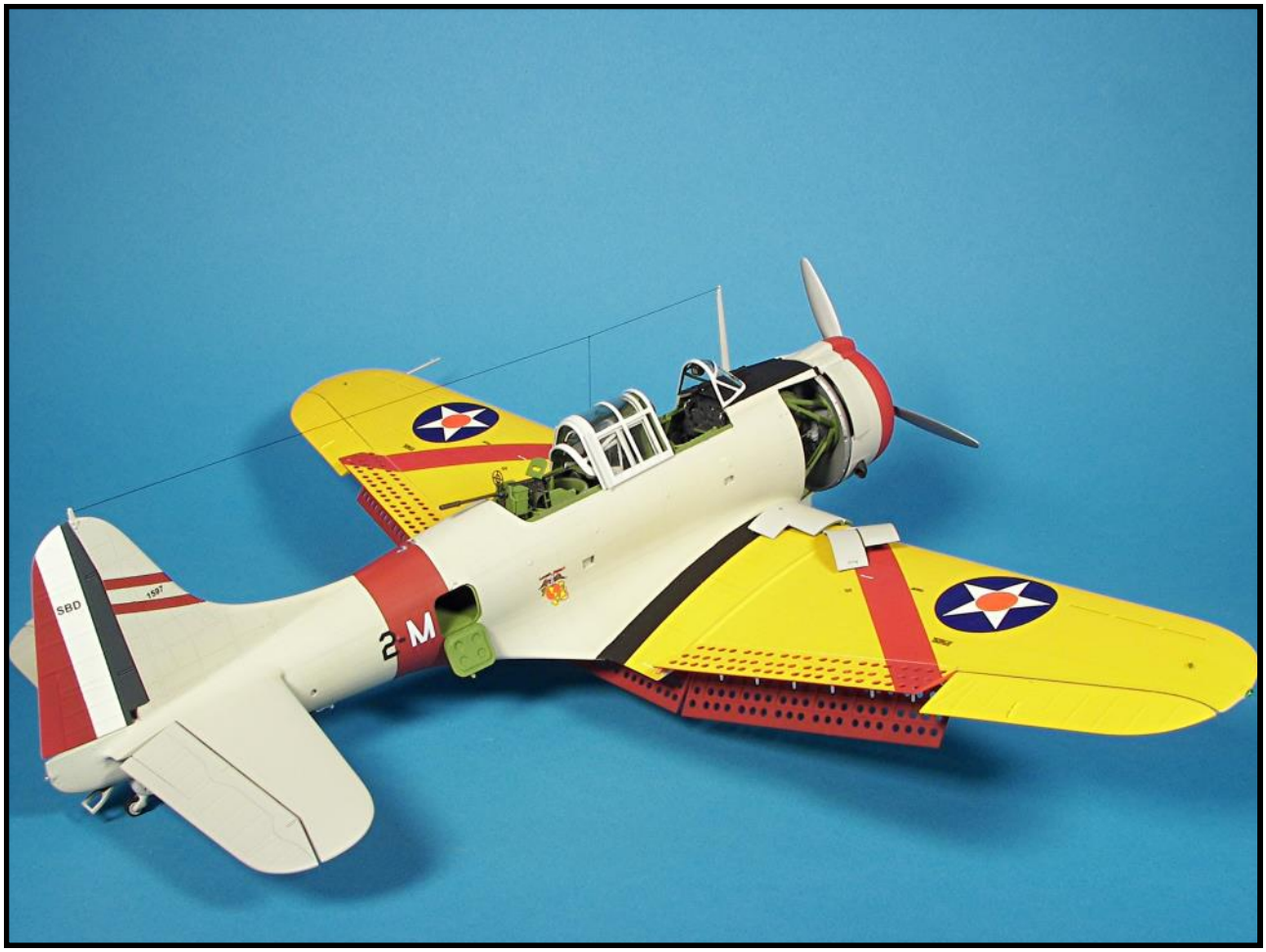


MIKE ASHEY PUBLISHING

COMPREHENSIVE SERIES SCALE MODEL AIRCRAFT MANUAL
NUMBER 1

BUILDING TRUMPETER'S 1/32 SCALE SBD-1 DAUNTLESS

This manual is applicable to all versions of the Trumpeter 1/32 scale SBD series.

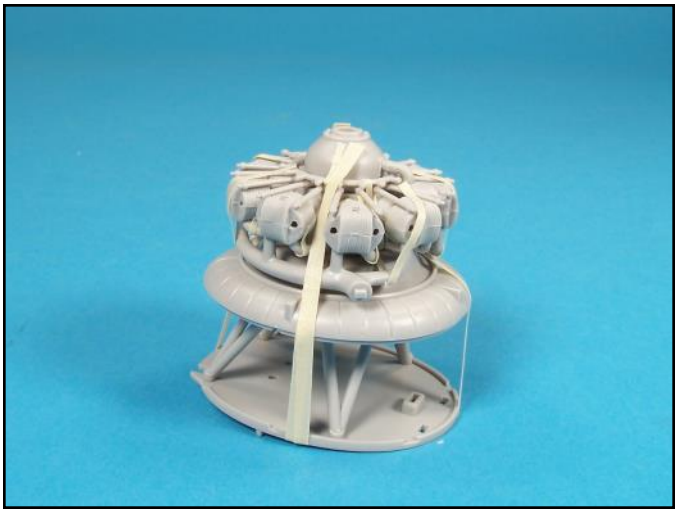
This kit has a lot of parts for the cockpit and all of it is finely molded and has a lot of surface detail. The Wright R-1820-60 engine is well detailed and with the addition of spark plug wires, builds up into an impressive model all by itself. The fuselage halves fit together well as do the wings and the elevators. The elevator to tail fit is snug, however the wing to fuselage fit has some voids on the upper surface. The separate clear parts for the fuselage area between the engine firewall and the heat dissipation shield also need some attention if you decide to close up this area.

Evergreen strips were used to fill the voids on the upper surface at the wing to fuselage attachment areas. To really get the most out of the cockpit console you should drill out the instrument faces so you will need a good supply of various size drill bits. The only aftermarket items used for this kit were the Eduard pre-painted seat belt set and the engine detail set. The pre-painted seat belts add an additional layer of realism to the fully detailed cockpit. The clear parts are nicely done however one of the clear canopy parts had a slight inward bend that will need to be fixed. The kits instructions are very well done and the decals are crisp and colorful.

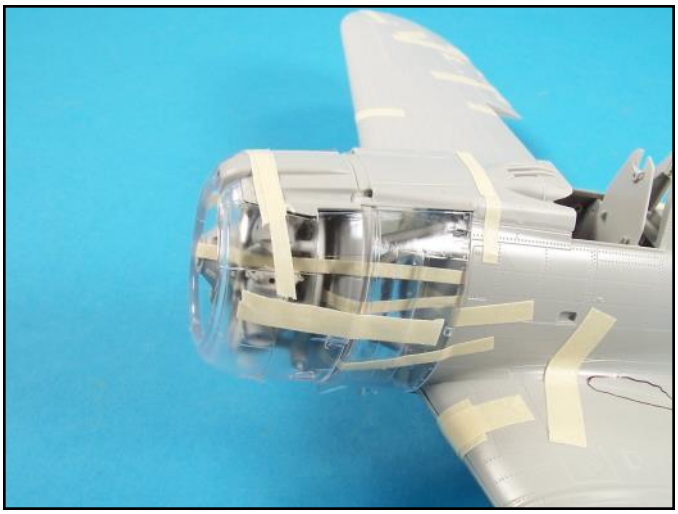
Detail painting, paint layering, using different shades of the same color and drybrushing greatly enhanced the appearance of the cockpit. Testors enamel paints were used for this project and decal setting solution worked well with the kit supplied decals. Be sure to have one full roll of masking tape on hand as this is a big kit and consequently it will require a lot of tape.

The finished kit represents a pre-war Dauntless SBD-1 in its pre-war colors and of course it has to be a US Marine SBD.

Taping all the major parts together helped identify fit challenges some of which were noted on the instructions and others were marked on the kits surface.



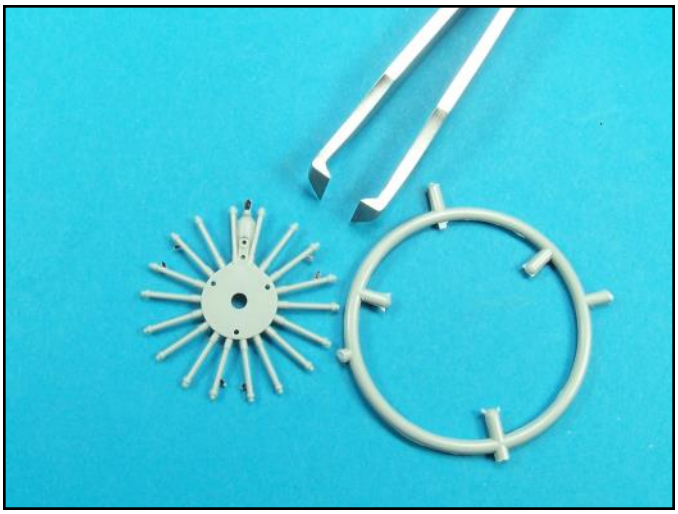
The kit has a nicely detailed R-1820-60 engine. With the engine having so many parts taping it together helped identify fit issues before assembly.



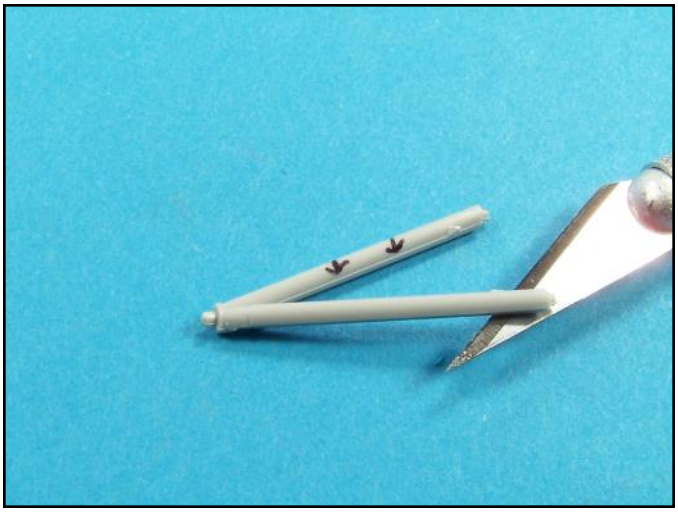
The clear cowling parts around the engine and the engine frame have some fit issues that will need attention if you decide to close up this area.

The engine cylinder halves were sanded flat so that the seam line would be minimal.

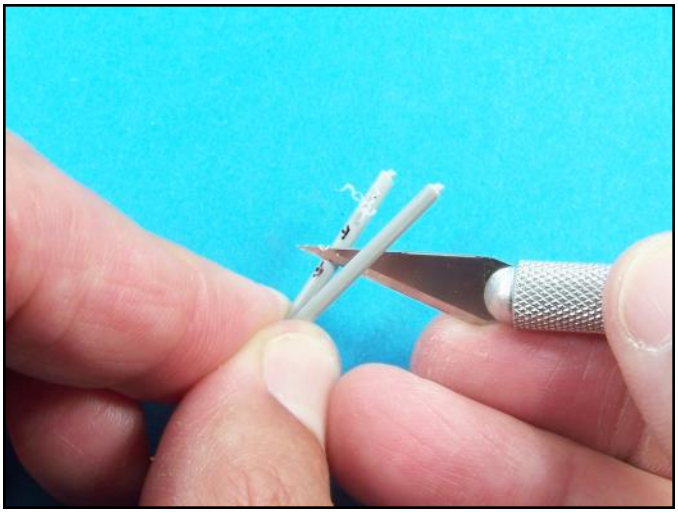
The exhaust piping tree attachment tabs were removed with a set of snippers. Each part had a seam line around the perimeter that need to be scraped off and the surface sanded smooth with a Flex-I- File.



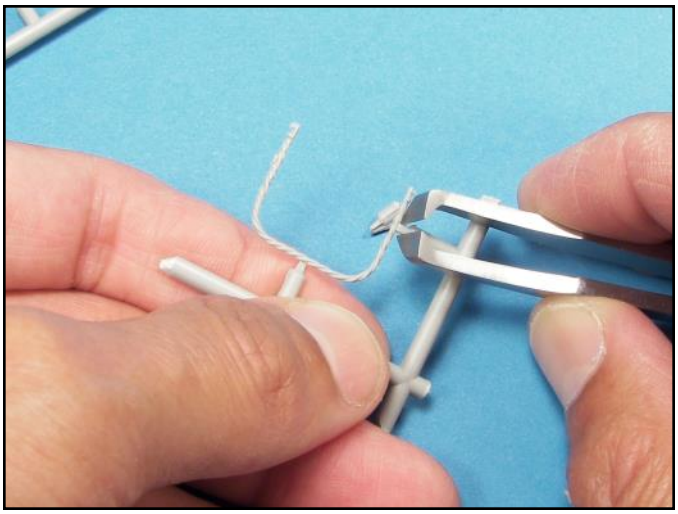
The cylinder push rods were very delicate and were carefully snipped off the tree ring. Then the seam line on each rod was carefully scraped off with the tip of a number 11 X-Acto blade.



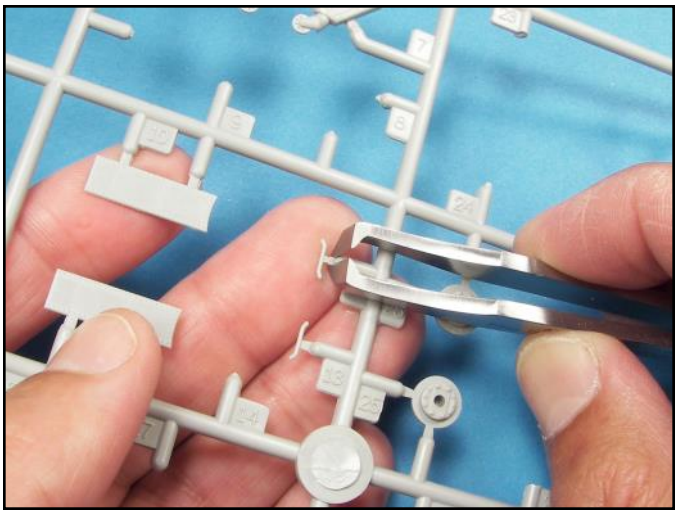
The engine mounting frame had noticeable mold lines that needed to be removed.



Holding the number 11 X-Acto blade at a 45 degree angle to the surface peels away the mold line layers at a time.

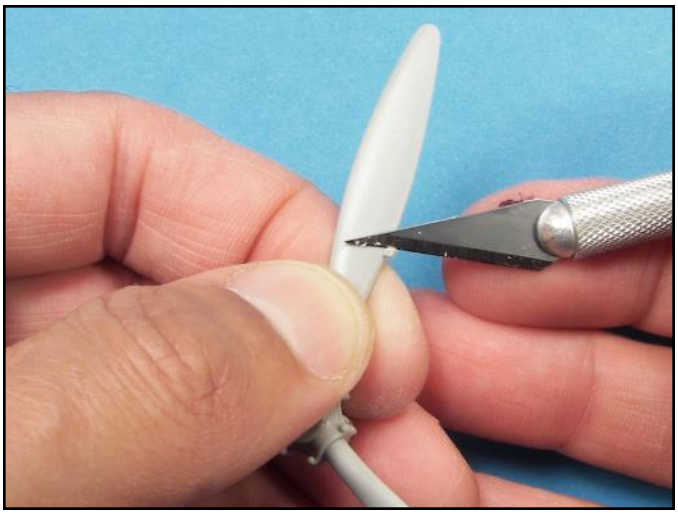


The aircraft lifting cable had a very delicate tree attachment tabs that were best cut with snippers.

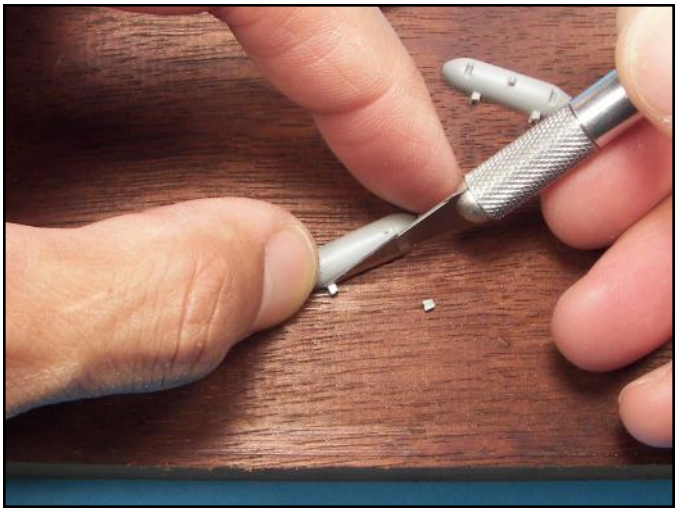


Cutting parts off the trees and leaving some of the connecting tab in place helped ensure that these small and delicate parts are not damaged during the removal process.

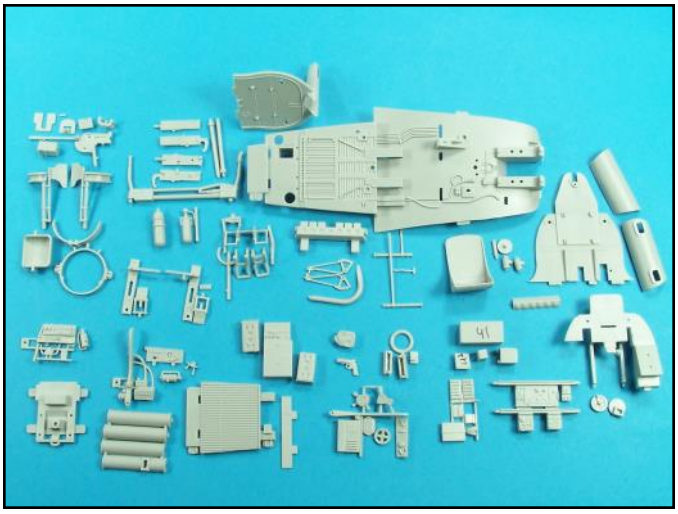
Set small parts onto a small elevated wood cutting board and carefully trim off the remaining tree tabs with the tip of a sharp number 11 X-Acto blade.



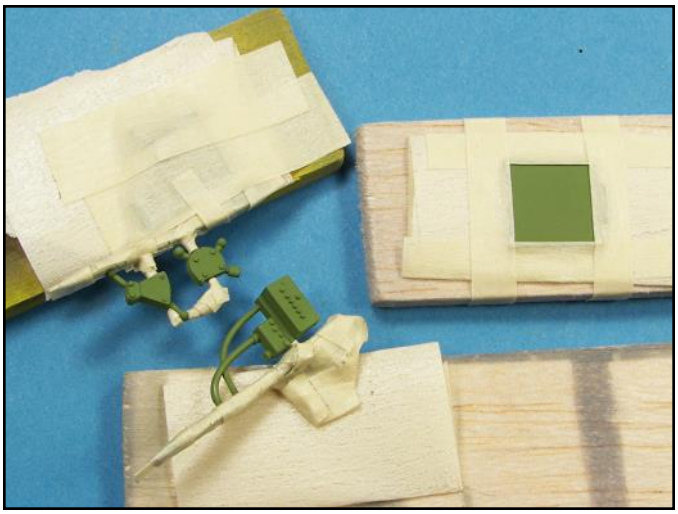
The surfaces of the propellers had a portion of the tree tabs connected to them. After snipping the propeller free from the tree, carefully slice through the remaining tabs so as to not gouge the surface.



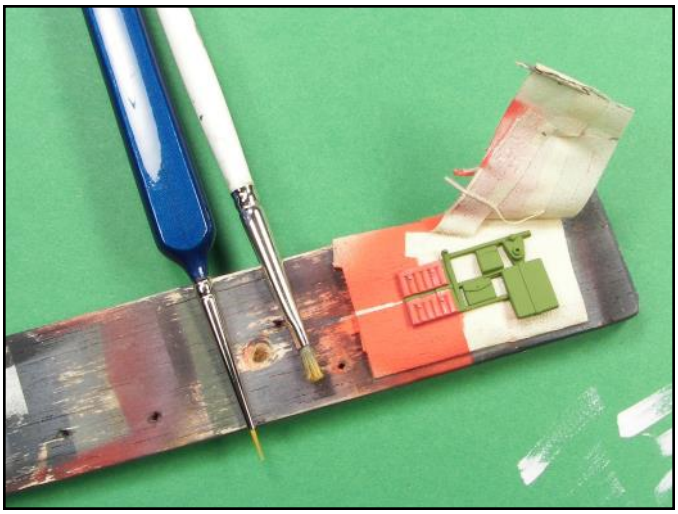
The wood cutting board is also ideal for trimming off excess tabs on parts that have a flat surface.



The cockpit has an impressive number of parts. All subassemblies were complete and then everything was primed.

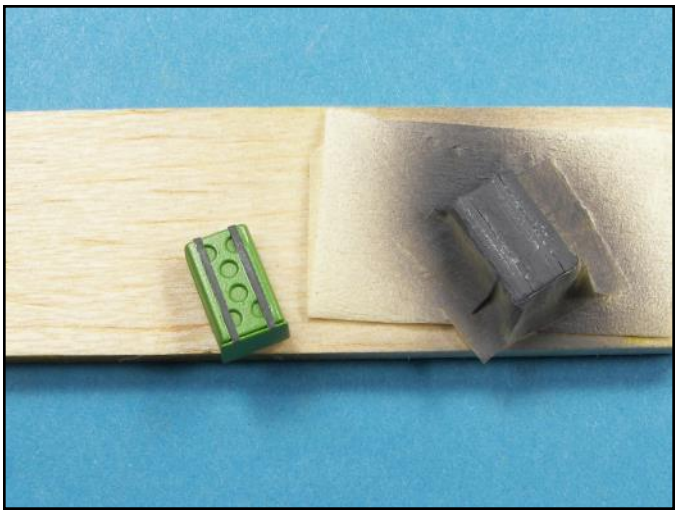


The cockpit interior was painted with interior green and then individual parts were masked off to begin the detail painting steps.

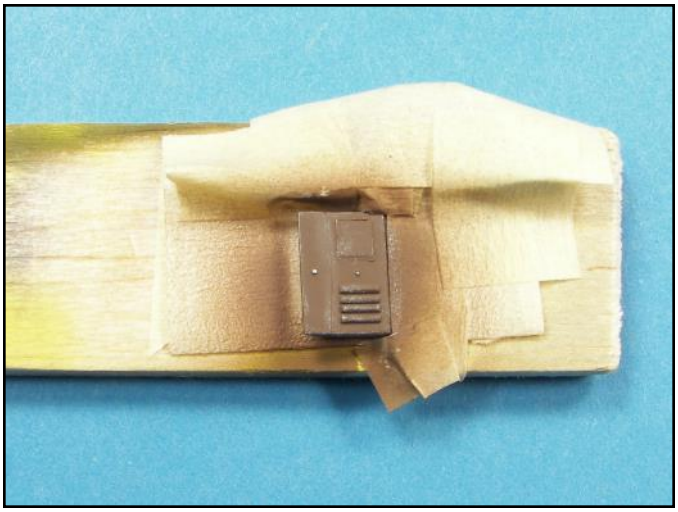


The flare gun canister canvas pouch was painted flat red lightened with some flat white. The surface was then dry brushed very lightly with flat white.

The control sticks were painted interior green then masked for the black canvas color and the stick grip color. The canvas and handles were then dry brushed with flat white to highlight the canvas wrinkles and grip details.

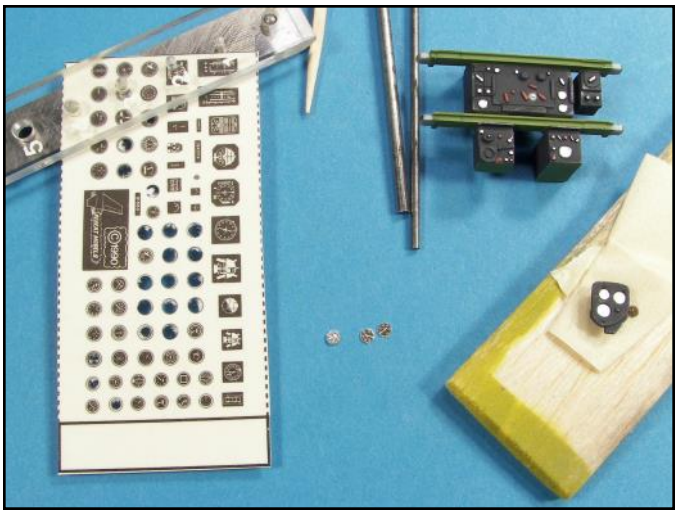


The lime oxygen canister color was achieved using lime green lightened with some flat white. The surface was then masked for the black canvas straps.

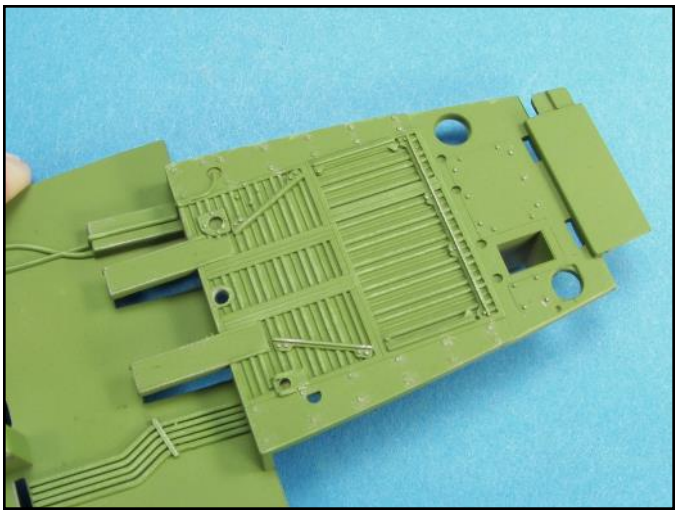


The canvas map pouch was painted brown, then drybrushed with flat white to highlight the surface details.

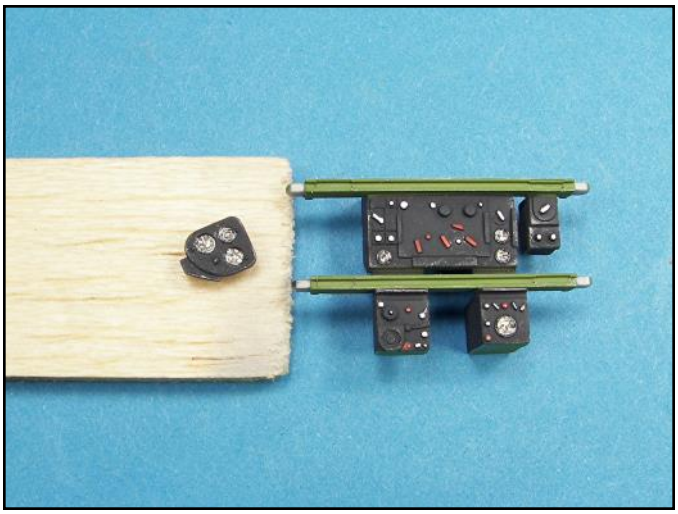
After all the main cockpit parts were painted, each surface was carefully drybrushed with small amounts of silver paint along edges and surfaces where the green paint would wear off quickly due to constant contact with the crew.



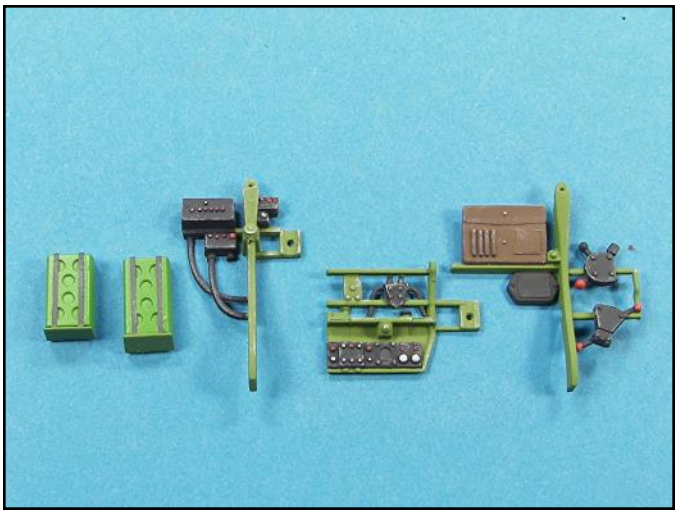
The surface dials and gauges were painted silver or white. Instrument decals were punched out using my trusty Waldron punch and then glued in place with Elmers white glue



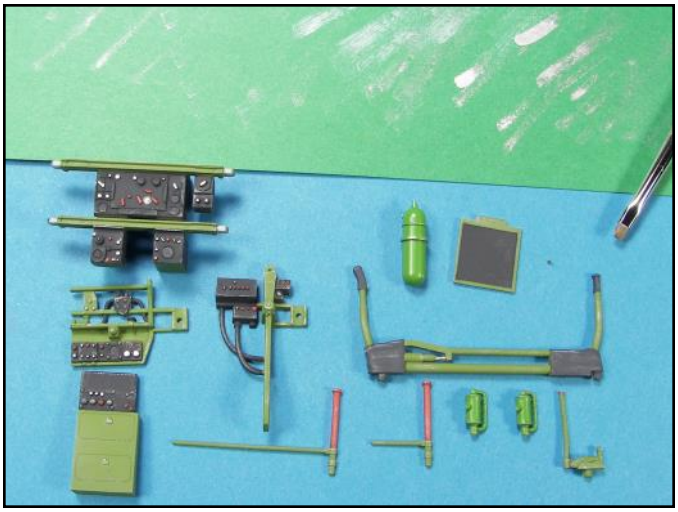
While the silver drybrushing highlighted details I should have also painted the floor cabling a lighter or darker interior green to make these details stand out better.



These electronic boxes look much better with the decal instrument dials added. The small details were picked out using the tip of a sharpened toothpick dipped into a paint cap so only tiny amounts of paint were used.

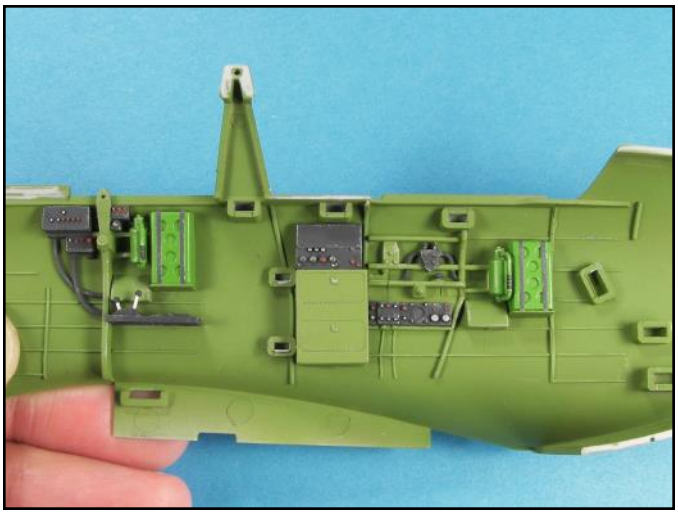


These parts have been painted, the details picked out with a sharp toothpick and the edges drybrushed. Once they are added to the interior, their individual appearances will greatly enhance the appearance of the cockpit.

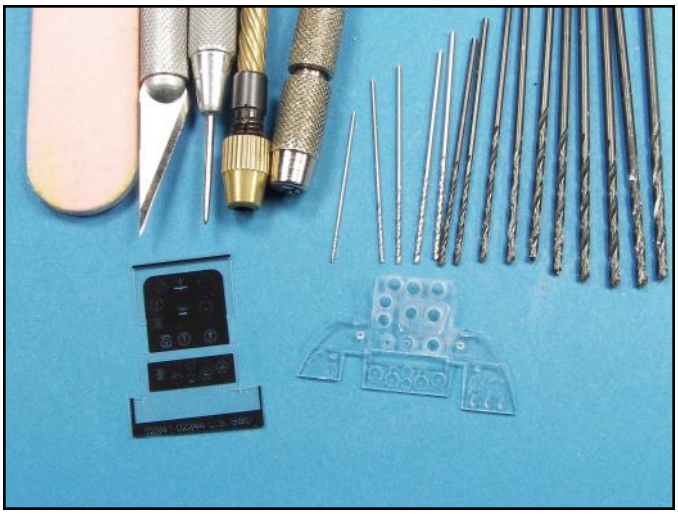


Take the time to carefully paint each part and use lighter or darker shades to enhance each parts appearance. Dry brushing should be the last step for each parts painting process.

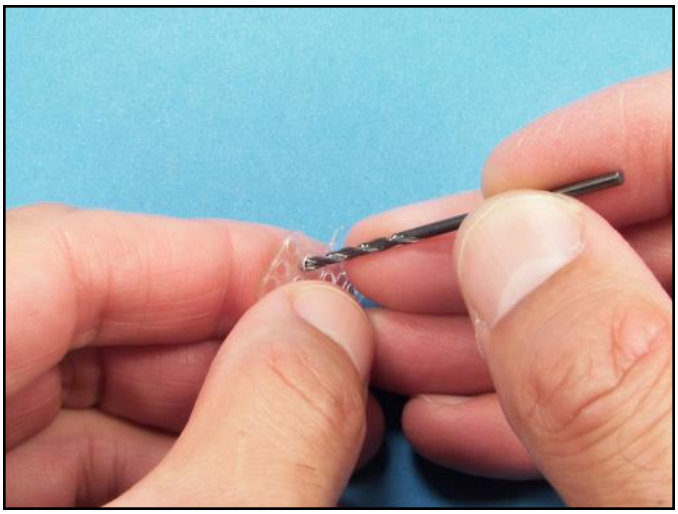
The interior parts were added to the port side of the fuselage. The antenna wheel, which could extend a wire below the aircraft for better radio reception also had a coil of thin brass beading wire wrapped around it to detail the part.



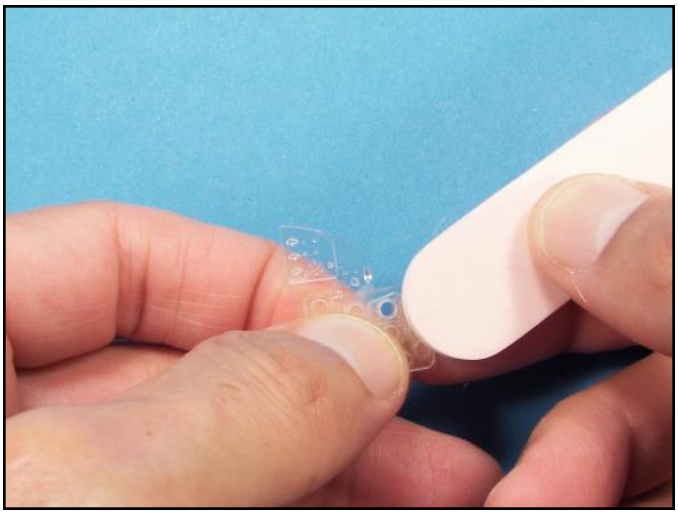
The starboard interior parts look good. The oxygen canisters have a distinct lime green color and they standout nicely against the interior green color.



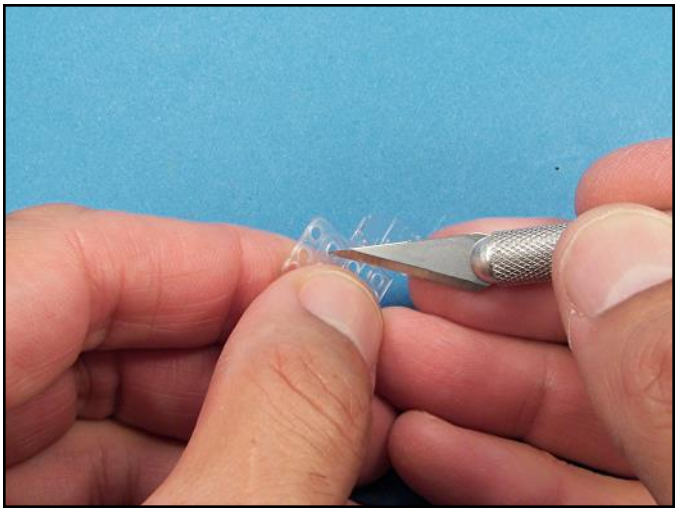
To enhance the console, I carefully drilled out the instrument faces using drill bits of slightly larger diameters so that the clear plastic would not crack.



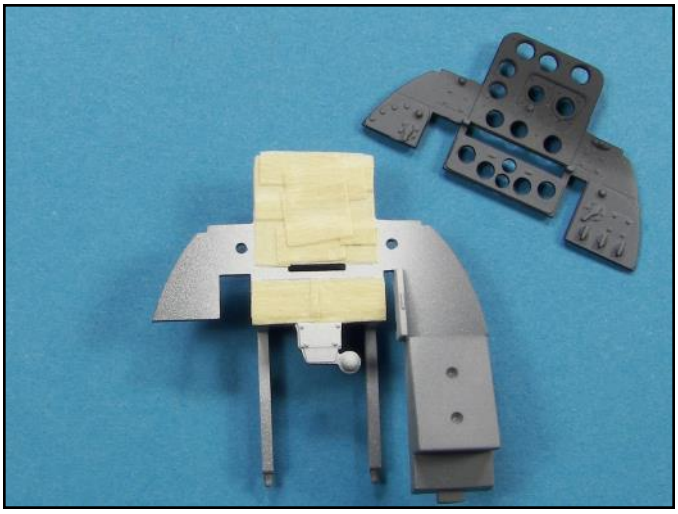
Each larger size drill bit was used to carefully and slightly enlarge the opening. Drilling by hand also helped ensure that the clear plastic would not crack.



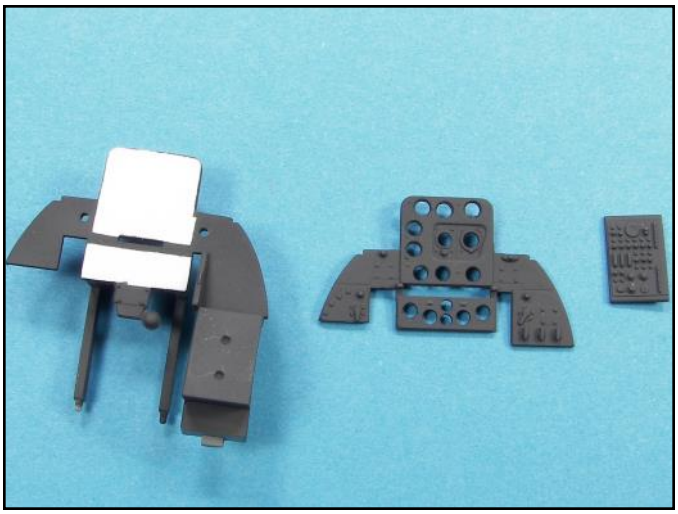
To remove the plastic burs along the edges of each opening, the surface of the console was sanded smooth with a damp sanding stick.



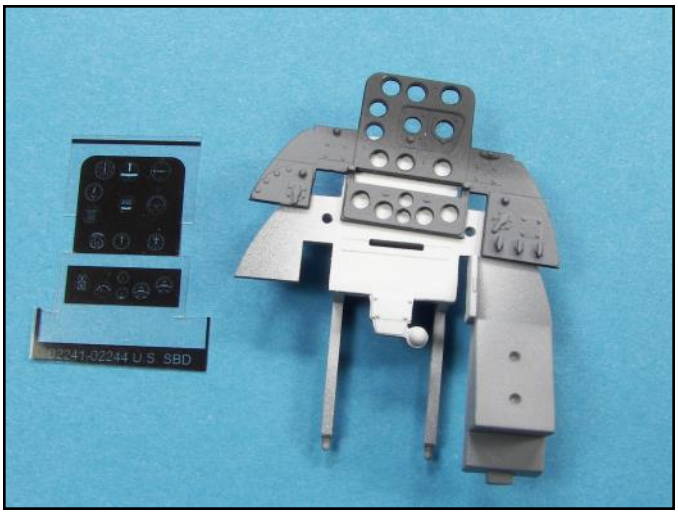
To ensure that each opening was smooth, I used the tip of a number 11 X-Acto blade to remove any excess plastic.



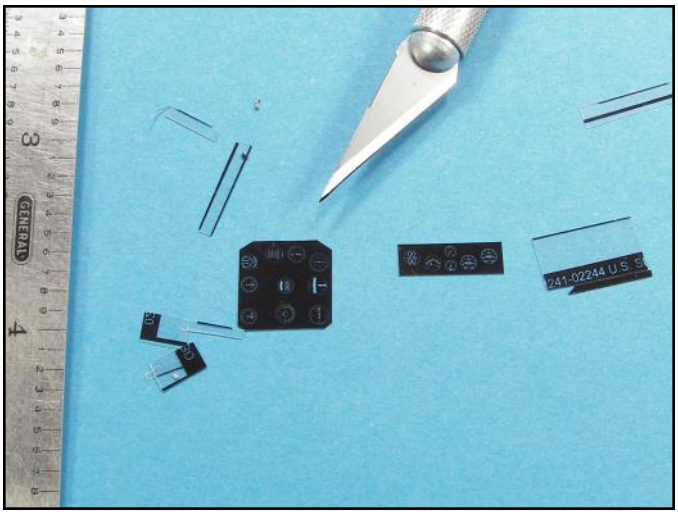
The console parts were painted flat black with a small amount of flat white added to lighten the black color. The location of the instrument placard was painted flat white so the instrument detail would stand out.



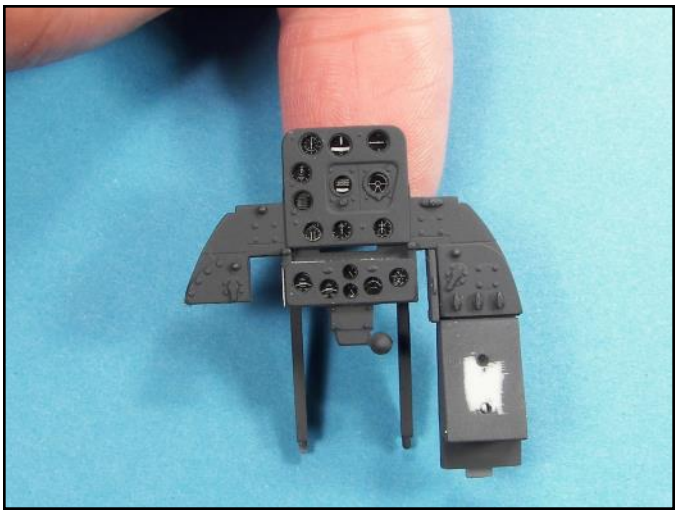
The three console parts are now ready for assembly and detail painting. Note how clean the drilled holes look.



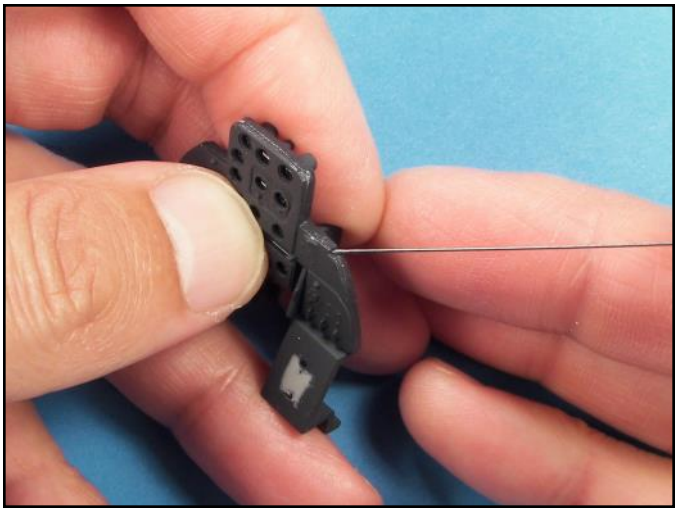
I airbrushed some more flat white paint just to be sure all the instrument detail would be seen.



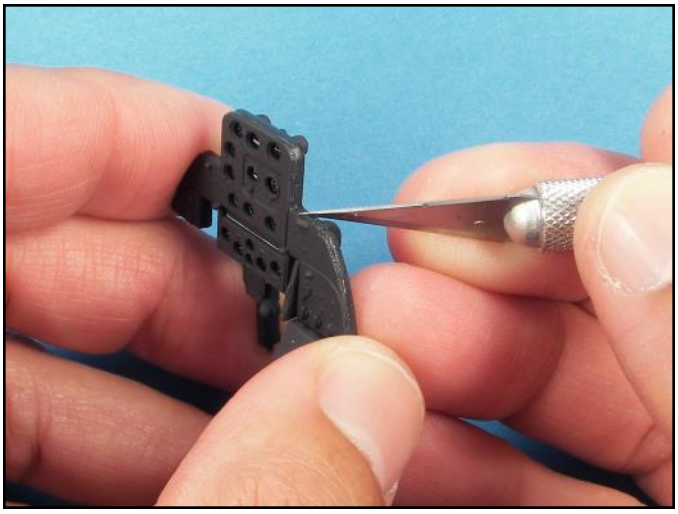
The instrument placard was cut apart so that the positioning of the instruments with respect to the holes in the console face would be easier to achieve.



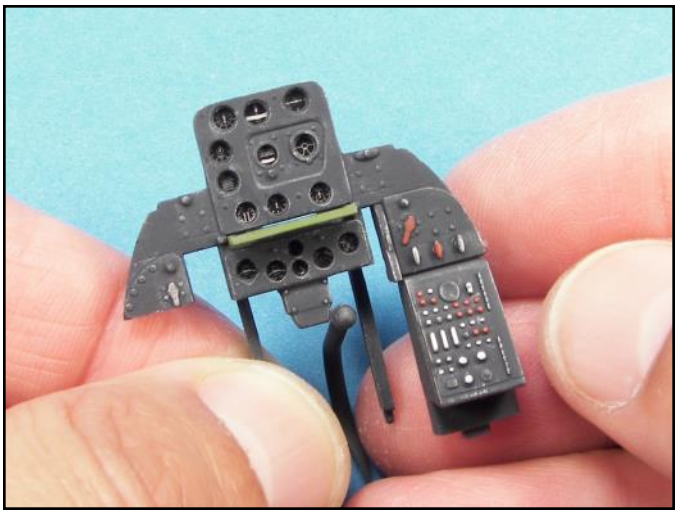
The instrument placards were glued to the backside of the console and then the front and back console halves were glued together. Note how the instrument detail stands out.



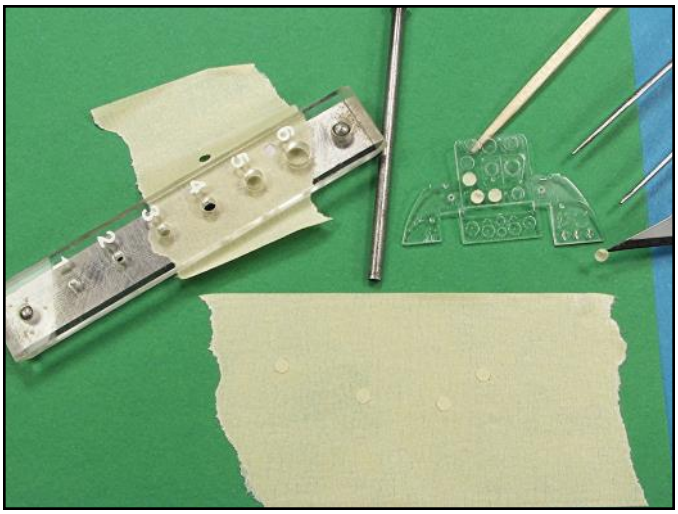
The edges of the sandwiched console assembly part were given a coat of super glue to fill the seam.



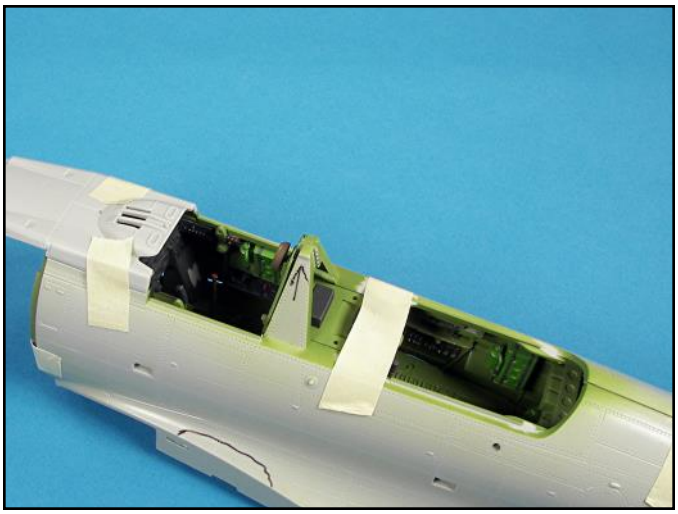
The super glue was carefully scraped smooth with a number 11 X-Acto blade and then painted with a detail brush. The edges and surface were drybrushed with silver paint.



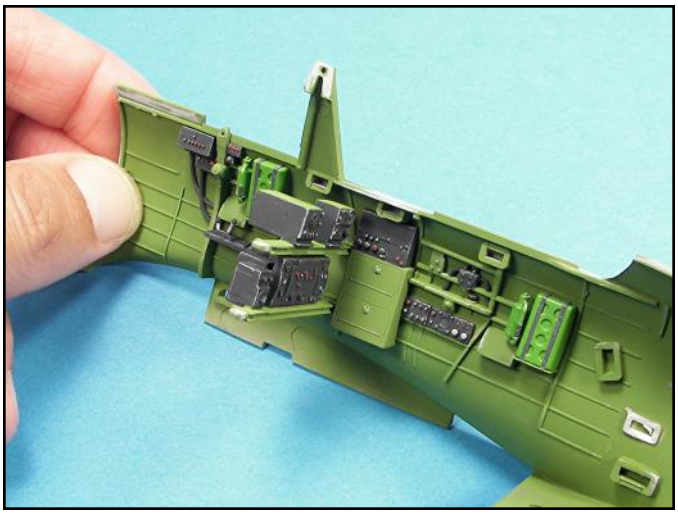
The small details were picked out with the tip of a sharp toothpick and several different colors.



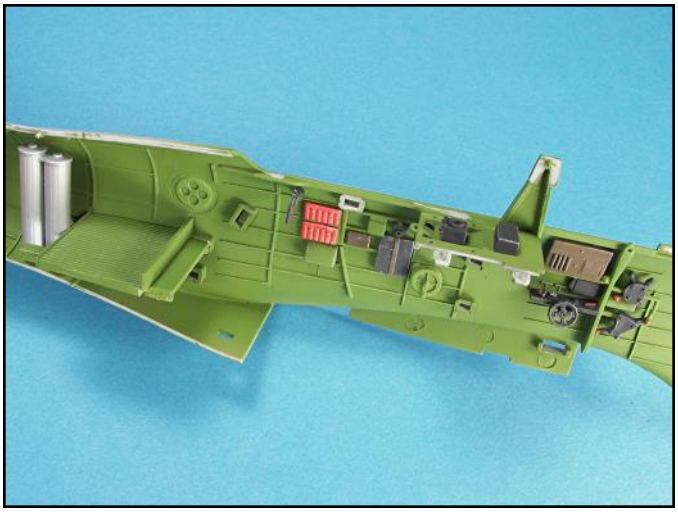
Another method for the console assembly is to use a Waldron punch tool to make disks from masking tape to cover the instrument faces. Be sure the disks are firmly attached to the plastic to prevent paint bleeding.



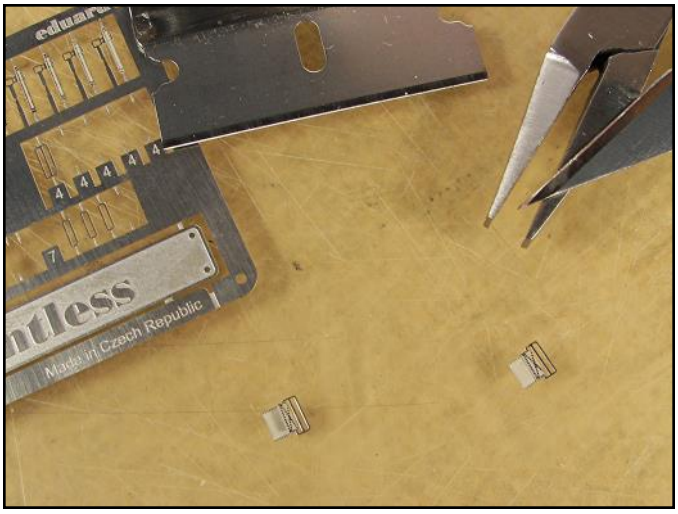
As parts are added to the interior keep checking the fit to be sure parts added to the left and right sides and to the cockpit floor are not interfering with one another.



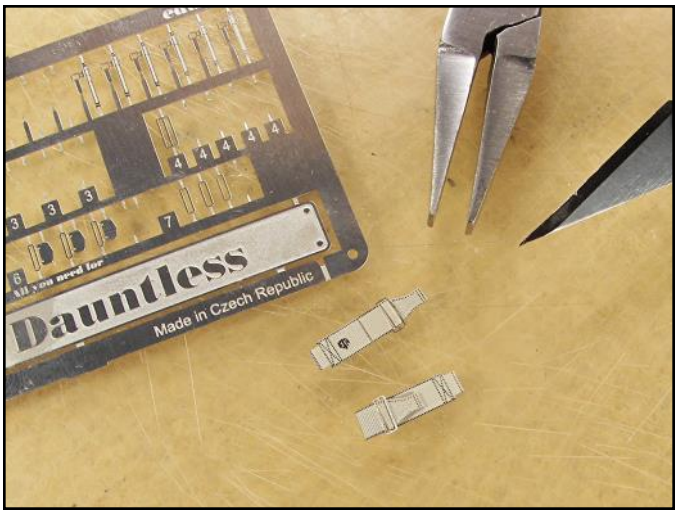
The center frame and its associated electronics have been positioned for a final fit check prior to gluing.



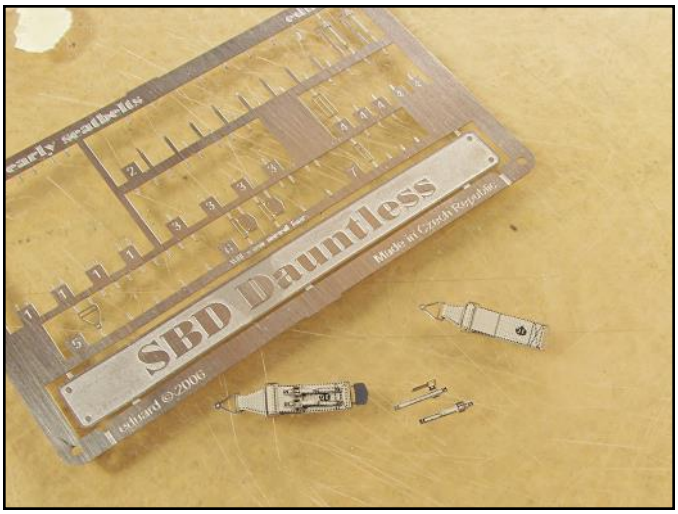
The left side of the cockpit has all of its parts added and fit checked.



The Eduard seat belts are multi-piece assemblies. Be careful when cutting and trimming the parts so the painted surfaces are not damaged.

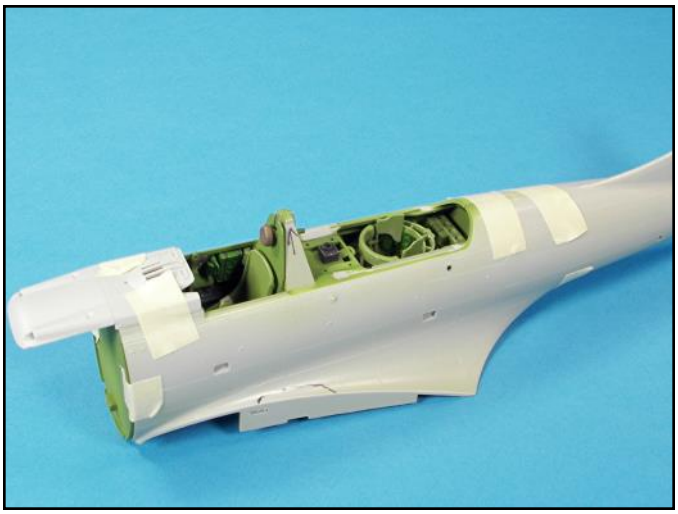


Slowly and carefully, bend and assemble the individual seat belt parts.

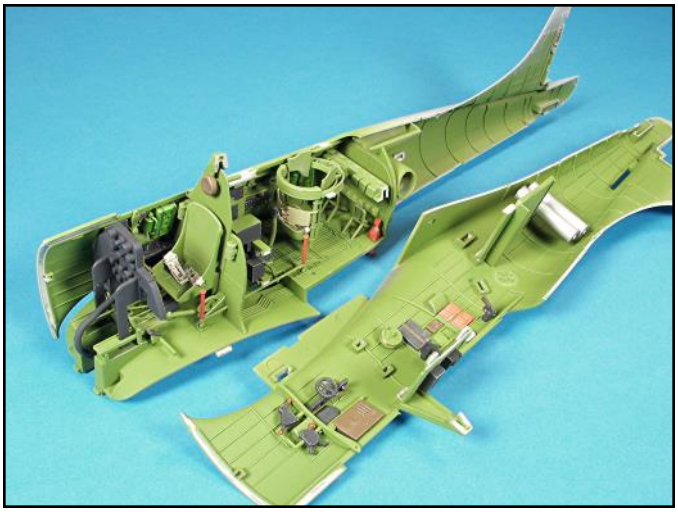


Tiny amounts of super glue applied with a thin wire applicator work best to attach these pre-painted parts. To hide the super glue brush on some Testors clear dullcoat.

The belts were carefully folded over the seats and attached with tiny drops of super glue.



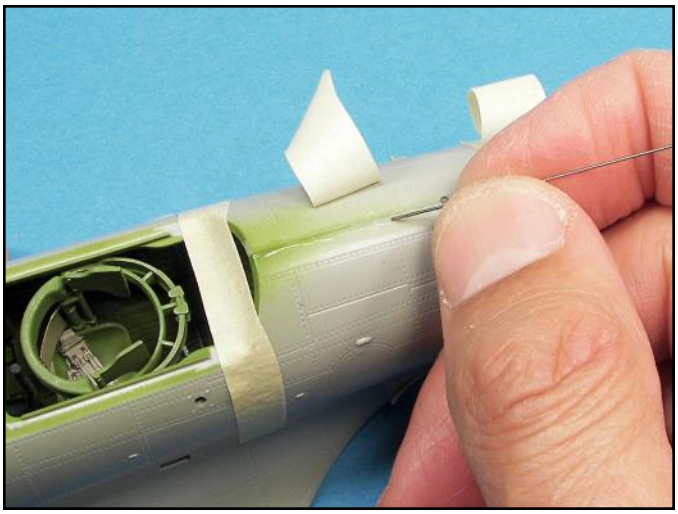
One last test fit before closing up the fuselage.



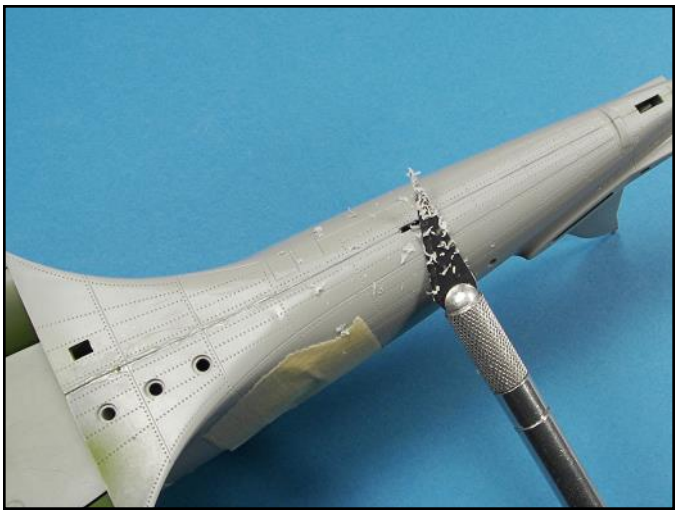
The interior assemblies are complete and it is time to glue the fuselage halves together. Note that the paint that was scraped off the gluing surfaces.

To ensure a strong bond on the bottom of the fuselage, attach a length of plastic strip to the interior. Once this area is glued, the capillary action of the super glue will pull the glue into the area where this strip is located.

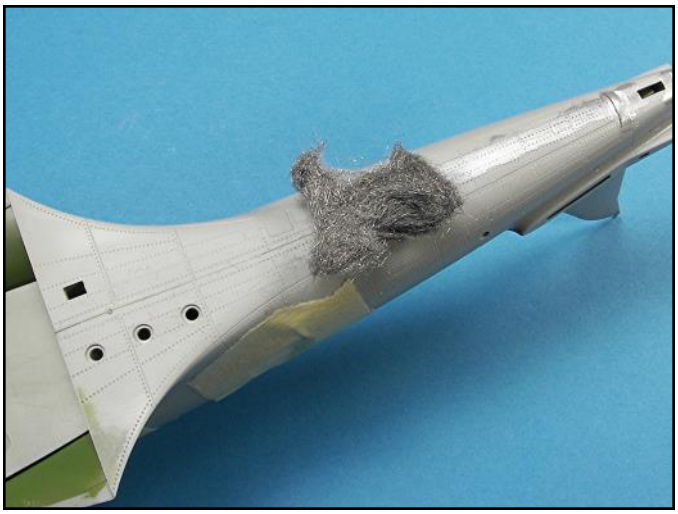
The fuselage halves were taped tightly together and a bead of super glue was applied to the seam lines between the masking tape. Do not let the glue get to close to the masking tape.



Peel away the masking tape and then add beads of super glue to those areas. Note how thin the wire applicator is. Dip the tip of the wire into a puddle of super glue and carefully apply it.

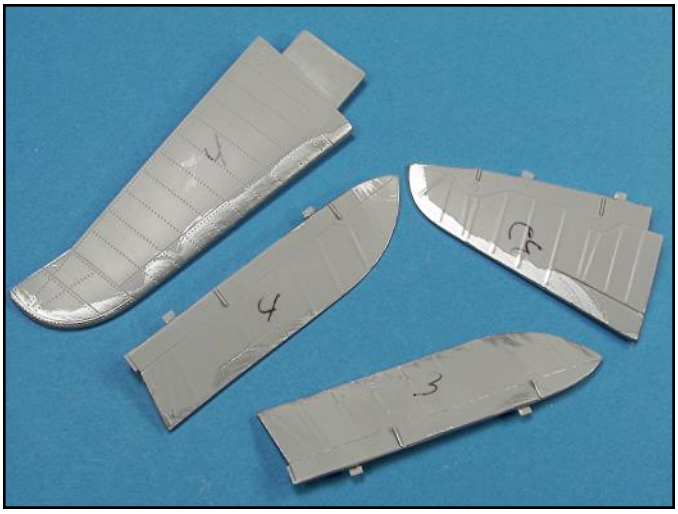


The super glue was carefully scrapped flat and then wet sanded smooth. The fuselage halves fit very tightly together and only required two applications of super glue.

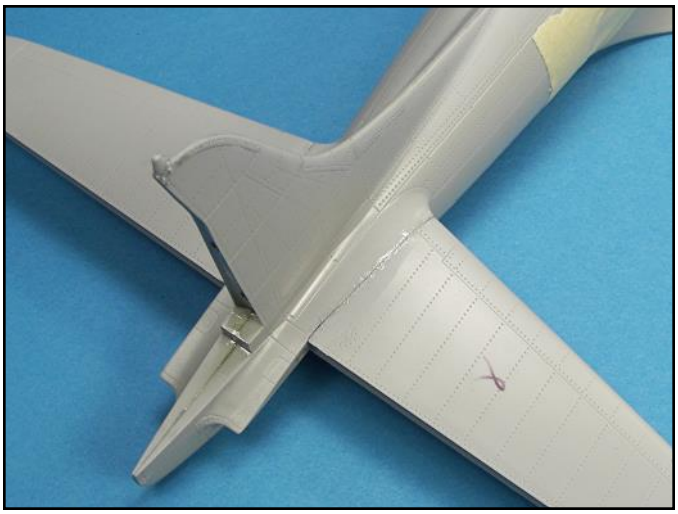


The plastic was polished with 0000 steel wool.

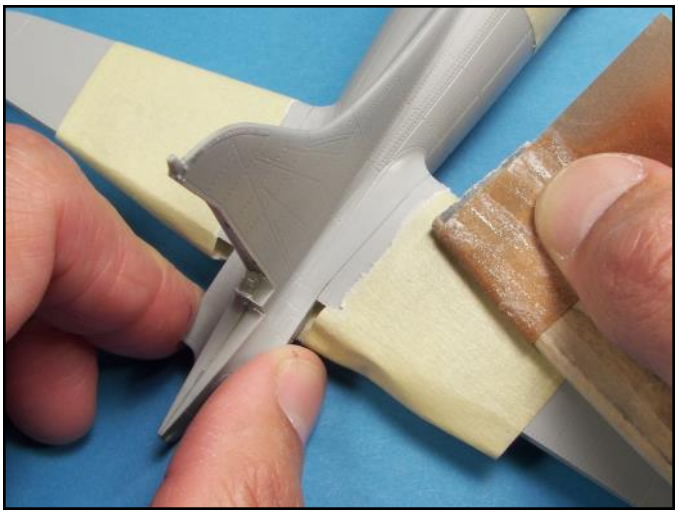
The elevator assemblies were strengthened by laminating sections of .020 inch strips to the interior areas with super glue.



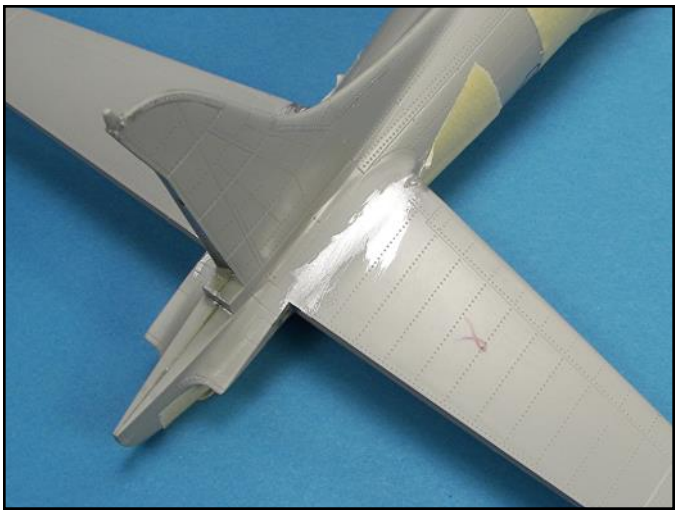
The separate control surfaces were glued together. The seams got beads of super glue which was then scraped flat and sanded smooth. The silver paint was used to highlight flaws in the seams.



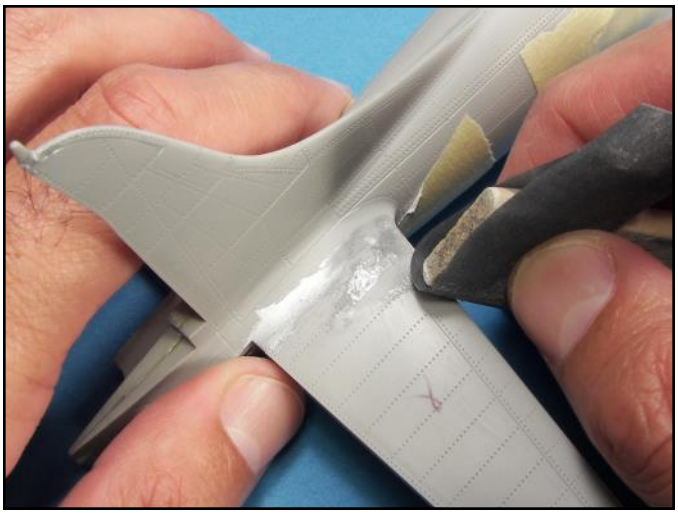
The elevator seam attachment to the fuselage had a very good fit with a minimal seam. The super glue was applied with a thin wire applicator.



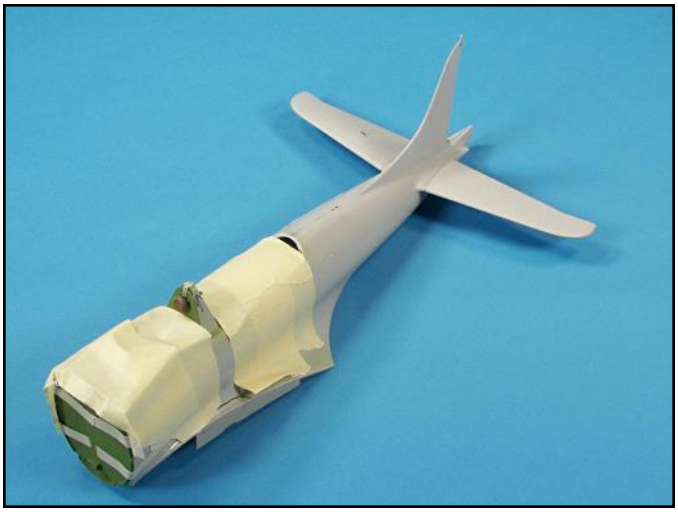
The surrounding surfaces were masked to protect them and sandpaper wrapper around a piece of balsa wood was used to smooth out the super glue.



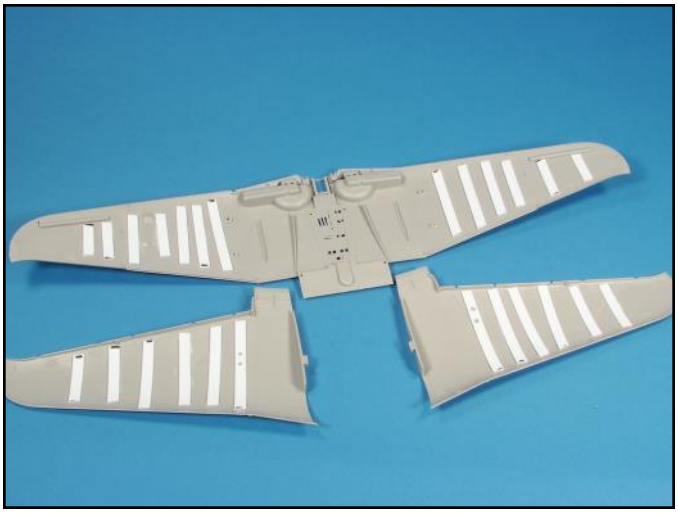
Silver paint was used to check for seam flaws and additional applications of super glue were used to fill the seam areas that needed attention.



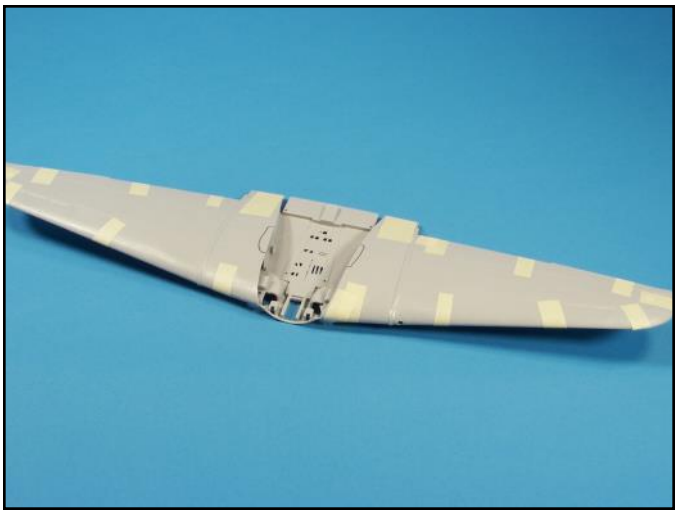
With finer grades of sandpaper, wet sand the surface to smooth out the super glue, reduce surface scratches and help polish the plastic.



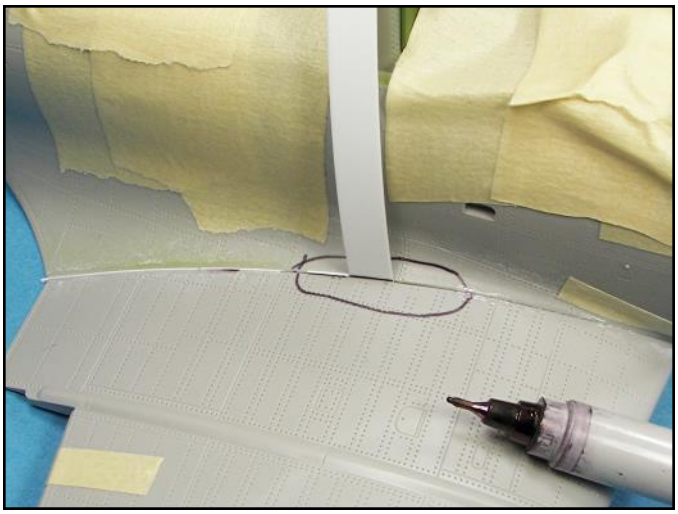
The elevators are installed and the seam work is complete. The cockpit openings have been masked over to reduce the chance of plastic dust settling onto the interior areas.



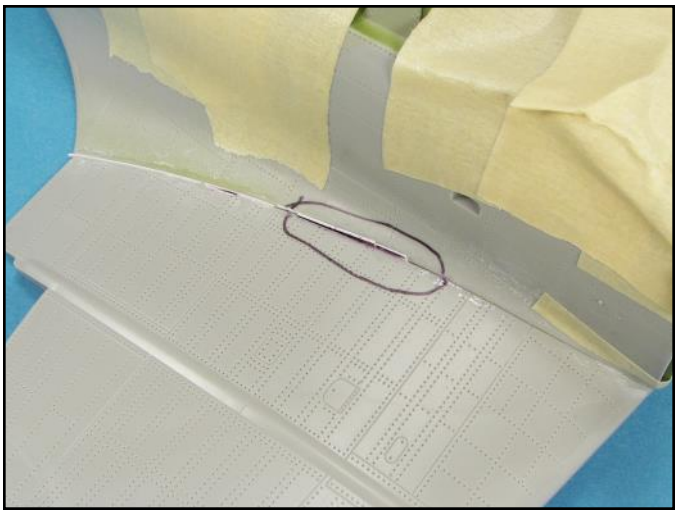
The wings also received sections of .020 inch strips laminated in place with super glue. This helps prevent flexing of the wing surfaces which would crack the seams.



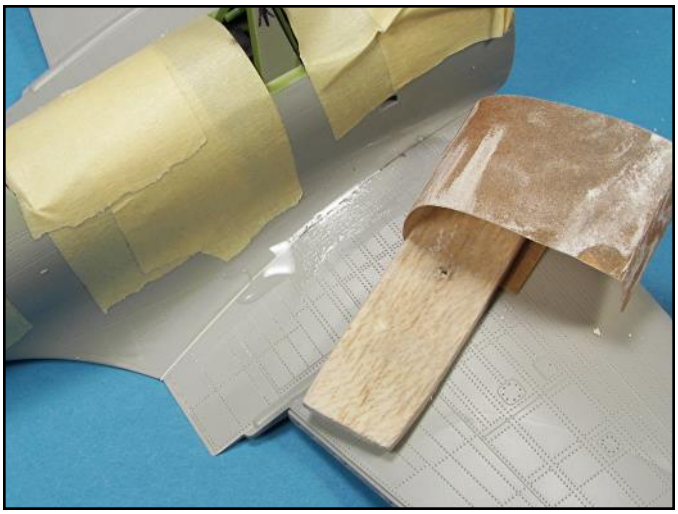
The wing halves were tightly masked together and super glue was run along the seam lines with a thin wire applicator. The seams were then scraped and sanded smooth.



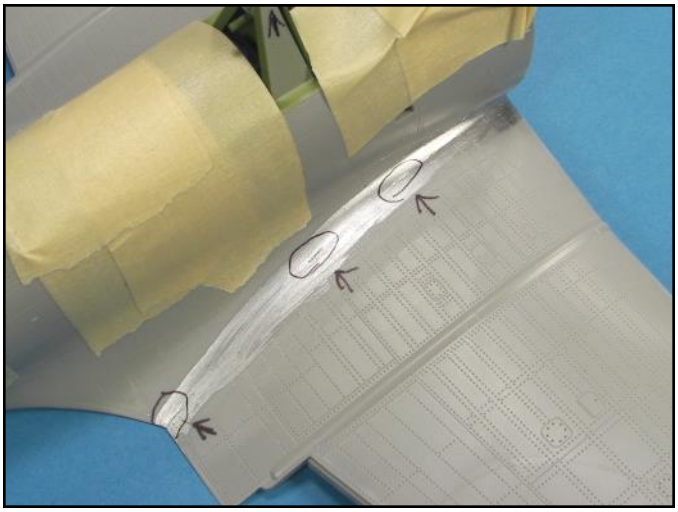
The fuselage to wing attachment areas had some voids that I filled with different thicknesses of plastic strips.



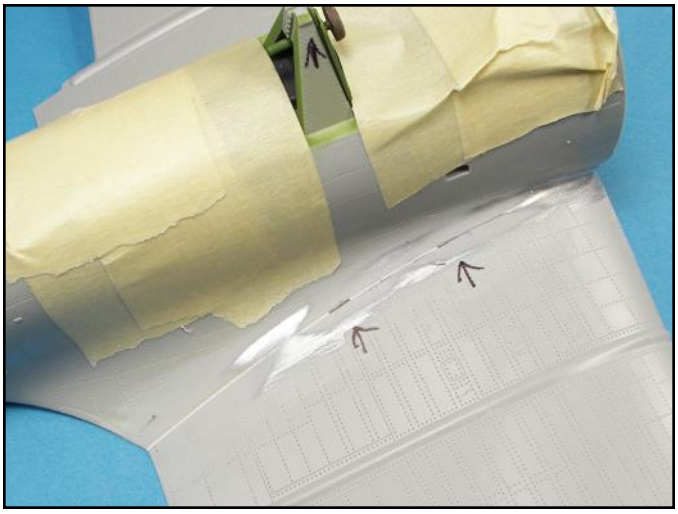
Super glue was applied to both sides of the plastic strips. The strips were then trimmed down with a plastic cutter. The plastic strips made a very strong bond between the upper wing area and the fuselage.



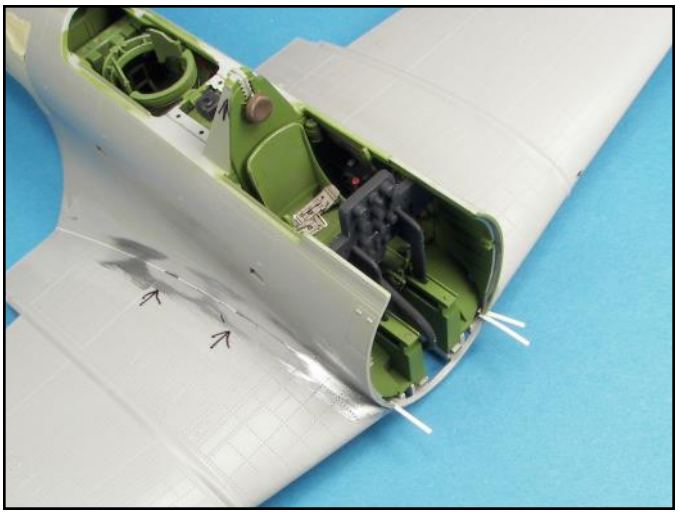
The seam line was wet sanded with sandpaper wrapper around balsa wood. It did not take long for the seam and the associated plastic to be contoured and shaped.



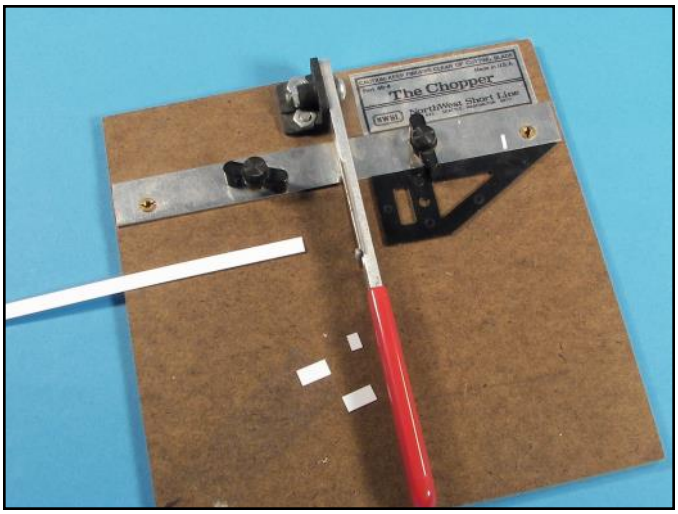
Here you can see how silver paint highlights flaws that need more super glue. Both sides of the fuselage wing attachment areas need plastic strips to fill in the voids.



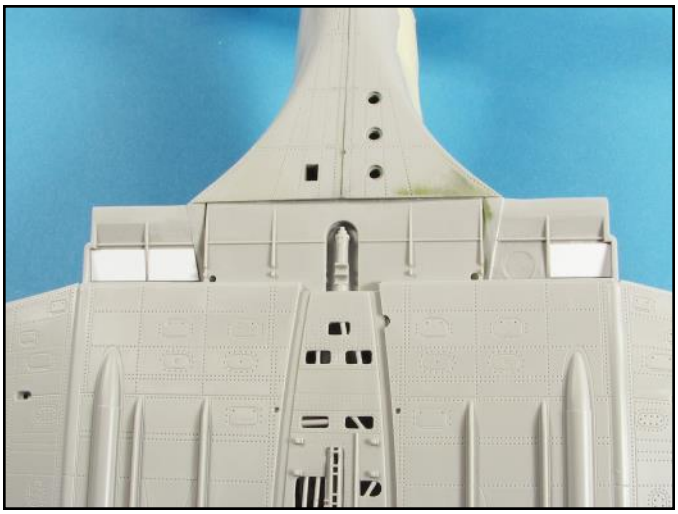
The super glue was applied and then the area was sanded smooth. The silver paint also acts as an indicator for when the super glue is sanded smooth.



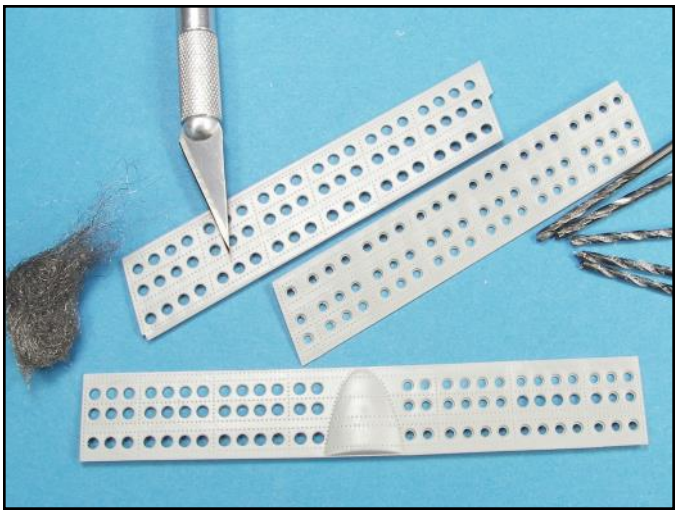
The lower front area between the wing and the fuselage also had some voids that were filled in with strips of plastic.



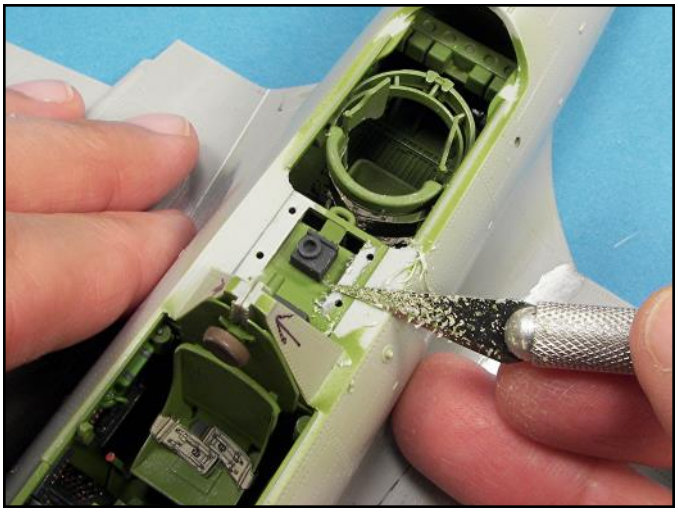
The inside areas of the flaps had mold punch out disks, which would be very hard to remove. So the next best thing to do is to hide them. I measured and cut sections of .015 inch thick plastic strips with my trusty chopper.



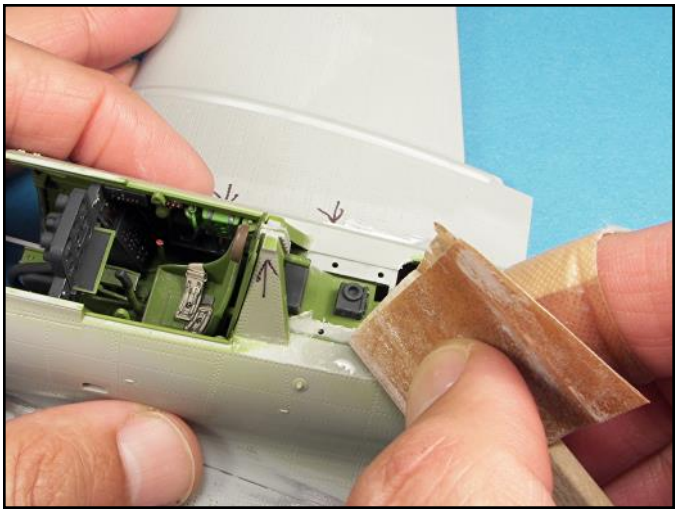
The plastic strips were form fitted into place and I had to do the cuts over several times to get tight fits.



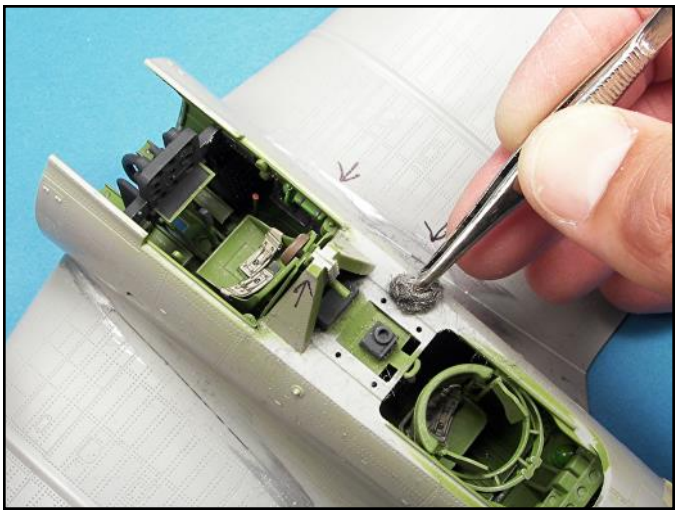
The dive brakes had to have the holes cleaned up so I drilled them out and then polished the plastic with 0000 steel pool.



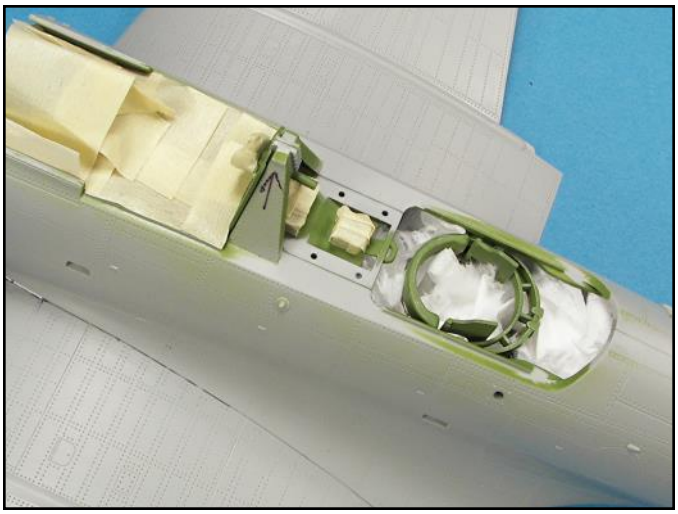
The seams on both sides of the separation between the front and rear cockpits needed attention. Tiny amounts of super glue were applied along the seam lines and then scraped smooth.



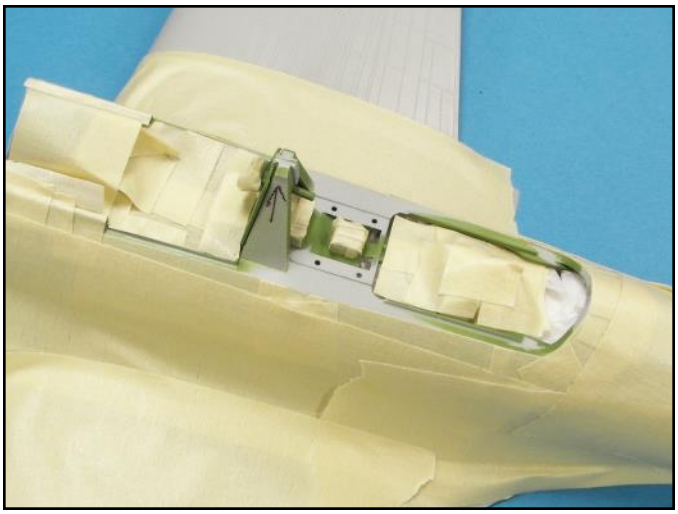
The seams were then carefully wet sanded smooth.



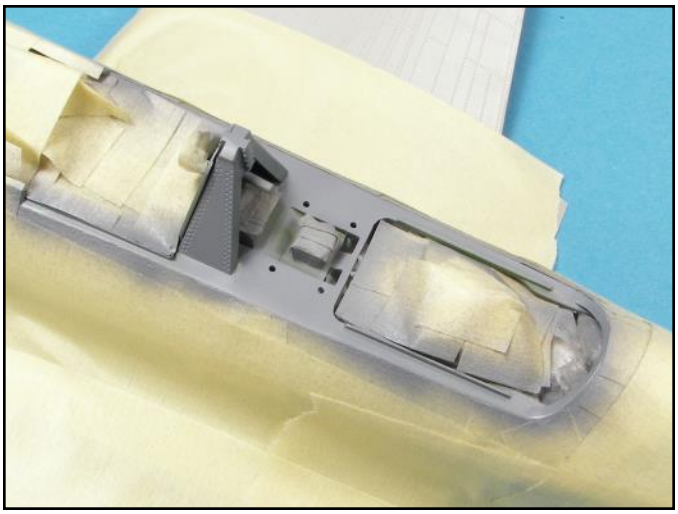
The final step was to polish the plastic.



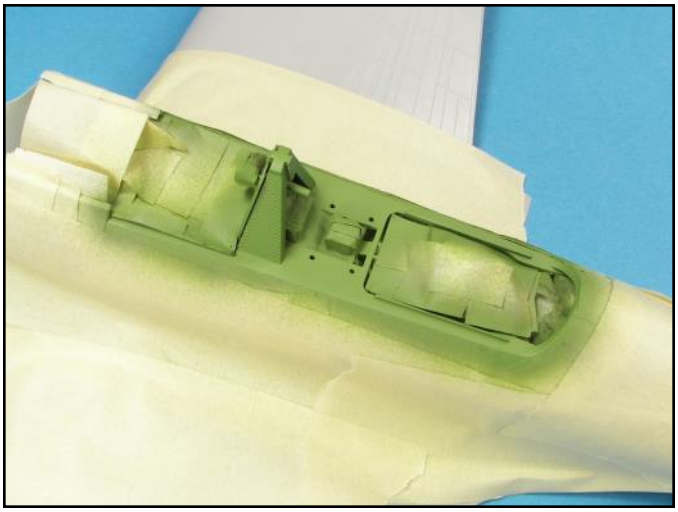
The cockpit areas were filed with tissue and then masked over as well as the radio boxes.



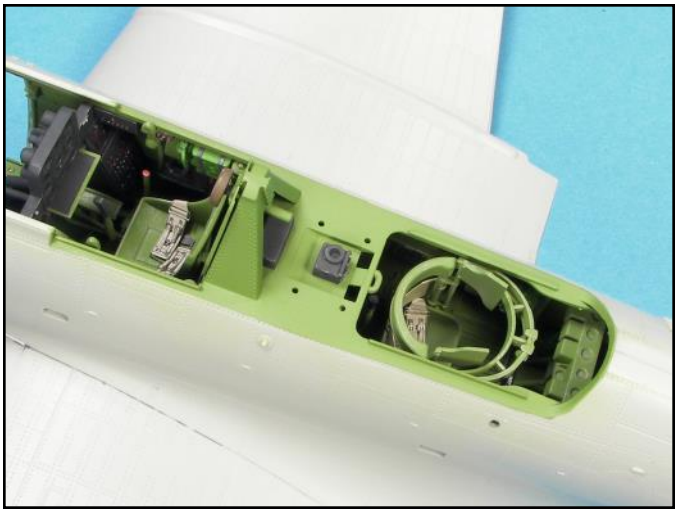
The surrounding areas were also masked off to protect them from paint overspray.



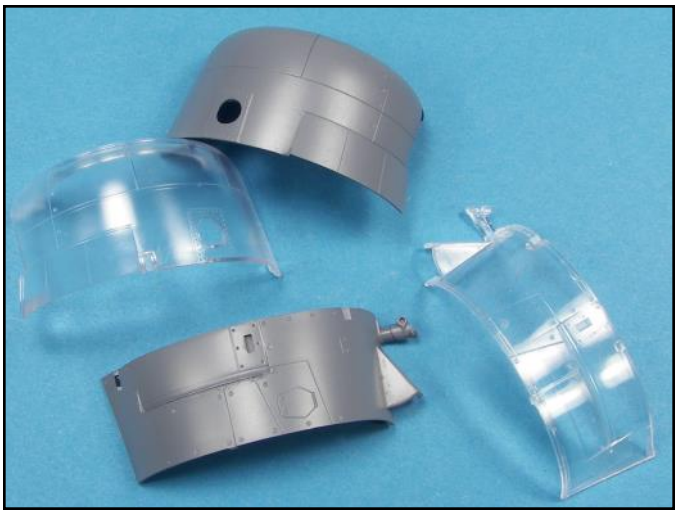
The area was primed with an airbrush at a low PSI, with tiny amounts of paint until the surface was covered.



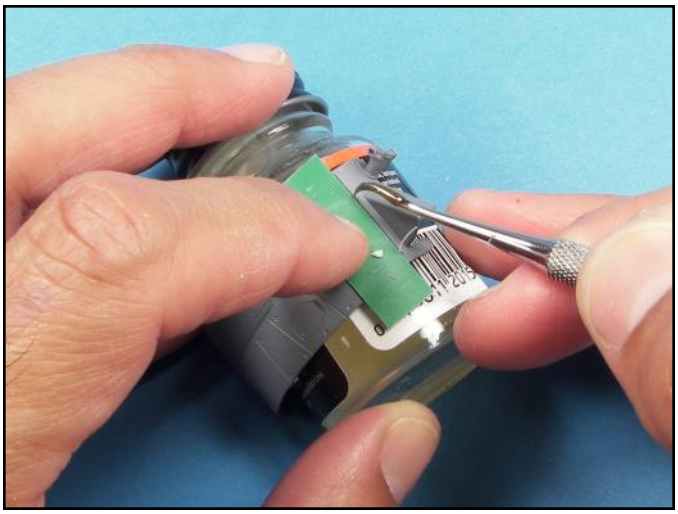
The interior green color was applied the same way as the primer.



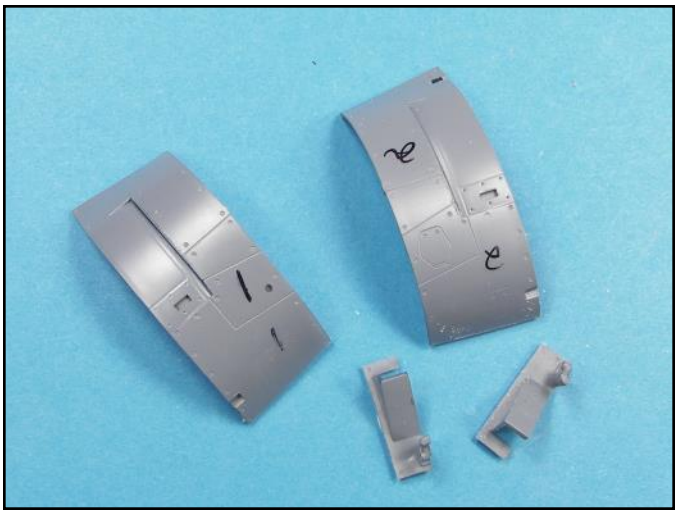
With all the masking tape and tissue removed, the interior and the surface area between the cockpits looks great.



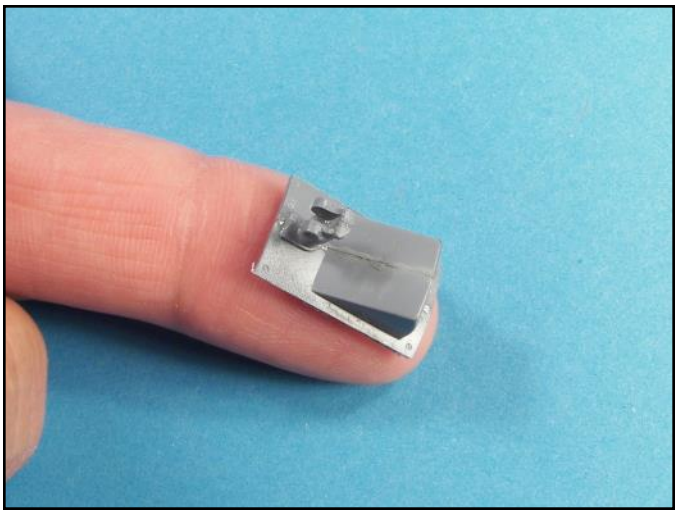
The clear parts for the cowling and the panel behind the cowling were primed to make it easier to cut them apart along joint lines.



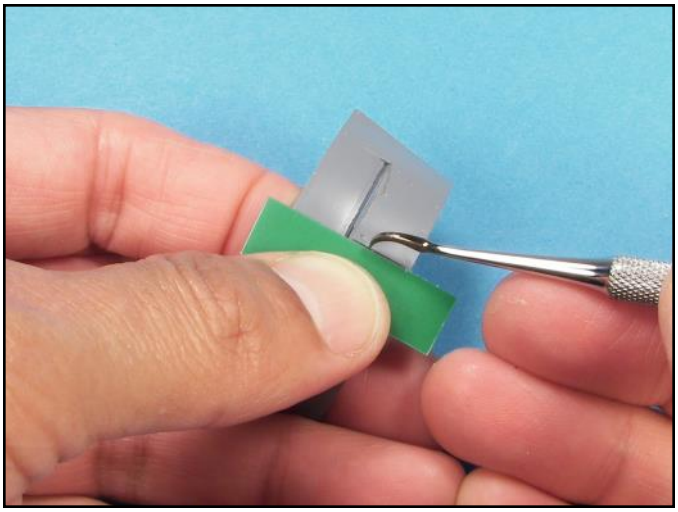
A panel scriber was used to cut the lower air intake from both sides of the lower fuselage access panels.



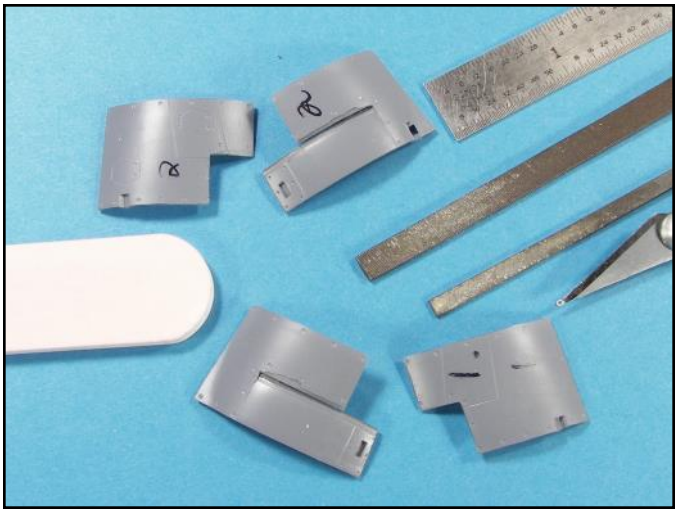
With the air intake removed, the halves can be joined together.



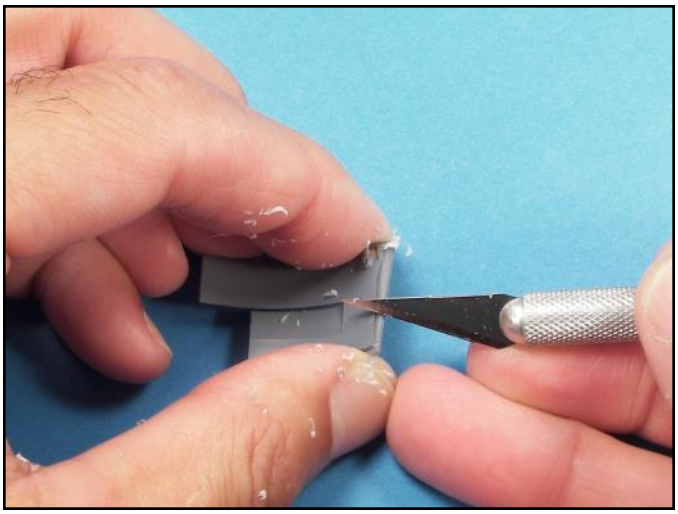
There is a slight mismatch between the air intake halves that will require some careful scraping and re-shaping.



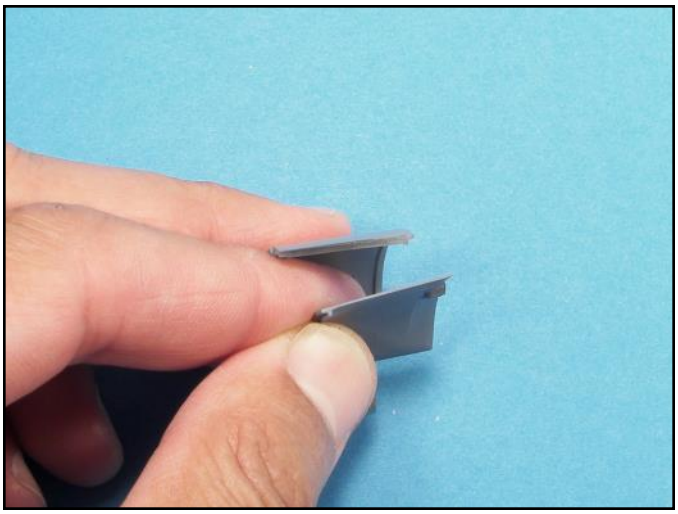
The access panel seam lines were used as a guide for the scriber. Labeling tape provides a nice guide for the scriber to follow.



With the access panels separated it is time to thin the edges to make them appear to have a scale thickness.



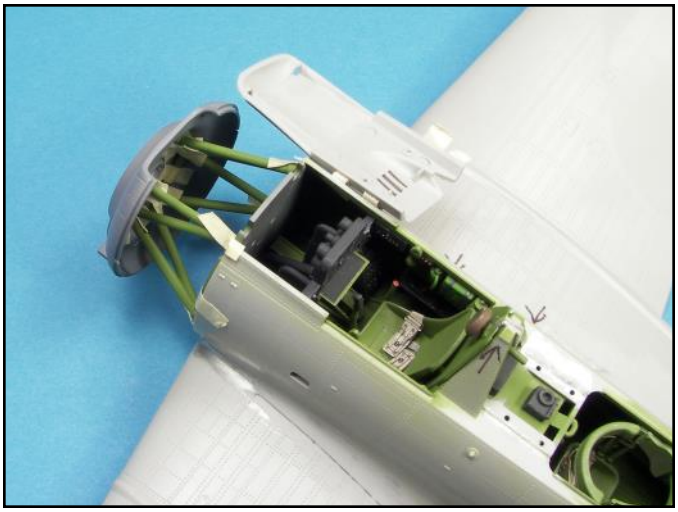
The edges were carefully scraped with a sharp number 11 X-Acto blade.



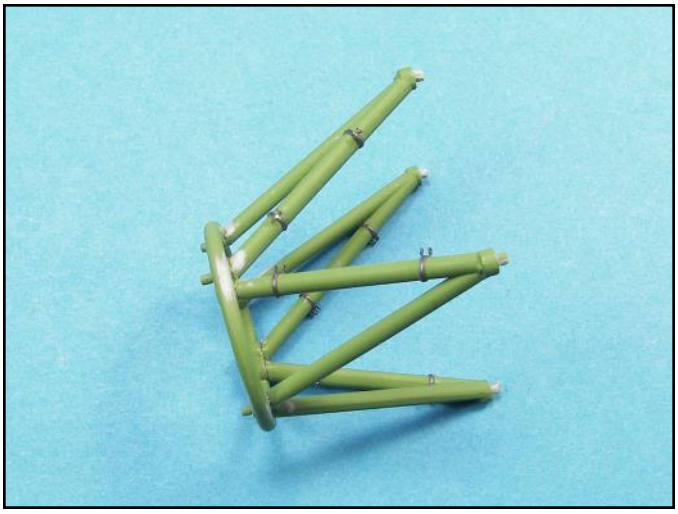
The difference in the thickness of the two access panel parts is very apparent. The lower part is complete and more scale in appearance.

The engine will build up into an impressive representation of an R-1820-60 radial engine.

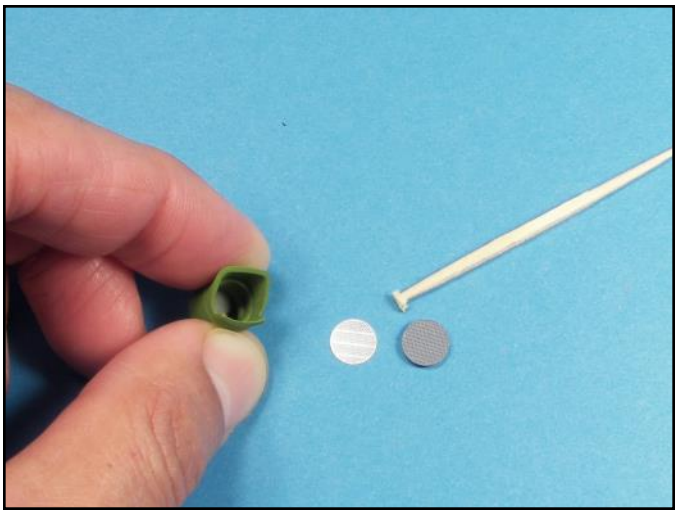
The mold punch out impressions on the inside of the engine heat dissipation shield needed to be sanded out.



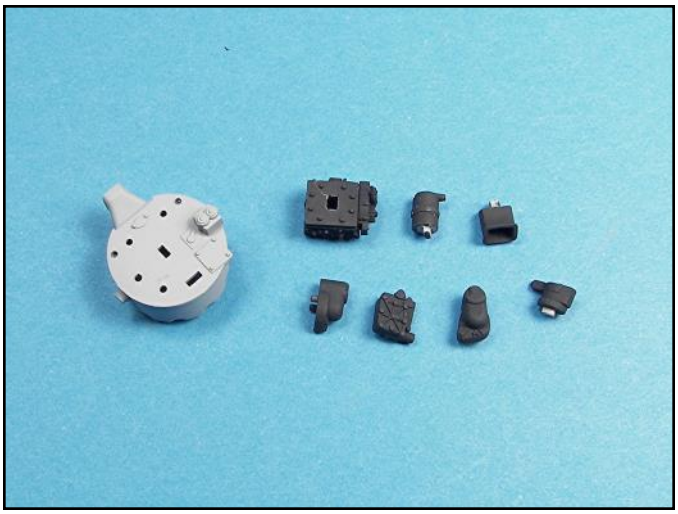
The engine brackets were painted and then taped together to recheck their fit against the backside of the firewall.



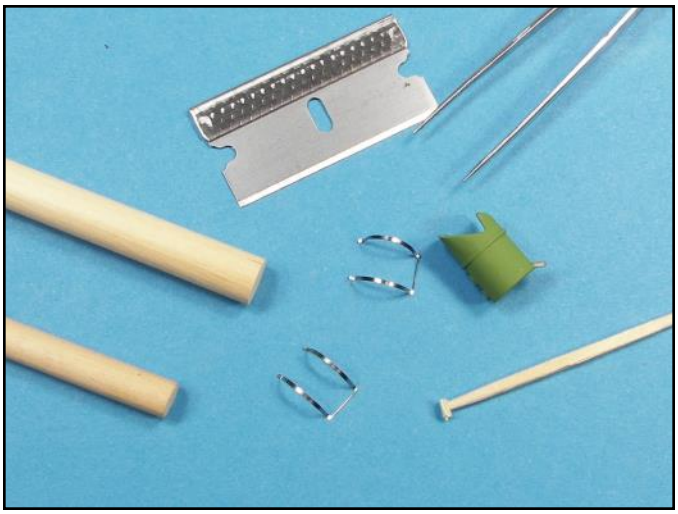
The brackets were attached to the ring and then the Eduard wiring clamps were attached.



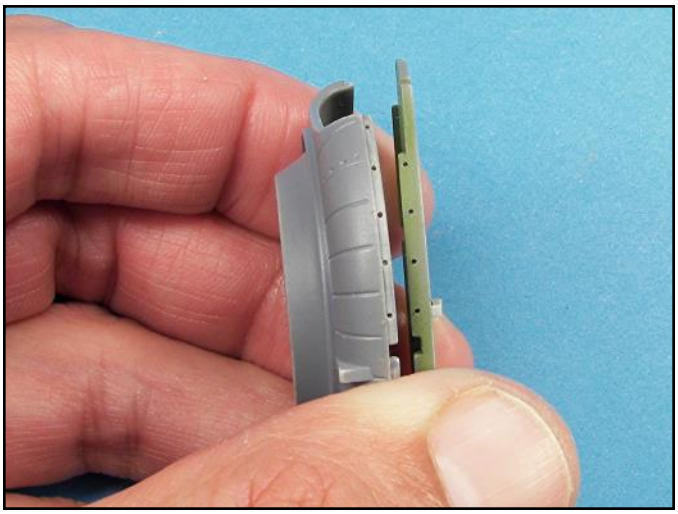
The plastic air intake screen was replaced with the Eduard photoetch part.



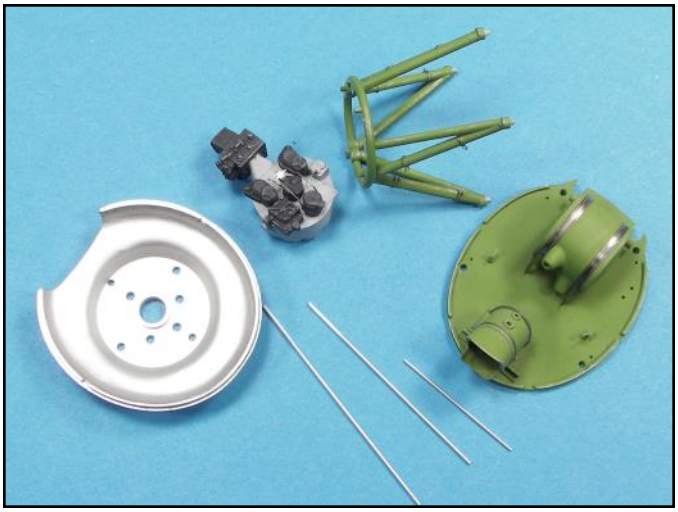
The backside of the engine had great detail parts that were painted and drybrushed with silver paint.



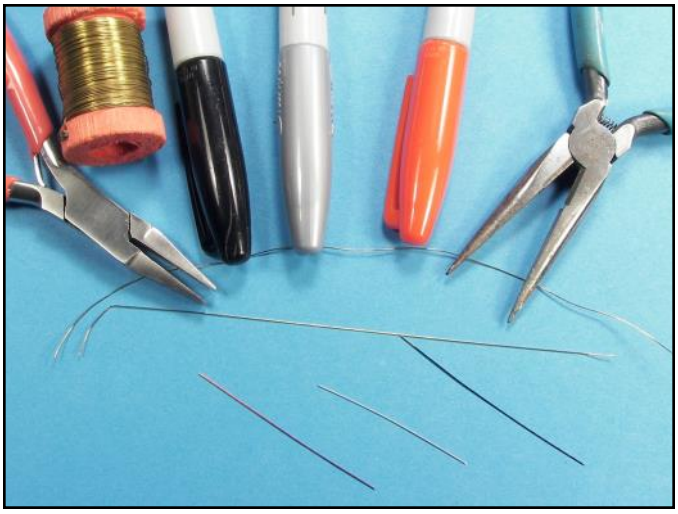
Wood dowels were used to slowly shape the air intake photoetch bracket. The part was attached with a toothpick with a tiny piece of masking tape attached to the tip.



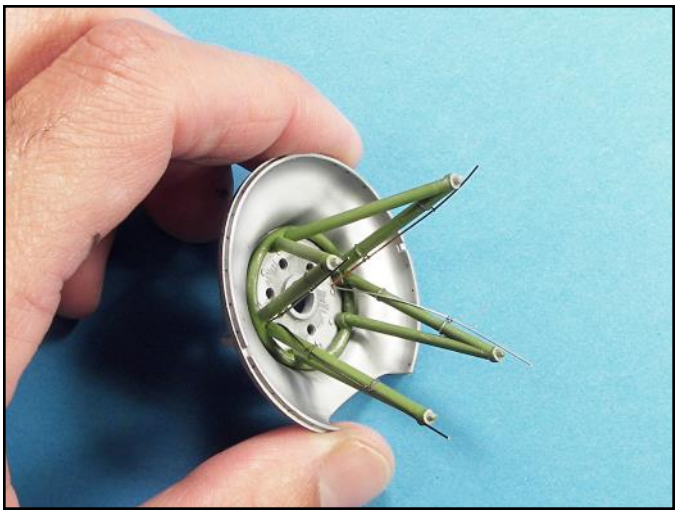
The access panel quick disconnect pin holes were drilled into the sides of the engine heat dissipation shield and the engine firewall.



The backside of the engine sub-assembly is complete and the photoetch brackets have been installed.

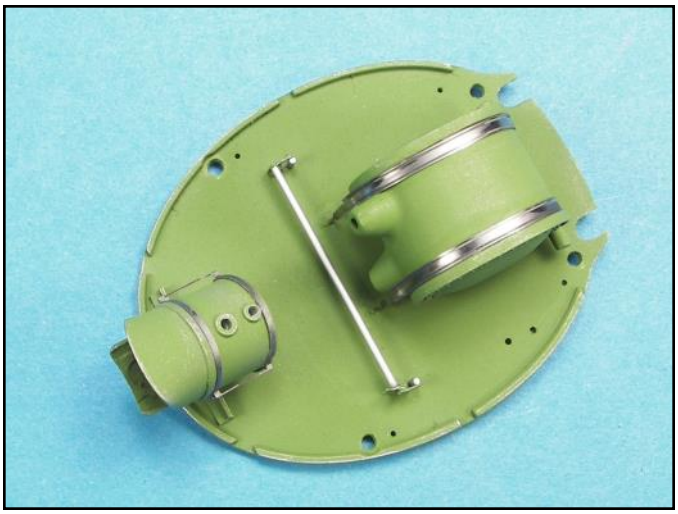


Brass beading wire was stretched and then colored with silver, red and black sharpies.

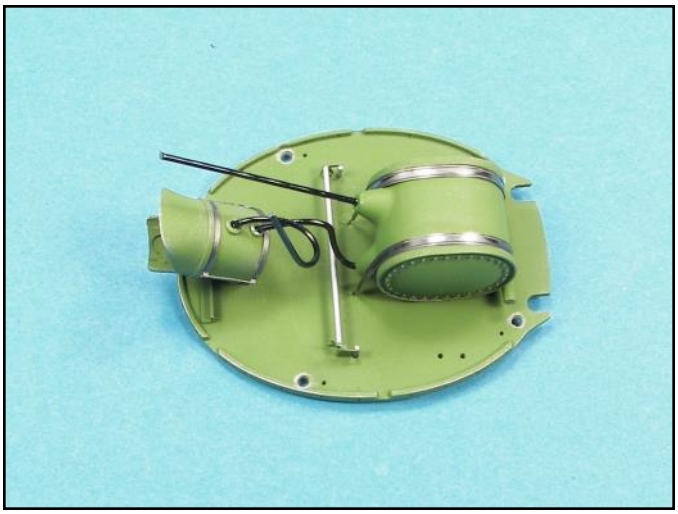


The engine frame is attached to the heat dissipation shield after carefully scraping of the paint from the gluing surfaces. Wiring has also been added.

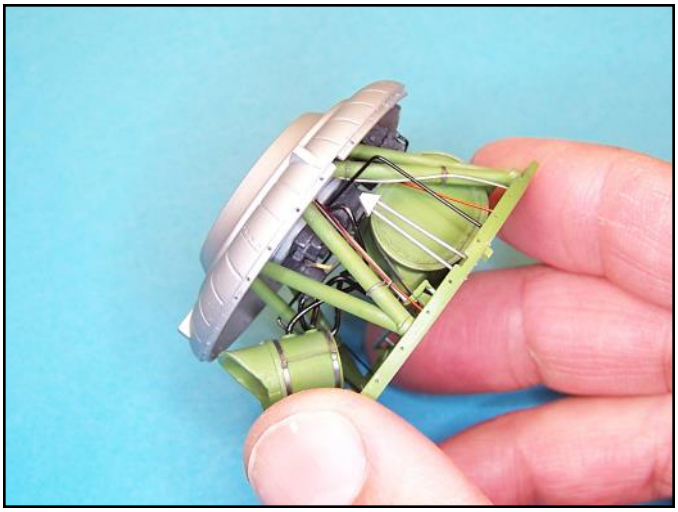
The engine backside sub-assembly was then glued into place.



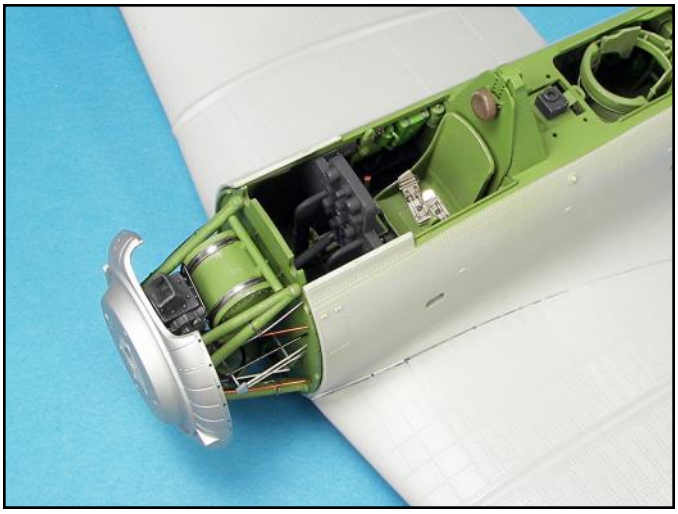
More details were added to the engine firewall.



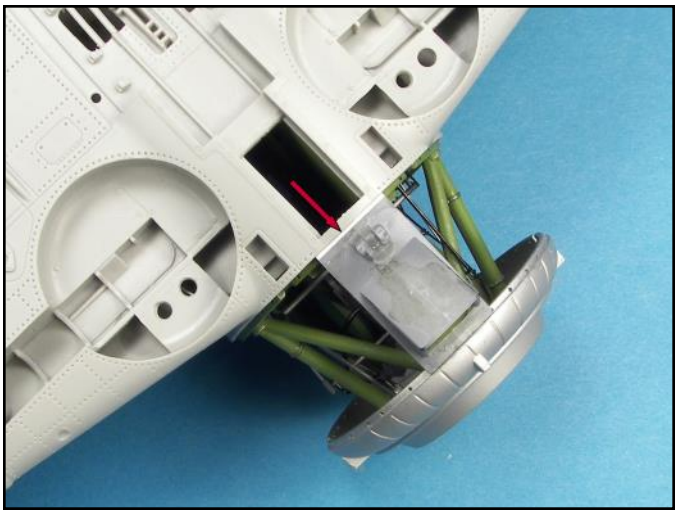
Plumbing was made from brass wire and painted black with a sharpie marker.



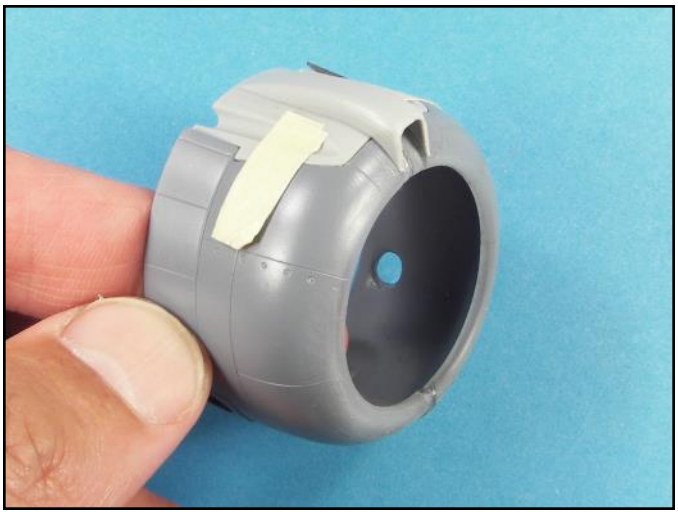
The completed assembly between the heat dissipation shield and the engine firewall looks pretty convincing with the added colored wiring and plumbing.



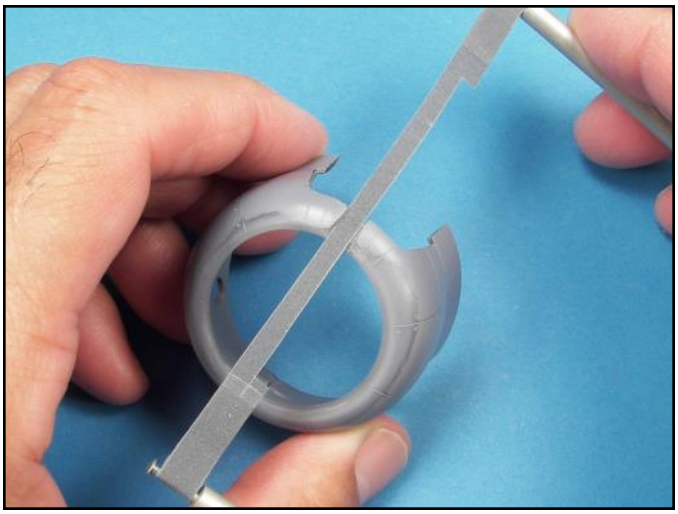
The firewall to heat dissipater assembly was glued into place and then the top of the fuselage was added.



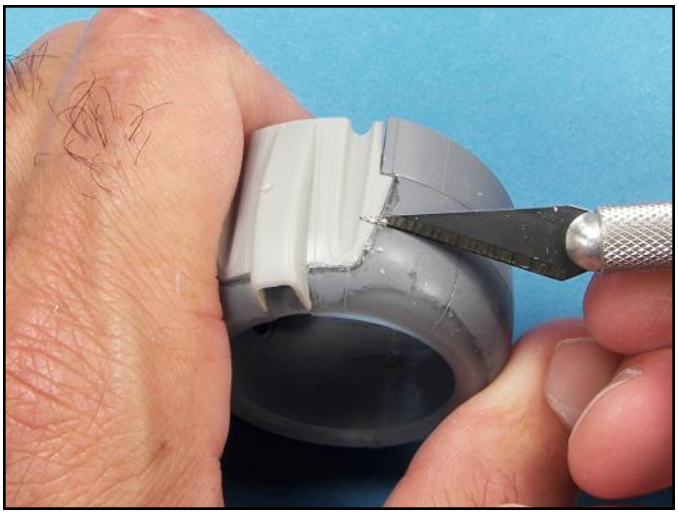
The air intake needed a small length of plastic strip added to the backside of the part so that it would sit correctly.



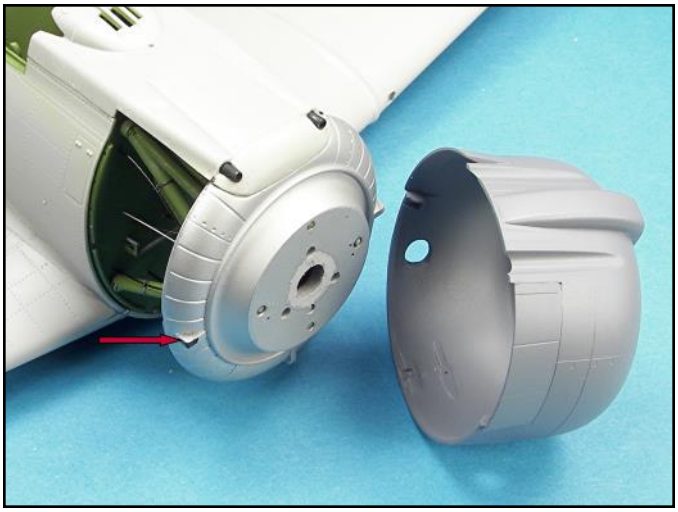
The cowling parts were taped together and the left and right halves super glued with a tiny bead along the seam lines.



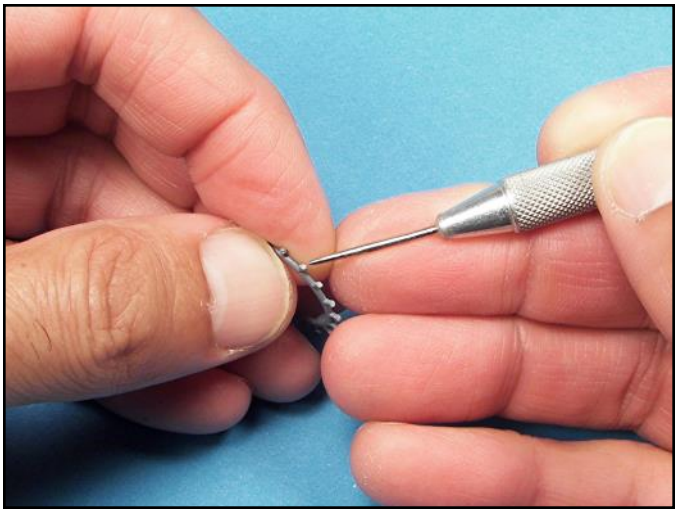
Before attaching the top cowling part, the air intake needed some attention to get the seam line to disappear.



The cowling top has been glued into place and the super glue was carefully scrapped smooth. The surface was then sanded and polished with 0000 steel wool.

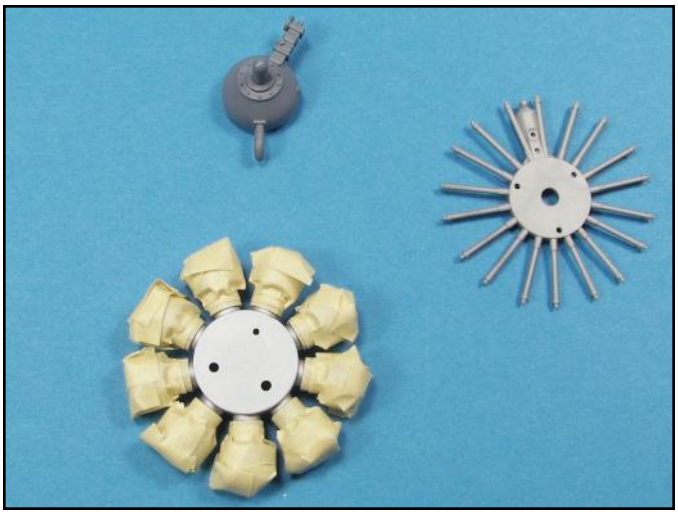


The locator tabs for the cowling needed to have some of their plastic removed to get the part to fit correctly.

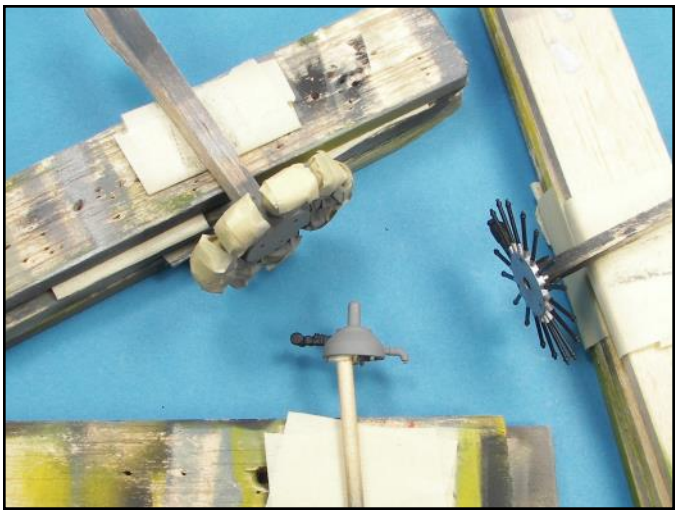


The first step in drilling out the spark plug wire locations on the collector ring was to indent the surfaces for drilling.

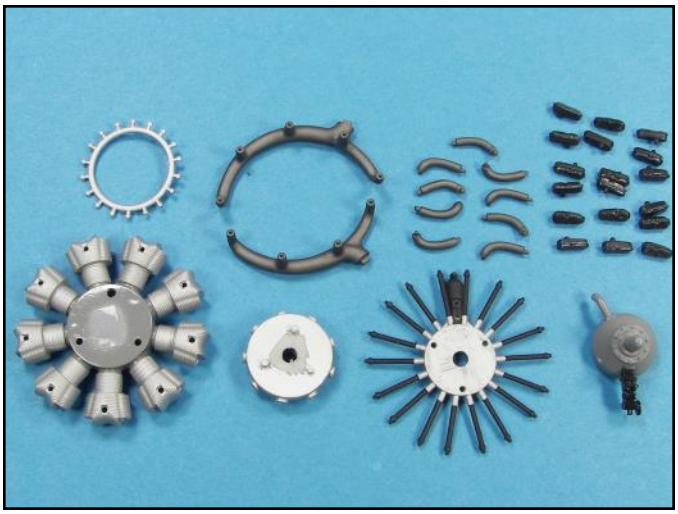
The spark plug wire locations were then carefully drilled out so that brass wire could be inserted into the holes and glued into place.



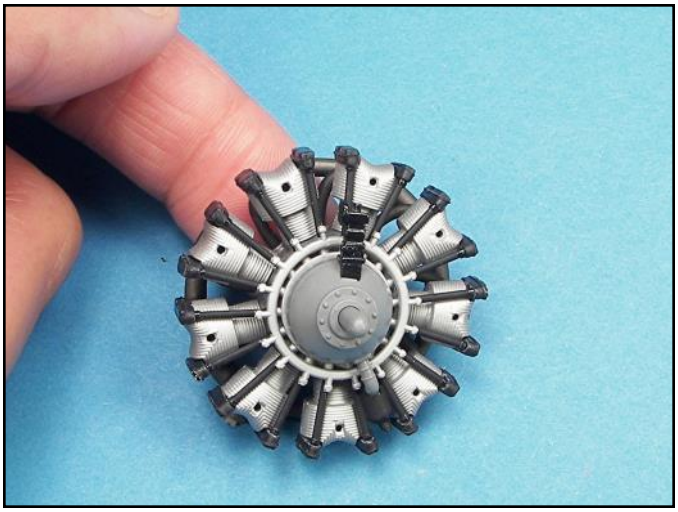
The engine parts were airbrushed and masked where appropriate for additional colors.



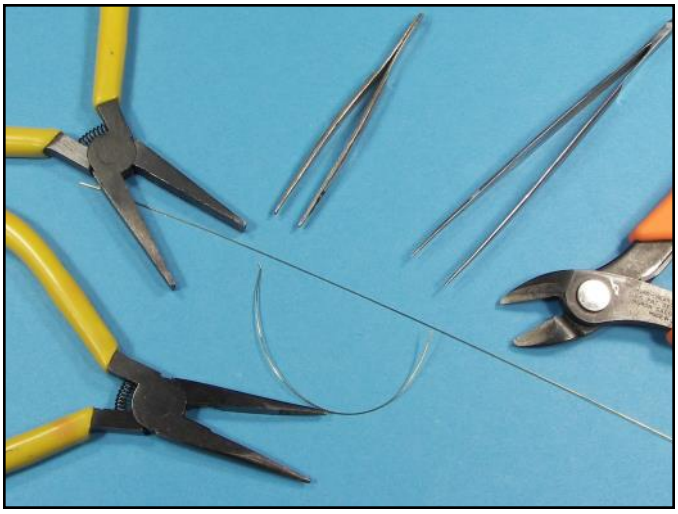
Painting and airbrushing is always made easier when you attach the parts to sections of balsa wood.



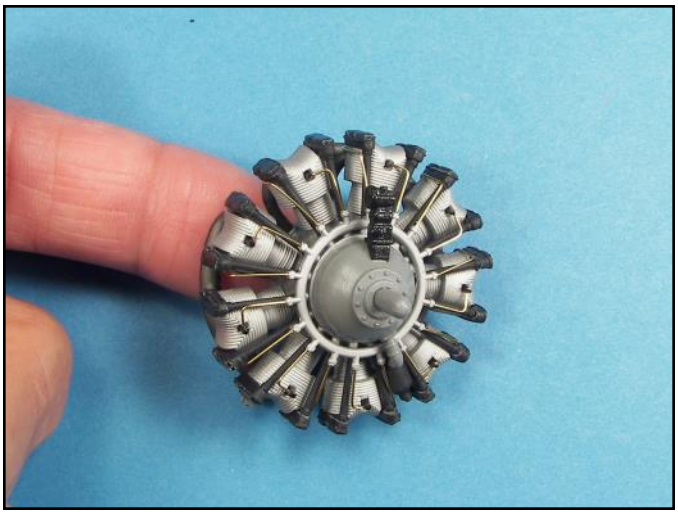
All the engine parts have been painted with enamel and metalizer paints.



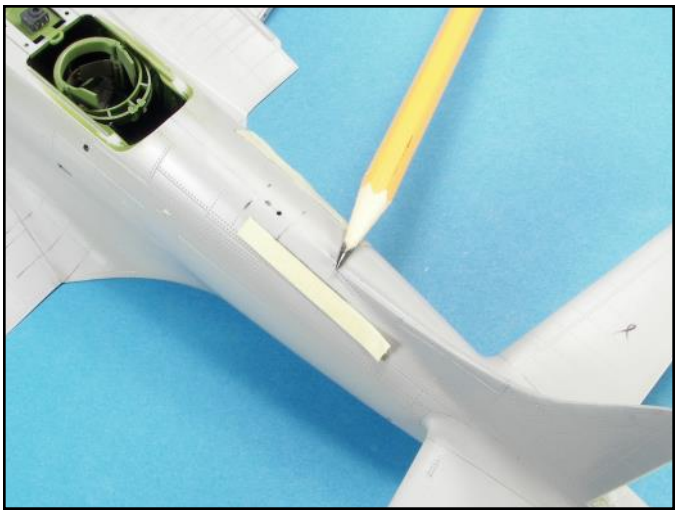
The engine has been assembled and now it is time to add the spark plug wires. Small lengths of plastic rod painted black will be added to the holes in the cylinders to represent spark plugs.



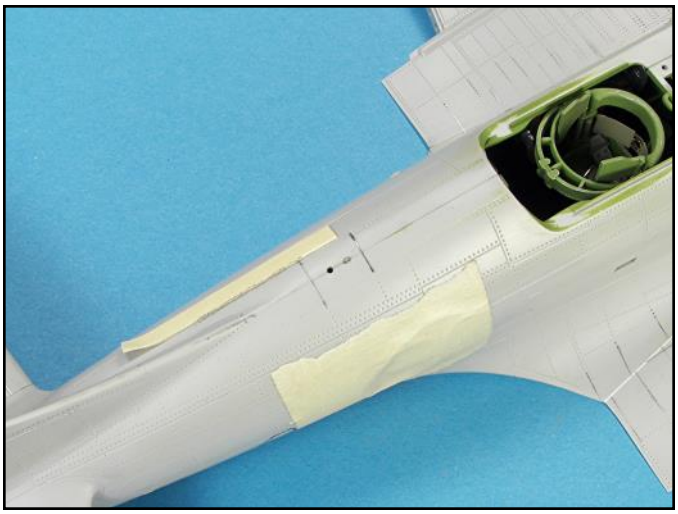
Lengths of brass beading wire was stretched straight to represent the spark plug wiring shielding.



The lengths of brass beading wire were cut and bent into shape and then form fitted into place. Each cylinder gets two plug wires, one in the front and one in the back.



To restore panel line and rivet detail, draw lines with a sharp pencil were the scribing needs to be done.

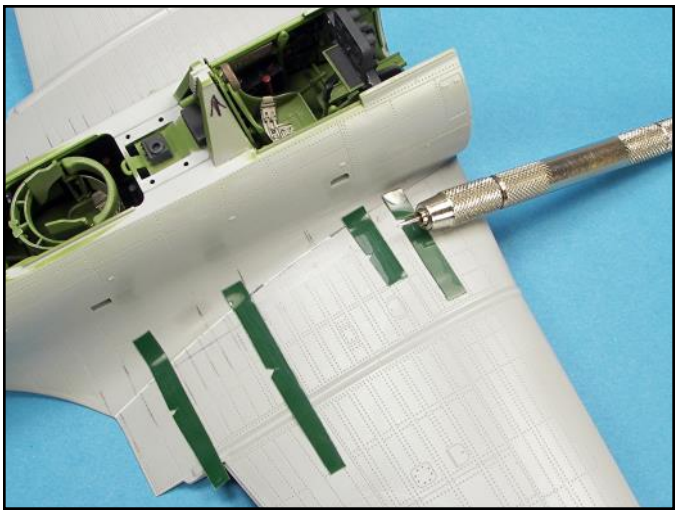


Several layers of masking tape cut with a shape X-Acto blade makes an excellent straight edge for a pencil to follow.

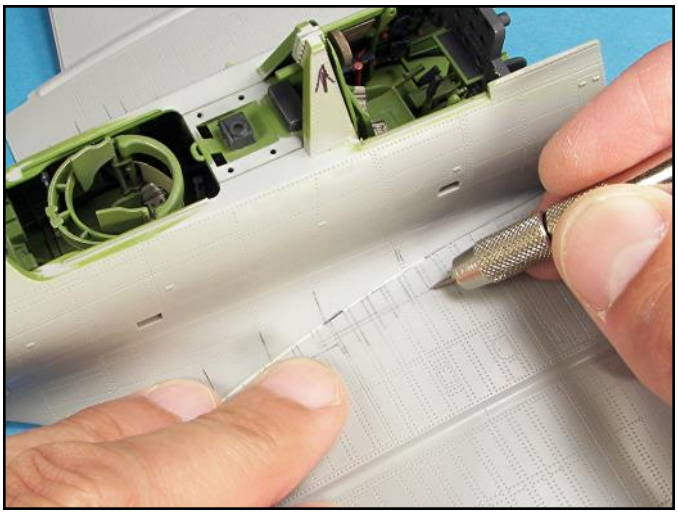
Cutting labeling tape in half makes it more flexible so that it can be wrapped around curved surfaces. The labeling tape edge is prefect for using a scribing needle.

It took several tries to get the labeling tape into the correct location on the elevator surfaces. Scribing plastic with a needle scriber leaves a slight ridge along the scribed line, which will need to be removed.

Labeling tape also makes a good straight edge for drawing panel lines.

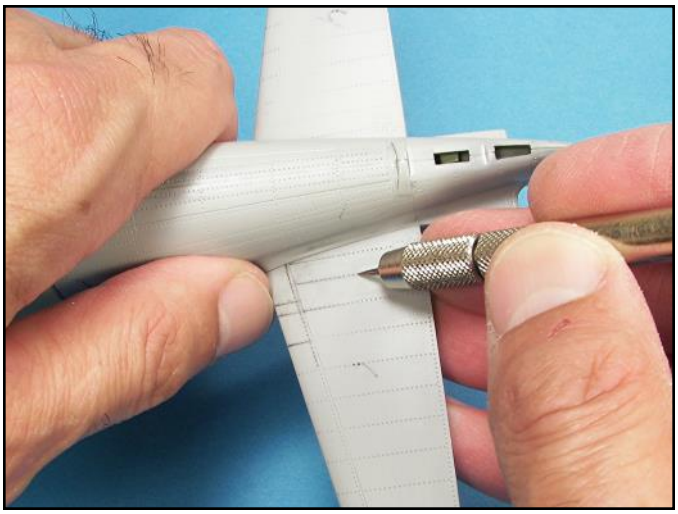


Here again I cut the labeling tape in half, positioned it onto the surface and re-scribed the panel lines with two light passes. The plastic for this kit is soft so don't let the needle cut to deep.

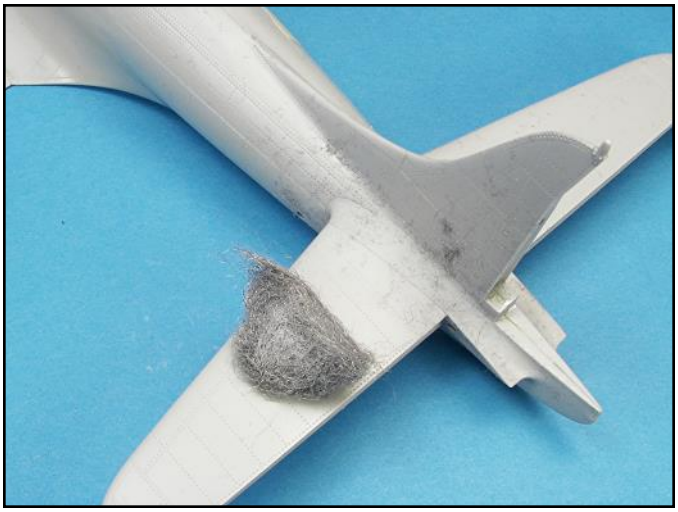


After the panel lines were completed, the rivet detail needed to be restored. The tip of the scribing needle was used to restore each rivet. Pushing down on the needle creates a slight upward dimple around each rivet location.

To remove the ridges along scribed lines and the dimples around new rivet detail, smooth the plastic surface with 0000 steel wool.

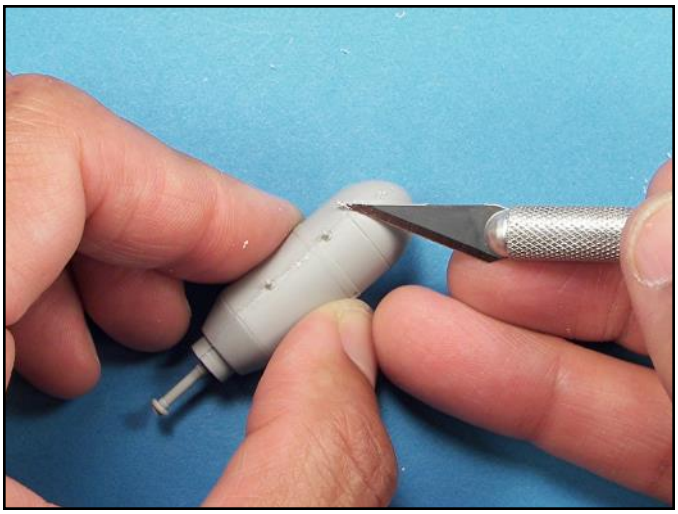


It is also important to make pencil lines when restoring rivet detail so the rivet lines will be straight.

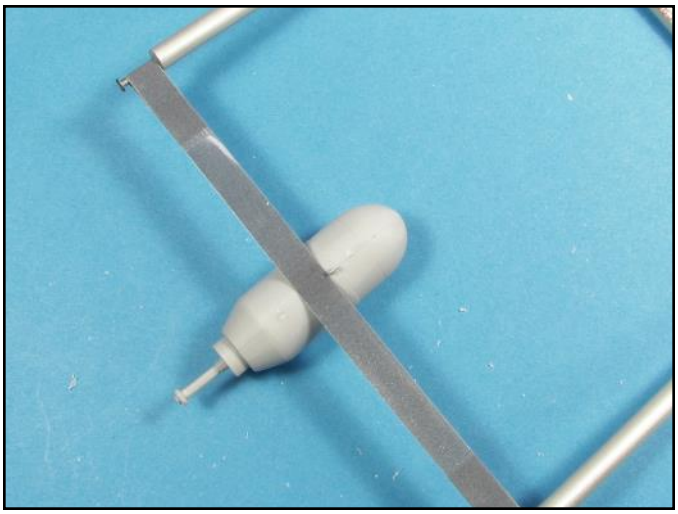


The plastic was polished with 0000 steel wool as a last step for painting. Be sure all the fine steel wool fibers are removed before you begin airbrushing.

The bombs were taped together and beads of super glue applied around the perimeter of the parts.

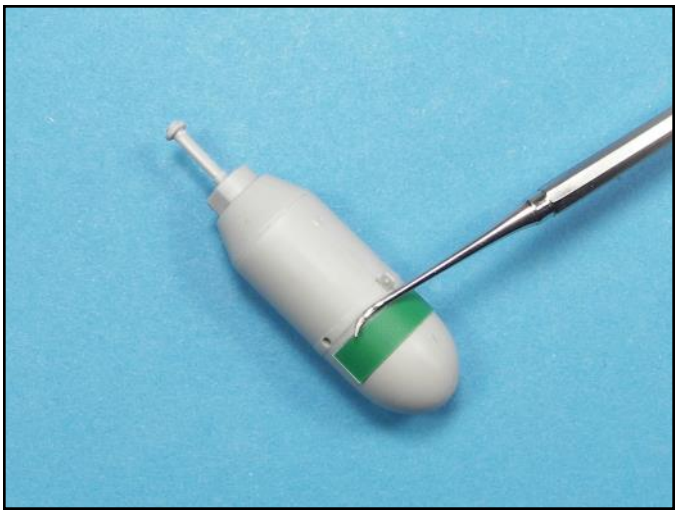


The glue was lightly scrapped flat so as not to distort the curved surface too much.



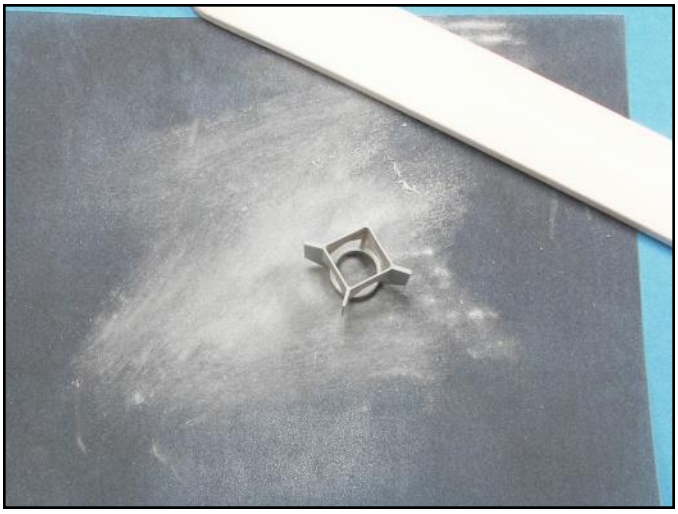
To restore the curved surface of the bombs use a Flex-I-File and wet sand the plastic.

Here again use steel 0000 steel wool to polish the plastic and remove any sandpaper scratches.

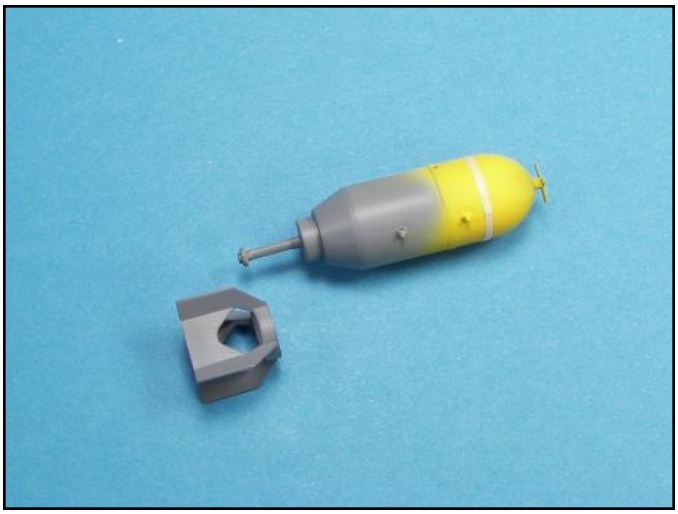


The scribed line on the large bomb was restored the same way the panel lines on the aircraft were restored.

The bomb's tail fin went together well and just needed some polishing to smooth out the super glue.

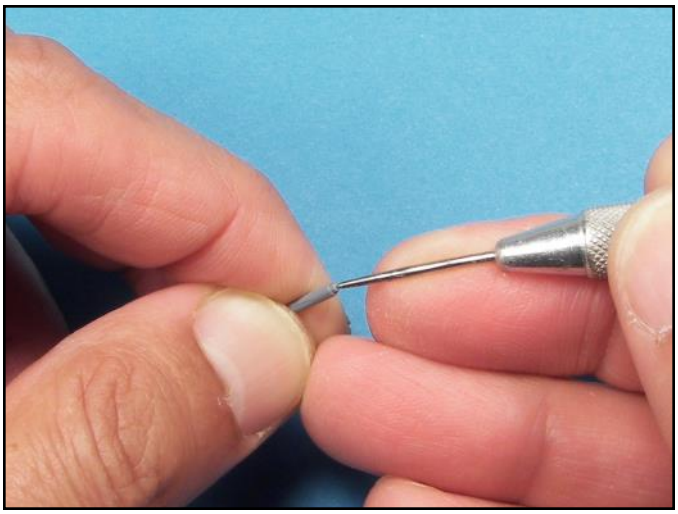


The base of the bomb fin was sanded flat so it would sit correctly on the backside of the bomb.

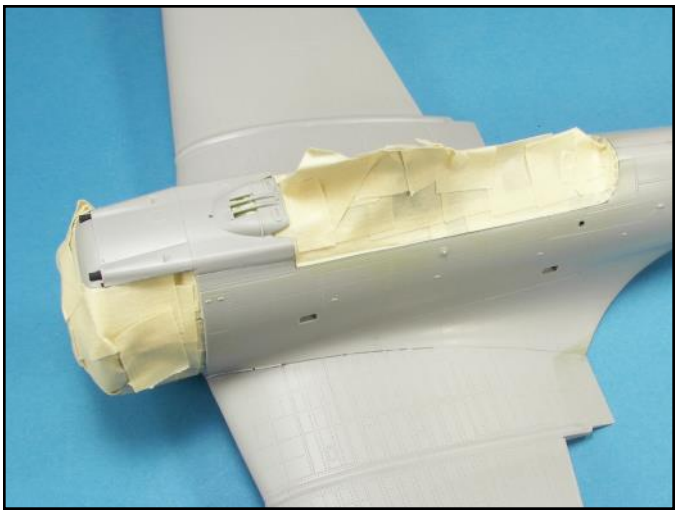


The bomb parts were primed and the bomb tip airbrushed flat yellow, then masked with a strip of tape.

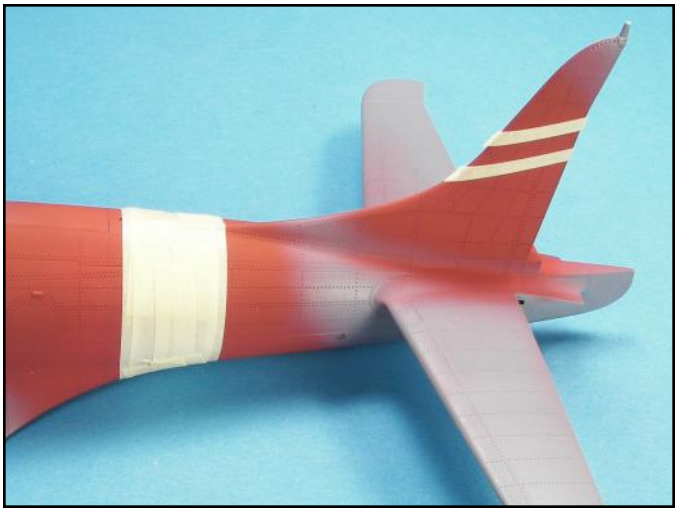
The bomb was painted olive drab, then a clear gloss coat was airbrushed so the decal would not silver. It was then given a coat of clear flat to seal the decal and restore the flat olive drab color.



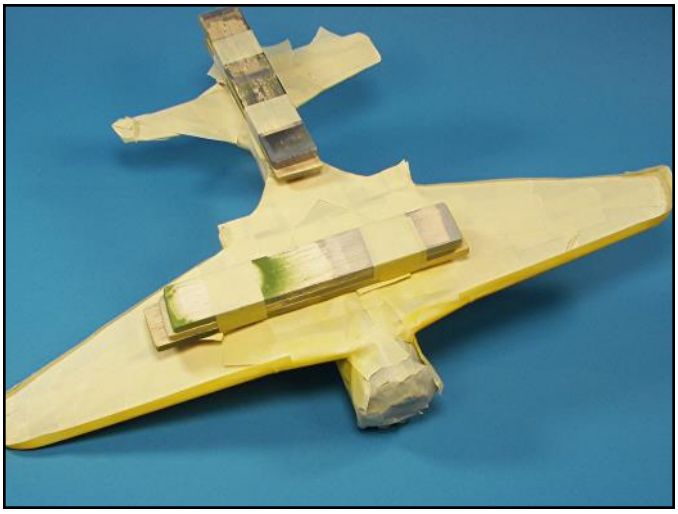
The guns were center punched, drilled out and then airbrushed gun metal.



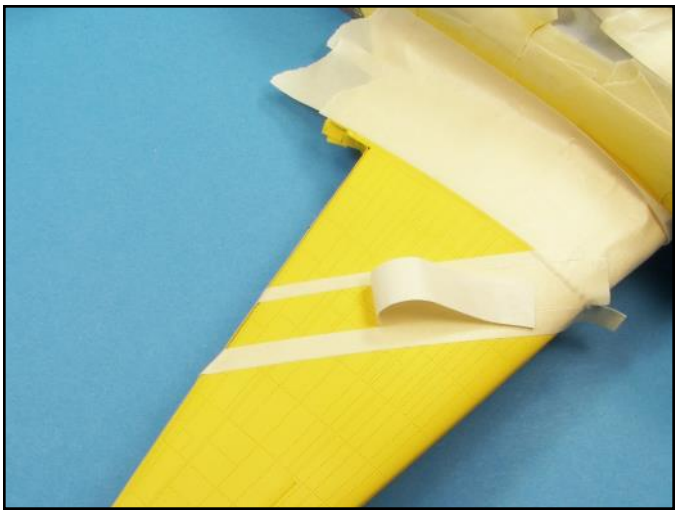
The entire model was masked for priming and the plastic was cleaned with alcohol to remove skin oils and any remaining plastic dust.



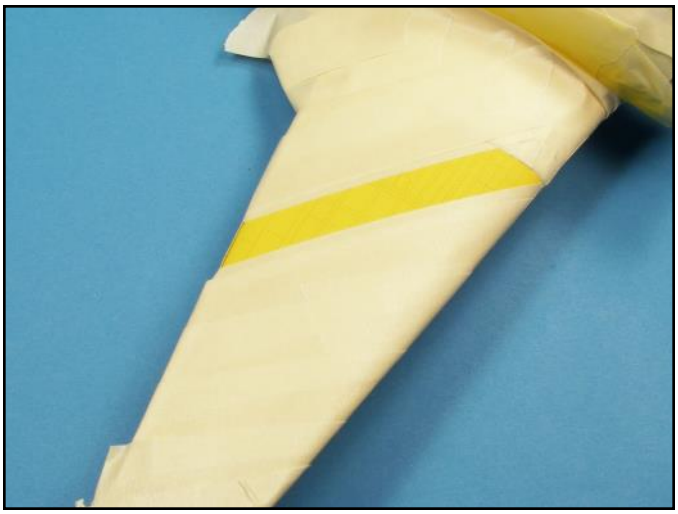
The red stripe on the fuselage and the stripes on the rudder were carefully masked after being airbrushed flat red. The entire surface was then re-primed and then airbrushed light gray.



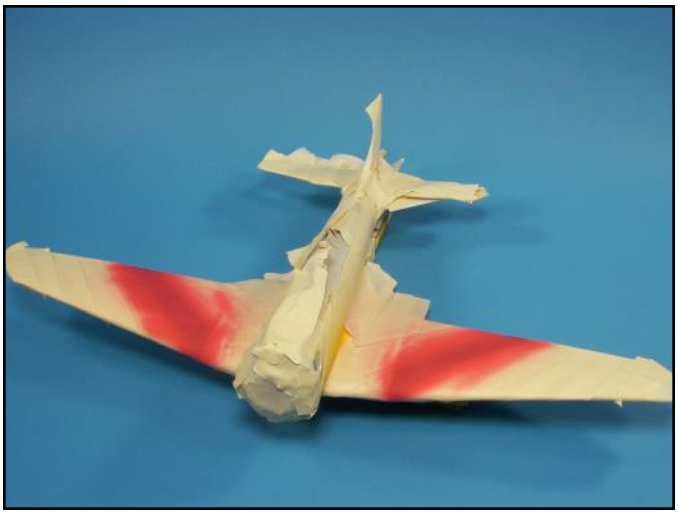
The underside of the wings and the fuselage were masked over so that the upper wings could be airbrushed flat yellow.



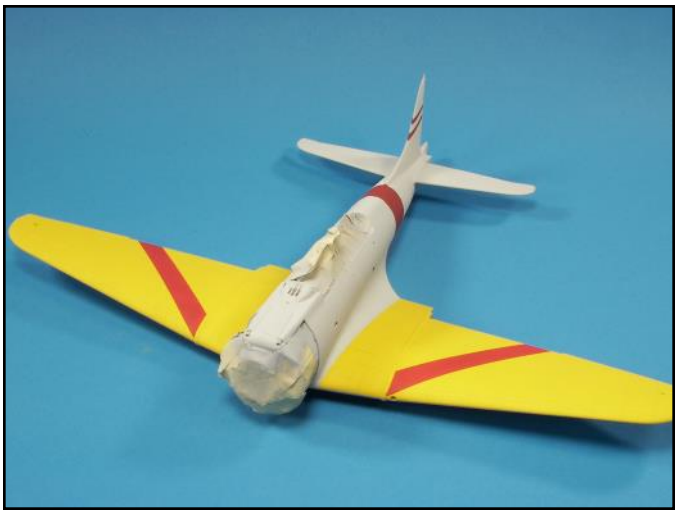
The center section of masking tape was carefully measured and positioned on each wing. Next the side sections were added and then the center section was removed for the flat red strips.



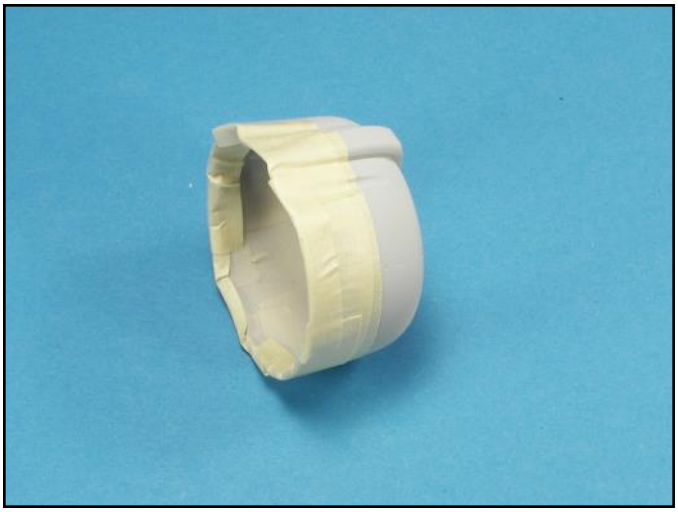
The entire model was then covered with masking tape to ensure no flat red paint dusted onto the surface.



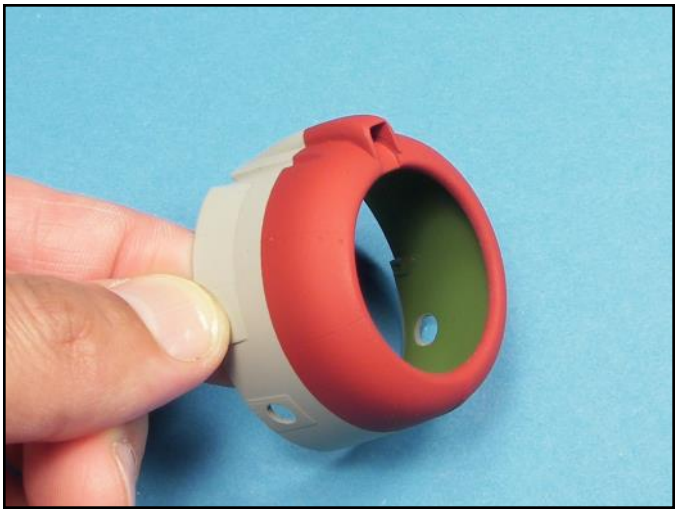
The stripes were then airbrushed flat red.



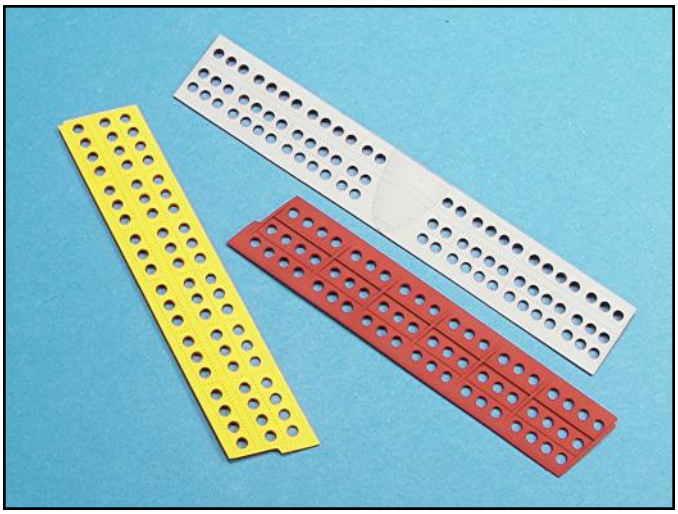
All the masking tape has been removed from the wings and fuselage so that the clear gloss coat could be applied. The last step was to mask and paint the flat black walkway stripes and the upper fuselage area in front of the canopy.



The cowling was painted light gray and then masked for the flat red color for the forward section. Then the entire surface was masked and the inside was airbrushed interior green.



Good masking technique always helps ensure there will be no paint bleeding and that there are sharp demarcation lines between colors.



The dive drakes have been airbrushed the appropriate colors and they are ready to be glued into place.

The landing gear were painted light gray and then the oleos were painted with chrome and then the brake lines were painted with a detail brush.

The landing gear have been assembled and they are ready to be installed.

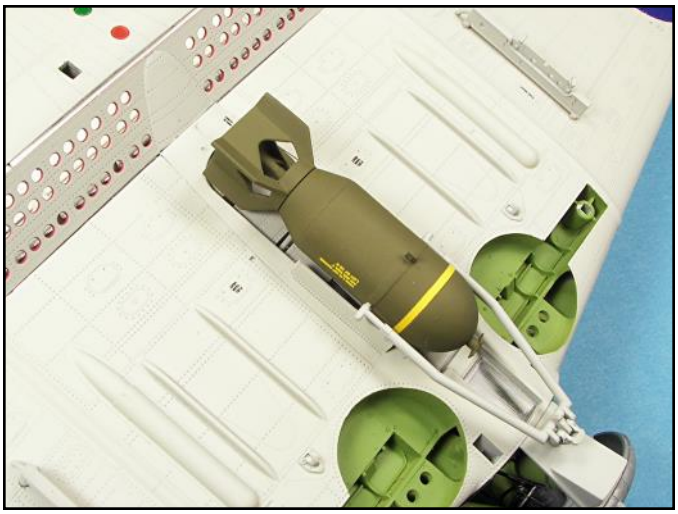
The rudder was carefully masked for the three colors starting with the white, then the blue and finally the red. A good gloss coat always prevents decal silvering.

The decals responded well to decal setting solution and as they softened the decals pulled down around all the surface detail.

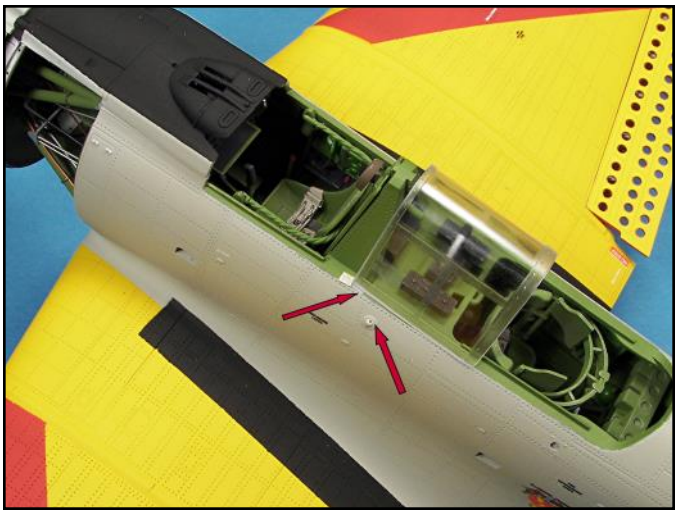
Note how clean and straight the decals look. There is no silvering or air bubbles trapped under the colored areas of the decals. They look like they were painted onto the surface.

A tiny hole was drilled through the antenna on the rudder to thread the antenna wire through.

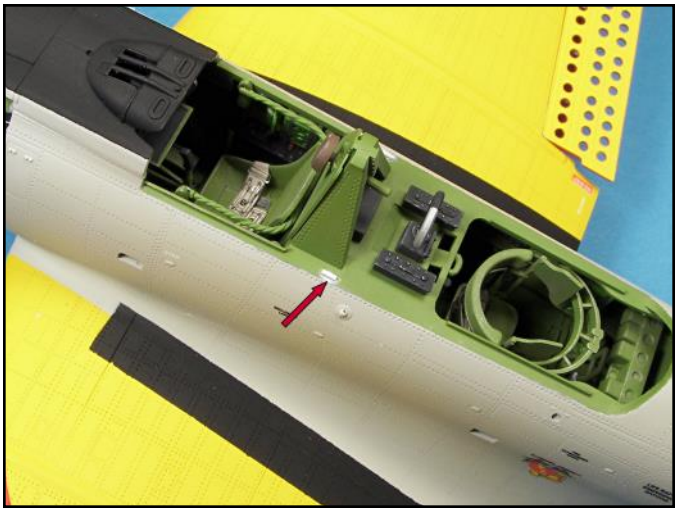
The final assembly is progressing nicely.



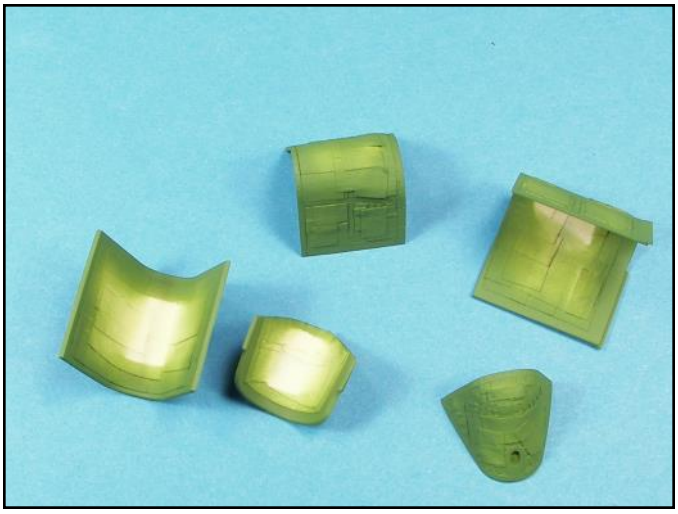
The bomb release assembly was attached to the large bomb and then the entire assembly was attached to the fuselage. The landing gear were then added.



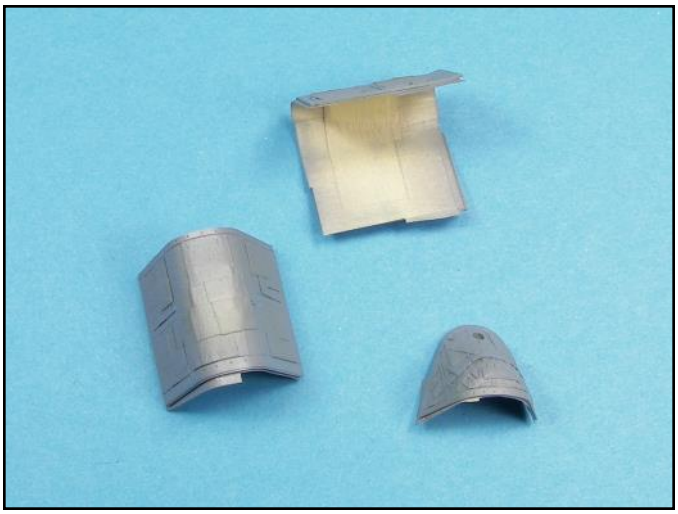
The rear canopy was slightly warped inward and had to be corrected.



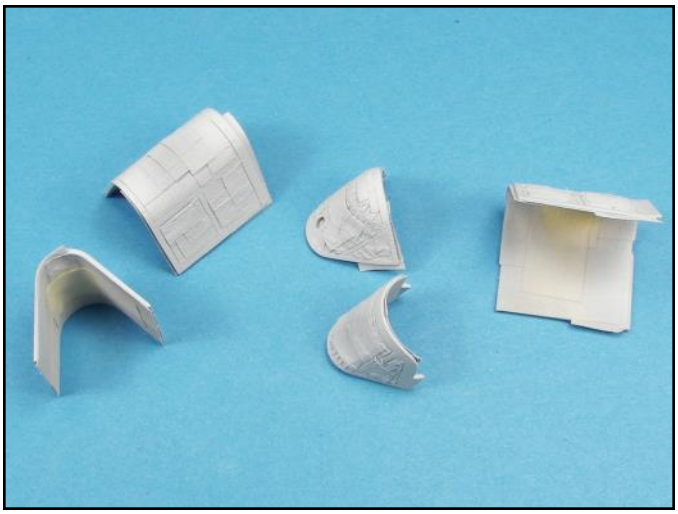
Tiny lengths of plastic strip were attached to the surface to push the canopy apart so that it would sit correctly.



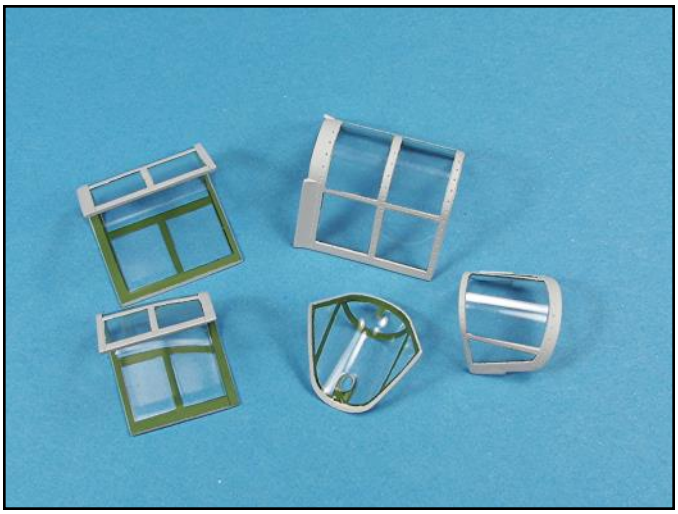
The clear parts were masked and then the inside areas were primed and airbrushed with interior green.



The undersides of the clear parts were then masked. The outer surface of the clear parts were primed so that the light gray color would be consistent over the surface.

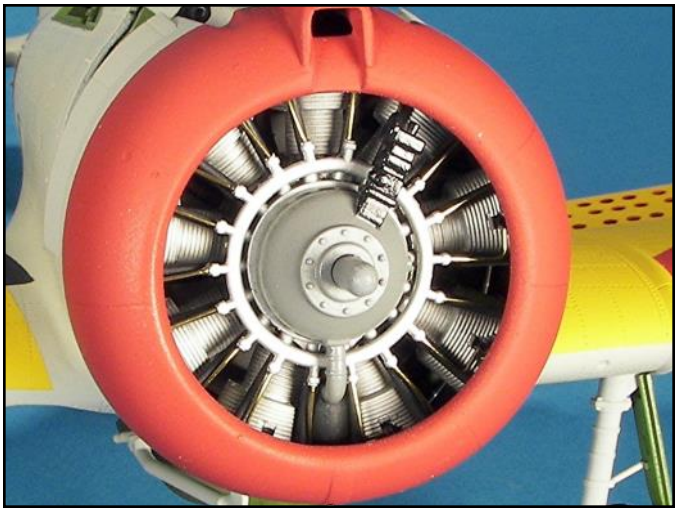


The light gray color was then airbrushed.

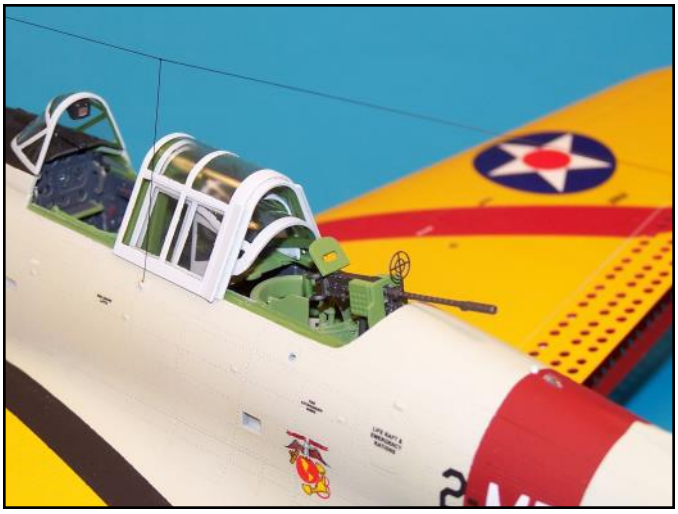


With all the masking tape removed, there are very sharp demarcation lines between the clear areas and the canopy framing.

The engine and cowling were installed and all that is left are the clear parts and the antenna wiring.

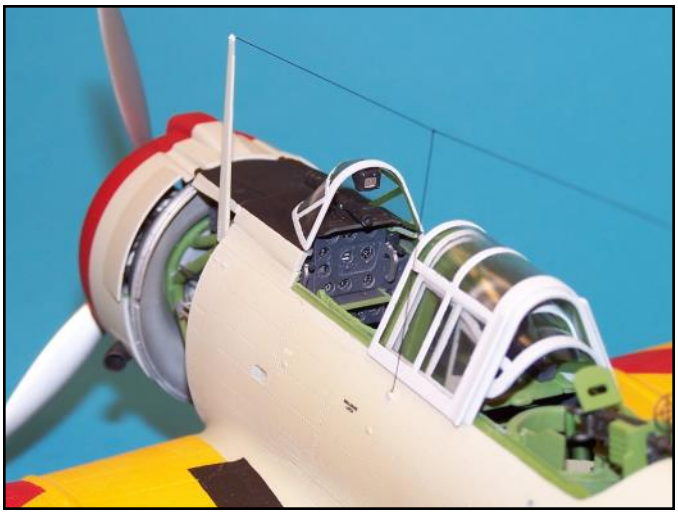


Careful painting of the engine parts, in addition to the spark plug wiring, really enhanced the appearance of the assembled engine.



The clear parts have been attached with tiny drops of white glue. The rear gun was painted metalizer gun metal and then polished with a Q-Tip. The gun sight ring was the last detail to be added.

While there is wiring and plumbing, I should have added more to make the interior area look more busy and realistic.



The console instruments really stand out and can be clearly seen.

The pilots right side controls stand out thanks to careful painting with different shades of the same color and drybrushing.

Using a sharpened toothpick dipped in paint to pick out tiny surface details like switches, dials and fuses helped add an additional level of realism to the cockpit area.


2-MB-1
SBD