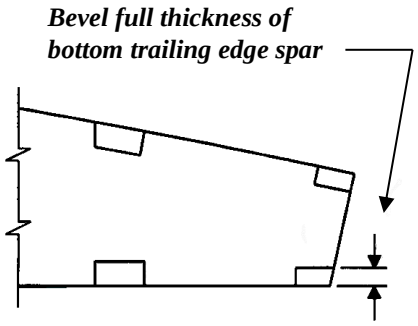
5 FINISH OUTER WING PANELS



❑❑ Sand the back edge of the panel as shown in the diagram. Use a long sanding block and straightedge to be sure the trailing edge is straight along its entire length.

❑❑ Pin or weight down the panel over the plans. Make certain 1) the main spar is straight, 2) the trailing edge is hanging off the edge of the table, and 3) the trailing edge isn't bowed up or down. Use shims if necessary to force the TE of the panel to be absolutely straight.

❑❑ Glue on the 1-3/8" strip to the back edge of the wing. There should be a little overhang, top and bottom.

❑❑ When dry, trim the overhang (top only). Add shear webs (vertical grain) to the rear spar, four places.

❑❑ Add the top TE sheeting (3/32" x 2-3/4" x 36"). Note that the sheeting covers only half (1/4") of the rear spar.

❑❑ Add the final six shear webs to the main spars, two in front of the main spar and four in the back.

❑❑ Sand the top edge of the sub LE to match the airfoil contour in preparation for the leading edge sheeting.

Right-hand Outer Wing Panel *- There is still some "give" in the structure at this point, so the plans are necessary to ensure that the main spar is perfectly straight. The TE is positioned off the edge of the table so that the balsa sheet can overhang above and below. Each piece of sheeting that is added will help lock the panel into its final shape.*

❑❑ Glue the top LE sheeting in place. Again notice the sheeting should cover only half the width (3/8") of the main wing spar. I like to apply yellow glue to the ribs first, then glue the sheeting to the sub LE with CA, and finish the sheeting with more CA along the spar. It's important, after gluing the LE, to "massage" the sheeting towards the spar by wiping it with your hands from front to rear. This will keep the sheeting in firm contact with the ribs, although you may still want to add some weights to the sheeting until the yellow glue dries.

❑❑ Glue your top wing joint sheeting in place. It will have to be trimmed to fit between the LE and TE sheeting.

❑❑ Add the top capstrips, eight places.

❑❑ Remove from the table, trim the trailing edge sheeting, and re-glue your new joints with medium CA.

❑❑ Decide what type of hinges you're going to use. I used Sig's large pinned hinges, and didn't feel the need to add any "beef" to the wing structure to accomodate them. If you plan on using something different, like Robart's large hinge points, you should definitely add some balsa blocks to the top TE spar at each hinge location.
See "About the Hinges" on page 24.

❑❑ Flip upside down, pin the top TE sheeting flat to your table, and support the LE with wood (photo next page).

❑❑ Add the bottom TE sheeting (3/32" x 2-1/2" x 36").

FINISH OUTER WING PANELS, Continued...

❑❑ Unpin the TE, then pin or weight the panel down on the table, this time with the top spar against the table. Support the TE with a stick, then take a long careful look at the panel from all angles to be certain it is warp-free. This is your last chance to build a flat wing panel; once the remaining sheeting is glued in place, your wing panel will be locked into its final state. In case you're wondering, the SFK doesn't have or need washout. Try for zero warps!

❑❑ Bevel the sub LE to match the rib contour, then glue the bottom LE sheeting in place.

❑❑ Trim the bottom wing joint sheeting to fit, then glue it in place. Add eight capstrips and allow to dry.

❑❑ Unpin, trim the LE and TE sheeting. Add the LE cap. When dry, carve and sand the leading edge cap to the airfoil contour. Take your time with this step and try for a consistent shape along the entire length of the wing panel.

❑❑ Trim all the sheeting at each end, flush with the ribs.

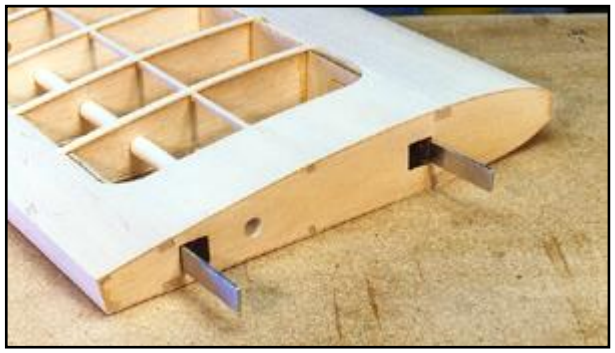
❑❑ Glue the assembled aileron servo mount in place. The sides of the lite-ply mount should fit snug between the ribs and spars. You may have to round off the corners a bit to clear glue fillets in the wing structure.

❑❑ Sheet the surface of the mount with 3/32" balsa. The edges of the sheeting will fit between the capstrips. Be sure to make the cutout in the balsa oversize at the front and rear so the servo flanges will seat against the lite-ply mount.

❑❑ Add the 3/8" wingtip support followed by the balsa wingtip. I'm sure you've noticed by now that my prototype features the optional STOL wingtips. To me, they just look "right" on a model like this, but they do represent a lot of extra sanding and shaping. Like so many things with this model, it's your choice! **-SFK**

Wing Panel, Upside Down *- The idea here is to position the top TE sheeting flat against the table. This requires a support at the front; I used a piece of lumber that was lying around. Worked well! You can see the TE sheeting overhangs at the rear. It will be trimmed later.*

Aileron Servo Mount *- with balsa sheeting ready to be glued in place. Note the extra-long cutout in the balsa. The servo flanges should sit flat against the lite-ply, not the balsa.*



Finished Outer Wing Panel *- The leading edge cap has been carved and sanded, and all of the sheeting has been carefully trimmed. Note the fillets in the corners of the wing joint sheeting. Not necessary, but it adds a touch of class*

High-Tech Sanding Tool *for sanding the fillets to a uniform curve. This is the cardboard core of a roll of shipping tape. Simply glue sandpaper to one half of it, and use the other half as a template for drawing the curves on your sheeting. Draw the curve, cut, and sand!*