COVERING INDOOR WINGS
WITH SPRAY-ON STICKUM

By Jerry Sullivan
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I have been using 3M Super 77 spray on adhesive for quite a while to cover the light indoor wings on Sci-Oly, A-6, and Penny Planes. Since practice makes perfect, I am finally getting satisfactory results. In the past, a problem arises after building the wing flat, lightly spraying with 3M, and attaching the tissue. When you 'crack' the spars and form the tip dihedral, the tissue sags at the joint. Lew Getlow in "Indoor Flying Models" shows how the tissue can be cut at the rib and lifted into place. He also describes putting tissue on in three pieces.

Now is the time to score the wing tips and glue in the dihedral. The tissue for the wing ends need to have a curve cut in them so that they will mate to the dihedral break ribs. I found that the easiest way to get the correct curve was to use a rib template and cut a sample from bond paper.

* Cut a piece of bond paper a little bigger than required for the wing tip.
* Lay the (oversized) rib template on the end of the paper and trim as shown.
* Put a little curve into the bond paper so it can be positioned on the wing.
* Slide the bond paper fore and aft until it has a good fit with the rib. Mark the paper at the leading and trailing edge.
* Using the bond paper template cut a left and right piece of tissue for the wing tip panels.

Now we need to put some spray stick-um on the tips. Working on one at a time we need to mask the wing center section and spray on the stick-um.

* Place one piece of tissue on the edge of a table with the cut curve right at the edge. Remember which side is the leading edge.
* Make a loose fitting sleeve from bond paper a little less than the length of the center section of the wing. Put it in place so that the dihedral rib is exposed. Lightly spray the appropriate wing tip. Remove the sleeve.
* Roll the wing tip (topside down) over the tip tissue on the table picking up the tissue from trailing edge to leading edge.
* The dihedral rib joint should be good without any buckling or puckers. Trim the tissue.

This is all well and good, but doesn't address problems when using the spray adhesive. The following steps detail how it can be done.

* Build the wing flat and mask off the tips with paper so that they won't be sprayed.
* Place a suitable sized piece of tissue on a flat surface.
* Lightly spray the top center surface of the wing. Remove the masking paper.
* Roll the wing into place (topside down) from the trailing edge to the leading edge. Done right you will not need to 'stretch' the tissue.
* Trim the tissue front and back and to the outside of the dihedral break ribs.

Repeat these last steps on the other wing, sit back and admire your efforts.