

1/35 Military Miniature Series Item 35374

In service throughout WWII, the Pz. Kpfw.IV was a durable servant to the German Army; its Ausf.F was the last variant to utilize a short-barreled gun: the L/24 7.5cm KwK37. Now, it is ready to enter the front line in your model collection too, as it joins the famed Tamiya 1/35 Military Miniature Series. This model showcases the sturdy form with angular hull lines, and realistic depiction of weld lines and tracks. Main gun breech and cartridge cases are succinctly yet accurately depicted. Also, three figures in realistic pose will add further realism to your model, and two marking options are included to recreate Eastern Front Vehicles. The

German Tank Panzerkampfwagen IV Ausf. F

- The sturdy form with angular hull lines and shortbarreled gun is captured in style.

- Ausf.F features such as weld lines on the armor, and wider tracks are faithfully depicted.



L/24 7.5cm KwK37 features elliptic cover. Antenna guard also can be assembled.









Assembly type tracks have realistic center guide sections, and one-piece straight sections. A jig helps recreate upper run 'sag'.



Choose between two types of engine deck hatch, with or without louver for the tropics.

1/35 Military Miniature Series Panzerkampfwagen IV Models



German Panzerkampfwagen IV Ausf.D



German Panzerkampfwagen IV Ausf.J



German Panzerkampfwagen IV Ausf.H (Early Version)























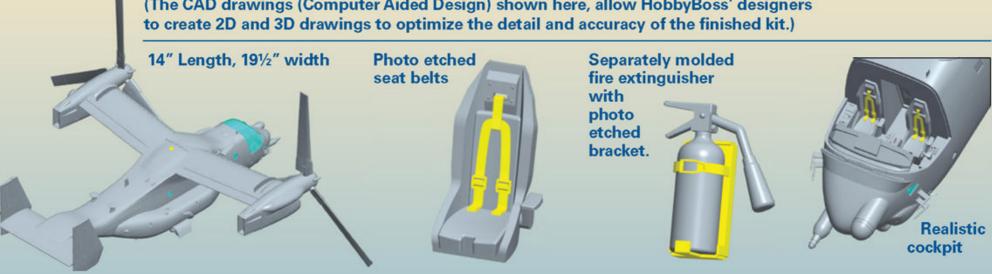


Unlike any other aircraft, the Osprey was the first production tiltrotor. It can take off, hover and land like a helicopter. Once airborne, it can deliver the functionality of a long range, high speed turboprop. MV-22 Osprey, capable of VTOL (Vertical Takeoff & Landing) and STOL (Short Take Off & Landing).

Like its namesake, HobbyBoss' 1/48 Osprey (#81769) is unlike other Osprey kits.... its accuracy is remarkable.

- Marine version
- 234 parts, including 11 photoetched
- The engines, housed in movable
 Ramp can be displayed open nacelles, allow you to build in takeoff or flight mode
- Propellers rotate. Build with props folded for storage or open for flight
- or closed.
- Fuselage with carefully recessed panel lines and accurate rivets
- Well defined flight deck and instrument panel

(The CAD drawings (Computer Aided Design) shown here, allow HobbyBoss' designers





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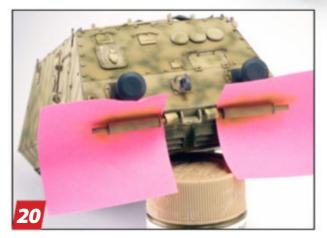
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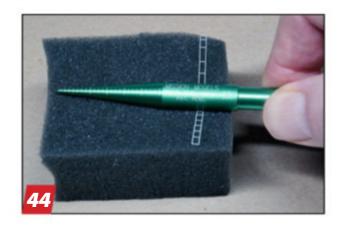
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Rod Bay for 1/350 Scale Discovery Moebius Models



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(925) 583-5126 www.arapress.com By Aaron Skinner

Building kits and stashes

aybe I'm fickle when it comes to modeling. Or perhaps I'm easily influenced by the work of others. Every build we get into the magazine makes me want to build that subject or try that technique. Because of that inspiration, I've acquired a lot of kits and detail sets.

Take the issue you are holding right now as an example. As a Star Wars fan since 1977, I love Kyle Williams' Y-wing, especially the imagination demonstrated in the battle damage and scratchbuilt base. Fortunately, I already have Bandai's 1/72 scale kit of the Rebel starfighter. The same can't be said for Nick Amburgey's fabulous rat rod. These radical custom cars are not a subject that typically would have made my to-do list, but now I'm thinking about it. The trouble is I don't have a good candidate kit in my stash — unless you think it would work on a 2002 Ford Focus ... hmm.

The number of unbuilt kits you have is a topic that comes up all too frequently when modelers get together. I'm sure we've all been there when someone asks, "How big is your stash?" It's usually followed by

furtive glances and an almost whispered response that implies a little shame — or maybe that's just me.

I have a two-step program to get a handle on my problem. First, I am taking an inventory, something made easy thanks to Scalemates.com. Second, I am rationalizing the collection to focus on three areas: Australian military aircraft and vehicles, pretty much anything sci-fi, and airliners. There are a few outliers, because I am a fan of Harriers in all forms, and the Leopard tank family is cool. But then so are Spitfires. And there are a lot of neat markings for F-16s ... and F-15s ...

I'm sure I'm not alone in swearing, "I won't buy another kit." But how am I supposed to resist when Airfix announces 1/48 scale de Havilland Chipmunks and Vampires, ICM shows a 1/48 scale Beaufort, Eastern Express answers my longtime wish for a 1/144 scale Boeing 747SP, and Revell is kitting the *Razor Crest* from *The Mandalorian*? I might as well wave the white flag and hand over my credit card right now. I'm sure I have room for more models somewhere.

A am Seinne editor@FineScale.com



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Your voice in FSM

Stretcher? Spacer? Try Javelin

The "spacers" on Chuck Davis' Stearman PT-17 (November 2020 Workbench Reviews) are properly called javelins. They do keep flying and landing wires separated, but they serve more to break up the harmonic vibration that would occur in flight if the rigging lines were long uninterrupted runs. The wires are under tension, but that is a pretty long stretch from the N strut to the fuselage on a PT-17.

Biplanes like the Stearman usually use a simple wood dowel for the javelin, and it is tied to the wires with leather or waxed cord. My Christen Eagle aerobatic biplane uses fancy, machined, telescoping metal javelins.

I have only seen the javelins on airplanes with rolled stainless steel streamlined wires. The wires themselves have left-hand threads on one end and right-hand on the other, so they can be tensioned by twisting them.

Ashley MessengerCenterburg, Ohio

Ed: Thanks to Ashley as well as Mike Schulz, Matt Farina, Bill Southwell, and Tom Ramsey for setting us straight.

Paint and cars and reviews

I found the article about lacquers in the January 2021 issue very informative — thank you for that. I was not familiar with some of the brands mentioned there, nor with the fact that in this day and age of environmentally-friendly water-based hobby paints, so many "stinky" paints are still being manufactured. I prefer those paints to water-based paints for almost all of my hobby applications.

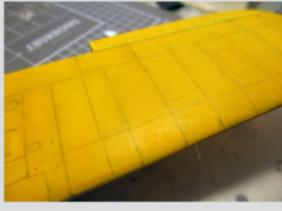
However, I was surprised that Tru-Color (trucolorpaint.com) was not mentioned. I have been using them for years and really like them. While Tru-Color started as mostly model railroad colors, it has greatly expanded its range for automotive and military subjects. Those are definitely organic-solvent-based lacquer paints which go on in very thin layers, and dry fast to a decalready finish.

I also welcome seeing more articles about automotive subjects in FSM. I've been a subscriber for more than three decades, and I've asked several times to no avail for more automotive model coverage. I guess with the recent, surprising demise of Scale Auto magazine, it is only natural to see more automotive subjects in what is now Kalmbach's only magazine covering scale plastic modeling.



Brushes and spray cans, oh my!

I really appreciated the excellent articles by John Bonanni and Dave Lennox on painting models using spray cans and paintbrushes, and proper brush care (January 2021). Unfortunately, space denies me the use of airbrushes, so I have adapted my modeling around spray cans and an army of brushes. I learned some very useful shading techniques and will now extend the life of my brushes signifi-



cantly. Big shoutout to these two modelers for sharing their informative tips.

While I'm writing, I thought I might share a tip relevant to achieving airbrush techniques without them. While painting my latest plane, an Italeri 1/48 scale Arado Ar 196A-3, I discovered that on a matte finish if you run over panel lines with a 2B pencil leaving graphite over the line edges and scrub the lines several times with an eraser, you can smudge the graphite to achieve a subtle pre-shade effect. You can see the result in the close-ups of the wing. My profound thanks to all the staff at FineScale Modeler working tirelessly to help us improve our modeling.

- Alex Sweatman

Newcastle, New South Wales, Australia

Ed: Glad FSM could help. I've seen some builders do a technique similar to yours with pastels, but never a pencil. Nice idea!

Speaking of the automotive-themed articles, I found what I would call a continuity problem in the Cuda article in January. Photo 6 shows chromed rockerarm covers, colloquially called valve covers, yet those are never actually used on the model in the story.

While I was pleased that the January 2021 issue seemed thicker than usual, I wish you would put more product reviews

in print, rather than online. The reason I still buy the paper magazine is because I like reading it on paper, rather than on a computer screen. We spend too much of our daily lives staring at computer screens. It is good to sit with a paper magazine or a book and get away from the glare of the screen.

– Peter Wisniewski Tewksbury, Mass.

Q&A

Scale cameras?

I've been a subscriber for a while and always enjoy the articles and information in each issue. I was wondering if any manufacturer out there might consider doing a 1/35 scale kit of camera and recording gear. Maybe a war correspondent set or gear only. I think this could really add to diorama builders' range of subject matter. Thanks, and keep it going.

- Neil Murray Pittsburgh, Pa.

There are a few cameras on tripods around and MiniArt includes small

cameras in each of its 1/35 scale World War II infantry weapons and equipment sets. Amongst Reed Oak's (reedoak. com) range of 1/35 scale 3D-printed figures are modern photographers with various styles of equipment, one of which is shown at right. — A.S.



Ed: Glad you liked the lacquer roundup, Peter. I tell fellow modelers that if I had to pick one type of paint to use on models, it would be these modern lacquer formulas. Sure, they're smelly, but you can't beat the finish.

I'm glad you like the reviews in the magazine, but by publishing them online, we give you timely access to detailed info about new kits. Plus, it frees up space in the magazine for more how-to content.

Bradley clarifications



I was just reading the article "The Victor and the Vanquished" by Chuck Davis and Aaron Skinner in February 2021.

Since I am a retired Army veteran who worked on the TOW missile system, I pay very close attention to articles about the Bradley. Chuck Davis did a very good job on the M2A2 Bradley, but there are a couple of discrepancies. In Photo 2, Chuck said he found a M240 from LiveResin. He used an M240B and the correct weapon should be an M240C. LiveResin does carry one (No. LRE35177).

The other discrepancy is in Photo 5: That space is supposed to be there. On the real vehicle, that "big hole" is where the M240C is mounted and expended shells are ejected. Other than that, again, he did a very good job.

– Sgt. Epifanio "Pete" Becerra Jr. San Antonio, Texas Ed: Thanks, Pete! Your letter is a good reminder about the dangers of assuming.

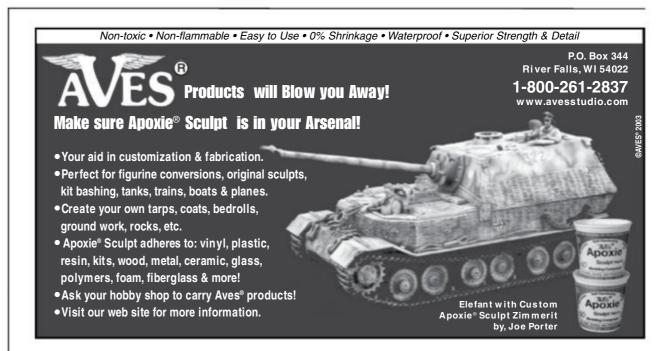
No wires in a diesel

In the January 2021 story about building, painting, and weathering a Lancia 3Ro truck, the author notes added engine details, including ignition wires. However, research showed these trucks were diesel-powered. Diesels do not use spark plugs or ignition wires. The cylinders fire using compression and heat. Just a heads up!

— Jeff Baldwin

Middlesex, Vt.

Ed: Good catch, Jeff. Regardless of the engine type, we clearly weren't running on all cylinders that day (and I used to drive a diesel!).





NEW PRODUCTS

Compiled by Monica Freitag & Aaron Skinner

AIRCRAFT

1/72 SCALE



Focke Wulf Fw 189B-0/B-1 Luftwaffe **Trainer** from Special Hobby, No. SH72430, \$24.30.



EoN Eton TX.I/SG-38 over Western Europe from Special Hobby, No. SH72442, \$9.80.



A-20A/B/DB-7C Havoc/Boston Early Gunships from Special Hobby, No. SH72423, \$32.40.



PZL P.24G in Turkish Service from IBG Models, No. 72525, \$13.50.

ARMOR

1/35 SCALE



King Tiger from Airfix, No. A1369, \$54.99.



M3 Grant from Airfix, No. A1370, \$37.99.



M12 GMC from Airfix, No. A1372, \$49.99.



PzBeobWg IV Ausf J Late/Last Prod. 2 in 1 with crew from MiniArt, No. 35344, \$TBA.

More at www.FineScale.com

Check out Aaron Skinner's reviews of the latest kits in New Products Rundown on the FSM website.



PzKpfw IV Ausf H Vomag Early Prod. June **1943** from MiniArt, No. 35302, \$TBA.

PzKpfw IV Ausf J Nibelungenwerk Late Prod. (Jan - Feb 1945) Interior kit from MiniArt, No. 35342, \$TBA.

1/72 SCALE



Bedford QL refueller from IBG Models, No. 72082, \$13.50.



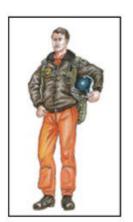
T-55A MBT from Italeri, No. 7081, \$27.99.

FIGURES

1/48 SCALE



Bf 109G German pilot, seated (for Eduard) from Special Hobby, No. F48368, \$12.70.



Pilot F-106 Delta Dart from Plus Model, No. AL4095, \$12.58.

1/24 SCALE



McLaren 7205, resin, photo-etched metal from Alpha Model, \$150.



Aston Martin DBS, resin, photo-etched metal from Alpha Model, No. AM02-1105, \$150. Aston Martin DB11, resin, photo-etched metal from Alpha Model, No. AM02-1116, \$150.

SHIPS

1/700 SCALE



HMS *Ilex* 1942 British *I-*class destroyer from IBG Models, No. 70011, \$19.38.

AUTOS 1/12 SCALE



Alfa Romeo 8C/2300 110th Anniversary **Special Edition** from Italeri, No. 4708, \$274.99.

1/25 SCALE



1936 Wild One Modified from MPC, No. MPC929M, \$27.99.

1/16 SCALE



1955 Chevy Bel Air convertible from AMT, No. AMT1134, \$41.99.

AIRCRAFT DETAILS

1/32 SCALE

Tempest Mk.V fuselage fuel and oil tanks from Special Hobby, No. 5132, \$27.90.

1/48 SCALE

F-104C wheels from Special Hobby, No. Q48383, \$9.10.

Beaufighter — hedgehog flame damper exhausts/British type from Special Hobby, No. Q48386, \$9.10.

DAP Beaufighter Mk.21 conversion set from Special Hobby, No. 4406, \$19.50.

1/72 SCALE

Hurricane Wing Armament (8 guns) from Special Hobby, No. 7451, \$13.30. SdAn 115 wheels from Special Hobby,

No. B72104, \$11.70.

F-14A Tomcat cockpit from Special Hobby, No. 7452, \$16.60.

C-118 Liftmaster propeller from Plus Model, No. AL7032, \$15.13.

AIRCRAFT DECALS

1/32 SCALE

RAF Panavia Tornado Martin-Baker ejection seat set (cushions, belts, straps and handles) from Kits-World, 3d-printed. No. KW3D132020, \$XX. Also available in 1/48 No. KW3D148004, \$11.30.

F-4 Phantom USAF/USN Martin-Baker ejection seat set (cushions, belts, straps and handles) from Kits-World, 3D-printed. No. KW3D132018, \$11.30. Also available in 1/48 No. KW3D148006, \$11.30.



By Aaron Skinner

Re-marking a Lend-Lease Airacobra

Painted out British insignia make a unique fighter

he most numerous foreign fighter in Soviet service during World War II was the P-39. Among the initial group supplied were more than 200 Airacobra Mk.Is originally destined for the Royal Air Force. Bill Von Staden of Germantown, Tennessee, modified a Hasegawa P-39 to reproduce one of these with RAF markings painted out using medium blue wood primer before the Soviet insignia was added.

For the camouflage and patches, Bill mixed Tamiya acrylics with 50-60% Tamiya lacquer thinner, then added a drop of Mr. Hobby Mr. Retarder to the airbrush cup. Powering his airbrushes with a cylinder of pressurized nitrogen, he sprayed covering coats at about 18 psi.

On the Airacobra, he started with a base coat of medium sea gray (XF-83) applied using an Iwata Eclipse HP-CS fitted with a .5mm nozzle. "At this point, I am not trying to spray specific areas of the model, so it's just faster and easier to get an even coat," Bill says.

After masking with Tamiya tape, he sprayed the upper surfaces ocean gray (XF-82), again using the Iwata Eclipse.

Next, he outlined the green and blue areas with 3 parts Tamiya paint and 7 parts lacquer thinner sprayed through an Olympos SP-B airbrush with a .18mm nozzle at 10-12 psi.

"When doing this, I'm always mixing the paint in a separate vessel, usually a shallow plastic cup cut out of an artist plastic [palette] with a pair of scissors, and adding minimal retarder," he says. "The amount of paint required for this part of the process is about two or three drops of each color paint."

He filled the green and blue areas using an Iwata Eclipse HP-SBS with a .35mm nozzle and the paint-thinner ratios and pressures he used for general coverage.

With the camouflage complete, Bill

masked circles on the wings and airbrushed the blue focusing on the center and only lightly spraying the edges.

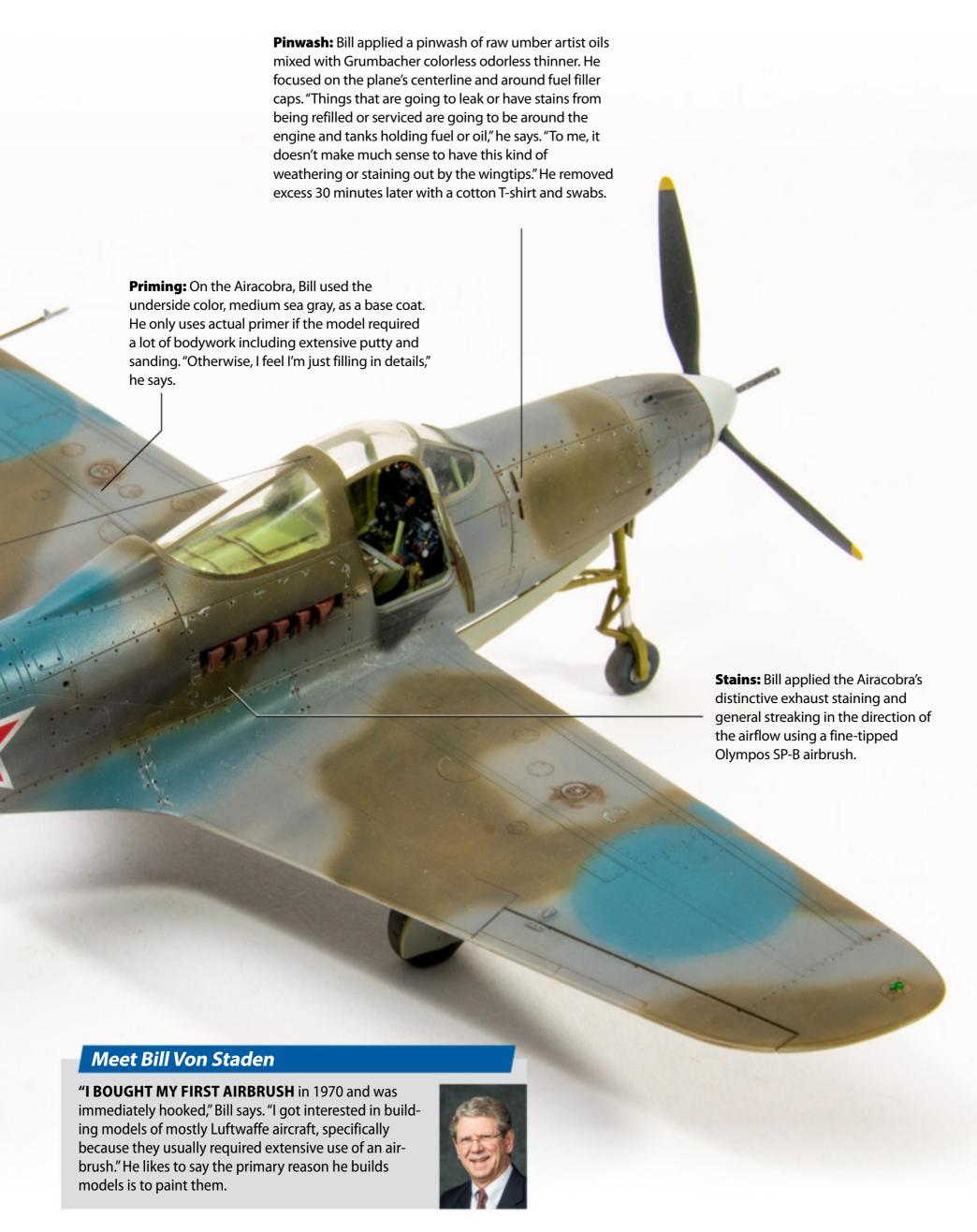
"What I want to end up with is two blue circles on the wing with sprayed, not masked, edges," he says. After removing the masks, he put thinned blue paint in the Olympos, dialed the pressure to 10-12 psi, and sprayed the edges of the circles free-hand. Where needed, he touched up the edges with ocean gray in his fine airbrush.

After applying decals and weathering, Bill sealed the finish with Testors clear flat mixed with Testors Metalizer



Dry-transfers: The 34 on the tail came from a sheet of Letraset dry-transfers made in the 1970s. "I was quite concerned about using these because, even when new, they sometimes don't transfer onto the model in one piece," Bill says. Having only one sheet, he had one shot to get it right. "I made sure the tail had a good coat of gloss," he says. "I lifted the carrier sheet off very slowly and success! I'm not sure what Plan B was going to be if it didn't work."

Markings: Before adding decals from an Aeromaster aftermarket set, Bill sprayed the model with a mix of 4 parts Tamiya clear gloss (X-22) and 6 parts Tamiya lacquer thinner. Mr. Mark Softer helped settle them.







The tartan base is a thin mix of Indian shadow and deep red. Shadows are Indian shadow mixed with blue No. 1 from Andrea's blue set. Highlights are deep red mixed with blood red.



Thinking about how the fabric would move, I painted stripes with a mix of Ardennes green and deep red, eyeballing the locations. The No. 2 brush produced the perfect stripe width.



The green mix was thinned with distilled water so I could build up the color and easily correct mistakes. I laid out all of the stripes, checked the placement, and then built up the density.



Here comes the tedious but "oh so worth it" part: I found the spots where the stripes intersected and painted a small square of Ardennes green in each one using the No. 2/0 brush. I then cleaned the brush, filled it with deep red, and painted two lines running inside the lengths of the green stripes. This step required many corrections, which is why I kept the paint mixes simple.



A mix of yellow Nos. 1 and 5 from Andrea's yellow set created a dull hue. I kept it thin but not runny. Using the No. 2/0 brush, I painted one long stripe into every other open red section (the ones created by the green stripes). I let the brush do the work for me and did not add much pressure to the stroke.



I went back over some parts of the yellow stripes with more No. 1 yellow to make them pop. In alternating red sections, I painted lines of warm gray, which looks white against the red and green. To blend the colors and tone them down, I gave the tartan a wash of Vallejo smoke.



Painting diagonal lines on the argyle socks was tricky but I had a plan. On the front of the sock, I placed eight dots in a diamond pattern. Then I connected the dots with thin but not runny red paint, using an extremely light touch.



Here is a close-up of the process. Remember to let the tip of the brush do the work for you there's no need to press down. When the front of the socks were filled with intersecting lines, I painted the backs in the same manner.



Break down the seemingly complicated pattern on tartans by first deciding on the base color. Next, paint the dominant stripes. Then, thinner lines of different colors fill in the void. Finally, a wash tones them down. **FSM**



never completed, the shelf of doom getting more crowded all the

Take heart! There is a simple cure. "What is it?" you inquire with piqued curiosity. Go back to your early modeling and complete a weekend build, an honest-to-goodness, start-on-Friday-finish-on-Sunday build. Forego the resin, ditch the PE, and release the need to correct every detail. Simply build it. It's one of the most refreshing ways to get your model-building mojo back.

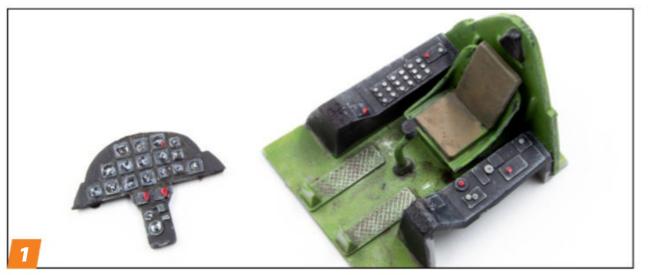
The key to a successful weekend build is to stick to the KISS

principle. No, I'm not talking about the '70s supergroup with the cool makeup (although they might be fun to listen to while you're building). I mean, keep it simple. Pick a model that goes together easily, doesn't have an astronomical parts count, and has a basic paint scheme with limited colors. For a recent weekend build, I chose Hasegawa's 1/48 scale F4U-4 Corsair. It checked all the required boxes for a weekend project. Plus, I found a really cool special airshow scheme that would keep me energized to see it through to the end.



BY DARREN ROBERTS

FRIDAY



I hand-brushed the cockpit parts with Testors Model Master Acryl interior green (No. 4736). These nice paints brush smoothly and dry quickly. I used a fine brush to paint the consoles and panel interior black (No. 4767). A quick wash of thin black and dry-brushing finished the cockpit.



Before gluing the cockpit tub inside the fuselage half, I attached the horizontal stabilizers. This allowed for perfectly positioned parts and using Tamiya Extra Thin cement completed the bond in a matter of minutes.



While the fuselage dried, I moved on to the wings — a simple subassembly. The particular aircraft I was modeling had the gun ports plugged, so I glued styrene rod of the same diameter into each.



A few quick swipes of the sanding stick shaped the rods to the leading edge of the wings.



Since the landing gear would be the same color as the rest of the airplane, I went ahead and glued them to the wings before mating the wings and fuselage.



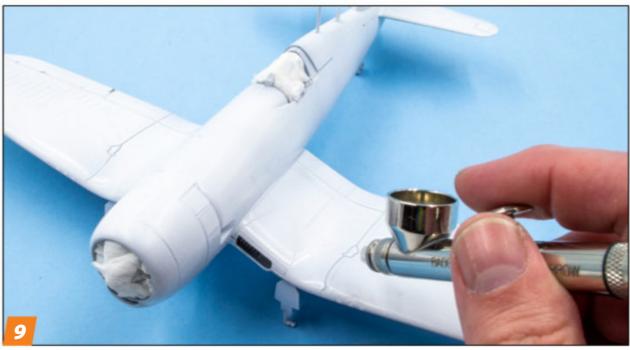
The last task of the evening was to cut a blade antenna from a Monogram Skyhawk I had parted out for a previous FSM project ("Improving HobbyBoss' Skyhawk" March 2019) and attach it to the Corsair's spine. Not bad for one night's work.



The Hasegawa Corsair doesn't have bomb racks, so I used pylons from Monogram's 1/48 scale A-1 Skyraider. The pylons weren't perfect — hey, it's a weekend build — and are molded with ordnance, but a hobby knife took care of that.



The Corsair's pylons were longer, so I made them with strip styrene sanded at both ends to achieve to an airfoil shape. Then I attached the Skyraider bomb racks to the styrene strips and glued them under the wings.



Since large areas of plane would be orange, I began painting by spraying the model with Alclad II white primer (No. ALC306).



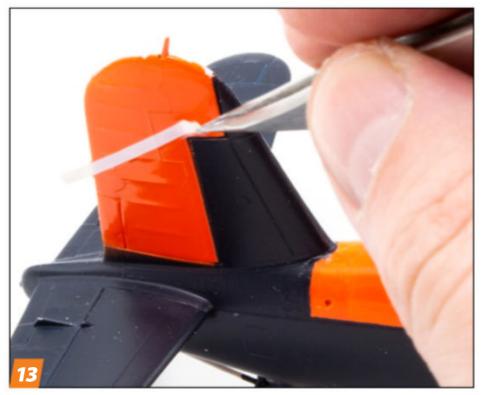
The primer dried within 10 minutes, so I was able to spray Mr. Color international orange (No. C59) on the tail, fuselage, and nose in short order.



Being a lacquer, the orange was dry and ready to mask within 30 minutes. I masked the areas for the overall blue scheme.



I love acrylics for the overall colors where masking isn't necessary. I've used Model Master Acryl with good results, but I learned that MRP has an acrylic line, so tried its sea blue (No. MPR-A014); the results were excellent. It sprayed well and dried quickly.



Now for the real fun: The stripes on the tail and cowl. Masking left no room for error, so I used white decal stripes. I began with the tail and didn't worry about getting the length correct because I could trim them once they were on. I started where the rudder takes a 90 degree turn since it provided a reference point for spacing the stripes.



I applied all of the rudder stripes and left them to dry for 15 minutes during which I applied other markings, like the insignia. Then I used a new hobby knife blade and slid it down the back edge of the rudder to remove excess. I lightly cut along the rudder hinge line to even up that end of the stripes.



I used the same process for the nose, starting in the middle and working up to the top and then down to the bottom of the cowling.



Since there are no decals for Olathe (pronounced Oh-Lay-Thu), I used individual letters to make the specific markings.



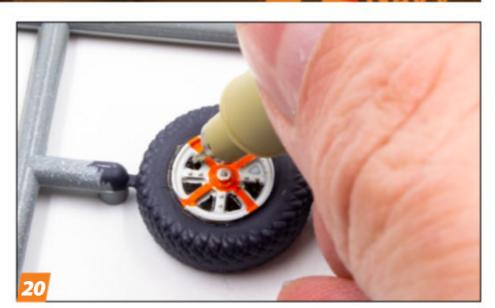
The mission markings applied for the airshow presented a problem. I cut pieces of white decal stripe to the appropriate size and applied them. When the decals were dry, I drew around the white rectangles with .005mm Micron to shape the markings.



The Corsair's letters and numbers were painted in a stencil-style font, so I used a thin liner brush to paint gaps in the individual characters. That concluded Saturday's work.



With the majority of work complete, Sunday was for all the small things. The first order of business was the wheels. I sprayed the hubs white when I primed the model on Friday. Now I hand-painted the appropriate spokes orange.



I painted the tires engine gray. The areas between the spokes are supposed to be open, so I used an artist pen to make the depressions black.

WHAT IS AVAXHOME?

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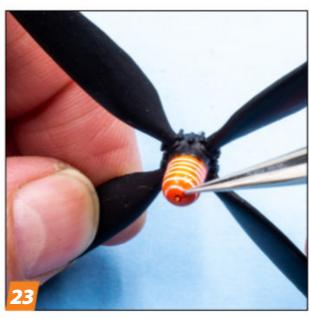
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Someone high up at the base thought it would be a good idea to load practice bombs painted orange and white. Sure, why not? I found eight 100-pound bombs in Accurate Miniatures' B-25. I cut off the arming spinner ...



... and assembled all eight bombs. I sprayed them orange and then applied more white decal stripes. The white fins were handpainted for the sake of time.



The final challenge was the propeller hub. After painting it orange, I began winding a white decal stripe around it. As the hub narrowed, I added drops of Microscale Micro Sol to the decal to help it conform.





Color modulation makes an unusual subject extraordinary

BY JOHN BONANNI





As you can see, the model isn't complicated. The internal axle assemblies rest inside the lower hull and are surrounded by the main body's walls and roof. Most everything fit together without difficulty.



I did have to drill locator holes for the external fixtures. The kit's mounting brackets left much to be desired. Therefore, I ordered 3D-printed tool clasps from Shapeways.com for an extra level of detail.



Following a coat of black primer, I began the color modulation process with vertical streaks and horizontal mottling of Tamiya JGSDF brown (XF-72) as foundational shadow effects.



A coat of Tamiya dark yellow (XF-60) went over the black and brown. I airbrushed it uniformly and allowed some of the shading beneath to show through.



For the first highlights, I added a bit of Tamiya deck tan (XF-55) to the dark yellow. Panels were selectively masked off and a gradient of lighter color was added by gradually adding more deck tan to the mix.



I mixed a range of my light colors on a paint palette and added drop of Tamiya Paint Retarder (No. 87114) to each. Then I went around the railcar and highlighted details with a paintbrush. The retarder delays the acrylic paint's drying time and helps create a smooth finish.



At this point, the overall effect looks nothing short of extreme. However, successive layers of paint and weathering will mute the tonal gradients.



I airbrushed Tamiya clear yellow (X-24) over the whole body to help unify the vehicle's yellow hue and return intensity to some of the desaturated details.



I conjured the camouflage pattern from other Eastern Front schemes seen in 1944. Tamiya olive green (XF-62) seemed appropriate to me, and I airbrushed the pattern, making sure to fade it toward the top of the railcar to enhance the modulated finish.



Ammo by Mig Jimenez (Ammo) rubber & tires (No. AMIG0033) detailed metallic parts like tools, the coupler, and bumpers. I painted the tool handles with Ammo new wood (No. AMIG0037).



To unify and blend the camouflage pattern with the dark yellow, I mixed 1 part Van Dyke brown oil paint with 10 parts Turpenoid and brushed it on as a filter over the hull.



I picked out details with a pinwash of Ammo Brown Wash for German Dark Yellow (No. AMIG1000). Pinwashes won't affect the vehicle's overall finish, and I like the precision they offer.



After letting the enamel wash dry for 10 minutes, I removed excess wash around details and eliminated tide marks with a brush dampened with Turpenoid.



I began weathering by "chipping" paint. Using small, irregularly shaped pieces of packing foam and a fine-tipped brush, I dotted Ammo dunkelgelb aus '44 DG III (No. AMIG012) randomly around the hull, focusing on places that would naturally get nicked and scratched.



Repeating the same process, I made deeper chips that exposed metal with Ammo chipping (No. AMIG0044). Obviously, this wear needs to look logical, but also depends a great deal on your tastes. I thought wear would naturally accumulate around the hatch and corners.



After airbrushing several layers of rust tones on the mufflers, I brushed them with a coat of Ammo Heavy Chipping Effects (No. AMIG2011) and allowed it 30 minutes to dry.



I tucked Post-it notes behind each muffler to protect the hull from overspray and airbrushed both with a light coat of the dark yellow.



Almost immediately, I gently removed some of the dark yellow with a brush dampened with water to expose the rust beneath. Another dark brown wash added depth.



The heavy streaks on the railcar's vertical surfaces started as a dot of either dark brown or black artist oils. I pulled a brush damp with Turpenoid through the dot from top to bottom. If you make a mistake, simply wipe it away with a brush dampened with mineral spirits.



To make the heavy rust stains on horizontal surfaces, I painted a thick line of rust-colored artist oils along the edge of a detail where water would naturally pool. Using a dry paintbrush (thinner will make this step difficult), I blended and feathered the line's edges.



Surveying the progress, the tonal variations between the horizontal and vertical surfaces become clear. On the top, where water would collect, we see rusty orange predominates, while dirt and grime streak the railcar and turret sides.



For another round of chipping using the original colors, I loaded an old paintbrush, held it at a distance, and ran a toothpick through the bristles for random speckles. Always test the effect off the model first!



To dirty up the railcar's bottom, I airbrushed a 1:1 mix of Tamiya red brown (XF-64) and flat black (XF-1). I started with light coats and slowly built up the color until I was happy with the appearance.



There would probably have been plenty of grease to keep that turret rotating smoothly. I dabbed Winsor & Newton Mars black oil paint around the turret opening on the roof to simulate grease stains.



Dust streaks along the bottom of the railcar's upper panels balances out the dark tones. I painted a line of Ammo Oilbrusher buff (No. AMIG3517) along the lower edge of the panels and blended it upward with a brush damp with mineral spirits.



A 9:1 mix of Van Dyke brown and Turpenoid replicated wood grain and stain on the tool handles.



In addition to a few touch ups, I dry-brushed the panel edges of the vehicle with Ammo chipping.



I rubbed the edge of a graphite pencil along the tools, gun barrels, and panel edges to model freshly exposed metal. It's important not to do every edge and focus on high-traffic areas.



A touch of black pigment finished the muffler and exhaust pipe.



I dotted Abteilung 502 light rust (No. ABT-060) slightly above larger chips with a fine brush and then streaked down; start the streak above the chip, otherwise the streaking motion pulls it down, skewing the origin.



The kit's simple base needed improvement. I brushed the surface with white glue and sprinkled Woodland Scenics Coarse Brown Ballast (No. B1386) between the railroad ties and along the sides.



After adding the base colors, Bachmann Pull-Apart Static Grass (No. 31002) filled out the vegetation around the tracks.



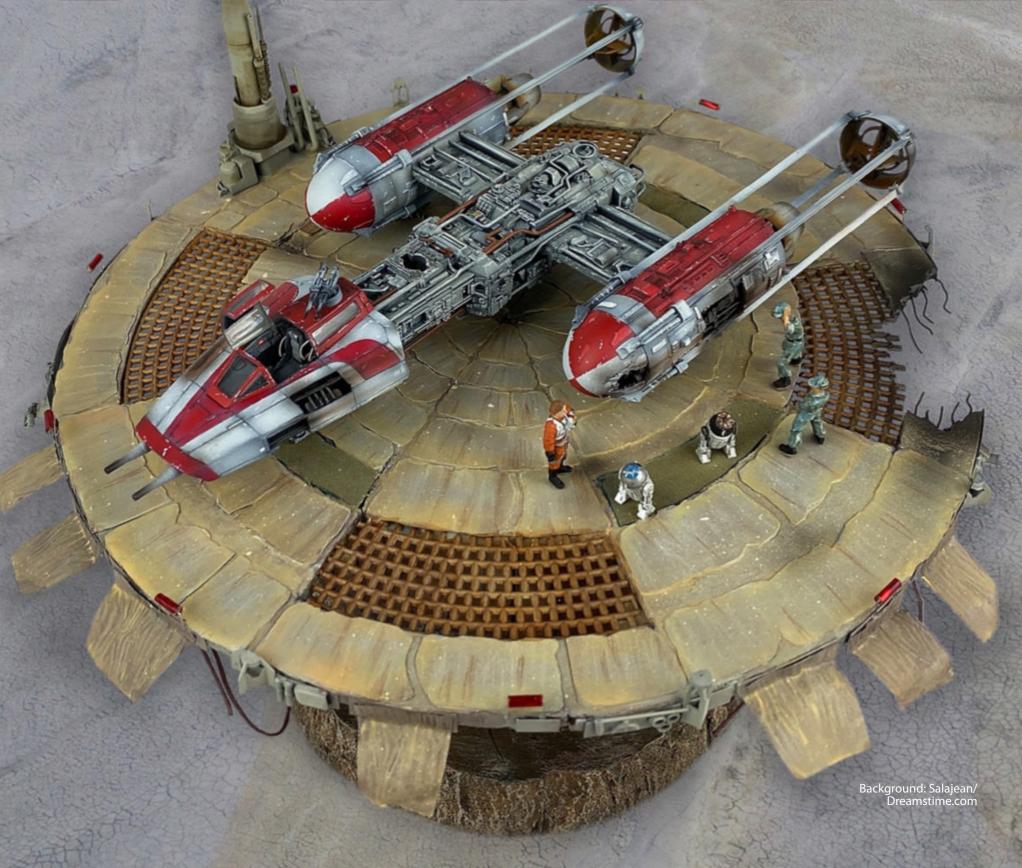
I used various colors of dirt and rust pigments on the rails, ties, and ballast. Lastly, I burnished the rails with gunmetal pigment.

FINAL THOUGHTS

FROM START TO FINISH, this project was a fun departure from traditional armored vehicles. The broad sides provided a perfect canvas to experiment with color modulation. At the beginning of the process, the stark and strange appearance of the model might make some modelers abandon the project. Stick with it. With more weathering and blending the extreme gradients, the modulation creates seamless transitions. For sure, the technique isn't for everyone, but I consider it an option in my toolbox. I might not always need it, but I'm glad it's there when I do. **FSM**



WAR-WEARY MAR-WEARY MAR-WE



Effective weathering and detailing transform Bandai's Rebel fighter

BY KYLE WILLIAMS

scale Y-wing, I wanted to see what detail had been crammed into this *Star Wars* ship. The kit did not disappoint. So while deciding how to build it, I wanted to create a battle-damaged Y-wing.

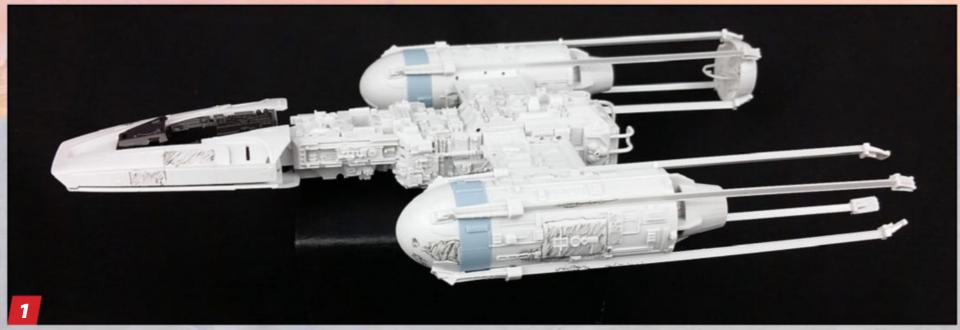
The challenge came from giving the areas I would expose as much detail and imagination as the rest of the ship and then weather it effectively. This meant carefully

and strategically deciding where to add damage and make it stand apart from the incredible detail molded in the ship's center section. (Much of the Y-wing's details are once internal mechanicals and plumbing exposed by streamlined paneling being stripped in service.)

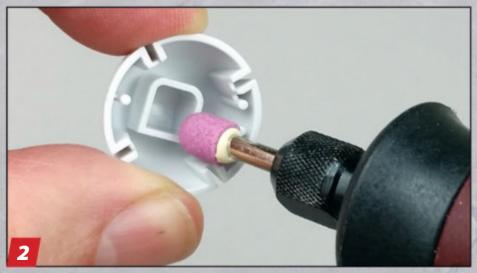
I chose to damage two prominent areas: the front crew section and the engine nacelles. I decided to paint the Y-wing in a unique scheme, something interesting and different, but not too dark or too complicated that might camouflage the damage.

For most of the basic painting on the Y-wing, I used Delta Ceramcoat craft acrylics. These thick paints can be difficult to airbrush, so I mix 3 parts paint with 3 parts Pledge Floor Gloss (PFG), and 4 parts distilled water.

All that work needed context, so I scratchbuilt a base to display it.



The kit fit together perfectly, which meant I could assemble it prior to painting and sketch out the areas that would be damaged.



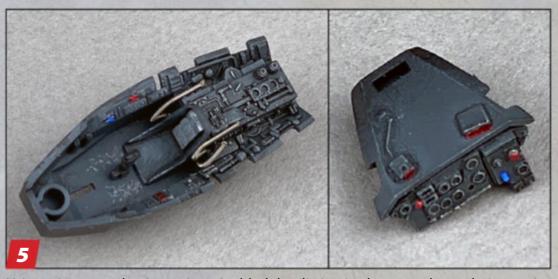
To begin the surgery, I thinned areas to be damaged from the inside with a rounded grinding stone mounted in a rotary tool. Take care to remove only what is needed without damaging other parts.



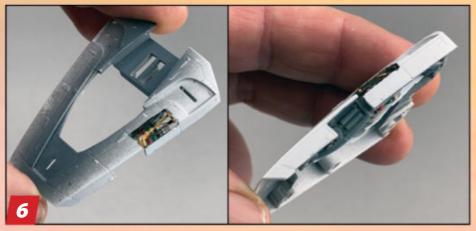
Using a cutoff wheel in the rotary tool, I carefully removed panels near the cockpit.



Next, I painted the cockpit tub with a mix of equal parts Delta Ceramcoat charcoal (No. 2436) and drizzle gray (No. 2452). Dry-brushed light gray popped raised details and a silver Prismacolor pencil shined specific switches.



Using wire-wound guitar strings, I added the distinctive hoses to the cockpit seen in shots from the films. Tiny shapes cut from metal sequins added shiny color to screens and lights. After weathering the floor with a silver pencil, I flowed a wash of dark brown artist oils to enhance details.



For equipment exposed by the missing panels up front, I glued in parts from my spares box, straps from scrap photo-etched metal (PE), and bits of electrical wire.



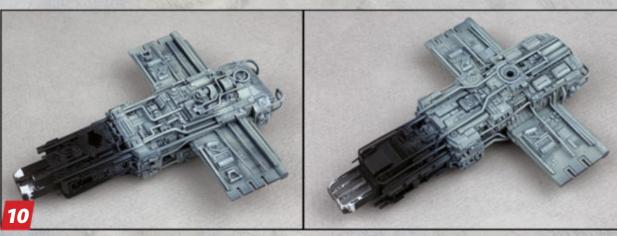
More wire, spare parts, and PE straps created exposed mechanical details inside the missing engine hatch.



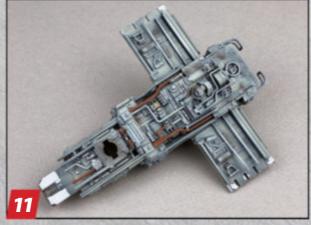
An airbrushed black (No. 2506) base coat blended the disparate materials used for the equipment. Then I dry-brushed various shades of gray without adding much color or bright highlights because I wanted the areas to appear scorched.



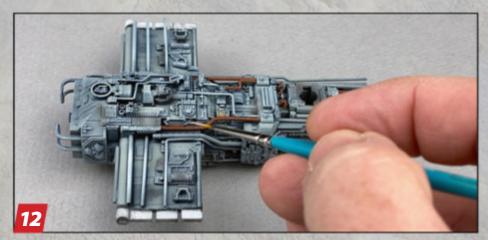
With the damaged areas carefully masked, the Y-wing received a primer coat of black.



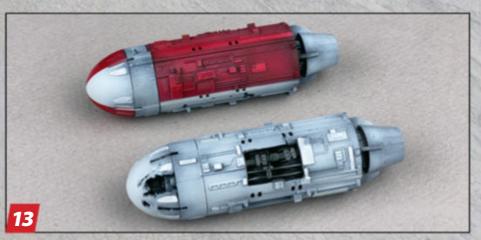
To enhance the Y-wing's center section, I built up progressively lighter layers of gray starting with a mix of 3 parts drizzle gray and 1 part charcoal. Leaving darker areas created contrast and highlighted details. I painted this area one section at a time to stay focused.



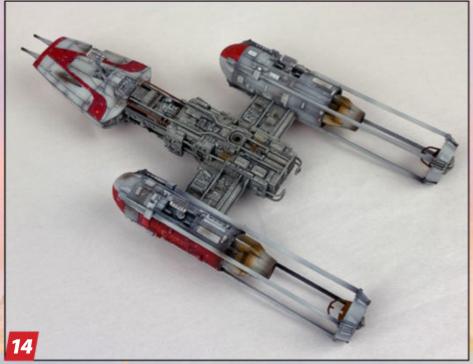
After dry-brushing light gray to highlight detail and piping, I picked out some plumbing with red-brown. Random touches of brown and black overspray added to the wear.



Finally, I painted tiny details with light gray on a fine brush. Starting with dark gray in the center section of the ship was paying off as the detail was really beginning to pop.



I painted the crew and engine pods with a mix of 3 parts dolphin gray (No. 2457) and 1 part drizzle gray, and picked out panels with a lighter gray. After masking, I airbrushed the markings with fire red (No. 2083) mixed with a drop of dark forest green (No. 2096) to desaturate the red.



To weather the damage, I airbrushed thin black and brown Tamiya acrylics around the missing panels and elsewhere to represent carbon scoring.



Airbrushed scorching gave the engine nozzles a realistic appearance.



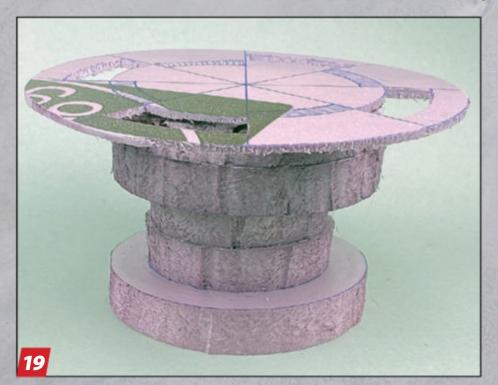
I also weathered the front pod and its gun barrels. Lowering the airbrush's pressure produced a coarser pattern, enhancing the war-weary effect.



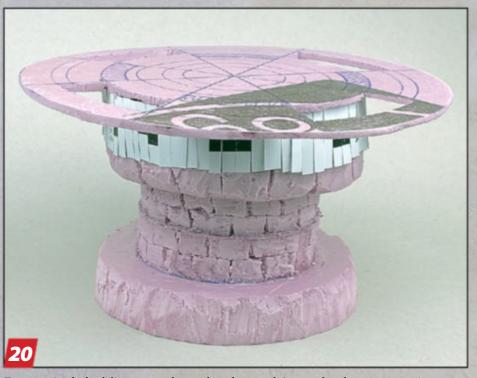
I applied washes of Winsor & Newton watersoluble lamp black and raw umber artist oils thinned with distilled water and a drop of dish soap to help them flow. Powdered pastels refined the weathering.



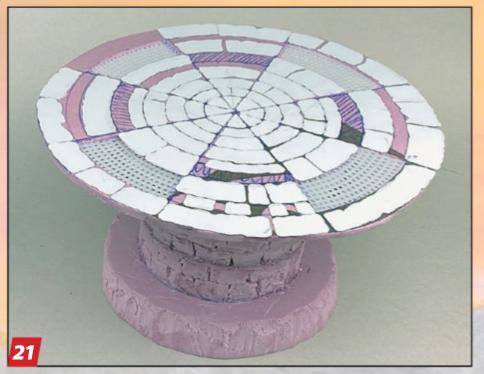
As all of the subassemblies came together, I painted scratches onto the body with light gray and a fine brush. Note the scratches around the astromech droid station.



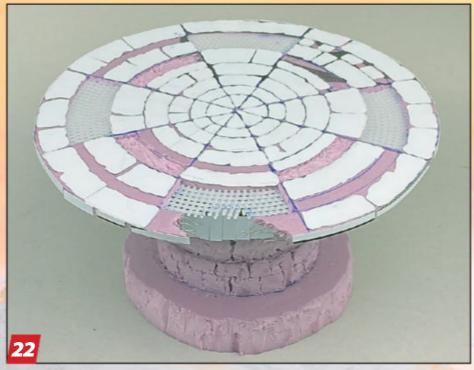
Having experimented with extruded foam panels for dioramas, I felt it was the material best suited to build a base for the Y-wing. Based on a sketch I made, I measured and roughly cut the parts with a foam cutter and joined them with white glue.



For vertical cladding panels under the pad, I attached styrene strips to the foam. I used an inexpensive plastic yard sale sign, but any sheet styrene would work. The pillar underneath the landing pad were scored to simulate stone.



More sheet styrene produced stone tiles for the pad surface. I filled the openings cut in the foam with plastic needlepoint grids attached with white glue.



I cut out a section along the edge to add battle damage and fit with the used-universe feel of the base. Bits of wire inserted in the edges of the opening added severed reinforcements.



Time to add greeblies. Pulling parts from my spares box, I detailed the edges of the pad and the supporting pylon. Pieces cut from an aluminum baking tray lid made interesting broken panels along the edges.



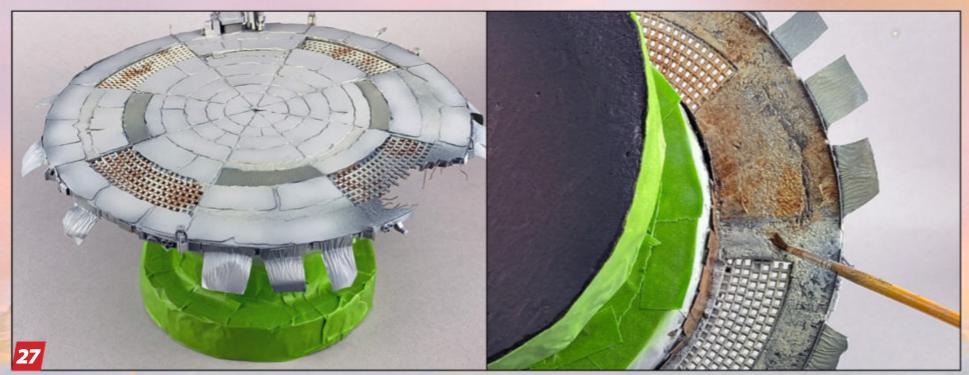
The tower at the pad's edge is a large-scale tank barrel decorated with spare parts. The key is to add details in a way that is not too random, yet not too boring.



Once all of the details were on, I sprayed the assembly with gray Krylon primer. The paint was a little "hot" and pitted the exposed foam, a happy accident that added texture to the rocks on the base.



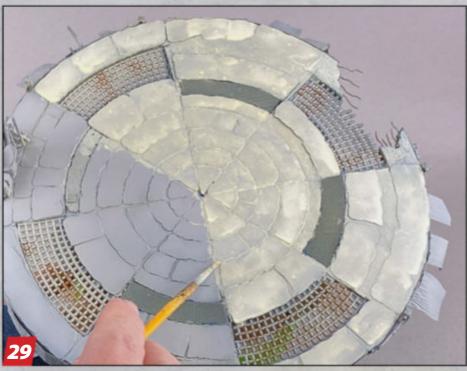
Starting with the base of the platform, I painted the stone with a mix of light and dark red-brown craft acrylics. Dry-brushed tan highlighted the texture.



Once I was happy with the stonework, I masked it to finish the platform and control box. I painted the top of the pad a light sand gray and the underside with an uneven, acrylic rust wash.



A darker rust-brown wash colored the vertical strips under the platform. Then I added a couple of washes and allowed them to drip downwards and collect at the bottom of the vertical panels. I moved it around as it dried to be as uneven as possible, creating a natural weathered look.



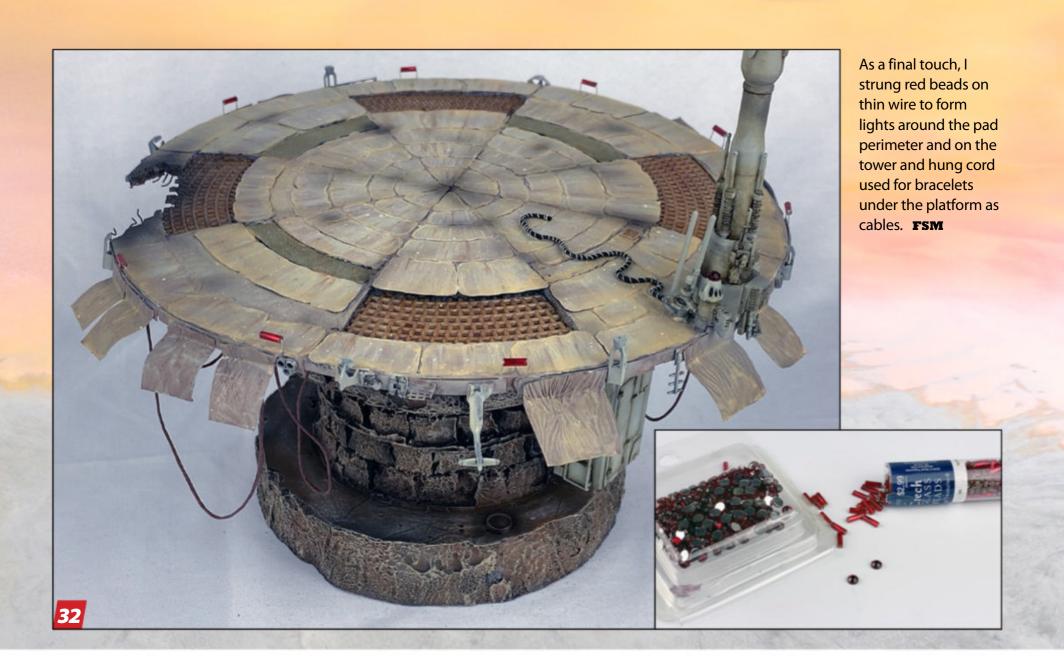
Working a section at a time, I began weathering the pad with heavy washes of sand and tan to give it a bleached worn appearance. I removed much of this, before flicking on a fine splattering of light gray.



Using colored pencils, I accented the edges of stones and added streaking. A warm yellow wash followed to blend the layers and soften the contrast.

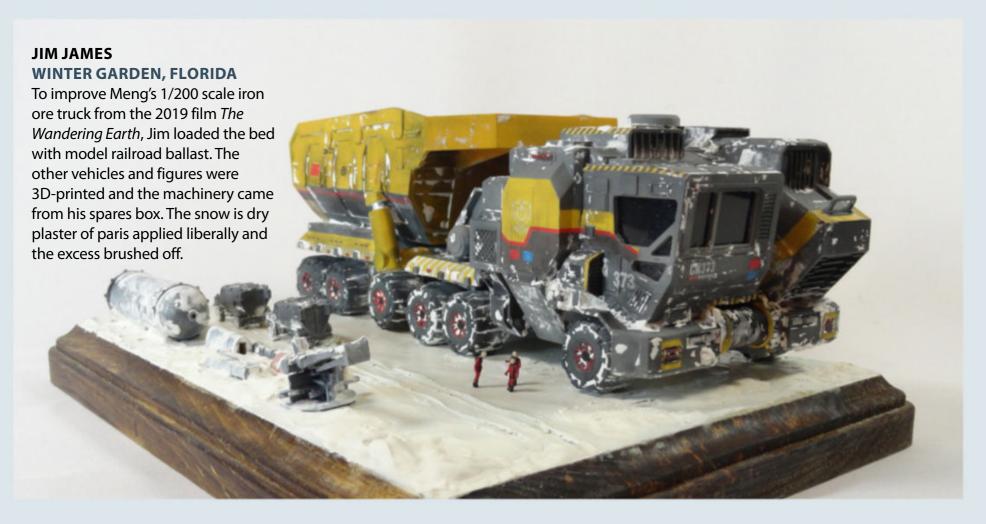


Oil washes and dry-brushing detailed and weathered the control box and tower.













▲ MICHAEL C. VAVERCHAK PLAINVILLE, CONNECTICUT

Michael served in the U.S. Navy as an aviation ordnanceman working on the AWG-9 weapon control system. His interest led him to build Tamiya's 1/48 scale Grumman F-14A Tomcat. He scratchbuilt the fighter's HUD, and added "Remove Before Flight" pin flags to the weapons.



LAS CRUCES, NEW MEXICO

This is Andrew's pandemic build, an Italeri 1/35 scale M109A6 Paladin. The model represents a self-propelled howitzer with the 1st Armored Division. He chose an overall sand finish and weathered the panel lines and tracks.

◀ ROBERT PROKOP

SPRINGFIELD, VIRGINIA

It floats! A fan of the Disney Star Wars series The Mandalorian, Robert chose this 1/4 scale 3D-printed Grogu from NY3DCreations. Since it was hollow inside, it was a great candidate for a floating display. He purchased a magnetic base and inserted a magnet into the body of the cradle. It required quite a bit of trial and error to get the proper balance — too much weight in any direction caused the cradle to spin. He painted the cradle with Vallejo Model Air acrylics and the child with Scale 75 acrylics. The base has a light in each corner. When the cradle is centered and all four lights are lit, it floats — just like in the show!



▲ JIM DREW

TEMPERANCE, MICHIGAN

Jim corrected everything he could on Arii's 1/24 scale Chaparral 2C, including modifying all of the openings and correcting the screens. He also scratchbuilt the velocity stacks and added a 3D-printed Weber IDA carburetor. The interior and intakes were scratchbuilt. Lastly, he placed in a vacuum-formed windscreen and applied custom-made decals.

► CHARLES ROMINE

ETNA, OHIO

Feeling unconventional, Charles kitbashed a Monogram 1/48 scale Helldiver with the floats from a Monogram Kingfisher to make the single experimental XSB2C-2 observation/scout floatplane produced in 1942. He says that only a drawing and two photos exist of the aircraft so these were his references.







at rods became an obsession after I'd moved to Minnesota and saw my first one in person. Like a cartoon brought to life, I could imagine a comic-book supervillain driving it, throttle to the floor, and it left a lasting impression. My dream was to build a full-size rat rod but living in a two-bedroom apartment at the time didn't leave me the room. So, I did the next best thing and started building scale-model rat rods.

Building scale rat rods can be a freeing experience. If the paint doesn't turn out quite how you expect, who cares? Mother Nature doesn't paint perfect patina or rust! And no one is going to tell you this engine isn't correct or that beer doesn't belong there. You can be as creative as you want. Put your imagination on NOS and let go. I promise, you will have fun!







Rust figures prominently in rat rods. That's why I like to start builds by priming the body (like this Revell 1/25 scale '32 Ford five-window) with a red primer — in this case Dupli-Color red oxide (No. 1687).



To get random, natural-looking rust patches, I go with a salt mask. You may be used to seeing this used on military vehicles, but armor modelers don't have a lock on the technique! While the primer dried, I mixed equal parts baking powder, table salt, and coarse kosher salt.



When the primer is dry, I apply water with a soft, thick paintbrush to the areas where I want the salt mixture to stick. It's best to focus on one area at a time and repeat this step and the next as many times as necessary.



Salt sprinkled over the water clings to the body in random patches. Artistic license is everything here. Heavier salt means more rust; less, and you get small, scattered patches. Trust yourself and run with it.



Salt will certainly fall where you don't want it. Just take a paintbrush and swipe away the salt before it dries. When you're happy with your results, let the rest of the salt masks dry.



On this model, I'm going with a black base coat, and there's no reason to use expensive paint for this step. In fact, I don't worry about imperfections that show up in the paint at this point, because they'll enhance the final appearance.



After the base coat dries, I soak the body in water for a few minutes. This starts to soften and dissolve the dried salt masks.



Time for some horsepower! I use an electric toothbrush to scrub off any remaining salt. Can it be done with a regular toothbrush? Yes. But why?



Weld beads were needed for this chopped top. First, I glue .8mm halfround styrene strips to the body and follow up with a heavy coat of Tamiya Extra Thin Cement (No. 87038) to soften the plastic. Then I push the weld details into the plastic with the back of a No. 11 hobby blade.



Vallejo Model Air rust (No. 71.080) starts building the rust color. I brush on light coats and will vary the color lighter or darker depending on what I think looks good. Don't be afraid to experiment, and, if you think it will help, feel free to refer to photos of real rat rods to guide you.



I grind brown and orange pastels into a fine powder to create realistic looking rust. With a soft brush, I apply brown first for older rust and follow with orange for highlights and fresh rust. I always go thick with the pastels so the top coat doesn't eliminate my work.



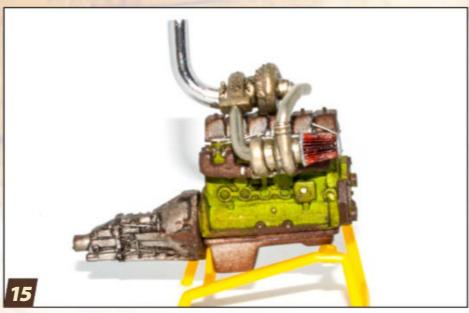
A single medium-to-heavy coat of Testors Dullcote (No. 1160X) seals everything nicely. It tones down the rusty patina, but that's to be expected (and why I went heavy with the pastels earlier).



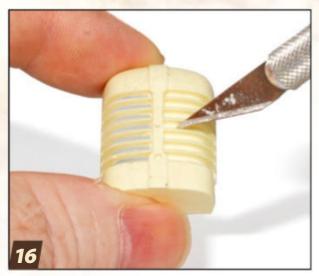
What's a rat rod without a big engine out front? I bought Decalhund's 18-piece resin 5.9-liter Cummins kit (No. EN101). And why not? Remember: no rules. Use an engine that fits your vision for your model and gets you out of bed in the morning.



For resin engines, I first sand and test-fit the parts, tacking them together with white glue. Once I'm happy with the overall fit, I soak the engine in soapy water, take it apart, and scrub the parts. Then I permanently assembly it with superglue.



Here, Tamiya light green (X-15) provides the engine's base color. Alclad II chrome (No. ALC107) and Tamiya aluminum (XF-16) dress the pipes and transmission. The whole thing gets a dry-brushed patina of Vallejo steel (No. 71.065) and rust.



For a little different look out front, I also picked up a Decalhund resin Massey Harris grille (No. HD101). The webbing between the grille fins needs to be removed with a sharp hobby knife, but the results warrant the effort.



I always look for unusual ways to decorate my cars. Star washer nut bolts from Tichy Train Group (No. 8146) made a perfect addition to the grille. Superglue works well to hold a line of the plastic stars along the grille's center.



For another build, I had made resin casts of a 1/12 scale motorcycle chain. I thought it would be cool to run lengths of the chain around the rear of the grille. Guess what: I was right! I also used the same resin chains to decorate other parts of the car.



All the methods I used on the body come into play to finish the grille, from primer and salt masks to pastels and flat coat.





Detailing and finishing WARSHIPS

PART 1: Working with photo-etched metal

BY CHUCK BAUER

've been building ship models for many years and have learned a lot of tips and techniques along the way and have won several awards. This article is the first in a series and I hope to pass along some of those tricks and secrets.

I had a rude awakening when I discovered that if I wanted to build really nice plastic ship models, I would need to learn how to add photo-etched metal

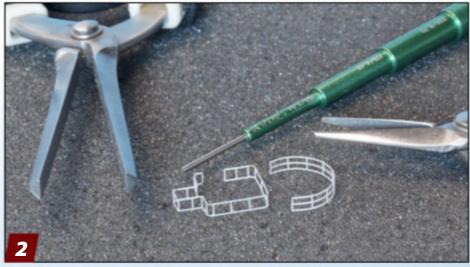
(PE) parts. This material can be difficult to cut and bend, and frustrating to attach to plastic. Fortunately, my three model club memberships, a part-time job in a hobby shop, and the internet saved the day. I was able to solve major problems in a short time.

Allow me to illustrate some of the techniques I have learned while using PE to enhance 1/350 scale and larger models.





After cleaning and priming a PE fret, I lay it on a hard surface to avoid distorting the part during removal. I use a bathroom tile and a thin sheet of tag board (sturdy cardboard). I remove the parts with a No. 23 blade; I can place the edge precisely and slice with minimal pressure.

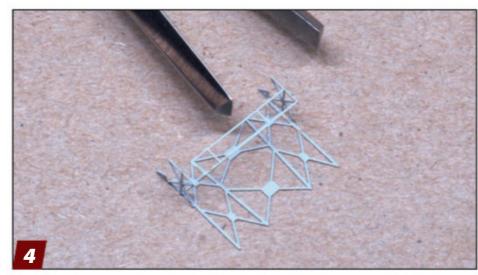


I mostly bend and form PE using the tools shown here. The stepped round mandrel in the middle is a Mission Models Multi-Tool. It is flanked by large and small Tamiya PE bending tools that are essentially flat, smooth pliers.





Using stiff foam as a die, I can shape any curve needed. The arc is created by the radius of the mandrel and how far down into the foam the mandrel is pressed.



For sharp bends, I use either large or small Tamiya bending tools. When using pliers on PE, make sure the jaws are smooth, or you risk crimping the parts.



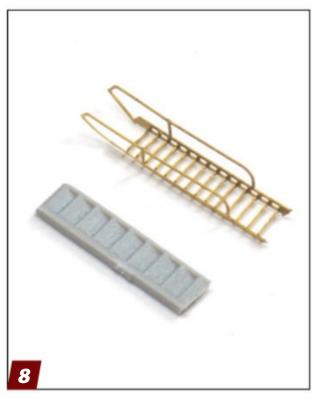
Railings, ladders, and stairs are a vital feature of almost every ship model. Here is a PE stairway with nicely formed sides, railings, and rotatable steps.



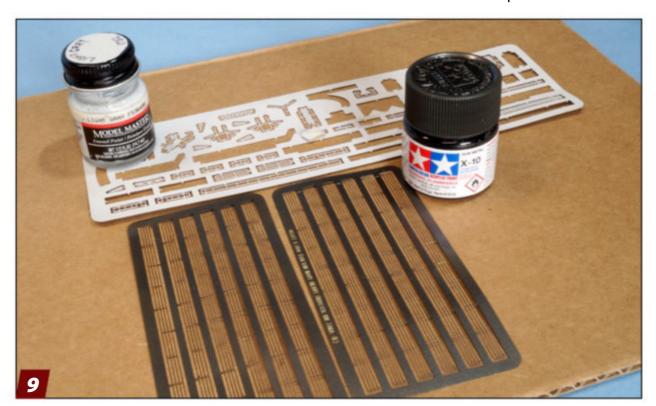
To bend the side plates at right angles to the steps, I use large bending pliers to capture the entire railing so I can bend it into position without distortion.



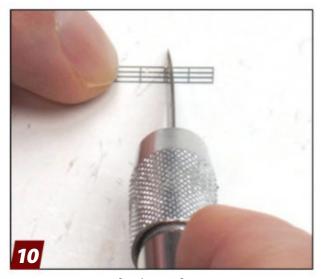
With fine tweezers, I rotate each step to an angle parallel to the decks the stairs connect to — generally, but not always, 45 degrees. The steps rotate forward so their ends are contained within the side plates.



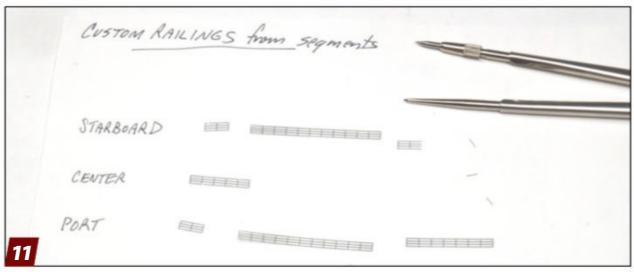
This photo shows the completed stairway. Compared to the plastic kit part, it looks much more refined!



I paint railings before removing them from the fret. Solid railings receive the hull color; those made up of stanchions and cables are airbrushed a metallic shade such as gunmetal. The stanchions then need to be painted by hand.



I cut segments of railings if I'm using a generic aftermarket set or if a specific set doesn't match reference photos.



I use dividers to measure the railing segments, dry-fit each, and then organize the parts on a labeled sheet before attaching them to the model.



I place the railing using Tamiya tape to conform it to the deck edges before securing it with superglue or white glue. After 24 hours to let the glue dry entirely, I carefully remove the tape and apply glue where the tape had been. Touching up the paint the next day finishes the job.



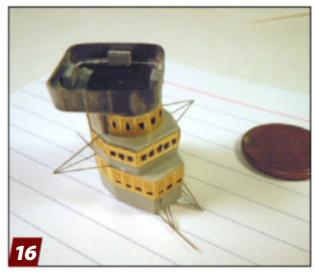
This photo shows installed stairs, railing segments, and a stowed accommodation ladder, all either aftermarket or kit PE.



Getting all of the railings and stairs to meet can take a lot of effort. On this model, I made and pieced together 12 PE railing segments like a fence for the edge of the upper deck.



Sometimes, PE corrects kit flaws. Revell's boxscale USS Arizona benefits from these window panels applied to the forward fighting top with thin superglue.



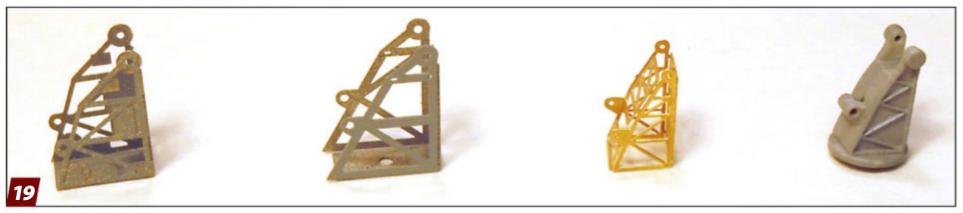
I shaped the gun tub on the roof of Arizona's aft fighting top by bending the PE walls around the tub's base and attaching them with medium superglue.



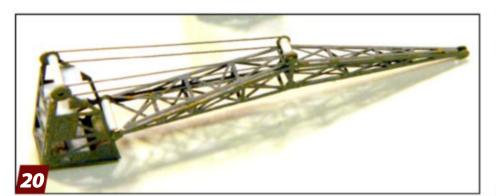
I replaced Arizona's solid-molded forward yardarms with PE pieces bent into triangles and fixed to the rear of the fighting top with superglue.



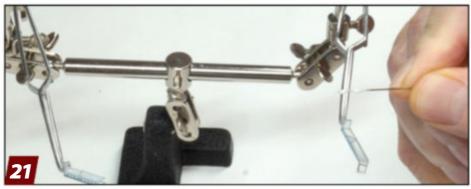
With all these additions in place, Arizona's fighting tops become historically accurate and aesthetically pleasing.



PE can better represent the open framing of boat and aircraft cranes. This photo shows several aftermarket PE cranes designed for HMS Repulse. Using archival photos, I selected one of these styles and put it to use on my model.



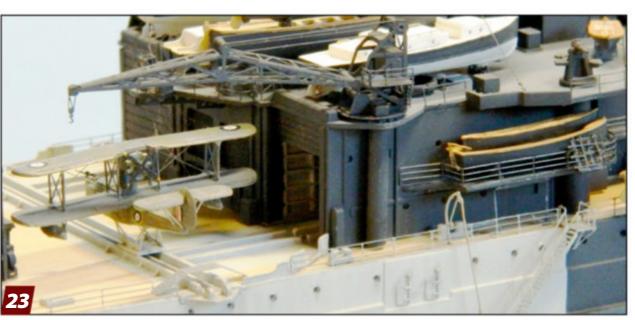
Styrene rod fitted to the crane base and arms replicated cable reels. The combination of PE pulleys, cables, and folded arms makes a crane with better scale finesse than can ever be molded in plastic.



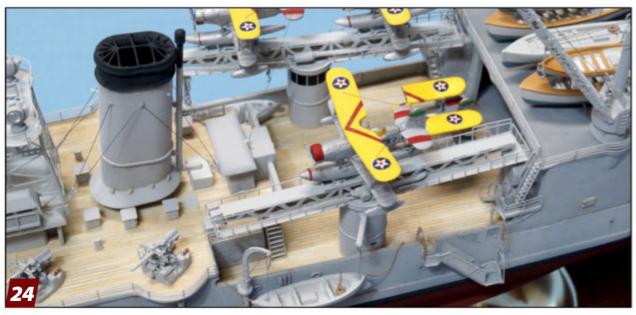
Accommodation ladders are challenging but rewarding PE enhancements. I add canvas dodgers by stretching white glue across the spaces in the railings. The glue is surprisingly stretchy and dries paper-thin.



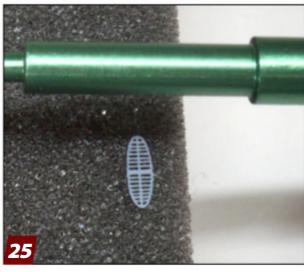
I use Ngineering stainless-steel wire for funnel stays, and detail them with PE turnbuckles. Then I snip the stay to length and glue it between the funnel and the deck.



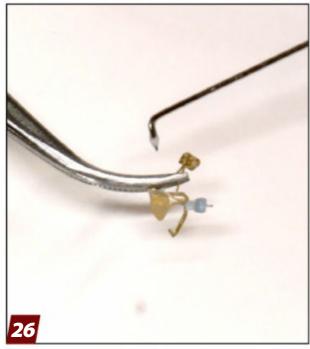
In this photo, you can see one of the aircraft cranes that I built earlier in place on HMS Repulse.



Here you can see the funnel stays and turnbuckles. Aircraft catapults are another area that benefits from being replaced by PE.



For curved radar dishes, I press a round mandrel of the appropriate diameter into a firm piece of foam using just enough pressure to get the correct curve.



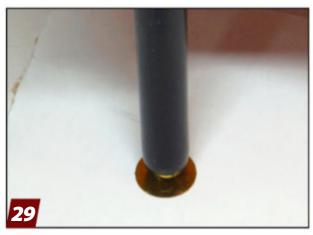
I attached the curved radar dish to the rest of the unit with white glue applied with a bent map pin. The white glue shrinks as it dries and becomes invisible.



Then I attached the individual radar units to the mast, which is a combination of styrene kit parts and PE.



After airbrushing the mast, I attached lights made from clear sprue. There are 30 or 40 pieces of PE in this unit.



Another useful technique for making radars is coining. To create a concave dish, I press a paintbrush handle into the part on a slightly flexible surface.



The result is a uniform, in-scale dish that is a vast improvement over the thick kit plastic part. Notice the circular RDF antenna made with two interlocking PE rings.



Building leadsman's platforms is a terrific way to bolster the accuracy of your model. I make them by modifying a section of PE railing and combining it with screen from my spares box.

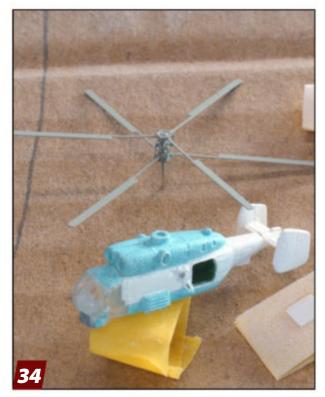


In this photo, you can see the leadsman's platforms as well as the unique double stanchions of this Russian vessel. Note, too, the bent wire guards over the metal anchor chain.



A mix of equal parts white glue and water works great to attach PE and is a lot less troublesome than superglue. It's very forgiving, doesn't harm paint, and shrinks when it dries and essentially disappears.

Meet Chuck Bauer "I STARTED SERIOUS SHIP MODELING at 55 years young, coincidental to joining three IPMS clubs and taking a part-time job at a local hobby shop," Chuck says. "This put me elbow-to-elbow with area modelers and artists of national and international repute." Feeding on that information and the internet, Chuck's modeling improved and he started to win recognition at IPMS and Nautical Research Guild contests. Along the way, Chuck has written for FSM and the Nautical Research Journal.



Using thin white glue and superglue, I was able to make a realistic rotor assembly for this Russian Ka-27 helicopter. In addition to the blades, there are 14 pieces of stainless-steel wire and PE in the rotor.



Combining these techniques and ideas, I cram a lot of detail in every square inch of my models. In many cases, there are more add-ons than kit parts in the finished product. **FSM**



WORKBENCH REVIEWS

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Eduard Spitfire Mk.I Dual Combo

Eduard's 1/48 scale P-51D in fall 2019, I used every cliché in the book to describe the quality of the fit and surface detail. I thought Eduard had pushed design and molding technology to the absolute limit. Oh, how wrong I was!

As good as its Mustang was, Eduard's early Spitfire takes design and molding technology even further. This kit is amazing, perhaps the best I've ever built.

The initial release, *Tally Ho! The Spitfire Story*, is a limited-edition dual-combo that includes two full kits and a resin pilot. There are more than 500 parts here — 263 for each airframe — and the stunning surface detail comprises recessed panel lines and both recessed and raised rivets as appropriate. The recessed rivets on the wings are so fine that I can see them but can't feel them with my fingertip.

At first glance, it appears the two sets of

part trees are identical, but the fuselages differ. Optional parts abound including four props, three seats, three styles of canopy, two windshields; I could go on, but you get the point.

The crisply molded canopies are perfectly clear, and Eduard provides pre-cut masks.

The kit includes 10 marking options with a full set of stencils for two airframes.

The instructions feature a two-page history of the Spitfire Mk.I, 11 pages of construction details, a page each for the masks and stencils, and each marking option gets a full-page color four-view diagram.

I needed to decide which planes to build before starting. I chose options A and F to highlight differences between the 1938 and 1940 versions. I was concerned that the options would not be called out until the marking diagram, but Eduard clearly labels the options for each airframe throughout the instructions. (I did finish construction

of airframe A before starting on F so I wouldn't get them confused.)

Photo-etched metal (PE) parts and I don't get along, and there are quite a few to bend in this kit. Fortunately, the metal was supple, yet strong, and I found the parts easier to manipulate than ever before. Some of the PE parts are also represented in plastic if you are more comfortable with that material.

Be aware that there appear to be two identifiers on each tree. Ignore the large circular tabs — it should become obvious pretty quickly that they don't match the instructions. On each tree's outer frame there are four flat areas — one says Eduard, another the scale, and one has the kit number as well as the actual tree letter that corresponds to the instructions. The final spot is stamped Spitfire Mk.I-V. Yes, boys and girls, it looks like we'll be getting a Mk.V in the future!

On the back cover of the instructions,





Eduard advertises a resin replacement cockpit, but I can't fathom why! I can't believe those parts could be any more detailed than the kit cockpit.

Careful painting makes all that detail pop. The kit provides three options for the instrument panel: a flat panel with three decals for dials, a panel with molded details and bezels, and a colored PE panel that builds from three layers. I test-fitted the cockpit to both sides of the fuselage to ensure it was plumb and square.

Use caution when building the landing gear wells. A notch on Part R19 fits over a small step in the lower wing, so it is not interchangeable with the nearly identical Part R18. I also found reversing the sequence in the instructions and starting with the circular portion of the wells, working back to the center, improved the fits throughout.

Add the rudder control linkage after painting. I knocked the one on airframe A off while applying a sludge wash, never found it, and had to scratchbuild a replacement.

Fit throughout was absolutely amazing. A swipe of Mr. Surfacer at the wing roots and chin joints was all the filler needed; I smoothed those seams with alcohol on a cotton swab. The only other issue I encountered was the tail wheel strut (Part P71) that

needed to be thinned to slip into its mount.

I painted the cockpit parts with Testors Model Master RAF interior gray-green, then picked out details with Sakura Pigma Brush and Sharpie markers. For the camouflage, I airbrushed Mr. Color lacquers silver (No. C8), dark earth (No. C22), and dark green (C361), and Tamiya acrylic gloss black (X-1) and gloss white (X-2). A coat of Pledge Floor Gloss laid a foundation for the decals.

The stencils went down beautifully. Next came the early four-color roundels for prewar option A, and, unfortunately, they proved to be thick, stiff, stubborn, and impervious to decal solutions — even Walthers Solvaset had no effect. I used a hair dryer on high to melt them into place — which worked — but I also watched as the antenna mast melted and bent to the side. Fortunately, leftover parts in this dual combo came to the rescue with a replacement.

> The roundels and ID letters of the second airframe went down with no such problems.

A sludge wash, flat coat, final assembly, and Bob's your uncle, I had two Spitfires ready for action. Construction of the pre-war airframe (Option A) took 15 hours with another 10 hours for paint and decals. I spent a few more hours on Option F, a fighter

flown by RAF ace Douglas Bader, with an open cockpit.



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When I was 10, I had a small blackand-white TV on my desk, and I'd watch old movies, build models, and dream of the perfect kit. Building these Spitfires brought that dream to life with two small exceptions. My TV is now color — although the movies are still black-and-white — and in my dream that perfect kit was an F4U-4 Corsair. Hint, hint, Eduard.

-Andy Keyes

Kit: No. 11143 **Scale:** 1/48 Mfr.: Eduard, edu-

ard.com (Sample courtesy of mfr.) **Price:** \$97.95

Comments: Injection-molded,

526 parts (120 PE, 2 resin), decals,

masks



Pros: Great detail; extraordinary fit; PE supple, yet strong, and relatively easy to use Cons: Roundel decals for earliest airframe thick, stiff, and stubborn — I used a heat gun to make them conform



pitomizing the phrase "go big or go home," the Japanese designed a class of super-battleships that were intended to win a "decisive battle" against their likely U.S. Navy adversaries. Armed with massive 18.1-inch rifles, the *Yamato*-class were the largest battleships ever constructed.

Mirroring the mammoth dimensions of the real thing, Takom has released a 1/72 kit of *Yamato*'s No.1 turret — the forward-most mount of the ship's three. A large chunk of deck is included for display.

A photo-etched metal (PE) fret supplies turret details and a lightly engraved name-plate. Also included is a length of clear nylon monofilament (fishing line) for the safety railings atop the turret.

Two sets of blast bag halves are supplied, allowing the builder to install each rifle at maximum or minimum elevation. Fine molding gives the muzzle rifling inside and the stanchions are molded with openings for both upper and lower railings; a handful of extras are provided.

Planks mark the deck section along with

various deck fittings and a couple of separate hatches. I attached the structural details to the turret ring, leaving the hatches off for painting and finishing. The instructions show the sides of the display base painted gray, but with so much gray to come, I painted mine black.

For the deck, I used Testors Model Master fabric tan with a spray can. (This thing is kind of big for my poor little Paasche airbrush). Then I shaded various planks with a light tan pencil and coated the entire base with Krylon UV-resistant acrylic clear. Oak craft paint was thinned as a wash and applied to the entire deck, then coated again with the acrylic clear. I left off the PE nameplate because the etching was too light and mine had minor damage.

The large turret parts required a good deal of force for a flush fit between upper and lower pieces. I carefully trimmed the front plate so it sat completely inside its recess.

The range finder housings required filling underneath but fit the turret seamlessly. The rangefinder inside is designed to turn

slightly independent of the turret. I glued mine in place facing directly forward.

Takom included what I assume are hydraulic "snubbers" that mount underneath to prevent the turret from rotating a full circle. This also prevents the modeler from turning the turret the wrong way on the base.

Be careful installing the cradles that attach the gun breeches to the turret base so the guns are free to move. With only two elevation options to mount the guns, if you attach the breeches at the wrong angle you won't be able to mount the blast bags without significant work.

The stanchions and tiny cable runs on top of the turret clean up easily and fit well. The vision ports on the sides do not fit as well and required a smear of putty wiped off with a wet finger. I took care removing and cleaning up the ladders.

The PE baskets under each of the outer guns were difficult to bend; I used a dedicated folding tool and even then they did not crease crisply. The small PE parts for the turret roof fit well, but since the metal was thick, I removed the fold-over tabs and attached them directly to the roof.

Be careful adding the rear hatch plate. I managed to get it upside down even after checking the instructions — it fits perfectly either way. A bit of trimming got the rest of the parts in place.

The long barrels are molded in halves. They fit well, but I had to do some work to eliminate the seam. The gun muzzles fit





well, needing just a touch of sanding. I appreciated the blast bags as no two are identical. The blast bags must be assembled to the barrels before attaching them to the breeches. Therefore, I left the barrels off the turret with the blast bags attached for painting.

Pros: Finished model an impressive showpiece **Cons:** Nylon monofilament

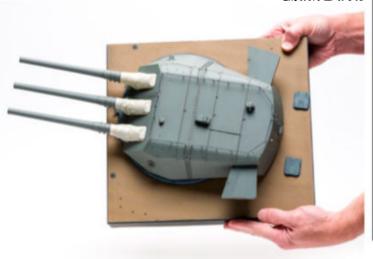
for the handrails is too stiff

I base-coated the turret with Krylon deep gray from a spray can then weathered it with Tamiya light sea gray (XF-25) and ocean gray (XF-82). Flory dark dirt and mud brown washes enhanced the weathering, but Yamato spent most of its time in port, so I kept it light. The blast bags were painted Tamiya flat white (XF-1) mixed with a touch of deck tan (XF-55) and shaded with straight deck tan.

I attempted to use the nylon monofilament for the safety railings, but it was far too stiff to make the corners by the ladders. I replaced it with heavy EZ-Line, which worked perfectly.

I spent just under 20 hours on this unusual kit. I wasn't sure quite what to expect, but I enjoyed the build. With a few exceptions, the fit is good and detail is adequate. It's certainly an attention-getter. The only addition the model really needs is a handful of crew figures or something else to provide viewers with a sense of its incredibly massive scale.

- Chuck Davis





amiya packed plenty of detail into its 1/48 scale T-34/85, including posable hatches, a commander figure, movable gun barrel, link-and-length tracks, and detailed wheels. Decals provide markings for two Berlin operation Soviet vehicles, one each from the 9th Guards Tank Corps and the 7th Guards Tank Corps. From the kit, the model replicates a later tank built at Factory 183 with a one-piece commander's

The hull bottom builds from multiple pieces including sides with the suspension arms molded on. I installed the metal weights, which just give the finished model a bit of extra heft. The lower rear plate comprises three good fitting parts.

Separate hubs detail the spiderstyle road wheels. I painted the tires Tamiya dark gray (XF-24) and the wheels and lower hill Mr. Hobby dark green (No. H320).

After painting the link-and-length tracks Tamiya dark iron (XF-84) with a dust wash and dry-brushed silver, I installed them on the suspension; they fit

The driver's hatch has locks and details inside but no periscopes. The prominent rear grille is molded solid, but the threepart fuel tanks fit together in a way that minimizes seams. I painted the solid headlight lens silver.

The gun and mount went together well, but the design of the turret produced seams between the sides and rear plate; a couple of coats of Tamiya primer eliminated them.

The hatch is detailed inside and out. Test-fit the figure while assembling him to be sure his hands fit the hatch. I painted the commander with Tamiya field blue (XF-50), flesh (XF-15), and flat black (XF-1), then accented the flesh with Tamiya figure accent color (No. 87201) and pastels.

After airbrushing the body with Mr. Hobby dark green, I hand-painted the stripes on the spare tracks with Vallejo Model Color cold white (No. 70.919) to match photos of the 7th Guards tank I was modeling. The decals went down easily with help from Tamiya Mark Fit.

I spent 10 hours building and painting this model. It's an easy build that's perfect if you're looking for a short-term project.

– Tom Foti





Kit: No. 32599 Scale: 1/48

Mfr.: Tamiya, tamiya.com (Sample cour-

tesy of tamiyausa.com)

Price: \$30 Comments: Injectionmolded, 204 parts (14 vinyl, 4 metal), string, decals **Pros:** Straightforward build; good detail; well-illustrated instructions; nice decal options **Cons:** No clear parts; seams on turret sides

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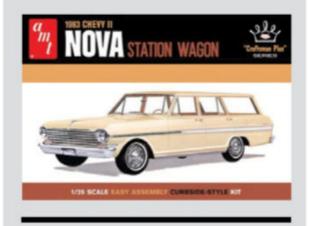
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By Elizabeth Nash

Super brother builds a supersonic jet

From one avid Phantom fan to another



That a good brother! Cuauhtémoc Navarro of San Francisco, built Showtime 100, one of the most famous F-4J Phantoms, at the request of his sibling who was in the Navy working with F/A-18 Super Hornets at Naval Air Station Lemoore.

"The curious fact was that he didn't ask for a Hornet, he wanted this particular Phantom," says Cuauhtemoc, who was up to the challenge. He's been building models since he was 11 and is a huge fan of the Phantom.

Starting with Hasegawa's 1/48 scale F-4J, he added to or replaced the entire cockpit, seats, tires, intakes and exhaust nozzles, and crew using aftermarket resin parts.

To dress up the cockpit area, he added photo-etch metal pieces. He also scratchbuilt pipes for the landing gear.

The paints used were Testors Model Master enamels and Metalizer lacquers. He didn't weather it much, however, wanting it to look "almost clean or just deployed to service," he says. "I didn't want to affect the beautiful scheme." **FSM**

A Phantom fan, Cuauhtémoc Navarro built famed Vietnam War MiGkiller, Showtime 100, for his brother who at the time was working on Super Hornets in the Navy.







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