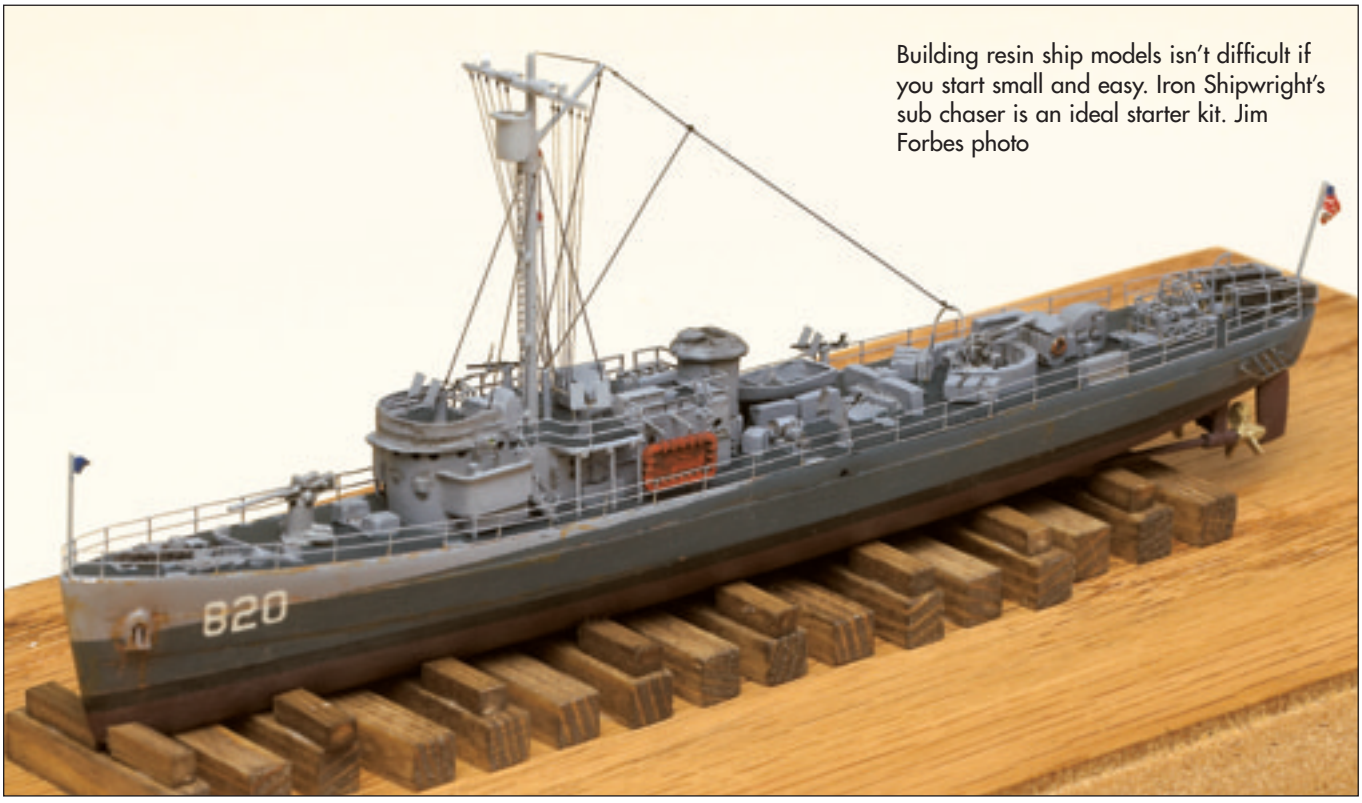


Building resin ship models isn't difficult if you start small and easy. Iron Shipwright's sub chaser is an ideal starter kit. Jim Forbes photo

Building a RESIN SUB CHASER

Enter the world of resin kits on a plastic kit budget!

By Phil Kirchmeier

High prices and the need for expert-level skills have kept you from building a resin ship model, eh? Fear not! Try an "entry-level" resin ship like Iron Shipwright's 1/350 scale PC-461-class patrol craft (also known as a "sub chaser"). It takes about the same skills, tools, and knowledge as a plastic ship model.

Chasing subs with resin. Iron Shipwright's PC-461 is a highly detailed kit with a one-piece resin hull. Many of the small details are resin, too, but items such as railings, ladders, and 20mm gun shields are provided in photoetched brass, **1**. The instructions give a brief history, specs, and basic assembly instructions. If you study the parts and the drawings, you can figure it out. Overall, the kit is simple without being boring – a great starter kit.

It's a good idea to wash resin parts before assembly. Mold-release agents and sometimes oils from the resin coat the surface of the parts and make it difficult for glues and paints to adhere. I washed all the parts with soap and water and allowed them to air-dry. All the assemblies were accomplished with super glue.

Tiny bubbles. The casting process can trap air bubbles in the resin, so I examined the parts carefully and found a few. I filled them first with "micro balloons" – fine, sand-like plastic spheres – then coated over them with thin super glue. This worked as quickly as super glue alone, but produced a softer filler that was easier to sand.

My kit had bubbles in some of the superstructure detail. Rather than try to fill and fix the detail, I carved away the affected items and replaced them with parts from Gold Medal Models' photoetched doors and hatches set, **2**.

The hull casting was missing the prominent anchor hawespipes on the bow. I fashioned them from .030" styrene rod, **3**. The heat from my fingers softened the plastic enough so that I could bend it around a toothpick to create the teardrop

shape. I closed the loop with super glue. With sandpaper on a flat surface, I sanded one side of each hawespipe so it would lay flat against the hull.

Several photos of sub chasers show an armored belt along the length of the hull. The kit didn't have it, but it was easy to add. I made it from .005" sheet styrene cut into strips 5/32" wide and 5½" long. I cut notches in each strip to go around the hawespipe. I applied super glue around the edges of each strip with a piece of wire, adding a rough, "welded" appearance to the seams.

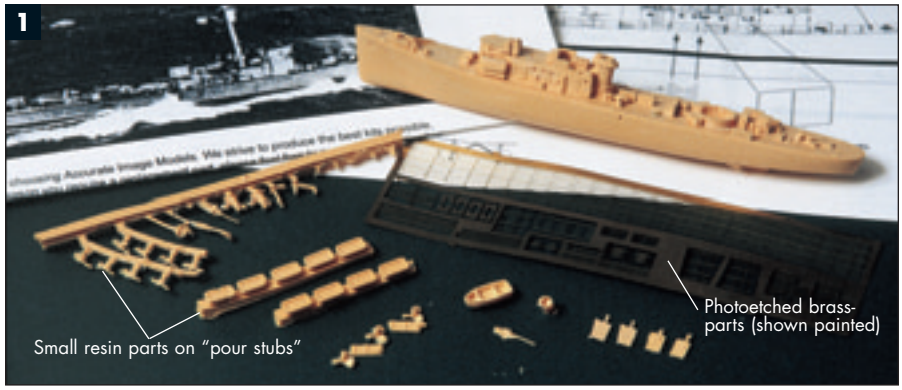
I used .008" brass rod for the propeller shafts. I had to drill out the shaft struts so the rods could be inserted. Drilling resin has to be done slowly and with even pressure to avoid shattering the brittle material. The prop shafts and struts were super glued to the hull for a strong assembly, **4**. I cleaned off a lot of molding flash from the screws (propellers), and then squared the rudders to match the drawings.

Superstructure. I like to use a "Hold and Fold" tool when working with photoetched parts. It's a clamping device that grips part of a piece while you bend the rest of it to shape. You could also use two single-edge razor blades, with one holding the part down while the other serves as an adjustable wedge for folding.

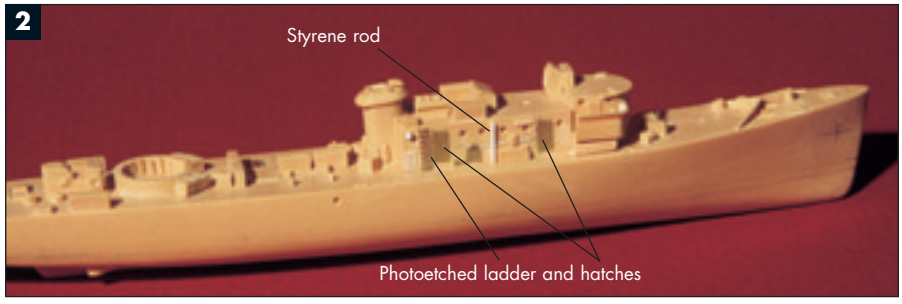
I added the photoetched steps leading from the main deck up to the bridge wing. The resin 20mm deck platforms that came with the kit were too heavy, so I made new ones from .010" sheet styrene with .010" x .020" strip stock for the deck beams, **5**. The photoetched supports for the platforms looked too flat, so I replaced them with .015" styrene rod. I also added a support under the forward edge of the bridge wing as seen in references, **6**.

Photos and the kit drawings show a visor over the bridge portholes, but there's no part for it. I decided I could make one. Referring to photos, I first drew a 13/32" circle using an artist's circle template, then intersected it with a 55-degree ellipse using another template, **7**. When finished with my paper visor, I traced its shape onto .005" sheet styrene and cut out the final visor with a knife. The resulting shape fit perfectly on the kit, **8**.

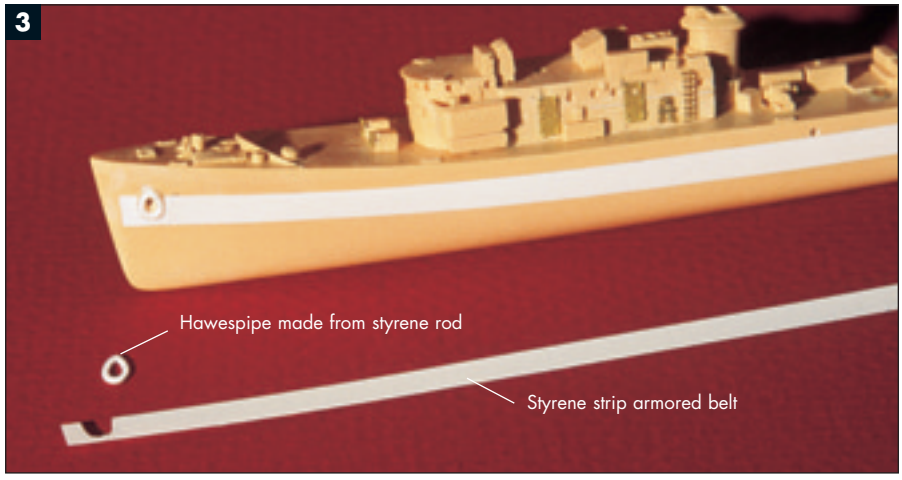
Another item missing from the kit was the canvas windbreak around the life rail on the "flying bridge" (the open-air deck above the bridge). I added this using gold Bare-Metal Foil, **9**.



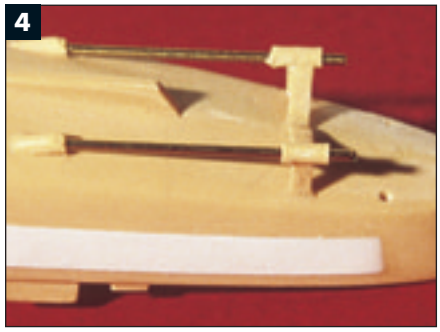
Here's the Iron Shipwright sub chaser kit (originally an Accurate Image Models kit) spread out and ready to build. Many of the resin details are on "pour stubs" that must be removed. Construction photos by Phil Kirchmeier



Phil replaced some of the superstructure detail with photoetched brass parts and styrene rod stock.

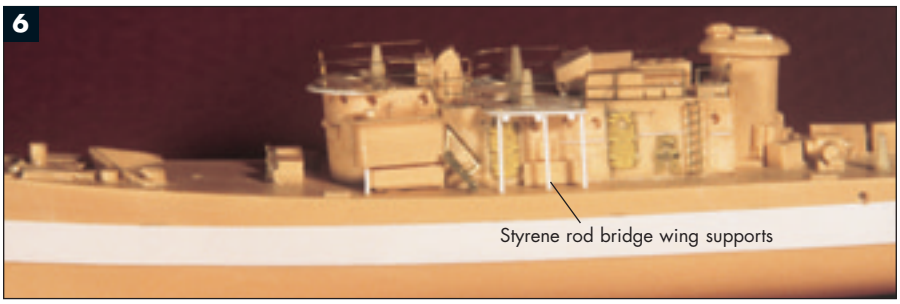


The hawespipes around the anchors were fashioned from styrene rod, and the armored belts were made from styrene strips.

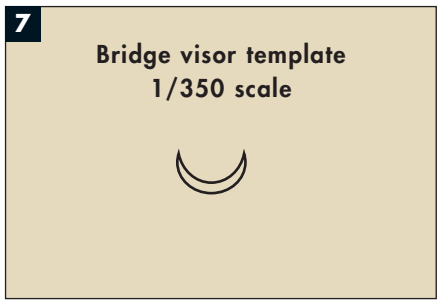


Phil cut brass rod for the propeller shafts.

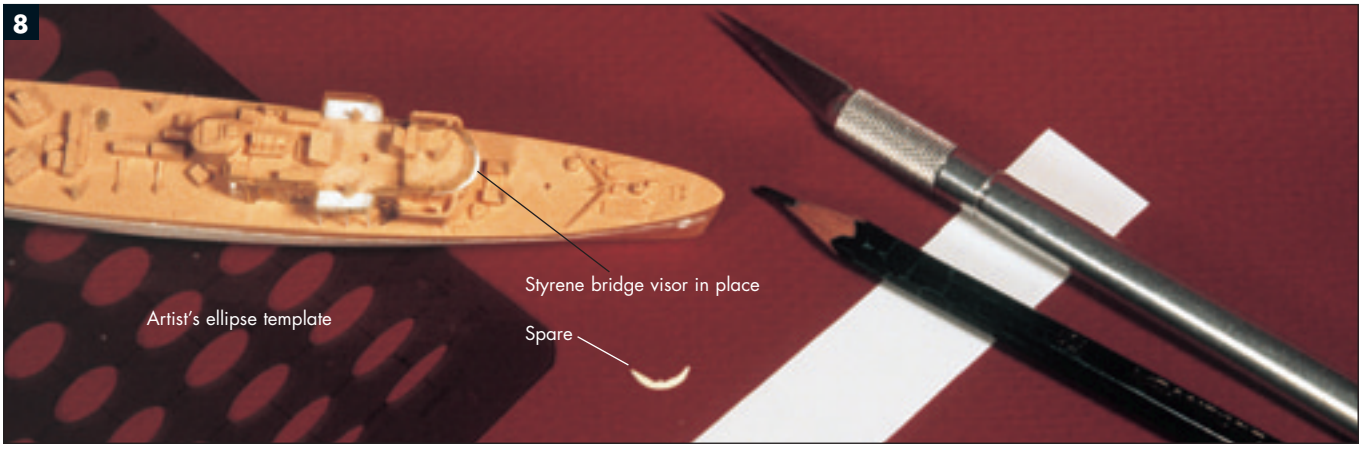
The kit's bridge-wing platforms (right) were too thick, so Phil replaced them with new ones made from sheet styrene.



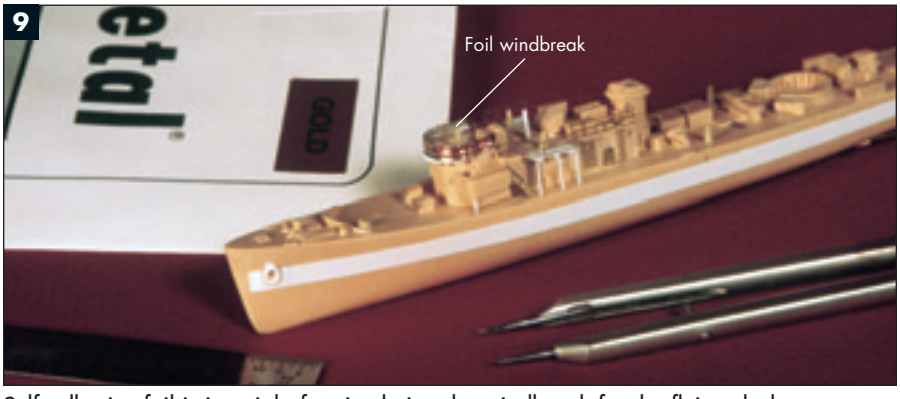
The supports for the bridge wings were made from styrene rod.



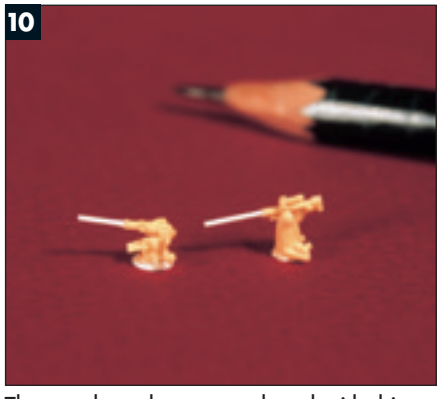
Here's a template for the bridge visor.



Phil made the prominent bridge visor from thin sheet styrene.



Self-adhesive foil is just right for simulating the windbreak for the flying deck.



The gun barrels were replaced with thin styrene rod.

Guns. The kit's 20mm guns were crude, so I replaced them with L'Arsenal's resin and photoetched guns. I left off the delicate photoetched gun barrels and shields until after painting.

The kit's other guns, an open 3" turret forward and a single-barrel 40mm gun aft, were well-cast, but needed cleanup. I figured the barrels wouldn't survive cleanup, so I removed them and replaced them with .020" styrene rods, **10**.

A new mast. So far, we've cleaned up parts and replaced some details. Let's roll up our sleeves and do a bit of scratch-building for the ship's mast.

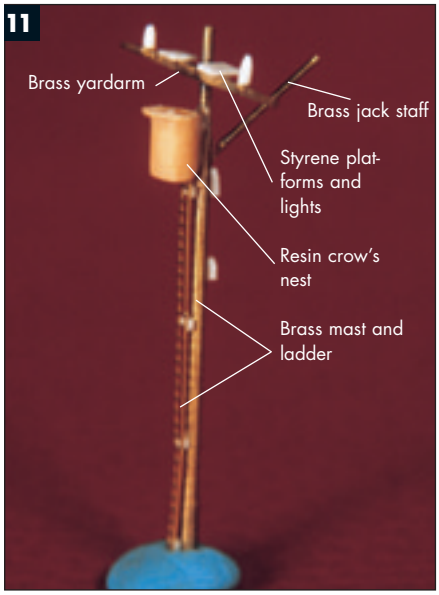
I started with a 2"-long piece of .060" brass rod. The finished size will be 1 3/16" – the extra length is needed so that the rod can be chucked in a motor tool. The tool was used as a lathe; I spun the rod at moderate rpms and tapered it with files and sandpaper, holding the free end against a block of wood to keep it steady. I trimmed it to length, leaving a little extra for mounting in the model.

I made the yardarm from 1/32" square brass rod cut to 11/16". I tapered each side of the yard, then soldered the yard to the mast. It was positioned perpendicular 1/16" from the top of the mast. This produced a strong mast that wouldn't distort when I added rigging, **11**.

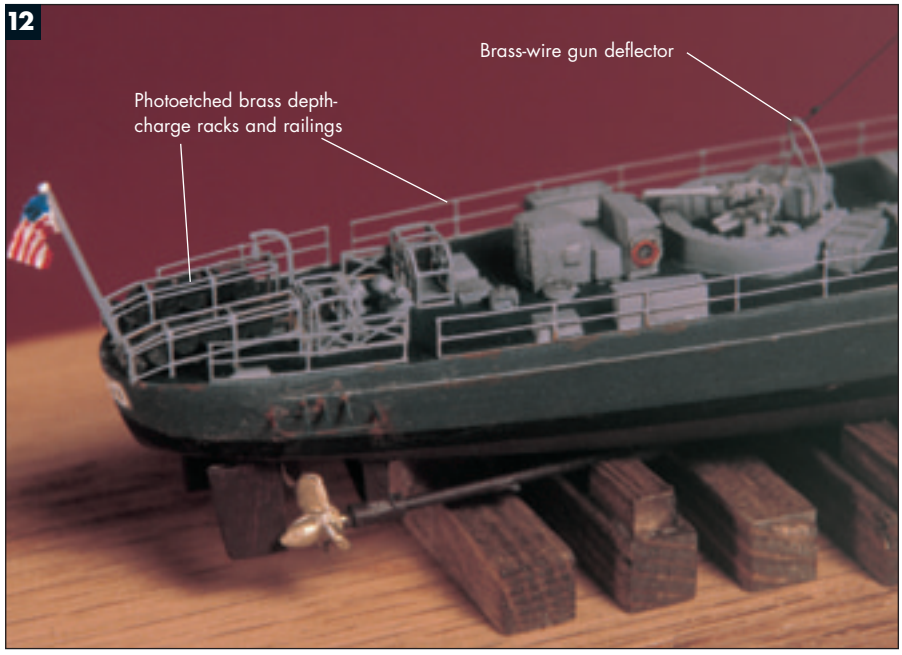
The jack staff was made from .030" brass rod, 5/16" long. Since it would not be put under stress, I attached it with super glue. I added the kit's resin "crow's nest" (lookout tub), and below it, three spacer blocks to hold the photoetched ladder realistically away from the mast.

Next were two small platforms on the yardarm, used by crewmembers when working aloft. I cut two 1/16" squares from .005" sheet styrene. I rounded 1/8"-long bits of .030" styrene rod for the small lights on the mast.

Painting. After all the major sub-assemblies were complete, it was time to paint. I swabbed everything with Polly Scale's Plastic Prep to remove dust and fingerprints and reduce static electricity, then let the model air-dry. A light wipe



Phil made a new mast from brass stock tapered in a motor-tool lathe. He used the kit's resin "crow's nest" and added more brass and plastic details.



Thin-gauge brass wire is ideal for the 40mm gun deflector. The depth-charge racks are photoetched pieces from the kit.

with a painter's tack cloth removed remaining dust.

It's a good idea to prime models made of different materials to provide uniform painting results. Primer will help you spot surface imperfections, too. I used Floquil's figure primer (spray can); it dries quickly and settles into a smooth matte finish.

I painted my sub chaser in the Measure 22 graded system. The regulation for it reads: "All vertical surfaces from the waterline to the lowest point on the main deck painted 5-N Navy Blue, all other vertical surfaces painted 5-H Haze Gray. Decks painted 20-B Deck Blue." With the hull's red-and-black boot topping, this would make a fairly colorful display.

I used Polly Scale's U.S. Navy colors straight from the bottle. They're close to the color chips in Snyder & Short's *U.S. Navy World War II Ship Colors*. I used low-tack transparent magic tape for masking the color demarcation line.

No decals are included, but Blue Water Navy makes a 1/350 scale decal sheet with the correct-style Navy numbers, flags, and aircraft roundels.

I didn't model a specific ship, but all of this class wore a hull number, either as the number only or prefixed with "PC." I based my number choice on one of the ships in my reference photos.

The last details. With painting and decaling completed, all that was left was to add the small details. I worked from the smallest to the biggest and from the center of the ship outward. The antenna trunk, located behind the mast, was made from .060" styrene rod cut to 3/16". I used fine brass wire for the gun deflector for the 40mm, **12**. The kit's photoetched depth-charge racks were attached and charges added from .060" styrene rod.

Fine model-railroad chain was used for the anchor chains and brass wire for the small jack staffs fore and aft. The flags were fashioned from foil for more realistic "furling."

The mast was installed with a rake of 92 degrees, which I aligned using an adjustable protractor. I used various gauges of monofilament fishing line for the rigging.

The last items were the railings around the main deck. After pre-painting and cutting them to size, I attached each railing with a tiny spot of super glue at one end. Then, using a piece of wire for an applicator, I ran a continuous bead of super glue between the railing and deck as I moved around the edges of the model. I weathered with a coat of Polly Scale clear flat and pastel chalk dust applied wet and dry.

I display the model in a pre-built plastic "model car" case, but I added 3/16" square basswood strips to simulate a dry-dock pose.

So, resin ships aren't as difficult as you thought, right? The little ones like this pose about the same amount of work as a plastic kit, and you'll develop modeling "smarts" to use on bigger kits when they come your way. **FSM**

Phil Kirchmeier is an artist and web designer/developer who lives in Milwaukee, Wis. He has written several articles for FSM and once served as designer and illustrator for Kalmbach Publishing. He likes to model ships and armor, but has been known to build an aircraft or two.

REFERENCES

PC Patrol Craft of World War II – The History of the Ships and Their Crews
Wm. J. Veigle, Astral Publishing Co., Santa Barbara, Calif., ISBN: 0-9645867-1-1

SOURCES

Sub chaser kit Commander Series/Iron Shipwright Signature Series kit No. 4-052, 888-476-6744, www.commanderseries.com
Photoetched details L'Arsenal, available from Pacific Front Hobbies, 541-464-8579, www.pacificfront.com; Gold Medal Models, http://GoldMM.com
Sheet, strip, and rod plastic Evergreen Scale Models, 877-376-9099
Brass rod stock K&S Engineering, 773-586-8503, www.ksmetals.com
Hold and Fold tool The Small Shop, fax: 360-673-1255, www.thesmallshop.com
Gold foil Bare-Metal Foil Co. 248-477-0813, www.bare-metal.com
Decals Blue Water Navy, available from Yankee Modelworks, 508-996-1760, www.yankeemodelworks.com