FRAGILE TAIL SURFACES — COVERING
By J. Bray

Published in the October 2009 issue of Scale Staffel, Gerald Sullivan, Editor, who lifted it from the November 1984 issue of Aero Modeler magazine.

When covering relatively fragile structures such as flat-bottomed tailplanes for indoor scale models it is often difficult to preserve the flatness due to the tensions produced by the shrinking tissue.

The drawing shows a method I have found effective: a piece of tissue is cut in the form of a rectangle about an inch larger in length and width than the structure. The framework is stuck as smoothly as possible to the centre of the tissue and the tissue is stuck to a flat surface with the framework underneath the tissue, using cellulose tape. The tissue is now water sprayed or brushed and allowed to dry. As the tissue shrinks the tension due to shrinking is taken by the cellulose tape and no warping is caused. The tissue should now be doped and left to dry. The part can then be removed and trimmed and the operation repeated for the other side.

(PFFT Ed. Comment: I recently watched a video of a couple of French Canadian model builders as they covered the tail surfaces of small models. Their technique was somewhat different from that above. They used either heavy duty cardboard or foam core to attach the tissue for shrinking. They cut a hole in the cardboard/foamcore slightly larger than the tail surface, and attached tissue to both sides. One side would hold the top surface tissue and the other the bottom side, in the event the colors are different. The dull side of the tissue faces up when it is taped to the cardboard. The tissue is shrunk with water, and when dry, the tail surface is coated with glue stick and placed on the tissue. The tissue is then carefully cut around the tail surface, and stretched by hand to remove wrinkles. The cardboard/foamcore is turned over and the other side of the tail surface is covered. Doping takes place after the tissue is fully attached and the glue dry. To ensure the tissue doesn’t continue to shrink, I’d be sure to use non-taughtening nitrate dope, which you can purchase from Aircraft Spruce via their website.)