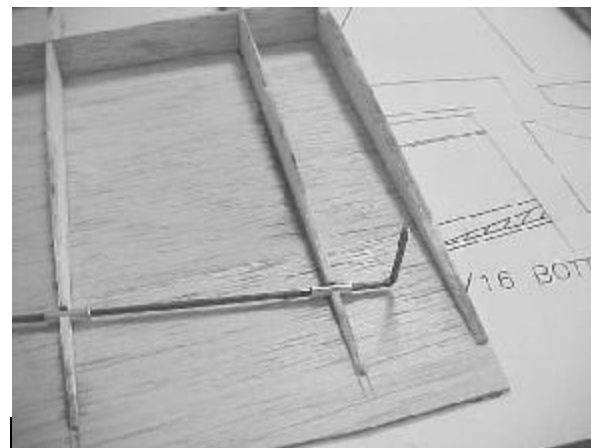
3. Glue the wing ribs W3 thru W8 and W9 spar to the lower wing skin. Do not glue W1 or W2 in place yet.



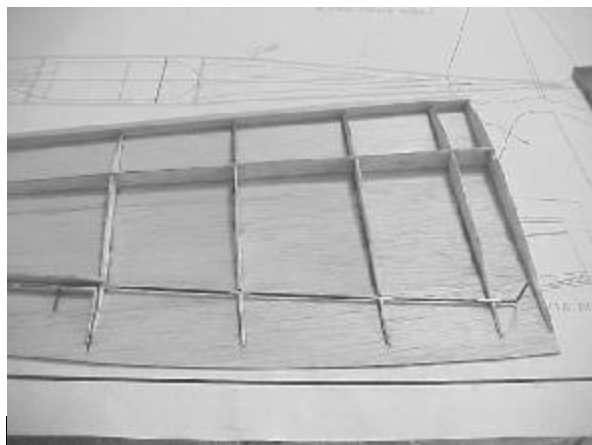
4. Glue W11 and W12 in place, leaving a 1/8" gap between them.



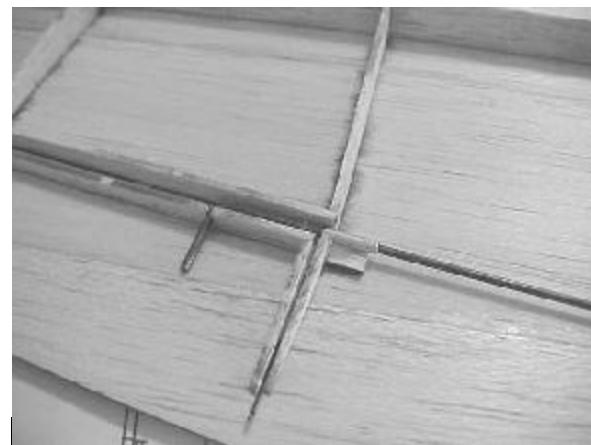
5. Glue W1 and W2 in place, note how the spar end is beveled for the dihedral. Sand the tops of the ribs and spar. Taper the sheeting at the trailing edge to 1/32"



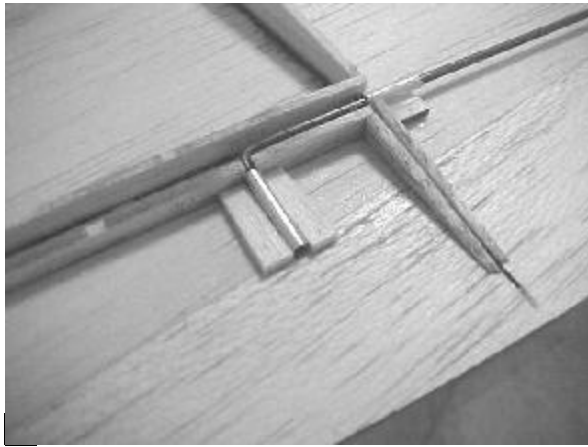
7. Glue the torque rods in place.



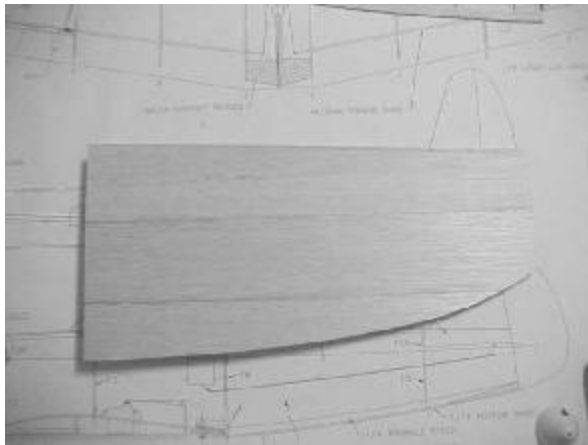
6. Bend a right and left torque rod from 1/16 wire, make sure to slip 4 pieces of 1/2" long aluminum tubing on the wire before bending.



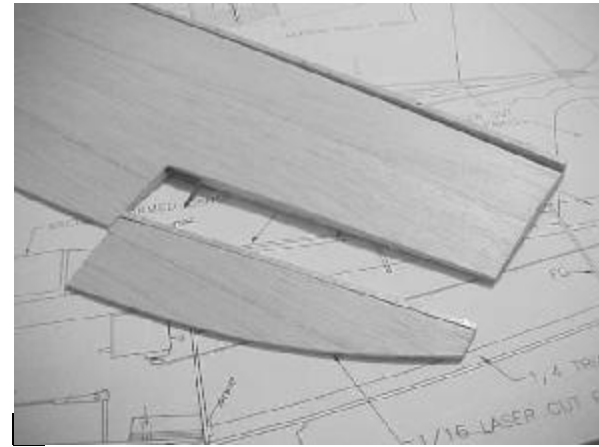
8. Glue a scrap of balsa on the inside corner at the aileron rib as shown – this helps support the torque rod.



9. Slip a piece of alum. Tube 3/8" long on the wire in the aileron. Glue the tube in place and glue scrap balsa to each side.



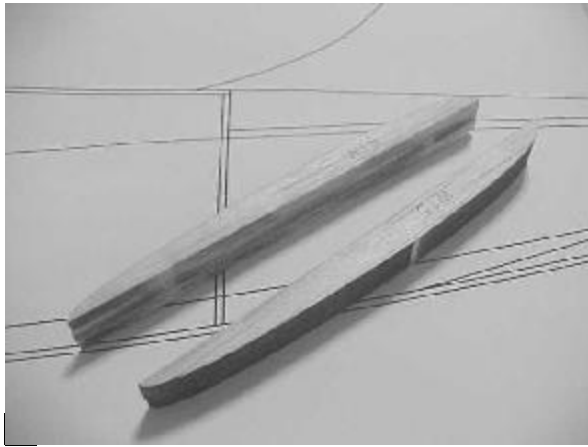
10. Sheet the top of the wing with the pre-made skin. Pin the leading edge and root rib to the building board and slip the washout strips under the wing as shown on the plan. The method I use is thin C/A the sheet to the leading edge, white glue on all the ribs and spar, thick C/A at the trailing edge.



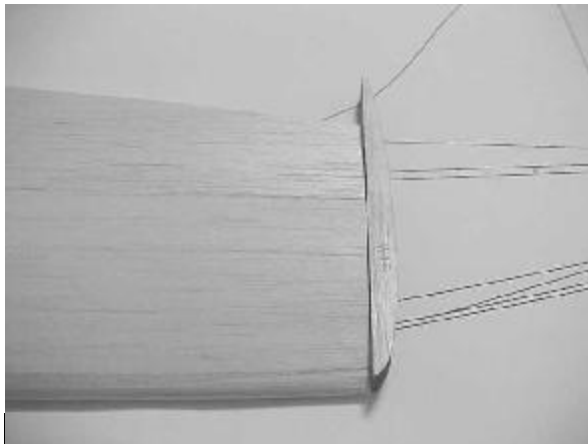
11. Cut the aileron free using the laser cut lines from the bottom side of the wing.



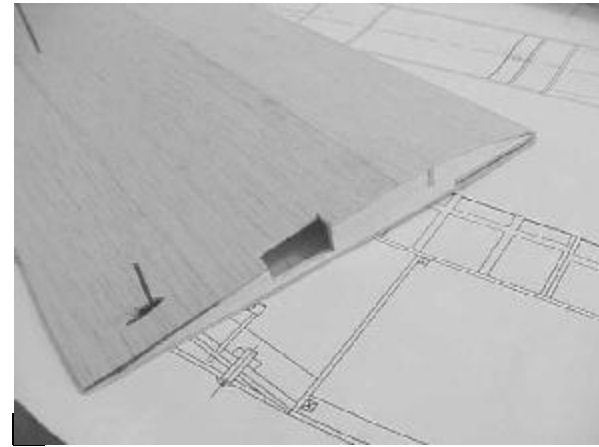
12. Cap the front edge of the aileron with 1/8" balsa and notch for the torque rod. Bevel the front edge and temporarily hinge the aileron to the wing. Repeat steps 1 thru 12 for the other wing.



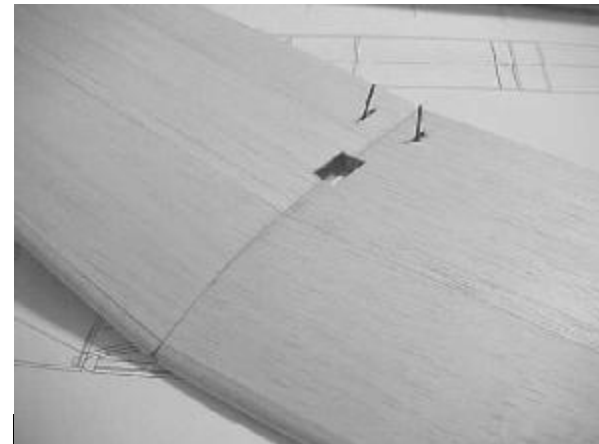
13. Glue the wingtip pieces W15 together to make two wingtips.



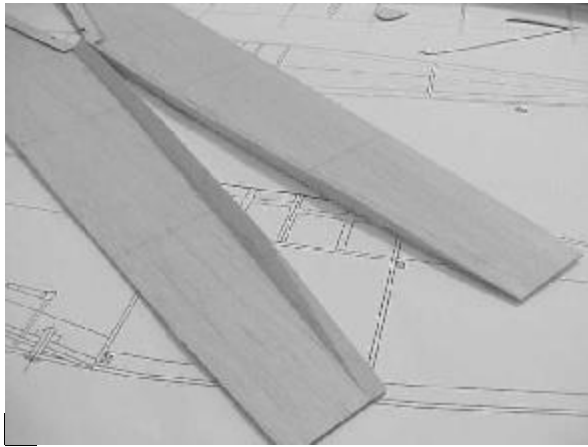
14. Glue the wingtips in place and sand to shape.



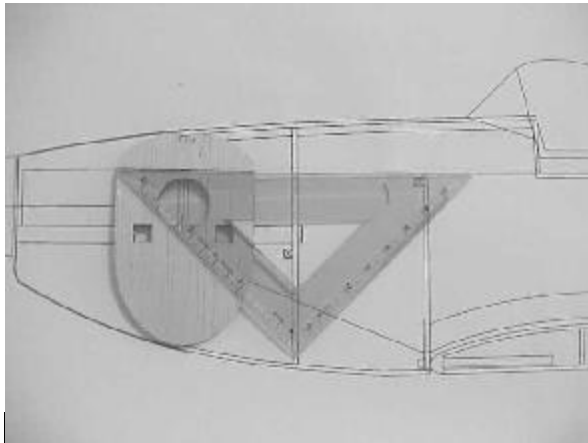
15. Make a cutout for the aileron servo and notch the leading edge for the wing dowel.



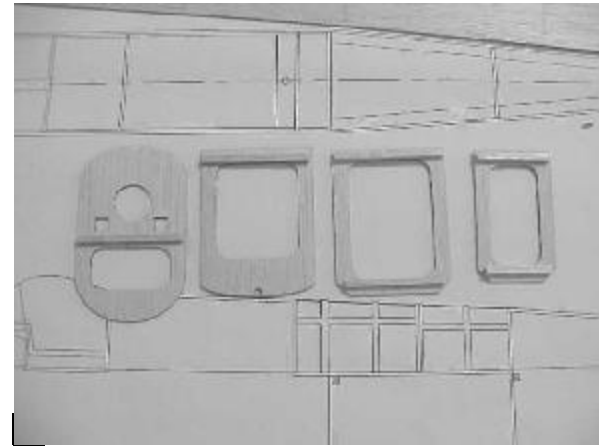
16. Glue the wing panels together and run a strip of 1/2" wide fiberglass tape around the joint. The wing dihedral is set by the pre-cut wing spars.



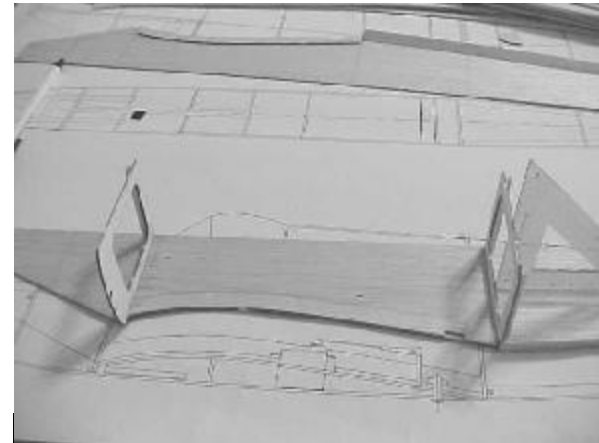
17. Begin the fuselage by gluing the wing saddle doubler F10 in place. Glue 1/4" balsa triangle from F10 to the tail on the bottom edge. Bevel the triangle at the tail as shown on the plan. Make a right side and a left side!



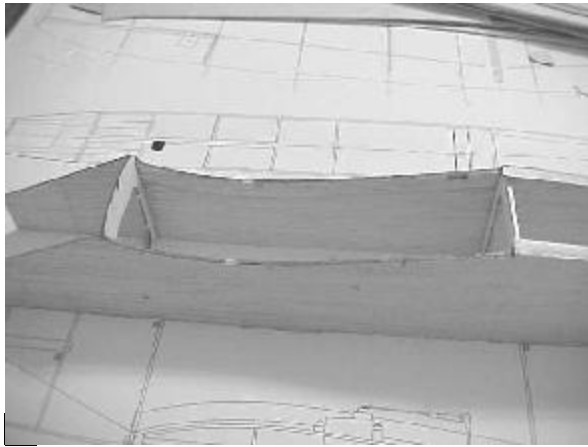
18. Glue the two F1s together. Mark F1 and F2 where the top edge of the fuselage side meets, using the plan as a guide as shown.



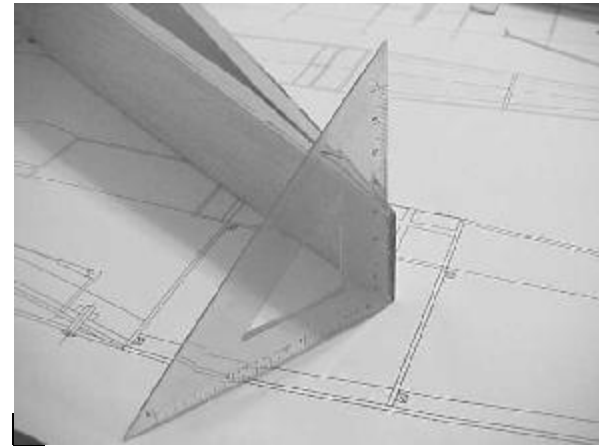
19. Glue the 1/8" square strips to F2, F3, F7, and F8 as shown. Study the plan for the correct locations of the strips.



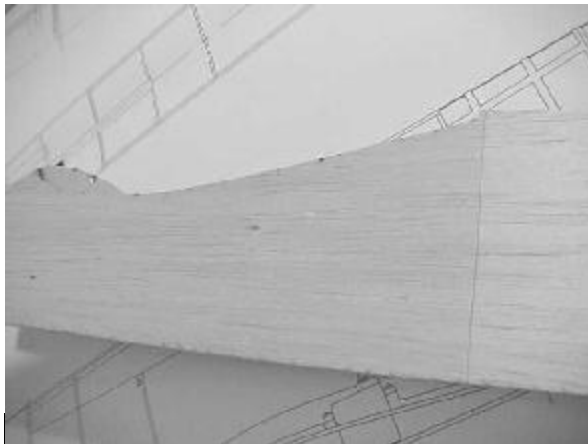
20. Glue F3 and F7 in place – use a square to set them in place.



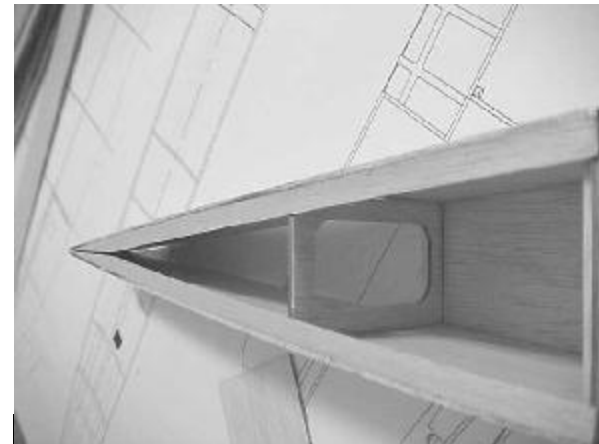
21. With the fuselage upside down on a flat surface glue the other fuselage side in place.



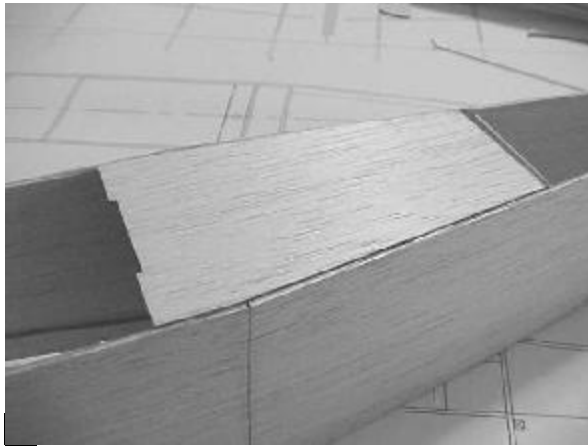
23. Pull the tail end together and glue, use the square again here. Glue scrap balsa to the inside of the scored lines to reinforce them.



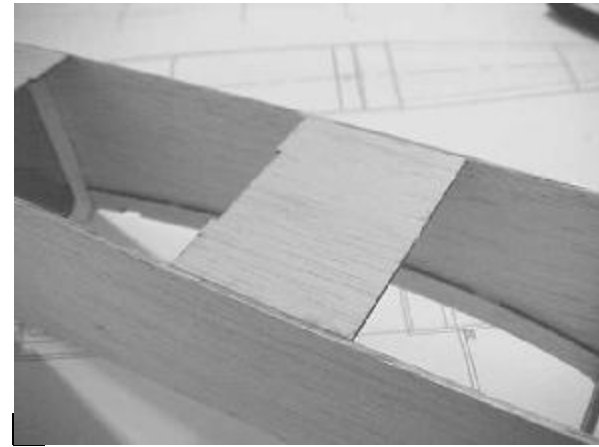
22. Score the fuselage sides in line with the aft edge of F7 so you can pull the tail end together.



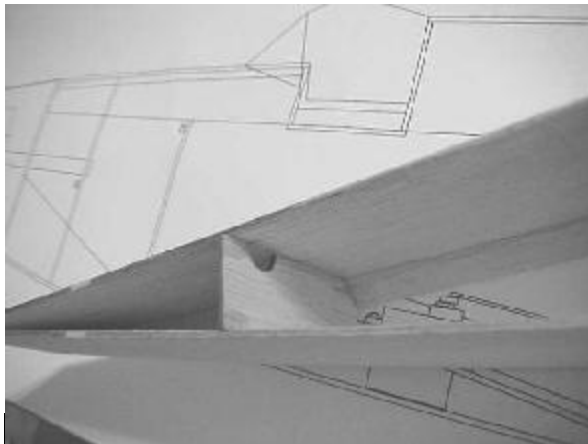
24. Glue F8 in place.



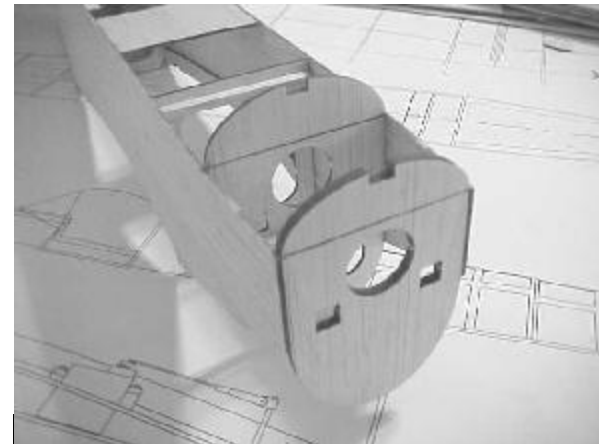
25. Glue F12 in place flush with the top edge of the fuselage side..



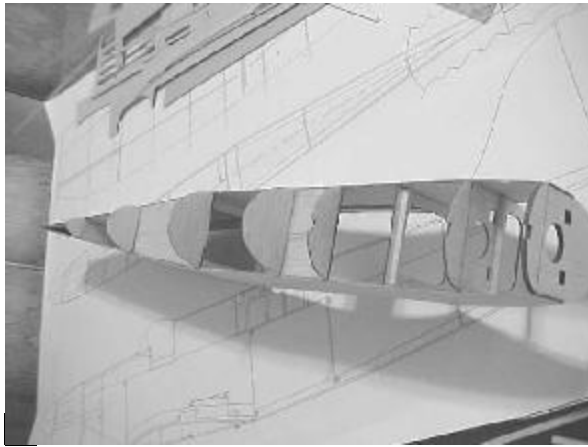
27. Mark the position of F11 using the plan and glue in place. Note the notch faces the rear.



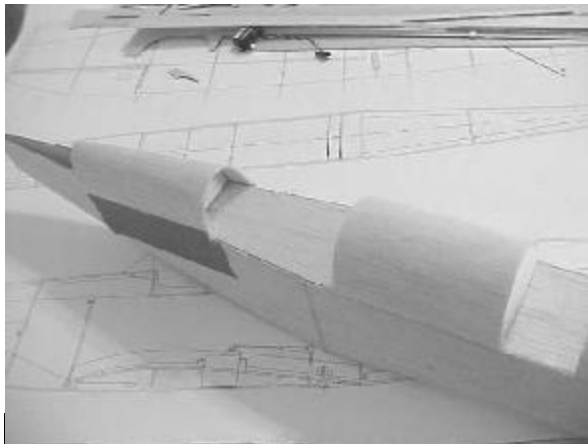
26. Glue F9 in place, make sure the notch is against the left side.



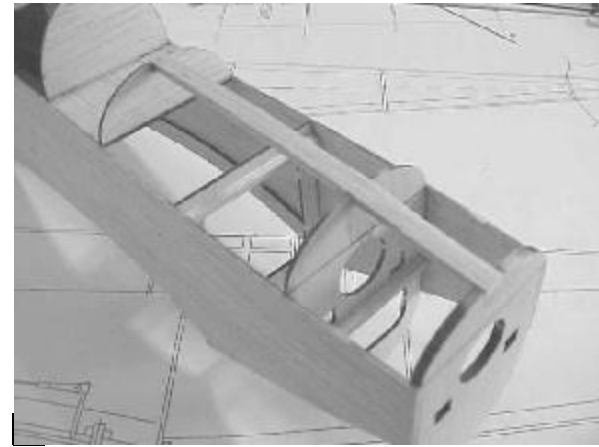
28. Glue F1 and F2 in place lining up the marks you made with the top edge of the fuselage sides.



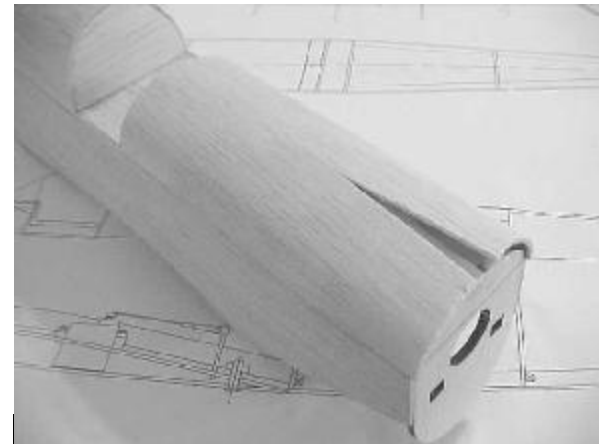
29. Glue F4, F5, F6, F8A, and F9A in place.



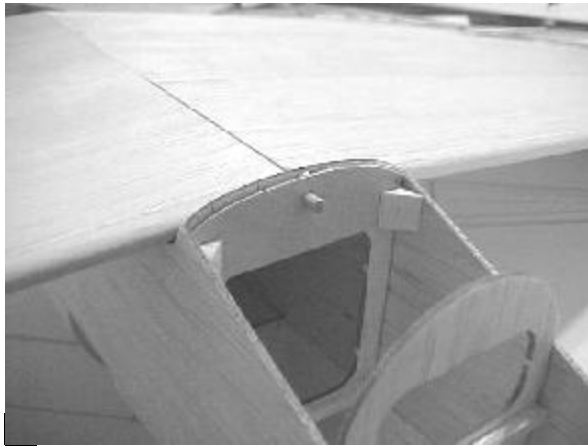
30. Sheet between F5, F6, and F8A, F9A with 1/16 balsa.



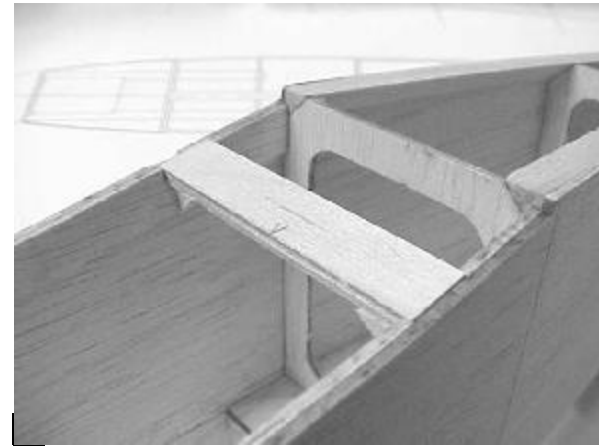
31. Glue a 1/8 x 1/4 balsa stick between F1 and F4, when dry sand the top of the stick to match the formers.



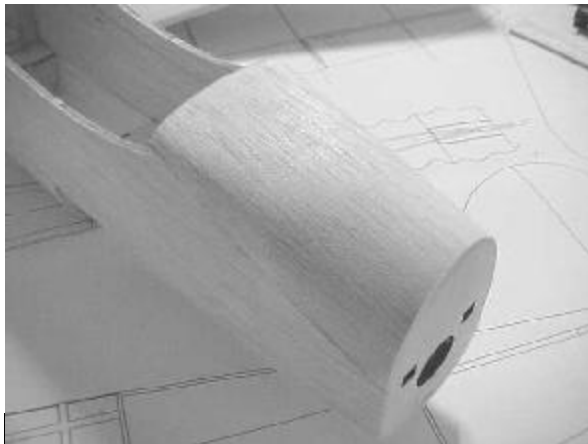
32. Sheet from F1 to F4 with 1/16 sheet, note you will have to cut a "V" notch from F1 to F2 to handle the compound curve.



33. Put the wing in place and glue the 1/32 ply plate F14 in place. Then add some scrap triangle to the corners. You can slide the ply plate up or down to get the wing to fit the saddle correctly.



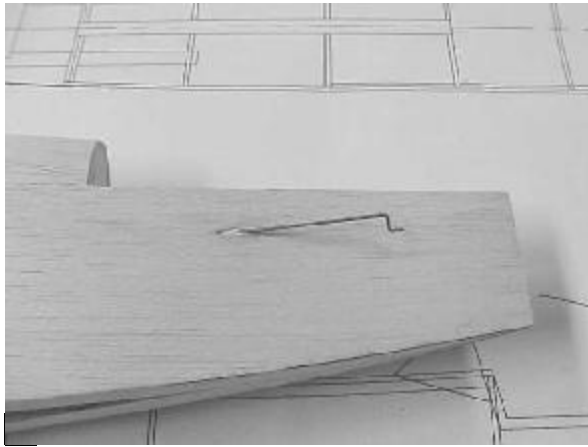
35. Glue the 1/8 x 3/8 ply plate into the notches of F10. Then glue scrap triangle reinforcements to the inside corners.



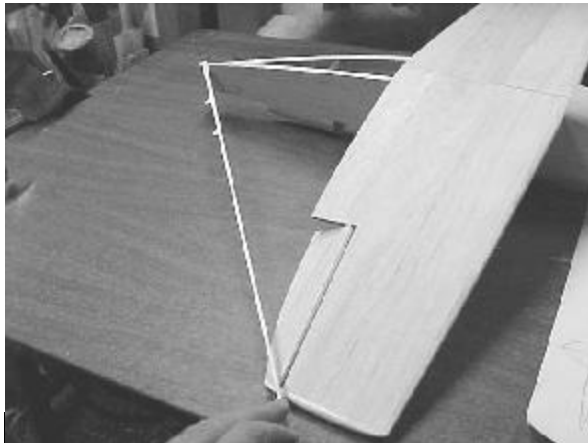
34. Now sheet the bottom ahead of the wing with 1/16 balsa.



36. Install the elevator pushrod.



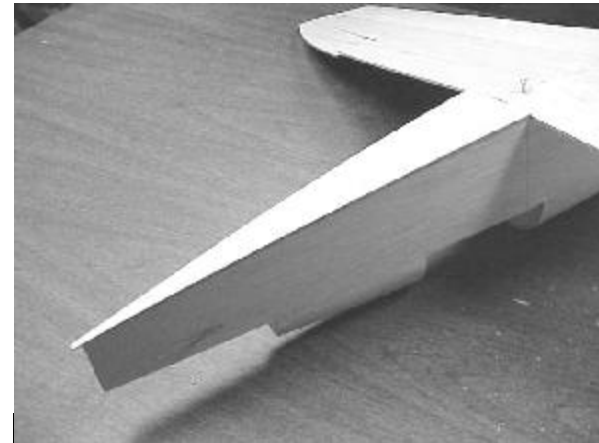
37. Make a "Z" bend at the elevator horn end.



38. Put the wing in place and check the distance from the tail to each wing tip is the same.



39. Measure forward from the trailing edge  $1/4$ " and drill a  $3/32$ " diameter hole thru the wing and ply plate. Bolt the wing in place with a #4-40 screw and blind nut.



40. Sheet the bottom of the fuselage with  $1/16$  balsa.



41. Put plastic wrap between the wing and fuselage then glue the wing fillet to the fuselage. Remove the wing and shape the fillet.



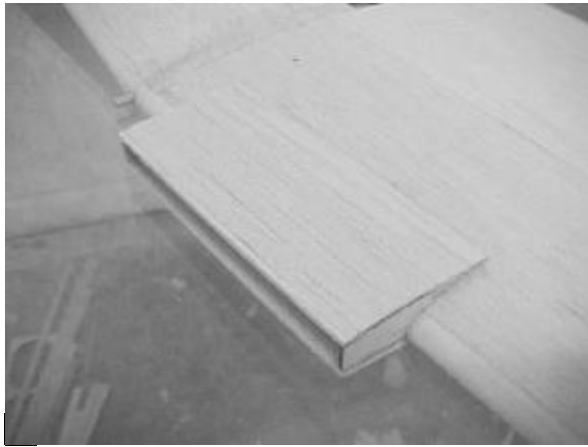
42. Bolt the wing back on and block up the model, put a 1/16 spacer at the leading edge as shown.



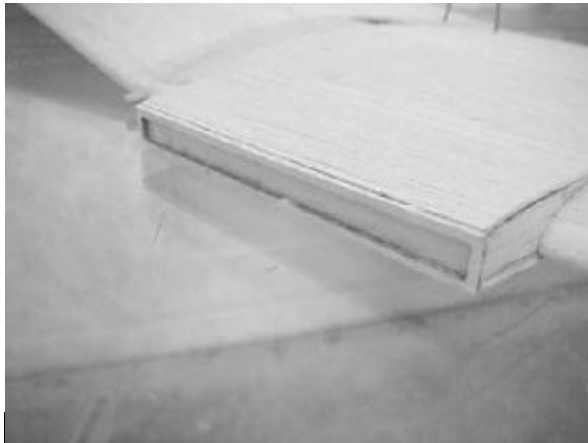
43. Glue a W10 to each side to the wing only up against the fuselage. Leave a little room for the covering thickness.



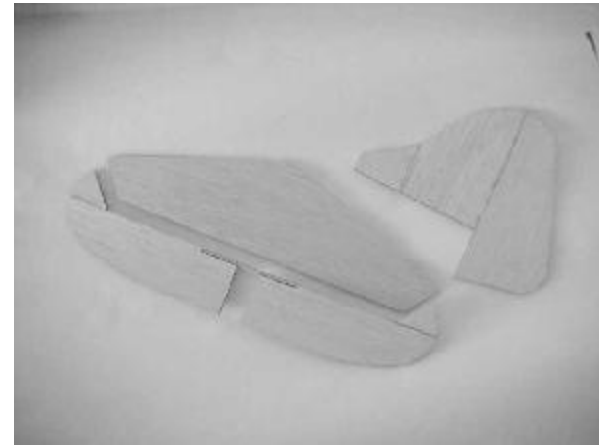
44. Using the plan cut a piece of 1/16 balsa to length and glue to the wing and F10. Glue the other F10 in place.



45. Sheet the top of the scoop with 1/16 balsa, taper the edge that fits against the wing.



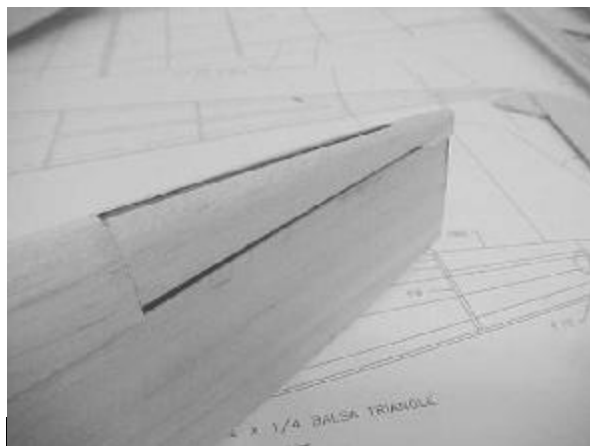
46. Glue W13 and W14 to the front of the wing scoops and sand to shape.



47. Glue the tail surfaces together and sand.



48. Use the tail surfaces as spacers and glue the balsa tail blocks to the fuselage only!



49. Shape the tail blocks.



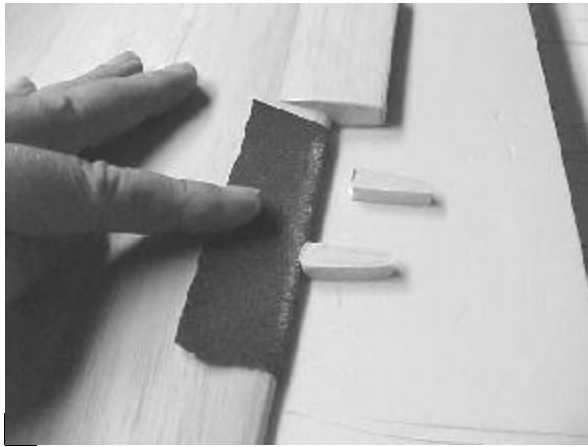
50. Cut 2 pieces of 1/4" x 1/4" spruce 4-1/4" long and slip them into F1, F2 but do not glue. Set the motor in place and fit the cowl, use the spinner to get it in place. When it is lined up mark the screw locations, drill holes and screw the cowl to the spruce rails with #2 screws. Note the 1/16 balsa on the underside of the rails.



51. Rubber band the motor to the spruce rails, put the cowl and spinner in place and adjust the gap. With everything set glue the spruce rails from inside the wing opening.



52. Make up the flap tracks using the pattern on the plan.



53. Cut the gun fairings using the pattern on the plan. Sand the mating surface by wrapping sandpaper around the wing and sliding the parts against it. Glue them in place with Goop for flexibility.



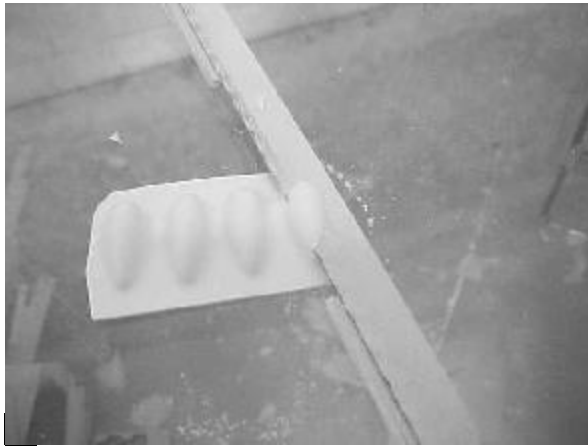
54. Cut the molded exhaust as shown, glue part to the cowl and part to the fuselage side.



55. Cut the exhaust shields from scrap plastic and glue just above the exhaust stacks.



56. The radar pods are trimmed off at the wing notch as shown.



57. The best way I found to cut the wing blisters is to block up a hacksaw blade 1/8" and slide the blisters along the blade.

**Notes:**

**Color Scheme:** There are a number of paint schemes available for the Firefly. We've included details and stickers for one of them. See Warpaint Series No. 28 for additional documentation and alternative color schemes.

**Decals.** The included decals are peel and stick type. The decals must be clear coated to protect them from water damage. You have several choices, Krylon Crystal Clear, Krylon Fixatif, or Testors clear. The decals are printed on a clear backing so you will need to paint white discs wherever the roundels go.

**Covering and finish.** My models are covered with document laminating film (doculam) and painted with Testors Model Master paints. The correct colors are Dark Sea Grey #2059 and Sky "Type S" #2049, If you choose this method before painting put on some rubber gloves and wipe the covering down with lacquer thinner to remove any oils from your hands and don't touch the model with your bare hands until all the paint is on. Use only low tack masking tape for masking. This method is fast, light, and gives excellent results.

**Balance point and control throws.** Balance the model upside down at a point **5-7/32"** from the trailing edge forward of the wing where it meets the fuselage side. The wing scoops preclude measuring from the leading edge. I drill 2 holes in a 2 X 4 and insert 2 dowels with the chisel shaped erasers on top for a balance jig.

Control throws are

Ailerons, 3/8" each way.

Elevator, 1/4' to 3/8' each way

**Power system.** My model used a Speed 400 6 volt motor with an APC 6x4 E prop and a Carl Goldberg 1-1/2" spinner. I normally use a 7 cell HE 1100 Nimh pack. A better pack is a 2s2p 2400 E-Tec, it runs much longer and is about 1-1/2 ounces lighter than the HE 1100s.

**Flying.** Give the model a good firm throw when launching, it will climb away without hesitation. It is a good idea to have someone else launch the model for the first flight. I like to add a couple of clicks of up trim just before launch. The model is quite strong, I threw mine into the ground the first time I flew it without damage.