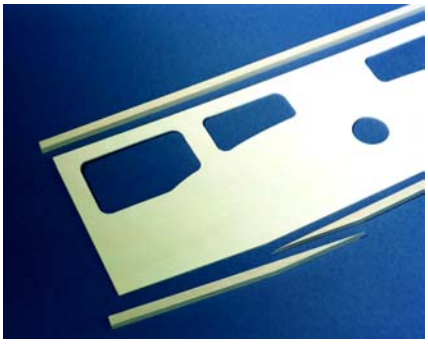
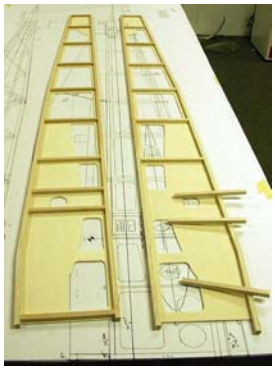
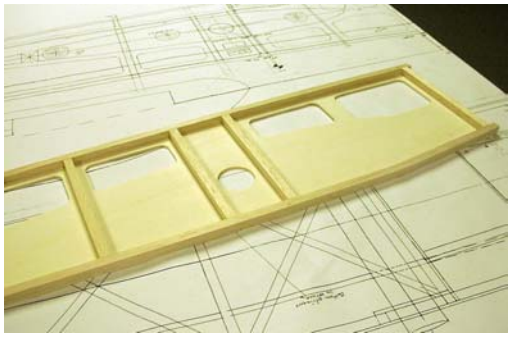
Build the Fuselage

Splice together four pairs of 36"x 3/8" square balsa together to form the longerons that will be laminated to the inside of each fuse side. Use a long delta splice for the bottom front part of the fuse that angles up. Then glue on the longerons and cut and glue in the 3/8 square upright fuse structure from F3 back (the forward pieces will be glued in later).

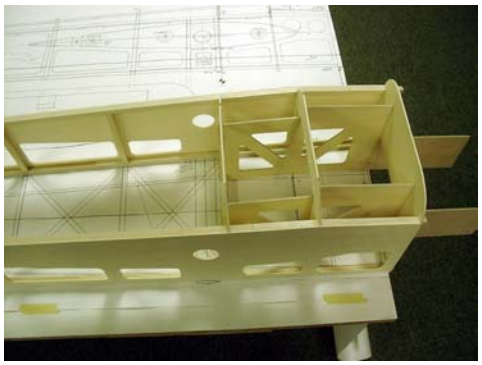
Cut and fit the rest of the forward 3/8 upright fuse structure to be used as former gussets *but don't glue them in at this time*. Leave a little 3/8 overhang at the front of the fuse side, which will be cut flush and sanded after the fuse is glued. Be sure to build a left and right fuse side.

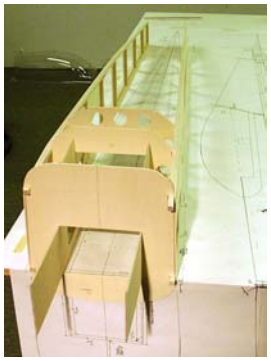






Lay the plan out on a smooth flat surface and fold the front over the end of the table at F1. Trial fit motor box sides, F1, F2, F3, and fuse sides, over the plan and make any final adjustments so the parts fit properly. This would also be a good time to cut the fuse floors, FL0 FL1, FL2, and FL3 and fit them to the fuse. This is also the time to cut and fit the aft most former from 3/8-balsa sheet.

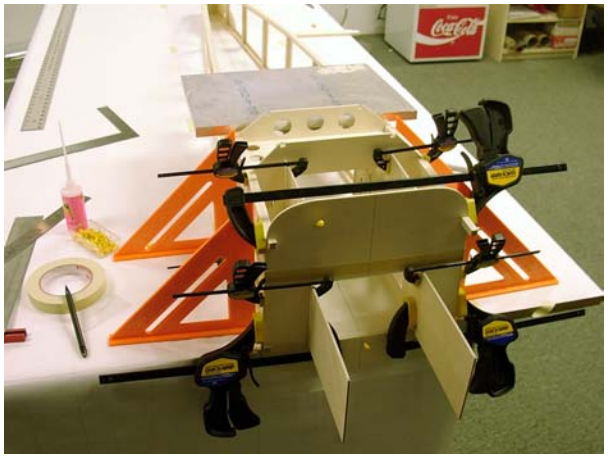
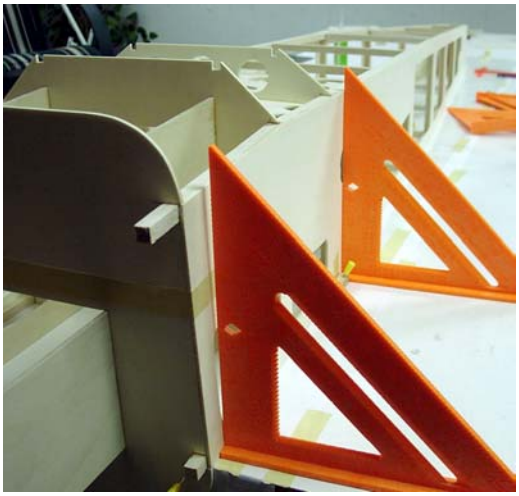




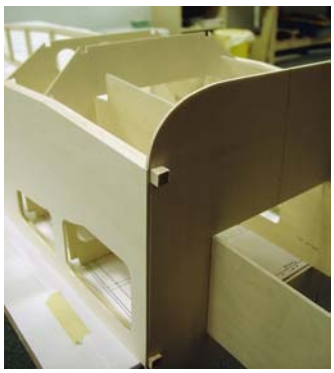
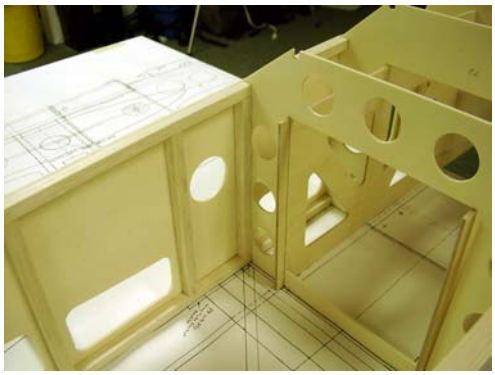
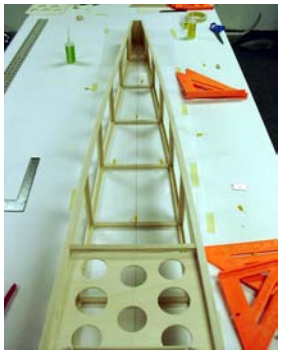
Cut two lengths of 3/8" square balsa to fit each former station. Mark a centerline on one piece from each station. Then trial fit and pin the whole assembly together including the forward tank floor FL0 making sure the fuse is straight along the centerline. Use the wing tube socket center phenolic and tube to check for square. Do not glue the phenolic wing tube socket into the fuse at this time.



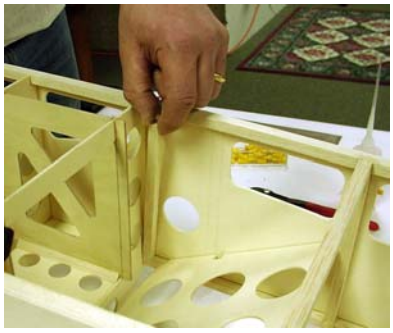

Note that the former F1 is wider at the top than at the bottom to fit the shape of the cowl. The fuse has a slight twist built in to allow this fit. You can see in the picture that the orange building square is flush at F3 but not so at F1. At F3, the fuse sides are 90 degrees to the building surface and the fuse is built 90 degrees from there to the rear. Make sure to use some weight to hold the fuse flat on the building board.

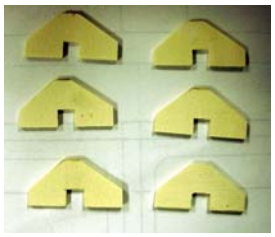
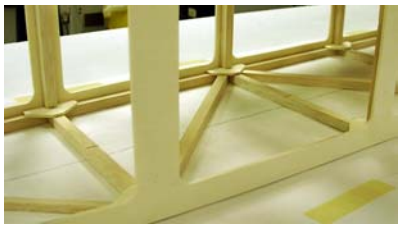
F1 should fit the fuse flush inside the cutout between the upper and lower 3/8" longerons. After you're satisfied with the fuse alignment, glue the structure together. At this time you can fit the precut 3/8" upright former gussets into position next to their corresponding formers. Make sure to glue these sticks into position only after the rest of the structure has been aligned and glued.

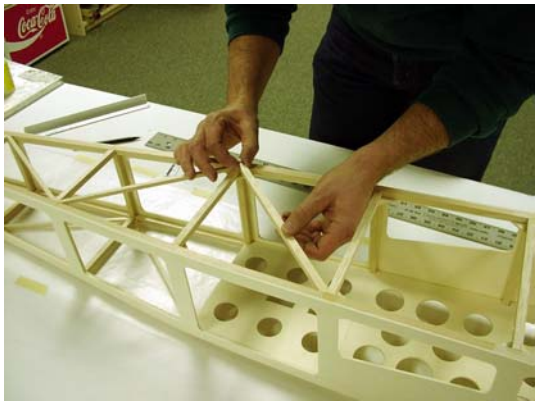
After the main part of the fuse is glued you can unpin it from the table and flip it over to finish fitting and gluing the rest of the 3/8" stick structure and upright gussets at formers F1, F3, and along the rear of the motor box. We will laminate some 3/8" square to the top inside surface of the motor box sides as a stiffener after the firewall has been installed. This is also a good time to finish gluing the floor (FL0) to the motor box sides.

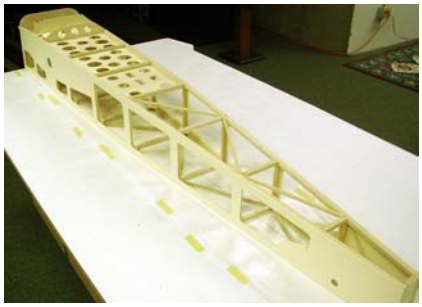


Cut, fit, and glue six gussets at the top of the fuse at stations F4, F5, and F6.


Glue in fuse floors FL1, FL2 and FL3. (FL0 should already be in place). Then cut and fit top and bottom ¼" square balsa diagonal bracing from F6 to the rear. We also glued in the top 3/8 diagonal braces over the radio compartment area, but for convenience you can wait to do this after the radio equipment is installed. Don't glue in the brace over FL1 until after the wing tube socket is installed.





Glue on the ¼" balsa stringer formers BF1, 2, 3, 4, and 5, centered over the 3/8" cross structures. Sand the rear of the fuse square and glue on the tail wheel plate.