Covering and Paint (Part I)

TRADITIONALLY, Giant Scale models have used varying methods of finishing, from fiberglass and paint to Stits cloth and dope. Although the results with these methods can be beautiful, many of them are geared more toward appearance than overall final performance. That's not to say we aren't concerned with appearances in Scale Aerobatics (SA), just that we want the airplane to be aesthetically pleasing and remain as light as possible. SA aircraft are finished like most sport airplanes—with iron-on plastic coverings and paint for the fiberglass parts.

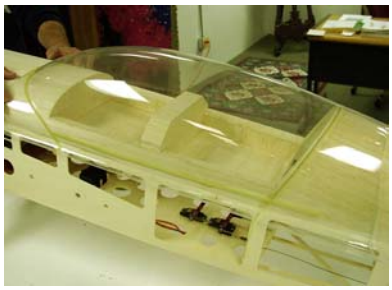
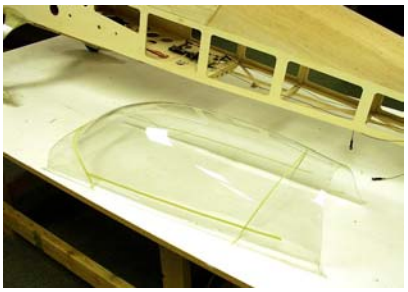
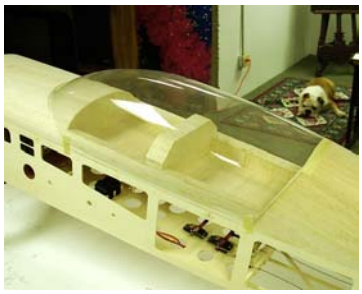
Admittedly, there are craftsmen in the modeling community who are better suited to a tutorial on covering, so I'm not going to go too deep into the subject. But I will try to share several tips and hints for getting a professional-looking finish for an SA airplane. I'll also discuss fitting the canopy and finishing the cockpit, and I'll touch on methods of painting the fiberglass parts. If you want some information on the basics, go to www.monokote.com/monoinst1.html for MonoKote and try http://horizon.hobbyshopnow.com/articles/1115.asp for more info on UltraCote.

Most SA modelers use UltraCote- or MonoKote-brand coverings. There has been a long-standing debate about which works better and which is easier to apply. As anybody who has ever finished a model with one of these brands can tell you, it takes a bit of practice to get the knack of working with iron-on coverings no matter which one you choose. The answer to which is easier to use is simple: the one you are used to. Erik Richards and I have more experience with MonoKote, so we will use that.

Before the covering can begin, we have a few last-minute items to finish up. It's time to fit and trim the canopy. Cut the front and rear sections out of the canopy so you

can fit it onto the model. Center the canopy side to side as close as possible. Since this canopy was originally designed to fit another aircraft, it is a tad too big. We cut the canopy to the size indicated on the plans, which should knock approximately four inches off the rear portion of the canopy.

Tape the canopy in place on the airplane. Using 1x4-inch Fine Line tape (or any striping tape), mark out where you want to cut. The tape works well for fine-tuning placement and ensuring that you get straight lines. Carefully trim and fit the canopy. At the front edge of the canopy where it fits over the top of the hatch, Erik left in a slight amount of the curved fillet to give a slightly better fit and more gluing surface.

Erik decided to finish the cockpit with a speckle-texture paint. There are many types of texture paint; some are made to simulate granite or stone. We used paint from Pep Boys auto parts that is made for finishing automobile trunks.

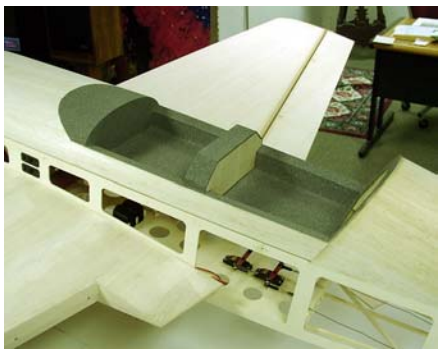
There are a few tricks to using this speckle paint. It's best to use a primer base coat before applying the paint. The speckle goes on wet and does not cover well, so the base color gives you the ability to use much lighter coats. Be careful to keep the coats of paint and speckle light and fairly dry, or you might warp the wood. A few dry coats are much better than one heavy coat. Mask off the hatch well so you don't get overspray on the wood.

Mask the area for your dash panel. For a lightweight dash we used a composite of some of my digital photographs that I put together on my computer. I printed it on glossy paper and spray-glued it directly to the wood. If you go to the Project Extra Web site (viewable at www.modelaircraft.org/mag/index.htm), you can download the dash image to use in your Extra.

At this point Erik has not decided on a pilot. Remember that the cockpit area is not built to hold any significant weight, so a bit of reinforcement to the hatch floor will be necessary if a pilot is added.

Before you begin to apply any covering, it is important to prepare the wood surfaces. As I discuss the way we like to do it, know that there are many ways to accomplish a great finish; ours is not the only way.

Erik likes to final-sand everything with 320-grit 3M Tri-M-ite Fre-Cut sandpaper; it has a gray color. The 3M papers stay sharp longer and resist loading up. Erik likes to spray-glue the sandpaper to a scrap foam block. The foam is soft and contours to the shape of the wood but does not allow problems from palm or finger pressure points. Use a good-quality filler to fix any hangar rash or imperfections. We used NHP Micro-Fill model filler. It's easy to sand and super light.



You can seal the wood with a light coat of Aqua Net hairspray before you sand. Once sealed, the tiny balsa fibers created from sanding come off easier and a smoother surface can result. The downside is that with a sealed surface, the gas created from heating the MonoKote is more likely to get trapped as you apply the covering. The result can be a smoother finish, but it's much harder to avoid the dreaded bubbles.

We decided not to seal the wood for our airplane. Once filling and sanding are done, it's a good idea to thoroughly vacuum all of the surfaces to be covered using a brush attachment. The vacuum pulls the dust from the wood's pores. Wiping with a tack rag alone can leave dust particles in the wood's grain. We also spent a great deal of time vacuuming and cleaning the shop to keep airborne dust to a minimum.

In my estimation, one of the hardest elements of any finishing job is designing an exciting but tasteful trim scheme. Since this is a Scale aircraft, we wanted to start with ideas from full-scale Extra trim schemes and see if there was anything that looked good. Go to the search engines on the Internet and type in "Extra 300." You will eventually find many photographs of current schemes.

Another good source for scale information is Bob's Aircraft Documentation at www.bobsairdoc.com. I ordered the three-views to use as a template for designing my trim schemes. Besides three-views, Bob carries scale documentation for more than 650 aerobatic airplanes—and 80 of them are Extras!

Erik and I made a bunch of copies of the three-view and spent an entire day trying to come up with a new scheme for his Extra. We came up with many interesting and unusual designs but decided on a derivative of the scheme on the prototype with our bulldog mascot Spike as the main graphic element.


JR
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