

MIKE ASHEY PUBLISHING
COMPREHENSIVE SERIES SCALE MODEL SHIP MANUAL
NUMBER 2

BUILDING AND DETAILING TRUMPETERS 1/350 SCALE USS FRANKLIN, CV-13

This manual is applicable to the Trumpeter 1/350 scale Essex class carrier series including the long hull version.

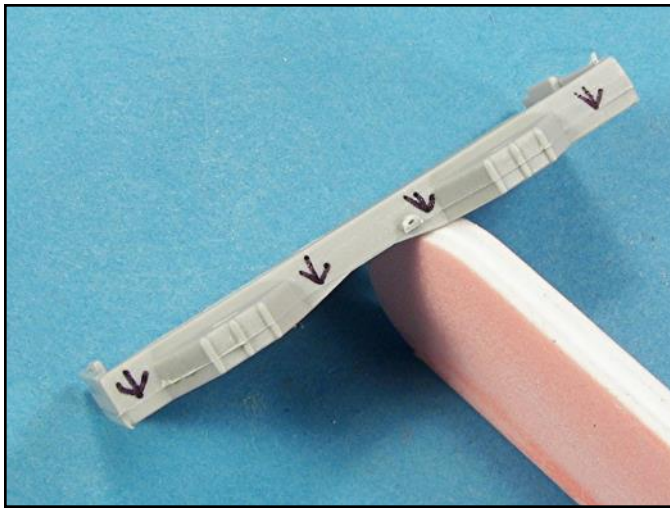
The 1/350 scale Essex class carrier kits build into impressive models with the addition of photoetch and some scratchbuilding.

There are also some fit challenges, needed adjustments and modifications and a lot of injection mold punch out disks on individual parts that need to be fixed, all of which can easily be addressed with straightforward building techniques.

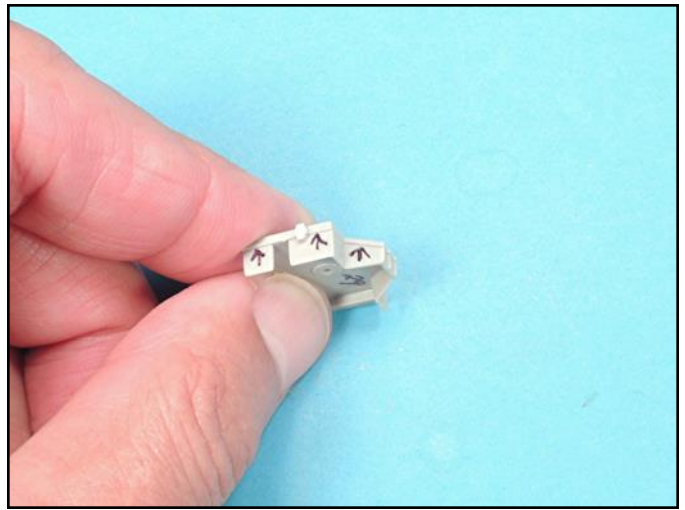
This manual also includes 3 pictures of the Essex class carrier USS Yorktown while she was in dry dock back in 1972 and a supplemental section on assembling the Trumpeter long hull kit, which has a separate forward upper hull section.

References used were the ESSEX class carrier ship drawings available from "The Floating Dry Dock" and numerous pictures from various publications. Testors enamel paints and a Badger 200 airbrush were used throughout construction and finishing and the photoetch is from Gold Medal Models. A lot of Evergreen sheet and various sizes of rod and strip were used along with structural shapes throughout construction and scratchbuilding along with various diameters of brass rod. The Kit's decals are well done and they respond nicely to MicroScale decal setting solution. Pit-Road pre-painted aircraft were used on the flight deck and in areas on the hanger deck where the roller doors were cut out.

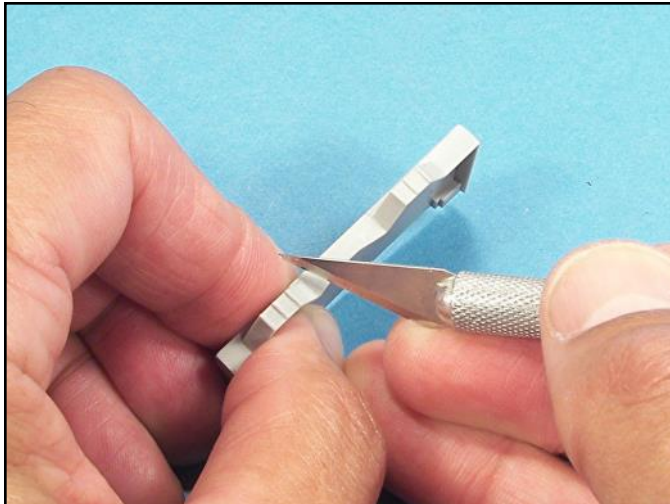
Resin castings from Voyager Models and L'Arsenal were used for the 5"/38 Turrets, the 20mm gun boxes and the 5"/38 single open mounts. A Tamiya Missouri, which was purchased on EBay at a great price, was used to replace kit parts such as the 20mm guns, the life rafts, various fittings and mast yardarms. A Waldron punch tool and a Northwest Shortline chopper were used extensively for scratchbuilding and hiding flaws. The wood base was a length of Maple stained with Minwax red mahogany and sealed with a clear polyurethane gloss coat. A beautiful Plexiglas display case was ordered from "www.casesforcollectibles.com".



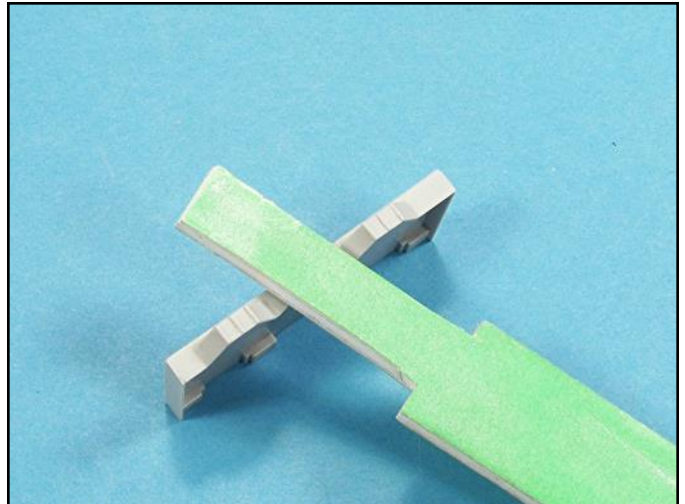
The main superstructure parts were removed and their part numbers marked. Each one was checked for mold lines and flaws and marked with a black sharpie. The parts also had thick tree stub attachment points.



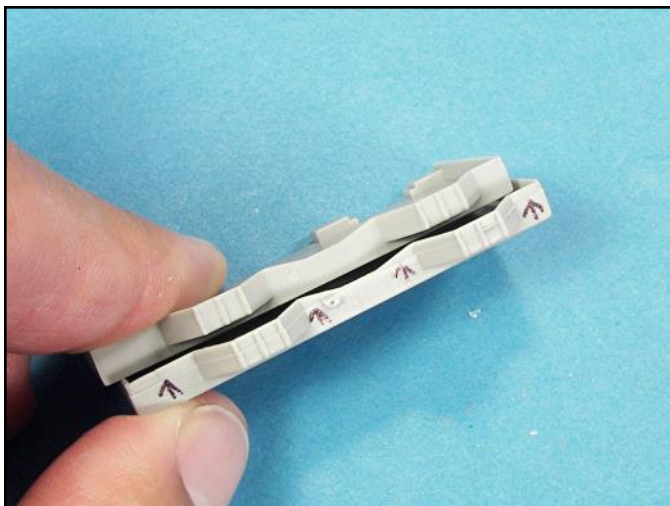
The thick tree stubs on small parts will need to be removed very carefully to minimize damaging the surface.



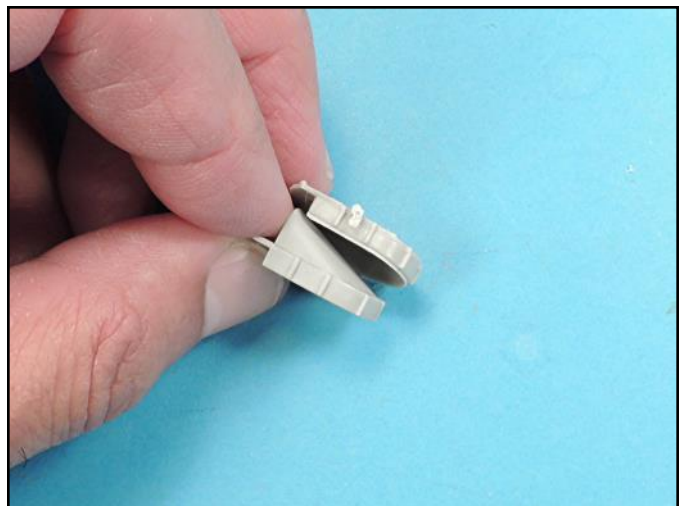
The tree attachment stubs were carefully sliced off and then the surfaces were lightly scraped to remove the mold lines.



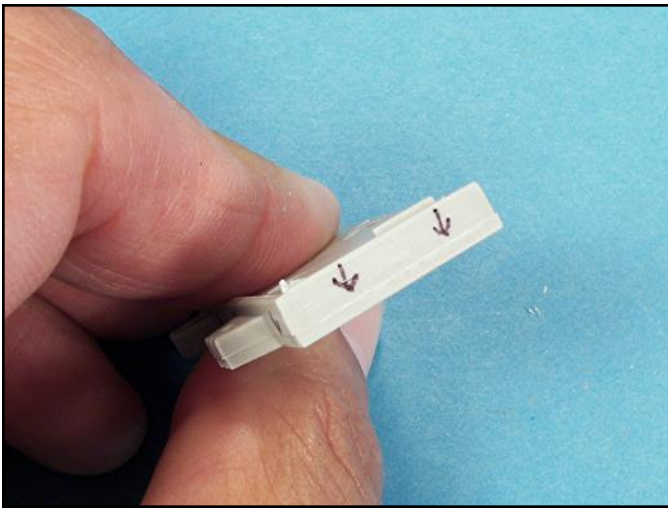
A sanding stick cut to fit into small areas were used to lightly wet sand the surfaces smooth.



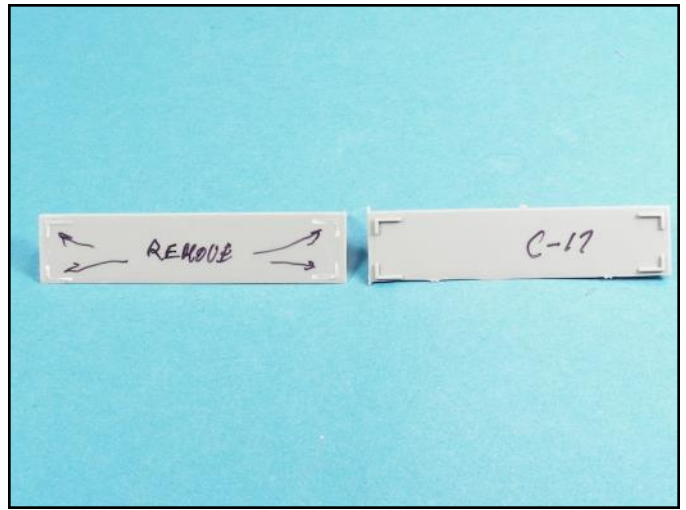
When scraping and sanding, be careful to not damage the vertical reinforcement detail on the splinter shields. The pin hole in the center of the tree sub will leave a hole in the parts surface when the stub is sliced off.



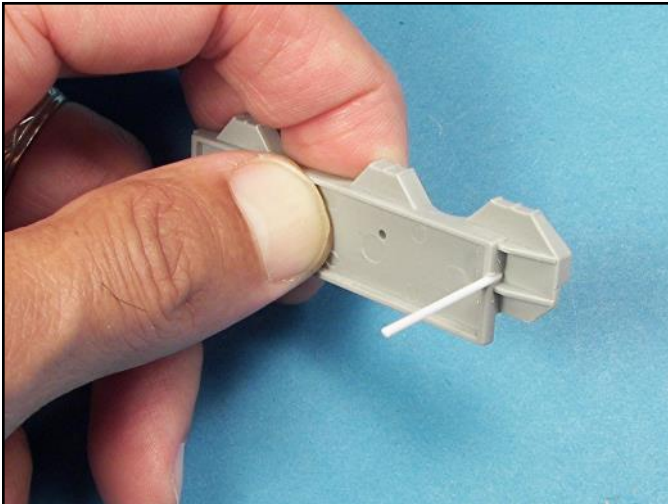
This tree stub was sliced from the surface first and then the remaining stub was then sliced from the underside so the edge of the part would not be damaged. The lower part has been scraped and sanded smooth.



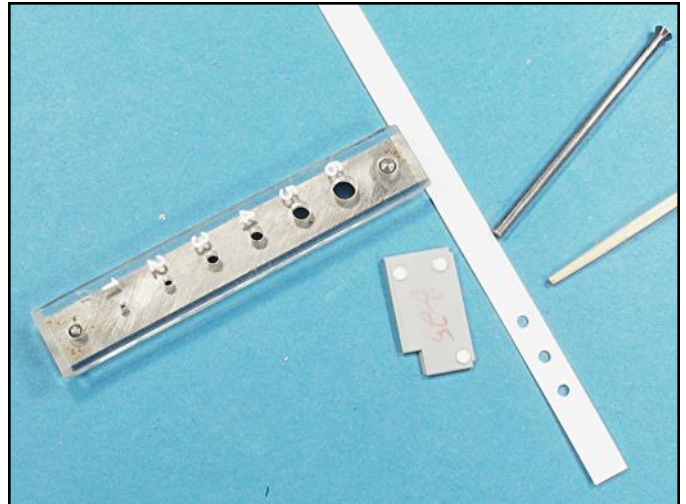
Some parts had misaligned sides due to a misalignment of the two part manufacturing mold. To fix this edge, the part was carefully wet sanded flat by running it across a stationary piece of sandpaper.



Test fitting small parts resulted in the locating pins and raised surfaces having to be removed to get a better fit.



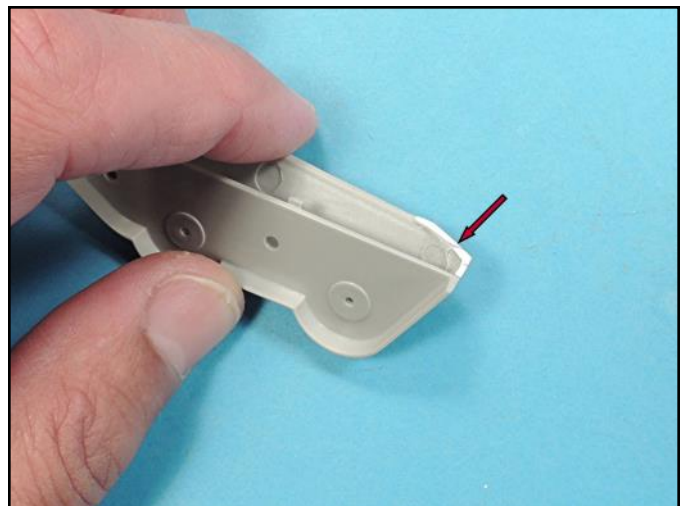
Some parts had holes that needed to be filled. Super gluing Evergreen rod and strips to fix these types of flaws is superior to trying to fill them with putty.



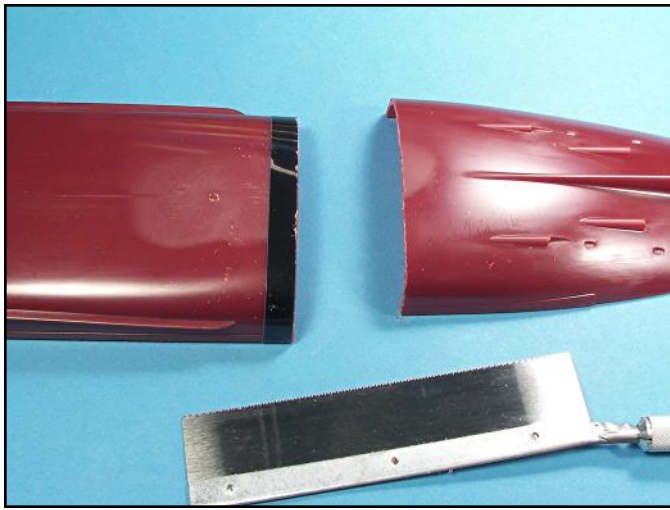
Some surfaces had manufacturing mold punch out depressions. The best way to fix them is to fill the holes with disks made from a Waldron punch tool. The surfaces were then wet sanded flat.



Some parts had uneven bases that need to be corrected. Run these parts across a stationary piece of wet sandpaper. Check your work as you progress to be sure the parts will sit level.



This port side gun platform did not fit against the hull correctly. The fix was to add some plastic strips to one edge so the part would fit snugly along its entire perimeter against the hull.



A fit check of the hull parts showed that the lower hull is slightly longer. To fix the problem, cut the lower hull with a razor saw about 2.5 inches aft of the end of the torpedo belt. The labeling tape acted as a guide for the saw.



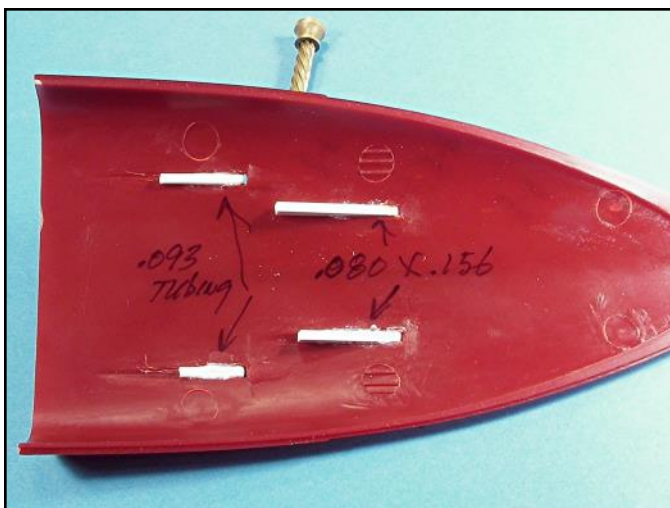
The kit's propeller shafts did not have "V" struts. The first step was to cut off the plastic shafts and drill holes through the struts for .052 diameter rod. The struts were drilled out to .058 inch diameter so there would be wiggle room.



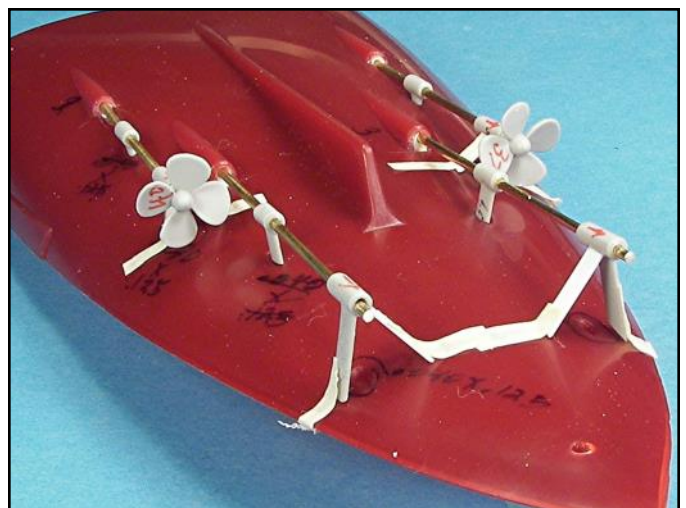
Now that the outer strut can be rotated, add .04 x .125 inch strips for the additional legs on each of the four outer "V" struts. There is a reference photo on page 64 that shows the stern of the Essex class carrier Yorktown in dry dock.



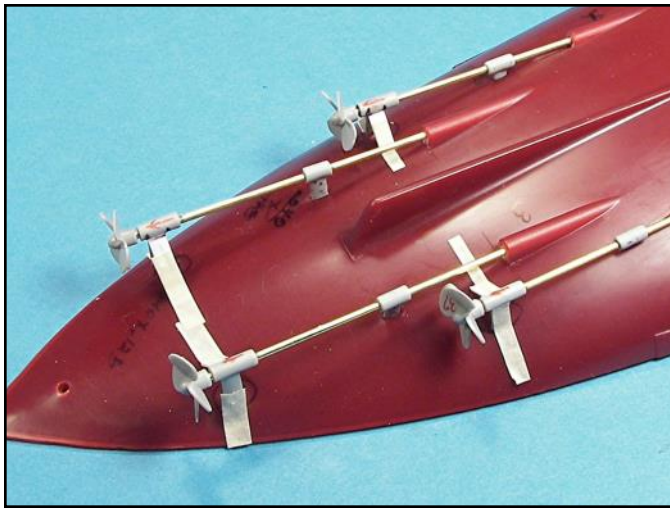
The kit's propellers holes were filled with rod and then re-drilled for the new .052 inch diameter propeller shafts.



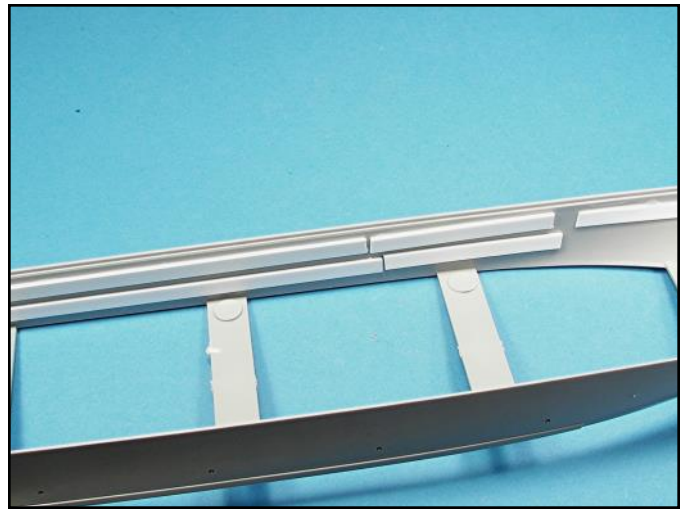
The hull protrusions for the propeller shafts were filled and then then re-drilled using a .058 inch drill bit.



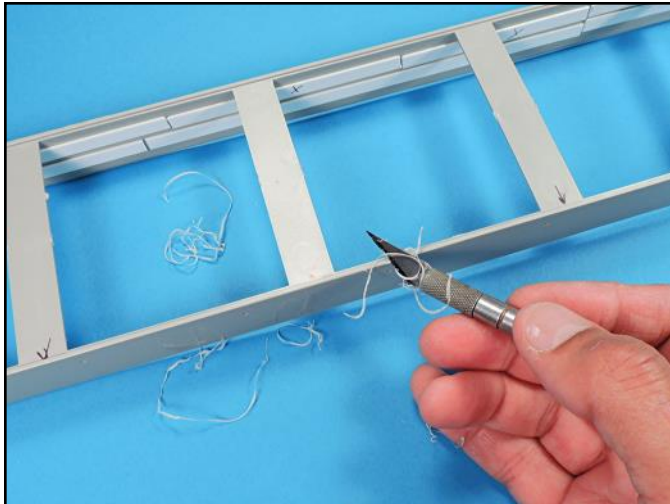
Each propeller shaft and its associated strut were form fitted into place and then super glued together. Be sure the shaft assemblies are symmetric vertically and the same height.



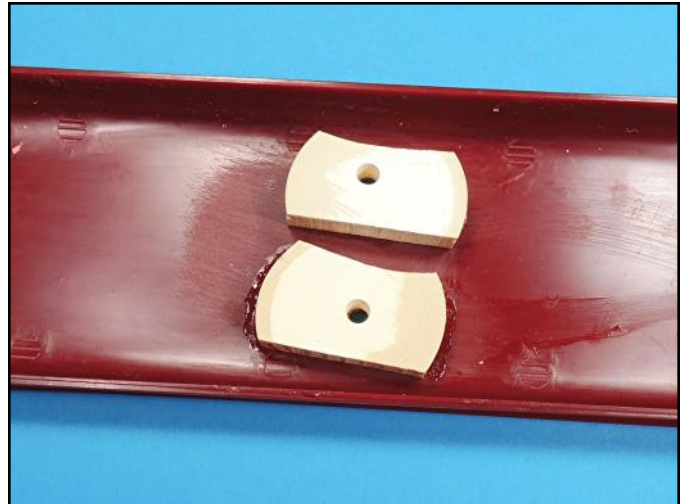
Also, be sure the shafts sub-assemblies are symmetric horizontally and that the outer and inner shafts are the same lengths.



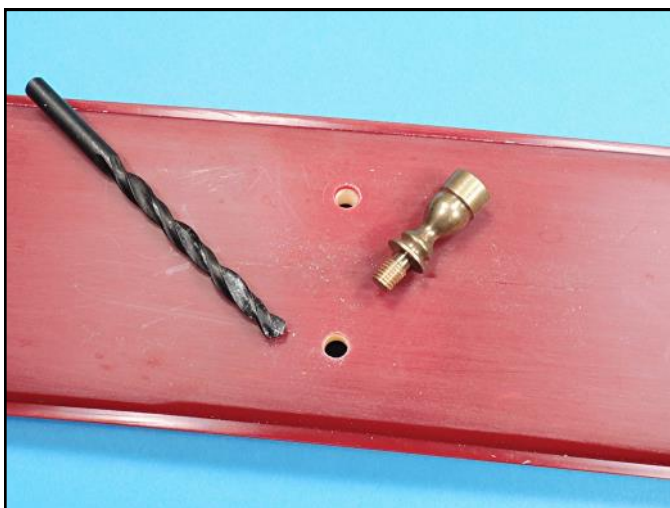
The upper hull has a lot of flex. To stiffen it, laminate lengths of .06 x .250 inch Evergreen strip on the straight sections of the hull and .03 x .250 inch strips on the curved sections.



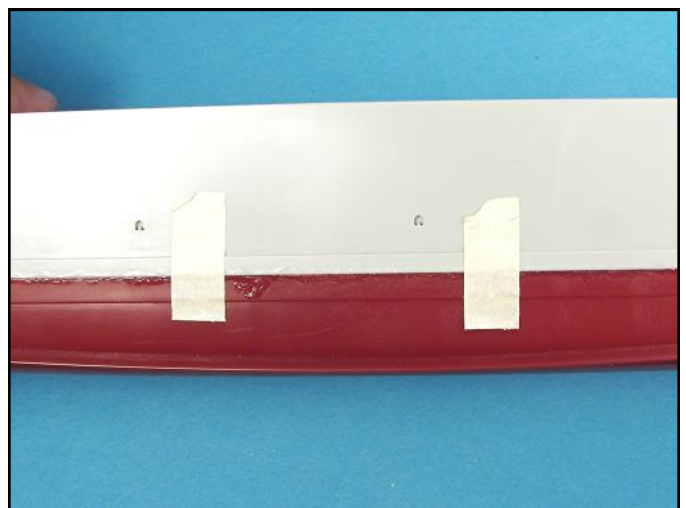
There was a slight mold line along the surface of the upper hull where it attached to the lower hull. To get a tight fit, scrape this mold line off.



The positions of the brass display pedestals were marked on the lower hull. Small holes were drill so that resin blocks could be positioned and glued to the inside. Stacks of plastic sheet glued together will also work.



The holes for the brass pedestals were drilled out. The pedestals are turned brass lamp risers.



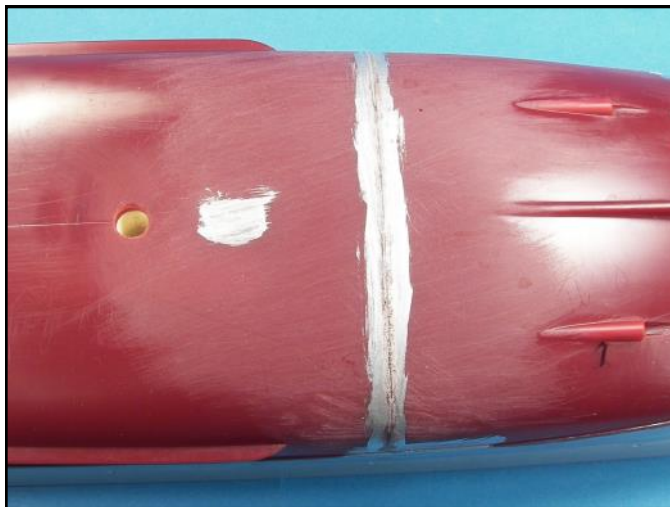
The upper and lower hull were tightly taped together and super glued using a thin wire applicator. Be careful not to let the super glue bleed over the edges of the torpedo belt.



The tape was removed and super glue was applied to these area.



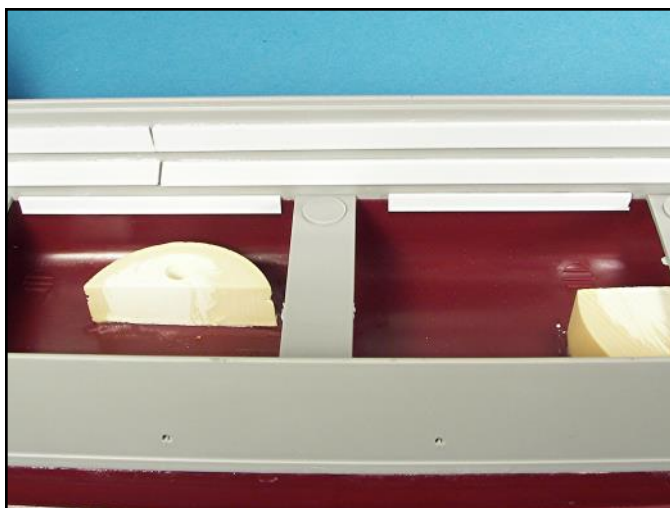
The cut lower hull section was positioned and glued into place. Strips of plastic of various thicknesses were used to fill the gap. Super glue was applied to both side of the strips and in between them.



The seam line was filled with super glue, sanded smooth and checked with silver paint for flaws. Additional super glue was applied and the seam was wet sanded smooth.



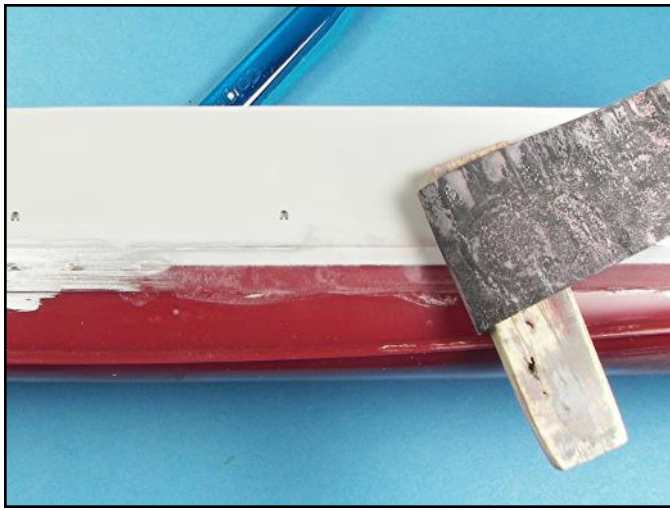
The indentations in the lower hull for the propeller shaft struts were filled in with small sections of strips plastic, super glued into place and sanded smooth.



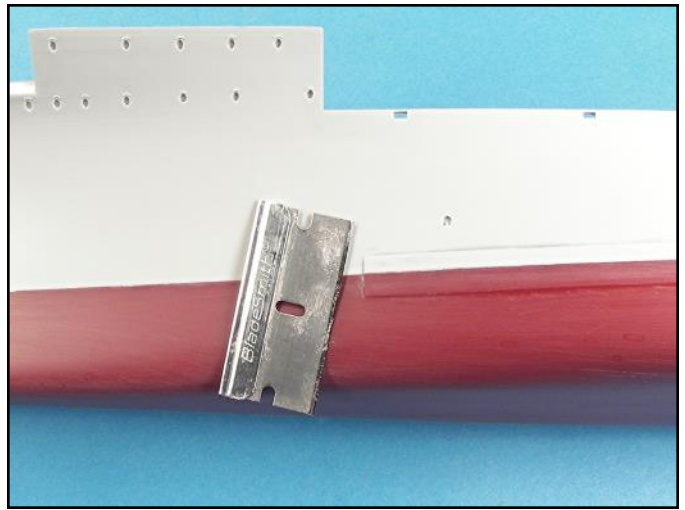
Sections of .030 inch thick strips were laminated to the inside of the hull between the upper and lower hull seam lines to add strength and prevent seam cracking. Super glue was applied to the seams between the plastic strips.



The hull seam line was carefully wet sanded smooth by wrapping sandpaper around a section of balsa wood. Silver paint was applied to check for flaws and more super glue applied along the seam line.



The second coat of super glued was carefully and lightly wet sanded smooth. Too much pressure will indent the surface along the seam line.



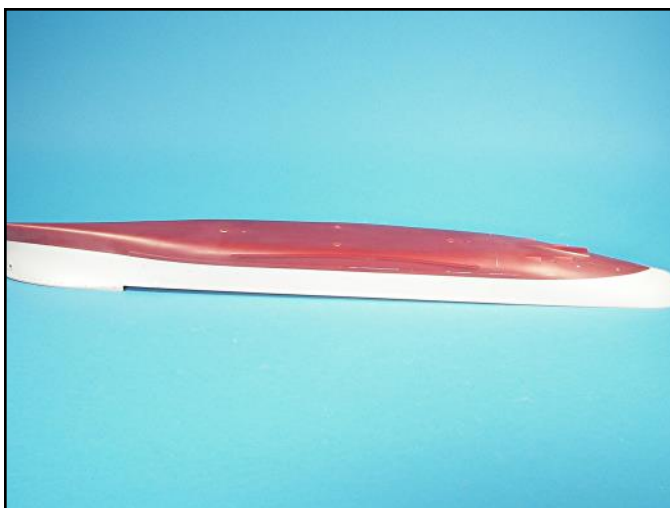
To straighten out and clean up the torpedo belt edges, use a single edge razor blade.



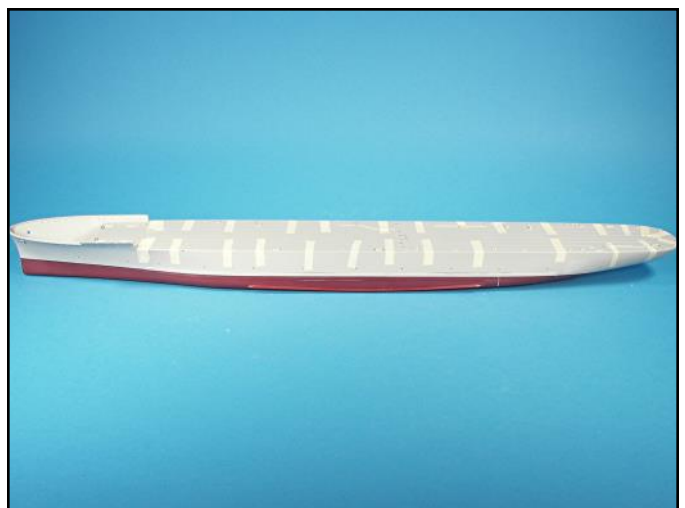
The port holes were drilled out using a .046 inch bit. The anchor holes were drilled out with a .086 bit and then carefully shaped with files and the tip of a number 11 X-Acto blade.



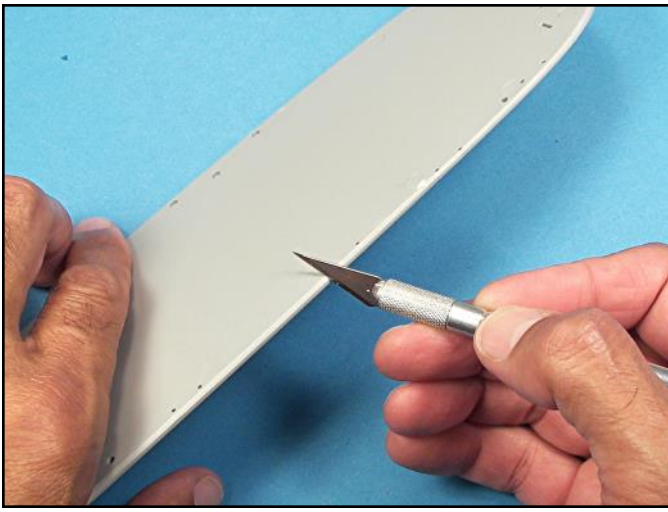
The hull is now ready for the next step - assembling the hanger deck. Laminating plastic strips to the inside areas of the hull stiffened the assembly, making it easier to work on the seams and prevented any cracking along the seam lines.



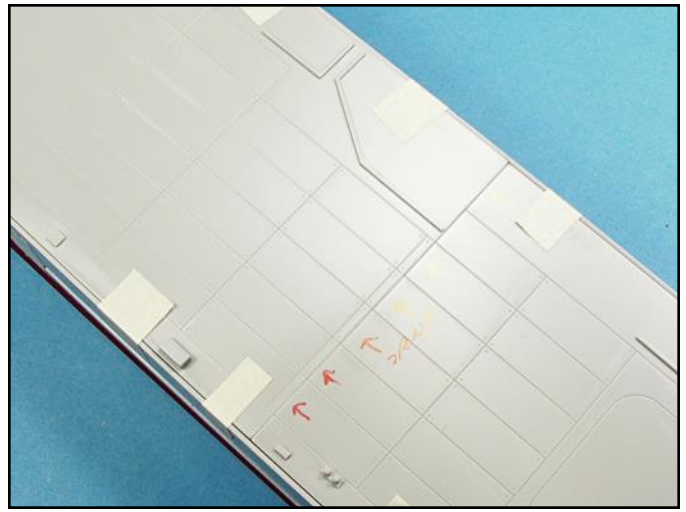
The thickness of the razor saw that was used to cut the aft end of the lower hull removed just enough plastic to make the lower hull fit perfectly onto the upper hull. This same problem exists with Trumpeters Essex class long hull kits.



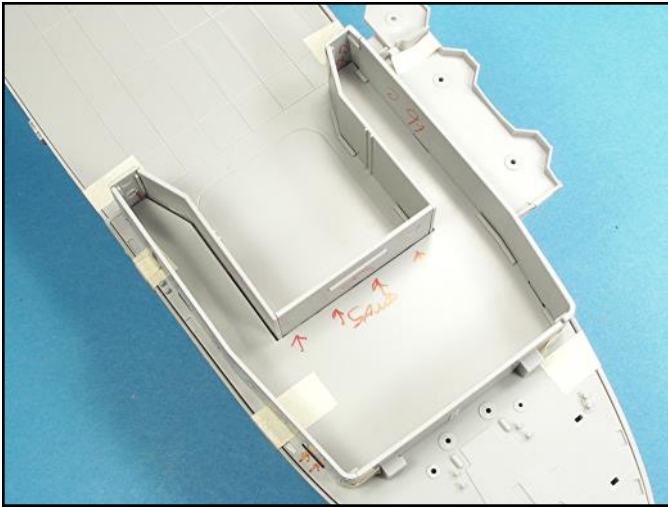
The hanger deck sections were taped to the hull to check the fit. They did not sit flush with the hull's edge and were raised slightly above the lip of the hull.



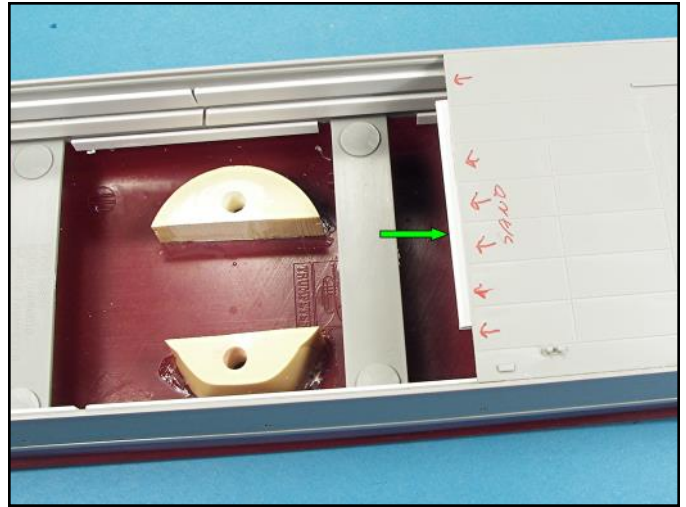
To get them to sit flush with the lip of the upper hull, scrape off layers of plastic along the underside edges at an angle. Each section should be form fitted into place. Scrape some plastic, check the fit and scrape some more.



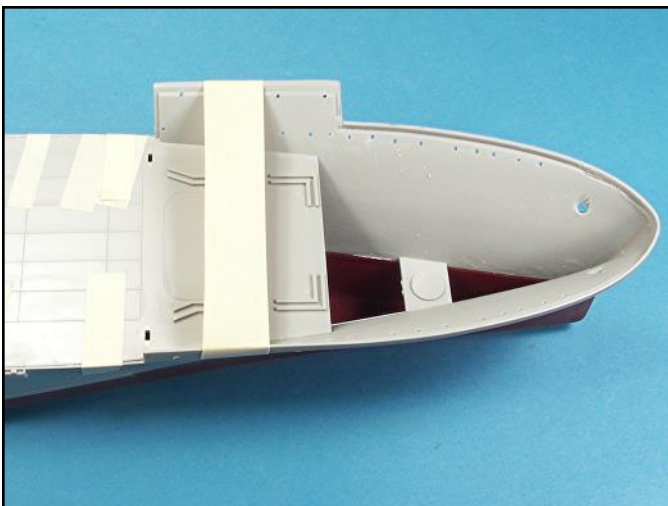
The edges of the deck sections also needed some sanding and scraped flat to get them to tightly butt up against one another, thereby minimizing seam work.



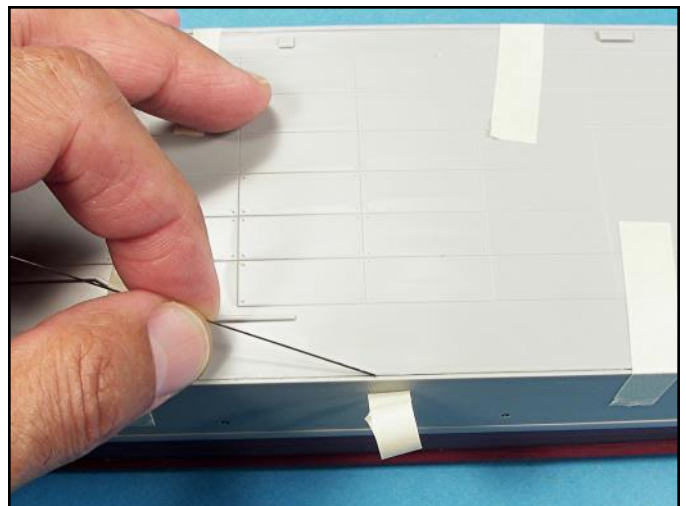
The fit check for the forward superstructure indicated that parts needed to be tweaked so that they would fit together correctly. Some plastic was scraped off to get the parts to stand up straight and level.



To make the hanger deck seams stronger add strips of plastic to the underside of each seam.



To get the forward hull area to fit snugly around the forward deck, use tape to close the gaps between the edges of the deck and the hull.



Apply tiny beads of super glue along the seam lines, carefully scrape the super glue flat, and then wet sand the seams smooth with a sanding stick. Be very careful not to distort the edge of the hull.



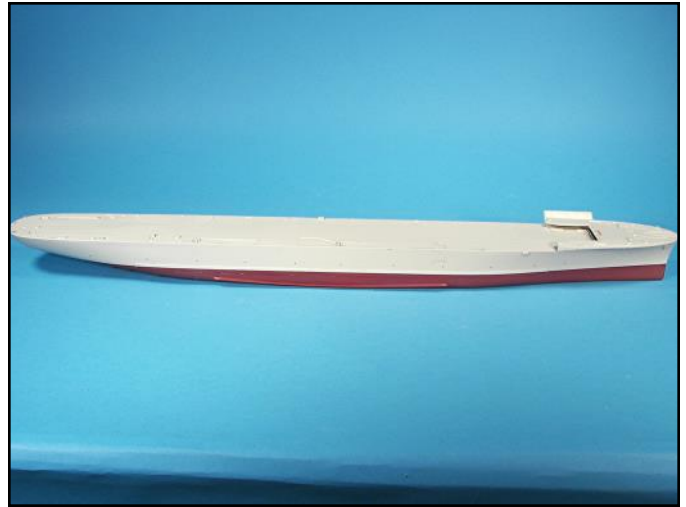
Silver paint applied after the initial scraping and wet sanding highlighted additional areas that need more super glue. The thin wire applicator used to apply the super glue is .015 inches in diameter.



The gluing lips that were added to the underside of the hanged deck made scraping and wet sanding the seam lines much easier due to the added strength of the seam.



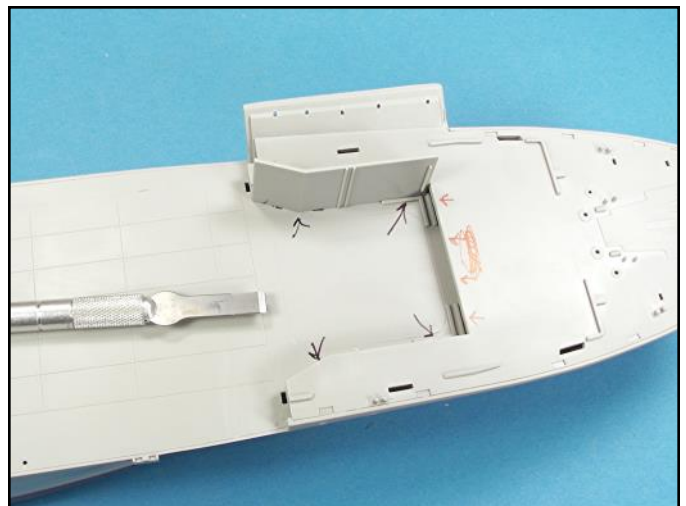
It took several applications of super glue to fill the gaps between the hull and the upper deck. Be careful not to get any super glue into the rectangular indentations.



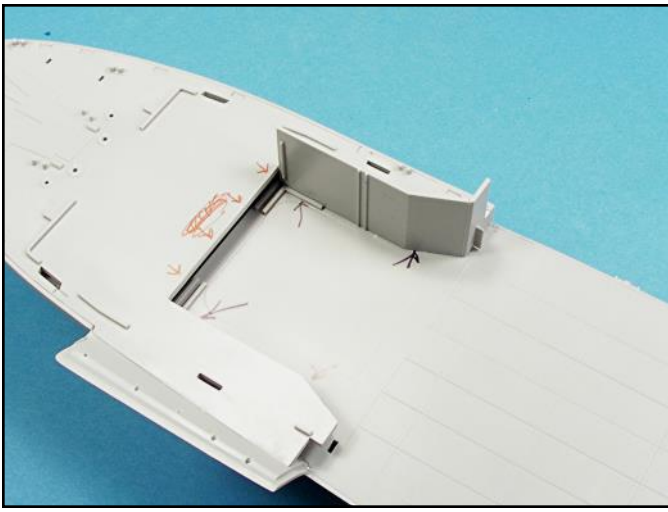
The hull assembly is now complete and it is time to start adding hanger deck superstructure parts.



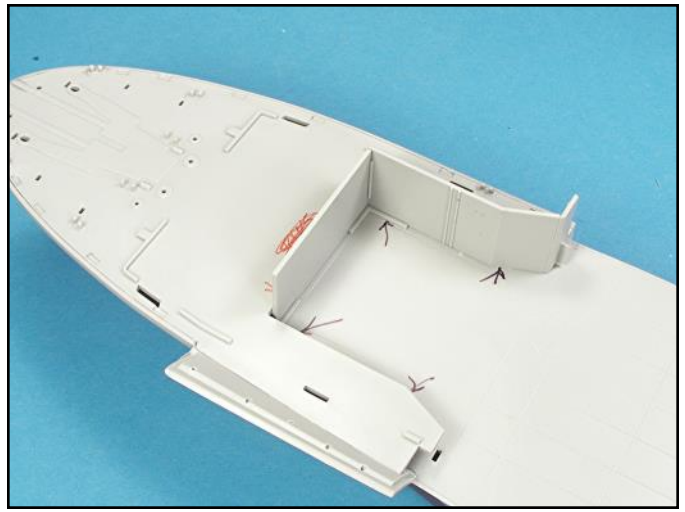
All the hanger deck superstructure parts were cleaned up and taped into place to check their fit. Notes were made on the instructions. Every part had fit issues.



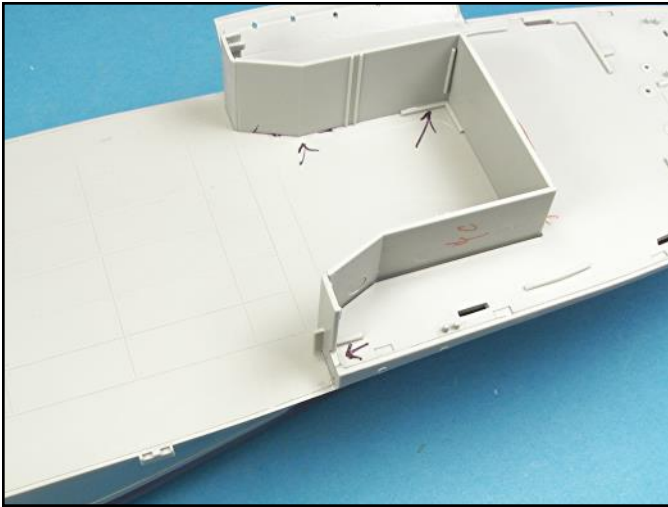
The outer positioning tabs for these parts were removed because the hanger doors will be opened and these ridges could be seen. Note the tight fit of the port side deck to the upper hull area.



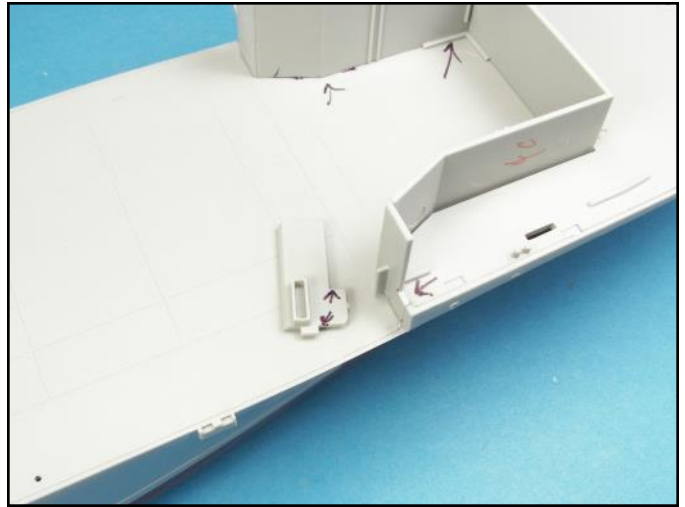
The forward interior bulkheads for the forward elevator were added one at a time, starting with the starboard side.



The forward section was next. Super glue was applied to the outside seam lines and tiny beads were applied along the raised edges of the positioning tabs.



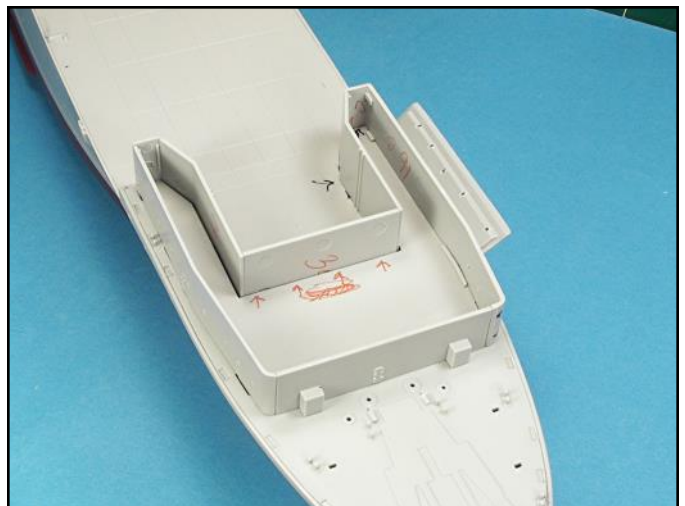
The forward interior area is now complete.



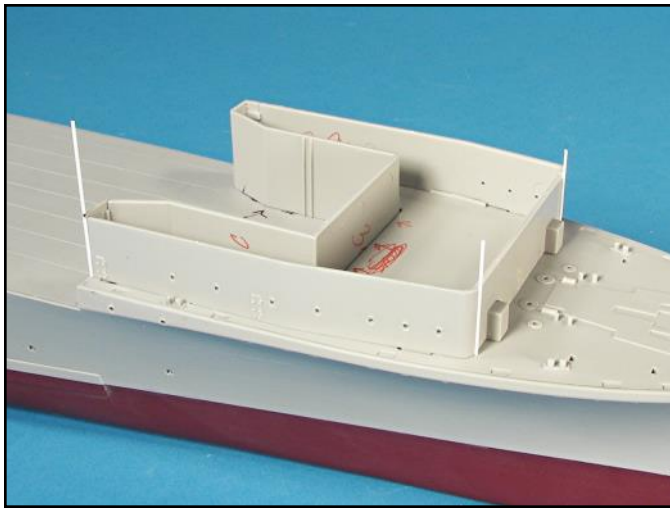
The small outer side parts needed some trim work to get them to fit correctly and tightly.



The outer parts and the superstructure side have been glued into place. Note the gaps at the base of the forward superstructure sides.



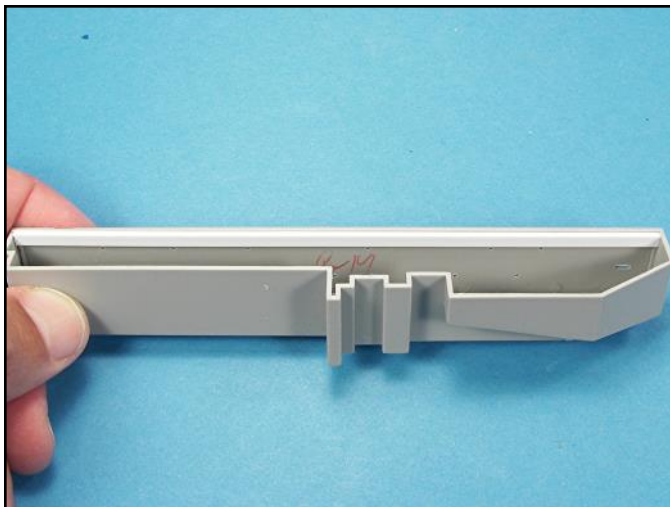
The forward superstructure part needed some trimming to get it to fit tightly and to site flush with the deck.



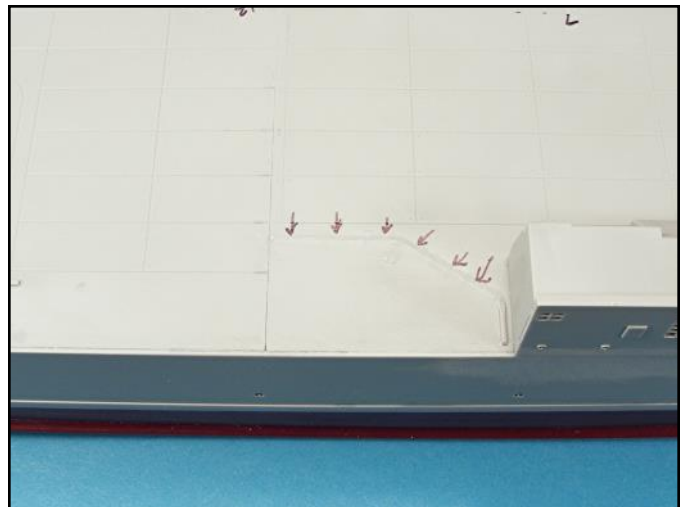
To hide the gaps on the forward superstructure, use .030 inch half round and quarter round. Once the surfaces are painted, they will not be noticeable.



The voids around the base of the forward gun platform were easily filled with Evergreen strips. The tiny voids that remained were filled with super glue. Be sure to super glue all the way around the perimeter of each strip.



This starboard interior superstructure assembly had some flex to it. It was stiffened by laminating a thick section of plastic strip to the inside area.



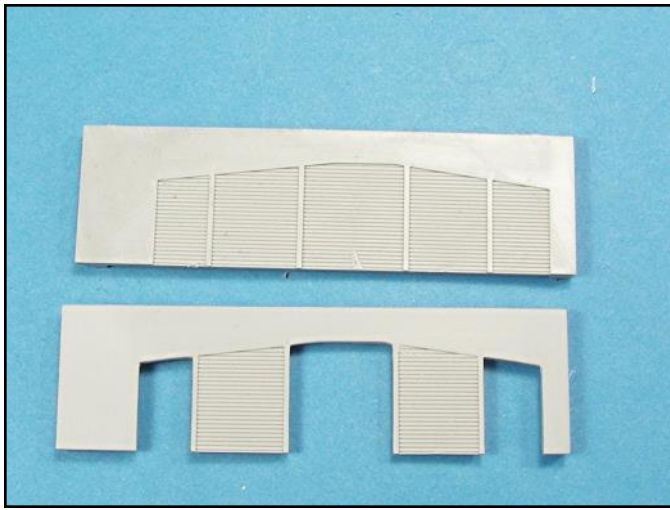
Some of the raised locating rails on the hanger deck need to be removed to get the parts to sit correctly.



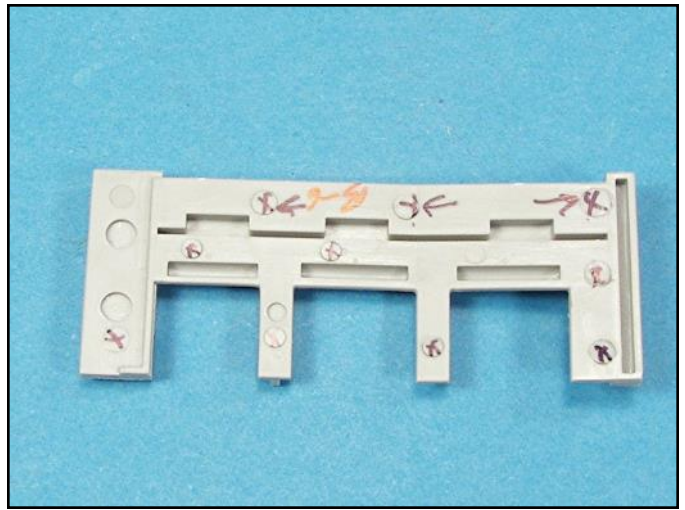
I super glued these two starboard superstructure sections in place first. The remaining superstructure parts were then taped in place and the roller doors that would be cut out were marked.



Drill out the perimeter of each door and be careful not to get too close to the door's frame. Cut out the plastic between the holes and then carefully and slowly file off the remaining plastic.



Careful drilling, cutting and filing ensures straight edges on the framing.



The interior areas of the hanger deck superstructure parts have a lot of raised and indented mold punch out disks. The raised ones need to be scraped smooth.



The starboard side forward roller doors would look like this if the part was not modified.



With some of the roller doors open, the interior area can now be displayed.



The starboard side sections that were attached first are flush with the hull so the seams were filled with super glue and the surface sanded smooth and then polished with 0000 steel wool pads.



After all the roller doors were removed, the superstructure parts were re-taped together to determine if any other doors needed to be removed. With the side elevator roller doors completely removed the part had a slight upward curve to it.



The deck bitts on the aft deck were broken off so they were replaced with plastic rod.



Hanger deck superstructure parts were attached starting at the forward area. Each section was carefully positioned and then beads of super glue were applied along their vertical and horizontal attachment points.



The superstructure sections were added along the starboard side first working towards the aft end of the model.



There were voids between the inner starboard superstructure surfaces and the hanger deck, which were filled with .030 inch quarter round to hide them.



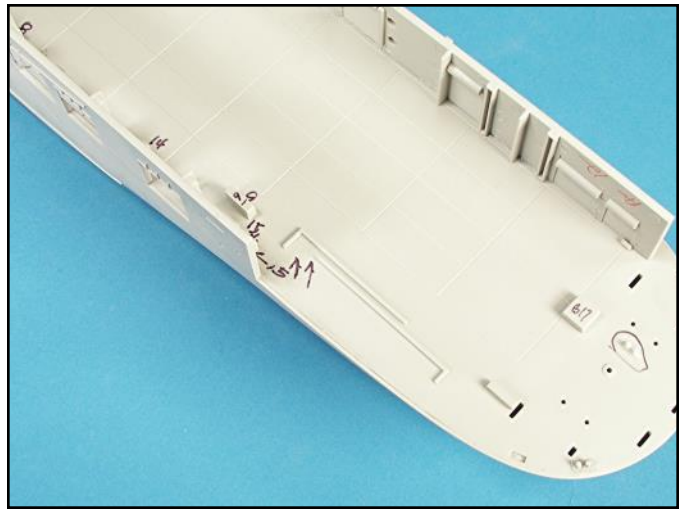
The port side superstructure parts were then added.



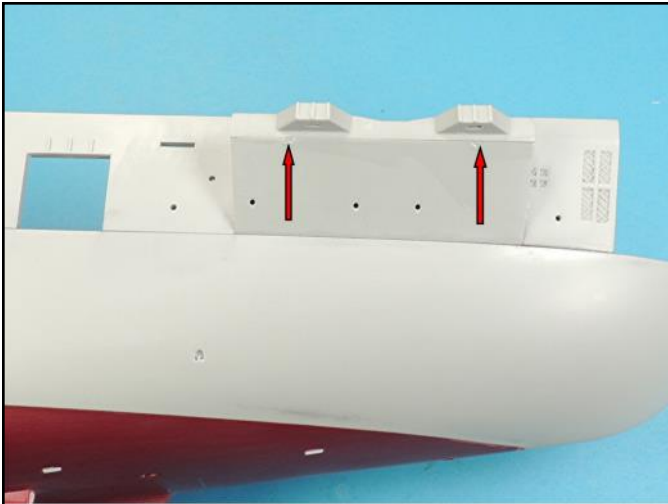
As each section is added, work on the seams. This is a much better approach than waiting until everything was glued into place. That much seam work at one time can be overwhelming.



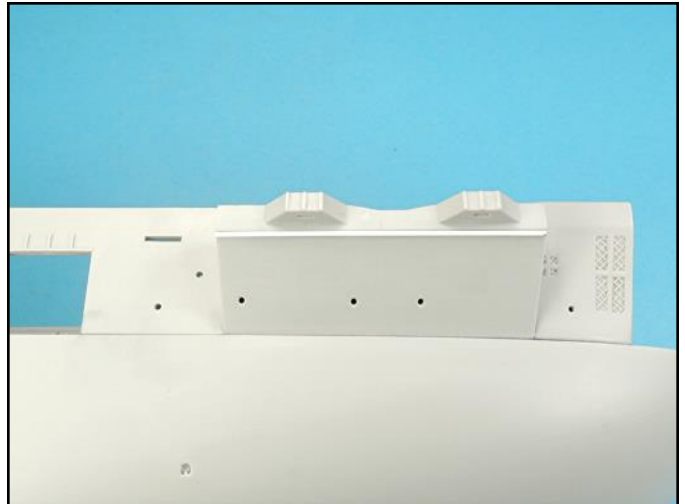
The fit check of all the hanger deck superstructure parts indicated that there were some fit issues at the aft end. Gluing all the other parts in place first helped determine what remaining aft end parts needed to be modified.



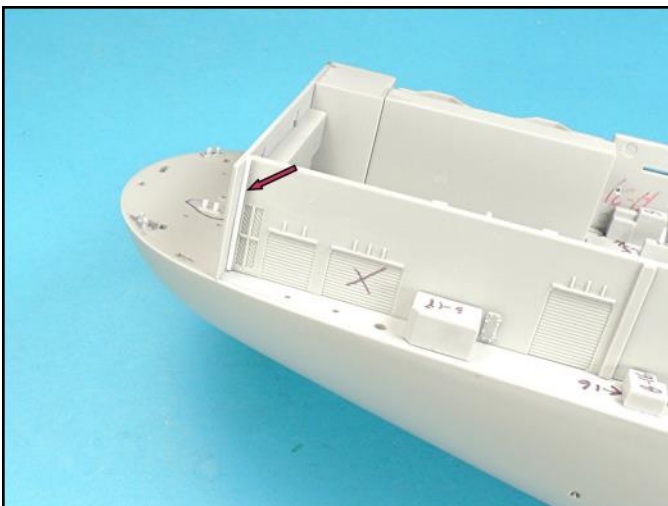
Some of the positioning tabs needed to be removed to get the part to sit flush against the hull.



The indentations on this part would have been very difficult to fix without distorting the edge. Note that the superstructure part now sits flush against the hull. The very aft seam line will need some scraping and sanding.



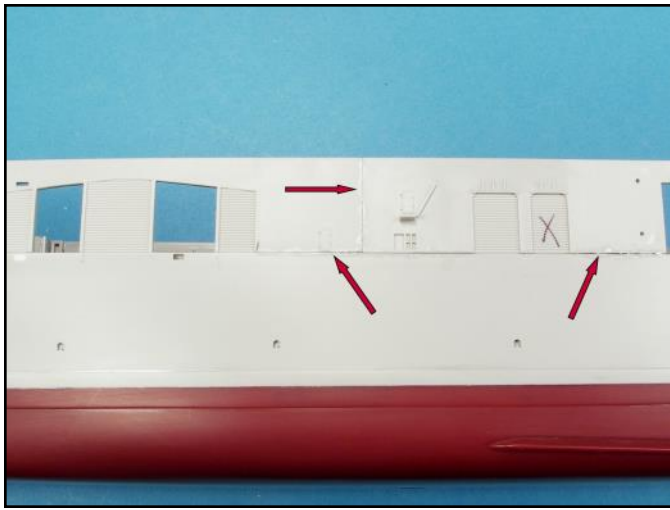
The easy fix was to hide the voids with a length of .030 inch half round



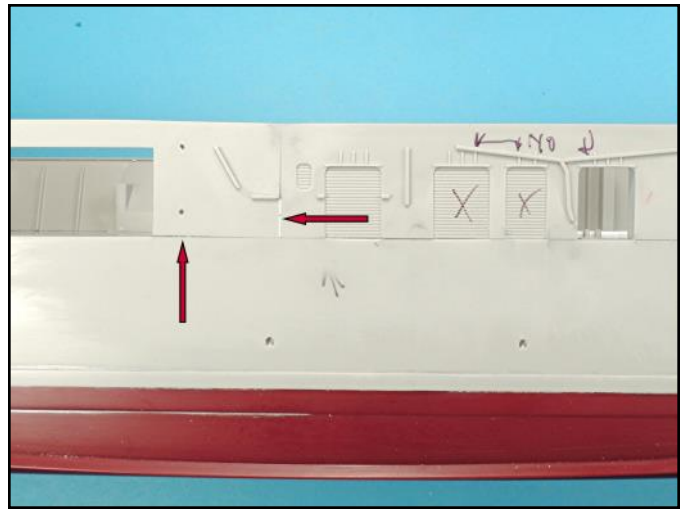
The gap along the aft and port side bulkheads was hidden with a length of .030 inch quarter round.



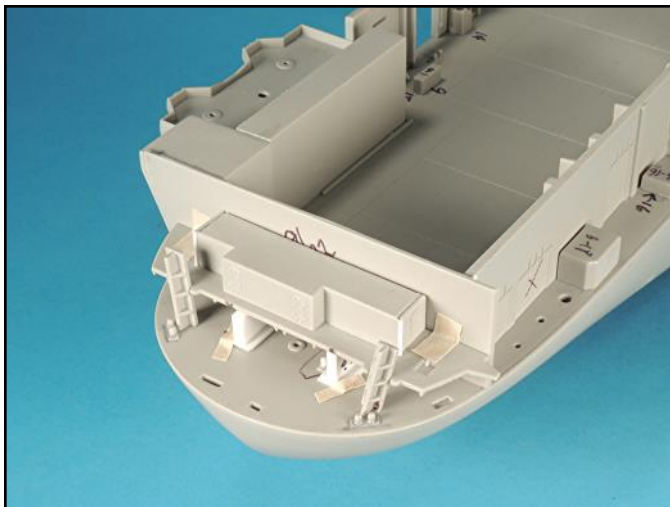
The inner corner at this location would have been impossible to fill and sand smooth. Careful cutting and form fitting of .030 inch quarter round fixed the problem.



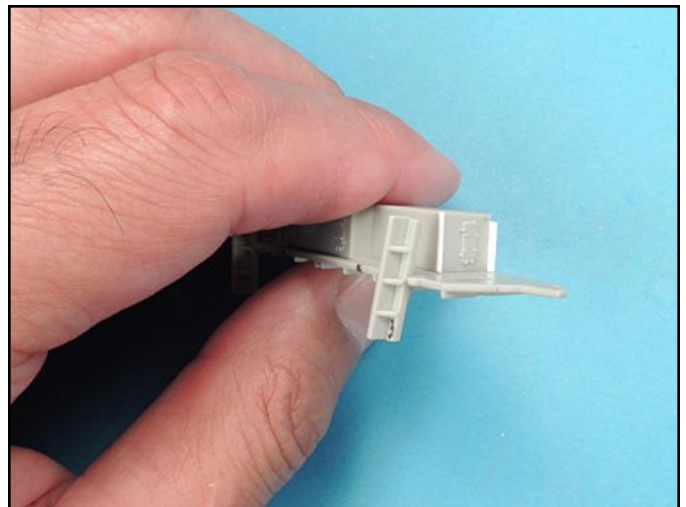
The slight gaps between the superstructure parts and the hull were filled with super glue. These areas were carefully wet sanded smooth and rechecked with silver paint.



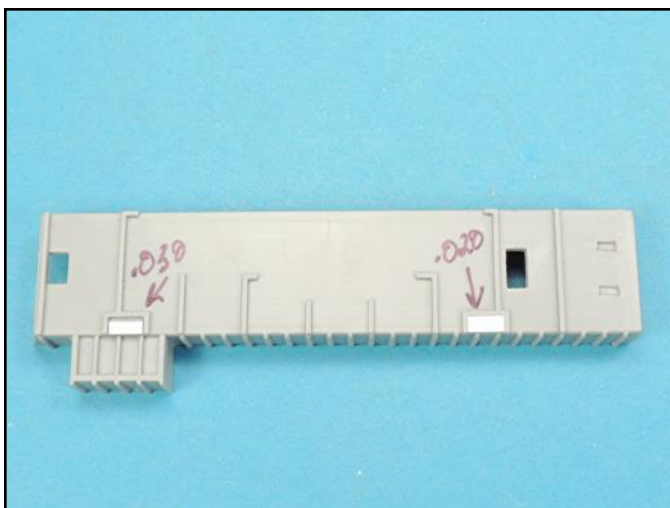
The upward bow of the elevator door opening resulted in a gap between the parts as well as with the hull. The bow at the top of the elevator door opening was lightly sanded level with a sanding stick.



The stern superstructure was assembled and taped together. Shims were made to set the correct height and the parts were re-taped together. The support girders were glued to the upper deck to make one sub-assembly.



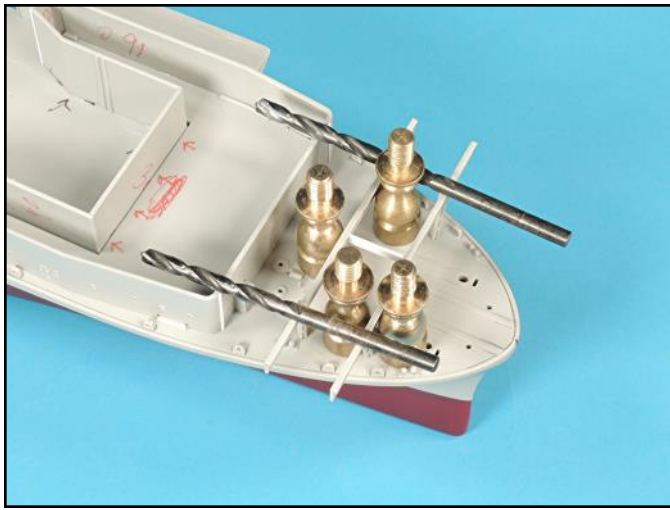
Tiny lengths of quarter and half round strips were glued into place to hide seams that would be very hard to fix.



The stern sub-assembly was then re-taped into place again and the upper superstructure part checked. Shims needed to be added to the girder locations on the underside to fill the voids.



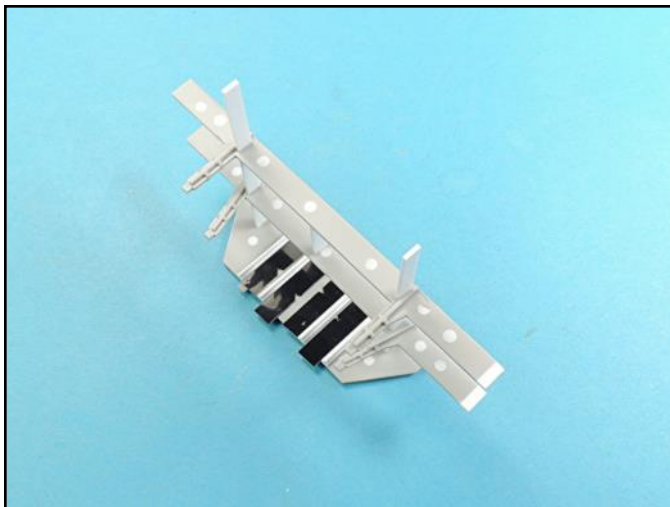
The girder framing for the forward flight deck overhang had mold punch out indentations that needed to be filled and then wet sanded smooth. The disks were made with a Waldron Punch Tool.



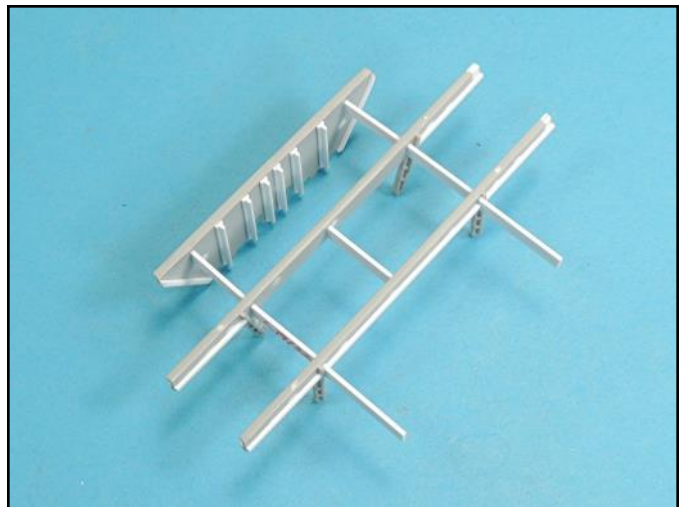
The forward flight deck girder assembly was set in place and then a cross section between the kit supplied frames was form fitted and then super glued into place.



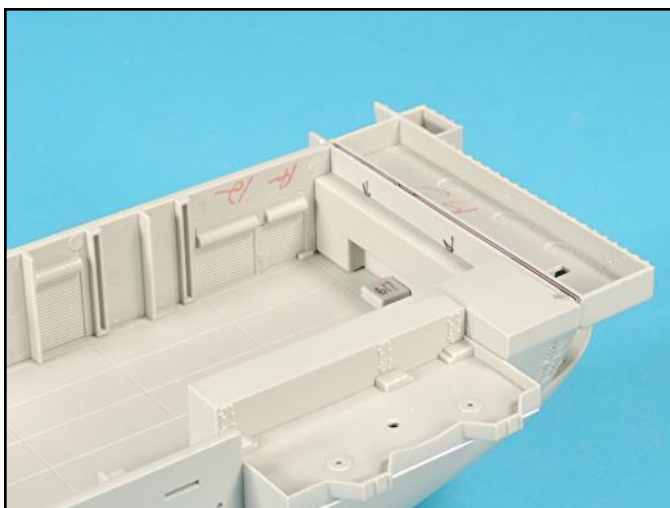
The forward sea shield was set in place and then additional cross framing was added. This additional underside framing can be clearly seen in reference photos. This also made the assembly very sturdy.



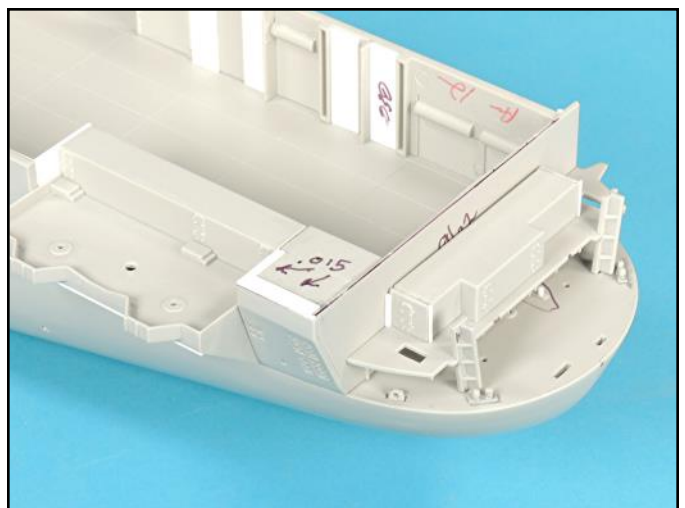
Additional "T" shaped strips were added to the backside of the sea shield. Labeling tape was used to keep the strips evenly spaced and straight. Note the additional plastic added to the starboard side kit framing.



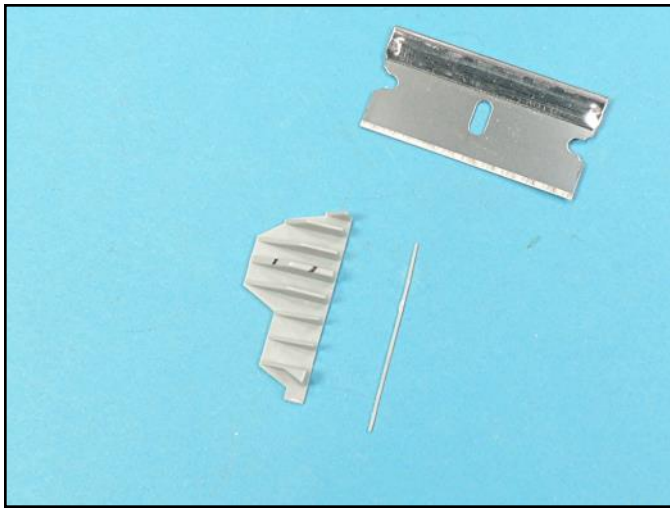
The additional framing and girders added to each part improved the accuracy of the surface detail.



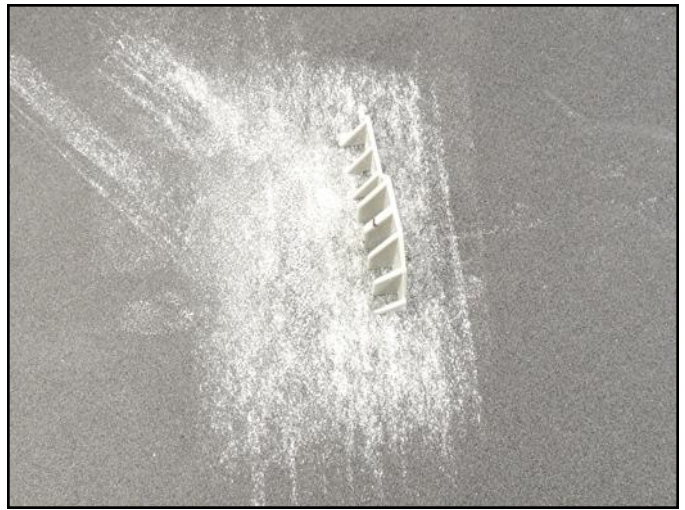
The upper stern superstructure was sitting too high. The part was marked, then carefully sanded down, checking and rechecking progress until the part was sitting level and flush.



Sections of plastic strip were glued to the inside bulkheads of the hanger deck to hide the marred surfaces. The flight deck was fit checked and shims were added to the tops of the superstructure where voids were noted.



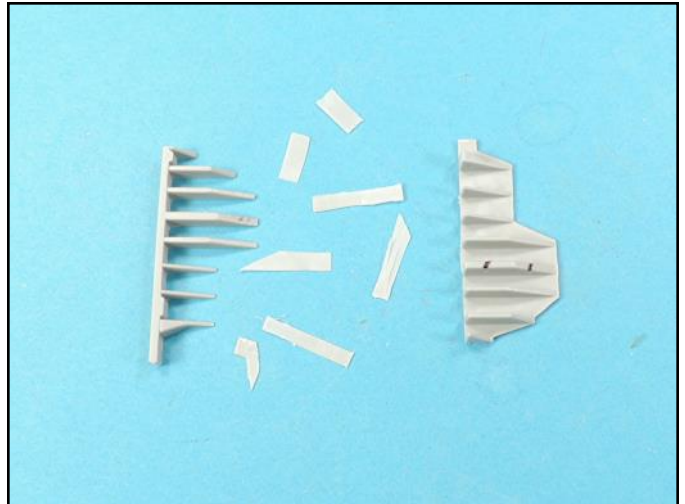
The backing for the elevator framing was really the pour plug for the original Toms Model Works resin part. Unfortunately, Trumpeter didn't realize this. To fix this first remove the excess plastic from the front.



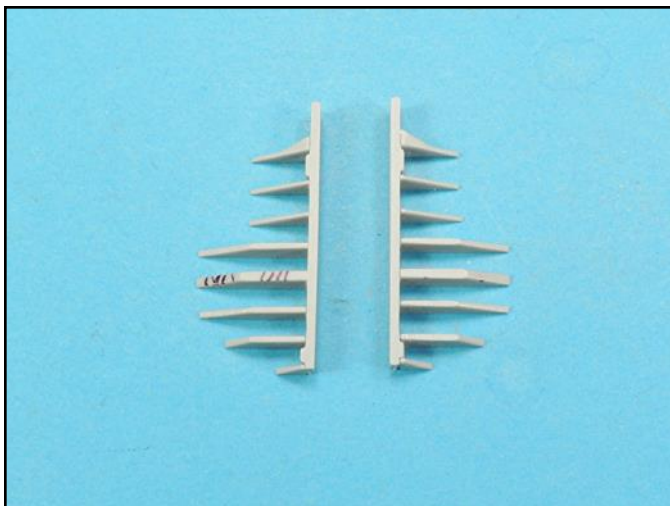
Then carefully flatten the edge of the part so the frame edges are flush and straight.



Glue the elevator guide to the framing so that all the framing is glued to the guide. Then run the part across wet sand paper in a circular or figure eight motion until the backing is paper thin.



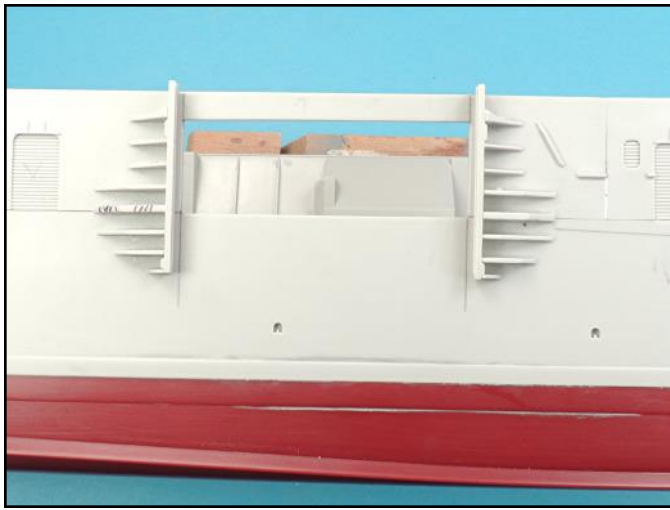
With the backing paper thin, it can easily be cut out and the framing edges cleaned up with the tip of a number 11 X-Acto blade.



This framing looks a lot better and will be accurate in appearance once it is glued into place. Be sure to mark the left and right halves



The flight deck and elevator were taped in place so the framing could be properly positioned. Tiny drops of super glue were applied to set the framing in place. The elevator needed some trimming to get a good fit into the flight deck.



Additional beads of super glue were applied along each horizontal frame. The pencil lines give you a visual reference for ensuring that both frames are the same distance from the hanger door opening and also vertically straight.



The flight deck test fit indicated that there were some fit issues that needed to be addressed to get the deck to sit flat on the hanger deck superstructure.



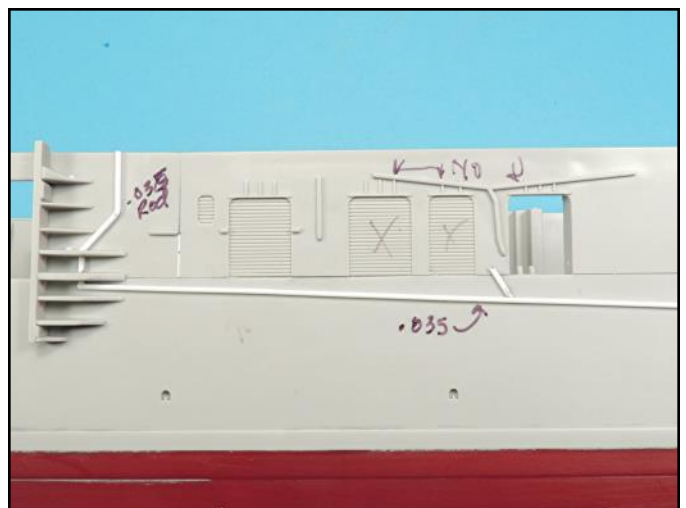
The undersides of the gun tubs had a lot of mold punch out indentations that would be hard to fix. Hide them with lengths of Evergreen plastic strips form fitted into place.



A Northwest Shortline chopper was perfect for duplicating lengths of plastic strip.



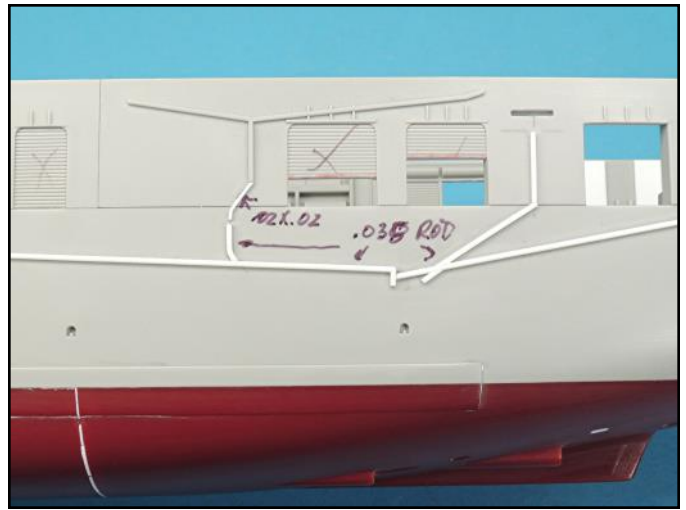
There was a lot of exterior hull piping detail that was missing from the kit. Using the ship's drawings, pencil lines were drawn for all the external piping locations on the hull. Labeling tape was used to set the piping lengths straight.



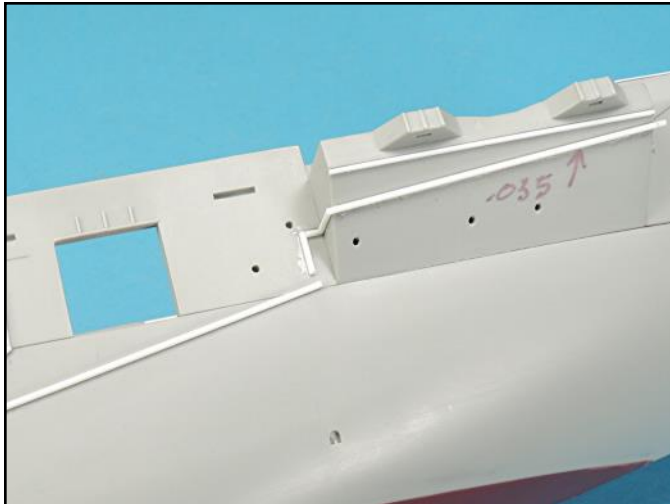
Tiny beads of super glue were applied with a thin wire applicator along the entire length of each rod. Excess glue was gently scraped off with the tip of a number 11 X-Acto blade held at approximately a 45 degree angle.



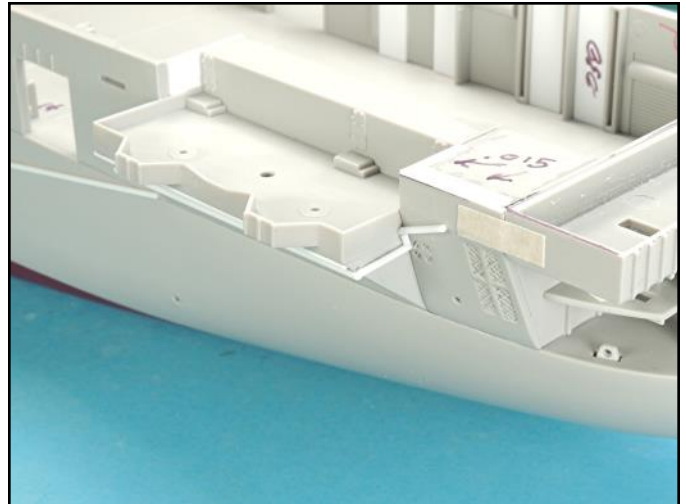
Labeling tape was also used for short lengths of piping to ensure that they were straight.



The added angled piping was carefully cut and form fitted into place.



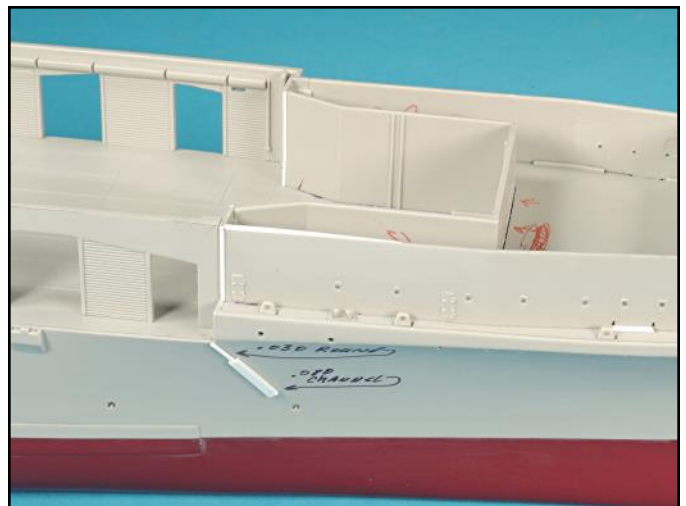
The piping around the aft gun platform was cut and form fitted into place. Note the excess super glue that will be scraped off and then the surface lightly sanded with the tip of a wet sanding stick



Snaking the small lengths rod around the raised areas and edges took several cutting and form fitting attempts to get it correct.



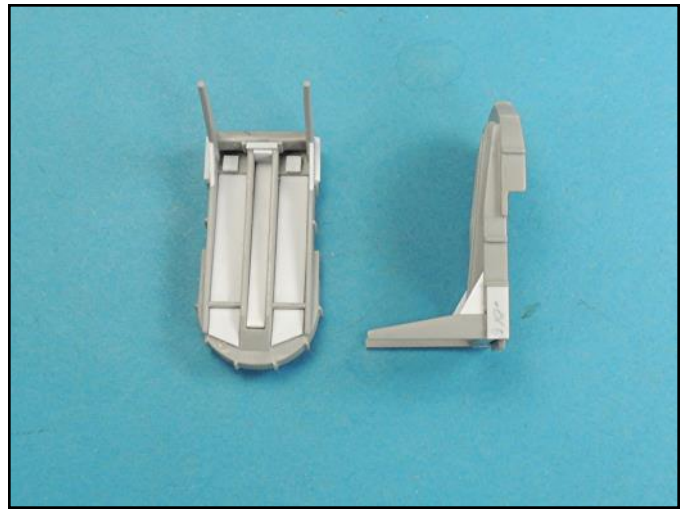
All the piping detail added to the port side will make the finished model a more accurate representation of an Essex Class Carrier



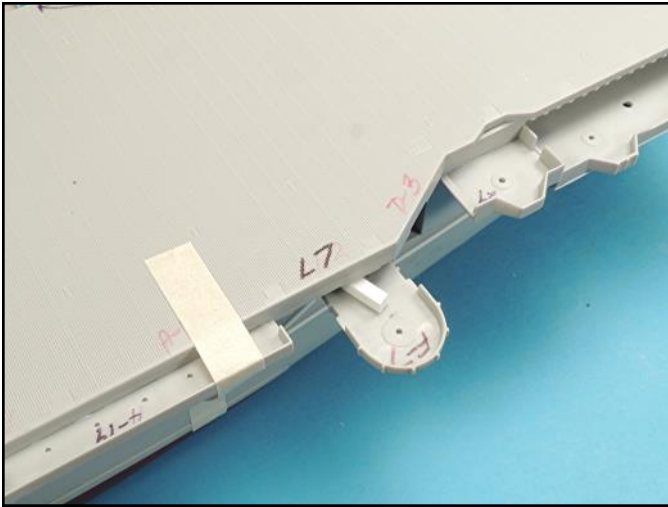
The forward fuel discharge vent on the hull was made from .030 inch rod and a small length of an Evergreen .080 inch channel shape.



The forward superstructure needed some plastic strips added to fill the voids between the upper edges and the underside of the flight deck.



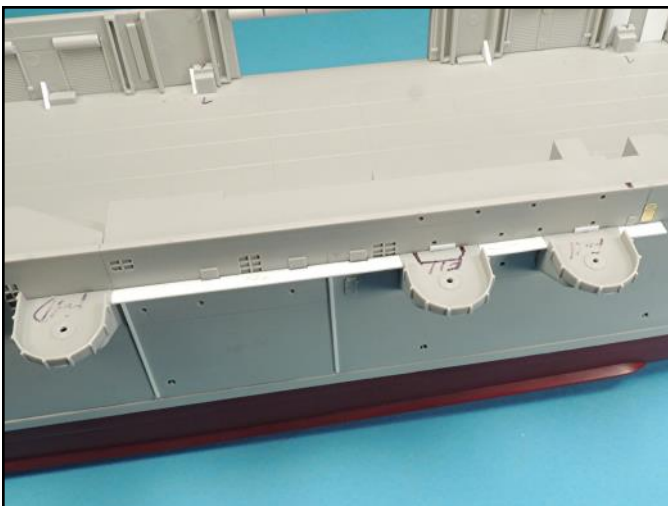
The two port side gun tubs that extend far out from the hanger deck superstructure needed a lot of work to hide the seams and the mold indentations. The inaccurate horizontal strips between the support legs were also removed.



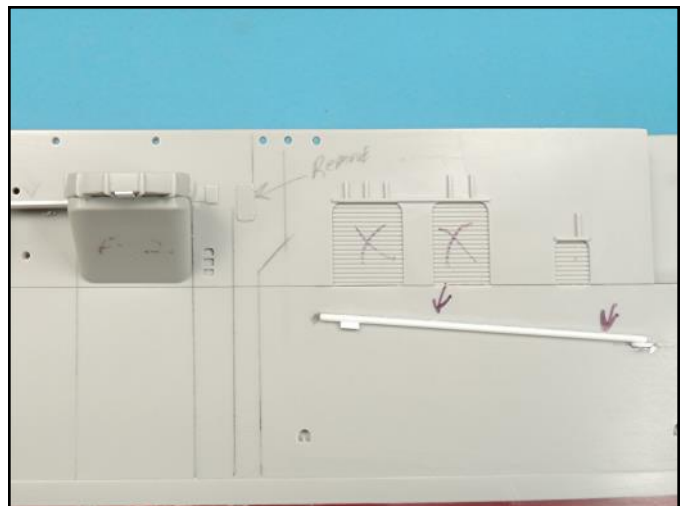
To set the gun tubs correctly, use a shim to position the parts into place. Then add tiny beads of super glue to the support legs, recheck the positioning and then finish gluing the two gun tubes in place.



With so many parts glued into place and so many added details, the finished model will have a very busy appearance.



The kit's catwalk parts on the starboard side did not fit correctly so new ones were made from .02 x .125 inch plastic strip. A molded on hatch was removed and replaced with a photoetch one due to interference with a catwalk.



The boat booms were made from .035 inch rod.



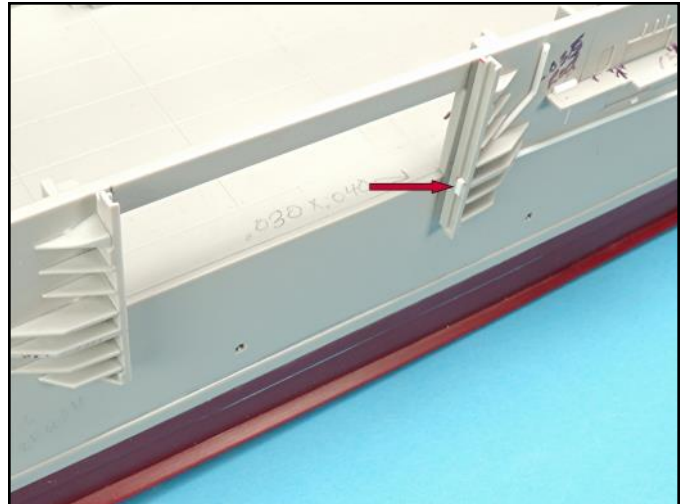
Reference documentation showed drain lines on the starboard side. These were added with .030 inch rod.



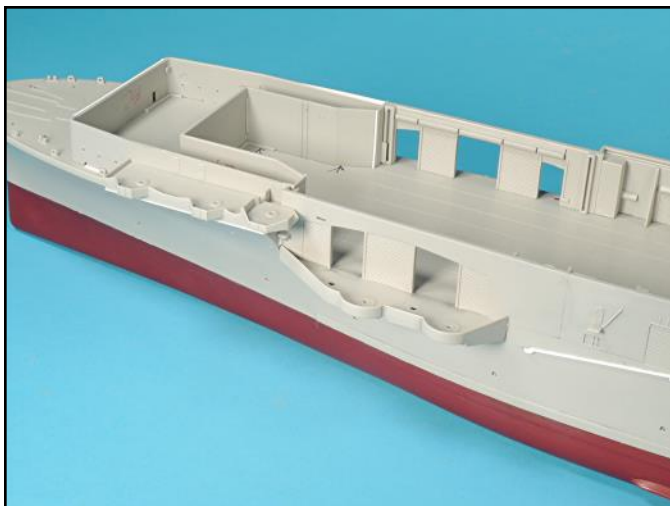
Additional fuel drain lines were also added to the aft starboard side of the hull. Note the small angle supports that were added to the inside areas of the superstructure sides to add strength.



Note all the small plastic sections that have been added to the inside areas of the superstructure sides to hide punch out indentations.



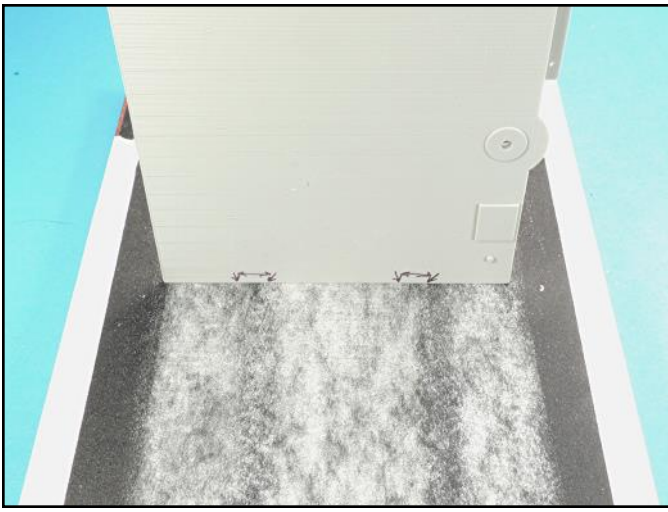
To set the elevator in its correct position on the tracks, tiny lengths of plastic strip were added to the insides of the tracks.



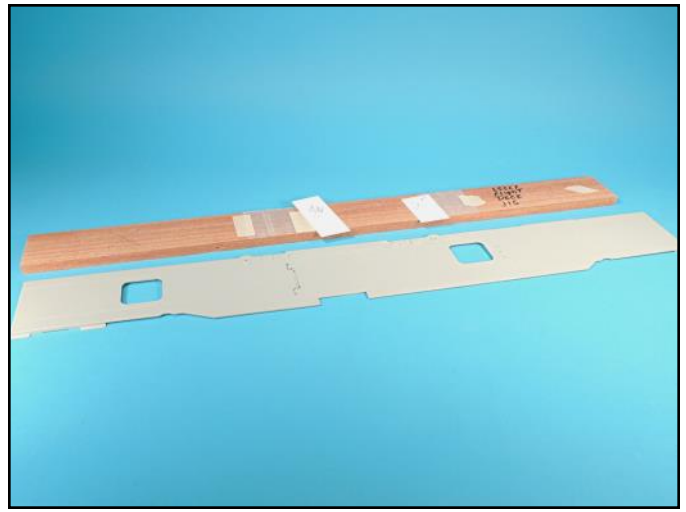
The forward gun deck area was glued into place. The strips of plastic added to the gluing surfaces helped set the part into place on the curved area of the hull. The remaining voids will be filled with Elmers glue after priming the surface.



The flight deck sections had indentations and bumps along their gluing edges. This needed to be fixed if the deck sections were going to be glued tightly together to minimize any scraping and sanding along the seam lines.



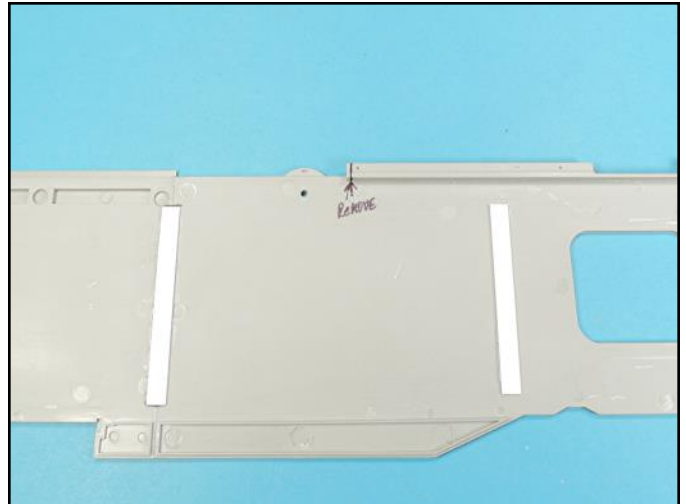
The tabs were cut off on each deck section and then the gluing edges were carefully flattened. Be sure to hold the deck sections at a 90 degree angle when wet sanding them.



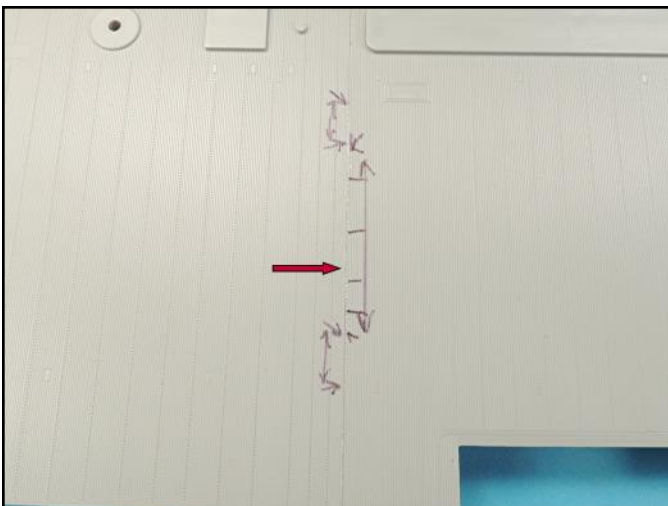
A wood jig was made so that the deck would have a flat surface to sit on as the sections were glued into place. Wax paper was also taped to the wood surface to prevent gluing the plastic to the wood.



The flight deck got numerous fit checks and tweaks to get it to fit correctly. The underside needed to be smoothed out in many locations to get the deck to sit flat on the top edges of the hanger deck superstructure.



Reinforcing strips were added to each seam and sections along the length of the flight deck so it would sit flat on the wood jig. To get the deck to sit correctly on the hanger deck sides, a small section needed to be removed (see notation).



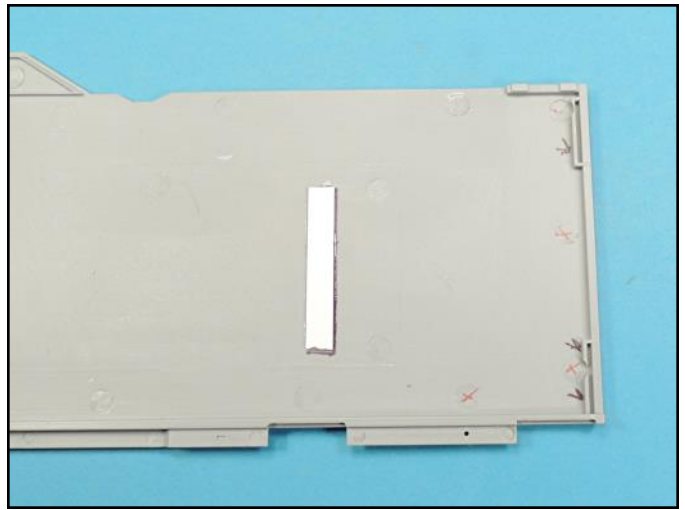
Tiny beads of super glue were applied along the seam line on the surface of the flight deck using a .015 inch diameter stiff wire. There was a slight depression at the center of the forward flight deck seam area.



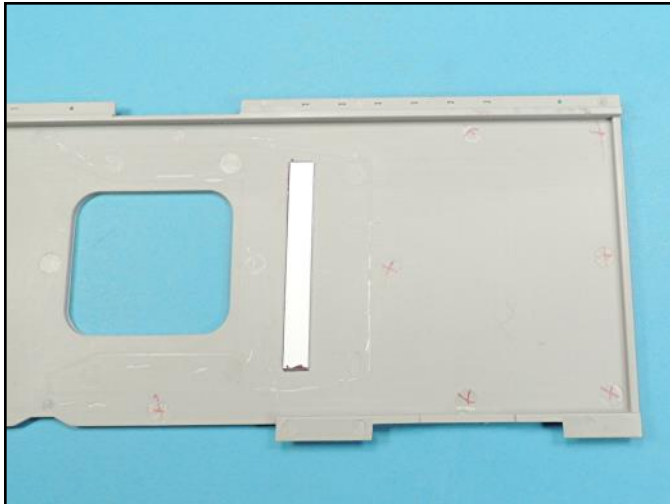
The seam line on the aft flight deck was a very tight fit.



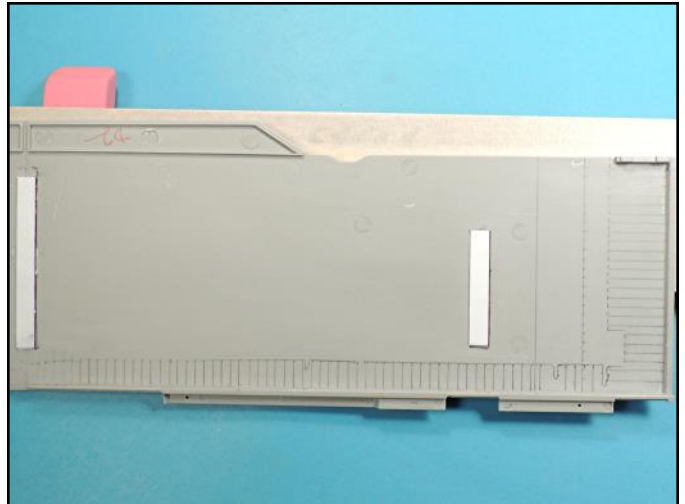
The seams were carefully scraped and checked with silver paint. Very light scraping with the tip of a number 11 X-Acto blade and light wet sanding retained almost all of the surface detail.



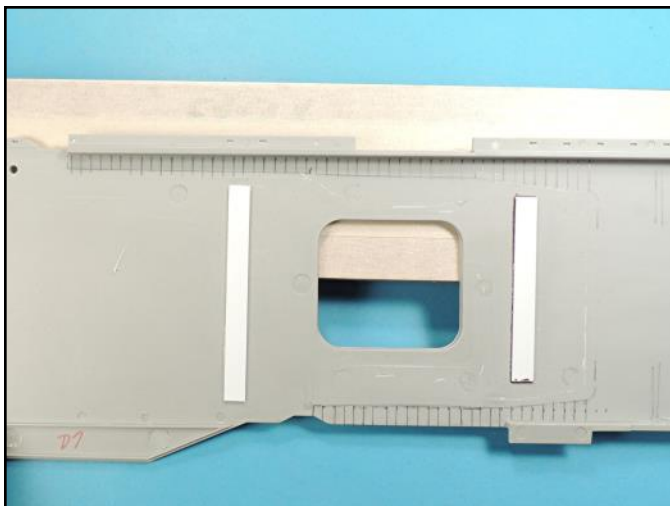
The underside of the aft flight deck area had large mold punch outs that needed to be sanded out.



There were also mold disks on the underside of the forward flight deck area that needed to be smoothed out.



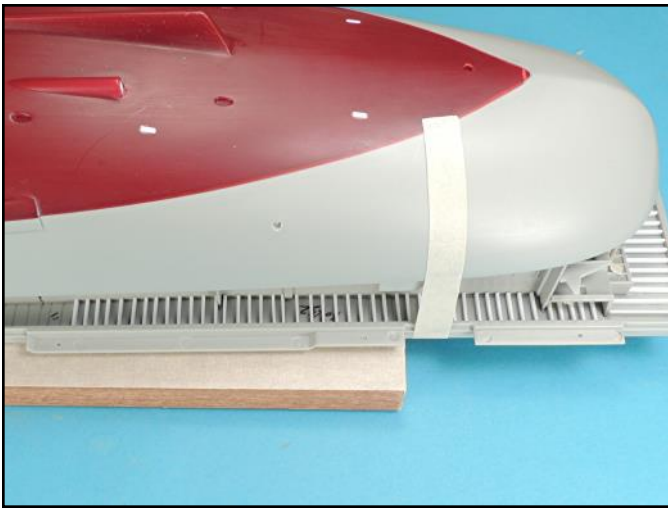
The edges of aft the hanger deck superstructure were traced onto the underside of the deck and girder locations were carefully measured and drawn.



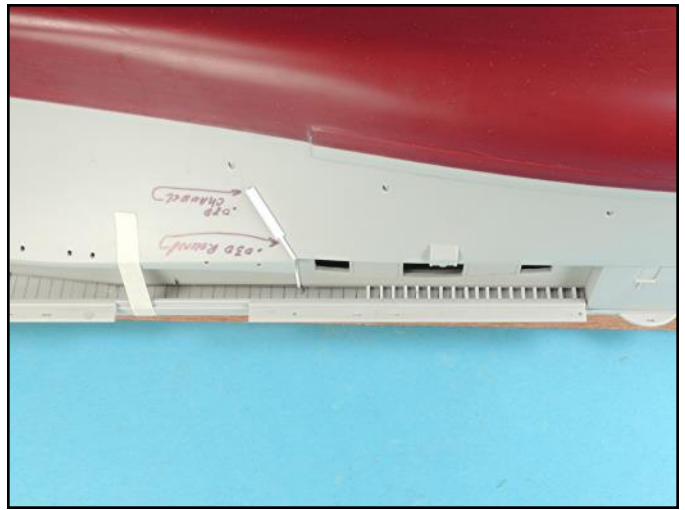
Girder detail was also added along the undersides of all the port and starboard flight deck overhang locations.



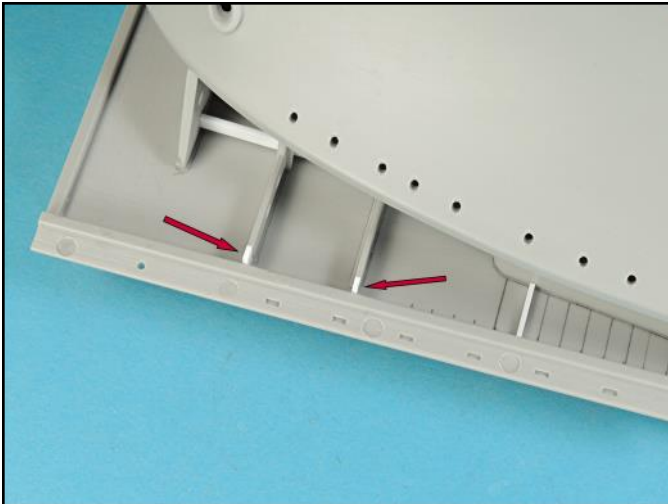
Lengths of .03 x .06 strips were measured and cut using a chopper. Each length got a tiny drop of super glue and then each one was positioned in place along a pencil line.



It is easier to start at one end so set the first girder in place and then work your way down the underside of the flight deck.



The pencil line that was traced from the top of the superstructure onto the underside of the flight deck needs to be very accurate so carefully position and tape the flight deck tightly to the hanged deck and use a sharp pencil.



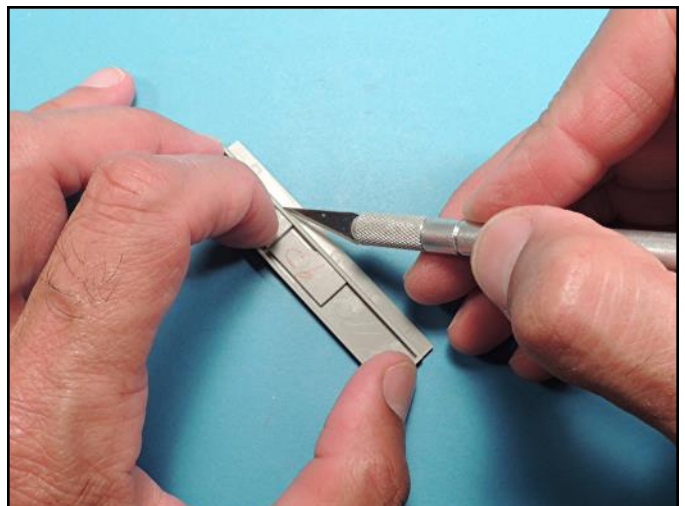
There was no girder support detail under the flight deck overhang at the bow, so lines were drawn for the locations. Note how the added extensions to the overhang framing now meet with the inner edge of the flight deck.



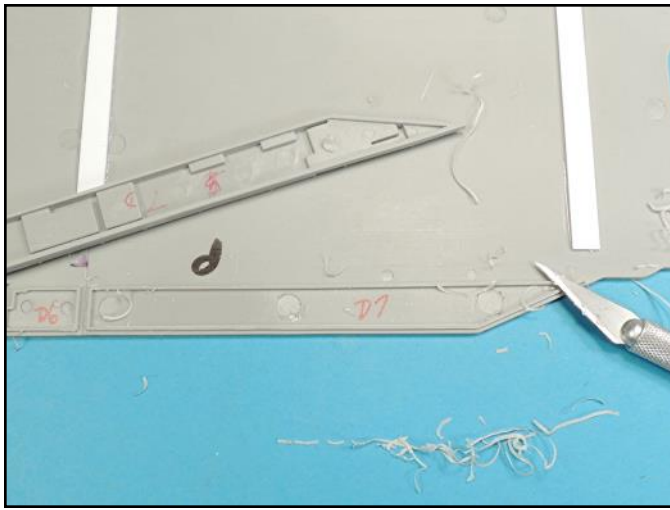
Labeling tape was used to set the locations of the girders on the undersides of the flight deck where the 5⁷/₃₈ gun galleries are located.



Be sure that you do not glue the girder detail to the edge of the labeling tape.



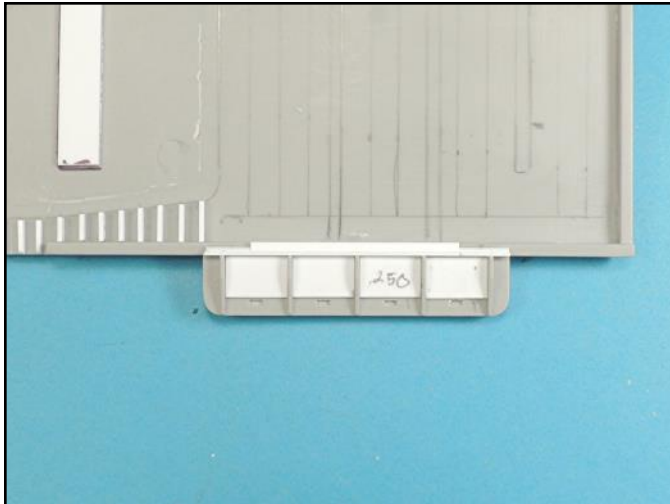
The catwalks attached to the edges of the flight deck and to the underside detail parts were cut off using a number 11 X-Acto blade. The edges were then carefully sanded flat with a sanding stick.



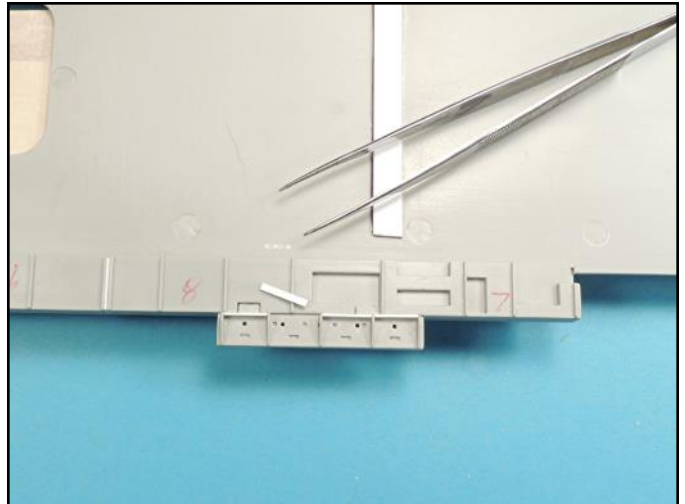
To get the flight deck underside detail parts to fit correctly and tightly, the positioning lips were scraped off.



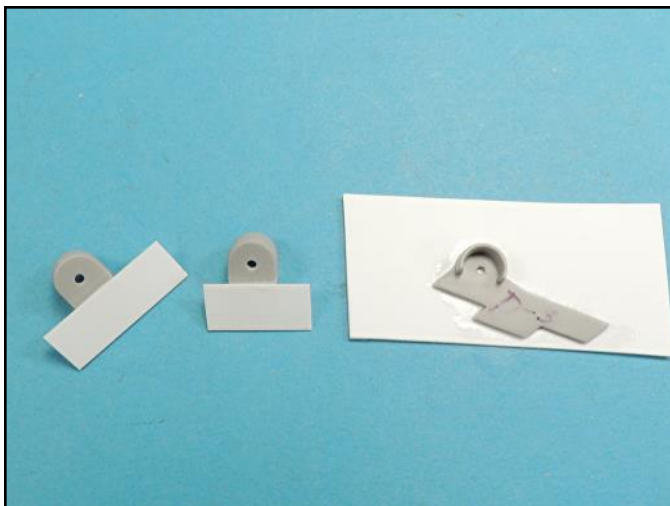
This edge was slightly distorted by sanding and it would not have been noticed except for the silver paint highlighting this problem.



There were a lot of mold punch out indentations on the undersides of all of the flight deck edge 20mm gun galleries. Hide them by gluing small lengths of .010 and .015 inch thick plastic strips over these areas.



In some locations, thin strips were needed to hide voids, as well as the surface indentations.



These parts had mold punch out disks on their undersides. The parts were too thin to scrape flat so the solution was to laminate .015 inch thick plastic to the undersides, trim the edges and then wet sand them smooth.



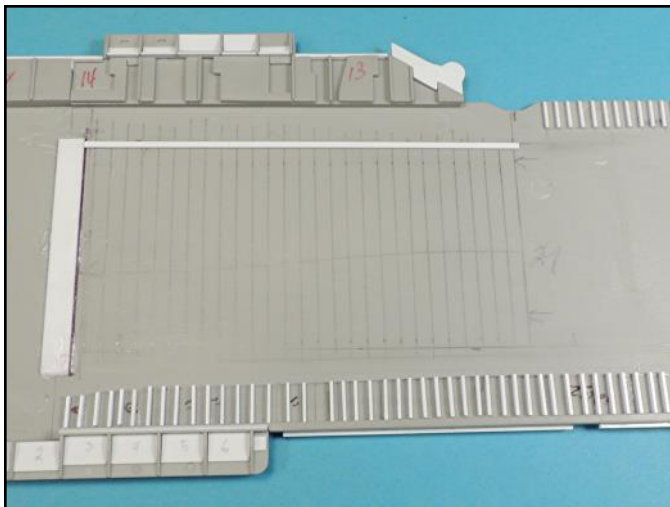
The photoetch catwalks were sturdy once they were folded and glued, but attaching them to the sides of the flight deck was tricky. To fix this problem, add Evergreen .060 inch channels along the edges of the flight deck.



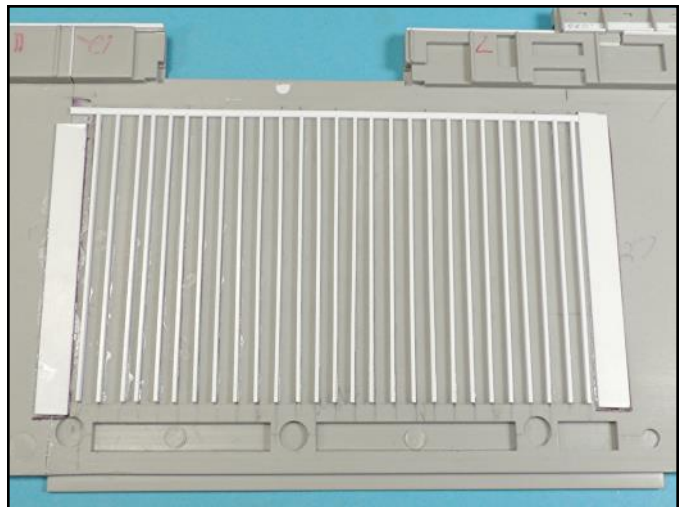
When adding the .060 inch channels, be sure they are straight and level. Mark the catwalk part number locations on the flight deck. Then add the channels along the flight deck sides so you do not attach a channel in the wrong place.



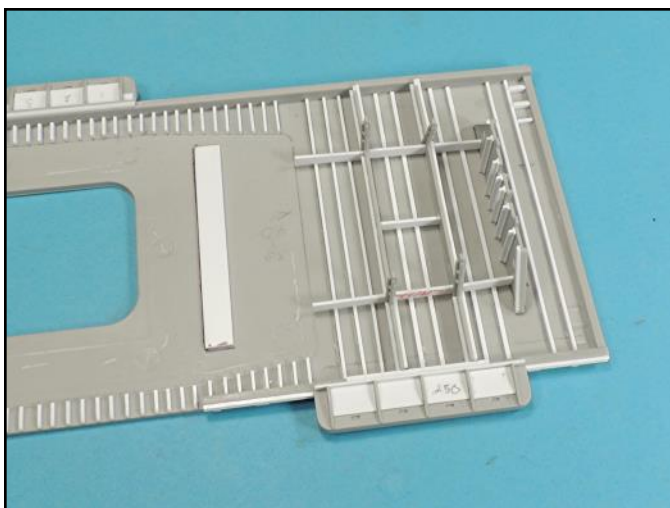
Add .020 x .020 inch strips to the edges of each catwalk length. The thickness of the assembled catwalk plus the .020 inch thickness of the plastic makes for a tight, secure fit inside the .060 inch channels.



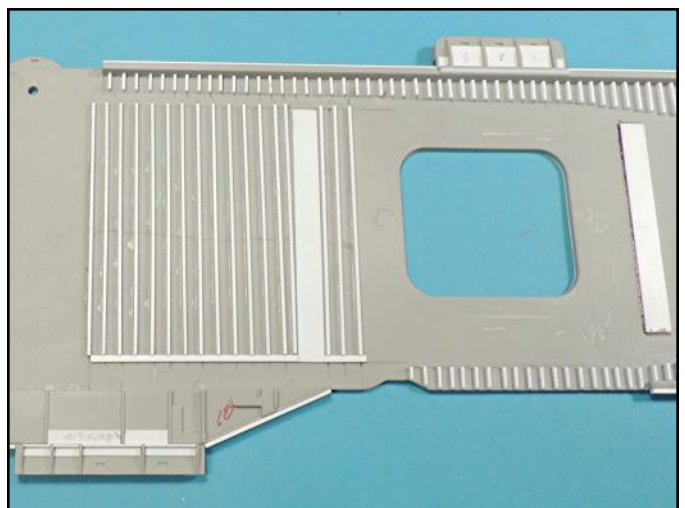
To add girder detail to the underside of the flight deck, draw the framing where the added detail can be seen from the cut out roller doors on the hanger deck superstructure sides.



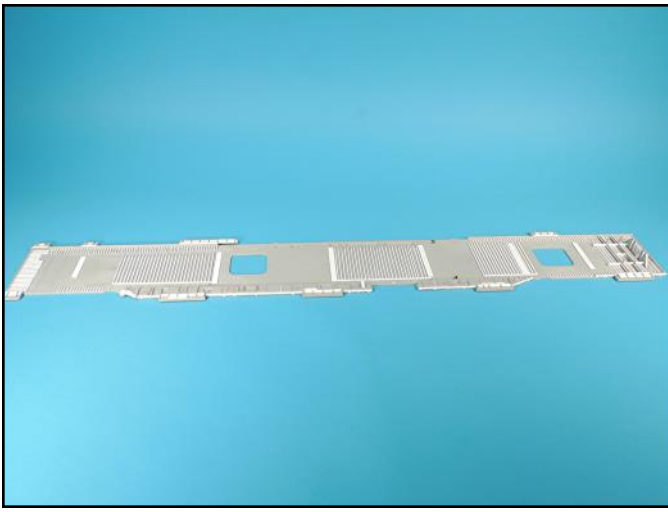
Add tiny drops of super glue to each length, set them in place and then apply beads of super glue with a thin wire applicator along their lengths.



After drawing the girder detail for the bow overhang, the main girder assembly was glued into place and the smaller framing added to the underside of the flight deck.



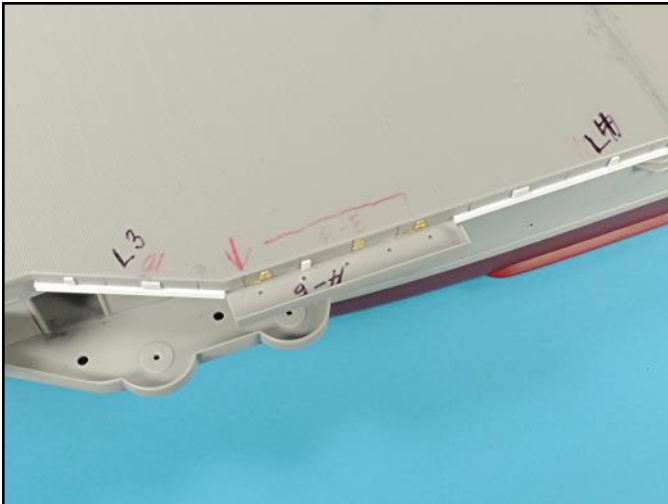
More girder detail was added to the flight deck underside in other areas where the detail might be seen due to the open roller doors.



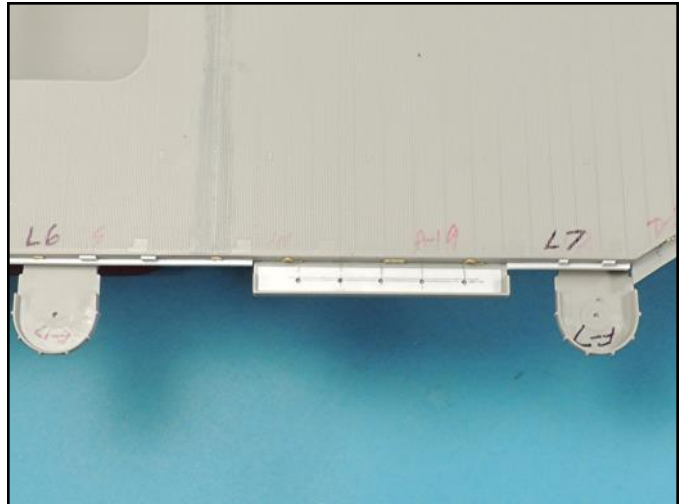
Detailing the underside of the flight deck is now complete.



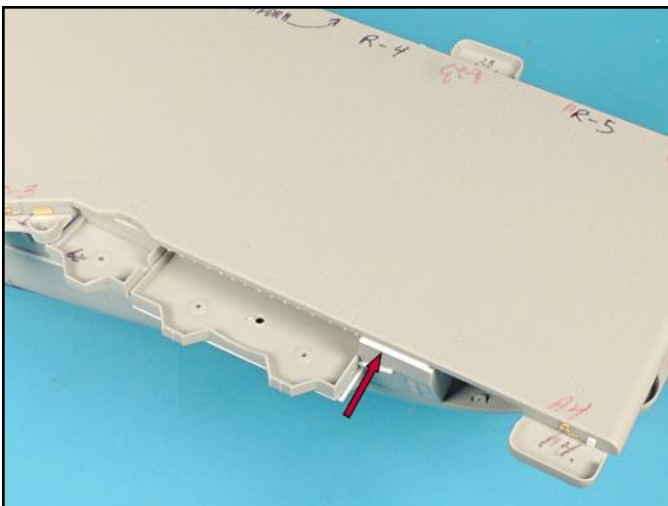
The sides of the flight deck had no detail. GMM photoetch hatches & fire hoses were added along with box and rectangular shapes made from Evergreen plastic strips cut with a Northwest Shortline chopper.



The 20mm locating holes on some of the gun galleries were too close to the edge of the flight deck. This needed to be fixed, otherwise the 20mm guns would not sit correctly



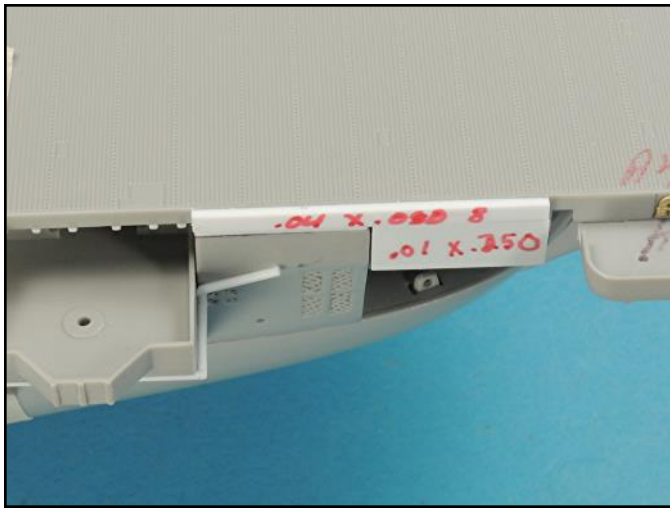
Lengths of .015 inch thick sheet were measured and cut to the correct lengths. Then the locations of the 20mm guns were marked and indented. The new decking was laminated to the surface and the gun locations carefully drilled out.



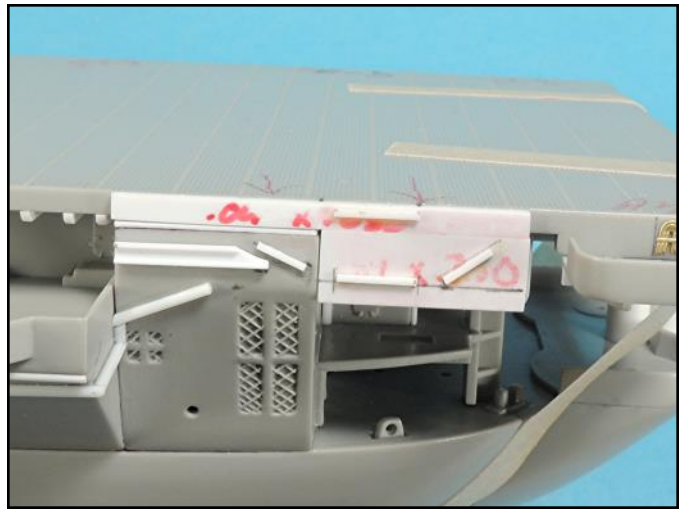
The aft superstructure on the port side extends out a bit from the edge of the flight deck. What is showing are the shims that were added to level the flight deck.



The forward vertical starboard side of the flight deck now has a lot of extra detail added.



Sections of plastic strip were carefully form fitted into place to hide the exposed shims and the disparity between the superstructure and the edge of the flight deck. The LSO platform also need a flat surface to attach too.



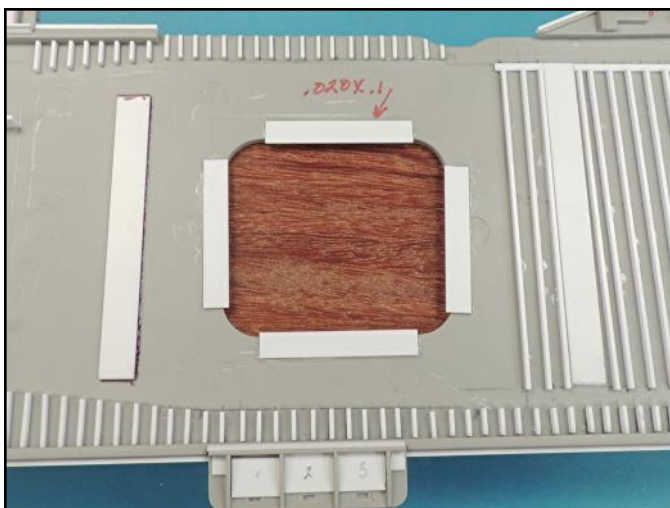
Once the LSO platform was bent into shape, the bottom edges were marked and then tiny strips of plastic were added to serve as positioning tabs. The strips also increased the gluing surface for a stronger surface bond.



Constant fit checks were done to ensure everything lined up correctly. The starboard side detail was also given one last check.



All the port side detail will really enhance the appearance of the model once everything is painted and all the guns and fittings are added.



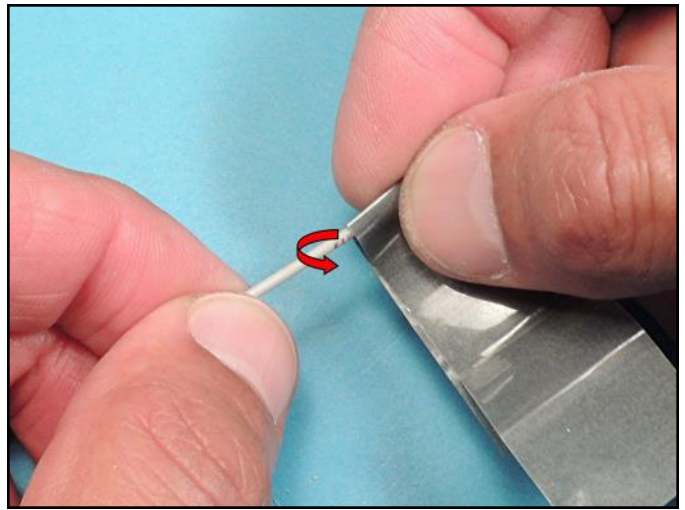
Both flight deck elevators will be in the up position so underside supports were added for gluing surfaces.



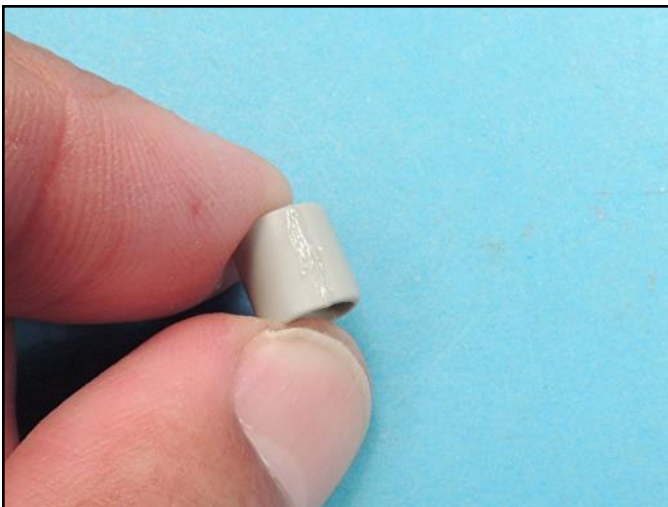
The flight deck elevators did not sit flush with the surrounding flight deck so shims were added to level both elevators.



Scraping the seam lines on the island superstructure tower legs was done very slowly and lightly so as not to distort the round shape of the legs.



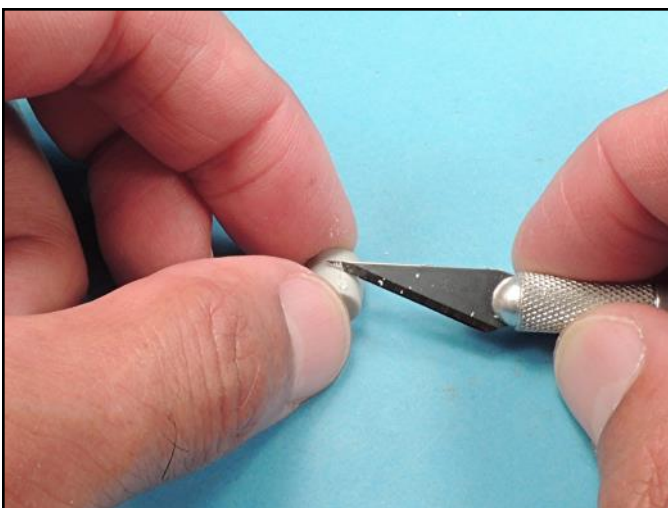
To restore the round shape of the legs, rotate them inside a folded over length of 400 grit sandpaper while slowly pulling them away from the sandpaper.



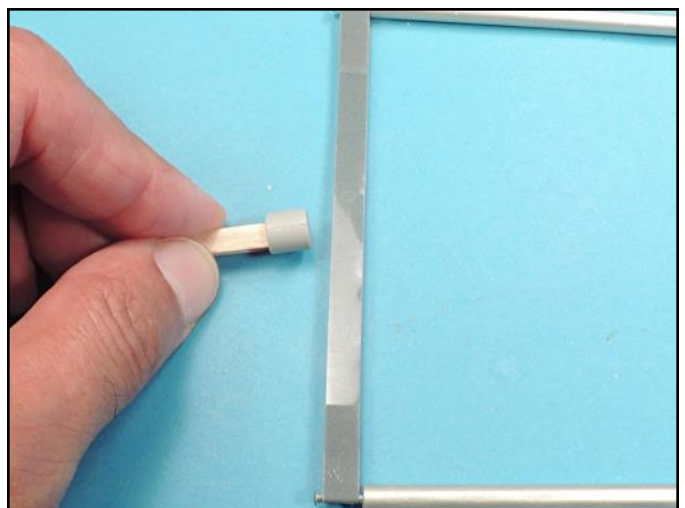
The round MK-37 radar platforms were two part assemblies. Beads of super glue were applied on the seams.



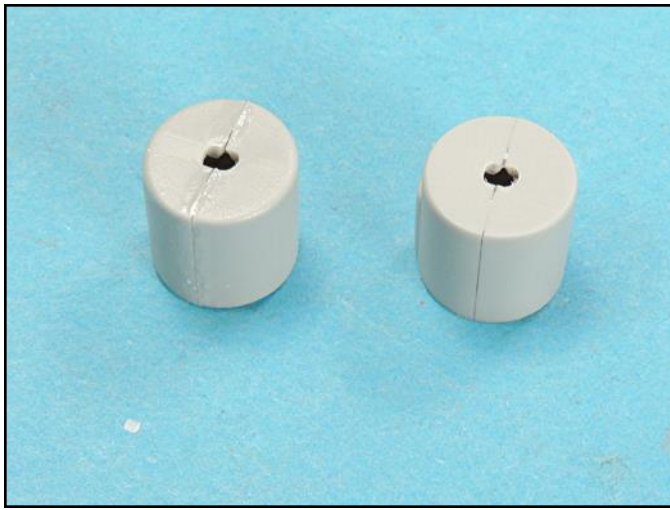
The radar platform bases and tops were flattened by running them gently across a stationary piece of sandpaper.



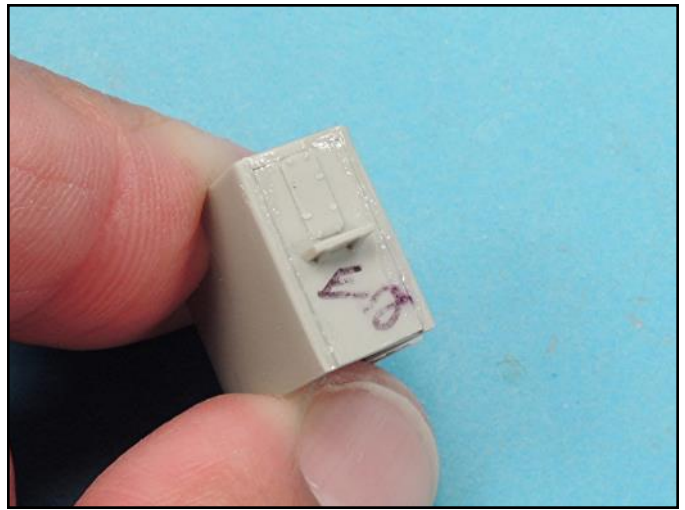
The super glue along the sides of the radar platforms were gently scraped with a sharp number 11 X-Acto blade.



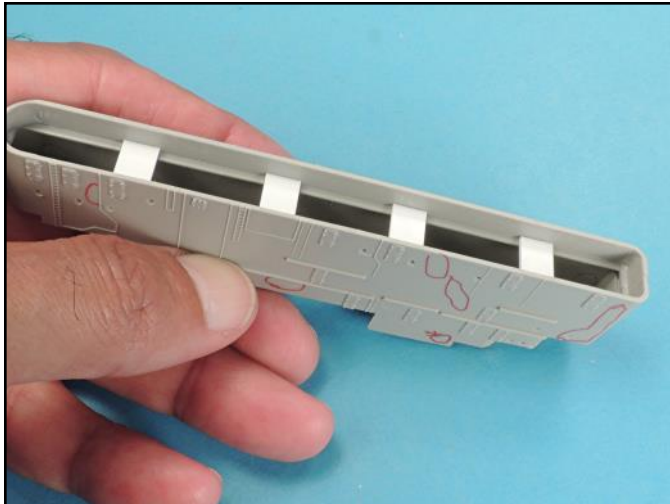
To restore the curves at the seam locations and smooth out and polish the plastic, a Flex-I-File was used.



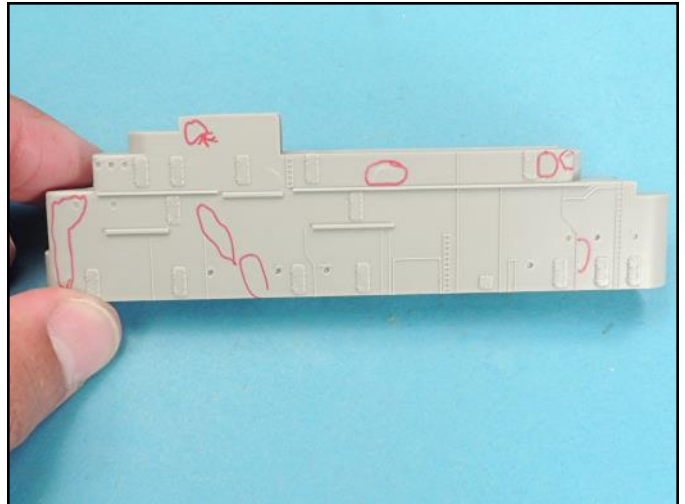
Here you can clearly see the difference between the MK-37 radar platforms.



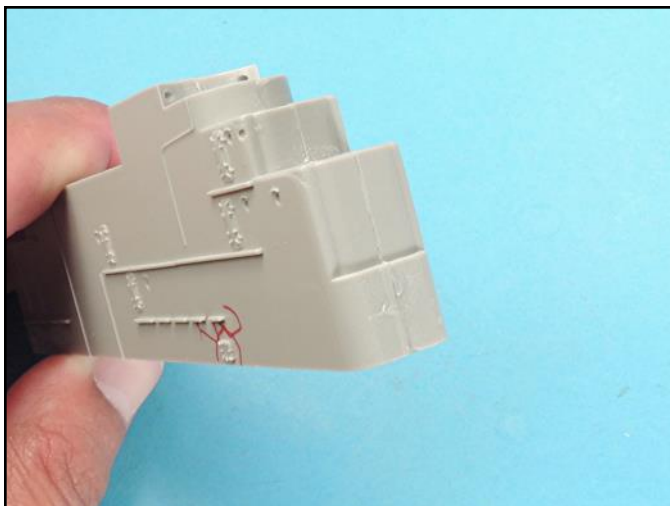
Attaching this superstructure insert required a bead of super glue along the seam line, which was then carefully and gently scraped flat using the tip of a number 11 X-Acto blade held at a 45 degree angle.



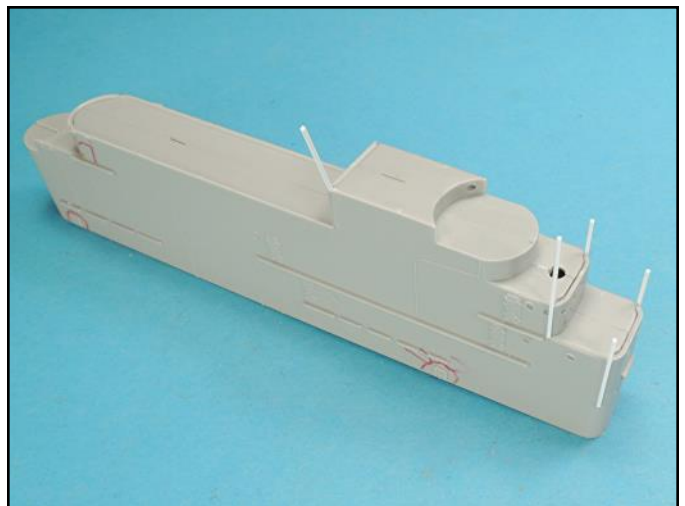
The gluing surfaces of the island structure were flattened for a tight fit, taped together and beads of super glue applied to the seam lines. To prevent flexing .040 inch thick strips were glued to the inside area.



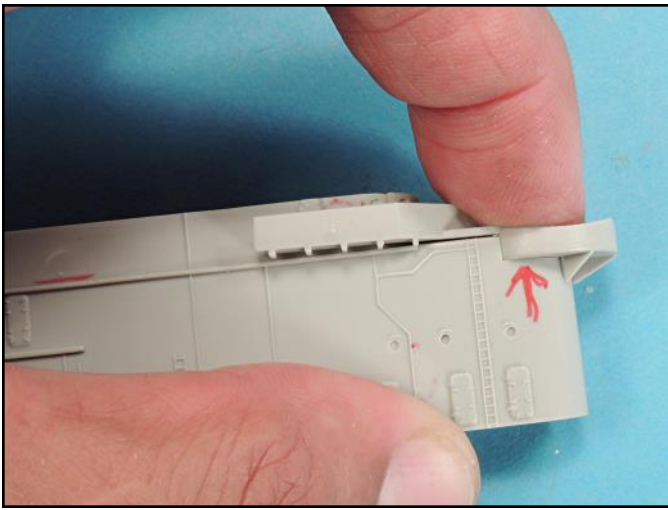
The surfaces of the island superstructure had a lot of imperfections. Each one was carefully wet sanded smooth using 400 grit sandpaper wrapped in a thin length of balsa wood.



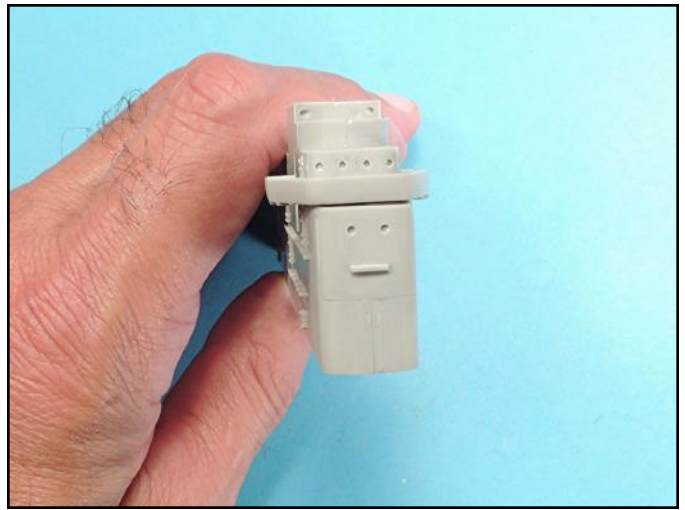
The seam lines were carefully and gently scraped smooth with a sharp number 11 X-Acto blade.



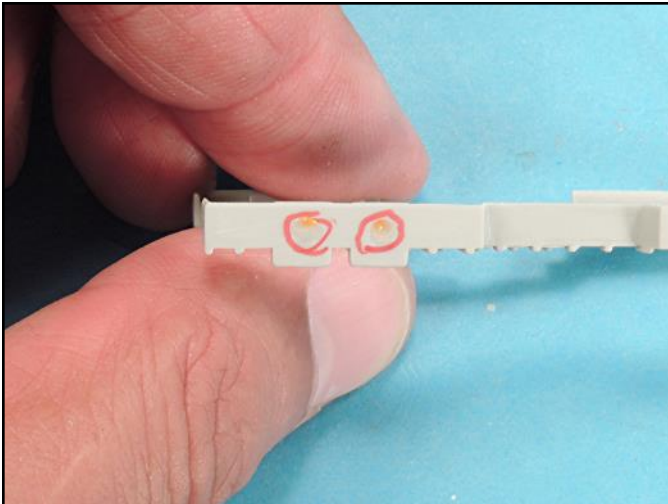
As the island superstructure sides were added, voids were filled with thin lengths of plastic strip. Tiny beads of super glue were added using a .015 inch diameter wire applicator. The strips were cut, shaped and contoured.



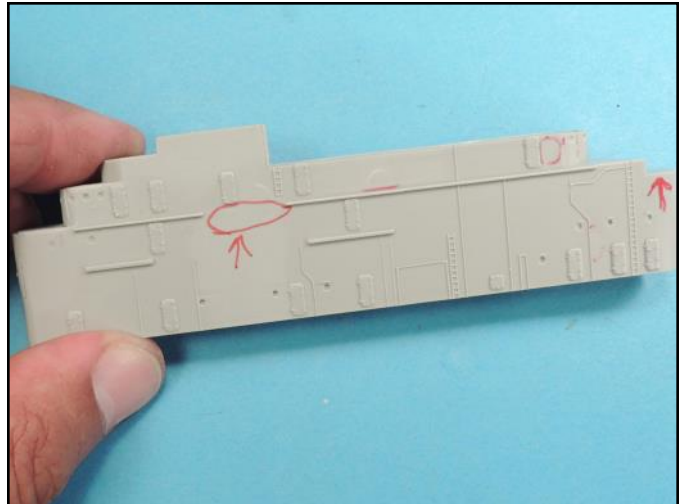
Some areas of the island superstructure had voids that were very difficult to fill. The way to handle these is to prime the surfaces and then fill these areas with white glue applied with a thin wire applicator.



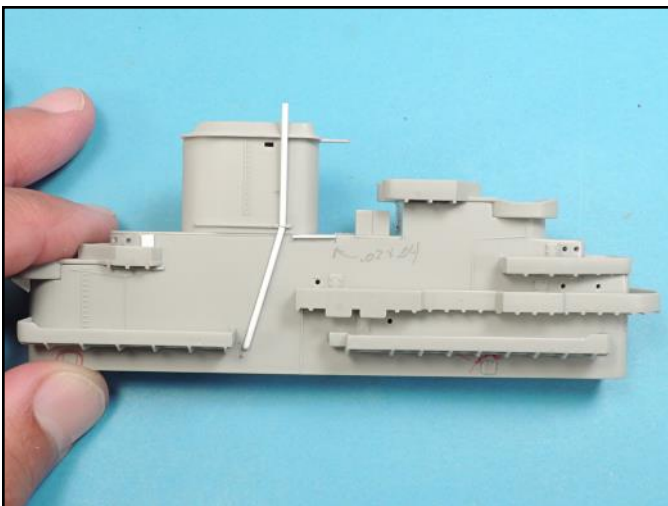
This void was fixed by laminating a piece of plastic to the surface so that the part will sit flat with no void showing.



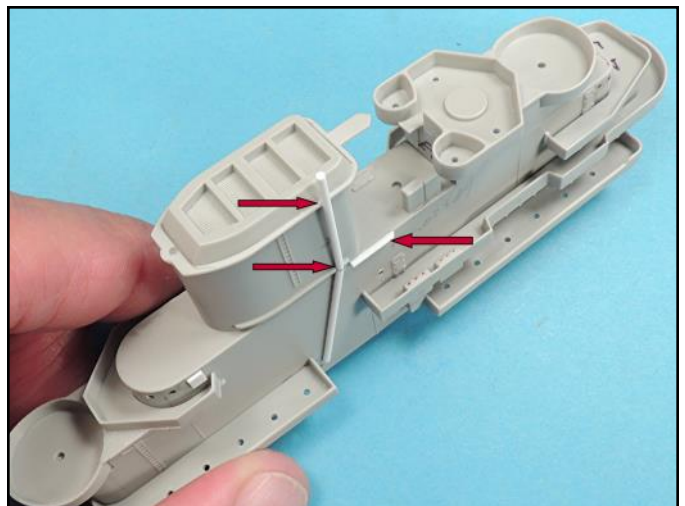
Some of the island superstructure parts also had injection dimples, which were very shallow in depth. To remove them, wet sanded the surfaces smooth using sanding sticks.



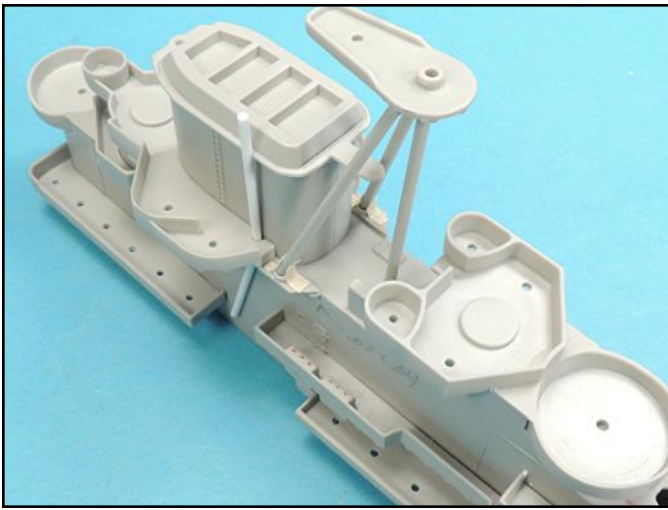
A section of the locator ridge guide for the upper platform was missing from the port side of the island superstructure. Be careful when attaching this upper platform.



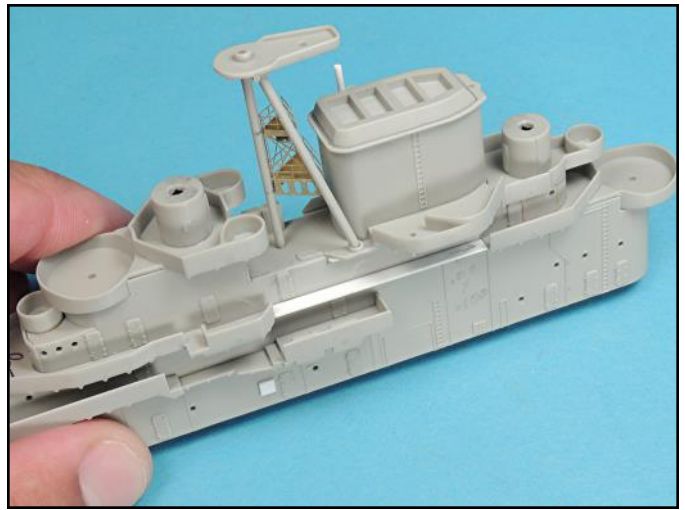
The platforms have been attached and the missing external piping was added using two lengths of rod, which were cut and form fitted into place.



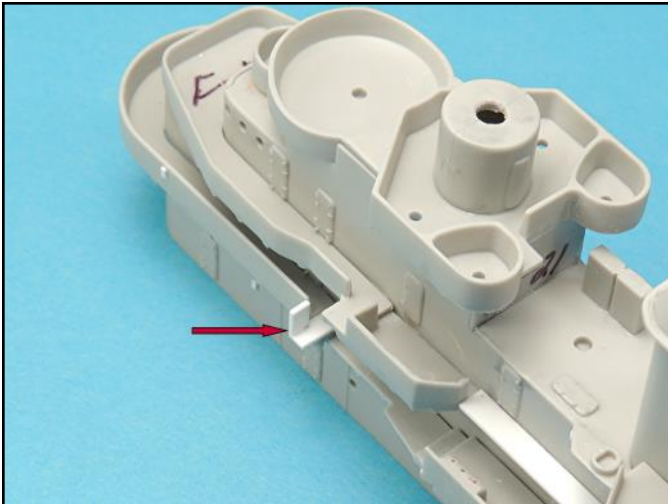
The platform which wraps around the smoke stack, has two small surfaces for the tower legs that overhang the sides. Small lengths of plastic strip were added to reinforce the overhangs. Note the cutouts for the piping.



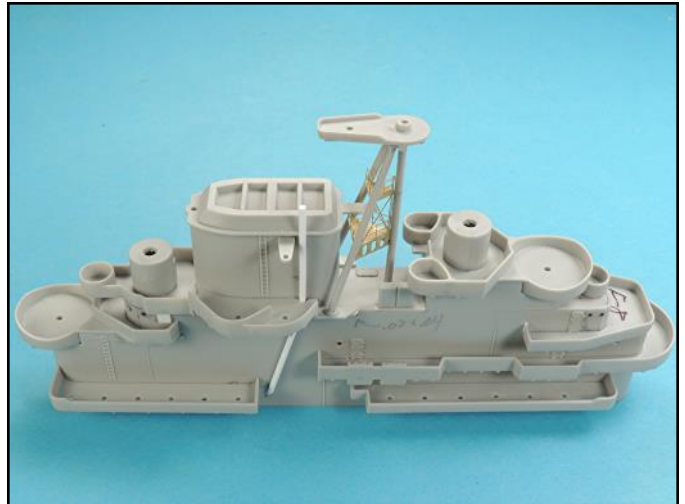
The smoke stack platform was glued into place so that the tower legs could be positioned and then glued to the tower base. Note the overhangs where the legs attach. They would flex without the tiny strips of plastic that were added.



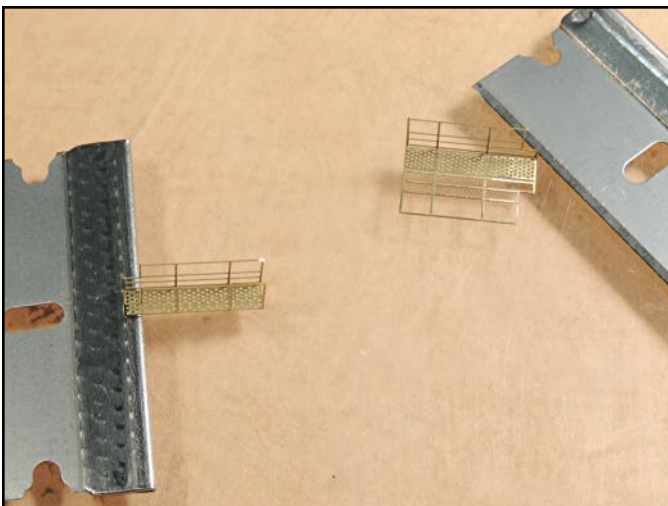
There was a platform missing on the port side so it was added using a .015 inch thick length of strip. The part was carefully form fitted into place.



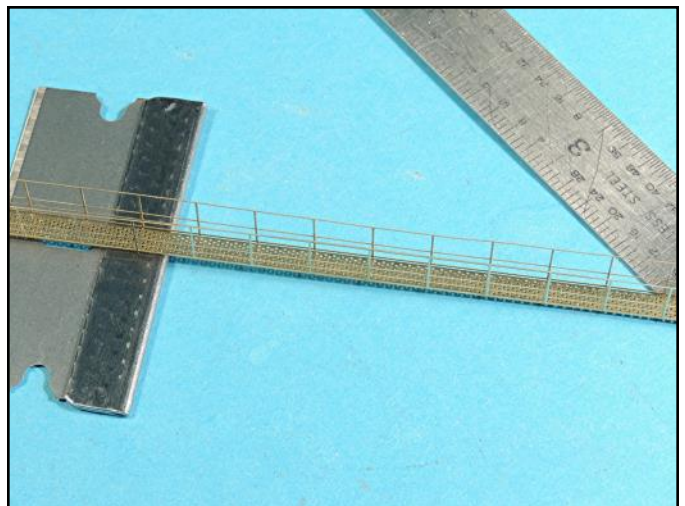
The upper platform had an inclined ladder to the lower platform. The lower platform did not have an area for the ladder to sit on so this was added using two small lengths of .015 inch thick plastic strip.



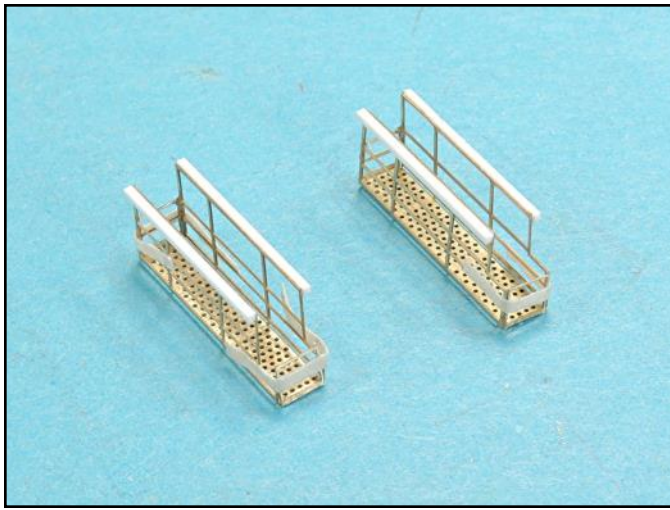
The finished assembly looks good. The tower is assembled but not glued to the superstructure. See pages 34 and 35 for the tower assembly.



Short lengths of catwalks and walkways can be bent into shape using two single edge razor blades. Locate one razor edge onto the area to be bent and then slip the other razor edge under the same area and rotate the blade up.



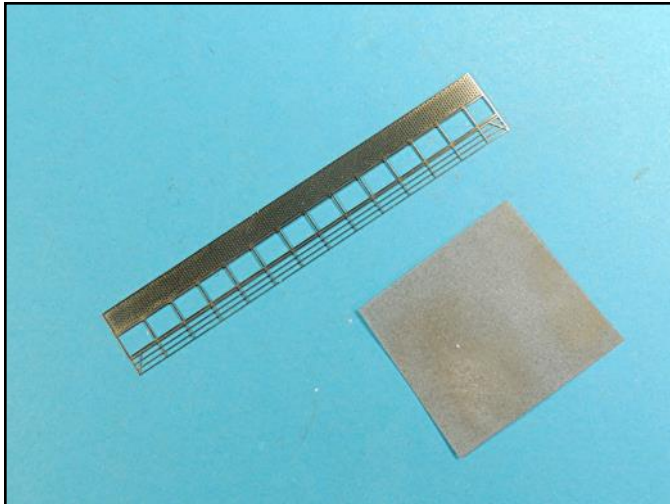
Longer lengths of catwalks and walkways can be shaped using a 6 inch stainless steel sewing ruler and a single edge razor blade.



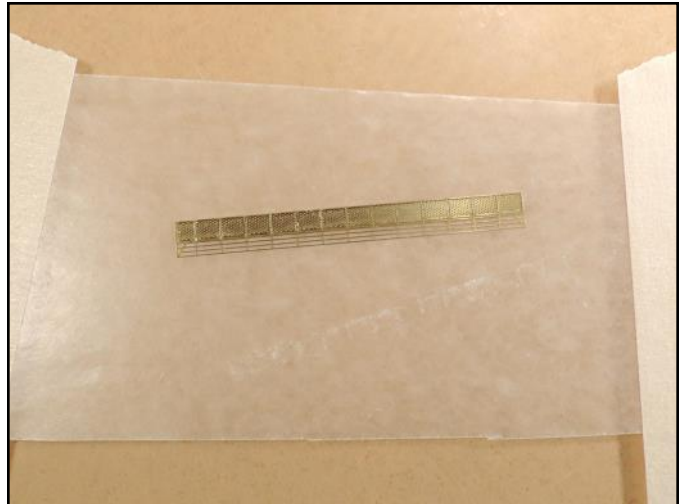
The railing ends for the underside flight deck catwalks were carefully taped into place. Tiny beads of super glue were applied to the ends, the tape was removed and then additional beads were applied along each connection area.



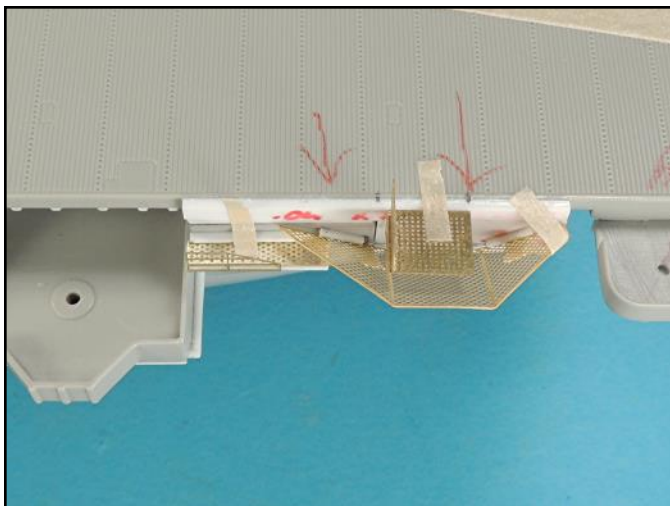
These .020 x .020 inch strips were glued along the tops of the flight deck underside catwalks to increase the gluing surfaces and add strength to the assemblies.



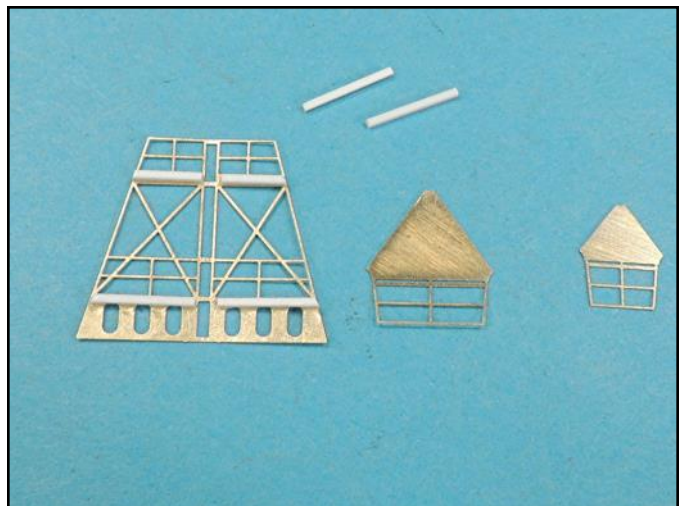
Prior to folding and gluing the flight deck catwalks, each part was cleaned with 600 grit sandpaper.



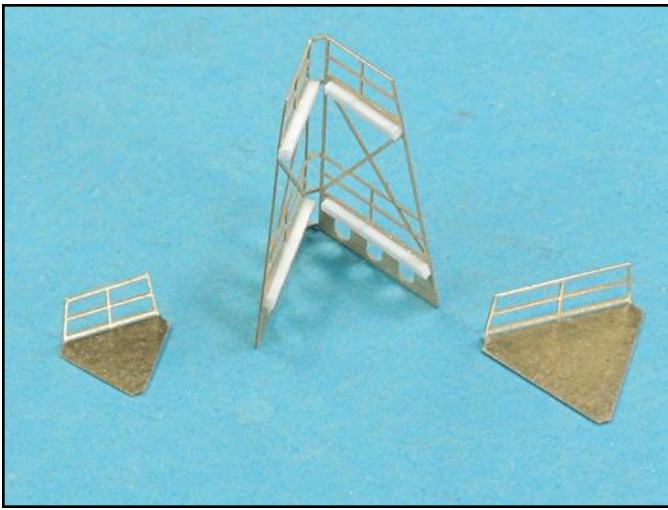
The flight deck catwalks were folded and super glued together over wax paper. The .020 x .020 inch strips were super glued along the upper edges of each catwalk to make a tight fit with the channels. See page 26 for an explanation.



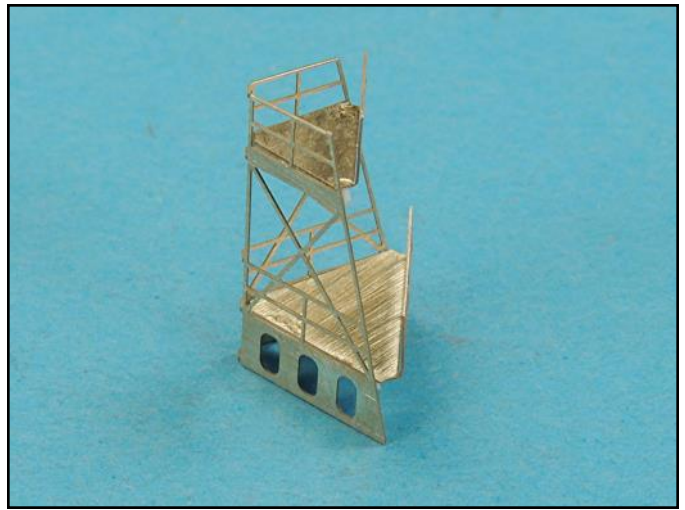
The LSO platform, netting and the catwalk are getting a final fit check to be sure that the photoetch parts do not interfere with one another.



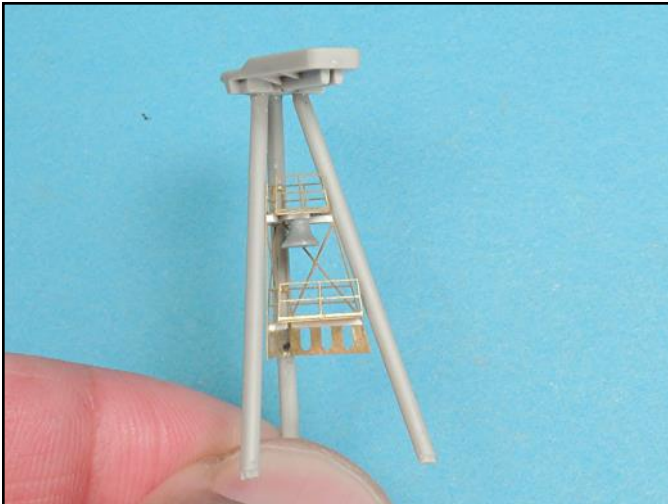
Tiny strips of plastic were added to the tripod photoetch assembly so that the platforms would have larger gluing surfaces.



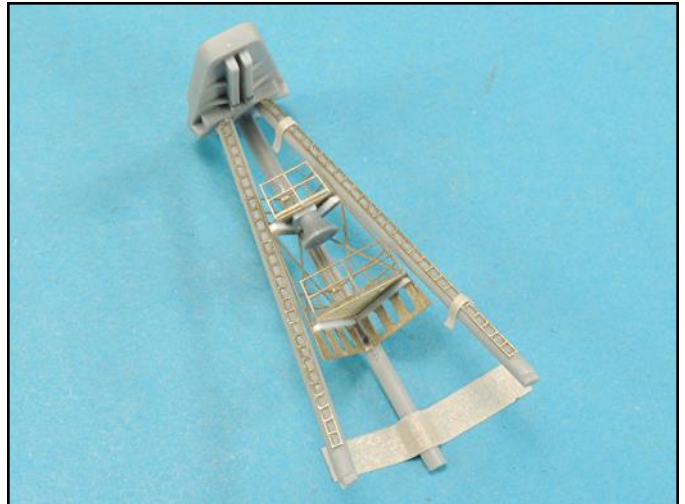
Tint strips of plastic were added to the sides of the tower photoetch assembly so the platforms would have a positive gluing surface.



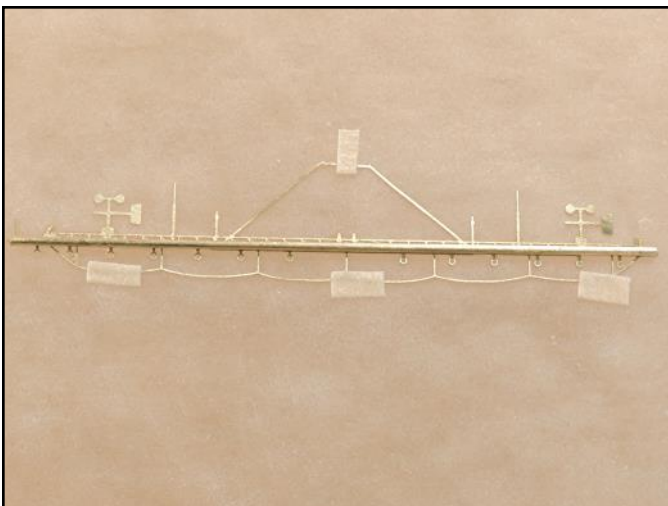
The assembled platform is much stronger thanks to the added strips of plastic.



The platform has been assembled and glued into place. The ship's bell came from the Tamiya Missouri. Note that the outer edges of the platform do not touch the tripod legs.



The ladders were positioned with tiny strips of masking tape and then super glued into place.



The mast yardarm was strengthened using a length of brass rod. One side of the brass rod was flattened by running it across a stationary piece of sandpaper so it would sit flat against the backside of the yardarm.



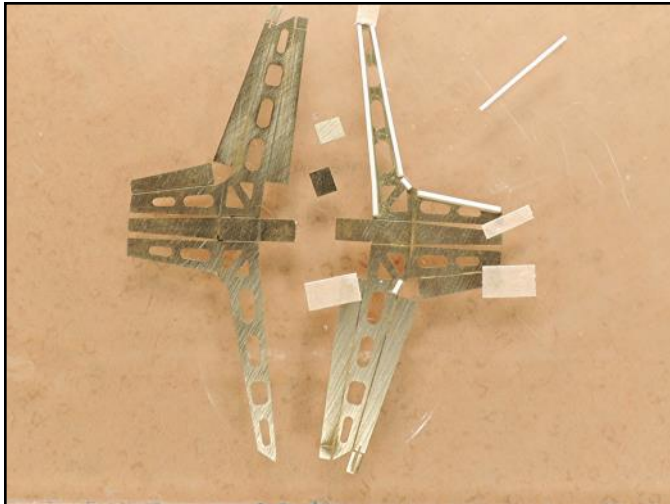
The tripod tower yardarm has been glued into place and the small details on the yardarm were then bent into shape.



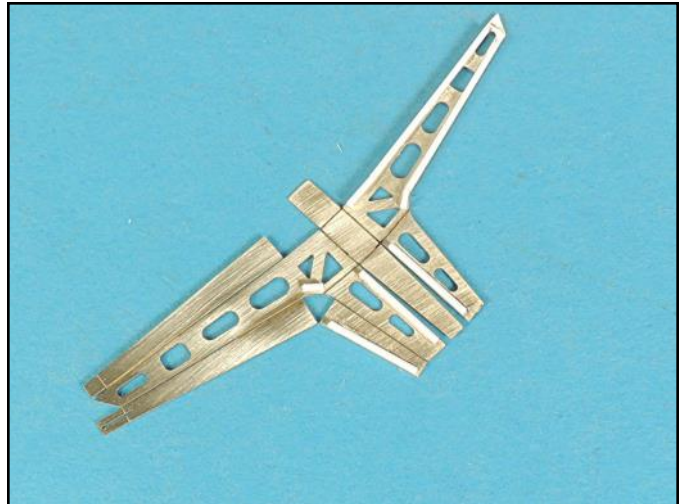
The spacing between the photoetch platform and the tripod legs is very noticeable. White glue will not work here as the void is too wide. See page 39 to see how this void and the delicate attachment of the photoetch assembly were solved.



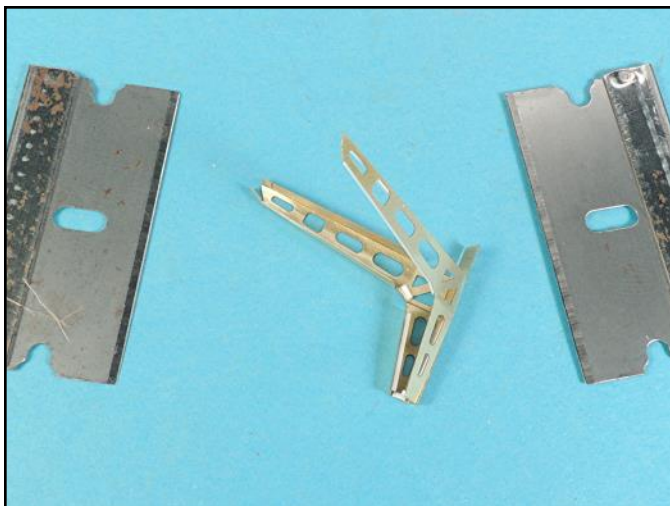
One last fit check of the tripod assembly was made to be sure that the legs fit into their locator holes on the deck correctly.



To add additional strength to the crane assemblies and increase the gluing surface area, tiny lengths of .010 x .020 inch strips were glued to the inside areas along the parts gluing surfaces.



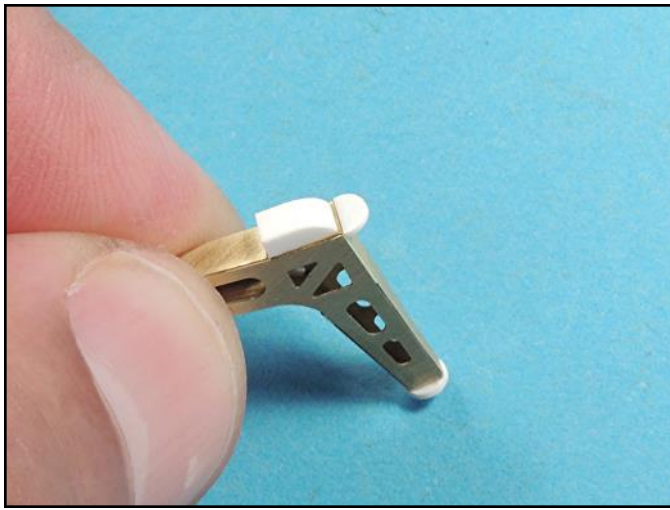
Be sure to only add the strips on the edges of the gluing lines where the folded surfaces meet.



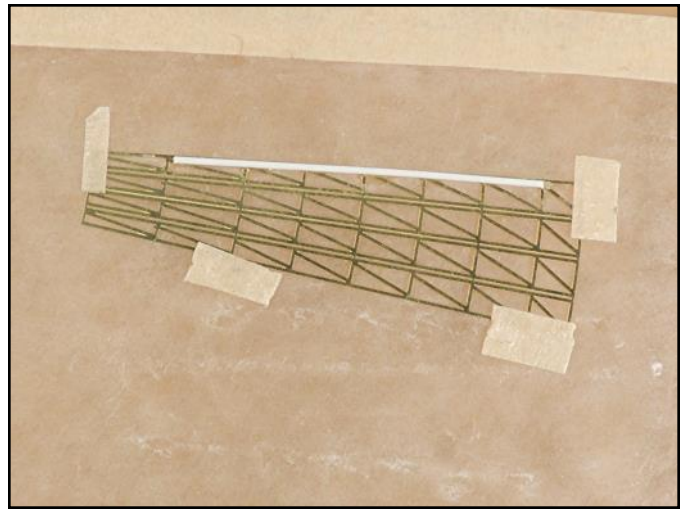
The crane was carefully folded into shape using two single edge razor blades. Once the folds have been bent and worked slightly, the bends can be finished without the razor blades.



The raised disks on the hanger deck for the cranes were damaged during sanding the hanger deck seam line. New disks were added to the crane bases using a Waldron punch tool. This made the cranes fit tightly into their locations.



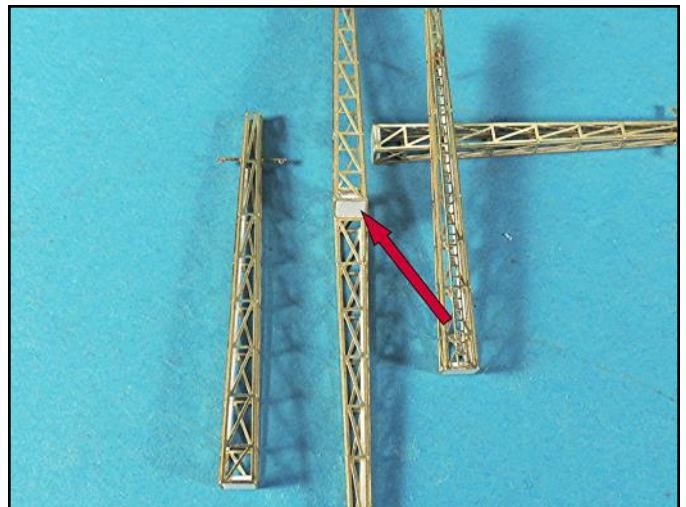
Additional crane details were added to improve the accuracy of these photoetch parts.



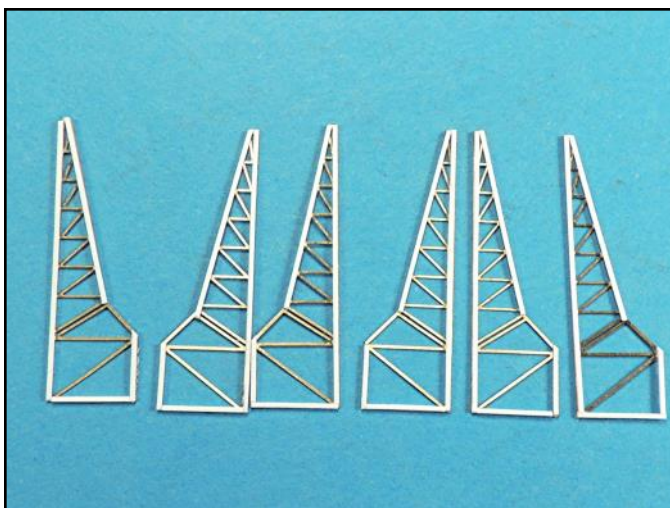
To improve the end joints of the flight deck radio towers tiny strips of .020 x .020 inch plastic were glued to the inside surfaces. Once the antennas were folded, the plastic provided great strength to the assembly.



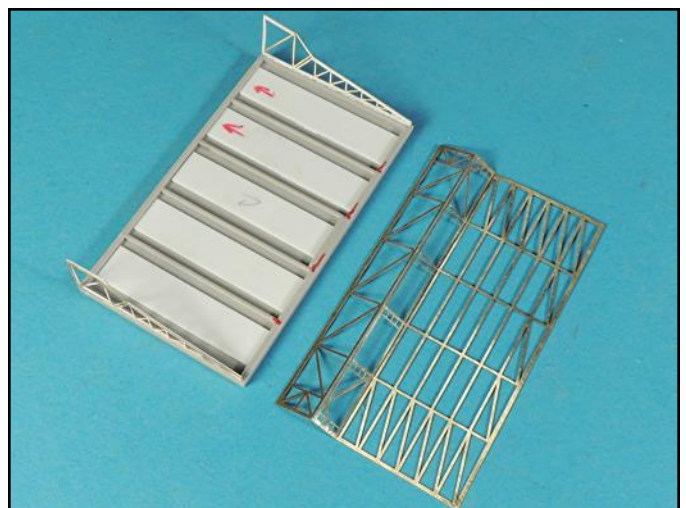
A sewing ruler and a single edge blade were used to fold the antenna towers.



To improve the gluing attachment area, a tiny square piece of plastic was glued to the inside area of antenna base



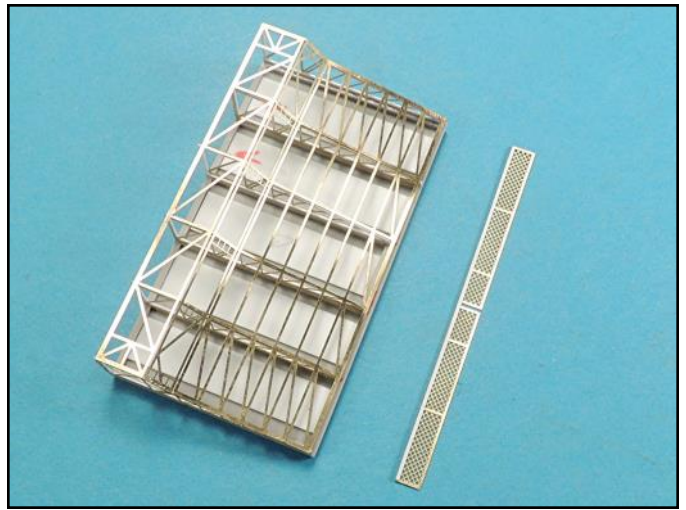
To strengthen the elevator vertical framing and provide more surface area for gluing, attach lengths of .010 x .020 inch strips on one side of the framing. Be sure the left and right frames have the strips on the inside surface.



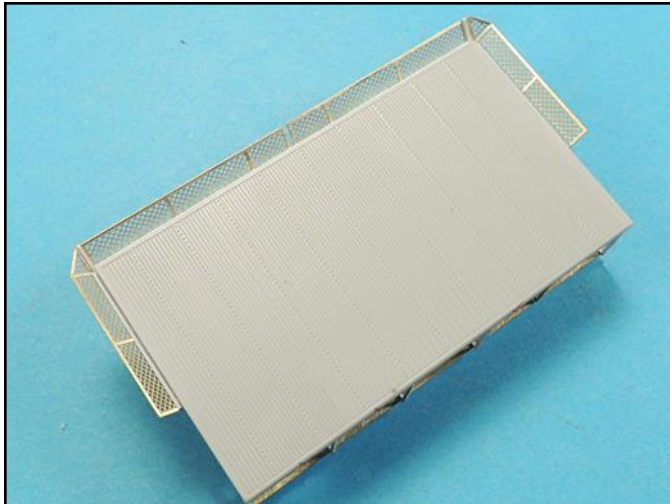
The underside of the port side elevator have mold punch out indentations that were hard to remove, so the solution was to hide them with strips of .015 inch thick plastic form fitted into place. The end frames were attached first.



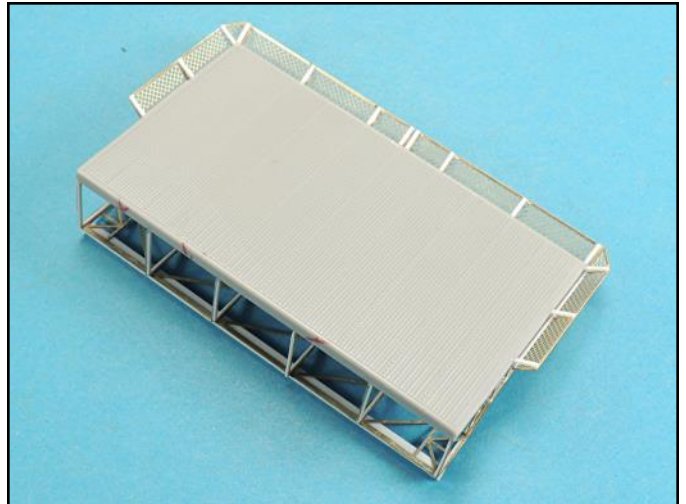
The inter framing was added and the bottom framing was then checked and adjustments were made to its shape by adding more bend to the fold lines using a sewing ruler.



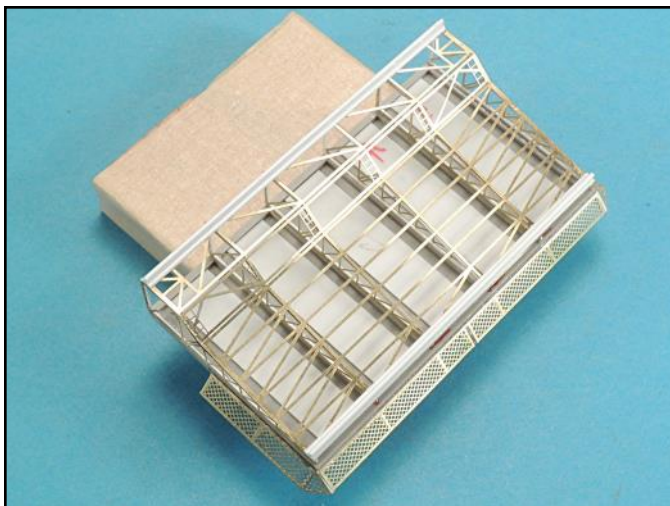
The bottom framing was super glued into place. To improve the gluing contact surface of the netting and add strength to the photoetch parts, .010 x .020 inch strips were added to the bottom edges.



The netting has been glued into place, however bracing also needed to be added.



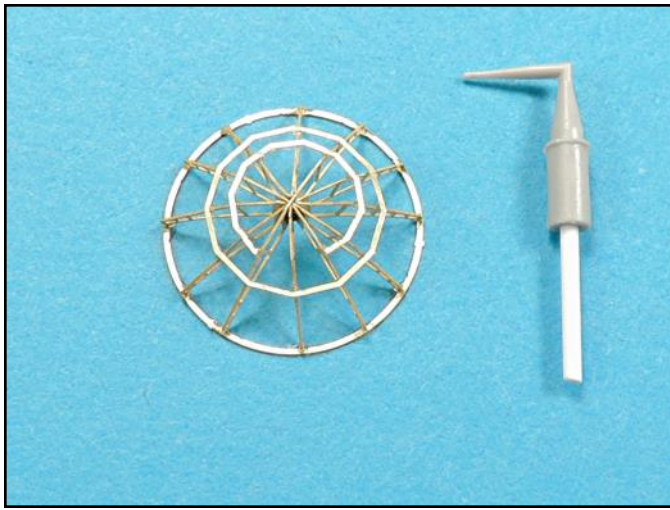
The netting bracing was made from tiny strips of .010 x .020 inch strips form fitted into place and attached with tiny drops of super glue.



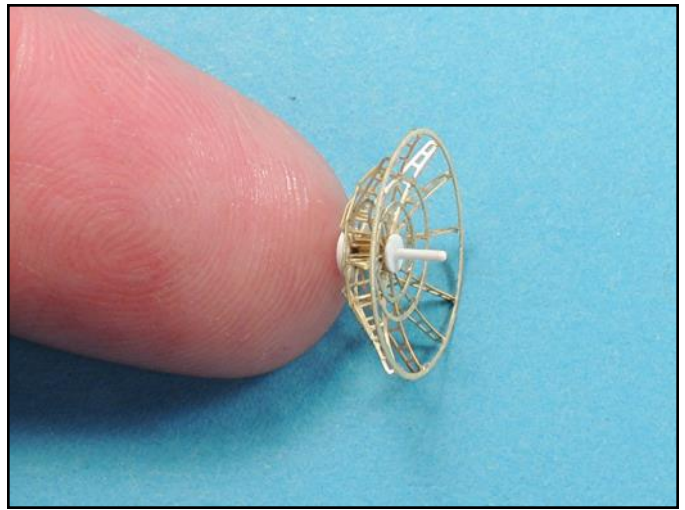
To add rigidity to the completed elevator assembly, two girder shape "T" lengths were added to the base. The length at the front bottom area was redundant and did not need to be added to increase the strength of the assembly.



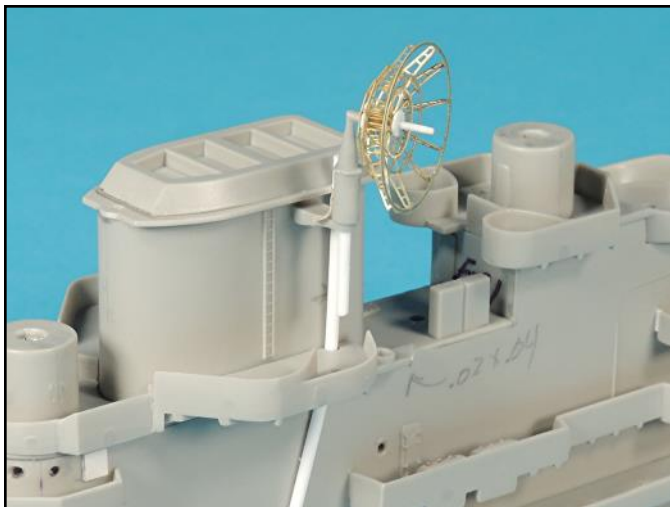
Tape the SK-2 ring in place and then attach the 2 cross frames. Carefully bend the 4 middle frames and be sure that the angles are the same. Position the middle frames with tiny drops of white glue to set them in place.



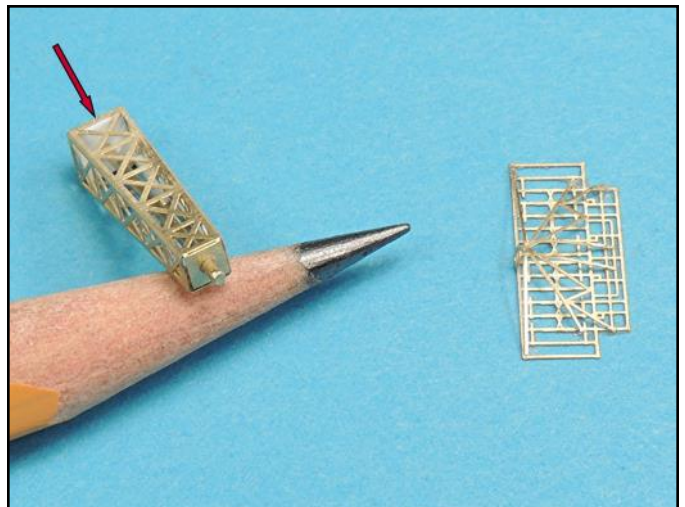
The framing was then added to the back side of the radar assembly. A .020 inch diameter positioning rod was added to the kits SK-2 radar base. All the joints received tiny drops of super glue to strengthen the assembly.



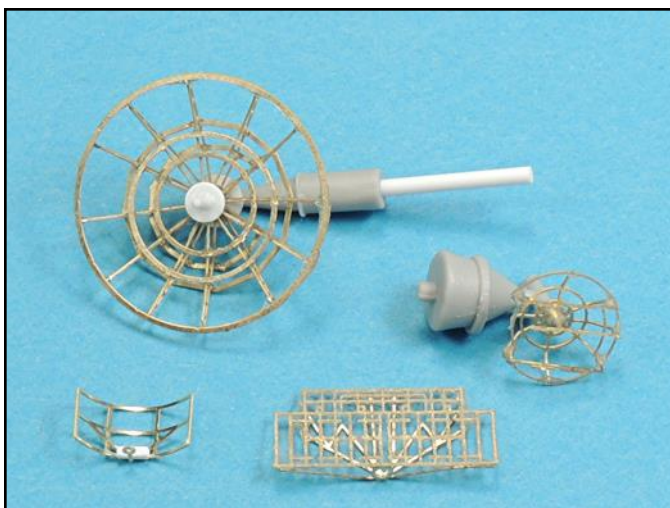
Disks were added using a Waldron punch tool and the radar's center piece was made from a length of rod with a rounded end.



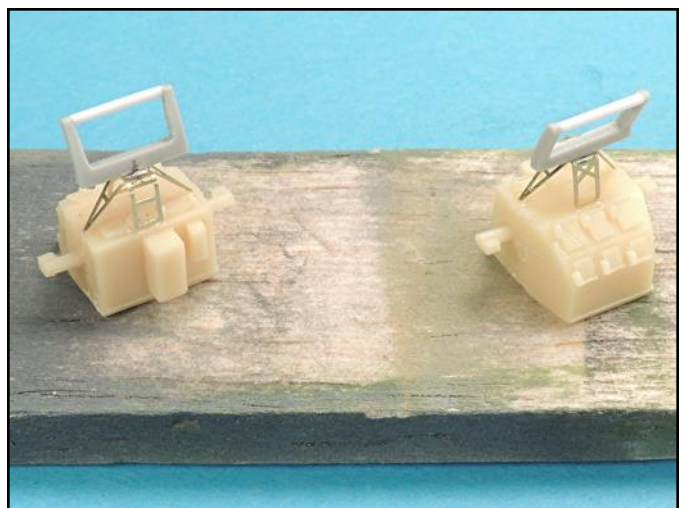
The smoke stack's SK-2 radar platform was attached and the radar is getting a fit check. The added rod will be cut after the assembly has been painted and is ready to be attached.



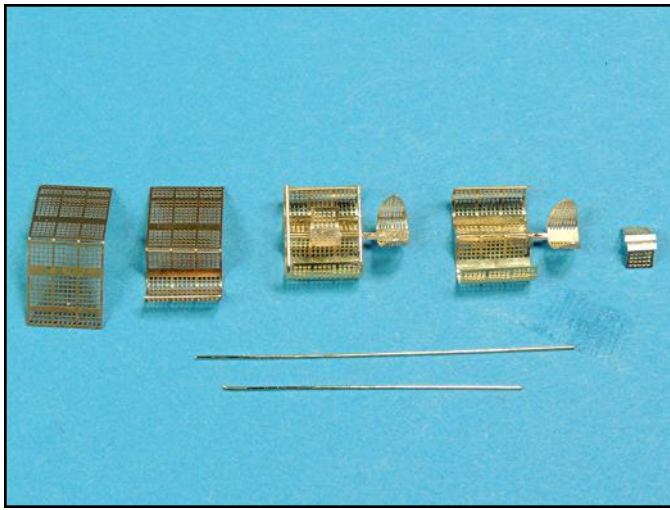
The SC-2 mast was shortened and a brass positioning rod was added for the radar's attachment ring. A base plate was also added to the mast. This provided for increased gluing surface area and added strength to the assembly.



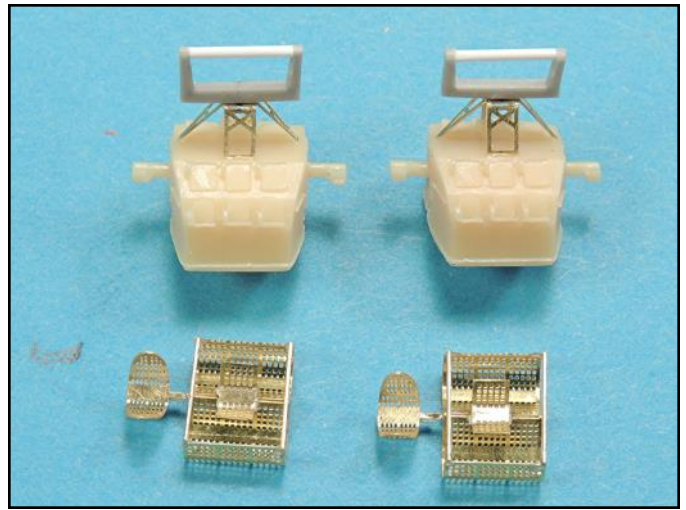
The search radars are now complete. The SP radar was a bit tedious to assemble. To attach the vertical dipoles, white glue was used so that the tiny photoetch parts could be properly positioned.



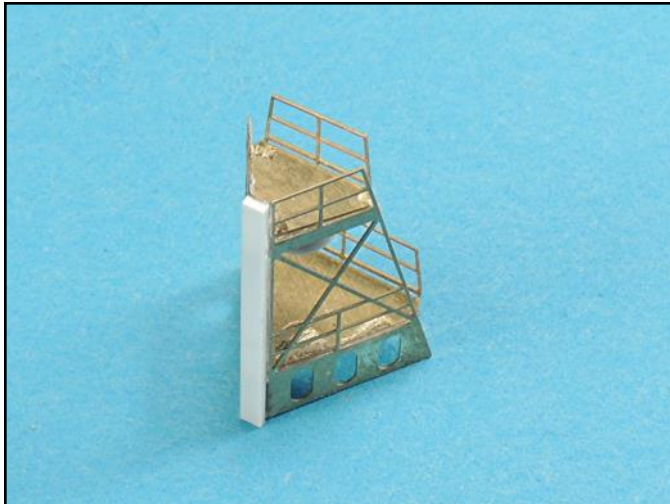
The kit supplied MK-37 radar bases were replaced with L'Arsenal resin castings. The kit's MK-37 radar screen frames were used and .020 inch rod was glued across the upper arms so that the radar screens would have a positive



Here are the steps for shaping the MK-37 radars. To help position the small center IFF radars at the center of the screens, tiny strips of .010 x .020 inch plastic were added to their backsides.



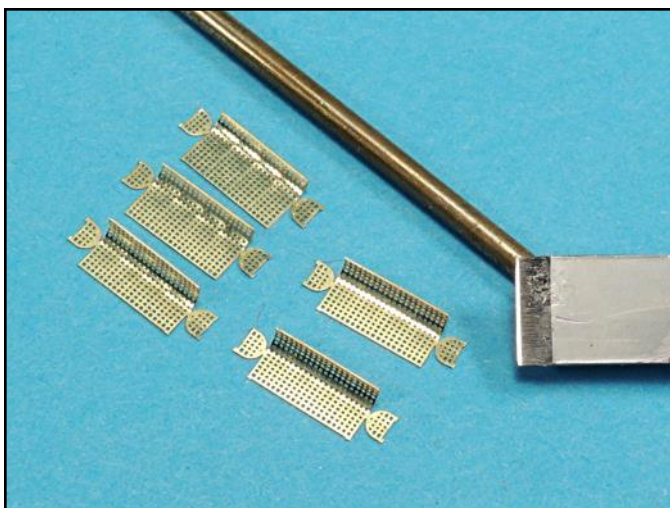
The MK-37 radar sub-assemblies are complete and ready for painting. The radar screen side framing was made from tiny diameter brass rod. A .115 inch diameter brass rod was used to curve the radars screens.



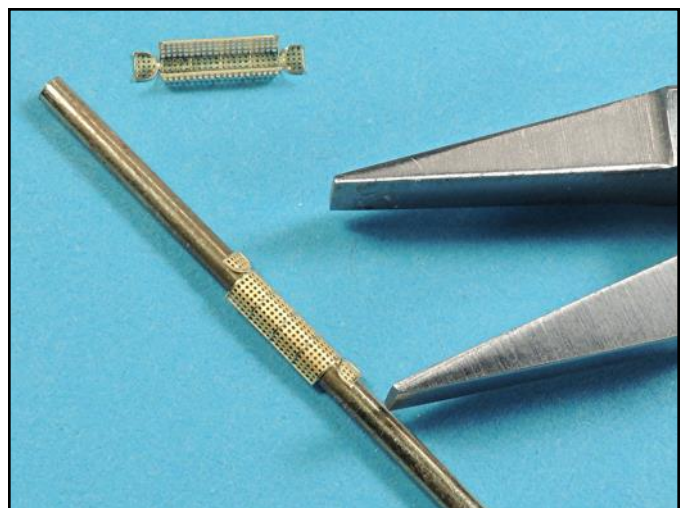
The tripod photoetch platform sub-assembly popped out. A strip of .015 inch was added so that the platform was pushed back from the vertical leg just enough so that the outer edges of the platform touched the angled tripod legs for gluing.



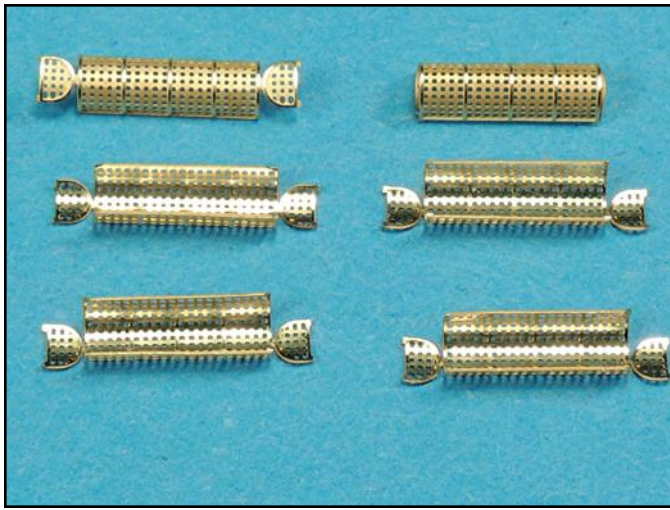
With the tripod reassembled & stronger, the SC-2 mast and the SG brass rod mast were glued into place. The thin photoetch yardarm cross members were also replaced with brass rod, adding even more strength to the assembly.



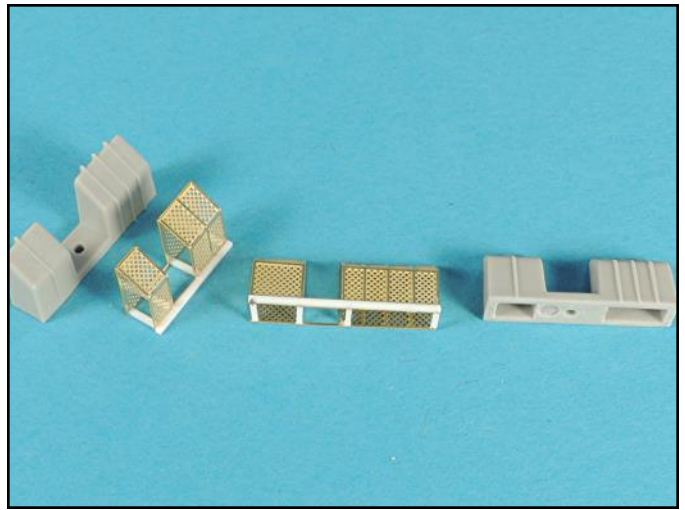
The floater net storage bins were first given a slight bend using the tip of a flat blade. This slight bend will make it easier to bend them around a rod.



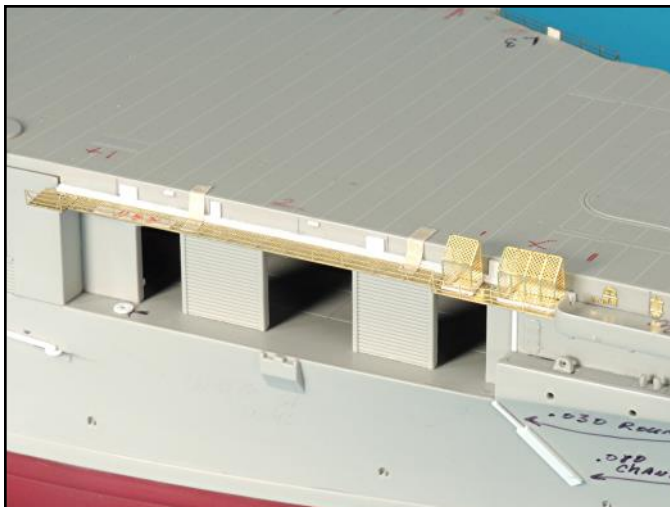
The slightly bent floater net bins were then pressed around a .072 inch diameter brass rod to give them a curved shape. This diameter was a close match to the curves on the end sections. Be sure not to bend the end sections.



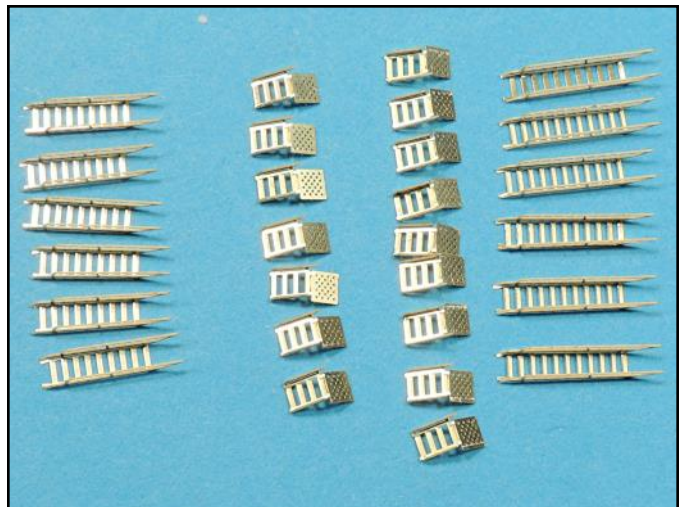
The floater net bin sides were then bent into position and tiny drops of super glue applied to the contact surfaces.



The two antenna cages are easily shaped and look much better than the kit supplied parts. To strengthen the parts and increase the gluing surface add .010 x .020 inch strips to the base of each cage.



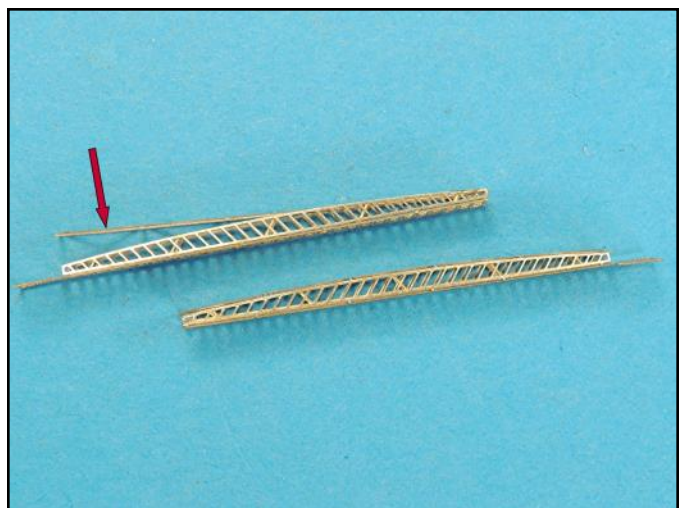
The antenna cages are getting a fit check at their locations on the flight deck catwalks.



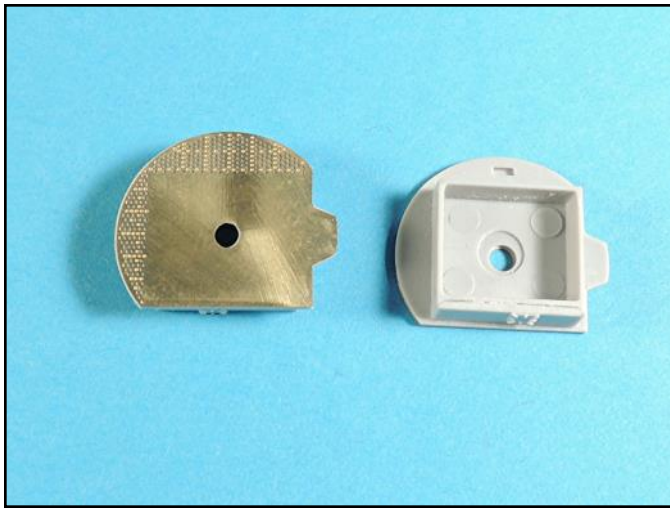
The inclined ladders and the flight deck access steps were all carefully bent into shape.



Tiny positioning tabs were added to the sides of the flight deck to provide a positive attachment point for the small inclined steps.



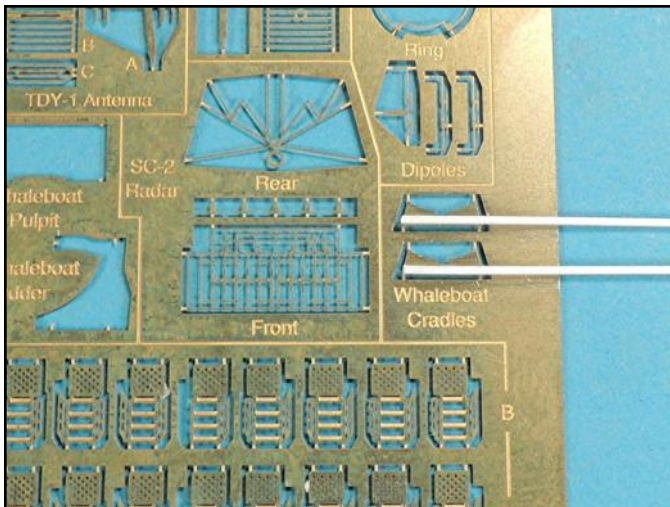
The gang ways were folded into shape and then the bottoms were bent towards the assembly and super glued into place. The bend for this part was previously "worked" so that it could easily be bent downward towards the assembly.



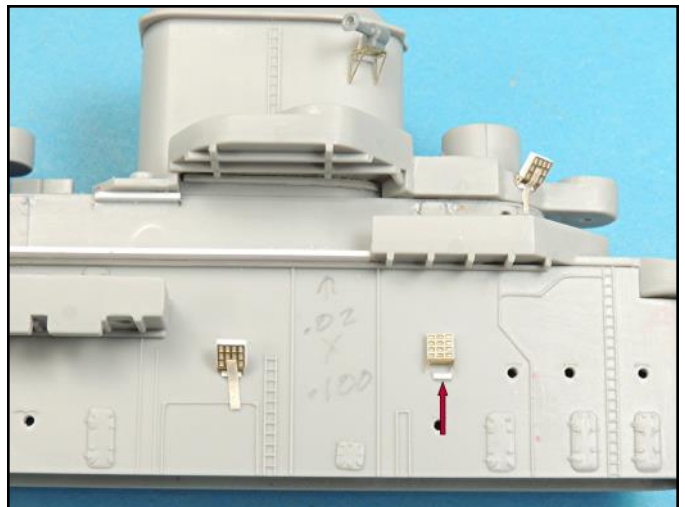
The photoetch instructions recommended removing the plastic surface and replacing it with the photoetch part. Another method is to flatten the plastic surface and laminate the photoetch part to it.



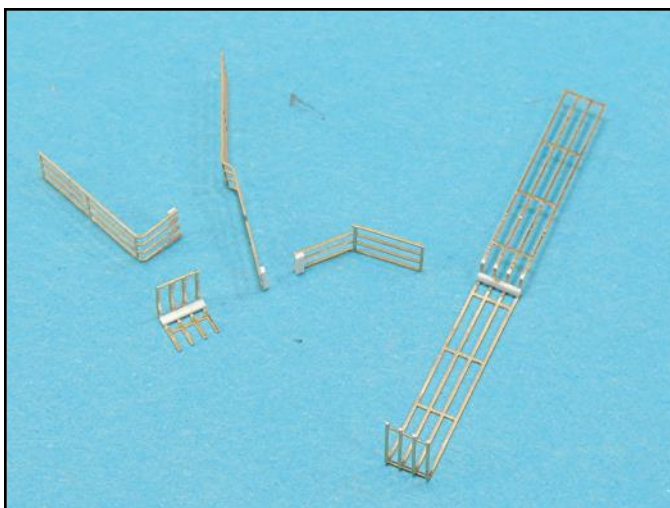
The kit supplied aft mast yardarm is too small. A new mast was made from a length of brass rod and the photoetch yardarm was reinforced just like the main yardarm.



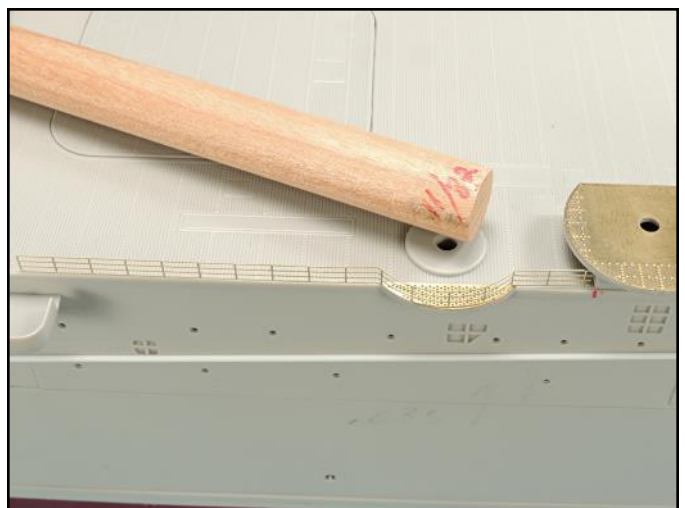
The gluing surfaces of the whale boat cradles was improved by gluing small strips to the bases. It was easier to attach the strips to the parts while they were still attached to the photoetch sheet due to their small size.



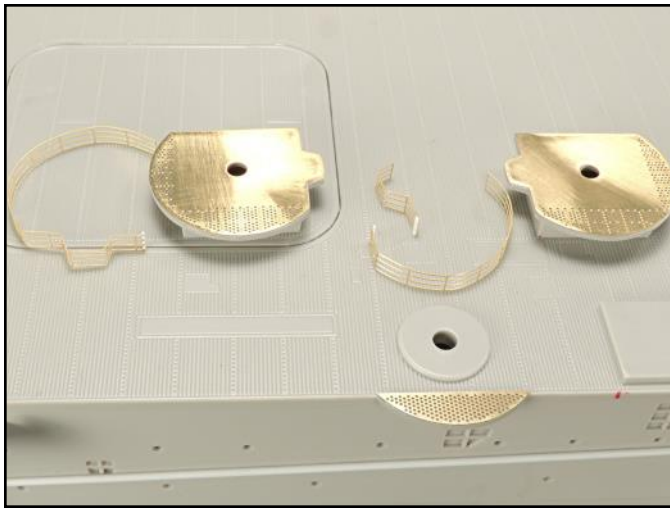
The loudspeaker surfaces were glued to sections of plastic strip and then cut and shaped. The horn is from the Tamiya Missouri. Positioning tabs were added on the sides of the superstructure to help position the speaker frames.



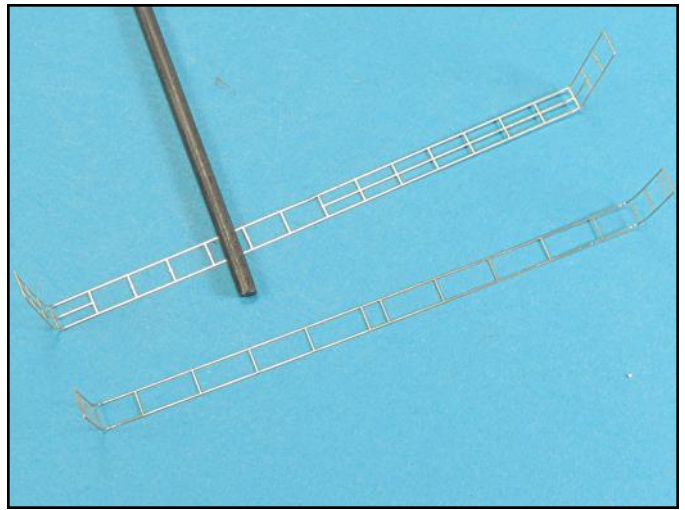
Where a railing bend had no stanchion, a strip of .010 x .020 inch plastic was glued to the bend. Once the railings were painted, the thickness of the added stanchions will be hard to pick out.



A 11/32 inch diameter wood dowel was used to set the curves on almost all of the railings.



Two different approaches were taken for the railings on the elevated 5 inch gun platforms. The left railing is one continuous piece with bends not at stanchion locations. The right piece has bends where stanchions are located.



The deck elevator railings are very delicate. You can make additional ones by cutting the horizontal railings from a standard railing length. The small file handle with a diameter of .075 inches made perfect curves on the elevator railing.



The railing length located on the starboard side next to the island superstructure is a long section with small bends in it.



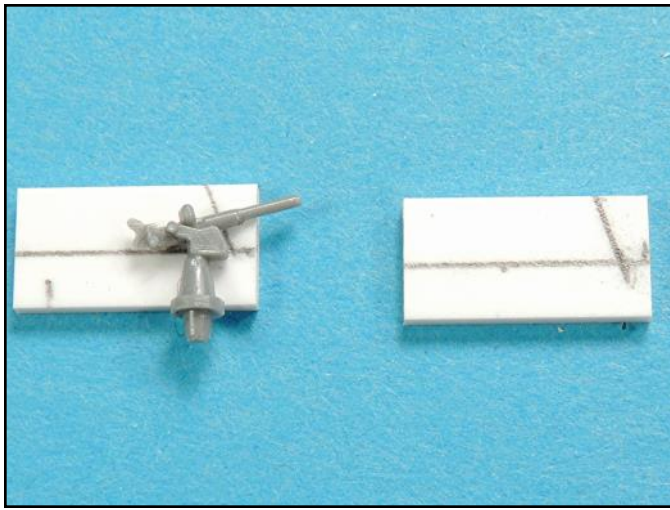
The catwalks and the side elevator are getting a fit check. The catwalks fit tight inside the channel shapes added to the sides of the flight deck. Once everything is painted, the channel shapes will be hard to notice.



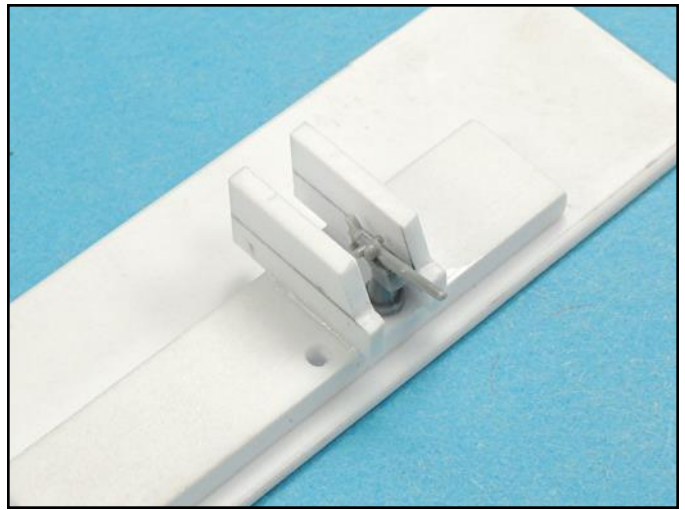
The new tripod assembly and the upper radars are getting a fit check. The resin castings are very clean with no surface imperfections.



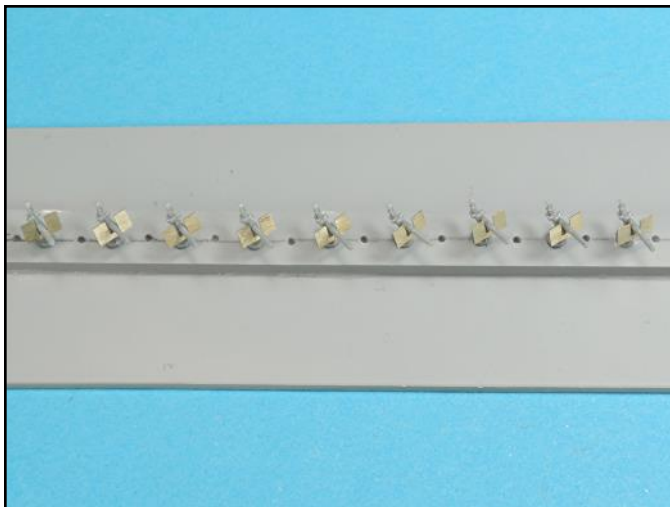
The kits 20mm guns (right) are not as detailed as the Tamiya Missouri guns. The tree attachment points on the barrels are also hard to remove without damaging the shape of the barrel.



A jig was made for attaching the 20mm shields. The first step was to get the angle of the shield attachment area transferred to sections of plastic.



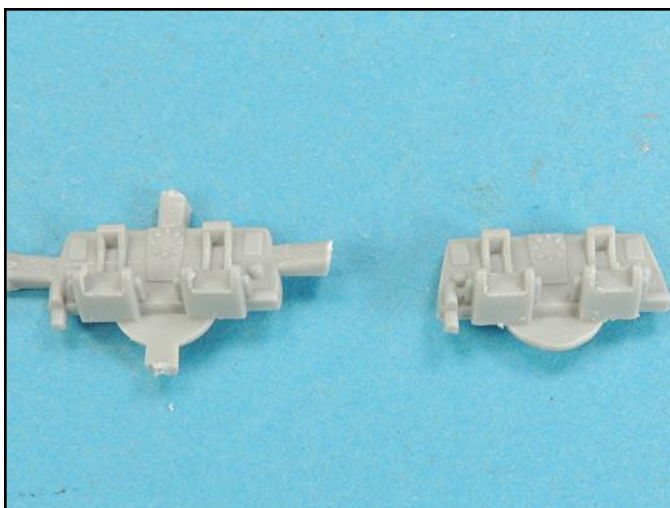
Once the jig ends were attached to the base, drill a hole for the gun's positioning stub to sit in. This may take several tries. It is important to make sure the gun sits tightly in the hole.



With so many shields to attach, the work can get tedious, so work in groups of 10 or so and take a break between assemblies. The jig helps position all the shields at the same angle so that the guns all look the same.



The kit's 40 mm gun bases had 4 tree attachment points and each one was very thick. Be careful how you remove the stubs from each part, as the edges can easily be damaged.



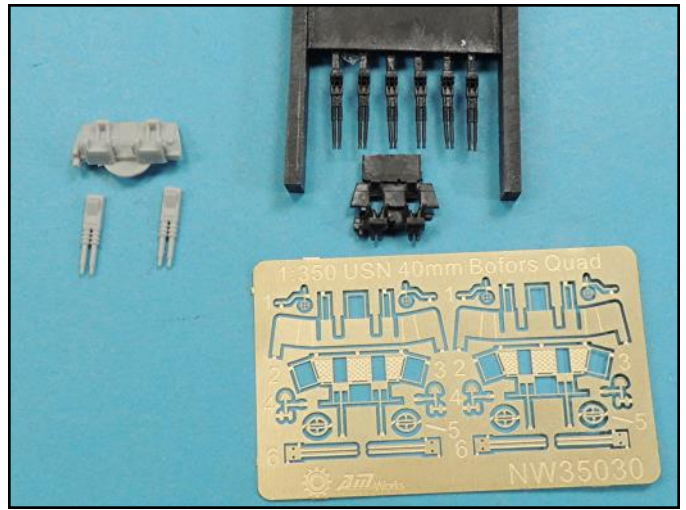
Snippers were used to remove the tree stubs because the edge of the snippers butted up against the part making a clean cut. A sanding stick was used to smooth out each surface. It was a very time consuming process, but worth the effort.



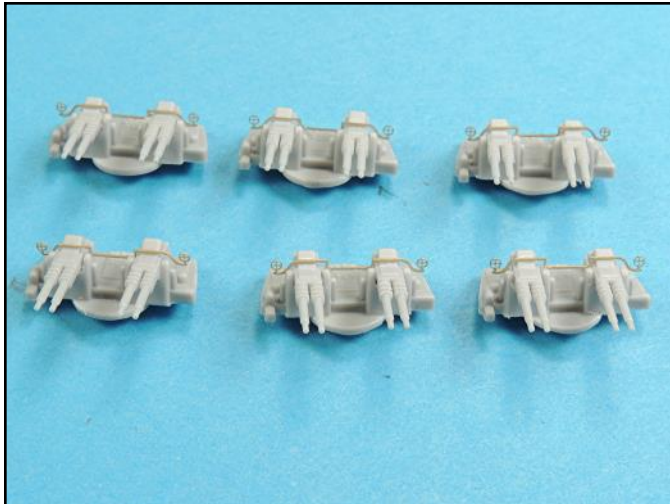
The tree attachment points on the 40mm guns were removed using a single edge razor blade. The single edge razor provided better positioning control to slice through the excess plastic.



To remove the mold lines from the outer edges of the guns, carefully scrape the excess plastic off using a number 11 X-Acto blade held at a 45 degree angle.



Alliance Modelworks 40 mm guns were purchased as replacements for the kits parts. However the photoetch was to thin too shape properly and some of the guns and bases were also warped.



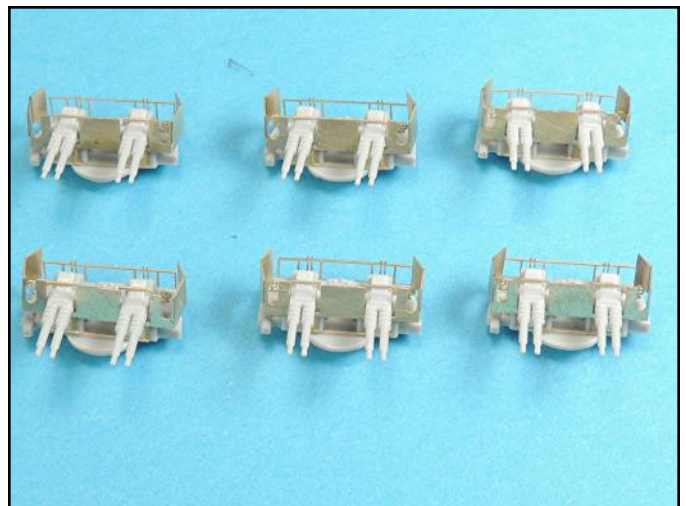
After attaching the barrels to the bases, the gun sites were added. Be sure the barrels are set at the same angle for each gun base.



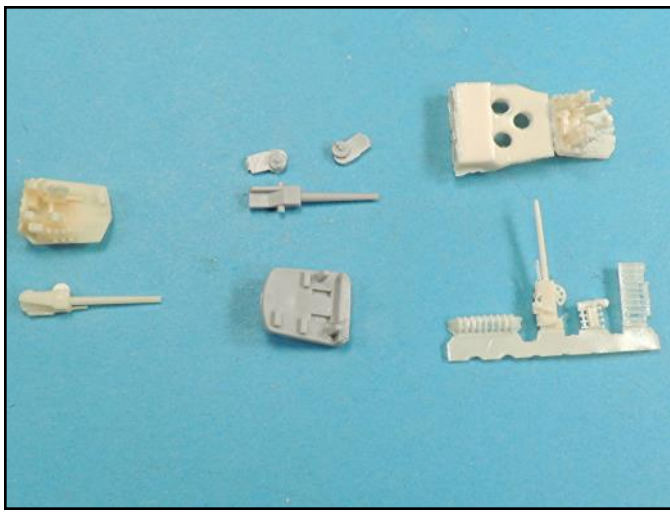
An easy way to set the back railing on the 40mm gun platforms is to position the assembly vertically and then attach the railing.



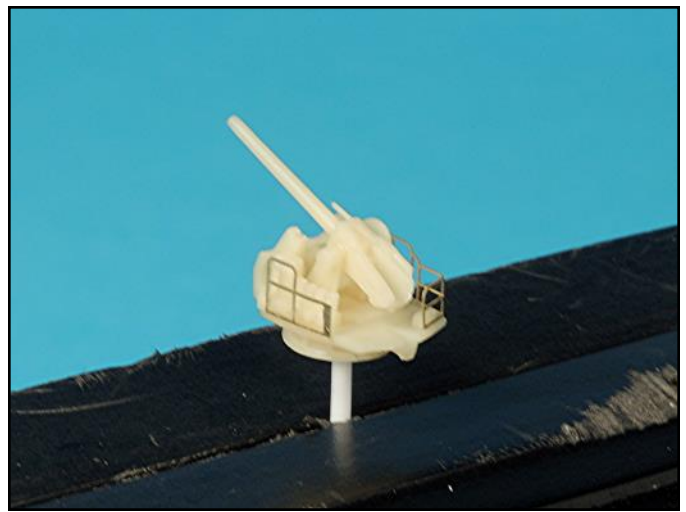
All the 40mm guns have been assembled and now it is time to add the photoetch gun shields.



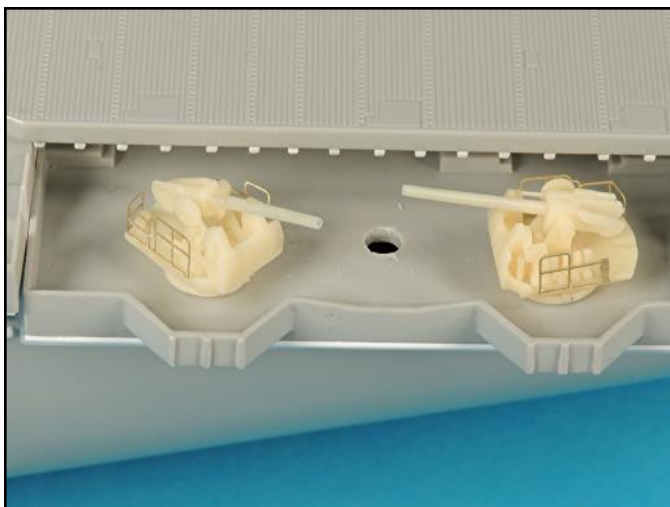
The photoetch guns were bent into shape using the jig supplied with the photoetch sheet. The jig was laminated to a .030 inch piece of plastic and then trimmed. The elevated shape made shaping the shields much easier.



The kit's 5⁷/₃₈ open mounts were replaced with L' Arsenal resin castings (on the left). The Veteran Models castings on the right had too many warped parts.



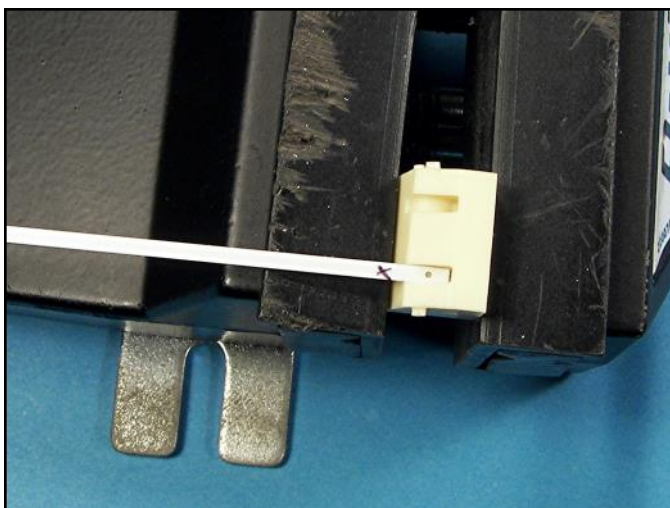
A rod was added to the base of each resin casting and then set in a vice to add the photoetch railings and the gun. The resin castings were flawless and the barrels were not warped.



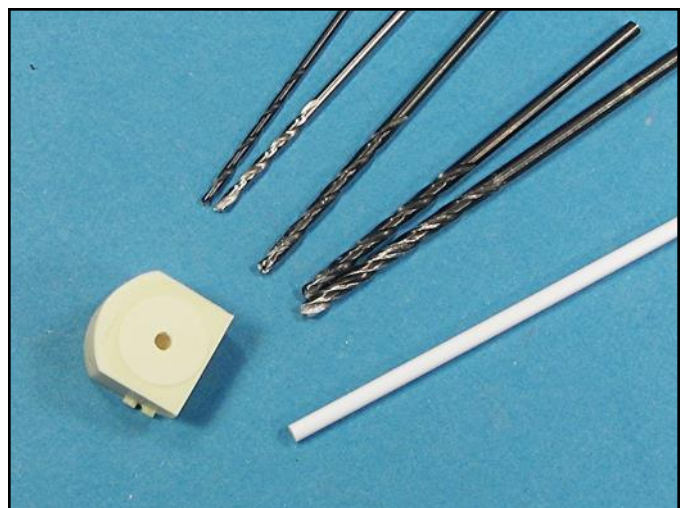
Once these assembled 5⁷/₃₈ guns are painted, the detail will stand out and they will greatly enhance the appearance of the completed model. These superbly detailed and flawless L' Arsenal castings are highly recommended.



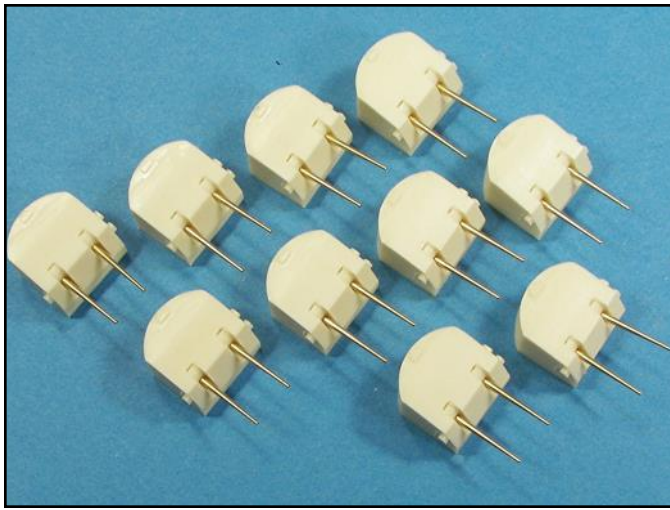
The kit's 5⁷/₃₈ turrets were replaced with Voyager Models 5⁷/₃₈ mounts, which also come with tapered brass barrels. The barrels also had locator stubs and indented barrel ends.



The tiny casting plugs were removed and a gage was made to set the locations of the barrels so that both were set at the same height and angle. The barrel holes were drilled slightly larger to allow for some wiggle room for proper alignment



The bases needed a positioning stub so holes were drilled into the bottom of each turret and plastic rod of the same diameter as the kit's locator holes were glued into place.



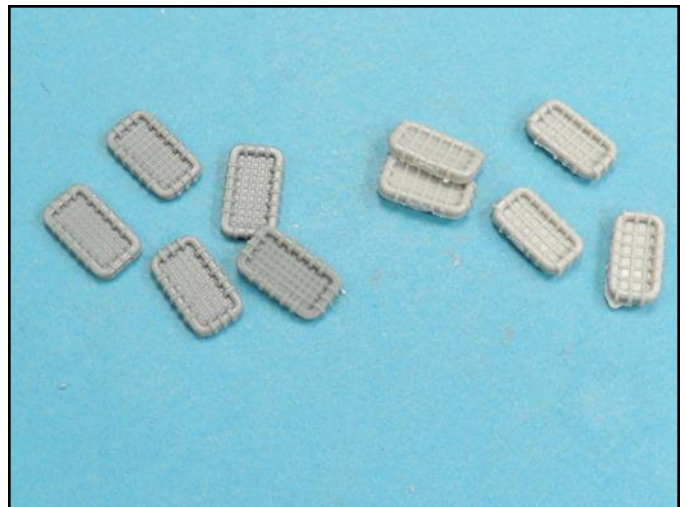
All of the barrels have been checked for positioning, but not glued. The barrels and the turrets will be painted separately. The barrels brass shields will be painted with a detail brush.



To get the kits anchors to sit correctly against the hull, remove the center stem and then attached new ones set at an angle. They should have been shaped however once they are attached to the hull very little of the stem will be seen.



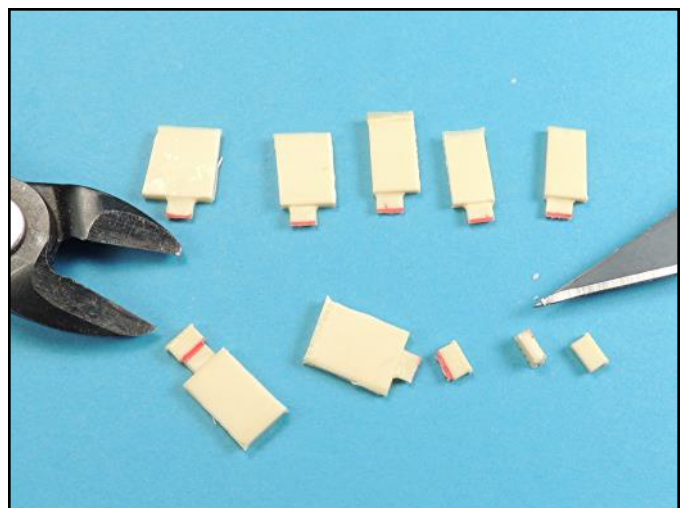
The kit's life rafts had thick tree attachment points and it took a lot of time to carefully remove the stubs without damaging the edges of each part.



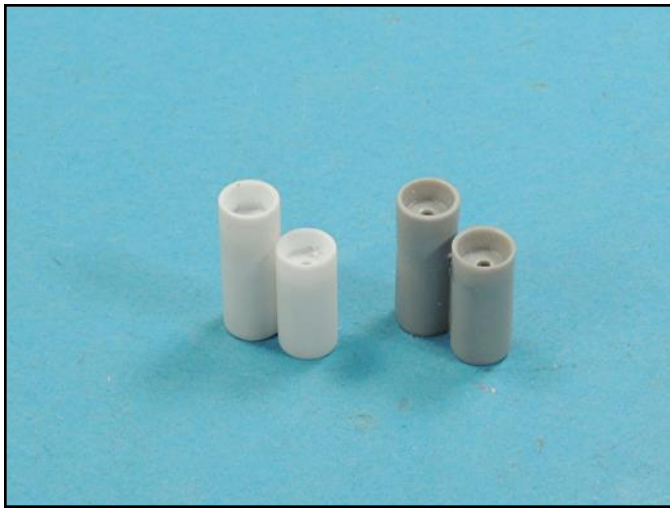
Upon closer inspection, many of the edges of the parts where the trees were attached were damaged anyway. The Tamiya Missouri's life rafts (on the left) were used instead.



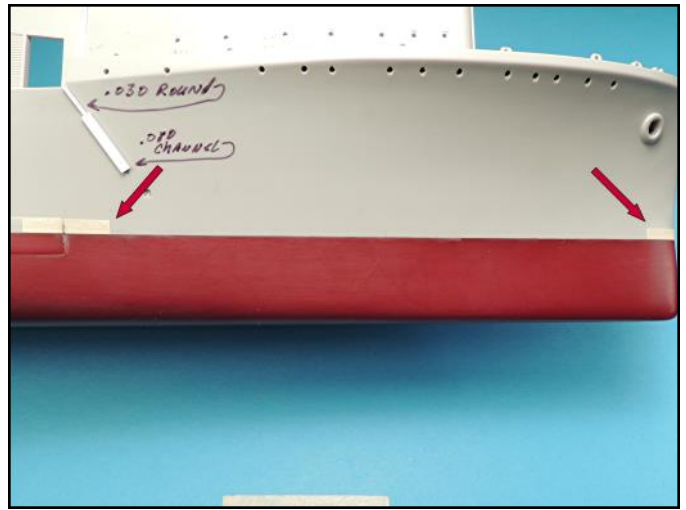
The kit's vents and anchor capstans also had tree attachment points right on the round edges of the parts, which damaged the round shapes. Here again use the Tamiya Missouri parts.



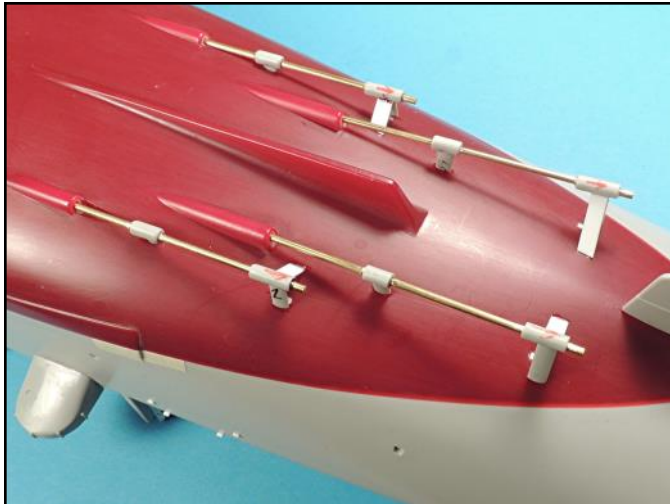
The kit did not have any 20mm gun boxes so Alliance Modelworks resin cast gun boxes were used. They are well detailed and flawless. Use a red marker as a visual guide for clipping the pour plugs and scraping the bases flat.



The stern elevated 40mm gun director platform was replaced with a scratchbuilt one.



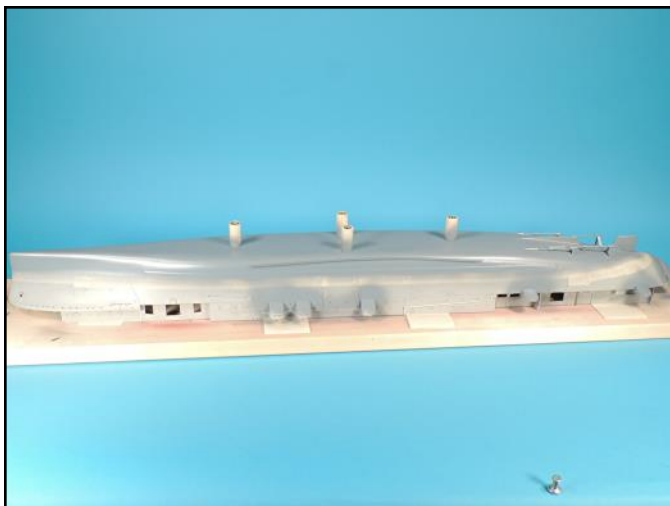
To set the lower red hull color, small sections of masking tape were applied at the torpedo belt edge and at the bow and the stern.



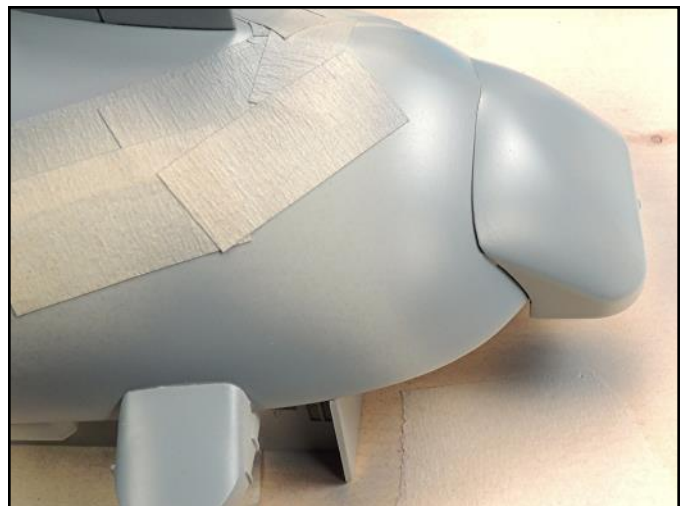
The rudder, the propeller shafts and "V" struts were carefully positioned and glued into place prior to priming and painting.



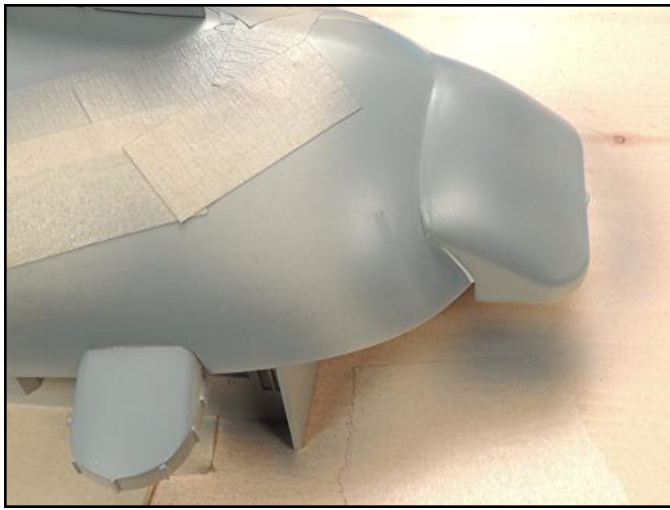
Long sections of masking tape with clean cut edges were applied along the demarcation line between the red hull color and the gray hull color.



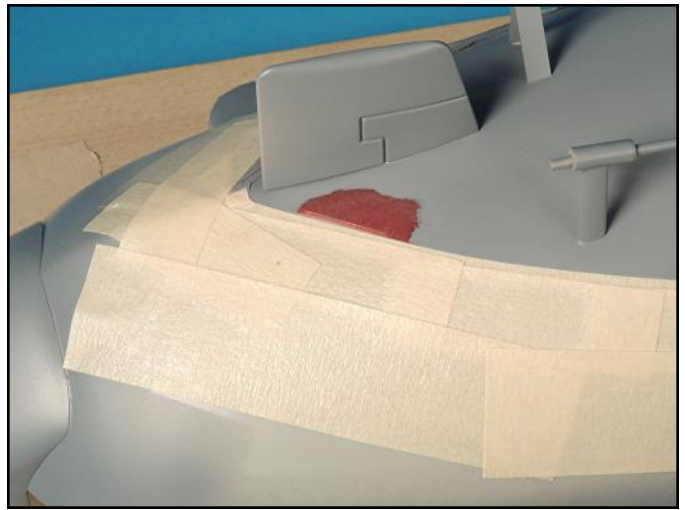
The lower hull area was primed, including areas where there were voids located on the undersides of the hull sponsons.



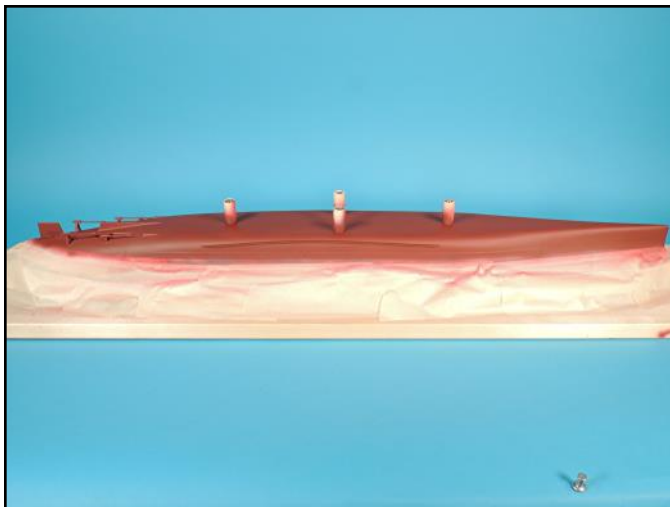
This void would be very difficult to fill with either putty or super glue.



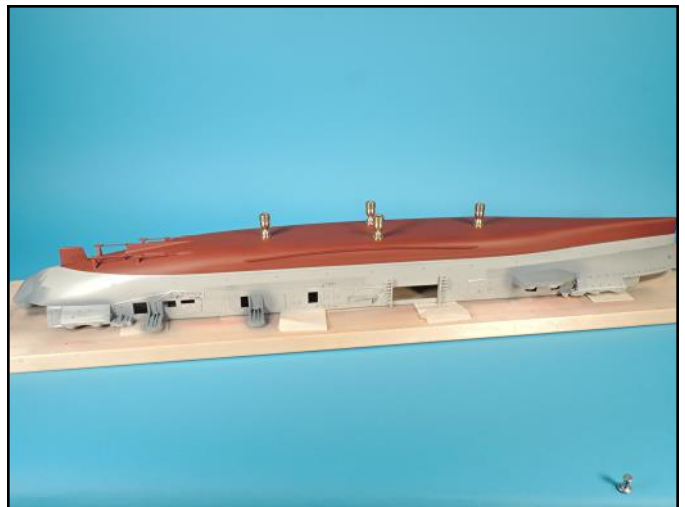
The easy way to fill these voids is to prime the area and then fill them with white glue contoured with a damp "Q" tip. The white glue will stick nicely to the flat primer.



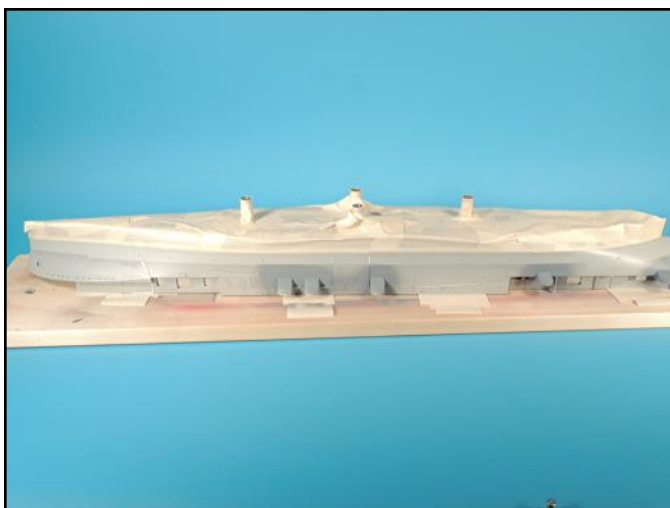
After priming a final check for flaws revealed a crack in the seam at the stern. Tiny beads of super glue were used to fill the crack. It was sanded smooth and the masking tape reapplied.



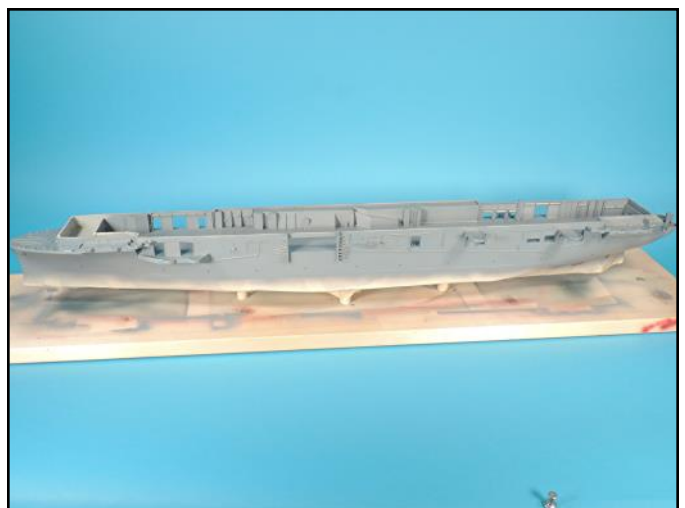
The lower hull red color was achieved with flat red with a few drops of flat black mixed in so that the resulting paint color was almost a blood red color.



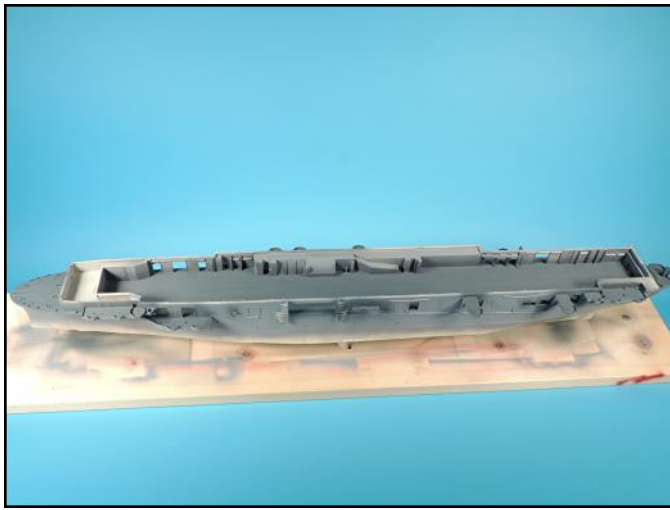
The hull red color has a nice sharp demarcation line that will make it easy to mask over.



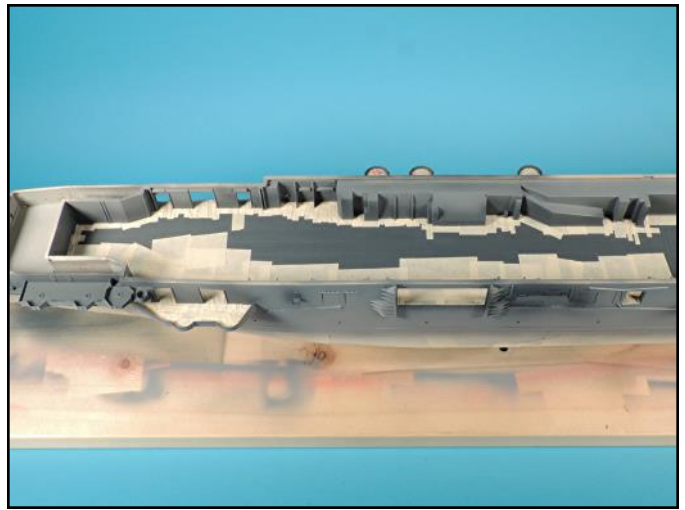
The hull red color was then carefully masked. Note that the undersides of the sponsons were re-primed after the white glue filler dried. This is the first masking tape layer.



A thin strip of tape was applied to the tops of the hanger deck superstructure, as this is the gluing surface for the flight deck. The entire upper area including the interior of the hanger deck was then primed.



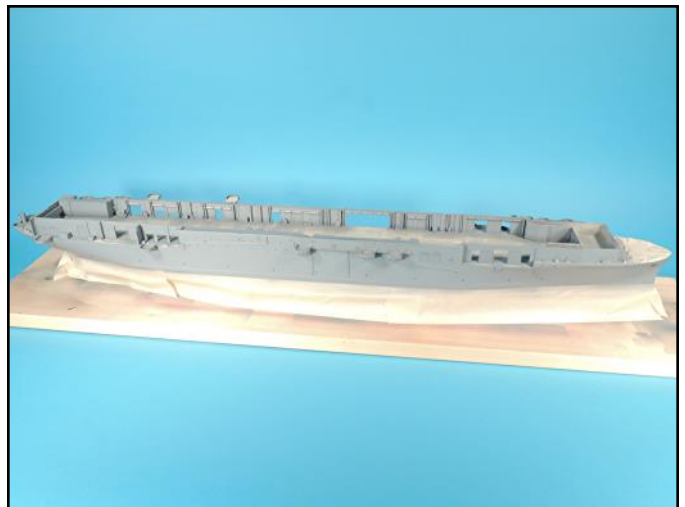
To get a deck blue color, use Testors flat sea blue as the base color and then added Intermediate blue to it to lighten up the flat sea blue. This color was then airbrushed onto the hanger deck, the fore and aft decks and the sponson decks.



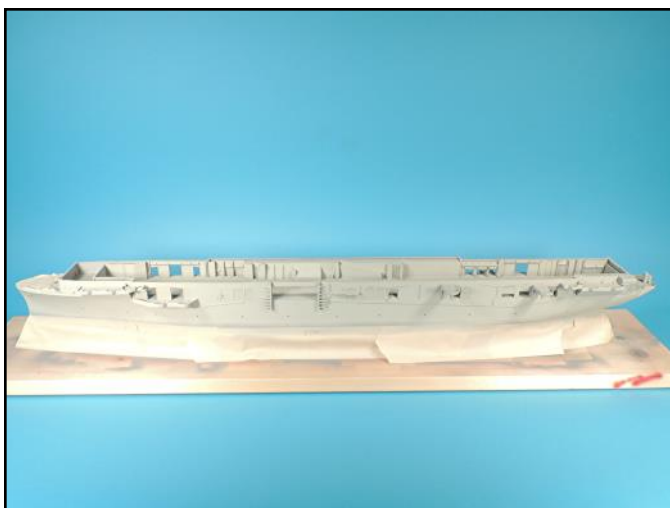
The decks were then masked. Small section of masking tape were applied around the perimeter of the hanged deck as well as all the other deck locations. This is the second masking tape layer.



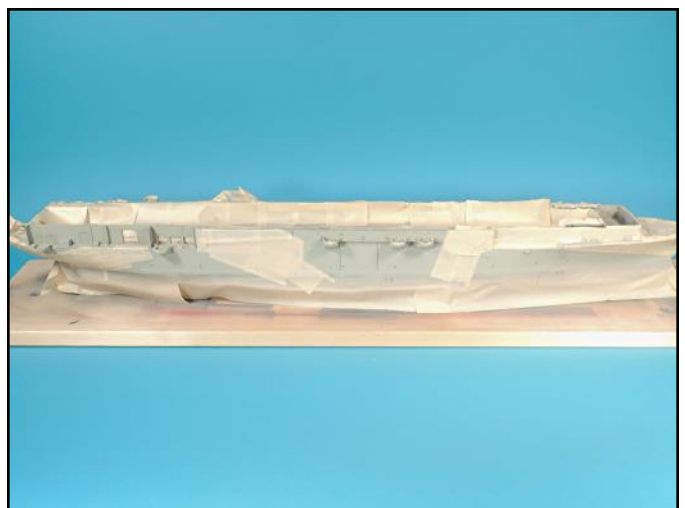
Larger sections of masking tape were used to cover the large areas outlined by the perimeter tape. This is the first step in the paint layering technique for this model.



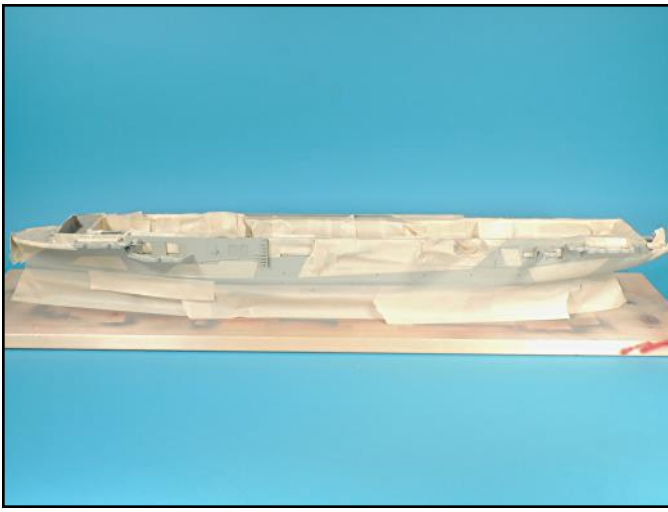
All exposed surfaces were then re-primed.



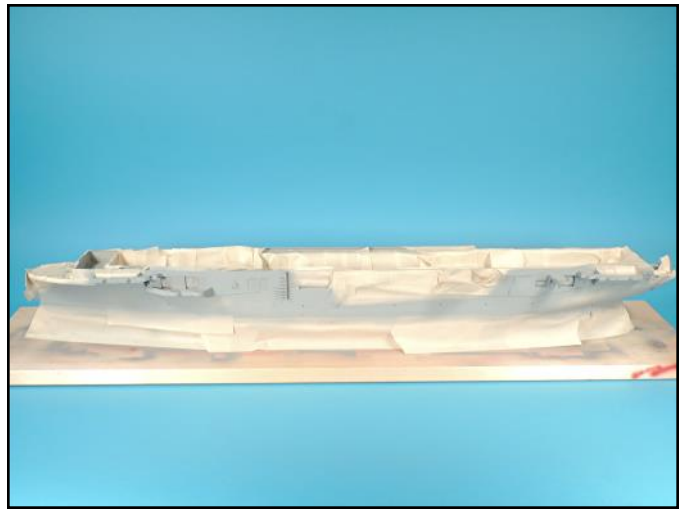
Two light coats of Testors flat gull gray were airbrushed onto all exposed surfaces. This color will also become the base color for the dazzle pattern.



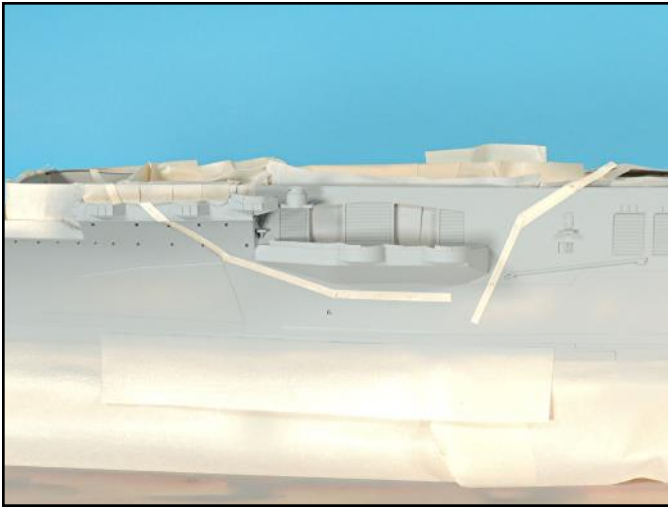
The interior bulk heads of the hanger deck were masked and then the first dazzle patterns were cut and carefully applied to the hull and the superstructure. The third layer of masking tape is covering select areas of flat gull gray.



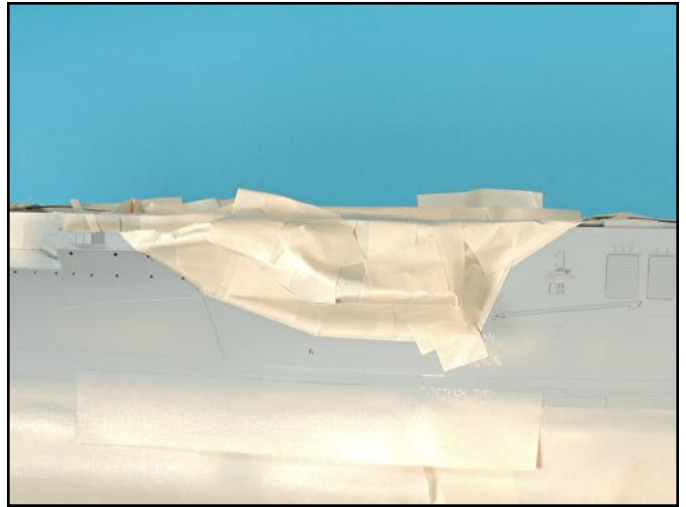
Masking tape patters were also applied on the port side to cover select areas of flat gull gray.



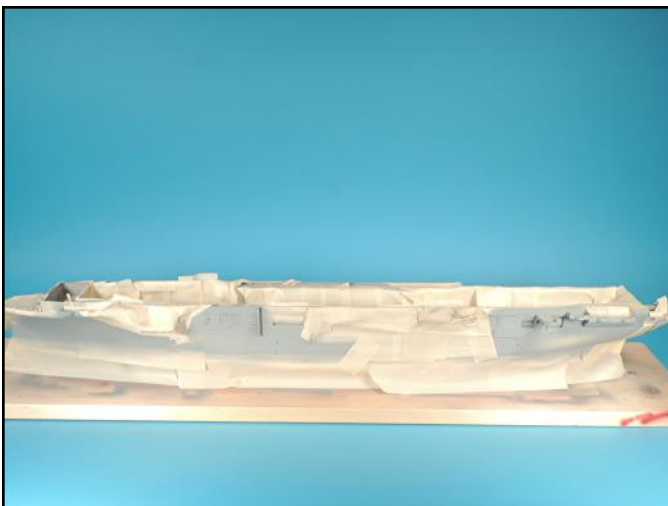
The next paint layer was Testors dark ghost gray which replicates an ocean gray color.



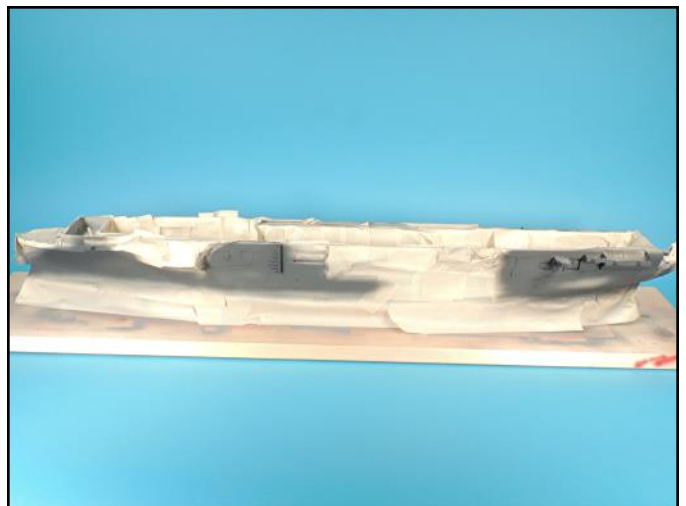
Thin lengths of masking tape were applied to outline the dark ghost gray color.



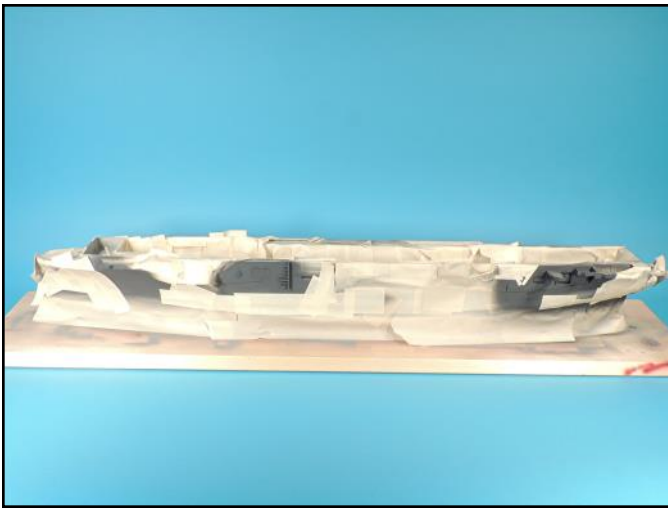
The areas were then filled in with larger sections of masking tape. This is the fourth layer of tape, which is also applied over the other layers.



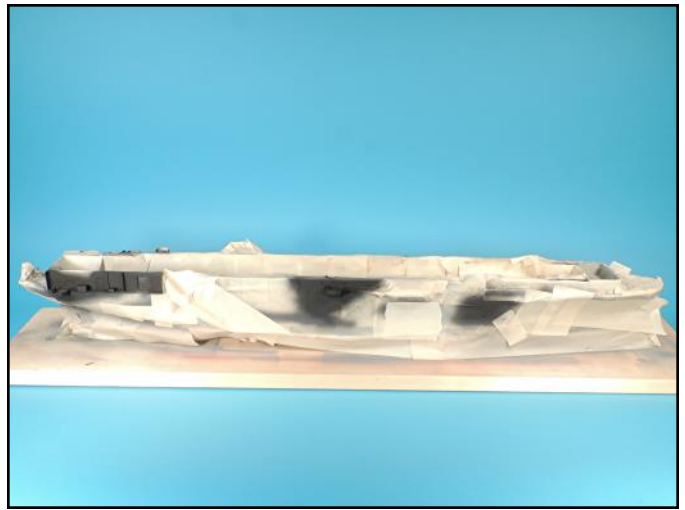
The port side masking of the dark ghost gray color is complete.



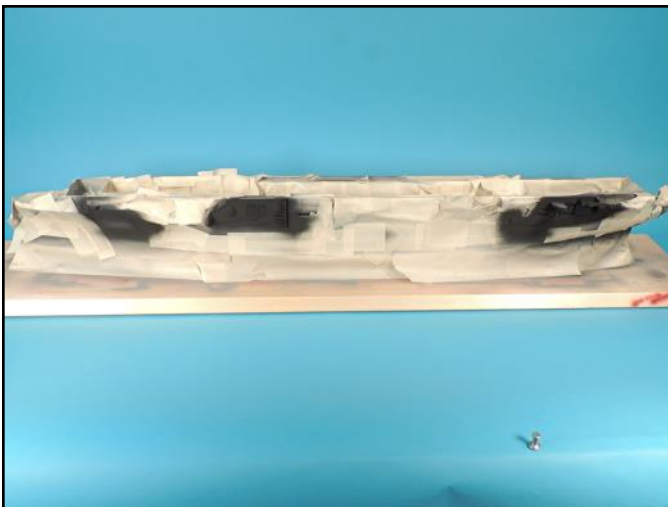
The next paint layer to be airbrushed is the charcoal color. This color is Testors flat black with some flat white added to lighten up the flat black color.



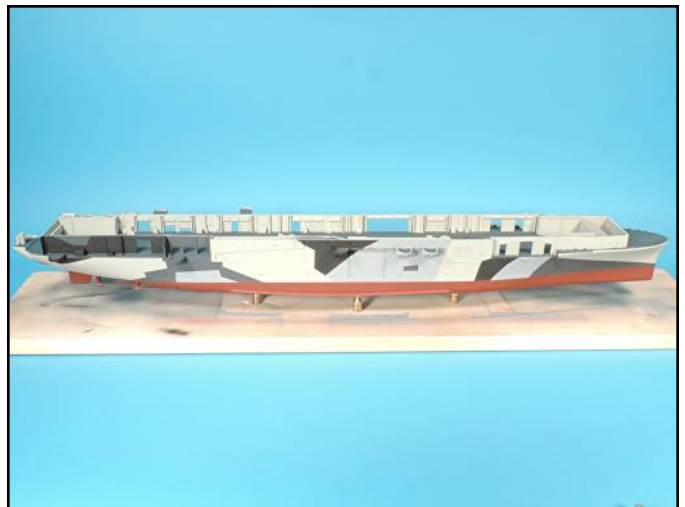
The charcoal color is then masked over with patterns on the port and starboard sides. This is the fifth masking tape layer.



Flat black was then airbrushed onto the starboard side.



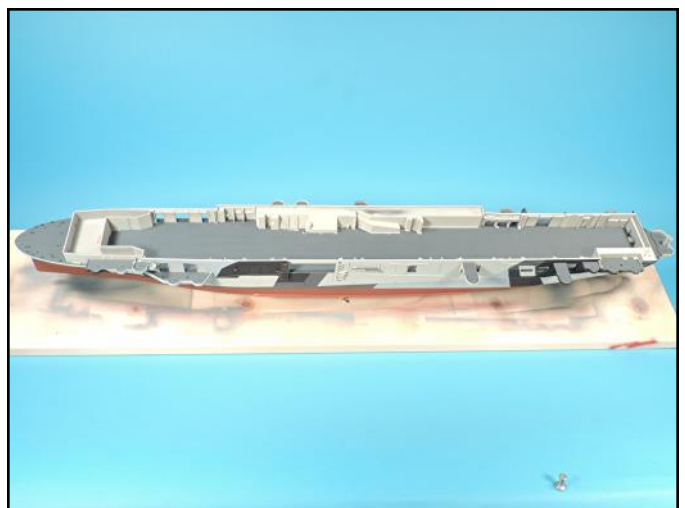
The flat black color was then airbrushed onto the port side after select areas were masked.



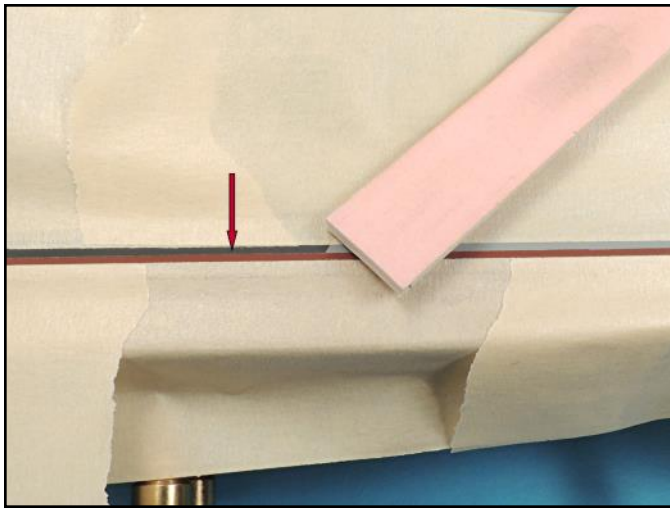
It took time to carefully remove the layers of masking tape, but all the tape cutting, careful application and double checking the tape edges paid off. The demarcation lines between the colors are very sharp.



There were a few demarcation lines that needed some touch up, but the vast majority of lines had no paint bleeding. The dazzle pattern looks good on both sides of the hull.



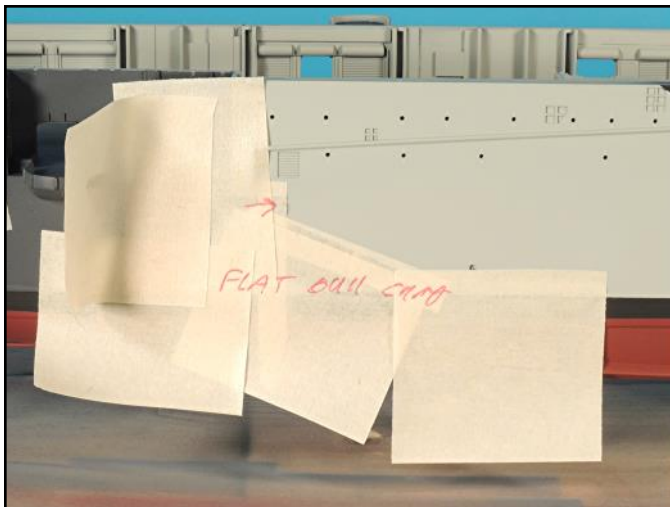
The decks and the superstructure sides also had very sharp demarcation lines between the deck blue color and the interior bulkhead flat gull gray color.



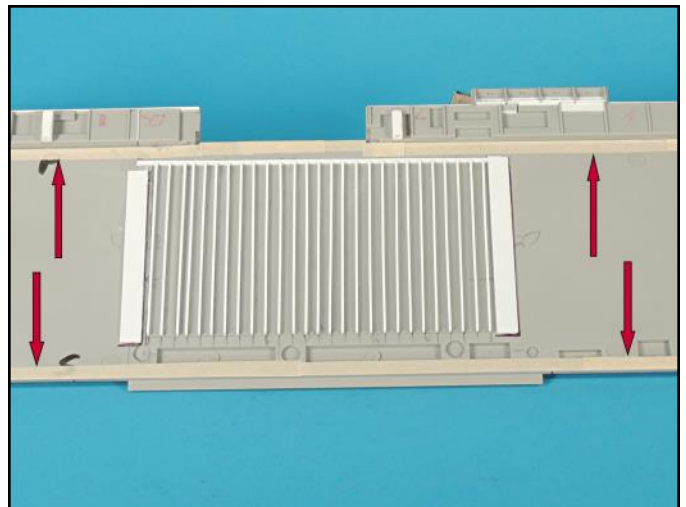
To smooth out the paint ridge line between the hull red and dazzle colors, the hull waterline stripe was set with masking tape. A sanding stick was used to carefully smooth out the ridge. New masking tape was then reapplied.



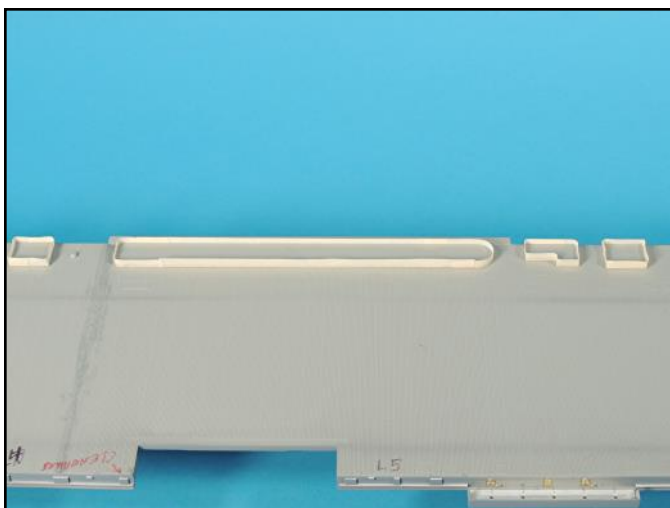
The hull waterline stripe was airbrushed Testors flat black. Liberal amounts of masking tape were used to protect all the surfaces from over spray.



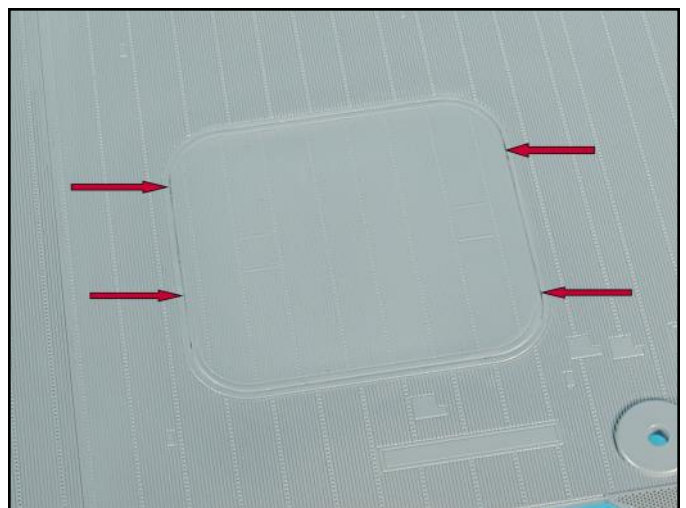
Clean cut sections of masking tape were used to fix any paint bleeding between paint colors. The color to be airbrushed is written on the masking tape to prevent using the wrong color.



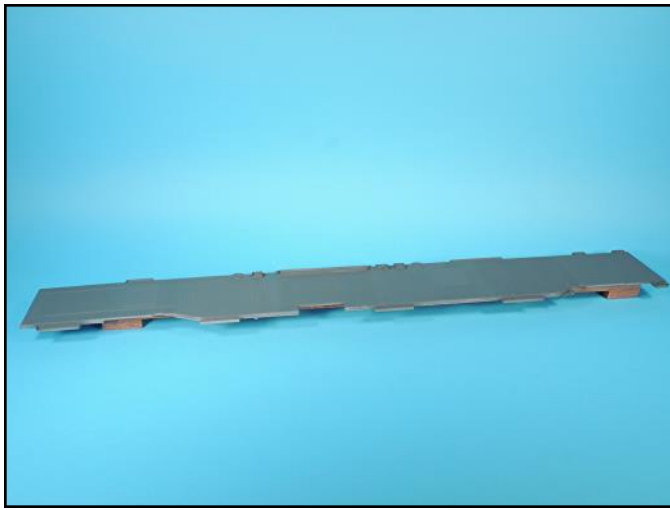
Thin strips of masking tape were applied along the gluing surfaces where the underside of the flight deck will attach to the tops of the hanger deck superstructure sides.



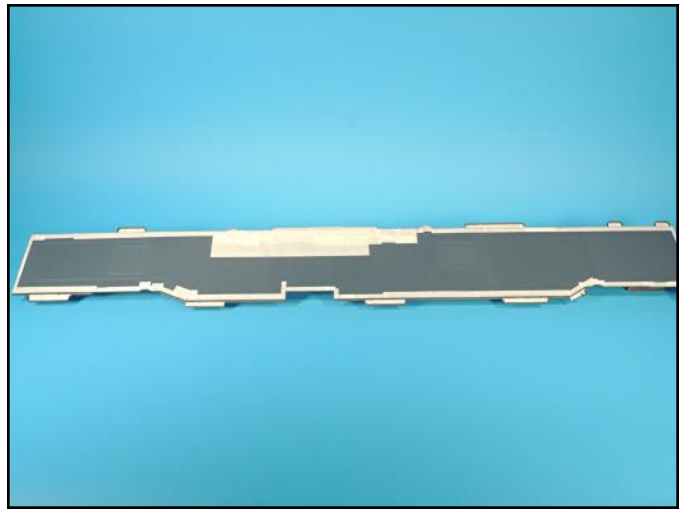
The sides of the raised positioning blocks for the flight deck island superstructures were masking so the gluing surfaces would not have to be scraped. Both sides of the flight deck were then primed.



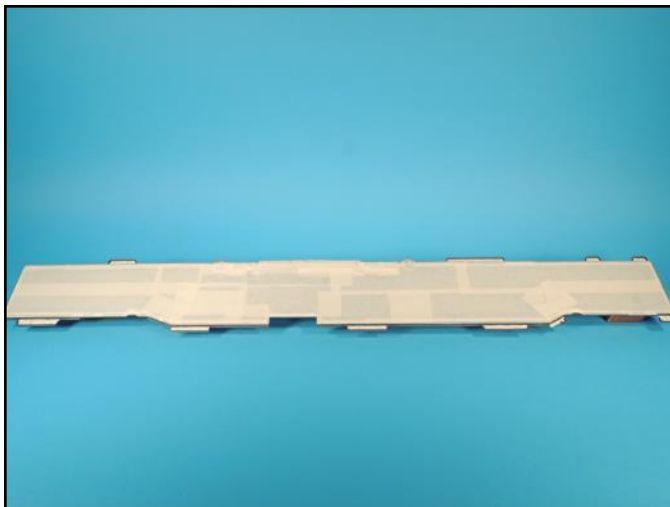
The deck elevators had tiny voids around their perimeters. Use white glue applied with a thin wire applicator as a filler and prime the surface between applications to check your work.



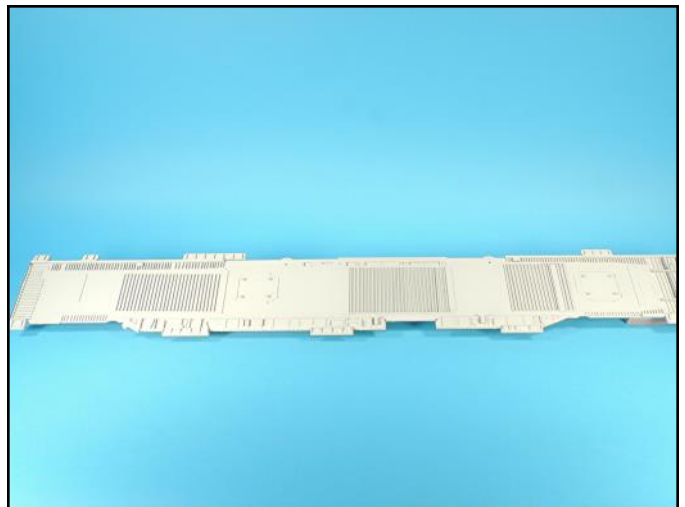
The flight deck and all the platform deck surfaces were airbrushed deck blue.



The perimeter of the flight deck and all the platforms were masked with small strips of masking tape.



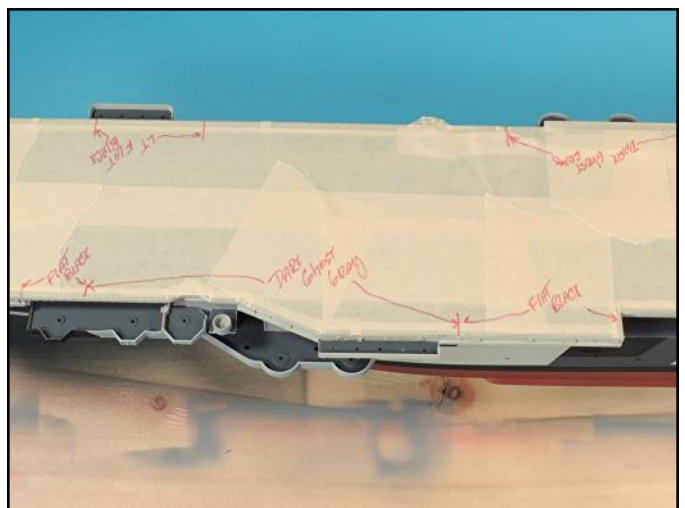
Larger sections of masking tape were then used to cover the remaining deck surfaces.



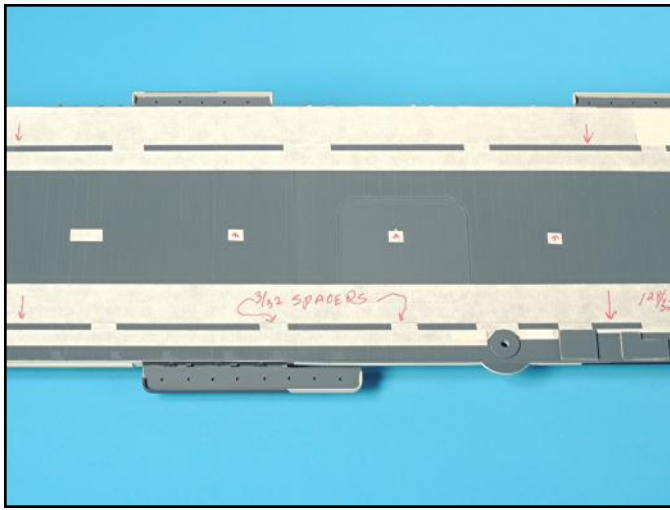
The sides of the flight deck, the platform splinter shields and the underside were airbrushed flat gull gray.



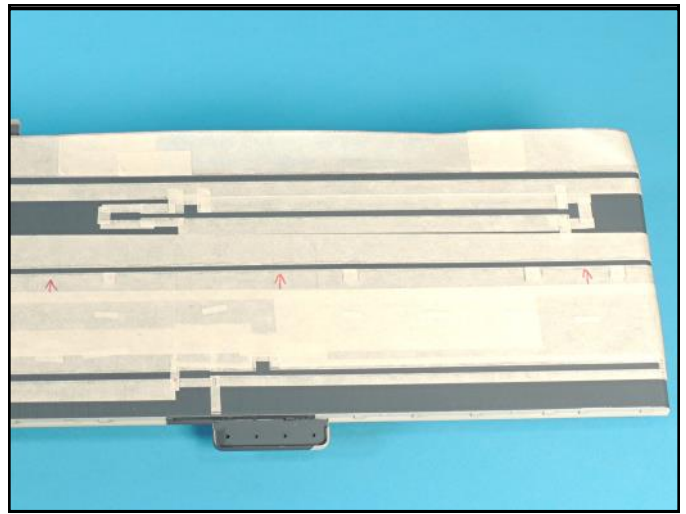
The flight deck was positioned on the hull so the dazzle pattern color locations could be transferred to the flight deck platform splinter shield outer surfaces.



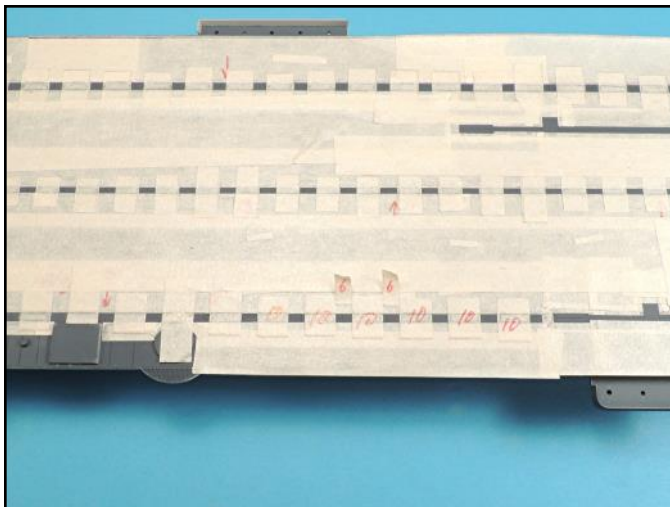
The dazzle pattern locations were marked along with notes on which colors to use. The sides were masked and the appropriate colors airbrushed using the same layering technique as the hull.



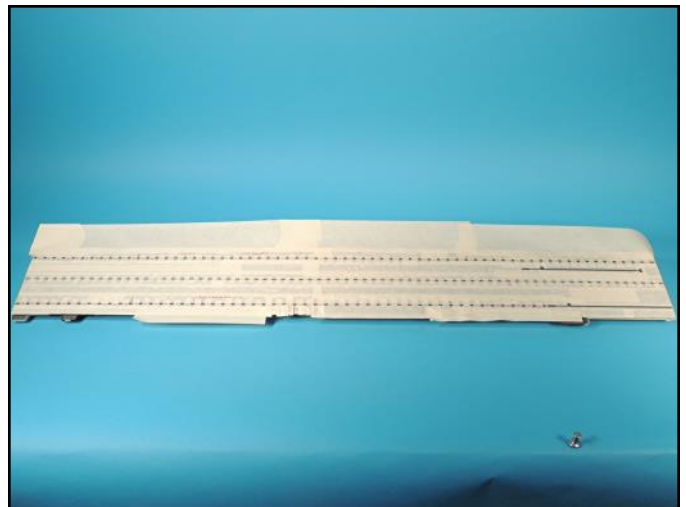
All the masking tape was removed and the flight deck masked for the white stripes. Masking tape was cut to the exact stripe width needed. The outer masking tape was applied first, then the spacers, then the inner masking tape.



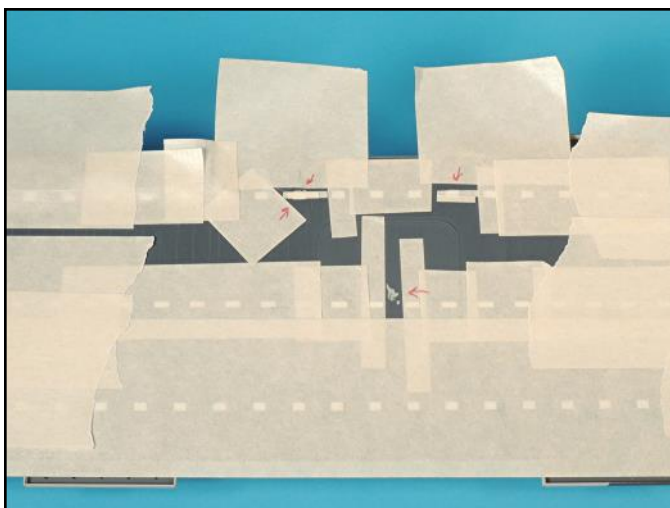
The white solid strips for the forward flight deck area were carefully set in place using the outlines engraved into the flight deck.



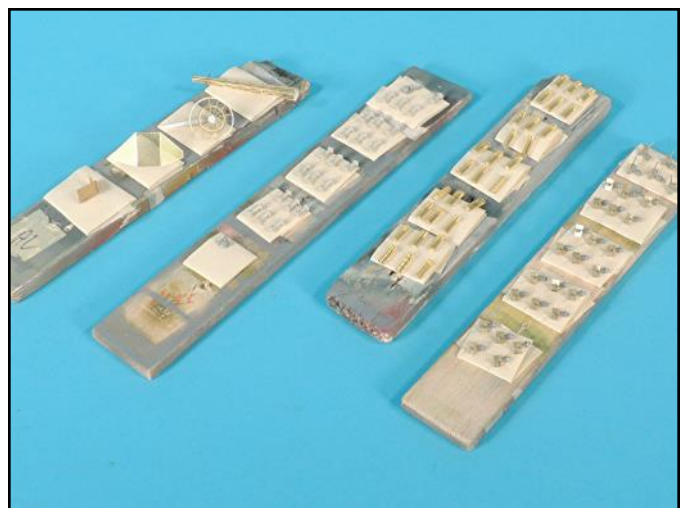
More spacers were measured, cut and applied to set the distance between the white stripes and the width of each strips.



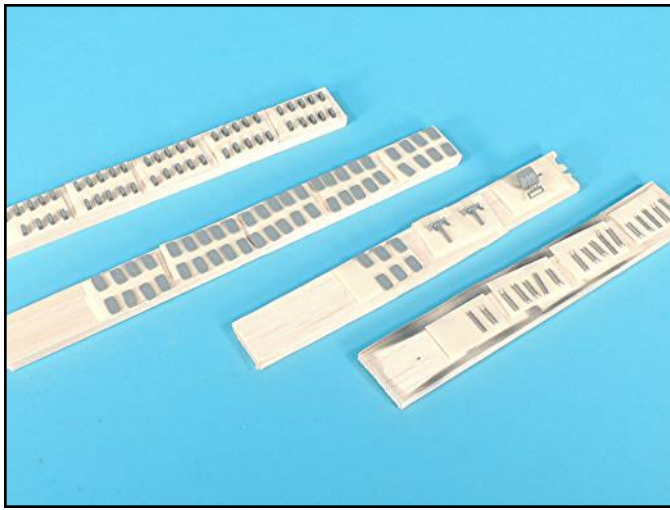
All the deck masking is complete. The masking was rechecked using a sharp pencil to be sure each edge was firmly attached to the deck or to other layers of masking tape.



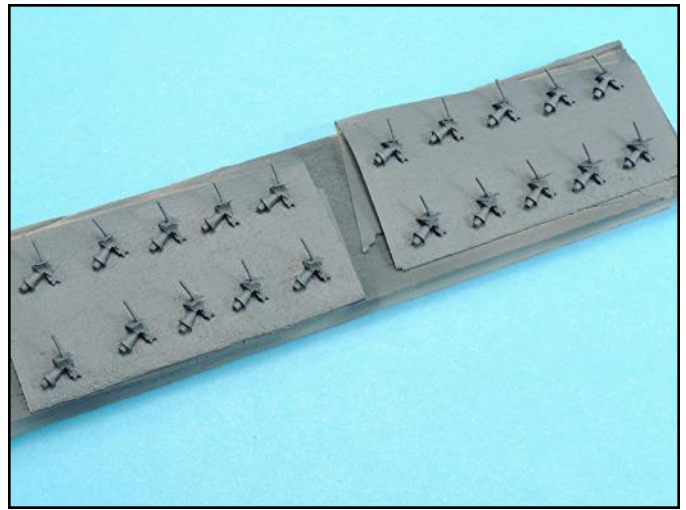
Some minor paint bleeding occurred in some areas. The deck blue color was applied after careful masking and airbrushed at a low air pressure (15 psi).



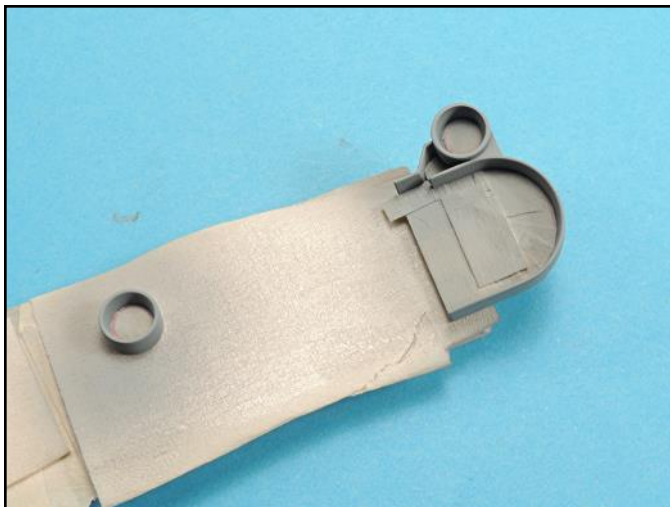
Part management on a kit with so many parts is important. Sections of balsa wood were used with making tape folded over so all the parts could be easily attached, airbrushed and then placed back into their storage bins.



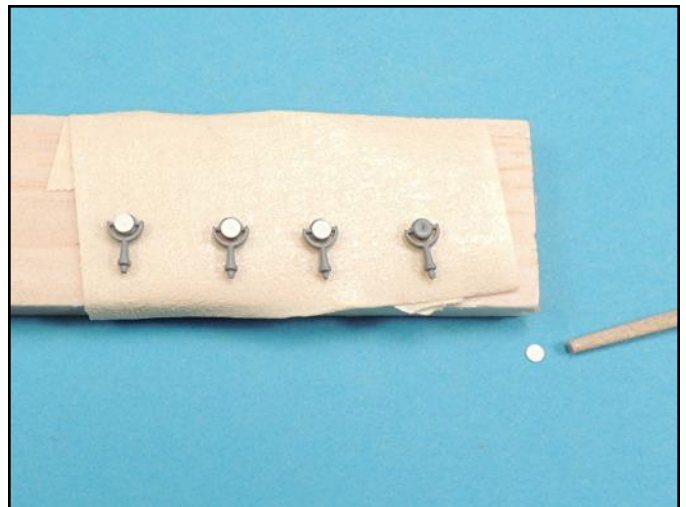
All the small parts were primed on both sides and then given the finished colors. While flipping the parts over, replace the masking tape so that no parts will come loose during airbrushing.



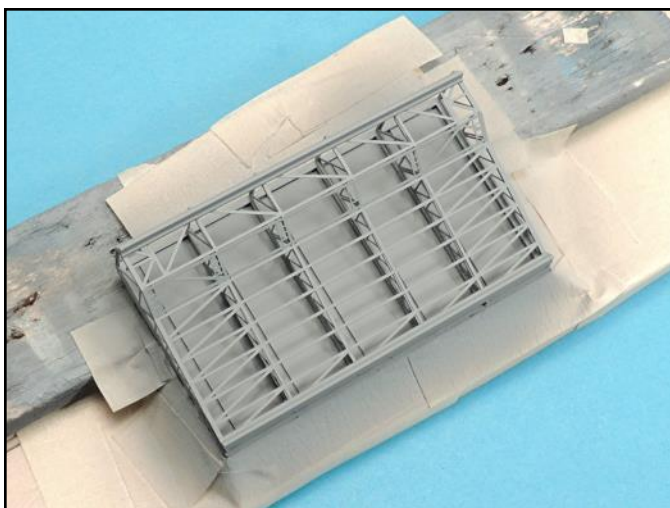
The 20mm guns were layed on the sides and then flipped so that the paint got onto all the flat and angled surfaces.



The small deck parts had their navy blue deck color applied first, then the decks were masked, the surfaces re-primed and then given their final surface colors.



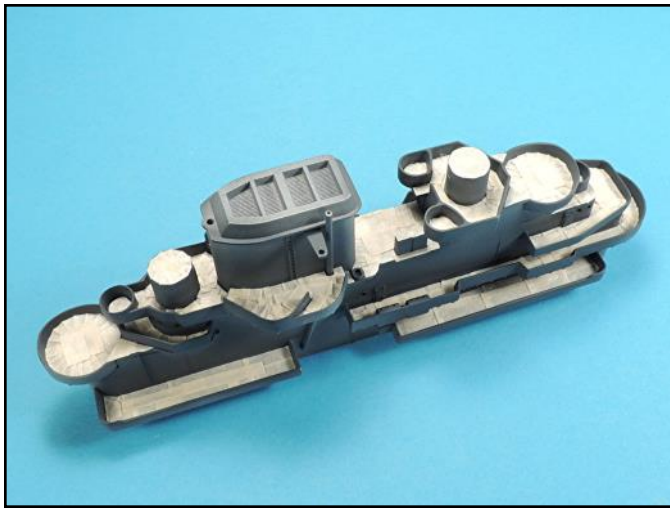
A Waldron punch tool was used to make small white disks from a decal sheet for the search light faces in order to hide the dimples on the surfaces. A light blue color would have been a better choice.



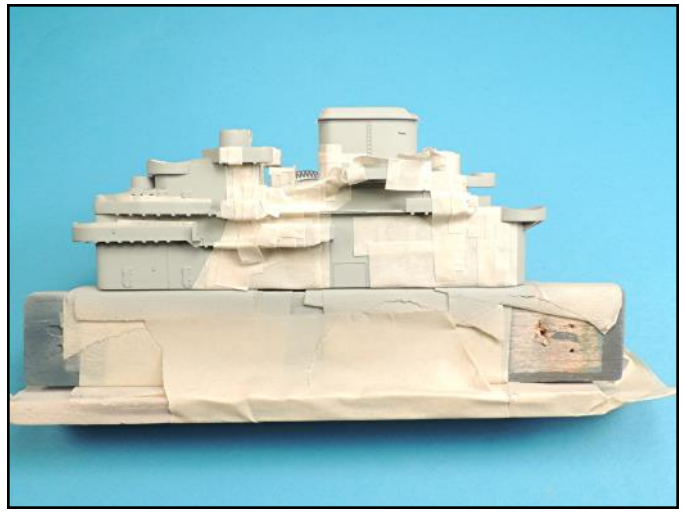
Use low air pressure (15 psi) to airbrush the underside of the side elevator framing. Be sure to get paint on all the surfaces.



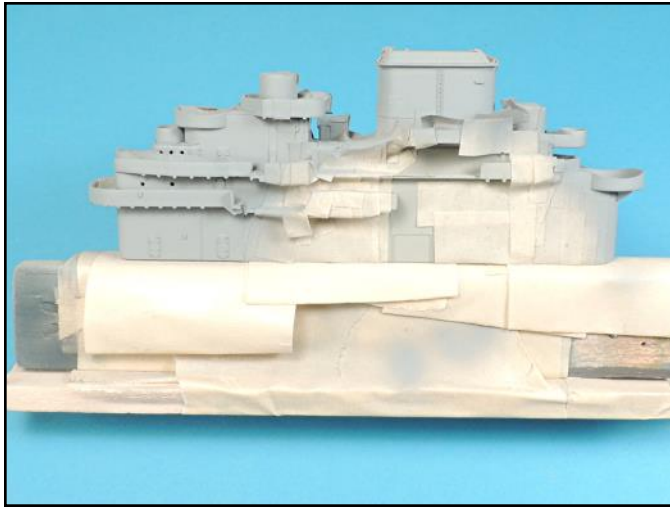
To make sure the propellers are not mixed up etch numbers 1-4 on the backside of one of the blades on each propeller and note these numbers on the instructions. The propellers were airbrushed Testors brass color.



The island superstructure decks were airbrushed deck blue, the surfaces were masked and then the entire assembly was re-primed.



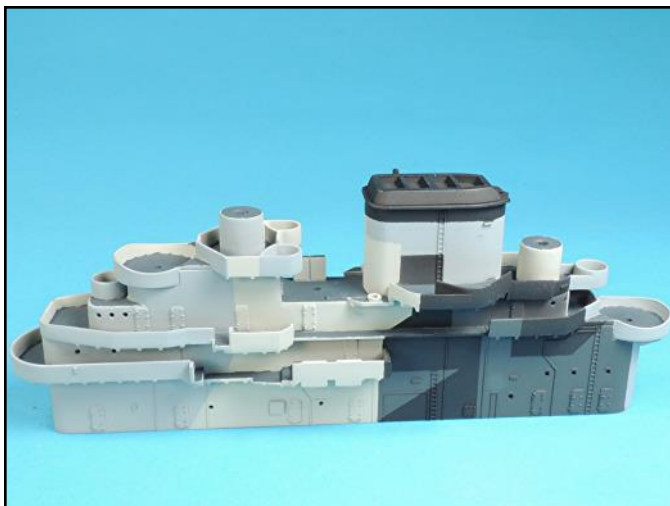
The flat gull gray color was airbrushed and then the surfaces were masked for the dark ghost gray color.



Both sides of the island superstructure were masked for the dark ghost gray color.



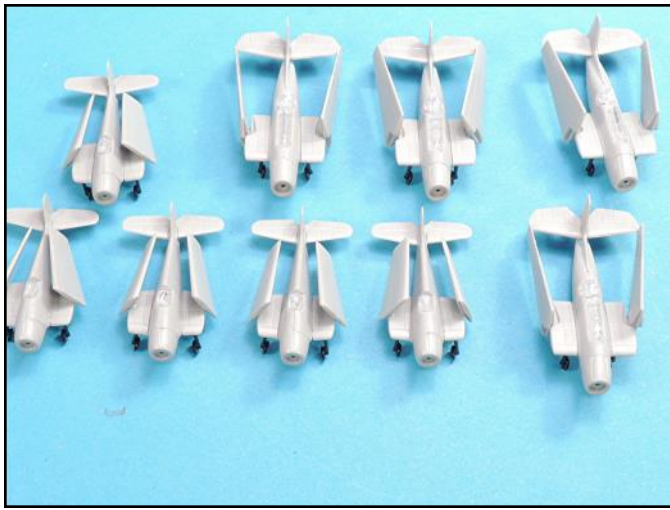
The dark ghost gray color was then masked on both sides and the light flat black was airbrushed. These areas were then masked and the flat black color was airbrushed. The smoke stack cap was also airbrushed flat black.



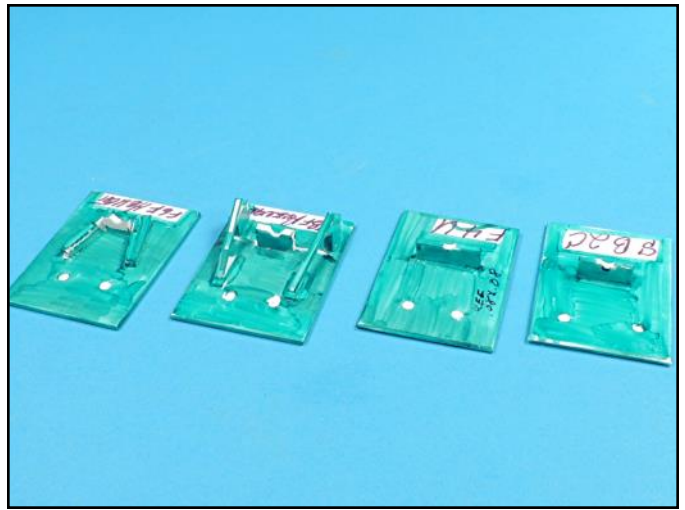
The port side dazzle colors look good and there are sharp demarcation lines between the colors.



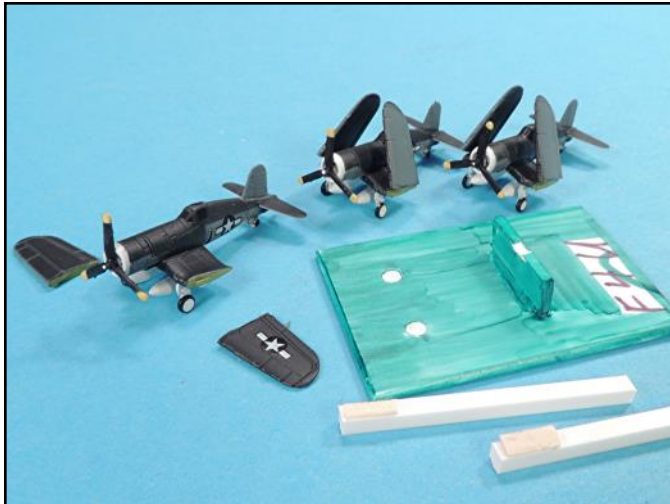
The starboard side had a little paint bleeding around the smoke stack that needed to be touched up.



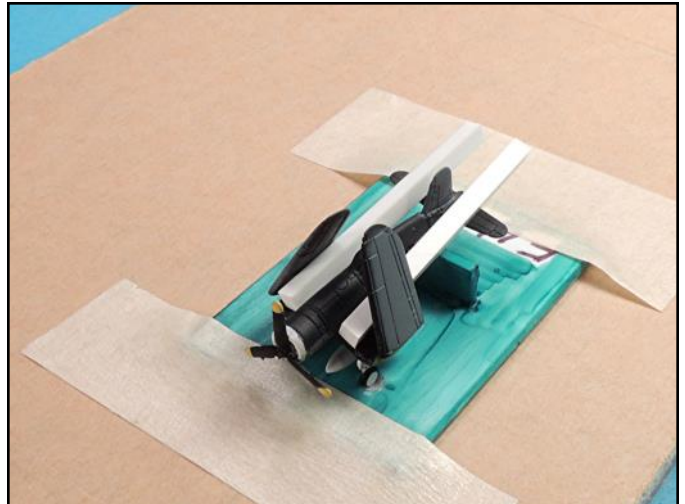
The kit supplied aircraft were assembled and then painted. No seam work was done on them because these aircraft were positioned on the hanger deck between the Pit-Road pre-painted aircraft.



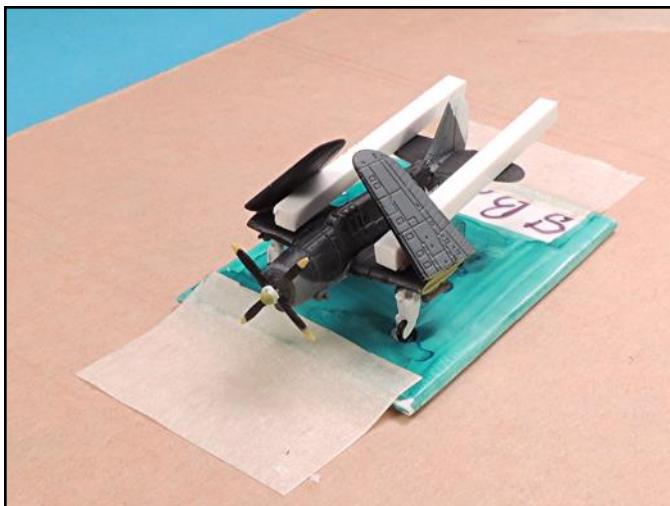
To help position the wings on all the Pit-Road pre-painted aircraft, a set of jigs were made for positioning the aircraft and the separate wing pieces.



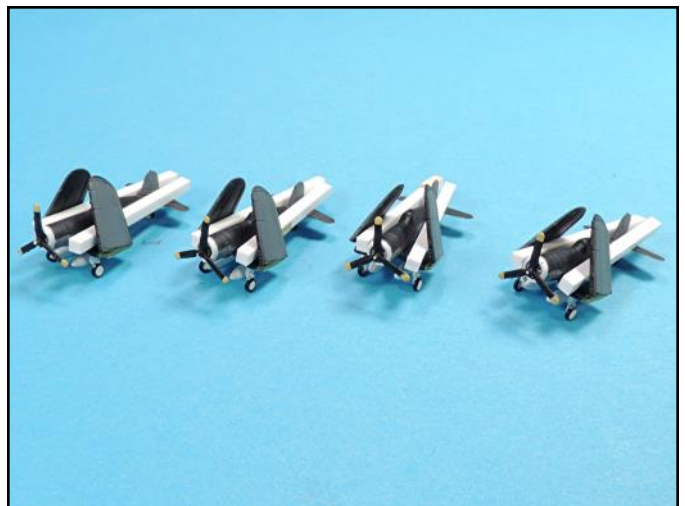
In addition to the jigs, lengths of plastic strip were used to set the spacing between the folded wings and the fuselage. Tiny strips of masking tape were positioned onto the strips so that they would sit securely on the upper wings.



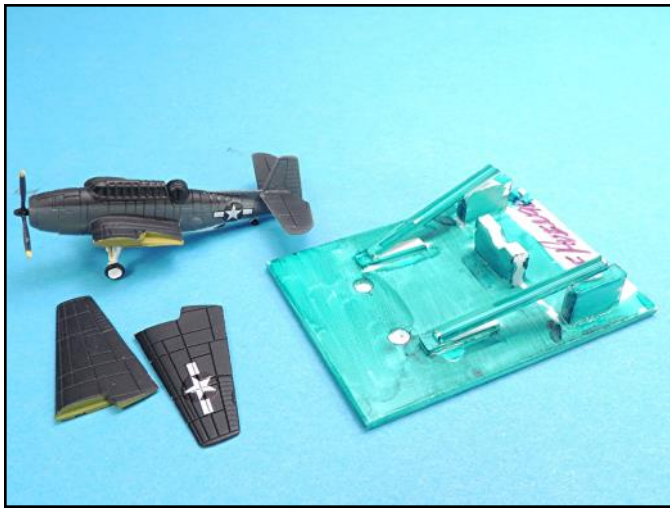
The F4U Corsair is set in its jig along with the spacers. White glue was used to glue the outer wings to each pre-painted aircraft.



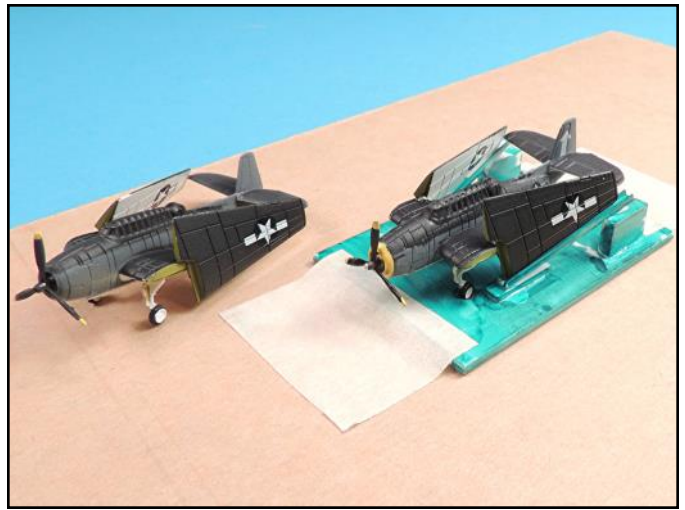
The spacer strips were positioned on the upper inner wings first and then white glue was applied to the edges of the wings and then attached. The white glue is sticky enough to hold the outer wings in place.



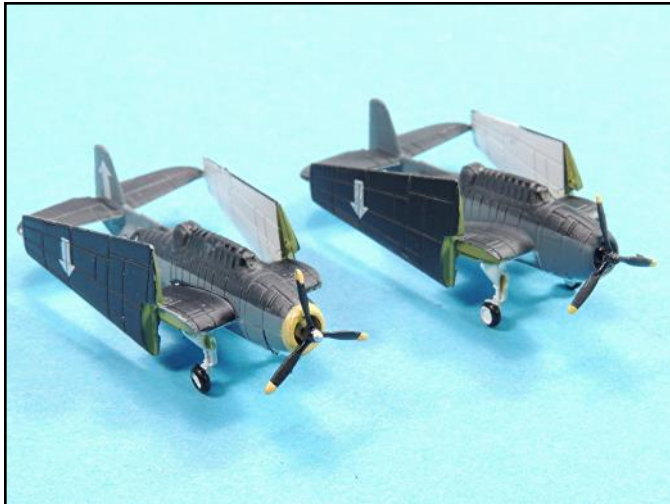
Sets of spacers were made so that more than one Corsair could be assembled and glued together. The spacers were carefully and slowly pulled out from the rear of each aircraft.



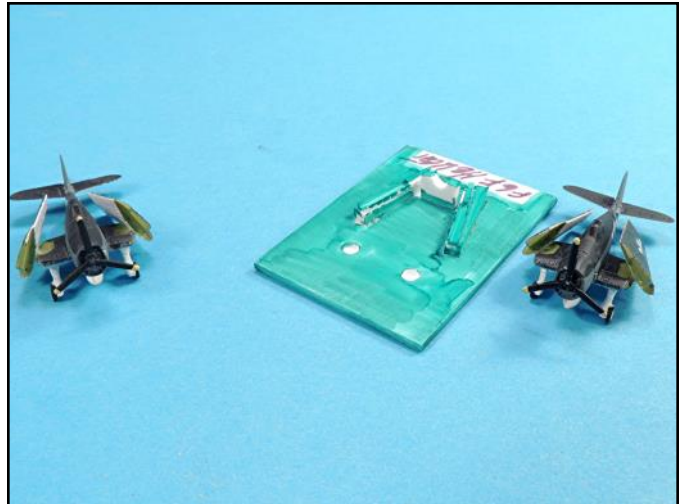
The Avenger wings were a bit tricky to attach. The outer tips of the wings needed to touch the outer tips of the elevators to get the wings to look correct and also have two gluing attachment points. Note the angled channels.



To keep the jig from moving around while the wings are being attached, tape the jig to a length of wood or a section of Plexiglas.



The spacers could not be used on the Avengers. When making the jig for this aircraft, special care was taken to be sure the channels that the leading edges of the wings would sit in were set at the correct angle.



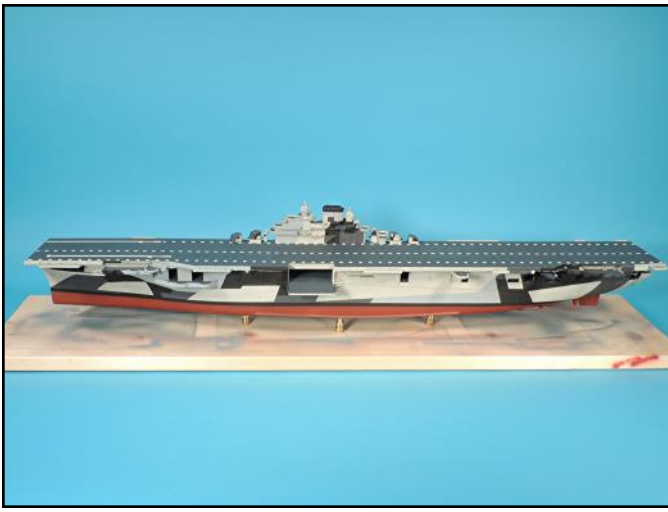
The spacers could not be used for the Hellcat wings either, however the channels set the height and angle correctly.



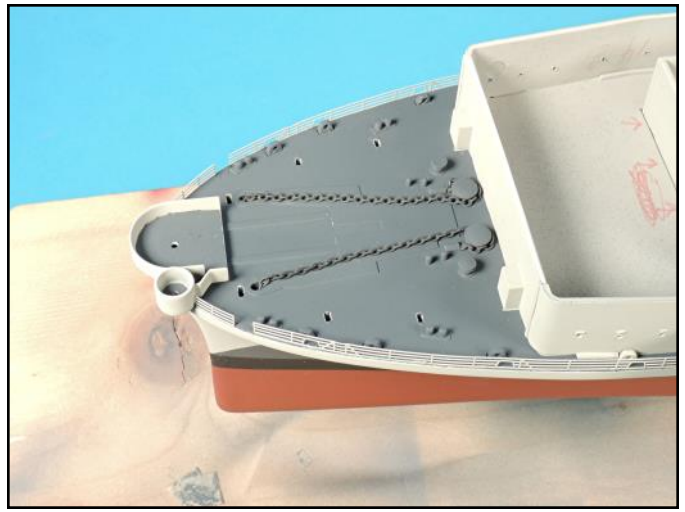
The jigs made gluing the wings much easier and helped ensure that the positioning of the wings was the same for all the aircraft.



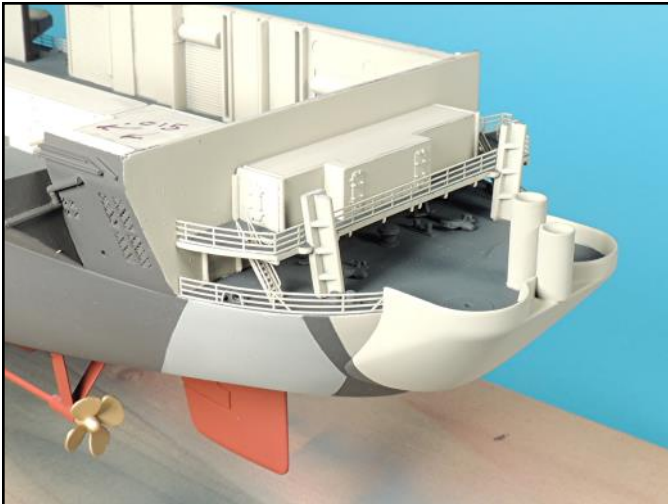
The wings on the SB2C Helldiver aircraft were the easiest to glue into place.



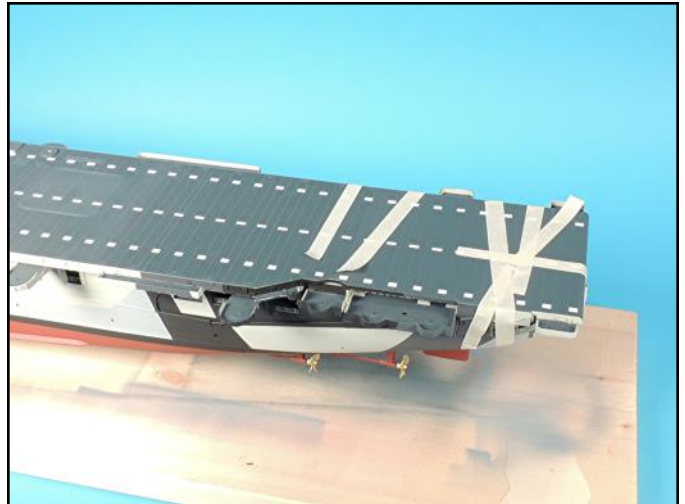
Prior to final assembly the flight deck, the island and the 5 inch turrets were checked to be sure all the dazzle pattern colors looked good.



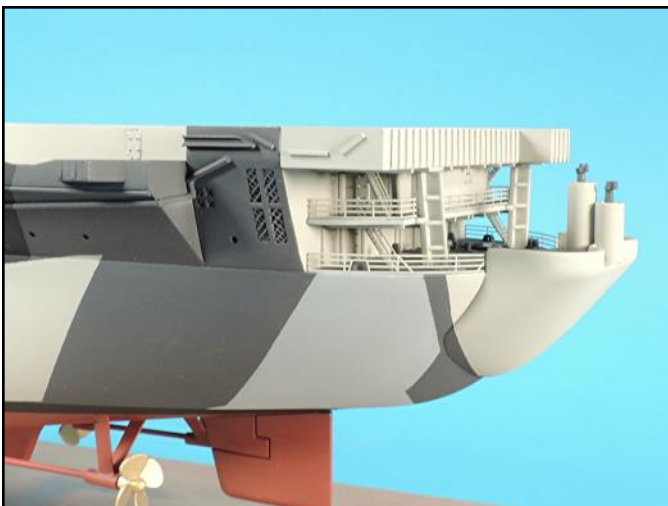
The anchor chains were added first and then the railings.



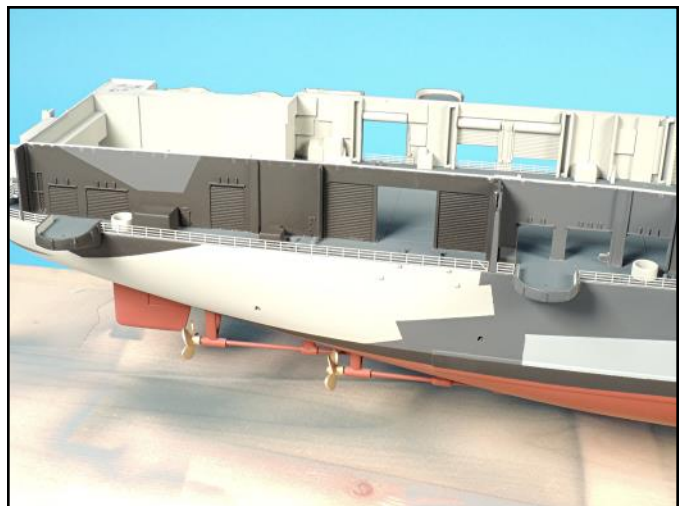
The railings were added to the upper level and to the main deck prior to attaching the superstructure sub-assembly. The inclined ladders were then added.



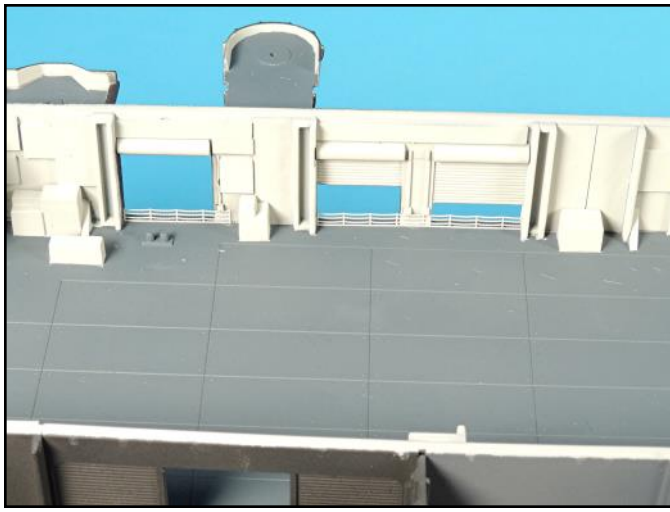
The upper superstructure part was attached with Testors plastic glue so that there would be some working tip. The flight deck was then positioned and taped so that the superstructure part would sit correctly as the glue dried.



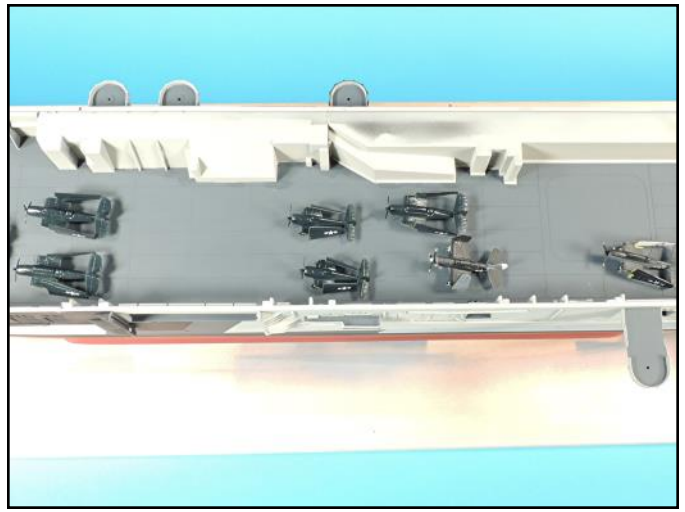
The upper inclined ladders were positioned and then secured in place with tiny drops of white glue. Note how clean and sharp the colors and the stern area assembly looks.



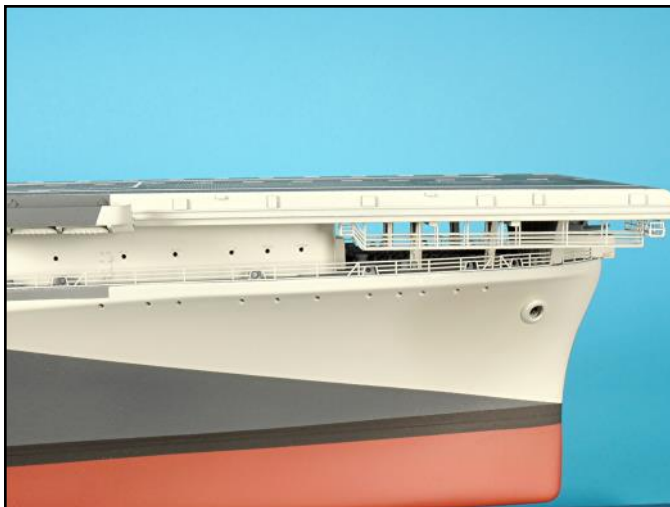
The starboard side aft railings and the gun director tubs were glued into place.



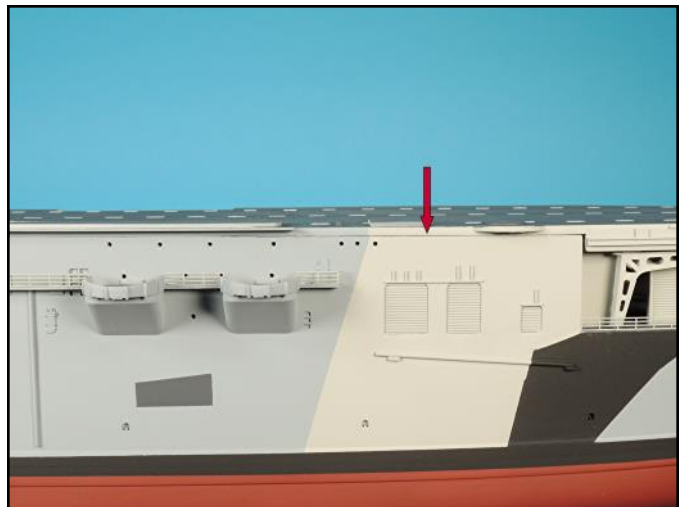
Railings were added to the open roller doors.



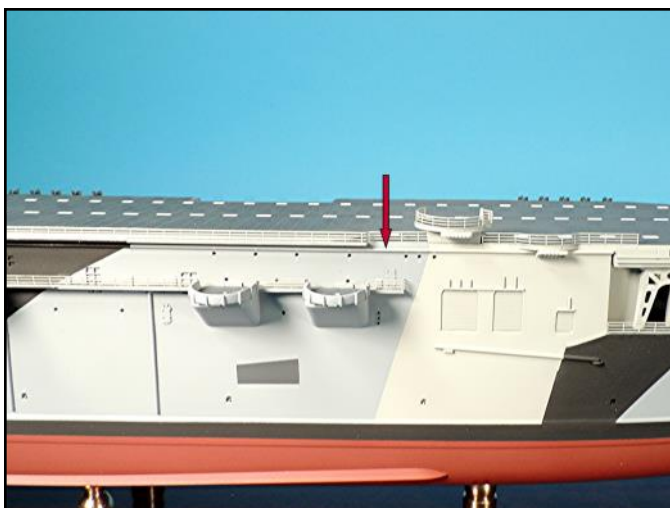
Aircraft were positioned inside the hanger deck. The Pit Road aircraft were placed close to the roller door openings and the kits supplied aircraft in between them.



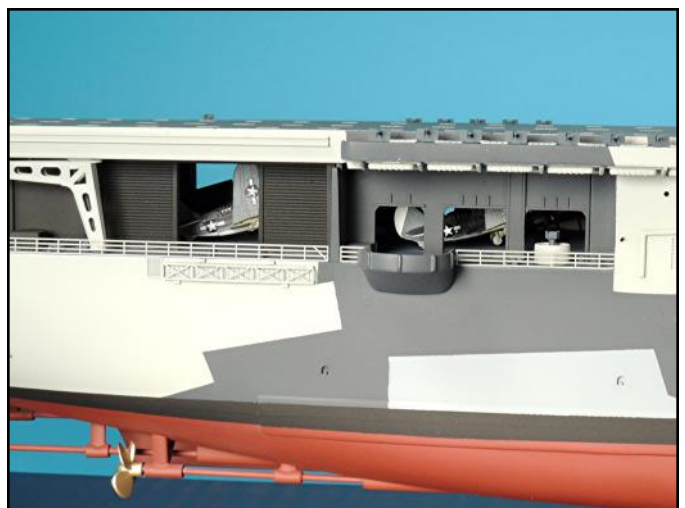
All the added underside detail made the flight deck snap tightly into place. Tiny beads of super glue were applied along the underside of the flight deck at the contact areas between the underside and the top of the superstructure.



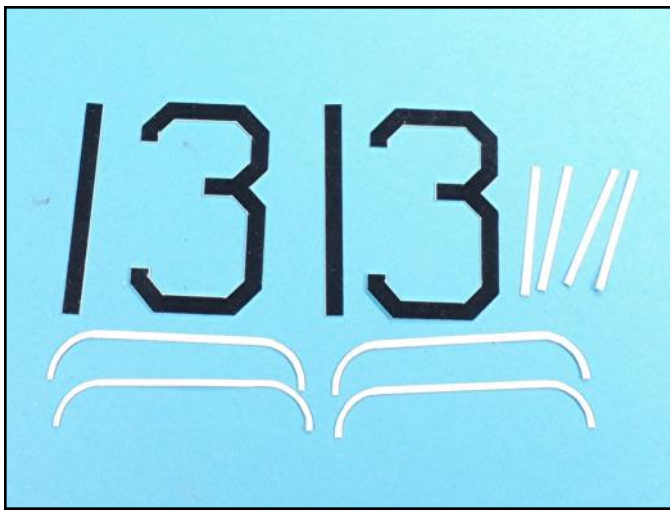
The seam lines between the flight deck and the hull on the starboard side needed to be fixed.



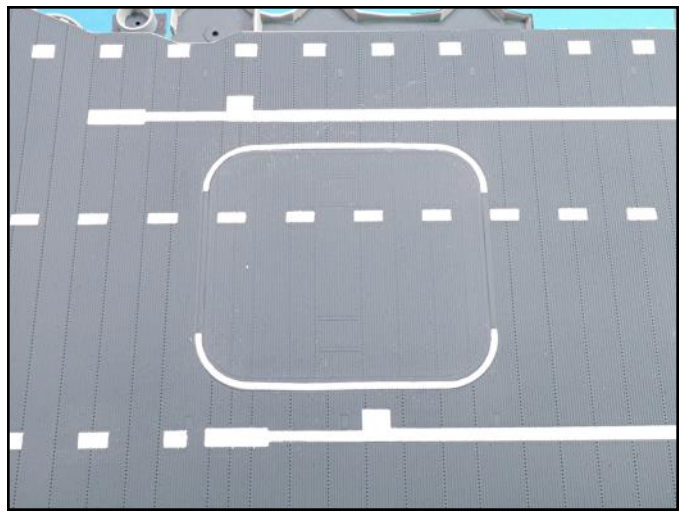
The answer was to measure and cut a length of .030 inch half round, paint the surface to match the dazzle pattern and then white glue it into place to cover the seam line.



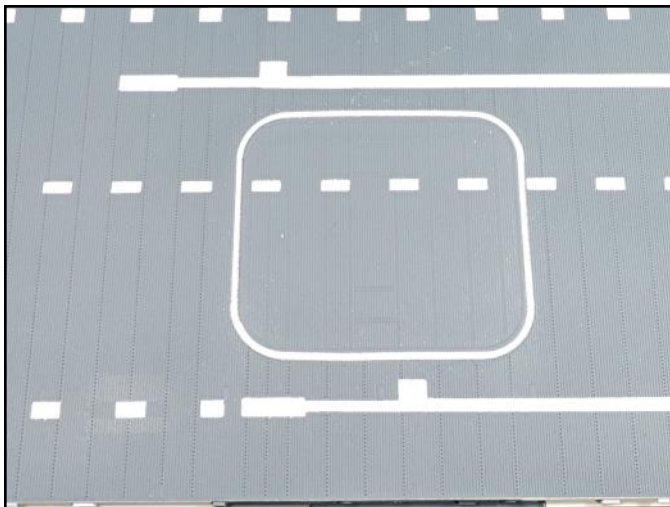
The Pit Road aircraft added a lot of extra detail to the open areas of the hanger deck.



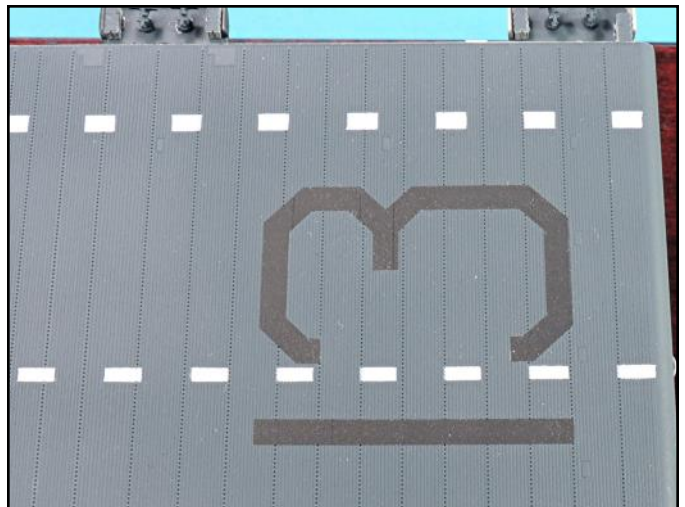
The flight deck decals were carefully cut out and all the clear backing was cut away so that there would be no chance of decal silvering. This also allowed the decals to be directly applied without a gloss coat.



The curved outlines for the deck elevators were applied first, being careful to set them the same distance as the straight length decals that will connect them.



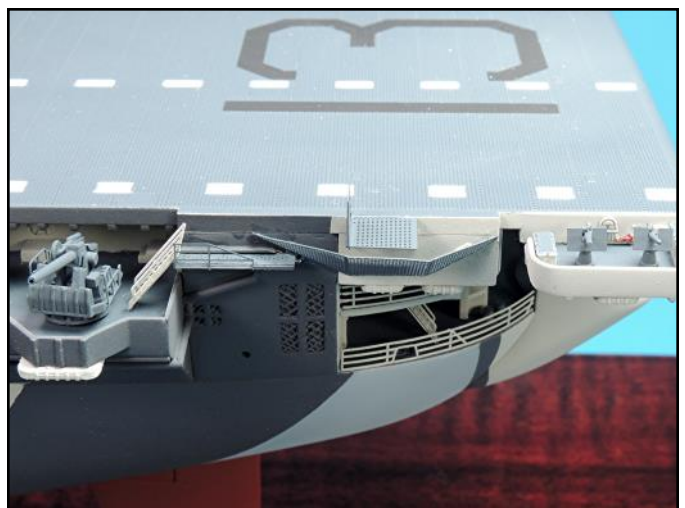
The elevator decals look great. There were tiny voids between the connection areas. To fix this, tiny amounts of flat white paint were applied to the tiny voids between the decal sections.



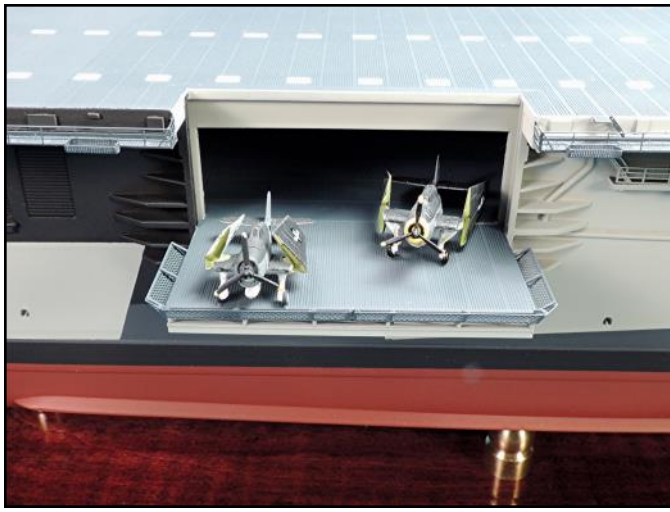
The flight deck numbers were carefully applied. All the decals received several coats of setting solution to pull them down around the flight deck detail. Excess solution was removed with a damp Q-Tip from around the decals.



The flight deck catwalks were airbrushed and then attached to the sides of the flight deck with white glue. The edges of the catwalks fit snugly and tightly into the channels. The floater net cages were then white glued to the railings.



The LSO platform and the netting below it were white glued into place. All the extra plastic strips and positioning tabs that were added to this area really enhance its appearance.



The side deck elevator slid down along its tracks and stopped at the tiny tabs that were positioned inside the tracks to set the elevator height.



The island superstructure rigging was completed after the railings were attached and before the sub-assembly was glued to the flight deck.



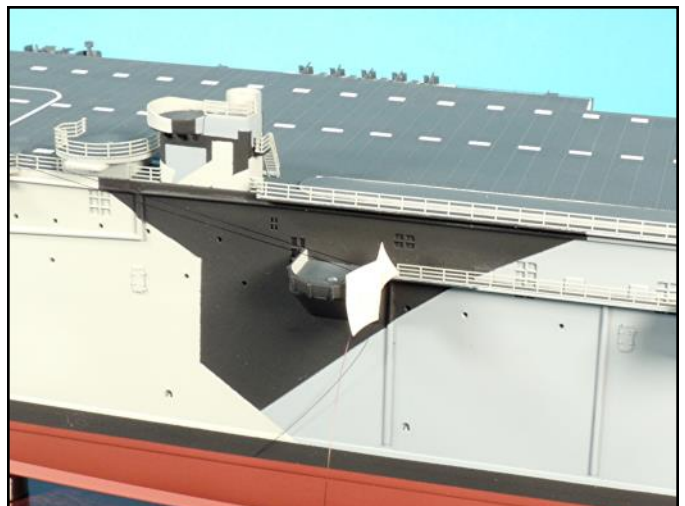
All the small detail parts, such as the loud speakers, radars, search lights and gun directors, were white glued into place.



Note the clean appearance of the radars. The searchlight had to be repositioned because it was knocked slightly when attaching the radars. The yardarm rigging for the signal flags was inked with a brown sharpie marker.



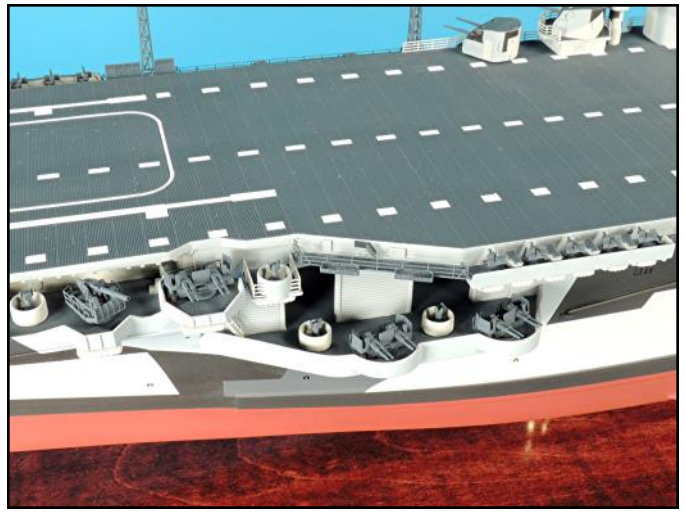
The rigging for the vertical flight deck antenna towers was completed prior to attaching the island superstructure.



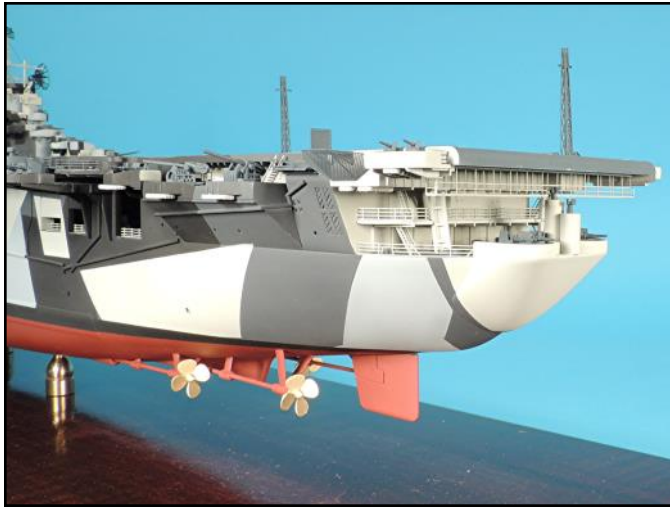
Long lengths of rigging makes this tedious and delicate process much easier. The rigging is nylon sewing thread inked with a black sharpie marker.



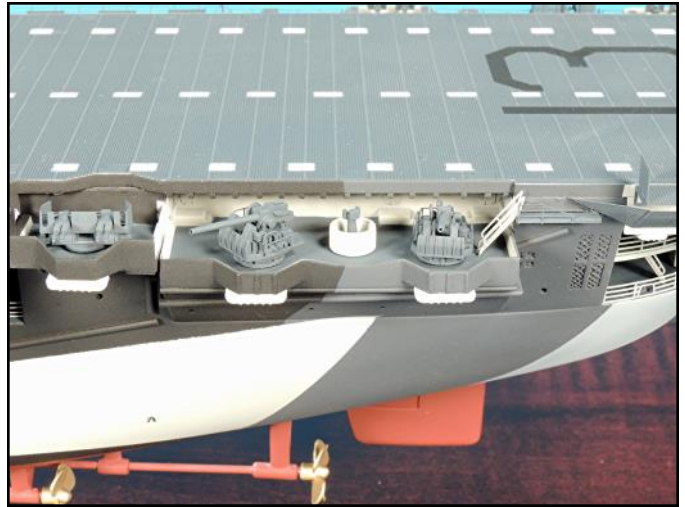
All the remaining parts were attached to the island superstructure after it was attached to the flight deck.



The port side forward sponson looks very detailed with all the guns, fittings and photoetch attached.



The aft flight deck underside catwalk was glued into place with white glue. The extra plastic strips added to them provided a much better gluing surface area and a stronger bond.



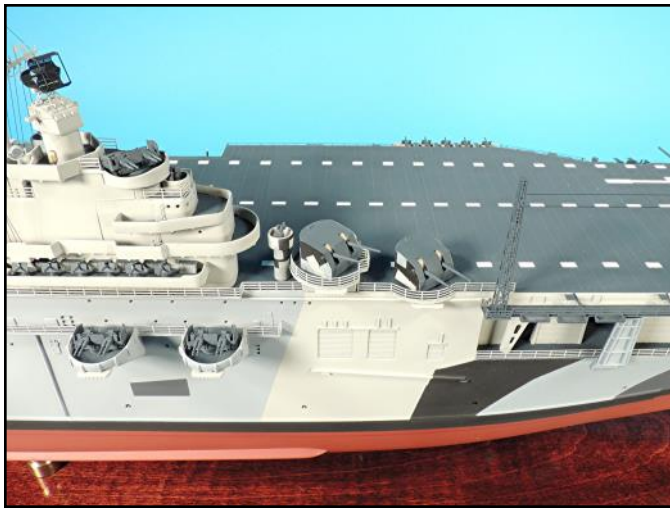
The resin 5"/38 open mounts look much better than the kits supplied parts



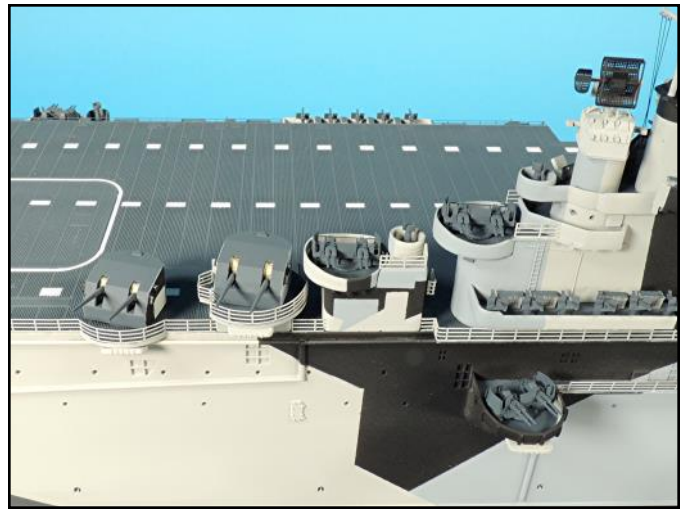
Small sections of plastic were painted and then glued into place on the underside of the flight deck so that inclined ladders could be attached from the platforms to these added strips. This detail was missing from the kit.



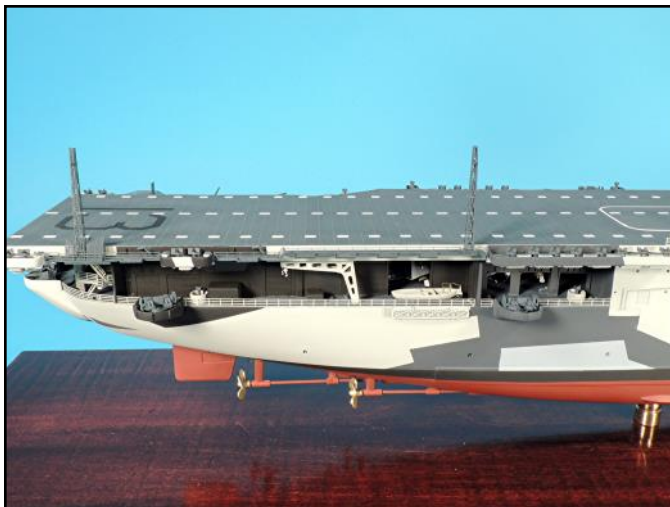
The anchors have the proper angle against the hull and the underside catwalks add another level of detail. GMM did a great job of designing all these extra parts and they all fit well into place.



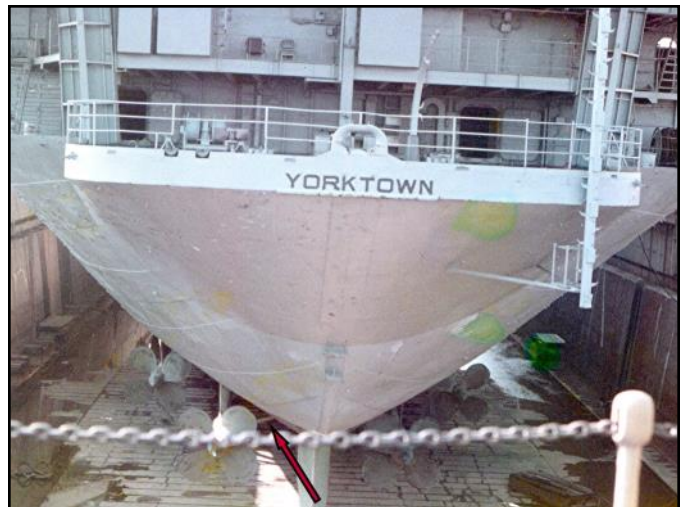
The twin 5"/38 turrets also received dazzle patterns.



Note the brass color on the barrel covers on the 5"/38 turrets.



The last step is to add the Pit Road aircraft to the flight deck. Each aircraft will get tiny drops of white glue on the bottoms of the landing gear to secure them in place.



This picture of the angled deck Essex aircraft carrier Yorktown was taken at the old Bayonne, New Jersey Navy yard. Note the "V" strut on the Port side propeller shaft.



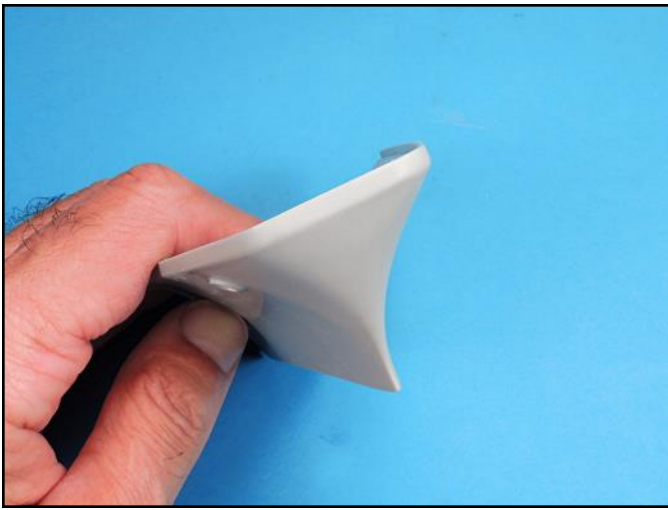
Looking down the port side of the hull, there is no noticeable torpedo belt. Either it was removed sometime after WW-II or the ship never had one.



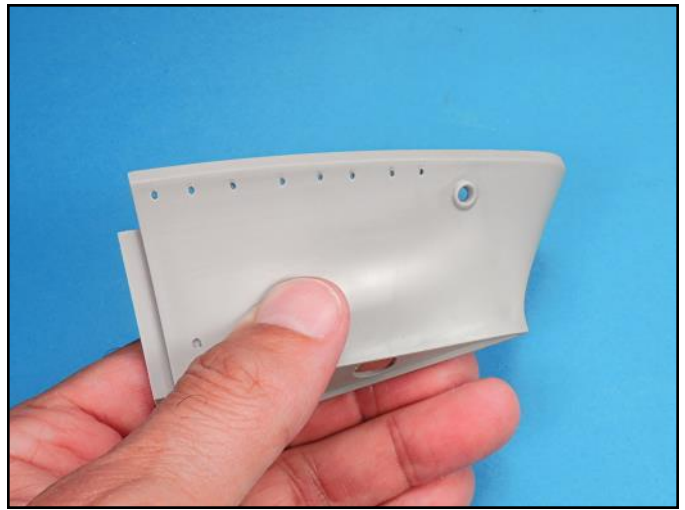
Note the external hull piping. While not the same as it was configured during WW-II, it is very noticeable and that is why it is necessary to add these hull details to the model.



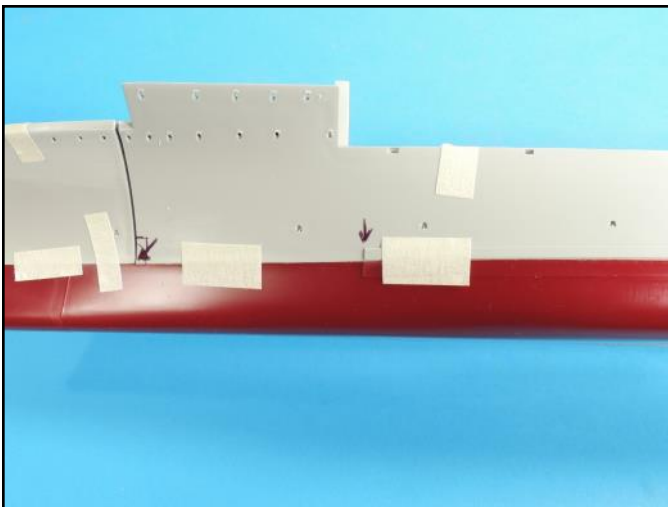




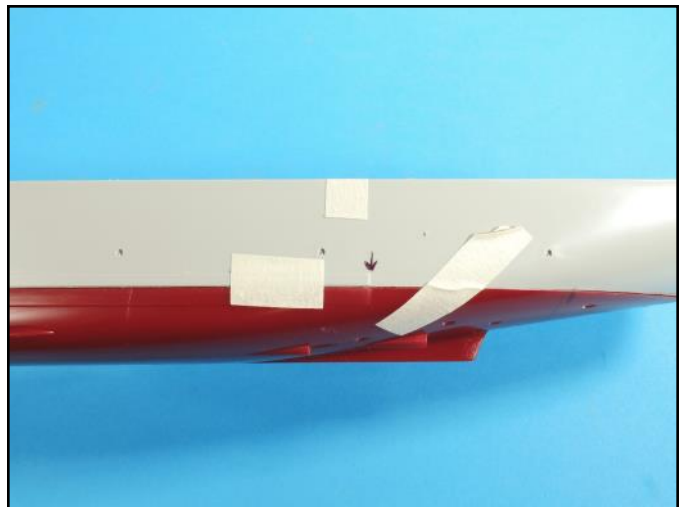
The long hull has a separate bow section. There are several mold lines that need to be sanded smooth. The upper flat surface also needs some careful shaping to make the line where it meets the curved area straight.



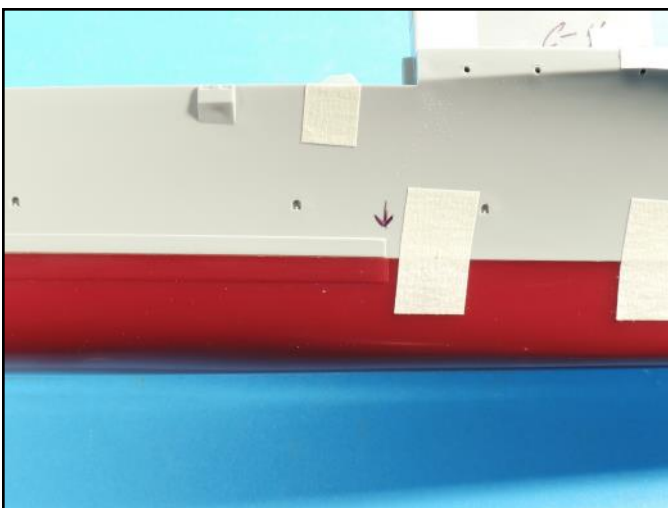
Drill out the port holes and the anchor opening using the same techniques as described in the Franklin article.



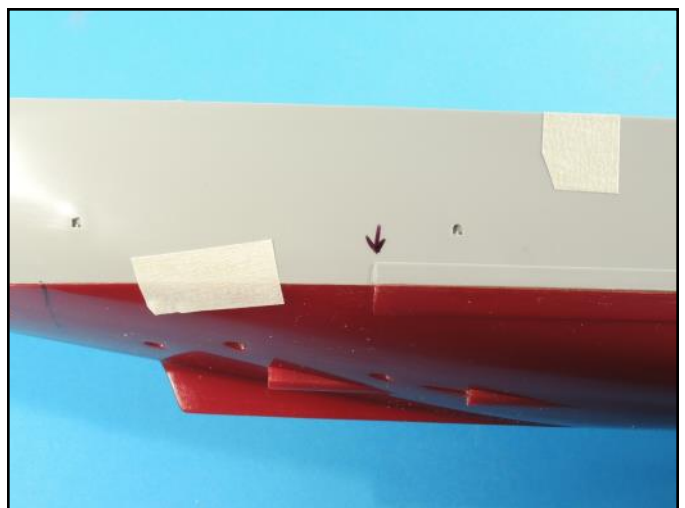
The aft upper hull is taped to the lower hull first, being careful to align the edges of the torpedo belt. Here, the forward, port side torpedo belt edge is lined up.



The aft port side torpedo belt edge also lines up well between the upper and lower hull.



The starboard side forward torpedo belt edge is slightly off.



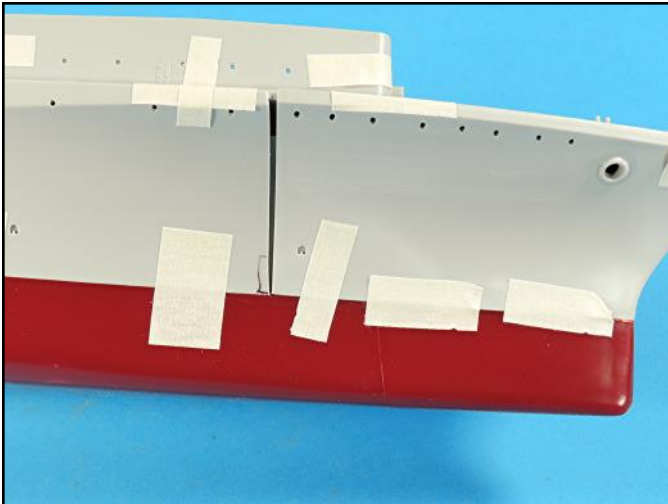
The starboard side aft torpedo belt edge is also slightly off. The port side alignment will set the positioning of the upper hull to the lower hull, while the starboard side will need some adjustment to the torpedo belt edges.



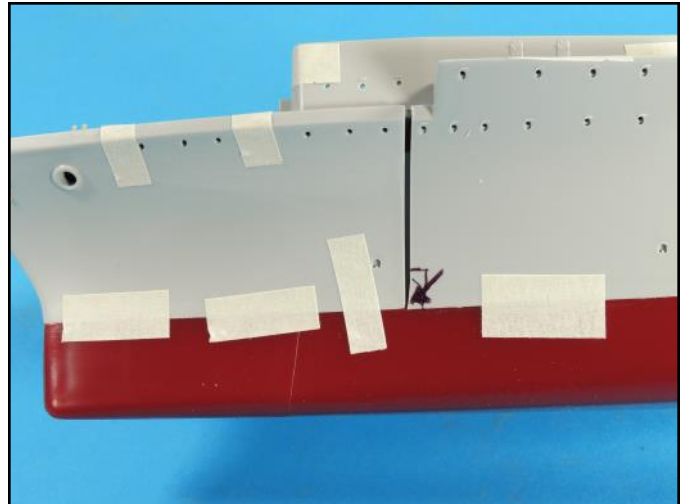
As with the short hull kits, the lower hull's stern needs to be shortened to get it to site correctly. A razor saw is used to cut the plastic along the black line and the thickness of the saw blade is the amount that needs to be removed.



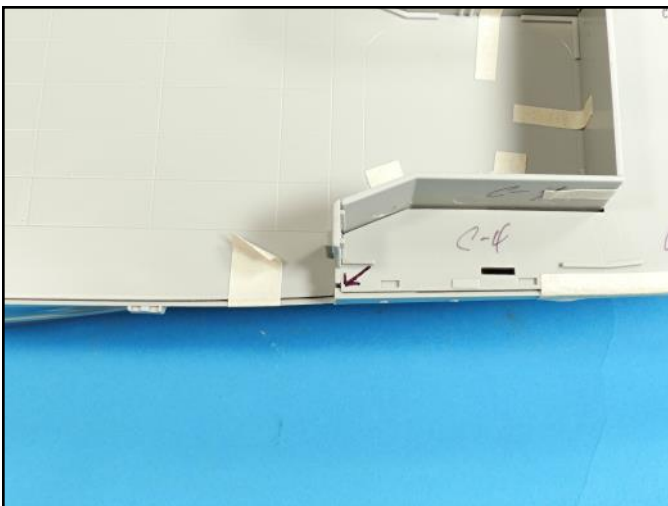
As the fitting, taping and adjustments continue, the forward upper deck is taped into place along with its associated superstructure. The superstructure ensures that the deck will be aligned correctly with the hanger deck.



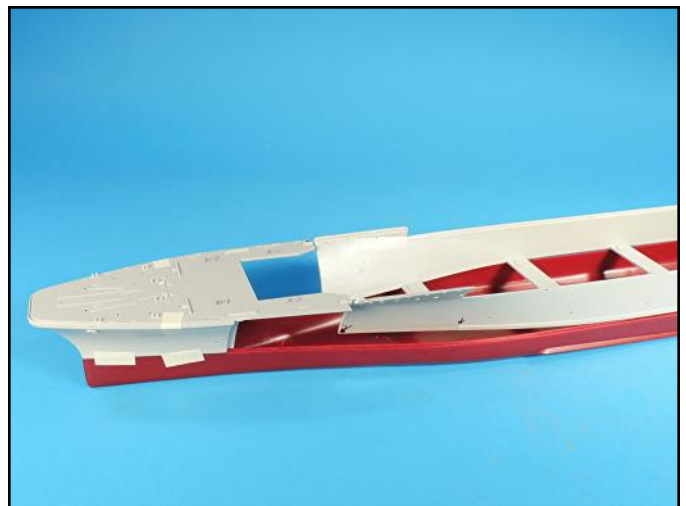
There is a miss-alignment between the flat surfaces of the aft and forward upper hull sections on the starboard side that will need to be reshaped. The opening between the two upper hull sections also needs to be corrected.



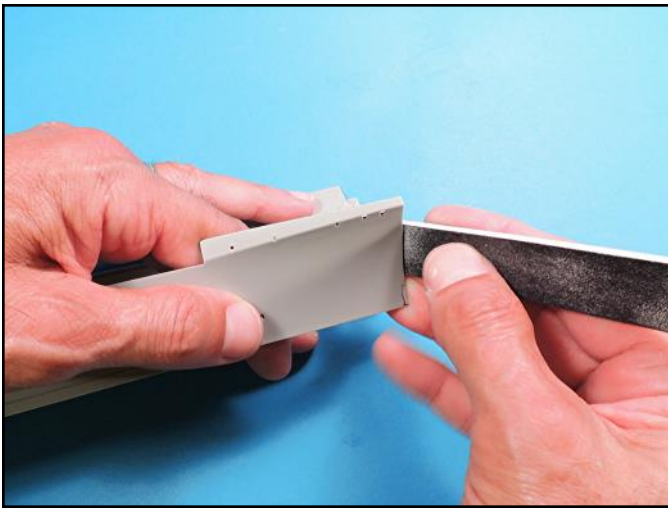
The flat surfaces between the upper forward and aft hull sections on the port side looks good, however the opening on this side will also need to be corrected.



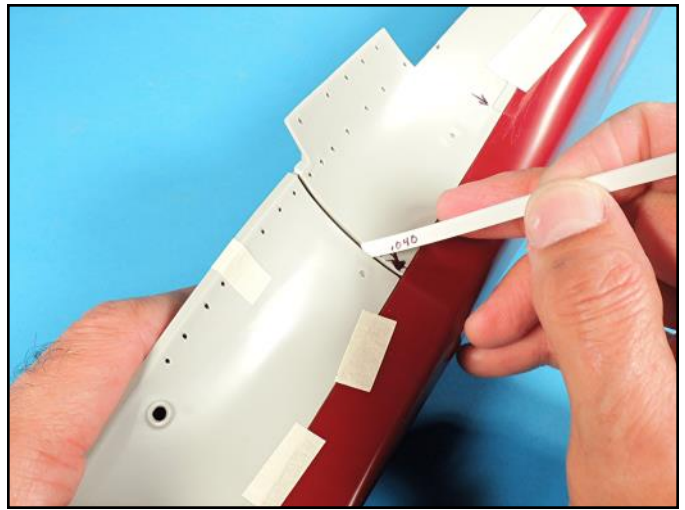
The edge of the deck needs to line up correctly with the angle on the hull. This allows the superstructure sections to fit correctly and it also sets the positioning of the small, forward upper hull section.



To fix the openings on the port and starboard sides, the aft upper hull tape was removed and the hull slide out so the edges could be sanded down. Note how the deck sets the positioning of the forward hull section.



A sanding stick was used to remove small amounts of plastic at a time on each side. The hull was re-taped into position each time the openings on both sides of the hull were checked.



While not a perfectly square opening, removing some of the plastic from the lower areas of the port and starboard sides helped with the selection of plastic strips to fill the openings.



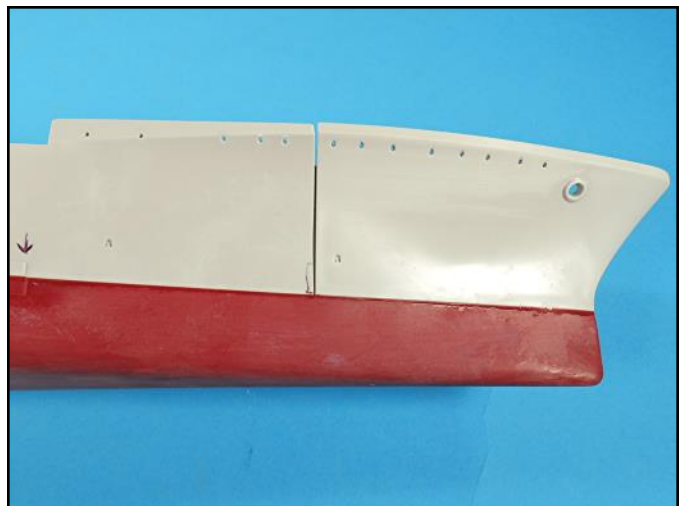
The opening on the starboard side was slightly wider than on the port side, and here again, plastic strips of various thickness will be used to fill the void.



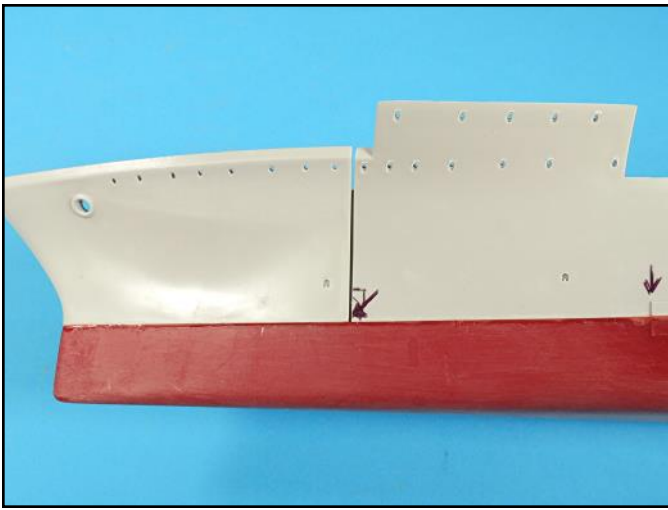
The superstructure and deck were carefully removed, the alignment of the hull sections re-checked and then a bead of super glue was applied along the seam line with a small diameter wire applicator.



The same reinforcement strips that were laminated to the interior of the Franklin's hull were also added to the long hull.



Note that no interior reinforcement strips were laminated across the openings. This will allow for the insertion of long strips of plastic, which will be glued on both the outside and the inside making a strong bond.



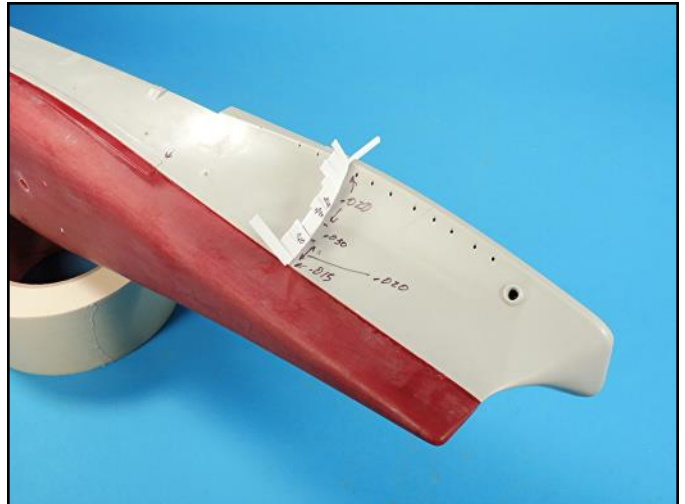
Note how small the bead of super glue is along the seam line.



The hanger deck sections were positioned onto the hull and then glued into place using the same techniques described in the Franklin article. The addition of the hanger deck will add strength to the overall assembly.



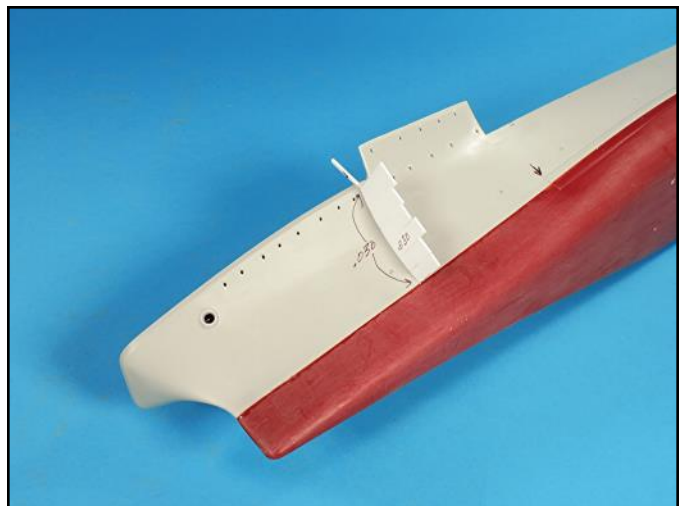
The forward deck section was then carefully positioned, taped and then glued into place. The small section of plastic is a filler for the void between the upper hull edge and the deck.



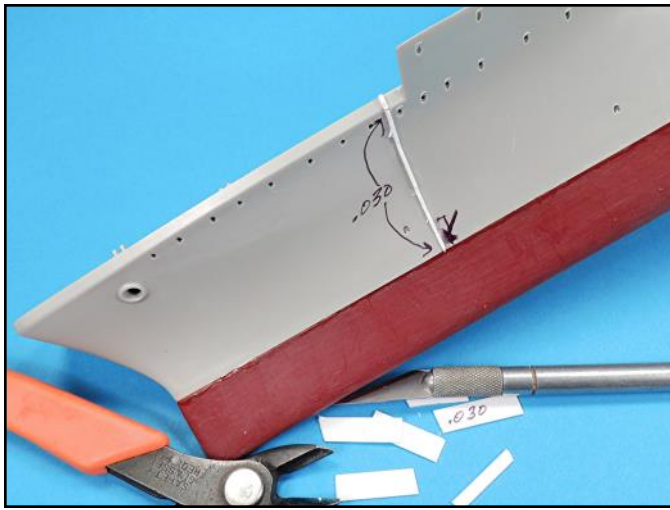
The plastic strips used on the starboard side have been positioned and super glued into place. Beads of glue were applied on both sides and between the strips, as well as the inside area.



The starboard side was trimmed before the port side was worked on. As the repositioning, rechecking and adjusting was done, the original openings size on each side of the hull were reduced slightly.



The port side was much easier to fill as the opening had a consistent width.



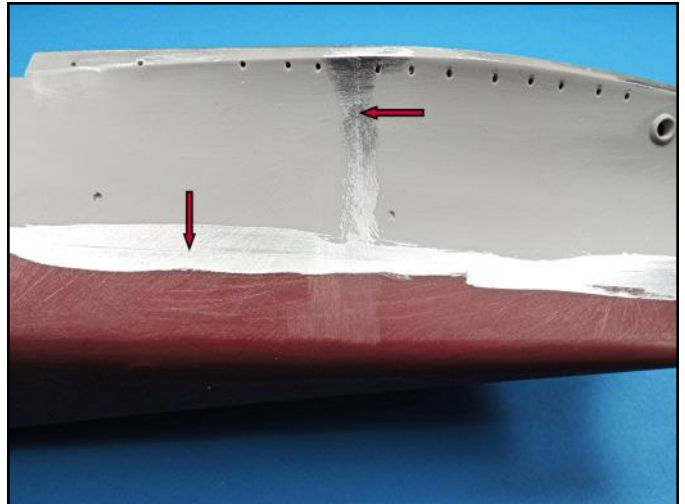
Now that all the gluing is complete and the port side is trimmed, it is time to start sanding, contouring and shaping the forward hull area.



The initial sanding smoothed out the plastic strips and the flat area on the upper hull was also reshaped.



The port side only needed to have the plastic strips flattened out. The seam lines between the upper and lower hull were also sanded smooth.



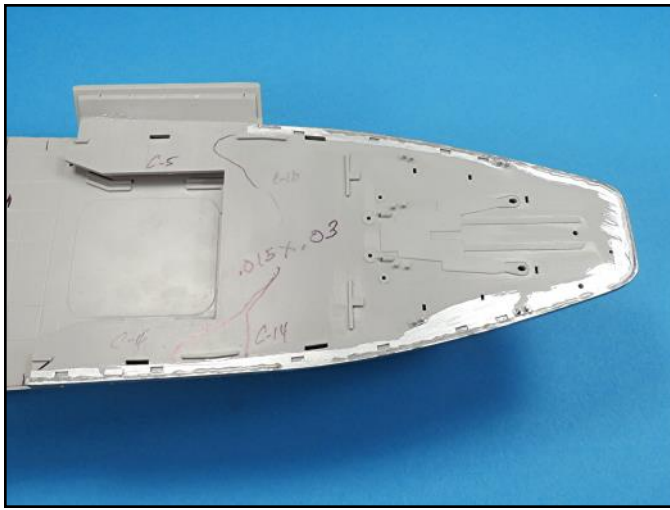
Checking the seam lines with silver paint revealed where more applications of super glue were needed.



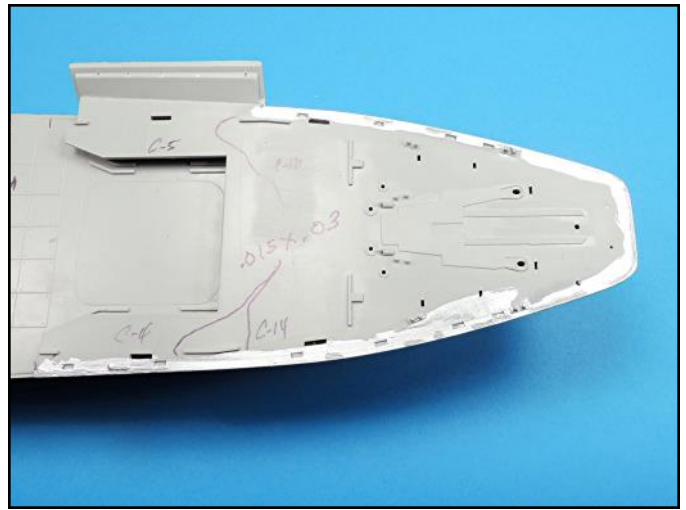
Almost the entire seam line on the both sides of the hull needed several additional applications of super glue.



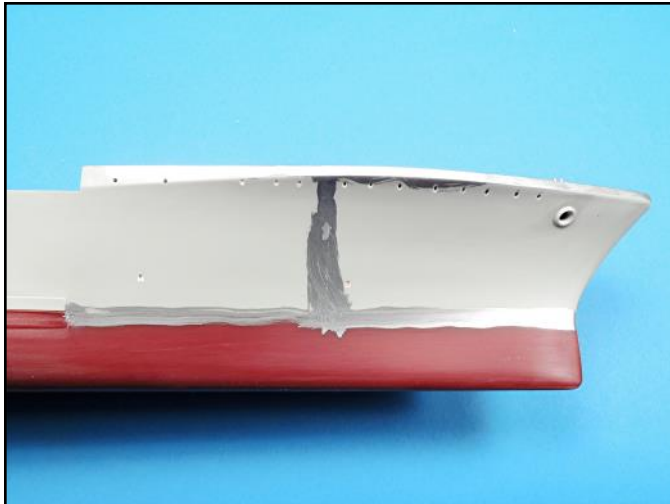
The seam line between the deck edge and the hull also need more super glue.



The glue was carefully scraped smooth and then the seams were rechecked. Be careful not to apply too much pressure when scraping so you do not indent the edge of the hull.



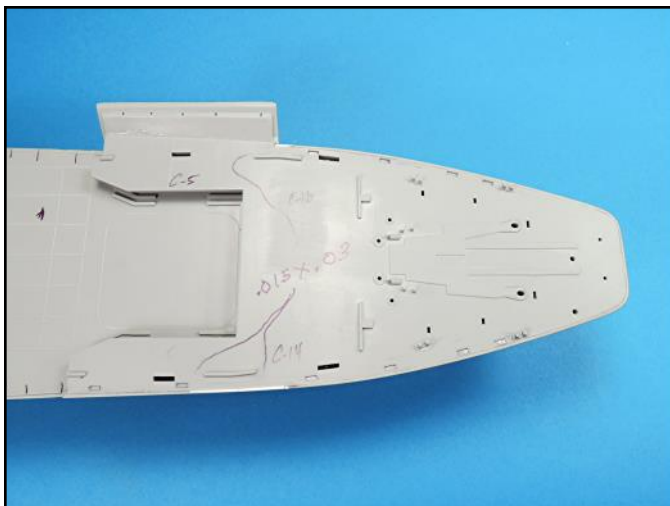
One last check of the deck revealed small areas that still needed attention. It is best to work in an iterative process of checking, applying glue, scraping and rechecking rather than trying to do it all at once.



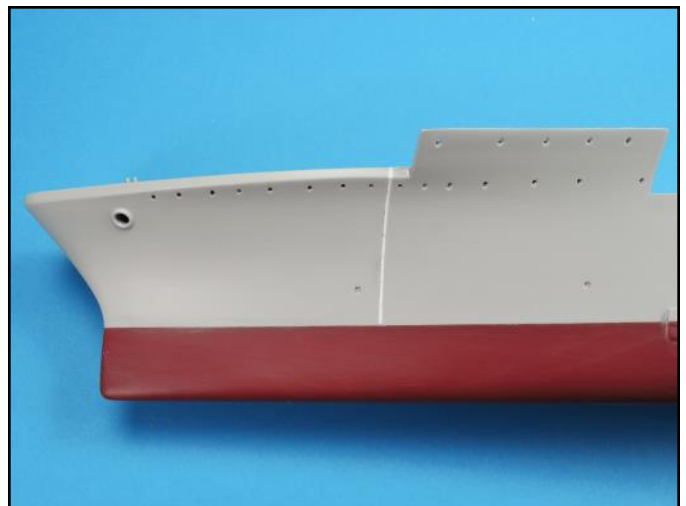
Rechecking the hull again identified small areas that still needed attention. It is the positioning of the port side torpedo belt edges and the forward deck that sets the correct location of the forward upper hull.



The starboard side is now complete and the plastic has been smoothed out with wet sandpaper up to 600 grit. Then the plastic was polished with 0000 steel wool pads.



The deck seam is now complete. There were surface scratches from the parts mold that were removed by wet sanding with 600 grit sandpaper and then polishing it with 0000 steel wool pads



The port side also looks good. From this point, the construction of the long hull kit follows the same building sequence, scratchbuilding and improvements, as presented in the Franklin article.