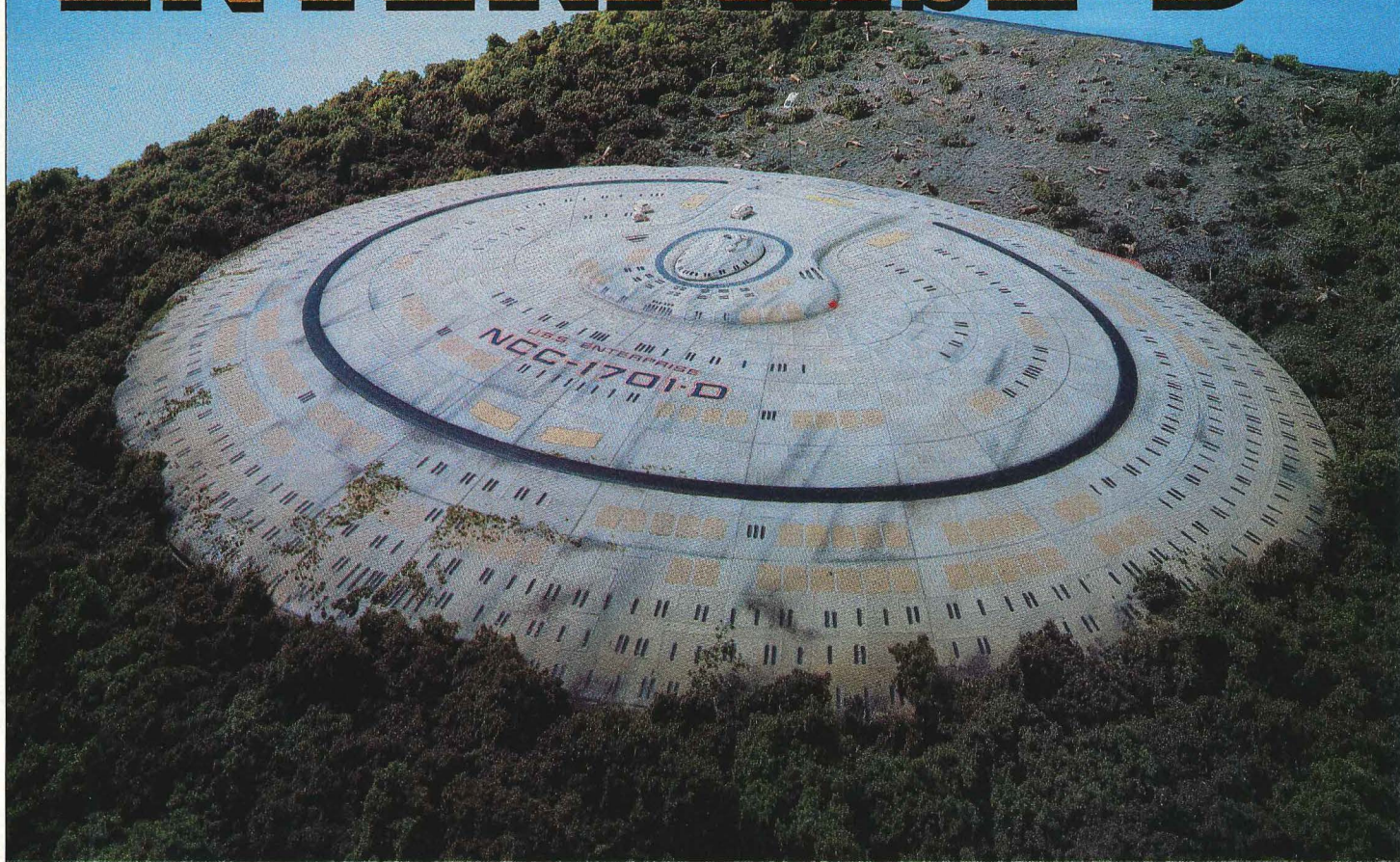


MODEL **STAR TREK** *SHIPS*



The end of **ENTERPRISE-D**



Jim Forbes photo



Modeling the crash site from “Star Trek: Generations”

By Dean Dymerski

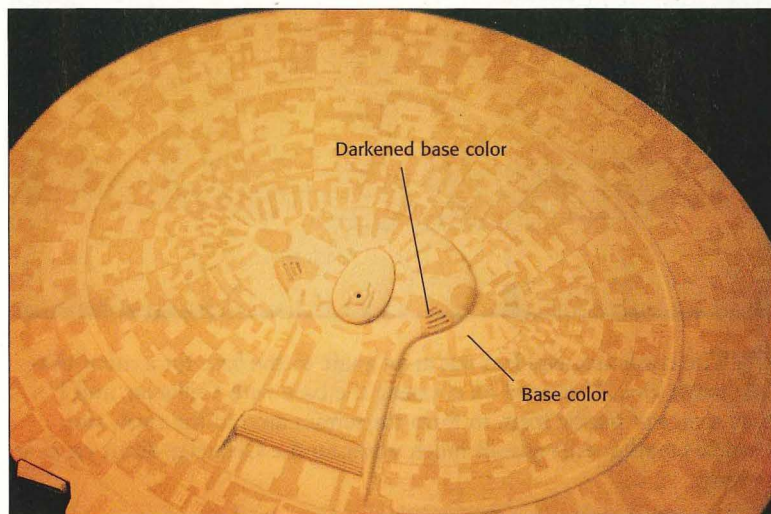
Basic detailing, weathering, and diorama-construction techniques help capture the look of big-screen special effects.

In November 1994 my wife, Susan, and I were invited to a sneak preview of “Star Trek: Generations.” During the film we witnessed one of the most dramatic scenes in “Star Trek” history – the crash of USS *Enterprise*’s saucer section.

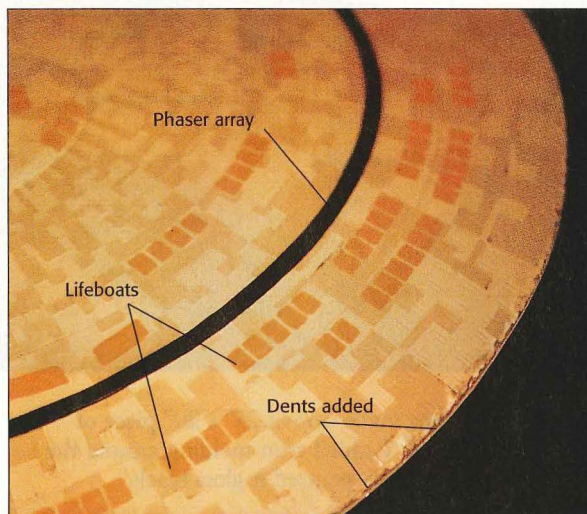
The day after viewing the movie I grabbed an old AMT/Ertl “Next Generation” *Enterprise* model and built a diorama of the crash scene from memory. After my quickly built diorama started winning awards at local IPMS contests, I decided to build a better, more accurate version.

Replicating models from the movies can be tricky – especially without studio lights or digital effects to help with their appearance. But with the proper detailing, painting, and weathering techniques an accurate-looking model can be built. Remember the *Enterprise* in the movie is a model, too!

I used several references to build the diorama: a home-video copy of the movie, *Cinefex* magazine No. 61, the *Star Trek: The Next Generation Technical Manual* by Rick Sternbach and Michael Okuda, and *The Art of Star Trek* by Judith and Garfield Reeves-Stevens.

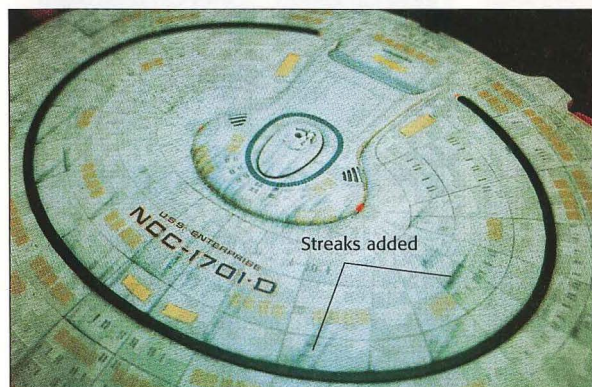


1 I built the saucer section of the model according to the kit instructions, but left off the clear bridge dome. I “dented” the saucer’s front edge with a motor tool, keeping the dents small and in scale. After priming the model, I applied the base color – a 50/50 mixture of Model Master duck egg blue and light gray. The darker panels were painted with Polly S paints – a 50/50 mixture of duck egg blue and light gray, with a little dark gray added.



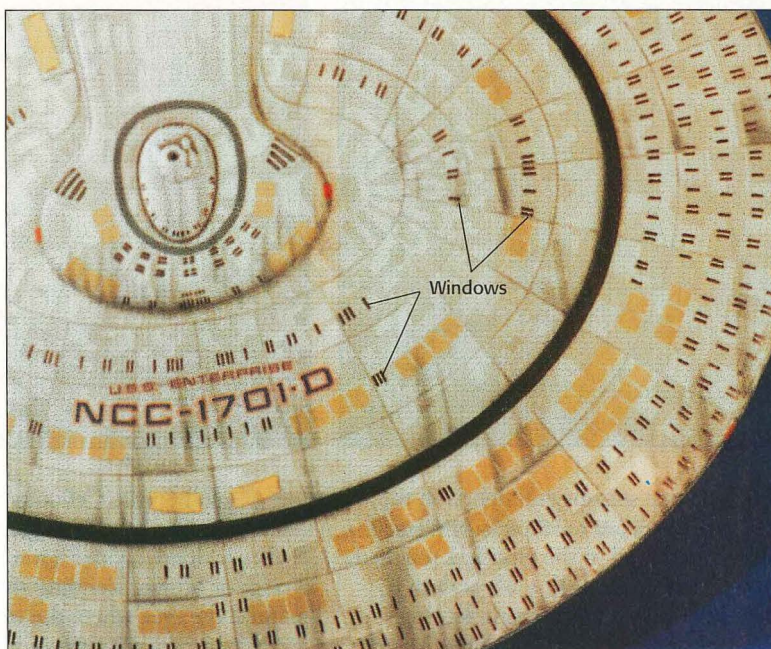
2 I highlighted the dents on the front of the saucer with dark gray and silver paints. I used crashed cars as a guide – the paint normally is chipped and scraped, exposing primer and steel.

The lifeboats were painted with a mixture of Polly S sand and dark brown, and the phaser array was painted dark gray. Testor Glosscote prepared the surface for decals; they were applied according to the kit instructions. Everything was sealed with Dullcote.

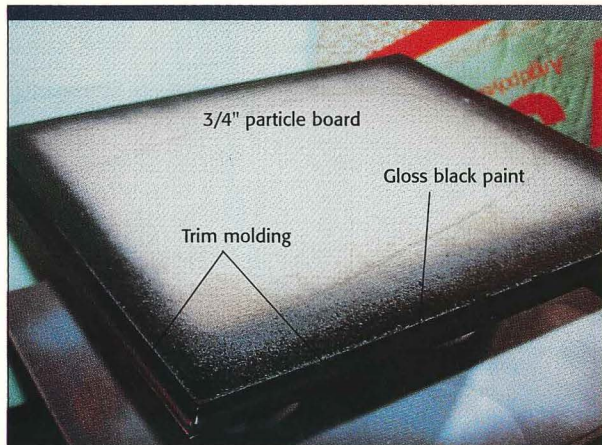


4 Starting at the front, I dragged soft, wet rags across the model. The front-to-back streaks simulate the effects of high-speed atmospheric flight. After the glaze was dry and sealed with Dullcote, smaller streaks were added to the model using black artist’s pastel chalk. The fading streaks are darker toward the front. I sprayed them with Dullcote to keep the chalk from rubbing off.

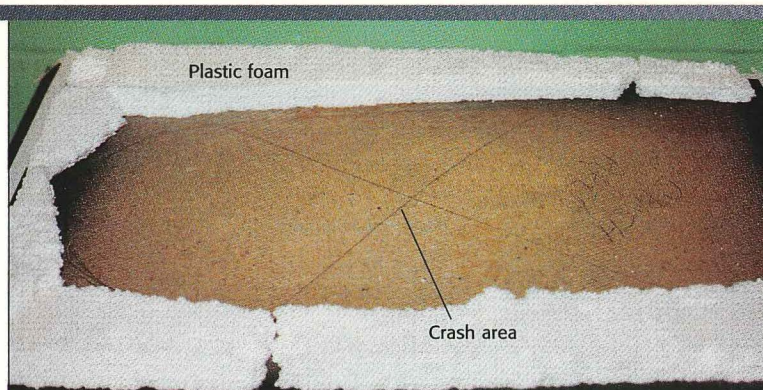
3 I mixed burnt umber and black watercolor paints with a little water, then thickened the mixture with liquid dishwashing soap. This mix works more like a glaze than a wash. I applied the mixture to the model, and dried it with a blow dryer.



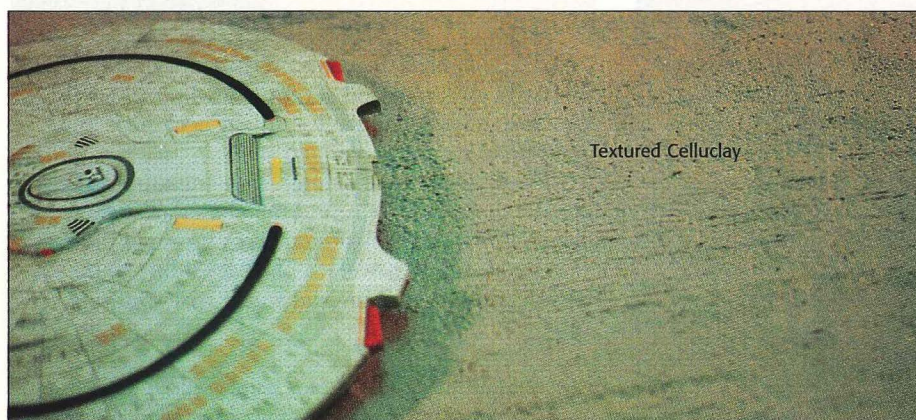
5 The windows were easy – I colored them in with a black Pilot ultra-fine-point permanent marker! A final dry-brushing with white oil paint helped pick up the surface details.



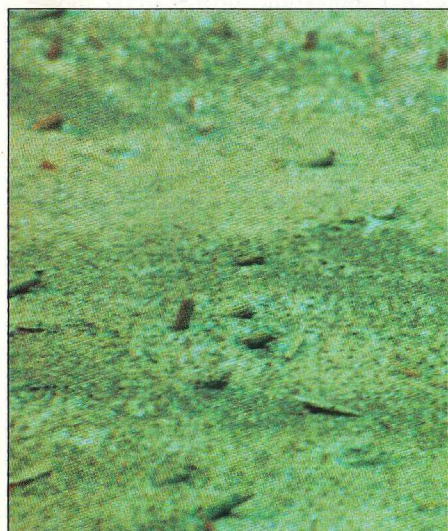
6 The base was made from a 25" x 20" piece of 3/4" particle board. I added trim molding around the outside edge and spray painted it gloss black.



7 The crash area was laid out at an angle to the base for a more-dramatic look. I planned on covering the base with Celluclay, and I used scraps of plastic foam to form the terrain around the crash site. Particle board doesn't absorb much water, so the Celluclay didn't cause it to warp.



8 I mixed the Celluclay according to the instructions, and applied it to the base. The clay was textured with a paintbrush handle, and grooves were carved from the saucer to the end of the base. I spread out the bristles on a larger brush and stippled the surface, adding a fine texture.



9 The tree stumps and debris in the crash area are toothpicks and small sticks I gathered in the woods. I roughed up the toothpicks with a file and an X-Acto knife, then broke them, leaving splintered ends. I pushed the toothpicks into the wet Celluclay, with the splintered ends pointing toward the saucer. I added the sticks to the scene with diluted white glue.



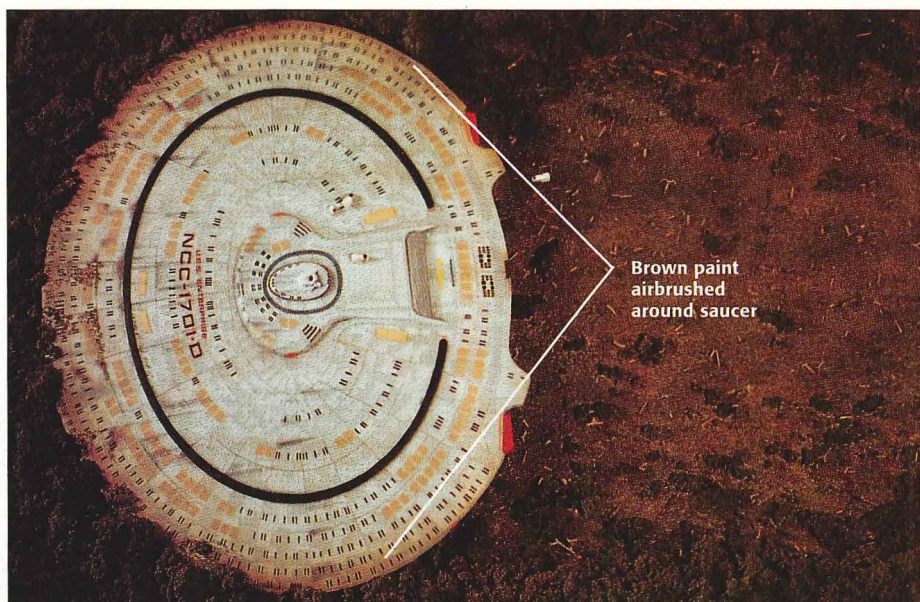
10 When the Celluclay was dry I painted the base Polly S brown. Before it dried I added several other shades of brown, blending the colors. I painted the area where the treetops would go dark brown, creating an illusion of depth.



MEET DEAN DYMERSEKI

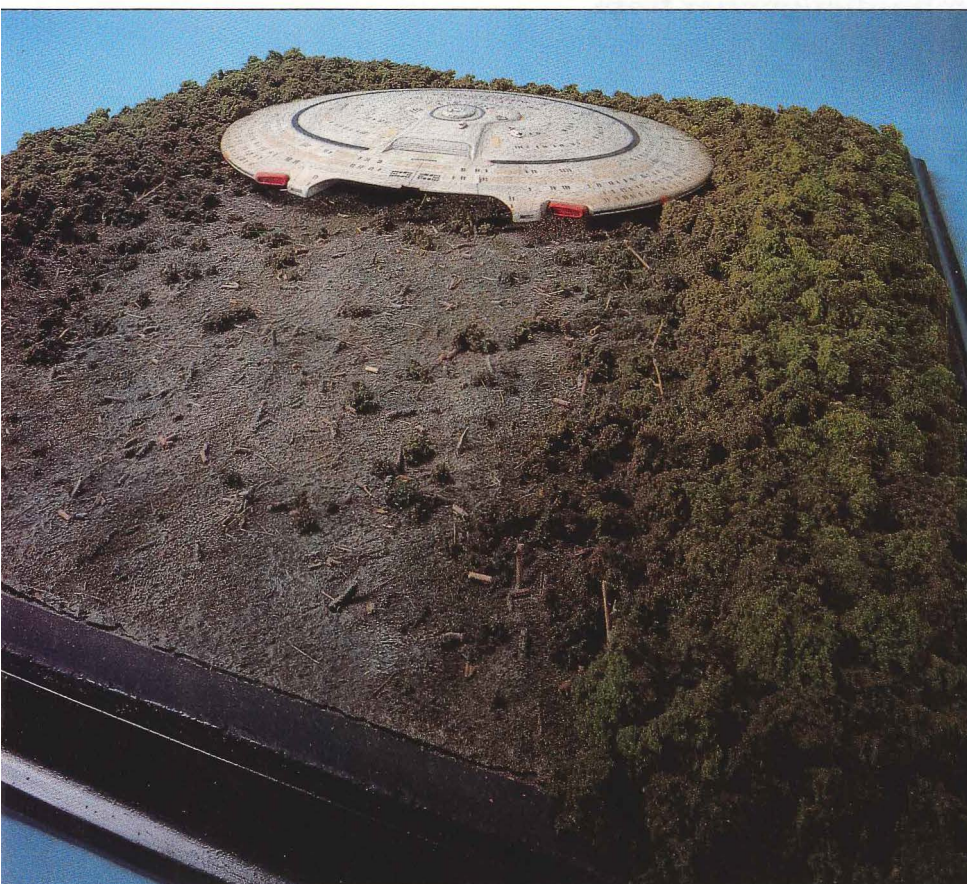
Dean is a 30-year-old senior artist for an imprinted sportswear company in Pittsburgh. He has more than 20 years of model-building experience. Dean builds models for model shops and individuals, and hopes to sculpt and manufacture his own kits someday.

Dean and his wife, Susan, enjoy going to science-fiction conventions and collecting movie memorabilia. In his spare time Dean and his father, Tony, compete in pistol, shotgun, and rifle meets in the Pittsburgh area.

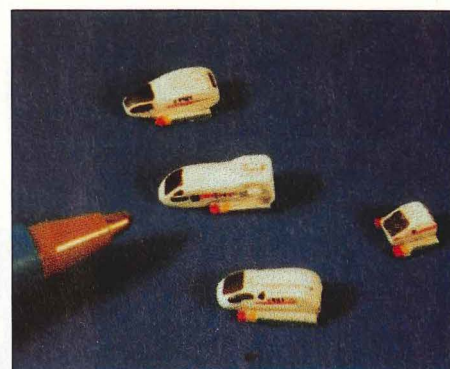


Brown paint
airbrushed
around saucer

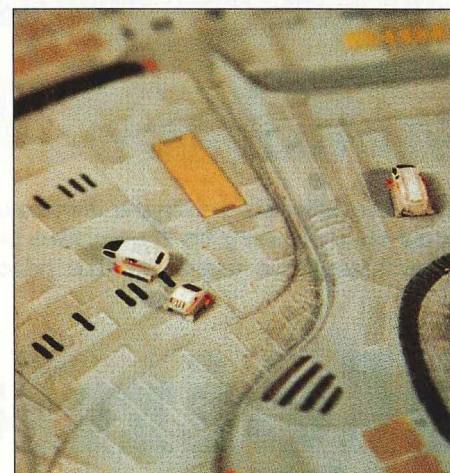
11 I spread Woodland Scenics' light-green turf over the crash area in irregular rows and patches – it helps break up all the brown. The trees are small pieces of Woodland Scenics' light- and medium-green foliage clusters. Tiny pieces were added to the top-front surface of the saucer, and to the crash area near the tree stumps. The saucer in the movie moved a tremendous amount of earth – I simulated it by air-brushing brown paint along the edges of the crash site and around the front of the saucer.



From any angle, the diorama captures one of the most dramatic scenes in "Star Trek" history.



12 Using the *Star Trek: The Next Generation Technical Manual* as a reference, I carved four shuttles from blocks of styrene. I painted them white, and added details with Polly S paints. The windows were added with the same marker I used on the saucer.



13 Three of the shuttles were glued to the saucer with white glue. The fourth is on top of a strand of black-painted brass wire behind the saucer, simulating an incoming rescue shuttle. **FSM**

SOURCES

Paints

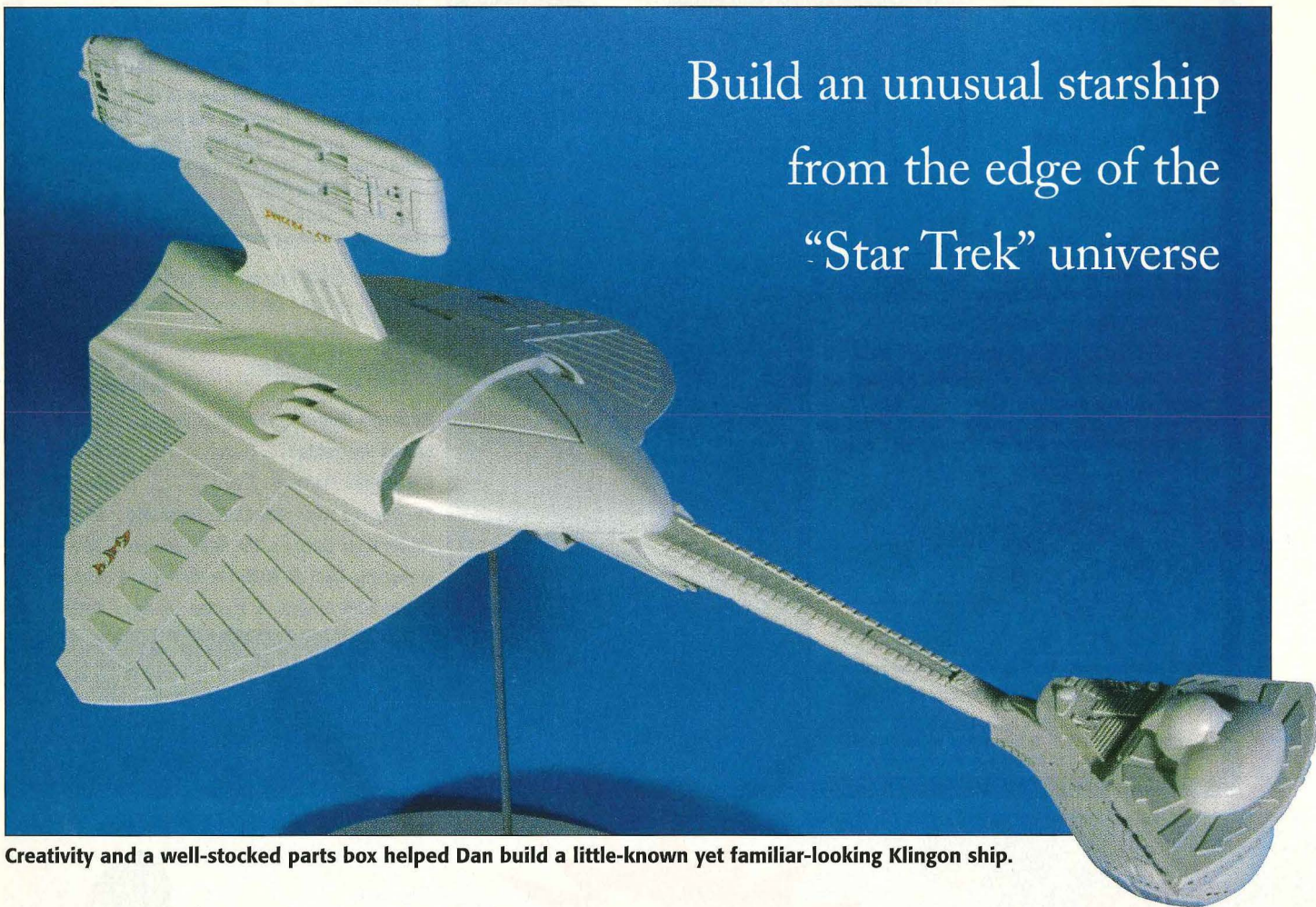
Floquil-Polly S Color Corp., 206 Milvan Dr., Weston, ON M9L 1Z9, Canada, 888-476-5597
Testor Corp., 620 Buckbee St., Rockford, IL 61104, ©815-962-6654

Styrene sheet

Evergreen Scale Models, 12808 N.E. 125th Way, Kirkland, WA 98034, ©206-823-0458

Foliage

Woodland Scenics, 101 E. Valley Dr., Linn Creek, MO 65052, ©314-346-5555



Build an unusual starship
from the edge of the
“Star Trek” universe

Creativity and a well-stocked parts box helped Dan build a little-known yet familiar-looking Klingon ship.

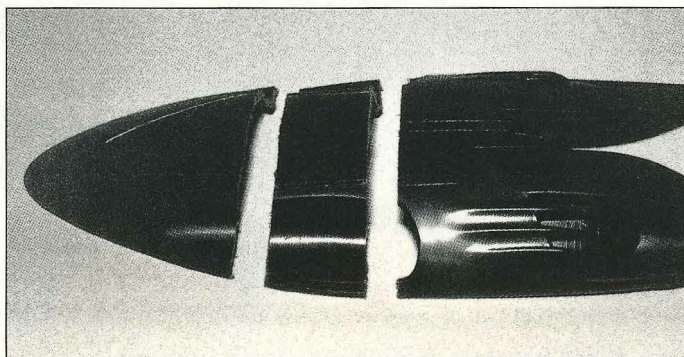
Kitbash a Klingon Destroyer

By Dan Thompson

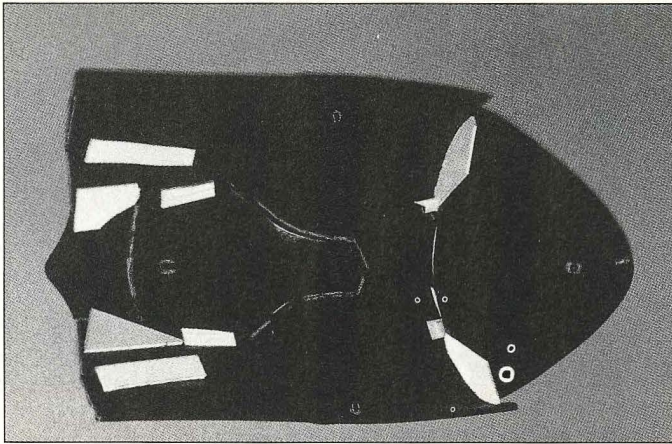
The warrior race of Klingons has always been one of the most popular alien races of “Star Trek.” First appearing as villains on the original television series in 1967, Klingons eventually evolved into Federation allies, even serving on the bridge of the *Enterprise*.

Klingon spacecraft have a distinctive, recognizable style that some fans like me find more appealing than many of the Federation’s craft. Even after decades of television episodes and movies, however, we’ve only seen a handful of different Klingon spacecraft.

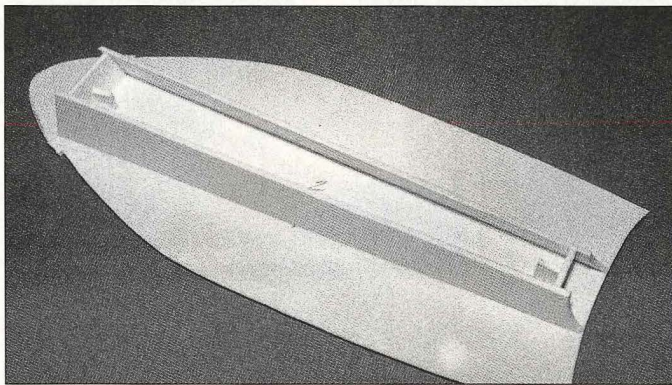
A “Star Trek” role-playing game, *Star Fleet Battles*, has a spacecraft recognition manual included in its support materials. It’s full of original Klingon spacecraft, including one that particularly appealed to me, the K-27 *Grim Reaper*. Described as an



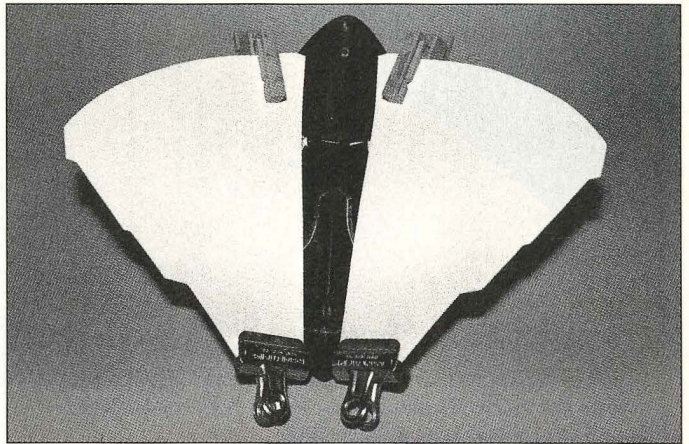
1 A razor saw removed the Batskiboat’s wings, as well as a 1½” section of the hull.



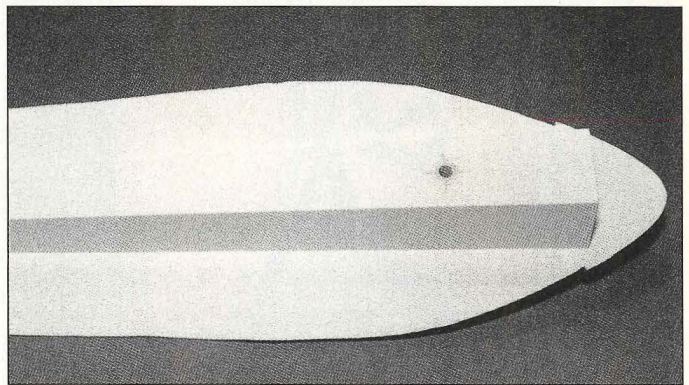
2 Styrene sheet plugs the intake openings and reinforces the model's joints from inside the hull.



4 The tapered box section under construction on the model's bottom plate.



3 Clamps held the sheet-styrene wings in place on the hull while the glue dried.



5 The finished box section. Note the $\frac{3}{16}$ " hole where the model attaches to the base.

escort-class ship, it has a familiar design, with the exception of a single warp engine mounted on a pylon above the hull. Starting with AMT/Ertl's Klingon Cruiser (kit No. 8229EO) and a few other donor kits, I decided to model this unusual craft.

I started work on the model by putting together a set of working drawings for the ship, using an enlarging photocopier and the drawings from the role-playing game. After studying the drawings, I decided to base the model on the boom and pod from the AMT kit, then scratchbuild and kitbash the rest of the ship around them.

A hull for a hull. I decided that I could build the ship's unusual central hull using (appropriately) the hull of AMT/Ertl's "Batman Returns" Batskiboat (kit No. 6615EO).

I cut off the wings with a razor saw, then removed the section of the hull behind the cockpit. Next, I cut a $1\frac{1}{2}$ " section out of the hull just forward of the intake scoops, **1**. I cemented the nose into the opening in the front of the hull.

I traced the cockpit opening onto the section that had been cut from behind the cockpit. After trimming it to shape, I cemented it into the cockpit opening. Styrene-sheet strips cemented inside the hull reinforce the seams, and sheet-styrene plugs cover the intake openings, **2**.

All of this modification was done by trial and error. I just looked at the pieces and imagined how they could be cut up and reassembled. Some of the modified parts didn't fit at first and had to be trimmed and shaped, and there were, of course, plenty

of gaps to be filled with putty. In the end, however, I was satisfied with the overall shape and drew it into my set of drawings.

I cut the ship's wings out of .040" sheet styrene, then cemented them to the hull using clamps to hold them in place, **3**. A piece of .040" sheet forms the bottom surface of the hull. It's beveled along the edge where it meets the modified hull.

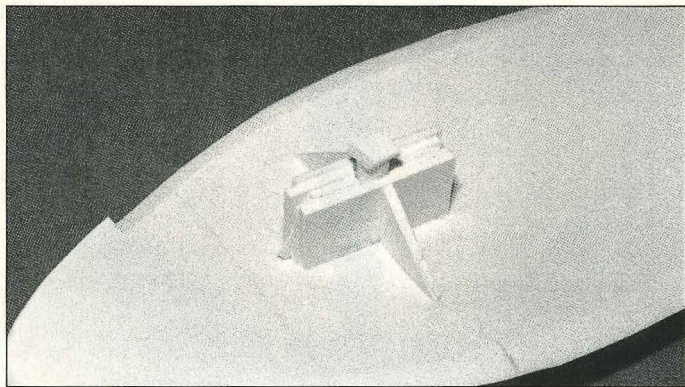
Now I needed to add something to the bottom of the hull to which I could connect the boom. I built a long, tapered box out of sheet styrene and added it to the bottom surface, **4**.

To give the model an attachment point for the display base, I drilled a $\frac{3}{16}$ " hole through the bottom, **5**, then cemented a length of styrene tubing over the hole inside the model. I reinforced the tubing inside the model with scraps of .060" sheet styrene, **6**.

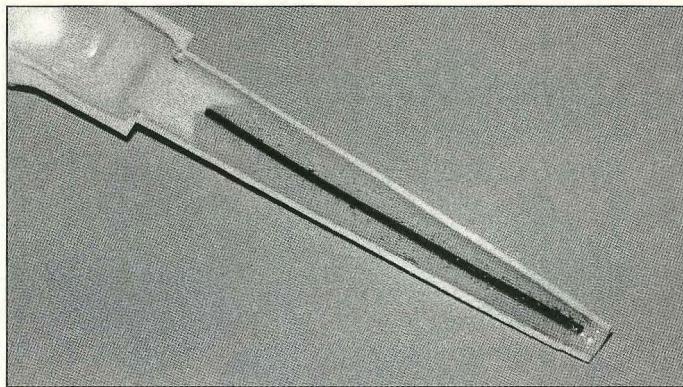
I cemented the lower surface in place and filled the rear opening with sheet plastic. The shuttle-bay door from the kit details the surface.

Moving forward. The kit's boom and pod are separate pieces, and they didn't fit together all that well until I trimmed off the end of the boom with a razor saw. I glued a steel rod inside the boom using epoxy to strengthen it, **7**. I glued the boom halves together and added it to the hull.

While assembling the pod, I discovered the photon-torpedo tube didn't fit well, so I cemented shims of thin sheet plastic into the opening. I also cemented reinforcing strips on the inside of the seams, **8**, something I do to most of my models.



6 Inside the model, Sheet-styrene scraps help reinforce the mounting tube for the display base.

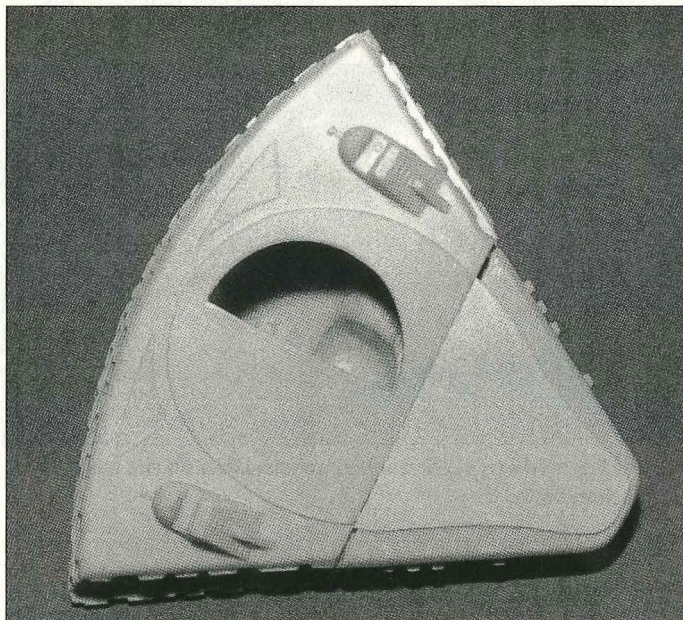


7 The kit's boom is delicate, but a length of metal rod glued inside easily strengthens and straightens it.



8 Styrene strip corrects the fit problems around the photon-torpedo tube inside the model's pod.

9 A styrene-sheet spacer helped level the attachment point on the triangular bridge.



The triangular bridge and habitat assembly had some fit problems, too. I cemented a sheet-styrene filler to the rear half to make the surface even with the mounting area on the front half, **9**.

Surface detail. In the original "Star Trek" series, all of the ships were smooth, but ever since the first movie, all of the ships have been covered with surface detail, particularly the Klingon ships. Most of them are covered with plates that look like a jigsaw puzzle. The drawings in the role-playing book showed the panel pattern for the upper surface of the ship's wings. I attached a copy of the drawings to cardboard with spray adhesive, then cut out the individual panels. Using these cardboard panels as templates, I cut duplicates from .015" sheet styrene, **10**, and cemented them to the wings.

The book didn't provide a bottom view of the ship, so I made my own set of plates for the bottom of the ship and applied them as I had the upper set. Afterward, I attached a few plates to the rest of the model, as well as a few detail parts from the original kit and my parts box, **11**.

Adding the warp engine. The kit's warp-engine nacelles are molded to the cruiser's "wing." Using a razor saw, I removed one of the engines, assembled it, then filed and sanded

the top to a smooth, rounded contour. Finally, I cut a mounting slot into the bottom of the engine, **12**.

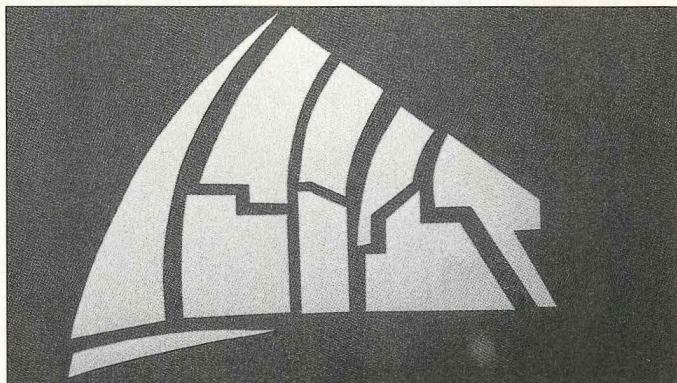
Making the engine pylon was a straightforward job. Again, I made a cardboard template from the drawings and used it to cut identical pieces from sheet plastic. The core of the pylon is .040", with two .020" laminations. The radiator surface is Evergreen corrugated siding, **13**. Mounting tabs extend from the top and bottom of the pylon into slots in the engine nacelle and the hull.

Finishing up. I cemented the completed subassemblies together and gave them a final finish sanding. I airbrushed the model medium gray. Afterward, I masked some of the panels and airbrushed them light gull gray.

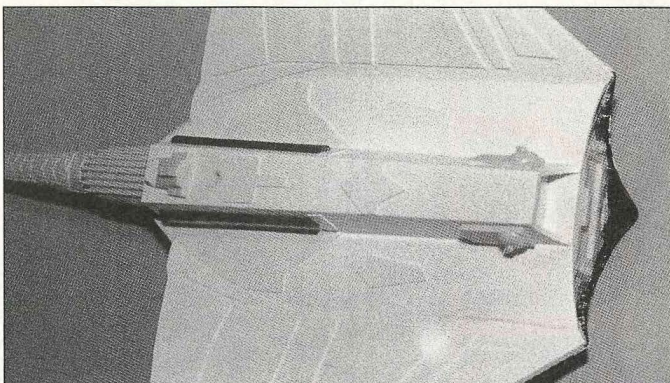
The model was finished, but it needed a name. Franz Joseph's *Star Fleet Technical Manual* shows single-engine Destroyer versions of the twin-engine *Enterprise*. My single-engine Klingon ship fit that pattern, so I decided it was a Destroyer, too, and named it *K'Dath*, after a character in a "Star Trek" novel.

Although this project involved a little scratchbuilding, it was primarily an exercise in kitbashing: combining parts from different kits to create an entirely new model.

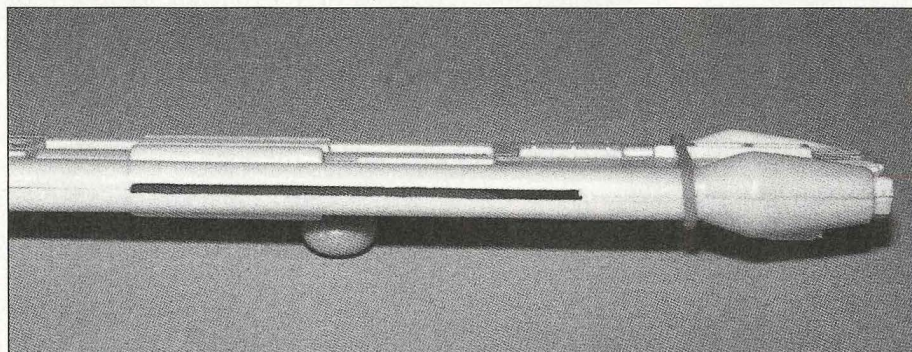
FSM



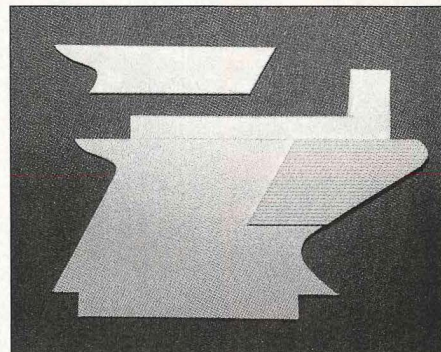
10 Dan cut the "jigsaw puzzle" wing detail panels from .015" sheet styrene.



11 The underside of the ship. Some of the detail parts are sheet styrene, some are from the original kit.



12 Dan removed one of the Klingon Cruiser's warp-engine nacelles with a razor saw. After assembling it, he added a slot for the engine pylon using a razor saw.



13 Evergreen corrugated sheet styrene was used to make the "radiator" on the engine pylon.

The finished model has the proper Klingon "look" and would be right at home between a Battle Cruiser and a Bird of Prey.



Scratchbuilding USS Kelvin

Reused kit parts and heavy tooling produce a *Star Trek* ship

BY JAY RICH

After seeing *Star Trek* in 2009, I was inspired to build a model of the USS *Kelvin*, the short-lived Starfleet ship seen in the film's opening moments.

The first challenge was finding good references and images of the ship from which to create CAD drawings. The discussion forum at StarshipModeler.com and the members there proved especially helpful. As more information and photos became available, I collected them into a binder I called my guidebook. What started as a casual project, evolved into a complicated scale model.

Based on those drawings, I selected the saucer section from AMT's 1/537 scale refit *Enterprise* as a starting point. Other pieces were turned from PVC pipe of various diameters, as well as engineering plastic, brass, and aluminum. To connect the saucer with the upper and lower nacelles, I cut 3mm Perspex on a bandsaw after gluing the drawing onto it as a pattern.

To form the structure on the rear of the saucer, I shaped aluminum on an electrical discharge machining cutter and filed it to fit the curves of the hull. The large pylon connecting the lower nacelle, cut from Cibatoool, a light, wood-like plastic, sandwiches the Perspex support. Putty blended the disparate materials.

Recessed detail was scribed and I printed raised panels on Docupol, a thin, self-adhesive plastic that I purchased at a copy shop. Photo-etched parts provided details like doors and phaser emitters.

I airbrushed the ship with three light coats of Testors Model Master camouflage gray. Rather than masking and painting the *Kelvin*'s extensive plating and panels, I had a friend print decals for the pattern on the saucer section.

The nacelles' compound curves and tapers made decal fitting difficult, so I marked their panels with a .4mm mechanical pencil.

After sealing the lines to prevent smudging, I colored individual panels with various mediums including pastels, watercolors, and pencils.

Final assembly involved fitting the deflector dish for the upper nacelle and turned-brass domes for the bridge, planetary sensor array, and warp engine with two-part epoxy. After adding the registry number and name decals, I sprayed the model with clear flat.

To display the *Kelvin*, I built a display base with scratchbuilt support cradles and service towers. The ship sits ready to be launched. **FSM**



USS Kelvin was
named for physicist
Lord Kelvin and Harry
Kelvin, the
grandfather of Star
Trek director and
producer J.J. Abrams.
—memory-alpha.wikia.com



I detailed the end of the saucer ridge, the shuttle bay doors, and the warp engine with turned metal, photo-etch, and shaped Cibatool.

Meet Jay Rich

A toolmaker by trade, Jay has built models since the mid-1960s. Among his interests are ships, including large-scale radio-controlled yachts, and sci-fi, especially *Star Trek*. He and his wife, Penelope, live in Buff Point on the central coast of New South Wales, Australia.



Carefully positioned fiber optics illuminate the hull and registry numbers.

