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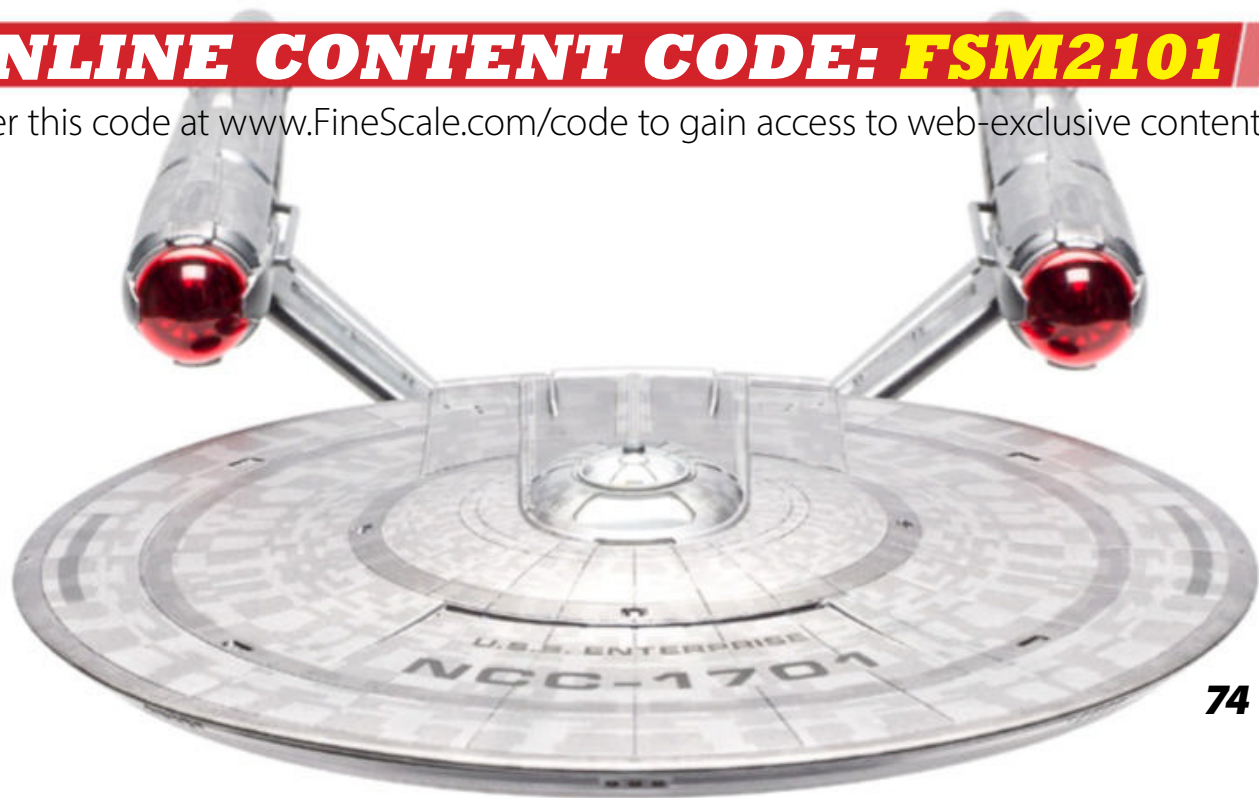
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By Aaron Skinner

Adding color to the world of models

Painting. I love it now, but I didn't always like painting models. When I was a kid, I was much more interested in building models (and then playing with them, but that's another story). Part of my reticence about painting is I wasn't good at it. I didn't start using an airbrush until I was in my 20s, so it was hand-painted finishes for years. And many of these were pretty slapdash, with heavy coats of improperly mixed enamels. Masking was a skill I never mastered with hand-brushed paint. So, for a while painting seemed like a good way to spoil a well-built model.



MRP acrylic lacquers were the choice of Joe Youngerman of Henderson, Nev., when he painted Spanish Civil War camo on Gaspach's 1/48 scale Henschel Hs 123A-1.

Envious of the finishes other modelers were achieving, I determined to get better, starting with spray cans and then airbrushes. With the latter, I leaped into the deep end and started with a double-action airbrush.

Now I look forward to painting, and the more complicated the scheme, the better. But there's always more to learn, new techniques to master, and ideas to try.

Hence, this expanded issue of *FSM* focused on painting. Most of the finishes featured, like Darren Roberts' Tomcat and Rafał Lebioda's Italian truck were done with an airbrush. But John Bonanni shows what you can do with spray cans and paintbrushes. And check out the gloss finish on Marcos Cruz's Plymouth AAR Cuda.

In the ever-expanding world of model paints, many new lines feature acrylic lacquers, which we look at in this issue also. If you haven't tried any of these paints, give them a whirl. They have become my go-to paint.

Happy modeling!

editor@FineScale.com



Brent Hampton, of Thaxton, Miss., topped an airbrushed base of Ammo by Mig Jimenez green with hand-painted craft acrylic whitewash on HobbyBoss' 1/35 scale BA-10.



After reimagining Wave's Scorpion Dog armored suit as robot firefighting suit, Keith Benes of Jacksonville, Fla., painted the model entirely with Krylon spray can colors.



Can you spot the 12th figure in Brian Wildfong's U-boat diorama?

Where's the 12th man?

I enjoyed the "Homeward Bound" diorama (November 2020, p. 18), but I have a question. In it, the author wrote he finished 12 figures. I only count 11 on the conning tower. Where is the 12th figure? I re-read the article to make sure it said 12 and it does. Did he fall over the railing? If so, the rest of the crew doesn't seem concerned?

I've been enjoying the magazine since the spring 1982 issue; I still have that issue! Keep up the quality.

— Marty Hebda
Austin Texas.

Ed.: All hands to the deck. Man overboard, man overboard! Oh, wait, he went below for a moment, perhaps to hit the head. He's coming up the ladder now.

We've never had it so good

I have been intrigued by the discussion in *FSM* concerning the state of the hobby and agree with the editorial of September 2020 and correspondent Bill Horton (November issue) that the future is indeed bright. In fact, I would go as far as to say that modelers have never had it so good.

I have only recently come back to the hobby after a space of some years and am amazed by the products now available. I used to own two model shops in England in the 1980s and '90s before pursuing my calling as a theologian and minister, and can only say that my customers back then would have been wide-eyed with disbelief if informed that in 30 years there would be such delights as a 1/32 scale *Gladiator*, a 1/200 scale *HMS Hood*, laser-cut wooden decking for a 1/700 scale *HMS Agincourt*, and the range of photo-etched brass and weathering paints available as standard today. The modern modeler is truly blessed in every department except for the fact that the years are so short and the shopping list is so long. I am reminded of the man who when visiting the British Library for the first time wept bitterly at the number of books he could never read.

Incidentally, it was model making that in some measure led to my calling in that it generated a love for history that subsequently morphed into an interest as to what really lay behind it. On that note, I wonder if an occasional article looking at the history and close up details of some of the hardware we model might not go amiss.

— Rev. David Eason
Hong Kong

Ed: I agree, David. I was one of those customers in the 1980s (albeit in Australia, not England), and today I am in awe at the variety of kits, paints, and aftermarket stuff available. Still working on a way to live long enough to build everything I want to build!

The state of the hobby?

I read the September editorial and some of the follow-up comments in later issues and both left me a bit wanting.

With the demise of Wingnut Wings and Testors paint, as well as the shrinking page count of the magazine over the past few years, I feel that there is quite a bit more to the story than a few anecdotal, optimistic, seat of the pants facts, and examples regarding the health of the plastic model industry.

As such, and as the leading publication

in the US for plastic modeling, I expect more from *FSM* from an industry analysis perspective. Specifically, *FSM* should investigate and analyze the statistics of the industry such as trends in kit sales, manufacturer count and new models, trade-show attendance, the average age of the builders among other things and present its conclusions on such with more empirical evidence backing up its claims.

As an example, little if any mention has been made over the past year about Testors dropping out, likelihood of which could have easily been seen by its prior elimination of its specialty paint lines such as Luftwaffe, British, et al., colors which dropped out years before they canned it all. It was coming and nobody mentioned a thing. Testors' reason was "lack of volume" — if they saw a decline in the hobby, why didn't *FSM*?

There are a number of other examples of this; too many to mention here. But I think you get the idea. *FSM* should be a modeling and modeling industry platform, not a "kit of the week" publication. It just smacks of *FSM* not taking the hobby and its trends seriously and living with what you get.
— Robert Caso
Boyertown, Pa.

Ed: With all due respect, Robert, neither the closure of Wingnut Wings nor Model Master are related to the hobby declining any more than the demise of Pan Am in the early 1990s was an indication that airlines were going the way of the dodo.

Testors is a very small part of Rust-Oleum, and its market share has been declining. Given the explosion in the range of paints available over the last 10 years, it's hardly surprising.

While we don't know all of the facts surrounding the closure of Wingnut Wings, it appears to part of a larger financial move by the parent organization. Most indications are the company was never designed to be a big moneymaker anyway.

The simple truth is the model industry is a business and model companies have come and gone before, and they will do so in the future.

Bottom line: FSM is not a news magazine, we are a hobby magazine. Rather than report statistics, we want to focus on information and stories to help readers build better models using all of the great kits, paints, tools, supplies, and references available today.

We are here to inspire, educate, and illustrate skills and techniques.

Let us entertain you!



We aim to inspire

Thanks to *FineScale Modeler* and 52 years of collecting, I am looking at 435 unbuilt models. It's going to take some time!

Thanks for the outstanding magazine and for the inspiration.

— John Watkins
Okemos, Mich.

Ed: Glad we could help! Maybe that can be the magazine's new motto: "FSM: Helping build models and stashes since 1982."

Inspired by cutaway

I just received my copy of the November 2020 *FineScale Modeler*, and when I turned to the Reader Gallery, I was amazed seeing Bobby Lukman's German King Tiger.

I have had discussions with modelers as to why someone would put so much detail in a tank and then have it all closed away once the body is assembled.

Bobby's cutaway model has given me the

Q&A

Painting Superfortress props

Q Academy's 1/72 B-29A is the first kit I've purchased since retiring in May and getting back into modeling. (The last kit I built was Monogram's 1/48 B-26 in 1983).

Anyway, after reading Chuck Davis' awesome article on building the Academy Superfortress (September 2020, p. 24), I rushed to my kit and checked the wings weren't warped. *Whew!* Everything looks good.

But I do have a question: What paint — color, enamel or acrylic, scale-effect adjustment — did Chuck use on the props? I've been playing around with my airbrush trying to get a "satin-black" prop, but I really don't like the outcomes so far. Any guidance would be greatly appreciated.

— Jim Walck
Sayre, Pa.

A We checked in with Chuck for an answer. Here's what he said. "I used Tamiya NATO black (XF-69) for the blades and Tamiya flat yellow (XF-3) for the tips. I spray the latter over the black to give it a faded appearance. Tamiya rubber black (XF-85) works well for the blades, too. It has a blue tint, while NATO black has a faint green cast. Avoid pure black as it looks too stark in scale." — A.S.



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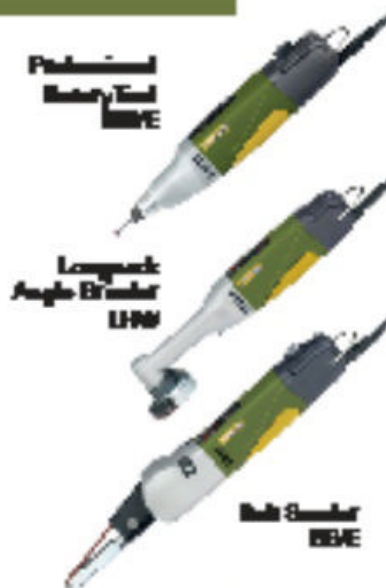
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NPRD ONE SHOT & FAST TRACK VIDEOS

Wondering about a new kit? Let editor Aaron Skinner take you on a tour through the box and across every sprue in his "One Shot" reviews. If cars are more your speed, check out editor Tim Kidwell's box-opening "Fast Track" videos, where he looks at the latest and greatest automotive kits.

urge to build a tank — I have done only wheeled vehicles so far. I would love to see more of his work!

Great job Mr. Lukman.
— *Michel Labelle*
L'ange-gardien, Quebec, Canada

Yet more oldest-surviving models

Ed: This is like the gift that keeps on giving! I am impressed by how long some of you have been able to hang on to some of your builds.



Buicks unlike any other

My first model was Revell's B-24 bomber built when I was 10. I built a lot of models in my youth but was heavily influenced when custom cars became the rage. Our local hobby shop would hold model car contests and I won my share of trophies.

I have kept a few of my better attempts at customizing including this 1962 Buick Special station wagon built in 1965. I was inspired by the Ford GT-40. It has working springs and steering on the front and a Cosworth Ford engine in the rear. All doors, hood, and trunk open and there is even an engine access panel inside that is held in place with clevis pins. The headlights and taillights work powered by hearing aid batteries hidden between the chassis frame rails. The paint job is candy sapphire blue faded over silver done with spray cans. I did all of this with 1965 technology. The primer red drag car uses the same 1962 Buick station wagon body.

I am a longtime subscriber to *FineScale Modeler*, and I still build the odd plastic model but my main passion now is wooden plank-on-frame sailing ships.

— *Rich McFarland*
Richmond, British Columbia, Canada

Early modeling memories alive

I have two models that date back to 1963 when I was 9 years old. One is a 1/48 scale Aurora German Panther Tank, hand-painted with gloss tan and brown. The

other is a Hawk 1/210 scale Jet Power-Korea. Also hand-painted with the slow-drying gloss paints of the time — Pactra maybe. Both survived my teen years and four moves.

— Vince Dudzinski
New River, Ariz.



Revisiting modeling past

First, I have included a picture of the very first aircraft model I built in 1963, the old Air Lines (FROG) Supermarine S.6B racer in 1/72 scale. It was also the first model kit I painted. Somehow it survived the childhood purges involving fireworks and other methods detrimental to finished model kits.



Second, here's Hawk's 1/188 scale Beta-1 Atomic Powered XAB-1 originally issued in 1959; I bought and built it in 1966. It was preserved, forgotten in a box. More than 50 years after it was finished, I unearthed that box recently and decided to rebuild and restore the unusual old kit to modern modeling standards. I used a mix of Testors Model Master Metalizer and Alclad II paints and made my own decals to match the originals. I also cleaned up and repainted the small parasite fighter that

went with the kit and it is comfortably inserted in the tail. I hope you enjoy the picture of the restored version and hope that *FSM* readers that built it in their earlier days will enjoy a short trip down Memory Lane.

— Richard C. Engar
Salt Lake City, Utah



I've been building since I was a puppy. This Corvette survived because my dad kept it on his dresser instead of putting it into storage when my family moved. I got it back when he passed a few years ago. All of the detail is hand-brushed with Testors square bottle paint. The body was polished with Turtle Wax, new tech back then.

Sadly none of the models that went into storage survived. Regrettably, two were award winners; I do have those awards.

— Dan Varner
Borden, Indiana

Be accurate he will

FSM never fails to entertain and October 2020 was no exception.

Although from an entirely fictional universe, getting the right mark of vehicle variant in replicating a diorama from *Star Wars* is as important as it is in re-creating a historical scene. In that light, I'd like to point out that Jonas Dahlberg ("3D print *Star Wars* scenery," p. 46) sank a 1/72 scale Incom T-70 X-wing starfighter in his Dagobah swamp diorama in this issue. This is the uprated variant seen in the most recent sequel trilogy films and flown most famously by Poe Dameron. The X-wing flown in the original trilogy and crash-landed on Dagobah by Luke Skywalker in *The Empire Strikes Back* was an Incom T-65.

Fortunately for make-believe continuity, once Jonas removed his tiny Yoda for the final product, the crash could be any X-wing nose plowed into any swamp planet in a galaxy far, far away, so it (and the 3D printing advice his article was geared toward offering) still works.

May the Force be with all of your modeling efforts, always.

— Christopher Allen,
Dallas, Texas

Ed: According to Jonas, Yoda, or at least his Force ghost, was on hand to supervise construction of the diorama. Once the Jedi master was satisfied that the work met his standards, he flitted away, reportedly to visit Ahch-To where he committed petty arson and messed with Luke's head.



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Compiled by Monica Freitag & Aaron Skinner

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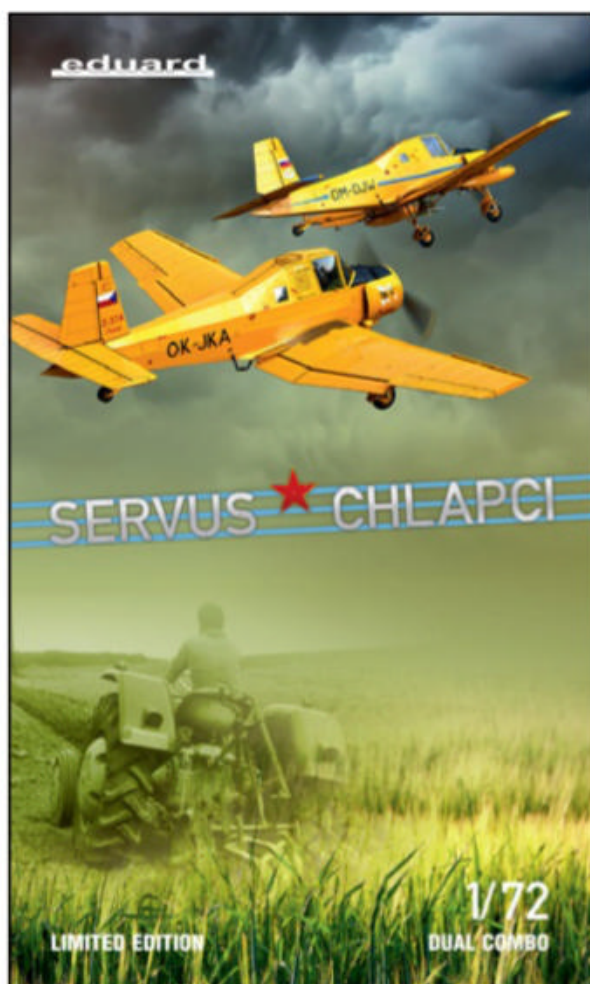


Spitfire Mk. Ia from Eduard, No. 82151, \$54.95.



P-51 North Africa USAAF from Academy, No. 12338, \$35.

1/72 SCALE



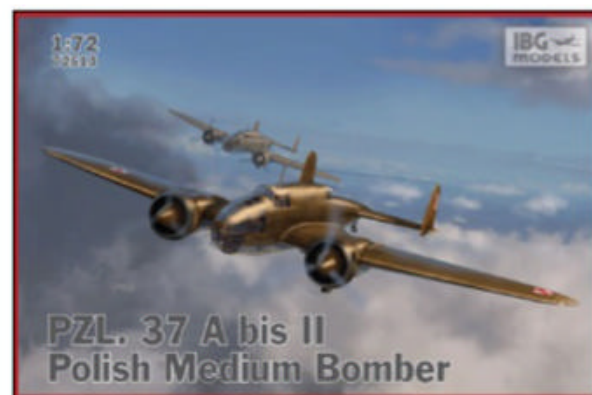
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PZL.37A bis II – Polish medium bomber from IBG Models, No. 72513, \$19.50.

ARMOR

1/6 SCALE

5cm PaK 38 from Dragon, No. 75016, \$84.99.

1/35 SCALE



T-34/85 Composite Turret. 112 Plant Summer 1944 from MiniArt, No. 35306, \$TBA.

Workbench Reviews

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



Italian Autocannone 3Ro with 90/53 90mm AA Gun from IBG Models, No. 35063, \$54.



German Panzer III Ausf J North Africa from Academy/Model Rectifier, No. 13531, \$54. **WBR**



A9 CS Close Support British cruiser tank from IBG Models, No. WAW012, \$10.



Polish Wz. 14/18 100mm howitzer – motorized artillery from IBG Models, No. 35060, \$16.



Semovente M42 da 75/18 from Italeri, No. 6569, \$54.99.



Diamond T 968 cargo truck with M2 machine gun from IBG Models, No. 72083, \$16.75.



Egyptian T-34/85 with crew from MiniArt, No. 3709, \$TBA. Includes four figures, decal sheet and photoetch.



SdKfz 10 Zugkraftwagen 1t (Demag D7) from Special Hobby, No. 8594071087777, \$19.50.



German half track SdKfz 251/10 Ausf C w/3.7cm PaK - Armor Pro Series from Dragon, No. 7314, \$24.99.



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SdKfz 251/1 Wurffrahmen Stuka zu Fuss from Italeri, No.7080, \$23.99.



M6 Bradley Linebacker air-defense vehicle from Dragon, No. 7624, \$27.99.

FIGURES

1/35 SCALE

Close combat US tank crew Special Edition, WWII Military Miniature Series from MiniArt, No. 35311, \$TBA.



German Infantry at Rest, from MiniArt, No. 35266, \$TBA.

1/48 SCALE

Luftwaffe WW2/CS post-war aircraft mechanic from Special Hobby, No. F48367, \$13.60.

1/72 SCALE

MiG-21 PF/PFM pilot in high altitude pressure suit (2 figures) from Special Hobby, No. F72366, \$10.10.

AUTOS

1/24 SCALE



Mercedes-Benz 450SLC Rallye Bandama 1979, from Italeri, No. 3632, \$TBA.



Ford F-150 Raptor, Quick Build, no glue, no paint, from Airfix, No. J6037, \$19.49.

AIRCRAFT MASK

1/144 SCALE

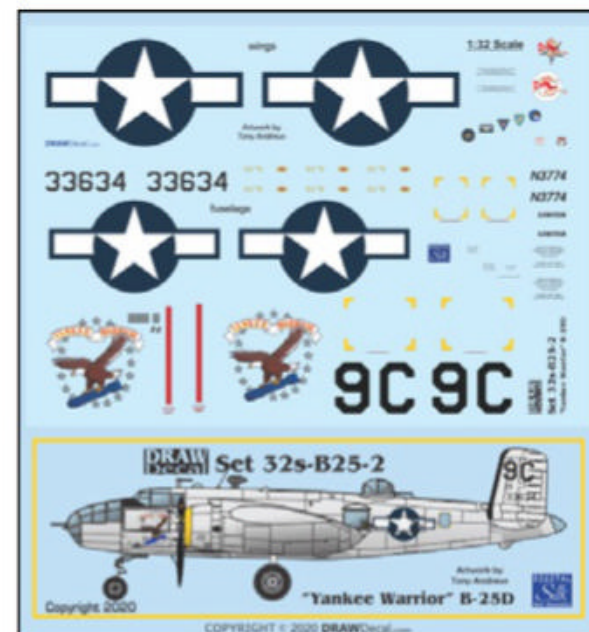
V-156/SB2U Vindicator mask for Special Hobby, Azur, Accurate Miniatures and Academy from Special Hobby, No. M48004, \$5.20.

More at www.FineScale.com

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

AIRCRAFT DECALS

1/32 SCALE



Yankee Warrior B-25D from Draw Decal, No. 32-B25-02, \$16. Also available in 1/48 No. 48-B25-02, \$12, No. 72-B25-02, \$8.

1/144 SCALE



Aloha / Transavia 737-800 from Draw Decal, No. 44-737-132A, \$12; also available in 1/200 scale, No. 20-737-132A, \$8.



Delta 777 Farewell from Draw Decal, No. 44-777-67, \$16.



Aer Lingus 2019 Colors A330-300s from Draw Decal, No. 44-A330-31, \$18; also available in 1/200 scale, No. 20-A330-31, \$12.

AIRCRAFT DETAILS

1/48 SCALE

DH.82 Tiger Moth cockpit entry hatches from Special Hobby, No. 8595593128054, \$10.10.

DH.82 Tiger Moth mainwheels and tailskid with wheel from Special Hobby, No. 8595593128061, \$10.10.

1/72 SCALE

Buccaneer S.2C cockpit from Special Hobby, No. 8595593128078, \$15.90.

Buccaneer S.2C port engine from Special Hobby, No. 8595593128085, \$16.50.

F-14A Tomcat wheels from Special Hobby, No. 8595593128092, \$5.90.

F-14D Tomcat wheels from Special Hobby, No. 8595593127880, \$5.90.

MISCELLANEOUS

1/35 SCALE



US Weapons & Equipment for tank crew and infantry from MiniArt, No. 35334, \$TBA.

1/35 SCALE



German tractor D8506 Mod. 1937 from MiniArt, No. 38029, \$TBA.

BOOKS

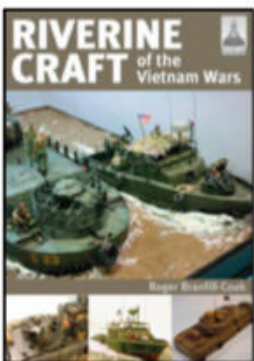


The Yugoslav Air Force in the Battles for Slovenia, Croatia and Bosnia and Herzegovina 1991-92. Volume 1 \$29.95 by

Aleksandar Radici, soft cover, 96 pages, 120 B/W photo, 6 color, 12 color profiles, 4 maps, 7 tables, ISBN: 978-1-9128-663-5. From Casemate Publishers.



Silver Birds over the Estuary \$29.95 by Bojan Dimitrijevic, Milan Micevskii, soft cover, 72 pages, 140 B/W photo, 20 color, 8 artworks, ISBN: 978-1-9131-1869-3. From Casemate Publishers.



Riverine Craft of the Vietnam Wars \$24.95 by Roger Branfill-Cook, soft cover, 64 pages, 200 illustrations, ISBN: 978-1-5267-4906-2. From Casemate Publishers.

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1. Paid/requested outside-county mail subscriptions:	24,009	23,315
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1. Outside-county:	0	0
2. In-county:	0	0
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4. Outside the mail:	0	0
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18. I certify that the statements made by me above are correct and complete.		
Nicole McGuire, Senior Vice President - Consumer Marketing, 09/25/20		

By Joe Hudson

Outfit a U.S. Army sniper

Dry-brushing plus pencil work brings out the details on this resin bust



Look at this amazing World War II U.S. Army sniper bust from Custom Dioramics Legends & Lore series (No. LL-101). This 1/10 scale resin kit was beautifully sculpted by Mujin Park and comes in three separate parts.

I used three sets of paint from Scale 75's Warfront Uniforms line: Airborne 1943-44 (No. SSE040); Canvas Equipment (No. SSE070); and Weapons (No. SSE067). A few other Scale 75 hues, plus one color from Andrea's WW2 khaki paint set, placed this sniper on the front lines.

Joe dry-brushed the clothing to give the pieces a heavier, canvas-like appearance. A mechanical pencil added the U.S. markings.



1 I base-coated parts of the jacket closest to the skin with a temporary color to frame the face. I then painted the face and base-coated the hands using Scale 75 flesh tones.



2 For the jacket's real base coat, I mixed yellow sand (No. 21) and graugrün gray (No. 07). The left arm was temporarily attached so I could see where shadows should fall.



3 In shadowy areas, I mixed pale earth (No. 34) into the base mix. To build up shadows, I kept adding pale earth to the mix until it was pure pale earth. The key is to keep the layers very thin.



4 I then permanently attached the arm. More yellow sand added to the base mix created highlights. I continued to add this until it was pure yellow sand. Brightest points are ...



5 ... yellow sand with grau (No. 29). The vest's base coat is dunkelgelb (No. 24) mixed with pale earth. More pale earth in the base mix went into shadowy areas.



6 Pure pale earth was painted on the darkest points. Using a soft-bristle brush, I then dry-brushed dunkelgelb onto the vest. This created a textured look similar to canvas.



7 A glaze of pale earth helped blend everything. Highlights are the vest base color mixed with progressively more and more dunkelgelb until it was pure dunkelgelb at the brightest points.



8 References show a green trim along edges of the vest, so I painted it with base (No. A-1) from Andrea khaki set. I mixed more base into Scale 75 gelbraun brown (No. 06) to add highlights.



9 The "U.S." stenciling on the back was outlined with mechanical pencil and painted with graphene gray (No. 58). Now I could move on to the sniper's rifle.



10 I base-coated the rifle's wood with gelbraun brown. Metal parts are graphene gray followed with black metal (No. 63) highlights. Flat black (No. 00) separated the different components.



11 Back on the wooden stock, I painted rough grain lines in rotbraun primer red (No. 03) and flat black. Inktense chestnut (No. 81) covered the grain and blended the finish.



12 Inktense brown (No. 85) added shadows around bands and along the sides. I worked in small sections to avoid marring metal areas. Now he's ready for action. **FSM**

By Chuck Davis

How to mask and paint stripes

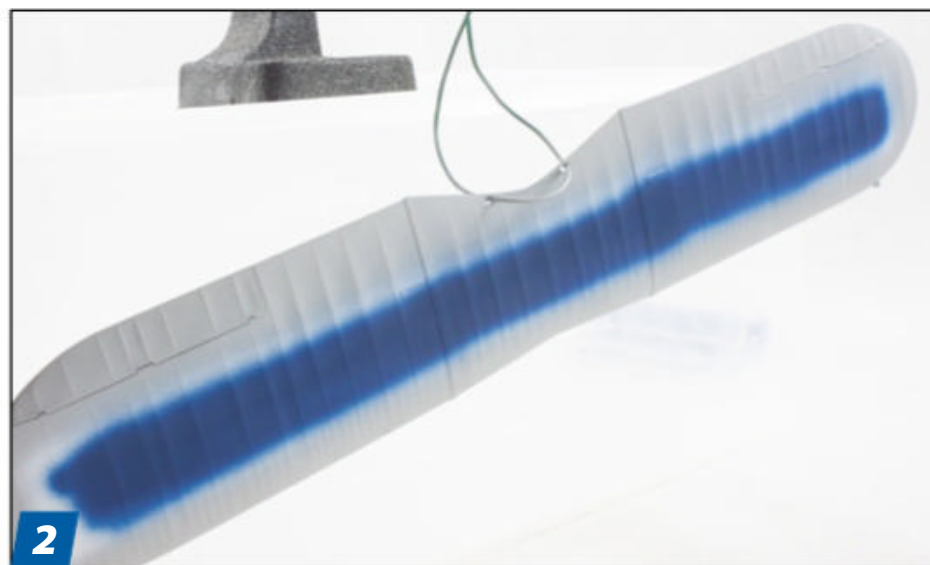
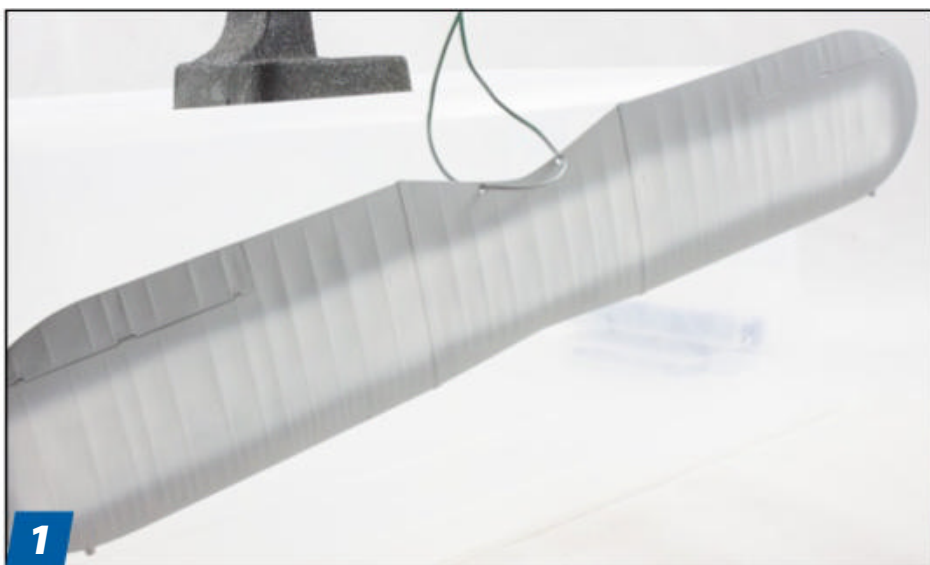
No one said there would be the math involved



ICM's terrific 1/32 scale Gloster Gladiator Mk.I includes a single pre-war "silver wings" marking option for the Royal Air Force's No. 72 Squadron.

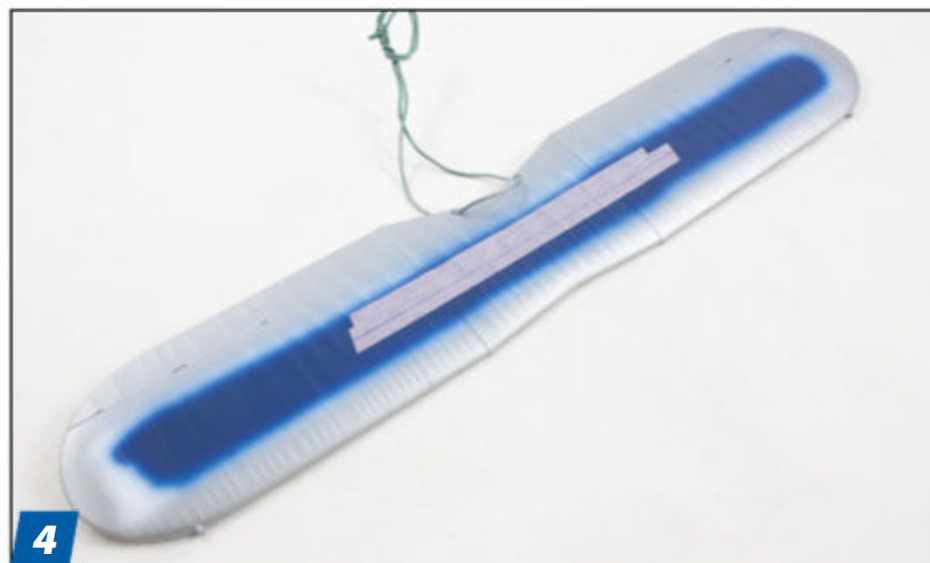
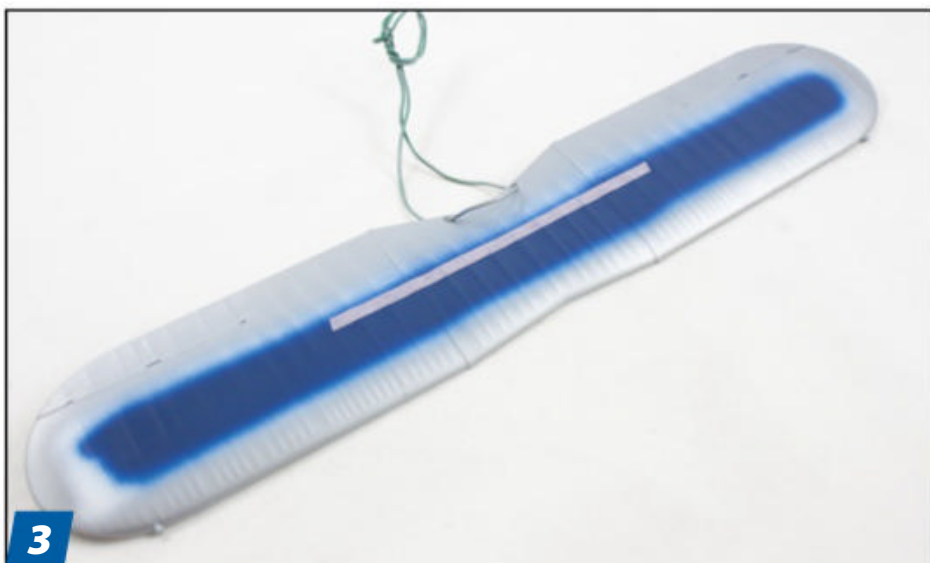
The airframe depicted, K6140, was assigned to the Blue Flight leader and features blue wheel covers, fin, and horizontal stabilizers. The typical RAF wing and fuselage squadron markings are not supplied since the fighter apparently flew for a while without them. I found a picture that showed the markings applied at a later date and

thought adding them would perk up an already colorful bird. So I decided to mask and paint the red-and-blue wing and fuselage stripes used by No. 72 Squadron. But fair warning, you will need to use simple math and geometry.



I base-coated the area of the markings with Tamiya flat white (XF-2). I had intended to mask and paint the markings over the Alclad II silver finish, but problems with primer adhesion changed my plans. The process is generally the same regardless.

A layer of Tamiya flat blue (XF-8) followed, then I sprayed a sealing layer of Testors Model Master Acryl semigloss clear. I used semigloss since that was my intended final sheen for the markings to prevent them looking toy-like as a gloss finish can sometimes appear.



After cutting, I had two pieces of tape with the correct arc to mask the ends of the blue, but I had to place them just right. I cut a piece of $\frac{5}{32}$ -inch wide piece of tape to simulate the rear red stripe and placed it on the wing making sure it was properly aligned and positioned.

I used the tape simulating the red stripe as a guide to place a piece of $\frac{10}{32}$ -inch wide strip of tape, the width of the blue stripe, and marked the stripe's centerline on it.

Math and geometry warning!

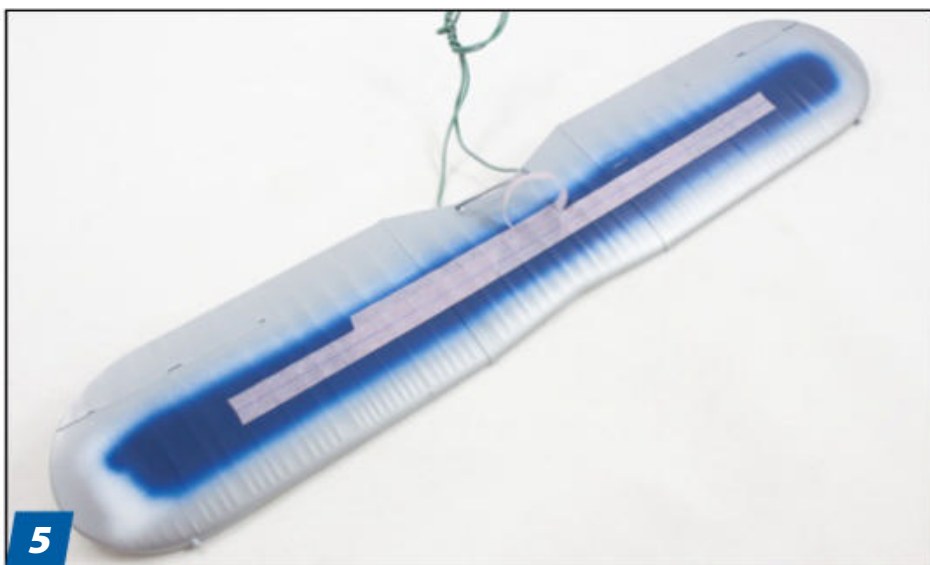
THE UPPER WING marking comprises a narrow red stripe surrounding a single wide blue stripe with curves at either end matching the roundels. First, I measured the diameter of the roundels as $\frac{40}{32}$ inches. (I know ... that's $1\frac{1}{4}$ inches, but it is easier on the brain to keep the measurements with the same number on the bottom as I move forward.) To cut the end arcs with a scalpel blade in compass, I needed the radius — half the diameter — to measure the arcs. Based on pictures, I estimated the width of the stripe as about $\frac{20}{32}$ inch, which I cut from a piece of tape. To make life easy, I made each red stripe $\frac{5}{32}$ inch wide and the blue stripe $\frac{10}{32}$. The stripe is offset from each roundel by a



gap, which I guessed to be about $\frac{5}{32}$ -inch wide in $\frac{1}{32}$ scale. For the blue, I set the compass at the radius of the roundel ($\frac{20}{32}$) plus the width of

the silver gap ($\frac{5}{32}$) and the red stripe ($\frac{5}{32}$), or $\frac{30}{32}$ inch. I marked the center of the stripe on the $\frac{20}{32}$ piece of tape used to mask the blue stripe.

I used the compass cutter to slice two arcs at the correct diameter, without worrying about the length of the stripe just yet.



5 Using photos, I noted where the blue stripe ended in relation to wing features — 1 full rib inboard of the middle aileron hinge — and placed the tape with arcs on each end. The marked centerlines on each piece of tape made alignment a snap.



6 Phew! After all that brain work, spraying another quick primer coat of flat white was a relief.

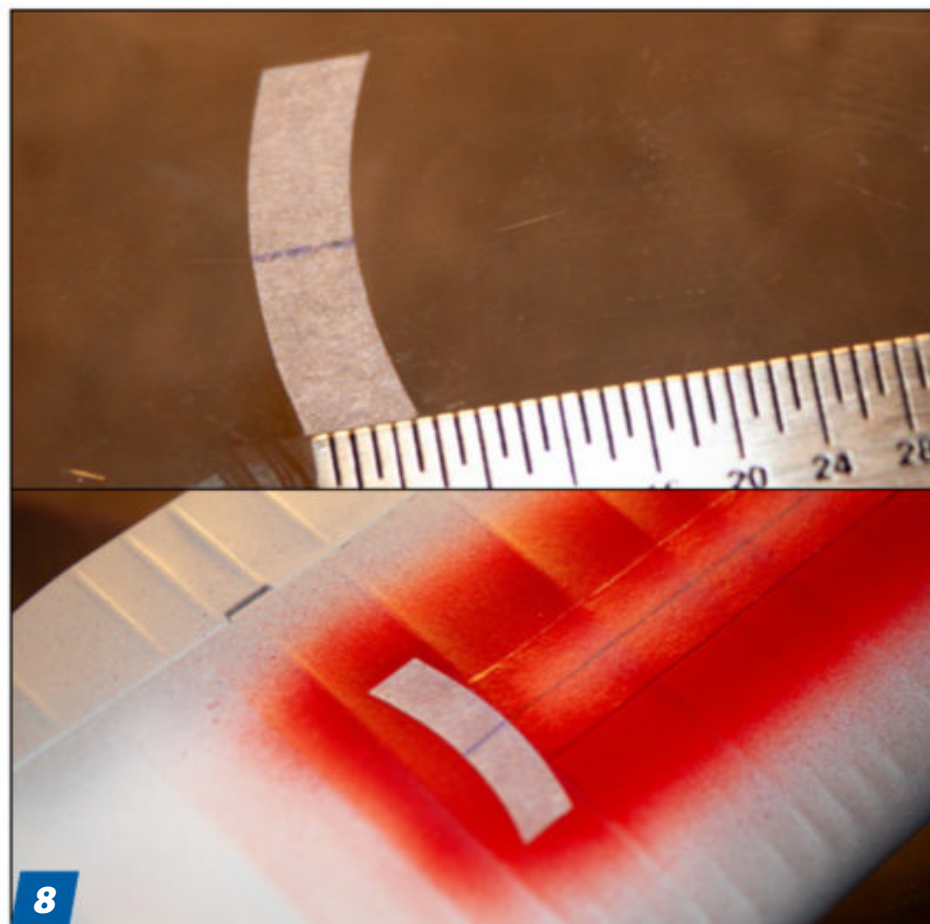


7 Then, I sprayed Tamiya flat red (XF-7). After it dried, I applied another coat of acrylic semigloss clear to seal the work.

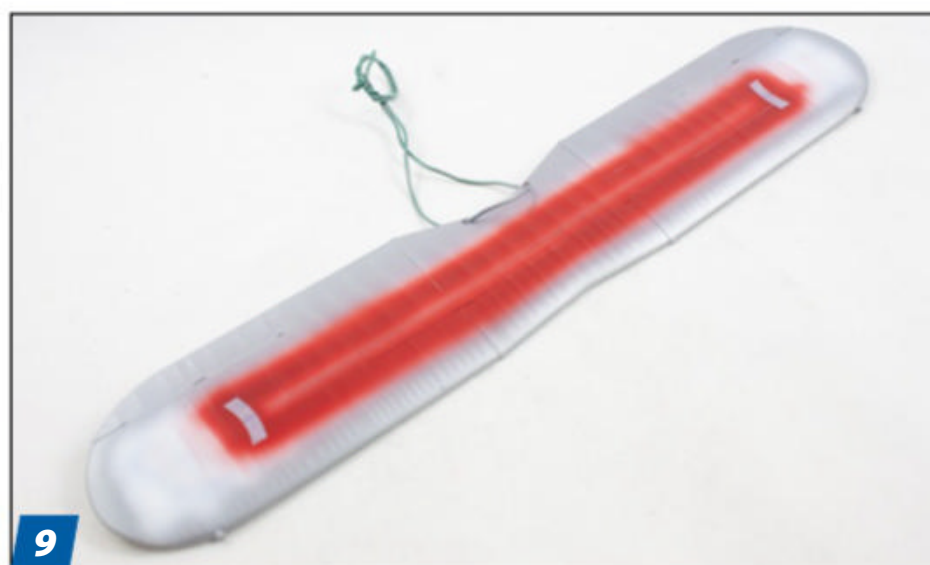
Geometry 201



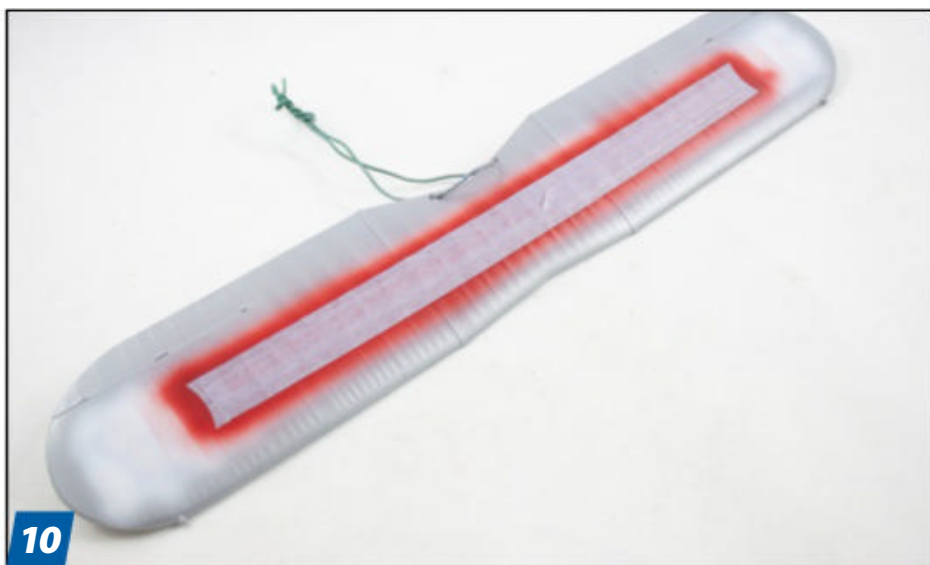
SORRY, BUT IT'S TIME for another math and geometry session. I needed to mask the red stripes. This means the arcs for the roundels need to be replicated. To be able to accurately place them, I made them the actual width of $\frac{5}{32}$ inch. I cut a piece of tape to the full width of the marking, $\frac{20}{32}$ inch, and marked the centerline. I also made a small mark for the placement of the compass point. Next, I set the compass for the larger radius — the edge next to the blue stripe, so it was $\frac{30}{32}$ -inch — and cut the tape. Without moving the compass center point, I set the radius $\frac{5}{32}$ shorter — the width of the red stripe — and cut the tape again. To be efficient, I swung the compass around a full circle each time to cut both stripe masks.



8 Checking my work revealed that my math (see Geometry 201 sidebar) worked — the red stripe mask is $\frac{5}{32}$ -inch wide and it has the correct arc to mate with the blue stripe. I carefully placed the arc masks at each end of the blue stripe using the marked centerline for alignment.

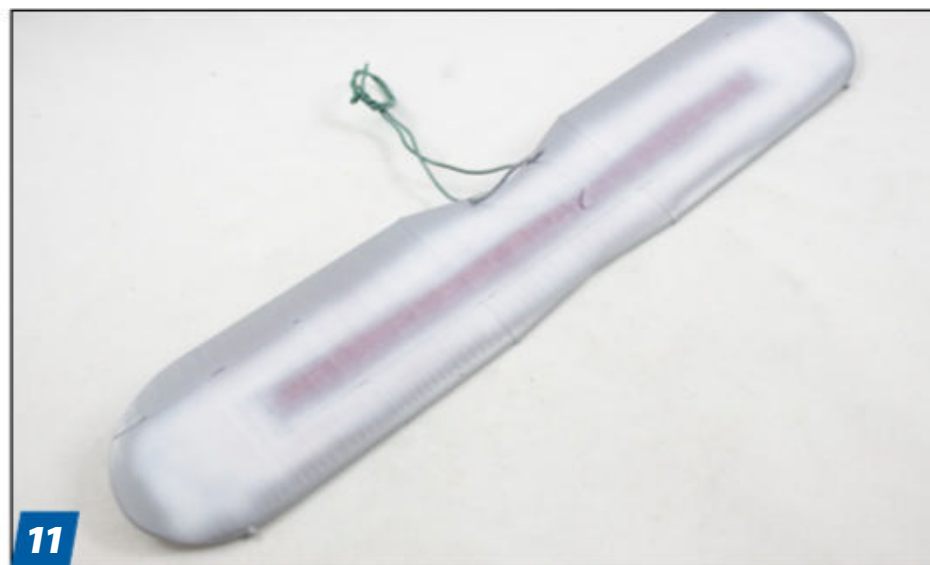


9 Now that I had the ends masked, I could finish masking the rest of the red stripe. Cutting the arc masks to size has the added benefit of giving you a placement guide to align the red stripe masks along the wing.



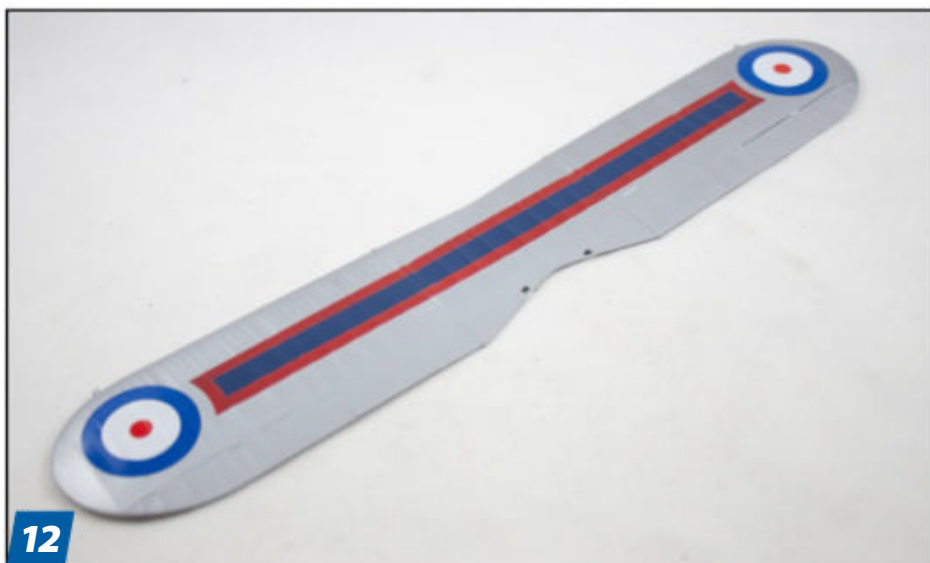
10

Simply join each arc mask with a piece of tape. I covered the edges where tape pieces butt up to one another to prevent overspray.



11

I know I sound like a broken record, but the next step was to apply white primer — Alclad II white (No. ALC-306) in this case — to provide a uniform base for the metallic finish.



12

After applying Alclad II RAF high-speed silver (No. ALC-125), I carefully peeled away the masks to see if the placement and cutting of the arcs matched the roundel decals. A bit of care and mental work was all it took. Who needs decals, right?

Similar math and cutting allowed me to cleanly mask the red and blue stripes on the fuselage. **FSM**



You may have heard a rumor that you need an airbrush to paint models. John Bonanni proves otherwise with this M4A3 Sherman.



No airbrush, **NO PROBLEM**

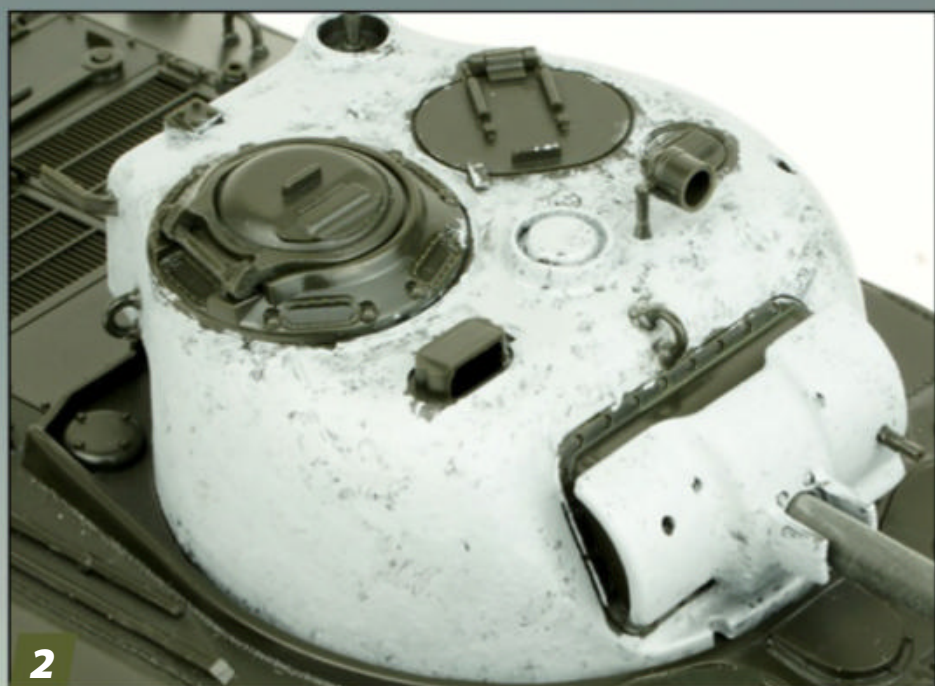
Finish a Sherman with spray paint and brushed-on pigments and enamels

BY JOHN BONANNI



1

The Sherman took about 5 hours to build. It's simple construction and design make it a perfect subject for modeling without a bunch of potentially wallet-emptying tools.



2

To enhance the distinct casting texture on the Sherman's turret, I thinned Tamiya Basic Putty (No. 87053) with Tamiya Extra Thin Cement (No. 87038), applied the putty to the turret in blobs and stippled it with the tiny brush from the liquid cement bottle.



3

At first, I didn't prime the turret, but the color difference between the green plastic and gray putty was noticeable under green paint. I went over the turret, hull, and running gear with inexpensive black primer from the hardware store.

New and returning hobbyists frequently post on social media wondering what they need to finish a model. Inevitably, answers provide long, diverse lists of supplies that always include an airbrush. For sure, an airbrush can make modeling easier, but it is possible to finish an appealing model using only spray paint and paintbrush techniques.

Tamiya's 1/35 scale M4A3 Sherman makes an easy canvas with simple construction. The open sponsons are the only major concern. I closed them up with long rectangles of styrene sheet. I didn't need a perfect fit because the work would be largely unseen. With the hull assembled, everything else on the model practically fell into place, and it was time to paint.



4

Tamiya olive drab 2 (TS-28) served as a base coat. I applied several light coats holding the spray-can nozzle about 8 inches from the model's surface. It's important to avoid trying to cover everything in one coat, and always start and finish spraying off the model.



5

An added benefit to using spray paint is that it literally goes everywhere, which helps cover all the hard-to-reach places in the suspension. After painting the entire model, I let it dry thoroughly for 24 hours.



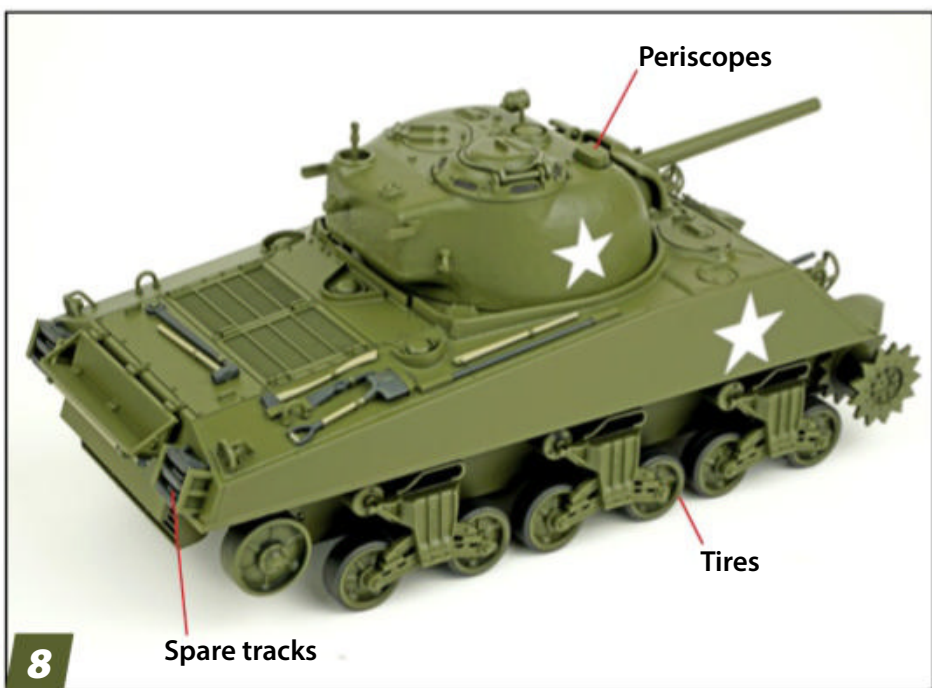
6

I went with simple insignia on this vehicle and opted for dry-transfer stars from Archer. The transfers came from my spares and were over 15 years old, so I brushed Micro Sol setting solution over them to help the markings settle onto the surface.



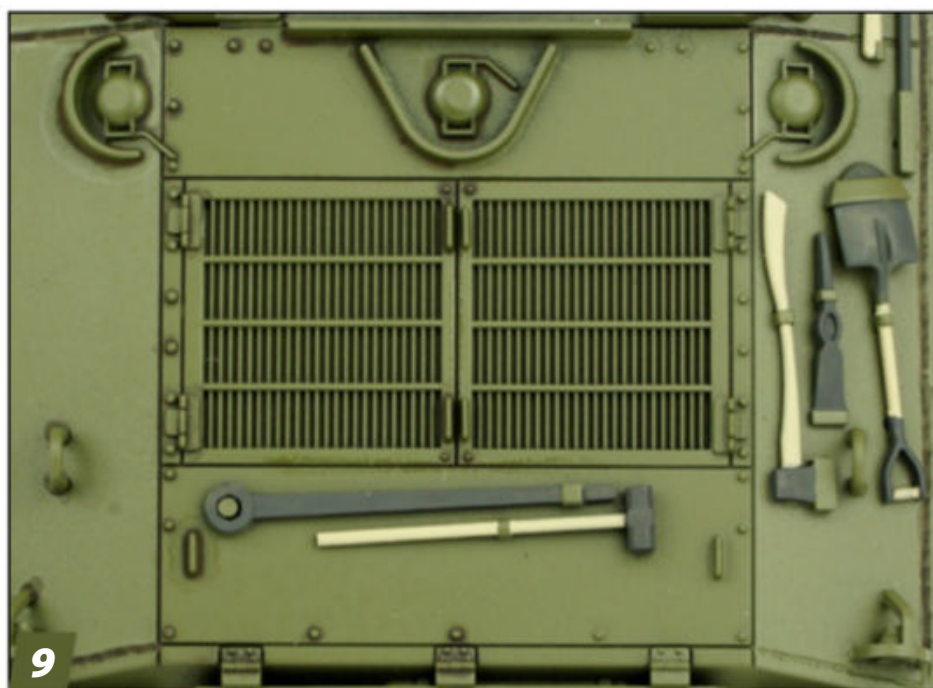
7

To protect the decals and dull down the olive drab, which had dried to a satin finish, I sprayed two light coats of Testors Dullcote over the entire tank and let it dry for 24 hours.



8

Next, using a fine-tipped paintbrush, I picked out the tool handles with Vallejo German camo beige WWII (No. 70.821) and the metal parts with black (No. 70.950). I also painted the spare tracks, tires, and periscope lenses black. I left the wheels to spin freely to make painting easier.



9

A pinwash helps define details. I started with Ammo by Mig Jimenez Dark Brown Wash for Green Vehicles (No. AMIG1005) and flowed color around bolts and along panel lines with a fine-tipped paintbrush. You can see the difference between the details on the left and right halves.



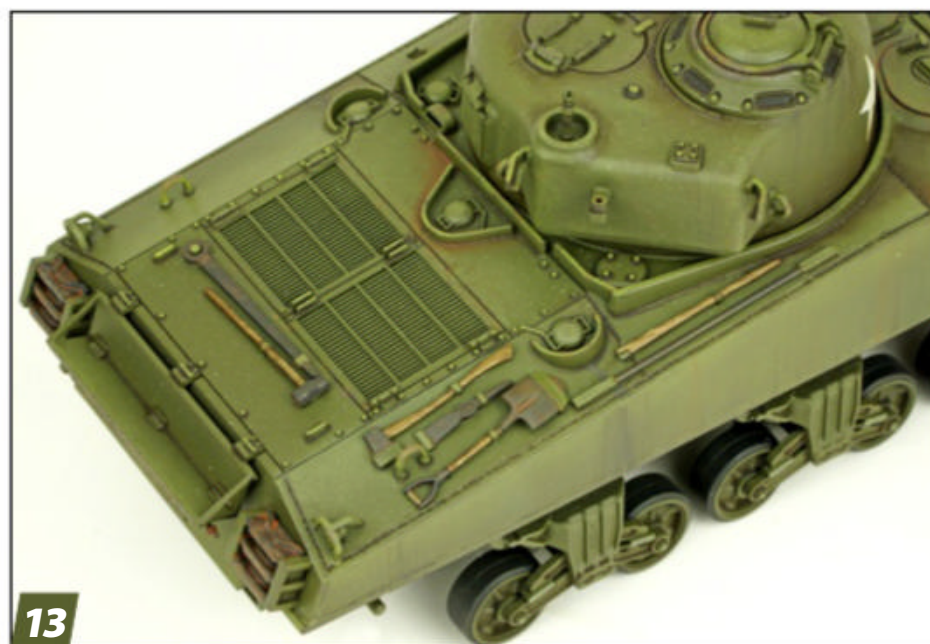
10 For highlights, I mixed a 1:1 ratio of Ammo Oilbrusher olive green (No. AMIG3505) and dust (No. AMIG3516). Next I painted an opaque line along the edge of a panel and then used a dry, wide, flat brush to blend the color into the base coat with strokes running perpendicular to the panel line.



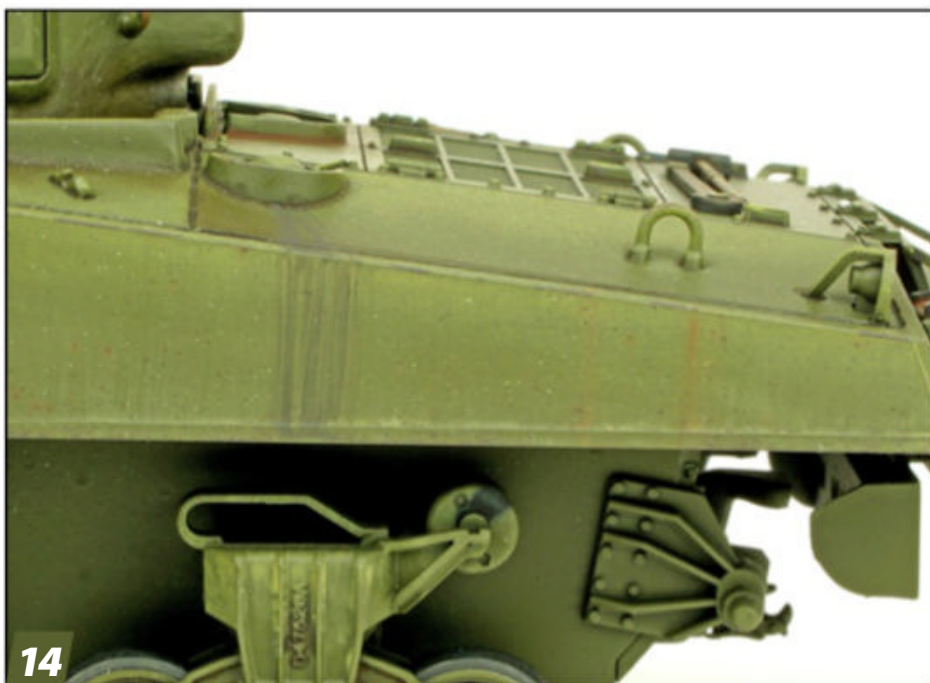
11 To add shadows, I turned to Oilbrusher dark brown (No. AMIG3512) and used the same procedure as I did for highlights. However, it's important to use a dry brush; any moisture will ruin the blending effect. I also added extreme highlights to small details using the highlight mix, then let it all dry for 24 hours.



12 Two techniques accomplish the look of chipped paint. First, I made irregular dark brown and light green patterns along the edges and in areas the crew would frequent with a small piece of micro-cell sponge. I also flicked small dots of paint randomly over the model's surface.



13 Similar to dry-brushing the highlights and shadows, I added faint rust tones to the top of the rear plate. Also, Oilbrusher dark brown simulated wood grain on the tool handles. Oilbrusher rust (No. AMIG3510) worked perfectly to provide light rust on exposed metal.



14 Oilbrusher starship filth (No. AMIG3513) replicated dried fuel stains. Small dots were added to the top of the panel and then streaked down using a brush dampened with mineral spirits. Rust streaks were made using the same method.



15 To get a little dirt on my Sherman, I applied Ammo Europe earth (No. AMIG3004) and dark earth (No. AMIG3007) to the hull, running gear, and wheels. Then I dampened the pigment with fixer (No. AMIG3000) to hold it in place. I prefer to administer fixer with a syringe and hypodermic needle for precise control.



16 Ammo heavy earth (No. AMIG1704) and earth (No. AMIG1403) enamel washes along with Oilbrusher dust replicated dirt and grime on the upper surfaces. I used a brush damp with mineral spirits to blend and streak the colors.



17 I went over the periscope glass with satin black and followed up with a coat of Ammo fresh engine oil enamel (No. AMIG1408). I prefer using the enamel paint as the last step because the surface tension is very low, and it easily flows along the details.



18 Ammo fuel stains (No. AMIG1409) created damp grime and fuel stains around the Sherman's filler caps. A dab of black artist oil mixed with the effect provided some opacity. I also speckled the engine deck with black oil paint to simulate additional stains that have accrued over time.



19 The fuel-stain mix served as moisture and grease around the wheel fittings and sprocket interior, too. I rubbed a No. 2 graphite pencil on the sprocket teeth, road-wheel rims, and idlers for a bare-metal look. The treads received ground graphite via a rubber-tipped brush.



20 I made a slurry of the same pigments I applied to the hull and water and slathered it on the tracks with an old brush. After the mud was dry, I brushed off the excess and dry-brushed the treads flat black.



21 The final touch was to highlight the edges of hatches and the hull with the edge of a No. 2 graphite pencil to simulate bare metal. The turret and bow machine gun were similarly burnished with a pencil, too. Remember, use the side of the graphite, not the tip.



FINAL THOUGHTS

EVERY STEP of his project was a joy. I found skipping the airbrush took me back to my earliest experiences modeling and allowed me to focus on further developing other skills and techniques. Maybe next time, I'll try a camouflage pattern without an airbrush. **FSM**



Finish a well-used **TOMCAT**

Dressing up Monogram's classic

1/48 scale F-14 with
weathered camo

BY DARREN ROBERTS



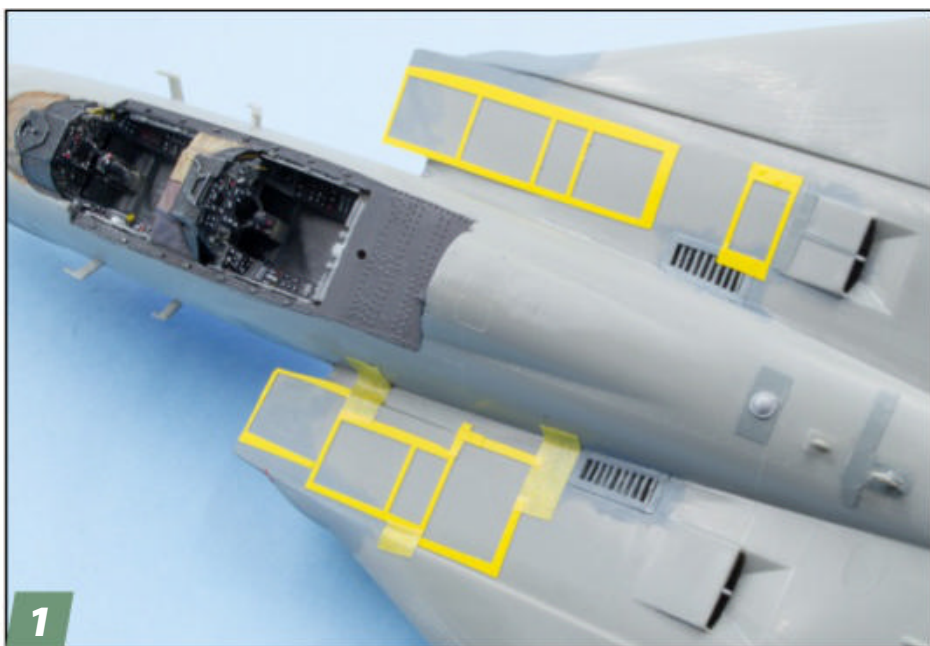


Modelers usually try for the most accurate representation of a given subject. We spend copious hours (not to mention dollars) finding just the right details. Most of the time, we use photos from books or online, but every so often, the actual subject ends up in our backyard. Such was the case with

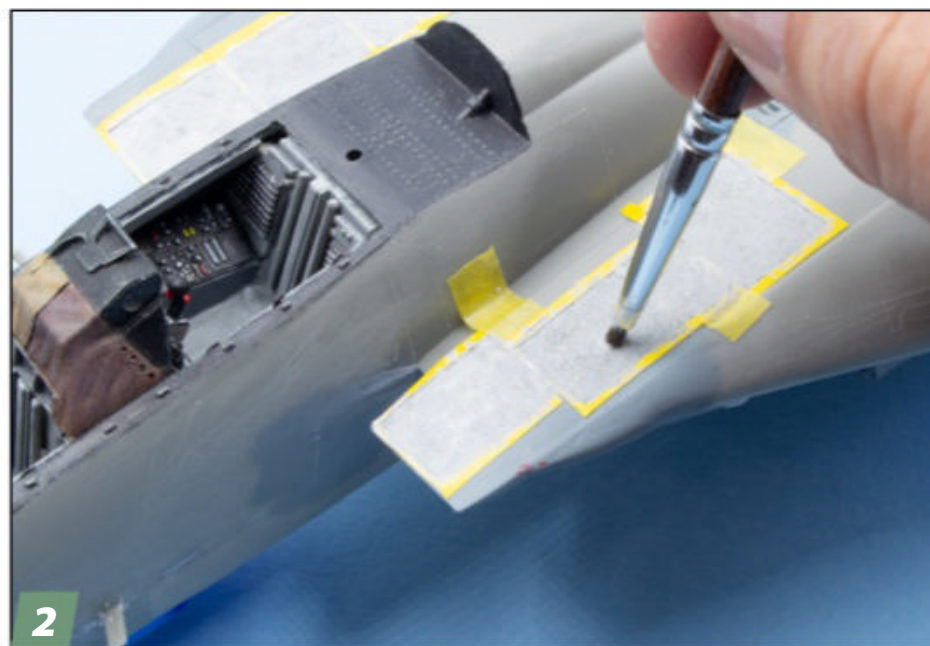
F-14A, Bureau Number (BuNo) 161615, which arrived at the Combat Air Museum in Topeka, Kan., in October 2003. Being an hour away from the museum filled this Tomcat-obsessed modeler with joy! To top it off, Fightertown Decals released a sheet featuring that Tomcat. With permission from the museum, I was able to photograph every square inch of the airplane — now I had the ultimate reference! This

project marked a milestone for me: The 100th 1/48 scale Monogram Tomcat I've built since I started this hobby at age 5. Yes, I know. I have a problem.

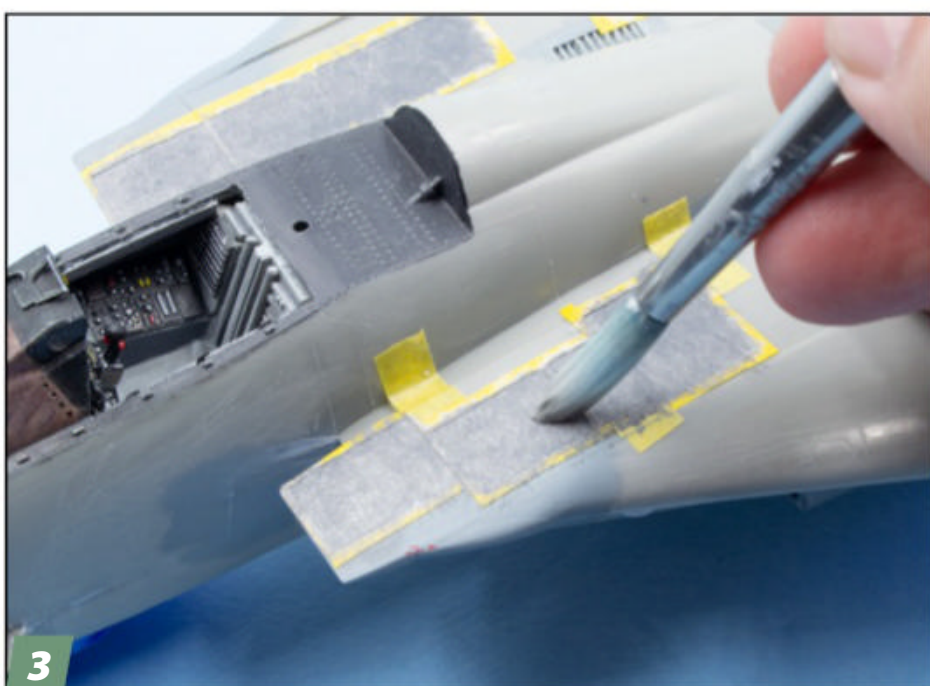
The majority of later F-14s wore the Navy's standard Tactical Paint Scheme (TPS) of light ghost gray underneath, dark ghost gray on vertical surfaces, and medium gray topside. This Tomcat was unique, however: It was painted medium gray overall. On top of that, it had distinctive corrosion control efforts I've never seen on any other Tomcat. I set out to replicate this scheme as closely as possible.



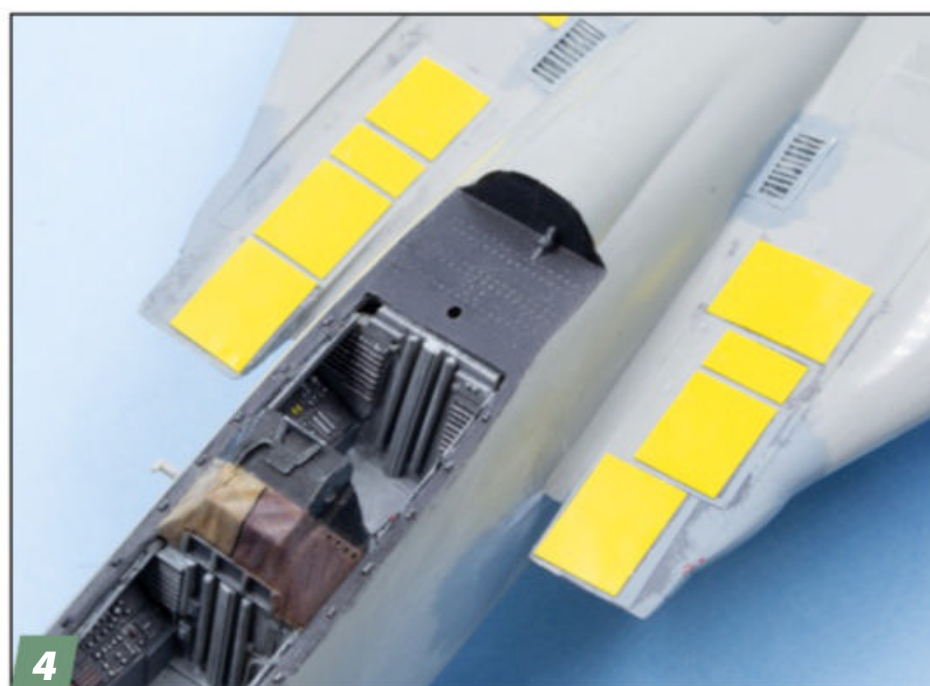
1 I started with the nonskid walkways on the intakes, first masking the areas. Note they aren't symmetrical.



2 Using a brush with the bristles cut short, I stippled Mr. Surfacer inside the masked sections. I applied three layers, letting each dry completely before the next.



3 I painted the textured sections with gunship gray (except for one small area, which was painted light gull gray), then dry-brushed lighter grays before finishing with a thin wash of gunship gray.



4 After removing the original masks, I masked the walkways in preparation for airbrushing the camouflage.



5 The framing molded on the windscreen of the Monogram Tomcat isn't quite correct. After sanding it off, I polished the part back to clarity and applied vinyl masks with the correct shapes. The framing was sprayed black after being glued on.



6 Several areas of the airframe are light ghost gray, most notably the radome and the areas where Phoenix missile pallets would have been mounted underneath. I sprayed light ghost gray, then tacked the Phoenix pallets in place with white glue as masks.



7 To mask the radome's compound curves, I used Tamiya tape for curves at the paint edge, then covered the rest with standard Tamiya yellow tape. I airbrushed the airframe with medium gray. Testors Model Master Acryl colors were used unless otherwise stated.



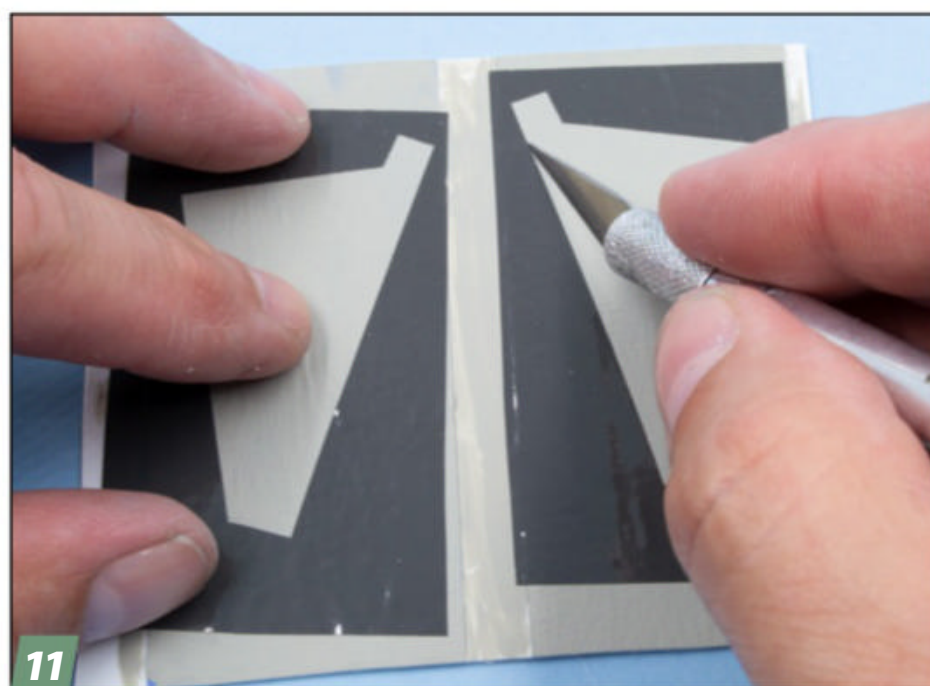
8 Removing the masks revealed the lighter areas where the Phoenix pallets, omitted on 161615, would have been fitted underneath ...



9 ...and radome up front ...



10 ... as well as the cockpit and the adjacent walkways.



11 The kit's wing-seal bladders lack detail, but they are textured on full-size Tomcats. To replicate this, I sprayed masking tape with light gull gray, then used a pattern to cut out two bladders.



12 Concerned that the tape's adhesive would weaken over time, I applied a thin layer of superglue over the area before placing the new bladders on the model.

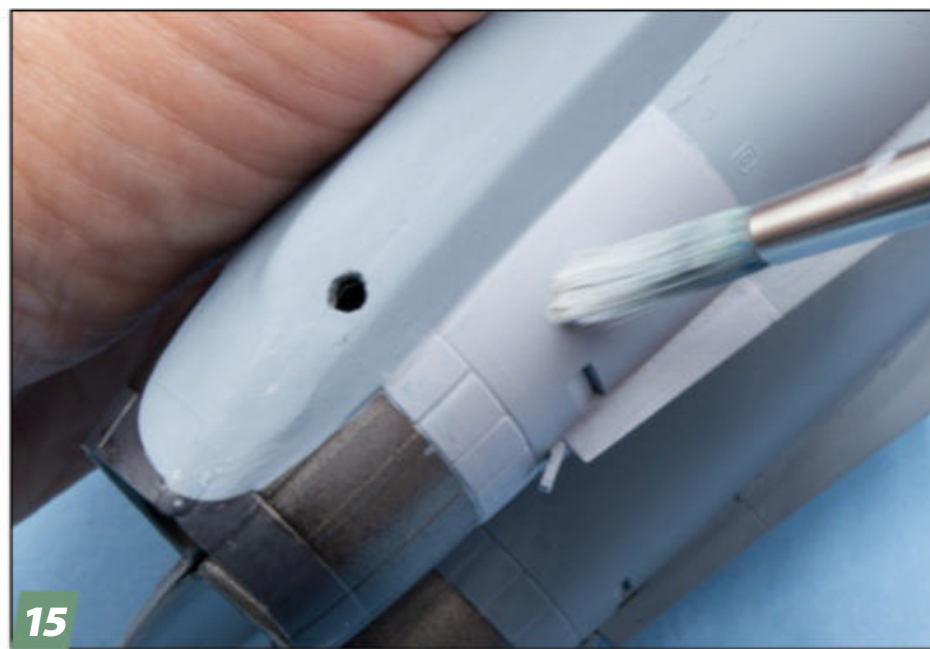


13 Another unique feature of this Tomcat is the extensive corrosion control on the intakes: a series of horizontal and vertical lines painted light ghost gray. Using a liner brush, I hand-painted these ...



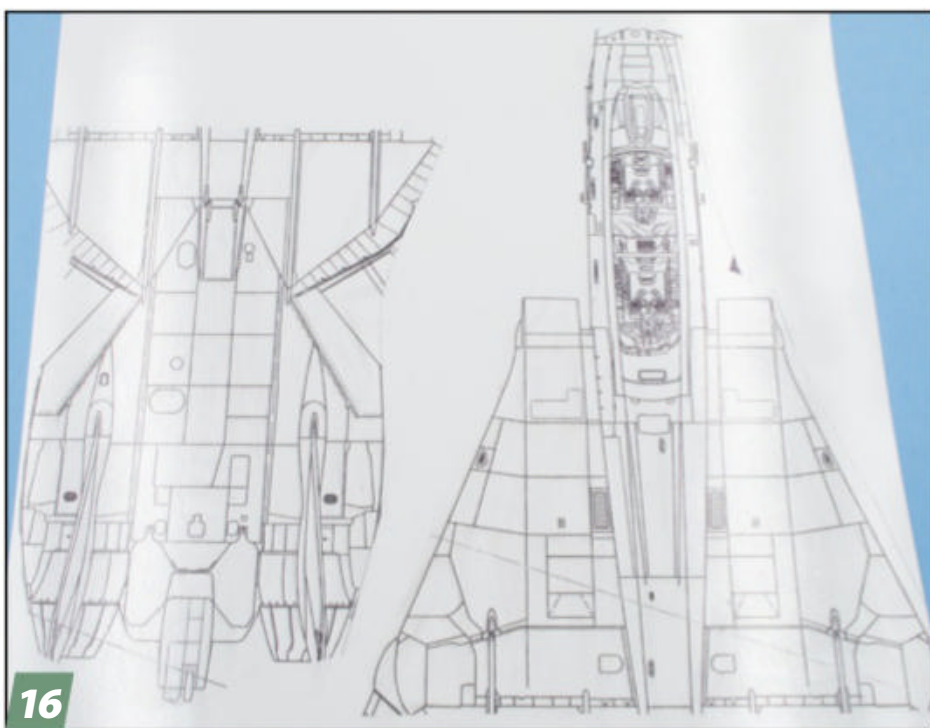
14

... as well as the hinges for the radome.



15

A larger brush was used to paint the replacement panels under the rear end.



16

Correcting the kit's fit problems eliminated most of the raised panel lines. Rather than scribe replacements (I'm too lazy), I tried a new approach. I copied a 1/48 scale F-14 line drawing onto clear decal paper.



17

I sprayed the entire model with Pledge Floor Gloss and then began piecing together my homemade panel line decals on the model.



18

It was surprisingly effective even though I had to touch up a few areas. The lines seemed a bit too dark, so I lightly misted thin medium gray over them. Then, I added the rest of the markings



19

Next, I turned to weathering details, including the beat-up ventral strakes that still sported a barely visible VF-41 from a prior squadron. I added the marking with a decal and gently dry-brushed medium gray over it until just a hint of the numbers was visible.



I completed the work by painting a small brown patch on the tail ...

The build in brief

USUALLY, I BUILD MONOGRAM'S TOMCAT without adding much, but I wanted to go a bit further this time. While it will never compare to the likes of the Tamiya kit, the Monogram kit, with some TLC, can hold its own. You can see a detailed report on improving the kit by downloading the PDF at FineScale.com/RobertsTomcat. Here's an outline of those improvements:

- True Details cockpit set enhanced with scratchbuilt sill details
- Sheet styrene wing sweep seals
- Separated and repositioned stabilators
- Added reinforcement patches
- Improved surface details
- Scratchbuilt ECS vents
- Replaced ventral strakes with aftermarket items
- Replaced molded on lights with tinted clear plastic



... and various touch-ups all over the plane in aqua-colored primer.



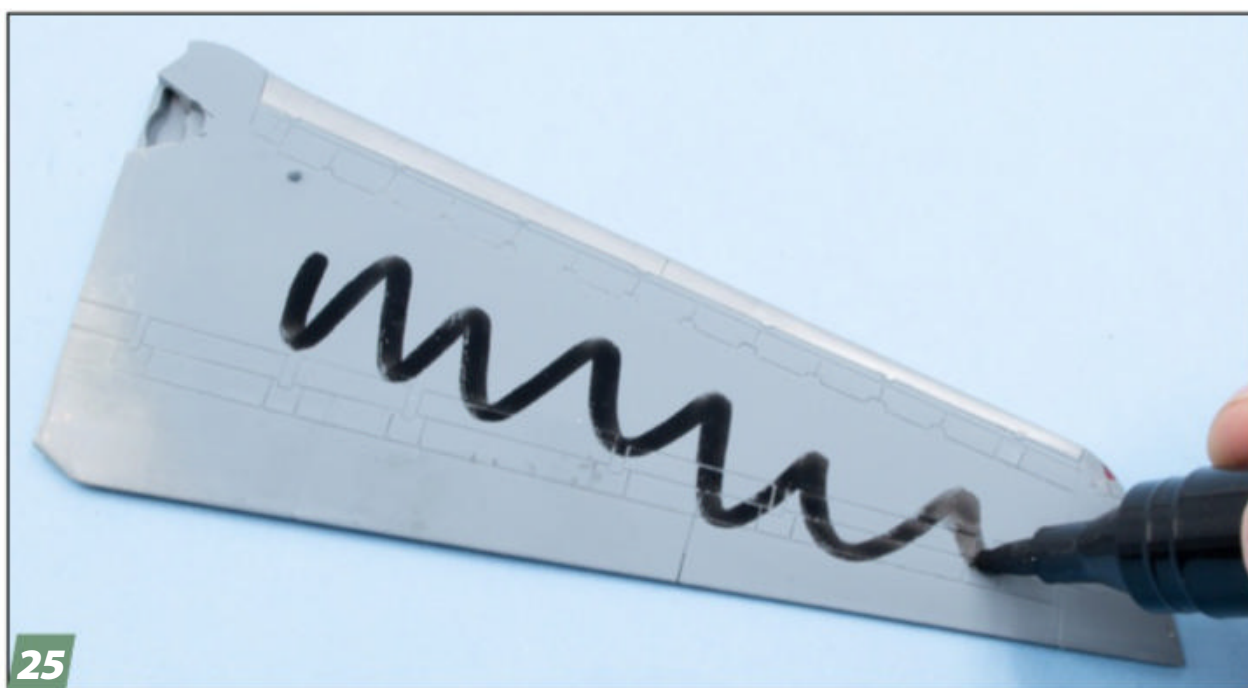
The inside of the TF-30 engine nozzles on the Tomcat show an alternating pattern of dark and light. Rather than spend hours masking, I painted the inside of the nozzles camouflage gray and used a Micron .005mm pen to draw lines separating the panels.



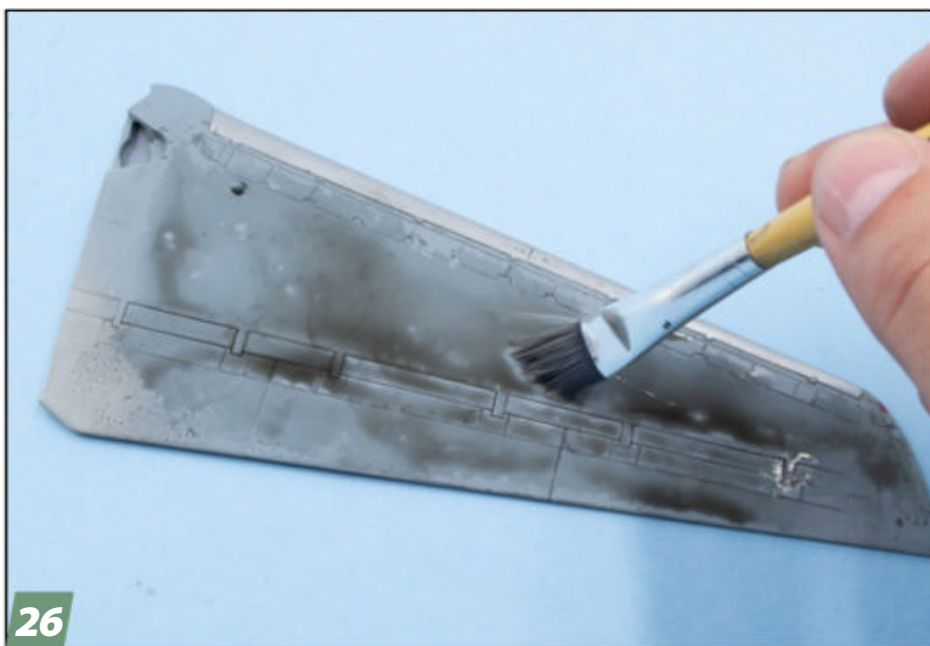
Then, using a liner brush, I painted every other section with Alclad II pale burnt metal.



The outside of the nozzle was painted flat black and then dry-brushed with out-of-production Floquil old silver for a realistic metallic sheen.

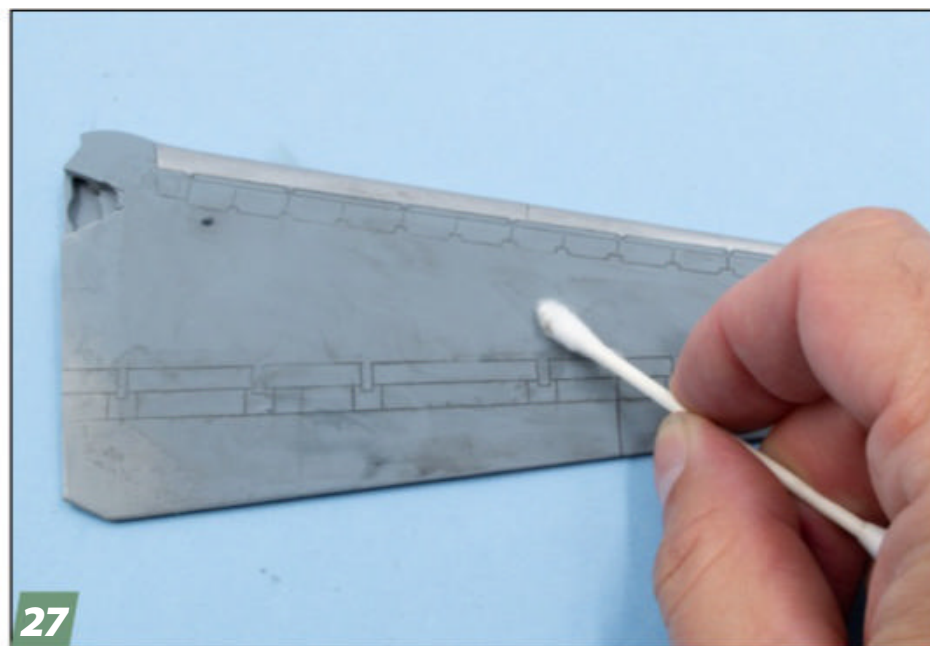


Now that all the major painting was complete and the decals were on, it was time to get this Tomcat dirty. For general grime, I use a water-soluble ink pen and scribble in the area I want dirty.



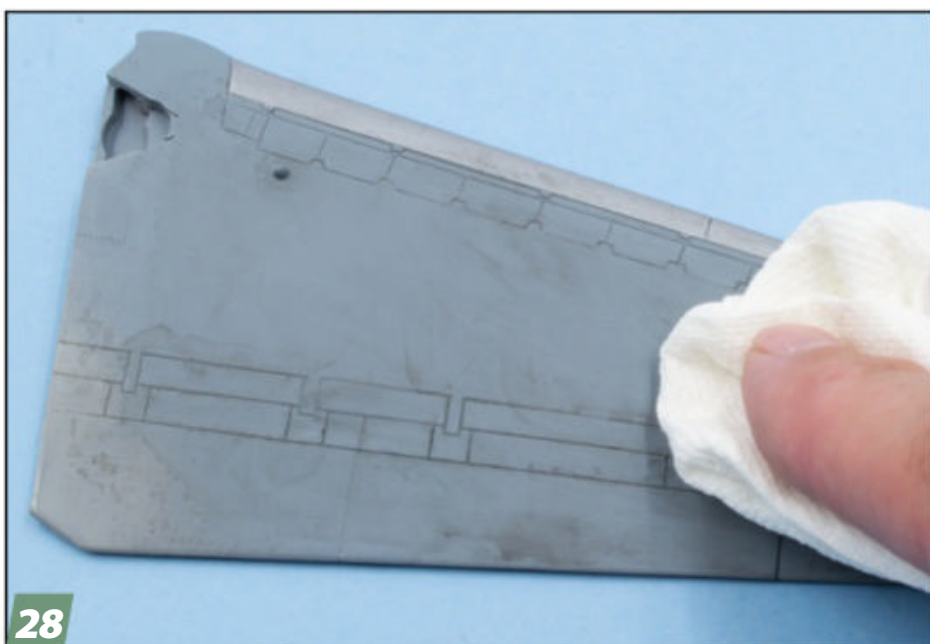
26

I follow up with a soft, wide brush dipped in water to spread the ink around ...



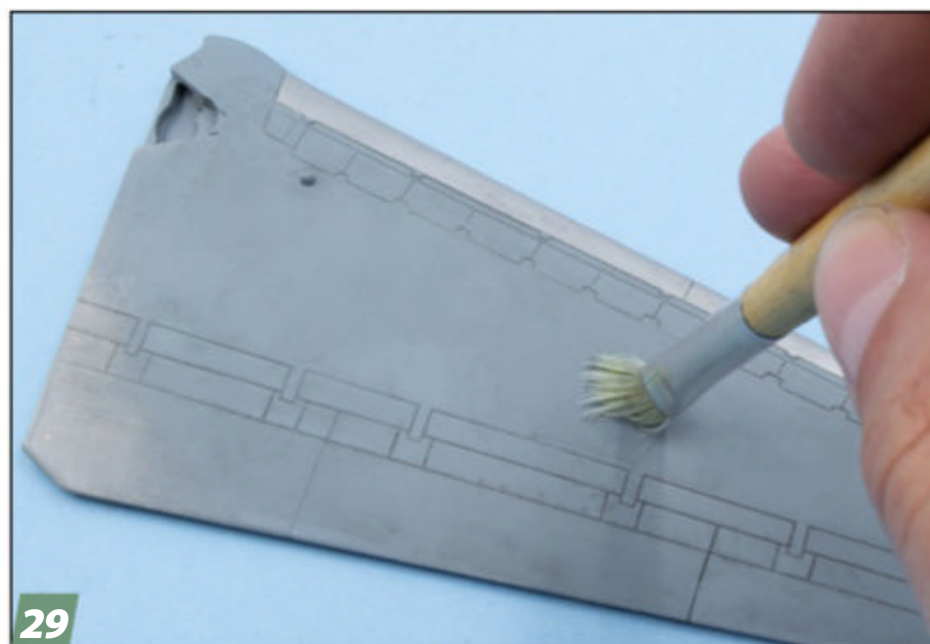
27

... and then a cotton swab to scrub off any ink that didn't come up with the water.



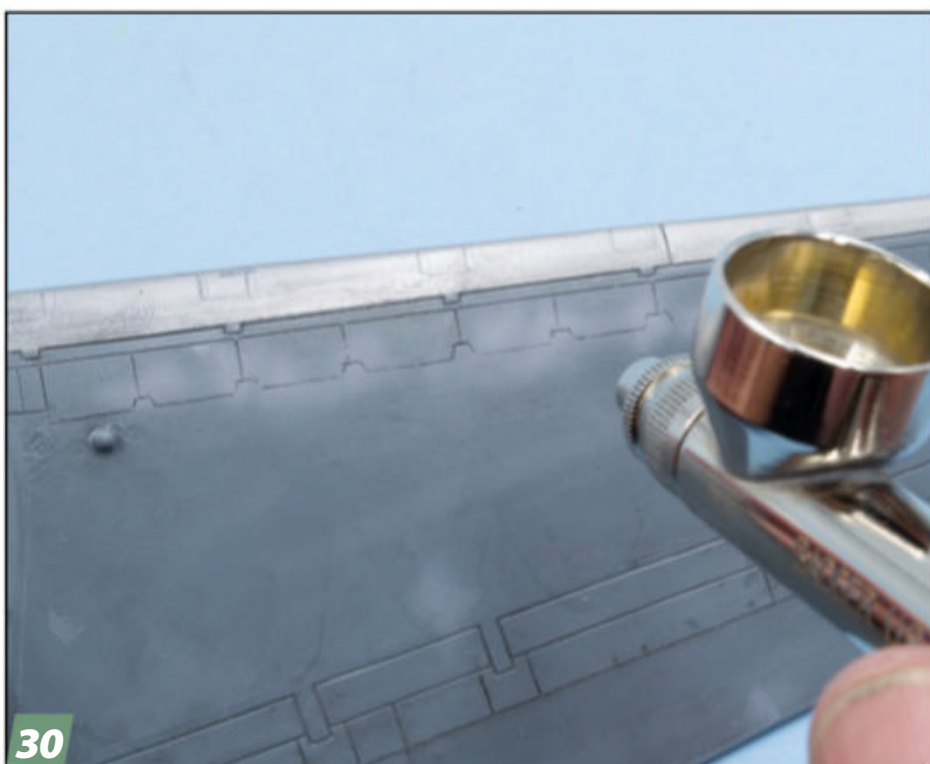
28

I blot excess water with a paper towel. If you really want it dirty, simply let the excess watery ink dry in place. The ink darkens and stains the flat coat and produces a convincing grimy appearance.



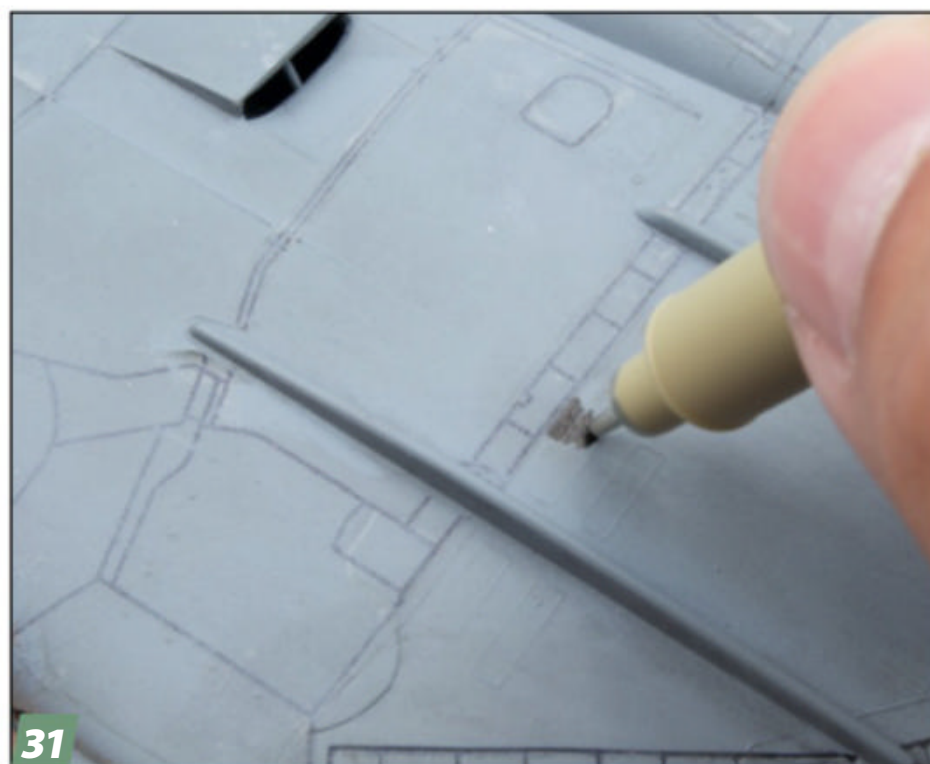
29

For tonal variation, I lightly dry-brushed the original base color over the grime. You could do this with an airbrush as well, but I feel I have more control with a paintbrush.



30

I finished up by spraying corrosion control touch-ups using lighter grays around various panel lines. That really gave my Tomcat the splotchy appearance common to Navy aircraft.



31

With the major grime done, it was time to add oil and dirt streaks. I started by drawing on a small area with a Micron ink pen.



Then, I lick my finger and draw the ink back in the direction of the airflow. I've tried using a damp cotton swab or even dipping my finger in water, but the effect seems better when I lick my finger. I hope I don't end up like the Mad Hatter!



For other stains, such as those around engine vents, I put a dab of burnt umber oil paint where the streak starts and used a small brush to draw it back in the direction of the airflow and blend it into the surrounding weathering.



All that was left was to paint the windscreen with a thin coat of Tamiya clear green and add the yaw string — literally a piece of string that shows the pilot if the airplane is sliding one way or the other. While this was my 100th Monogram Tomcat, I still have a couple dozen more kits I've collected over the years — and plenty of decals for them to get me to 125! **FSM**



Working with **ACRYLIC LACQUERS**

Relative newcomers produce outstanding finishes

BY AARON SKINNER

Once limited to Tamiya spray cans, Mr. Color bottles, and the world of car modeling, acrylic lacquer model paints have exploded onto the rest of the modeling scene with some brands offering upwards of 400 colors. I love them, but why you should make the leap?

What are acrylic lacquers?

Developed in the 1950s, acrylic lacquers, for many years, were used to paint cars. They consist of acrylic resin (a synthetic polymer) suspended in a lacquer solution. When it comes to these paints, the lacquer part of the name is important. Do not confuse them with water-based acrylics. Acrylic lacquers come with strong odors, are flammable, and both the vapors and the paint itself are toxic. Always use in a well-ventilated area, wear a respirator, and definitely don't drink them.



Vlado Jovic combined MRP and AK Interactive Real Color paints for the Desert Storm camouflage on Eduard's updated Revell 1/48 scale Tornado GR1. He appreciates the range of colors both brands offer as well as how well the lacquers spray. You can see how Vlado built and painted the British attacker in the February 2021 *FSM*.





Chuck Davis starting using Hataka and Mr. Color paints about a year ago after discovering how extensive the color ranges were compared to his usual Tamiya acrylics. He says both paint brands cover nicely. "Hataka especially sprays just like my other favorite, Tamiya," he adds. Chuck says Mr. Color is thick and can be tricky to thin. Hataka silver gray, basalt gray, and yellow olive finished Chuck's 1/48 scale Italeri F-86 Sabre.



A longtime enamel user, Paul Boyer switched after a couple of other modelers recommended Mr. Color lacquers. "They seem to have most of the colors I need," he says. "They dry almost immediately, while enamels take much longer — hours, sometimes days for gloss enamels." His spray booth is strong enough to pull away the fumes, so his biggest complaint right now is that Mr. Color doesn't have a few of the colors he wants. He used Mr. Color on Academy's 1/72 scale F-14A Tomcat.

AK Interactive Real Color



Mfr.: AK Interactive, ak-interactive.com

Container: 10ml (1/3 oz.) glass jar with plastic lid

Consistency: Thick; mixes easily; thin 1/3 to 1/2 for airbrushing

Range: 246 colors, including clears; matched to World War II and modern standards (FS, RLM, RAL) for military aircraft and armor; colors include US, German, British, Japanese, Soviet/Russian, Israeli, Egyptian, and Syrian

Notes: AK Interactive has published two accompanying volumes, one covering WWII armor, the other WWII aircraft

Gaianotes



Mfr.: Gaianotes, gaianotes.com

Container: 15ml (1/2 oz.) glass bottle

Consistency: Thick; needs to be stirred and shaken; thin up to 1/2 for airbrushing

Range: 130 basic colors, including some matched American and Japanese standards as well as fluorescents, pearls, metallics, textures, and clears; an additional 174 shades are matched for a variety of Japanese anime, including *Neon Genesis Evangelion*, *Frame Arms Girl*, and *Crusher Joe*

Notes: Gaianotes offers two kinds if thinner – basic Color Thinner and Moderate Solvent, which has less odor; it also sells Retarder MAX to slow drying and promote leveling

Why should you use them?

I've used a lot of different types and brands of model paint over the years. But if I never use another kind of paint in my modeling, I'll stick with acrylic lacquers. But, why? Here's a list of the advantages:

1. Vibrant finishes: Something about the makeup of acrylic lacquers gives them strong pigmentation (again, I'm not a scientist — for all I know it's magic) and produces vibrant finishes with good coverage.

2. Quick drying: Lacquers dry quickly, so you can build up thin layers that won't obscure detail and mask over them within a few minutes. I've also found that at standard airbrushing pressures (15-30 psi) it is almost impossible to put on too much paint (unless you hold the brush in one place and lean on the trigger). By the same token, that quick-drying characteristic makes them difficult to hand-brush, so I recommend only using them for small areas.

3. Easy to use: Much like enamels, these paints all perform similarly, so the learning curve is short. Some brands are pre-thinned for airbrushing, while others will need to be thinned. But once you have a ratio that matches your airbrushing style, it's easy to get consistent results. I've experimented with several brands and the thinners seem to be compatible between them.

4. Durable: The lacquer solvent gives



Hataka offers beautifully matched colors for modern Royal Air Force camouflage, and I used them when I finished Hasegawa's Harrier GR7 featured in the July 2019 *FSM*. Not only do Hataka's Orange Line lacquers spray beautifully in thin layers, they dry quickly, and sand smooth.

paint some bite in plastic, so that they are durable. That means they stand up well to handling, masking, and weathering treatments. Those aggressive solvents also mean they should not be applied over acrylics (water- or alcohol-based) or enamels. It can also be a good idea to prime the model to avoid crazing the plastic (although the newer paints don't seem as "hot" as some old-school lacquers), but it's not absolutely essential. Applying paint in thin layers can prevent many of these problems.

5. Sand beautifully: As we all know, no matter how careful you are, there are times you need to sand paint to eliminate dust or debris or refinish a seam you swear wasn't there before you painted. Acrylic lacquers are thin, so even fine scratches may show up under a layer of color; make sure the painting surface is as smooth as you can make it. Unlike some acrylics that seem to peel when sanded, acrylic lacquers produce a fine, feathered edge that disappears after being touched up.

Airbrushing acrylic lacquers

While a couple of the brands profiled here are ready to airbrush right out of the bottle, most will need to be thinned. I've heard some modelers use hardware store lacquer thinner, but I recommend using one of the model paint company lacquer thinners. The good news is they seem to be compatible with multiple brands. For example, I've used Mr. Color Thinner for Hataka, MRP, SMS, and Real Color lacquers. Ratios can be a matter of personal taste, but most need to be mixed with 30-50% thinner to airbrush smoothly. I've thinned Real Color out to 6 parts thinner and 4 parts paint for details

Hataka Orange Line



Mfr.: Hataka, hataka-hobby.com

Container: 17ml (> ½ oz.) plastic eye-dropper bottle

Consistency: Thick; needs to be shaken (agitator in bottle helps); thin 50% for airbrushing

Range: 295 colors all matched to military standards (FS, ANA, RAL, RLM, BS; colors represent diverse armed forces, including American, German, Russian, Polish, British, French, Argentine, Japanese, and more

Notes: One of the new paint ranges that epitomizes the diversity of subject matter, Hataka also offers sets of colors for specific subjects like USAF Vietnam-era colors, WWII Dutch air force, modern Brazilian aircraft, and armored vehicles from Poland and Australia; many of these colors are also offered in Hataka Red Line airbrush and Blue Line hand-brush water-based acrylics

MCW



Mfr.: Model Car World, mcwfinishes.com

Container: 35ml (1 oz.) glass bottle

Consistency: Pre-thinned for airbrushing; agitator in bottle helps mixing

Range: More than 1,200 colors, most matched to American car makers proprietary colors, some of which are available as a special order; the company launched military colors three years ago and those paints account for about 300 colors matched to American, British, German, Japanese, and Soviet colors

Notes: As the name implies, MCW started making paints for car modelers and they quickly became one of the most popular manufacturers for builders of American cars; although newer, the military colors perform as well as the car paints; all finishes are glossy out of the bottle which is great for decals and weathering

AK Interactive Real Color olive drab was the base color for my T26E1 featured in the May 2020 *FSM*.



Mr. Color



Mfr.: GSI Creos, mr-hobby.com

Container: 10ml (1/3 oz.) glass jar with plastic lid

Consistency: Thick; needs to be stirred and shaken to be fully mixed, thin 1/3 to 2/3 for airbrushing

Range: 312 colors, including clears, flourescents, basic colors (red, blue, etc.) and then a bunch matched to military (FS, RLM, BS) standards with several designed specifically for WWII and modern Japanese subjects; there are also metallics, color modulations sets, figure colors, and a range of colors for Gundam models

Notes: One of the oldest players in the acrylic lacquer market, Mr. Color offers a good range of colors, Mr. Surfacer primers, and three kinds of thinner — regular Mr. Color Thinner, Mr. Color Leveling Thinner with added retarder to slow drying, and Mr. Color Rapid Thinner

MRP



Mfr.: MRP, mrpaint.sk

Container: 30ml (>1 oz.) plastic bottle

Consistency: Pre-thinned for airbrushing; mixes easily with shaking

Range: 423 colors, including clears.

They are matched to military aircraft and armor shades from WWI to today, including American, British, Soviet/Russian, Swedish, German, NATO, French, and Japanese; unsurprisingly, the Slovakian company also offers Slovakian air force camouflage colors; 23 paints specifically matched to car colors

Notes: Two types of thinner, including one with retarder; many modelers of Russian aircraft say MRP is their go-to paint source



and it atomizes nicely at lower pressures for close work and tight freehand camouflage.

Work close to the model so the paint doesn't dry on the way to the surface. Remember, it does dry quickly, and you want the paint to go on wet so it levels. If you are too far away, you risk getting a gritty finish.

Because the paint dries quickly, you can generally spray a light coat first and come back over in a few minutes with the next layer. As always keep the brush moving to prevent excessive paint buildup. I find almost all of these paints cover well in just a few thin layers. As with other kinds of paint, light or bright colors such as yellow and red will need to be undercoated with white to attain full brilliance.

Cleanup

Obviously, nothing beats lacquer thinner to clean lacquer out of your airbrush; I use hardware store thinner, which is inexpensive and one tin can last a long time. It quickly removes dried paint and is terrific for flushing out the brush between colors. Just be sure to not leave airbrush parts soaking in lacquer thinner as it can soften or dissolve rubber and silicone used for seals and packing. **FSM**

I also used AK Interactive Real Color paints on Italeri's 1/48 scale B-25G and loved how easy it was to paint, mask, and paint again. The medium green splotches on the wings and tails were sprayed freehand with the pressure dialed down to 10 psi with more thinner in the mix.



SMS



Mfr.: Scale Modellers Supply, scalemodeller.com.au

Container: 30ml (>1 oz.) glass bottle

Consistency: Pre-thinned for airbrushing; mixes easily with shaking

Range: 235 colors, including clears, primers, metallics, pearls, prismatic, color shift, and even glow in the dark; many of the paints are matched to military colors, including American, British, German, Japanese, Russian, New Zealand, and appropriately enough for this Australian company, RAAF and Australian army colors

Notes: This is one of the newest players in the market and has come on strong quickly (Honestly, they had me with Australian colors!)

Tamiya



Mfr.: Tamiya, tamiya.com

Container: 10ml (1/3-oz.) glass jar

Consistency: Thick; needs to be thinned 1/3 to 1/2 for airbrushing, mixes well with stirring and shaking

Range: 69 colors, including primaries and clears; some colors matched to American, German, and Japanese military shades; many are appropriate for finishing cars

Note: Tamiya has long packaged acrylic lacquers in spray cans — some of the best on the market — so it's great to see many of those colors available for airbrushing; the downside is that the paint numbers don't correspond to the acrylic or spray-can lines, so you'll need to check to get the right paint

Other acrylic lacquers

Akan (akan.ru) has more than 350 colors, with a strong focus on Soviet and Russian military subjects, but American, British, German, French, Japanese, and even a few airline livery colors also included. Look for paints starting with 6 to be sure you get the acrylic lacquers. Akan uses 7 for water-based acrylics and 8 for its enamels.

Spanish paint maker Gravity (gravity-colors.com) has more than 500 colors matched to dozens of car manufacturer and racing team shades. The range includes American, European, and Japanese cars and is a great source for car modelers.

Splash Paints (splash-paints.com), a relatively new manufacturer, offers more than 370 colors matched to mostly modern car makers and auto racing teams. It also offers metallics, primers, clears, prismatics, and even colors for finishing mecha models.

Alclad II (alclad2.com) is the go-to metallic finish for many modelers and offers a terrific range of metallic shades, primers and base coats to bring out the shine as well as prismatics and clears.



▲ DOUGLAS CORP
CHARLES TOWN, WEST VIRGINIA

Douglas didn't just finish Moebius' 1/25 scale Batmobile with sleek metallic charcoal paint, he electrified it, too! First he painted it with a combination of Alclad II metal hues and Mission Models paints. Then, he attached LEDs from Evans Designs into the cockpit, headlights, and marker lights. The streets of Gotham are safe with this fierce vehicle on patrol.



MARK LINKIEWICZ
CLAREMONT, NEW HAMPSHIRE

Here is HobbyBoss' 1/48 scale Saab J-32 Lansen (Lance). "I love the old-school lines of this fighter," says Mark. "Sort of a hybrid of an F-86, F-80, and Me 262. Nice kit, too, with a minimum of foolishness and great surface detail." He finished it with Model Master dark green and Tamiya light blue. "I dedicated it to my Swedish wife, Astrid (who loves my models, by the way)."



MIKE WARNER
ROCHESTER, NEW YORK

"I have always been interested in the older U.S. Navy battleships of World War II, and the dazzle camouflage scheme was especially interesting," says Mike. He applied this design to Trumpeter's 1/700 scale USS *Colorado* (BB-48). It took many hours of taping (and many, many pieces), but it now looks ready to patrol the Pacific.



▲ **LUK VANSTAPPEN**
MECHELEN, ANTWERP, BELGIUM

"Just fill it up and I am gone for a ride," says Luk, dreaming of a full-sized version of Tamiya's 1/6 scale Harley-Davidson FLH1200 police bike. He painted with Tamiya acrylics, using strong superglue on the chrome parts. It's posed on his garden fence to look like it's really in the street.

◀ **MARK MYERS**
CHERRY HILL, NEW JERSEY

We've featured Mark's *Star Wars* builds before, and for good reason — the finishing is incredible! These 1/12 scale droids from Bandai have been weathered to perfection. R2-D2's panel lines were highlighted with ink and gray pigments dirtied the crevices. C-3PO's gold finish was dulled with dirty-hued washes and, for accuracy, Mark also repainted the protocol droid's lower right leg with silver.

MYLES MARCOVITCH LOUISVILLE, KENTUCKY

Myles says it was the Napier Saber engine in Airfix's 1/24 scale Hawker Typhoon that enticed him — there are more than 85 parts in the powerplant alone! So, of course he built the fighter fully opened to show off his work. He finished it in full D-Day regalia with acrylics. He had help masking with a set from Eduard — the only aftermarket he purchased.



KEN BANKE HANOVER, PENNSYLVANIA

Ken took Malan's 1/35 scale *Flakpanzer 38(t)*, a hard-to-find kit, and detailed it with Eduard photo-etched metal parts, an Aber barrel, and Friulmodel tracks. It's painted in Vallejo hues and weathered with Wilder oils and pigments.



SEND US YOUR PICTURES!

Shouldn't your model be in Reader Gallery? *FineScale Modeler* is always accepting new material from around the world.

Upload high-resolution digital images (preferably unedited, RAW format) with complete captions at www.Contribute.Kalmbach.com, or burn it all on a disc and mail it to *FineScale Modeler*, Reader Gallery, 21027 Crossroads Circle, P.O. Box 1612, Waukesha, WI 53187-1612.

Be sure to tell us the kit manufacturer, model, scale, modifications, paint and finishes used, and reason for choosing the model, along with your name and address. We look forward to seeing your work!

► PATRICIO GONZALEZ AREQUIPA, PERU

More *Star Wars* from Bandai! This time it's a 1/72 scale B-wing. Patricio spent an extensive amount of time pre-shading, paneling, and detailing the starfighter using acrylic paints. Then came brown and black washes and weathering pigments. And he did all of this *before* assembly.



◀ STEVEN FEIT DUBLIN, OHIO

Steven calls this his "quarantine edition" model; we think he spent his time well! After seeing a picture of the self-propelled gun in service, he picked up MiniArt's 1/35 scale SU-122. He painted using Tamiya and Vallejo acrylics. The winter whitewash was done with washable tempera paint.

Yikes, **A SHRIKE!**

Academy's 1/72 scale Helldiver wears olive drab for Army service

BY FRANK CUDEN



I had to do something different with the Academy SB2C-4 (No. 12409) — no tri-colored camouflage, Atlantic gray and white, or overall dark sea blue schemes for me. So, when I discovered Wolfpak Decals' sheet (No. 72-106) that included an Army Air Force A-25 Shrike target tug, the time was right to pull the kit off the shelf and begin assembly. Shrikes had non-folding wings and

solid rather than perforated flaps, so many Academy parts stayed in the box. Also, the leading-edge slats were eliminated on the land-based bomber, so I glued the separate slats in place and filled the seams. In addition, I needed to open two windows unique to the Shrike directly behind the pilot's cockpit. That area housed a rollover bar on the right side with a fuel tank filler cap and pipe on the left.



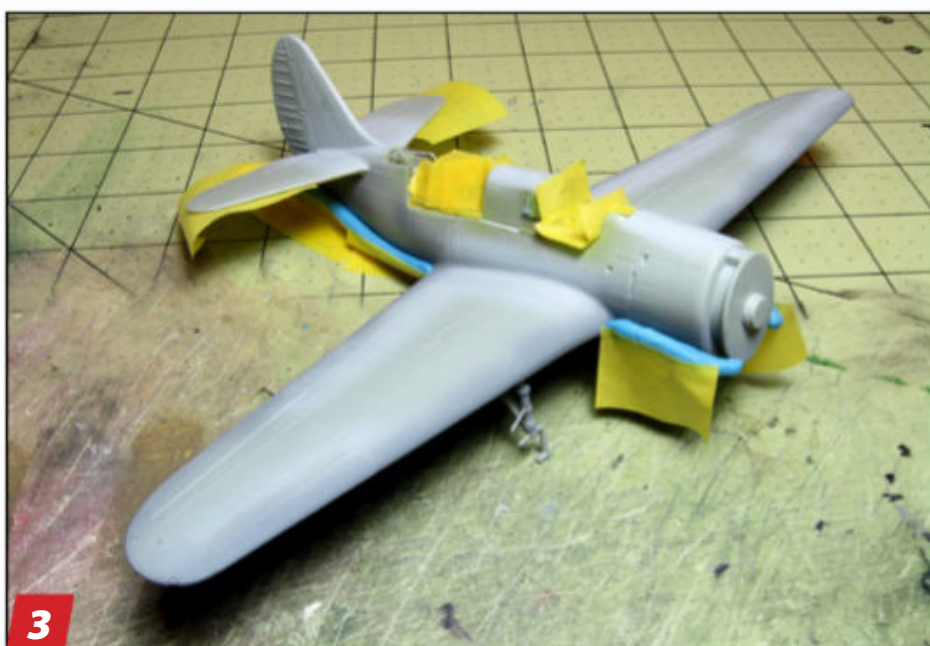
1

Here's my Helldiver, er Shrike, nearly ready for paint. I just need to sand the putty I added to blend the leading-edge slats (not used on the A-25) into the wings.



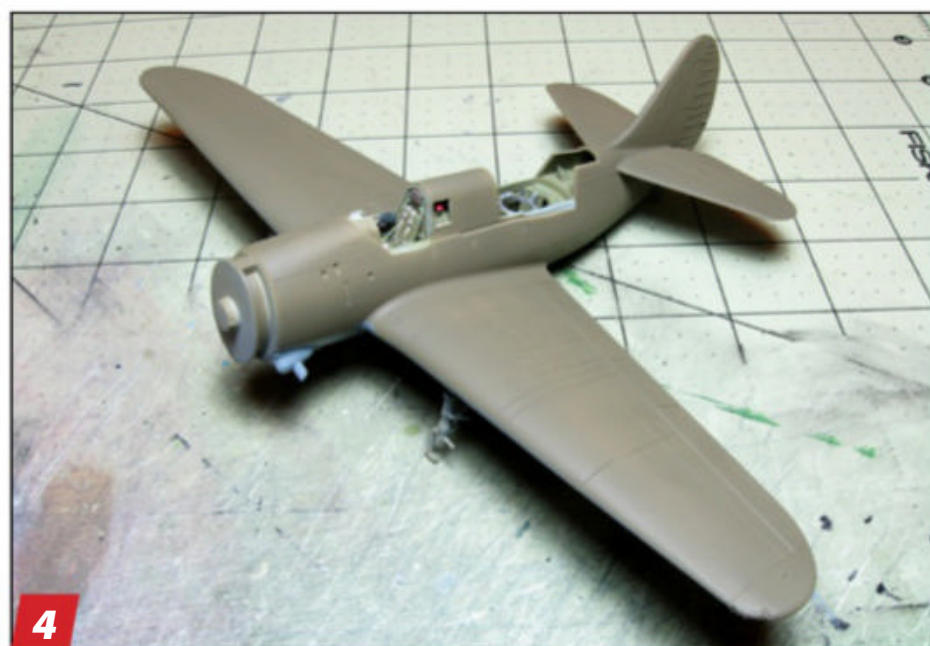
2

Starting the USAAF camouflage, I airbrushed the underside of the airframe with Tamiya neutral gray acrylic (XF-53) mixed with lacquer thinner. It may seem odd to mix acrylic paint and lacquer thinner, but the resulting finish is velvety smooth.



3

Once the gray was dry, I used poster putty (in this case, Paper Tak from Ace Hardware) to mask the edge of the gray, rolling it into little sausages. As a mask, poster putty produces a tight but not hard edge.



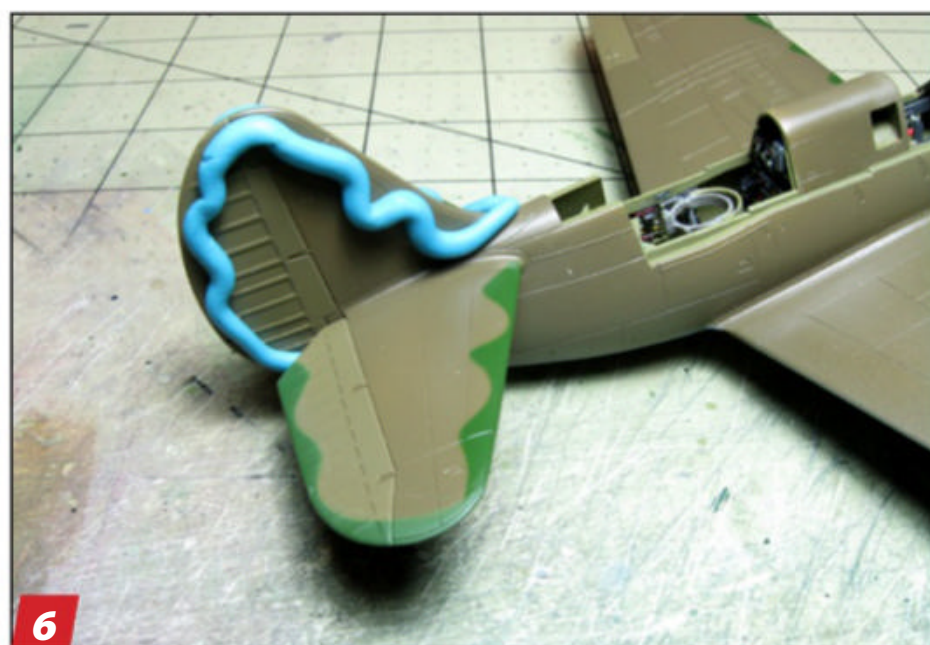
4

Topside, I painted with Testors Model Master olive drab mixed with a few drops of RLM81 braunviolet to reduce the green tone of the original.



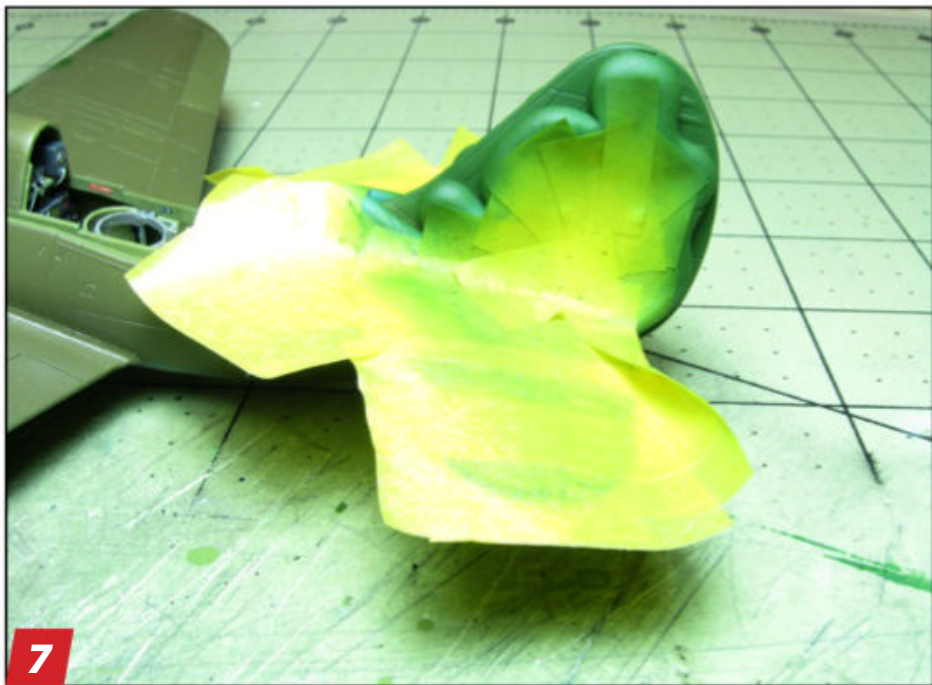
5

This aircraft's camouflage included medium green scallops along the wing leading edges that I masked with poster putty backed with tape. Painting one wing at a time minimizes the chance of overspray.



6

I repeated the process on the tail, first outlining the area with poster putty ...



7 ... then overlapping small pieces of tape to protect everything else. I used Model Master medium green (No. 1713) for this step.



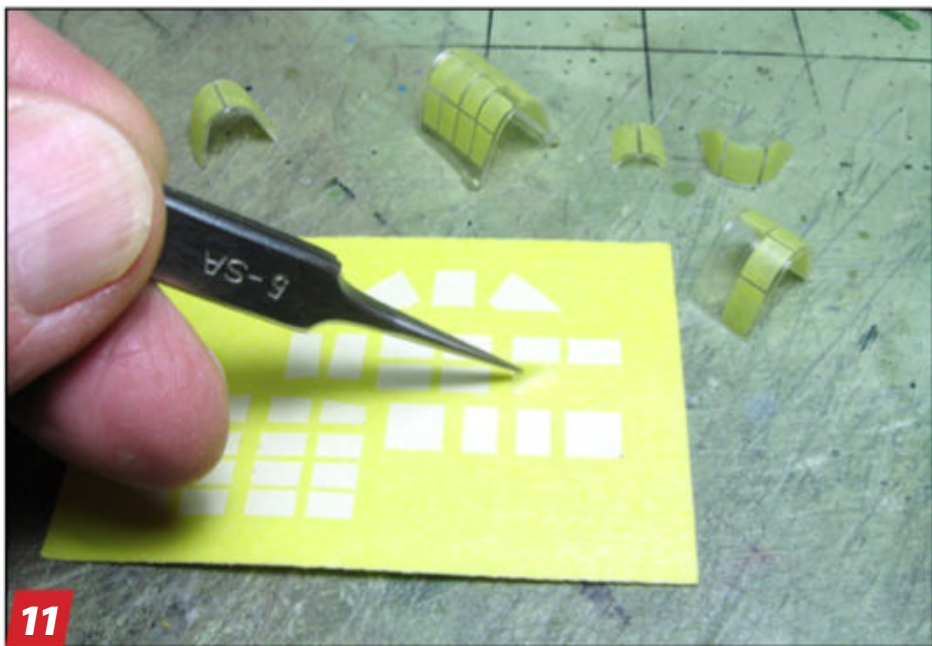
8 After attaching the engine and cowl, I masked the control surfaces and various wing panels, then painted them with the olive drab base color lightened with a few drops of white.



9 At that point, I used a soft lead pencil to outline all of the recessed panel lines and then gloss-coated the model so the pencil lines wouldn't smear during handling.



10 After masking, I airbrushed the landing gear struts and touched up the wheel wells with interior green, then moved on to decals. Wolfpak's markings went down well, but I felt the red outlines on the national insignia was too bright and would have to be dealt with.



11 The kit supplied masks for the canopy, something I've never used before. But I can tell you they proved a real timesaver and performed well on the kit's clear parts.



12 I replaced the kit's four-bladed prop, with a three-blader and spinner from my spares box. I painted the back half of the spinner with the lightened olive drab and glued it to the crankcase. The front was painted light blue to match the emblem on the cowl.



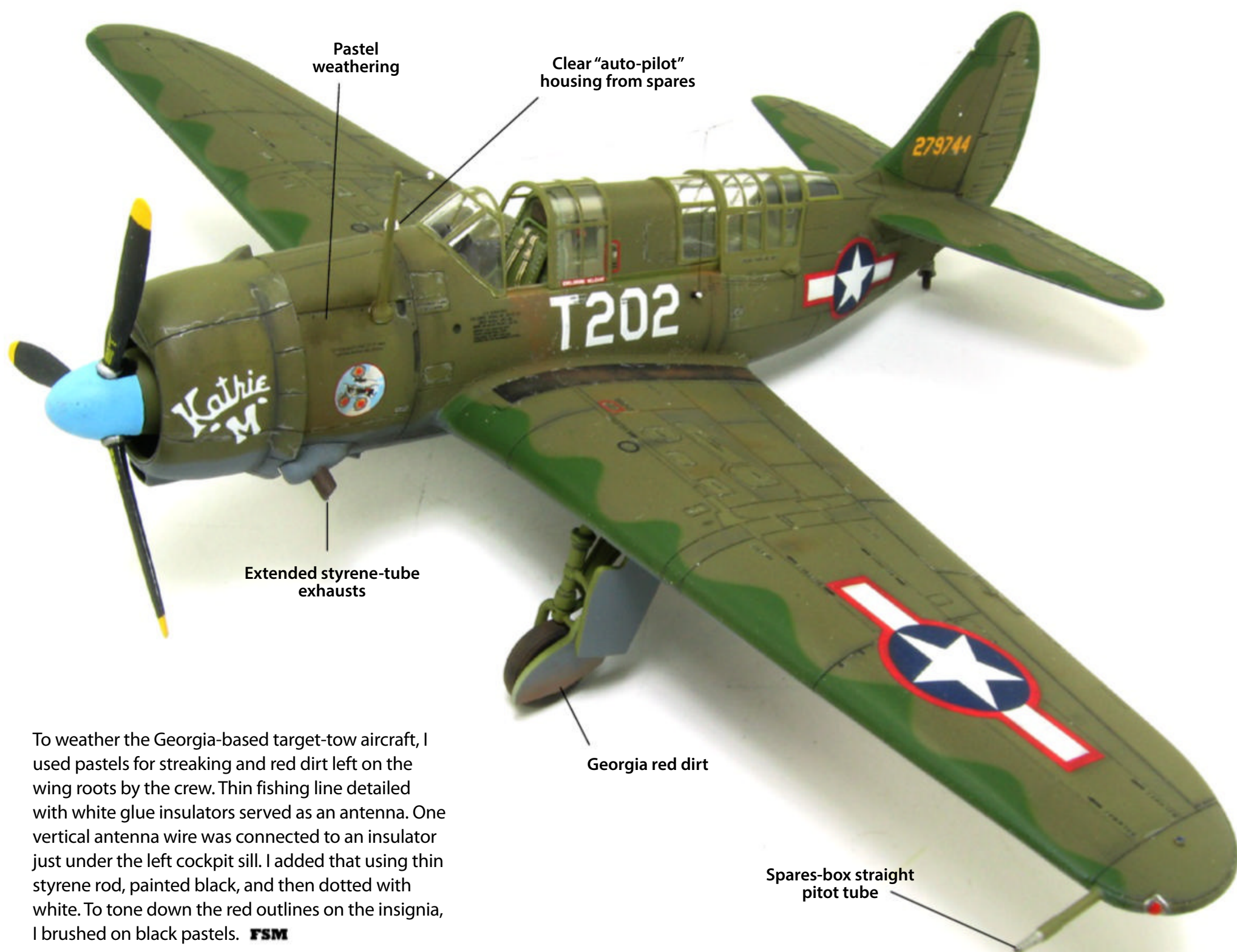
13

The kit supplies both black and white stencils. Not wanting the model to appear too gaudy, I used the black ones.



14

I attached the canopy sections with thin white glue. Wolfpak indicates that the prop blades had only yellow stenciling at the bases; I found appropriate markings among my many spare decals.



To weather the Georgia-based target-tow aircraft, I used pastels for streaking and red dirt left on the wing roots by the crew. Thin fishing line detailed with white glue insulators served as an antenna. One vertical antenna wire was connected to an insulator just under the left cockpit sill. I added that using thin styrene rod, painted black, and then dotted with white. To tone down the red outlines on the insignia, I brushed on black pastels. **FSM**

44 shades of OLIVE DRAB



Turns out there's no need to beat yourself up about using the right color

BY DR. DANIELE RIGHI

When I started modeling at age 11, a tin of Humbrol paint was quite right for the job, and I was happy. I believe that any modeler with that attitude is sane but, as I grew older, I became insanely invested in color accuracy.

While we take color for granted, how we see it involves light, materials, and that unreliable machine that is the human brain. There are also anomalies: 10% of the population — and possibly 10% of modelers — are colorblind.

We often use standards, such as RLM, Federal Standard 595b, and British Standard to determine shades, but the problem with relying on a standard is that it tells you how a color must look, not how the color will look in practice.

That means it can be useful to refer to a color atlas and a theoretical model, usually

represented by a color space. The fact that more than one color space is in use today further underlines the difficulty of assessing colors.

If you are reading this, you already probably know many things about olive drab, thanks to the work of enthusiasts, particularly the writings of Dana Bell.

We know that the primary shade used during World War II was Dark Olive Drab No.41. Although it was officially superseded by olive drab ANA 613 in September 1943, evidence suggests No. 41 continued to be applied throughout the war.

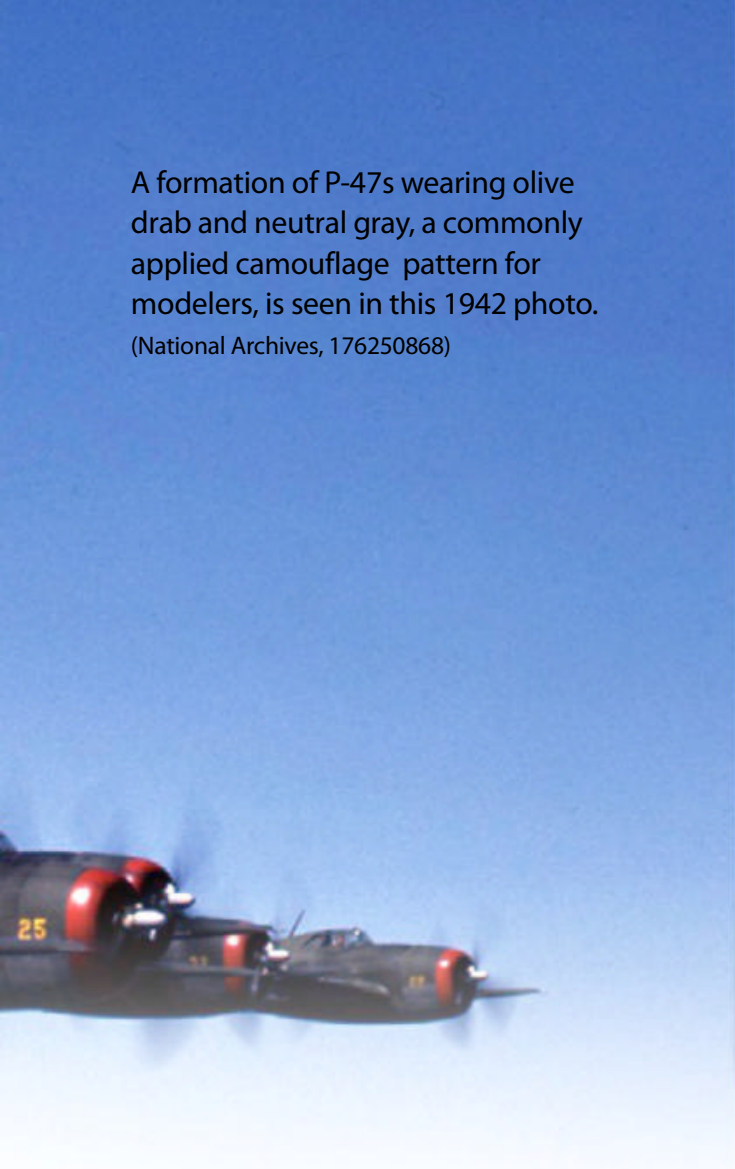
With that standard, common color, we know that several dozen different paints were accepted for use by the USAAF, no paint was ever rejected for being a different shade than specified, so olive drab could look different when new and differed even more as it aged.

While doing research, I happened upon a 1946 article “Color Stability of Olive Drab Infrared-Reflecting Camouflage Finishes” by E. E. Jukkola and Roy Cohen, of the Materiel Command at Wright Field, Dayton, Ohio. It included a color description for 68 olive drab dopes, lacquers, and enamels, both as new and after six months exposure to the Miami sun. Each was described using a Munsell Value, a system originated in the 1930s and still in use today. Munsell is a color space that measures hue (10 values, for example, R-red, Y-yellow, GY-green yellow), value (lightness from 0 for pure black to 10 for pure white), and chroma (saturation starting at 0 for neutral colors and increasing without end, but a vivid color might measure 20). So, any color is precisely defined by three numbers.

For olive drab, the hues are Y, GY, and a

Color 41 Olive Drab	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10
5Y 3.2/2	7.5Y 3.7/2	2.5GY 3.8/2	7.5Y 3.7/2	7.5Y 3.5/2	7.5Y 3.3/1.5	7.5Y 3.8/2	7.5Y 3.3/2	7.5Y 3.5/2	7.5Y 3.5/2	7.5Y 3.3/2
	10YR 4.5/4	7.5GY 6/2	7.5Y 4.5/3	7.5Y 4.7/1.5	5GY 4.5/1	2.5GY 5/1.5	5Y 4.5/4	2.5GY 4.5/2	2.5GY 5/2	2.5Y 3.5/2

Color 41 Olive Drab	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10



A formation of P-47s wearing olive drab and neutral gray, a commonly applied camouflage pattern for modelers, is seen in this 1942 photo. (National Archives, 176250868)



If you ever wondered how a new coat of olive drab looked when painted over an old one, you can refer to this photo of Lt. H.B. Stone In Cockpit Of His Consolidated B-24, in Panama. Please note the old paint around the number 662 (U.S. Air Force Photo, NARA ref. 342-FH-3A49320-K2007, via Fold3)

single occurrence of YR. Values range from 3.5 for fresh paint to 5 or 6 after sun exposure. As a drab camouflage color most olive drab chromas measure about 2 even after weathering.

The official Munsell measure for No. 41 Olive Drab was 5Y 3.2/2. Only one of the 68 colors reviewed in the article, Dope No. 9, matched those values. Since most of the aircraft serving in WWII were metal-skinned, I stuck with the 22 enamels.

Ironically, of those, not one matched when new, but enamel 21 did after six months of sun exposure! After extended harsh exposure, many of the enamels changed, some to 7.5Y 4.7/1.5 — considerably lighter — or changed color, switching to GY or, in one case, 10YR 4.5/4.

Taking the information from a table in the report, I prepared the table below, which illustrates the differences between

the olive drabs both new and after six months of wear. The first part shows the Munsell values, and the second visualizes those using RGB values developed with the excellent program “Color Mixing Tools” by Professor M. Kovacs-Vajna of the Department of Information Engineering, University of Brescia. RGB has many limitations, as printing colors in a magazine has, but I think it is useful to give a quick idea of how olive drab could look.

Online at FineScale.com is a table showing the formulas used to mix the original shades, including pigment to carrier ratios and fillers. If you ever feel the need, you can reconstruct all forty-four shades of olive drab enamels. As Dana Bell anticipated, all the formulas were different; the pigment most used is chrome yellow, followed by antimony sulfide and red iron oxide.

It is the same situation with the known formulas for World War II German RLM colors, and it simply means that you can arrive at the (almost) same destination following many different paths.

I told you that color is extremely complicated.

But having the original formulas means that using alkyd resins you can re-create the original color.

To have a correct idea of how a historical color looked, you can use contemporary measures, you can measure contemporary standards, measure wartime relics, and re-create a color using historical pigments.

If all these things agree, you have a very good possibility that you are near the truth. And between variances in manufacture and the trials of weather and wear, most variations of olive drab can be considered correct. **FSM**

E11	E12	E13	E14	E15	E16	E17	E18	E19	E20	E21	E22
7.5Y 3.5/2	7.5Y 3.6/2	7.5Y 3.5/2	7.5Y 3.8/2	7.5Y 3.5/2	7.5Y 3.5/2	7.5Y 3.8/2	7.5Y 3.5/2	7.5Y 3.9/2	7.5Y 3.9/2	7.5Y 3.2/2	7.5Y 3.5/2
7.5Y 4.5/2	7.5Y 4.3/2	2.5GY 4.5/2	7.5Y 4.5/3	7.5Y 5/2	5Y 4.3/2	7.5Y 4.5/2	7.5Y 4.2/2	7.5Y 4.3/2	2.5GY 4/2	5Y 3.2/2	7.5Y 3.5/2

E11	E12	E13	E14	E15	E16	E17	E18	E19	E20	E21	E22

WINTER CAMO

for delicate models

How to distress paint when you can't use hairspray

BY STEVE ANDREANO

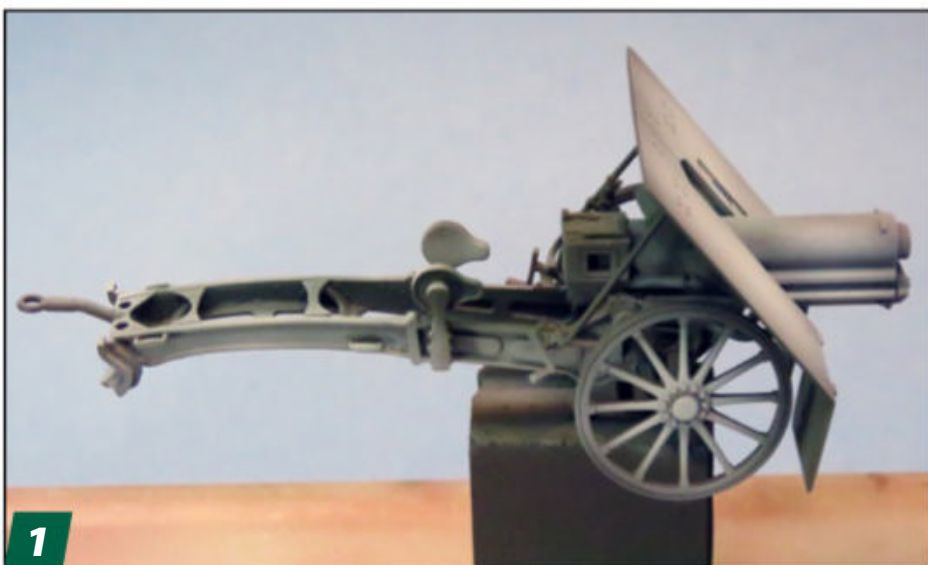
Special Armour's 1/35 scale 7.5cm M.15 Gebirgskanone (mountain gun) is a neat kit of a unique subject. Produced by the famous Skoda works, the gun weighed just 613kg and fired a 6.38cm shell out to 8,250 meters. It could be towed or be broken into smaller components for mule transport. Popular and effective, it served in most of the Tripartite and Axis forces in both world wars.

It is not a kit for beginners, being short-run and marred by poor fits and an odd plastic that doesn't take glue well.

The resulting model is also extremely fragile. I was looking for an interesting finish and wanted to show it in worn winter camouflage, but the delicate assembly precluded using hairspray as a release agent; I'd probably scrub the shield right off!

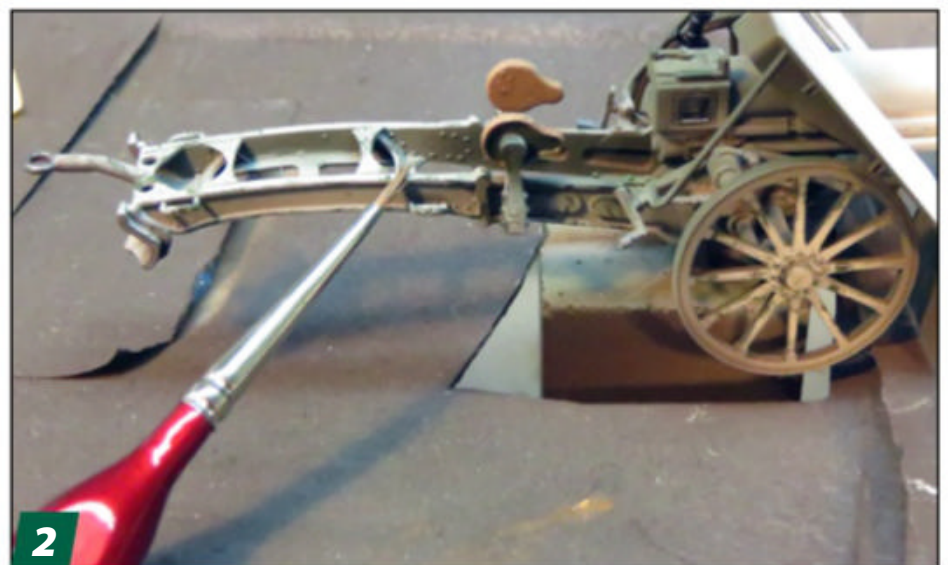
Rather, I approached the finish backward, applying the white and gently adding green to show worn paint. This also minimized my concerns about matching Hungarian olive green.

After priming the gun with Mr. Hobby Mr. Mahogany Surfacer 1000, which revealed fit problems and provided dark, dirty pre-shading, I airbrushed the areas that wouldn't be whitewashed — inside the box trail or back of the gun shield — with Tamiya olive green (XF-58). The rest of the finish was applied with Tamiya acrylics mixed with Tamiya lacquer thinner.



1

Over the base coat and primer, I airbrushed a mix of white (XF-2) with just a little deck tan (XF-55). I left this to dry overnight.



2

Then, I started "chipping" the white using olive green applied with an old, ragged No. 0 brush and cut sections of foam. Work slowly over a couple of sessions; going too far will be hard to fix.



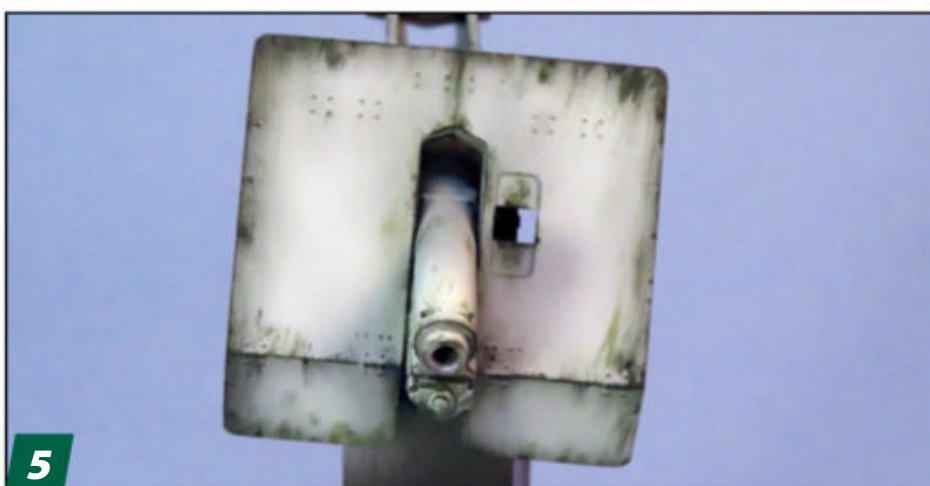
3

I removed excess paint by stroking or dabbing the applicator against a stiff paper towel.



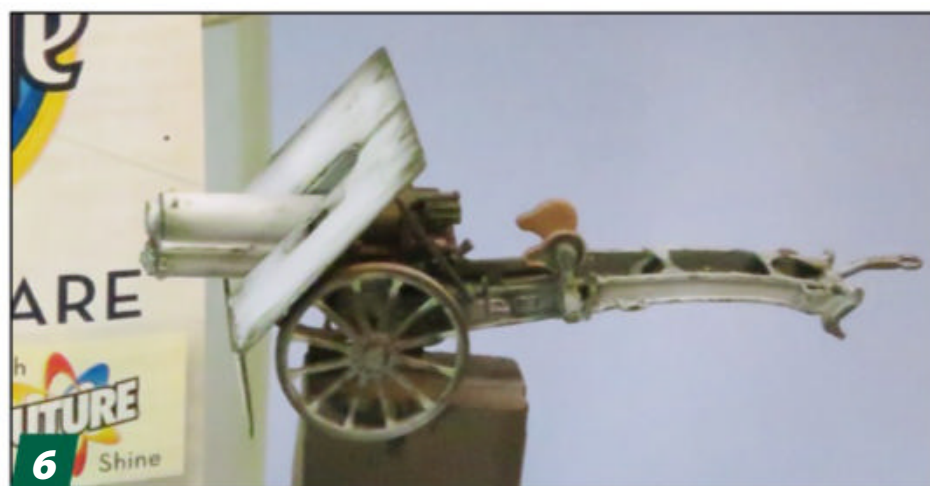
4

I gently — remember why we are doing this! — dry-brushed olive green inward from the edges where I wanted to show the greatest wear. Dry-brushing has fallen out of favor in some circles, but I feel it still has a place in the chipping process.



5

When I was done — it was hard to stop, but less is usually more — I thinned Testors rubber (No. 1183) and applied small dots with a fine brush to the olive green areas to give depth to the chips.



6

After painting details, such as the breech, seats, and gunsight, I sealed my progress with a coat of Pledge Floor Gloss (PFG). This layer was left to dry overnight.



7

I added filters and pinwashes using thinned Mig Productions products or ground pastels mixed in turpentine. I use black around the breech and muzzle and concentrated burnt umber oils lower surfaces.



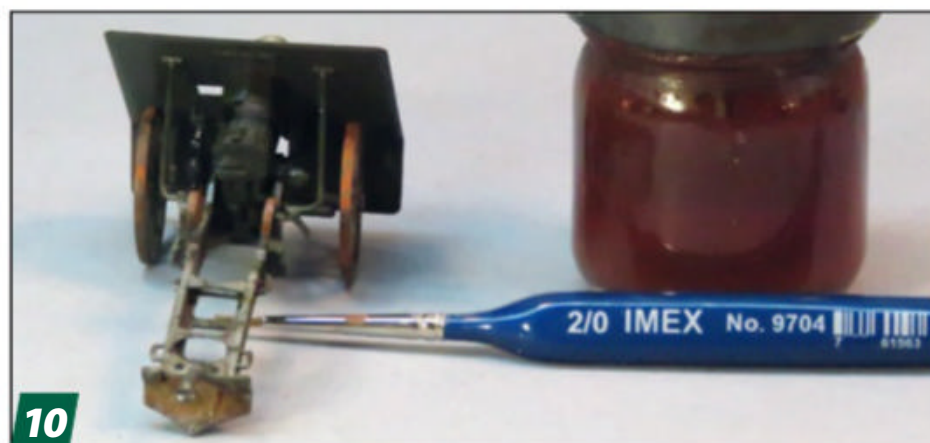
8

After another coat of PFG, I added more pinwashes using concentrated solutions.



9

For bared metal, I chipped the paint with a combination of dark iron (XF-84) and gunmetal (XF-10) as well as a little Testors steel (No. 1180). The steel rims of the wheels were painted with gunmetal.



10

Finally, I highlighted the steel parts with a little ground pencil graphite. Washes of burnt umber and burnt sienna artist oils added a light patina of rust where appropriate. **FSM**

50 years and **STILL**



Two-tone paint finishes can be off-putting for some modelers, particularly if they have different sheens. However, they don't need to be stressful, and a great way to get your feet wet is to start with something simple, like the classic scheme for the still-striking Plymouth AAR Cuda.

Even after 50 years, an AAR Cuda turns heads, and Revell's kit (No. 85-4416) of the storied Mopar machine does a good job representing it in 1/25 scale. If you're looking for a model car to cut your painting teeth on, it's perfect for the job with a simple two-tone body, plenty of details under the hood, and an interior that will look great when everything is closed up. What's more, the

model provides plenty of opportunity to use a variety of painting skills, from paintbrushes to airbrushes to spray cans. And something you may not know: You can use products for full-size cars on your models for a mirror finish.

Lastly, as one of the most popular Mopar rides in history, you can find plenty of reference material for the AAR Cuda, not to mention muscle and sports cars in general. Don't hesitate to take several passes around the internet and find books, magazine articles, or detail photos of engines, chassis, wheels, and tires. In this instance, Google is your friend, and references will help you improve your results.

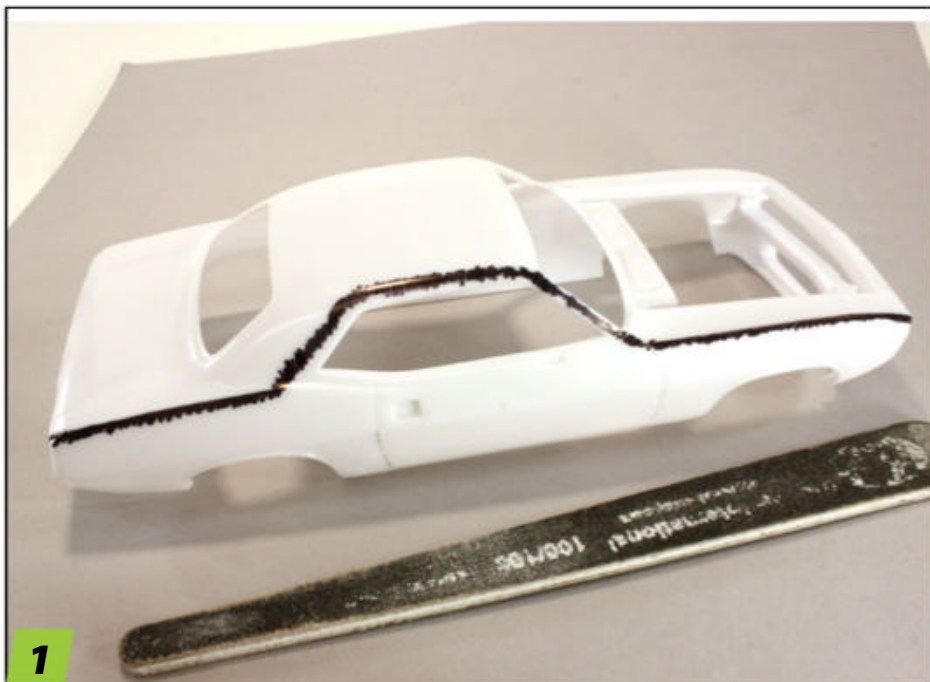
SUBLIME

Easy techniques for stress-free two-tone paint

BY MARCOS CRUZ



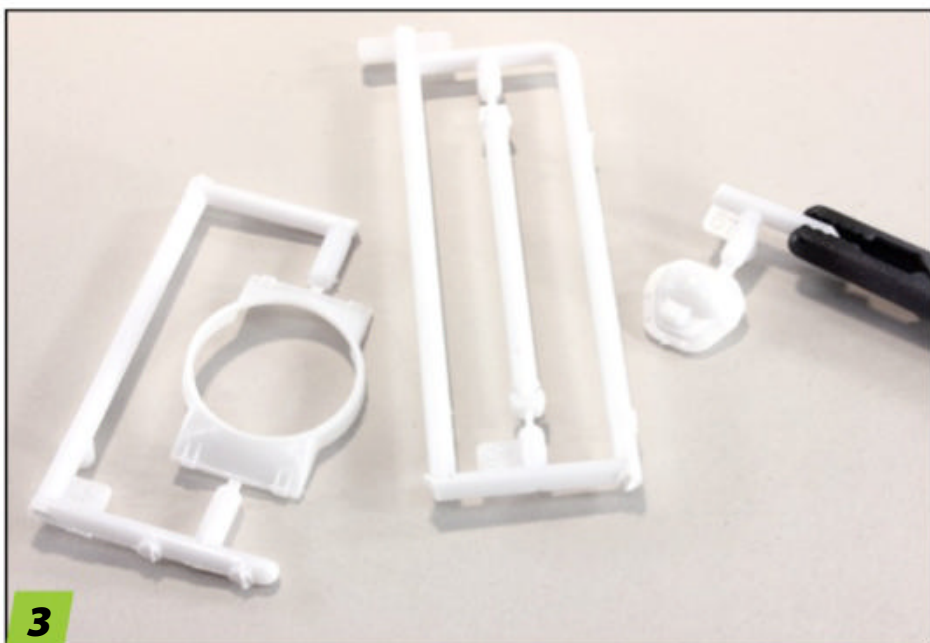
Marcos Cruz shows you how to do two-tone paint with different sheens without biting your nails to the quick.



1 Revell beautifully sculpted its new AAR Cuda body, but there are some subtle mold lines. I mark the mold lines with a black Sharpie to make them easier to see and then gently work them away with a coarse sanding stick, careful not to alter the body's shape.



2 When the body is clean of mold lines, sand it with 3200-grit sandpaper and scrub the entire body with dish detergent, warm water, and an old toothbrush. Then prime the body white to get the Mopar sublime green to pop. Gray or black primer would deaden the final color.



3 While not possible in all instances, I like to keep parts attached to their sprues while painting. The sprue provides a helpful handhold and allows me to twist and turn the parts for the best airbrushing angles. Small alligator clips prove useful for holding parts stationary.



4 I find painting this way allows me to get great coverage without marring my paint. When I remove parts from the sprue, I do touch-ups with a paintbrush. I also make sure to remove paint from connector points so it doesn't interfere with glue.



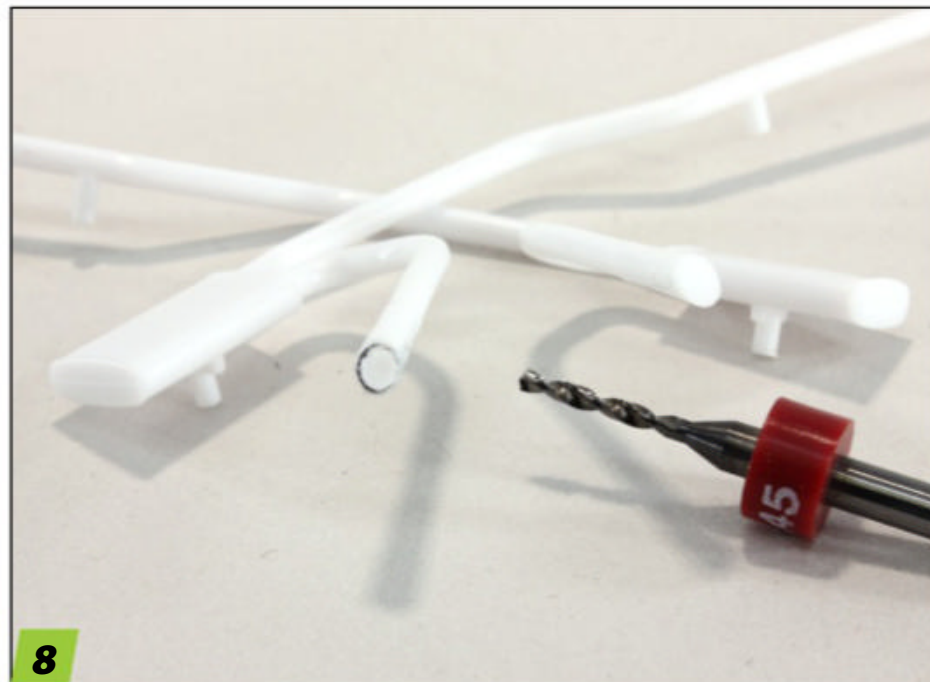
5 Often, when looking at reference photos of a real car, you'll notice some subassemblies can be built almost entirely before painting. Here, I assembled the engine block, water pump, intake manifold, heads, valve covers, and oil pan and primed and painted them Hemi orange.



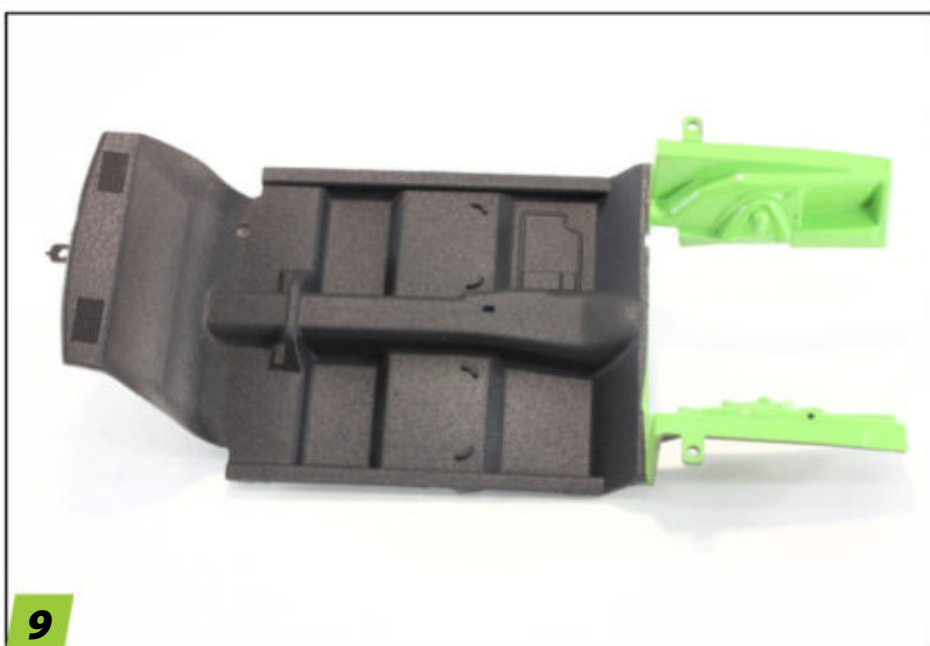
6 I left the chrome-plated parts untouched for the most part. They're well detailed and look right. I did scrape chrome from locator pins and surfaces that would receive glue to ensure the plastic cement made a solid bond.



A pinwash of Citadel Nuln oil shade nicely highlights the engine details. The acrylic wash flows well, cleans up easily with water, and gives the engine the look of an oiled, but not filthy, machine. The six-pack carbs, transmission, and alternator really benefit from the treatment.



A little extra work can pay big dividends. To drill the tips of the exhausts with a No. 45 (.082 inch) bit, I first score the center of the pipe with the tip of a sharp hobby knife. Then, working slowly, I bore the pipe careful not to drill out the side of the pipe or distort the shape of the plastic.



The interior floor and engine bay come molded as one piece. References for real AAR Cudas show the engine bay painted the body color. After priming, I painted the engine bay sublime green and let it dry. Then I masked it painted the interior floor flat black.



Semigloss black went on the interior components, including separate door panels, dash, and center console which make for easier detailing. Be careful when finishing these parts to keep the gloss to a minimum. They should look like vinyl — not flat, but not as shiny as the body.



Revell provides wood-grain decals for the console and dash. I painted the pistol-grip shifter handle and steering wheel wood, which heightened the '70s vibe. Molotow Liquid Chrome on the instrument bezels and aluminum on the signal switch finished the interior.

Paints and Supplies

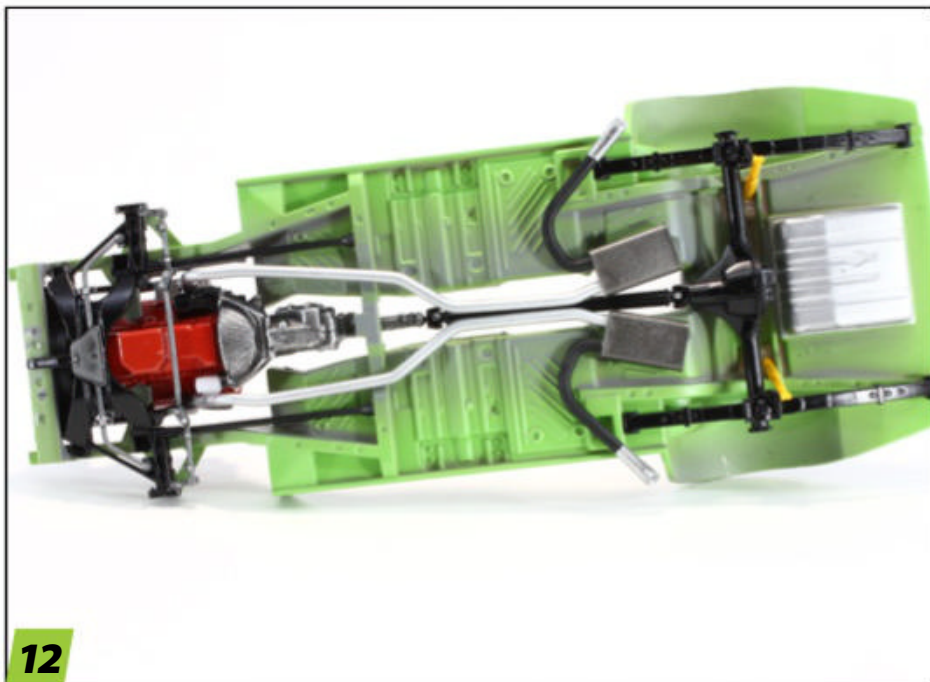
Tamiya Surface Primer white (No. 87044), **Surface Primer gray** (No. 87042), **masking tape** (No. 87035)

Testors Model Master sublime green (No. 28117), **Hemi orange** (No. 28107), **flat black** (No. 1749), **semigloss black** (No. 2740), **wood** (No. 1735); **Metallizer aluminum** (No. 1418); **One Coat Lacquer wet look clear** (No. 1835MT)

Alclad II stainless steel (No. ALC115), **white aluminum** (No. ALC106)

Molotow Liquid Chrome marker (No. 703101)

Citadel Shade Nuln oil (No. 24-14)



12

After priming the chassis gray, I airbrushed it with a very light, patchy coat of sublime green. This is meant to mimic the overspray that would be found on cars of the era during production. The exhaust pipes were airbrushed aluminum with chrome tips; the gas tank is stainless steel.



13

The kit's chrome-plated wheels look great, but my references show the centers painted silver with chrome outer sleeves. I masked the chrome areas and airbrushed the rest white aluminum. No need to remove the chrome for this, but make sure to wash the parts with soap and water.



14

AAR Cudas ran with "big and littles" — the rear tires were slightly larger than the fronts. The kit's tires had no branding and were the same size front and back. I turned to an AMT Parts Pack (No. AMTPP006) for Goodyear Polyglas GT tires: L60-15s in back and F60-15s up front.



15

I spray-painted the body sublime green from the can. After the green dried, I sprayed on a few coats of wet look clear and wet-sanded, polished, and waxed for a smooth finish. Then I masked the green areas, airbrushed semigloss black, and finished the hood separately.

Wet-sanding and polishing

TO WET-SAND THE CLEAR COAT on my AAR Cuda, I used a Micro-Mark Micro-Mesh Finishing Kit (No. 80939). I started with 3200-grit and progressed up through 12000. After wet-sanding, I rubbed down the body with Meguiar's Clear Coat Safe rubbing compound (No. G18016) and followed with Meguiar's Carnauba Wax (No. A-2216) for the ultimate shine.



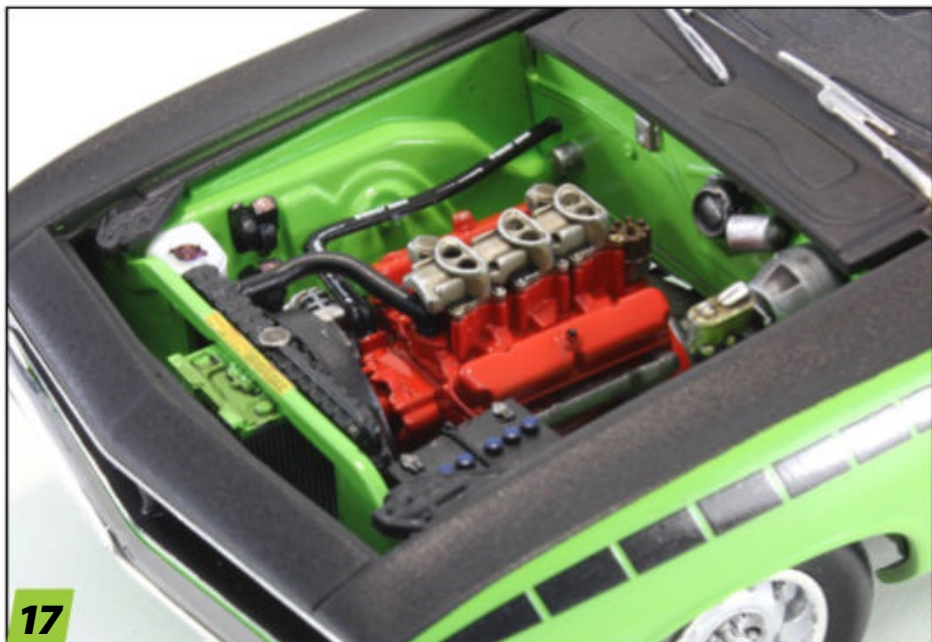
More detailing techniques!

Look for more car-modeling how-to tips in *Building and Detailing Muscle Cars, Restomods, and Pro Touring* coming this April from *FineScale Modeler*. Visit KalmbachHobbyStore.com to order.



16

After painting the rear panel semigloss black, I applied Bare-Metal Foil to the trim. Make sure to always use a brand new blade when applying the Bare-Metal Foil and let the weight of the knife do the cutting. With the trim finished, I added the semigloss-black front and rear spoilers.



I dropped in the engine and mated the chassis and interior to the body. Some modelers find wiring and plumbing an engine to be a daunting. If you're one of these, don't worry. Detail painting goes a long way. Make sure to finish the battery, reservoirs, and hoses to match your references.



Side-view mirrors always pose a problem: They don't often have a positive connector and can be easily knocked off. I typically paint mine and wait until the end of the build to attach them with superglue for a little stronger hold.



FINAL THOUGHTS

AT LAST, I added the famous AAR Cuda decals to the sides and called it done. It was as clean a build as I could have hoped for with no real surprises. But it demonstrates that with some simple masks and detail painting, you can produce a satisfying, multicolored model without much fuss or stress. However, while it's tempting to spray on a clear coat as the final step, don't underestimate what thorough wet-sanding and polishing can do for your overall finish. **FSM**



Chipping away at a *Lancia 3Ro*

Layers of acrylics scraped away reveal a war-weary Italian truck

BY RAFAŁ LEBIODA



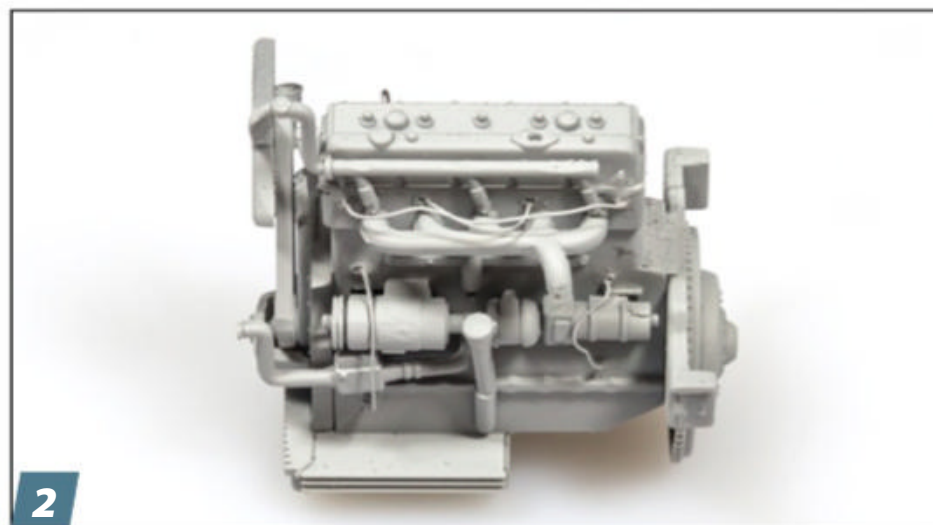
In 2019, Polish manufacturer IBG Models produced an exceptionally beautiful model — a 1/35 scale Lancia 3Ro (No. 35052). This Italian truck was used for both civilian use and military service during World War II. The basic version of the 4x2 heavy truck transported troops and equipment of the Italian army, but it proved a versatile vehicle and found many other roles, including a weapons platform armed with a howitzer.

I built the cargo truck version as a vehicle in North Africa in 1941. To give it a desert-worn look, I painted and weathered it with AK Interactive paints, unless otherwise noted.

Rafał built IBG's 1/35 scale Italian vehicle for service in North Africa during WWII — hence the heavy weathering of wind-blown chipping paint.



1 The kit looked promising right out of the box — a lot of good quality parts. It's not one for beginners, however, because there are a ton of small, fiddly parts.

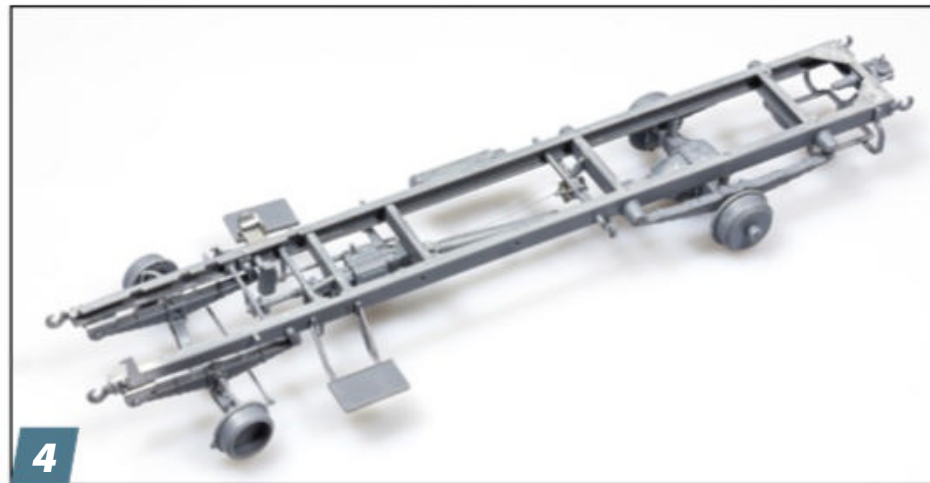


2 Despite the fact that the kit engine consists of many small parts, it came together easily. Being the modeler I am, though, I *had* to add more.



3

Much better. I wired the ignition with thin brass lines, then sprayed the whole engine with a metallic shade.



4

The frame and chassis are well detailed, so no scratchbuilding was necessary. Be careful. With so many parts, it is easy to get lost in construction.



5

Each wheel consists of two parts, that needed a lot of sanding to fit together perfectly with Mr. Hobby Mr. Cement SP. A little superglue eliminated the seams.



6

The cab is nicely detailed with a clutch, accelerator, and brake. I finished and weathered each section before assembly.



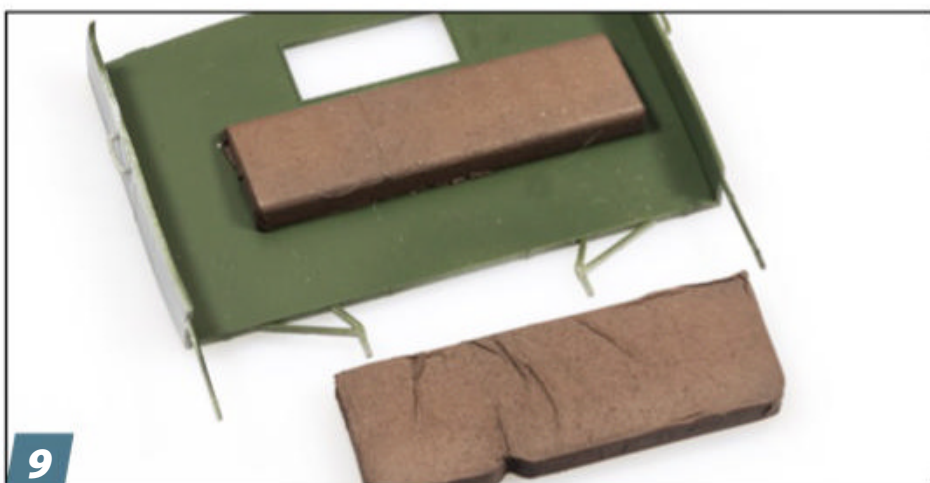
7

I base-coated the interior and exterior of the cab as well as the engine with mahogany brown. Note the nice cast texture on the kit parts.



8

The interior was painted Mr. Hobby field gray acrylic, a greenish shade, letting the brown show through to replicate wear. The dashboard decal is one I borrowed from (and never returned to) my spares.



9

I improved the seat upholstery by covering it with facial tissue soaked in thin wood glue. After the tissue dried, I painted the seats with Tamiya earth brown.



10

To simplify the cargo bed, I omitted the troop benches and the bows and frame for the cover. I also left the rear folding door open. The whole thing came together easily.



11

Now the fun part: painting! This truck was a road-weary beast stationed in North Africa, so paint chipping was a must. The base color is an airbrushed coat of field green, applied everywhere except inside the cab.



12

Wanting to chip away the top layer of paint to reveal this green, I applied two layers of heavy chipping acrylic fluid. A solid layer of worn effects followed.



13

After the chipping and worn effects layers dried, I airbrushed the desert camo using Mr. Hobby acrylics, first mud, then sandy yellow.



14

Then, I moistened the painted surfaces with warm water and started wearing the top coats with various stiff brushes.



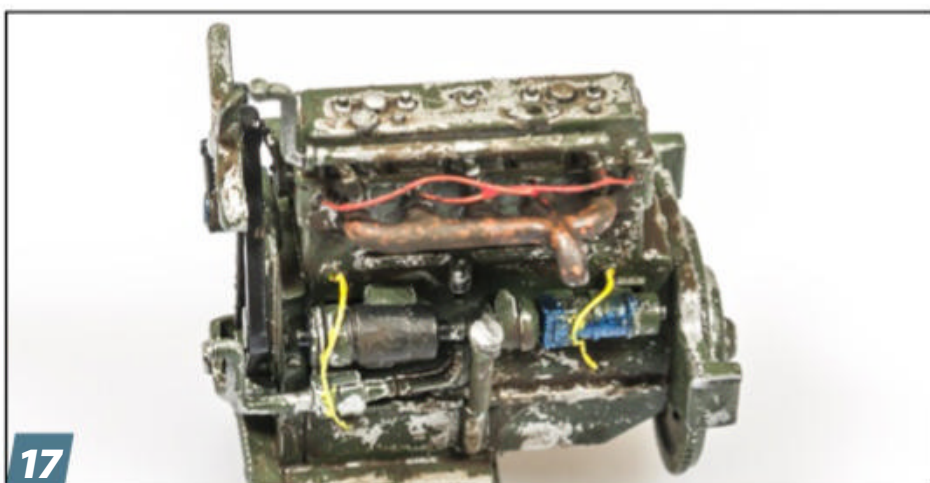
15

See the green now? In addition to brushes, I used a toothpick to create long, controlled scratches. Once I was satisfied, I let everything dry thoroughly.



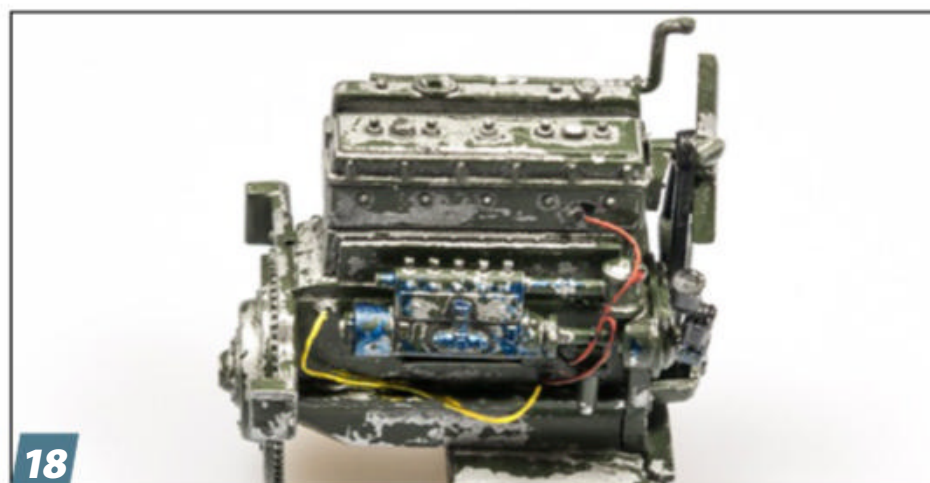
16

On the engine, now painted mahogany brown, I wanted the same chipped paint effect, but decided on field green as the top coat. I chipped away at this to reveal the brown and metallic underneath.



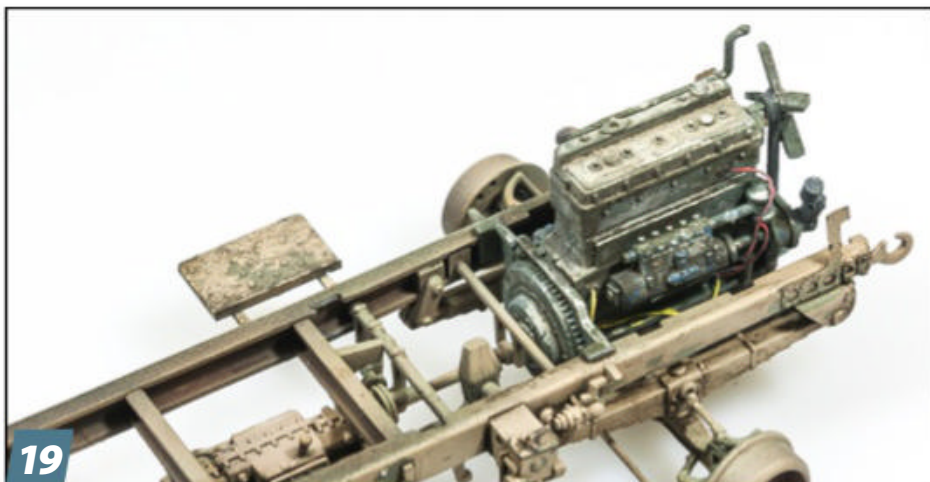
17

Now I could commence painting all those little details. The wires I added were picked out with red and yellow.

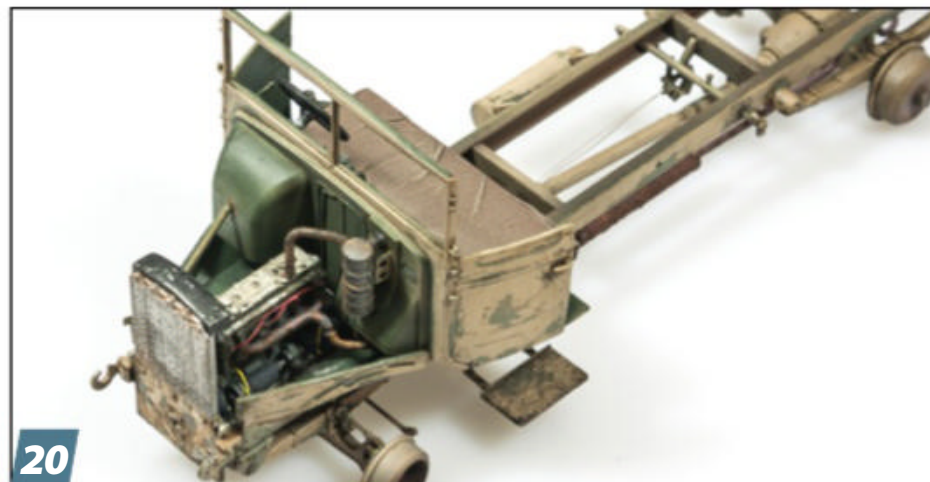


18

Here is the other side of the finished engine with more painted wires. You can also see faint traces of blue I applied haphazardly.



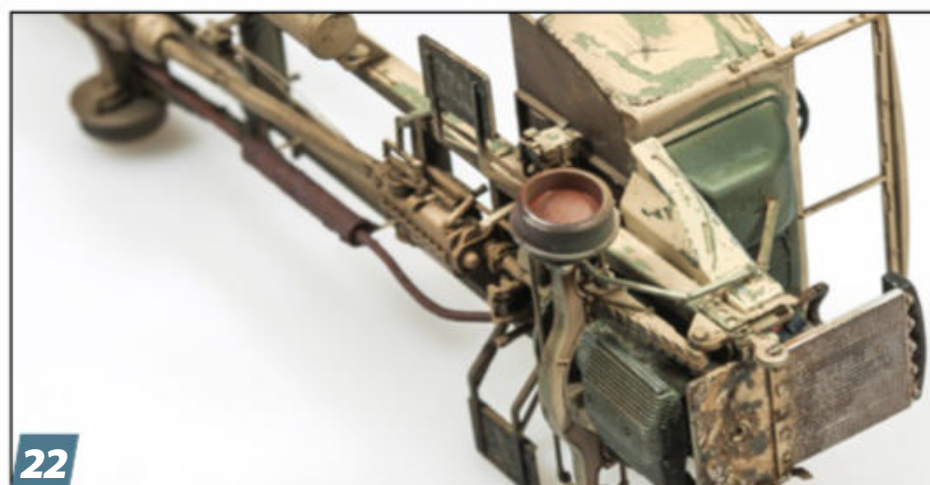
Once the engine was detailed and painted, I attached it to the frame.



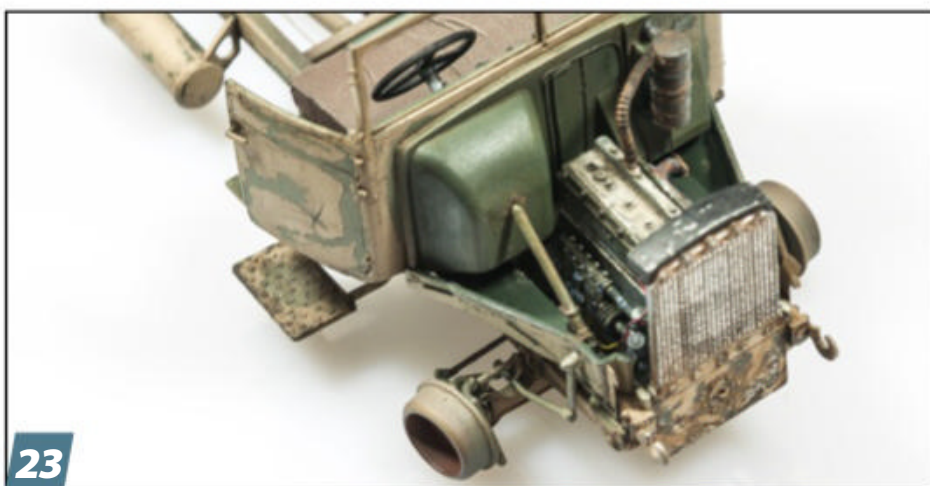
Next came the cab and radiator. I didn't install the engine side covers, because they were often removed for better engine ventilation in the hot desert.



After attaching the photo-etched metal (PE) brackets to the exhaust, I textured the muffler and pipe with Mr. Hobby rough gray applied with a short-haired brush for a corroded look.



Using the same brush, I added rust pigments to the exhaust, then attached it under the frame.



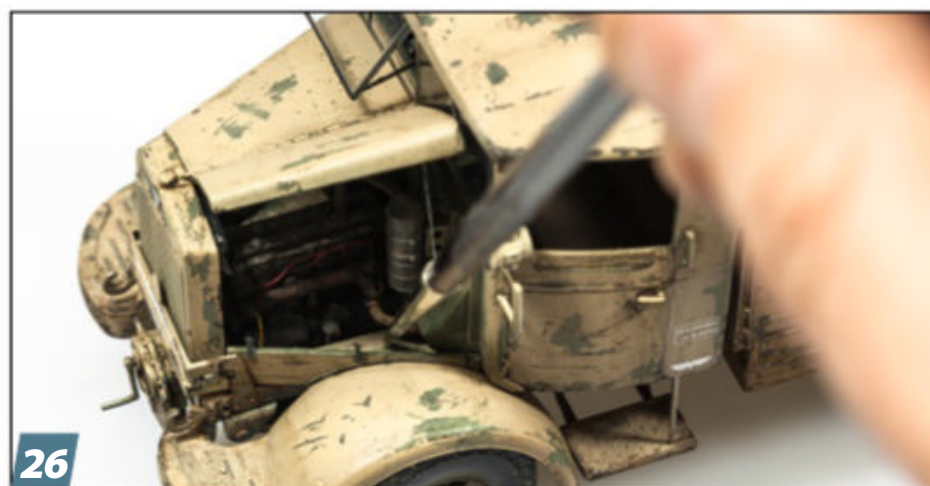
I didn't think chipped paint was enough. To weather the vehicle more, especially the front grille, I applied dark brown Vallejo paint with a thin brush and sponge.



Then, I glued the front fenders with integral bumpers to the cab and chassis.



In my mind, I envisioned this truck being unloaded while undergoing minor repairs. So, I posed one half of the hood open, with the engine ready for maintenance.



A thin wire (right) supports the hood so it doesn't fall on to the soldier doing the repairs.



27

I base-coated the wheels with Tamiya black, then over-painted them with Mr. Hobby tire black acrylic. I painted the rims using the same steps as the body; field gray, chipping solutions, and mud and sandy yellow camo.



28

I chipped away at the wheels as I had the body. A mixture of sand pigment made the wheels look used; turpentine fixed the powdered color.



29

Instead of using the kit decals for the characteristic white crosses, I made a stencil out of tape using the decal as a guide.



30

I airbrushed these crosses on the sides of the truck bed. Don't worry, they won't stay that pristine white.



31

Must. Be. Dirtier. I concocted a dirt brown filter out of Ammo by Mig Jimenez Afrika Korps enamel wash thinned with turpentine. This was applied heavily where dirt would accumulate ...



32

... and brushed over the dry surfaces. See what a difference the wash made? A variety of brushes came in handy for this process, covering large and small areas.



33

To highlight the wooden planks, I painted the upper edges of each with sandy yellow mixed with a bit of white.



34

Other details were highlighted with a lightened version of the base color. Using both light and dark hues keeps the weathering balanced and the contrast on point.



35

For thicker layers of dirt, I mixed oil paints with Ammo washes: Afrika Korps, modern vehicles, and tracks.



36

Here, you can see the kit's decals I applied to the cab. I didn't use all of them, just the number plates, stencils, and two nameplates. I applied them with help from Mr. Hobby Mr. Mark Setter Neo.



37

I improved the headlights by scratchbuilding bulbs using Milliput. I painted the interior of the lamps with a chrome and a small brush.



38

To finish the headlights, I fitted lenses from my spares box.



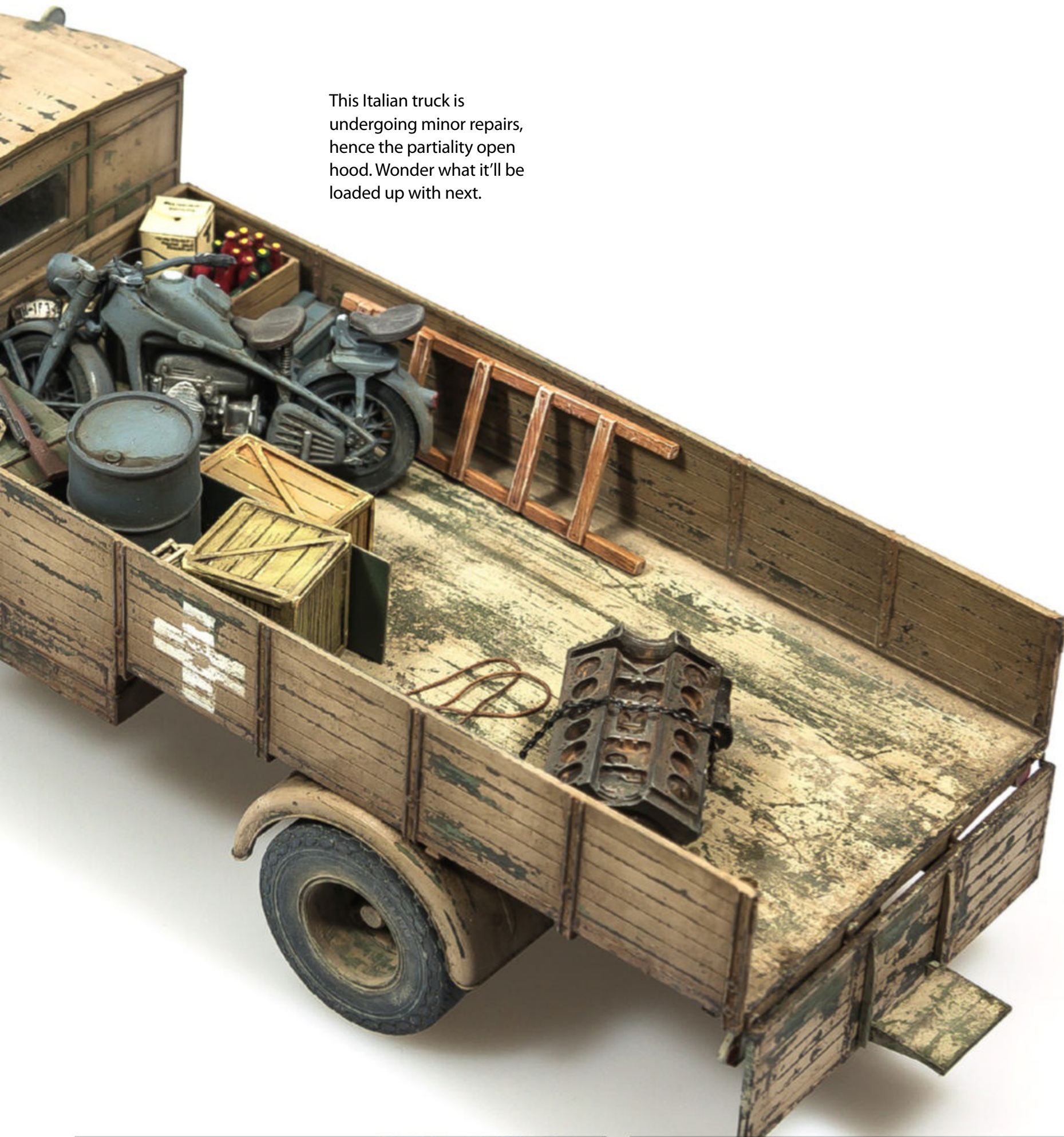
39

I mounted the front and rear windows with Revell clear part glue. I propped one window open using PE brackets. Now it was time to fill the bed with cargo.

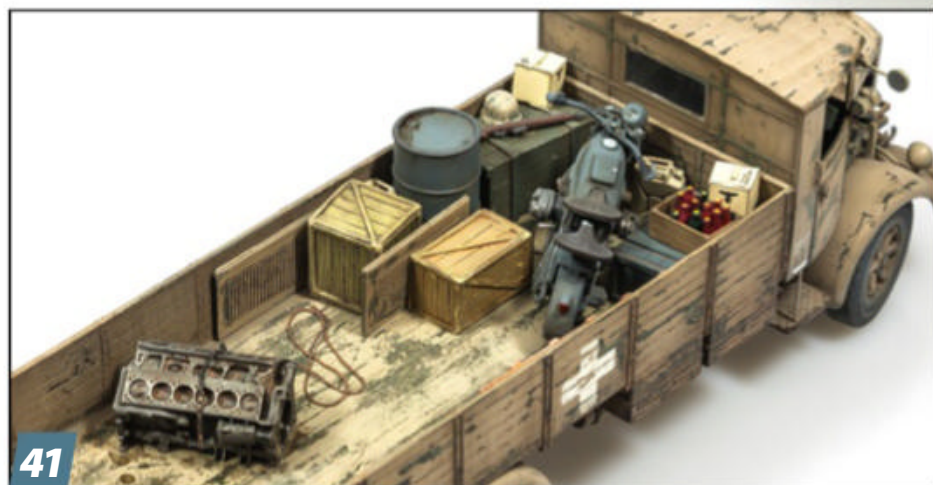


40

On board, we have a Tamiya BMW R75 motorcycle. From various other kits and my spares box came fuel barrels, a few crates, a ladder, a rifle, a helmet ...



This Italian truck is undergoing minor repairs, hence the partial open hood. Wonder what it'll be loaded up with next.



41

... fragments of a large engine, and other equipment ready to be unloaded while the truck is serviced.



42

I protected all my work and heavy weathering with a coat of Mr. Hobby Mr. Super Clear flat. I had a lot of fun dirtying up a fistful of brushes to achieve a well-used Lancia 3Ro truck. **FSM**

PAINT BRUSHES

101

While most modelers use an air-brush for the majority of our painting, good old-fashioned paint brushes are still important.

Always buy the best brush you can afford. Where have we heard this before?

It's great advice, but will a good brush last? Well, with some care they can last for a long time. Some of my brushes are over 10 years old, and I'm still using them on my builds. Just like with an air-brush, the secret is to clean your brush after each use. But before showing you how to clean a brush thoroughly let's look at the structure of a brush.

Anatomy of a brush

For hobby work, the handle should be large enough around to feel comfortable in your hand and about 8 inches long.

The bristles are held together and connect to the handle through a metal cap called a ferrule, which is crimped onto the end of the handle.

The number indicates the

An introduction to the proper care and feeding of a workbench essential

BY DAVE LENNOX



size of the brush and is stamped on the handle along with the type of brush. The larger the number the more bristles are held in the ferrule.

The bristles are divided into the main body, the heel (the part held in the ferrule), and the all-important tip of the brush, formally called the toe.

Bristles are either synthetic or natural.

Synthetic bristle brushes are less expensive but lose shape quickly and are not as durable.

Natural brushes come from sable, badger, pony, ox, and goat, among many other critters.

For acrylics, enamels, and lacquers, I recommend a soft bristle, the most common of these is sable.

Regular cleaning

Now that you decided to purchase a really good brush, you'll want to be sure it's properly cleaned and the toe is maintained so the shape remains consistent. Paint will migrate into the ferrule by capillary action in the bristles.

First, clean your brushes in the appropriate thinner until no more color comes out.

A field guide to brushes



Round: This is the shape you will use most frequently. The round body and pointed toe produce detailed marks as well as thicker strokes. Damage to the toe can render this brush useless.



Flat: The flat square toe produces a flat stroke. It can also be used to define an edge or paint a controlled line.



Filbert: Characterized by a wide, curved toe, a filbert is generally used to dab the surface with paint rather than pull out a stroke.



Now, get the bristles wet and wipe them in brush cleaning soap; I use The Masters Brush Cleaner and Preserver, **1**.

Work the bristles on your fingertip until the lather shows no more paint color, **2**.

Rinse lightly and wipe the brush on a clean cloth to reshape the toe, **3**. It is not necessary or desirable to rinse all the soap out of the brush as some will remain in the heel and limit new paint from migrating there.

Resurrecting a brush

Now for the real test: What to do with a good brush after

something has gone wrong, such as paint drying in the bristles or the toe being splayed.

To demonstrate, I plunged a new round brush into acrylic model paint above the heel, then smashed the bristles and allowed it to dry that way for two days, **4**. The result was a severely damaged brush, **5**.

To restore it, I first dipped the brush into the Bristle Magic brush cleaner and let it sit for a few minutes, **6**.

Then, I worked the cleaner into the bristles. Notice how the chunks of dried acrylic paint or coming off, **7**.

When all of the dried paint

was out of the bristles, I used regular brush soap to condition the bristles.

Finally, I used Brush Shaper to repoint the toe by dipping it in the fluid and wiping it on my fingertip, **8**. Once I had the desired shape, I let it dry and sit for a few days.

If, after going through this process, the brush does not hold its shape, repeat the cleaning and shaping process.

Keeping a set of excellent brushes is as easy as keeping them clean and cared for. It only takes a little time and three additional items on your workbench. **FSM**

RESOURCES

The Masters Brush Cleaner and Preserver, General Pencil Company, generalpencil.com

Brush Magic Artist Brush Cleaner & Reconditioner, bristlemagic.com

Speedball Pink Soap, speedballart.com

Mona Lisa Brush Shaper, speedballart.com



Script or liner: Its long, skinny soft bristles produce controlled lines. Because of the length of the bristles, it holds quite a bit of paint allowing for long unbroken lines.



Fan: This brush is useful for textural or blending effects. The bristle structure is not intended to hold paint, instead it is used to dab the surface and is also a great way to apply pigments or pastels.



Dry-brush: Because dry-brushing is unique to our craft, it is unlikely to be found in an art-supply store. It is intended to be used with virtually no paint. Barely dip the bristles in paint then wipe it on a cloth until almost no paint is left. Lightly draw it across the surface, leaving a traces of paint to highlight texture.

Capturing

Quick weathering
for a stellar ship

BY JOHN SIMMONS

Boba Fett, the galaxy's most notorious bounty hunter, flew perhaps one of the coolest ships we saw in the *Star Wars* movies: *Slave I*. FineMolds issued a 1/144 scale kit in 2011 that mirrored its 1/72 scale release with superb details and an excellent instruction booklet with six photos of the original *Slave I* filming miniature. FineMolds made a name for itself with its incredible *Star Wars* models, and many remain available on the secondary market. More importantly, the techniques I used to finish this model can be used to complete more recent releases of the ship.

My secret for completing this kit was to build it in subassemblies that I could then easily paint and weather before putting them all together. An involved project because of all the weathering, references were important for getting the look just right.

REFERENCES

Star Wars Chronicles, Deborah Fine, Chronicle Books, ISBN 978-0-811814980

Sculpting a Galaxy: Inside the Star Wars Model Shop, Lorne Peterson, Insight Editions, ISBN 978-1-933784038

Star Wars Archives, Paul Duncan, Taschen, ISBN 978-3-836563406



SLAVE I



1

I primed all of the subassemblies with gray Tamiya Fine Surface Primer (No. 87064). Then I airbrushed the cockpit and passenger compartment with Tamiya neutral gray (XF-53).



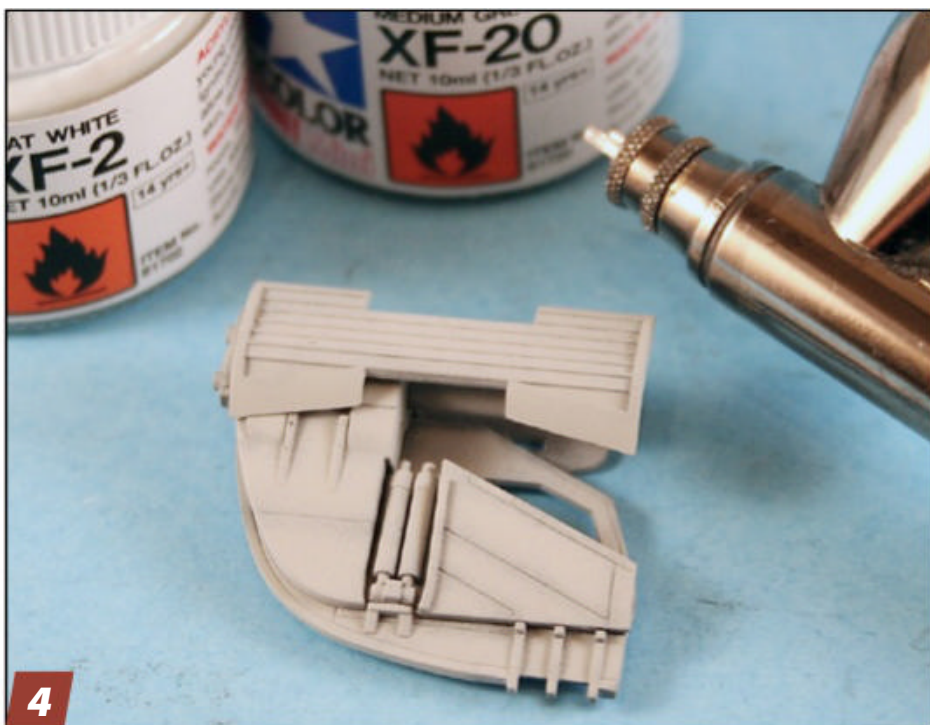
2

Vallejo Model Color beige red (No. 70.803) went on the passenger-seat cushions, and a wash of AK Interactive Winter Streaking Grime (No. AK014) and Rust Streaks (No. AK013) dirtied up the place.



3

The cockpit received the same grime treatment as the passenger compartment, and I picked out the conduit and greeblies in back with light grays. AK Interactive Medium Rust pigment (No. AK043) aged select areas that might not receive much attention.



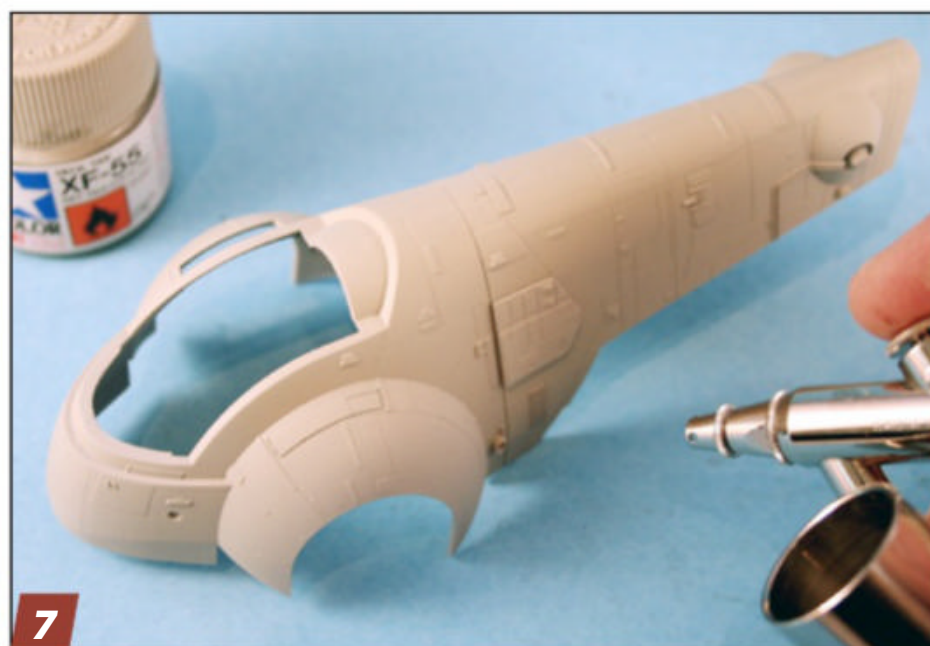
4 The wings were pre-shaded with Tamiya flat black (XF-1). I mixed equal parts Tamiya flat white (XF-2) and medium gray (XF-20) to get that warm color seen on the studio model and airbrushed it on, careful to let the pre-shading show through.



5 The kit provided decals for the chipped yellow markings, but I preferred to do it with paint. I dabbed a fragment of fine sponge held with tweezers in Vallejo deep yellow (No. 70.915) and touched it lightly to the wing to create an appropriate look.



6 Mig Productions Neutral Wash (No. P222) gave the wings the perfect brownish tinge seen in reference photos.



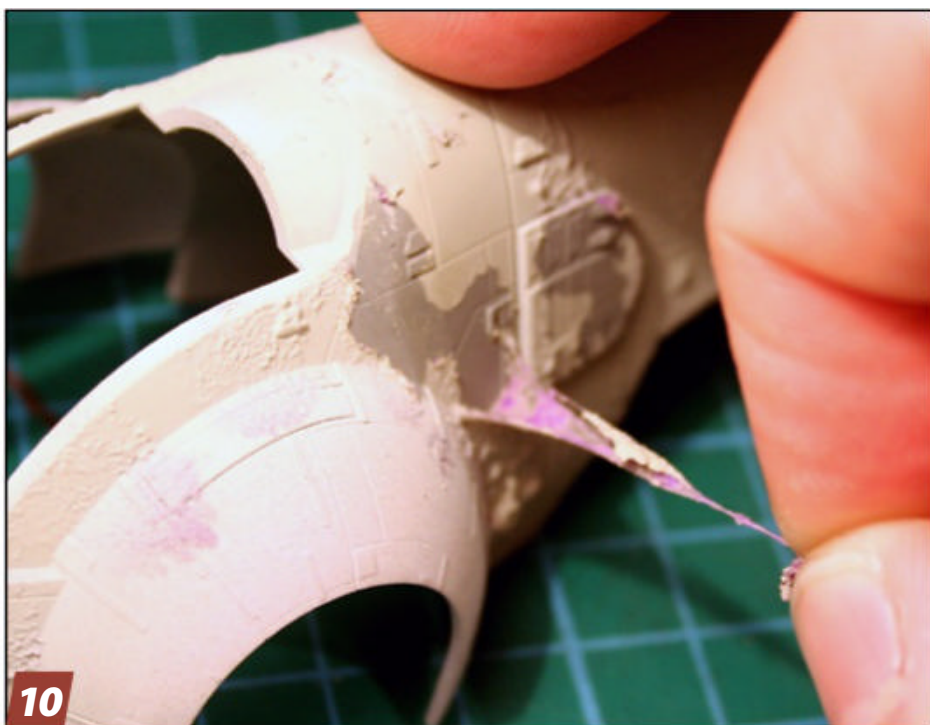
7 After filling and sanding the central seam along the length of the body, I base-coated it Tamiya deck tan (XF-55). I dipped a small piece of sponge held with tweezers into Humbrol Maskol (No. AC5217), dabbed most of it onto scrap paper, and delicately applied it to areas around the ship.



8 With the first bit of Maskol on, I mixed a 1:1 batch of Tamiya flat white (XF-2) and RLM gray (XF-22) and airbrushed it over the entire body. It went on a bit lighter than I anticipated but would tone down during weathering.



9 I repeated the Maskol treatment but went heavy this time, concentrating around the wing arches and cockpit window.



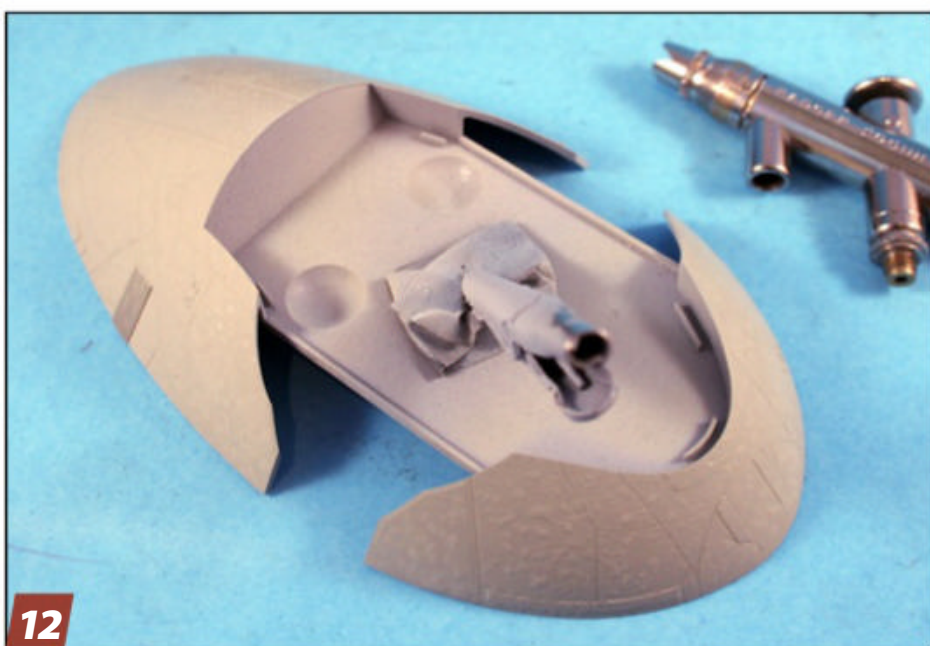
10

A thin mix of Tamiya J.A. gray (XF-14), flat white, and deck tan made a third coat that I airbrushed over the entire body and let dry. Then I gently pulled off the Maskol for the chipped paint effect.



11

Still not done, I masked the main body and flicked Maskol from an old, stiff-bristled toothbrush onto the wing arches. Both arches and the front panel on the nose received a custom mix of Tamiya field gray (XF-65) and flat green (XF-5).



12

The bottom skirt received a base coat mix of flat white, J.A. gray, and medium gray (XF-20). After it dried fully, I airbrushed a thick layer of AK Interactive Heavy Chipping fluid (No. AK089). The chipping fluid will allow me to better control the amount of chipping.



13

After the chipping fluid dried, I airbrushed a coat of Tamiya hull red (XF-9) lightened with a little buff (XF-57) onto the engine skirt. When the red paint dried, I went to work chipping it with a stiff, flat-tipped brush wet with water. It doesn't take long for a great looking effect.



14

Believe it or not, there's a little bit of pink hidden in amongst all that hull red on the engine skirts. I mixed a 1:1 ratio of Vallejo white (No. 70.951) and carmine red (No. 70.908) and dotted it on with a sponge and tweezers for a subtle effect.



15

Before final weathering, I sprayed everything with a coat of Humbrol satin varnish (No. AD6135) from the can. Mig neutral and dark washes and streaking grime helped create dirt build up and "carbon scoring" where laser blasts made it past the shields.

FINAL THOUGHTS

A BEAUTIFUL COMPANION to the 1/144 scale *Millennium Falcon*, Fett's *Slave I* benefits from careful painting and detailing. I couldn't leave well enough alone, though, and opted to make resin casts of the engines so I could light them with an LED and 12-volt battery. But that's another story for another time. **FSM**



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Dora Wings Republic P-43 Lancer

The Republic P-43 Lancer is an aviation “missing link” revealing the design evolution from the stubby Seversky P-35 to the gigantic P-47. While the U.S. Army Air Corps used it primarily for training, more than 100 were used in combat by the Chinese and a handful used for reconnaissance by the Royal Australian Air Force.

Dora Wings’ new P-43 is the first 1/48 scale Lancer since Classic Airframes released the first kit in 1995. Unlike that short-run plastic kit that included resin details, this one features 137 crisply molded plastic parts with finely engraved panel lines. The engine cylinder detail is amazing! The ailerons, elevators, and rudder are separate. Cameras and lenses are on the sprues indicating a future release in Australian colors.

A photo-etched metal (PE) fret supplies seat belts, cowl flaps, and an optional instrument panel, and there are die-cut masks for the three-piece canopy.

Nicely printed decals give markings for four American machines, three in olive drab over neutral gray, and one bare-metal aircraft. The red looks a tad light to my eye.

The twelve-page instruction book has a parts map, 27 construction steps, color marking diagrams, and a paint chart.

Overall this kit is beautiful, but the instructions confused me at several points.

The kit offers a choice between a plastic instrument panel and a sandwich comprising a flat backer, instrument decals, and a PE face. Separated sides and many detail parts are provided. Some of these are the smallest injection-molded parts I’ve ever seen and proved to be perfect ammunition for my tweezers to catapult across the workshop; handle them carefully. Everything comes together to produce a good-looking cockpit.



I would have appreciated clear drawings to assemble the engine mount. The struts look like Vs with a small pin at the bottom, a shorter straight arm, and a longer arm with a bump near the end. The pins attach to a ring facing the front, the fat end with the bump attaches to the firewall, and the bump is the attachment point for the short arm of the next strut. I had a hard time getting everything aligned. As the build progressed, I realized that the engine never attaches to the mount, so you can skip the entire assembly — I know I will next time!

The instrument panel needs to be attached between the butt ends of machine guns that mount on the firewall. But the instructions do not show this and, in fact, never show the panel being added at all.

Wait to build the landing gear until you are ready to add it to the completed airframe. It will be much easier to see where all the struts attach so as not to interfere with the gear doors.

Keep track of the beautifully molded supercharger. I failed to do so and had to replace mine with a less detailed resin item from an old Classic Airframes kit.

The engine is a kit unto itself; however, the instructions again left me confused. They show a dozen Part A18 and seven Part A1. Respectively there are only nine and five in the kit. Photos of a Pratt & Whitney Twin Wasp R-1830 on the National Air and Space Museum website (airandspace.si.edu/collection-objects/pratt--whitney-twin-wasp-r-1830-92-radial-engine/nasm_A19750478000) showed there should be one Part A18 for each cylinder and seven of Part A1 connecting

the lower cylinders. I fabricated the missing parts from a paper clip, but I suspect no one would notice if you just used the kit parts on the front bank of cylinders and didn’t worry about the rear.

I suggest reversing the assembly sequence for the engine

cowling. Start with the cowl ring, which has notches inside to align the cylinder heads. Then, you can align the other three pieces with the correct cross-section. I added styrene strips to expand the gluing surface for the cowl flaps, but this caused a fit problem later when I attached the power egg to the fuselage. Instead, wait until the cowl is on the airframe to add the flaps.

The fit of the major components was excellent but, I had to remove about a millimeter from the port wing root to even out the dihedral. The rudder and elevators fit so tightly I didn’t use glue. They are just pressed into place.

Alclad II airframe aluminum prepared my Lancer for decals, which went on well without decal solvents or setting solutions. Dora Wings thoughtfully supplied a few extras of the smaller decals.

Dora Wings have given us a kit of an important if less well-known aircraft that needs little effort to turn into a highly detailed replica.

— Andy Keyes



Kit: No. DW48029 **Scale:** 1/48
Mfr.: Dora Wings, dorawings.com
 (Sample courtesy of mfr.) **Price:** \$54.99
Comments: Injection-molded, 151 parts (14 PE), decals, masks
Pros: Outstanding detail; good overall fit **Cons:** Some confusing instructions; overly ambitious engine mount and cowl; fragile PE cowl flaps



Discovery's big starship *Enterprise*

The closing moments of the first season of *Star Trek Discovery* surprised fans with a look at a new version of the famous starship

Enterprise. Nicknamed the “Discoprise” or, my favorite, “Pike-rprise” by fans, the new design draws inspiration from the original TV series as well as the prequel, *Star Trek Enterprise*. Spinning fans in the Bussard collectors and the basic shape of the secondary hull reflect the TOS *Enterprise*, while the rear of the warp nacelles is reminiscent of the pilot version of the ship. From *Enterprise*’s NX-1701 we get the blue inner warp engine panels, the metallic finish, and, typical of *Trek* ships since the first big-screen feature, the ship features the Aztec paint scheme. New to the ship are the “potato-peeler” warp engine pylons and the large bridge window.

The new Polar Lights USS *Enterprise* in its popular 1/1000 scale *Star Trek* range is complemented by a separate decal set for the Aztec paneling that I used here, and a lighting kit that includes motors to spin the

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- Zvezda 1/144 scale Beriev Be 200
- Revell 1/24 scale *Fast & Furious* Dom's '71 Plymouth GTX
- AMT 1/25 scale '70½ Camaro
- Dora Wings 1/48 scale Marcel Bloch MB.155C.1
- Italeri 1/24 scale BMW M1 Procar
- Copper State 1/32 scale Nieuport XXI



Bussard collectors (not reviewed here).

In addition to nicely molded medium gray plastic, the kit includes a large clear sprue with all of the windows, primary hull domes, impulse engines, and numerous parts for the warp nacelles; even the shuttle bay is molded clear.

The instruction sheet features large, clear assembly diagrams. Decaling and painting instructions are printed in color on the sides of the lower box, but they don't refer to any brands or paint colors. The small decal sheet is well printed and includes the ship's name and registry numbers, side banners, and a few small details.

The Aztec decal set consists of three large sheets covering all of the paneling.

I removed the main parts and cleaned them up before painting the exteriors with Tamiya spray-can light gunmetal (TS-42) decanted and applied by airbrush. The inner faces of the clear side panels for the warp engines were painted Tamiya clear blue (X-23) and I used clear red (X-27) inside the impulse engines and Bussard collectors. I backed the clear colors with silver and misted white over the inside of the saucer domes and front window to block the view inside.

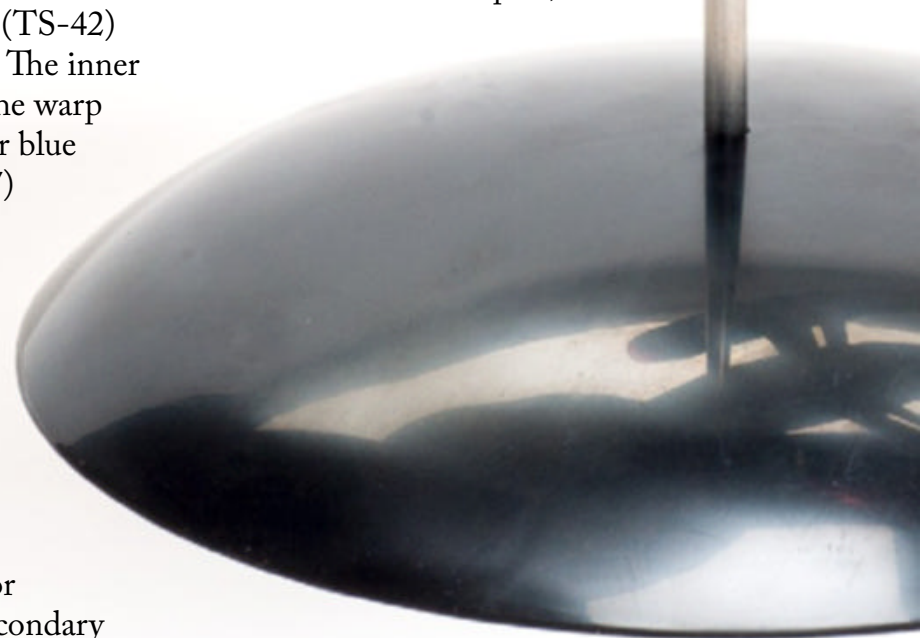
After inserting the clear parts into the pre-painted body parts, I built the ship in four major subassemblies — primary hull, secondary hull, and the two warp nacelles with their respective pylons — leaving off the Bussard domes and the sensor dish.

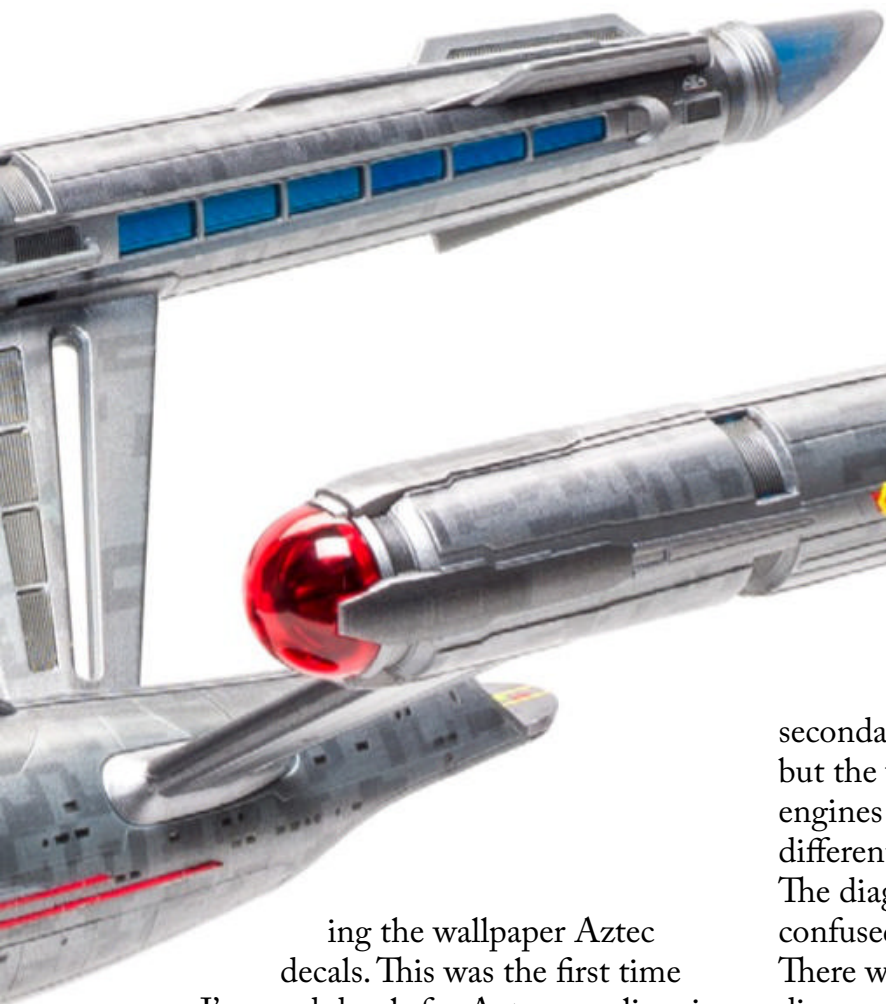
Although the instructions state this kit

can be built with a snap-assembly or glue, I recommend gluing at least the internal parts even if you only snap the main parts together.

I filled seams where needed, first with black superglue, then with auto body spot putty. The underside of the secondary hull required the most work and even needed an additional application of Mr. Surfacer 500. I masked the blue warp engine panels, impulse engines, and Bussard fans before touching up the light gunmetal base coat being careful not to spray any windows.

Now came the fun part, add-





ing the wallpaper Aztec decals. This was the first time

I've used decals for Aztec paneling; in the past, I've used masks and painted the pattern. That said, I was impressed with the Polar Lights decals. They are thin with no excess clear film. But they are strong and did not stretch. Rather than being solid, the panel decals, tint the base color. Maneuvering the larger decals can be difficult and water or Microscale Micro Set helped keep them mobile as I positioned them. A wet finger or large damp brush is helpful in removing any wrinkles.

Overall, the decals responded well to Micro Sol, but a few places needed Solvaset to settle the decals over details.

I did not have any issues following the decal placement guide for the primary and

secondary hulls, but the warp engines were a different story. The diagrams confused me. There were no diagrams for the inner surfaces.

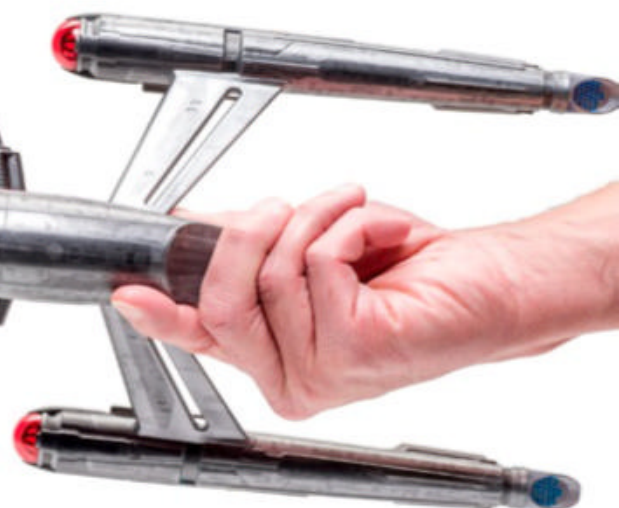
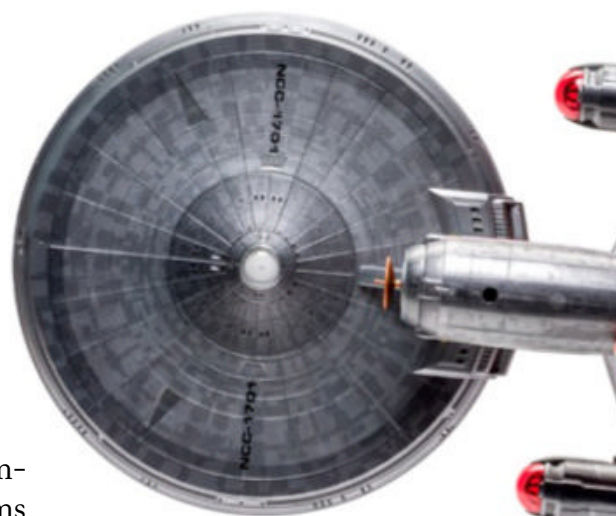
Also, the decal numbers on the diagrams did not always match the sheet numbers. It took a while, but I eventually pieced the jigsaw puzzle together. After the Aztec decals were dry, I added the kit markings without problems.

The next day, I ran a new No. 11 blade along all of the panel lines, then gave the subassemblies a coat of semigloss clear. Final assembly was a snap.

I spent about 22 hours building my "Pike-rprise," about 10 on assembly and paint, and 12 hours applying decals. Kudos to Polar Lights for the design of this impressive kit. It's simple enough for a beginner to get good results, but experienced builders can go all out add-

ing extras such as the Aztec scheme and lighting. While I like the way the ship turned out, it begs to be lit. If I eventually build another one you better believe it will have lights and spinning Bussard collectors.

—John Plzak



Kit: No. POL973M

Scale: 1/1000

Mfr.: Polar Lights, round2corp.com
(Sample courtesy of mfr.)

Price: \$51.99

Comments: Injection-molded, 75 parts, decals

Pros: Kit is any easy build; strong alignment system; kit set up for adding lights

Cons: No specific colors of paints given; painting guide simply color pictures on the box sides

U.S.S. Enterprise NCC-1701 Aztec Decal Sheet

Kit: No. MKA042

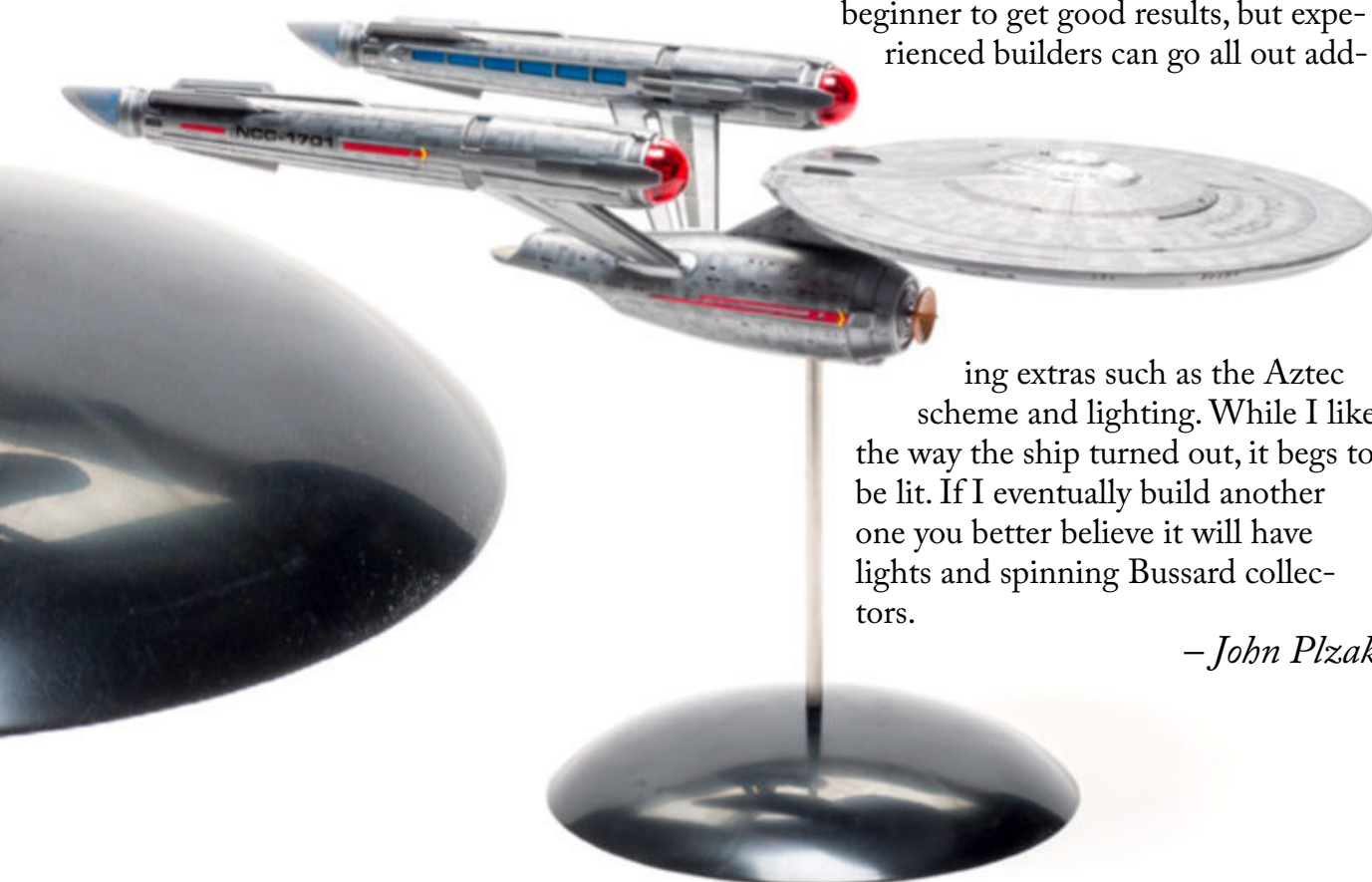
Scale: 1/1000

Price: \$24.99

Comments: 83 decals

Pros: Zero excess clear film

Cons: Placement guide vague for the nacelles





Splash Paints

Oregon-based Splash Paints is a relative newcomer to the model paint business. If you are familiar with using MCW automotive lacquers, Gravity Colors, and Zero Paints, you should be able to get similar results with Splash Paints.

The company offers airbrush-ready colors generally in 1-ounce jars. The website is easy to navigate and has links to instructions for use.

I found the colors cover extremely well in smooth, thin layers.

While you can order extra reducer from Splash, I've had perfect results adding a few drops of Mr. Color Thinner to help the

paint flow smoothly through my Grex Tritium TG airbrush.

In addition to numerous OEM factory colors, Splash offers a variety of primers, reducers, custom colors, and both traditional and 2K clears.

I avoid 2K clears for health reasons, but I wanted to try Splash's.

Following the directions, I applied a medium wet coat first and two wet coats 5 minutes apart, and it worked well. Always wear a respirator and be sure to clean your airbrush immediately after painting; once this stuff cures, it is extremely hard and will be nearly impossible to get out of your airbrush.

I used Splash Paints on several recent projects including Tamiya's Mustang GT4, a Welly Porsche GT3 RS diecast that I massaged the body and door apertures on and repainted in Splash Porsche rubystone red. To the right is Tamiya's new GR Supra painted in a Lamborghini color called Giallo Tenerife (aka canary yellow). This is a nearly neon yellow with a subtle pearl midcoat, it's a striking color on the Supra.

Customer service is first-rate; I've had most of my paint shipments arrive within three days of ordering (at least pre-pandemic).

Splash paints have become a staple of my paint arsenal as they offer most colors I want. They apply easily and produce good, consistent results.



Metalizer Series aluminum (SPM-001) was used to finish this resin Trans Am body; I like using metalizers for silvers as the pigment is extremely fine and in-scale. It looks great as applied prior to clear.



Working on a custom livery for Tamiya's Mustang GT4, I used Splash rosso scuderia, a Ferrari red that's a bit more orange than the usual rosso corsa. Indoors it appears bright red, outdoors it really comes alive. This was over-coated with Mr. Color clear acrylic lacquer (No. C46).



Here is a Fujimi Toyota FJ Cruiser painted with Splash special-ordered Toyota army green. Special order colors arrive in 2-ounce jars. The Lamborghini Huracan Performante was painted in Splash blu cepheus, a 3-stage paint.



This restomod Trans Am was shot in Jagermeister orange and then 2K gloss clear. The clear is self-leveling and will require little if any polishing. This was my first time applying 2K urethane clear and it turned out impressive.



MCW Military Enamels

Model Car World or MCW, known for its extensive line of lacquers matched to factory car colors, has been expanding the paints it offers. First came a line of lacquers matched to military colors. Now, filling a gap left by the demise of the Testors Model Master brand, MCW has launched a line of enamels.

I'm a car guy but use many military colors for interior and trim, so I was anxious to try these modern enamels. I received nine colors as well as reducer to slow drying, a jar of clear, and a jar of hardener. MCW's instructions for these enamels range from adding between 1 part thinner to 2 parts color up to a 50:50 mix of clear with color. As always, your airbrush setup will determine how much thinner works best for you; test before you spray your project. I found instructions that mentioned using ordinary hardware store lacquer thin-

ner as a reducer. It mixed perfectly, and the paint flowed smoothly and dried faster than using enamel reducer.

If you want to speed up the cure with MCW hardener, you can either plan to use the entire 1-ounce jar of paint and add 4 drops of hardener or, if you are using a portion of the jar, add one drop of hardener to the mixture in your paint cup. You must thoroughly clean your airbrush after shooting any paint or clear that you've added the hardener to, and you cannot store paint for future use if you've added the hardener.

The paint flowed smoothly in my tests, which were primarily white grocery store plastic spoons shot with a primer coat of MCW insignia white flat enamel. I also sprayed a Hasegawa Honda Civic body with chrome yellow over a primer layer of Tamiya's new base white (TS-101), which itself is an amazing product! This allowed me to paint match the body color interior

Hasegawa's Civic painted with MCW chrome yellow and two coats of clear that was thinned at a 50:50 mixture with a drop of enamel hardener added to the mix. Results are impressive: The clear leveled out very smooth after a night in a dehydrator. The clear enamel in the jar is like crystal, unlike my experience with Testors enamel clears.

panels on the gray plastic with the body that is molded in white.

The Civic was finished with the MCW enamel clear, which I thinned with lacquer thinner and added a drop of hardener to. The result was an amazingly smooth, crystal-clear finish that cured overnight in my dehydrator.

For my airbrushed spoon tests, MCW enamels went down as nicely as I expect from enamels.

The MCW enamels are great products that go on smooth and cover quickly in relatively thin coats. The flat colors dry to a nice flat finish, the gloss colors dry smooth and glossy.

-Splash and MCW reviews by Bob Downie



Gloss color (bottom to top): Flat insignia white, chrome yellow, insignia yellow, Navy sea blue.



Flat colors (Bottom to top): Light sea gray, desert tan, interior green, green, black.

AK Interactive 3rd Generation Acrylics

There is a vast choice of colors available; Bob also received metal medium, crackle medium, and acrylic thinner.



AK Interactive has launched an extensive new line of 3rd generation acrylic paints, inks, and mediums. The new formula includes 236 different colors, many matched for military colors, although there is no mention of FS or other standards on the eye-dropper bottles.

These acrylics are made in accordance with EU regulations banning harmful substances, so they are safe to brush or spray without worry. That also means they are almost scent-free. Waterproof when dry, these acrylics resist oils, enamels, washes, solvents, and other aggressive weathering techniques. The colors are suitable for both

hand-painting and airbrushing, and AK says the paints are formulated for high build and no airbrush clogging when mixed properly.

For airbrushing, I had to experiment with thinning and pressures to get consistently good results. I didn't find them as easy to spray as Tamiya or Testors Model Master Acryl. Cleanup of both airbrushes and paintbrushes was a snap.

Getting smooth, even, airbrush coats was trickier versus lacquers, enamels, and Tamiya acrylics and took practice.

My usual projects are almost always automotive and most of my acrylic use is hand-brushed details. Thankfully, I found

these acrylics worked well when hand-brushed; they will be great for young modelers as they are about as safe as possible for any paint.

AK offers a variety of mediums to assist with brush painting, including a crackle medium to be applied over a color layer. I found the metallic medium easy to use, but I tried and failed several times to get the crackle medium to work. I was unable to locate any instructions or input from anyone who has used this product.

I am impressed with the AK acrylic performance and I will certainly add more colors to my paint stash.

— Bob Downie



The metallic and ink colors tested. The main parts of the spoons were airbrushed, the areas painted onto the handles were brush painted.



The intense, pastel, and regular acrylic colors tested. The main part of the spoons were airbrushed while the lower part onto the handles were brush painted. The brush painting worked better for me than airbrushing which was a bit tricky to get the colors mixed to flow and cover properly. These paints are essentially odorless and clean up easily.

NuNu Lancia Delta S4 '86 San Remo Rally

Lancia automobiles have been involved in motorsports since the beginning but probably most notably in the World Rally Championship. Starting with the Fulvia and on through the legendary Stratos, the 037, and, ultimately, the Delta S4, Lancia race cars have won numerous events and championships.

As a follow-up to Beemax's release in Martini markings (No. B24020), this NuNu's 1/24 scale Lancia Delta S4 represents the 2nd-place Totip car from the 1986 San Remo rally. In addition to the new, beautifully printed decal sheet, the kit includes a set of night-stage rally lights, but it is otherwise identical to the previous release. The kit features a full front suspension, opening bonnet, and a complete engine, rear suspension, and removable rear deck lid. Molding is crisp with minimal flash and seam lines, and ejector-pin marks are discretely placed to speed cleanup.

The instruction's first three steps cover the construction of the turbocharged and supercharged engine and all the associated plumbing for the intercoolers. Assembling the engine itself is straight forward, but the only the pipes support the intercoolers. The parts fit fairly well, but play in the joints make careful alignment critical. I used various metallic colors to get slightly varying shades and textures to help add some visual interest. Pipe couplings were picked out in light blue; thin strips of Bare-Metal Foil make convincing clamps.

The tubular space-frame chassis and front and rear suspensions look good with plenty of detail. For ease, I gathered all the components and sprayed them with Tamiya gloss aluminum (TS-17). Kevlar panels cover the bottom of the chassis; if you buy the optional detail-up set, you get templated decals for the task. I made my own using a picture I found on the internet as a pattern. NuNu provided a clear panel to cover the transmission tunnel, but there really isn't much to see, so I covered it, too.

As always, it's a good idea to test fit everything. I found several spots where the locator pin was larger than the mating hole or slot, but they weren't difficult to fix.

Decals are provided for the instruments and rally gear for the dash and with a little Micro Sol settle into the details beautifully.



There are several Kevlar panels in the interior that I made decals for too. I'm not a big fan of decals for seat belts, they're just too two-dimensional. I cut them out as close to the image as possible, color the edges with a Sharpie to hide the "white" and then use white glue to attach them. It gives the belts at least a little more thickness and they drape more realistically. When attaching the door panels, be sure they sit flush at the bottom edge as this will determine how the body shell fits on the chassis.

The body shell is broken down into three main components: the front clip, main cabin, and rear clip. The front needs a little sanding to remove seam lines around the headlight area; otherwise, cleanup was minimal. Finished with the prep work, I sprayed on a couple of coats of Tamiya pure white (TS-26) and waited a few days before placing decals. I don't know who prints NuNu's decals, but they are absolutely fabulous! Colors are vivid and cover well with crisp printing and perfect fits. When necessary, the decals responded well to Micro Sol and conformed to every bump, dip, and compound shape. NuNu even provides decals for the black window trim.

The transparent parts are thin and crystal clear. The borders have a ridge molded in to aid painting if you decide not to use the decals. When installing the lights, be sure to check that the two styles of lenses are properly placed.

The kit includes fine mesh for the grilles with templates printed in the instructions. The photo-etched metal parts from the detail-up set may look a little more finished when viewing from the inside, but the supplied mesh looks fine. The kit's molded

antenna is a bit too thick, so I cut it off, drilled out the base, and replaced it with a piece of wire.

I think this is my fourth NuNu kit, and they have all been a pleasure to build. No, they're not perfect, but I have seen improvement in each one, and any obstacles have been minor to overcome. NuNu has several new products slated for the coming months, and I'm excited to see how they look.

— Mike Klessig



Kit: No. PN24005 **Scale:** 1/24

Mfr.: NuNu, nunumodelkit.com

Price: \$60 **Comments:** Injection-

molded, 161 parts (10 vinyl), decals, mesh **Pros:** Amazing decals; fully detailed suspension and engine; minimal cleanup **Cons:** Some fit issues; fragile intercooler assembly

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By Mark Jones

Remembering Lloyd S. Jones

A son looks back on his father's exciting, aircraft-filled life



Author and aircraft enthusiastic Lloyd S. Jones passed away Sept. 27, 2020, at the age of 89. *FSM* honors his prolific model building, designs, and extraordinary life.

Modelers may recognize Lloyd Scott Jones as the man who designed kits for Revell, wrote aircraft reference books, or as the creator of Scale-Master Decals. This avid scale modeler, my beloved father, passed away peacefully on Sept. 27, 2020, surrounded by family, aircraft models, and many IPMS awards. He was 89 years old.

Born in 1931 in Los Angeles, California, he grew up across the street from Lockheed. This is where his love of aircraft began. Here is a look back on the life of a man who lived and breathed airplanes with unparalleled passion.

Designing his own models

Lloyd was an accomplished photographer. From the early 1950s through 1963 he was the owner of Clint's Camera, a family-owned hobby shop in Van Nuys, Calif.

In his downtime, he would fabricate planes using magazines as research and display them at the store. His designs of classified aircraft were so accurate, they actually prompted visits from Military Intelligence. He never let them confiscate the designs or models, though — he knew he had the right to research and create these machines.

Because of his modeling talent, in 1961, he was commissioned to build a collection of 50 airplanes to commemorate the 50th Anniversary of Naval Aviation. Every one was scratchbuilt, mostly from wood in diminutive 1/240 scale. This collection was donated to the Smithsonian National Air and Space Museum.

A highly supportive lifetime IPMS/USA member, he was a tireless advocate of IPMS and kit manufacturers working together. The annual convention decals were often designed by him.

Still, Lloyd was a builder first and one of the best. He won Best of Show at the 1969 IPMS/USA National Convention with a scratchbuilt Flying Wing.

A longtime contributor to American Aviation Historical Society, he earned the 2013 Best Aviation Artist with a digital rendering of a YB-35 Flying Wing.

Authoring books

Wanting to share his aircraft knowledge, he wrote and illustrated several books: *U.S. Bombers B-1 to B-70*; *U.S. Fighters Army - Air Force 1925 to 1980*; and *U.S. Bombers 1928 to 1980s*, among others.

Lloyd earned two Aviation Space Writers Association Book of the Year Awards for his books. At the time, he was only the second person to have earned two of these prestigious awards.

He also wrote a novel in 1986 titled *The Black Rainbow*, a story based on stealth and alien technology. He had an interest in extraterrestrial craft and worked closely with John Andrews at Testors developing stealth aircraft and alien spacecraft kits.

Revell & Scale-Master Decals

From 1963-1973, Lloyd was a Research Analyst at Revell. The title belies the true scope of his work and influence with Revell and the modeling community. He continued to freelance for Revell through 2011, creating box art models and decal artwork.

Some of his many achievements at Revell revolve around his attention to accuracy. He was dissatisfied with the practice of “box



Lloyd's design for the classified Lockheed SR-71 led to the first scale model of the aircraft, produced by Revell in 1/72 scale in 1969.



Aircraft books written by Lloyd and published by Aero Publishers. Left: *U.S. Bombers 1928 to 1980s*. Center: *U.S. Bombers B-1 to B-70*. Right: *U.S. Fighters Army - Air Force 1925 to 1980s*.

scale.” Since 1/72 scale was already an established scale from military aircraft I.D. models, he made it into the standard. For large-scale aircraft, he pressed for 1/32 scale and came up with the first subjects.

Always on the cutting edge of new aircraft, he figured out the scale and proportions of the classified SR-71 in 1968 using the grid of Edward's AFB concrete slabs (without breaking any laws) to create the first kit of the iconic plane.

He was instrumental in the space-themed models too; by using sheet styrene rings for the 1/96 scale Saturn V rocket, he saved thousands in tooling.

He was also the first to incorporate Federal Standard colors into the instructions and decals.

During the '80s, Lloyd started Scale-Master Decals. Revell was an early client and others followed, including aftermarket companies. He created the decal art and instructions that were used in thousands of production kits of all genres. If you build models, odds are you've used Scale-Master Decals.

Work with cars

Even though he was “the aircraft guy”, Lloyd was a car man, too and knew as much about automobiles, both historically and functionally. He was particularly pleased to be immortalized by Jim Keeler, who came up with the famous fictional racing team on the Revell '55 Chevy.

In 1973, he went to Microscale. He left in 1976, and with his wife, Peggy, founded Mail Call Models; a mail-order hobby shop specializing in not only aircraft, but cottage-industry kits and supplies. It was run by Peggy with part-time help from me. In the '80s, it became Model Car Masterpieces and catered to automotive builders.

A love-filled personal life

Lloyd married his first love, Peggy, in 1957. They had two sons, Scott and myself.

On a personal note, he was an excellent father, husband, and friend. He was very supportive in anything his kids wanted to learn about or build. He was one of the most sincere and giving people I have ever known. Thank you for being there, Dad. **FSM**

Panzerkampfwagen IV Ausf. F Sd. Kfz. 161

1/35 Scale Plastic Model Kit Item No.35374

This historical model assembly kit depicts the German Pz.Kpfw.IV. It was a stalwart of the WWII effort, serving from start to finish of the conflict. Manufacture began in 1936 with the Ausf.A, and went through a number of specifications before what was perhaps the definitive short barreled variant started production in 1941: the Ausf. F. It had reinforced armor and updated hull designs, as well as an L/24 75mm gun. Around 460 rolled off of the production lines, serving on the Eastern front as Nazi Germany grappled with the Soviet Union, and in North Africa.



Comes with three figures (commander, gunner and loader) for installation in the model's various hatches.

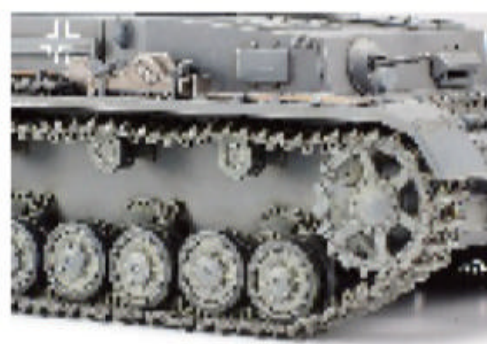
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