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

CHAPTER 7

WEATHERING AND DECALING

INTERIOR WEATHERING

Before we discuss weathering I want to acknowledge that it is not necessary to weather your model. Some scale modelers like to build models that appear factory fresh while others really get into making their model look like a battle weary airplane. Most of us fall into either the almost factory fresh or slightly weathered category. Some scale modelers weathering techniques boarder on artistic expression and can get very involved and exotic in terms of the materials used. A note of caution on weathering – it can easily be over done on a model and the more materials that you use increases your chances of ruining the models appearance. Weathering takes a lot of practice so I recommend that you try different techniques on different models and then try combining techniques as your weathering skills evolve and improve.

In Chapter 6 we discussed creating the perception of depth with different shades of paint and dry brushing different color paints for highlighting. Since we already identified the need to use lighter shades on interior areas that are exposed to the sun, we have already addressed the interior weathering

effects of sunlight, but what about wear and tear, dirt and fluid leaks? Wear and tear on the cockpit area consists mostly of paint which has been worn off due to rubbing, chipping or constant contact. Seat bottoms and backs should have areas which show metal, because these areas get constant contact with the pilot's back and parachute. Places where his arms would rest, like the horizontal surfaces close to the sides of the seat, and the area of the cockpit floor directly in front of the rudder pedals, are also places where constant rubbing takes place.

To represent areas where the paint has worn off, use Testors silver or silver mixed with a tiny amount of flat black so that the resulting color is not so shiny. Dry brush the paint with a small flat brush along the edges of the seat sides, and along the edges of panels and boxes. Use a wider flat brush to dry brush the paint onto larger areas such as the sides of the cockpit and the seat bottom and back. To represent paint that has worn off wood, dry brush the areas with a lighter shade of the paint color and then lightly rub the areas with 0000 steel wool.

Dust, dirt and fluid stains are also found inside a cockpit, and adding them must be done subtly-another words less is better than over doing it! Paint manufacturers make paints that simulate dust, mud, dirt and oily black. Dirt is usually tracked in by the pilot or blown in when the canopy is open and the aircraft is operating from a dirt field. Dirt can be found accumulating behind the pilot's seat, around the headrest, on the rudder pedals and on the floor area, particularly in the corners. Mud, which is also tracked in by the pilot is found on the floor and around the rudder pedals. Fluid stains are found on the floor area, particularly near the control stick, the flap actuator and under the rudder pedals. These types of stains are best applied with a small detail brush and here again the application of these types of paints should be very subtle.

You can also use Pencil pastel colors to simulate dust, and dirt on the inside areas. Rub the pastel pencil color onto a piece of 200 grit sand paper and then apply the pastel dust with a soft paint brush by dipping the tip of the brush into the pile of dust and then applying it to the desired areas. The rough surface of the flat paint will trap tiny amounts of the pastel dust. Blow away the residue dust and then seal it with a coat of Testors dullcote. The inside of the wheel wells often appeared grimy and sooty. This can easily be simulated using black or dark gray pastel pencil dust applied with a flat brush and then sealed with Testors dullcote. Apply the dust to the interior corners, nooks and to raised detail such and hydraulic pluming and electrical wiring.

As you gain experience with weathering you will learn how to achieve a subtle effect. To prevent yourself from overdoing it, and this is very easy to do, start with applying the silver paint to the worn areas of one model, then try adding some dust and dirt on another one. Propeller driven aircraft, especially WWII planes, suffered a lot of wear and tear both inside and out. Jet aircraft operated from more suitable locations and although their surfaces and exteriors can get faded and dirty, they do not suffer from the same wear and tear as their piston engine ancestors did.

APPLYING DECALS

As we discussed in the beginning of this book, the third basic technique to master in scale modeling is applying decals. While Ships and armor scale models do not have many decals, aircraft models have lots of them and if you do a poor job of applying them you will ruin the appearance of your masterpiece. Decal application is not difficult and if you follow a few simple steps you

will have success every time you work with them. It is also important to realize that from time to time you are going to tear or ruin a decal. Fortunately you can always purchase replacements if you are using aftermarket decals or contact the manufacturer for replacements if you are using the kit supplied decals.

Decals are made by ink printing the required designs and colors onto a clear carrier film that has a paper backing. The layer between the carrier film and the paper backing has a water soluble adhesive. The surface of the decals are sprayed with a special coating to protect the inks and seal them. There is also a clear portion of the decal and it is this clear area that can cause decal disasters by what is known as the silvering effect. Most aircraft colors are flat and this paint has a very rough surface which scatters the light which reflects on it hence the flat appearance of the paint. Gloss paint has a very smooth surface and reflects light uniformly hence its shiny appearance.

When you lay a decal onto a painted surface that has a flat color, the decal traps air in the tiny pockets of the rough surface of the paint and as the decal dries and light reflects off the clear areas it will appear silvery. There are several easy steps to follow that will prevent this silvering effect while at the same time giving you a decal that almost appears as if it were painted onto the model.

The secret to preventing decals from getting a silver appearance on the clear sections is to apply them to a gloss finish. To minimize the chances of small air bubbles under the decal even if you have a superb gloss finish – and yes this does occasionally happen, remove as much of the clear film associated with a decal as possible.

If you have a flat finish, airbrush several coats of clear gloss paint making sure that the surface of the model has a high gloss finish when the paint dries. Once you are satisfied that the surface is glossy, apply the decals. When you have completed applying the decals and removed any decal glue residue with a damp Q-Tip, airbrush a coat of clear flat to restore the flat appearance of the paint, dull the appearance of the decal and protect it. Sometimes clear flat coats will pull up if you mask over them. The results will be a splotchy pattern of gloss and flat paint. To prevent this do all your painting that requires masking prior to the application of a clear flat finish. If you do mask and the flat finish peels up, airbrush just the areas that were damaged. Let the paint dry and then give the entire area another coat to blend in the clear flat finish. This same problem occurred with the pre-war colored SBD featured in this book.

When you apply the clear coats be sure that you apply them to the entire model, not just in the areas where the decals go. If you do not you will be able to detect the differences under certain light conditions. Just about every paint manufacturer markets clear gloss finishes and all of them work well. I like to use Minwax enamel based gloss polyurethane which I can airbrush without having to thin it. Another advantage to having a gloss finish is that the decals will slide very easily across the surface of the model and this is very helpful when you are positioning a decal or if a decal folds over.

To cut out decals I recommend that you rough cut out the individual decal off the decal sheet with a new number 11 X-Acto blade. Some modelers use scissors, but sometimes you will have to bend the decal sheet to fully cut around a decal and I strongly recommend that you never bend a decal sheet. You stand a good chance of cracking the inks on the decal's surface if you bend it.

Using a number 11 X-Acto blade is especially helpful if the decals are close together and you have cut close to another decal. I do all my decal cutting on either a glass or Plexiglas plate. The advantage of using glass is that the blade will not cut into the surface while after using a piece of Plexiglas for several decal projects you may have to replace it due to a rough surface as the blade will cut into the Plexiglas. On the other hand a glass plate will dull the knife blade sooner requiring more frequent blade changing.

I usually rough cut a 1/8th inch border around a particular decal and I cut them out as I apply them. In other words, cut one decal, trim the excess clear film, apply the decal and then repeat the process for the next one. Nothing is more frustrating than cutting out several decals and then losing or misplacing one. This can easily happen when applying decals because the process is a bit messy, and as you cut out decals and trim them your workbench will be littered with bits and pieces of the decal sheet.

After you have rough cut a decal you are ready to trim the excess clear film from it. In almost all cases I recommend that you remove as much clear film along the outer edges or perimeter of a decal as possible. If the decal is a series such as "115B6" and it is a small decal remove the clear film from along the outer perimeter of the decal. If the decal is large and the numbers or letters are spaced far enough apart you may want to consider cutting them out separately, trimming around each number or letter and then applying them to the model.

National insignia are the easiest to remove the clear film from and I also take the time to remove as much carrier film from nose art as I can. If the decal has clear film that is surrounded by a colored portion of the decal such as the upper portion of the letter "A" or the number "9", I recommend that you also remove the carrier film from these areas to reduce the risk of air bubbles getting trapped there.

If you do decide to remove all the excess carrier film from the perimeter of a number or letter there are several challenges, which you should be aware of. First, cutting out all the film is very time consuming because the individual numbers and letters being cut out need to be trimmed very carefully. Second, when they are applied to the models surface they need to be lined up and evenly spaced. Although this is not difficult to do, you need a good eye and you need to be able to judge the spacing between the decals.

Here again a new number 11 X-Acto blade works best for trimming the individual decals to remove the clear carrier film from the inked areas. Always cut the decal with clean cuts and if the knife-edge does not cut all the way through give it a second pass. Never tear partially cut areas away from the inked portions especially in tight corners as you stand a good chance of tearing the decal. The cut portion of the decal should fall free from the inked area. I use my trusty stainless steel sewing ruler to guide the tip of the number 11 blade for cutting straight lines. For odd shaped decals like nose art I free hand the cuts, but I work very slowly and check my work as I go so that I will not cut into inked areas. For curved edges I use a single edge razor blade and make tangential cuts along the curve, removing ever-smaller pieces of clear film.

The decals that I find the most difficult to work with are the label type decals that you find on aircraft surfaces to identify what is behind a panel or to give instructions to maintenance crews or

the pilot. These decals are usually very small, and in these cases the excess clear film can actually facilitate the placement of the decal. Because it gives you a little extra contact surface to work with, I recommend that on tiny decals you leave the carrier film on. To help apply these tiny decals leave a small length of the backing so that you can easily grab the backing with tweezers and slide the decal off the opposite end. Small round decals with clear carrier film in the center are also a problem, especially the red circle types that are applied to fuel caps. For some reason they do not respond to setting solutions very well and this may be because their round surfaces areas are so small. I have discovered that if I punch out the clear carrier film from the center of the decal with my trusty Waldron Punch Set, the decal will lie down on the gas caps surface very well and mold itself onto the raised detail.

To apply decals first fill a clear glass container that you will be using to soak the decals with lukewarm water. Keep your decal sheet away from the glass jar so that the wet decals will not drip on to the sheet. The next step is to dip the decal into the water. Most new types of decals only need to be submerged for about 10 seconds or so while older decals may require more time to get the glue to dissolve. When you dip the decal make sure that the entire decal is submerged. Do not let the decal float in the water because there is a possibility that the glue which holds the decal to the backing paper may dissolve very quickly, resulting in the decal lifting off the paper or, worse yet, the decal sinking to the bottom of the glass.

After you have removed the decal from the water let it sit until the decal slides freely across its backing. While you are waiting, apply your decal setting solution to the model's surface. To apply any setting solution I recommend that you use Q-Tips, because they absorb just enough solution and they will not damage decals. If you use a two-step process like the Micro Scale system, separate the bottles by putting them on either side of the workbench. This way you will not mix up the Q-Tips that you are using as applicators.

When the decal is ready to be applied, slide the decal very slightly off the backing so that you can grab the exposed backing with tweezers. Once you have moved the decal and you are holding the backing with the tweezers tips, place the decal onto the location on the models surface holding the backing with the tweezers in one hand and a damp Q-Tip dipped with the setting solution in the other hand. Lay the decal on the surface of the model, place the Q-Tip onto the decal and then ever so slowly, pull the backing away from the Q-Tip. You will have a small amount of working time with the decal before the glue starts to set onto the surface so you can then slide the decal around with your Q-Tip to position it. Be very careful not to put too much pressure on the Q-Tip as you may rip the decal. Once the decal is positioned correctly do a last minute check for location and position and then press down on the decal using either a damp tissue or a Q-Tip It is important to keep the decal wet while you are working with it, so if it gets dry apply some more setting solution.

If the decal is a large one and it is a number or letter such as a "7" or and "F" you will need to be very careful how you slide the backing off the decal. This is because these types of decals have a tendency to fold over or, worse yet, they can rip. With these types of decals I try to move the backing away from the actual decal along the least likely surface that can be damaged. In the case of the letter "F," I would move the backing towards the left and in the case of the number "7" I would move the backing towards the right and upward. It also helps a great deal if the decal's

glue is very fluid and the decal is kept wet. If the decal does fold under itself, slide the decal around as this sometimes will move the folded portion just enough for you to correct the problem.

When you position a decal, check to insure that it is straight, not upside down and not reversed. I know you are smiling to yourself and saying that you would never do that, but if you are applying individual letters such as the letter "D" it can easily be reversed. Another decal that you need to be careful when applying is insignia, which contains a star. On fuselages the center point of the star is always pointing up and on wings it is always pointing towards the leading edge of the wing.

After you have applied a decal and you are satisfied with its appearance and position you need to soak up any excess water and setting solution before it dries. If you let the water dry on the model it will usually leave a stain which can be removed by washing the affected surface with a damp Q-Tip dipped in water.

In order to get the decal to really snuggle down around detail you will need to apply several coats of setting solution. If the decal is lying against a surface that has no surface detail I recommend that you not waste your time applying setting solution because there is nothing for the decal to conform to. I usually apply at least three or four coats of setting solution and I let each coat dry completely. Apply the setting solution with a Q-Tip and only wet the surface of the decal. As the solution dries it will soften the decal and pull it down around surface detail. If tiny air bubbles appear pop them with a pin, apply some more setting solution to the decal's surface with a Q-Tip and then press down on the area where the bubbles were located. Each successive coat of setting solution will pull the decal down around surface detail until the decal actually appears to be painted on the surface. Even small rivet and locking screw detail will show, so take your time and do not skimp on applying coats of setting solution.

As a final note on decaling I have purchased a lot of decal sheets over the years especially at conventions. I store all my decals in rectangular Tupperware containers to keep out moisture. Some of my decal sheets are no longer available so I keep them in a safe place and when I need to use them I scan them into my computer at 1000 dots per square inch (DPI), and store the scanned images on a CD or DVD. If I ever need to use them again I can always use decal paper and my trusty color ink printer to make a new set.

EXTERIOR WEATHERING

If you decide you want to weather the exterior of your model it needs to be done in stages. The first stage is to slightly lighten the paint that will be applied to the upper surfaces of the aircraft that are exposed to direct sun light such as the upper wings and the top surface of the fuselage. Add a few drops of flat white to the paint and airbrush this lighter color onto these surfaces. The underside of the aircraft usually has an almost factory fresh appearance to the paint because there is no direct sunlight to fade it. So once you have completed applying the lighter colors onto the upper surfaces you can apply all the decals. Keep in mind that although the lower painted surfaces may not get faded, military aircraft that operated from dirt or grass fields, and many of them did, would have dirty undersides.

When you have finished applying all the decals and the water and setting solution stains have been removed, and the clear flat finish applied to the entire surface of the model, the next step is to fade the decals slightly. Fade the decals you say! Well consider this. If you painted the model as a factory fresh or almost factory fresh aircraft you can apply the decals, seal them and move on. If you decided to fade the colors on the upper surfaces of the aircraft and the decals look new there will be a visual disparity between the faded paint and the new looking decals.

To fix this problem you can give the upper surfaces a light, highly diluted coat of flat white or a light, light flat gray paint so that the decals will have a slightly faded appearance. This is especially true for decals like national insignia, nose art and large fuselage numbers and letters.

Since you will be using a highly dilute color which will be mostly thinner I recommend that you use water base paints so that the thinner will evaporate off the model. The reason I recommend water base paints is that you will be applying a large volume of thinner to the model's surface because of the paint to thinner ratio. A mixture of 75 percent thinner to 25 percent paint should give you a subtle dusting on the upper surfaces to slightly fade the decals.

Always test your mixture prior to airbrushing to be sure that the paint is just a dusting and that the paint has mixed correctly. If the paint is still too thick just add more thinner until you get the effect you are looking for. I have also had the bad experience of having the airbrush spit globs of water base paint onto the surface of the model. This was either due to bad thinner or bad paint, which does happen from time to time. So always test you paint especially highly diluted mixtures. As a final note to this disaster I quickly streaked the paint from front to back with tissue, which salvaged the models appearance. The pictures in this chapter of the Mig-3 are the result of that painting disaster!

For making the bottom of the aircraft dirty use the same ratio of paint and thinner. If the aircraft operated from an airfield use flat brown lightened up with some flat white or a light tan color. In addition to applying the dirt color to the lower surfaces of the aircraft, dirt also gets splashed into the wheel wells onto the landing gear, the tires and tire hubs. Here again less is better so hints of the dirt color are better than making it appear as though the airplane has had a mud bath! The result you want is a very subtle, light dusting of paint particles on the surface of the model, especially on the decals. If you decide to dust the bottom of the aircraft with dirt and mud add the leading edge weathering first.

LEADING EDGE & FOOT TRAFFIC WEATHERING

The next step in making your finished masterpiece look realistic is to add the subtle effects of worn off paint on the leading edges of the airplane and on surfaces where there is foot traffic.

For simulating worn paint on the leading edges of wings, which includes the tail and rudder leading edges, on the front of the fuselage and on the engine cowlings, I use the dry brushing method to add very subtle amounts of silver paint. I use a flat brush for leading edge paint application and I make sure almost all the paint is gone before I touch the brush to the surface. I would rather have to do multiple applications of silver paint to get a nice subtle effect than to suffer the disappointment of adding to much paint. It is also very important to be sure that your

brush strokes on the leading edges of wings simulate the actual flow of air, which would be from the leading edge and then across the upper and lower surfaces just beyond the leading edge.

On the leading edge of the aircraft fuselage the worn paint would be around the circumference area of the nose, but here again very subtly and not uniform as paint peels and is worn off at non-uniform rates. On engine cowlings I dry brush starting at the inner edges with brush strokes straight back across the cowlings surface such that the strokes simulate the airflow pattern. I also dry brush the tips of the engine cooling flaps on the aft section of the cowling.

Foot traffic is usually on the upper surfaces of the wings of fighter aircraft close to cockpit and some very subtle worn paint where the fuel caps are located. There may also be worn paint along the sides of the fuselage around the cockpit where the pilot and crew chief spend time getting into and out of the aircraft. I use a soft round brush with a blunt end to dry brush on the silver paint by using a stippling effect to simulate the worn paint from foot traffic. Here again the effect is very subtle and there should be hints of silver where the paint has worn off.

EXHAUST AND GUNPOWDER STREAKS

The last step in basic weathering are to add exhaust and gunpowder streaks. The best way to apply these streaks is to use your trusty airbrush and to apply light subtle amounts of paint. For enamel surfaces I like to use Testors Metalizer exhaust paint color and for gunpowder stains I use the flat black that has some flat white added to it so it is a dark, dark gray. If you don't like using metalizer paint just use the same mixture for the gunpowder streaks that you used for the exhaust streaks.

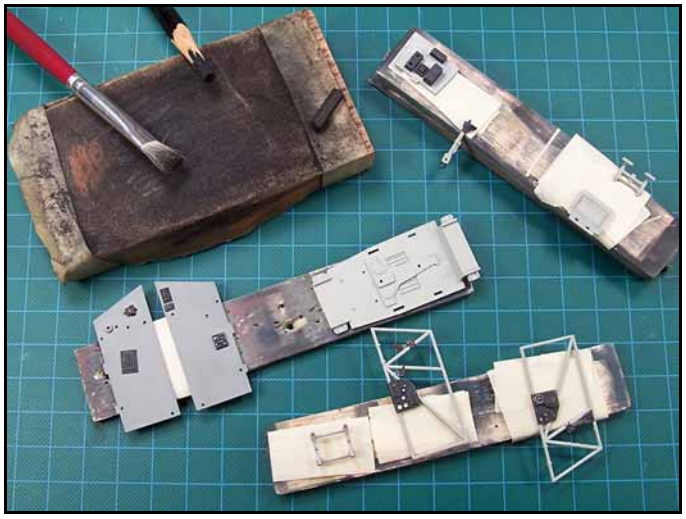
The exhaust streaks should emit from just behind the exhaust pipes and streak back across the surface starting out heaver and then getting lighter in appearance as the streak moves away from the exhaust ports. This touch takes a lot of practice. Gunpowder streaks are pretty much the same except their streaks can be narrow or wide depending on where the guns are located. For wing-mounted guns, the streaks are often times narrow and extend across the upper and lower surfaces of the wing. For nose mounted guns the streaks can be narrow, but most times they are wider and less distinct due to the rounded and blunter shape of the fuselage. In all cases examine pictures of real aircraft to see what the exhaust and gunpowder streak shapes look like.

In closing out this chapter and this book, remember that less weathering is always better than more weathering. What you are trying to achieve is a hint of faded and worn paint, streaks of gunpowder and exhaust stains and decals that don't look brand new.

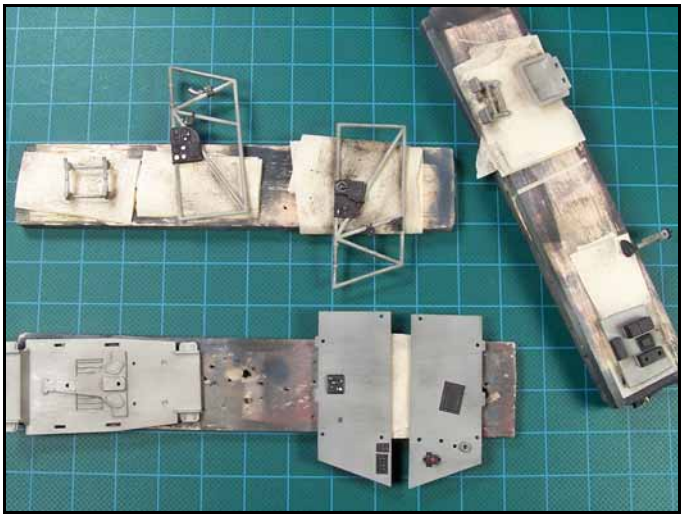
Happy scale modeling!

Mike Ashey

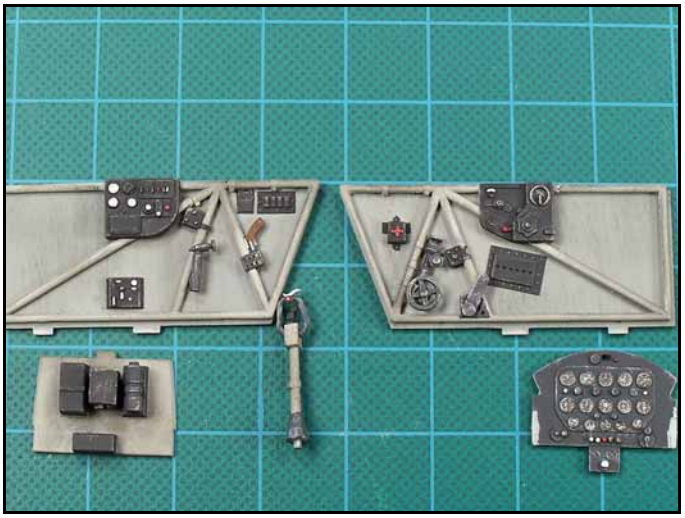
To added weathering to the interior of aircraft I used pencil pastels. They are easy to use , they are not oil based and the dust sticks well to flat paint. I rub the pencil onto sandpaper and use various size flat brushes to apply the dust.



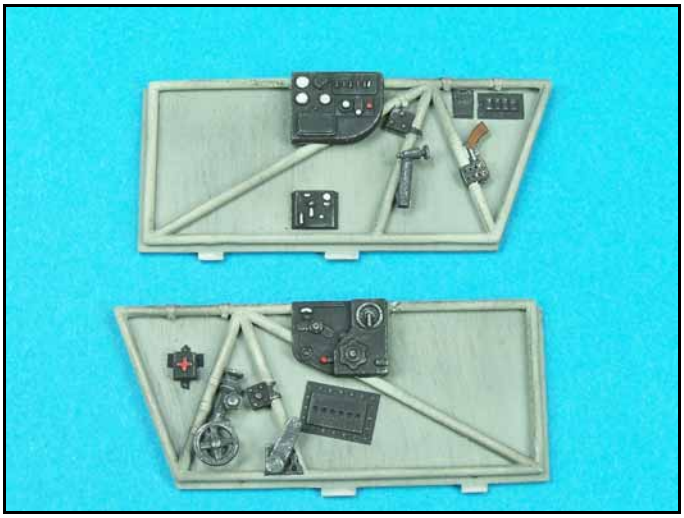
These interior cockpit parts for a Mig-3 have been painted and detailed and they are now ready for some pastel dust.



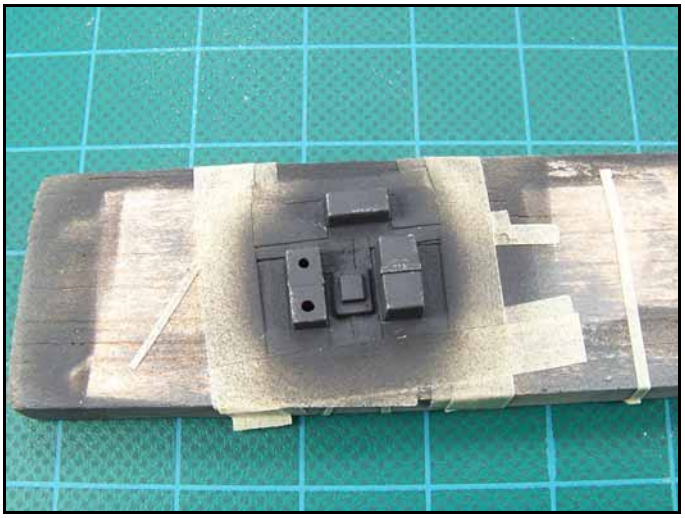
The pastel dust should be applied from top to bottom. Light dusting work best and you can add various shades to break up the interior colors. Do not touch the dust once applied. Simply blow away the excess dust.



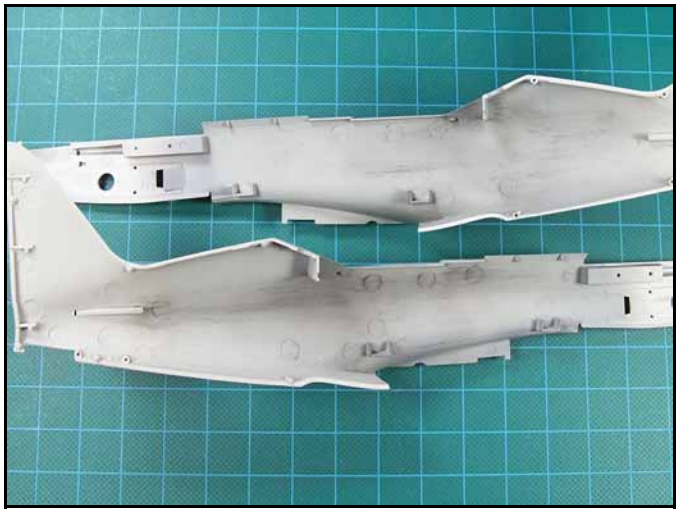
Once the parts are dusted apply a coat of Testors clear flat paint to seal the dust so that you can handle the parts. Note how a good paint job, detail painting, dry brushing and adding pastel dust enhances the interior parts.



Here is a close up of the left and right cockpit sides of the Mig-3. Things that the pilot would use a lot like the trim wheel has lots of worn paint on its surface.

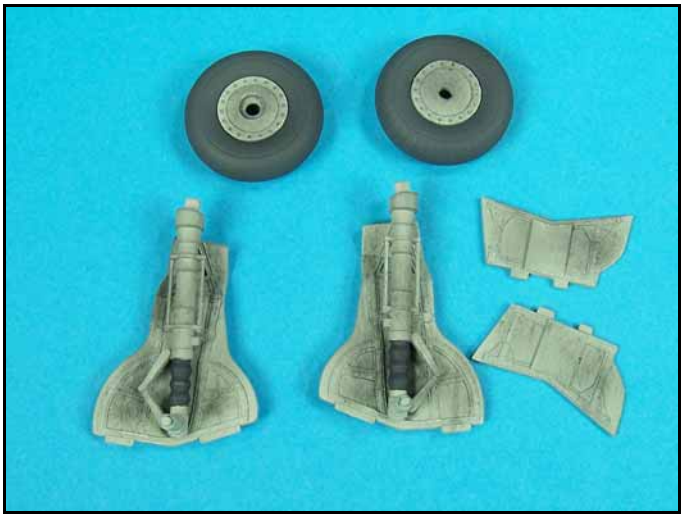


Enhancing the corners and edges of small boxes by Dry brushing them with Testors silver paint can really bring out the individual shapes of these parts.



I also dusted the interior sides of the Mig-3 fuselage and here I made a mistake. The streaks are from front to back instead of top to bottom. Luckily most of the interior will be hidden with the cockpit assembly.

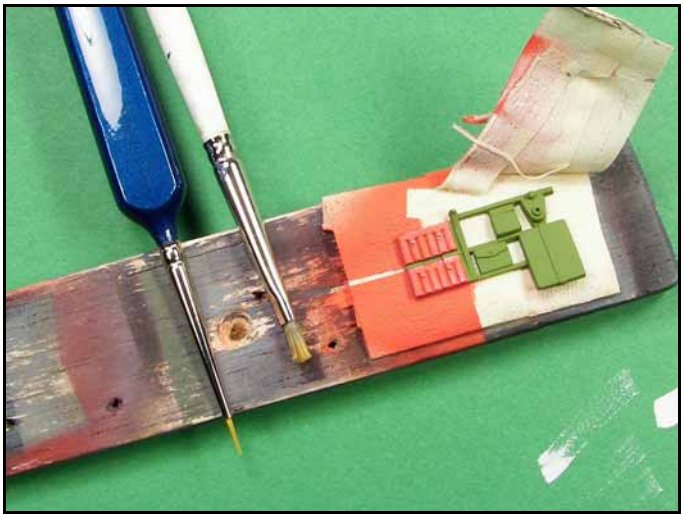
Here the Mig-3 interior is being assembled. Adding subtle weathering on each part works best because as you assembly the cockpit the subtle effects start to add up.



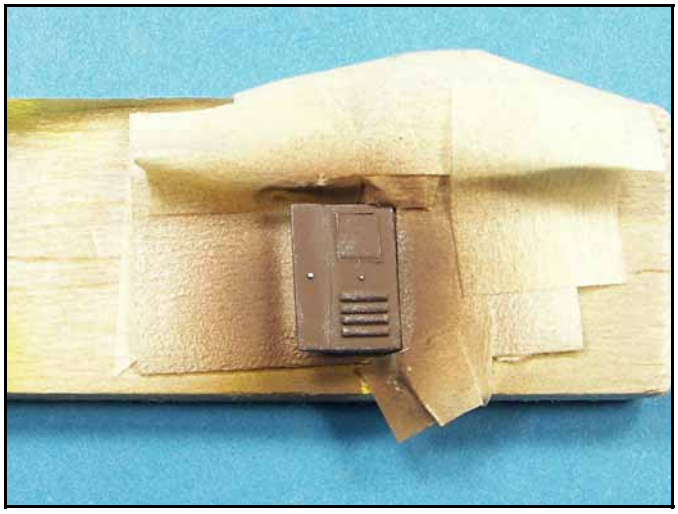
I also use pastel dust to add grime and dirt to landing gear parts.

These SBD parts are getting dry brushed with Testors silver paint. Wipe off almost all the paint from the brush until only a hint of silver is left, then run the brush across raised surfaces and on edges and corners.

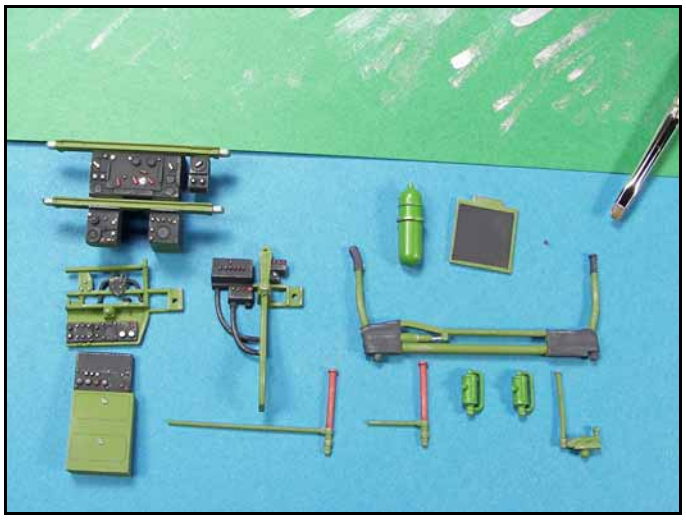
I use dry brushing to also enhance canvas. Here white paint is being dry brushed onto the black canvas covers on the bases of the control sticks of these SBD part.



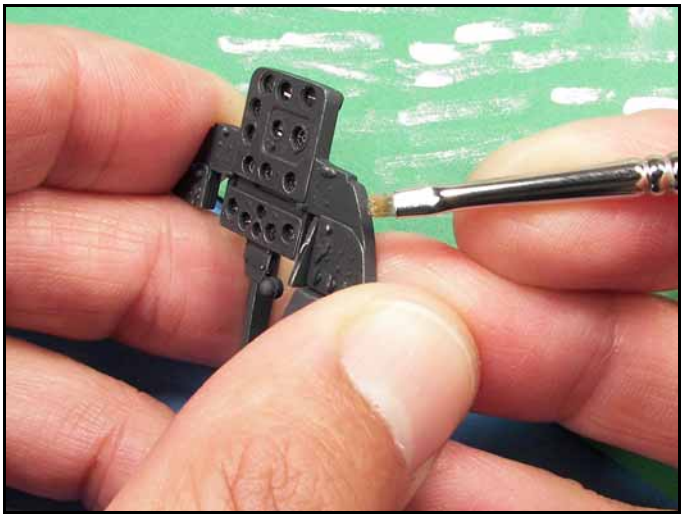
The red canvas covers for the flare gun rounds on this SBD part also got a subtle dry brushing of flat white to enhance the appearance of the detail. I drybrushed before I removed the masking.



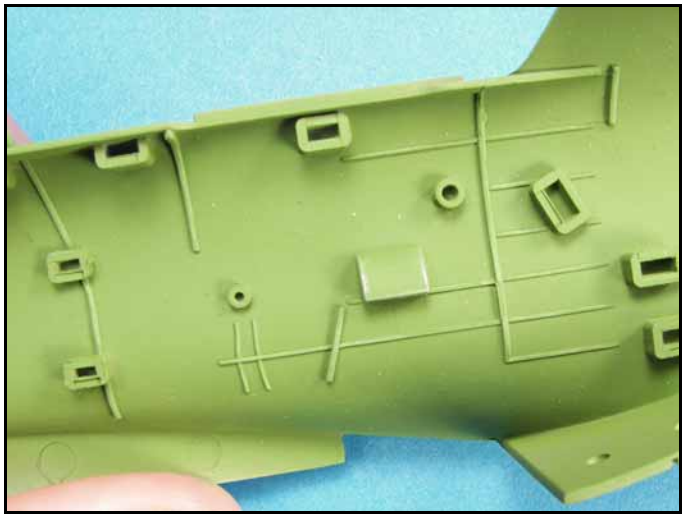
This canvas covered part looks much better now that the surface detail has been enhanced with flat white. The tiny paint enhancements that you had to each part will really make the cockpit stand out once its assembled.



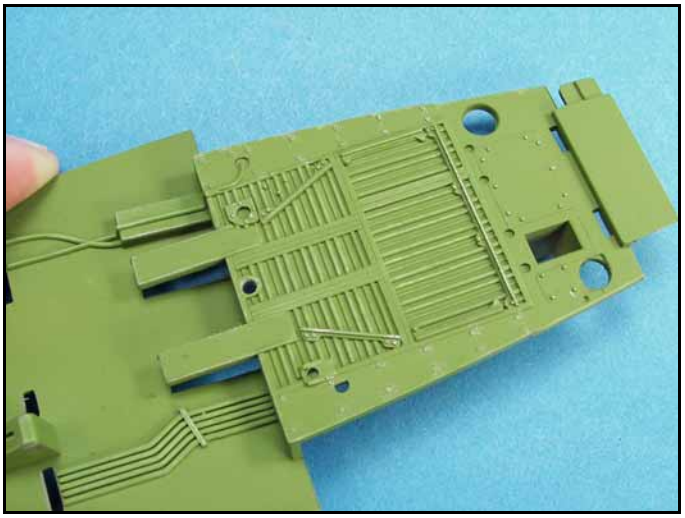
These SBD interior parts have all been enhanced with Dry brushing of silver and flat white paint.



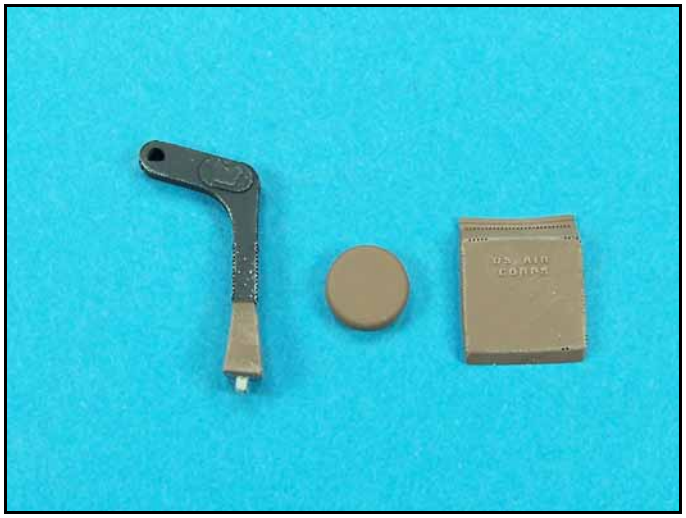
The console is a very prominent part in any interior so I pay particular attention to dry brushing the edges and any raised detail.



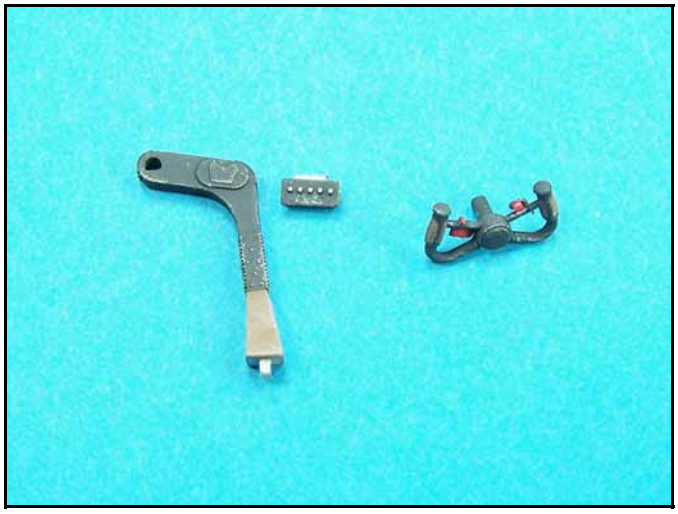
Here is a good example of very subtle dry brushing on the interior raised detail of this SBD cockpit side.



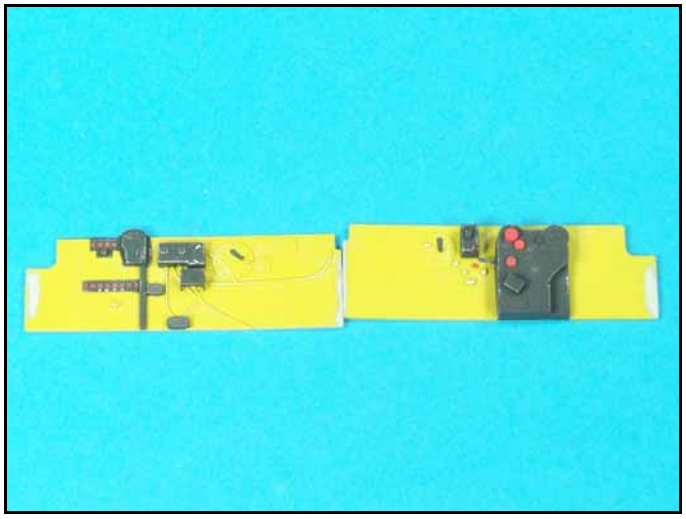
By running a flat brush across the raised surface detail tiny silver pigments flaked off onto the surface. Instead of your eye seeing an all green floor once the fuselage is closed up your eye will be able to see the floor detail.



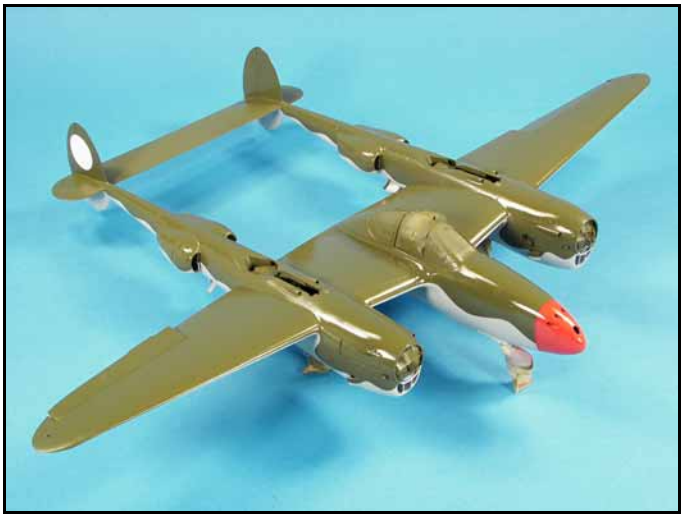
The control column and the seat cushion on these P-38 parts have been dry brushed. Note the difference between these parts and the head rest which has not been dry brushed.



The P-38 control wheel has some Eduard photoetch enhancements. The grips were carefully painted and Dry brushed with white and the metal was dry brushed with silver. The red buttons were painted with a toothpick tip.

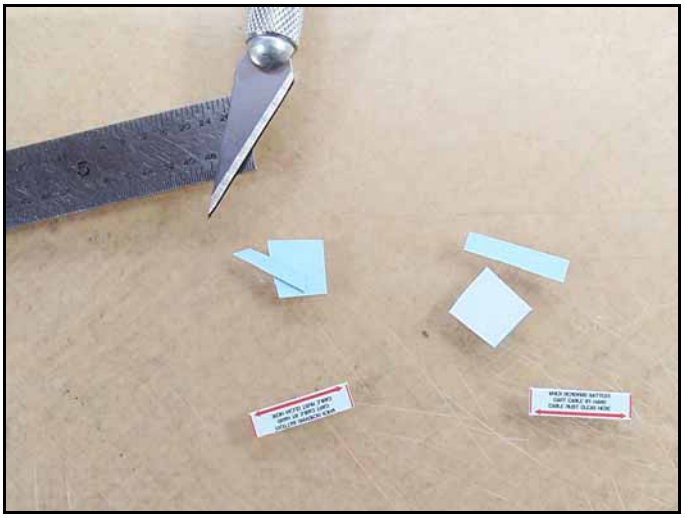


These P-38 cockpit sides could have used a slight dusting of pastel but I wanted to display the cockpit as used but not so used that the interior was grimy.



The first step in decal application is to have a high gloss surface on your model. I like to use gloss polyurethane. The gloss will allow you to slide decals around and it will help prevent the silvering of the clear carrier film of the decal.

To lessen the chances of silvering, I remove as much of the clear film around decals as possible.

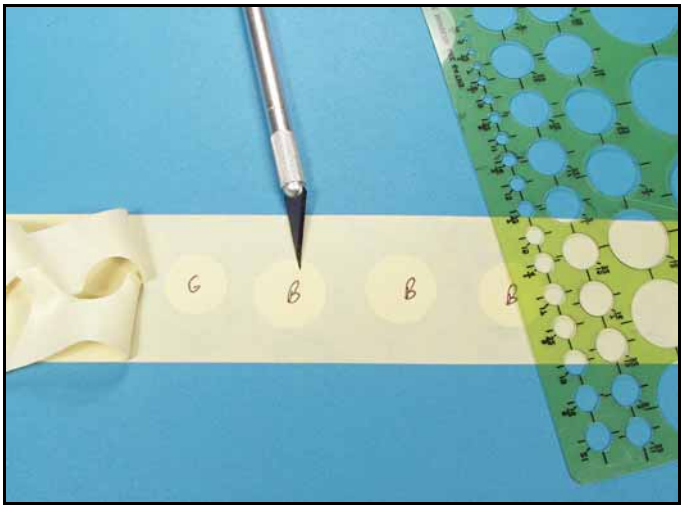


On small label decals cut around the wording to remove the excess clear film.

Removing the clear film on nose art can be challenging, but necessary .

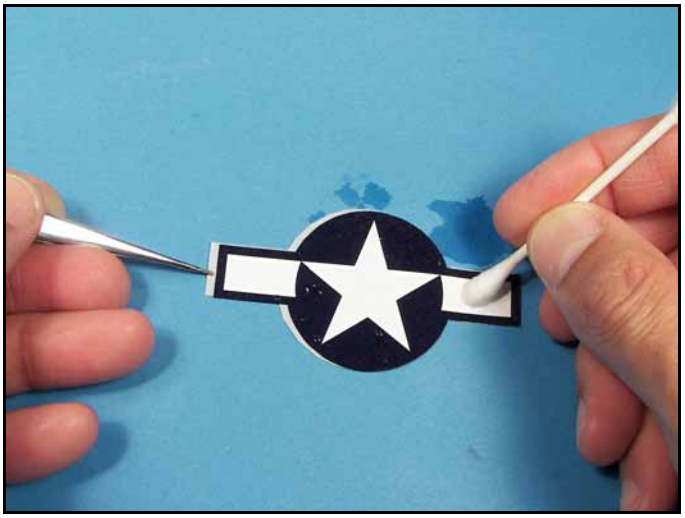
For some strange reason small round decals seem to have a higher chance of silvering even with a gloss surface. To prevent this I even remove the clear film from the center sections using my Waldon punch tool.

I also remove the carrier film from around the edges of large numbers and letters and apply them individually.

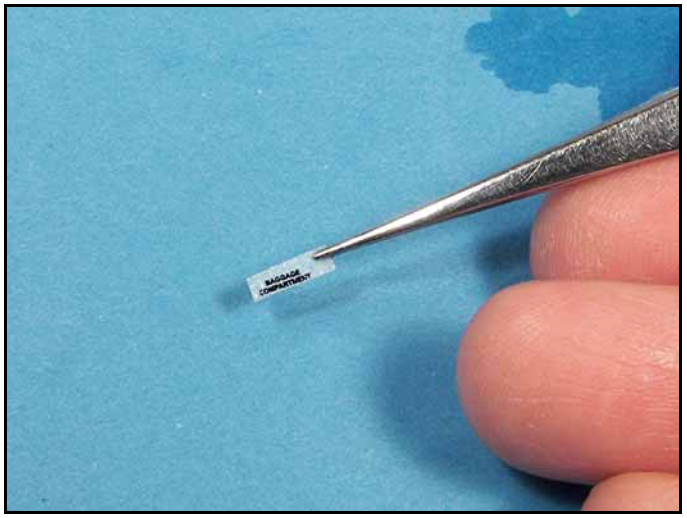


For simple circles and squares I use a drafting template and masking tape to make these shapes and use paint instead of decals.

I dip decals in warm water lightly holding them with tweezers. The warm water will loosen the glue between the decal and the backing faster and it helps the decals adhesive stick



Check to see if the decal will slide than carefully move it slightly off its backing so you can grab the backing with tweezers. Sometimes I lay it down to achieve this and sometimes I do it right out of the warm water jar.



For tiny decals do not cut the clear film as it will help the placement and adhesion of the decal. Also, cut out some extra paper backing so that you have a handle for your tweezers.

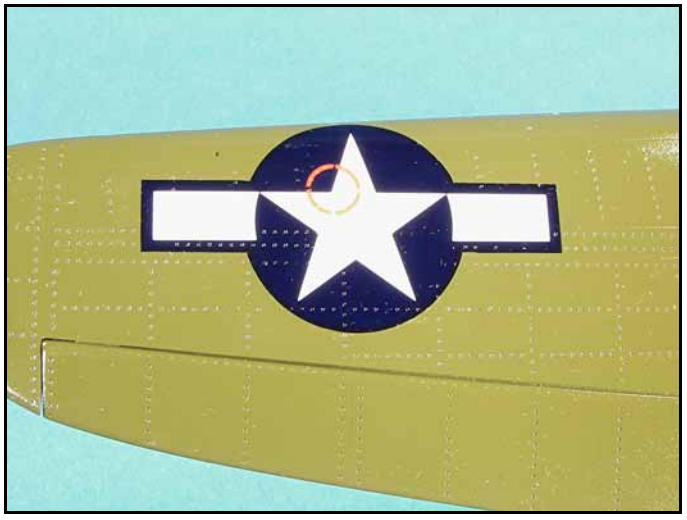
I apply Micro Set to the surface and then slide the decal off its backing with a Q-tip. Be sure the decal is wet so it will not tear. Position the decal with the Q-Tip and as it dries carefully press down with the Q-tip to remove air bubbles.

As the decal is drying I apply coats of Micro Sol to soften the decal. Note how the decal conforms to the surface detail. When I am finished applying all the decals I airbrush Testors clear flat to seal the decals and restore the flat color.

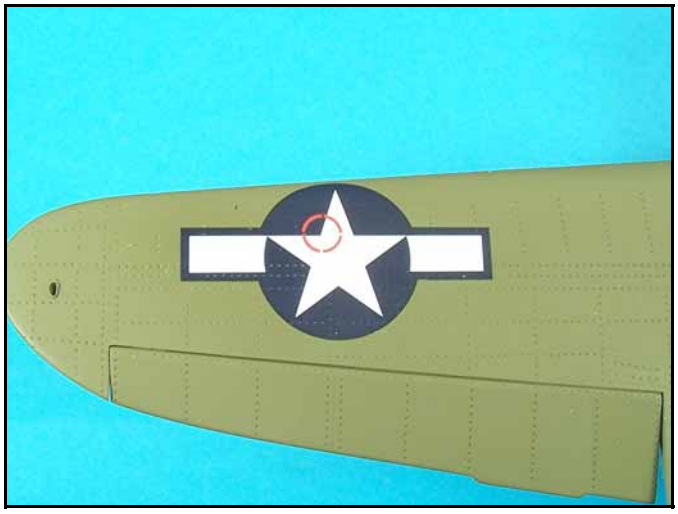
The SBD kit came with a colored rudder decal, but I painted it. I cut of the "SBD" from the kit decal. These is a lot of carrier film on the door hatch decal, but a good coat of clear gloss prevented silvering.

The red strips were also painted although decals were supplied. The combination of careful masking and painting in combination with good decal application can really enhance the appearance of a model.

This SBD kit also had a large red strip but here again I painted the red strip and then applied the decals. I gave the surface several coats of clear gloss to ensure that it had a high gloss sheen.

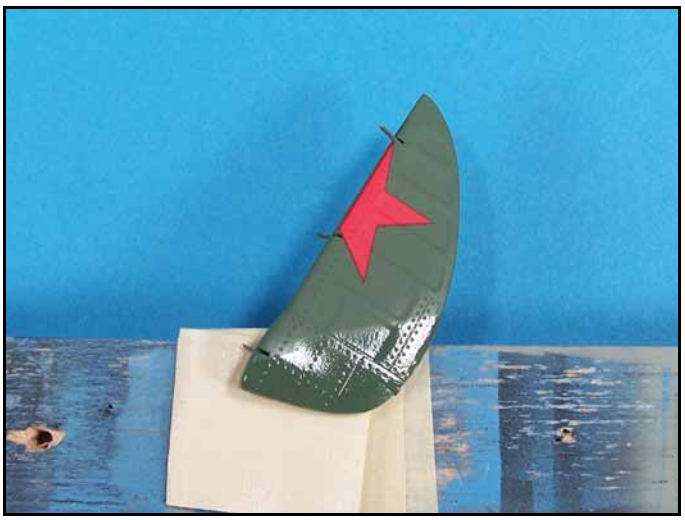


Applying decals on top of decals can be a bit tricky. Complete the bottom decal first including the applications of Micro Sol, then apply the second one. Decals don't slide well over other decals so be precise in your positioning.



After several more applications of Micro Sol to get the ring decal to snuggle down onto the surface I sealed the decals with Testors clear flat finish.

This Mig-3 has all its decals added and it is ready for a layer of cleat flat.



This is a good example of the difference in the shade of the finished color with a clear gloss finish and the final clear flat finish. Note how much darker the green looks when it has a gloss finish.

These decals look like they have been painted onto the model. This is a good example of good decal application technique.

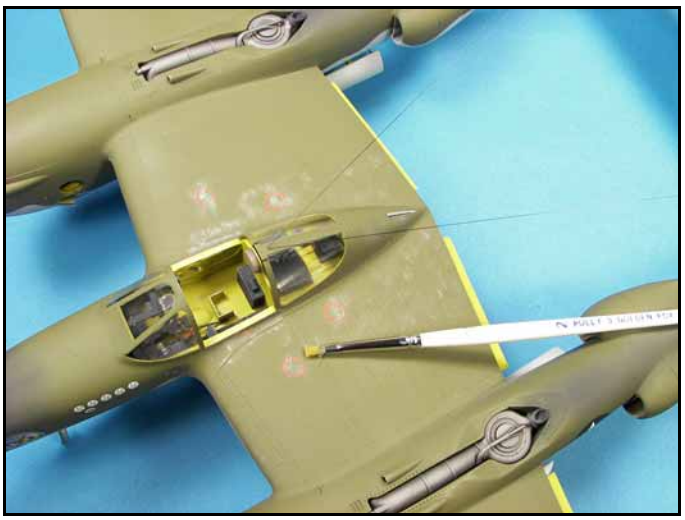
The nose art of this A-20 Havoc has a lot of clear carrier film and I was extra careful to apply several coats of clear gloss finish on this area so that there would be no chance of silvering.

The kill tally and label decals on this P-47 silvered because I did not have an even surface of gloss paint. Unfortunately I did not notice this until after I applied the flat finish. Always check each decal carefully.

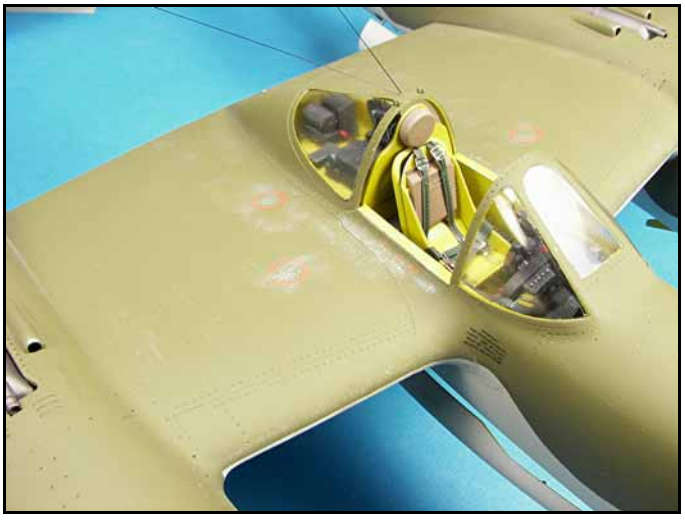
This Mig-3 has been given its clear flat coat and the lighter green color has been restored. Now its time to lighten the surface using water based paint.

The upper surface received a light dusting of highly thinned water based flat white to fade the paint and to also fade the decals. This approach makes the fading between the paint and the decals uniform.

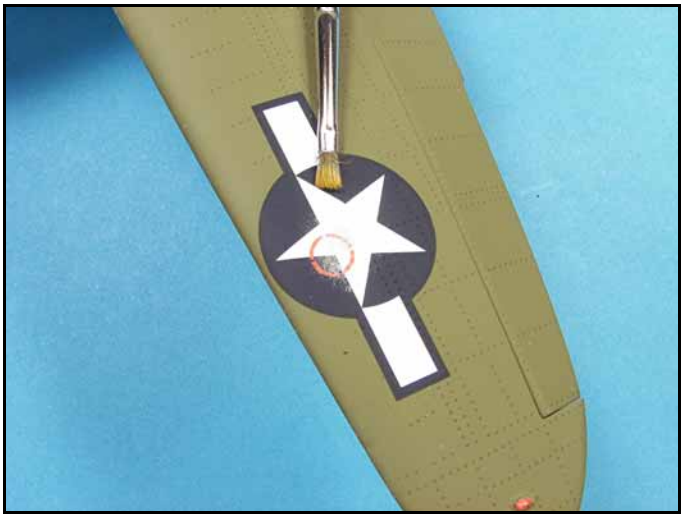
This close up give you a better feel for the fading. Areas of the upper wings are faded while other areas are not.



To simulate the worn paint appearance from foot traffic I use the dry brush technique, but I use an up and down stippling motion by holding the brush at 90 degrees to the surface.



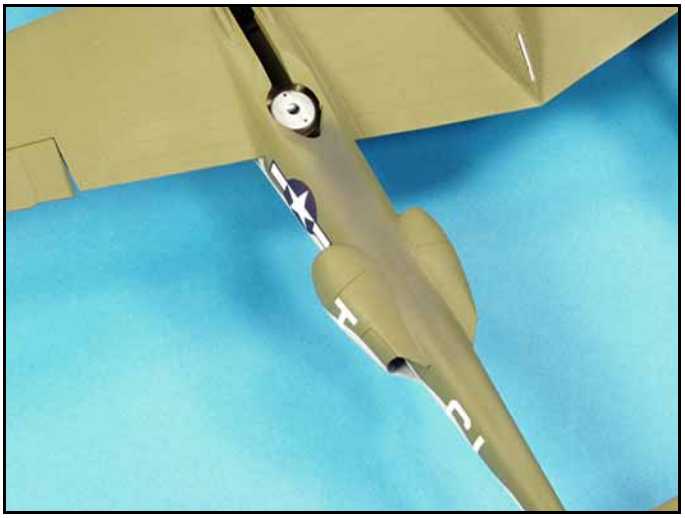
There is also foot traffic and worn paint around the fuel tank fill ports. These little details all add to the overall effect of the finished model.



I also stipple over decals when necessary and in this case the outer wing fuel tank fill ports need a little bit of silver to simulate worn paint.

The leading edges of the main wings, the tail and the rudder are all exposed to high air pressure air flow. These areas always have exposed metal where the paint has been worn off.

Always dry brush from front to back to simulate air flow. When adding silver paint to simulate exposed metal on the leading edges of an aircraft less paint is better.



These exhaust stains along the top area of this P-38 Fuselage boom were applied before the exhaust and super charger assembly were added.

The exhaust stains should emit from the area behind the piping not in front of it or around it.

Powder stains and staining from the gasses and the lubricants associated with the machine guns should streak behind the gun openings.

Now that the guns along with the rest of the remaining parts have been attached, the business end of this P-38 looks pretty realistic. As a final note, less weathering is always better than applying to much weathering.