

Cutting and Assembling Instructions for your Replica U.S. Lighthouse Service Pennant



By Sonja Selboe



U.S. Lighthouse Society
9005 Point No Point Road NE
Hansville, WA 98340
(415) 362-7255
uslhs.org

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The U.S. Lighthouse Society also publishes *The Keeper's Log* journal, a resource management and information service for people who care deeply about the restoration and preservation of the country's lighthouses and lightships.

List of Materials:

Patterns:

Paper flag pattern - *Included*

Paper reinforcing piece pattern - *Included*

Cardstock Lighthouse pattern - *Included*

also included - mini cardstock lighthouse pattern
for mini flag

Fabric: - *can be purchased at marine supply stores*

Red - Sure Last (60 inches wide) - 2/3 yard

Blue - Sure Last - 1/6 yard

White - 6.5 oz. or 8 oz. - Weather Max (60 inches wide) - 5/6
yard

Thread - UV Protection Polyester or Nylon Z69

(very important to have UV protection) - *also available at
marine supply stores*

Size 16 sewing needle

Iron

Pins

Pencil

Blue Painter's Masking Tape

Brass Grommets - Size No. 4 with 1/2 inch diameter opening

Optional - Fusible bonding web - lightweight bonding is
recommended and can be purchased at craft stores, fabric
stores, quilting stores, or online.



Pre-assembly Information

SEWING STEPS:

1. Sew bottom border first.
2. Sew top border second.
3. Sew hoist (header end) border last. (Point is the fly end)
4. Sew all four rows of stitching on each border before working on next border.

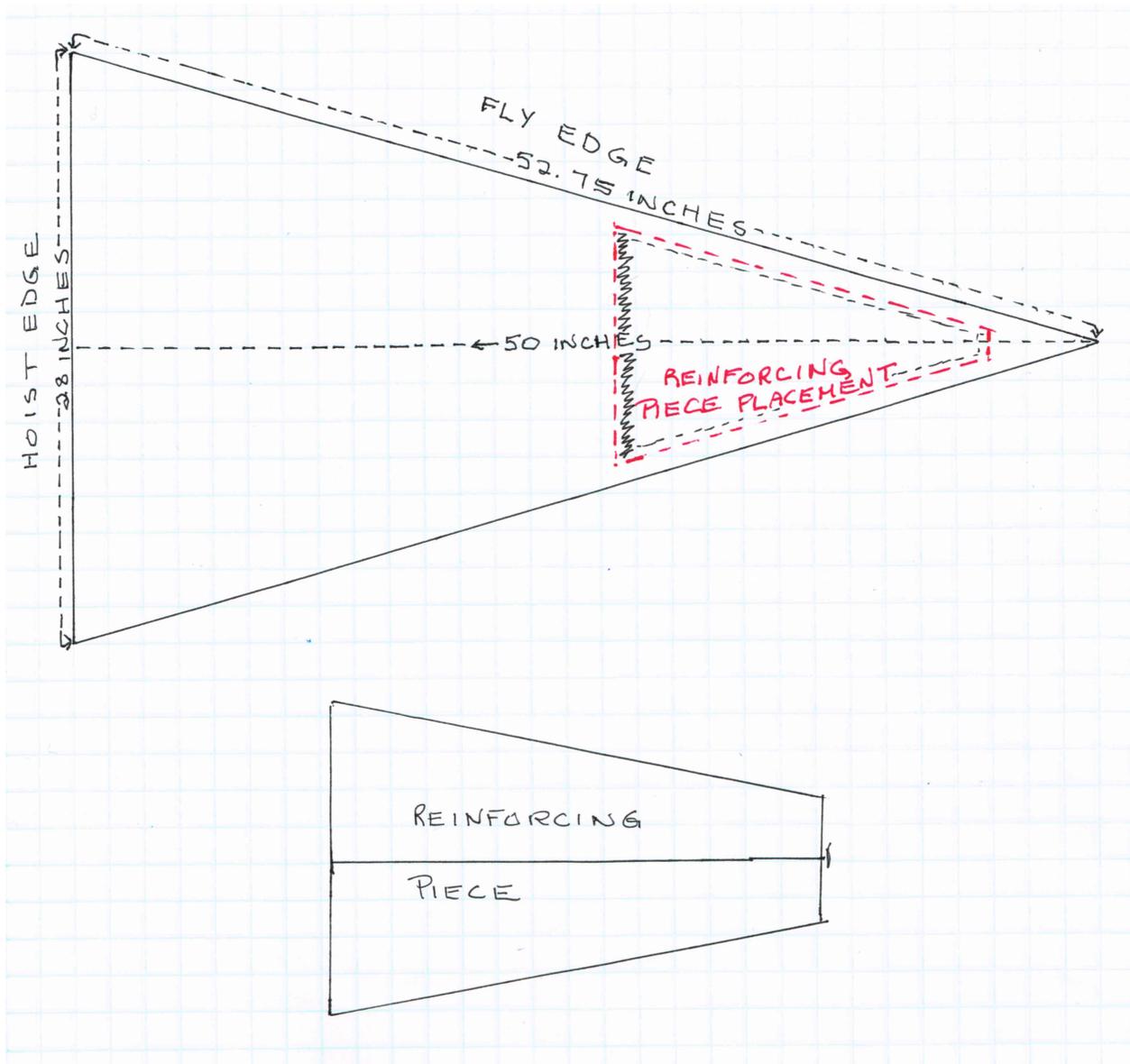
THREAD:

White thread and long stitches are used on red borders for visual clarity in this manual. Normally you would use thread color that matches fabric color though it's not mandatory. However, you should use blue thread (or other dark color, such as black) on the blue lighthouse symbol.

NEEDLE:

Use a size 16 needle and a sewing machine.





Cutting Instructions:

1. Cut white triangle

50 inches long from center of hoist edge to point

Length along fly edge will be 52.75 inches from hoist edge to point

Height of hoist end 28 inches

2. Cut a second partial flag about 24 inches long measuring from the point.

This is a reinforcing piece that will help to keep the flag from fraying at the juncture of the two red borders. Point No Point and New Dungeness light stations have both added this extra piece, and it has worked well.

Cutting Instructions Continued:

3. Cut three red strips

Two strips 7 inches wide and 56 inches long 7" x 56" (for fly edges)

One strip 7 inches wide and 32 inches long 7" x 32" (for hoist edge)

Excess length will be trimmed away later.

4. Press paper pattern to eliminate folds.

Lay pattern on fabric and secure with painter's masking tape and trace with pencil and straight edge.

5. Cut one each of the above. Stitch reinforcing piece to triangle.

Straight stitch can be used on three sides.

6. Zigzag stitch the exposed edge as shown.

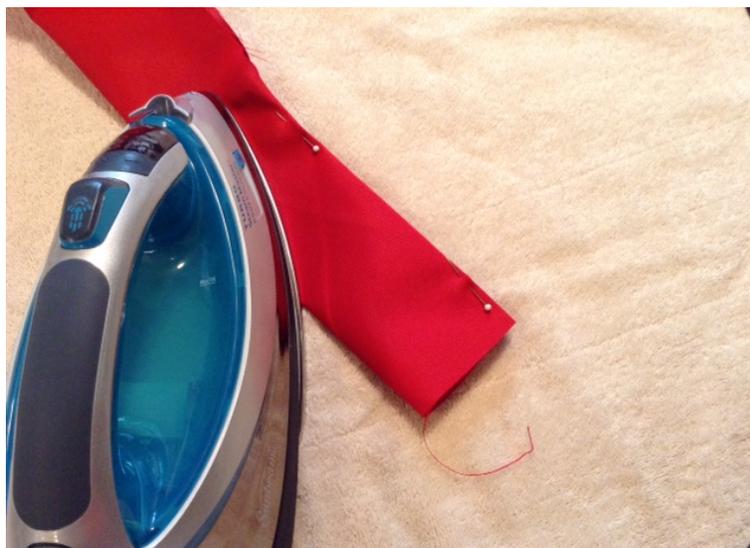


Sewing Instructions:

Press $\frac{1}{2}$ inch seam allowance on all long edges of red strips. Iron should not be too hot or fabric will melt. Just hot enough to slightly crease the fabric. Author used silk setting.



Fold in half lengthwise matching pressed edges. Pin along matched edges. Press along fold.

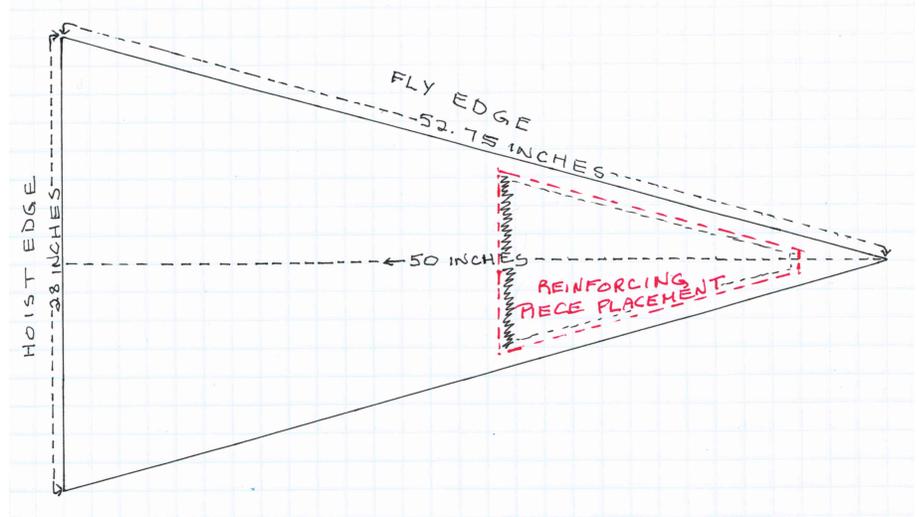


Bottom Border:

First Sewing Step: Sew reinforcing triangle to flag around all three sides. The side that won't be covered by borders should be sewn close to edge of fabric.

Zigzag stitch is best.

Including a reinforcing piece is strongly recommended to keep the flag from fraying at the juncture of the two red borders!



Carefully pin bottom border to flag. It's important that white fabric lay right along crease of red border and that long border edges line up with each other on opposite sides. Move and re-pin as needed to achieve this.



Before pinning all the way to the point, trim away border seam allowances about 9 inches from the point on both sides of the bottom border. This will eliminate bulk when adding top red border. Finish pinning to the point. Make sure border and flag fabrics lie smoothly before sewing.



Sew $\frac{1}{8}$ inch from hem edge and again $\frac{1}{4}$ inch from first row of stitching. Sew again in same manner along folded border edge. Sew all four rows of stitching before attaching second border.



After bottom border is completely attached and all four rows are stitched, trim excess fabric all the way to the point. We suggest that you draw a line with pencil and ruler to provide a cutting guide so you don't cut off any of the white fabric or the point.



Top Border

Attach top red border strip following instructions for bottom border, but **DO NOT TRIM AWAY SEAM ALLOWANCE** or excess fabric near the point until you see how much you need to cover the point. Leave just enough fabric at the tip to allow $\frac{1}{2}$ to $\frac{3}{4}$ inch to be turned under as a hem to enclose the point.



See figures 1 through 8 on next page for procedure.

At the tip of point, wrap one side of border over raw edge before sewing so raw edges are enclosed or covered. Trim that side as needed to fit the point. Then pin carefully and trim, perhaps several times, until the border edges match and you have a point at fly end. It won't be a sharp point because it's not possible to get a sharp point with so many layers of fabric in that small space. When point is finished, all raw edges should be enclosed by the top border. If you follow the pictured steps, you will achieve this. Sew long edges as described for bottom border.

Bottom Border Steps in Pictures:

1.



2.



3.



4.



5.



6.



7.



8.



+ Hoist End

Trim excess border fabric from hoist end.



Pin and sew border to hoist end in same manner as two previous borders. Pin carefully and precisely. Make sure hoist-end fabric lies along border crease.



Border width is the same as the fly edge borders. Be sure to enfold all raw edges in one of the hems before sewing. Trim excess fabric to fit fly edges. You'll have to trim at an angle to fit the flag's angle. Sew along both sides the same as done on fly borders.



+ Lighthouse Symbol



Method using iron-on bonding -

Purchase a light weight fusible bonding web. This can be found at craft stores, fabric stores, quilting stores, or online.

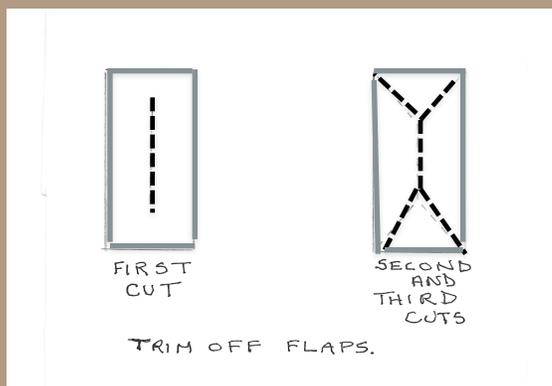
Follow package directions, except do not pre-wash fabric and do not peel off paper after first bonding step.

Cut a blue piece of fabric large enough for two lighthouses. Cut bonding paper to just a little smaller than size of fabric piece, so you don't get bonding glue on your iron. **Quilter's tip!** - Put a file folder under fabric and bonding paper to keep from getting bonding glue on ironing board.

Remember, do not peel off bonding paper yet.

Also, allow to cool completely before handling so bond does not separate.

First you will trace the lighthouse pattern on the paper twice and cut out the lighthouse and windows. Then you will peel off the paper.



Place one lighthouse so base is 4 ³/₄ inches from hoist border and evenly spaced between top and bottom borders.

Press until bonded to flag per package instructions.

Place second lighthouse on other side of flag, lining it up with first lighthouse.

Holding flag up to a window helps you see the first lighthouse easier.

Tape in place with painter's easy-remove masking tape (blue in color). Press until bonded to flag but don't press masking tape. Again, cool completely before handling or bond will separate.

Stitch around edges of lighthouse and around each window. Zigzag works well. You may also want to stitch around the windows with a small straight stitch.

Since we can't vouch yet for how bonding holds up in all kinds of weather, you may want to add some extra lines of stitching the length of the lighthouse symbol.

Method without iron-on bonding - Using lighthouse pattern made of card stock, trace on blue fabric using a white fine-point marker.

One suggested brand: Uniball SIGNO; Pigment Ink UM-153; White

Trace the five windows and cut them carefully.

Candle all outer edges of the lighthouse **CAREFULLY** to form a melted bead along the edge. *Fraycheck might also work, but we didn't try that.*

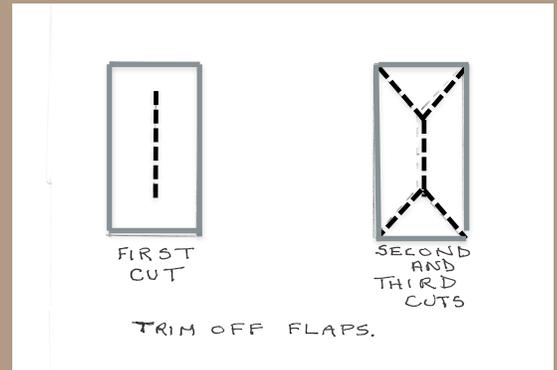
Do not attempt to candle the window edges. You'll end up with misshapen rectangles.

CANDLING is the process where edge fabric is run quickly along edge of candle flame or stove to melt edge slightly to form a hard bead. The bead will be hot for a few moments, so do not touch until it cools. The bead helps prevent fraying in the wind. Practice candling on a fabric scrap first to become comfortable and adept at the process.

* Position one lighthouse in place and pin or tape with painter's easy-remove masking tape. * Sew around edge with long machine stitch or hand stitch in place. * Position second lighthouse on other side of flag **PRECISELY** opposite first lighthouse, pin or tape, and sew both in place. It's tricky, but you can do it! *If you discover a better way of attaching first lighthouse symbol, then lining them up together, please let the USLHS know so the information can be shared with other lighthouse groups.*

SEW.... around and close to edge of lighthouse; around and close to edge of each cut out window; from top to bottom of lighthouse about five or six times, or sew across lighthouses horizontally with lines about 1 inch apart.

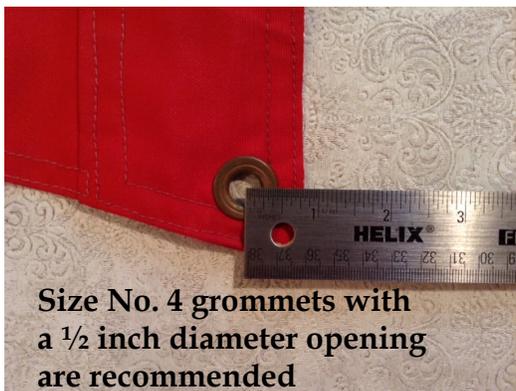
** It's important to sew extra lines so wind does not get between lighthouse symbols and flag fabric.*



+ Lighthouse Symbol

Grommets:

Be sure to get BRASS (non-rusting) grommets and NOT brass-plated steel grommets. Use a heavy-duty grommet tool to install grommets at top and bottom corners of hoist edge. Grommets should be $\frac{3}{4}$ inch from edge so flag clips can secure flag to rope. Flag shown has been flying for two years so grommets are no longer shiny. Note that they are not rusty which is why you must use brass.



Size No. 4 grommets with a $\frac{1}{2}$ inch diameter opening are recommended

Suggested sources for grommets and installation are hardware stores, marine supply stores, canvas and awning makers, etc.



For historic purposes, we suggest you write the year the flag was made in the corner of the hoist end in permanent marker.

It is recommended, when not in use, that the flag be rolled around a cardboard tube, or other similar round item at least 2 inches in diameter. Tie around the center with a wide shoestring or similar soft material (such as a ribbon).

Folding is not recommended as creases can damage the fabric over time.

Making a "Quilt Wrap" to store the flag keeps flag clean and in a roll for storing. Search for "Quilt Wrap" on the internet to easily find a pattern online. We highly recommend this method and used a pipe insulation tube. Swim noodles are also good. Buy them at end of summer when they go on sale. Both are easily cut to the length needed, about 30 inches. We bought 85-inch wide muslin. Then you only need one yard to make a Quilt Wrap.

The flag can also be hung for storage on a wall, indoors, out of direct sunlight.

Mini Flag:

Friends of Point No Point Lighthouse, Hansville, WA, made small flags from fabric leftover to sell in the lighthouse museum store for \$12.00 each and recouped the initial cost of fabric. Other fabrics can also be used if the flags are for indoor use only.

Dimensions were: Length 16"
Height 9 ¼ "
Border strip width 1" (strip is cut 2 inches wide and folded in half)
Lighthouse 4 ⅝ " high

Instead of cutting out the tiny windows, windows were made by zigzag stitching with white thread in the window rectangles traced from the pattern. Smaller grommets were used in the corners. We made them with the lighthouse symbol on one side only, but some people complained about that. So we suggest you put a lighthouse on each side.



Sonja Selboe:

Sonja has been sewing for most of her life, making clothing for herself and her family, including lots of mending and altering. In recent years Sonja has volunteered her sewing skills to various charitable organizations in her community, including the Point No Point Light Station, WA where she is a docent.

One of the items on display at the Point No Point Lighthouse Museum is a historical U.S. Lighthouse Service pennant, which Sonja was immediately drawn to. As someone who sews, she was curious about how this artifact was made and what materials had been used. Upon closer examination, Sonja discovered obvious wear patterns and that the old wool pennant had become very tattered and discolored having been exposed to the harsh elements while in use. Obviously, this historic relic could never be used again. So with her interest peaked, Sonja set her sights on recreating the pennant as closely to the original as possible.

Her first step was to enlist the services of a specialty marine fabric store in Seattle who advised her on which fabric would hold up well in extreme wind, sun, and rain. Then, using the historical pennant for measurements, she developed a pattern and then hand-made the more durable pennant taking special care to reinforce it where necessary. This pennant is now proudly flying at Point No Point Light Station, WA. Although the materials are different, the end result was an exact replica of a U.S. Lighthouse Service pennant, just like those that would have flown at every light station in the U.S.

After seeing the splendid results, Sonja realized that other light stations around the country might want (and should have) a replica pennant to proudly fly. Since she could not possibly make the many hundreds necessary on her own, she decided to write a manual so other lighthouse organizations could make replica pennants, which for her was a very rewarding experience. The theory was that there should be at least one person involved with a particular lighthouse that sews, to which a project like this would appeal.

Sonja has long been fascinated by lighthouses, their locations, and the kind of people drawn to be keepers. She has visited many lighthouses around the U.S., and cares deeply that these maritime treasures and their history be preserved for generations to come.

