

Control Line

Aerobatics Ted Fancher

LET'S get right back to the Sig Twister project we started last month.

One of the major reasons I selected the Twister was its ease of construction. The constant-chord wing (that means all the ribs are the same size) with square tips can be built directly on any firm, flat surface. You've heard it before—and if you ain't I guarantee that you will again—that the single most important part of a Stunt ship is a straight wing . . . and that's the truth!

Cover your firm, flat surface with a sheet of that soft composition material that comes in 4-ft. by 8-ft. sheets from a lumber or hardware store. It is firm, about 1/2-in. thick, and accepts pins easily. (The generic term for this is "insulation board." RMcM) Most dealers will cut it to a more convenient size for you if you ask them. Build your wing directly on the plans as described in the kit's full-size plans. (Cover the plans with Saran wrap first to prevent them from becoming part of your wing.)

One of my techniques may be of help to you. Whenever possible I use masking tape rather than straight pins to hold pieces in place. For instance, when installing the leading edge, hold it in place with strips of tape going from the lower spar, around the leading edge, and back to the upper spar. Do this every couple of bays between



Final shaping of the Twister nose with 100-grit sandpaper. It was previously rough-formed with very coarse 40-grit sandpaper. Note nozzle of shop vacuum lashed nearby to suck up dust. It's a good idea to also wear a filter mask while doing a job like this.

the ribs. This will position the leading edge firmly, won't split the ribs as will pins, and will leave access to each rib joint for glue application.



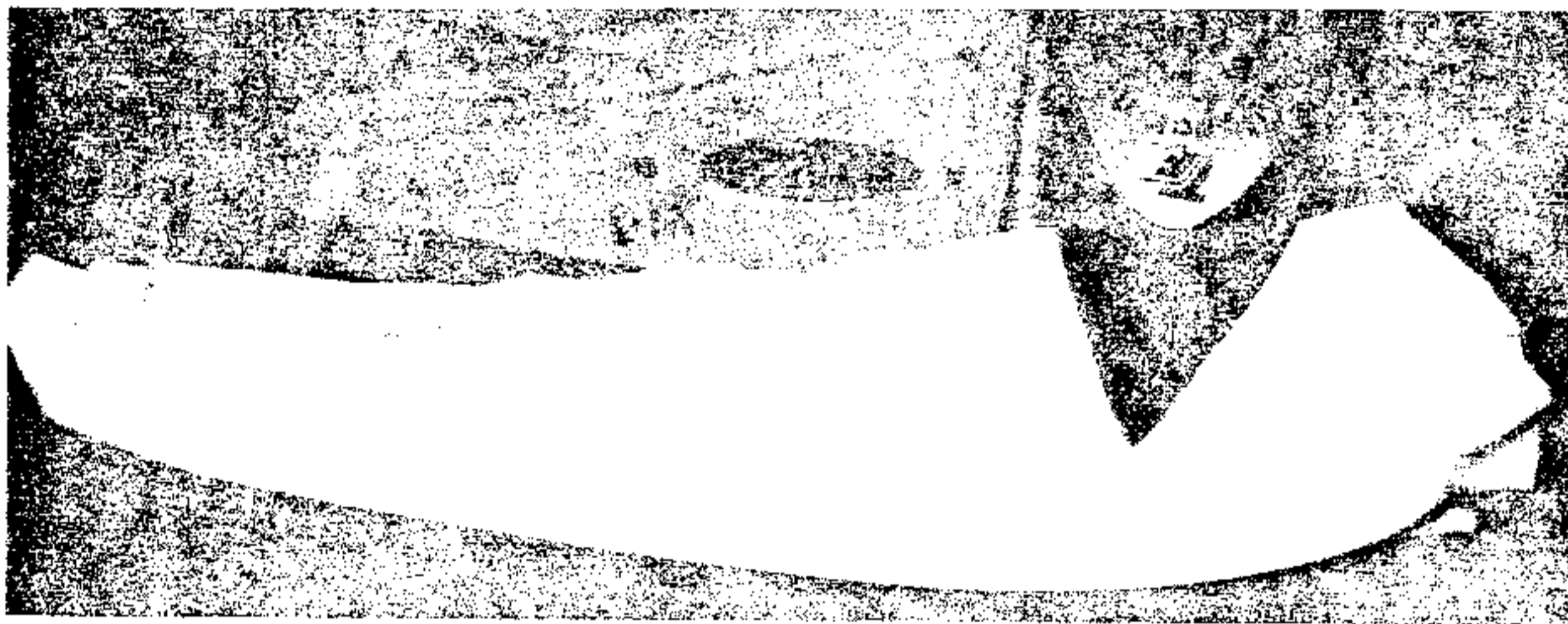
Note Twister's uniflow tank details: arrow A points to sealed tube on overflow vent; arrow B points to uniflow vent line. You can fine-tune engine runs by changing the exhaust back-pressure. Using an SST Products muffler makes the task easy, since 4-40 screws can be plugged into one or more of the outlet holes to vary the back-pressure. It's a subtle refinement for experienced fliers.

I glue everything possible with cyanoacrylate (CyA) and follow up with a coat of aliphatic resin-type glue (i.e., Tite-Bond, etc.) applied with a small, cheap brush.

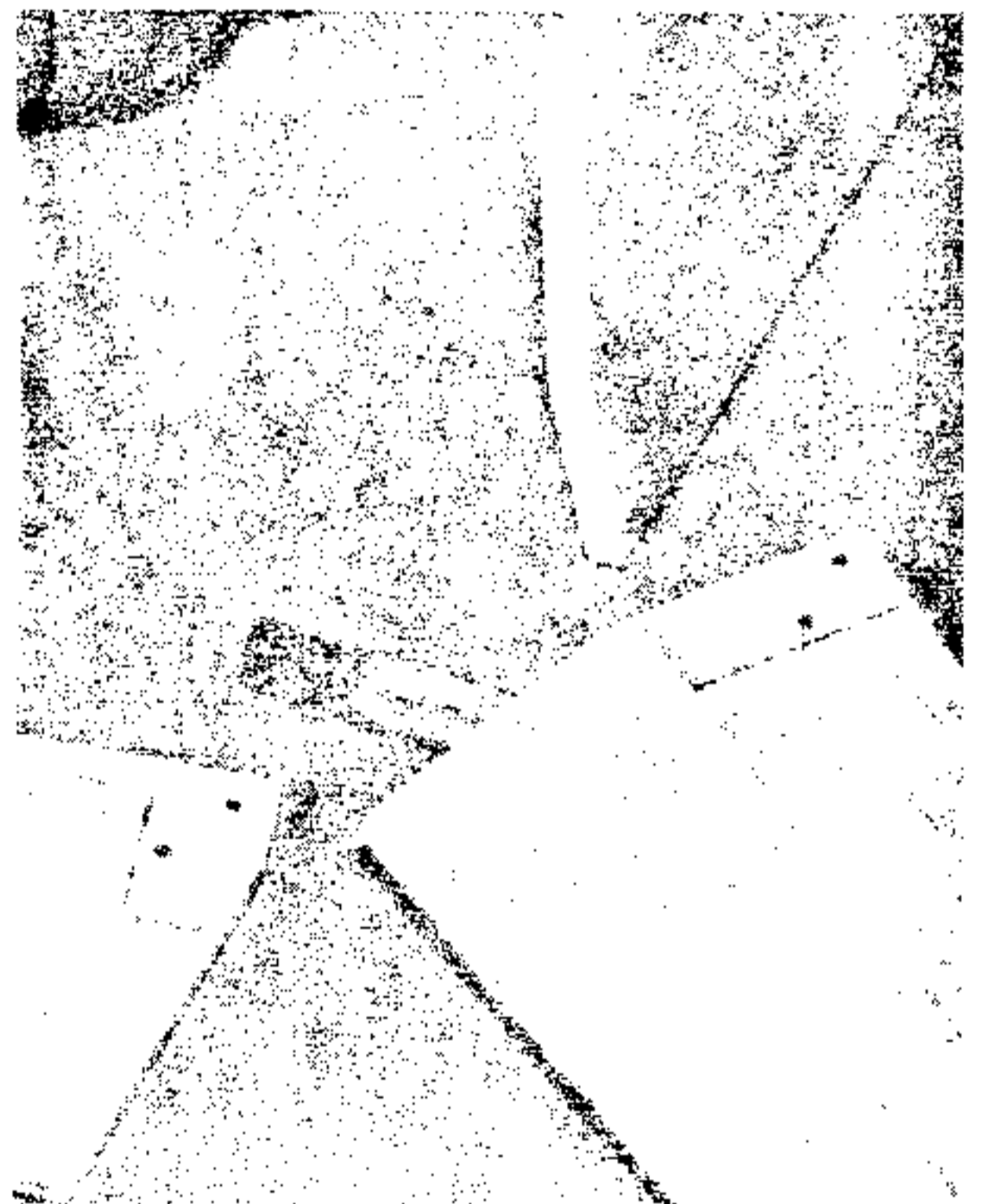
If you intend to use RC nylon-type hinges rather than the cloth ones shown in the plans, be sure to glue scrap balsa between the trailing edge sheeting to accept them. These types of hinges, such as Du-Bro or Klett, are much preferable to the cloth hinges. They operate much more freely, seldom break, and are somewhat easier to install.

In addition, if you plan on finishing the model with an iron-on type of covering, this . . .

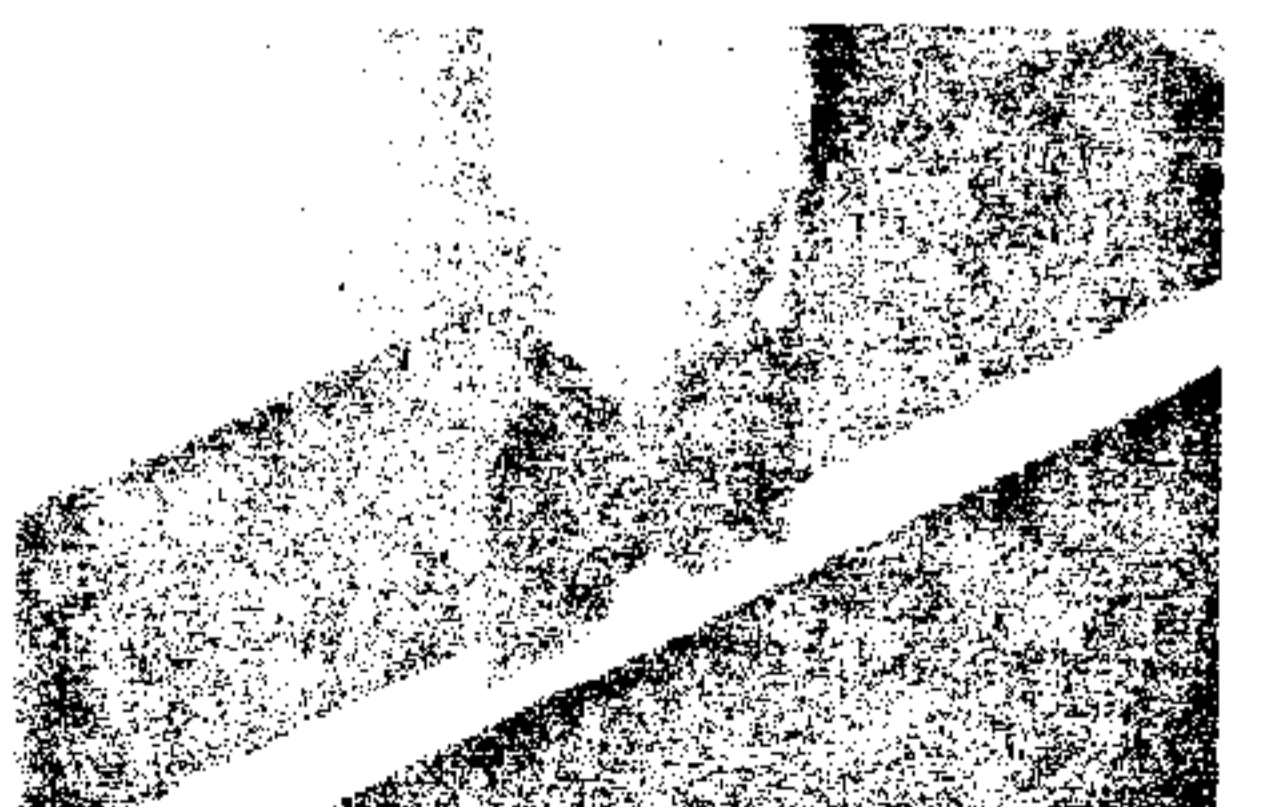
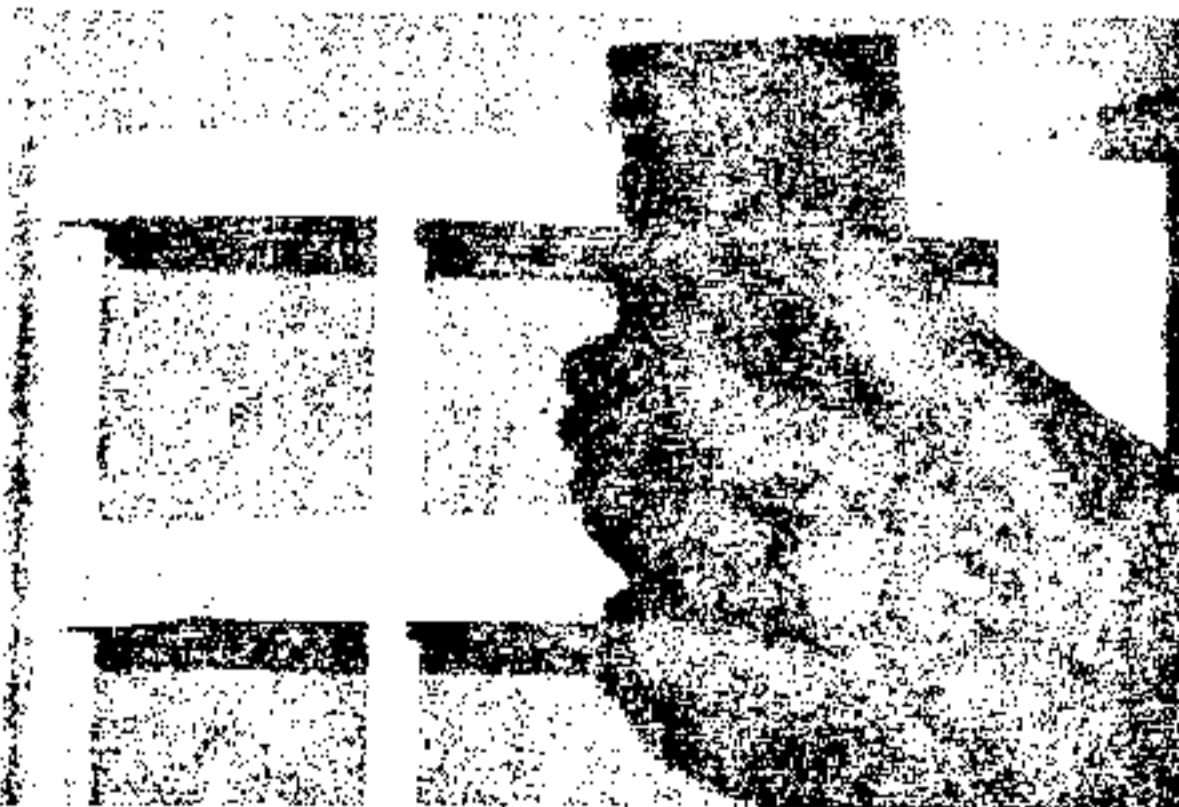
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Here's how to do a neat job of covering large, flat surfaces with iron-on film. Cut a piece of film oversize and cover the flat area first, then coax it over the edge of the piece. Iron down a strip on the edges, which you later trim to about 1/8-in. wide.



Flat, inboard edges of elevators and flaps were covered first, too. Note that Ted installed 1/8-in. basswood inserts to accept the nylon control horns. A bare balsa surface is compressed and weakened when the horn-mounting screws are tightened down.



A modeler's best friend is—masking tape (L)! If you're sanding a piece to match structure which is already finished to size, you can protect the finished wood with the tape. Although you may sand through it, you can always put on a fresh strip. It will pay you to exercise some care when slotting thin wood surfaces for the installation of nylon hinges. Ted makes things extra simple with his Dremel drill press (Center) and drills a very fine guide-hole at each end of the potential hinge slot. This ensures that the slotting tool (R) will follow the pilot holes straight into the wood—it keeps you from digging a crooked slot and coming out the side of the balsa sheet. Surface is still unshaped.