



1. German tanker *Altmark* (1938), 1:250 scale, published by HMV (Germany). Germany built replenishment tankers to fuel its warships at sea. *Altmark* served the pocket battleship *Admiral Graf Spee*, providing fuel and stores, and taking on prisoners from war prizes. HMV is a top-line publisher of highly detailed paper model ship kits. With its optional laser-cut detail set, the *Altmark* kit has over 3,100 parts. The 1:250 floating dry dock paper model and its detail set, also from HMV, are out of print but sometimes turn up on auction sites. Models and photograph by Lars Wahl.

Paper Ship Models

By David Sakrison

Paper ship models have come a long way in the past twenty years, from rough, hand-drawn kits to today's highly accurate, highly detailed maritime paper models. In Europe, scale model exhibitions include many museum-quality ship models made from paper

kits. Publishers in Poland, Russia, the former East Germany and Yugoslavia, and other former Eastern Bloc countries produce printed kits for paper ship models that stand up well against the best plastic and wooden models.

The first paper models were printed in Germany in the 1700s, and the first commercial paper models appeared in France in the early 1800s. In the early



2. Australian river boats, 1:100 scale, published by World of Paperships (Netherlands). The paddle steamers *Adelaide* (1866), *Pevensey* (1910), and *Alexander Arbuthnot* (1916) have all been restored as working museum ships on Australia's Murray River. Each of these printed kits can be built in a basic version, or in an advanced version that produces a very detailed and accurate scale model. The *Pevensey* kit can be built as the fictional *Philadelphia* from the Australian television series *All the Rivers Run*. Models and photograph by Jeroen van den Worm.

twentieth century, cast iron, tinplate, and balsa dominated the toy industry and paper models faded in popularity. World War II brought a boom in paper modeling, since paper was one of the few materials that was not tightly regulated. But the ship models printed in newspapers and on cereal boxes during the

war were simple and toy-like.

The 1950s brought plastic models of increasing detail and accuracy, and paper modeling mostly died out in the West. Behind the Iron Curtain, plastic models were expensive and hard to get, and most scale



3. Baltic ferry *Lilla Weneda*, 1:100 scale, published by Digital Navy (United States). The river ferry *Lilla Weneda* and its ten sister ships were built between 1961 and 1964 in Gdansk, Poland. They were the first coastal passenger ships completely designed and built in Poland. Model and photograph by Roman Detyna, Digital Navy. The very detailed kit is available free from Digital Navy. Request it by sending an email to Roman at contact@digitalnavy.com.



4. Fletcher-class destroyer, 1:200 scale, published by Digital Navy (United States). Between 1942 and 1944, 175 Fletcher-class destroyers were commissioned for the United States Navy, more than any other destroyer class. They proved highly successful and popular with their crews. Some served in Korea and Vietnam. The kit is offered in four color schemes, and it can be built as a full-hull or waterline model. Model and photograph by Roman Detyna, Digital Navy.

modelers built printed paper models. The kits were hand-drawn, and papers and inks were often of poor quality, but some of those Soviet-era kits still produce good-looking models.

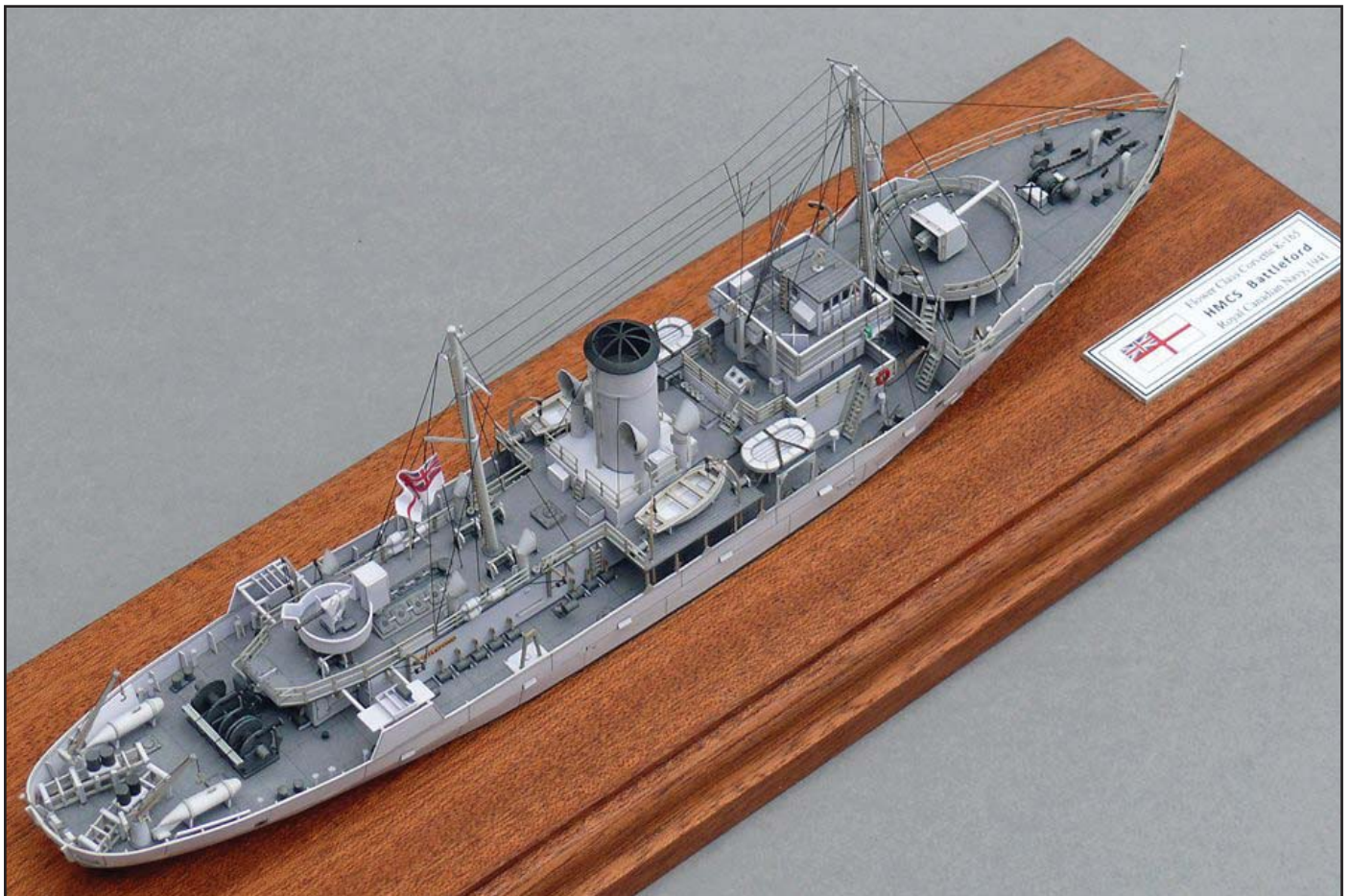
In the early 2000s, several factors came together to fuel a surge in the popularity of paper modeling. Affordable software for designing paper models and the growth of the Internet made it much easier to create and distribute paper model kits. Publishers and individual designers could produce detailed, accurate paper models that would be far more expensive to create in plastic. A cottage industry arose of hobbyist-designers turning out high-quality downloadable paper models, while European publishers like Halinski, GPM, HMY, and Shipyard continue to print high-quality maritime kits that yield museum-quality results.

The basic tools of paper modeling are scissors, hobby knife, cutting mat, steel straight-edge, scribe (for

crisp folds), and craft glue—Aleene's Tacky Glue is a favorite. Nearly all kits come pre-colored, and many are pre-weathered, so no paints or decals are needed. Markers or watercolor pencils are used to color the white edges of cut paper parts.

The skills required are easy to learn. Modelers can add details of laser-cut card or wood, photo-etched or cast metal, or plastic. Ship modelers can purchase tapered masts and spars, and detail parts from paper ship publishers and mainstream maritime model suppliers. Serious paper ship modelers use a variety of materials to enhance the paper model.

The most common scales are 1:400, 1:250, 1:200, 1:100, and 1:50. But a paper model can be easily scaled up or down by adjusting the print size. For digital models, the standard resolution is 300 dpi, so models can be scaled up without losing clarity. Most parts can be printed on 65-pound cardstock; decks, bulkheads, and hull formers should be laminated to



5 & 6. Flower-class corvette, 1:250 scale, published by HMV (Germany). Flower-class corvettes were built for use as anti-submarine convoy escorts during World War II's Battle of the Atlantic. Built mainly in Canada, they sailed under Canadian, British, and United States flags. This printed waterline model features lots of detail, including bridge interior and detailed guns and depth charge launcher. Laser-cut and metal detail parts are available from HMV. The model here is of the Canadian HMCS *Battleford*. The kit has parts for any of four sister ships. Model and photographs by Dr. Garth Nicholson.

0.5-millimeter (0.020-inch), the thickness of a cereal box, or 1.0-millimeter (0.040-inch), the thickness of a legal pad backing card. Some kits have instructions

in English, all have detailed assembly drawings or photographs.



7. Cutter HMS *Fly* (1763), 1:100 scale, published in *Modelarstwo Okretowe*. Model designed and built by Tomasz Weremko.



8. Gokstad Ship (circa 850 AD), 1:72 scale, published by WAK (Poland). Model designed, built, and photographed by Tomasz Weremko.



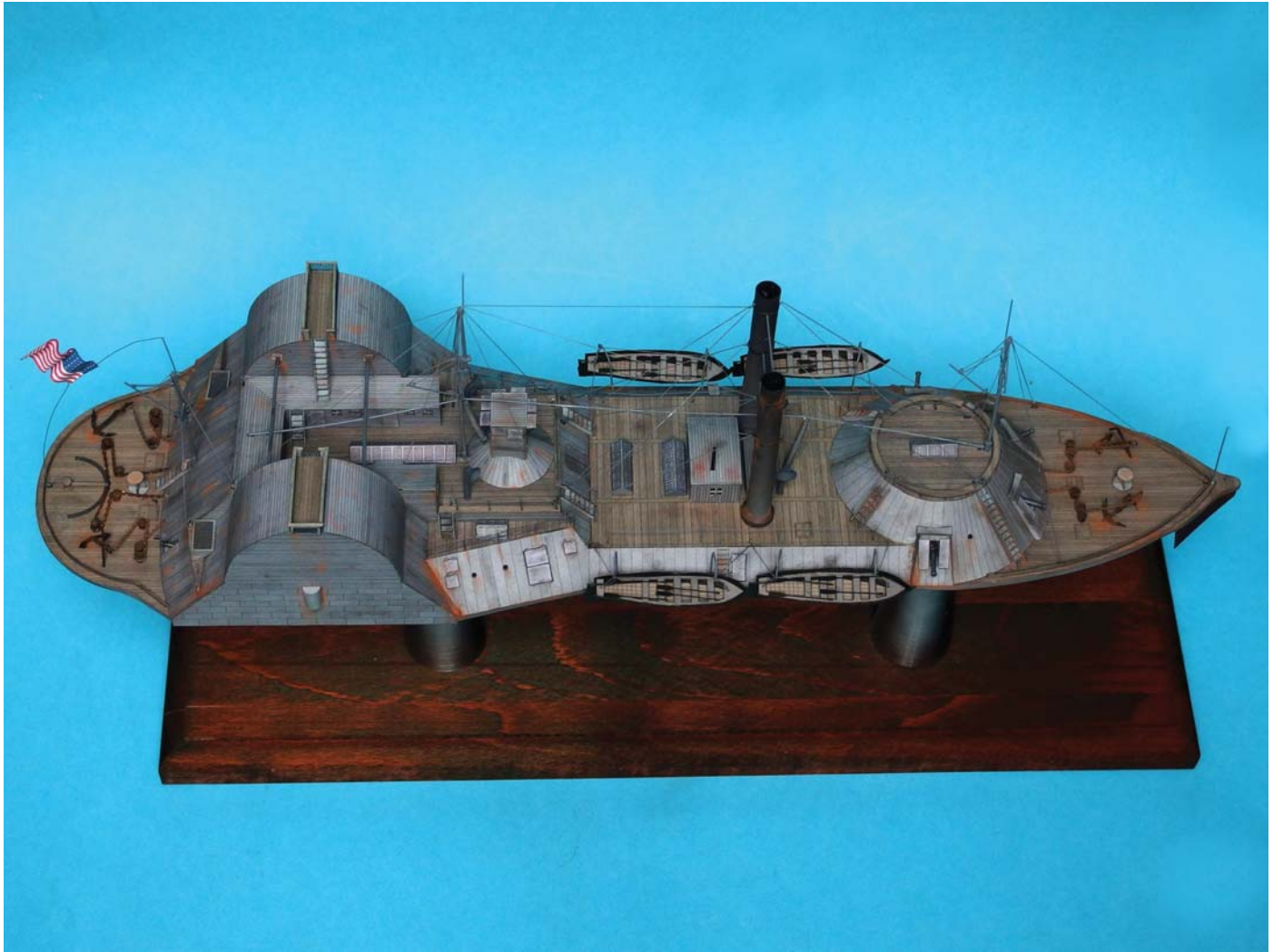
9. M.V. *Mellum*, 1:250 scale, published by HMV (Germany). The multipurpose vessel *Mellum* and its sister ship *Scharhorn* patrol the North Sea to control oil spills, fight ship fires, care for injured at sea, and other tasks. This highly accurate model includes a bridge interior, moveable crane, buoys, special oil spill gear, and other details. Instructions are in English and German. Model and photograph by Dr. Garth Nicholson.



10. Bathyscaphe *Trieste*, 1:50 scale, published by WAK (Poland). In 1960, the Swiss-designed, Italian-built research vessel *Trieste* made the first ever dive to the deepest known part of Earth's oceans, 11,700 feet below the surface in the Mariana Trench near Guam. In 1963, *Trieste* located the wreck of the nuclear submarine USS *Thresher* off the coast of New England at a depth of 8,600 feet. In 1980, it was put on permanent display at the National Museum of the United States Navy. The printed kit includes eight pages of parts, detailed assembly drawings, and English instructions. Laser-cut frames are also available from WAK. Model and photograph by Reinhard Irresberger.



11. Whaleboat, 1:32 scale, published by Fiddlers Green (United States). – Whaling ships like *Charles W. Morgan* typically carried six to eight of these lightweight, double-ended boats. Designed for whaling, they were often used as workboats along beaches because either end could be easily run up on a beach. This simple five-sheet downloaded kit is a good beginner's project. An experienced modeler can detail it to produce a fairly accurate model. Modeler Dennis Brooks sealed his paper whaleboat with Krylon clear coat to make it a true sailer. Some paper model ships have been converted to radio control.



12. USS *Choctaw*, 1:200 scale, published by Pro Arte (Poland). Launched as merchant ship in 1856, USS *Choctaw* was sold to the United States Army in 1862 and converted to an ironclad. With a crew of 106, it saw Civil War action as a gunboat and ram on Western rivers. Transferred to the United States Navy, it was decommissioned in 1865 and sold the following year. This award-winning paper model was built by Fernando Perez Juste of Spain and photographed by Michel Simko. The 22-page PDF kit includes 150+ parts, display stand, construction drawings, and full hull or waterline option. Find it at www.wargamevault.com.

Paper models offer several advantages, one of which is cost. For example, Trumpeter's 1:200-scale plastic model of the German battleship *Bismarck* costs around \$320. GPM (a Polish publisher) offers a printed paper *Bismarck* kit in the same scale for less than \$40. HMM's extraordinary paper *Bismarck* kit, at 1:250 scale with 7,545 parts, retails for about \$70. Many excellent paper ship kits sell for less than \$20, and there are good-quality paper ship models downloadable for free. With a pile of aftermarket detail parts, one could build a very accurate paper *Bismarck* in 1:200 or 1:250 scale for less than \$200.

Paper models are more forgiving than wood or

plastic kits. With digital paper kits, if one messes up a part, just print another copy. Printed paper kits can be scanned or photocopied to provide spare parts or to test-build tricky assemblies.

Pre-colored paper kits reduce building time and cost. The basic tools one will need can be found in one's desk drawer, and one can store a lifetime supply of paper model kits on a small shelf or a computer hard drive.

The hobbyists' definition of glue is "the stuff you chew off your fingers." Compared to plastic cement or super glue, paper modelers' glue tastes better, and





13 (left) & 14. HMS *Wolf* (1742), 1:96 scale, published by Shipyard (Poland). The first of three snow-rigged sloops of the Royal Navy's *Wolf* class, HMS *Wolf* was built for action against Spanish privateers. The sloop was captured by a French privateer in 1745 and recaptured by the British just four months later. After repairs, it sailed on patrol in the North Sea. In 1748, the ship foundered in heavy seas on the Irish Coast, with all hands lost. The kit includes printed parts, laser-cut skeleton, and detailed instructions in English, German, and Polish. Shipyard also offers laser-cut blocks, deadeyes, sails, and other accessories. Shipyard's kits include a wide range of British, French, and Spanish sailing ships, most in 1:96 scale, and often available on eBay. This paper model was built and photographed by Bartosz Kłyszynski.

it will not attack your brain cells or glue your fingers permanently to your workbench.

The paper ship models pictured here barely scratch the surface of what is available. To see more, check out the online offerings and galleries of these publishers:

Digital Navy (in the United States) - www.digitalnavy.com – make full-hull and waterline warships and offers several freely downloadable models. The links on the Downloads page are broken; for any of the

free models listed there, email a request to contact@digitalnavy.com.

GPM (in Poland) - gpm.pl/en – publish a wide variety of civil and military ships in several scales. The GPM online store also distributes paper ship model kits by several other publishers.

Halinski (in Poland) - www.halinski.com.pl/ - primarily make twentieth-century warships. Its kits published after 2000 are their best.



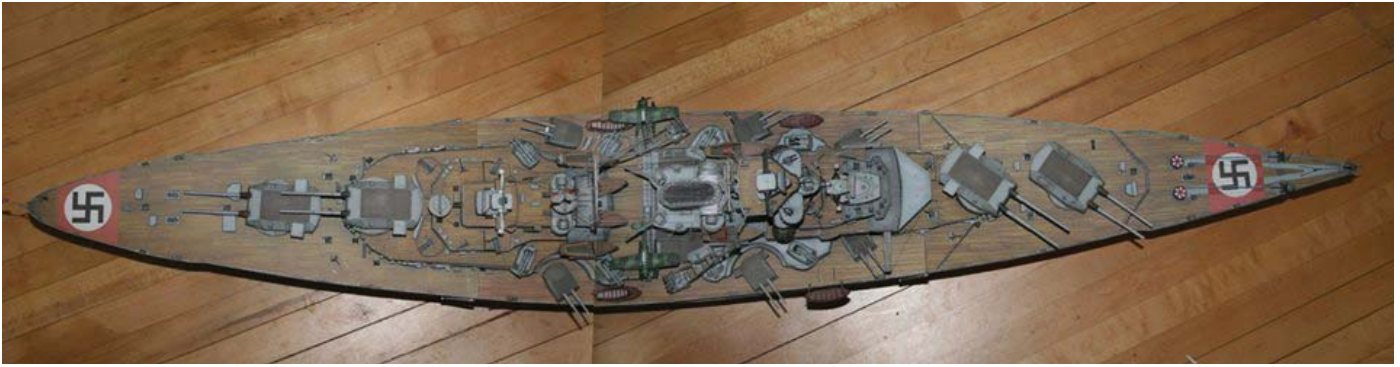
15. Dutch schooner *Eendracht*, 1:100 scale, published by JSC (Poland). *Eendracht* was built in 1989 in the Netherlands and sails as a charter and a training ship to introduce young people to the sea. The JSC printed kit includes 1,520 parts and instructions in English and Polish. Photograph courtesy of JSC.

HMV (Hamburger Modelbaubogen Verlag in Germany) - h-m-v.de/en/models/ - publish a wide variety of highly detailed civil and military ships.

JSC (in Poland) - store.jsc.pl/ - offer a wide range of civilian and military ships in several scales, but mostly in 1:400 scale. Not all of its large catalog is in print at

any one time, so it may be necessary to search online retail paper model stores to locate specific items.

Models 'n Moore (in the United States) - www.modelsnmoore.com/ - offer free digital kits, mainly of American Civil War gunships.



16 & 17. DKM *Bismarck*, 1:200 scale, published by GPM (Poland) Built by David Sakrison, the *Bismarck* model includes etched brass railings on the main deck, masts of steel wire wrapped in paper, and main gun barrels redrawn in Photoshop. Everything else is paper. David has posted brief tutorials on the hull, gun barrels, and rigging at www.papermodelers.com. GPM also has a kit for *Bismarck*'s sister ship, *Tirpitz*. Photographs by the author.

Orel (in the Ukraine) - <https://papermodeling.net/index.php?route=common/home> - publish kits primarily for warships from the age of sail to the twenty-first century.

PaperShipwright(inEngland)-www.papershipwright.co.uk/ - publish warships, merchantmen, lighthouses, and maritime-related buildings. It also offers a few

freely downloadable models.

Scaldis Model Club (in the Netherlands) - www.scaldismodelclub.nl/ - make kits for a wide variety of Dutch merchantmen and warships and offer kits by other publishers through its online store.

Schreiber (in Germany) - www.schreiber-bogen.com/ publish a very varied range of paper ship model kits.

Shipyard (in Poland) - model-shipyard.com/gb/ - make beautifully detailed sailing ships and harbor dioramas. Its products are available from Ages of Sail (www.agesofsail.com/ecommerce/paper-kits.html) in the United States.

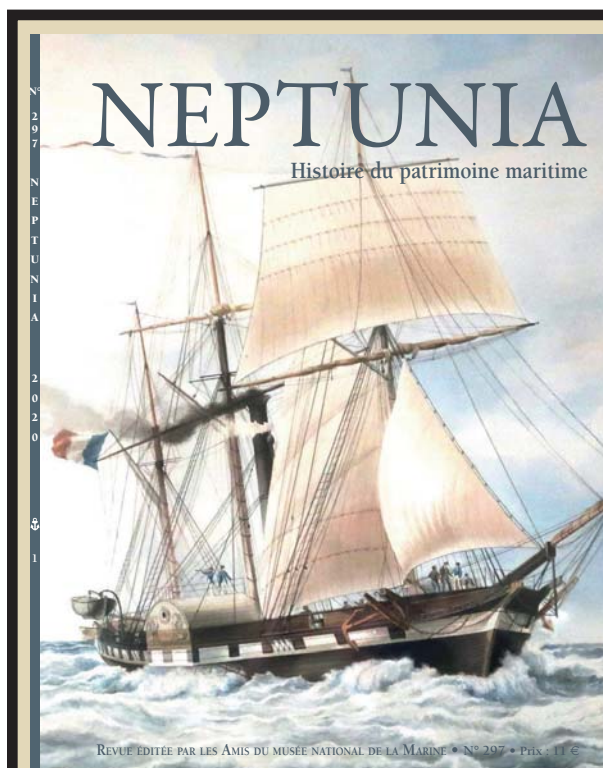
Wilhelmshavener Modelbaubogen (in Germany) - www.papermod.com/ - publish kits for both warships and merchantmen, primarily German and almost all in 1:250 scale.

World of Paperships (in the Netherlands) - worldofpaperships.nl - offer some unusual subjects, including European canal boats and Australian river steamers.

In addition, there are several retailers that concentrate on paper models, most notably Fentens Kartonmodellbau in Germany (www.kartonmodellbau.de/hmv/ and (in English) www.papermodel.com/), Marcle Models in England (www.marcle.co.uk/), Papel3D in Spain (www.papel3d.com/en/), and Paper Model Store in the United States (www.papermodelstore.com/). Other websites that offer paper ship models include many scale model retailers and Amazon. Also, kits from many of the publishers often show up on eBay. Remember that postage from Europe to other countries can be expensive, especially at the moment.

Useful online resources abound. Papermodelers.com is a lively and friendly online forum that covers all aspects of paper modeling, and the Model Ship World forum (www.modelshipworld.com/forum/10-build-logs-for-ship-model-kits/) offers a growing number of build logs for paper or card ship kits. On Facebook, visit these two groups: Paper Ship Models and Card Models Design and Build.

David Sakrison is a retired aviation journalist and college business instructor. He has been building scale models for most of his life. Since 2005, he has mainly built paper scale models. He can be reached at sakrison@charter.net.



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