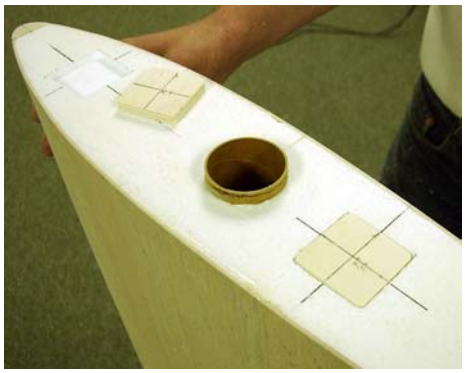
Leading Edges, Tip Plates, Root Plates

When the sheeting is done on all of the parts, the next step is to laminate on the leading edges, the tip plates, and the root plate. There are cutouts on the plans for the tip and root plates. Remember, the root plates act as a load-bearing structure for the aluminum tube spar and the phenolic socket that it fits into, so the plate must fit over the phenolic socket when it is being glued to the root. After the glue has set you can then sand the phenolic flush with the root plate.

Use ½-inch light contest-grade balsa for the leading edge. Cut it slightly oversized and attach it using a liberal amount of epoxy. Don't use wood glue here; it has a tendency to shrink and could cause the wing to warp. Make sure that you have a good bond between the leading edge material and the sheeting. The bond here will ensure that the sheeting does not separate and begin to lift.

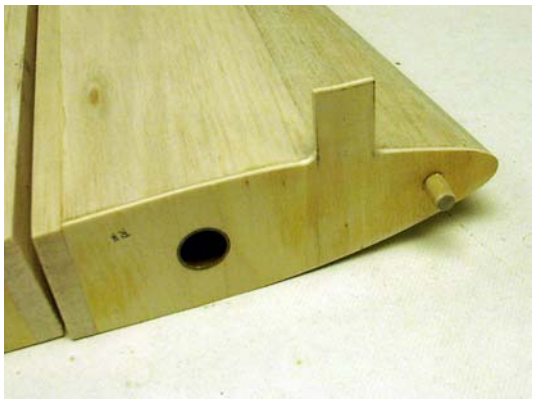
Use a razor plane to work the shape close to ready before starting the sanding process. Erik marked the exact centers of the wing panel on each side then used a piece of masking tape as a guide to ensure that the apex of the leading edge stays true down the entire length of the wing panel sanding one side at a time.

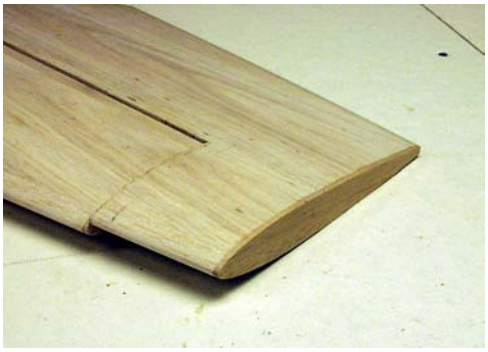
With the Dremel router we fit three ¼ x 1.5-inch-square light ply blocks into the foam for the dowel pins and the nylon stud that will hold the wing on to the fuse. Place them according to the plans and glue them in with epoxy.



We made our root plates from 1/8-inch light ply and the tips from 1/8-inch balsa. For the tip and root plates we like to cut the wood slightly larger than needed then sand them to fit after they are glued in place. The stabs are held to the fuselage with a small tab just below and in front of the spar tube. Make sure to include this tab a little oversized

when cutting out the stab root plates, Later, after you've fit the stab and trimmed the tab to your liking, you will want to double this tab with another piece of 1/8-inch light ply.





The sheeting is done, the leading and trailing edges are shaped and true, and the end caps are in place. Don't cut out the control surfaces yet! We'll want to set incidences and trammel the wings and stabs before we get to that.

And that's exactly where we'll start next month. See you then.