



2018 National Order of the Arrow Conference

**Cell Name: Patch Design and Collecting**  
**Session Name: Patch Manufacturing and Design**

**Session Length: 45 Minutes**

Through this session, you will—

**Explain:** How patches are made and how to design a patch.

**Demonstrate:** See patches being made and look at patch designs.

**Guide:** How to follow rules to make a good and legal design.

**Enable:** To improve their lodge's designs and improve their marketability.

**Learning Outcome:**

- How patches are made
- Follow rules set out by BSA Licensing.
- Better patch designs

**Theme Connection:**

The theme of the NOAC 2018 is “Decide Your Destiny” emphasizing the message that today’s decisions shape tomorrow’s reality.

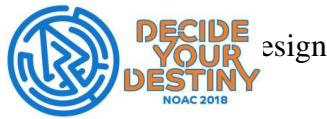
This session will help you improve your patch designs to make them more marketable and drive your patch sales to support your future program and mission goals of your OA lodge.

**Required Materials:**

- Handouts
- Flip Chart (if desired)
- PowerPoint Presentation (projector and screen)

**TRAINER PREPARATION**

1. Review information in this syllabus and PowerPoint slides.



2. Update and personalize the PowerPoint slides to fit your presentation.
3. Prepare Flipchart Pages or use chalkboard or Dry Erase board prior to presentation.
4. Ensure that you have adequate writing markers, chalk, erasers, video projector, and video screen.
5. Make sure your electronics can show the PowerPoint including video clips which require Wi-Fi capability. Have back-up plans.
6. Make an adequate number of handouts for your audience.

## Session Narrative

### Introduction

**3 minutes**

(Slide#1) Good Morning, my name is \_\_\_\_\_, and my qualifications to present this topic are as follows:

**Trainer Instructions:** Have prepared notes ready for your personal introduction

**37 minutes**

(Slide#2) By taking this training session, you should be able to know how patches are made. You will also know how to design better patches while staying within the rules of the BSA.

(Slide#3) The theme of the NOAC 2018 is “Decide Your Destiny” emphasizing the message that today’s decisions shape tomorrow’s reality. This session will help you improve your patch designs to make them more marketable and drive your patch sales to support your future program and mission goals of your OA lodge.

### Manufacturing

(Slide#4) Machines were being developed in the 1860’s to change embroidery from hand sewing into time-saving machines. By the 1870’s, there were 14 companies in

Switzerland that were manufacturing Schifflli machines. Most of the US embroidery manufacturing was centered in the New Jersey area in the early 1900's.

**(Slide#5)** Patches were made on one piece of material and all of the needles stitched at the same time. The needles were controlled by the operator that moved the cursor over the design cartoon. He went back and forth to make each stitch.

There were machines set-up for 2-inch and 3-inch and 4-inch patches. For a 3-inch patch, 225 needles would stitch 225 patches at a time. A 4-inch machine could make 170 patches at a time. These quantities were known as loom quantities. OA flaps were usually done as 2-inch patches with a loom quantity of 340 pieces.

Later innovations included a machine that produced punch patterns for designs of larger quantities. That enabled the operator to only use the cartoon design once while punching the punch pattern.

One color was done at a time. Many looms of patches were stitched while those needles were loaded with a color. A bell was rung when a color change out was needed. Employees would run over to that machine and quickly change out to the new thread color for the 225 or 340 needles. Each color cost more money for the customer because of this labor cost.

Thread trimming was done by hand. Merrow machines did not come on to the scene until the late-1940's to make a nice finished rolled border.

The current multihead machines were introduced in the early 1970's, and their use totally disrupted the embroidery scene. Most of the old embroidery companies using the Schifflli machines with USA labor were faced with the onslaught of multihead machines located in the Far East with lower labor costs and lower costs for more colors. Many of those old companies did not survive.

**(Slide#6)** [Click the link, then right click and click Open Link. Start at about 1:28 and run until about 4:58. Video on old Schifflli machine embroidery.](#)

**(Slide#7)** Multihead machines initially had six needles per embroidery head and could make 12 to 30 patches per run. Usually about ten runs for a three-inch patch could fit on a piece of twill material. Later, embroidery machines were made with 9 and 12 and 15 needles to handle more colors.

[Go to AB Emblem website for video of multihead machines.](#)

**(Slide#8)** After the twill is taken off the embroidery machine, the plastic backing is attached using a heat press. Before the 1970's, patch manufacturers used starch to stiffen the patches. Manufacturers switched to PVC plastic in the 1970's, but that was outlawed by the US Government when they passed the Consumer Product Safety Improvement Act of 2008. The CPSIA of 2008 regulated lead and phthalates in children's products. PVC uses phthalates as a softening agent. Most companies now use polyethylene for their plastic backing.

**(Slide#9)** After the plastic is applied, the patches are cut out of the twill material using a clicker press with a die or cut out using a hot needle (for cut edge borders), or by hand with scissors.

**(Slide#10)** A merrowed border is applied to most patches one at a time using a Merrow Machine or overlock machine. The merrow tails are glued down, and the patches are inspected for thread breaks and other problems.

**(Slide#11)** Stickers are then attached. From left to right are as follows:

The QR code stickers are for scanning by the Scouts to see the quantities made and if they were made officially by a licensed BSA supplier. They are needed for OA flaps, OA pocket patches, and Jamboree patches.

The second sticker is for traceability in case of a recall of the patch order for containing lead or phthalates. This was mandated by the Consumer Product Safety Improvement Act of 2008. The sticker has the design number of the order, the month & date of manufacture, and the code for the factory.

The third sticker is the patch company sticker.

The fourth sticker is the holographic sticker for BSA Licensing. Special printed plastic backing with the company's name and BSA Licensing logo can be substituted for the holographic sticker.

**(Slide#12)** Patches are counted and put into the plastic bags for shipment to the customer.

### Designing a patch.

**(Slide#13)**

I suggest that you work with your BSA Licensed patch company to design your patches. You can send them ideas and scans of what you want.

Here are the 24 BSA Licensed patch companies.

**(Slide#14)** If you want to design the patch yourself, please follow these guidelines:

1. Draw the design the same size of the finished patch. You can see what can and cannot be stitched by using the same size artwork.
2. Determine what lettering that you want on the patch. Put it into the design first to see if you have too much lettering.
3. Keep the lettering to ¼ inch tall (18 points).
4. Try to use lettering without serifs unless the lettering is large. Block style lettering stitches the best. Try to stick to upper case lettering.

**(Slide#15)**

5. Determine if a merrowed border is needed. Leave a 1/8-inch border for the merrowed border.

**(Slide#16)**

6. If the design is irregularly shaped, then a hot needle cut border is desired. You do not have to leave a 1/8-inch border for that style of patch.

(Slide#17)

7. 9 colors or less is the same price. Know what your lodge budget can handle for your flaps and event patches. These designs are over 9 colors.

(Slide#18)

8. Add BSA lettering or a Scout fdl in the design to comply with BSA regulations. You may ghost these elements.

(Slide#19)

9. Make sure your design follows the OA Branding guidelines. An OA arrowhead less than 1 inch on a patch needs to be solid red with no white facets.

(Slide#20) Here is the cover to the OA Brand Guideline booklet. It can be found on the National OA website.

(Slide#21) Here is the page about OA arrowheads.

(Slide#22)

10. Third party trademarked images used on the patch need written permission from the trademark holder before the patch can be produced. How many trademarked words do you see?

Caesar's Palace(gambling), Olympia Beer(alcohol), Mack Trucks

(Slide#23)

This how we dealt with these trademarks.

(Slide#24) 11. Follow the Native American guidelines. Native Americans cannot be holding tomahawks or other weapons. Animals cannot be in Native American regalia.

(Slide#25)

11. The patch company may want to redraw your design to refine your ideas. Here is the patch after the artist input.

(Slide#26)

(Slide#27) Here is another sketch

(Slide#28) And the artist design.

Whether you design the patch yourself, or have the patch company design it, you need to give the patch company enough time to do the artwork and produce the patch. Give the patch company 3 weeks for the artwork. Most of the lodges in the country are on the same calendar of events, and the art department can get backed up with designs. Jamboree and NOAC years can be quite busy for a patch company.

All BSA designs must be approved by BSA Licensing for correct BSA trademarks, third party trademark approvals, and approved overall designs. Designs are sent by the patch company to BSA Licensing at the time of order.

**(Slide#29)** Here is an idea from Tupwee Lodge. What did they want? A flap, a train and NOAC on the patch.

**(Slide#30)** And the resultant patch design. See the difference that the patch company artist makes in the patch design?

**(Slide#31)** Here is a design that was drawn and submitted to BSA Licensing. Licensing rejected the design with the Native American headdresses.

**(Slide#32)** Here is the design that was suggested by an adviser, but the Lodge Executive Committee voted it down. A whole different idea and design was developed.

What is a good design? You tell me... (show some designs of patches and get input from the class).

Make sure to notice if there are any designs that will not be approved by BSA Licensing.

**(Slide#33)** Wichita Lodge issues patches in honor of arrowmen that have passed away.

**(Slide#34)** Donnie Smith was a Marine, so the shape of the patch is the United States Marine Corps symbol.

**(Slide#35)** Lodge Banquet patch using a shell from the council.

**(Slide#36)** Montana's three bears. They cannot do these designs anymore.

**(Slide#37)** Patches for 3 lodge events.

**(Slide#38)** Nice felt flap, but we cannot have things sticking out from the flap shape anymore.

**(Slide#39)** Historical Civil War battle from their council area. No Confederate flags allowed. Use state flags instead.

**(Slide#40)** Anniversary of the first flap. Notice the newborn duckling from the first flap of the Lodge.

**(Slide#41)** Back patch---need a large patch for the lodge name (longest lodge name in the OA).

**(Slide#42)** Patch with button tab instead of button loop.

**(Slide#43)** Conclave thank you patch

**(Slide#44)** Cannot use the words Olympics or Olympiad or 5 interlocking rings or even 5 interlocking or touching Scout signs.

**(Slide#45)** Eagle Scout Trail

**(Slide#46)** Haunted Forest design

**(Slide#47)** Another Haunted Forest design.

- (Slide#48) Haunted Hike from Chicago.
- (Slide#49) 2016 Haunted Hike---the ghost was an adult from the lodge.
- (Slide#50) Haunted Hike---Mayan End of the World 2012
- (Slide#51) Haunted Hike
- (Slide#52) Haunted Hike using the Lodge Chief's face.
- (Slide#53) Another Wichita Lodge tribute patch.
- (Slide#54) Cannot do this flap shape anymore.
- (Slide#55) Wipala Wiki flap ideas. They usually only order 200 to 300 flaps per design, so they will sell out quickly.
- (Slide#56) If your designs are too intricate, then a process called photo over can be used to die the polyester threads in place after they are stitched. It is a sublimation process. See how the flaps are printed to get the tiny detail. This process usually adds two to three weeks to the delivery time of the order.

Any Questions?

## Mentoring and Communication

5 minutes

Thank the group for their input during the session. I encourage you to reflect on our session today. What did you learn today that will help you help your lodge to make more money with their patch sales?

## Appendix: Resources and Source Material

A-B emblem website

Native American guidelines for patches--BSA Licensing

Order of the Arrow Brand Guidelines, January 2016.