

SPECIAL EXPANDED ISSUE • PLUS 10 KIT REVIEWS

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FineScale Modeler®

May 2019

We build Tamiya's
new Spitfire p.60



D-Day 75 years

7 realistic
projects
you can
make

**Model a
striped bipe** p.28

**Rebuild, correct
a Sherman Crab** p.50

**Make a rubble-
infused diorama** p.44

**Create waves for
a landing craft** p.22

**Scratchbuild an
amphibious M4A4** p.40

**Create a pulverized
1944 Panzer scene** p.34

**Finish a famous U-boat
with a colorful past** p.18



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PAGE 3**

Vol. 37 • Issue 5

SQUADRON MODELS

ALIEN INVADERS

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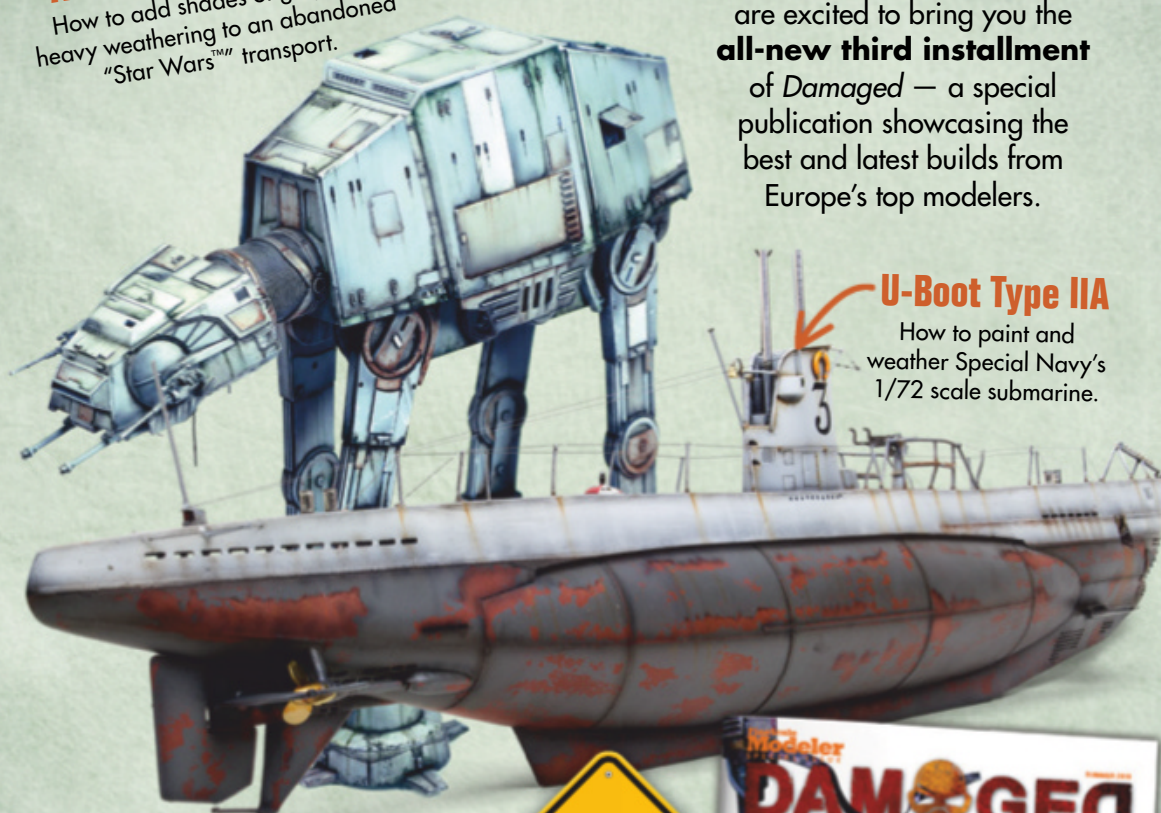
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MODELING WITHOUT BOUNDARIES

AT-AT: Desert Walker
How to add shades of gray and heavy weathering to an abandoned "Star Wars" transport.

The editors of *FineScale Modeler* are excited to bring you the **all-new third installment** of *Damaged* — a special publication showcasing the best and latest builds from Europe's top modelers.

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ALL-NEW

INTRODUCING

**FineScale
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MAGAZINE**

**MODELER'S
TOOL BOX**

Curated by Aaron Skinner of *FineScale Modeler*, the **all-new Modeler's Tool Boxes** contain everything you'll need to build a spectacular scale model including Aaron's how-to tips and techniques. Each box contains premium quality tools and materials from the hobby's top brands, including Iwata, Airfix, Xuron, and more!

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By Mark Savage

D-Day was our defining moment

Of few things am I certain anymore, but one certainty is that D-Day defined a generation while also reinforcing what the United States and its allies stand for. It is a moment in time we all can see clearly in our minds and agree upon as a necessary (although brutal and costly) action.

As we've said before, we aren't here to condone or glorify war or the violence it entails. But we are here to honor the men and women who sacrificed for our freedom. Mostly we are here to celebrate the ingenuity and craftsmanship of the aircraft, armor, ships, and all that were a part of the various conflicts. The machinery of warfare is fascinating and building it brings us closer to the history it represents.

All that is a long-winded way of saying this is our special D-Day 75th

Anniversary issue, focusing on the machinery that was in the air, on the ground, and at sea that day.

Roughly a year ago, I got to fulfill a lifelong dream of visiting Normandy and its beaches. It was enlightening and humbling to see what soldiers on both sides had to endure.

The irony, of course, is the landscape of Northern France is beautiful. So here I share a couple Normandy photos, and I'll put a few more online so that those who haven't yet had the opportunity can see what Normandy looks like today.

For now, we hope you'll enjoy the D-Day builds in this issue and that they motivate you for a future build!



Mark Savage

editor@FineScale.com



Crumbling visual reminders, like this German gun and bunker, remain atop the bluffs.



Omaha Beach is tranquil today. Hard to imagine the horrors soldiers faced in 1944.

Off the sprue: What's your favorite WWII movie, why?

The breadth of movies covering WWII is indicative of how world-changing the event was, making it hard to select just one film. So we mostly pick a few.



Editor
Mark Savage
msavage@Kalmbach.com

Have loved *The Longest Day* since I was a kid, because of the action, the black and white film, and those drums for the theme song. That sticks with you. Also interesting, it shows the actions both sides were taking and how arrogance and inattention sunk the German effort. Thankfully! P.S. *Hope and Glory* is great, too.



Senior Editor
Aaron Skinner
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Casablanca is a classic movie by any measure (it's hard to beat Bogart and Bergman!) so it tops my list. It also includes *Enemy at the Gates*, for its depiction of Stalingrad; *Twelve O'Clock High*, because B-17s; *Das Boot*, because claustrophobia; and *The Dirty Dozen*, just because!



Digital Editor
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I'll pick two opposites: *The Pianist* (2002) and *The Producers* (2005). They'll both make you cry, just for very different reasons. But, they do have one commonality: music — and I'm all about that, be it the devastatingly gorgeous classical type, or the Gary Beach, all dressed up and singing his heart out type!



Editorial Associate
Monica Freitag
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This one is easy — *The Pianist* because it's a very touching true story. One that I believe is a realistic portrayal of what that time period was really like.

SCALE MODELING GOES TO SEA



Build Better Ship Models, the latest special issue from *FineScale Modeler*, focuses on building realistic ship, boat, and submarine models — from WWII warships to an iconic passenger liner, the *Titanic*.

This special edition features expert tips and techniques, how-to articles and the following models:

- USS *Texas* (WWII battleship).
- USS *Independence* (modern combat ship).
- SMS *Seydlitz* (German WWI battlecruiser).
- *America* (sailing yacht).
- And more!

For more inspiration, don't miss the fantastic builds in the issue's two photo galleries.

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Offer expires 6/13/19 at 11:59 p.m. CT. Free standard shipping to U.S. addresses only. Sales tax where applicable. *Build Better Ship Models* will arrive in June 2019.

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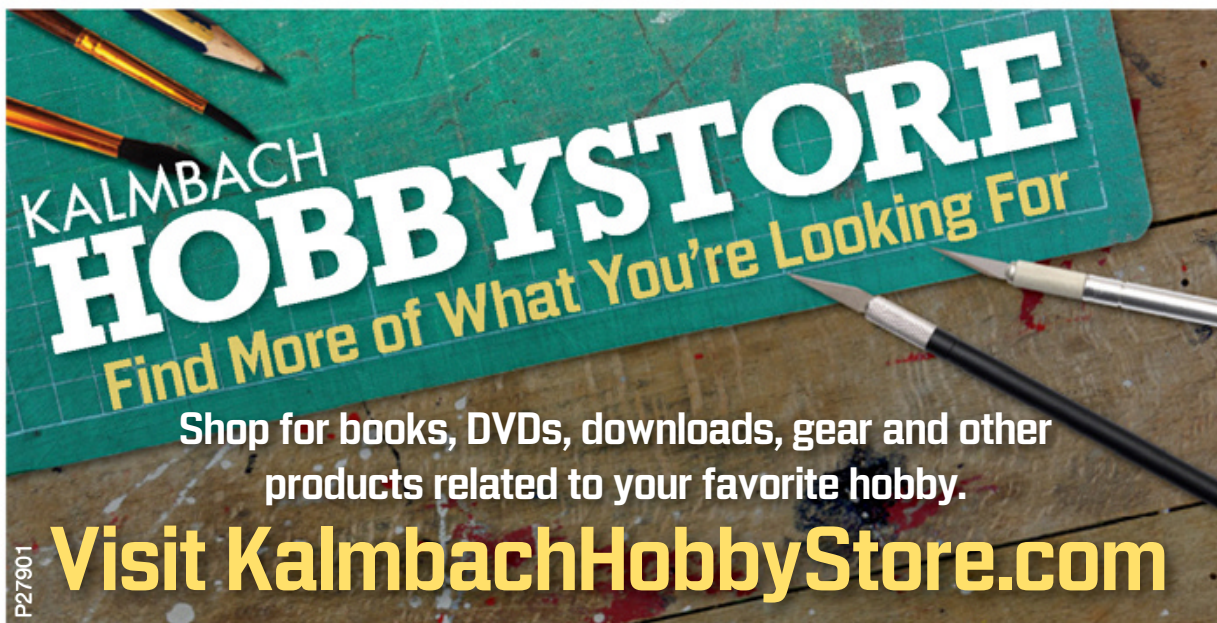
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D-Day diorama focuses on Omaha beach

Perfect timing for this issue, Pat Gallagher of Eden Prairie, Minn., sent us a variety of pictures focusing on his large D-Day beach diorama, including not only the invading forces, but German strongholds and bunkers on the bluffs overlooking Normandy's Omaha beach. Pat is retired U.S. Army Special Forces and builds large-scale dioramas for museums and toy soldier collectors around the world. This is a 50-square-foot depiction of Omaha beach as it appeared in the movie *Saving Private Ryan*. It was built for a friend.

Pat tells us the 1/30 scale diorama contains six landing ships, several bunkers, a dozen vehicles and artillery pieces, and more than 200 German and American troops, all from King and Country Toy Soldiers. He also sculpted and painted dead and wounded soldiers that appear in the surf and on the beach, along with several dozen beach obstacles made from twigs and plastic sprue.

He used various thicknesses of pink foam insulation and paint samples from Home Depot to construct and paint the groundwork, main bunker, wall and trenches, and used Liquitex gloss super heavy gel mixed with various shades of acrylic paint for the water and wake effects. Ground explosions were made using tea lights and painted cotton. Water effects were made with plastic sprue covered in acrylic caulking. The project took several months to complete, but Pat says his friend, now stationed in Afghanistan, was delighted.



Loving the broad spectrum of models *FSM* delivers

I just read the February *FSM*, including your editorial and thought that I should add my “tuppence worth” as we say in Scotland. (Tuppence is our way of saying two pence or two cents worth and means that we are giving an opinion.)

Anyway, I feel that the content of *FSM* deserves to be commended and enjoyed as they cover the broad spectrum of modeling. You cover spacecraft (fact and fiction), aircraft, figures, ships, military, and techniques.

As an aircraft modeler, I also enjoy reading how other types of models are built and the techniques employed. Who could not be impressed by the lady who built and painted a 1/35 scale Siamese fighting elephant, complete with figures? What other magazine has featured this?

There are always those who do not appreciate other's models but *please* ignore them. As far as I am concerned a modeler is someone who can enjoy looking at a model of *any* subject and appreciate the work that went into producing it.

I also am enjoying the four-part series on U.S. Navy aircraft markings. The paint equivalents are of great help.

Your *Great War Scale Modeling* was really enjoyable, too. The build of the Fokker Triplane was inventive. I saw a program that proved the Red Baron was killed by a single bullet fired from the 24th Australian Machine Gun Company.

In closing, let me pass along a modification to the Flex-I-File aluminum frame that I have found makes it easier to use.

If you put it in a vice and bend the two “arms” about 30 degrees, it is easier to use when sanding fuselage joints as your hand is above the fuselage and you can sand the whole length of the joint with ease.

Best wishes to all of the *FSM* staff for producing a great magazine.

— *Alf Small*

Dundee, Scotland

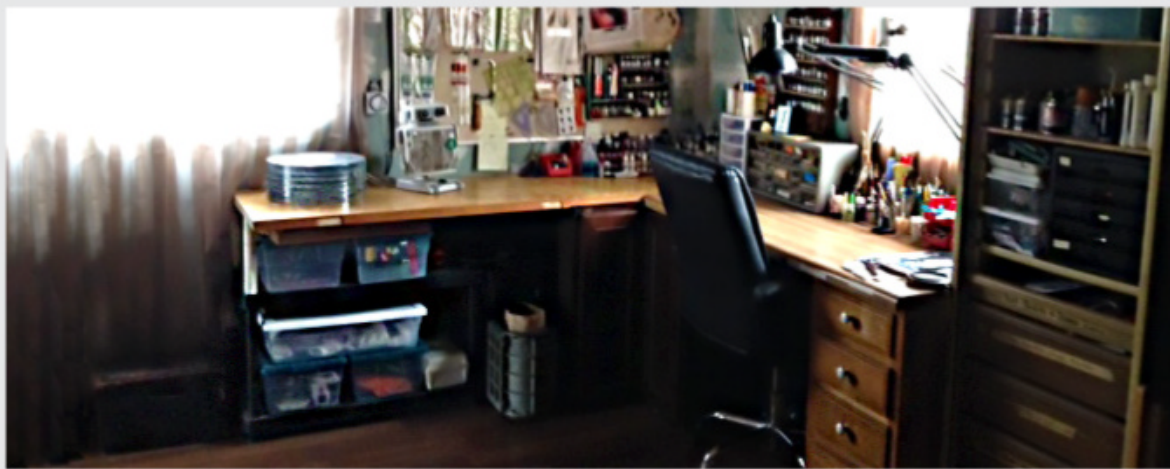
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Dan Cave work space update...

Ed: Dan wrote to FSM last year asking for new workspace ideas. Here's an update:

One good thing about stupidly cold weather, I get downtime to play. Last week I was able to start putting my workspace in order. As my favorite unit commander once said, "We're functional, not operational, just functional."

The paint booth, air compressor, drying box, and other details will have to wait a few weeks, but last Saturday I got to have a relaxing evening spilling paint and gluing my fingers to the workbench.

Speaking of that, here is a photo of how my workspace is shaping up.

Everything is recycled from salvage, including a lazy Susan. It's the perfect thing to store spray cans on, and as I hate working in the dark, I added a light.

One workbench top was a former bathroom door, the other a slightly

damaged piece of countertop I've been using for more than 30 years. The drawers, desk lamps and corkboard were also from a Salvation Army resale store.

Believe it or not, chair included, I have less than \$50 in the whole thing.

The laminate floor was a disaster, three floods have left it with an excessive amount of character, to be polite. The last flood was from a broken washing machine discharge line.

"At least it was clean water," my bride said, trying to console me. It's a no-win scenario. In the attic, climate control was the issue. In the basement, flood control. In a back bedroom, cat control.

As Hunter Thompson once said, "Just because you think they are out to get you doesn't mean they aren't." LOL!

– Dan Varner
Louisville, Ky.

Getting some Satisfaction & noting variety is the spice of life

Congratulations on yet another fine edition (February 2019) of *FSM*. I enjoy every article on every subject, unlike your phone caller mentioned in the editor's column.

I enjoy the range and variety and I specifically like to learn about model subjects I've never thought of before. Your magazine does that job excellently, cheers!

And the best Stones' song is by Aretha Franklin of course! ... *Can't Get No Satisfaction*.

– Andrew Taylor, via email

Gulf War camo clarification

As a member of the 2nd Army Cavalry Regiment during the Gulf War, I enjoyed the December M1A1 accurizing article by Mr. Backenstross. The details were spot on. One thing, though. None of the line units were issued the desert uniform until after the war. We fought wearing Woodland camouflage we had been wearing in

Germany. Otherwise, an excellent article.

– Michael Martinez
Gainesville, Fla.

A few thoughts on the A-4

While in the Navy I worked for more than eight years on A-4s, and the one that is in the latest issue (March 2019) is outstanding.

I have two small issues. First, the port side had a pressure relief panel that was spring-loaded to open under water, allowing underwater ejection, if needed.

Second, the canopy was never open unless a pilot was in the cockpit or a boarding ladder was on the aircraft's port side. There was no way to close the canopy from the ground.

And here's a tip. I have found a product called Tegaderm Transparent Film that works great to mask canopies. It's the same film used to hold IVs in the hospital. I get mine at a dollar store.

I'm an avid *FSM* reader.

– Greg Qualtieri, via email

Q&A

Safe model storage

Q As the whole world is suffering from climate change in one way or another, we in Australia are particularly affected by rising temps. As I write this, the eastern part of the country is undergoing a severe heat-wave, something that is becoming a regular summer occurrence. Today, in Sydney, it hit the high 30s Celsius (well above 100 degrees Fahrenheit). Some suburbs went even higher.

All of that makes modeling difficult, but I worry about my kit stash. My unbuilt kits are stored in the attic, not the air-conditioned part of the house; a thermometer shows the temperature in that storage space stays about on par with the air temperature. I can't help but think of the effect the heat is having on the plastic and in particular the decals. Some of the kits are in sealed boxes. Unfortunately, I don't have many alternatives. Some are classics that I am saving for my retirement, which isn't that far away.

What are the temperature limits for styrene?

– Ian Bayliss,
Sydney, New South Wales, Australia

A I feel your pain, Ian. The rest of my family lives in Australia — Brisbane and Armidale.

They say it's getting hotter, but what does that do for stored models. Long-term effects on the plastic are likely negligible since plastic's melting point is above 100 degrees Celsius.

The biggest concern is decals and the boxes the kits come in. Decals are susceptible to temperature extremes, both hot and cold. Decals' thin film can crack causing the markings to disintegrate when you put them in water. Plus, the decals can turn yellow.

If possible, store the decals in the climate-controlled area of your home. (I use three-ring binders with plastic document sleeves.) This will preserve the most sensitive part of the kit until you are ready to build them. Just don't forget where you put the decal sheets!

The thin cardboard boxes can also deteriorate over time when exposed to extremes, but you should be OK there.

– Aaron Skinner

Reader tips

Highlighter helps keep track of build

How many of us build more than one kit at a time and find that often when we come back to an old build, it takes a while to figure out where we left off. Well, I use a highlighter to mark on the instruction sheet which parts I've finished attaching. This saves me precious time, and frustration. It's a simple and effective way to stay organized.

– Benoit Bonnier
Gatineau, Quebec, Canada

Finding jewel lights

Not able to find any jewel lights for my railroad layout and other modeling projects, I discovered that on eBay if you do a search for



nail art you'll find a host of various colored nail art jewels that approximate the jewel light quality of MV Products lenses. The jewels come in a host of sizes to fit just about any project.

– Kevin Duke
Peoria, Ill.

Paint booth a good spot for PE work

When working with photo-

etched or other small parts it is helpful to clean out your paint booth and work inside it. Make sure to tape the edges around the filter. Do not cover the entire front with plastic wrap, but most of it. I cover the sides, a band across the top and bottom, but I leave an opening for my face. I wear an OptiVisor most of the time and, if not, safety

glasses. You can slide your hands underneath the wrap to work. The booth's lights really make it easy to see small parts. If you have trouble seeing cut an opening in the plastic wrap but make it as small as possible. Some parts may skewer the filter, but at least you can starve the carpet monster.

– Michael Blackwood
Duluth, Ga.

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1/48 SCALE



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Tempest Mk. V series 2 from Eduard, No. 8122, \$59.95. **WBR**



Mirage III C from Eduard, No. 8103, \$59.95.

1/72 SCALE



F6F-5 from Eduard, No. 7450, \$14.95. Weekend Edition.

ARMOR

1/35 SCALE



3Ro Italian truck with 100mm 100/17 howitzer from IBG Models, No. 35053, \$74.95. **WBR**



3Ro Italian truck troop carrier from IBG Models, No. 35055, \$68.95.



Bergepanther Ausf.G German armored recovery vehicle SdKfz.179 from Takom, No. 2107, \$TBA. Full interior.



Jagdpanther G2 German tank destroyer SdKfz.173 from Takom, No. 2118, \$TBA. Full interior. **WBR**

FIGURES

1/24 SCALE



Holy Roller Jordan Jesus Jamerson from Master Box Ltd., No. MB24060, \$14.95. Trucker Series No. 7.

1/32 SCALE



Pilot Tempest from Plus Model, No. AL3001, \$23.90.

1/35 SCALE



German tank commander from Djitis Production, No. 35088, \$10.25.



Syrian SDA fighter from Djitis Production, No. 35089, \$10.25.

1/48 SCALE



RAF Pilots from Djitis Production, No. 48003, \$13.50.



USAAF Pilots from Djitis Production, No. 48001, \$13.50.



Pilot F4U Corsair from Plus Model, No. AL4082, \$12.70.

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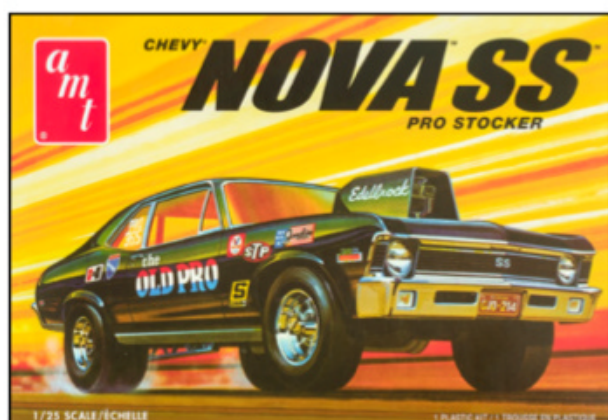
Workbench Reviews

Look for a detailed review **WBR** in an upcoming issue of *FineScale Modeler*.

AUTOS



'70 Chevy Chevelle SS from AMT, No. AMT1143/M12, \$26.99.



Chevy Nova SS Pro Stocker from AMT, No. AMT1142/12, \$26.99.



'55 Chevy Bel Air Sedan from AMT, No. AMT1119M/12, \$26.99.



'65 Riviera from AMT, No. AMT1121/12, \$29.99.



'60 Chevrolet from AMT, No. AMT1063M/12, \$31.99. Includes pickup truck and go kart.

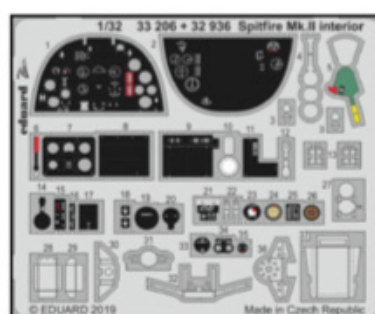


Police van from AMT, No. AMT1123/12, \$28.99.

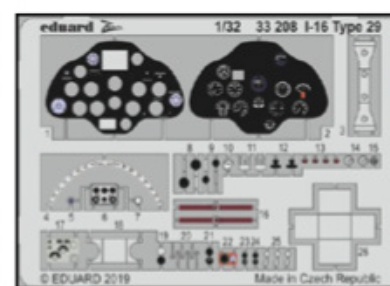


'34 Ford pickup customizing kit from AMT, No. AMT1120/12, \$29.99.

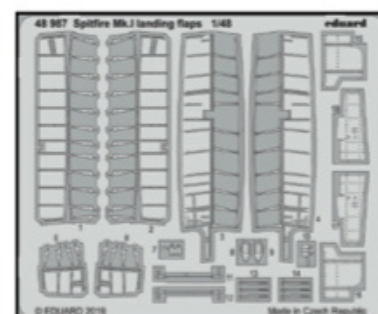
AIRCRAFT DETAILS



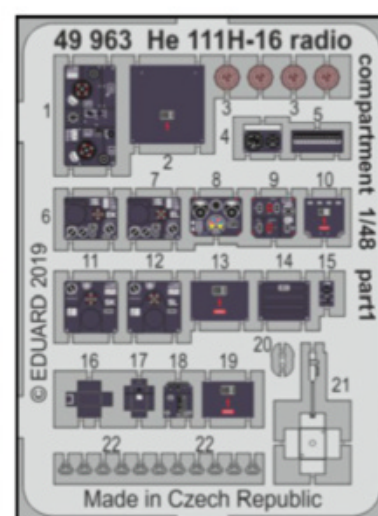
1/32 SCALE Spitfire Mk. II interior from Eduard, No. 33206, \$24.95.



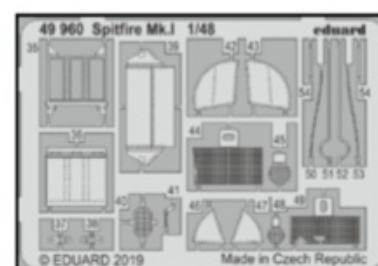
I-16 Type 29 from Eduard, No. 33208, \$19.95.



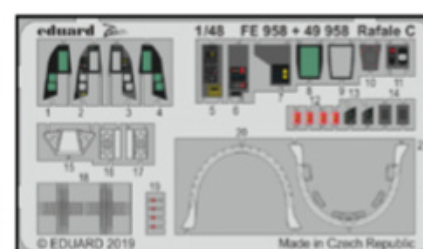
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Spring 2019 The editors of *FineScale Modeler* are excited to bring you the second installment of **Damaged**—a special issue showcasing the best and latest builds from Europe's

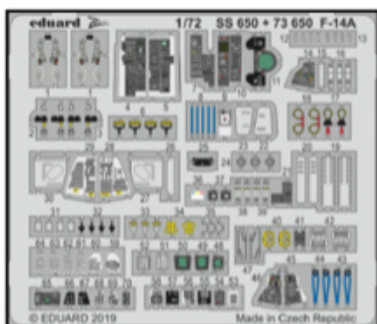
top modelers. **Damaged** will be published quarterly as a special issue from *FineScale Modeler*. Check out: <https://kalmbachhobbystore.com/>





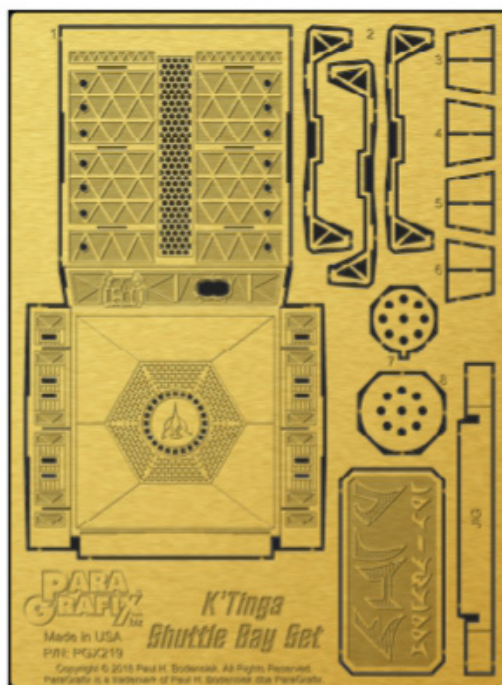
1/72 SCALE

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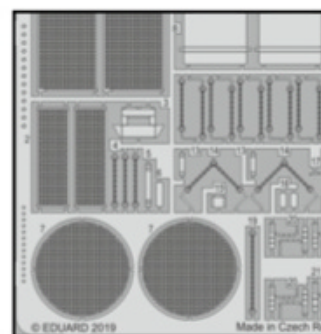
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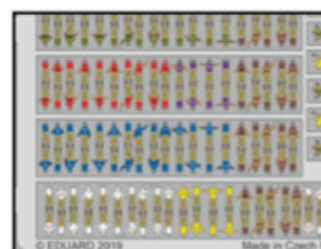


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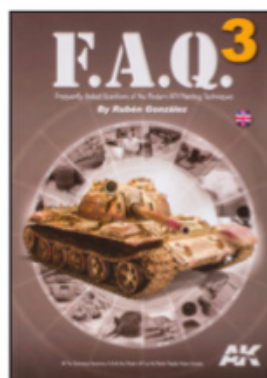
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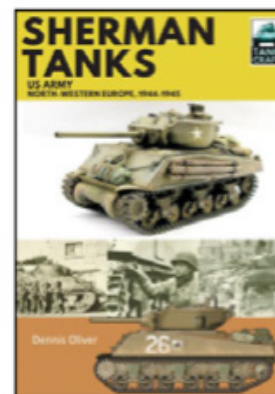
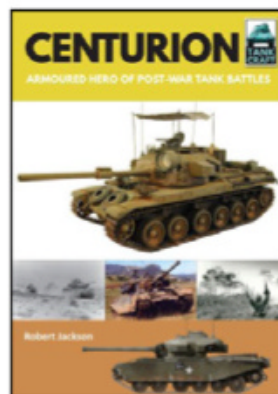
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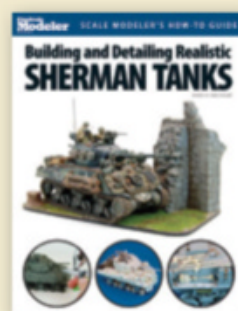
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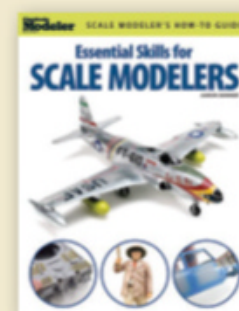
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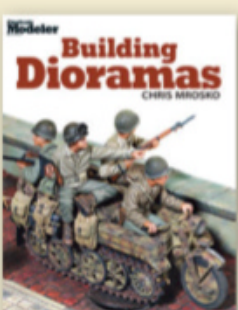
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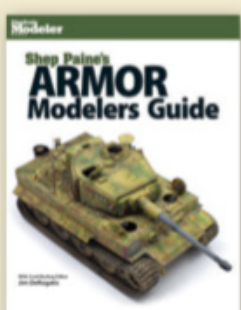
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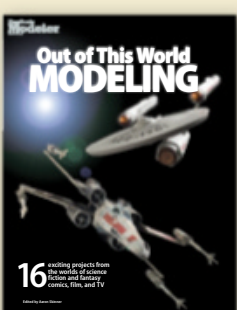
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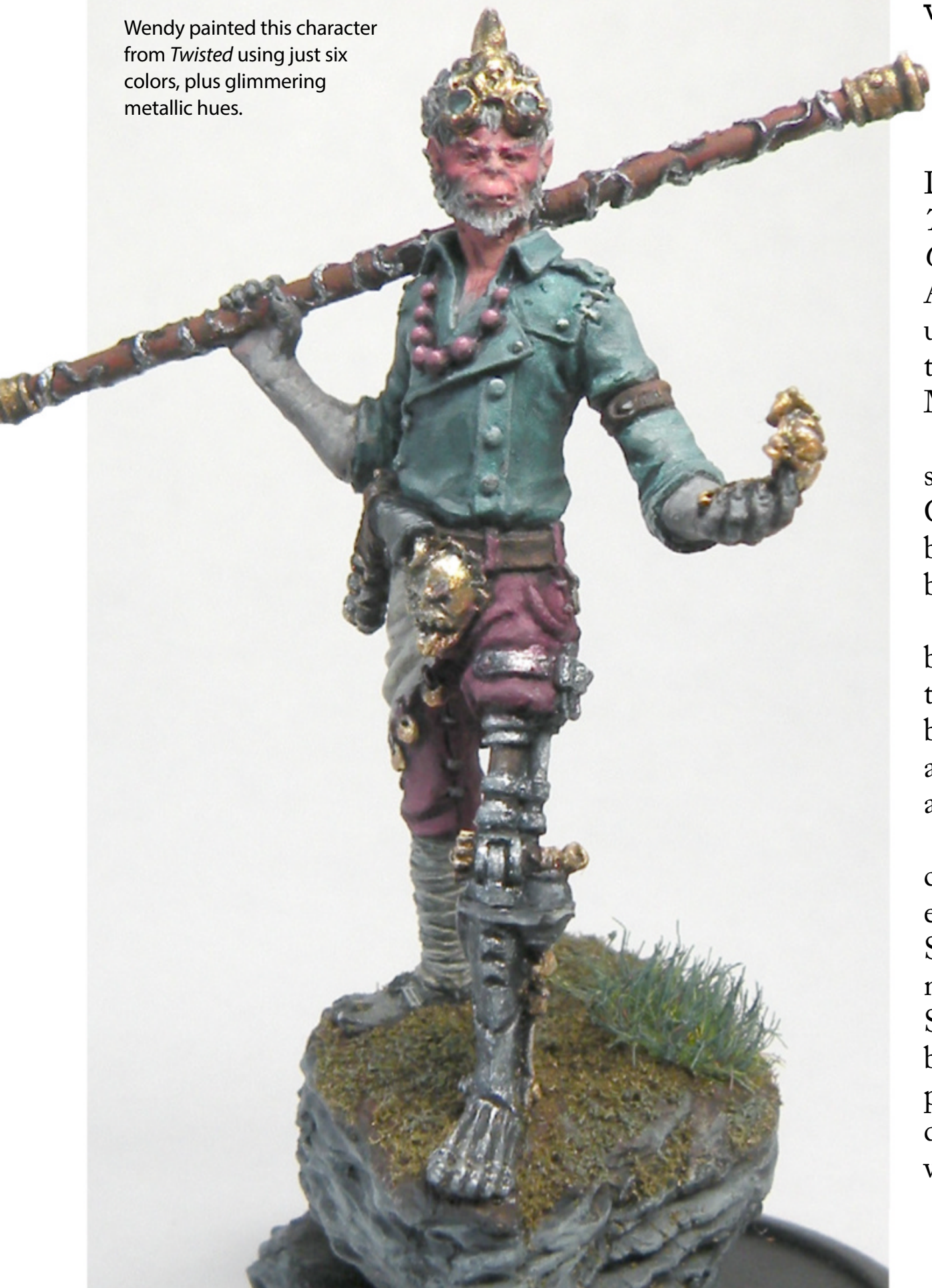
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A pauper's pallet *fit for a king*

Wendy painted this character from *Twisted* using just six colors, plus glimmering metallic hues.



Limited colors create a vibrant monkey leader

Following a very successful Kickstarter campaign, Australia-based Demented Games has released *Twisted: A Steampunk Skirmish Game*. As a big fan of Sebastian Archer's sculpting, I had to pick up some of his figures, including the collector's resin edition of the Monkey King.

In the game, this character serves as a special agent for the Guild of Harmony. He is stubborn, unruly, and quick to act; but also capable and fast.

My monkey reference is the bonnet macaque species, with their smooth faces surrounded by fur. I'll also use both the box art and the card art to help me along the way.

As a challenge to myself, I chose to use a limited color palette for the skin and clothing. Six paints are all that I allowed myself: red 1 from Andrea's Red Set; Reaper Miniatures' noir black; and Vallejo's flat flesh, pale sand, mahogany brown, and dark sea blue. Metallics also would be used.



1 Bonnet macaque skin is quite red, so the base is a mix of red, flesh, and a little brown. Red is a powerful color, so start with just a little, adding slowly until it's right. Shadows are the base mixed with more brown. As shadows darken, I add blue. Darkest shadows get a hit of black.



2 I like to paint around the face next to determine the level of contrast needed. The fur is a mix of sand, with touches of flesh, brown, blue, and black. All I do to increase the shadows is up the amount of black. The reference photos came in handy at this step.



3 For the goggles, I first base coat them with the fur mix darkened with more black. I keep the area where the lenses will be free of paint. Also note that I brought the red/flesh mix down onto the neck.



4 Now I could clearly see how the contrasting colors of the face, fur, and goggles look. I then sharpen the shadows and highlights on the face and hair with darkened and lightened mixes of the original hues.



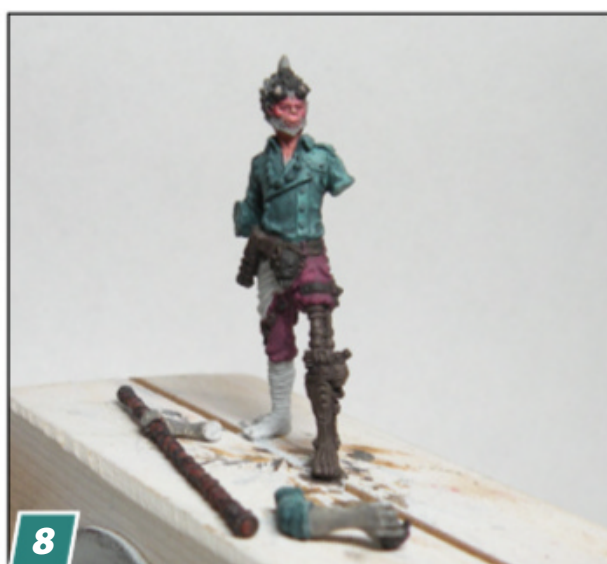
5 I base coat the shirt with two layers of a striking teal. This hue is a mix of blue and sand.



6 On its own, this dark sea blue doesn't cover very well, which makes it a good choice for shadows since it isn't too stark. For even deeper shadows, I mix the blue with black and a little flesh.



7 Shirt highlights are the base coat mix of blue and sand, heavier on the latter. The pants are base-coated with a mix of red and blue to make a warm purple.



8 I paint all of the parts that will be metallic with a dark mix of brown and black. I chose this neutral because I could not make up my mind which parts should be silver and which should be gold.



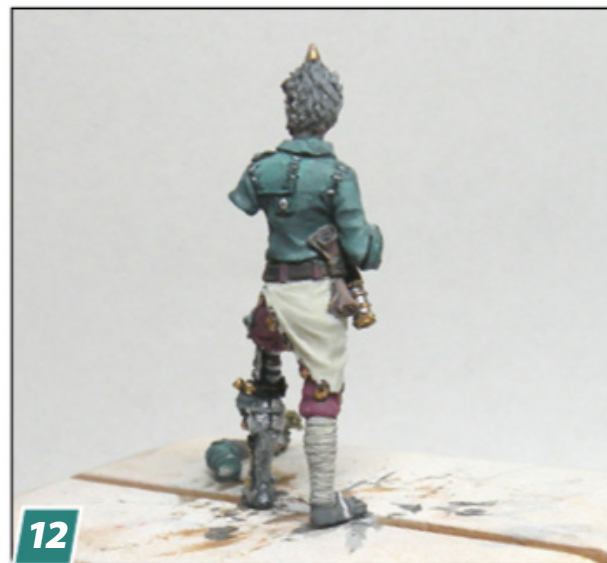
9 Shadows on the pants are a mix of the red and blue base, darkened with brown and black. Highlights are the base with flesh and sand added.



10 I base coat the wraps around the waist and the leg with a mix of sand, flesh, and teensy amounts of brown and black. Highlights are the same, just heavier on the sand. I apply these to the upper portions of the fabric to give a sense of volume and light.



11 Metallics make everything pop! I like Golden Artist Colors' metallics because the pigments are ground very fine — the shine looks more in scale without overbearing sparkles. I use iridescent silver and iridescent gold to bring out details all over the Monkey King.



12 Here is the back with added metallics. I highly recommend that readers check out Sebastian's version of the Monkey King at DementedGames.com. It's a handy reference on where to put shadows and highlights.



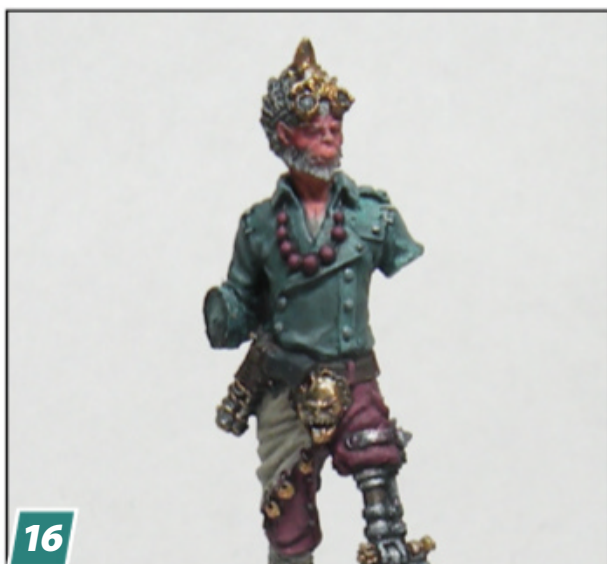
13 I add shadows and highlights to metal, too. Brown, blue, and black all create shadows on the gold and silver. The deeper the shadows, the more blue and black are added. At this point, I also began to sculpt a bit of base for him to stand on.



14 Of course, the more shadowy paint I add to the metal, the less shimmer I get. To bring the shiny effect back, I brush on slightly thinned metallic paint as though it were a highlight.



15 I brush the uppermost points on the metal with Liquitex pure metallic medium. Now the glimmer is back!



16 The necklace gets a deep mix of red, blue, brown, and black. Over this goes a lighter-hued mix of just red with a little blue. I was going to paint the necklace yellow, but then realized that I couldn't mix it from the colors I had limited myself to. C'est la vie. I like the purple, too.



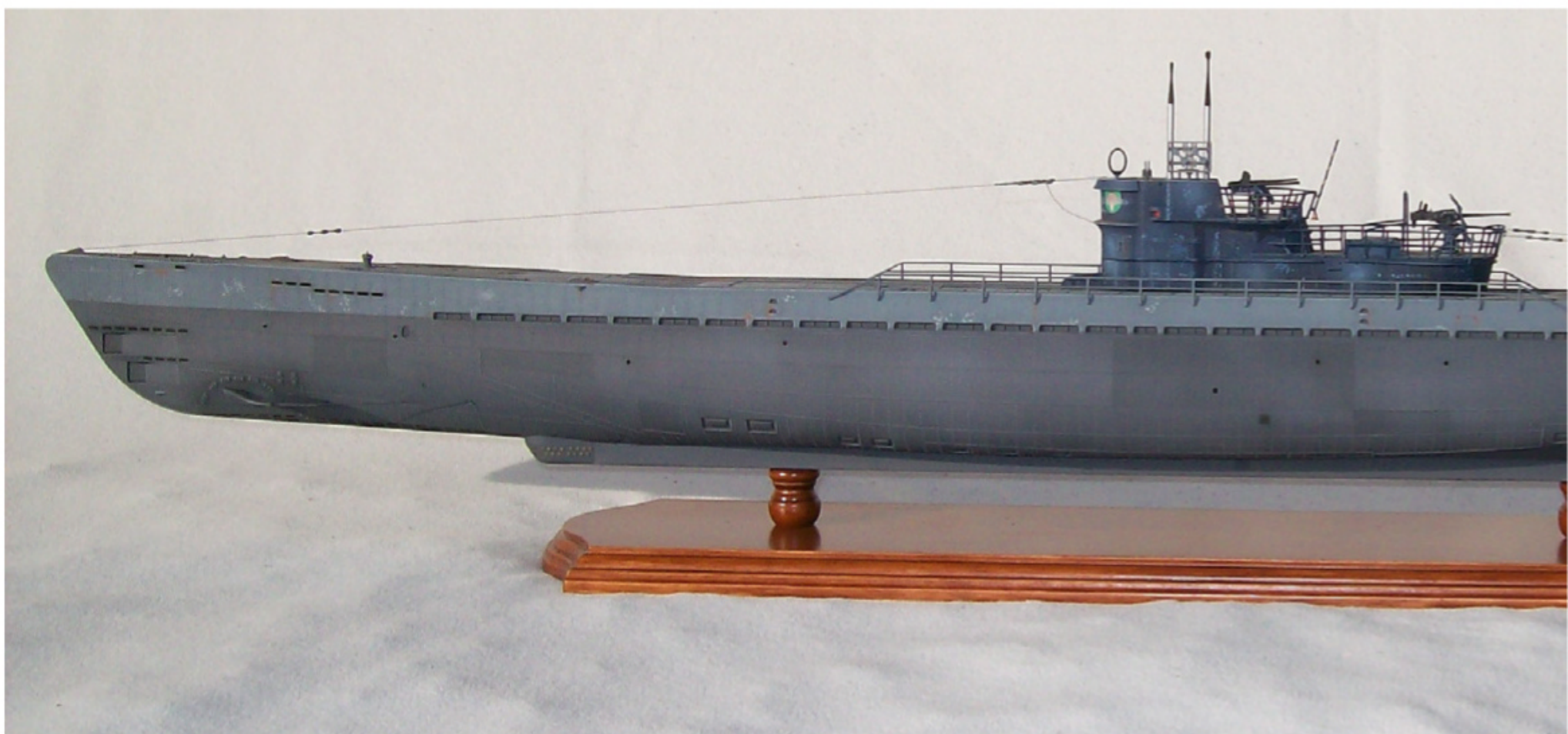
17 Glazes of pure sand on the highest points of the necklace finish it off. Blue shades the goggle lenses — thin, light layers go on the bottom half and heavy, dark layers on the upper half. This creates the illusion of light bouncing off of the glass at this angle.



18 I keep the arms off until the very last so I don't bump into them. Once glued on, the Monkey King is complete. For working with so few colors, I am more than happy with the way this character turned out. He's the right amount of flashy and dangerous looking. **FSM**

By Phillip Gore

Painting a U-boat with a colorful past



1 I painted the hull below the waterline with engine gray. I initially focused on recesses around the stern to ensure they were thoroughly painted, then sprayed the rest of the hull.



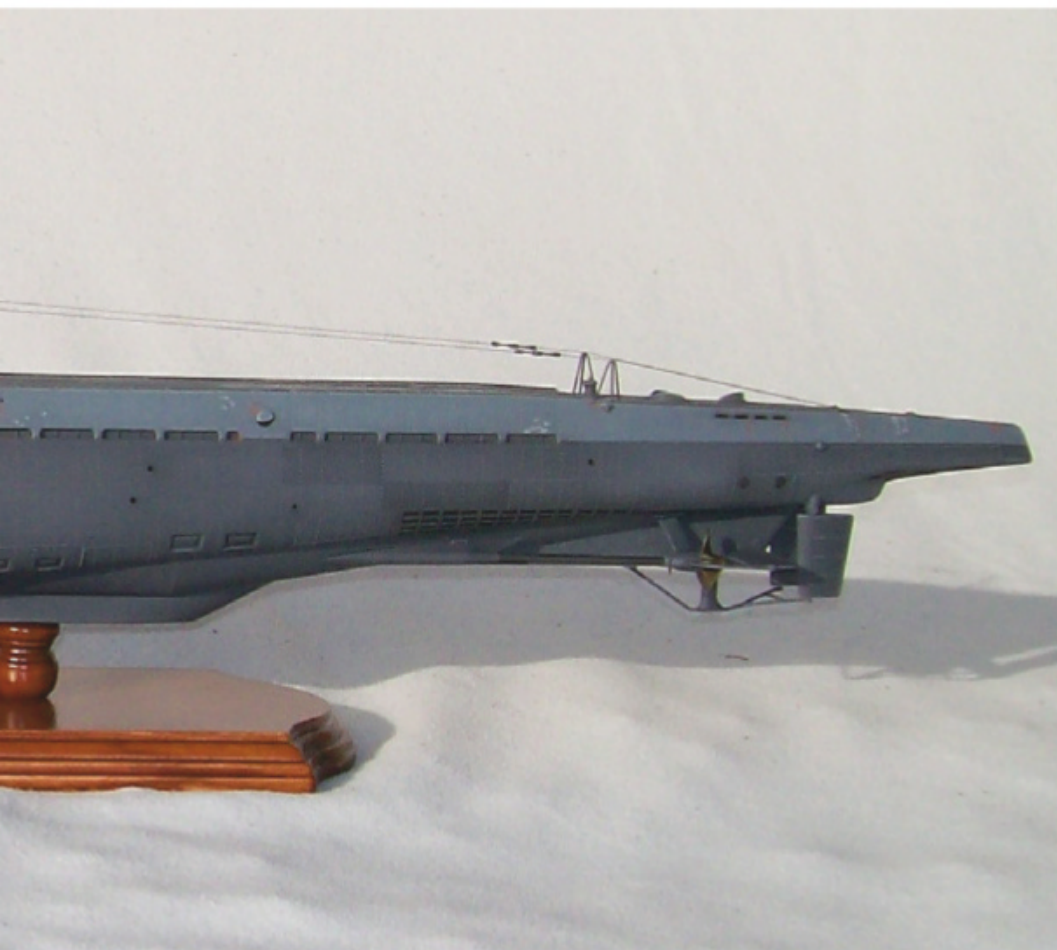
2 To break up the monochromatic appearance, I masked random panels with thin, darker gray. Then, thin dark ghost gray (1741) was airbrushed in a random pattern over the lower hull to give it a worn, faded look.

How to weather Revell's 1/72 scale submarine *U-505*

In 2013, Revell released a 1/72 scale model of German submarine *U-505*, a Kriegsmarine Type IXc U-boat famously captured by the U.S Navy in June 1944. Commissioned in August 1941, the submarine went through multiple modifications, including repairs after being seriously damaged in late 1942, as well as several camouflage schemes. I decided to model *U-505* as it

appeared on its final patrol a couple of months before being captured.

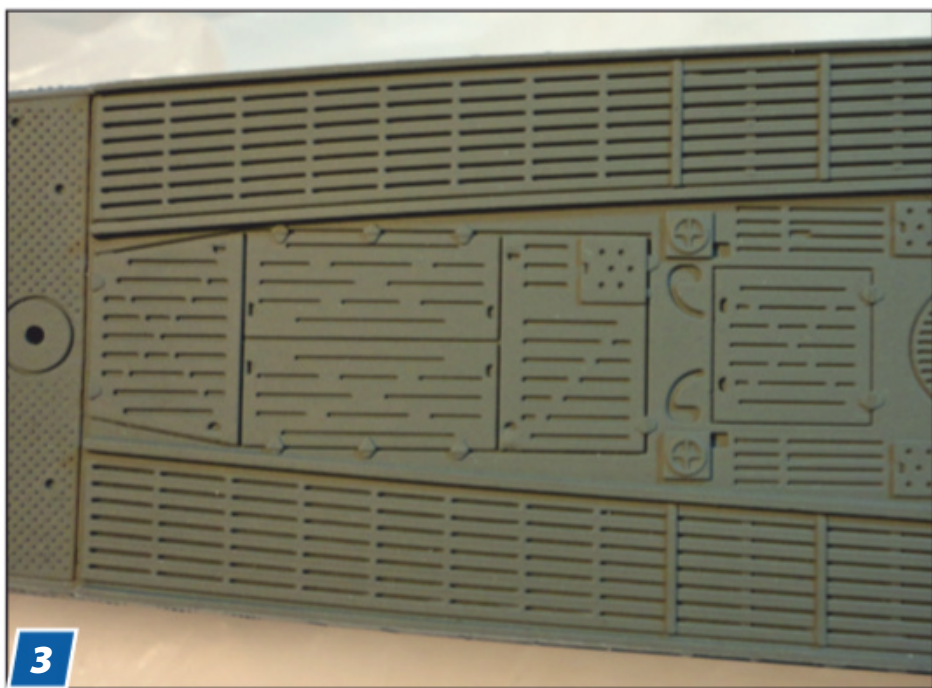
Revell's kit sports fantastic details and great fits. I built it mostly out of the box so I could focus on painting a weather-worn finish. So, attention all hands, as we angle down the forward planes and dive (into this model) for a satisfying adventure.



Revell's Type IXc is nearly 42 inches long, which gives plenty of scope for painting and weathering as Phillip did as he built *U-505*. After its capture, the submarine ended up at Chicago's Museum of Science and Industry where it can be visited today.



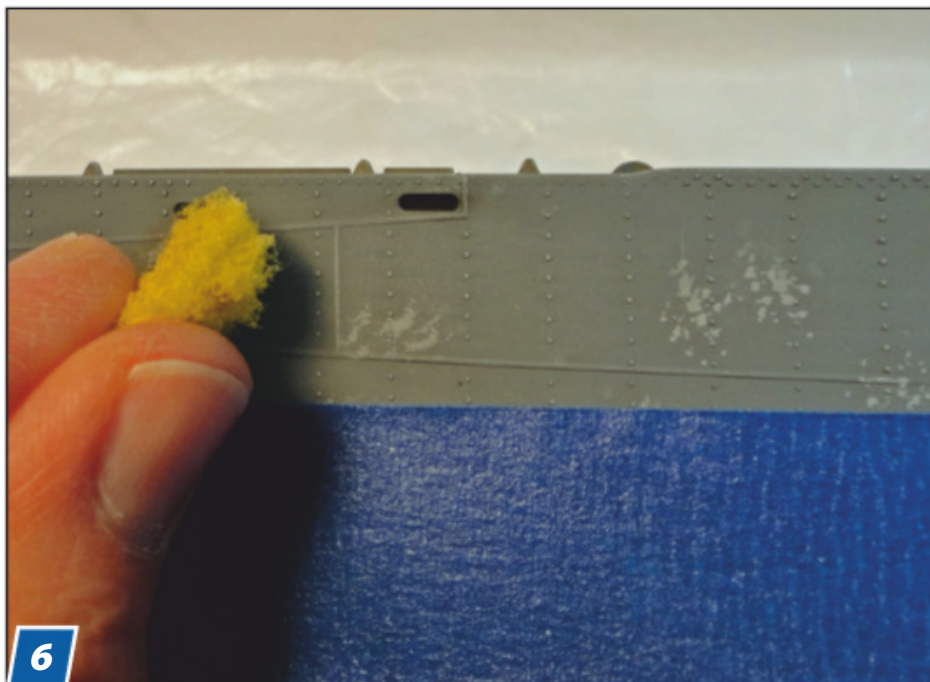
... and the upper hull with dark gray.



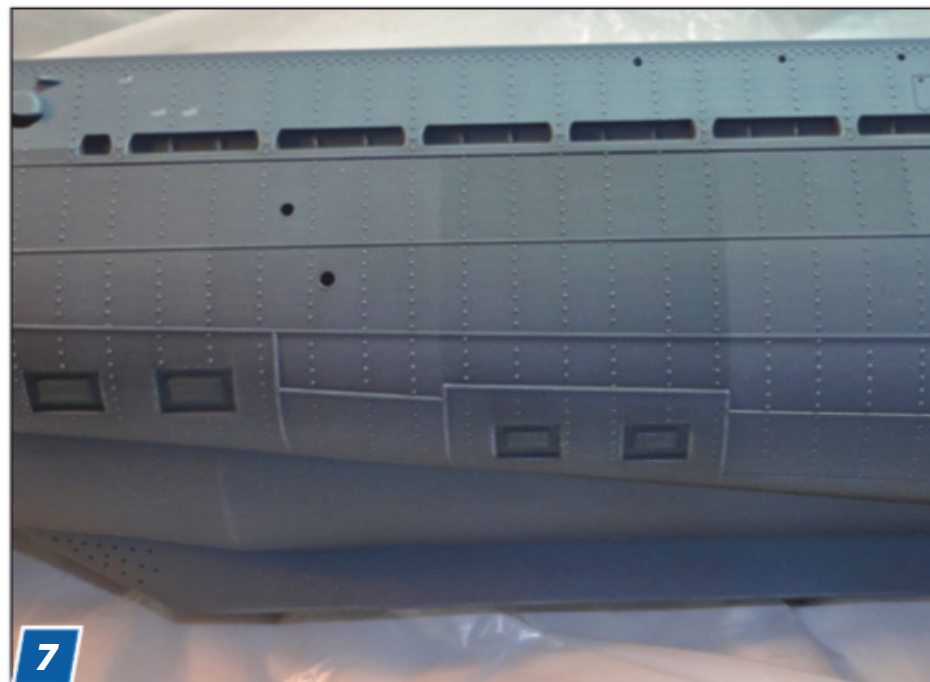
Next, I painted the deck with Euro 1 gray ...



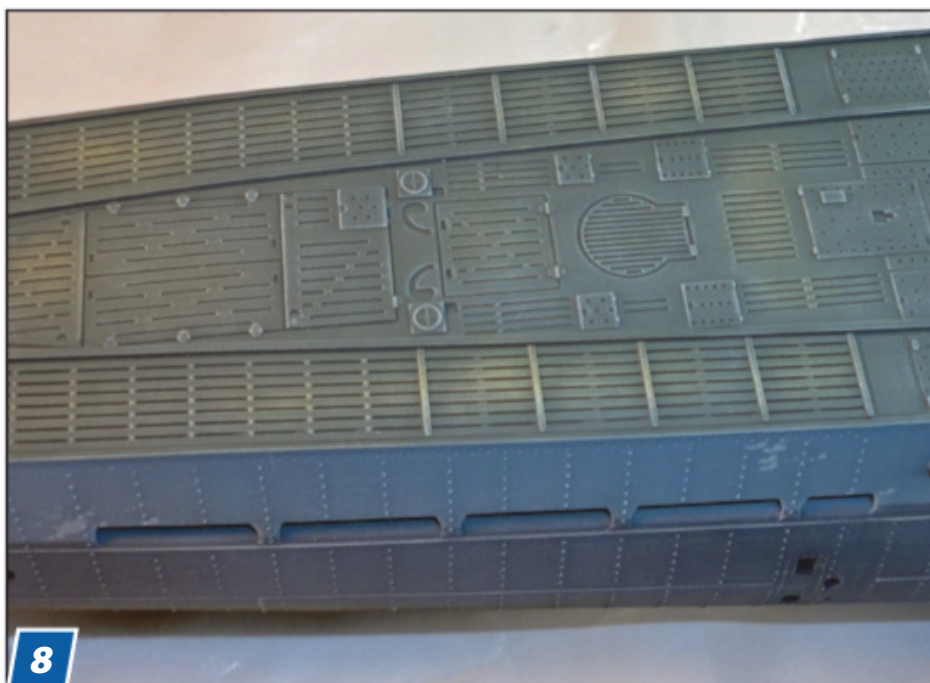
Then, I added depth to recesses with powdered pastels; black was brushed into limber and flooding holes, other recesses were treated with dark gray.



6 I dipped different chunks of sponge in flat gull gray (1730) and dabbed the model to replicate chipped or flaking paint. The lighter color represents discolored base metal or exposed primer.



7 Heavy dry-brushing with dark ghost gray added another layer of wear to both the hull and deck.



8 Much of *U-505*'s wooden center deck was exposed as the dark gray protective coating succumbed to saltwater, sun, and scuffing by the crew. To portray this, I dry-brushed random areas with wood (1735).



9 To finish weathering the deck, I used a small, pointed sable brush to apply pastel dust rust stains. Be careful to rust only metal areas; wood doesn't rust!



10 Rust stains were also added flowing down from some of the limber holes above the waterline. A good rule of thumb is to only apply about half of the rust originally envisioned, as it is easy to overdo.



11 To improve the hydrophones on the forward hull, I punched out $\frac{1}{16}$ -inch discs of thin styrene — 48 were needed — and painted them bronze. After a black wash, I attached them over the depressions with white glue.

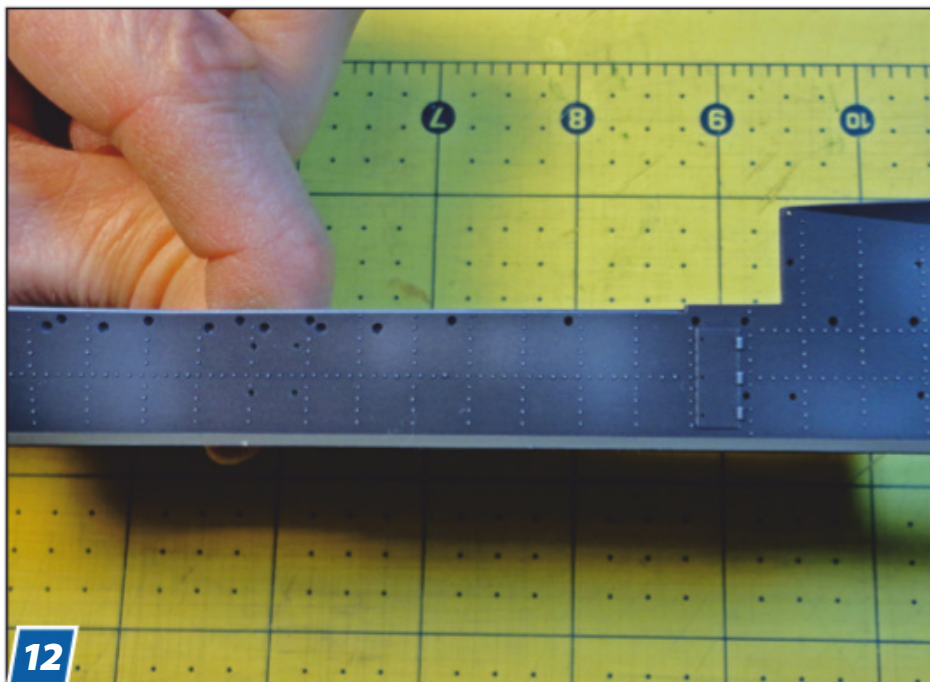
The basic colors of U-505

Upper hull colors for late-war U-boats called for in a Kriegsmarine order issued May 7, 1943 included *Schlickgrau* 58, *Blaugrau* 58/1 or *Blauschwarz* 58/2. The lower hull color was anti-fouling *Schiffsbodenfarbe III Grau* and the deck color was *Dunkelgrau* 53. I matched the colors to Testors Model Master enamels:

- Dark gray (2036) for *Blaugrau* 58/1
- Engine gray (2034) for *Schiffsbodenfarbe III Grau*
- Euro 1 gray (1788) for *Dunkelgrau* 53

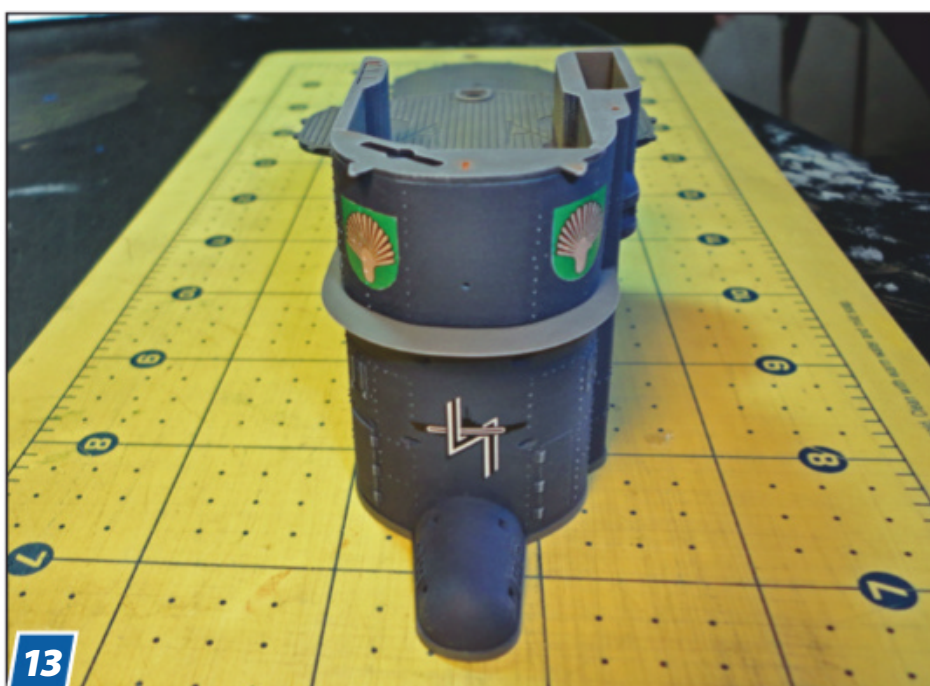


U.S. Navy photo.



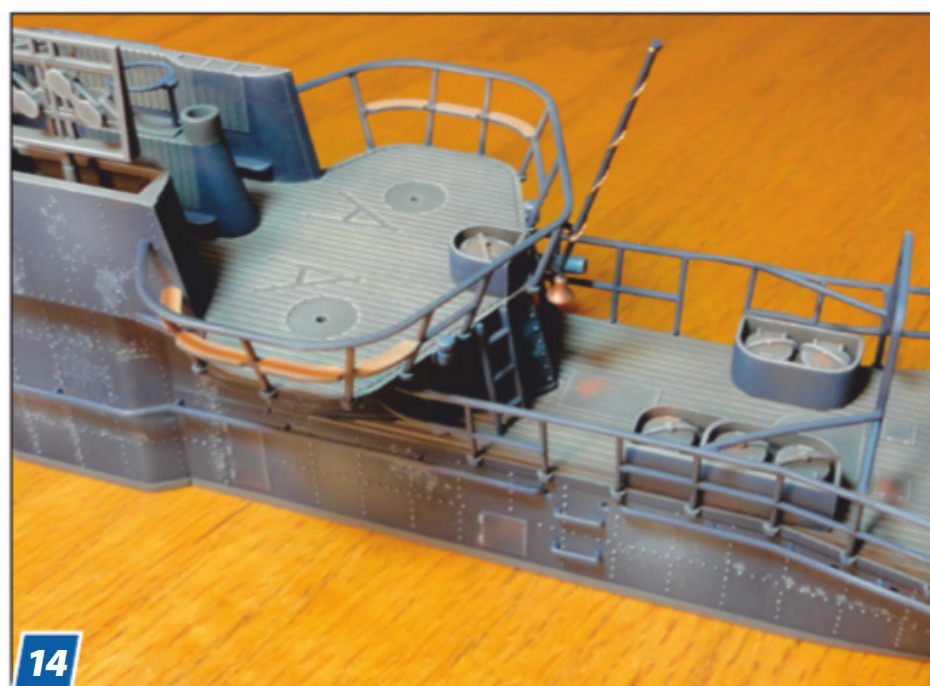
12

Photos of the conning tower indicate it was darker and researchers believe it was dark blue. So, I painted it insignia blue (1719), then airbrushed and dry-brushed thin dark ghost gray for weathering.



13

Decals were added next. I replaced the kit's 2nd Flottile shell emblems with more accurate markings from Accurate Model Parts.



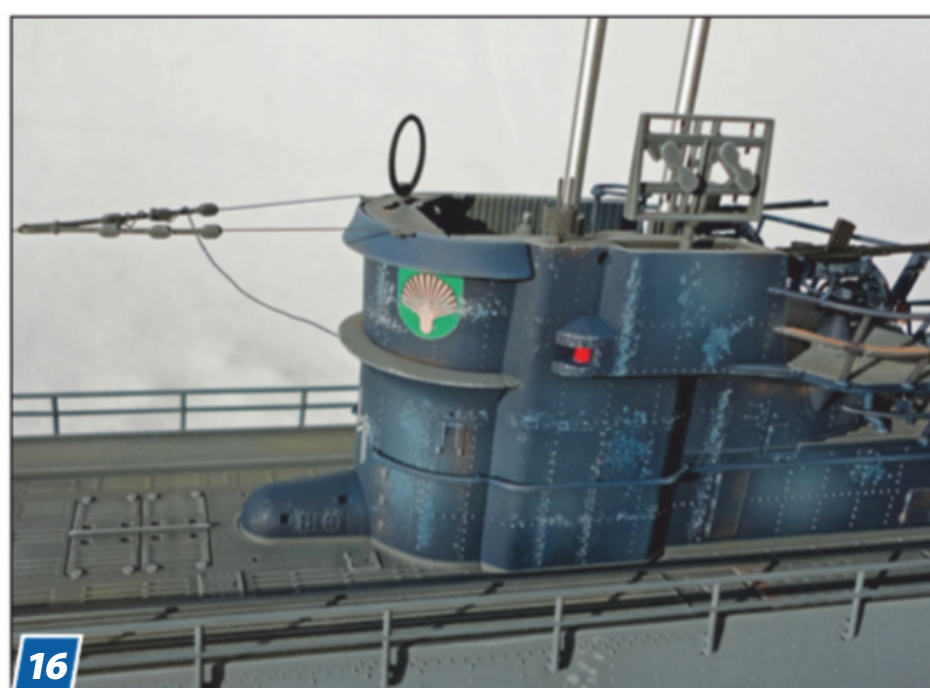
14

I misted thin insignia blue over some of the chipped areas to make them subtler. This gave the conning tower more color variation.



15

All of the detail parts for the conning tower were given the same weathering treatments to tie the subassemblies together.



16

With the conning tower attached, the project was done. This was a fun model to build and, even with the paint chipping, fading and rust stains, the overall color scheme is attractive. **FSM**

Making waves for an LCVP



Carving, painting, sculpting, and polyfill spray put a landing craft in water

BY AARON SKINNER

On D-Day, the U.S. Navy used more than 800 LCVPs, or landing craft, vehicle, personnel, to ferry troops from the transports to the invasion beaches. Often referred to as Higgins boats after the New Orleans boat builder who designed them, the simple vessels made largely of wood could be built quickly — more than 23,000 were built between 1941 and 1945.

Nothing says D-Day quite like a landing craft loaded with troops. To replicate that scene, I built Italeri's 1/35 scale LCVP (No. 6524). The version of the kit, released for the 70th anniversary of the invasion, included 25 troops to fill the hold. That gave me everything I needed for the boat; but I still needed a base. Follow along to see how I launched my LCVP.



The base started as a piece of insulating foam. I drew around the hull and cut along the outline almost all the way through the foam. Leaving the chunk in place protects the edges of the opening from chipping later. Then, I sketched a basic pattern for swells.



This story is an excerpt of Aaron's full LCVP build from *Modeling World War II in Europe*, a collection of 18 all-new how-to stories. Order your copy today or buy it July 31 at good book and hobby stores!



Still miles from Utah Beach, GIs nervously await the lowering of the ramp that will begin the Allied liberation of Europe on June 6, 1944.



The next couple of steps are messy, so do them somewhere you can clean up easily. Using a coarse drill cup wire brush in a power drill, I first carved the troughs in the sea. I wanted them deep enough to notice but not so deep as to risk swamping the LCVP.



Turning the cup brush perpendicular to the swell line, I carved shallow divots over the swells and troughs to resemble smaller surface waves. None of these should be too deep, nor should they be too uniform.



To keep pink debris at a minimum, I vacuumed off the surface of the sculpted sea. Now it was time to remove the section of the base where the model would be placed.



Once the section was removed, I brushed on a liberal layer of acrylic gloss gel medium. You can find it in art stores next to the acrylic paints.



Then I gently pressed a section of heavy shop paper towel bigger than the base into the gel medium with my fingers. Go slowly to avoid tearing the wet towel and keep an eye out for wrinkles.



Once I was happy with the position of the paper towel, I applied another layer of gloss gel medium and left the base overnight.



After slicing away the towel covering the vessel opening, I brushed on 10 layers of gesso. This thick white concoction is normally used to prime wood or canvas in preparation for paint. Here it smooths the surface to eliminate the texture of the towel and cover imperfections.



To begin the bow waves and wake on this large-scale scene, I squeezed acrylic modeling paste — another product from the art supply section — into lines from the hull opening.



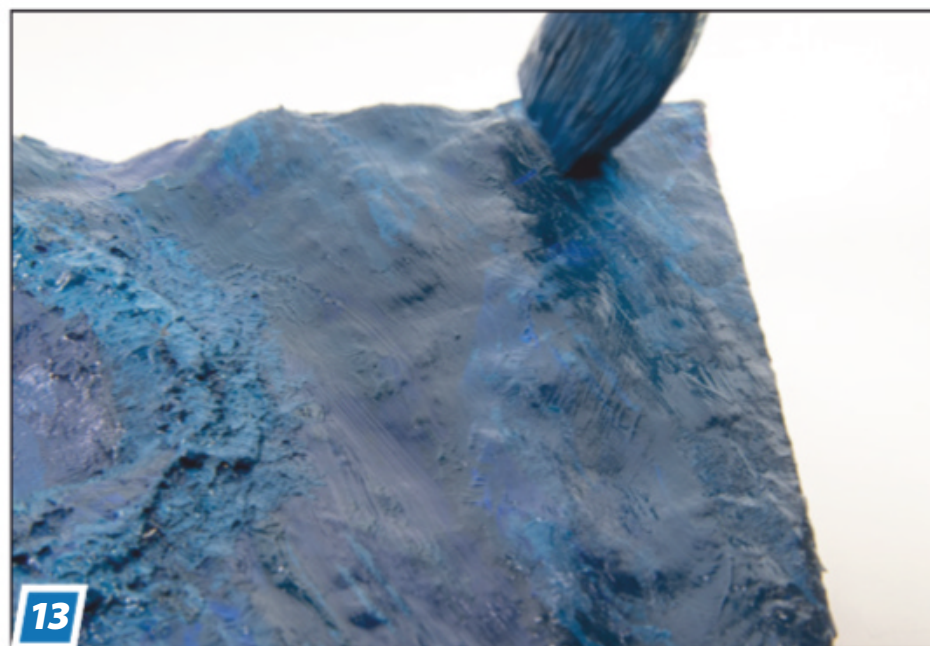
The paste is easily shaped and worked with a wet brush. It took a couple of layers to get the right height and appearance of the waves. The thick material cracked in a few places as it dried, but a layer of gesso filled the blemishes.



My base coat for the water is a mix of artist acrylics: phthalocyanine blue, permanent black, and a little titanium white. I brush this on trying to keep the strokes moving in the direction of the waves, so any imperfections look like they would be there.



I added a little ocean green to the base color and dabbed it onto the bow waves, along the sides of the hull opening, and over the wake. I repeated this process after adding a little more ocean green to the mix.



Using a very light touch, I added a little of the previous shades to the high points in the surrounding water. This breaks up the dark blue and adds a sense of movement to the ocean.



With a smaller brush, I applied straight ocean green to tops of the bow waves and wake. Align the brush with the line of the waves and stab lightly to build up the effect gradually. A little titanium white in the mix and sparingly daubed on top adds final peaks.



After attaching the model to the base with silicone caulk, it was time to add spray. While fibers from cotton or rayon balls work well in smaller scales, I wanted something looser and stiffer for this 1/35 scale scene: polyfill. Designed to stuff cushions, it's easy to tease into loose webs.



16

I filled a disposable cup with Liquitex high gloss varnish and soaked a section of polyfill in the thick liquid. Then, I separated a small section with tweezers to place on the model. Wear gloves and try to avoid handling the wet fibers or you may never dislodge them!



17

A little gloss varnish brushed on prepares the surface for the polyfill.



18

Once the wet fibers are on the base, they can be shaped and manipulated with a brush. Work with it until you are happy because, once the varnish sets, there's no moving it.



19

A wooden stirrer proved useful to push and prod the polyfill into more vertical shapes.



20

After adding spray to the bow waves, I added some along the waterline, varying the amount so there is more at the crests of waves and swells, a little less elsewhere. This also fills any gaps between the hull and the base.

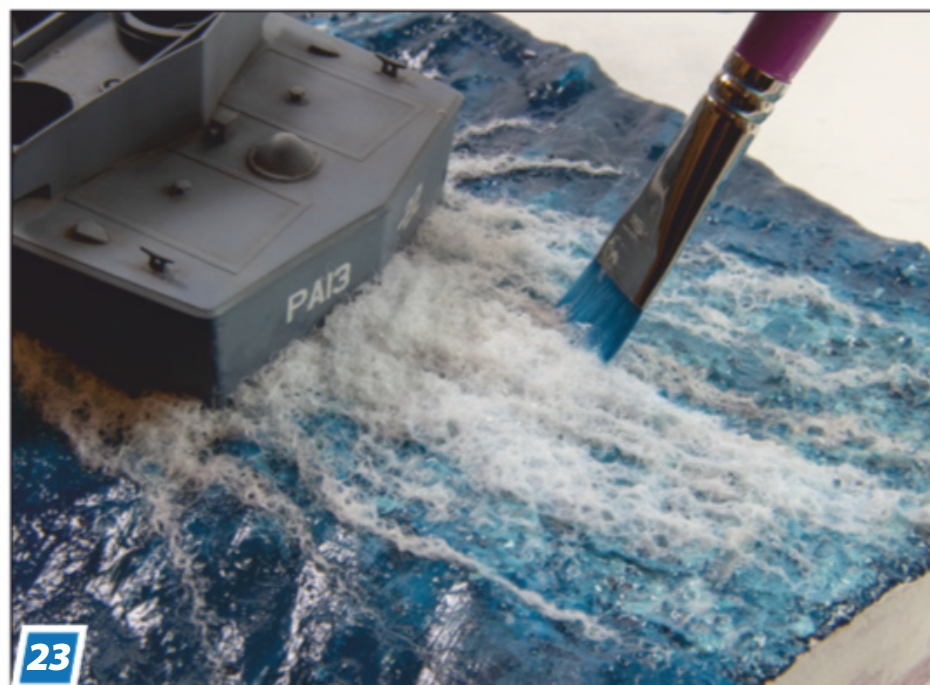


21

By holding the bulk of a section of polyfill against the hull as I brushed the fibers down and away produced realistic surface foam with subsiding churn behind it.



22 The wake took time and several applications of polyfill and varnish to get right. I started with the prop churn directly aft of the centerline.



23 Then came more and more, always thicker near the landing craft's stern tapering off to the edge of the base. It's better to slowly build up the effect, letting layers dry between sessions to ensure the right appearance.



24 Up front, I wanted to create the effect of water rolling forward as the square bow pushes through the water at speed. After anchoring polyfill with varnish, I brushed the top forward from the back and pushed the brush under the front to produce an overhang.



25 To make the boat look wet, I applied a thin layer of high gloss varnish to the LCVP extending the effect about halfway between the waterline and the deck edge. A dry, soft brush dabbed along the upper edge softened the line.



26 Finally, I applied a thick layer of high gloss varnish over the base. Once dry, it really looks like the surface of water.



27 A couple of days later, when I was sure everything was dry, I trimmed stray fibers with fine scissors. **FSM**

Modeling a **D-DAY STRIPED BIPE**



Updating an Airfix
Swordfish to a Mk.II
submarine hunter

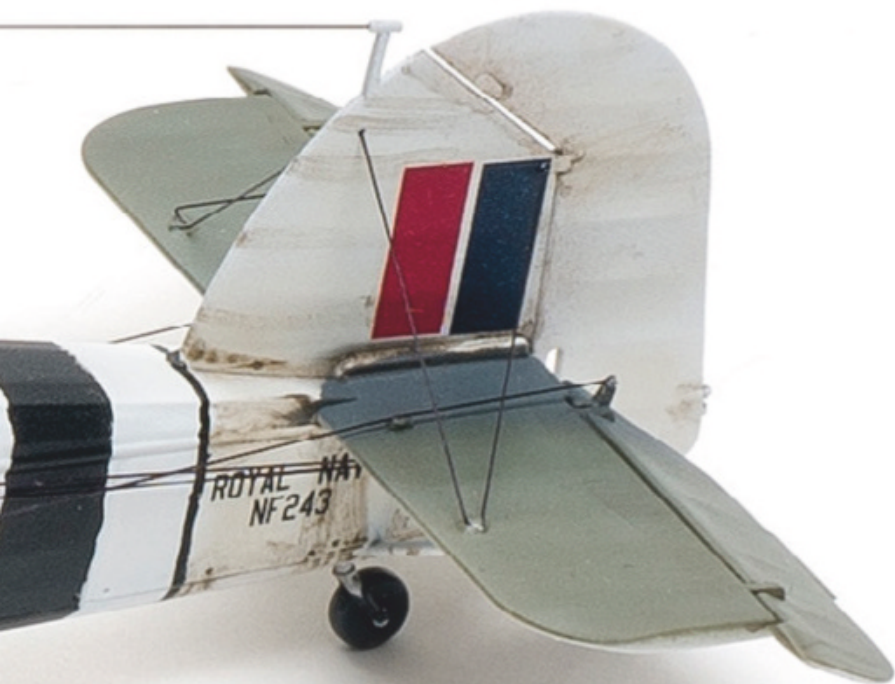
BY CHUCK DAVIS

The pre-war Swordfish was an unusual air combatant on D-Day as it searched for U-boats threatening the invasion.

By mid-1944, the Allies had finally won air supremacy over Northern Europe. This fortunate turn of events was just in time to cover the anticipated cross-channel invasion.

Amid the aggressive fighters and target-hunting bombers, one part of this massive air umbrella had two wings. Fairey Swordfish Mk.II's from the Royal Navy's 816 Squadron flew anti-submarine patrols for the D-Day invasion. The pre-war Swordfish was still in service, now updated to carry deadly armor-piercing rockets capable of penetrating a U-Boat's hull and radar to find them, making them a slow but deadly anachronism.

All combat aircraft flying missions covering the invasion of Normandy were required to wear black and white "invasion stripes" to aid recognition from the ground. I can imagine the 816 ground crews grumbling. Really? — after all, it's not like the Swordfish looked like anything else still flying on operations, Allied or



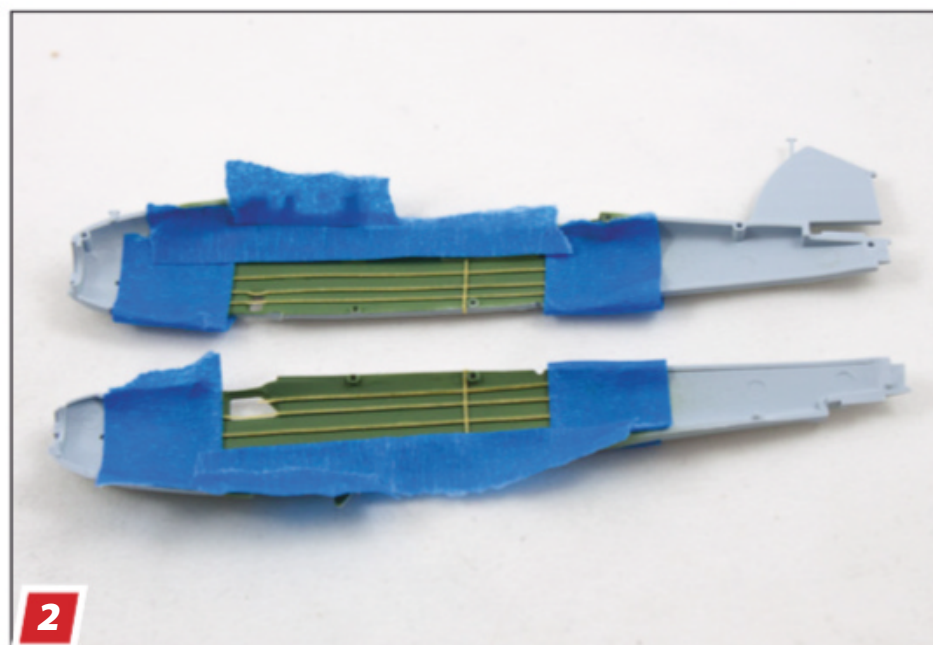
Axis. And they're a biplane after all — that means double the paint work! But orders are orders, and stripes were added. Pictures show the groundcrews weren't terribly precise with the application, but the fresh white stripes were duly applied and even outlined in black over the existing dirty white camouflage.

The surreal thought of a biplane flying combat missions that late in the war piqued my interest — plus they look cool. The release of Airfix's new Swordfish Mk.I in 1/72 scale landed a nice new kit on the market, but it wasn't followed up with a Mk.II. However, thanks to the similarity between versions and a couple of key aftermarket additions, converting the Airfix kit to the later Mk.II is relatively easy.

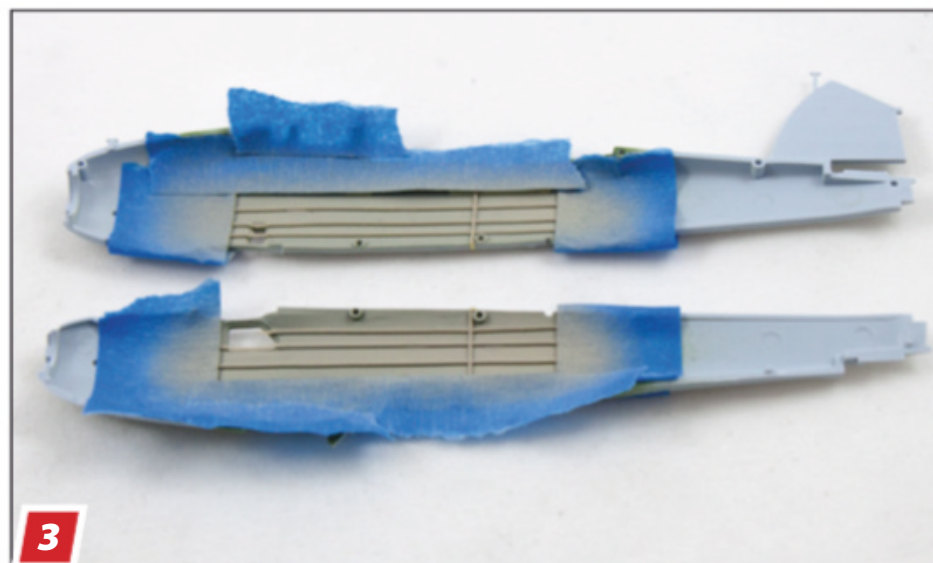
A simple drop-in replacement larger oil cooler from Pavla along with the trademark long "porcupine" exhaust gets you part way there, and rockets and decals also are available from multiple sources. Also required are metal-skinned underwing panels and a Yagi radar antenna, but these are easily scratchbuilt. Follow along as I update this anachronistic, but fierce U-Boat hunter.



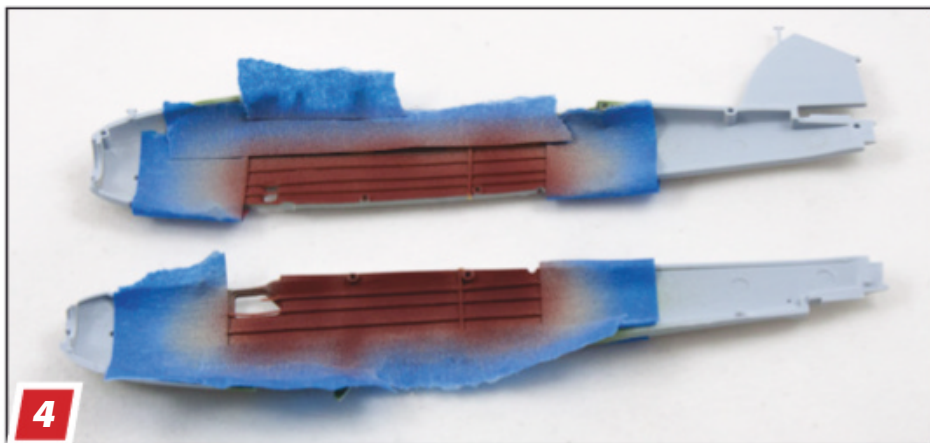
Critical parts for converting the Airfix Swordfish Mk.I to a Mk.II include a larger oil cooler and "porcupine" exhaust from Pavla, rockets and rails from Eduard's B-24 Liberator GR Mk.V/VI "overtrees," and decals from Print Scale. I also added Swordfish details like photo-etch (PE) exterior and interior parts from Eduard, and an exquisite Pegasus engine from Vector — that I ended up not using because the cowling would need significant work to integrate it. The Airfix engine is adequate as is. I used a mask set from Eduard to speed the build.



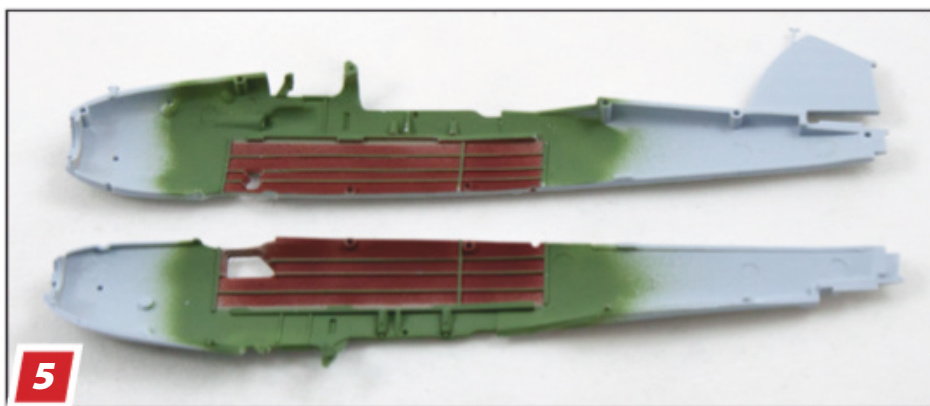
The interior of a Swordfish ultimately shows signs of its prehistoric ancestry with oxide-red primer on the fabric-covered panels. This makes painting more of a challenge, but it's easily solved with some fine masking tape and patience. First, the interior green is applied followed by masking the metal framework using fine tape.



Knowing that the fabric is "canvas," I decided to prime the primer red area with Tamiya buff.



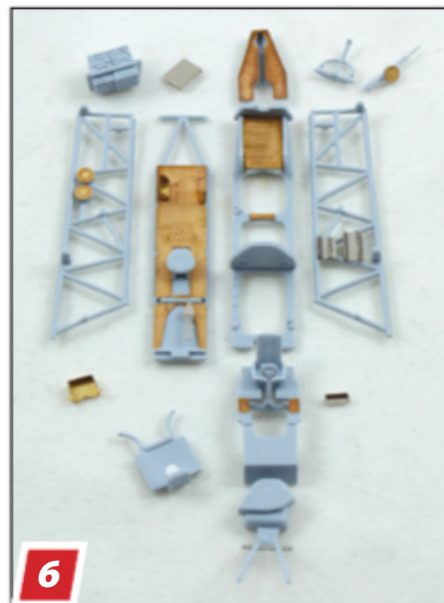
4
Next is a mildly haphazard overspray of Tamiya hull red, my choice to replicate the oxide red color of the real primer.



5
Removing the masks reveals the subtle complexities of the Swordfish interior.



8
A closeup of the interior reveals the clever Airfix design for the framework. Also shown are some additional Eduard details affixed to the fuselage sides, including the oddly colored “hammer tone green” radio on the right-hand fuselage half.



6
Preparing the rest of the internals took time because of the added Eduard PE. It was worth the time though — the brass really adds to the detail. I did not use all the parts provided, as the pre-colored bulkhead parts were an odd shade of green and didn’t seem to offer any added finesse over the Airfix parts.



7
Painting and weathering really bring this interior to life. The pre-colored instrument panel is especially nice, as are the seatbelts. I did not replace the radio stack however, preferring to carefully paint the more 3-D Airfix part.



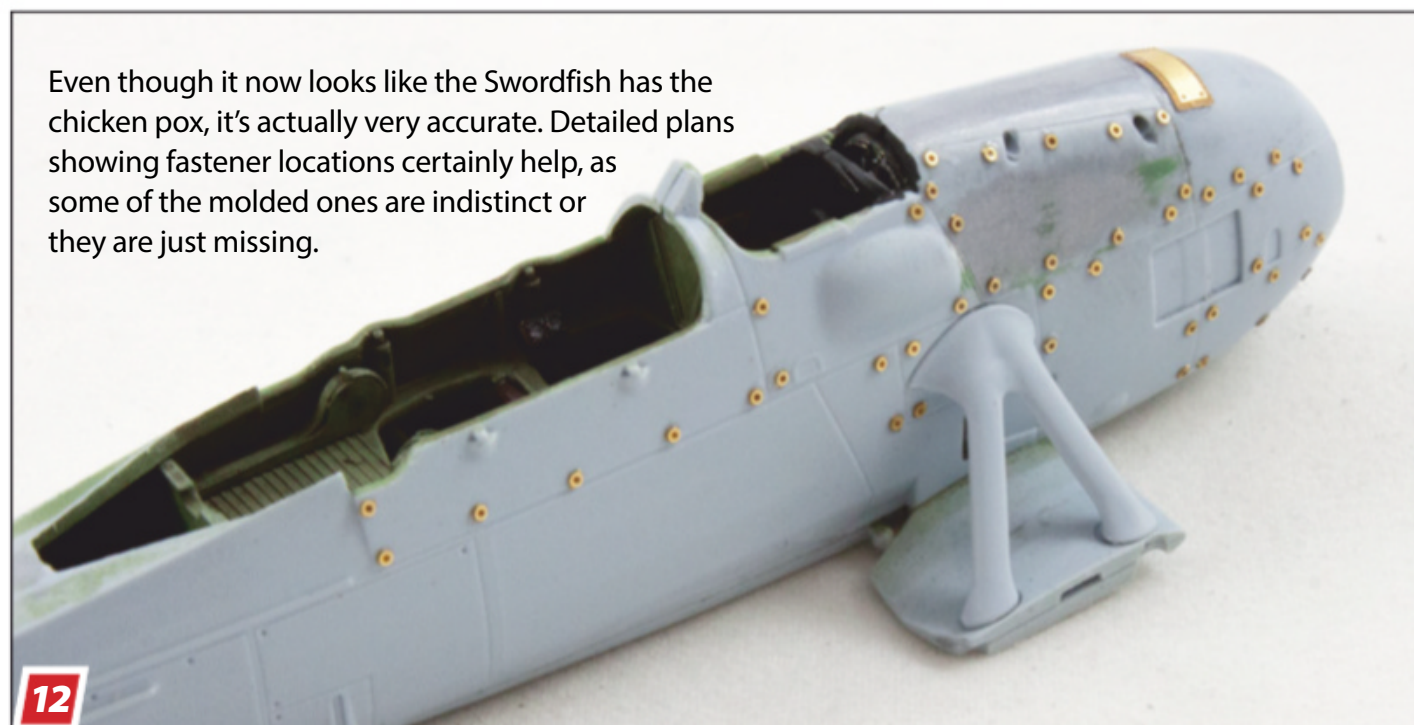
9
After assembling the interior and fuselage, exterior work could begin. The Swordfish has prominent metal panel fasteners on its exterior. These show up as faint dimples on the surface of the Airfix kit. Though I’m not a big fan of PE parts, this detail is elegantly addressed by the Eduard set.



10
Each fastener was scraped away and replaced with a PE equivalent. An essential aide was a “pickup pencil” that has a slightly tacky surface, just enough to grab the tiny part, but gentle enough to let it go with a little twist once the part is placed in a dot of super glue.



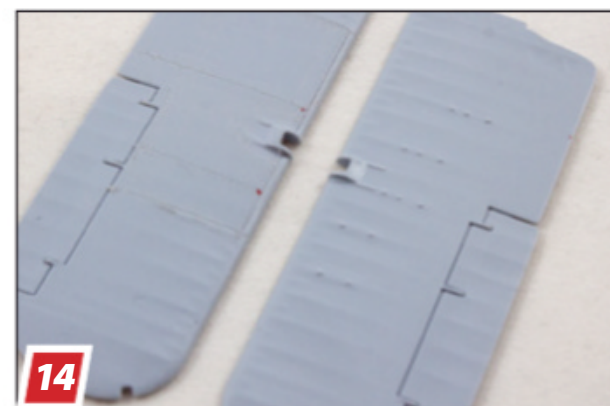
11
I found it was much easier to pick the part up slightly offset so I could still see it, making accurate placement much easier. The pencil’s tip required occasional light sanding to re-acquire its trademark tackiness.



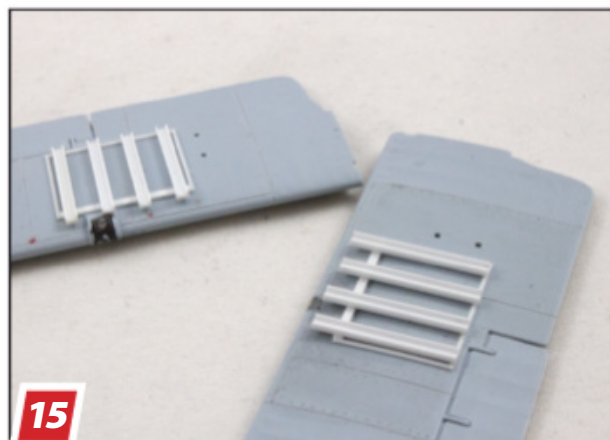
12
Even though it now looks like the Swordfish has the chicken pox, it’s actually very accurate. Detailed plans showing fastener locations certainly help, as some of the molded ones are indistinct or they are just missing.



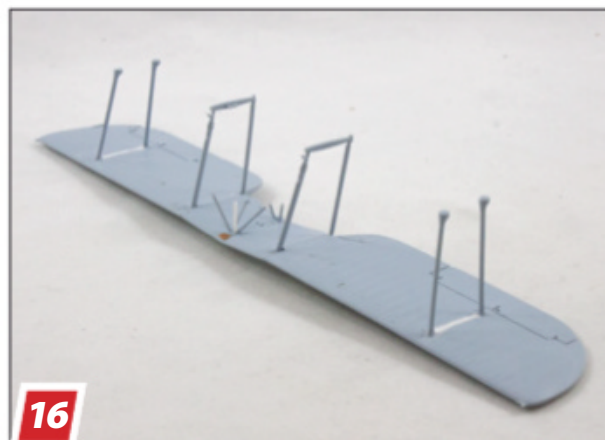
Here's the finished fuselage, complete with added surface details. Also shown is the resin enlarged oil cooler and vent from Pavla that are key to converting the Mk.I to a Mk.II. The oil cooler is a drop-in replacement part.



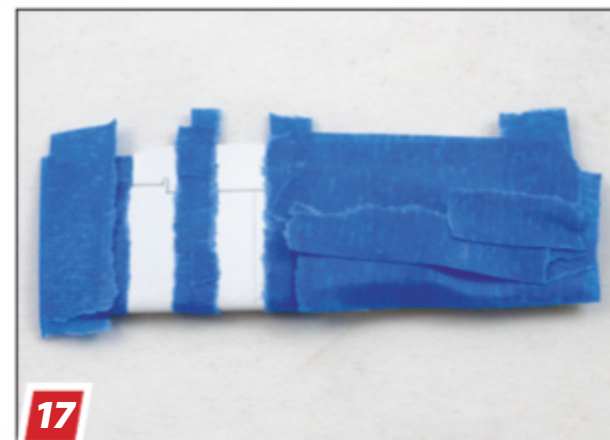
Converting to a Mk.II means replacing the fabric underwing panels with metal. This is accomplished by sanding down the fabric ribs, engraving panel lines, and adding rivets. The modified wing is at left, the kit wing at right.



The metal panels were needed to use rockets on the Swordfish. I could not find detailed drawing of the mounts, but pictures from different angles allowed me to approximate the mounts using plastic channel and strip. These were built in place on each wing prior to painting.



With the lower wings addressed, the upper wing was assembled. Airfix has revived the "tab and slot" style of strut management for the outboard struts, which works great, but requires a bit of filling. I used Deluxe Materials Perfect Plastic Putty, since excess filler can be removed with a moistened finger or cotton swab, avoiding damage to the delicate struts and wing ribbing. The inboard struts are molded to wing ribs that serve as detail if you choose to fold the wings.



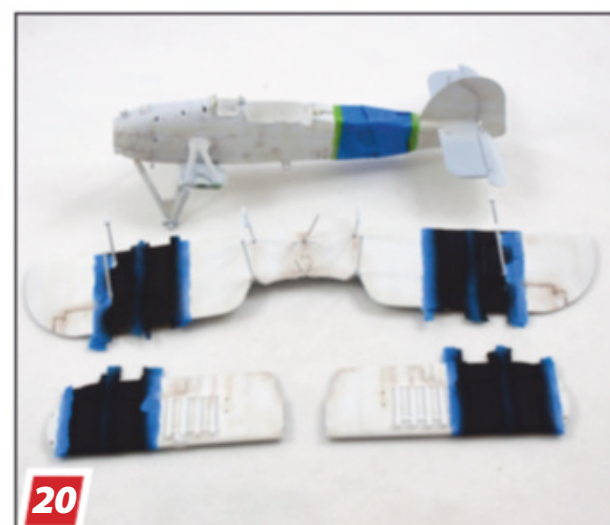
Imagine the dismay of a ground crew the night before D-Day when told they had to paint recognition stripes on their old Swordfish. Really? Both wings you say? Orders are orders ... but based on photos they didn't take much time to make them neat. Therefore, I ripped masking tape strips to add a bit of intentional sloppiness.



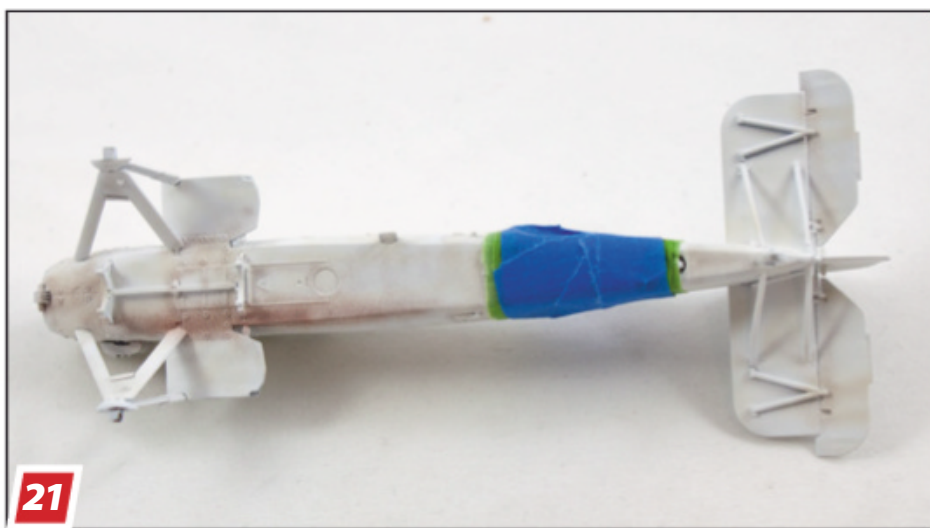
All the stripes have been masked off with — hopefully — the appropriate amount of hand-painted look. Even though the airframe and the stripes are both white, pictures show a distinct difference in shade between the freshly applied stripes and the somewhat grungy exterior. Tamiya flat white provides the base for both.



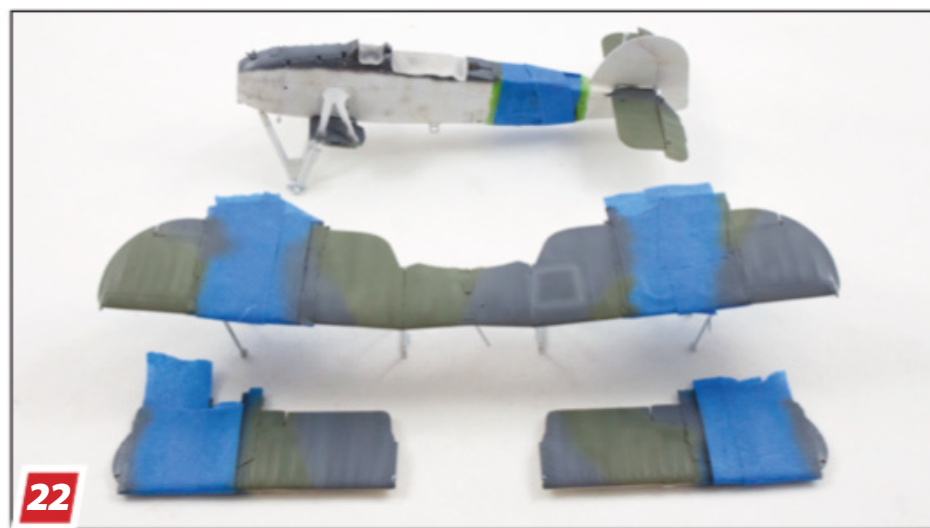
Tamiya flat black finishes the invasion stripes.



Next, random patches and streaks of Tamiya buff were applied to start dirtying the camouflage white.



I also roughed in the exhaust area and some added grunge on the underside.



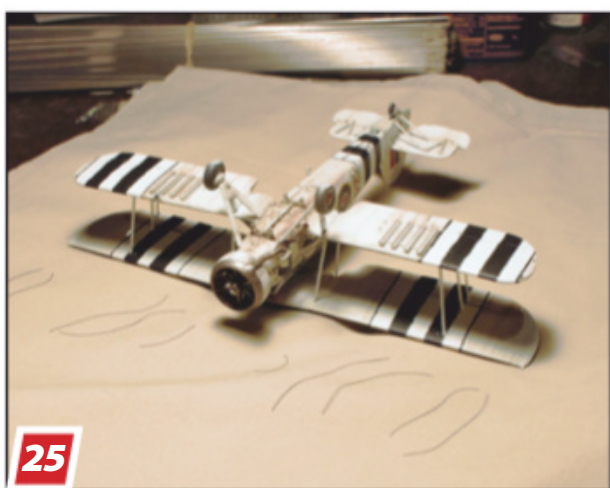
I used extra dark sea gray and dark slate gray from Hataka's "Orange Line" acrylic lacquer "RAF Coastal Command & RN FAA" set. The colors sprayed well (reminding me of Tamiya paint). I lightened the extra dark sea gray and used it to outline the life-raft compartment on the upper wing — this is likely a sealant for the compartment. I also used the lightened gray for additional streaks and spots of wear on the airframe.



After removing the masking and starting the weathering process, you can start to see a difference between the stripes and the airframe. Flory Models "dark dirt" has been applied to further the weathering.



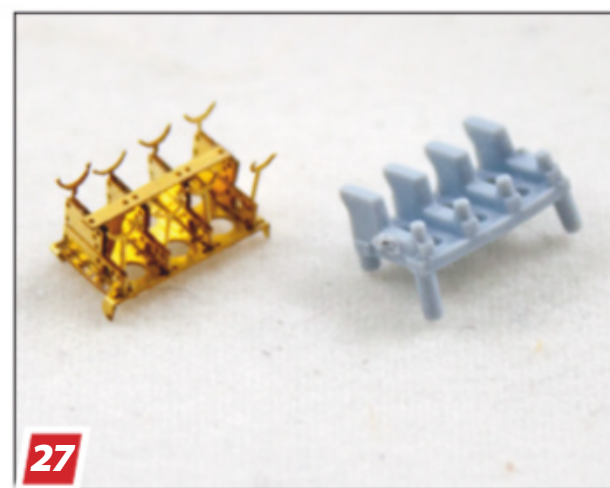
After cleanup of the wash, application of some pastels, and hand-painting the ... err ... hand-painted stripe edging, the Swordfish is ready for assembly.



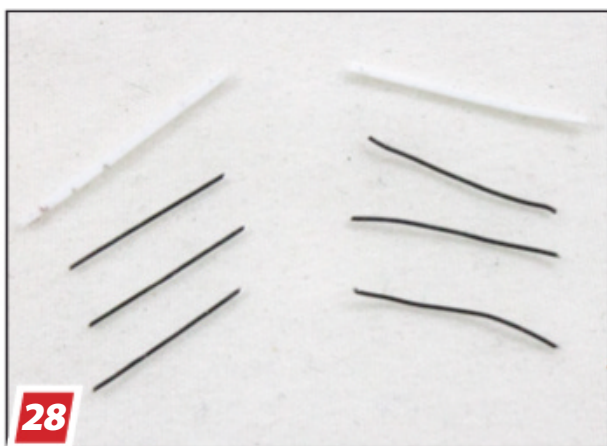
No, this is not a ground loop suffered while "flying" the model through my basement. I'm rigging the model with elastic EZ Line. I start by cutting lines a bit longer than necessary. The model is laying on a fabric cushion that sits on a homemade lazy Susan allowing it to be oriented however I need without having to handle the delicate model.



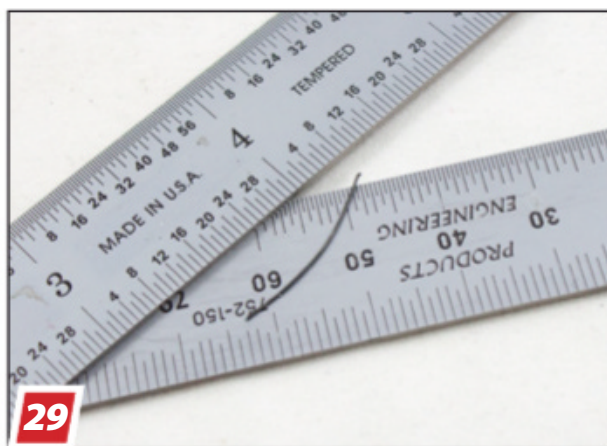
The rigging lines are attached to the upper wing using a dot of super glue and a touch of accelerator. Watch where the ends of the lines go — they can sneak into a glue dot if you're not careful. That's why the lines all run to the front of the aircraft in this picture. The line's other end is secured the same way, after trimming the lines about 2mm shorter than required and stretching them to fit.



Final details can now be addressed, including replacement of the kit's chunky underwing small-bomb carriers with the elegant brass parts from Eduard.



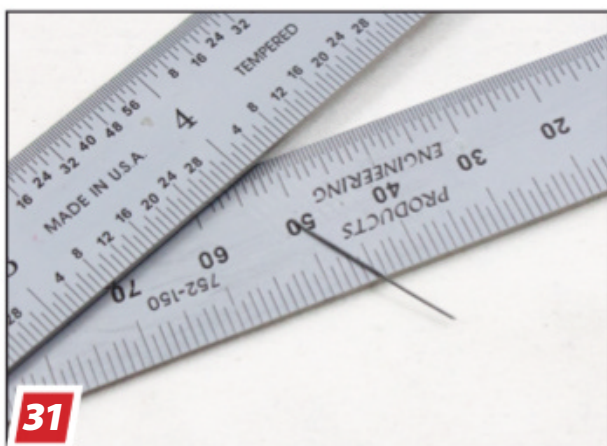
A Mk.II also needs a set of Yagi radar antennas. A fruitless online search helped me decide to scratchbuild them. They weren't hard to make. I used .015-inch x .040-inch strip styrene and 28-gauge craft wire. On the left is a set of parts for one antenna ready to assemble, while the "raw" parts are at the right. I'll bet someone will let me know these are in a PE set somewhere!



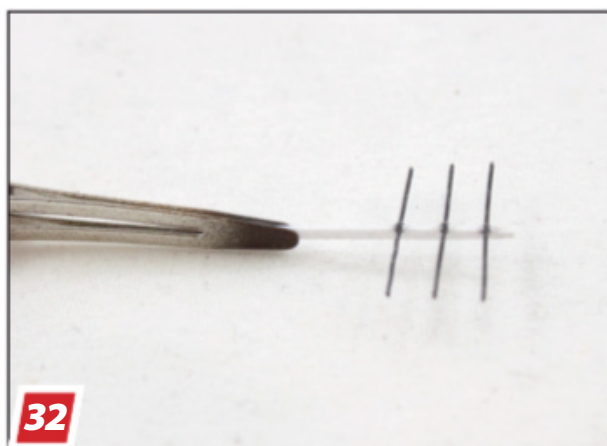
The craft wire is somewhat stiff, but needs to be straightened prior to assembly. The old trick for this is to roll the wire between two steel rulers, much like you'd roll a sausage of putty.



Finger pressure applied on top of the wire while you roll it will straighten it.



Simple and quick, the antenna wires were all cut over-sized and rolled straight.



A closeup of the assembled Yagi antenna prior to trimming the wires and painting. I cut the plastic strip long enough to serve as a handle for painting — it will be trimmed to length prior to installation.



I installed a Yagi antenna on each wing using photos for position reference. I added an electrical cable from the antenna into a pre-drilled hole near the base of each strut. The cable is a piece of .010-inch lead wire from a fly-tying set. A bit of black paint and the Swordfish will have eyes.



All the updates and additions result in a sharp Swordfish Mk.II that with its invasion stripes looks the part of a D-Day submarine hunter. **FSM**

PANZER *in pieces*

Smithereens are all that remain in this factual diorama

BY JONAS DAHLBERG

The Panzerkampfwagen IV, or Panzer IV, was the workhorse of the German army in World War II. It was so popular, it remained in continuous production throughout the war. Any WWII buff should be able to recognize one. That is unless it's been obliterated...

Here, a brutally destroyed Panzer IV of the 2nd Battalion of the 130th Panzer-Lehr Regiment lies in pieces. On June 10, 1944, the British attacked near Audrieu, France with heavy caliber guns from anchored ships. This unfortunate tank got a direct hit from a naval 16-inch shell.

This decimated Panzer IV was torn apart by a naval shell. It was a challenge to model so much 1/35 scale destruction.

Inspiration came from a photo in *The Panzers and the Battle of Normandy* by Georges Bernage (ISBN 978-2-84048-135-5). Kits used are a 1/35 scale Dragon PzKpfw IV Ausf H with a Verlinden resin interior. Figures are from a Master Box set called "Commonwealth AFV Crew". The rest came from my spares box.





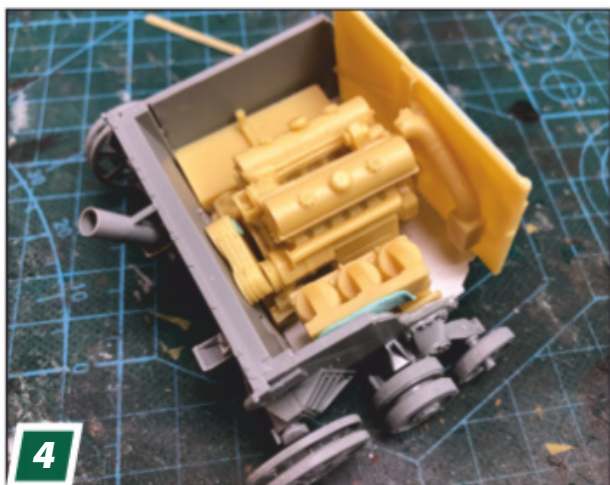
1
For a base, I glued polyester foam to a panel of medium-density fiberboard (MDF). I roughly shaped the foam using a Hot Wire Foam Factory hot knife. I like this method as it creates few of those dreaded static pieces.



2
Once I have a plan for where everything will be positioned, I start destroying the tank. Work begins with digging into the plastic of the Panzer with a knife. I score along the panel line where the tank should snap in two.



3
Even with my scoring, I must apply considerable force to crack through the plastic and break the tank.



4
Using a resin interior for the major parts saves a ton of time, however the pieces are big and chunky.



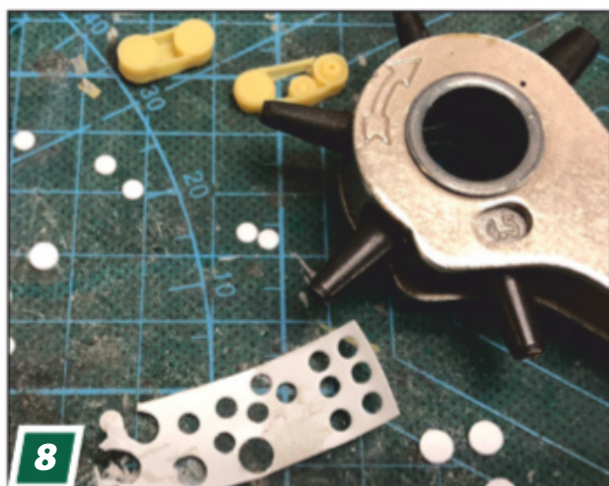
5
The fuel tank is one of those chunky pieces — I scratchbuild another out of sheet styrene and sheet metal. The box is easily torn open with a knife. Details will be added later.



6
On the real tank, the engine fans consisted of two large fans resting on thin metal. To better show this I first separate the delicate fans from the thick resin block with a razor saw.



7
Then, I score the resin box where I want it to break and partially wrap it in sheet metal to make sure I like the look. I'll then break off the excess, finish wrapping, and add the fan.



8
The pulleys on the engine are solid and not convincing. Instead, I punch out a few different sizes of styrene circles and glue them together.



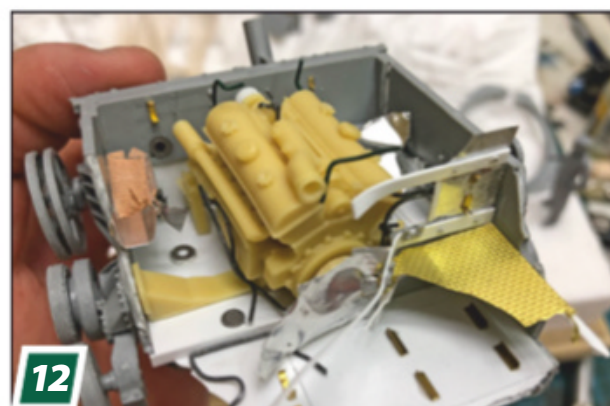
9
These styrene engine pulleys are far more life-like now.



10
Building a wrecked firewall starts by burnishing sheet metal on top of the resin part. Using the outline, I cut out the marked holes, girder, rivets, and other details.



11
I want to use the rivets hidden on the underside of the hull to detail the interior, so I remove them with a chisel blade. This is delicate work, however, and for every one I save, I lose three!



12
Here is the finished firewall, complete with added wires, mesh, and styrene.



13 Wrecked pieces ready for painting: I replaced several kit parts with pieces made from leftover photo-etch (PE) frets. The kit part acted as the master and once the PE was shaped, I could tear it up as I saw fit.



14 Working with foam has one major drawback, its stark white color. To fix this, I paint the entire base with pre-colored wall filler. For this forest scene, I use a mix of mocha brown and black.



15 I want to see a visible difference between the crater and surrounding terrain so I cover the untouched land with DAS air-hardening clay.



16 The clay is textured with a stiff brush and a rock.



17 The clay also sculps the roots for the pine tree. I imagine the blast tore some of the roots out and put the tree at an angle.



18 Once the clay and filler dry, I apply liberal amounts of white glue. Then, I sprinkle three types of sand and dirt over the scene. I localize the fine sand (the left container) within the road tracks and in the ditch.



19 Here is the completed diorama being test-fit before painting. It's easy to see the many materials used. All of these different components require a good primer. I like Vallejo black, which covers it all in a single pass.



20 I use Vallejo paint throughout. A coat of shadow rust comes first. I then coat the pieces liberally in hairspray and follow this with desert yellow outside and white for interior parts. The parts are left to dry for 24 hours.



21 With the help of the hairspray, I could then distress the paint with water and a paintbrush. I choose a soft brush to create small chips — the harder the brush the bigger the flakes of paint taken off.



22 This is what all pieces of the tank look like after being distressed with the "hairspray technique."



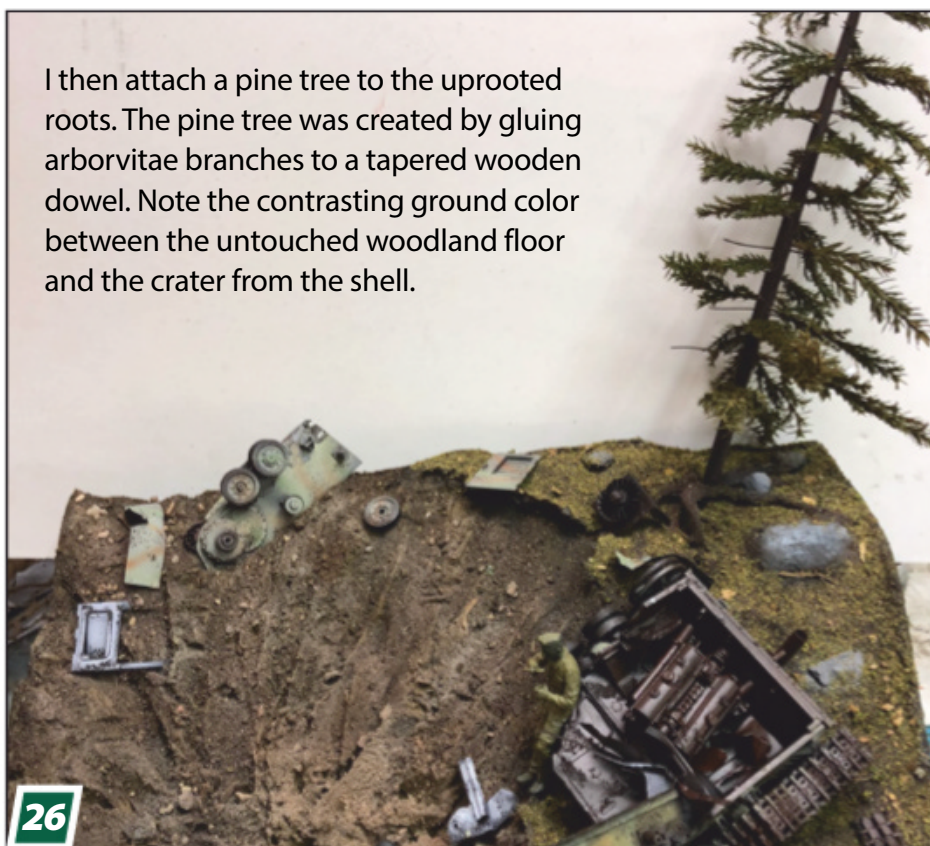
23 To rust parts of the tank, I dab areas with a small sponge soaked with various warm colors from Ammo by Mig Jimenez.



24 On top of the rust shades, I apply a thin layer of satin varnish to protect my work. Next comes a number of darker washes to increase shadow and contrast.



25 I paint the base with flat brown, earth, buff, and tan. Then, I apply glue to the area around the crater and sprinkle a mix of two colors of Woodland foliage as well as some leaves and twigs.



Creating convincing groundwork requires a lot of different materials. These are all the products needed to make a forest. It's a mix of Woodland, MiniNatur, 4G Modelshop, and NOCH landscape materials.



I figure that the heavy tank pieces would sink into the dirt, so I glue them down before adding low grass tufts and shrubbery around them. Tweezers help position the foliage exactly — anything to keep the metal parts from looking like they are sitting on top of blades of grass!

Before placing tank parts in carved out spaces, I fill the cavities with colored wall filler used to cover the base.

I then use a moistened brush to get rid of filler that bulges out or flows over.



Time-consuming work is placing larger pieces of grass and twigs. I work one small section at a time and think about the placement. I add tall grass in the ditch, low grass on the road, and shrubbery in the dense forest.

Obviously, explosions displace a lot of earth. To mimic this, I scatter dried soil on top of everything. White glue fixes larger pieces, but the majority is held by hairspray. Misting from above and letting it settle is the trick.



I paint and fix the figures in place. It's a relaxed scene where one guy is scavenging the tank, one is eating a can of food, and the commander is simply enjoying the view.

Here is the diorama before the final weathering of pigments and more washes. The tank will get its fair share of loose dirt as well.



I weather with pigments and ground up pastels, which I brush on.

I keep the colors dark and rusty to add depth.



As the final touch, I throw another layer of loose dirt across the scene. A 16-inch naval shell ripped this PzKpfw IV in half. You have to be a real Panzer aficionado to recognize it at all! **FSM**

Does your **SHERMAN** float?

Scratchbuild a canvas screen to make an M4A4 amphibious

BY ANDY COOPER

True, they were not perfect machines, but these historically important duplex drives contributed to the success of D-Day.



Ever since tanks were invented, militaries have searched for a truly amphibious version of their armored fist. It wasn't until 1940 when Hungarian born Nicholas Straussler submitted his design to the British war office, that the first amphibious tanks became a possibility and eventually a reality.

Straussler proposed to make any standard tank amphibious by simply displacing the required amount of water using a reinforced canvas screen, enabling the tons of armor to float like a boat.

The floating tank was driven in the water by boat propellers engaged and driven from the tank's gearbox. This simple idea had the added advantage that it did not compromise the maneuverability and fighting abilities of the converted tank once ashore.

In time, Sherman tanks were converted to DD (duplex drive) configuration for amphibious operations, mainly the Normandy invasion.

Dispute still reigns over the success or otherwise of the DD tank concept, and as history shows it had its shortcomings, but arguably one of the key factors in the success of the D-Day invasion was the availability of close armor support to the troops in the first waves to hit the beaches. Much of that vital support came in the form of DD Shermans.

Such a historically important player had to be included in my growing collection of "Hobart's Funnies" on my display shelf.

Essential materials

Wanting to build a Sherman V DD, I chose Cyberhobby's Sherman M4A4 (No. 9102) and a Bison decal sheet of "British Swimming and Wading Shermans" (No. 35014).

I would also employ two figures from MiniArt's British tank crew in winter uniform set (No. 35121).

I would not have gotten far without two definitive books: *79th Armored Division: Hobo's Funnies* by Nigel Duncan (ISBN 978-0-85383-082-5) and *The Funnies* by Geoffrey W. Futter (ISBN 978-0-85242-405-6), where I found 1/76 scale plans of a Sherman DD. As a starting point, I enlarged these plans by 217% to provide a 1/35 scale copy (see the illustration on p. 42).

It took some sifting, but I found I could answer most of my questions about the

look of the DDs by rooting around online. The site, CriticalPast.com, was particularly helpful.

Hull construction

First, I turned my attention to assembling the basic hull using my reference photos while deviating from the instructions as I felt necessary. There was a surplus of Sherman parts that went to my spares box.

I replaced the rear hull the instructions call for with a simpler one in the box with two rear access doors. The molded shield detail was sanded off and the lower hull completed without any detail parts in preparation for the DD modifications.

My enlarged plans were for a short-hulled Sherman III, so I had to extend the hull to create the Sherman V's longer body, **1**. Using several photocopies of the plans, I fabricated card templates for the canvas screen's deck parts, **2**. These templates were then transferred to .5mm sheet styrene, **3**.

With the decking glued in place, I fixed .5mm x 2mm strip styrene around the outside edge to give it rigidity.

Next, I worked on the exhaust duct on the tank's rear. To create a curved duct, I glued one end of a strip of .5mm sheet styrene to the underside of the hull vent, **4**. Card templates made the exhaust housing, which kept water from being sucked up. These were transferred to sheet styrene and final shapes added to the template, **5**.

I then borrowed an exhaust from Tamiya's Sherman (No. 190). The two outlets were separated and mounted facing upward on the hull's rear within the duct work.

Next, I tackled the compressed air reticulation system on the deck, **6**.

Scratchbuilding the screen

While scratchbuilding the screen was a fiddly process, it was less of a challenge than I had originally thought.

I made the three rims of the structure with brass tubing and bent them to shape around the plans, not forgetting to add the extra length needed for the Sherman V, **7**.



You have to approach the DD from above if you want to see all of the detail.

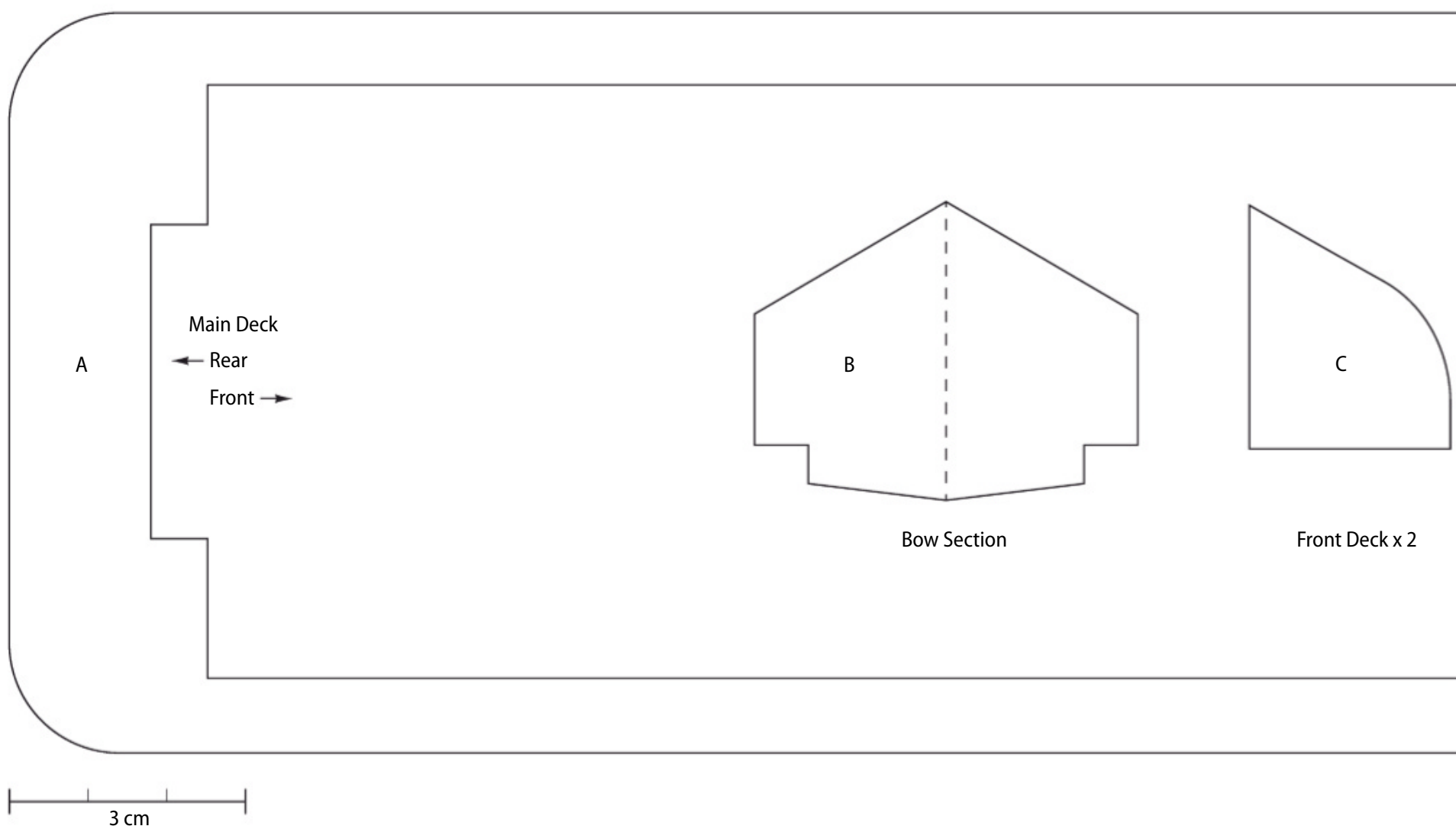
The rubber air support pillars on the inside of the screen posed a bit of a problem as the brass frame needed solid support. To help it, the four corner air pillars and the bow pillar were made from styrene tube, **8**.

The brass frames were then super glued in place on the pillars, **9**. For the remaining air pillars I turned to electrical heat shrink insulation. Lengths were cut and fixed in place on the frame with super glue after I lined them up with the air-pillar bases, **10**.

Once all the air pillars were in place and the glue had set, I started building the canvas screen with layers of tissue soaked in white glue, **11**. I had to work carefully to get the correct shape, **12**. With the frame covered, I airbrushed more thin glue to fix it in place, **13**.

Once the glue had set and the canvas was rigid, it was easy to handle and paint, **14**. I used Tamiya paint, except where noted. Using gray from a spray can, I primed the inside, **15**. This was followed with an airbrushed coat of Hobby Color tire black (H77), **16**.

For the screen, wooden deck tan provided the perfect hue, **17**. Meanwhile, the internal frame structure was brush-painted NATO green, **18**.



Using copies of these plans, I fabricated card templates for the deck parts which were transferred to .5mm styrene sheet to be cut out.

Detailing

The screen was raised when compressed air was released into the rubber support tubes. The crew manually locked struts that kept the screen rigid while afloat.

These struts were “broken” by compressed-air pistons operated from inside the tank. Once broken they folded as the air was released from the pillars and the screen collapsed.

The compressed air to carry out all this wizardry was carried in cylinders mounted at the bow of the tank.

To make the cylinders, I used large sprue fashioned to shape and styled with punched styrene discs on the tops, **19**. The stowage strapping is wine bottle foil and the compressed-air lines are copper wire.

It appears the commander’s steering tiller mechanism passed through the exhaust shroud and exited the deck behind it via a sealed tube similar to a boat rudder. The commander could steer the tank in the water by operating the tiller, which turned the propellers, **20**.

Next came the brackets to hold the screen support struts to the tank hull. I fashioned them from scrap styrene and double-checked their locations before gluing them down, **21**.

Now I could load the engine deck the way I’d seen in period photos, **22**.

The smaller external details were left off until after painting, but I could still add a few details to the interior to give the impression of action inside. I added a Tamiya gun breech, seat, and radio set.

Painting

I again used Tamiya paint on the exterior. First I tacked on a masking tape “skirt” to keep paint off the mating surface of the hull and screen.

The hull and turret assemblies were primed with gray, followed by airbrushed pre-shading of Hobby Color tire black.

Base color was a light misting of a mix of olive drab and dark yellow, **23**. I was intentionally frugal with it to not obliterate the shadow-enhancing pre-shading.

Once dry, a very light mist coat of NATO green mixed with a few drops of white was applied to various panels, hatch covers, and the model’s uppermost areas.

The stowage and details were brush-painted with enamels and acrylics, **24**.

The vehicle was marked as *Borgia* of the 13/18th Hussars on D-Day, from the Bison decals and sealed with Pledge Floor Gloss to protect it from the weathering to come.

Weathering

Dark gray acrylics supplied scuffs and scratches. Keeping them random and different in size is the trick. Oil washes of black came first, followed by a wash of raw umber, **25**.

Lastly came dot-filter — small spots of different colors brushed mostly out with a turpentine-laden paintbrush, **26**. I then applied rust stains of burnt sienna and water runoff stains of white.

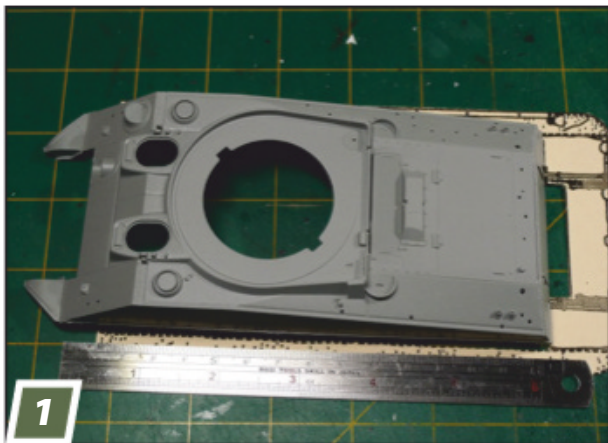
The DD was sealed again, this time with Tamiya flat clear acrylic, and left to harden completely, **27**.

Fitting the screen

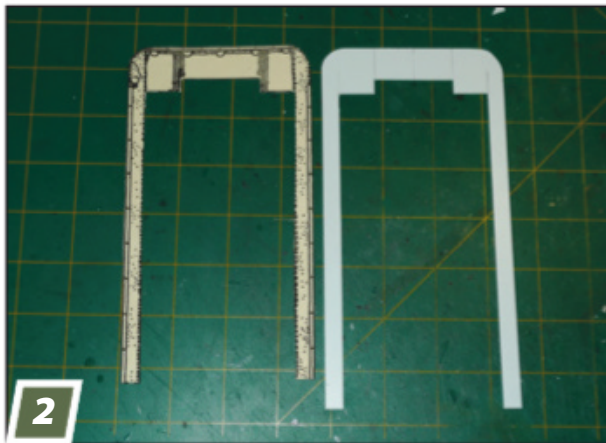
The screen was gently eased into place only to find that it had shrunk as the glue and paint dried. This was quickly remedied by making the bottom of the screen a little damp, which allowed the air pillars to flex onto the hull deck fittings, **28**.

With the screen in place, I started on the internal bracing struts. These were easily made of styrene rod lengths. I had to play with the fittings until each, **29**.

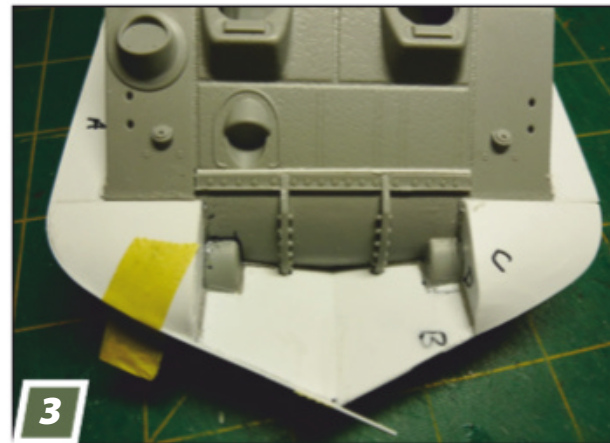
The main front bracing strut assembly was a little more complicated; parts were made in sections and assembled as far as possible inside the screen before it was fitted to the tank’s hull, **30**.



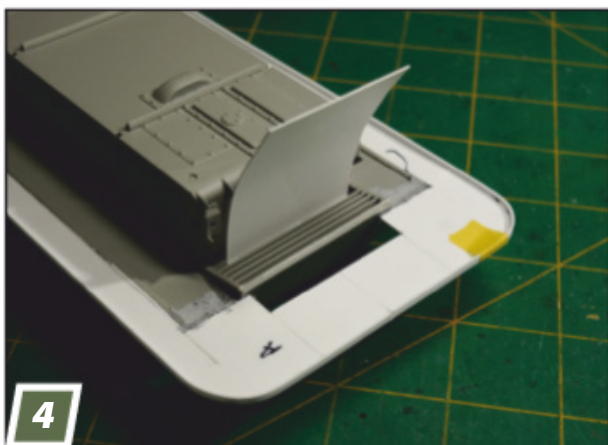
1 To extend the canvas screen's deck from the plan, I added 15mm to the styrene side panels; these were trimmed to length once on the model.



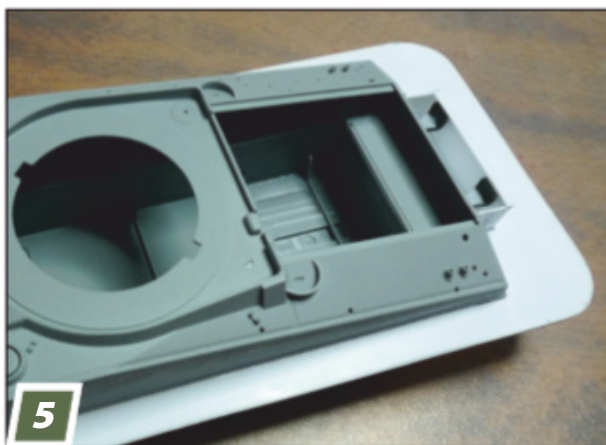
2 I made templates for the main deck, bow, front fenders, and the infills around the exhaust duct.



3 After sanding and dry-fitting the parts, the final shapes were made into a template so it would be easier to cut replacement parts, or make parts for a subsequent conversion.



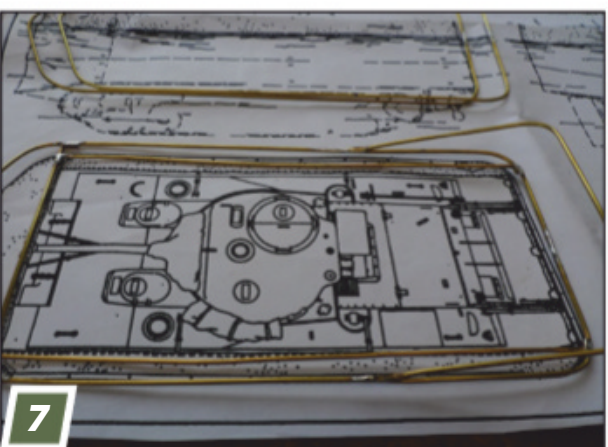
4 When the glue had set, I gently bent the strip up through the hole in the deck, cut off the excess, and fixed the end in place.



5 This exhaust arrangement includes two outlets within the ducting, one borrowed, one from the kit.



6 It was easy to create the air reticulation system using thin copper wire running through air pillar bases made of styrene tube slices.



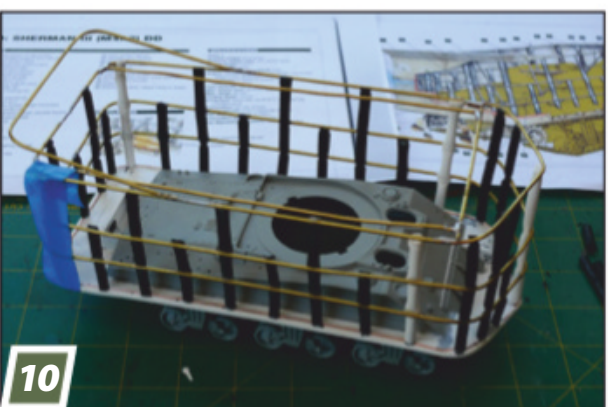
7 In places where the brass tubing ran short, additional tube was cut and soldered into place to make the screen structure's framework.



8 I located where these styrene pillars were fixed to the screen and crushed them with heated flat pliers to create an indent for the wires to sit in.



9 With the pillars in place, I super glued the brass frame in place.



10 This heat shrink insulation turned out to be ideal as it is flexible, easily cut to length, and actually looks like the rubber air pillars used on Sherman DDs.



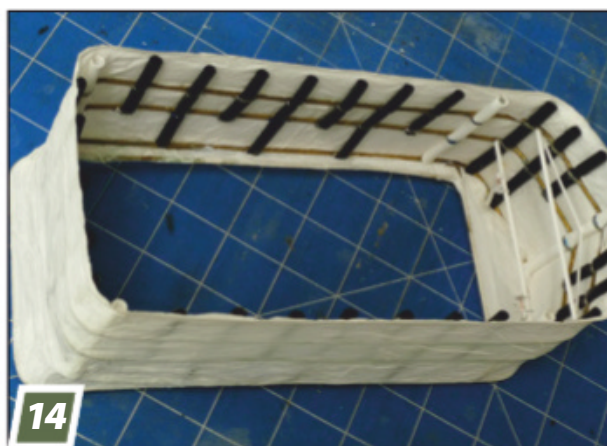
11 Facial tissues soaked in thin white glue worked perfectly to represent the canvas. I brushed the wet paper over the brass structure.



12 Steadily, I kept working the tissue around the frame, applying more glue with a brush as I went.



13 Once the frame was covered to my satisfaction, I airbrushed more thin glue across it to set the canvas.



14 After the tissue was completely dry, I added the brackets that hold the air tubes to the frames. These were made of wine bottle foil.



15 The front strut supports were made of styrene rod and scrap wire.



16 I made sure to spray the black on the "rubber" air pillars.



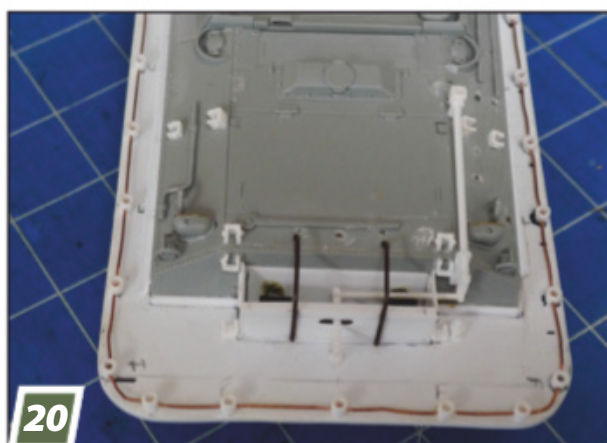
17 Wooden deck tan was airbrushed on the inside and outside, but I left the hull-mating surface at the bottom unpainted.



18 After I had painted the screen, the entire assembly was put aside, awaiting fitting to the model.



19 The air regulator unit was fabricated from scrap sprue, styrene profiles, and wire. Once finished it was all fixed in place on the hull.



20 The commander's steering tiller was made from styrene rod and brackets from scrap styrene.



21 The front screen support and jack, mounted on the glacis plate, was a little more complicated, but scrap styrene once again proved invaluable.



22 The items on top were made of parts from the spares box and some Milliput rolls covered with a wine bottle foil tarpaulin.



23 I wanted this model's finish to be lighter than I normally would in an effort to accentuate the detail on the tank that would be within the shadows thrown by the screen.



24 After painting the various items, I sealed everything with Pledge Floor Gloss in preparation for decals and weathering.



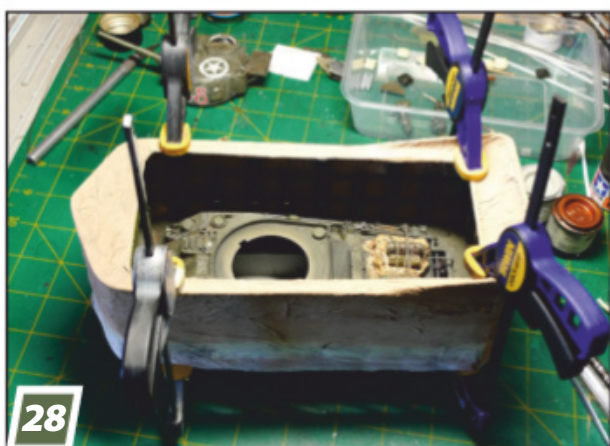
25 Oil washes tone down the scratches and bring sharper contrast to the recesses.



26 Dot-filters of various colors add subtle depth.



27 The completed hull was now ready for the screen fitting.



28 I super glued the bases of the air pillars all around the bottom of the screen while the assembly was clamped in place. I then backed away and left it to set.



29 I detailed the styrene struts with wine bottle foil and small punched styrene discs.



30 I painted the struts before fixing them in place inside the screen.

Final details

I mixed various tones of deck tan and, after masking the running gear, lightly air-brushed these in streaks and blotches to get the look of a rough, patchy canvas.

The crews' mistrust of the canvas screen to maintain its watertightness caused them to apply black bitumen paint inside and outside to any area that they considered suspect. This gave many screens a random dark blotchy appearance. To re-create this effect, I simply brush-painted random areas with tire black and then toned the whole screen down with a light spray of diluted buff.

Finally, I could fit the prop drives and the steering mechanism to the rear of the tank. All of the dry-fitting paid off when the pieces went into place as planned.

I removed the masks, touched up a few small details with paint, and sealed it with Tamiya flat clear.

At last, my Sherman V DD was complete.

It took time and would have been near impossible without the references mentioned at the beginning. But I enjoyed the challenge and am ecstatic to have a model of this important piece of armored history on my shelf. **FSM**



To give this DD some life, I attached two figures from MiniArt's British tank crew in winter uniform set.



Glenn Bartolotti created an interesting diorama to show off his SdKfz 250/8 armored gun.

D-Day aftermath

Creating a rubble-infused diorama for a German halftrack

BY GLENN BARTOLOTTI

The Normandy landings were just the start of the intense fighting by the Allies to free France from Nazi Germany in 1944. Quickly the battles moved inland and into small towns and villages; that's what my diorama depicts.

My goal was to show a SdKfz 250/8 Ausf B, part of a Panzergrenadier division in Normandy in action during the summer of 1944. I wanted to create crumbling stone structures and a halftrack with a couple of

soldiers with their vehicle as it sat among the devastation. For reference, I used photos of the Panzer Lehr Division. This unit was equipped with new 250 series half-tracks.

First, I drew up a basic diorama design to show the building and the placement of the halftrack, which helped finalize the positions of the soldiers. Then, I started scratchbuilding by cutting styrene to rough out the structures.

Along the way I built and painted Dragon's 1/35 scale SdKfz 250/8 Ausf B (No. 6425) to place in the scene, its track articulated over the debris it was resting on from damaged village buildings.



1 After a couple hours I had the diorama structure in place. Be sure to keep everything within the base's sides or the diorama will look amateurish. Keep building shapes square.



2 I wanted to add a shutter door (spare from a MiniArt kit) to the window so I built a frame of wood strips. To create roof damage, I left a few ends ragged, hiding my roof framing beams.



3 I planned this building to be of stone block construction, so I applied a thin layer of Magic Sculpt to create the proper texture.



4 Next, I used an old toothbrush to add texture to the still-wet putty.



5 To create individual stones, I used a dental tool for sculpting. For reference, I studied photos of old European buildings and finished the rest of the walls using this method.



6 Next, I sculpted the road sections that will feature rubble from a nearby building. That will provide plenty of debris to crunch beneath the vehicle's tracks.



7 I then cut pieces of sheet styrene into shingles and glued them into place. I don't want them perfect, as this gives them a more interesting, varied look, adding character. Think link-and-link tracks are a pain? Try gluing a whole bunch of shingles on a roof!



8 Next up, I test placed my Dragon halftrack chassis in the scene so I could adjust the wheels and suspension to contour with the rubble that will be added later.



9 I finished the roof's shingles and most of the vehicle's tracks are done. I just need to add the rest of the tracks' pads. Now the fun begins, I can't wait to add rubble so this will look cool!



10 The halftrack is almost done and gives me a better idea of how the scene will look. I plan on using two figures in my diorama to bring the scene to life.



11 For rubble, I placed a chunk of concrete in a sock and smashed it with a hammer. The crushed stone was spread over white glue. Later, I test-fitted the halftrack on the debris.

Tips for painting a German halftrack

Naturally, a diorama needs a focal point and I used Dragon's SdKfz 250/8 Ausf B kit as the center of attention. I painted it to appear as it would have in July of 1944 as the Allies pushed into France after the D-Day invasion.

After constructing the halftrack, I used Model Master enamels, basically airbrushing the vehicle in four steps, ultimately ending up with fading and blending to add realism. First, remember to take your time and do

not spray too much in any one pass. After five or six passes you'll start to notice fading on your armored vehicle as the colors begin to blend.



The first step is pre-shading the model with burnt umber enamel.



Second, I do my post-shading work using Africa armor yellow.



Next comes the addition of camouflage. You can pick the color scheme that works best on the vehicle you're trying to replicate.



Fading begins as I add 1 part armor yellow to 10 parts thinner and, at high pressure, spray the model in light passes until I achieve the faded look I want.



Note that I add decals before the blending to make it appear as if the markings have been weathered as much as the halftrack. Again, this is another way to add realism. Next will come a wash of artist oils.



I paint the model with clean turpentine before putting a dab of raw umber on a pallet and mixing turpentine with it on the pallet. Then I apply it to the halftrack, but just where I want it. I let it run down the sides like water would naturally. Later, I add ground pastel powder mixed with turpentine to create a dust effect.



Finally, I create chipped paint by applying raw umber artist oils with a small brush. The key is making chips small and without a pattern, keeping them on the most abused edges and areas. Remember that less is more with chipped/worn areas! I also added pastel washes to simulate caked dirt and dust. Use more than one color to create a more interesting, realistic appearance.



Next, I applied a wash of white glue and water at about a 50/50 mix to set the gravel. After that had dried solid I used a spray can to paint the base's sides flat black.



I used figures from Tamiya's early Marder III kit, replacing their heads with Hornet resin. I also replaced the hands and boots on one figure to better fit his pose against the halftrack.



Once prepped, I placed the figures where I had planned to make sure they fit properly into the scene, and in this case, into the halftrack.



Figures ready, I painted them with artist oils over an acrylic base coat. The figures' helmet covers were painted with acrylics.



Wrapping up the diorama base, I added static grass around the building. Next comes painting, weathering, and detailing. Now it's time to finish the halftrack. (See sidebar, p. 38).



The diorama and halftrack were painted separately and needed three to four days to dry. I can tell how my scene is developing and can't wait to dig into final detail painting!



I paint each stone with pastel sticks ground into powder (or you can use pigments). On a pallet, I mix the powder with turpentine and paint the stones varied earth shades.



Wet the stones with odorless turpentine then mix a wash of raw umber artist oils and apply it. This brings out the texture. Next, add a light mortar color between the stones.



As with the raw umber wash I apply the white oil paint, trying to keep it in the mortar lines, but some variation is fine. I also highlighted the shutter using the white oil wash as a glaze.



Lastly, I painted the roof first a dark gray, almost black, then used washes of raw umber and various darker shades to weather the roof's shingles.



The finished scene was worth the work.

Rebuilding an **M4A4 Crab**

Tear apart and kitbash a 1/35 scale Sherman mine flail

BY ANDY COOPER

After incorrectly posing the flail on an M4, I took it off and reglued it on Cyberhobby.com's M4A4.



Some years ago, I built a Sherman Crab from a Legend resin and photo-etch (PE) conversion set. Due to my inexperience at the time, I incorrectly placed the set on a Tamiya M4; in reality, all Crab flails were based on the M4A4 variant.

Even though the conversion is still available, I wanted a go at removing these parts from my original build and reusing them on a new model. I chose Cyberhobby.com's M4A4, using its hull, turret, and road wheels, which I mated to an Italeri suspension. The drive sprockets came from a Tamiya kit. Detail parts such as tools and fittings were sourced from my spares box and from various Sherman donor kits.

Assembling the flail

Let's start with how I assembled the conversion kit back when I was working with the wrong tank. The Legend kit contains a lot of well-cast resin, PE brass, and chains and small balls to make the flail. Also included is fine brass wire and brass rod to make the lane guides on the rear of the tank.

I had to make new side plates from sty-

rene sheet. These were carefully shaped with files to fit the recess in the crossbar before it was fixed in place.

I dry-fitted the reinforced hydraulic ram anchors that were welded to the sides of the hull to ensure they were at the correct angle before committing to glue, **1**.

Moving onto the flail arm, I studied the drum to gauge the width of the assembly. To the drum, I added the two arms and the main pivot bars. Once squared up, I removed the drum, **2**. I glued the arms together with thin super glue and dry-fitted it to the hull. Once happy with the fit, I let more glue flow into the joints. I ended up going through the same attachment steps a second time after I removed the flail arms from the wrong tank and added them to the correct one.

Turning my attention to the drum itself, I calculated how many chain attachment

points were needed: four rows of seven and four rows of six were spaced around the drum, **3**.

First, I marked the top and the direction of rotation with a pencil. From this, I could glue the flail attachments with the correct fall depending on the drum's position, **4**.

For weights and chains, I made a "washing line" of two large nails in a piece of wood. I strung a wire between the two nails and threaded the chain onto it after cutting it to length. Then, I super glued the balls to the ends of the chains. Once the chains cured, I painted them metallic black from a spray can while they were hanging on the washing line.

With the chains complete, I added them to the attachment points on the drum using super glue and small loops of brass wire provided in the Legend kit, **5**.

Old to new tank

Removing the flail parts turned out to be an easy process achieved with the help of some sharp blades and a small screwdriver, as well as thought and patience. Most of



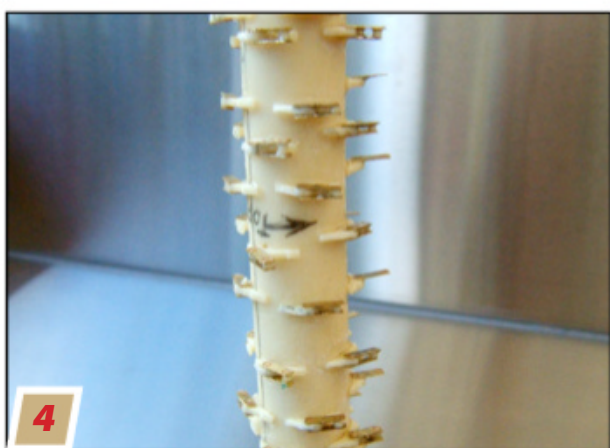
1 The angle of the hydraulic ram anchor (shown here on the M4A4) depends on if the flail will be raised or lowered. I chose the latter.



2 Here is the flail arm assembly lightly glued together and ready to be fitted to the hull.



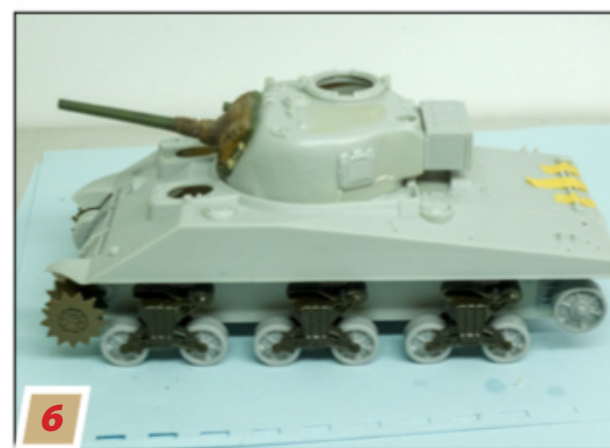
3 Studying photos and inspecting a real example at a museum revealed there were four rows of seven and four rows of six flail attachments spaced around the drum.



4 To better hold the drum, I drilled a hole in one end and pushed a skewer in it, which acted like a handle.



5 When painting was completed, I had a realistic drum, ready to be remounted.



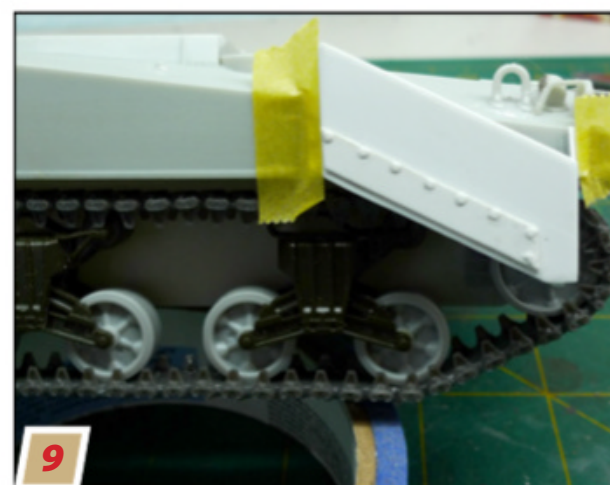
6 The drive sprockets and idlers fit the kitbashed suspension without issue.



7 Separating the tracks into long and short runs made fitting them around the running gear easy.



8 Some flails were fitted with these boxes from which powdered chalk ran out of the bottom as flailing was underway, marking a cleared lane behind the tank.



9 I further detailed the chalk boxes with punched out styrene discs. After dry-fitting, the completed boxes were put aside until the hull was painted.

the major subassemblies remained intact but some of the original resin hull brackets were damaged; however, these are easily remodeled using sheet styrene.

The Cyberhobby hull went together without fuss, but the Italeri suspension gear did not mate smoothly with the hull because the locating pins were too far apart to fit into the slots on the hull sides. This was remedied by cutting the top pin off and ensuring the bottom pin was located in the bottom slot before gluing it into place, **6**.

With the running gear complete, I started on the link-and-length tracks, which came from a Dragon Sherman

Firefly VC (M4A4 hull) kit. First, I made long straight runs and let them set, followed by short segments that I molded around the drive sprockets and idlers before the glue fully set.

Then, the long runs were added before a joining piece completed the loop, **7**. Despite the hybrid nature of the build, the tracks fit perfectly.

Next, I added "chalk boxes" to the rear of the tank, **8**. I scratchbuilt them from sheet styrene and temporarily mounted them at an angle, **9**.

The turret needed the addition of the flail stowage bin, which was damaged on

the conversion set during my recovery process. Fortunately, a fellow "green tank" enthusiast generously provided a replacement styrene bin.

The resin gun and mantlet necessitated a little work with a file to increase the turret aperture for fit, **10**.

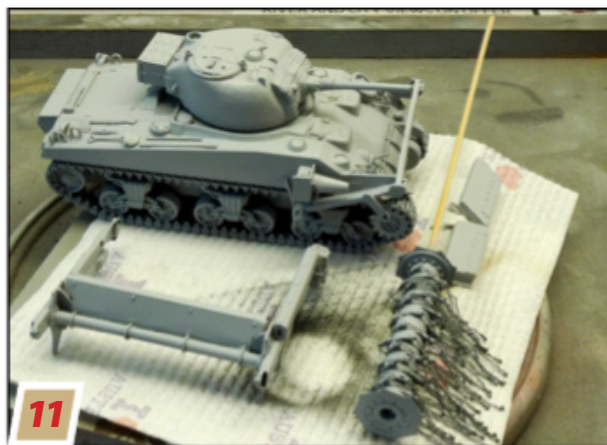
Fine details were left off at this stage to prevent loss and damage during painting.

Painting begins

An airbrushed coat of Tamiya gray primer mixed with lacquer thinner covered everything, **11**. I used Tamiya paints throughout, except where noted.



With the gun mated to the turret and the addition of a PE bracket around the turret bin, the turret was complete.



Tamiya gray primed the completed sub-assemblies — the tank, flail arms and drum (notice the skewer handle), and chalk boxes.



After painting the subassemblies, I fixed the chalk boxes in place and blended them with the tank using the same painting steps.



Before the Milliput set I used various tools to add grooves for the tie down ropes to sit in.



Once dry, the tissue will be painted to depict the Allied air-recognition panel carried by some vehicles.



The yellow panel looks a bit garish here, but the coming washes will tone it down.



I made a replacement drum drive shaft and hydraulic rams from styrene rod. These were measured and cut to length.



I concentrated on the underside around the shield and flail arms, but also added spatter to random areas to simulate track throw off.



A smoky hue added fuel spills and grease marks for the final dirtying touches.

Over the primer, I pre-shaded panel lines and recesses with flat black. I then air-brushed my homemade shade of British Army green drab: Mr. Hobby olive drab (H304) with a few drops of Tamiya NATO green.

I returned once this was dry and added a few drops of white to the drab mix, misting this onto the center of random panels and hatches for added dimension, **12**.

Extra bits and pieces

As I looked at my Crab, it became obvious that it was missing the stowage that the crew would have added while the vehicle was in service, such as personal packs,

spares for the flailing operations, ammunition, tow cables, and numerous other items.

To load it up, I searched my spares box and found things to add to the engine deck, including an empty ammunition box, closed crates, and miscellaneous cans. I then sculpted duffle bags from Milliput sausages using wet fingers and knife to shape them, **13**.

I draped an air-recognition panel made from tissue paper soaked in thin white glue over the rear load, **14**.

I brush-painted the stowage using acrylics and enamels. Flesh paint mixed with a drop or two of yellow colored the recognition panel, **15**.

The rope securing the load was made from linen thread meant for needlework. The steel tow cables are the same thread with the ends twisted to form a loop; a drop of super glue secured the twist. The cables were painted steel.

Decals and weathering

With the model looking sufficiently busy, I applied a coat of Humbrol acrylic varnish over the finish and allowed it to harden for a few days before applying decals.

Markings came from Bison (No. 35203). I chose *Goose Gibbie* of the 1st Lothian and Border Horse Yeomanry of the British 79th Armoured Division, operating near Caen in



Here's my Crab, ready to clear a path. I decided not to mount the .50 caliber machine gun. References were split on whether or not the weapon was fitted to the turret. I considered the cleaning required in such an environment and Allied air superiority at the time and deduced the crews would probably opt to dismount the gun if they had the choice.

August 1944. I applied another coat of acrylic varnish to seal the decals.

Preliminary weathering came next. A fine brush created chips and scratches. I also dabbed a piece of a plastic pot scouring pad dipped in gray paint in the high traffic areas. Two oil washes followed: raw umber and burnt sienna.

Adding the arm

Once this sufficiently dried it was time to add the flail arm. Resting the arm at the correct height, I glued it on and added the scratchbuilt shaft and hydraulic rams, **16**.

When the flail drum was rotating on the real Crab, a considerable amount of dust

and debris was thrown around, not to mention what the detonation of any mines would add to the mix. This must have shown on the front of the tank, despite its protective shields. To this end, I wore the paint color off the transmission cover by dry-brushing shades of metallic grays and silvers around that area. To simulate mud and dirt thrown up, a mixture of white glue, water, watercolor, and fine sand from my yard were mixed up and flicked onto the tank using an old toothbrush, **17**.

Now I began adding all the little missing details. The side steps and rack for the spare chains were made from PE scrap. The rear station-keeping lights are from the

Legend set as is the driver's periscope cover, of which I only fitted one. Antennas were made from stretched sprue.

The details were touched up by brush to match the base color and the model was again sealed, this time with Hobby Color flat clear acrylic.

For a dusty look, I applied thin coats of buff and Hobby Color erdbrun (earth brown) with an airbrush, followed by another coat of flat clear. I dry-brushed the tracks, cables, tools, and other worn metal areas with Hobby Color metallic steel, **18**.

In the end, I had a long-overdue addition to my growing collection of specialized armor. **FSM**

D-Day Photo Contest

We asked you to send us photos of your best models concerning Operation Overlord, and boy did you deliver! We got armor, aircraft, ships, figures, and dioramas of subjects used between June 6 and August 25, 1944. Hundreds of votes were cast online for favorites and here are the winners. What a great way to honor this historic event and its soldiers.

See more photos online

To see all the models entered, including different angles of those shown here, visit FineScale.com/DDayContest.

► JAMES SKIFFINS HIGH WYCH, HERTFORDSHIRE, ENGLAND

In this diorama titled *Sacrificed on the Altar of Freedom*, the church was scratchbuilt from balsa foam. James formed the roof around a foam ball used in flower-arranging before hand-carving the brick detail. Tissue paper and wires made the parachute and lines. The figures were painted with Testors Model Master colors over Ultimate Modeling Primer. James added extra pieces to the helmet to show the interior webbing. The floor was littered with cork bricks dirtied with pigments.



► **BILL HOGAN**
TAMPA, FLORIDA

Bill placed a bunker in front of a period photograph to give his 1/35 scale diorama greater context. Pins in the GIs' boots anchor them to the high-density foam bunker. He painted with Polly Scale and Tamiya products, stippling the paint over the walls. The figures are from Dragon and their weapon slings are made from lead foil.



▲ **MIKE MAYNARD**
PAWTUCKET, RHODE ISLAND

Mike depicted a 1/72 scale Coast Guard rescue boat being repaired in England because of German gunfire on June 6. During the invasion, 62 boats saved more than 1,200 soldiers and sailors. This boat is scratch-built from plastic and brass. The crane, pier building, and winch shed are railroad structures with detailing — the pier building has an interior! Woodland products cover the insulation foam board, framed in oak.

► **DAVID BAINBRIDGE**
HOBART, WISCONSIN

David painted Young Miniatures' 1/10 scale bust, Currahee, with acrylics followed by oils. It depicts a soldier in the 101st Airborne Division taking a cigarette break.





◀ JACK GERATIC SOUTH PORCUPINE, ONTARIO, CANADA

Jack finished AFV Club's 1/35 scale M3A3 as a Stuart V with Bronco T-16 workable track links and Royal Models' photo-etch set (No. 342). The lone figure is an Ultracast conversion, meant to represent Canadian 6th Armoured Regiment Lt. W.A.P. Smith on June 7 when he was shot in the arm while scouting for German snipers. He was awarded the Military Cross for his bravery.

▶ JEREMY CHEUNG SYDNEY, NEW SOUTH WALES, AUSTRALIA

This Churchill climbs Hill 112 during Operation Jupiter on July 10. Jeremy detailed the turret with camouflage netting made from surgical gauze and a lot of lead-foil strips. Extra stowage was added to the rear deck. He upcycled a plastic bottle and turned it into a Horsa glider fuselage. Vegetation is comprised of dried parsley flakes sprinkled onto steel wool bushes and fixed with hairspray. The long grass is from a doormat.





◀ **EUGENE MITCHELL**
ROCK SPRING, GEORGIA

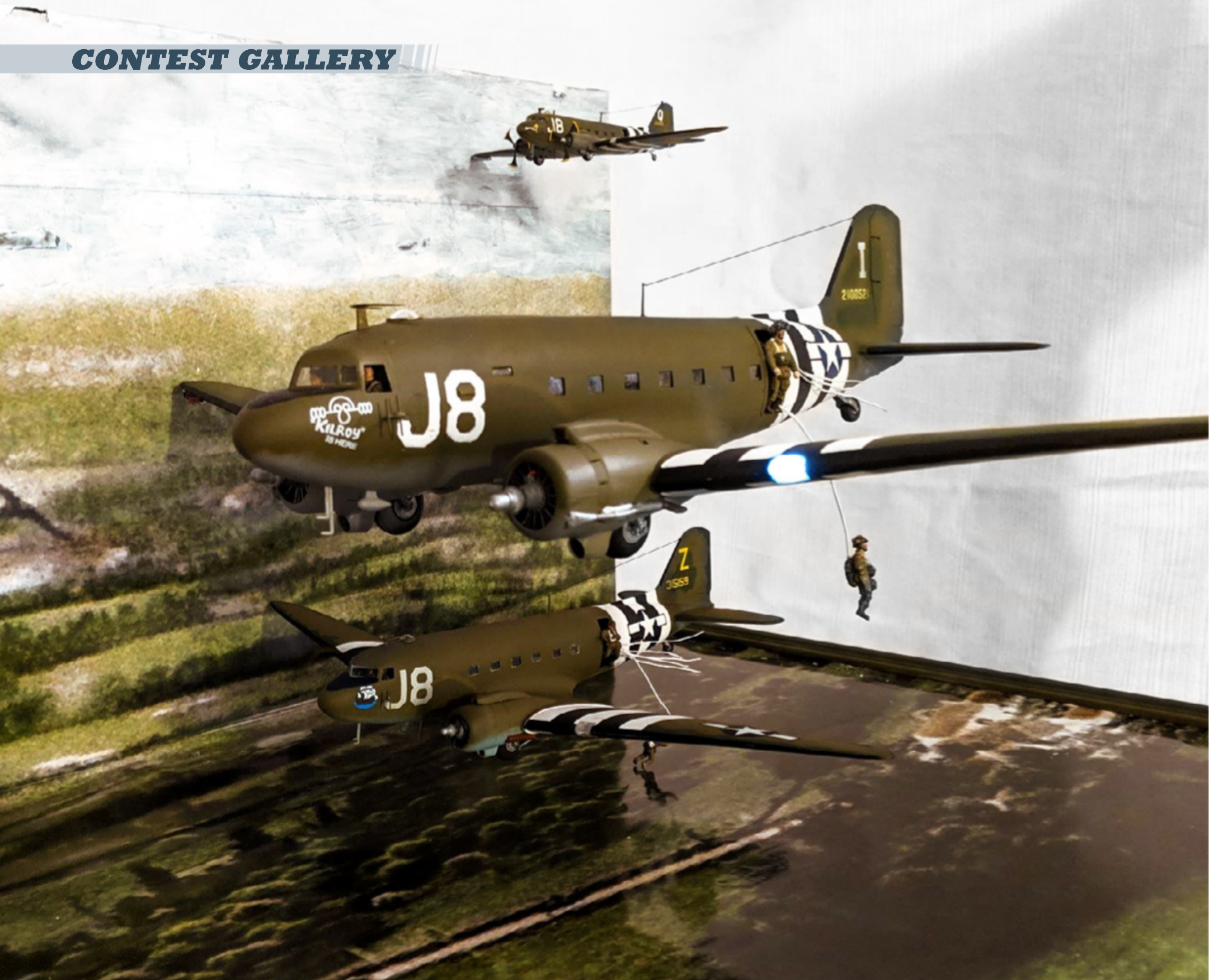
When Eugene put his mind to modeling a war-torn scene, he went all-out. Here, Germans fight the Allies to hold on to parts of France in July. He carved the buildings from plaster before adding damaged roofs and shattered windows. The Tamiya Tiger I was heavily distressed and even the soldiers were “weathered” to give them an up-for-days-look. Everything sits on a plaster street with carved paving blocks. He used Vallejo and AK-Interactive paints.



BENJAMIN DELCOURT
PARIS, FRANCE

The scratchbuilt terrain of this 1/72 scale diorama is covered with sand from Omaha Beach. Sitting in the sand is Revell’s Churchill AVRE and Airfix’s universal carrier. Meanwhile, a Sherman converted to a Crab version climbs a temporary ramp. Benjamin used Citadel paints on the tanks.





◀ STEVE SPOONER WACO, TEXAS

In Steve's scene, *Day of Days*, the 506th Parachute Infantry Regiment (PIR) prepares for flight to Normandy to parachute behind enemy lines on June 6. Tamiya's U.S. fuel truck gases up Trumpeter's 1/48 scale C-47. Also shown are Bandai's Jeep and trailer, Tamiya's 2½-ton truck, and a whole crew of Revell and CMK figures.

◀ **KARL KUNZMANN**
WEST WARWICK,
RHODE ISLAND

Karl floated this *Band of Brothers* tribute diorama with a 1/48 scale Trumpeter C-47, a 1/72 scale Airfix Dakota, and a 1/144 scale Minicraft Dakota. He installed motorized engines and interior lights on all three planes. Below the aircraft, 16 paratroopers prepare to land on a photo of the Normandy countryside.

▶ **STEVEN MURRAY**
KATY, TEXAS

Steven built Tamiya's 1/48 scale Thunderbolt "Bubbletop" and added aftermarket decals to model it as Francis "Gabby" Grabeski's well-known P-47. He painted it with Tamiya and Alclad II products.



JOHN HOFFMANN
FREDERICK, MARYLAND

This 1/32 scale Tamiya P-51D is decorated with Eagle Editions decals and sits on BarracudaCast resin wheels. John placed Zoukei-Mura ground-crew figures around the plane, along with Ultracast's George Preddy figure stepping out of the cockpit. The lustrous finish comes from Vallejo acrylics, Tamiya aluminum silver from a spray can, various shades of Testors buffing Metalizers, and a bit of Spaz Stix chrome.





Tamiya's super early Spitfire

Singing the praises of Tamiya kits is easy, but the Japanese manufacturer may have exceeded its past achievements with its new 1/48 scale Supermarine Spitfire Mk.I. Not only is it beautifully molded to capture the shapes and subtlety of the fighter's lines, but the engineering is first rate eliminating common Spitfire bugaboos, such as the angle of the main landing gear legs and wheels.

The kit includes several nice options, including different windshields, antenna masts, pitot tubes, and some cockpit controls to model pre-war and early war Spitfires.

Posing Spitfire cockpits open has always presented problems for kit manufacturers because the sliding section is usually too thick to sit properly over the spine. Tamiya

provides optional upper fuselage inserts to solve this problem. For the open position, a recess section holds the sliding section perfectly without being visible on the finished model.

Other features include a photo-etched (PE) fret with seat belts, radiator and oil-cooler screens, an early iron-circle gunsight, rudder pedal straps, rudder-hinge detail, and an antenna wire attachment for the later mast.

In addition to beautifully printed decals for three aircraft, the kit provides printed, but not pre-cut, masks for the canopies, and a set of self-adhesive "molding stickers" — 3-D metal details for the pre-war fuel tank cover and canopy vent.

The instructions clearly point out which options are appropriate for the marking

options. In the cockpit, several controls and instruments need to be modified for the different versions.

Before starting, decide whether you are building the canopy closed or open; I chose the latter. The optional fuselage inserts fit along panel lines, but they presented the only fit challenge. Perhaps because they are long and plastic is thin, the inserts wanted to bow in slightly as the glue set. I was trying not to put too much pressure on them to avoid squeezing glue out of the seam that would interfere with the recessed panel line. In the end, I had to prevent a step forming on the seam.

From there, construction progressed smoothly. The detailed cockpit benefits from careful painting, so pay attention to the color callouts.



The PE seat belts have nice detail and are flexible enough to conform to the seat with gentle pressure and super glue.

Tamiya provides a brace so you can't pull the frames out of alignment while installing the long shoulder harness that mounts on the rearmost frame. An optional harness is provided to fit the pilot if used.

The instrument panel decals conform to the molded dials and instruments. The cockpit is comprehensive and a few placards are the only detail needed.

With the cockpit painted and ready, the rest of the airframe went together in a couple of hours.

I needed just a little super glue to eliminate the seam along the top of the engine cowl and on the spine. Be sure to remove any trace of the join at the rear of the upper nose (part G30); the entire upper cowl is one panel on Spitfires.

The horizontal stabilizer includes a full

span lower part that fits a slot at the base of the vertical tail for perfect alignment.

The wing is another fine piece of engineering including three-part wheel well surrounds that lock into alignment and a long center piece for the leg bays. The separate wingtips slip into perfect position thanks to long locating tabs as do the separate ailerons. Then, the entire wing clicked into place without needing any filler or sanding. Again all of the joins, including the wing roots and rear fuselage, fall on panel lines.

I can't say enough about how easily Tamiya deals with the main gear legs. They are molded together with a long bracket in-between. Once mounted on the fuselage the alignment is set without the need for constant adjustment as the glue sets. Separate panels and the chin intake conceal the central bracket. I left off the gear legs for painting, but taped the panels in place with white glue. Sturdy axles set the wheels at the Spitfire's distinctive angle.

Careful cutting with a new No. 11 blade separated the masks for the canopy and they fit their respective sections easily. I attached the windshield and rear section with clear-part cement before painting. These are the best fitting clear parts I've seen; they virtually click into place!

Choosing the Dunkirk Spitfire from the options, I painted it with AK-Interactive Real Color acrylic lacquers. The aircraft

looks especially sharp with the black, white, and aluminum undersurfaces.

The decals, including numerous stencils, went on cleanly over a coat of clear gloss with a little setting solution.

After final assembly, my Spitfire was ready for flight. An enjoyable build from start to finish, I recommend it to just about anyone, but a little experience with PE is an advantage. Kudos to Tamiya for continuing to engineer first-rate kits and I hope it continues the Spitfire line.

— Aaron Skinner



Kit: No. 61119 **Scale:** 1/48

Mfr.: Tamiya, tamiya.com **Price:** \$46

Comments: Injection-molded, 157 parts (25 PE, 6 metal stickers), masks, decals

Pros: Fine surface detail; many airframe parts join on panel lines; options for three versions and closed or open canopies; terrific engineering **Cons:** Optional fuselage sections need care to avoid a step at the seam



Kitty Hawk Yak-130

The Yak-130, Russia's newest advanced jet trainer and light strike aircraft, is known to NATO as the "Mitten."

For a relatively small aircraft, the kit comes in a very big box! This is because Kitty Hawk includes two pairs of standard Russian weapons sprues, as seen in previous releases such as the Su-35. The subject-specific parts count comes in at 228, 18 of which are in clear styrene, two really nice pilot figures in resin, and 24 photo-etched (PE) brass items.

However, the weapons set add another 432 parts in gray styrene!

Three well-printed decal sheets are included, plus another with cockpit-specific items and national roundels for the Bangladeshi marking option, and finally, a sheet with decals for the supplied weapons.

This kit is somewhat of a mixed bag in that there are some things that are done well, but there are other areas that make you scratch your head.

Overall, the spirit of the real aircraft is captured nicely! Kitty Hawk has rendered its interesting shape convincingly.

However, the engineering choices and parts breakdown, on top of the suggested assembly sequence, make this area difficult to build. If the modeler follows the

directions for the intakes, there will be problems. I chose to attach the intake lips to the lower fuselage and build backward from there. This resulted in a much easier assembly.

The cockpit is quite detailed and is accurate. However, the supplied instrument panel decals would be nearly impossible to apply and have them lay down correctly over the multilevel panel surfaces. I cut the individual screens from the decals and applied them separately.

The big letdown in the cockpit is the seats. The Yak-130 uses Zvezda K-36L seats, lightweight versions of the long-established K-36 series seat. The K-36L seat is also used in the Su-35, so it's not that unusual. The seats supplied by Kitty Hawk are best described as an approximate version of the K-36DM. Unfortunately, there are no aftermarket alternatives for the K-36L currently.

All of the control surfaces are separate parts and can be mounted in any position desired. Note that to mount the flaps in the raised position, leave out the eyelids (parts C73 and C74) and attach the flap directly to the wing underside. Kitty Hawk did a lovely job of replicating the tire sidewall detail.

Kitty Hawk only provides the option of mounting the counter-measures pods on the wingtips, with no information regarding the use of wingtip missile rails. Similarly, while the idea of supplying the vast array of weapons with this kit seems like a great one, the fact is most of the supplied weapons are not applicable to the Yak-130.

The other common ordnance loaded is the B-8M rocket pod. Unfortunately, these pods aren't included.

The color and markings options are certainly interesting — there's even an aircraft in overall yellow primer. I chose the overall dark green pre-production scheme. This aircraft also carried a prominent nose probe aerial, which is not provided by Kitty Hawk and will need to be scratchbuilt.

The surface detail on the Yak-130 is not as clean as Kitty Hawk's Su-34 and -35. There are areas where it seems as though the production was rushed, with no input from a modeler. For example, the HUD frame has locating tabs on the bottom of them, which are meant to insert into holes in the cowlings. But instead of holes, as shown in the instructions, the cowlings have rectangular protrusions which have to be removed.

The decal sheet provides the large wing-walk outlines in three appropriate colors. In the instructions, they are shown with the yellow set as being correctly handed, but the dark gray and white are both left versions. The decal sheet provides left versions for all three options. I had to cut up the decal and patch it together for the right-side wing-walk.

Ultimately the kit produces a good representation of the real Yak-130, but strange oversights and flaws hurt its quality. It looks great when completed, but the journey can be a challenge.

— Matthew Walker



Kit: No. KH80157 **Scale:** 1/48

Mfr.: Kitty Hawk **Price:** \$69.99

Comments: Injection-molded, 686 parts (24 PE, 2 resin), decals **Pros:** Shape replicated well; nice resin figures; sharply printed decals and multiple marking options **Cons:** Some fiddly, often poor fits especially underneath; incorrect seats; wing walkways and other decals incorrectly handed

Takom M1070 and M1000 transporter with D9R bulldozer

The Oshkosh M1070 coupled with the M1000 trailer is the U.S. Army's current tank transporter. Although designed to move the M1 Abrams, it is also used to transport, deploy, and evacuate armored personnel carriers, self-propelled guns, and other heavy equipment, including the D9R armored bulldozer.

Available for the first time in 1/72 scale, Takom's new kit includes the last combination. The manufacturer has held nothing back with first-rate molding and detail throughout. Each component feels like a kit in itself, but they combine into the whole nicely, and nothing feels like an afterthought.

The M1070 prime mover, which comprises 163 parts, starts the build. Working from the ground, er, suspension up to the cab, all of the parts fit perfectly, and the truck goes together quickly.

Key features of the truck are that each door and the windshield with its frame are separate parts, eliminating the need to attach small clear inserts. The larger parts were easy to mask, and the scale thickness of the doors and clarity of the clear parts make the details and finesse of the cab pop.

The trailer came next, and I was surprised at how much detail went into it. Of the three components, the M1000 has the highest parts count at 242, of which 126 are tires or wheel halves to build the 40 wheels and two spares.

Despite that, it went together quicker than the truck or dozer, and I encountered no problems. The ramps can be left movable. For being just a trailer, it packs a lot of detail with scale thin suspension components and small hydraulics.

Rounding out the build is the D9R bulldozer, and Takom knocks it out of the

park here, too. The earthmover comprises 120 parts with the main engine compartment and floor being a single part as is the bulk of the cab. Those elements and the quality of the moldings make for a quick build.

Most of each track is a single part molded with the elevated drive sprocket and front and rear idlers. Assembling and painting them off the model is easy.

The ripper builds as a subassembly. With minor surgery to the hydraulic arms, it could be posed at an angle off vertical.

The blade is the same: Its angle is fixed as molded, but it would require only minor modification to reposition. I replaced the thin, fragile plastic grab handles — many broke as I removed them from the sprues — with fine steel wire. (My 3-year-old knocking the model off my workbench added impetus to replace the grab handles!)

Fine details and petite recessed lines made painting and weathering a breeze; I used Tamiya acrylics and Ammo by Mig Jimenez weathering powders and washes.

The decals look great and went on nicely, but I had trouble deciphering the marking locations thanks to the small drawings and vague callouts.

Although the overall parts count is high, the logical sprue layouts and assembly progression make it easy to build each section individually.

I spent 37 hours building and painting the truck, trailer, and dozer, and a modeler with a little experience will do fine. Plus, at just 12 inches long, it is not a shelf hog!

— Chris Cortez

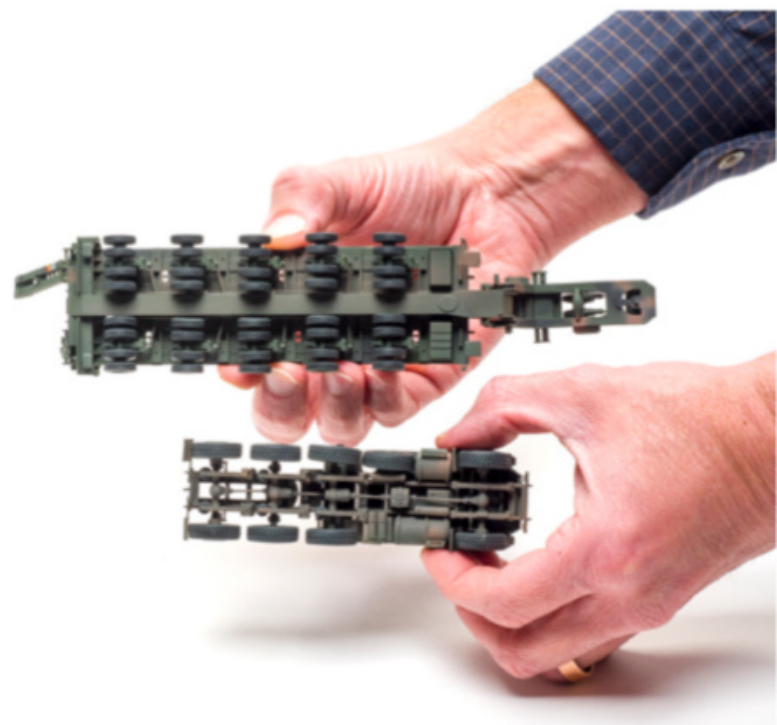


Kit: No. 5002 **Scale:** 1/72

Mfr.: Takom, takom-world.com

Price: \$84.95 **Comments:** Injection-molded, 525 parts (15 PE, 51 vinyl), decals **Pros:** Great fits; incredibly crisp moldings and fine details; feels like building three kits without any one section feeling tacked on

Cons: Vague decal callouts





Flyhawk *Bismarck*

Flyhawk Models has departed briefly from its 1/700 scale line of rare or unusual ship models to produce the iconic *Bismarck*, a well-known subject from many model manufacturers. It's a logical release though, as it follows the HMS *Prince of Wales*, reviewed in *FSM's* July 2018 issue, and it certainly is far more accurately detailed than any previous *Bismarck* kits.

This baseline kit consists of 610 gray parts on 47 sprues along with four large hull/deck sections, carefully packaged to prevent damage. All were seamless and well detailed. A single photo-etched (PE) part and metal bar along with a four-page instruction sheet, decals for flags, deck markings, and four different Arado 196 aircraft complete the kit.

The kit can be built full hull or as a waterline model. Flyhawk smartly molds the internal sprue tree into the normally flimsy upper hull, making it an integral part of the support structure.

Steps 1 and 3 also start construction of the main and secondary armament and offer the first option of many. Gun barrels are slide molded and have openings on the end and may be mounted with canvas shrouds, or without, with the barrel cradled,

allowing them to be elevated up to 30 degrees. Turret *Anton* was built with barrel bags while *Bruno*, *Caesar*, and *Dora* were cradled without. The lower hull appears to accurately depict the lower hull hydrophones, bilge keels, rudders, props and vent openings.

My sample deck included the first flaw I've ever seen in a Flyhawk kit. It appeared triangular debris was caught in the die, requiring some rescribing of the planks.

After placing the forward anchors' windless and breakwater as well as turret *Anton*, the real work started, creating the forward superstructure as well as the multi-part 20mm, 37mm, and 105mm anti-aircraft mounts. Step 4 has an option to create and mount the bridge wing arms, with solid parts painted canvas or a simple platform for aftermarket PE railings. P-2 and P-3 are curved parts that you will need to fit carefully to make sure the alignment is correct for when you get to Step 10 and mounting to the second deck.

Step 8, building the stack, is interesting as the searchlight covers can be mounted open or closed and gantry cranes mount snugly, allowing movement. Next you create the cranes; I held off mounting the booms until the forward superstructure was added to allow the cranes heads to cradle correctly.

In Step 12, the fit between the aft to forward structures is so tight the midship catapult return wheels required sanding. This also is a good time to add the single PE catapult coverplate instead of trying to fit it in at Step 17. Again, the flywheels prevent proper seating of the PE coverplate so some modification is required. Also note there are two mount holes for each cat. The second hole should be used if the cat is extended to launch an aircraft.

The balance of the structure is straightforward and adding afterdeck vents and details wrapped up the build. Checking the nearly empty sprues, I found the short vents O-93 and O-97 at the rear of turret *Caesar* were shown in finishing drawings



but never listed on the instructions, so added them to the deck.

The two Arado 196 aircraft are 10- to 12-part mini-kits and include the option of folded wings as well as marking options for the four aircraft assigned to the *Bismarck*.

My references were varied but included data from *Breyers Battleships/Cruisers 1905-1970*, pp. 299-304, while a valuable on-line resource is kbismarck.com.

A 600+ parts kit does take time, so it was a perfect build during a cold January. It offers a special challenge of keeping track of hundreds of parts less than 1mm in size. Static cling, the bane of all modelers, caused parts to migrate to the back of tools, fingers, etc. So, I offer a helpful hint: use the tacky backing of a Post-it note to gently hold those micro bits until you are ready to place them.

— Mark Karolus



Kit: No. FH1132 **Scale:** 1/700

Mfr.: Flyhawk, flyhawkmodel.com

Price: \$72.95 **Comments:** Injection-molded, 612 parts (1 vacuum-formed, 1 PE), decals **Pros:** Tight fit tolerances; well-molded and accurate deck and hull details; turret options; excellent instructions **Cons:** Very small parts hard to work with due to static cling



Takom Fries Kran 16t Strabokran

Mechanized armies face the unenviable problem of vehicle breakdown and routine maintenance. As tanks became larger and heavier in World War II, newer cranes capable of lifting larger loads became a priority.

To meet these needs, the German army turned to J. S. Fries of Frankfurt, a company that built gantry cranes used in ship and railroad yards before the war. Three portable cranes were developed for the armed forces with lifting capacities of 15, 16, and 20 tons. Known as Strabokran, short for Straßenbockkran (road gantry crane), these horizontal gantry cranes were supported by collapsible towers for transportation.

Takom's Strabokran comprises 427 light gray plastic parts, eight vinyl tires, a chain, and two different diameter strings. Good news for those who loath photo-etch (PE) — none is included.

Thankfully, the pages in the instruction manual are twice as big as some recent Takom kits, which makes reading the often-busy diagrams easy. Color references are for Ammo by Mig Jimenez paints.

The gantry crane consists of several frames, so all of the structure and machinery is visible from every angle. Fortunately, the parts are cleanly molded with minimal mold seams and ejector-pin marks.

Overall, the fits are good and I used no filler. Study the instructions for the best approach; you'll want to leave some parts separate for painting and rigging.

Construction starts with horizontal gantry. It's nearly 12-inches long and the separate parts seem flimsy. However, once the rails and support braces are in place, it becomes pretty solid.

In Step 2, leave Part E22 off until after Step 3. Otherwise, it's easy to position the part incorrectly so it interferes with the end plate (Part D11). Glue the plate (Part E26) to the gantry section D1 first. Then, glue the rest of the gear assembly in place.

I left off the roof of the gantry along with two of the cross supports (parts A34), so I could properly paint and rig this section. I also left the pulley cover in Step 4 separate to allow the chain to be rigged after the model was painted.

To rig the trolley, I glued it to the rails then super glued one end of the chain to the trolley. After feeding the chain through the pulleys, I trimmed it to fit the other end of the trolley. I repeated the process on the other side.

I found the large diameter string to rig the hook difficult to feed through the pulleys as it was prone to fraying. I gave up and replaced it with nylon string. Takom provides a hoist jig to lift a Panther turret. To use it, do not glue the locking pin (Part E31). Otherwise the hook won't match the jig, as happened with my model.

The towers can be built erected or stowed. The instructions call for two holes to be opened in the base side plates (parts B11 and B12) to fit covers for the winch gears (parts C21 and C22). However, most



Kit: No. 2109 **Scale:** 1/35

Mfr.: Takom, takom-world.com

Price: \$65.95 **Comments:** Injection-molded, 438 parts (8 vinyl, 2 string, 1 chain), decals **Pros:** Can be posed in travel or operational mode; optional parts for road or rail transport; no complex PE! **Cons:** Rigging diagram is vague about placement of lines and which diameter thread to use; no rails to pose rail-transport version

photos do not show them, so I left them off rather than drilling the holes. Omitting the plates also simplifies rigging the winches.

In steps 9 and 10, you must chose to pose the wheels either on the bogies or on jack stands. Or you can replace the tires with rail wheels. No rails are included to display this options. The vinyl tires have molded sidewall information and tread.

The instructions indicate the trailer hitch was on only when the crane was in travel mode, but photos show either still in place when the gantry is erected or removed and stowed on the side. If you choose to put the hitch on the front bogie with the towers erected, attach it before gluing the brackets (parts A9) in place.

The smaller diameter string rigs the towers, but it is too large for the molded holes. I enlarged them, attached the string and fed it through the pulleys, gluing as I went to maintain tension.

I painted the model in overall dunkel-gelb with Tamiya acrylics; painting the turret hoist oxide red added contrast. The decals include the prominent Fries signs seen in photos along with placards, numbers for the positions of the towers, and divisional insignias. The markings are thick and required multiple coats of Mr. Mark Fit to prevent silvering.

A plastic model of the Strabokran has been a long time coming, and Takom's kit was worth the wait. It's an easy build with only the rigging proving a challenge; much of the more than 35 hours I spent on the kit involved rigging, so I recommend the kit to modelers with some experience.

— Mike Scharf



Trumpeter Fairey Albacore

One of the pleasures of modeling is learning the history about the subjects we build. Before this, I knew that the Fairey Albacore was designed to replace the aging Swordfish torpedo bomber. However, Swordfish outlasted the Albacore and I assumed that meant the Albacore didn't measure up and was relegated to second-line duty. I was wrong. Fairey built 800 Albacores that served on the frontlines from the Arctic to the East Indies. Albacores participated in the invasions of North Africa, Normandy, and Madagascar.

Trumpeter's Albacore comprises six crystal clear canopy sections with well-defined framing, and 112 light gray plastic parts with fine recessed panel lines and rivets. I appreciated the thought that went into the locations of the sprue gates; not one is in a spot that risks damaging a part.

Unfortunately, the surface of the light gray parts has a sandpaper-like texture that required priming and sanding to smooth before painting.

Construction jumps from smaller components to the main airframe and back.

The pilot's area is adequately detailed including decal instruments. However, the aft crew positions look sparse. The sides should be full of electronics, but only one small radio and a compass are provided. Worse still, the rear gunner only has a seat — no gun, mount, or ammunition.

The fuselage halves sandwich the instrument panel, cockpit, and tail-wheel strut. I'm not a fan of mounting the strut this way as I always break it during painting.

I found construction of the main gear a



ring was bolted to the front of a complete cowl. Correcting the kit parts would require a lot of cutting, filing, and sanding. I left mine as is and may replace it with aftermarket resin later.

Vallejo putty blended the horizontal stabilizers and chin scoop into the airframe.

The instructions show a torpedo, six 250-pound bombs, and what I assume are rocket stubs all mounted at the same time. The real aircraft could only carry 2,000 pounds of ordnance, so I mounted the torpedo and bomb racks but not the bombs or stubs. The shape of the racks is questionable and you may wish to replace them with aftermarket items.

I painted the Albacore's subassemblies with Vallejo Model Air acrylics. The kit instructions do not show a bottom view, but research indicated that this plane did not have insignia on the lower wings.

The thick decals conformed after four doses of Microscale Micro Sol, but some of the markings were slightly out of register.

I rigged it with airfoil cross-section struts from my spares bin and wires from a drummer's jazz brushes.

Trumpeter's kits often confuse me and this one was no exception. Petite panel lines, fine details, well thought out attachment points, and terrific fit show excellent engineering. But, it's offset by the rough surface texture and lack of detail in the rear cockpit. However, I thoroughly enjoyed building this kit. Aftermarket sets surely would turn this good kit into a great model.

— Andy Keyes

bit unusual. But, the fit was outstanding, until I mated the subassembly to the fuselage. The fit was so tight, it produced a small step at the rear seam. Several coats of Mr. Surfacer smoothed the join. The fit of the lower wings and struts is nearly perfect.

However, the canopy needed adjustment. I clamped the aft section while the glue dried, but it popped during painting.

When I test-fitted the ailerons to the upper wings, the joint was so tight they would not come off; no glue required.

The upper wing is split left and right, leaving a seam to fill and sand in a spot surrounded by canopy glass. After setting up a fan to dispel fumes, I used a drop of super glue followed by accelerator to join the left and right wings without gluing them to the fuselage. Then, I removed the entire wing, reinforced the joint, and eliminated the seam. Now I could add the top wing after painting.

Both of the engine's cylinder banks are split into front and rear halves, but the seams are hidden by the cowl. Take note when joining the cylinder banks as the hex-shaped connecting pin allows several different alignments. The correct position should have the rear cylinders evenly spaced between the front ones.

The cowl is not split vertically as usual, but in a manner that made molding the exhaust easier. The shape of the cowl is wrong. The exhaust collector ring was mounted at the front of the engine and formed an integral lip for the cowl. Instead, Trumpeter's molding makes it look like the



Kit: No. 02880 **Scale:** 1/48

Mfr.: Trumpeter, trumpeter-china.com

Price: \$63 **Comments:** Injection-molded, 118 parts, decals **Pros:** Good fits and simple construction made most of the build fun **Cons:** Plastic parts have a rough texture requiring primer to eliminate; trapping tail strut during construction risks breakage

Dora Wings Bellanca CH/J-300

Dora Wings' Bellanca CH/J-300 has nicely rendered panel lines and detail, with beautiful representation of the flying surfaces — the wings with their pronounced under-camber are particularly well-done. A photo-etched (PE) fret of small details and a set of masks are included; and flashed-over cabin windows point to another forthcoming Bellanca 300 release.

Optional landing gear configurations are supplied for each of the three different variants in the kit, including extremely nice resin ones for the J-300 flown from New York City to Istanbul in 1931, the version I built. A couple misnumbered parts and decals are shown on the instructions, but it's easy to figure out the right ones.

The forward cowling is a five-part assembly with nice louver detail, and the engine itself comprises 11 parts, nine being individual exhaust stubs to connect each cylinder head to the central collector. Patience with one tiny stack at a time produced a good representation of the Wright J-6 engine.

The fuselage mounting holes for the wing pins must be opened before joining the fuselage halves. All parts fit well, though drilling locating pin sockets deeper helped them mate snugly. The separate control surfaces required some refining to fit their hinge points, and they could be offset for appearance's sake if the PE control horns and wires were altered.

I assembled and painted the fuselage, wings, struts, and tail surfaces separately and joined them later, which made masking and painting a ton easier.

The locating pins for attaching the wings to the fuselage were fairly small, so I

added a couple brass wire pins to reinforce those joints. The horizontal stabilizer mounts atop a plinth on the aft fuselage, and the fin sits clear of it. So, you really can see daylight all around it on the real airplane. It looks odd, but it's correct. I had to trim down the upper halves of the wheels so they'd fit into the resin fairings.

The instructions include color callouts referencing Mr. Hobby paints for the exterior paint schemes. I painted my model using GSI Creos and Tamiya acrylics, with different shades of Testors Metalizer for the engine, exhaust, prop, and wheel hubs. The Decograph decals were flawless.

I saved the PE parts for last, and while the jury struts worked well, the control horns with their cables was a different story. The cables are so gossamer-thin that cleaning up their fret attachment points bent and broke them easily... and boy, did I. I really botched this part of the build, and in the end used what horns I could salvage from the unbent ones, making the remain-

der from scrap plastic, and used ceramic wire for the cables.

This exercise in mental-and-metal frustration took almost half my 30 hours of building time. The basic kit is a nice, easy enjoyable build, but superdetailing it with the included PE is better suited for a modeler who's used to miniscule parts — and a maestro with tweezers.

— Walt Fink



Kit: No. DW 72001 **Scale:** 1/72

Mfr.: Dora Wings, dorawings.com

Price: \$29.99 **Comments:** Multi-media, 106 parts (72 injection-molded, 2 resin, 23 PE), masks, decals **Pros:** Great decals and nice moldings; petite detail; easy assembly **Cons:** Minor part number and decal errors; tiny, fragile PE parts difficult to work with



Eduard ProfiPack MiG-21MF

Eduard's Mig-21MF comes with a lot of features, 13 clear parts (some not used), a colored photo-etch (PE) fret, detailed cockpit, wheel wells, and afterburner. Also included are optional armament, positional canopy, control surfaces, markings for five aircraft, and a stencil sheet.

Building the cockpit, the modeler has the option of using the plastic parts or painted PE detail parts. For those who prefer to work in plastic, the panels have relief. I chose to use the PE. After painting was done, the PE was glued with Microscale Micro Metal Foil Adhesive. The longer drying time gave me the chance to modify the placement. These parts are thin and require care.

My kit was missing the afterburner duct (Part D47). I built the rest of exhaust and glued it into the fuselage. With the engine's rear fan (Part D50) and afterburner injectors (Part D41) in place you can't see the missing section.

I painted the wheel wells prior to assembling the wings. Then I painted the wing and tail pieces and set aside. All of the gear doors have shallow attachments with the fuselage resulting in shaky joints. The main gear has PE linkages, but it's unclear in the assembly diagram where exactly they went.

I assembled and painted the five-piece ejection seat, then added the PE seat belts and decal placards. Final assembly went quickly, thanks to minimal seam cleanup

and Eduard's clever part breakdown. For example, the fuselage spine is a single, separate piece that includes the tailfin.

Supplied ordnance includes R3-S, R-13, and RS-2US air-to-air missiles, and UB-16 air-to-ground rocket pods; 490- and 800-liter fuel tanks are also provided. In the kit but not used are R-60 "Aphid" missiles, S-24 rockets, and UB-32 rocket pods. I armed my MiG-21 with R-3S "Atoll" missiles and fitted it with a 490-liter tank on the centerline.

The kit provides markings for five aircraft; I chose to build mine as a North Vietnamese air force fighter. Precut masks for the canopy and fuselage worked well. Over a base coat of Vallejo aluminum, I masked some panels with Post-it notes for Testors Metalizer stainless steel. Tamiya RLM 2 gray and green colored nose and tail panels. The decals laid down

well without solvent. However, the stencils are small and tedious to apply.

It spent 23 hours building this gem. With all the detail, aftermarket options are unnecessary. Because of the fiddly construction, I recommend this kit to experienced modelers.

— Tom Foti



Kit: No. 70142 **Scale:** 1/72

Mfr.: Eduard, eduard.com **Price:** \$39.95

Comments: Injection-molded, 246 parts (48 PE), masks, decals **Pros:** Terrific detail make aftermarket parts virtually unnecessary; good fits minimized seam cleanup; nice decals **Cons:** Some parts loose in the bag and my kit was missing the afterburner duct; shallow attachment points for delicate parts; numerous tiny parts and stencil decals



Trumpeter Tupolev Tu-128M “Fiddler”

The Tupolev Tu-128 (NATO reporting name “Fiddler”) was designed as a long-range interceptor to fend off nuclear-capable U.S. bombers such as the B-52. It first entered service in the mid-60s and most of the 198 built were upgraded to the M designation in 1979. It is the largest “fighter” ever produced and remained in service until 1990. Until now, the only 1/72 scale Fiddler was the short-run kit from Amodel.

Neatly packed in a sturdy box, Trumpeter’s kit comprises 120 light gray plastic parts with fine recessed panel lines, a small photo-etched (PE) fret, and decals for two aircraft. The 12-page instruction booklet breaks the assembly sequence into 10 steps with clear exploded-view drawings. There’s not a lot of detailed painting instructions however, so do your best to find some references. I didn’t have a lot of luck in that regard, so I took my best guess at some colors.

Construction starts with the front wheel bay and cockpit. The cockpit tub has molded detail for the side consoles and separate dividing wall. Decals detail the instrument panels; a good soaking with Microscale Micro Set helped them conform to the molded details. The seats are three-piece units with decent detail, but they seem a bit too large.

The nose-gear bay builds from separate ceiling, end pieces, and side walls that trap the gear leg and retracting strut during assembly. It’s a fairly stout assembly but that still means it’s going to be hanging out during the rest of the build.

There’s a discrepancy between the assembly instructions and the marking guide as to the color of the wheel wells and gear legs. The instructions say light blue, but the marking guide says intermediate blue — I chose the latter. The completed wheel bay and cockpit get sandwiched by the forward fuselage. Fit of the halves was excellent, with only a little filler needed to eliminate the seam in a couple of spots.

The rest of the fuselage comprises left and right halves, and an upper panel at the rear. I had a little trouble getting the pieces flush with each other. As a result, much of the time on the build was spent filling and sanding, then re-scribing lost surface

details. The upper rear panel appears to join along existing panel lines, but still needed work for a satisfactory result.

Part of the main gear legs are trapped between the halves of the inner gear wells leaving them exposed like the nose gear. Unfortunately, they are not as sturdy as the nose gear and I broke one during painting.

The wings required only minor seam work at the rear of the gear pods. I trimmed the locator tabs on the separate control surfaces to better fit the corresponding slots.

Fit between the wing and fuselage was perfect topside but it took minor finagling get the fit underneath as close as possible. The vertical stabilizer and tail planes fit perfectly.

Diverging from the instructions, I attached the landing gear doors before installing the main parts of the gear legs. Otherwise the wheels get in the way. I left the PE antennas off for painting.

After checking and rechecking seams, I base-coated the airframe with gloss gray enamel. I let this dry for two days then polished the paint. Then, I built up layers

of Alclad II polished aluminum until the Fiddler was bright and shiny. I masked and painted the nose cone and anti-glare panel.

The decals performed well but the stencils were nothing more than a block of dots.

I spent about 35 hours building Trumpeter’s Tu-128, much of it filling and re-scribing the main fuselage and prepping it for the natural-metal finish. This is one big airplane! It scales out pretty close to specifications found on the internet, measuring just a little long and wide.

Nothing in the build was anything that someone with a kit or two under their belt shouldn’t be able to handle. It certainly makes for one impressive model!

— Mike Klessig



Kit: No. 01687 **Scale:** 1/72

Mfr.: Trumpeter, trumpeter-china.com

Price: \$69.95 **Comments:** Injection-molded, 120 parts (12 PE), decals

Pros: Good detail and fits **Cons:** Landing gear must be installed very early in assembly leaving them susceptible to breakage; minimal detail painting instruction

Academy Panther Ausf G

The ultimate version of the Panzer-kampfwagen V, the Panther Ausf G was also the most produced — more than 3,000 were built between March 1944 and April 1945. Its heavy armor made it a challenging opponent for Allied soldiers and tanks on both the Eastern and Western fronts in the last year of the war.

The recent explosion of 1/35 scale Panthers rolls on with Academy entering the arena with a late Ausf G. It marks only the second Panther G in the current wave.

The parts are up to Academy's typically sharp and crisp moldings. Features include: link-and-length tracks; two styles of mantlet; and anti-aircraft gun for the turret; and a small fret of photo-etched (PE) parts. No figures are provided.

The lower hull comprises flat parts with internal bulkheads to keep the assembly square. The suspension arms fit the hull sides solidly. A full set of rubber-rimmed bogie wheels is provided along with a few steel-rimmed bogies sometimes found on the last suspension station on Panthers. I used the optional steel rimmed wheels following the color guide for the vehicle I chose to build.

Academy molded some of the small parts onto the main hull and has done a nice job. If you aren't fond of dealing with numerous small parts you will like this approach.

No clear parts are provided for the periscopes; these parts are molded in the kit's yellow plastic.

All crew access hatches are separate, but

interior detail is limited to a simple representation of the gun breech and some hatch detail.

The PE engine screens add a nice touch of realism to the rear deck.

Side skirts molded as single parts are provided; the racks to support them are

finely molded, multi-part affairs that look sharp.

The detail on the front of the tracks is good, but the backside of each link is marred by three ejector-pin marks and the guide horns are solid when they should be hollow.

The kit is listed as a late production Panther; based on my references, some turret-top brackets typical of late Ausf Gs are not provided. The turret sides include fine locators for optional rings used to attach wire or foliage for camouflage. You will want to sand off these marks if you build one of tanks lacking those rings.

The spare track racks on the hull sides have no attachment hooks and spare track parts attach directly to the rack. If you plan to leave off some or all of the spare links, you will need to make hooks for the rack.





Several unused parts, including different exhausts and a rear infrared night sight point to future versions of the Panther coming from Academy.

I painted my model with a combination of Ammo by Mig Jimenez and Tamiya acrylics.

Decals provide numbers for two of the six illustrated marking options shown in color profiles created by DEF.Models. The decals settled nicely with the addition of a little setting solution.

The finished model looks good based on

my references: *Panzer Tracts No.5-3: Panzerkampfwagen "Panther" Ausführung G* (ISBN 978-0-9744862-7-7) and *Achtung Panzer No.4: Panther, Jagdpanther & Brummbär* by Hiromu Araki (no ISBN).

I finished Academy's Panther in 33 hours. The perfect compromise of detail and buildability, it is a good, basic kit that the average modeler can handle and advanced builders can use as the basis for a superdetailing project.

Two thumbs up!

—Jim Zeske



Kit: No. 13523 **Scale:** 1/35

Mfr.: Academy, academy.co.kr

Price: \$52 **Comments:** Injection-molded, 551 parts (28 PE, 8 vinyl), decals

Pros: Plenty of detail that does not over complicate assembly; beautiful moldings and good PE; optional parts

Cons: No clear parts for periscopes; no separate hooks for spare tracks; ejector-pin marks on individual track links

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COMING EVENTS

FL, VENICE: Wings, Wheels & Keels Model Club will be hosting their 25th annual contest and raffle, Saturday, March 30, 2019 from 9:00am-4:00pm. Sarasota County Woodmere Park and Recreation Center, 3951 Woodmere Park Blvd., Venice, FL. (Exit 193 off I-75) Contact: Randy for general information 941-456-5062, Contact: John for vendor information 941-807-0003, or email: boston4550@yahoo.com

PA, GETTYSBURG: PENNCON 2019 Model Show and contest. Eisenhower Complex, 2634 Emmitsburg Rd., Gettysburg, PA 17325. September 21, 2019, 9:00am-5:00pm. Show Theme: The Cold War, 1947-1991. "Make & Take" for kids 15 and under. For more info go to: <http://www.cenpennipms.com/> or contact Chet Mohn, 717-774-4803, Email: Magus47@aol.com

COMING EVENTS (CONT.)

SD, RAPID CITY: Black Hills Scale Modelers Spring Show. Saturday, May 11, 2019, 9:00am-3:00pm. South Dakota Air and Space Museum. Box Elder, SD. Exit 67B, north of I-90. Free admission, Door prizes, and Vendor tables. \$1.00 entry fee per model up to 10 models, then free. For more information contact: Tyler Shepard at Shepardtyler@gmail.com

VA, FAIRFAX: Northern Virginia Modelers Model Classic 2019. Saturday April 20, 2019, 9:00am-4:00pm, at Fairfax High School, 3501 Rebel Run, Fairfax, VA. Show features Vendors, Contest with over 70 categories, Raffle and Programs. Contact: Tom Henderson e-mail tomhenderson51@verizon.net. Web page: www.novaiipms.org

CANADA-ON, BRAMPTON: Torcan 2019 Model Contest. Century Gardens Recreation Centre, 340 Vodden St. E. Saturday, May 25, 2019, 9:30am-5:00pm. General Admission: Adults \$10.00, Junior (16 and under) \$5.00. Model Registration: Adults \$2.00 per model. Junior (16 and under) \$1.00 per model. Hosted by Peel Scale Modelers. Visit www.TorcanModelShow.com or info@peelscalemodelers.com

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Edited by
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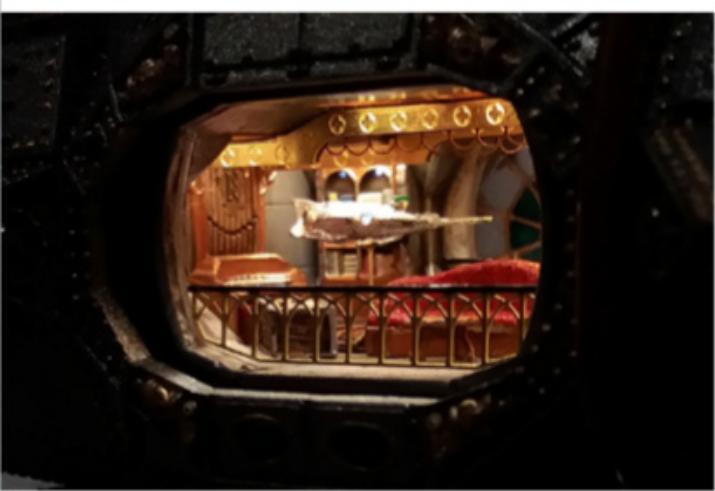
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By Elizabeth Nash

Fully operational *Nautilus*

If you have to travel
20,000 leagues under,
why not do it in style?



It would be an understatement to say that Michael Coggburn's *Nautilus* comes "complete with base." For the base is a leather-lined, gold-enhanced, nickel-plated beauty that pictures don't quite do justice.

Authentic, turn-of-the-century brass knife switches, which beg to be flipped, detail the stainless-steel panels. And, yes, there is a switch for everything. One brings up the RGBW LEDs, glowing green along the base. Another fires up the red boilers built into the sides. Flip another and the *Nautilus* begins to flicker; first the salon lights up, then the .02-inch fiber-optic-lined bookcases, and finally the exterior search and navigation lights.

For those of you looking closely, you'll notice one more glimmering object — the tiny glow of a 1/3072 scale *Nautilus* inside Pegasus Hobbies' 1/144 scale *Nautilus*. Oh

yes, Michael went there.

Altogether, this model, "complete with base," weighs in at 30 pounds. The only styrene you'll find in this *Twenty Thousand Leagues Under the Sea* display is in the ship. Every other piece is metal. There's even a working telescope and steam-powered motor on the base.

Back on the model, the center glass window and wheelhouse are removable, offering better views of the illuminated, plush interior. Captain Nemo would have no trouble relaxing in such a ship. That is, if only it wasn't currently being attacked by a giant squid with a white diamond eye ... Still, with all the technology inside and surrounding this model, "complete with base," I think it has a fighting chance.

See what the other switches do in a video tour Michael made — go online to the Extras section at FineScale.com.