



Our completed bimini enclosure. The vertical division at the corners originates at the Natural Intersection under the visors.

## Patterning variations

by Mark Hood, MFC

**A**t Hood Canvas we have two variations of our patterning technique. The first is our one-step process in which we make our entire pattern in one trip to the boat. The second is our two-step process that we use for larger bimini enclosure patterns. Our two-step process utilizes elements of the one-step process to fabricate a better fitting enclosure. At the same time, it makes patterning the enclosure quick and easy.

In this article we will address both pattern variations and clarify the flip trace and natural intersection for our readers. Let's get started.

» For more, search **pattern** at [www.marinefabricatormag.com](http://www.marinefabricatormag.com)

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*Mark Hood, MFC, and his wife, Deb, own and operate Hood Marine Canvas and Hood Marine Canvas Training Workshops in Merrimac, Mass. For more information and to purchase the large binder seen in these articles, visit [www.hoodcanvas.com](http://www.hoodcanvas.com) or email [mark@hoodcanvas.com](mailto:mark@hoodcanvas.com).*

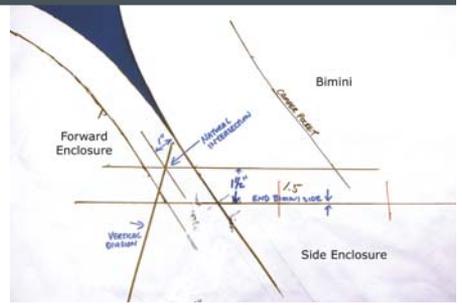
## PATTERNING VARIATIONS



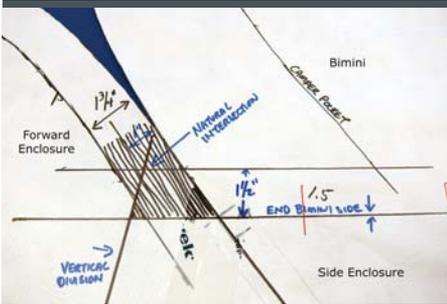
1 In this photo we are patterning the sides and top together as part of our one-step patterning process. We have put match marks on the frame at the bimini corners and at a snap on the windshield directly below the corners. These match marks are transferred to both pattern pieces and enable us to align and tape the pieces together back at the shop. We use double-sided tape to hold the patterns to the frame, arch and windshield to speed the process.



2 Here we are patterning the forward windshield after removing the pattern from the top and sides. Be sure to mark and label the same match marks on this piece. When marking the forward bow on both pattern pieces, be sure the lines are close to identical along the forward edge.



3 Back at the shop, we have aligned and taped our two pattern pieces together at the corners overlapping our match marks. The natural intersection in all of our canvas is a constant coordinate. It is always at the top of two enclosure panels where they come together in the corners under the bimini visor. To eliminate confusion, the bimini visor is not drawn on the pattern. The top of the vertical division always starts at the natural intersection and can angle down to any point from there. The natural intersection is always 1½-inches up from the sides of the bimini, and 1 inch down from the bows as shown in the photo.



4 In this photo, we have shaded the pattern where we are going to cut it apart. Notice that the bimini pocket starts 1½ inches up from the side of the bimini. This is by design so we can have a ½-inch overlap at all corners to eliminate leaks. This also happens to be the width of a #10 zipper.

Notice the ¾-inch cut line that has been added to the forward pattern. The natural intersection coordinate of 1 inch down has not been changed. This extra ¾ inch that has been taken off the bow line will be added back in by our large binder in fabrication. If we weren't using the binder, we would only cut down 1 inch. This would be the top of your forward enclosure panel. Our visors have a finished width of 2½ inches.

5 We have cut apart our pattern. We will also cut the pattern along the "end bimini side" line. Our enclosure panels will finish 1½ inches up from this line to hide the zipper. That amount must be added to the pattern above this line for the finished size of the side enclosure panel. By cutting the bimini pocket up 1½ inches from the bimini side, we can stitch a zipper right to the corner seam close to the natural intersection.

The zipper on the visor should start 1 inch above the natural intersection on the visor to make room for the vertical zipper. The vertical zipper will zip down from the natural intersection coordinate.

It is important to leave the forward pattern intact as it was cut off in the photo until after the flip trace. Now flip the forward pattern over and use this curve to make up the visor. It will be a different curve than the bimini pattern curve. Now the visor angle matches the forward enclosure panel perfectly and enables the one-step pattern process.

After the flip trace has been used to create the visor, cut off the top of the pattern along its length and cut apart the vertical divisions on the forward pattern. We now are left with three finished size forward enclosure patterns.





**6** In the photo, we have zipped on our forward pattern. We use our two-step process on bimini enclosures that are larger than 7 feet by 7 feet. Establish the correct visor angle using our flip trace method. Then sew the bottom half of the zippers to the pattern 2½ inches down along the line we drew for the bow. This is the width of our finished visor. When we make our bimini pattern, we bring our forward and aft pattern blanks with us and stick them on quickly. The line we drew for the bow at the top of the pattern allows us to establish the correct visor angle for the bimini pattern we just made. It also lets us use this same pattern to sew on our zippers. Sewing zippers to patterns speeds up the pattern process considerably.



**7** Correct the shape of the pattern over the top of the windshield with darts. In the photo, we are marking a dart from the top of the windshield down. The pattern is stuck to the top of the windshield with double-sided tape. The top of the windshield is the pivot point for the top of the darts. We make dart folds in the pattern between the fasteners to remove the extra material, and then make our hash marks over the fold. When the darts are taped together the pattern will not be flat. Later we will cut along the windshield line we drew to again make the pattern lay flat as well as now having a seam in a spot that we can cover with a fabric strip.



**8** Be careful when the windshield angles outboard and forward of the bimini's width. In the photo, notice the large dart marked from the corner of the windshield down with hash marks. Notice the horizontal line drawn that follows the top edge of the windshield. Also notice the fastener on the bottom right labeled with an "M" for match mark. The forward edge of the side panel will be labeled at the same location. In this way the match marks on the two pattern pieces can be aligned on top of each other and taped together back at the shop.



**9** This is an inside shot of our side pattern. We have added an extra match mark at the windshield corner to account for this outboard angle. We are using a third match mark arrow at the point of the windshield as shown. We have another match mark arrow at the same location on the forward pattern. When aligning the forward and aft patterns, these three match marks must meet or your enclosure will not fit the corner. Align all three match marks and tape the pattern back together. The pattern will no longer be flat.



**10** This is an inside view of our top pattern in the corner of the bimini. Notice the black arrow match mark at the corner of bimini pocket. The bimini pocket is 1½ inches up from side of bimini. We overlap all bimini corners by this amount to prevent gaps and leaks. The natural intersection is just to the right of match mark in the photo at the same level. The enclosure panel extends up to the bottom of the bimini pocket to hide the zipper.



**11** The side zips are sewn onto a straight line at the top of the side pattern. Correct the top zip angle with darts using hash marks between the fasteners, as in the photo.

The bottom of the top zipper line is now the top pivot point of the darts. The straight zipper line at the top of the pattern will now be angled correcting the pattern so it can be flat again. See the article on "Patterning an enclosure" in the May/June 2010 issue or online at [www.marinefabricatormag.com](http://www.marinefabricatormag.com) for more information on correcting pattern angles with darts.