

Letters

A Solution to a Covering Problem

The Acro Sport Fly In this past June provided my family and me with a very enjoyable weekend. Becky and Laura really enjoyed their ride in the Ford Tri-Motor, and even got some time in the right seat. Debbie and I mostly enjoyed meeting the people who have up until now just been names in the newsletter. Shaking hands and hearing voices (Ya'll sure do talk funny up there,) gives the newsletter a more family like sensation when reading.

The most fun is getting to look at other airplanes and asking questions and even getting to answer a few. One topic of conversation, and oftentimes point of frustration deals with a problem area in the fabric and paint near the aft end of the turtle deck. Fighting the lines and dimples that show up here can really try your patience.

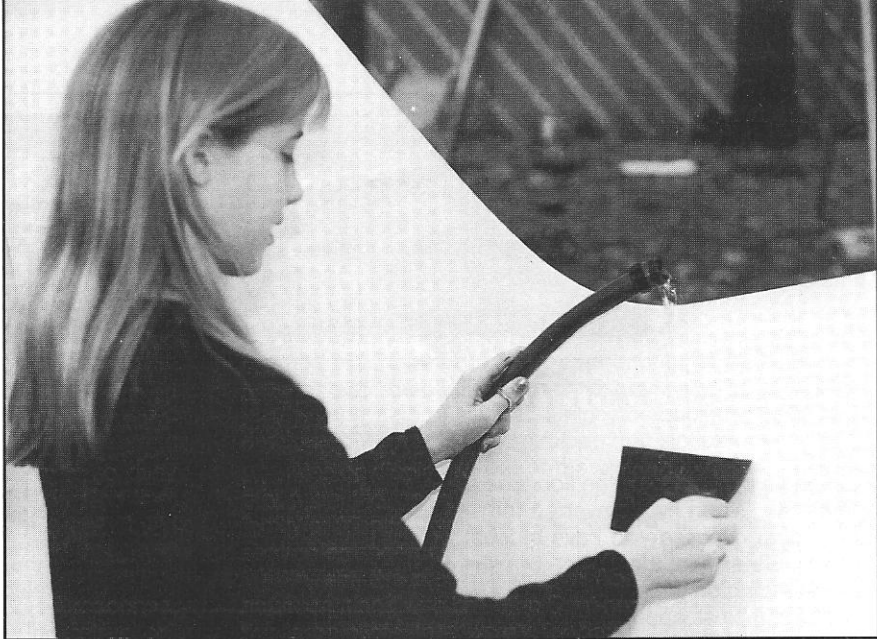
I had the same problem so many others have had and until you understand what is going on, you don't have much chance of getting rid of it.

The first error lies in following the directions in the Poly Fiber covering manual. It says to coat all surfaces to be covered by fabric with Poly Brush. It should say to coat all surfaces except the turtle deck on Acro Sport, Pitts, Eagle and similar aircraft before covering.

The line that shows up when the fabric transitions from the turtle deck to the free area of the fabric is caused by the fabric bonding to the turtle deck skin in the transition area. The dimples are formed when you try to sand this area. (I know Poly Fiber says you don't have to sand their products, but I'm not that good.) Irregularities on the metal or wood that almost touch the fabric telegraph into the paint when you push the fabric down while sanding. The harder you sand, the worse it gets.

The first step toward the cure is to make a strip of 1mm plywood about an inch wide and about 16 to 18 inches long with the end rounded and the edges sanded very thin. This is used to reach in between the fabric and the turtle deck and sever the bond between the fabric and the deck up to a point ahead of the transition area.

Once this is done, make another



Dimples and wrinkles when covering the turtle deck can be eliminated.

stick with a little hook shape in the end and use it to clean out any coating debris that is making bumps in the fabric. Once this is done, spray a wet coat of slow (hot weather) reducer right onto the affected area. This will soften the remaining Poly Brush and allow any remaining roughness to lay down. Don't try to smooth bumps with an iron. That would simply bond the fabric back to the deck. Once you have gotten everything to lay down, (It may take several applications of thinner) you will still have some areas that must be sanded smooth. The problem here is you can't put any pressure on the fabric or it will make new dimples in the finish. A new method of sanding must be used. First, use a very soft lead pencil and draw a line around the spots you want to sand out. Now, using #320 or #400 paper with water, wet the area and lay the paper on it and get it to stick. The water provides a seal and causes the atmosphere to hold the paper against the painted surface. Pick up just one corner of the paper as Becky has done in the photo, and wiggle it back and fourth to do the sanding. You are actually pulling up on the fabric while you sand. Do this until the pencil marks are gone. Allow everything to dry and look to see if the dimples remain. They will show up as shiny spots in the sanded areas. If they do, draw a line around them and repeat the process. If you work your way down to the silver, shoot a couple of coats of colour on to the area and continue the process. Yes, it is a very long time consuming process.

I have found that cool, dry days are your best friend when using Poly Tone finishes. Last winter here in Louisiana was very mild with nights around 35°F. warming into the 60s during the day. I would shoot Poly Tone in the morning at 40° to 45° mixed 3 to 1 with reducer sold for hot weather. This gave good flow out without any dry lines. On the

last coat, I mixed the paint 1 to 1 for a high gloss. no buffing finish. (As high a gloss as vinyl based paint will give.)

In looking back through the newsletters, I noticed that John Flannigan of Elmira, New York had what appeared to be a really smooth job in this area. I called and talked to him to see what he had done.

John used an old school method and got very pleasing results. He covered the turtle deck with what he called pool table felt and used a sewn seam down the spine of the fuselage. Check out his Acro Sport in newsletter #60 and give him a call. I'm sure he would be glad to help.

The old Stits covering manual as well as Ray Stits covering video outlines a process using polyester flannel to achieve similar results.

When Curtis Pitts designed and built his new Model-12 (Macho Stinker) he eliminated the fabric in this area and used an aluminum panel making all the workings and fittings for the tail group more easily accessed. Ben Owen is building a Model-12 and perhaps with Curtis' permission, he will share the details of this with us. Maybe it could be adapted to our Acro Sports.

If any one else has a different cure or remedy and would like to share it, our newsletter is the place to do it. If you have any questions about my method, or any other areas of construction and think I might be of some help, please call.

A special thanks goes out to the fabric finishing technician at Poly Fiber for some of the tips I used in correcting my "PROBLEM AREA" on my Acro II.

Happy building,
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