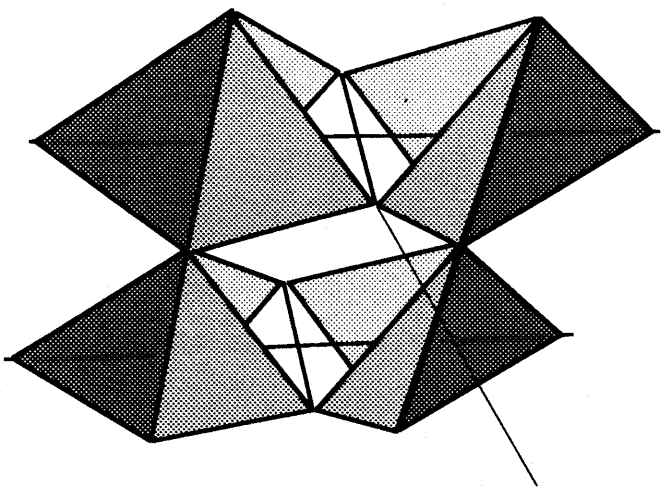


PETER LYNN'S

# TRI-D BOX KITE

Wind: light to fresh (6 - 18 mph)
Use 30 - 50 lb line.

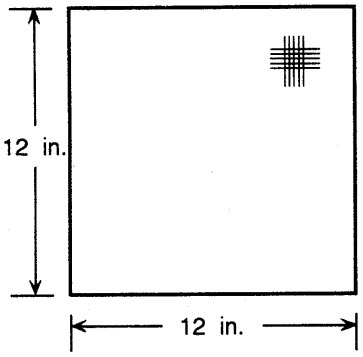
This kite was designed by AKA Life Member Peter Lynn of New Zealand. It can be made of any kind of cloth that is neither too heavy nor too porous, such as ripstop nylon, taffeta, poplin, or bed sheeting. While these directions are for a cloth kite, the Tri-D can also be made quickly of trash-bag plastic and masking tape.

You'll need a bit more than 6 square feet of sail material, five dowels 3/16" diameter by 3' long, and a foot or two of 3/4" grosgrain ribbon or twill tape.

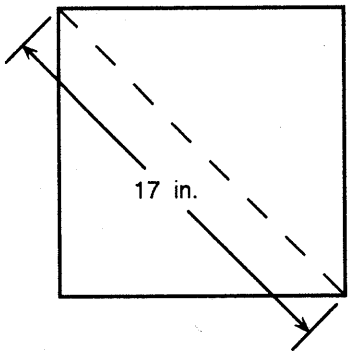
Any kind of synthetic sail material (nylon, polyester, or acetate) can be cut with a 25 - 40w soldering iron, which will seal the edges and make hemming unnecessary. For best results, use a straightedge and cut on a smooth plastic laminate, metal, or heavy glass surface. A thick layer of newspaper will work too.

Kite plans are very forgiving—there are always several ways to accomplish the same result. Likewise, sizes and proportions are seldom absolute, although side-to-side symmetry is important. Dimensions shown below are finished size; if your cloth needs hemming, plan accordingly, or adjust the size of your kite.

1. Make 6 pieces of sail material. Note direction of weave.

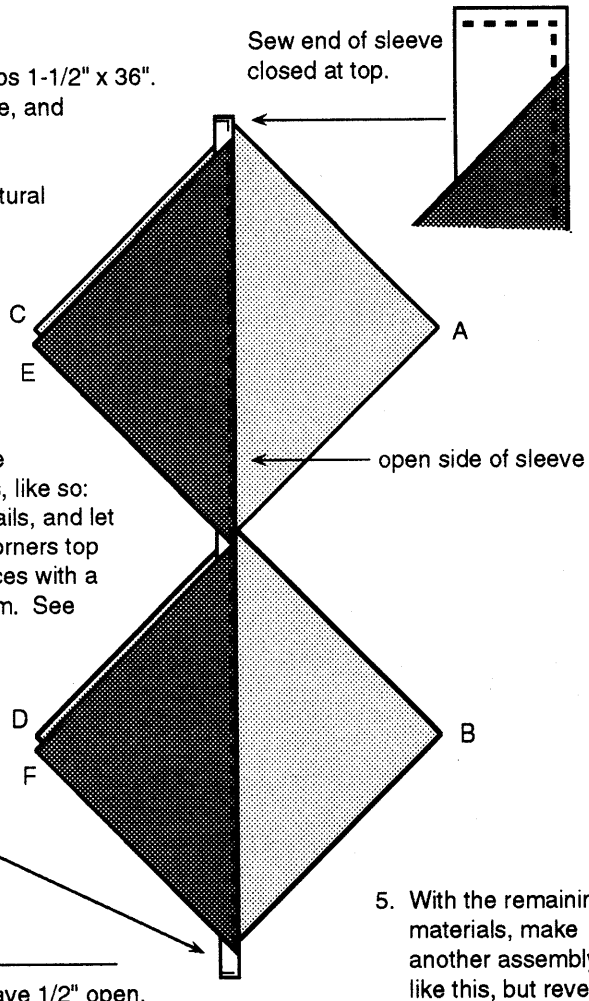



2. Mark each square diagonally. Cut two along diagonal line.



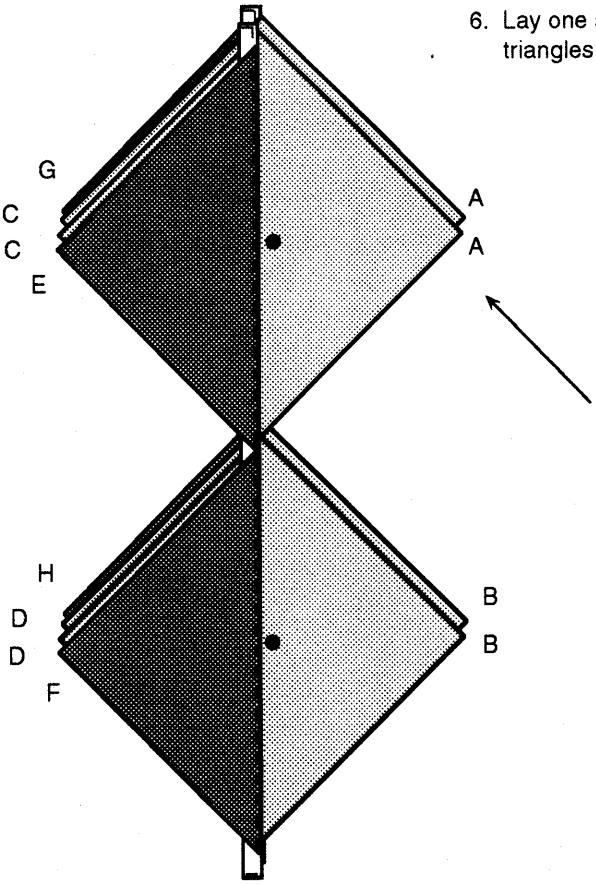

3. For spar sleeves, cut 2 strips 1-1/2" x 36". Fold each in half lengthwise, and iron or pin to hold.

NOTE: If you are using natural fiber material, see step 8 before going further.



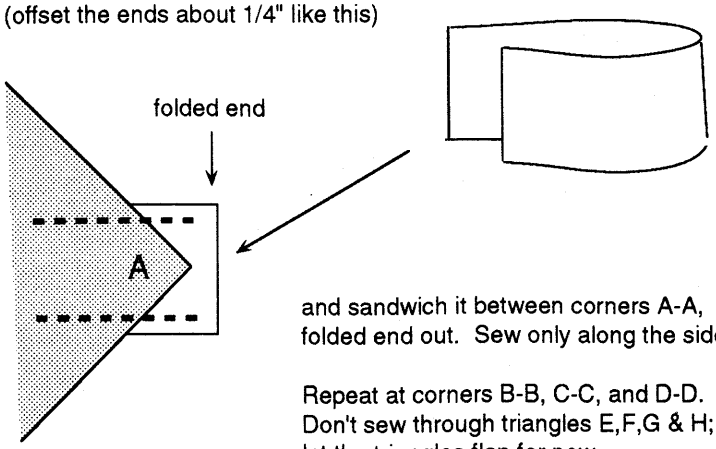

4. Lay out two squares, one sleeve, and two triangles, like so: Align all corners of the sails, and let the sleeve overlap the corners top and bottom. Join all pieces with a single seam top to bottom. See details for finishing ends.

5. With the remaining materials, make another assembly like this, but reversed left to right.




6. Lay one sail assembly on top of the other, squares together inside and triangles outside. The next steps join the matching corners of the squares.

Fold a spar pocket out of a 2" piece of 3/4" ribbon or twill tape (offset the ends about 1/4" like this)



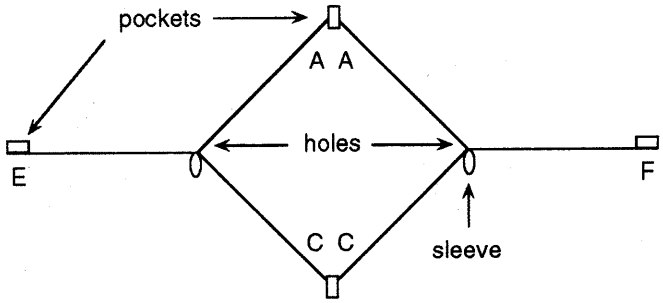

and sandwich it between corners A-A, folded end out. Sew only along the sides.

Repeat at corners B-B, C-C, and D-D. Don't sew through triangles E,F,G & H; let the triangles flap for now.

7. Sew a similar spar pocket at the tip of each of the triangles E, F, G, & H. Note that in this case the triangles are NOT joined together; each of them gets a pocket. Be sure to sew the pocket on the side of triangle away from the center sleeve. The sewing is now complete.

8. If you are using synthetic material, burn a 1/4" hole with your soldering iron in the vertical center of triangles A, A, B, and B, next to the seam line as shown above. [If you are using natural fiber material, place a buttonhole or 1/4" grommet here before sewing the kite together.]

9. Your completed sail should now look like this from the top when you open it up:




10. Insert one of the 36" dowels into the opening left at the bottom of one of the spar sleeves. Slide the dowel all the way into the sleeve. If the sleeve is too short to take the whole spar, mark it so it will be a snug fit and cut off the excess.

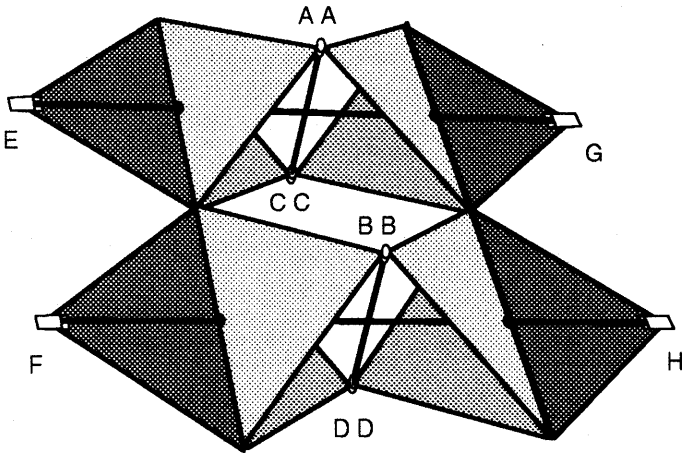
    Cut another dowel to the same length, and insert into the remaining spar sleeve.

11. Cut two 12" lengths of dowel, and install one between spar sockets AA and CC.

    Install the other between spar sockets BB and DD.

12. Finally, insert a dowel from E through the holes in the sail to socket G. Pull the sail taut, mark the spar for a snug fit in socket E, and cut off the excess.

    Cut a second spar to the same length; fit it between F & H.




13. Turn the kite over, and attach a 30 - 50 lb flying line to the end of the spar at C-C.

    Select a flying site free of trees, power lines, and traffic. Have a helper take your kite downwind about 50 feet, give a gentle pull, and let your spirit soar!