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FineScale Modeler PRODUCTS

Modeling water

FSPDF042

Doin' the wave

Make a splash with this easy, inexpensive water-making technique

By Patrick Roach

Your latest sea-faring creation is finished, and even though it's a beaut, something seems to be missing – but what? Wait a minute … There's no water! A ship model out of water just doesn't look right. Modelers employ many methods to simulate water, but my favorite uses readily available materials such as aluminum foil. The foil lets you create a convincingly random texture, and the process is remarkably easy.

Like many modeling techniques, the more you do it, the better you will get at it. This process is also forgiving about mistakes: If something doesn't come out right, just remove it and try again. The supplies are inexpensive and will last for many projects, bringing the average cost per project down to just pennies. I'll demonstrate the process by creating a base for a model of the World War II Royal Navy destroyer HMS Vendetta *built from a 1/350 scale Armada Models resin kit. Now, let's make some waves.* **FSM**

Patrick used his foil-based water-making technique to surround his 1/350 scale Armada Warships HMS *Vendetta* with a realistic, rippling sea.

Base matters

Raid the kitchen for aluminum foil and get a flat paint brush. For this project, I also used an inexpensive multi-purpose product called Mod Podge Gloss Lustre (www.plaidonline.com, 800-842-4197), commonly used in découpage. It's a water-based sealer, glue, and finisher – just the ticket for several aspects of foil wave-making.

You'll need to mount your foil water to a plastic or wood base. I prefer wood because it's easy to shape and resize. Pre-made wood bases can be found any craft store; they're a great alternative if you don't have access to wood-working equipment. Apply stain (if desired), then a clear topcoat to seal the wood before attaching the foil. I sealed this base with Mod Podge.

The perfect foil

Cut a piece of foil to fit your base. The foil can cover the entire surface, or you can cut it to a "water-spot" shape, as I did here. Gently ruffle the foil to simulate waves and swells. Don't crumple it too much: Less is definitely better in this case.

Set the foil on the base and position the model on the foil. After some test positioning, wave adjusting, and spot re-ruffling, trim the foil where necessary. Flatten out the edges before you trim to get a clean cut.

Tack the foil to a piece of scrap cardboard with bits of masking tape. Any paint that will adhere to the foil will work for the basecoat. Here I used ordinary spray-can paint from the hardware store. To vary the color and add depth, apply three complementary colors – for example, dark blue, grayish blue, and aquamarine. Spray the colors from different angles to highlight the wave tops and create a shadow effect. Add light topcoats to blend these features.

Gently remove the painted foil from the cardboard and apply Mod Podge to the unpainted side (white glue will also work) to attach the foil to the base. Use a lot of the glue and push the outer edges flat against the base.

You may have some high spots (swells) in the middle that do not touch the base. That's OK, as long as enough of the foil contacts the base to anchor it firmly. Wipe up excess glue that oozes from the edges with a damp cloth and let dry.

Anchor the ship

Use a large, soft brush to apply a heavy coat of Mod Podge to the area on the foil where the model will go and position your subject in the glue.

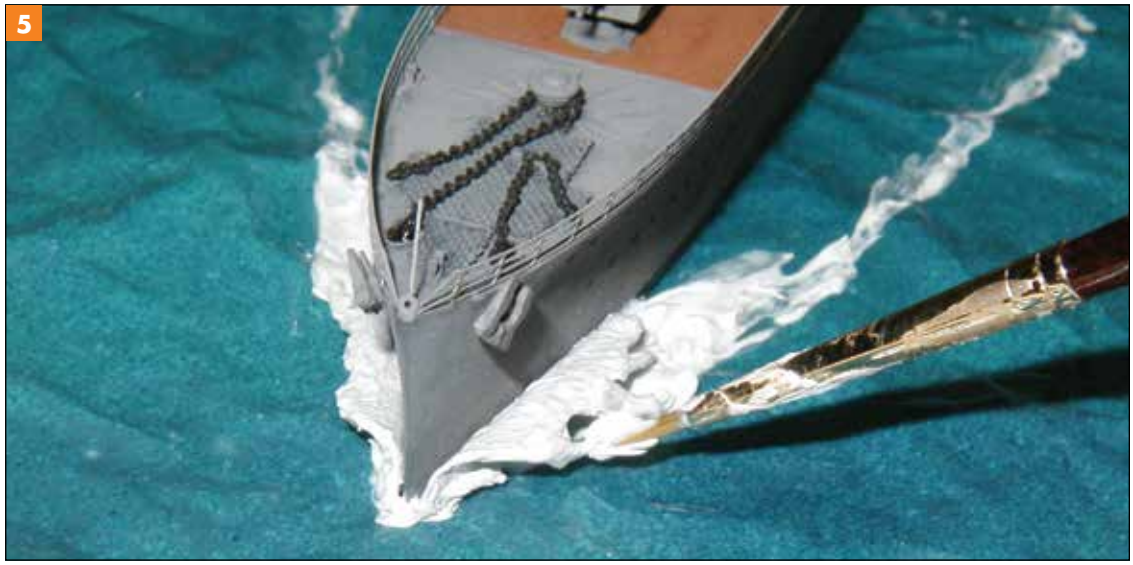
If the model doesn't sit exactly flat, carefully fill the voids with Mod Podge and let dry. It'll take two to four hours for Mod Podge to set up. Drying times vary depending on application thickness and humidity.

Waking time

Unless you want to depict a ship at rest in a calm sea, you'll need to create a wake to convey a sense of motion. I do this with heavy clear acrylic gel medium and acrylic paint, both of which can be purchased inexpensively at art supply stores.

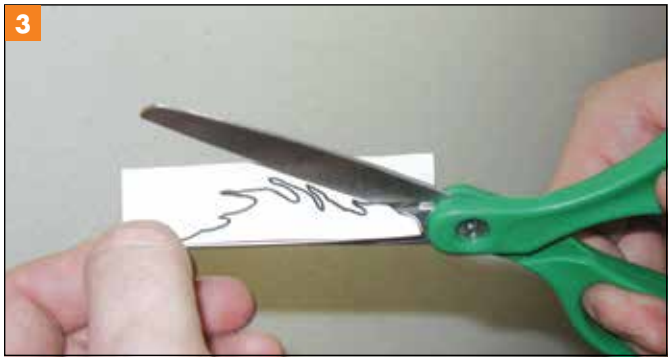
To add some color to the gel, mix it with a teaspoon of white acrylic paint. Pure white water looks artificial, so tone it down with a bit of gray paint to compensate for scale.

The type and speed of a vessel determines the size and shape of its wake. Study reference photographs to find the correct wake pattern, and refer to them frequently while you work. A build-up of gel angled away from the bow will suffice for a "slow mover." On a fast mover like my destroyer, you'll need a cascading bow wake. You can simply apply many layers of gel, but that's time-consuming and the results are often less than convincing. There's an easier way!



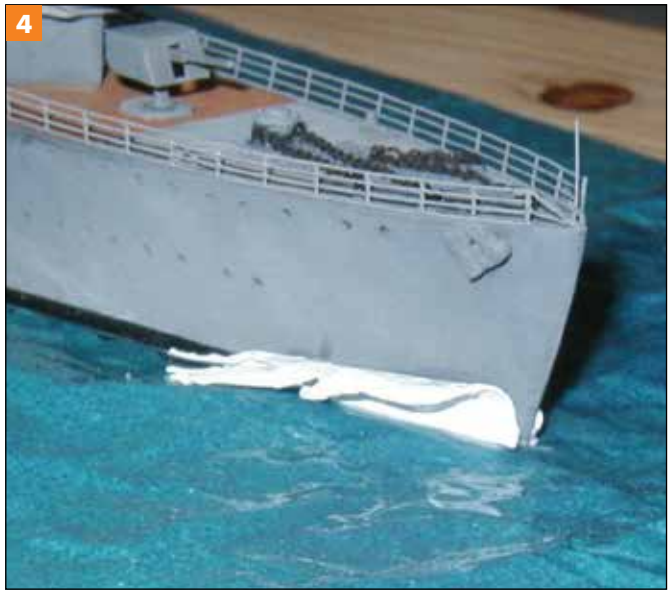
After these have set up, start applying your gel-medium mixture over the paper form, making sure you completely cover it. Blend the trailing portion of the swell behind the form. Check your references often to make sure you're shaping the wake realistically.

Apply a heavy coat of Mod Podge over the rest of the foil to soften the waves and add depth. Don't worry! Mod Podge goes on white, but dries clear and shiny.



The trick is to apply the gel over a form made from heavy paper or light card stock such as a business card. Sketch the profile of the swell on one side of the card, playing with the sketch until you have the exact profile you want the wake to have.

Fold the card in half, so you can cut both sides at once and have identical shapes. Soak the cut-out form in water, and while it's wet, curl it around a paint brush handle, pencil, or dowel to achieve a smooth, uniform curve. Bend the halves in opposite directions to make mirror images, and let the form dry.

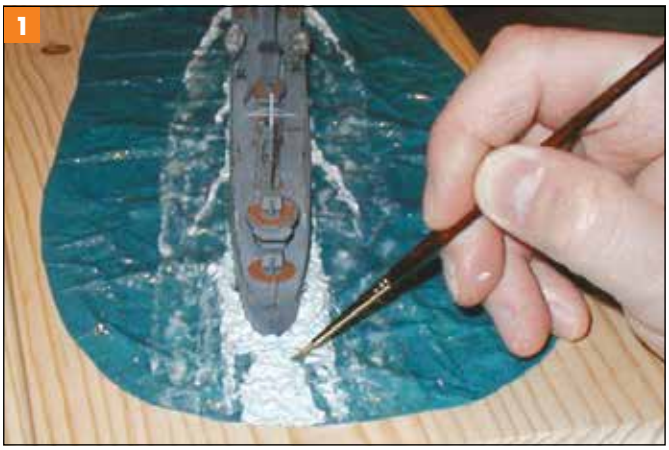


Once dry, the form will hold its shape while you apply your gel. Attach the halves to each side of the bow with white glue or Mod Podge.

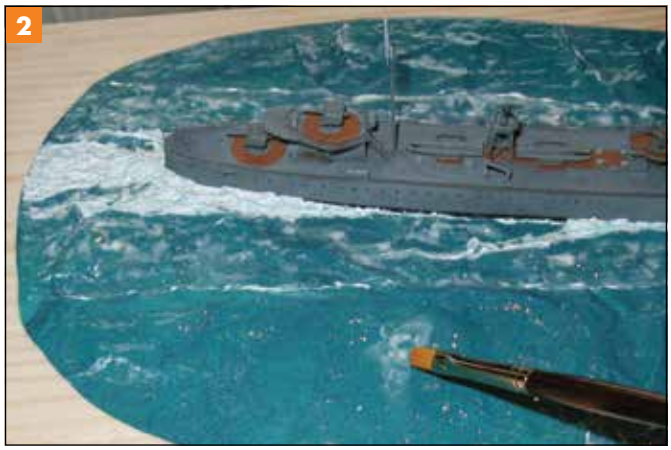
Scoop up a brush full of the mixture and apply it at the stern in a churning pattern. Build up the height with additional applications.

Do the same for waves along the side of the ship, angling them properly for the speed you want to portray (keep checking those references). Once the wakes are dry, apply another coat of Mod Podge to seal them.

Sea foam scene



To simulate foam, make a translucent mixture of approximately 80 percent distilled water and 20 percent white acrylic paint. White toothpaste also works well. Distilled water is better than tap water because it won't leave water spots when it dries. Apply this mixture around the ship's wake and…



…to the tops of the taller waves. When you have the foam looking the way you want it, let it dry thoroughly.

To seal the foam and blend the surface of the water, apply a heavy final coat of Mod Podge. Glob it on and push it around with a big, damp brush, being careful not to work it around too much. Keep some distilled water and cotton swabs close by. If some Mod Podge gets in a spot where you don't want it, just wipe it off before it dries with a swab dipped in the water. When this topcoat dries, you're done.

Patrick Roach is a senior design engineer by profession and an avid history buff and modeler. He lives in Groveland, Ill., with his wife Sally and children Jackson, Olivia, and Schaefer.

Plowing through the waves with a spectacular wake fanning out behind it, Patrick's *Vendetta* is in its natural element – like a fish in water.

1/72 Scale | Diorama

Easy-to-model WATER

Put maritime models in their element • BY CHRIS LUDWICK

Whether your boat or ship kit comes with a full hull or as a waterline model, it will always look more at home if it's afloat. Of course, most kits don't include the water — but you can have fun modeling your own to enhance the realism of any scale boat or ship.

There are lots of different products and methods for modeling water. One easy and inexpensive way is to sculpt it in Celluclay, sometimes called "instant papier-mâché." It's non-toxic, easy to prepare, and you can sculpt it with your hands. Once it's dry (about 48 hours), it's durable and paintable.

We'll use Revell's 1/72 scale *S-100* Schnellboot (kit No. 05051) with Andrea Miniatures and Hecker-Goros figures. You can find everything else you need in a hobby shop, craft store — or maybe even your own basement or workshop.

Build the base, make the mix

I usually use a sheet of plywood for the base, but here I used Styrofoam so I could cut a hole in it for a full hull.

If you use plywood, treat it with a sealant (I use water-based varathane) to prevent the wet Celluclay from warping it. I would put nails or screws in the wood to help anchor the Celluclay; with Styrofoam, I simply cut small dowels from sprue and stuck them in the foam, **1**.

Now mix the Celluclay with water and some white glue, **2**. You want to get it to look like oatmeal, using as little water as possible. The white glue helps hold it together, but don't use too much. Celluclay will shrink, depending on how much water and glue you use. I wish there were an exact

1

Chris cut a hole in the Styrofoam base to put his full-hull model into the water. Sprue dowels embedded in the Styrofoam help anchor the layer of Celluclay to follow.

2

Celluclay "instant pâpier-maché" is easy to sculpt with your fingers. Sharing Chris' workspace on another project is his daughter Skyler, 6.

Like anything else, ships and boats look best in their natural element. All you need to model good-looking water is a base, Celluclay, acrylic paint, and a model to put in it.

recipe for this; you may want to try a time or two before committing your best model to the deep.

Celluclay comes in either white or gray. I prefer the gray for seawater. You can add acrylic paint to it while you're mixing it. I usually don't, but on this one I mixed in some blue. Be careful, though — adding paint is just like adding more water, so figure that in.

Making waves

Next, spread the Celluclay on the base and use your fingers to form the waves you want. I wanted to show a couple of nearby explosions, so I planted long sticks of sprue in the Styrofoam and sculpted Celluclay around them to form geysers of water, **3**.

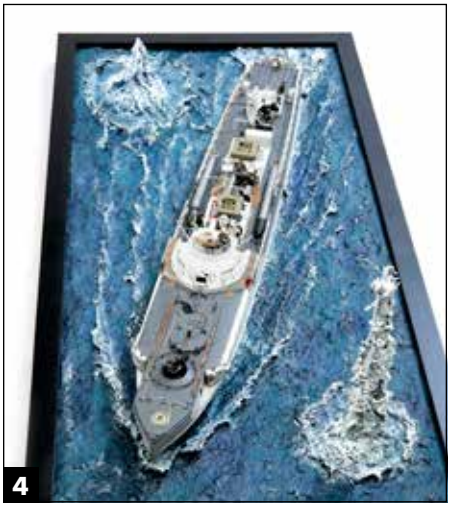
Let the Celluclay dry for 48 hours. The surface should feel like it's at room temperature. If it's still cool to the touch, it's probably not thoroughly dried.

After a couple of days, I was ready to paint. I used Liquitex Basics acrylic paint, available in discount stores, and used only four colors: dark blue, green, light blue, and white. Mix the colors as you like, starting dark and going lighter as you get to the peaks of waves and wakes. The last color I used was white for the whitecaps and ocean spray, **4**.

Add gloss, frame, and admire

After the paint dries, you can add a layer of clear resin to impart a watery gloss — or you can skip the resin and use Pledge Future floor polish as I did. It's easy: Just brush it on and let it dry. I added three or four coats, surrounded my water with a black picture frame, and my seagoing scene was complete. **FSM**

Chris mixed a little blue paint into gray Celluclay. The watery plume is Celluclay sculpted around a spire of sprue.



Mixing dark blue, blue, green, and white acrylic paint, Chris started with the darkest shades and finished with white-topped waves and wakes.

Water-based, non-toxic, and very squishy, Celluclay is fun stuff to use for water.

1/350 Scale

Easy and convincing WATER

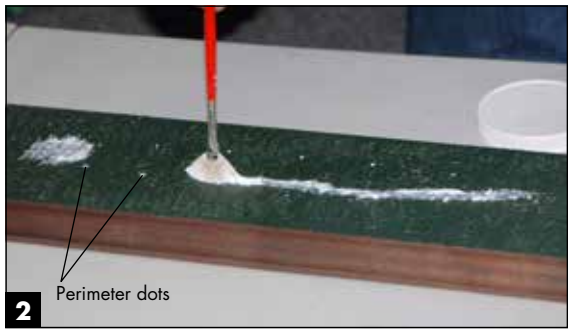
Fast and simple techniques to create realistic waves • BY TOM ALTOBELLO

To each individual, the sea looks a little different. However, I think my method of creating display bases for waterline models comes pretty close to mimicking the real thing.

All you need is a smooth, flat base appropriately sized for the ship you're modeling, clean ½" and ¼" brushes, heavy acrylic gel medium (I use Golden), and some paint.

Tom's 1/350 scale USS *Arizona* steams through a sea of heavy acrylic gel. All his simple technique requires is a suitable base, a bare minimum of supplies, and a little patience.

Wood bases give Tom's ships a decorative edge. He paints the top of the base dark green. Once the paint has dried, he applies heavy acrylic gel over the entire surface with a ½" brush. Don't worry: The gel goes on white but dries clear.



Once you've assembled your ship's hull, position it on the base and mark the perimeter with small dabs of gel medium 1-2" apart. Remove the hull and you should see its outline on the base.

Using a ½" brush, connect the dots with a thick line of heavy gel. This will permanently attach your ship to its base. Replace the hull and push it carefully, but firmly, into the gel.

Switching to a ¼" brush and working from bow to stern, form the gel into waves coming off the hull at a 20-degree angle. The gel should go on wider at the base and rise to peaks tumbling away from the ship. The waves should be 3-4" long.

Along the hull, form the gel into rolling, smooth disturbances that don't quite touch the hull (due to the ship's displacement). At the stern, work the gel into a froth to represent the wake.

Once the gel has dried, flow a mix of 1 part white acrylic paint and 5 parts thinner (or water) into the low areas of the waves. Highlight the tips of the waves with unthinned acrylic white paint to simulate whitecaps.

Remember, water looks different to everyone. With this technique, you're in control and can shape the water to suit you. FSM