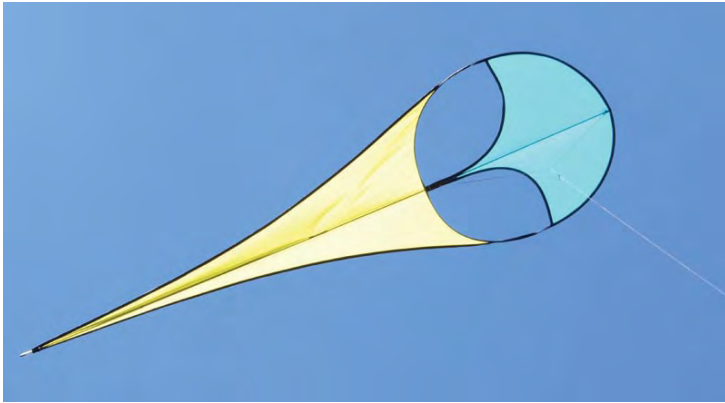


KITE PLAN

The Rockaway Bikini by John Freeman



This kite was designed especially for the Oregon Kitemakers Retreat 2007. It was inspired by a picture I saw of a kite by Normand Girard, a wonderfully innovative kiter from Quebec. If you run into any problems, or have questions, drop me a line at Marzlie@shaw.ca.

Parts List

- 2 .2100" X 4' spar
- 2 .060" X 4' spar
- 1 .2100" ferrule
- 1 .2100" nock
- 1 .2100" end cap with hole
- 3 .075" ferrule
- 2 sail piece
- 30 feet—1" edge binding
- 2 4 ½" X ½" hook Velcro
- 2 2 ½" X ½" fuzzy Velcro
- 1 1" X 5" 3.9 oz. dacron
- 1 1" X 4" 3.9 oz. dacron
- 1 bottom reinforcing patch
- 1 1" X 1" reinforcing patch with adhesive
- 1 bridle
- 1 tension line

Using the gridded drawing, draw out full- sized templates for the skin. The grid is two inch squares. Note that the drawing is for half the sail—flip your drawing over to draw the other side, or fold the fabric and place the drawing center line on the fold. Butcher paper works just fine. Cut out the two skin pieces in your choice of colors.

You will need about thirty feet of one inch wide ¾ oz.

fabric for your edge binding. Begin by folding your edge binding in half and creasing it well. First sew the edge binding on the two long sides of the long sail piece. Next sew it on the two short edges of the smaller piece. These will be much more difficult because they are curved. Go slowly, an inch or so at a time. Remember that there really are no curves — just a lot of very short straight lines. The remaining two edges also get edge bound, but the binding is also a spar sleeve, so it requires extra attention.

Creating the Spar Sleeves

1. Cut two pieces of edge binding 48 inches long. Mark one inch from each end and fold over and crease.
2. Hold the folds in place with a little piece of sailmakers' tape. Sew down very close to the edge. Your pieces are now 46" long.
3. Now fold the pieces in half longways, and crease thoroughly. Make sure the folded over ends are on the inside.
4. Fold in half to mark the middle of each piece. Mark on the inside and outside.
5. Find the 4 ½" pieces of "hook" Velcro. Cut two pieces of sailmakers tape about an inch long. On the outside of the strip with the extra markings, stick the Velcro with the tape to each end, hook side down, on one side of the binding strip. Make sure they are both on the same side. Sew the Velcro to the edge binding. Do the same on the other strip with the two 2½" pieces of fuzzy Velcro. Fuzzy side up. See picture 1 to see how these will look.
6. Fold both sails at the edges that haven't been edge bound yet. Crease to mark the center. Mark with a pencil.
7. Lay out inside up the sleeve strip with the 4 ½" Velcro.



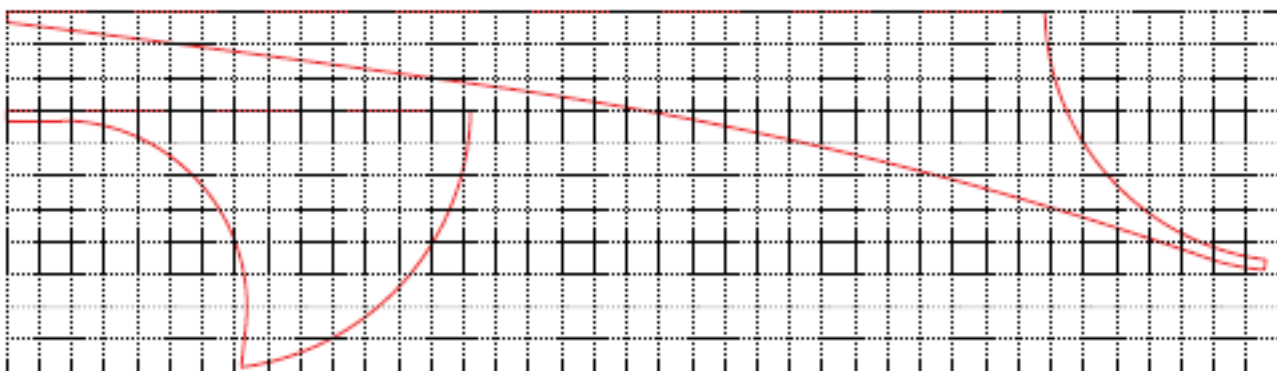
Pic. 1

Tom Thomson

Stick a small (½") piece of sailmakers tape in the center at the edge opposite the Velcro pieces.

8. Stick the top sail panel to that piece of tape,

Lindsey Johnson





Sam and Cari King flank John Freeman

with the centers lined up and the edge of the sail at the center fold of the strip.

9. With the strip open sew the sail to the edge binding strip on the four inches between the marks. Sew about $\frac{1}{8}$ " from the edge of the strip. Back stitch at both ends.

10. Fold the edge binding strip closed. Starting at your pencil marks one inch apart on the face of the strip, sew the sleeve

both ways from the middle, $\frac{1}{8}$ " from the edge. (Do not try to sew too close to the edge as you run the risk of not catching the other side of the binding.) This leaves a 1" space open on the back side of the kite. Back stitch at both ends of each seam.

11. Position the bottom sail panel inside the edge binding piece with the center lines on both aligned. Start at the middle again and sew the binding on, then go back to the middle and sew the other direction. This ensures that the sleeve will remain centered on the sail.

The Hard Part Is Over!

Make a one inch square reinforcing patch of 3.9 ounce Dacron. Stick it to the top sail in the center just below the upper spar sleeve on the back of the skin. I use 3M Very High Bond adhesive, so the patch requires no sewing. I hate extra things showing on the kite face! If you don't have access to this stuff you may need to sew this patch on.

Make a reinforcing patch for the end of the tail. Make it also of Dacron, and from the very tip up the kite about three inches. Sew it on the back of the skin.

Make two pieces of 1" wide Dacron tape, one 5" long and one 4" long. Sew them together at the edges with one end of each even. This will be a sleeve for the spine. See picture 2. Sew the single thickness end to the center of the bottom sail, on the back side of the sail, overlapping the spar sleeve with the shorter piece facing away from the kite. Sew carefully very close to each side of the spar sleeve.

Lay out the two sail pieces face down. With the 1" wide sleeve you just made laying on the back of the top sail, carefully space the two sail pieces $2\frac{1}{2}$ " apart. Tape the



Pic. 2

spine sleeve in place and sew it to the top sail. Sew carefully on top of the seams you already made. See picture 3.

The End of the Sewing

Burn pairs of holes in three places: the reinforcing patch at the nose, the spine sleeve in the center, and the reinforcing piece on the tail. Make them about $\frac{1}{4}$ " apart. See picture 4.

Tie an 8" long loop in a piece of line. Cut the line so the overall length, including the loop, is 24". Feed the loose end through the holes in the tail piece — front to back, then back to front. Tie a bowline, leaving only enough slack to make a small loop on the front.

On one full 4' length of .060" solid carbon rod, glue a ferrule on each end. On another full length .060" spar, use fine sandpaper to slightly round and smooth each end.



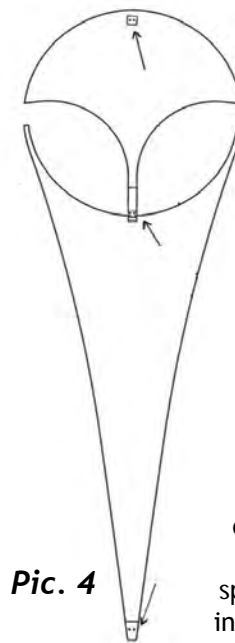
Pic. 3

Use a hole punch to punch a small hole very near the closed end of a .2100" vinyl end cap. Push another ferrule to fit the .060" spars through the hole. See picture 5.

Insert the .060" spar with ferrules into the lower sail sleeve. Insert the plain .060" spar into the upper sail sleeve, passing it through the end cap/ferrule fitting at the one inch opening in the middle. This spar is the most vulnerable to breakage, so using the plain spar makes it easier to replace if that happens.

On one full 4' length of .2100" carbon tube, glue a ferrule on one end. On another full length .2100" glue a nock on one end.

Slide the plain end of the .2100" spar with the ferrule through the sleeve in the middle of the kite and plug it into the nose fitting.



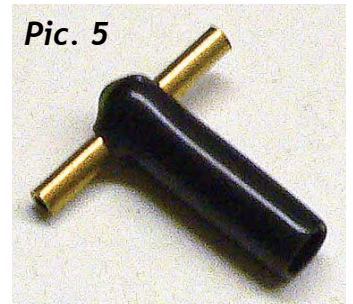
Pic. 4

Make a Prussic knot in the big loop on the piece of line at the tail and slip it over the other .2100" spar. Slip the nock end through the loop of line on the reinforcing piece on the tail. Plug the spar into the ferrule. Slip the tension line through the nock and tighten by sliding the prussic knot up the spine.

Cut a piece of line for the bridle about 6' long. Tie one end of the bridle line through the nose holes and the other through the center sleeve holes, going around the spine just as you did for the tail-tension line.

Cut another piece of line about a foot long, and tie it into a loop. Larkshead the flying line attachment loop to the main bridle.

You are now the proud builder of the Rockaway Bikini.



Pic. 5