

TRUMPETER 1/32 SCALE
P-38J LIGHTNING
MODEL BY MIKE ASHEY

CHAPTER 6

PAINTING

PAINT PREPARATION

There are several different types of paints that are available for scale modeling. The chemical compositions of these paints are very different and they cannot be mixed. There is the trusty Testors line of enamel paints that have been the mainstay of scale modeling since the 1950's, there are lacquer paints, water base paints and hybrid paints which are made by Floquil. I refer to Floquil paints as a hybrid because their paints act like enamels but they have more of a lacquer odor.

As a rule I use the paint manufacturer's thinner or the thinner they recommend. For example, I use Testors Model Masters airbrush thinner for their Model Master paints. The same holds true for water base paints. If you cannot find the manufacturer's water base thinner I recommend that you use Polly-S thinner. Testor's Metalizer paints are lacquer based and if you need to thin them be sure to use a lacquer thinner. If you are using enamels or lacquers you can paint water base paints over them or you can paint enamels over lacquers, but not lacquers over enamels. However you can not paint either enamels or lacquers over water base paints. These petroleum based paints can

damage the water base paint and destroy your paint finish.

Since paint pigments tend to settle onto the bottom of the original bottle over a period of time, it is important to mix the paint thoroughly before each use. This is true of all paints no matter what their chemical properties are. An easy solution is to drop a few copper bee bees into the paint and shake it for a few minutes. The reason that I recommend copper bee bees is that steel ones will rust in water base paints, and this will change the paint color. Another very good practice is to get into the habit of cleaning the neck and top of the paint bottle and the inside of the cap cover with tissue every time you open it. This is always the first thing I do after I shake paint and then open it. This practice will insure that you will have a good cap seal so the paint won't dry out before your project is completed. I also go through this cleaning process every time I use an airbrush paint bottle.

AIRBRUSHES

To really achieve a quality paint finish on your aircraft models you need to invest in an airbrush and a reliable source of compressed air. Acquiring an airbrush and learning how to use it properly will allow you to produce the types of artistic effects necessary to achieve realism and a perception of depth, which are discussed later in this chapter. With an airbrush you can create very thin coats of paint that will not hide or cover up minute detail. You can mix paint colors, produce different shades of the same color and you can achieve superb weathering and streaking that is impossible to accomplish with spray cans or a paintbrush.

Most modelers use a compressor for the air source for airbrushing but moisture trapped in the tank is always a problem. If your compressor is pulling in even slightly humid air, water droplets will form inside the tank and lines and ultimately spitting out onto the surface of your painted model. To avoid this problem and to get rid of the noise factor associated with a compressor I recommend investing in a CO2 air tank and a pressure regulator. The air is very dry and I have never had a problem with water droplets. A tank of air will last you several years and with a pressure regulator you can control the output air pressure from 1 to 100 psi.

Once modelers find an airbrush they like they will usually stick with that airbrush and I prefer to use the Badger 200 series single action, internal mix, bottom feed airbrushes. This airbrush series is made from brass and they are chrome plated and since I have a tendency to rotate the airbrush during painting I like using a bottom feed so that paint doesn't spill out of a paint cup. I also don't trust my finger to stay in the same position on a double action airbrush button as I sweep the airbrush back and forth across the surface to be painted or rotate the airbrush to get into tight corners. So I stick with single action airbrushes.

Airbrushing creates paint vapors, which need to be pulled away from the model so that the particles in the vapors don't settle on the painted surface ruining the paint job. I have a simple paint booth set up in my shop with a standard stove vent above the table to draw away the vapors. The top of the vent has tubing, which runs to the window so that the vapors are discharged through the window's screen. The sides of my paint booth have foam board to act as a barrier against dust and to help the vent draw away the vapors. You can also set up a simple paint booth on top of your stove if you have a stove vent, which deposits the air outside. For a spray booth use a large card-

board box that has the top and front removed and to reinforce the sides, tape the edges with masking tape. This setup works great and, best of all, it is very inexpensive. Also, you should always wear a paint mask whenever you airbrush so that you do not breathe in the paint vapors. I use a respirator paint mask with charcoal filters, which fits over my nose and mouth.

PAINT MIXING

The easiest method for mixing proportions of thinner and paint for airbrushing is to start off with two separate, empty airbrush jars of the same size. I use the airbrush jars for my Badger 200 for all my paint mixing. Most paints should be thinned by 25 percent (1/4) to 33 percent (1/3) by volume of paint. To achieve this ratio remove the bees from the paint bottle using a pair of tweezers and pour the paint into one of the airbrush jars. Add a few drops of thinner to the paint bottle and shake it vigorously to capture some of the remaining paint pigments that usually collect at the bottom of the paint bottle, and pour the remaining contents into the airbrush jar which is filled with paint.

Set the airbrush jar filled with paint next to the empty one that will contain the thinner. Using an eye dropper, fill the second airbrush jar so that the amount of thinner is about 25 percent to 33 percent of the height of the paint in the first jar. Once you have this set mixture ratio, pour the thinner into the paint jar and shake well. This technique is an easy way to get a thinner to paint mixture ratio of 25 to 33 percent by volume.

At this point test the paint with the airbrush and then add additional thinner if necessary a few drops at a time. If you are using enamel paint I recommend that you warm the paint before you use it. Warm paint will flow, spray and adhere to a surface much better than cold paint. To warm the paint, use a coffee cup warmer plate which can be found in a grocery or discount store. It warms the paint in a few minutes and is easy and safe to use. When you place the paint jar on the warmer plate be sure to loosen the jar's cap so that as the paint warms up and expands it will not pressurize the air in the jar. After warming the paint shake it again to insure that the warmer paint that is at the bottom of the jar will mix with the cooler paint at the top.

When I am finished with the paint, I leave the paint in the airbrush jar and label it with the manufacturer's name, the paint's color name and the date I mixed the paint. I usually end up with a dozen or so airbrush jars of thinned paint when I am finished with a model. Since these thinned paints do not have a long shelf life I usually pour them into a large container, and then clean the jars and caps when I am done with a modeling project. When this container is full I take it to the local recycle center for proper disposal.

SURFACE PREPARATION

Surface preparation is very important because it will result in proper adhesion between the paint's bonding agents and the plastic surface as well as helping to insure a good paint finish. Prior to the application of any paint, including primers, the surface should be free of the manufacturer's mold release lubricants, dirt, polishing residue and the oil from your fingers.

I recommend that you use POLLY-S Plastic Prep for all your surface preparation needs. This liq-

uid cleans plastic, leaves no residue and it also makes the plastic static free so that dust will not be attracted to it. If you follow the manufacturer's directions you will get excellent results. All plastic surfaces should receive a primer coat of paint prior to any finish coats (except metalizer paints which may or may not require a specific primer). The primer will also act as a final detector for cracks, imperfections and scratches and although you should have corrected any of these problems prior to the painting stage, this will be your last chance to do so.

If you are using a primer or some other color for checking the plastic for defects it is important to give the plastic an even coat of that color prior to the application of the finish paints. Without a uniform surface color the paint finish may have a slightly different color on areas that have no undercoat. Another very important point in surface preparation is to insure that the plastic itself is the proper temperature. If the plastic is cold, the paint, including any primers, may not adhere properly.

Use a hair drier to warm the plastic and to get rid of any remaining dust that attached itself to the plastic while the model was sitting in the spray booth. Hair dryers can also be used to accelerate the drying of water base paints. I have had great success with this technique on water base paints, but it does not work very well on oil/petroleum base paints. Do not, however, let the hair dryer get too close to the plastic as it may warp or melt it if the air exhausted by the drier gets too hot.

MASKING

As I stated in the section on tools and equipment I use 3M painters masking tape for all my masking needs. I lay one layer on my cutting board and then lay another layer over the first one. I then use a new number 11 X-Acto blade for my tape cutting and I change the blade frequently so that every cut tape edge is sharp. I peel the top layer of tape off with the tip of the cutting blade and then use tweezers, the tip of a toothpick or the tip of the cutting blade to help position the tape properly onto the surface to be masked. To cut straight lines I use stainless steel rulers of various lengths as a guide, but the one I use the most is my 6-inch stainless steel sewing ruler, which has measurements in 32nds, 64ths, 10ths and 100ths. It is one of the handiest tools I have and I use it all the time for measuring precise widths of tape and for measuring and cutting plastic for my scratchbuilding projects.

I also use 3M tape for attaching small parts to pieces of cardboard or lengths of balsa wood so that they can be easily painted. Simply take a length of tape and double it over, attach it to the cardboard or balsa wood and then press it flat with your fingers.

You can also use drafting templates for cutting shapes into the masking tape. Here again a new number 11 blade is important so that you get a very sharp edge. Place the template on the double-layered tape and secure the template with masking tape around its edges so it will not move. Run the tip of the number 11 blade around the perimeter using the edge of the template shape as a guide. Fear not as you may have to repeat the process several times before you get a perfect shape – so be patient! To make the white round circles on the 1/32 scale P-38J featured in this chapter, I had to cut almost a dozen circles until I got two perfect ones.

If you are finishing your model in a multicolor paint scheme and plan to have fine demarcation

lines between colors I recommend that you pencil in the outlines on cardboard first. It is much easier to sketch patterns on cardboard first until you get the shapes you want than to try to achieve this directly on masking tape. Once you are satisfied with the patterns cut them out and then transfer the shapes to the masking tape. This process allows you to duplicate your work and keep a record of the patterns you made.

USING YOUR AIRBRUSH

Good airbrushing technique evolves as you gain experience using it. You will find that your finger and wrist control are important in achieving good results with an airbrush. The distance between the tip of the airbrush and the surface to be painted is also very important. If the tip gets too close to the surface, too much paint will be applied resulting in paint runs. If the tip is too far away, the paint will dry as it hits the surface of the model resulting in what is commonly called the orange peel effect as the painted surface will appear rough, almost as though fine sand particles were deposited onto the painted surface. The orange peel effect can also be caused by bad thinner, or the wrong thinner, old paint, painting in a high humidity environment (above 55-60 percent) or airbrushing with high pressure air. I usually set the pressure regulator on my air tank to 15psi –20psi for general airbrushing and for corners and around protrusions I reduce it to 10 psi.

Flat surfaces are the easiest to paint as you can simply sweep back and forth across the surface to get light coats. Push the air button before the paint hits the surface, continue across the surface and then after the airbrush tip leaves the surface release the air button. Do not try to achieve complete coverage in one airbrushing session. Usually two or three light, thin coats are better than one thick coat. For surfaces that have corners, protrusions or elevated surfaces, lower the air pressure and carefully apply light coats rotating the airbrush so that the paint emitting from the airbrush tip will hit the intended area head on. If the paint hits the surface at an angle you may get the orange peel effect in some tight areas due to over spray so be careful how you position the tip of the airbrush as you apply the paint.

If you are going to use more than one color during an airbrushing session you can clean out the airbrush and paint bottle connection point with a Q-Tip soaked with thinner and by running thinner through the airbrush to remove the paint from the inside areas. I can usually do this three or four times during an airbrush session before I need to actually take the airbrush apart to clean it and remove the dried paint which is clogging the tiny tip. After each airbrushing session take the time to disassemble your airbrush and clean all the parts by soaking them in thinner. Every few months I also soak the parts in lacquer just to be sure all the tiny paint residue is removed. If you take care of your airbrush it will last for years. Also if your airbrush has seals, bearings and washers, which are usually Teflon, buy spares and replace them every few months.

PAINT BRUSHES

For detail painting and tiny touchups invest in top quality paint brushes. I prefer brushes made with natural hair such as red sable, however I have also had great success with good quality brushes made from synthetic hairs. Companies such as Pactra and Floquil make great brushes, but they are increasingly hard to find these days. I have also used the recently introduced line of

IMEX brushes and I have been very pleased with them. The IMEX brushes have thick plastic handles that have a triangular shape. Although they do not look like the traditional round handled brushes that you would find in an artist paint store, I like the grip of these large handles.

Always clean your brushes after each use by dipping them in thinner and then cleaning off the excess paint with a soft tissue using a gentle twisting motion as the brush runs through the tissue paper. Never let your paint brushes rest on their bristles, as that is the surest way to deform the bristle's shape. Good quality brushes will have a clear tube over the tip to protect the bristles which you should always keep on the tip of the brush when you are not using it. To store my brushes I have a 1-foot length of 2 X 4 with holes drilled into it in rows for my brushes. I have brushes that are over 20 years old and they are still good because I take care of them. So take the time to clean and store them properly and they will last a long time.

Paint will respond better and flow from your brushes if you add a few drops of the manufacturers recommended thinner to the paint bottle. Typically, paint fresh from the bottle tends to be thick and clingy and a few drops of thinner will help fix this problem. Here again be sure to shake the bottle well before use so the thinner is mixed with the paint. Also, you should also get into the habit of cleaning your brushes before you use them. Sometimes dust and lint will attach itself to the brush hairs and cleaning the brush in thinner prior to use will remove these unwanted pests. Allow the brush to air dry for a minute or so before using it again so that residual thinner will evaporate off.

DRY BRUSHING & HIGHLIGHTING

Dry brushing is another master modelers technique that simply uses another paint color or a lighter or darker shade of the same color to highlight detail and edges so that the modeling subject appears more appealing to the human eye allowing it to pick out details. The technique is very simple however it is often way over done by even experienced modelers.

For all my dry brushing needs I use various widths of flat, stiff paint brushes. I dip the paint brush into the paint or the paint cap and then use a clean colored piece of paper to wipe off almost all of the paint by brushing the paint onto the paper. Even strokes back and forth across the paper are required here. Do not mash the brush onto the paper as this will deform the shape of the bristles and make it very difficult to apply the paint. When almost no paint appears on the paper you are ready to apply the residual paint to surfaces you want to highlight. Essentially you are brushing "almost dried paint" onto the surface to be painted hence the name dry brushing.

The most common color used in dry brushing is silver as it easily represents the shiny metal that gets exposed as the painted surfaces wear off due to a variety of reasons. Silver paint is also used to highlight the edges of box shapes, the edges of seats, console faces, the leading edges of wings and tail surfaces, the front edges of engine cowlings, areas on the upper surfaces of the wings where crew and maintenance personnel walk frequently and so on. You can also tone down the silver by mixing it with some flat black so that it will not appear to be so shiny. You can also mix lighter or darker shades of the same color you use on parts and dry brush the edges of the raised surface detail such as wiring, bolt heads or interior framing. Here again what you are doing is providing the human eye with various shades of the same color on different surfaces and at different

angles so that the eye can discern all the details you want to focus attention on. Dry brushing is very easy to over do almost to the point of ruining the appearance of the model so whenever you are dry brushing remember this one simple rule – less is better.

SPRAY CANS

If you are using spray cans here are some tips to help get a better finish. Always shake the spray can well prior to use and if there is no agitating ball inside that you can hear when you shake the can don't use it. Always test the spray can prior to use and when you are finished turn the can upside down, push the nozzle and allow the excess paint to spray out, then clean the tip to remove any excess paint. To achieve a better paint job with spray cans I recommend that you warm the paint before use. Simply immerse the spray can in a pan of hot tap water from your kitchen sink for a few minutes and shake well prior to use.

PERCEPTION OF DEPTH

I want to close out this chapter with a discussion about perception of depth, as this is a very important topic for scale modeling and a secret of master modelers. This technique is especially useful for painting enclosed or partially enclosed areas like cockpits. To illustrate the concept of perception of depth I will use aircraft cockpits as an example.

Regardless of how much detail you add to a cockpit or how well you paint the interior area, it will all be a waste of time if your eyes cannot see the detail. One of the tricks that master modelers use to highlight detail and create a perception of depth is by using different shades of the same color. Artists use this technique when painting a picture that appears to have depth to it even though it is on a flat canvas.

If the cockpit interior is flat black or say interior green, and you use this color throughout the interior, you will end up with a black or green hole. The human eye can detect many things, but when presented with an enclosed or partially enclosed three dimensional object that is all the same color, it will appear to be one dimensional and it will prevent the human eye from picking out apparent details. Mastering the technique of creating the perception of depth is easy to do, but will add extra steps to your modeling approach. The end results, however, are well worth the effort.

As an example for mixing colors, if you are using flat black for your console, mix a few drops of flat white with it so that the resulting color appears to be a dark, dark gray. If the radio boxes, switch banks and flight control and engine control quadrant boxes, which are located on the sides of the cockpit are also flat black, paint a few the same color as the console and others a slightly lighter color by adding additional drops of flat white. If the cockpit walls, floor and the seat are interior green, make the walls a slightly darker shade of green than the floor. The sides of the seat could be one shade of darker green and the seat bottom and back as well as the frame should be lighter. When you are mixing shades keep in mind that these color differences should be very subtle. All these different shades of flat black and green will be picked up by the human eye and it will also allow the viewer to focus on all the detail you have added and painted.

Your decision as to which parts or areas of the cockpit should be lighter shades should be based upon which ones are exposed to direct sunlight, because the sun's rays can bleach paint to the point where it appears to be almost a different color. In 1985, while I was working for the Department of the Navy, I spent two months at China Lake Naval Air Station, which is located in California's Mojave Desert. There was an aircraft boneyard at this air station that had several B-29 bombers, which had been parked there since the early 1950's. I crawled through every one of them taking lots of pictures and among the many things that I noted was that the interior green that was exposed to direct sunlight was faded to an almost light gray. In other areas of the airplane where direct sunlight never touched the paint, the interior green color looked almost as good as the day it was painted. With this example in mind, do not be afraid to apply different shades of the same paint color. The floor, the rear cockpit wall and the seat backing and bottom get direct exposure to the sun so these areas would be lighter while the cockpit sides and the area around the console would be slightly darker.

In closing out this chapter let me say that you should label and number the bottles that contain the shade mixtures and make a list of which shades you use on what parts or identify them on the instruction sheet. This way you will know which shade to use on a particular part if you need to do some touch up work with a paintbrush. I always use flat white to lighten colors, flat black to darken colors and never mix flat paint with gloss paint.





For airbrushing my aircraft models I use a large box with the front cut out. I tape a filter over the oven exhaust to capture any paint particles. This simple airbrush booth works great so long as the oven vent exhausts the air outside.



I use a CO2 tank for my airbrush air supply. This tank will last me up to two years, it makes no noise and the air is dry.



The tank has an air regulator which sets the air pressure. The gauge on the left tells me how much air is in the tank and the gauge on the right tells me what air pressure I am using. The black knob adjusts the air pressure.



To be sure all the paint is mixed I drop a few copper bee bees into the manufacturers paint jar to act as agitating balls. This mixes the thicker paint pigment which settles onto the bottom of the jar.



Always clean off the inside area of the paint bottle cap after shaking it up. This will ensure that the cap seals properly with the jar lid.



I also clean off the lid of the paint jar to remove any excess paint. This helps seal the paint and prevents the cap from sticking to the jar due to dried paint.



To mix paint for airbrushing pour the paint contents into one jar. Then fill a second jar with the paint manufacturers thinner between 25 percent (1/4) to 33 percent (1/3) full. Use the paint height to gauge the amount of thinner.



I use masking tape to label my airbrush bottles. I also like to add the dates and I also sometimes add notes on what paint was mixed together and what parts were painted with a particular shade of paint.



To keep my airbrush equipment organized I have a length of 2 X 4 with holes drilled into it to hold the airbrush bottles and the various diameters of pipe cleaners that I need for cleaning the airbrush.



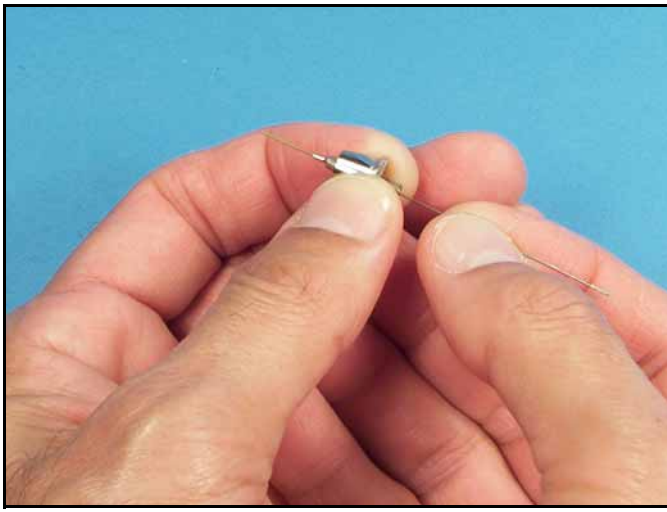
This is the proper way to hold an airbrush. The index finger controls the paint flow and the pinky is positioned under the airbrush jar. This finger positioning allows for the maximum movement of the wrist. Airbrushing is all in the wrist.



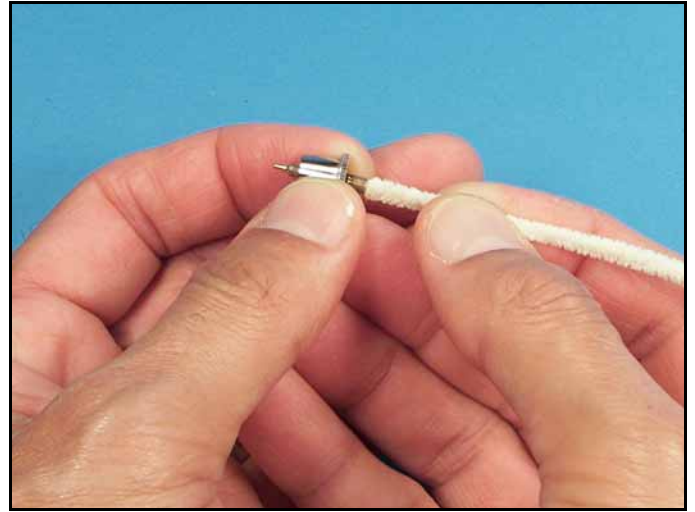
Sometimes paint can build up inside the airbrush tip and this excess paint can end up being spit onto the painted surface. To prevent this, check the tip frequently and clean out excess paint with a Q-Tip.



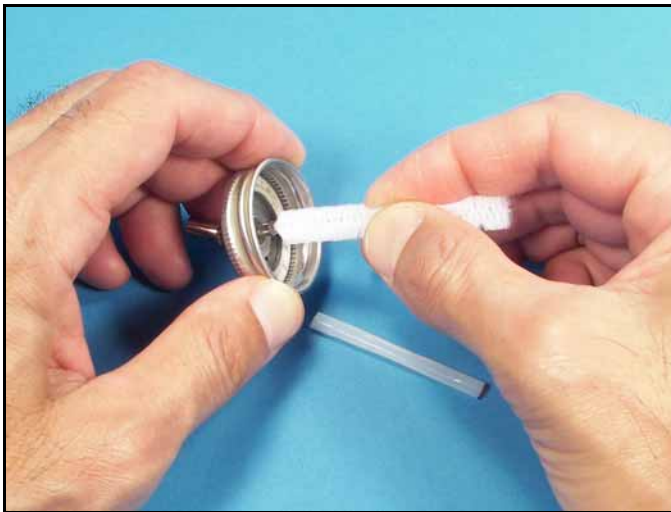
The stem of the airbrush where the paint bottle attaches to can be cleaned with a Q-Tip. Remove as much paint as possible with the Q-tip, then clean out the residue paint with a Q-Tip soaked with thinner



I have a long thin stiff brass wire that I use to clear out paint clogs in the airbrush tip. Sometimes the paint will clog the tip during use and this is an easy and quick way to fix the problem.



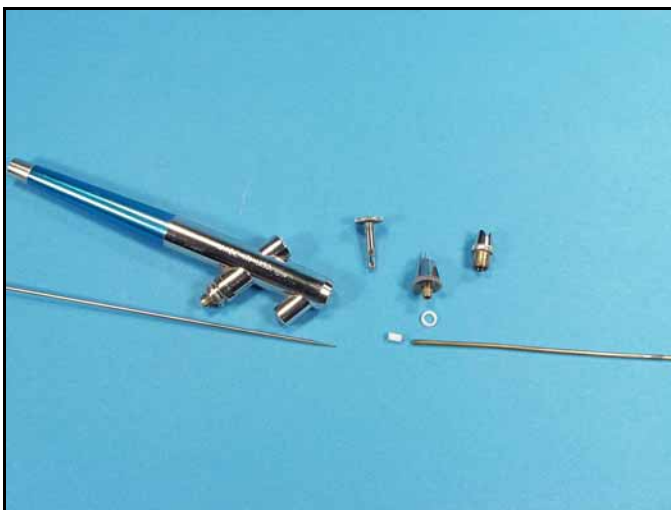
I use small diameter pipe cleaners dipped in thinner to clean paint out the tip.



I use larger diameter pipe cleaners dipped in thinner to clean out the airbrush paint bottle cap and the siphoning tube.



All the airbrush parts should be soaked in thinner after each airbrush session to give the airbrush a really good cleaning.



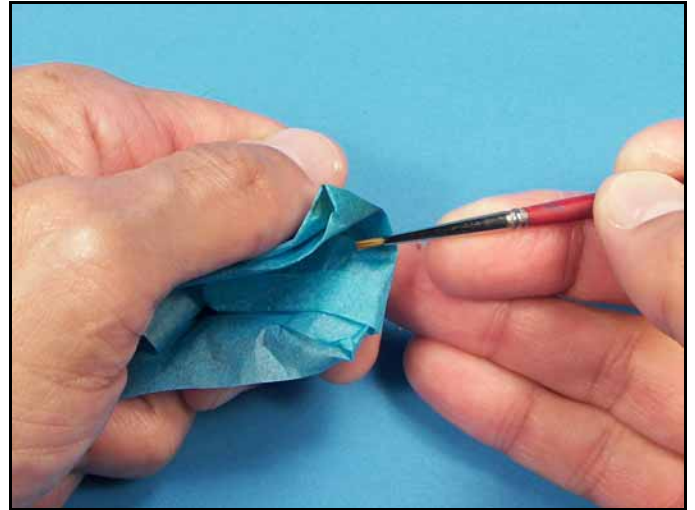
My badger 200 has a Teflon needle bearing which sites inside the airbrush throat and a Teflon washer which sites between the airbrush body and the tip. I replace both these items about every six months.



If you take care of your paint brushes they will last a very long time. To protect the brushes keep the plastic covers on them and always store them upside down.



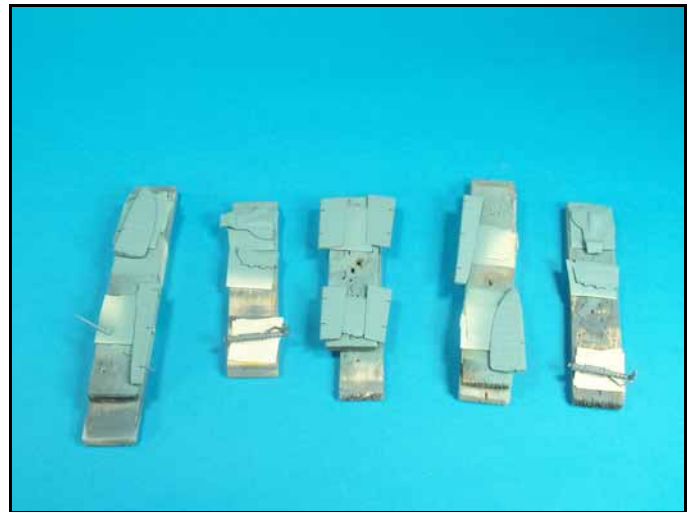
To clean paint brushes I dip them in paint thinner to dissolve the paint. I also swish the brush around inside the jar, but I never let the paint brush site on its bristles.



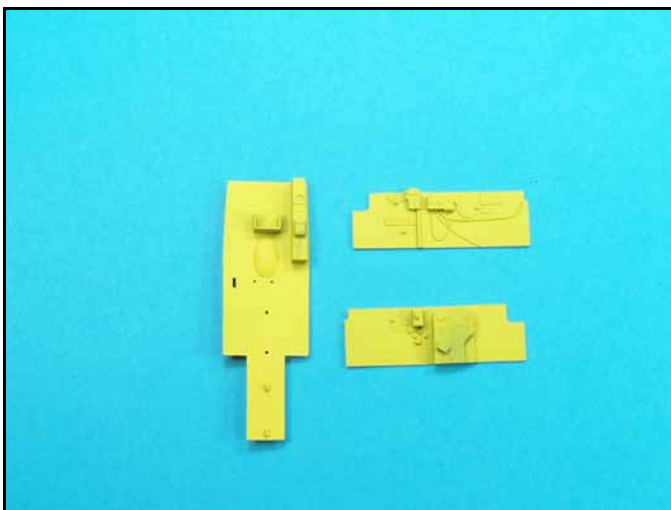
To clean the brush of thinner and paint fold the tissue over onto itself with the brush inside and then pull the brush clear of the tissue. Several applications of thinner and wiping on the tissue may be necessary to get rid of all the paint.



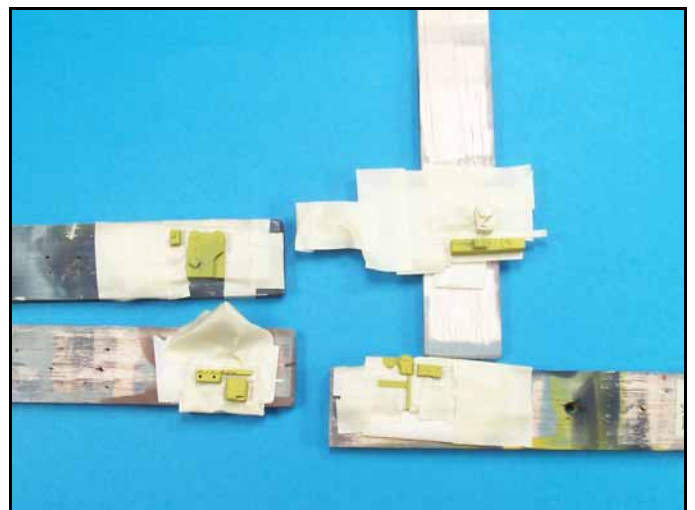
To airbrush small parts I attach them to masking tape that has been folded over onto itself. I like to use large wood planks to store all the parts while they are being painted and drying.



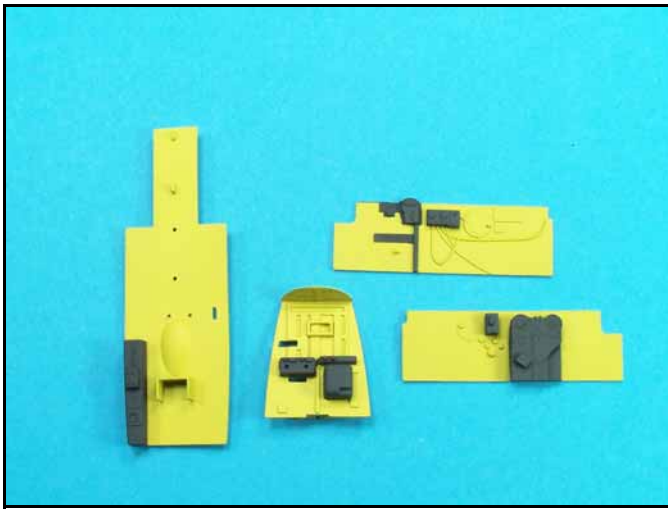
I also use lengths of balsa wood for painting and drying parts. These Mig 3 parts have received their final coat of finished paint. They will be removed, the tape replaced and the parts flipped to paint the other side.



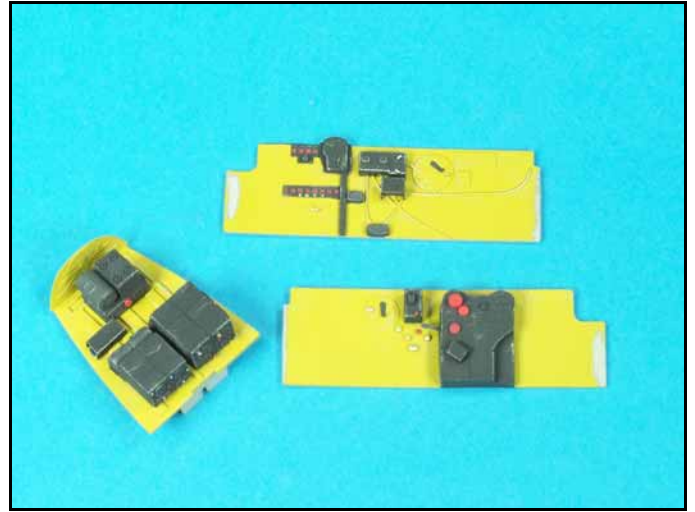
These P-38 cockpit interior parts have received their final interior color and now its time to begin the detail painting process.



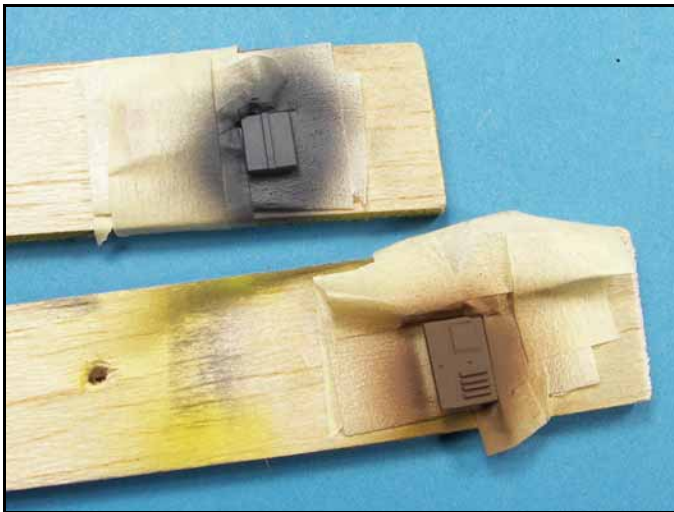
I like to mask and airbrush as much as possible so that I get clean, sharp demarcation lines between color. The P-38 parts have been carefully masked with small strips of masking tape



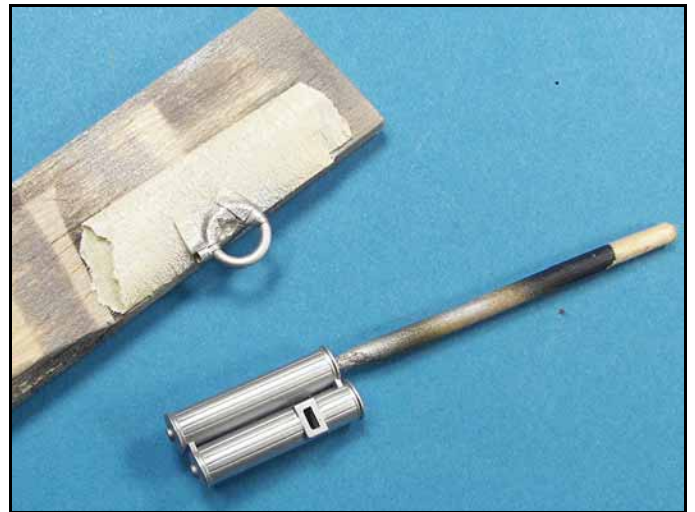
The exposed detail on these P-38 parts were painted flat black with a few drops of flat white added so the black was not so dark.



I then drybrushed the edges with Testors silver paint and then detail painted the surfaces with a tiny brush and a toothpick.



These parts have several layers of masking tape. As I added more colors I simply mask the areas to be painted over the already masked areas. Once all the painting is done the layers of masking will be peeled away.



I sometimes use wood dowels to hold parts so that I can paint the entire surface at one time.



Most cockpit masking is easy to do. I like to fill the interior area with small balls of tissue and then cover the painted area of the cockpit with strips of masking tape.



When preparing the fuselage for painting don't forget to mask the tail wheel assembly.



Priming all parts is essential to a good paint job. The primer will detect any flaws that you may have missed and it provides an excellent adhesion layer for the finished paint.



On this Mig 3 I noticed that there were slight indentations on the wings that the primer highlighted. I lightly sanded the surfaces and then polished the plastic and surrounding primer with 0000 steel wool.



Always paint from the lighter colors to the darker colors. The bottom paint color on this Mig-3 is a greenish blue.



I then airbrushed the upper surface being very careful not to get the green color onto the bottom areas. By rotating the model while airbrushing I was able to attain soft demarcation lines between the colors.



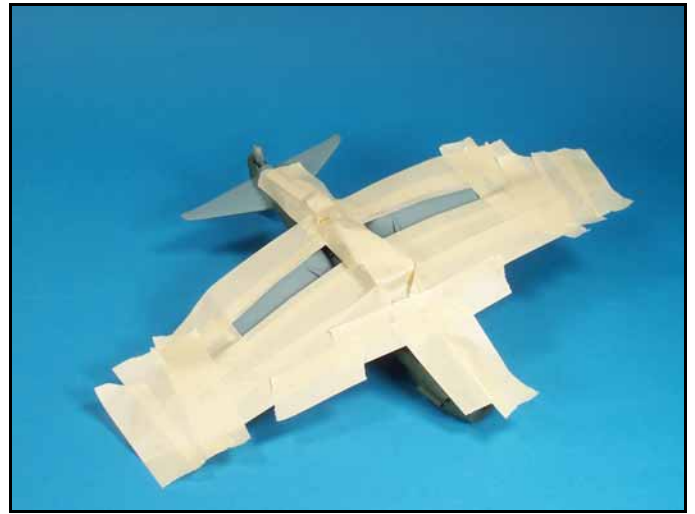
To do surface detail painting I placed the model on a towel on an elevated surface so that the paint would not get scratched. This allowed me to rotate the model while I touched up the paint line between the upper & lower colors.



Next I masked off the wheel wells and airbrushed them the interior color. This technique is easier than painting the wheel wells first, then masking them so that you can paint the underside.



Wheel wells that have open areas are easily painted after the underside is painted. Note the sharp demarcation lines between the colors.



Next I painted the interior flap areas using the same technique. Notice that I have covered almost the entire underside of the model to prevent any overspray.



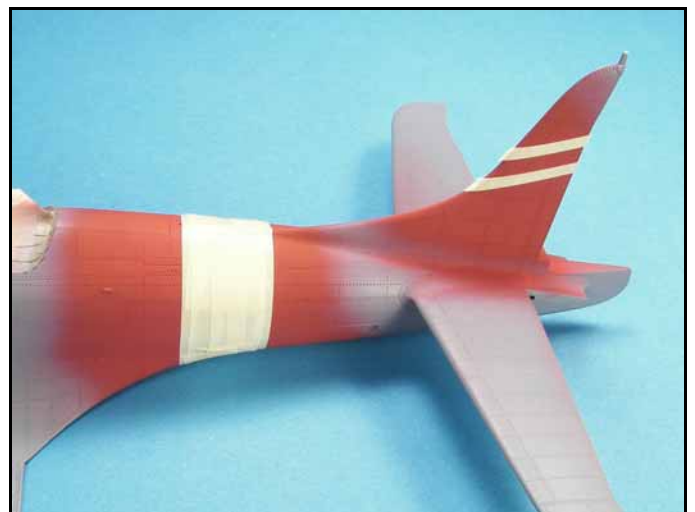
The final step in detail painting was to color the exposed inside areas of the forward wing flaps. Here again I used lots of masking tape to prevent any overspray.



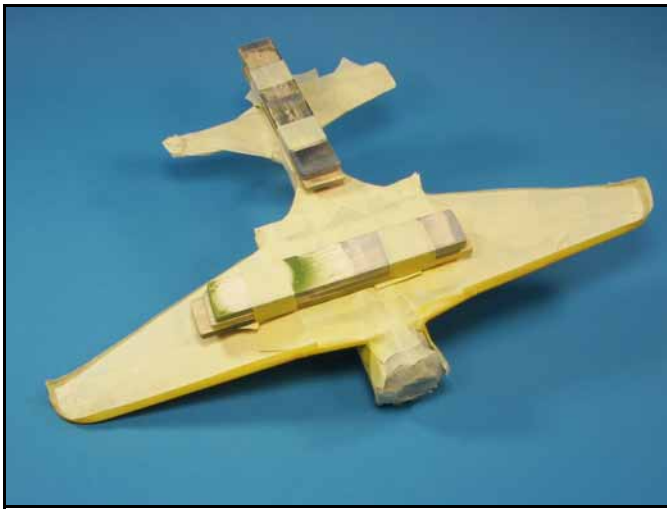
Now that all the detail painting is complete the model received two coats of clear gloss polyurethane. This step is essential for great looking decals that will not silver. The gloss finish allows decals to be slid around to position them.



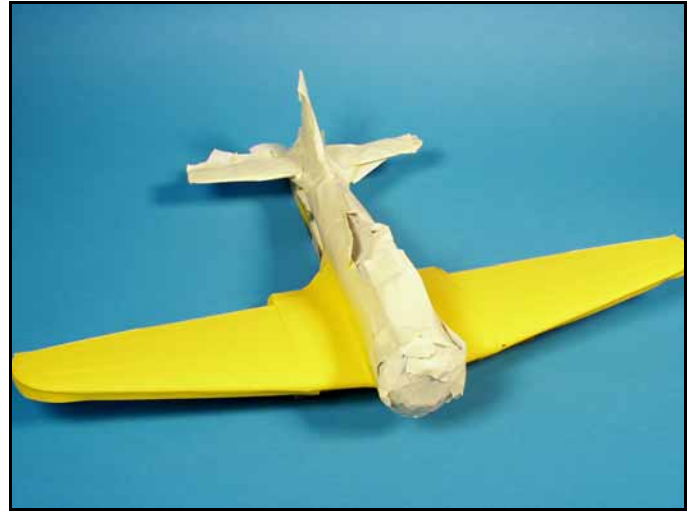
This SBD needed more masking due to the engine firewall details. I did not want to damage the plumbing detail so I used the edges of the firewall area to attach the first layer of tape and then built the tape out towards the center.



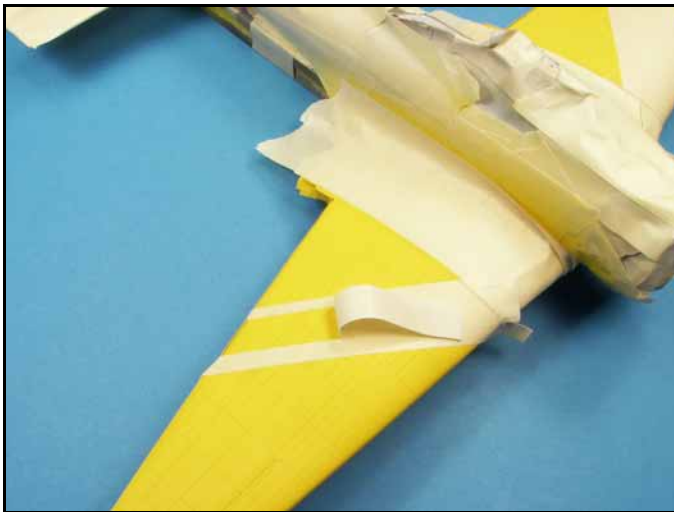
I like to paint on strips where ever possible. Careful masking, cut with a sharp blade and a straight edge will yield great results. I re-primed the surface and then painted the model light gray.



To paint the upper wings yellow I masked the entire surface except for the wings. I also added balsa wood pedestals to elevate the model so the masking along the wings edges would not be damaged.



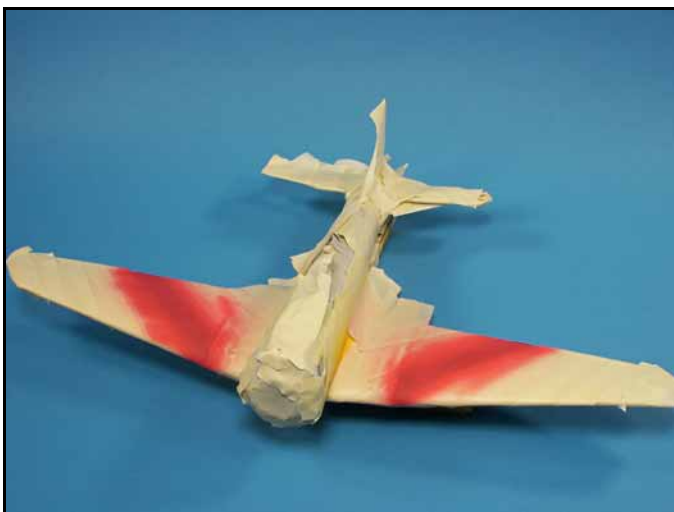
I painted the wings flat white first as an undercoat and then gave the surface a few light coats of yellow.



The wings had red stripes. I cut lengths of tape the correct width of the strips and layed the tape on the wing at the correct angle. I then cut smaller strips of tape and butted the edges against one another, then removed the wider tape.



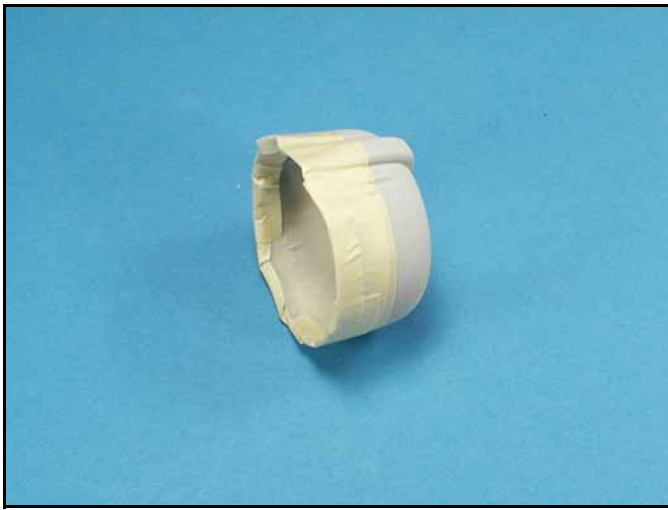
Now that the wing stripes are set, I covered the entire wing surface to protect the yellow color from overspray.



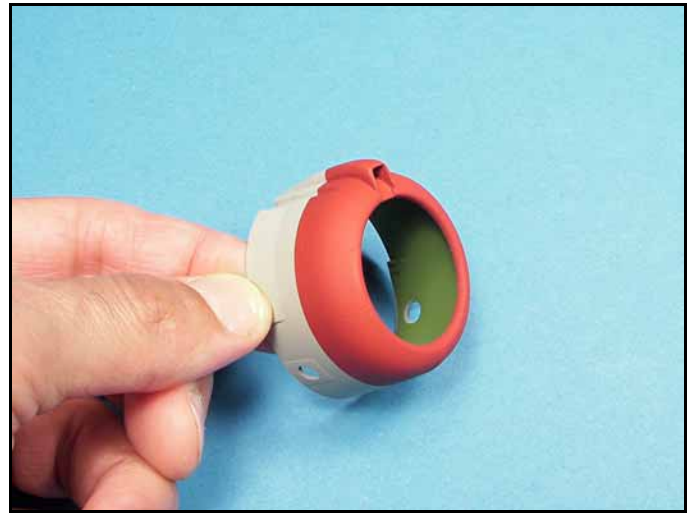
At this point the model has several layers of masking tape for the different colors that I added. It looks pretty ugly at this point, but all the careful masking will result in a great looking model.



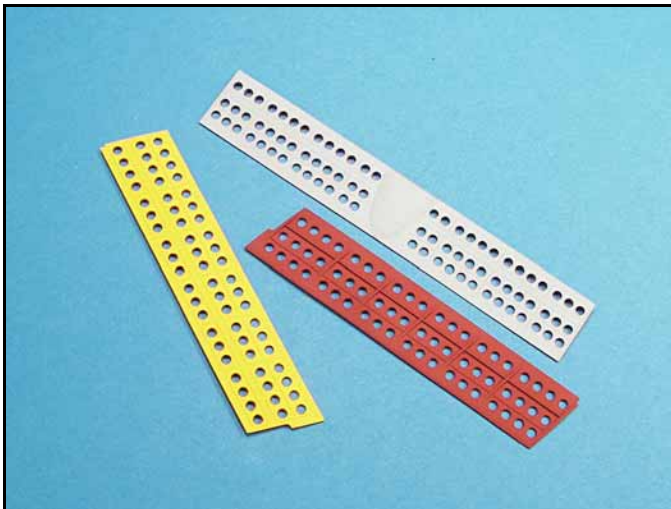
The yellow wings and the red stripes look great now that all the masking tape has been removed.



The SBD cowling also had a red strip. Note how I use the cut sections of masking tape. Long thin sections were used to set the demarcation line for the red color. Then I filled in the area to be masked with small square strips of masking tape.



To achieve this nice cowling I painted the interior green color and then masked over it. I then re-primed the outer surface and painted the light gray color. Lastly, I masked the light gray color for the red strip.



I painted one side of the SBD flaps the correct color. I masked over the surface with a large strips of tape making sure that it was attached to the entire surface of the part so no overspray seeped through all the holes.



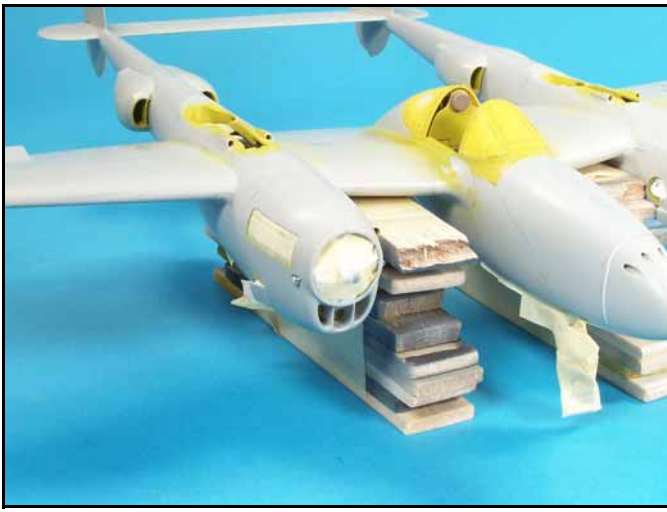
The rudder was also masked and painted. The overall effect of careful masking, surface and paint preparation and good airbrushing technique will give you great results.



This P-38 project required a lot of careful masking around the wheel wells.



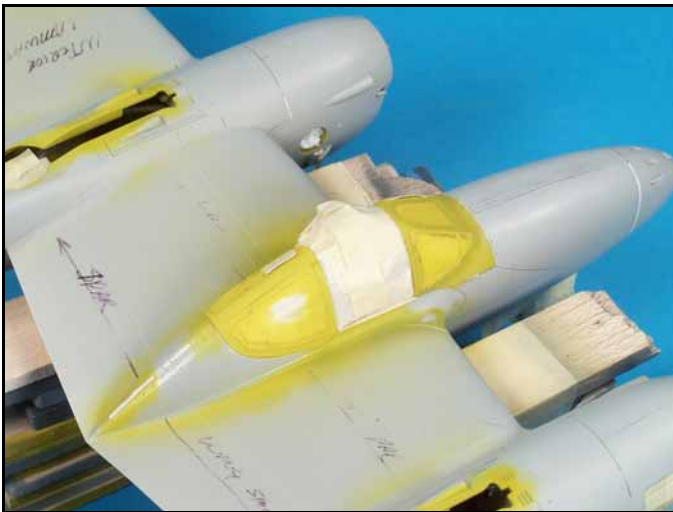
Since I had opened up some of the engine access panels these areas needed to also be masked. I added layers of small cut sections of tissue paper over the engine and then I masked over the tissue paper.



Only the front landing gear is installed so I had to make very high pedestals for the model to rest on. Note how the masking was done on the engines.



To mask the opening on the P-38 cockpit I attached small strips of masking tape to the inside areas of the canopy. This made the tape sit sticky side out.



I then added masking tape to the center area. I had to be very careful when adding the masking tape as I did not want to disturb the tape that was attached to the inside area of the canopy.



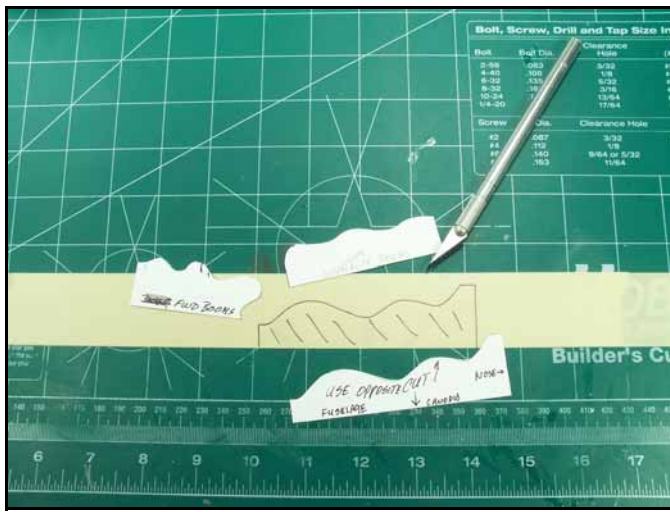
Now that everything has been masked I gave the surface a final, cleaning with Polly-S surface prep.



It took several days to prime the model. I painted the topside first and let the paint dry for several days. I then reattached the pedestals to the topside and then primed the bottom area.



Always paint from the lighter colors to the darker colors, the underside of the P-38 got two coats of light gray.



The P-38 had wavy lines for the olive drab color on the fuselage and booms. I measured the lengths on the fuselage and booms, made patterns on thin cardboard and then transferred the shapes to masking tape.



To achieve the large white circles on the outer tails I masked off the areas around the tail to protect the underside color and then painted the area flat white.



I used a drafting template to cut out circles. I had to do this several times to get two good shapes.



The circles and the wavy patterns have now been installed. To achieve a mirror image of the wavy patterns for the opposite side I flipped the cardboard patters. I also marked them left and right so I would not mix them up.



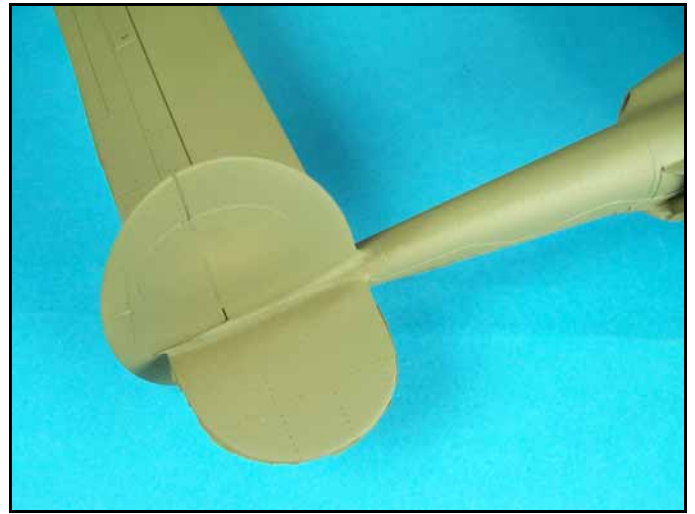
Here you can see how the wavy patterns have been installed. The masking is almost complete.



The wing areas have been masked and now its time to airbrush the olive drab color.



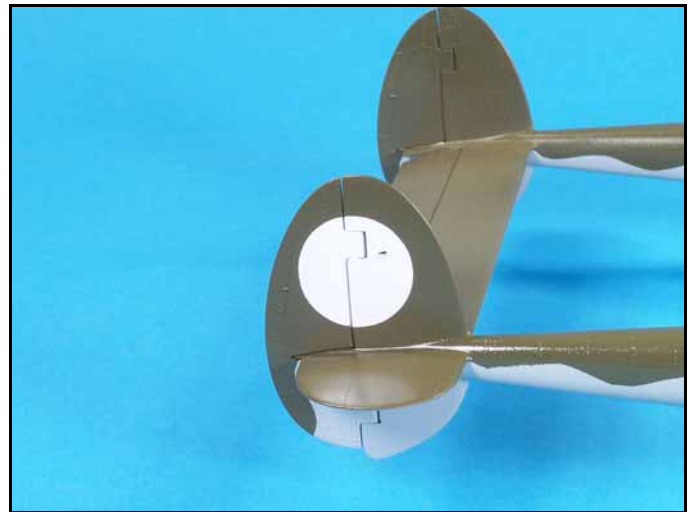
I added a few drops of flat white to the olive drab color to lighten it up just a little bit.



The area between the elevator and the rudder looks somewhat grainy. This is a good example of the orange peel effect caused by high air pressure. Dried paint dust settled onto the surface.



I let the paint dry for several days and then I lightly rubbed the effected area with 0000 steel wool. I then used my airbrush and high pressure air to remove any tiny steel wool fibers from the model. The area was primed and painted.



Note how crisp the circle and wavy pattern edges look. Using a sharp blade to cut the masking tape makes all the difference.



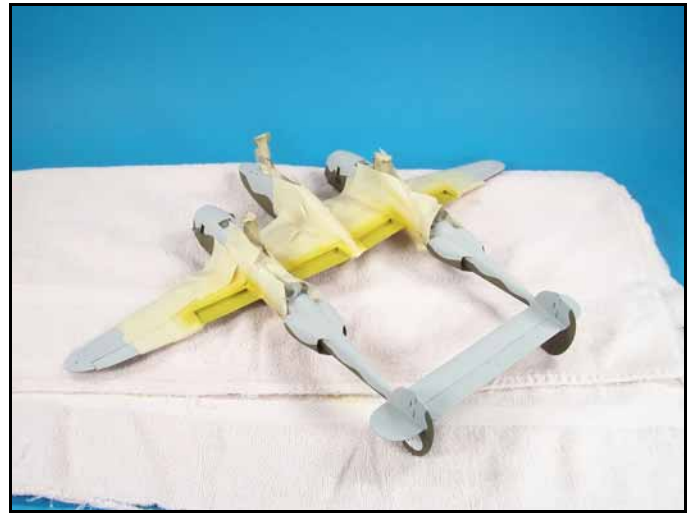
To fix over spray, I carefully masked the effected areas and used low pressure air (15 psi) to airbrush small quantities of paint onto the surface.



To protect the paint finish I placed the model onto a towel. This made it easy to rotate the model to get at all the overspray areas that needed to be touched up.



The masking never seems to end ! I found more tiny overspray areas after I checked the models surface carefully.



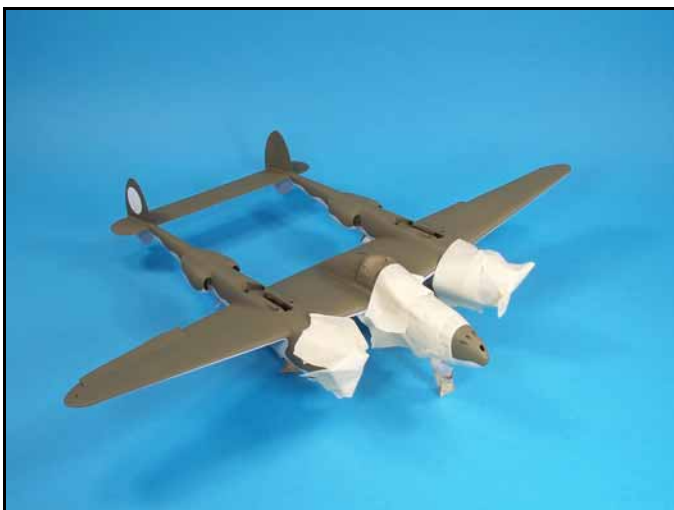
I masked around the flap openings and using low pressure air (15psi), I carefully airbrushed these areas.



The flap openings were easier to airbrush by masking the surrounding area rather than painting the inside areas and masking the opening before painting the underside color.



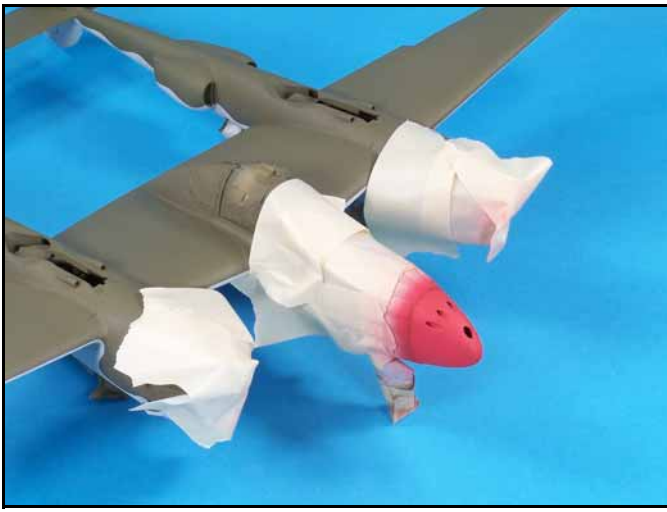
To paint the nose red, I cut a long thin length of masking mask so that the tape would conform to the shape of the fuselage. I then added square strips to hold the thin length in place and to increase the masked area.



I then added large sections of tape to protect the surrounding areas from overspray.



I primed the nose area so that I would have a neutral base color for the red overcoat.



I airbrushed two coats of flat red. If I had not protected the surrounding areas from overspray the port engine area would have red dusting all over it.



Finally the color painting is done and its time to start decaling! I like to use polyurethane which you can airbrush without having to thin it. I let each coat dry for a few days. Note how the clear gloss changes the appearance of the paint.

QUICK TIPS

USE COPPER BEE BEES TO MIX THE PAINT AND LOOSEN UP THE PIGMENTS WHICH SETTLE ONTO THE BOTTOM OF THE PAINT JAR

ALWAYS USE THE PAINT MANUFACTURES RECOMMENDED THINNER

ALWAYS CLEAN OFF PAINT FROM THE PAINT JAR CAP AND LID TO ENSURE AN AIRTIGHT SEAL

ALWAYS CUT MASKING TAPE WITH A STRAIGHT EDGE AND A SHARP BLADE

PAINT SHOULD BE THINNED FOR AIRBRUSHING BY 25 PERCENT (1/4) TO 33 PERCENT (1/3) BY VOLUME

ALWAYS LABEL YOUR AIRBRUSH PAINT JARS FOR EASY REFERENCE

WRIST MOTION IS VERY IMPORTANT WHEN AIRBRUSHING

CLEAN YOUR AIRBRUSH AFTER EACH SESSION

NEVER ALLOW PAINT BRUSHES TO SIT ON THEIR BRISTLES

ALWAYS CLEAN PAINT BRUSHES AFTER YOU USE THEM