

## Scale Surface Appearance

They say that beauty is in the eye of the beholder and that it is only skin deep. That statement is also very applicable to model airplanes! When choosing a subject to replicate, one has to not only decide on the type and version, but also in the aircraft's experience. Sometimes we are replicating a freshly minted machine, other times a war-ravaged bird. Both are beautiful in my opinion. This month I will share some of my techniques for finishing the exterior of a scale model.

If you have ever visited the annual Weak Signal's Toledo RC Expo, you have seen the best in scale radio controlled models. The static contest attracts the most talented builders, many of whom are right from our local area. These builders put as much effort into the look of their model as they do the function of it. However, it does not always have to be that way in order to get an authentic appearance. I have a few favorite techniques that I will share in this article.

First the fabric covered airplanes; I love the drum-like sound that a fabric airplane makes as you touch it and as you run up the engine. There are several quality, iron-on wovens available, so you don't need to go through the effort of silk and dope (unless you want to). Some modelers of larger scale fabric planes will even use full-scale Stitts™ fabric. I have not tried that one myself yet, but would love to hear from those readers who have. On most full scale fabric planes the covering is mechanically held to the ribs and frame with stitching or rivets. Because the fabric is penetrated with these stitches or rivets, it is reinforced in those areas with a strip of cloth. These reinforcing strips are sometimes pinked to prevent them from fraying in the wind. All of this mechanical fastening and reinforcing makes a beautiful three dimensional surface that is full of character.

Commercial pinking strips are available. However, I have had great success in cutting my own strips right from the same iron-on covering that I am using for the skin. I have a Fiskars® brand pair of mini pinking shears for the job. I believe the size is technically larger than what is correct for ¼ or smaller models, but the effect is pleasing. I have included a picture of the Gloster Gauntlet aileron section with my pinking strips applied prior to painting.



Pinking strips on the Gauntlet aileron.



Pinking strips cut with Fiskars® scissors

Now for the aluminum-skinned airplanes: These airplanes are not without their own character. They include panel lines, rivets and dimples near fasteners. I have used traditional techniques such as balsa sheeting covered with fiberglass followed by painting. The result is a durable and realistic look with the fiberglass hiding the wood grain. Working with fiberglass and paint requires time for curing and sanding. Iron-on plastic coverings do well over sheeted areas. Quick panel lines can be simulated with pin-strip tapes. Many widths are available where you buy your covering. Flush rivets are easily simulated by replacing the tip on a trim sealing iron with a short copper tube. Choose a tube diameter that would be accurate scale for the rivet head diameter. Place the hot tube on the covering with a slight pressure and the resulting depression ring simulates a nice flush rivet. Use a rule to space the rivets evenly.



Greg Brausa is built a Cessna Bird Dog. He included simulated corrugation and rivet heads with drops of glue, lots of drops of glue. I have included a close-up picture of Greg's elevator (Photo by Greg Cardillo).



For compound curves, pull the covering while heating it with your iron. Pulling can actually stretch the covering over the shape before using additional heating to shrink the covering after it is placed on the wood. I have included a picture where I used this technique to cover an egg-shaped blister for the Gloster project.



For the addition of camouflage, trim color or insignias, the plastic coverings can be painted. However, the covering first needs to be lightly scuff-sanded for the paint to properly adhere. Scuff-sanding with 600 or finer grit can also be done to remove some of the gloss of the plastic covering to simulate weathering or matte finishes for war-birds. Of course, scuff sanding can only be done over sheeted area, not open-frame areas. For these areas you can sand the covering before applying it to the framework.

