



Scratchbuilding a WWII German trawler >

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February 2019

Modeler®

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p.34

Build a helluva Helldiver

+ Navy ID markings history, part 2

6 kits reviewed

Darren Roberts builds Academy's Helldiver out of the box – p.26

HOW TO

Build a dynamic tank scene p. 42

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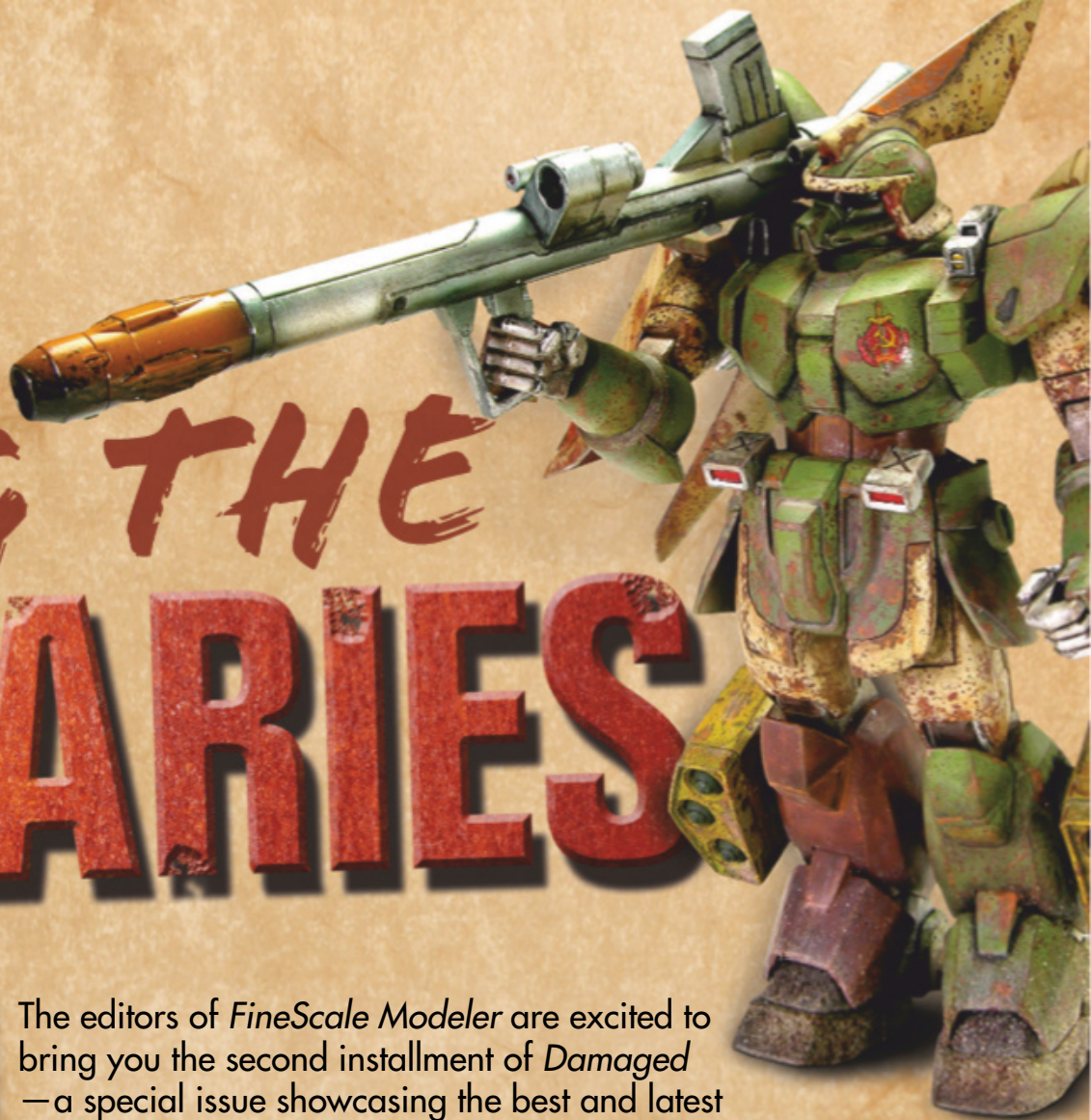
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Scratchbuild a damaged space probe p. 30

**BONUS
ONLINE
CONTENT
CODE
PAGE 3**

Vol. 37 • Issue 2

ALL-NEW 2ND ISSUE PUSHING THE BOUNDARIES



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

Inside the Spring 2019 edition you'll find:

- **GINN Type Insurgent** — Weathering a Gundam fighting suit makes for a terrific sci-fi story.
- **Mouse Trouble** — A scratchbuilt diorama features a young female artist trying out for a graffiti tagging team.
- **Sea & Ships** — A how-to story on making a scale seascape for a 1/350 scale corvette.
- **Walking Death** — Inspired by "The Walking Dead™," a 70mm zombie vignette offers an in-depth figure painting tutorial.
- And more.

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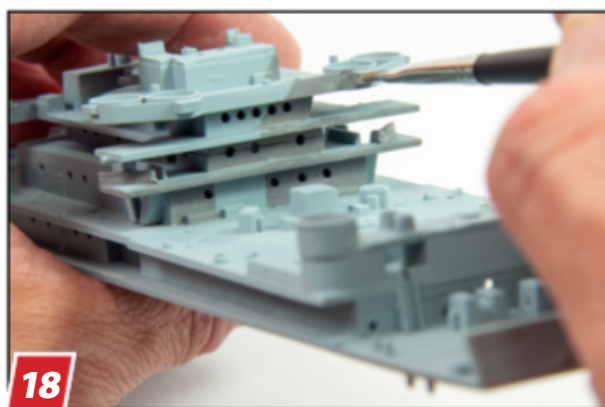
Promotional offer available for a limited time. Free standard shipping to U.S. addresses only. The Walking Dead is a trademark of Robert Kirkman, LLC. *Damaged* Spring 2019 will arrive in February 2019.



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By Mark Savage

Something for everyone, even plane lovers

Sometimes we hear from a few of you about the lack of subject diversity in a particular issue, usually a themed issue such as Vietnam, sci-fi, or Battle of Kursk to name a few from this past year.

I took a call recently where I was told we waste too many pages on armor, “too many tanks,” and way too many figures, sci-fi, and fantasy (comics) models.

I’ve said this before, but we are

well aware that *many* modelers love aircraft the most. We get it.

But those of you who are aircraft-only modelers might be surprised at the responses we get on our focused themed issues. Sales don’t lie.

Still, aircraft modeling is the hobby’s leader and so with this issue we dish up, well, a little of everything again. But there’s plenty of aircraft, starting with the second part of Darren Roberts’ four-part history of U.S. Navy aircraft ID markings, plus his build of a helluva nice Hellcat.

Andy Cooper also details how to stretch the fuselage of a C-130 and Phillip Gore builds a snazzy replica of the German airship, *Graf Zeppelin*.

For non-aircraft, or other category builders, we bring you an award-winning German trawler

we discovered at last summer’s IPMS/USA Nationals in Phoenix. Armor lovers get a sharp Cromwell Mk.IV weekend warrior build from Jim Wechsler, who recently won the George Lee Judges’ Grand Award at IPMS for an M1116 Stryker with mine roller build (pictured).

I’d also like to point out the crashed space probe story on p. 30. This has been plucked out of the premier issue of *Damaged, Weathered & Worn Models Magazine*. We’re publishing this larger format special issue every three months. Check it out. We think you’ll like it, and the format.

If you like what you see, please go buy the premier issue today, and then pick up the Spring issue, which hits newsstands Feb. 12!

editor@FineScale.com

Jim Wechsler's award-winning Stryker



Off the sprue: Name your favorite ‘Stones’ song?

I knew I shouldn’t have joked about The Carpenters in my email on this one!



Editor
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You Can’t Always Get What You Want — just love the ethereal big choir intro. I always crank up the radio when those first few notes come on. Listening to this one gives me a lot of *Satisfaction*!



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Paint it Black (or pretty much anything from *Aftermath* — great record!)

P.S. *Top of the World* is the best Carpenters song!



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I’d say *Beast of Burden*. Although, it’s hard to say if I like the Stones’ or Bette Midler’s version better.



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Gimmie Shelter — love the eerie opening vocals and twangy guitar. 1969, Vietnam war, pretty violent time, and I was just beginning my hippie stage. I saw them do the song on the *Ed Sullivan Show* and my mom said she didn’t “care for” Mick Jagger, she preferred Paul McCartney. She just didn’t approve of all that stage strutting, but I did!

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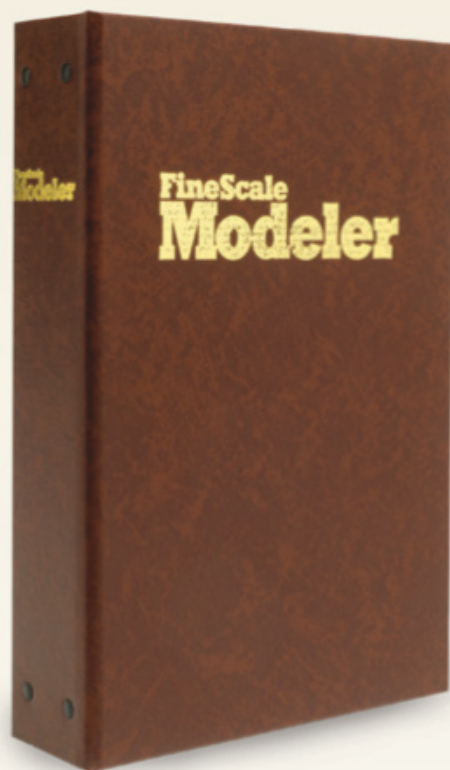


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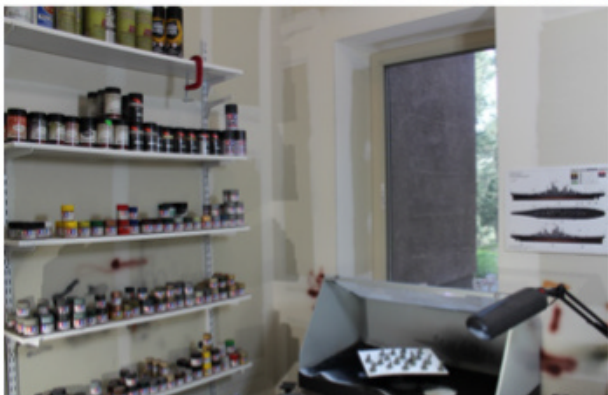
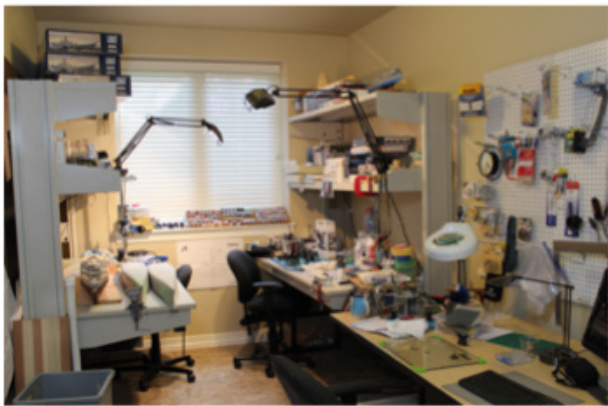
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Rick Bauer now has some great modeling space after building a dream home in Colorado. His current big project? Trumpeter's 1/200 scale USS *Missouri*.

Another dream workshop

Can't get enough of your magazine — every month for the past eight years I get new ideas, sharpen my skills, and am building with greater confidence.

After a short time in the U.S. Army, including time in Vietnam, I put my modeling hobby up on blocks to get after what became a successful career in technology.

But about six years ago, we finally built our dream home in Colorado — and all I asked my wife (the designer) for was a hobby room. With some computer testing tables from a lab gone bust, and a lot of sweat, I finally got my room!

With some "extra" unfinished storage in the basement, we even had space for a 5-foot by 5-foot paint and spray room. I've gotta say, my sweetheart has supported me throughout my career and now I can't thank her enough.

My current builds include painting Warcraft minis for the kids and grandkids, a few Humvees and Bradley's for the troops at nearby Fort Carson (where I volunteer with the Warrior Transition Battalion), and my first serious project — building the Trumpeter 1/200 scale USS *Missouri* for a museum.

Anything that can show our servicemen (my late father is buried in Arlington National Cemetery after a 33-year Army career) my respect and appreciation is what keeps me going.

Keep up the great work!
— Rick Bauer, Colorado Springs, Colo.

Q&A

Assembling individual tracks

Q What is the best method for assembling numerous individual armor track links that are so prevalent in today's armor models? I have tried a number of ways, but with some extreme difficulty.

— Frederick Lopez, Goleta, Calif.

A Nothing looks quite as much like real tracks as individual links, but assembling those links can be un-fun. Here's what I do: First, I make a jig by gluing a long piece of square or L-shaped styrene to thick sheet styrene to keep the tracks aligned. Then I run a strip of double-sided tape alongside the styrene bar. Now I can assemble the tracks on the tape which holds them together as I complete each run.

I usually build two runs for each side of a vehicle — one for the upper run, the other for the lower run. Once you are satisfied with the length, brush a slow-setting liquid cement — I favor Testors stuff with the pink label — and let the run sit for 30 minutes. By then, the links will hold together, but the run will be flexible so you can pick it up and wrap it around the vehicle's running gear.

Leave it in place overnight and you

should be able to remove it the next day for painting, but the run will hold its shape.

— Aaron Skinner

Looking to paint vinyl

Q I recently bought a toy figure to use in a current project. I believe it is made of soft vinyl. I plan to modify and repaint it. Should I remove the paint already on it, and if so what should I use to do that? What primer and type of paint would work best? Some of the figure also needs to be painted with metallics.

— Brian Alexander, Chesapeake, Va.

A Not seeing the figure it's difficult to give a definitive answer. If it's possible to remove the existing paint, it's probably best to do that.

Priming is crucial; not only will it cover any remaining paint, but plasticizers in soft plastic can prevent paint from sticking. Look for a primer designed to cover plastic, like that made to paint outdoor plastic furniture (Rustoleum Plastic Primer, for example), as it should cover the soft vinyl. Then, you should be able to paint the figure as normal.

— Aaron Skinner

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Hasegawa's new F-35B is now a free desktop wallpaper image

Paul Boyer reviewed this handsome F-35B (see p. 56), but you can have the image for free!

Desktop wallpapers

Peruse dozens of computer backgrounds of favorite scale military (like the F-35B above) and sci-fi subjects that you can download for free. Treat your monitor to a makeover.

New Product Rundown

Want to know about a new kit on the market? Aaron Skinner and Elizabeth Nash host a twice-monthly video review of the newest models and show what's inside the boxes.

Reader tips



Brass shavings create realism

Here is a tip for armor modelers. I like to depict my tank models in action so one simple way to add action is to use brass filings as spent shell casings. For large cannon shells, 37mm and up, there are plenty of spent shell casings available, but what about for machine guns on tanks?

My dad worked as a machinist, which allowed me access to all sorts of

cool things including brass shavings. Simply sprinkle them on top of a turret, or by the gun, and let them fall where they may as would the real spent casing. Simple, effective and realistic!

– Richard Zolla,
Monson, Mass.

Add magnets to your workbench

I reorganized my workbench, and a new addition is the strategic placement of neo rare earth magnets (silver plated) directly into my bench.

I opted for the 3/4-inch diameter magnets, available from a home improvement store. They come in packs of

three or six. Using a 3/4-inch spade drill bit I drilled holes about 1/4-inch deep into my bench at locations to suit my needs. I then used Gorilla 5-minute epoxy, which I found holds best. I secured the magnets so that they were flush with the bench's top.

Then, using a hot glue gun and/or Gorilla epoxy, I glued fender washers (1- and 1 1/4-inch sizes) to the bottoms of everything on my bench — glues, paints, bottles of thinner, you name it!

Finally, *no more* inadvertently knocking super glue accelerator over!

The metal washers adhere better if the surface

of the washer, and the bottom of whatever you're attaching it to is scuffed.

I use a motor tool with a stone bit. I set up everything in my inventory with this system in about two hours. I even applied small neo magnets to the ferrules of all my paint brushes and to the upper portion of my thinner cleaning bottle. This allows the brush to stay off the bottom.

The hardest part of this project was trying to separate the super strong magnets from each other (hint: slide them apart) and adhere to the warnings when handling them!

– Brian Yerich
Stamford, N.Y.



Here's a fine 1/35 scale build and Russian front diorama from Scott Kapes. Have a diorama you'd like to share with our readers? Email it to us at editor@FineScale.com. Include your build details.

Dioramas, we've got dioramas!

In your October 2018 issue, you asked for diorama photos. Well, here you go. This is a Dragon 1/35 scale Hummel, which I detailed with a resin barrel and an Eduard photo-etched metal detail set. The gate is from Verlinden, the base is from A.C. Moore with plaster of paris and real dirt for the groundwork. I added balsa wood doors and a crew from Dragon to complete the scene.

Most of the kits in my stash are 20-plus years old, but I saw this kit in your magazine and had to have it. I bought it sometime in the last two years. All told it took me several months to complete because I can't build as fast as I used to.

Originally I scratchbuilt a variety of Russian farm houses for a village scene (I wanted to model a German tank on the Russian front), but they didn't turn out as I'd hoped, so I was at a loss of what to do.

I went through my stash and found the farm gate from Verlinden and it worked. It wasn't what I first saw in my head, but it turned out all right.

– Scott Kapes,
Magnolia, Del.

Nose-up, nose-down attitude correction

As a big-time "Phantom phanatic," I was interested in Mike Klessig's review of the new Airfix British Phantom, but there is

one error that Airfix made that wasn't called out: the wing tanks.

The Phantom achieves optimal lift-to-drag ratio at cruise with the airplane in about a 3-degree nose-up attitude. (All those pictures of bomb-laden Phantoms heading into North Vietnam aren't climbing for altitude, rather, are in level flight.)

By contrast, however, the wing tanks present the lowest drag when they are in a 0-degree angle of attack. Thus, they are mounted to the wings in about a 3-degree nose DOWN attitude (so that they "fly" level when the Phantom is in nose-up cruise mode). The droop is particularly noticeable when the plane is on the ground, where it sits level. The near-perfect side view of the model shows that the tanks also sit level, when they should be in a nose-low attitude.

Not a big deal, but an error nonetheless. Otherwise, the kit looks miles better than the old Airfix Phantom I built as a kid!

– Greg Kolasa
Wantage, N.J.

Remember the Olympia

Great article (Sept., 2018) on an important historic ship, the USS Olympia. It should be pointed out that anyone interested in the Olympia can see, and tour, the real one in Philadelphia, and it is well worth it. After my visit there some years ago, I built the Revell kit and have it mounted in a glass and wood case. Thanks for bringing attention to a very important piece of America's history.

– Chuck Fenton
Costa Mesa, Calif.

Digital vs. hardcopy

In response to the comments regarding hardcopies of *FSM*. Bill Jacon and Tom Young have valid points. I have a copy of the Spring and Fall 1982 issues, and several issues with articles I wanted to keep. As much as I like hardcopy, I can have a much larger library on my iPad that doesn't take up space. It now holds 42 issues of *FSM*.

Darren Roberts' article titled "Blue Angels A-4F, Upgraded" in the December 2017 issue is a case in point. I was looking for something special to do with a Hasegawa A-4E. Darren's article provided ideas for the project, and his company, Steel Beach Accessories, provided the parts. I purchased a hardcopy of the magazine and started making notes. That's rather hard to do on an electronic copy, but the digital does allow me to keep a bigger library.

– Nick Mertes,
Grove City, Ohio

Ship? What ship?

I was interested in reading the article from Dick Nagle, "Modeling while recovering" in October's Scale Talk. I recently cruised across the pond from the UK and one of the ports of call was Halifax, for a day. So my mission was to visit HMCS *Sackville* knowing it is the only remaining *Flower*-class corvette from WWII. I also have the model at home to make, therefore some pictures of her would be useful, plus I served in the Royal Navy for 25 years.

When we arrived, I dragged my wife along the boardwalk to the museum, only to find an empty berth. The ship had been moved to the adjacent naval dockyard for a complete overhaul. What a disappointment, but at least they are preserving the *Sackville* for future generations. I hope Dick has recovered from his refit?

I love your magazine, it's the only one that covers all types of scale modeling.

– Ken Satterthwaite
Aylesbury, UK



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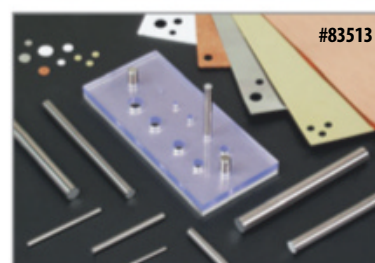
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Avia S-99/C-10 from Eduard, No. 11122, \$54.95.

1/72 SCALE



F-5E Swiss Air Force from Italeri, No. 14205, \$26.99.



MiG-21MF fighter bomber from Eduard, No. 70142, \$33.95. **WBR**



Bellanca CH/J-300 Record flight from Dora Wings, No. 72001, \$29.99. **WBR**



US Navy fighter weapons school "Top Gun" F-14A vs A-4F from Italeri, No. 1422, \$45.99.

1/144 SCALE



Boeing 737-8 Max from Zvezda, No. 7026, \$44.99.

ARMOR KITS

1/35 SCALE



Flakpanzer IV "Ostwind" from Dragon, No. 6550, \$69.99. New tooling, one piece upper hull. Smart Kit.



Panzerjäger I 4.7cm PaK(t) early production from Dragon, No. 6258, \$69.99. New tooling. Smart Kit.



SdKfz 7 8-ton halftrack early production with riders from Dragon, No. 6545, \$72.99. New tooling and stow rack. Smart Kit.



T-34/85 from Italeri, No. 6545, \$79.99. New tooling.



PzKpfw V Panther G "Last Version" from Academy, No. 13523, \$52.



T-34/122 Egyptian 122mm self-propelled gun from Rye Field Model, No. 5013, \$62. **WBR**



Panther Ausf G from Rye Field Model, No. 5019, \$93. With full interior and workable track links, cut away parts of turret and hull.



TBMP T-15 Armata (Russian heavy infantry fighting vehicle) from Zvezda, No. 3681, \$74.99.



Panther Ausf G early/late production from Rye Field Model, No. 5018, \$65.



Flakpanzer Panther 2 n' 1 from Takom, No. 2105, \$64.95. 20mm Flakvierling MG151/20 Coelian with 37mm Flakzwillig 341.

Bits n' Pieces

Model Rectifier Corp. is now distributing both Italeri and Academy kits. To find your favorite Italeri and Academy kits visit www.modelrectifier.com

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

1/72 SCALE



M1070 & M1000 w D9R US 70-ton tank transporter with bulldozer from Takom, No. 5002, \$84.95. **WBR**

FIGURE KITS

1/24 SCALE



Tiberious "Ty" Constellation Hackington III from Master Box Ltd., No. MB24054, \$21.95.

1/72 SCALE



Vietnam War Battle Set from Italeri, No. 6184S, \$105.99.

AUTO KITS

1/24 SCALE



Ford GT, from Tamiya America Inc., No. 24346, \$54.



Ford Escort RS1800 Mk.II Lombard RAC Rally, from Italeri, No. 3650, \$45.99.



Fiat 131 Abarth Rally, from Italeri, No. 3662S, \$45.99.



Renault 5 Alpine, from Italeri, No. 3651S, \$41.50.

1/25 SCALE



1994 Ford F-150 SVT Lightning, from Round2, No. AMT1110M/12, \$32.95.



2009 Dodge Challenger R/T, from Round2, No. AMT1117/12, \$29.95.



'77 Ford "Cruising Van", from Round2, No. AMT1108/12, \$31.95.



Dodge Viper GTS, from Revell Germany, No. 07040, \$39.95.



Toyota 4x4, from Round2, No. AMT1114M/12, \$31.95. Snap kit.

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1/32 SCALE



Truck & Trailer "AC/DC" Limited Edition, from Revell Germany, No. 07453, \$89.95.

1/12 SCALE



Yamaha YZF-R1M, from Tamiya America Inc. No. 14133, \$53. Motorcycle Series No. 133.



Fiat Abarth 695SS Assetto Corsa, from Italeri, No. 4705, \$207.50.

OTHER KITS



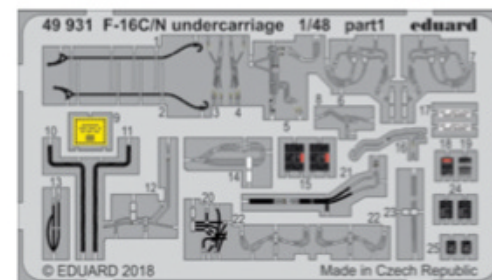
WWII Willys jeep - The Siege of Bastogne from Round2/Johnny Lightning, No. JLDS001, \$19.99.



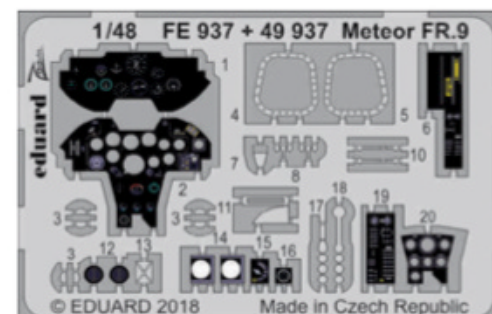
WWII M4A3 Sherman tank - The Siege of Bastogne - The Chateau from Round2/Johnny Lightning, No. JLDS001, \$19.99.

AIRCRAFT DETAILS

1/48 SCALE



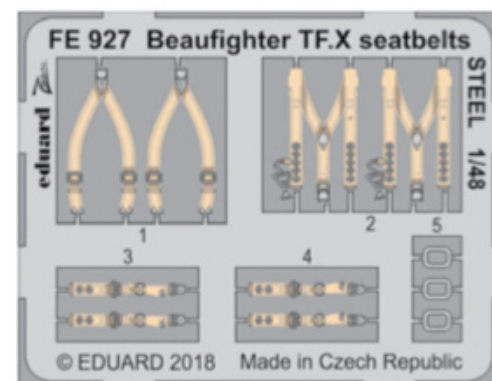
F-16C/N undercarriage for Tamiya from Eduard, No. 49931, \$29.95.



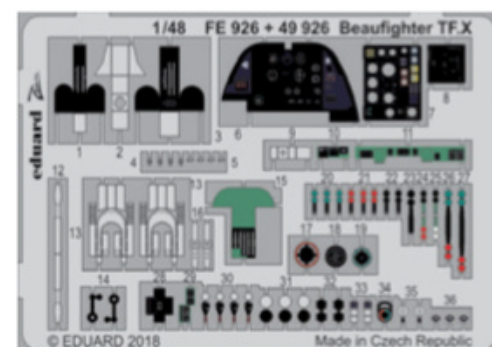
Meteor FR.9 interior for Airfix from Eduard, No. 49937, \$29.95.



Bf 109G-6 Look for Tamiya from Eduard, No. 644001, \$12.95.



Beaufighter TF.X seatbelts for Revell from Eduard (Zoom), No. FE927, \$10.95.



Beaufighter TF.X for Revell from Eduard (Zoom), No. FE926, \$24.95.

F-16C/N for Tamiya from Eduard (Zoom), No. FE930, \$14.95.

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1/72 SCALE



GBU-38 for B-2A from Eduard, No. 672208, \$16.95. Brassin Line.

1/144 SCALE



Tarmac sheet, No.144034, \$21.70. Soviet Bomber for Soviet/Russian/Warsaw Pact military aircraft. Large print represents concrete and asphalt. Applicable to other scales. Printed on heavy paper (not cardstock, shipped rolled in a sturdy carton tube.

MASK SETS

Blenheim Mk.IF for Airfix from Eduard, No. EX626, \$12.95. Flexible Mask.

Meteor FR.9 for Airfix from Eduard, No. EX623, \$16.95. Flexible Mask.

Beaufighter TF.X for Revell from Eduard, No. EX621, \$12.95. Flexible Mask.

F-16C/N for Tamiya from Eduard, No. EX621, \$10.95. Flexible Mask.

ARMOR DETAILS

1/35 SCALE



Karabiner 98k from Eduard, No. 635007, \$19.95. Brassin Line.

SHIP DETAILS

1/350 SCALE

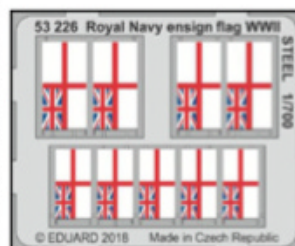


German submarine type VIIC/41 for Revell from Eduard, No. 53228, \$24.95.

1/700 SCALE



US Navy ensign flag from Eduard, No. 53225, \$14.95.



Royal Navy ensign flag from Eduard, No. 53226, \$14.95.

BOOKS & MEDIA



The Waffen-SS in Normandy June 1944, The Caen Sector, \$24.95, by Yves Buffetaut, soft cover, 128 pages, color profiles and maps, 150 B/W photos, ISBN: 978-1-61200-605-5. From Casemate Publishers.



Operation Typhoon, \$24.95, by Philippe Naud, soft cover, 128 pages, 12 color profiles and 2 maps, 150 B/W photos, ISBN: 978-1-61200-671-0. From Casemate Publishers.

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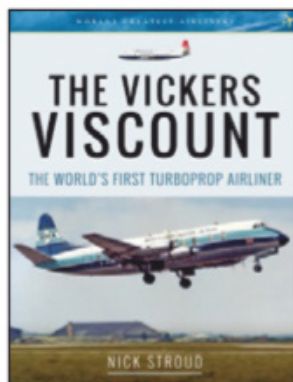
PROXXON Inc. – Hickory, NC/USA – Email: sales.us@proxxon.com



Allied Armor in Normandy, \$24.95, by Yves Buffetaut, soft cover, 128 pages, color profiles and maps, 150 B/W photos, ISBN: 978-1-61200-607-9. From Casemate Publishers.



From Moscow to Stalingrad, \$24.95, by Yves Buffetaut, soft cover, 128 pages, color profiles and maps, 150 B/W photos, ISBN: 978-1-61200-609-3. From Casemate Publishers.



The Vickers Viscount - The World's First Turboprop Airliner, \$28.95, by Nick Stroud, soft cover, 120 pages, 100 color photos, ISBN: 978-1-5267-0195-4. From Casemate Publishers.



Tiger I, \$22.95, by Dennis Oliver, soft cover, 64 pages, 200 color and B/W photos, ISBN: 978-1-5267-0195-4. From Casemate Publishers.



Mikoyan Gurevich MiG-19P & PM, MiG-21F-13, \$23, by Lechoslaw Musialkowski and Janusz Swiatlon, soft cover, 88 pages, color and B/W photos, ISBN: 978-8-8365-9580-8. From Casemate Publishers.



Grumman F-14 Tomcat, \$28, by Marcelo Ribeiro, hard cover, 44 pages, Color profiles and color photos, ISBN: 978-8-3659-5802-0. From Casemate Publishers.

Airfix first 2019 tooling announcement - Supermarine Spitfire XIV



New model Joins the strong 1:48 scale line of classic aviation models



The aviation pedigree of the Supermarine Spitfire is beyond reproach, one of the most famous aircraft ever produced and an aircraft which symbolised the defiance of the free world against the aggression and military might of the Wehrmacht during the Second World War.



Contact us: customersupport@hornby.us

By Joe Hudson

Shades of field gray

Two attempts produce one striking German bust

BY JOE HUDSON

Hoping for a straightforward project, I put a 120mm resin bust of a Wehrmacht Hauptmann on my workbench. This FeR Miniatures sculpture depicts a German captain during Operation Barbarossa in June 1941.

The kit is two pieces, the head connected to the torso, and the cap. As usual, I primed with Tamiya sky gray (XF-19).

This German officer is dressed for Operation Barbarossa, the code name for the Axis invasion of the Soviet Union.



Colors used

Vallejo

Model Color

- Burnt Umber (70.941)
- Light Flesh (70.928)
- Black (70.850)
- German Field Gray (70.830)
- Sunny Skin Tone (70.845)

Game Color

- Goblin Green (72.030)

Scale 75

Scalecolor

- Field Gray (SC46)

AK-Interactive

WWI German Uniform

- Base (AK 3091)
- Shadow (AK 3093)
- Light (AK 3092)

In the next issue

Noel Meyer uses dark shades on Reaper Miniatures' gnome arcanist from *Pathfinders*.





1 I think it's easier to dress a figure that has finished eyes, so after base-coating the flesh and hair, I painted the sockets burnt umber. Light flesh covered the corners, making a pupil out of the burnt umber base. A light blue followed.



2 The cap started with thin layers of AK's uniform base color mixed with Scale 75 field gray. I added AK uniform shadow to this mix and, as the name implies, darkened shadowed areas. Shadow plus black filled the deepest recesses.



3 Highlights came next with more uniform base color and field gray mixed with AK uniform light. I brushed the highest points with thin layers diluted progressively with more and more light. Remember, nothing heavy-handed.



4 Here's the finished cap, minus the shiny details. The folds have increasingly darker shadows, and the points have increasingly brighter highlights. Now onto the coat, which took two tries before nailing the right color scheme.



5 First try: Base coat of Vallejo and Scale 75 field gray. Highlights of this mix plus sunny skin tone. With each brush stroke I knew something was wrong. I quickly scrapped the whole jacket and started anew. Don't be afraid to rewind.



6 Second try: AK uniform base plus Scale 75 field gray produced the slightly greener base I was after. If you show this and the last photo to non-artistic types I'm sure eyes will roll; but us painters can definitely see a difference!



7 I gradually lightened my new field gray mix with more Scale 75, and brushed on highlights. Because this is still a base coat, I used broad strokes (scale considering) and wasn't worried about exact placement.



8 Here I mixed Scale 75 field gray with a small amount of Vallejo goblin green and brushed several thin layers of this over the entire coat. With each layer I got closer to the final color I wanted.



9 To create shadows, I remixed the base of AK uniform base and Scale 75 field gray, brushing this on the lightest shadows. To go darker I added uniform shadow to this mix. For the deepest shadows I mixed in a tiny bit of black.



10 Using the same base mix as with the lightest shadows, I created highlights with the addition of goblin green. The highest peaks have a squirt of uniform light in the mix.



11 I kept paint mixes simple so I could paint one side/section/layer of the bust one day, then come back the next and easily remix another batch of paints and get the same results.

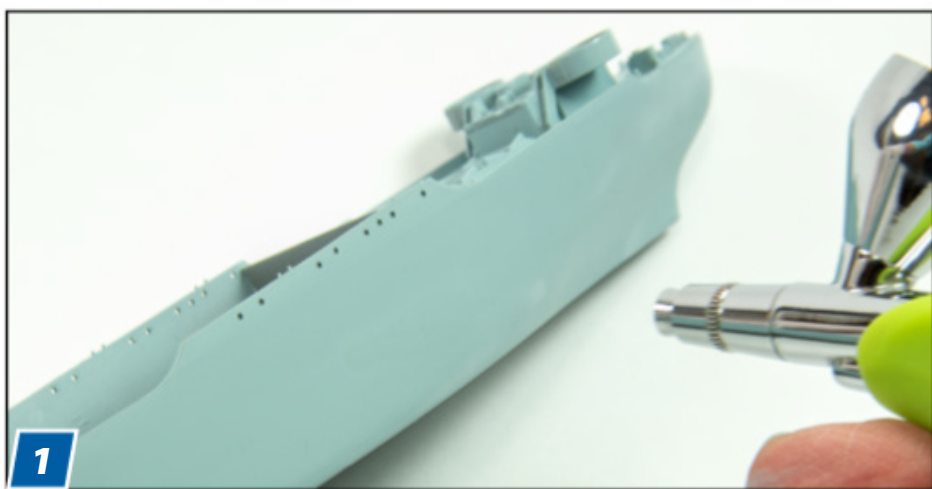


12 I added the final silver accoutrements and called this officer done. **FSM**

By Aaron Skinner

How to dazzle an attack transport

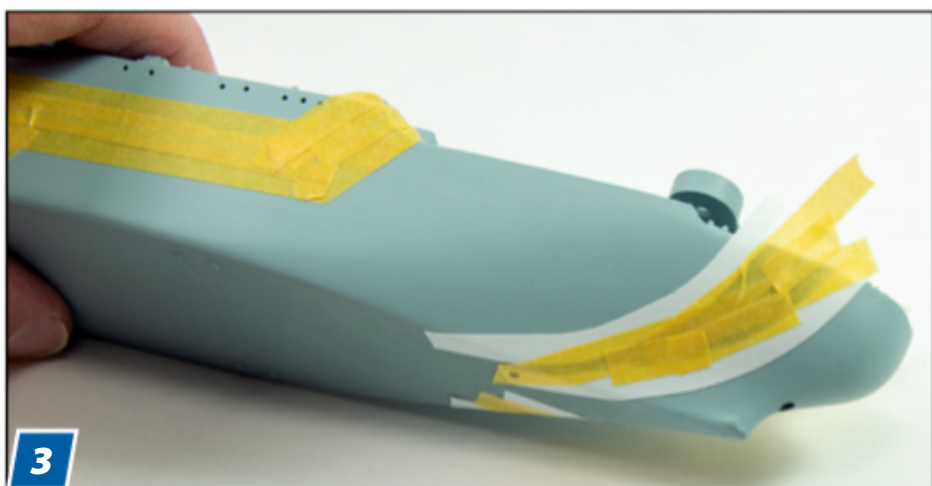
Painting a vintage kit as a veteran remembers his ship



1 After cleaning up the hull and attaching the fore and rear decks — I airbrushed subassemblies with 5-L light gray (No. 2155). This layer also served as a primer, revealing a few seams in need of extra work.



2 Following drawings and photos, I outlined the areas to remain light gray with strips of 6mm Tamiya tape. Cutting the ends at angles and using the points at the corners kept the shapes square.



3 For the curved outlines at the stern, I used Tamiya Masking Tape for Curves, a flexible plastic tape that stretches a little. I filled the outlined areas with larger pieces of tape.



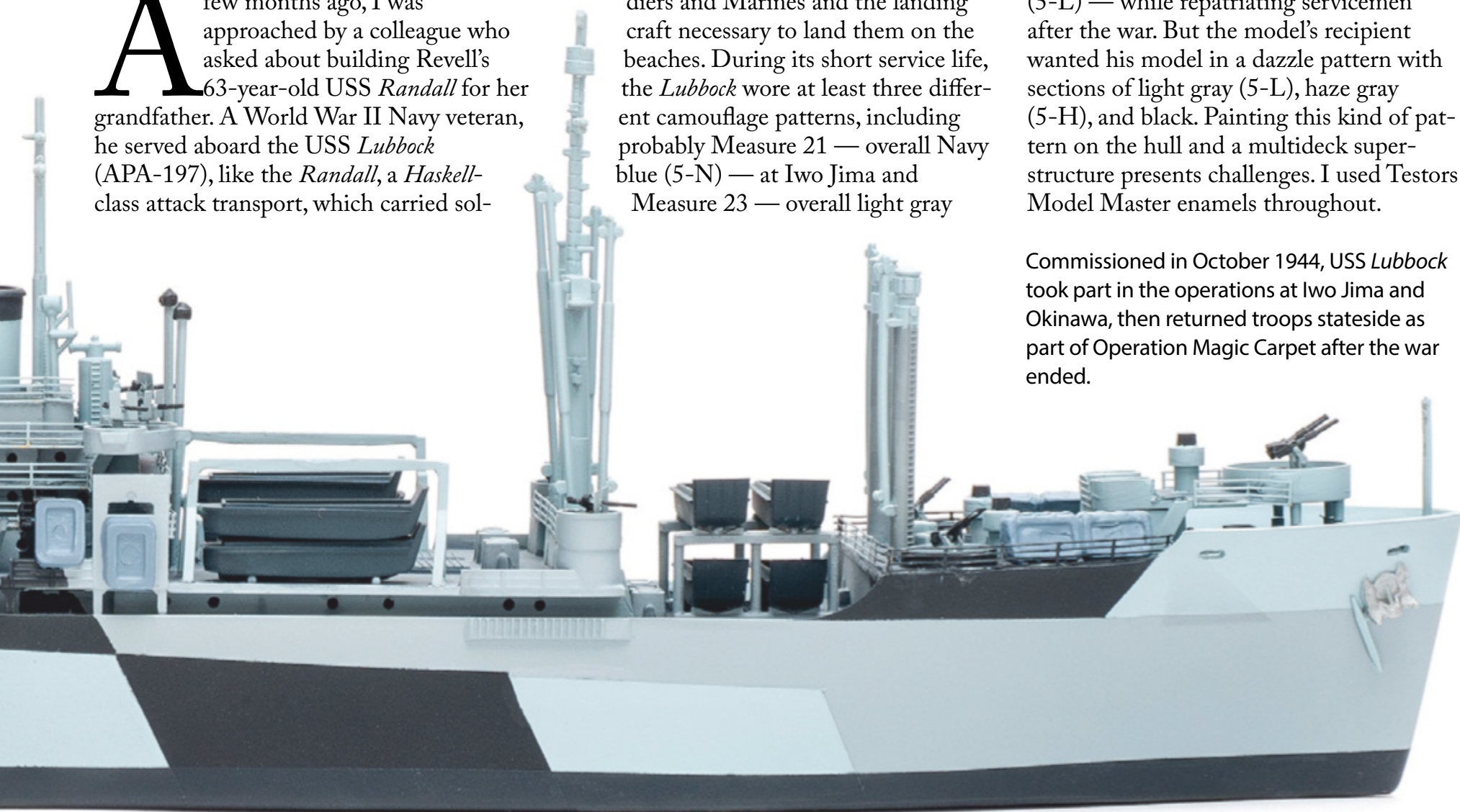
4 Then, I airbrushed the unmasked areas with light ghost gray (No. 1728), the best match I had for 5-H haze gray. Try to keep the paint layers thin to avoid ridges at the edges of the tape.

A few months ago, I was approached by a colleague who asked about building Revell's 63-year-old USS *Randall* for her grandfather. A World War II Navy veteran, he served aboard the USS *Lubbock* (APA-197), like the *Randall*, a *Haskell*-class attack transport, which carried sol-

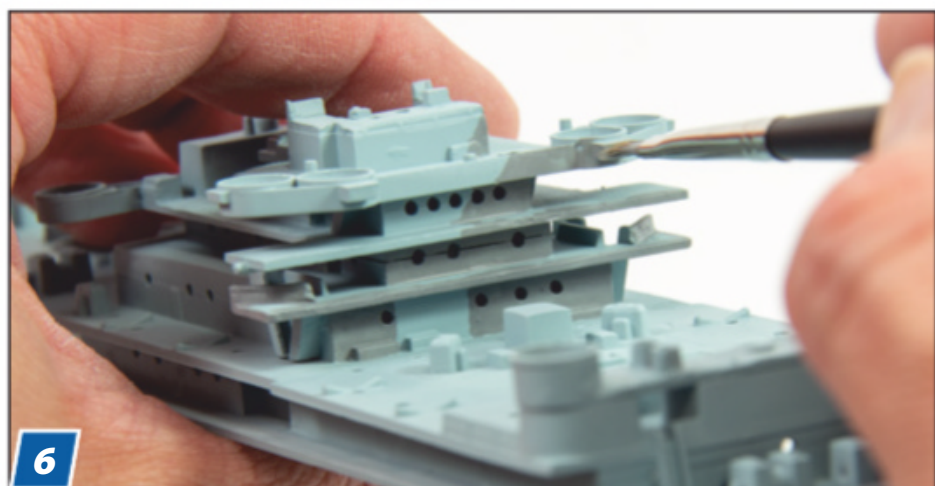
diers and Marines and the landing craft necessary to land them on the beaches. During its short service life, the *Lubbock* wore at least three different camouflage patterns, including probably Measure 21 — overall Navy blue (5-N) — at Iwo Jima and Measure 23 — overall light gray

(5-L) — while repatriating servicemen after the war. But the model's recipient wanted his model in a dazzle pattern with sections of light gray (5-L), haze gray (5-H), and black. Painting this kind of pattern on the hull and a multideck superstructure presents challenges. I used Testors Model Master enamels throughout.

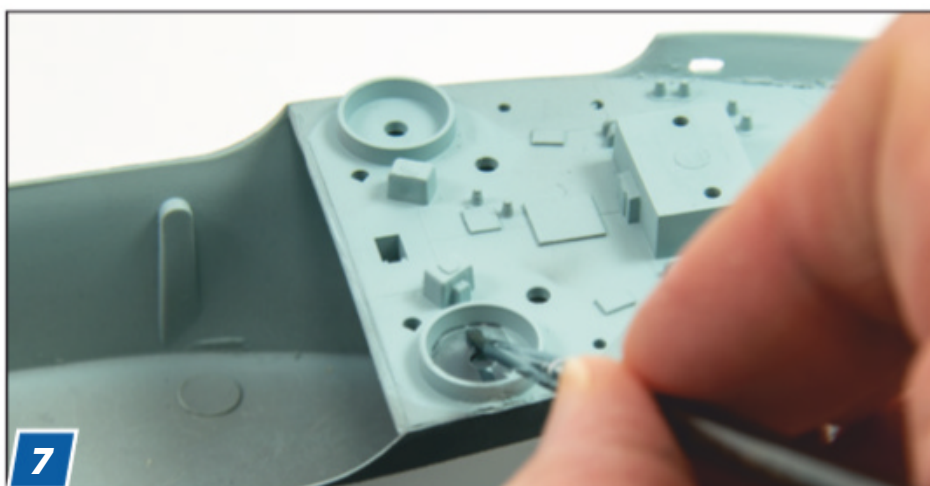
Commissioned in October 1944, USS *Lubbock* took part in the operations at Iwo Jima and Okinawa, then returned troops stateside as part of Operation Magic Carpet after the war ended.



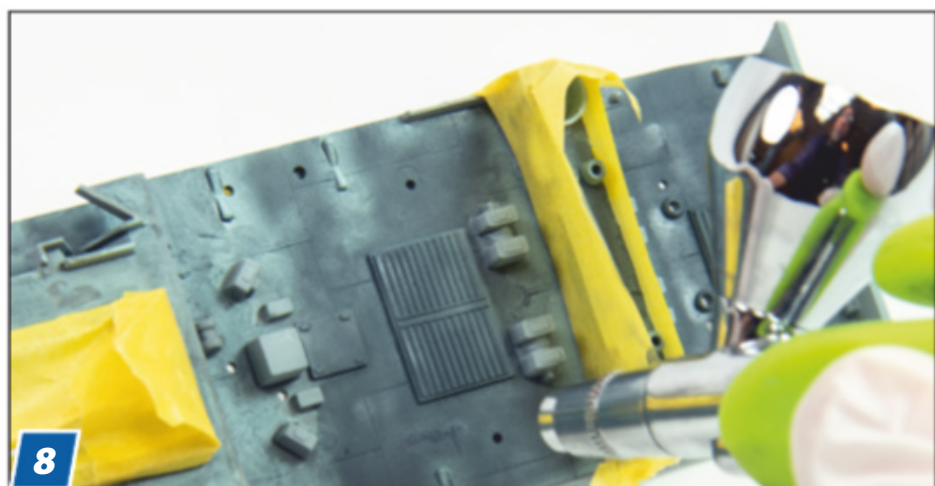
Repeating the masking process before airbrushing black produced the final version of the camouflage seen here. For the boot stripe, I sprayed black lightened with a little dark gray to contrast with the camouflage.



Rather than trying to mask around the decks to camouflage the superstructure, I hand-painted them. Thinning the paint slightly helps it flow better but it may require more than one coat for proper paint density.



The final major painting step was the addition of 20-B weather deck blue (No. 2159) on horizontal surfaces. For the first couple of layers, I thinned the paint substantially and applied it more like a wash.



Then, I airbrushed the larger areas in thin layers to gradually build up the color. Keeping the pressure low and the pattern narrow minimized overspray. Hand-brushed thin deck blue eliminated thin spots. **FSM**

U.S. Navy aircraft identification markings a history

Part 2 of 4: World War II — As color disappears, changes come quickly

BY DARREN ROBERTS

En route to bomb targets on Iwo Jima on February 22, 1945, Curtiss SB2C-4 Helldivers from USS *Yorktown* (CV-10) fly over the invasion fleet. Note the bombs under the planes' wings. U.S. Navy photo.





In stark contrast to the pre-war paint schemes, Accurate Miniatures' 1/48 scale SB2U-3 Vindicator in the markings of VMS-1 is devoid of all color.

At the outset of World War II, the Navy abandoned the brightly colored identification system of the previous decade for a more subdued approach. Gone were the yellow wings and colorful aircraft carrier and section markings. In their place came drab gray schemes.

The first paint scheme used was an overall light gray with white side numbers. The only color left was the national insignia. The blue circle with white star and red center was removed from the upper starboard and lower port wings. In contrast to pre-war practice, small national insignia were added to the fuselage, first near the nose, and later aft between the wing and horizontal stabilizer.

A blue-gray camouflage was soon applied to aircraft upper surfaces, and 13 red and white stripes were added to the rudder. When more than one of the same aircraft type was assigned to a carrier, they were given a second digit in their side number. For example, USS *Ranger* was assigned two fighter and two scouting squadrons. So, instead of having just VF-4 and VS-4, *Ranger* had VF-41, VF-42, VS-41, and VS-42. The 4 in the squadron designations corresponds to *Ranger's* hull number (CV-4).

When war came to the Pacific, the tail stripes were removed followed by the red disc in the national insignia. These steps were taken to reduce the chance U.S. planes might be confused with



Tamiya's Grumman F4F-4 Wildcat from VF-41 has the blue-gray on its upper surfaces and 13 red and white stripes on the rudder and a squadron ID in the side number (41). The national insignia is now in six positions – top and bottom of both wings as well as on the fuselage.



Still wearing blue-gray over light gray camouflage, Hasegawa's Douglas SBD Dauntless shows the early changes made to markings with all red removed. Also omitted, the squadron ID in the side number. The white stripe on the tail was an aid for the Landing Signal Officer (LSO) during carrier landings, not a carrier identification mark.

Japanese aircraft marked with red discs. The squadron number on the side of the fuselage also was removed for security reasons, leaving only the mission type and plane number.

The two-tone camouflage scheme was eventually replaced with a tricolor scheme consisting of dark sea blue on upper surfaces, intermediate blue on vertical surfaces, and white underneath. The mission type was deleted from the side number, leaving only the plane number to identify the aircraft.

In June 1943, the national insignia was changed to include

white rectangles extending from each side of the circle and star. Initially, a red border was part of the insignia, but this was omitted over concerns about confusion with Japanese aircraft.

As the American war machine cranked up to full capacity, the number of carriers participating in the war effort increased dramatically. With numerous carriers operating in the same area, air groups began to paint small symbols on their aircraft to help identify them in formation.

The Navy realized these geometric designs were an efficient



Monogram's Grumman TBF Avenger sports the tricolor scheme and national insignia with bars. The airplane number is the only remnant of the side number. The white dot on the tail is an unofficial marking that identifies which carrier it is assigned to, in this case, USS *Hornet*.

Table 1: Aircraft Carrier Geometric (G) ID Symbol on Aircraft Tails

USS Saratoga (CV-3)	USS Enterprise (CV-6)	USS Essex (CV-9)	USS Yorktown (CV-10)	USS Intrepid (CV-11)	USS Hornet (CV-12)
USS Franklin (CV-13)	USS Ticonderoga (CV-14)	USS Randolph (CV-15)	USS Lexington (CV-16)	USS Bunker Hill (CV-17)	USS Wasp (CV-18)
USS Hancock (CV-19)	USS Bennington (CV-20)	USS Boxer (CV-21)	USS Independence (CVL-22)	USS Belleau Wood (CVL-24)	USS Cowpens (CVL-25)
USS Monterey (CVL-26)	USS Langley (CVL-27)	USS Cabot (CVL-28)	USS Bataan (CVL-29)	USS San Jacinto (CVL-30)	USS Bon Homme Richard (CV-31)
USS Antietam (CV-36)	USS Shangri-La (CV-38)	USS Lake Champlain (CV-39)			

method for identifying aircraft, so, in late 1944, they standardized the patterns (see Table 1). These markings aided in identification and formation for missions. By this time, the Navy was in the midst of changing camouflage yet again, this time to overall glossy sea blue. For maximum visibility, the carrier ID patterns were painted in white on both sides of the vertical tail and rudder as well as the top of the starboard wing and bottom of the port wing (opposite of the national insignia). The aircraft number was added somewhere on the tail.

By this time, squadron designations no longer conformed to the

hull number of the carrier to which a squadron was assigned. For example, VF-12 was the fighter squadron aboard USS *Randolph* (CV-15). Earlier in the war, the fighter squadron on the *Randolph* would have been VF-15.

These geometric symbols were great for visual identification, but the patterns were difficult to describe over the air in radio transmissions. So, they were replaced near war's end by a single or double letter painted on the tail that identified which carrier the plane was from (see Table 2). This was the inception of the two-letter ID system still in use.

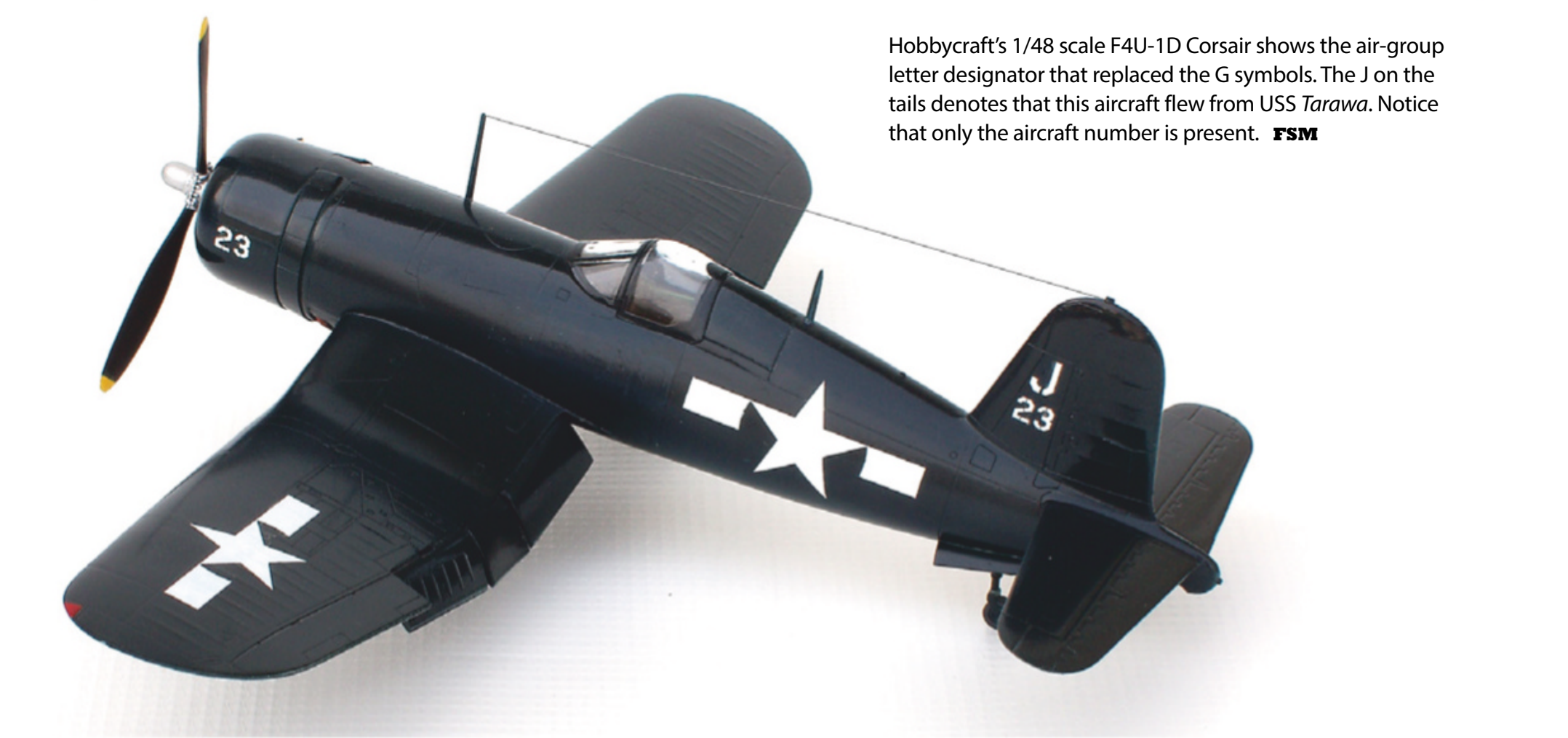


Otaki's 1/48 scale F6F Hellcat wears the late-war overall glossy sea blue. The white ailerons and white stripes on the tail indicate the fighter is operating from USS *Randolph*.

Table 2: Letter Codes Assigned to Carriers

CC	<i>Saratoga</i>	LL	<i>Franklin</i>	TT	<i>Bennington</i>	R	<i>Cabot</i>	YY	<i>Midway</i>
PP	<i>Ranger</i>	V	<i>Ticonderoga</i>	ZZ	<i>Boxer</i>	T	<i>Bataan</i>	FF	<i>Franklin D. Roosevelt</i>
M	<i>Enterprise</i>	L	<i>Randolph</i>	D	<i>Independence</i>	B	<i>San Jacinto</i>	EE	<i>Coral Sea</i>
F	<i>Essex</i>	H	<i>Lexington</i>	P	<i>Belleau Wood</i>	SS	<i>Bon Homme Richard</i>		
RR	<i>Yorktown</i>	Y	<i>Bunker Hill</i>	A	<i>Cowpens</i>	W	<i>Antietam</i>		
E	<i>Intrepid</i>	X	<i>Wasp</i>	C	<i>Monterey</i>	Z	<i>Shangri-La</i>		
S	<i>Hornet</i>	U	<i>Hancock</i>	K	<i>Langley</i>	AA	<i>Lake Champlain</i>		

Information from *The Official Monogram US Navy & Marine Corps Color Guide*, John M. Elliot, Monogram, ISBN 978-0-914144-32-8



Hobbycraft's 1/48 scale F4U-1D Corsair shows the air-group letter designator that replaced the G symbols. The J on the tails denotes that this aircraft flew from USS *Tarawa*. Notice that only the aircraft number is present. **FSM**

	Akan	AK-Interactive	Ammo by Mig Jimenez	Aqueous Color	Mr. Color	Humbrol	LifeColor	MCW Colors	Mission Models	Mr. Paint	Hataka	Revell	Tamiya	Testors MM Enamel	Testors MM Acrylic	Vallejo Model Color	Vallejo Model Air	White Ensign	Xtracolor
Insignia white 601	78001	AK2052	A.MIG-047	11	62	34	LC01	MIL-2110	MMP-104	MRP-135	HTK-A/B/C049	32105	XF-2	1768	4769	70.951	71.279		
Light gray 602/620	72014	AK2231	A.MIG-241	325	325	129	UA025	MIL-2120		MRP-134	HTK-A/B/C048		XF-55	1730	4763	70.986	71.045		
Neutral (sea) gray 603	72040		A.MIG-211	306	306	126	UA028	MIL-2135		MRP-040	HTK-A/B/C218	32374	XF-20	1725	4757	70.870		AC RN 04 3	
Black 604	78004	MC001		343	343	33	LC02	2000		MRP-171	HTK-A/B/C041	32302	XF-1	1749	4768	70.950	71.057	AC RN 17	12
Insignia blue 605	82006					189	LC35			MRP-300		36350	X-3	1719	4742		71.091	AC RN 32	122
Glossy sea blue 606/623	72742	AK2234	A.MIG-227	54	14		UA047	MIL-2104	MMP-065	MRP-041	HTK-A/B/C001	32350	XF-17	1717	4686	70.898	71.087		121
Non-specular sea blue 607	72742	AK2233	A.MIG-227	54	14		UA044	MIL-2104	MMP-062	MRP-041	HTK-A/B/C001		XF-17	1718	4686	70.898			121
Intermediate blue 608	72050	AK2054	A.MIG-226	42		144	UA045	MIL-2107	MMP-071	MRP-136	HTK-A/B/C027		XF-18	1720	4744	70.903			125
Interior green 611	72004	AK2303	A.MIG-220	58		151	UA004	MIL-2105	MMP-059	MRP-131	HTK-A/B/C211			1715	4735	70.833	71.010	AR US 07	117
Orange yellow 614	72001			329		154	UA140			MRP-142		32115		1718	4721	70.948	71.002	AC RN 12	106
Insignia red 619	72000			327	327	153		MIL-2126	MMP-101	MRP-299			XF-7	1705	4714	70.957			
Dark gull gray 621	72064			317	317	140	UA033	MIL-2119	MMP-064	MRP-100	HTK-A/B/C044	36179	XF-54	1740	4755	70.991			
Blue gray	72043	AK2233								MRP-133				2055	4847			AC US 06	13
Yellow zinc chromate	72034		A.MIG-221	58		81	UA134	MIL-2140	MMP-067	MRP-129			XF-4	1584	4851	70.924	71.094		408

Building *CURTISS' BEAST*

Academy's 1/72 scale Helldiver is good straight from the box

BY DARREN ROBERTS



It's big, it's blue, and it can pack a wallop. No, it's not the Beast from Marvel Comics' *X-Men*; it's the SB2C Helldiver. Designed by the Curtiss Aircraft Company, the Helldiver was intended to replace the Douglas SBD

Dauntless. While it could carry twice as much ordnance faster than the Dauntless, the Helldiver was met with less-than-stellar enthusiasm. Unflatteringly nicknamed Beast, Big-tailed Beast, or Son-of-a-Bitch 2nd-Class by crews, it was bigger, heavier,

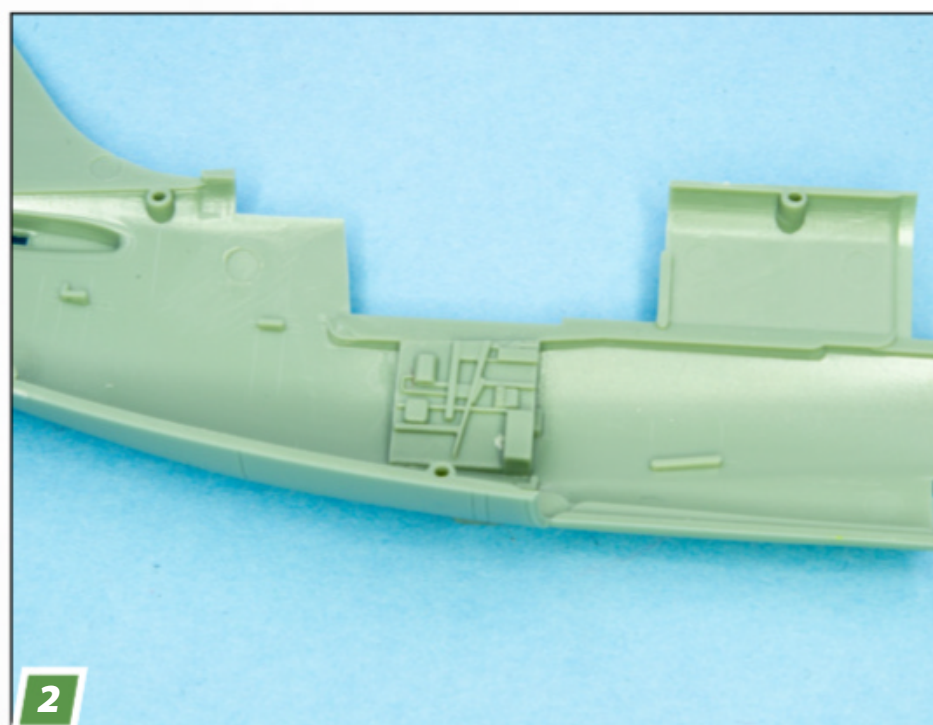
harder to control, and worst of all, had a shorter range than its predecessor. After testing the first variant, the Navy made a list of over 800 fixes and modifications before it would accept the bomber. In spite of all this, the Helldiver went on to rack up

*"When we
needed the SB2C
Helldiver neither
we nor it was
ready."*

—Assistant Secretary of the
Navy for Air
Artemus L. Gates via
warfarehistorynetwork.
com



Before painting the cockpit components, I removed them from the sprues but left a little of the tree connected to serve as handles ...



... and attached the cockpit wall panels and other details to the fuselage sides.

Plagued by problems early, the Helldiver soldiered on through the last years of World War II. Official records indicate SB2Cs flew more than 18,000 combat sorties.

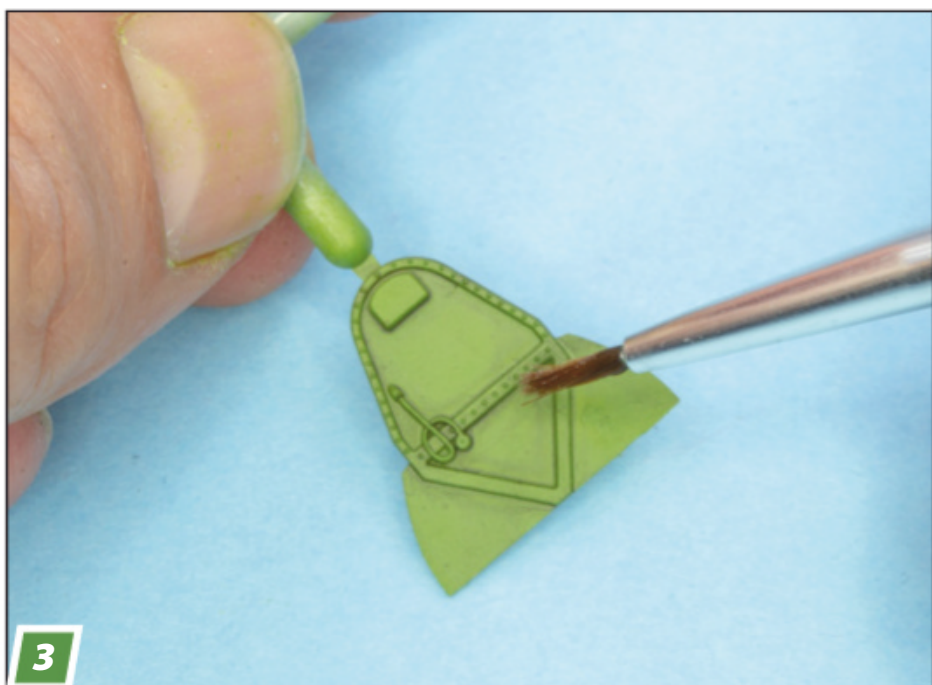
an impressive combat record and to serve past the end of World War II. The SB2C-5 would be the last active dive-bomber in the U.S. inventory, finally leaving service in the early 1950s.

There are a number of kits available of

the Helldiver in various scales. I picked up Academy's 1/72 scale SB2C-4 (No. 12406) at a show for \$5. Not knowing anything about it, I was pleasantly surprised to find a gem when I opened the box and was shocked that a model so small could be so

well detailed. Excited at the prospect of building such a beautiful kit, I immediately dove into the project, building it out of the box.

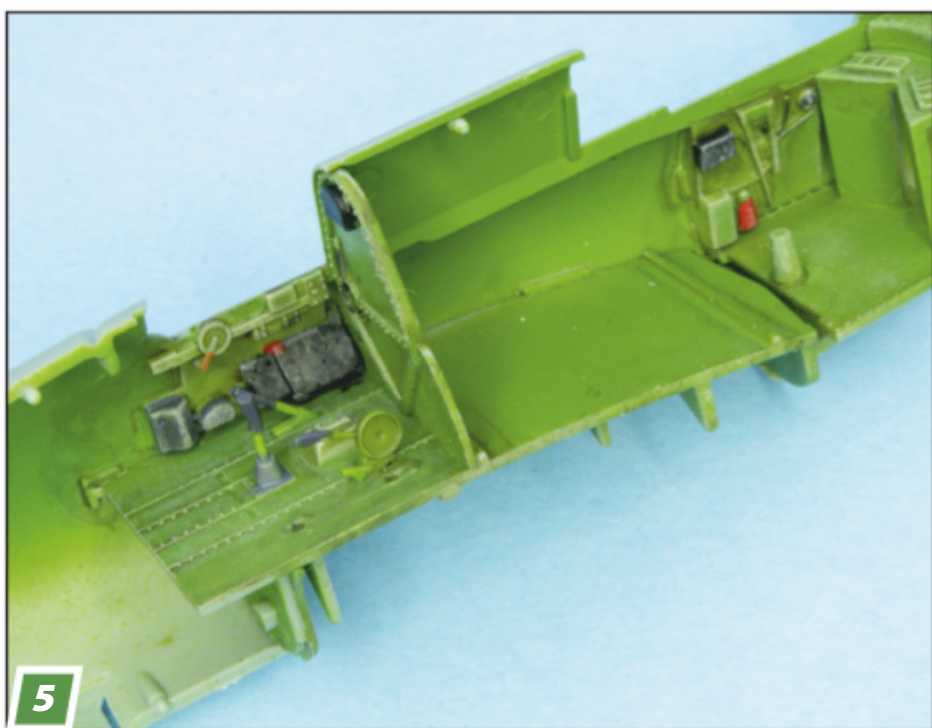
I used Testors Model Master acrylics throughout.



3 I toned down interior green (No. 4736) with a little olive drab (No. 4728) and airbrushed the cockpit parts. A dark green (No. 4670) wash added shadows.



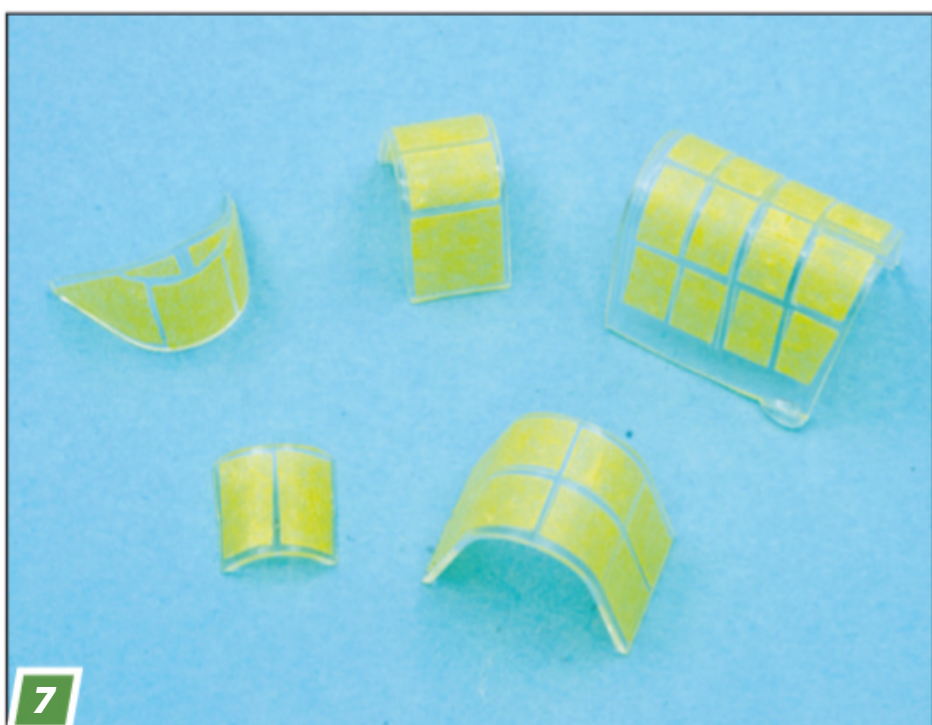
4 Highlights were added by dry-brushing light gray over the parts to show off all of the beautifully molded detail.



5 After attaching the cockpit to the starboard fuselage half, I assembled the airframe. The wheel wells, bomb bay, and gear doors were painted using the same base color, wash, and dry-brush as used in the cockpit.



6 I masked the cockpit, wheel wells, and bomb bay with tissue and left off many of the smallest parts to avoid breaking them during painting.



7 I also invested in a set of self-adhesive canopy masks from Eduard. With the Helldiver's fine framing and multiple panes, the set saved a lot of time.

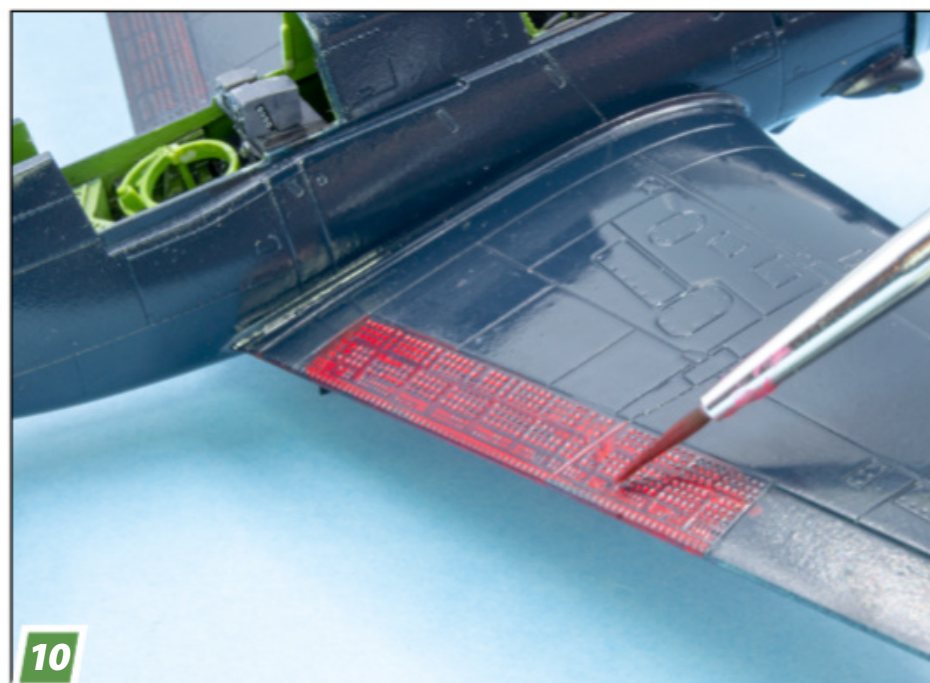


8 It doesn't take long to paint one-color camouflage. I sprayed the entire model with glossy sea blue (No. 4686) lightened with a little gunship gray (No. 4752).



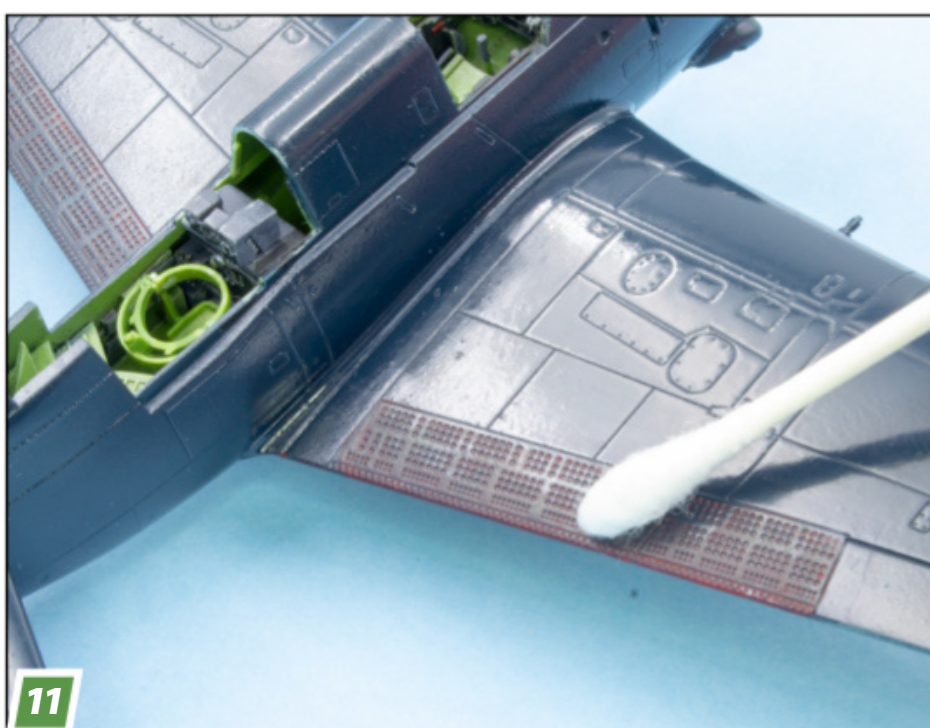
9

After attaching the simple but nicely detailed engine, I added the cowl, which comes with the cooling flaps posed open. At this time, I also attached the landing gear.



10

The inside of Helldiver perforated dive flaps were red. Academy molded the flaps closed with dimples for the holes. Rather than drill all those tiny holes or install photo-etched flaps, I applied an insignia red wash.



11

Then, I removed excess wash with a cotton swab. The end result was pretty convincing without a lot of time-consuming work.



12

I brushed on a coat of Pledge Floor Gloss and applied the kit decals. They included black wing walkways that seemed stark and unrealistic. So, I carefully painted over them with engine gray (No. 4749).

My Helldiver is marked for VB-85 aboard USS *Shangri-La* in July 1945. The geometric, or "G," symbol for *Shangri-La* was a lightning bolt. The aircraft number, 80, was displayed on the tail, cowl, gear doors, and wing leading edges. **FSM**



This feature comes from *Damaged*, *FineScale Modeler's* new quarterly publication produced in conjunction with AK-Interactive. See additional stories like this in the Spring issue, on newsstands, February 12.

IT CAME FROM OUTER SPACE

Over the last couple of years, I've become more and more interested in kitbashing projects. I like that I can do anything I want without any historical or technical restrictions. Possibly the best term for the way I approach my projects is "imaginative modeling" — it gives the modeler the freedom to build and make whatever they want to be there. You are in control of your own designs, colors, and setting. I'm very inspired by concept artists like Simon Stålenhag, Ashley Wood, and Ian McQue. When it comes to fantasy or sci-fi, I'm also inspired by movies like *Oblivion*, *District 9*, and the *Star Wars* series, as well as the *Half-Life 2* video game.

It Came from Outer Space was a project I've had in mind for years but never actually started until I did a commission for a Dutch computer-game studio called Ronimo. I built a small sci-fi vignette for them based on one of their main game characters named Clunk. Afterward, I received some broken Clunk spare parts, and Clunk's body was perfectly suited as a start for a crashed "thing" from outer space. The project was born...





BUILD & SET UP

The concept was a sci-fi drone crashed somewhere on Earth. I also wanted to emphasize the contrast between the material and shape of the object and the setting — the hi-tech “from outer space” materials versus the natural crash site. I imagined the strangeness of the scene for the local residents: “What is this thing and what is it doing here?”

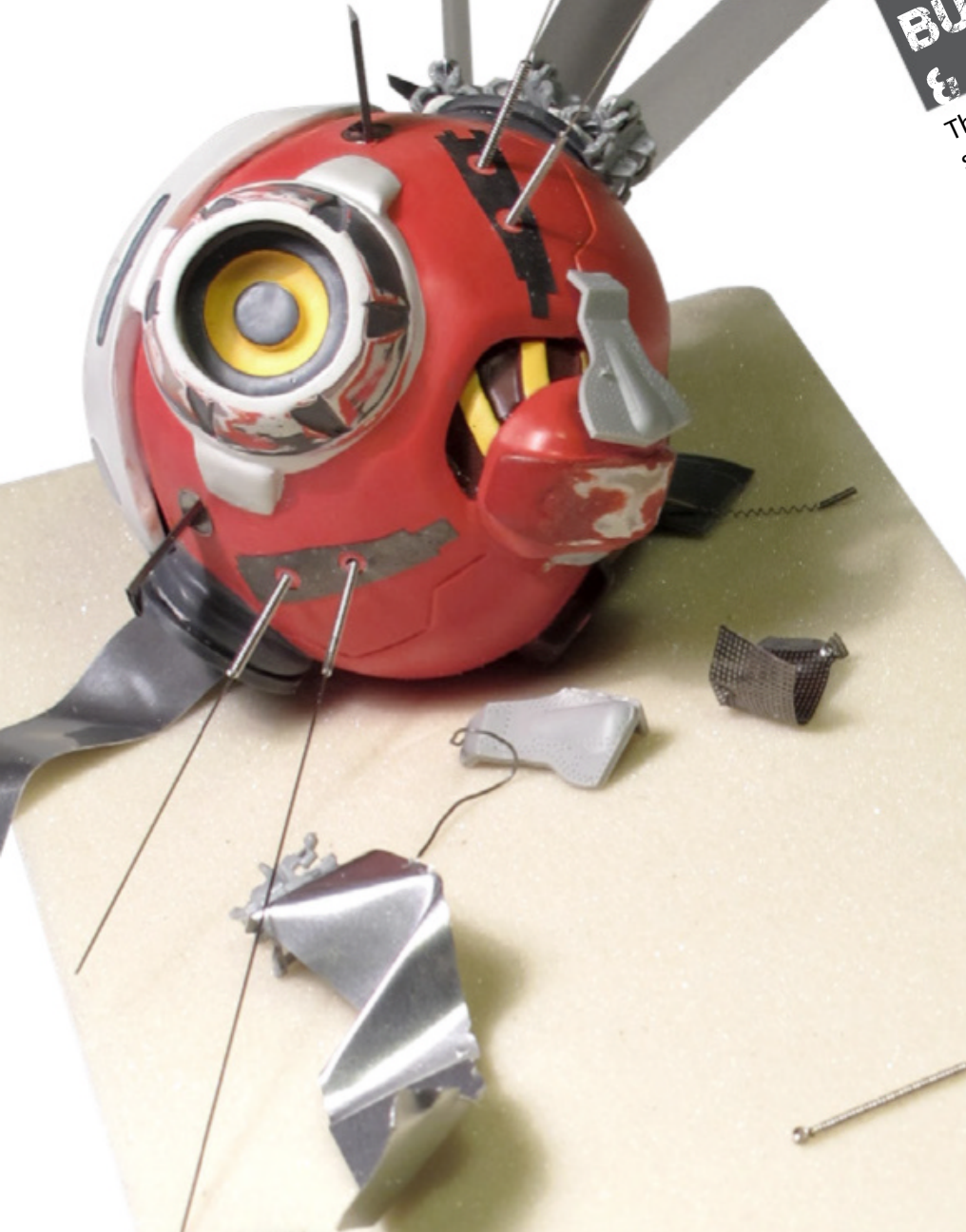
Working on a rectangular foam base, I started the crash site with the Clunk body parts. Then, I added parts from my spares box. I’m partial to acupuncture needles and small aluminum paper clips because the shapes suit flying sci-fi objects. I also used spare photo-etched (PE) parts from a 1/35 scale German Flakvierling gun, tank links and drive wheels from a 1/35 scale tank, and 1/48 scale aircraft parts.

This was going to be one of my “build in one week” projects that I do to break up long, involved builds.

PAINTING THE THING

I wanted to begin painting immediately after construction of the “thing” was done. So, I skipped priming and airbrushing, and started painting by hand. Don’t get me wrong, I love airbrushing, but it takes longer to set up for a spraying session than it does to just pick up a brush, not to mention the time needed to clean an airbrush between sessions.

First, I applied acrylic light tan-gray; it took several layers to cover the red plastic. I spilled some paint on the PE parts, but this was



Modeler: Marcel du Long
Brand: scratch
Scale: 1:43
Tools:
 Brushes, tweezers, cutter
Paint products:
 Acrylics
 AK enamel effects
 Pigments





easily removed with fine sandpaper and a knife. The hemisphere-shaped hood was left in its original light gray color, but I picked out some details with medium gray. Next, I painted the exhaust and wing attachments gloss black and treated them with metalizing powder from Uschi van der Rosten polished in with a soft cloth. This combination produces a superb metal finish; I can't recommend it highly enough.

Dry transfers from Verlinden were added, before the craft, except for the metal parts, was sealed with thin Vallejo gloss varnish.

WEATHERING

Usually, I use Liquitex acrylic inks for weathering. They are a joy to use, but this technique can be time consuming. Since this was a "build in one week" project, I went with a quicker method.

Using Vallejo and Games Workshop colors, I applied subtle acrylic washes to panel lines and recesses. Some streaks were added as well. A black wash went over the PE parts. After everything dried, I removed excess wash with fine sandpaper to produce a clean, tight finish as well as highlight the PE details. Oil stains and streaks on the wings were added with black thin acrylic ink and Tamiya smoke.

THE CRASH SITE

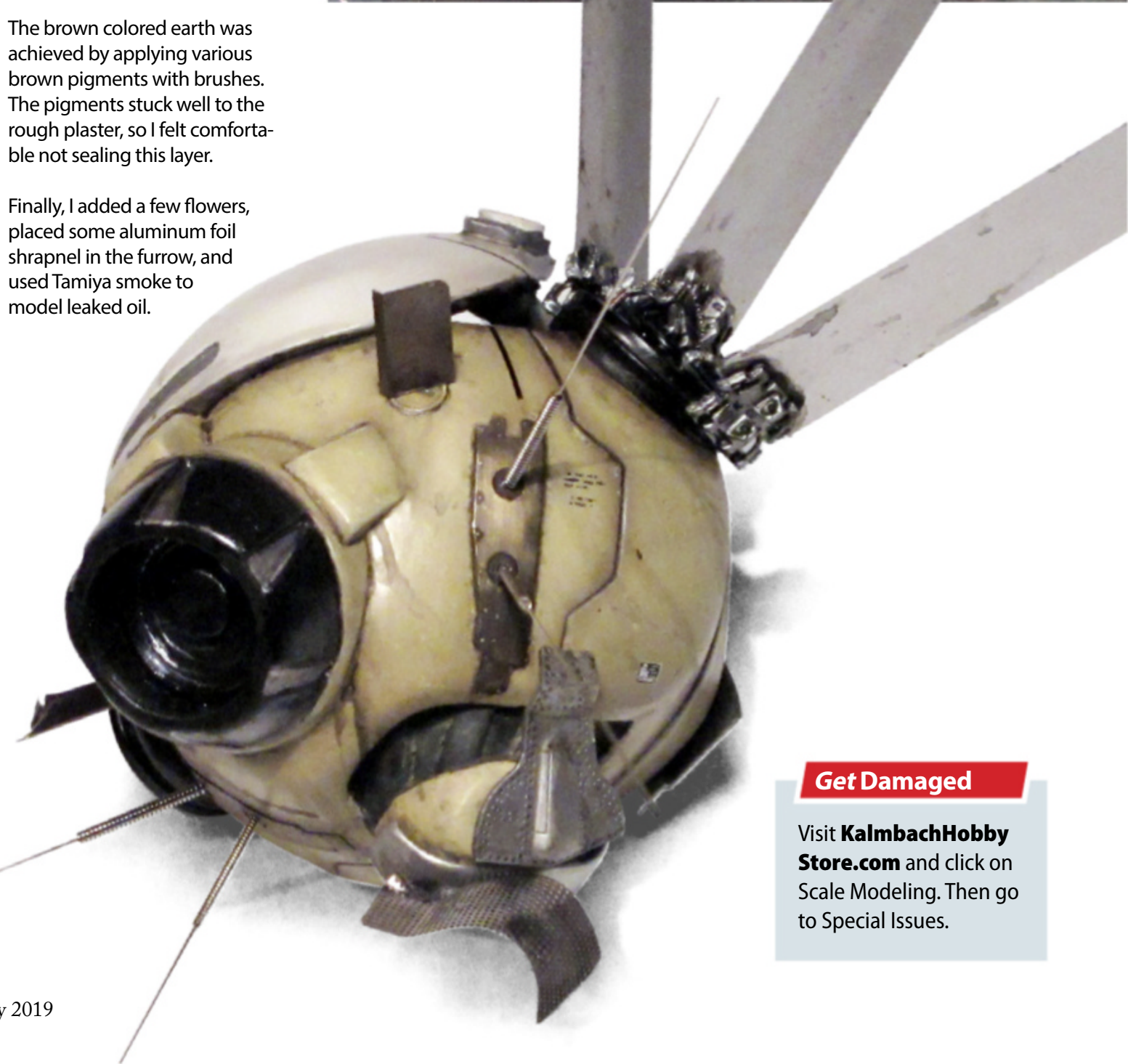
Now that the paint was done, it was time to start on the base. I glued balsa foam to a wooden base, covered the sides with sheet styrene sanded smooth, painted black, and finished with Games Workshop Purity Seal from the spray can. After carefully masking the base, I

started to shape the furrow left by the crash. First, I carved a ditch in the soft balsa foam, then I lined the gash with chunks of blue modeling foam. The transition areas between the blue foam to balsa foam were covered with sand held in place with white glue.

Then, I covered the groundwork with a wet layer of plaster colored with light brown acrylic and threw very fine sand over that. After letting it dry for 24 hours, I applied patches of model railroad grass along the sides of the furrow.

The brown colored earth was achieved by applying various brown pigments with brushes. The pigments stuck well to the rough plaster, so I felt comfortable not sealing this layer.

Finally, I added a few flowers, placed some aluminum foil shrapnel in the furrow, and used Tamiya smoke to model leaked oil.



Get Damaged

Visit **KalmbachHobbyStore.com** and click on Scale Modeling. Then go to Special Issues.



MINI ME

The scene needed something to give the object a sense of scale — like a bird or a figure. Small-scale birds are hard to find and difficult to paint, so I chose a 1/43 scale MK35 figure. I wanted the figure to serve as a scale reference without distracting from the crashed vehicle. Originally, I intended the figure to be a farmer or a curious civilian who happened to be passing. But, during painting, one of my modeling buddies said, “Hey, that looks just like you.” So I continued to paint it as me in 1/43 scale, including my flat cap, Adidas jacket, black shoes, and khaki trousers.

Such small and relatively short projects are always a joy. As I said, I usually complete several of these “build in one week” projects to break up my other, more extensive modeling projects. You can see more of this project at my website.

Marcel du Long
www.marceldulong.com
www.marceldulong.com/plastics/it-came-from-outer-space



Scratchbuilding a war trawler

Angling for a different subject nets a winning model

During World War II, the German navy commandeered hundreds of fishing trawlers. Fitted with weapons and known as Kriegsfischkutter (KFK), they were used for harbor protection, hunting submarines, escort, and coastal mine clearance. Originally an armor modeler interested in unique German vehicles not found in other builder's display cases, Doug Bauer, of Albany, Oregon, began fishing around for challenges starting with conversions and progressing to fully scratchbuilt models. That ultimately led to Kriegsmarine coastal vessels and the KFK is his second such project.

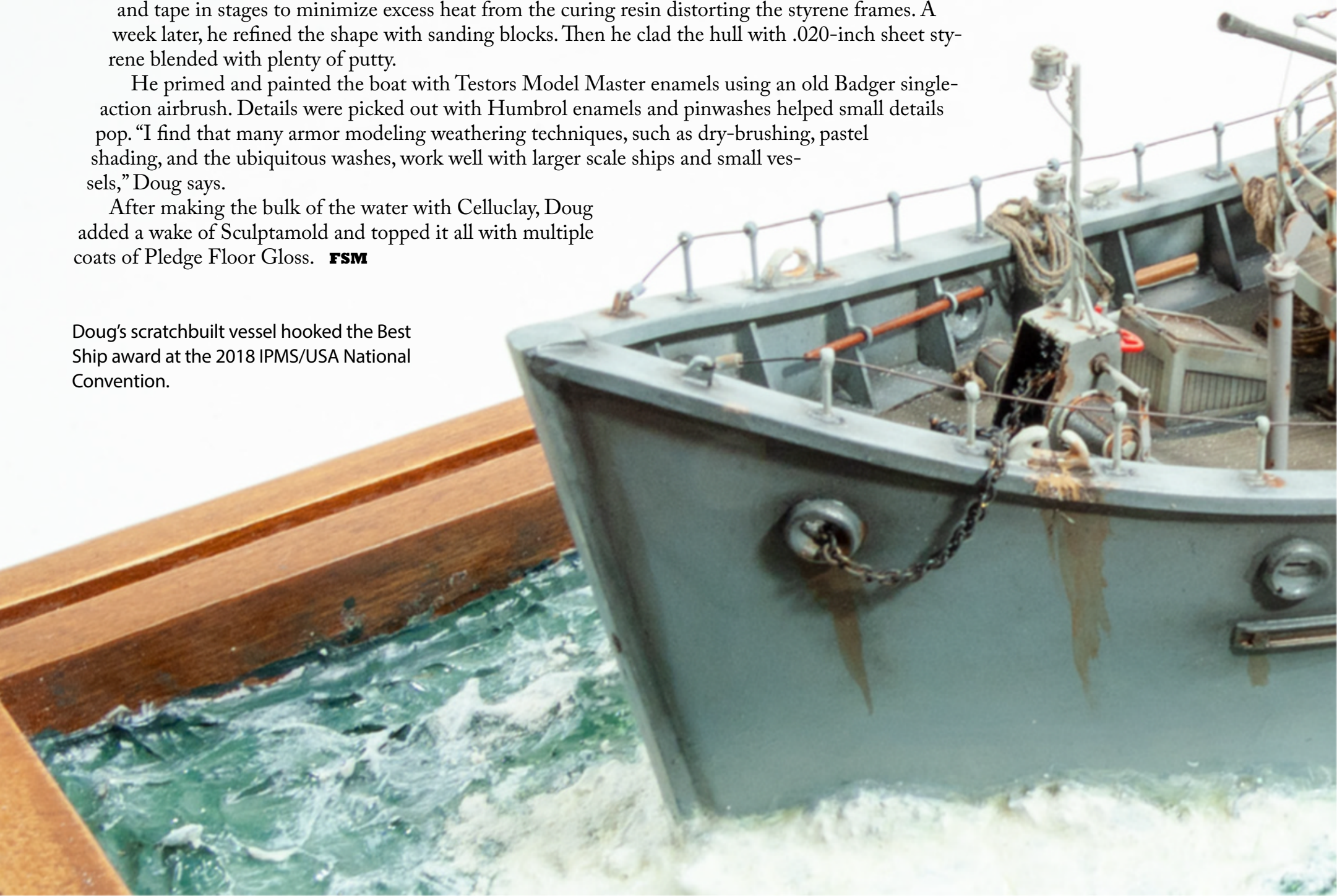
Nearly everything on the model is scratchbuilt, including the guns, superstructure, deck furnishings, winch, mine-sweeping paravanes, and more. He constructed the model using styrene sheet, rod, strip, and tubing. The project started with research, the most time-consuming and frustrating aspect of any big build, according to Doug. "I was fortunate to obtain a set of plans for the KFK in 1/33 scale," he says. For scratchbuilding, it's important to plan the assembly sequence.

To form the hull, he cut the main deck from .040-inch sheet styrene, then braced it with a keel of .080-inch styrene. After framing the hull with six .060-inch bulkheads and filling the spaces between them with foam blocks, he formed temporary hull sides with masking tape. Polyurethane resin was poured into the spaces between the bulkheads, foam, and tape in stages to minimize excess heat from the curing resin distorting the styrene frames. A week later, he refined the shape with sanding blocks. Then he clad the hull with .020-inch sheet styrene blended with plenty of putty.

He primed and painted the boat with Testors Model Master enamels using an old Badger single-action airbrush. Details were picked out with Humbrol enamels and pinwashes helped small details pop. "I find that many armor modeling weathering techniques, such as dry-brushing, pastel shading, and the ubiquitous washes, work well with larger scale ships and small vessels," Doug says.

After making the bulk of the water with Celluclay, Doug added a wake of Sculptamold and topped it all with multiple coats of Pledge Floor Gloss. **FSM**

Doug's scratchbuilt vessel hooked the Best Ship award at the 2018 IPMS/USA National Convention.





A lot of time was spent constructing the guns as well as fitting, trimming, sanding, and then re-fitting, re-trimming, re-sanding, he says.



Stretching a **Super Hercules**



With this monochromatic paint job, the fuselage of my Super Hercules looks like it came that way — not so! It took nerve-wracking cuts and careful rearranging to lengthen the body.

Extending the fuselage for an Australian C-130J-30

BY ANDY COOPER

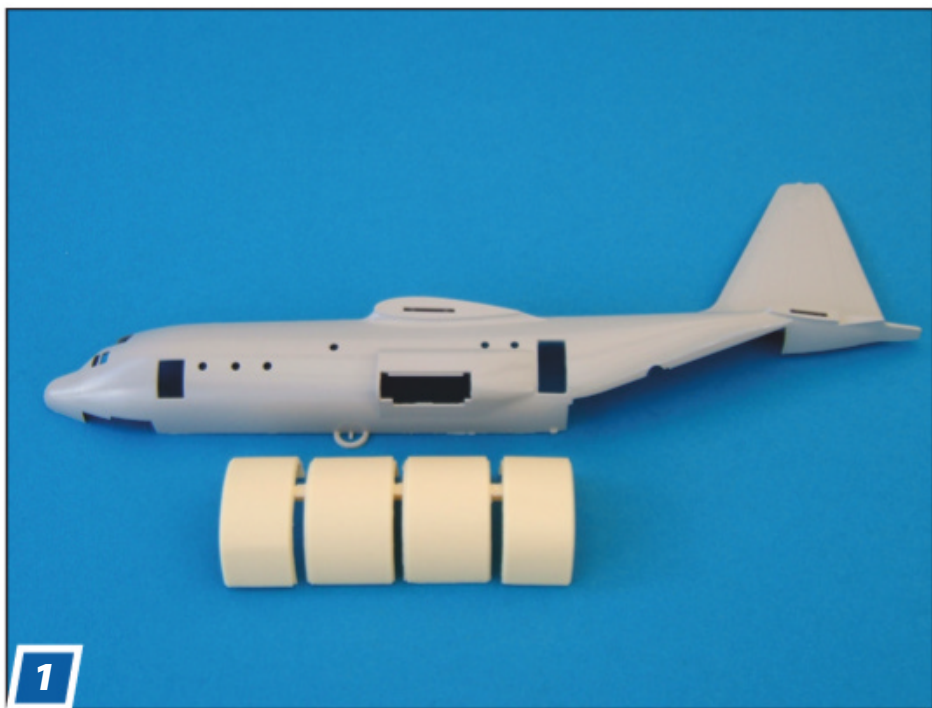
I've had Italeri's 1/72 scale C-130J Hercules (No. 1255) in my "to-build stash" for a while. My interest was rekindled when, while walking around a model show, I came across Flightpath resin fuselage extensions (No. FP-72-103C)

to turn it into a stretched C-130J-30. With these, I could build a Royal Australian Air Force Super Hercules.

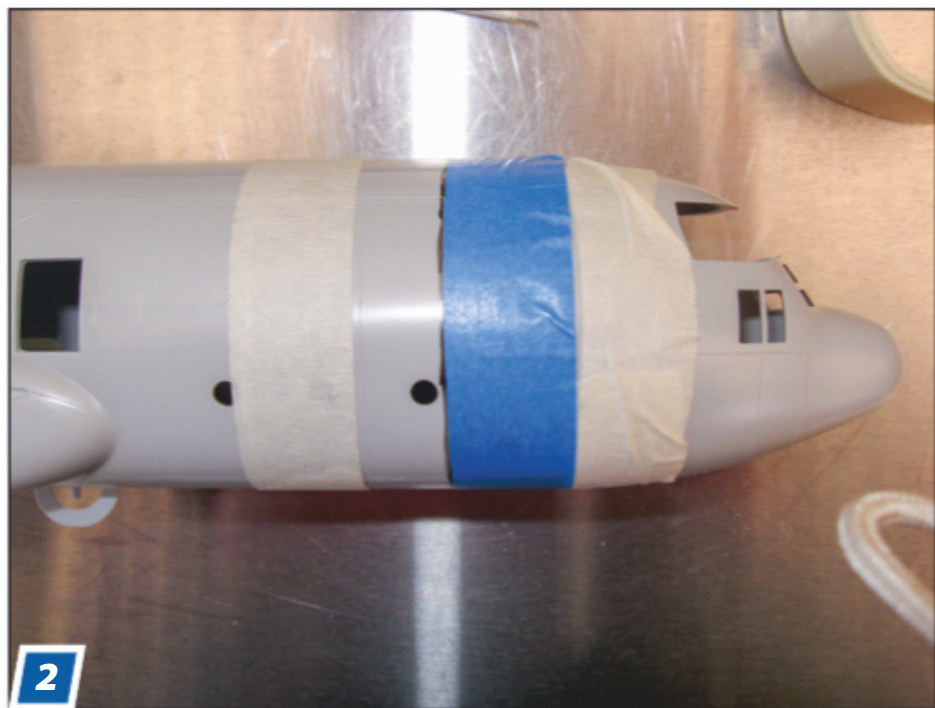
To mark it for No. 37 Squadron, I found what I needed from Flying High Decals (No. MM-72032). My

wallet was a bit lighter, but the die was cast.

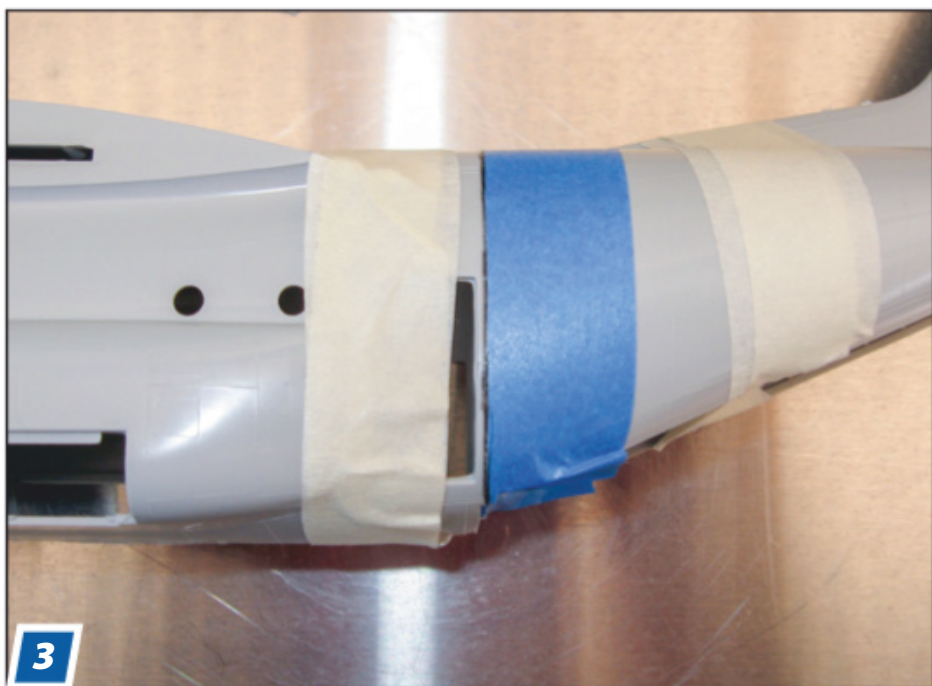
I borrowed some parts from Italeri's C-130E/H kit: six-blade propellers, some blade antennas, and a modified instrument panel representing the glass cockpit of the J series.



The plugs are molded in halves for fuselage extensions, one forward of the wing, the other aft. The resin has no external detail. Side note: It took two years of debate before I convinced myself to make the cuts.



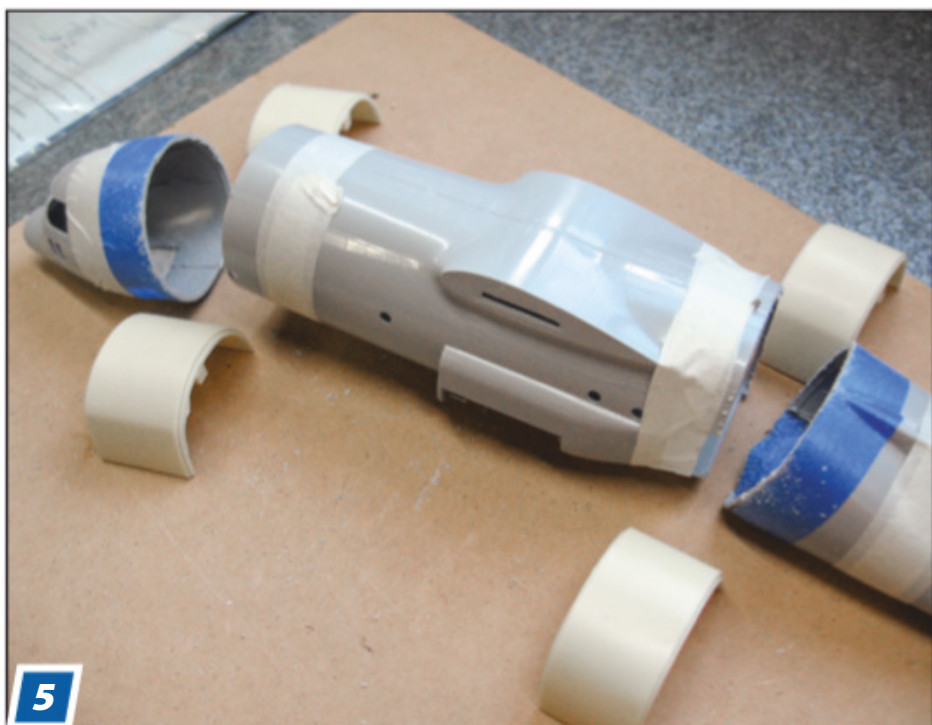
Finally, I took the plunge and dove into the project. Flightpath's plugs, designed specifically for the Italeri kit, include instructions detailing precisely where to cut the fuselage. Tape was a useful guide.



Before cutting, I taped the fuselage halves together using rings of tape on either side of the cut lines. This way the fuselage won't fall apart as each cut is completed. I drew a guide line with black marker.



Using blue low-tack painter's tape to guide the saw, I took a deep breath and commenced the surgery. Both cuts were made by hand with a razor saw fitted with a new, sharp blade.



Cutting slowly, I rotated the fuselage for a uniform cut to avoid misalignment. When finished, there were nose, middle, and tail sections.



I made sure that the mating edges of the resin plugs were reasonably smooth and then glued them together (not shown). Then I sanded the fuselage cuts with sandpaper laid flat.



A sanding drum in a motor tool thinned the fuselage to fit the plug flanges. I removed the flange on one plug so it would not obscure a porthole. Then, I separated the fuselage halves.



Two-part epoxy gave me time to adjust the position of the plugs, but set quickly enough that I didn't need jigs or clamps. To reinforce the joints, I glued pieces of wire across the seam.



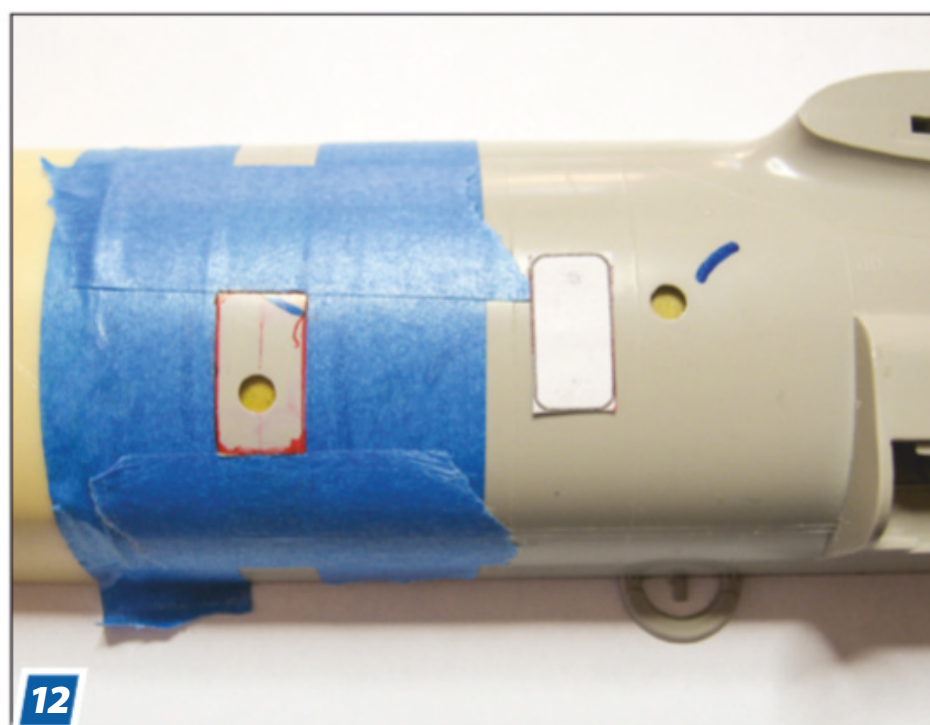
With the epoxy setting, I turned the fuselage halves over and rested them on a flat joining surface until the epoxy had cured enough to prevent parts from moving.



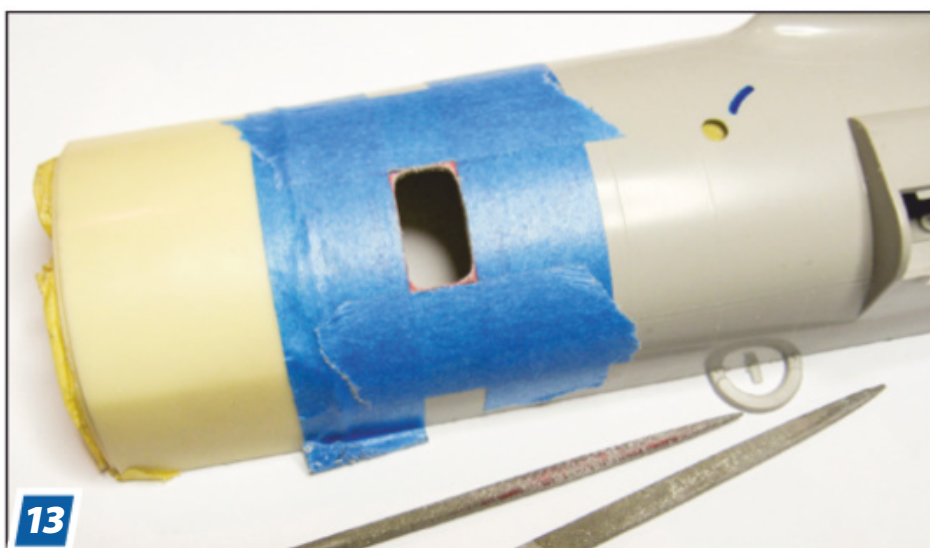
Tip: Be sure to rest the halves on newspaper while the parts cure, otherwise you may find them nicely bonded to your workbench. Once set, I began repositioning several doors and portholes for accuracy.



Starboard, the small square door aperture above the landing gear needed to be replaced with a porthole. I filled the opening with the kit-supplied door because, with some filler, it easily blended with the fuselage.



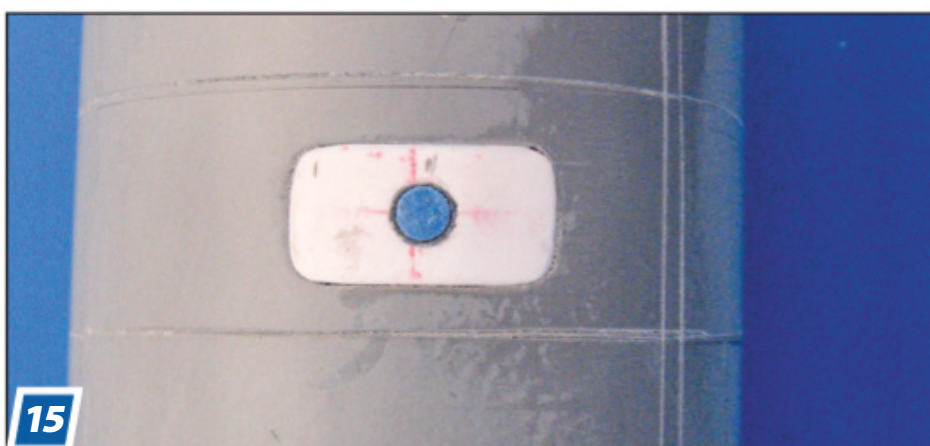
In a group of three portholes, the middle needed replacing with a door complete with a centered porthole. I photocopied the black door outlines on the decal sheet and used these guides to cut rectangles out of plastic.



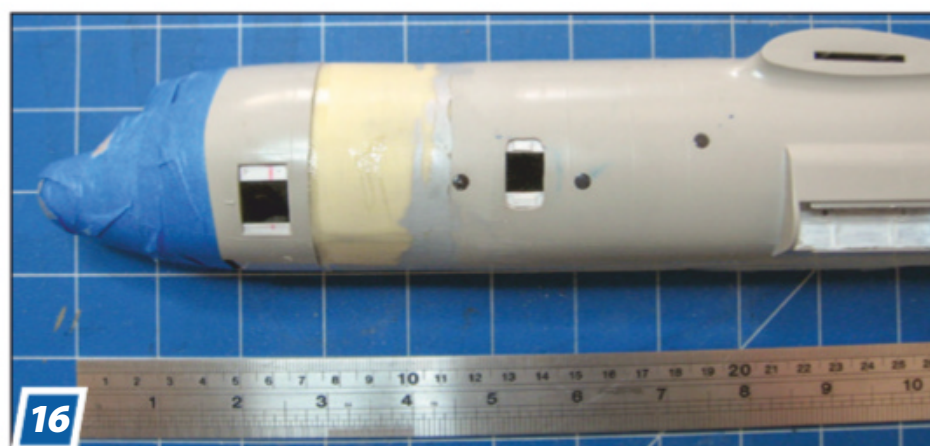
13 Using the new door, I traced the outline around the misplaced porthole and drilled out the rough shape with a motor tool. I refined the edges with files. Masking tape proved a useful guide.



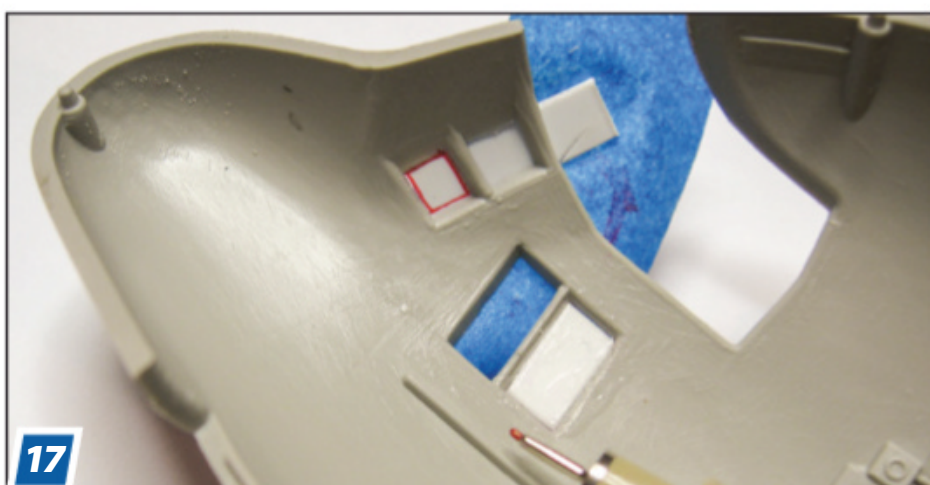
14 Rolling the new door around a small screwdriver handle matched its curve to the fuselage. I removed the tape and placed the door.



15 A hole punch made quick work of a new porthole in the door. Once I refined the placement of the necessary portholes, I fitted them with kit-supplied clear plastic.



16 To give the doors something to bind to, I fixed plastic card inserts across the openings. The last thing I needed once the fuselage was joined was to lose a door inside.



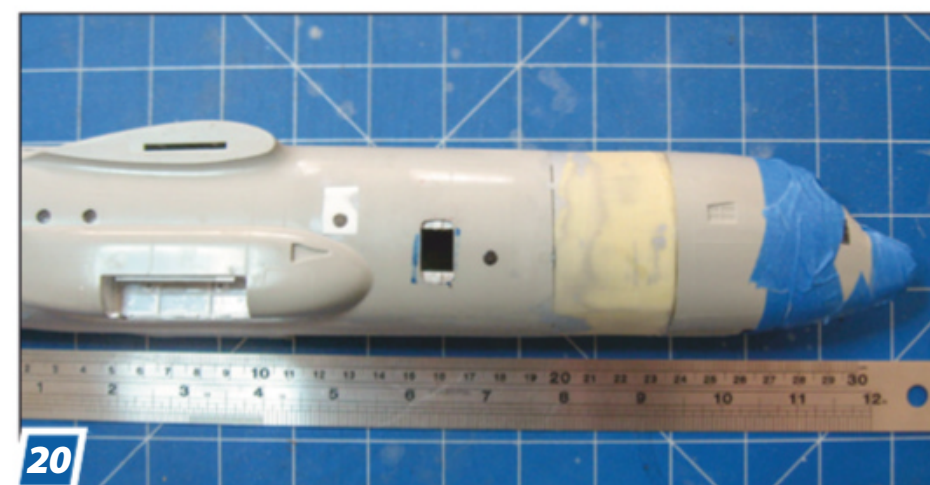
17 For accuracy, some of the cheek and nose windows need to be deleted. The instructions call for fitting the clear parts and painting over them, but I filled them with plastic sheet and filler instead.



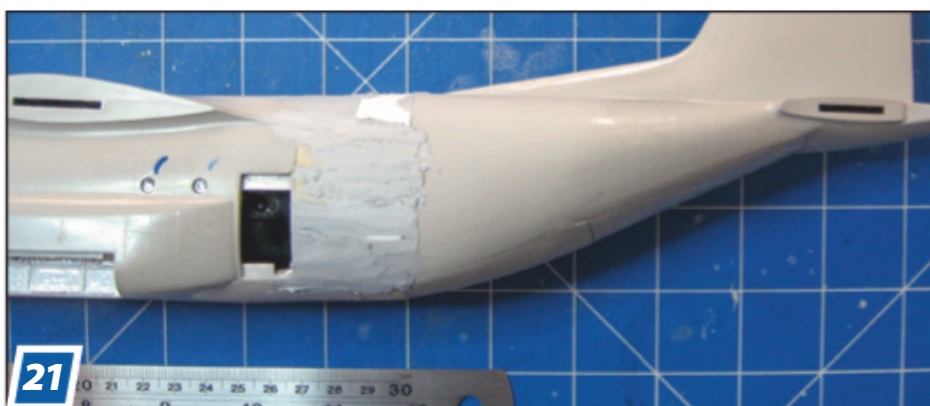
18 The propeller blades did not exhibit the correct twist off the sprue. To feather them, I twisted each of the blades ever so gently. Then, I glued the props and spinners in place.



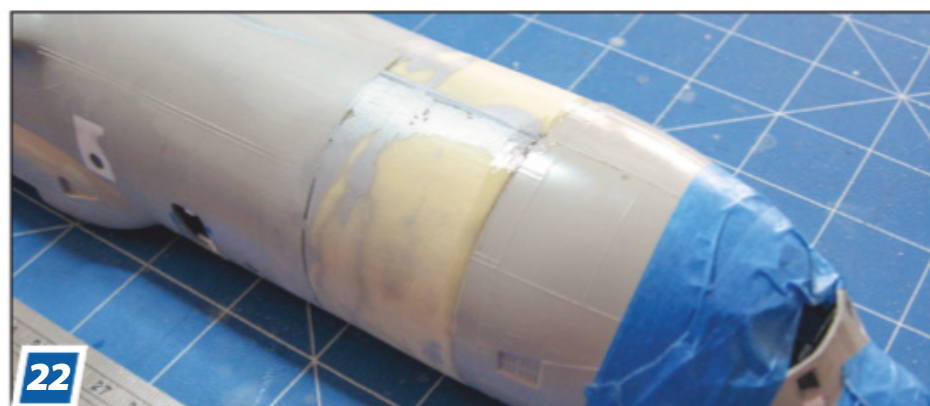
19 I finished as much of the fuselage assembly as possible before adding the wings and engines. It took up quite a lot of space on the workbench at about 50 centimeters long (1 foot, 8 inches).



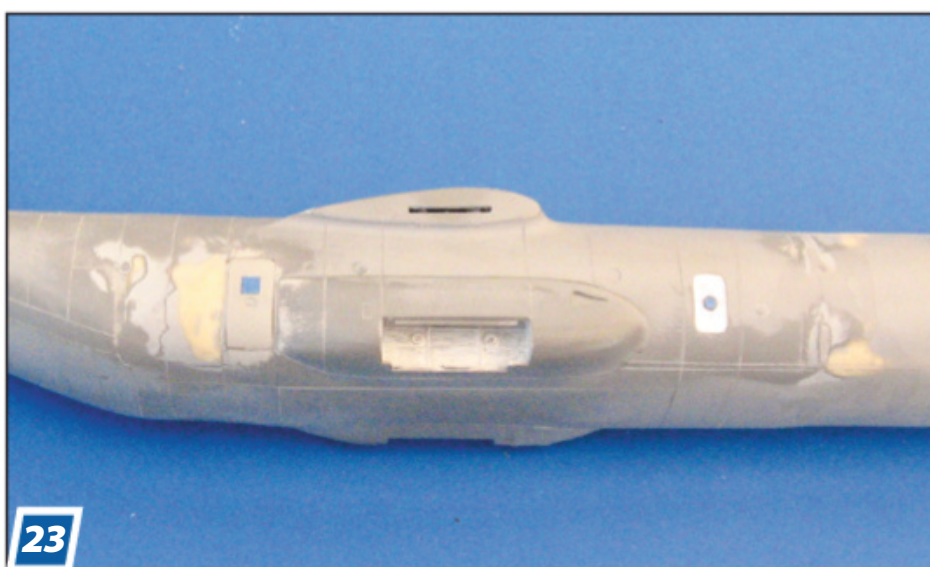
20 I repeated the steps of sanding, filling, and blending until the plastic plugs disappeared into the surrounding fuselage. Time and patience were key.



Of course, during the blending process I obliterated all the detail molded on the plastic. And so, my first attempt at re-scribing was forced upon me.



To re-create panel lines, I dragged a sharpened needle in a pin vise across the plastic. This required several failed attempts; in between there was more filling and priming (and swearing) to rectify mistakes.



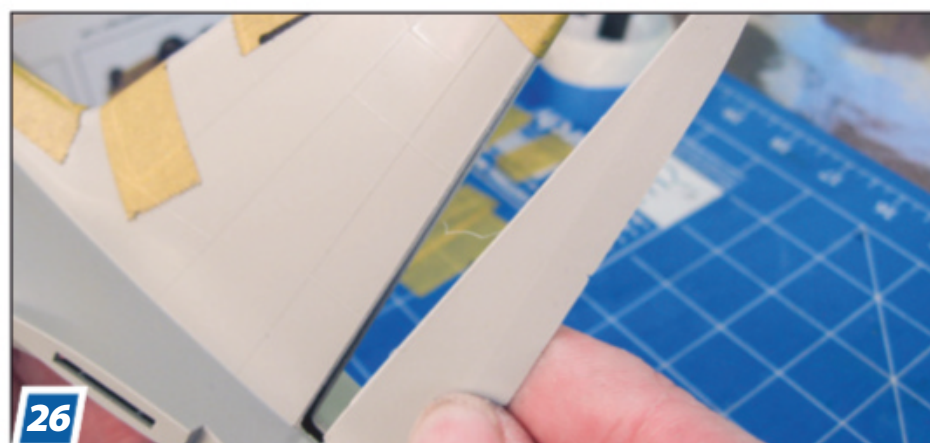
The clear parts and openings were masked off and the whole body was given a coat of Tamiya primer from a spray can to check for imperfections.



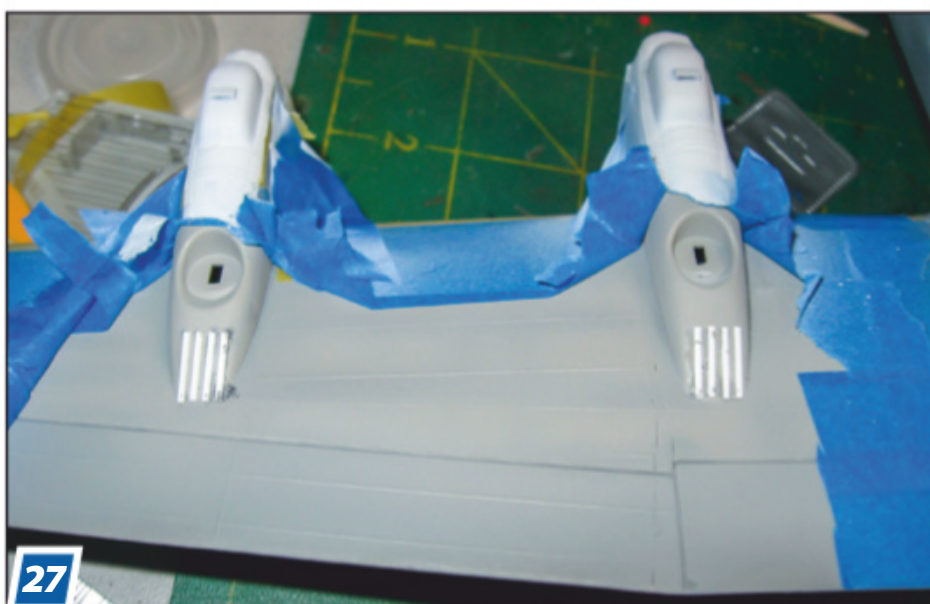
Admittedly, my lack of skill scribing did not produce the best results, but good enough to bring some texture back to this large fuselage. A Testors scribe proved the most useful. (Wings were fitted temporarily.)



Prior to laying down the final coats, I gave the whole model a final coat of Tamiya gray primer from a spray can.



To give the model drama, I repositioned the rudder and elevators. The control surfaces were carefully cut away.



Small plastic strips enhanced the fluting behind the exhaust outlets. Once the glue dried, I shaped and sanded their profile for scale appearance. Then, I glued the wings to the fuselage.



Prior to laying down the final coats I first primed the whole model with Tamiya gray primer from a spray can. Next I airbrushed flat black lines, roughly following panel lines for pre-shading.



I painted the underside with Mr. Hobby light gray (H324) mixed with a little blue gray (H42). Then, I painted panel centers with thin light aircraft gray (H332) and control-surface undersides with barley gray (H334).



After masking, I painted the top with a mix of grayish blue (H337) and a few drops of blue gray. Panels were highlighted with the base color lightened with gray (H311).



The oval humps are lengths of sprue sanded to shape. The antennas are either white or gull gray. Decals went on swimmingly with the exception of the walkway lines, which I cut into more manageable lengths.



I limited the weathering to exhaust stains. I heated the wheels over a candle and then pressed them down slightly on a flat surface to simulate the weight of this heavy aircraft.



I sealed the Hercules with what seemed like gallons of Testors Dullcote to tone down the finish. No doubt it was challenging, but I feel proud of completing my goal. **FSM**

Keeping a Cromwell on track

Add drama to a small tank scene

BY JAMES WECHSLER



Usually I superdetail my models, often spending months working out all of the minor improvements and adding all kinds of aftermarket items. But now and then, I just want to work with a nice, easy kit and focus on the finish and overall presentation.

Tamiya's 1/35 scale Cromwell Mk.IV was just

the ticket. Even though it's more than a decade old, it still has an excellent balance between detail and ease of assembly. Coupled with Tamiya's outstanding molding and this kit can be built in a weekend.

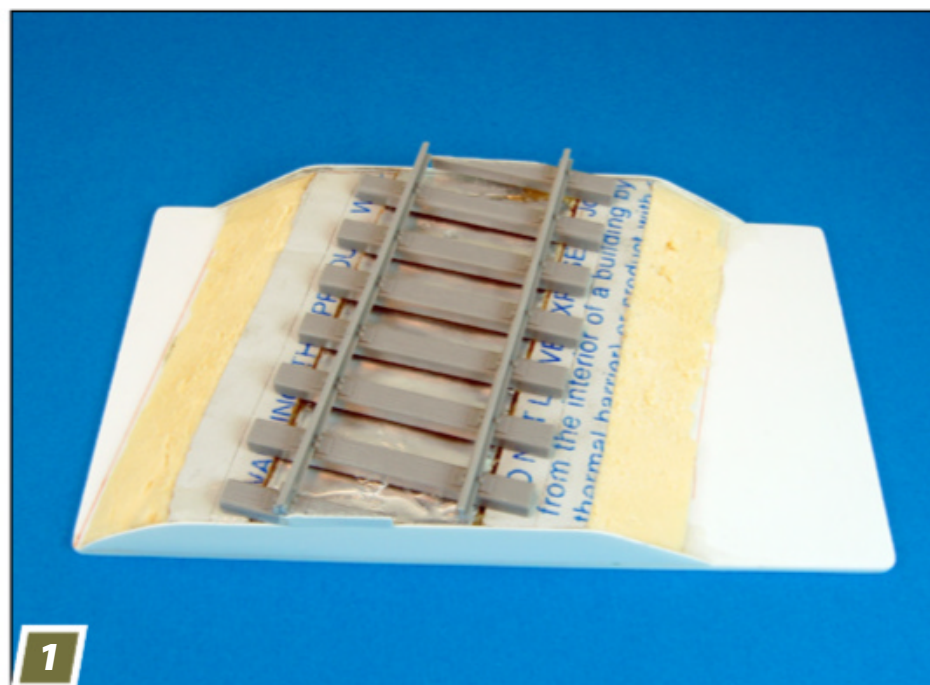
Seeing a photo of a Cromwell driving over a railroad line inspired me. With the addition of

Powered by a Rolls-Royce Meteor engine, the Mk.IV could reach speeds of 52 kilometers per hour.



Heavy, white metal tracks create realistic sag on a discombobulated suspension.

white-metal tracks from Friulmodel, the Cromwell proved an excellent subject to show the movement of a tank's suspension. The road-wheel arms ride in holes along the hull with only a single pin per arm holding them in the neutral position. Cut that pin off and they swing freely. It doesn't get easier than that.



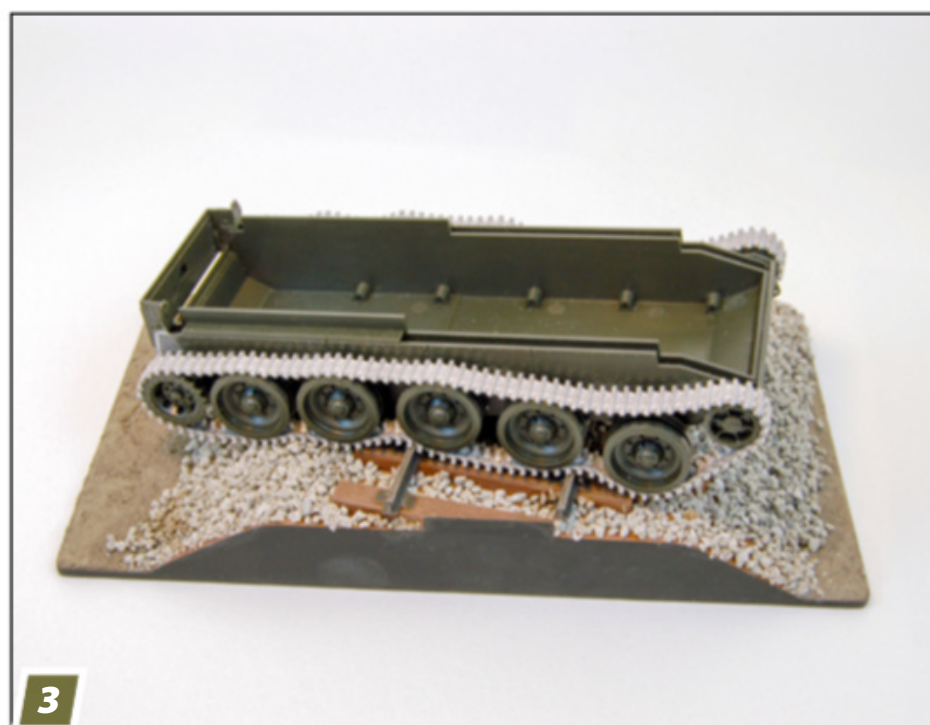
1

For a base, I cut out a 12-by-22cm rectangle of 3mm thick styrene. To that I glued a scrap of foam shaped to form the railway bed. The tracks came out of my spares bin from an old Dragon railway car kit.



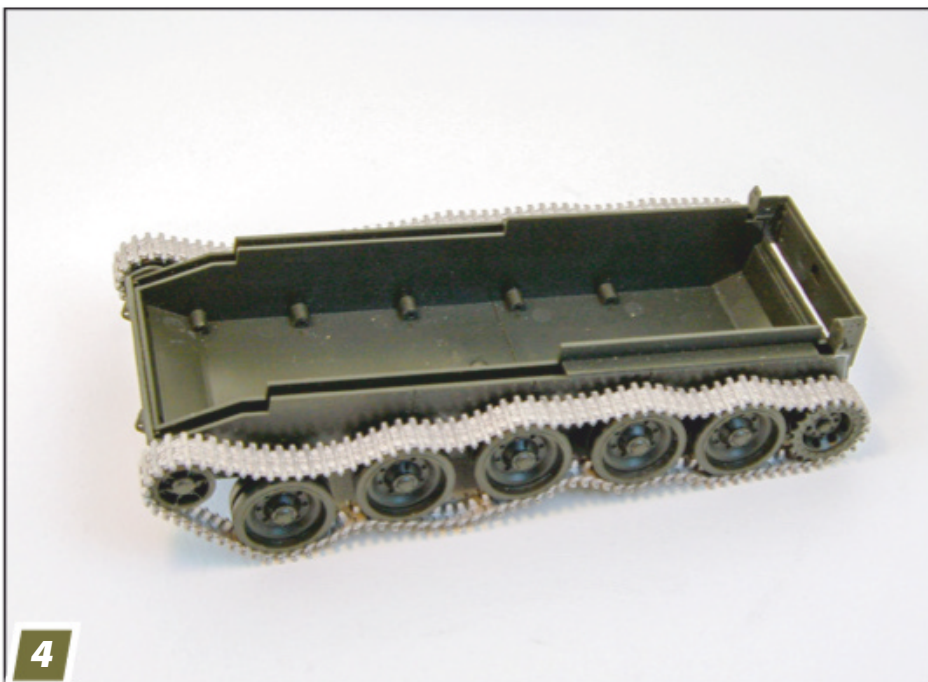
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Creating a steep bed allows the tank to sit up high and brings a sense of movement. I chose gray gravel for the ballast so that the dark green tank would contrast nicely against it.



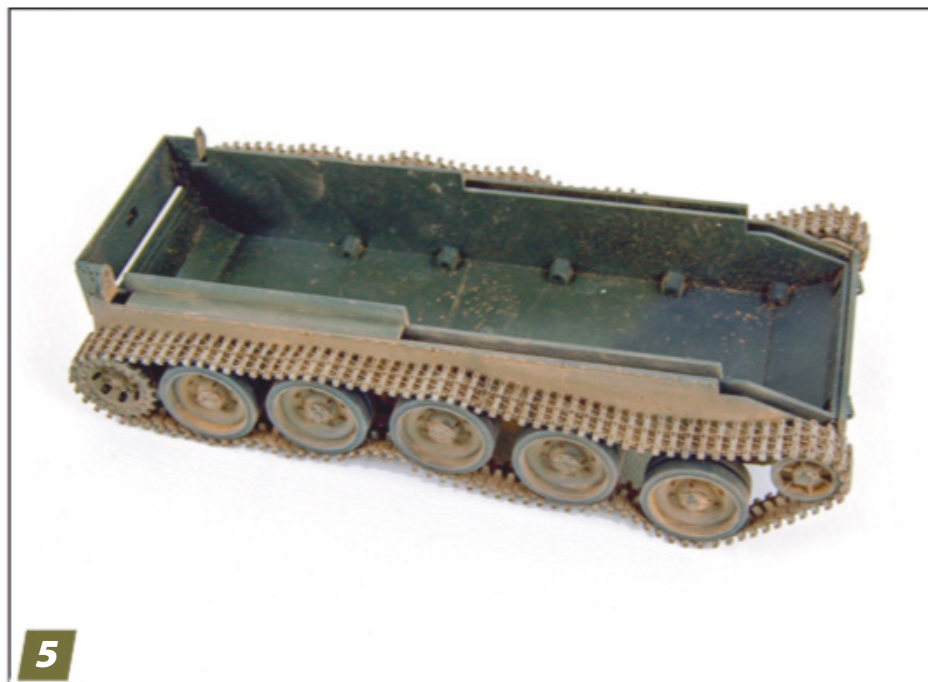
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With rocker arms swinging freely and road wheels attached, I positioned the tank. Because it's climbing the embankment, the rear wheels were glued a little higher than the neutral point ...



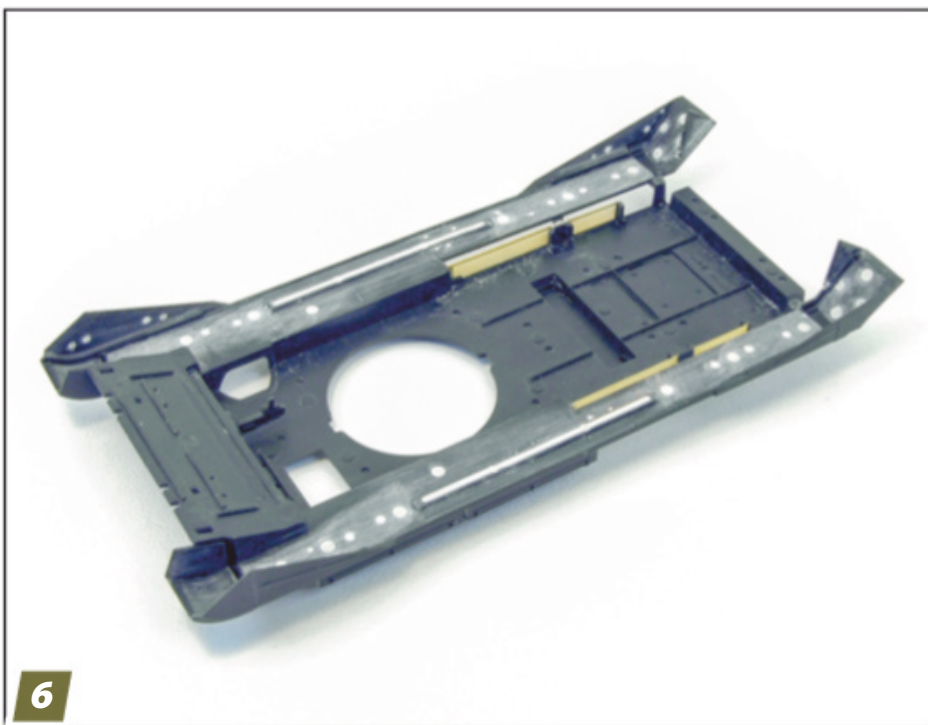
4

... reflecting the additional weight riding on them. Once the wheels were glued in place, I fitted the Friulmodel tracks. The heavy metal runs sag naturally; simply move them around and glue them to the wheels.



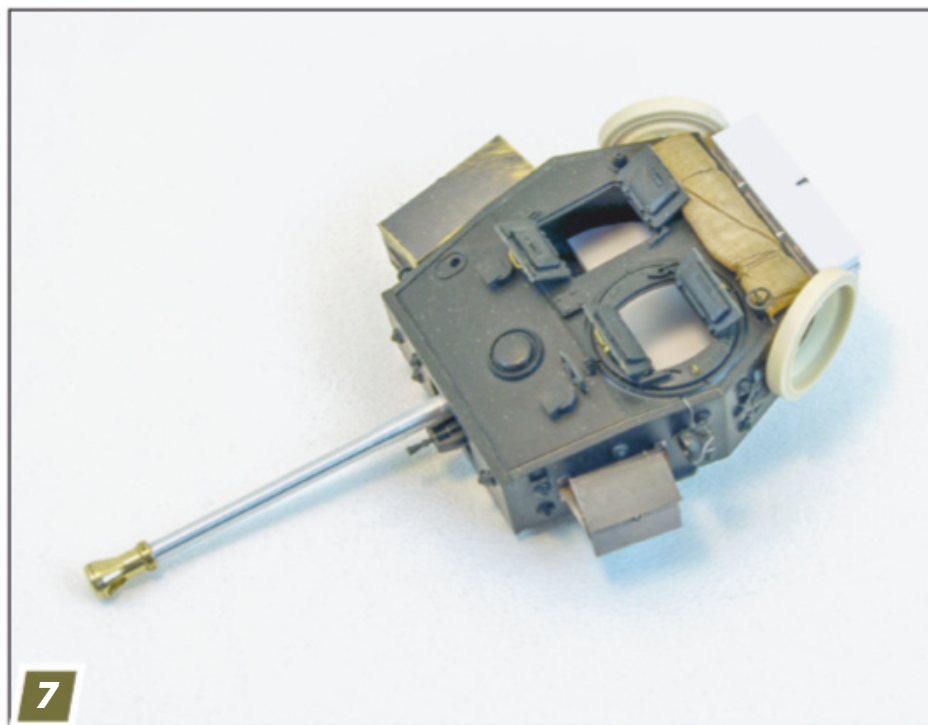
5

At this point, I painted the lower hull, suspension, and tracks. The fit of the upper and lower hulls is excellent so it's much easier to paint the tracks with the upper hull out of the way.



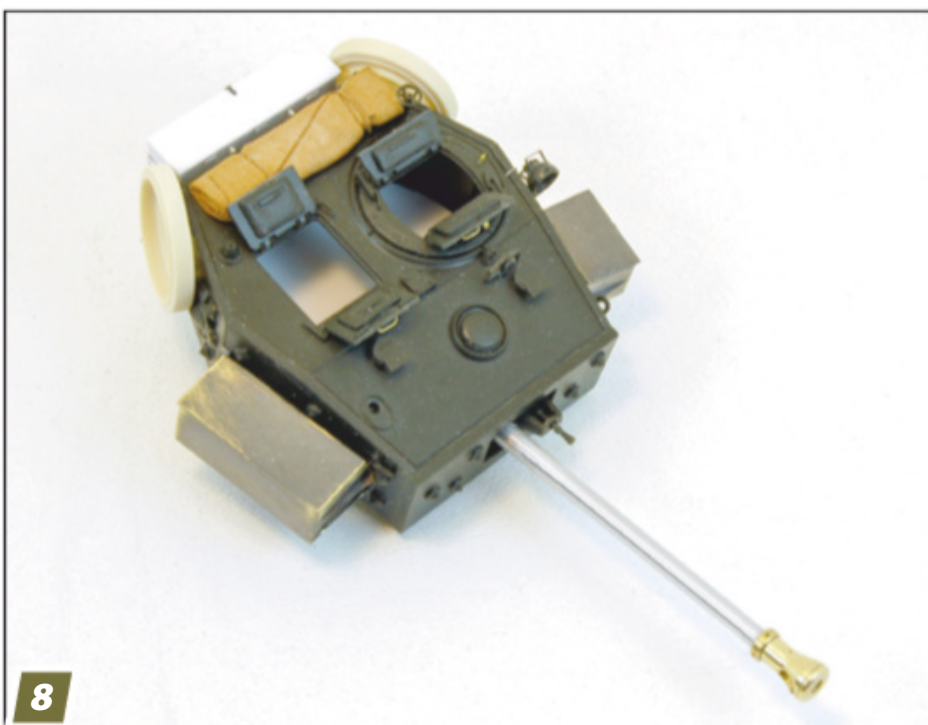
6

Moving on with construction, I focused on the upper hull. Warning: There are a lot of ejector-pin marks on the underside of the fenders that need to be filled or they will be visible.



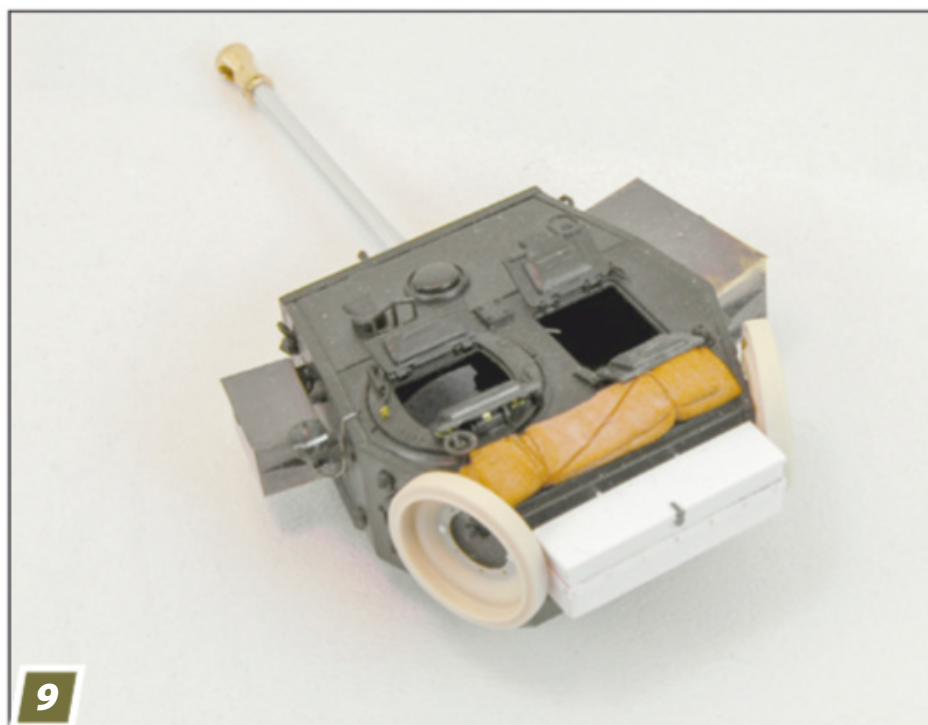
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I replaced the kit gun with a metal barrel from RB Model, added photo-etch (PE) brackets and wing nuts to the tools, and made grab handles from bent wire.



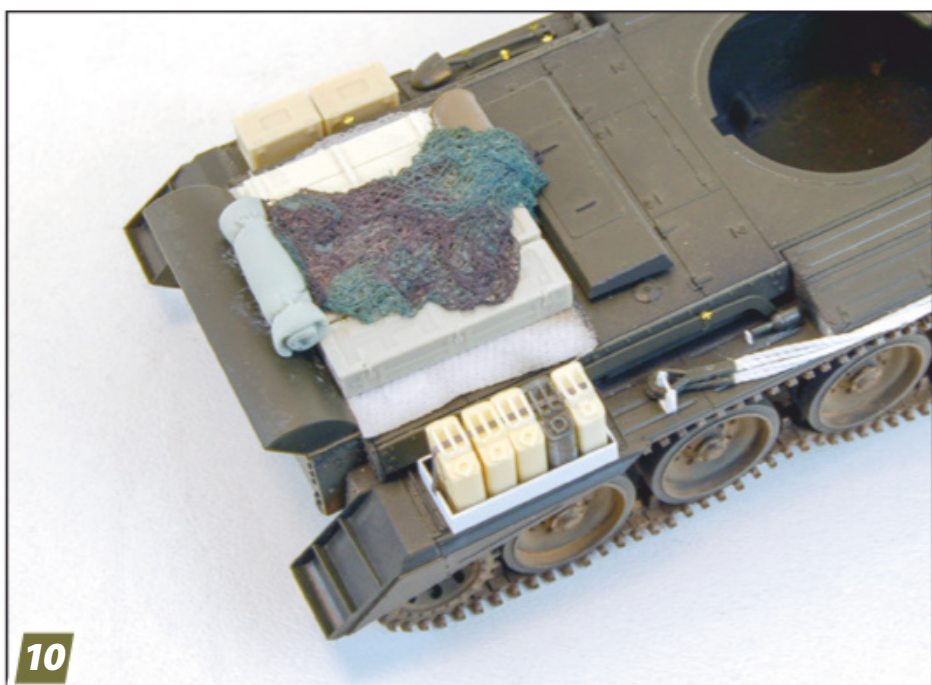
8

I noticed that some Cromwells had stowage boxes mounted on the sides of the turret, so I added them with an Eduard PE set. The set included the tow-cable brackets along the hull's side.



9

I scratchbuilt the small bin on the rear of the turret with sheet plastic and added a PE clasp to the lid.



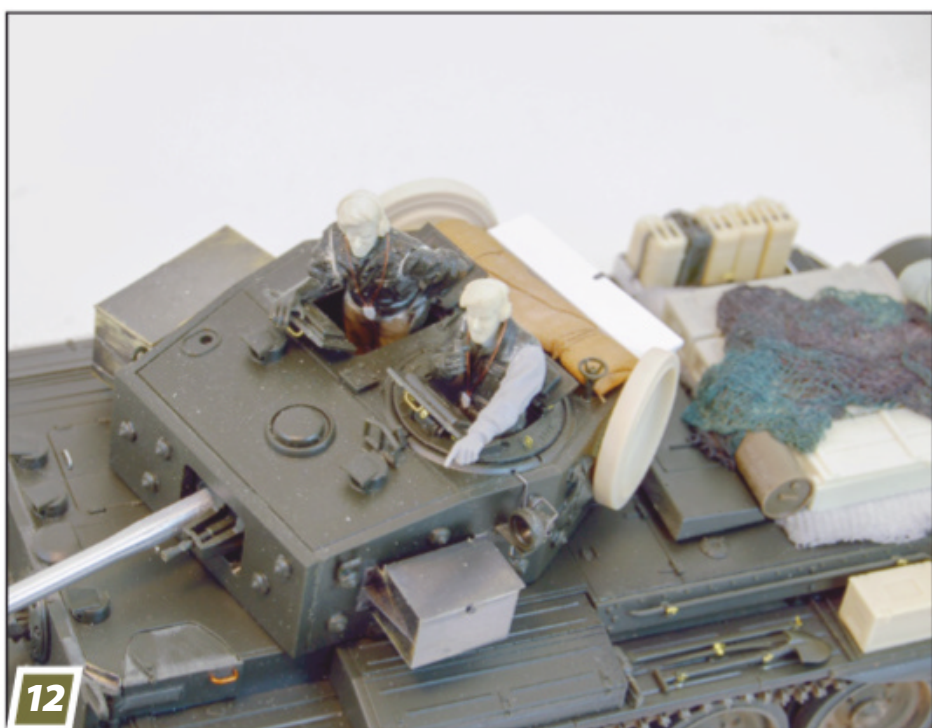
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All of the stowage came from my spares bin. I added wood boxes, black oil and jerry cans, dark green ammo cans, and khaki netting, purposely choosing different colors to break up the overall look.



11

Figures are Tamiya with Hornet heads. I replaced the commander's left arm with one from my spares bin. The other figure (found in a Churchill Mk.VII kit) had his legs replaced with those of a Sherman crew member.



12

I painted the uniforms khaki to add even more color. I also placed an extra Hornet head inside, looking out of the driver's hatch (see photo 15).



13

Here's the Cromwell before paint. The base coat was flat black followed by faded green drab and olive drab on the panels for a tired, sun-bleached appearance. Thin Tamiya buff dirtied the lower hull and suspension.



14

Light dry-brushing finished the camo. I added Bison decals and painted details before applying clear flat and a wash of thin raw umber artist's oils. Liberal amounts of dry pigments were applied around the bottom ...



15

... and rubbed off using my thumb and an eyeliner application sponge. The base was finished with gravel from Woodland and dirt from my backyard. This was a most satisfying (and quick) build. **FSM**

Building a **QUEEN OF THE SKIES**

Improving Lindberg's 1/245 scale *Graf Zeppelin*

BY PHILLIP GORE



Phillip Gore makes a handsome *Graf Zeppelin* from the old Lindberg kit.

The *Graf Zeppelin* airship was first issued in the late 1960s by Hawk Model Co. and featured thin vacuum-formed main hull halves. In the mid-1970s Testors reissued the same kit in a different box and later Lindberg reissued it again, but this time replaced the vacuum-formed hull with hearty injection molded plastic, as well as a lighted gondola powered by batteries.

I'd always wanted to add this airship to my collection, and once available in styrene I no longer had any excuses.

Here's how I made one of my dream kits a reality. Let's cast off the mooring lines and get started.

In the beginning

First, I sanded away all of the small surface flaws on both hull halves, **1**. This was criti-

cal since the model's metallic finish would highlight any imperfections.

The kit fins and rudders were molded as single pieces. I improved their appearance by sawing hinge recesses around the top along the hinge line, **2**. The horizontal fins were then glued to the hull halves and 5-minute epoxy was used to fill small gaps where the parts came together, **3**.

The main hull halves were glued together next. I filled gaps along the seam with pieces of styrene and beads of super glue before sanding the long join smooth, **4**.

Gondola overhaul

The kit's lighting feature is a neat gimmick that was probably added to make the model more appealing to a wider group of hobbyists. However, it made the shape and details

of the gondola inaccurate when compared to the actual ship. Since my goal was to build an accurate replica of the original, I decided to omit the lights.

First, I reduced the thickness of the gondola housing by sanding off about 1/16-inch. This made the window framing more to scale the greatly helped the appearance.

Next, the extended bottom section was sawed off and replaced with styrene, which was glued in place and sanded flush with the gondola's lower surface. I shortened several of the larger windows by gluing small pieces of styrene into the frames and blending then into the body, **5**.

A more accurate triangle-shaped outline was achieved by taping coarse grade sandpaper to the hull and moving the gondola back and forth over a small area, **6**.

The illusion of transforming the large



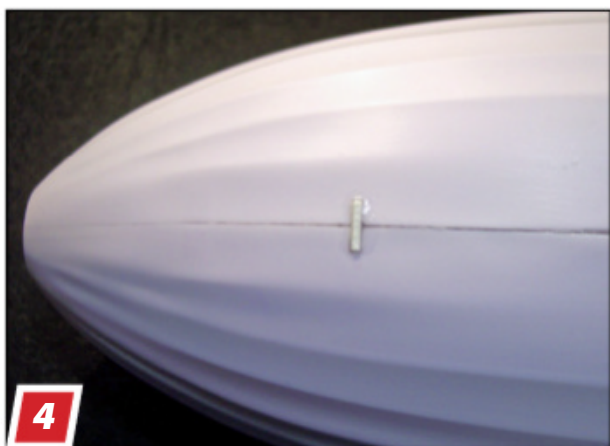
1 I began by sanding the hull halves to remove any surface flaws.



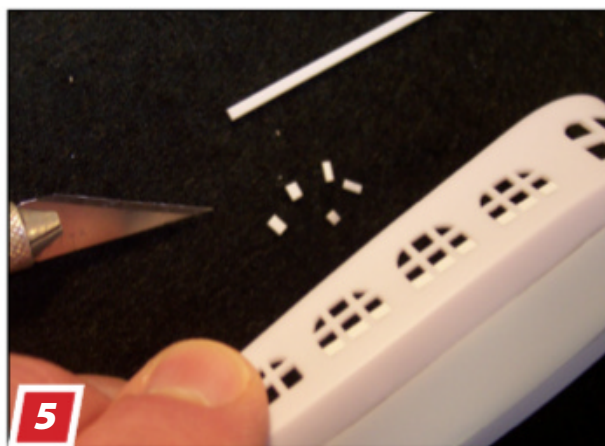
2 Next, I used a saw to add recessed hinges between the tailfins and rudders.



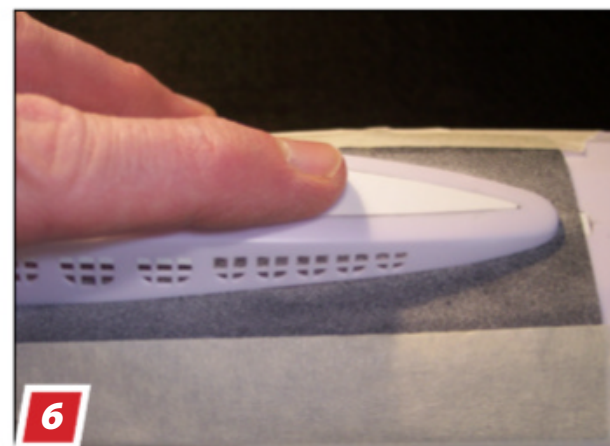
3 To seal small gaps between the hull and fins, I applied 5-minute epoxy.



4 Scrap pieces of styrene were used to fill open spaces between the two hull halves.



5 Styrene also was added to the larger windows to reduce their height for accuracy.



6 Moving the gondola back and forth over coarse sandpaper modified its shape.



7 Strips of styrene were added inside the framing to increase the number of windows.



8 Small diameter wires and styrene rods made the hand-hold railing assemblies.



9 The result is this handsome completely modified airship gondola.

window openings to a greater number of smaller window openings was accomplished by gluing small, square styrene strips inside the window, **7**.

The hold-down railing assemblies were made by placing small-diameter wires in pre-drilled holes along the length of the housing.

Small styrene rods were then glued to the ends of the wires, **8**. This simple trick gave the gondola an intricate look. Adding a photo-etched (PE) door from my spares box completed the gondola, **9**.

The assembly was painted with Testors Model Master primer followed by Alclad II aluminum. Lastly I applied Microscale Kristal Klear to glaze the windows.

The completed assembly was then glued to the hull, **10**.

My final hull modification was to add a small styrene bumper guard to the lower tailfin, **11**.

Soft plastic blues

On to the engines, which I improved by removing the inaccurate hull attachment braces and replacing them with small-diameter rods. The number, length, and location of the rods used for bracing were estimated after studying various *Graf Zeppelin* photos and drawings, as well as models built by other people.

Unfortunately the parts for the engines, propellers, and rudder controls are made of a soft plastic similar to vinyl. This material proved difficult to glue together and nearly impossible to sand where two parts connect. After considerable frustration I found the best way to hide the engine seam line

was by placing a 1/16-inch strip of masking tape around the join. This was then sealed with 5-minute epoxy.

The props were scratchbuilt from styrene. Each completed engine assembly was test fit to the hull before being painted, **12**.

Making a silver rainbow

Finish was one of the most important parts of the project, since silver-colored airships can come across as “toy-like” in appearance. First, the hull was painted with Model Master primer to produce a uniform finish and conceal tiny scratches.

Next Alclad II dull aluminum was applied as a base color. This created the low luster, gray tone I wanted. Different colors were applied to represent hull fabric that had been replaced or weathered.

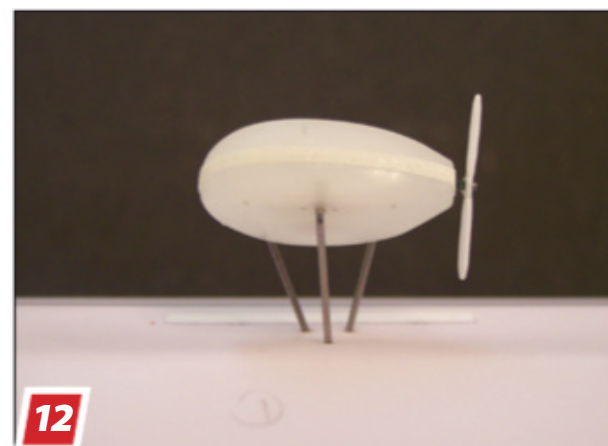
That “patch-panel” effect was achieved



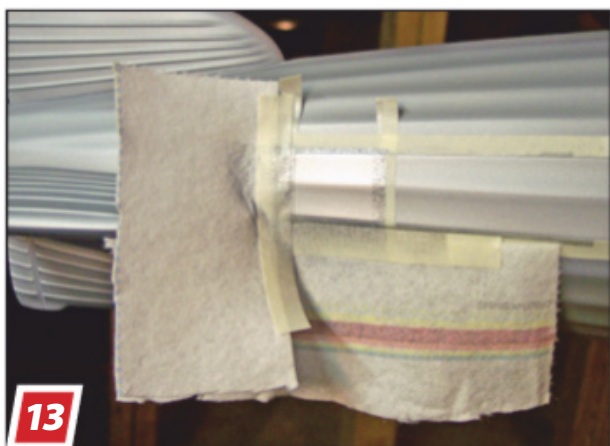
10 Next, the finished gondola is attached to the unpainted airship's hull.



11 A thin strip of styrene modeled a bumper guard on the lower tailfin.



12 After modification, an engine assembly is shown during test fitting.



13 The "patch-panel" effect was created by masking and painting one section at a time.



14 Dry-transfer letters were put on clear decal film before being added to the model.



15 Black square decals were used to represent openings along the keel.



16 I used tiny surgical steel rods for the airship's guy-wire supports.



17 I carved and sanded gas shaft vent covers out of styrene.



18 Here we see the two sizes of vent covers and the patch panel finish.

by masking random squares and rectangles of various sizes all over the hull. I painted these with Alclad II aluminum, Alclad II polished aluminum, Alclad II dark aluminum, and Model Master dark anodonic gray, **13**. Finally, I misted on dull aluminum give the patch-panel effect a more subtle impression.

Painting complete it was time to add the airship's name; it should be red but the kit decals were black. As a substitute, I used dry-transfer decals from a Woodland

Model Graphic sheet. I placed each letter on clear decal film, then on the model, **14**. Pieces of black decal film were used to represent the various openings along the airship's keel, **15**.

Final details

After the engine assemblies were glued in place, .005-inch diameter surgical stainless-steel rods were added to represent support guy wires. Tiny holes were drilled in the hull, and the correct wire length was obtained by cutting and test fitting each piece until the fit was perfect, **16**. That was followed by PE ladders added between the engines and hull; the engines could be accessed during flight.

Additionally, the kit's molded-on gas-shaft ventilation covers were replaced accurate scratchbuilt styrene parts, **17**. These

were painted and placed at staggered positions along the hull top, **18**. The final scratchbuilt details were the elevator and rudder controls, **19**.

I made a display stand by gluing two 1/4-inch metal rods to a stained wooden base and attaching a brass nameplate. Now the airship is ready for display.

Landing the project

I am happy with the final product and thankful for this retooling so I could avoid the vacuum-formed pieces for more familiar styrene.

I found most of the technical information for this project at www.AirshipModeler.com, a website geared to all types of airship enthusiasts.

The Lindberg kit is a fine tribute to the most successful airship ever built. **FSM**

More tips at www.FineScale.com

For more on zeppelins and blimps see:

- www.FineScale.com/blimps
- www.FineScale.com/Shennandoah
- www.FineScale.com/zeppelin
- www.FineScale.com/Goodyear



The bow of the *Graf Zeppelin* is impressive to be sure. But, I scratchbuilt two styles of controls for the rudders and elevators at the ship's tail, seen in the inset here.

19

Graf Zeppelin: A most-successful airship

Launched in October 1928, the *Graf Zeppelin* was the largest airship in the world at the time. It was originally built for demonstrations and to show that airships could be a viable means of regular travel. However, during its operational life it carried passengers and mail to cover operating costs. In August 1929, the *Graf Zeppelin* circumnavigated the globe. The entire voyage took 21 days, 5 hours and 31 minutes. In May 1930, the first regularly scheduled trans-Atlantic passenger service was launched.

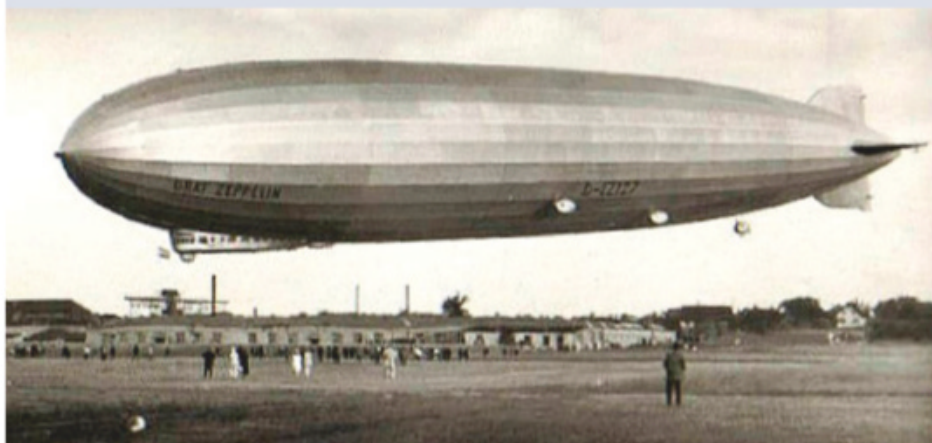
Despite the beginning of the Great Depression and growing competition from fixed-wing aircraft, the *Graf Zeppelin* transported an increasing number of passengers and mail across the ocean every year until 1936. The *Graf Zeppelin* was retired from service and turned into a museum in 1937, one month after the *Hindenburg* disaster. In March 1940, Hermann Goring, the German Air Minister, ordered the destruction of the *Graf Zeppelin* and all other remaining dirigibles, so their aluminum parts could be used for the German war industry.

During its career, the *Graf Zeppelin* flew more than 1 million miles, made 590 flights and 144 ocean crossings. It carried 13,110 passengers with a perfect safety record, making it the most successful rigid airship ever built.

Graf Zeppelin stats

Designation: LZ-127
Length: 776 ft.
Overall height: 110.6 ft.
Engines: 5 x Maybach, 550 hp

Maximum speed: 80 mph
Range: 10,400 miles
(at 68 mph)
Crew/Passengers: 40/20



READER GALLERY

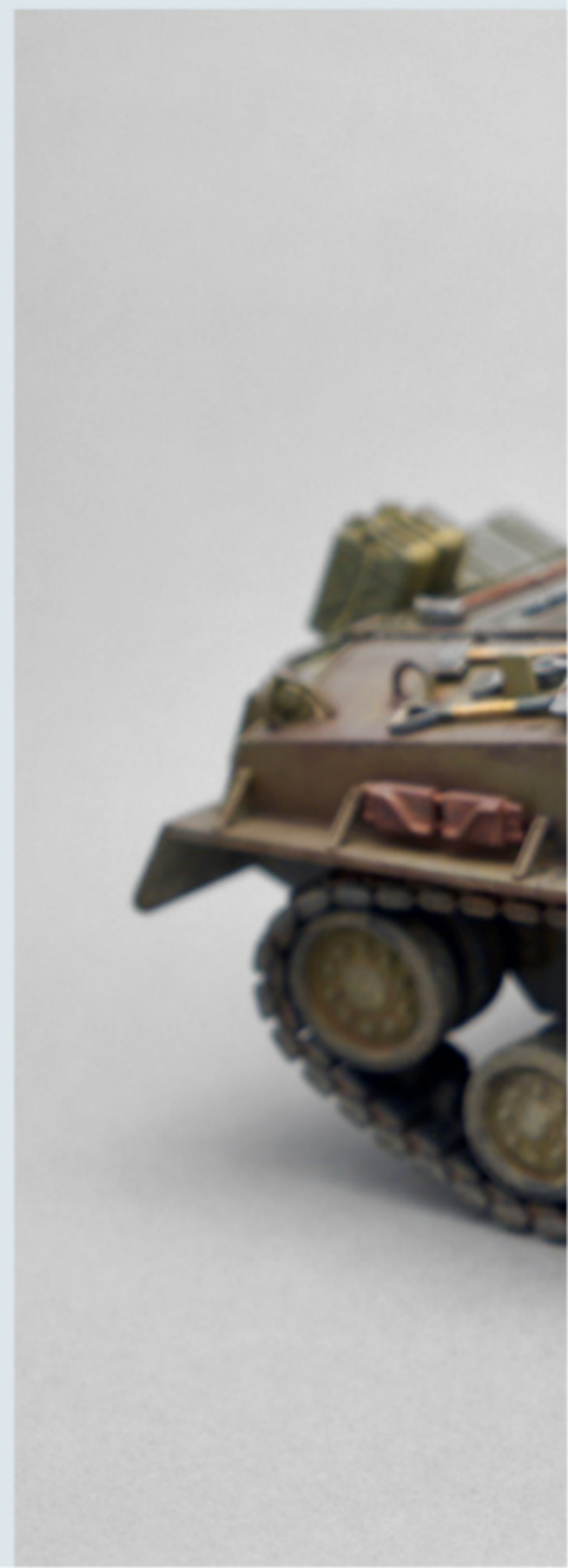


◀ GREG LEBLANC KELOWNA, BRITISH COLUMBIA, CANADA

Greg made Bandai's 1/48 scale AT-ST for his daughter's 27th birthday. He pre-shaded and post-shaded, and topped that with a gloss coat and acrylic washes. Paint is Vallejo Model Air and the weathering comes from various Prismacolor pencils. The base is made of railroad products. Greg says his daughter loved it.

▶ PAUL WOODS TUMWATER, WASHINGTON

Paul built this Tamiya 1/48 scale F-14A Tomcat straight out of the box. He used Tamiya and Vallejo paints and applied different shades of gray randomly over the many panels; this variation gave it a more realistic, worn appearance. He did not go too heavy on the weathering and finished it with semi-gloss clear.





**ERCAN KARAKAŞ
BEYLIKDÜZÜ,
ISTANBUL, TURKEY**

During the Korean War, C Company of the 89th Tank Battalion, known as "Rice's Red Devils," emblazoned their tanks with frightening war paint in an attempt at psychological warfare. Ercan replicated this with Tamiya's 1/35 scale M4A3E8 while focusing his weathering on the lower hull and tracks.



▲ **GREG KERRY**
NANJING, JIANGSU, CHINA
Academy's 1/72 scale Tempest uses its wingtip to flip over an old Frog V1. To create a cloud, Greg held a roll of cotton close to the camera lens.

► **DON STAUFFER**
COON RAPIDS, MINNESOTA
Don built AMT's USS Akron helium-filled dirigible and equipped it with rotating props. It's posed over a photo of Lakehurst Maxfield Field on a wooden block.





▲ **CHRIS PATERSON**
MANTECA, CALIFORNIA

Chris built this 1/35 scale diorama titled *Over the Top* as a tribute to his grandfather, a young British officer who fought in, and survived, World War I. The Master Box figures were painted with acrylics and weathered with pastels and real mud.

◀ **FABRICIO C. LEITE**
VALINHOS, SÃO PAULO, BRAZIL

Classic F1 cars are a favorite of Fabricio. The Honda RA 272 registered the Japanese company's first F1 win at the 1965 Mexican Grand Prix with American Richie Ginther driving. Tamiya's 1/20 scale kit was built out of the box and Fabricio painted it with Tamiya and GSI Creos acrylics and Dry Color automotive white.





▲ **FREDRIK STROM**
JÄMTLAND, SWEDEN

Frederik detailed Revell's 1/48 scale Mk.6 Sabre with KASL Hobby resin flaps and slats to make a Norwegian air force F-86F-40 from 338 Squadron in 1963. He added Eduard wheels and an ejection-seat as well as scratchbuilt pieces. After painting with Alclad II and GSI Creos colors, he applied Gunze Sangyo. Vingt Decals supplied the Norwegian markings.

► **MIKALEO GODIN**
TANGERANG CITY,
BANTEN, INDONESIA

Mikaleo got to use a lot of earthy Vallejo paints to finish Dragon's 1/16 scale U.S. Navy SEAL from the Vietnam War. He weathered the special forces operator with Ammo by Mig Jimenez products.



► **CRAIG BOLTON**
WEEKI WACHEE, FLORIDA

Craig built this gorgeous Monogram 1/48 scale B-29 Superfortress with a 36-inch wingspan. All of the markings were airbrushed using gloss enamels including the lightning bolt, numbers, and wing stripes. Antenna wires are stretched sprue. As an artist who paints seascapes, Craig wanted a model he could display like a painting, so he fixed the Superfortress to a painted wooden picture frame — now it hangs on his wall. He says this project was a blast to build and paint.

DAVID CAMPBELL
YUBA CITY, CALIFORNIA

David built this 1955 Chevy straight out of the box from an older Monogram Show Car series kit. He painted with Tamiya gloss black and titanium silver. All of the chrome parts were given a light coat of smoke.



Smooth landing for Hasegawa's F-35B

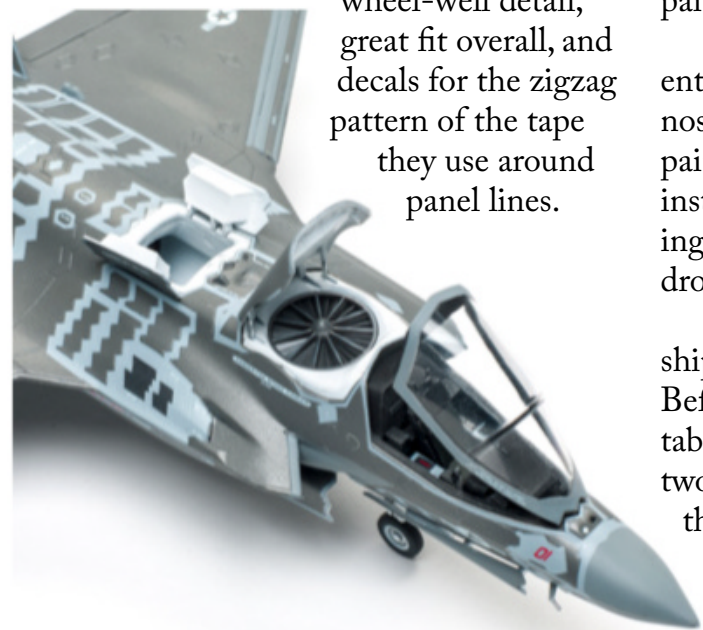
There's something ironic about assembling a kit of an aircraft that appears to disassemble itself when taking off or landing.

The F-35B Lightning II is the short/vertical take-off and landing (S/VTOL) version of Lockheed Martin's ultimate stealth attack jet. With its wacky, rotating-aspect jet nozzle and barn-door lift-fan hatch in operation, it looks like midair disintegration in action.

Hasegawa's new kit is the first F-35B in 1/72 scale since Fujimi's 2010 effort.

Highlights of this kit include good cockpit (although the seat has no harness) and

wheel-well detail, great fit overall, and decals for the zigzag pattern of the tape they use around panel lines.



Good thing; masking and painting the tape would be tedious and time consuming.

The kit also comes with a generic stand molded in 17 parts, three of which you would use to hold the F-35.

There's a pilot figure with an alternate head, but like Hasegawa's F-35A kit, there are neither weapons nor weapons bays.

Landing gear, canopy, and lift devices can be posed opened or closed using alternate parts, which come in handy when painting. I'll get to that in a minute.

Everything fits perfectly. I like that the entire cockpit tub can be dropped into the nose after the fuselage is assembled and painted. Not clearly explained in the instructions, but an alternate pair of trailing-edge flaps (D1 and D2) represent the dropped position.

Hasegawa's representation of the mid-ship lift fan looks great when finished. Before closing the fuselage, you add multi-tab alignment supports inside (two A7 and two B1). There's a vinyl grommet added to the fuselage's rear to facilitate installation

of the engine nozzle. If you're careful with glue, you can assemble the nozzle's pieces so they can be rotated to the vertical takeoff position.

It really didn't take long to build this kit, so the real effort went to painting and decaling. If you choose to have the gear bays and lift devices opened, you should first paint all the interior surfaces gloss white. Top tip: use sticky putty to temporarily place the closed-position gear doors and lift hatches to mask interior areas as you paint the jet's exterior.

While I appreciate Hasegawa's decals for the zigzag panel tape, they appear to be too light in color. The instructions recommend Mr. Color 306 gray (FS36270) for the nose cone and other panels and doors of the exterior, and that color seems correct. But photos of F-35Bs in service show the





Kit: No. 01576 **Scale:** 1/72

Mfg.: Hasegawa,
www.hasegawa-model.co.jp

Price: \$34 **Comments:** Injection-molded, 132 parts, decals **Pros:** Excellent fits and detail; posable canopy, landing-gear bays, flaps, and lift devices; decals for zigzag RAM tape; rotatable nozzle; pilot; display stand **Cons:** No weapons bays or weapons; no harness; questionable color recommendations



tape color to be similar to the nose/panel color.

Hasegawa's recommendation for the overall exterior is Mr. Color WWII U.S. neutral gray (13), but photos show a more metallic gray. I found an online recommendation for the "Have Glass" paint, mixing equal portions of Mr. Color engine gray (339) and Super Metallic stainless steel (SM04). Looks good.

I love decaling, so I didn't mind the six hours I spent applying the zigzag tape patterns and markings. All the tape patterns fit perfectly. I chose the more colorful markings of the commander's jet from VMFA-211, but low-viz markings for an

F-35B from VMFA-121 are included.

I simply had to finish the model with all the doors and canopy opened — it just looks so funky! Maybe someday I'll do another build all buttoned up and sleek. In total, I spent only 19 hours on the model. Since Hasegawa now has 1/72 scale F-35A and F-35B, can an F-35C be on the horizon?

— Paul Boyer





Zvezda SU-100

In 1993, Zvezda produced a 1/35 scale kit of the SU-100; the same kit was also sold by Italeri, Revell, and Bilek. Now Zvezda has revisited the SU-100 with an all-new kit.

Molded in dark green plastic, the parts show nice surface detail free of sink or ejector-pin marks. The tracks are link-and-length and a jig is included to fit individual links around the drive sprockets and idlers. Clear parts are provided for the headlight lens, periscopes, and driver's vision block.

The suspension arms are fixed in position so the road wheels won't be misaligned. I left off the running gear and tracks until after painting.

Building the multipiece upper hull was a little trickier; I wish Zvezda provided a few more alignment devices for the major parts. I recommend adding all of the main hull parts in one sitting so you can make subtle adjustments for fit as the glue dries. Don't forget to install the gun mount inside the front plate before gluing the hull together.



Kit: No. 3688 **Scale:** 1/35

Mfg.: Zvezda, www.zvezda.org.ru

Price: \$46.99 **Comments:** Injection-molded, 334 parts (vinyl mesh, string) decals **Pros:** Quick, easy build; clear headlight and periscopes; link-and-length tracks with assembly jig **Cons:** Major hull parts could use more locators; error in decal diagram

The plastic mesh for the rear engine cover is easy to cut and doesn't fall apart at the edges. The mesh is sandwiched between two frames to make sure it follows the cover's curve.

The gun mount was a little loose but once the upper mantlet armor (Part B28) was added, the barrel would stay in any position it was placed.

Leaving off the tools, tow cables, headlight lens, and spare tracks, I painted the model. The instructions suggest Tamiya dark green (XF-61), but that seemed too dark to me. I used olive green (XF-58) as a base color.

Decals were added over a coat of Tamiya clear and responded well to Microscale decal solutions. I originally applied markings for the 3rd Guards tank on the sheet, but the diagram for the left side of the casemate has the hull number in the wrong place and there was no room for the slogan. The 23 should be placed lower on the side with the slogan above as seen on the back of the box. Unfortunately, it was too late for me to move the decals, so I painted over them and applied the other set of markings.



I soaked the thread for the tow cable in diluted white glue and let dry before adding the ends. This prevents the thread from unraveling when cut and removes any fuzziness to the cable.

The track jig worked perfectly and produced a perfect fit to the running gear.

Zvezda's SU-100 matched the dimension in my references almost perfectly with the only discrepancy being the height which was about 1/8-inch short.

I spent 16 hours on my SU-100 and it was a refreshing change from the high-part-count kits I've built recently. While it is a quick, easy build, the detail and appearance of the finished model is impressive. Any modeler with a couple of years experience should be able to handle it.

— John Plzak

Special Hobby McDonnell FH-1 Phantom

McDonnell's first production aircraft was also the U.S. Navy's first jet to operate from a carrier, the USS *Franklin D. Roosevelt*, on July 19, 1946. Just 60 Phantoms were made and served for only a few years, but the jet was the starting point for the larger F2H Banshee and a line of Navy fighters that culminated in the famous F-4 Phantom II.

Special Hobby's FH-1 is an all-new kit, not to be mistaken for its MPM ancestor from the 1990s. Fine exterior detail, accurate shapes, and excellent small parts have become the norm with this Czech manufacturer's recent offerings. The color instructions are clearly illustrated with assembly directions and color recommendations. A bonus this time is an excellent Cartograf decal sheet with markings for four Phantoms.

The finely detailed cockpit features a decal instrument panel and photo-etched (PE) seat harness. The cockpit floor serves as the ceiling of the nose gear bay with the addition of fore and aft bulkheads and walls. After adding lead weight to the nose, I installed the cockpit and nose bay but found the subassembly a bit too fat to allow the fuselage halves to close cleanly. I sanded the edges of the bulkheads. The two-part canopy is clear and fits well.

The main-gear bays are five-part affairs that are glued inside the one-part wing bottom. Next come the intake trunks with nice engine front fans.

The trunks are shown glued to the wing bottom and against the inboard walls of the main-gear bays. The tops of the wings installed next, but the intake trunks prevented the fuselage from dropping cleanly onto the wing assembly. I ended up removing the trunks and sanded both the inboard and outboard sides to get them to move over enough and fit the fuselage.

Special Hobby's landing gear parts are beautifully detailed and cast, but shallow holes and short pins at attachment points make assembly of the three-part nose-gear strut difficult. Also, the shallow hole in the nose wheel is too small in diameter for the axle. I drilled a larger hole in the wheel for fit. The main wheels also have shallow square holes to fit short square pins on the main struts. Trust your glue here.

The exhaust pipes did not fit cleanly into the openings in the trailing edge of the wings. Since I installed them after painting, I didn't want to do any major filing of the openings in the painted wings. You may want to refine these areas before painting.

Decals were the highlight of the build. Cartograf really nailed it, with excellent fit and opacity of the bright yellow markings for the "Marine Phantoms" air demonstration team jets. I used Mr. Color Blue Angel yellow on the nose then wing and tail tips to match the decals. The overall gloss is Testors Model Master sea blue.

I spent 31 hours on this small jet, a bit more than usual because of having to refit



Kit: No. 72297 **Scale:** 1/72

Mfg.: Special Hobby,

www.specialhobby.eu **Price:** \$29.99

Comments: Injection-molded, 101 parts (15 PE), decals **Pros:** Accurate shapes; excellent surface detail; finely detailed small parts, good PE; excellent decals

Cons: Attachment pins and holes too fine; intake trunks interfere with fit of fuselage to wing

the wing, fuselage, intake, and trunk assemblies. But I like the way the finished model looks, and it's inspired me to follow up with a few Banshees!

— Paul Boyer





Dora Wings Gee Bee R1

Built for the 1932 racing season by Granville Brothers Aircraft, the Gee Bee R series consisted of two sister ships, the R1 and R2.

Featuring a radical new design, the R1 would go on to win the Thompson Trophy race, and its pilot, Jimmy Doolittle, would also set a land speed record of 296 mph.

The only difference between the R1 and R2 were the engines. A Pratt & Whitney R-1340 powered the R1, while the R2 (which was built for cross-country racing) used the smaller, lighter P&W R-985.

After releasing a 1/48 scale kit of the Gee Bee R2, Dora Wings has now added the R1. The two kits use many of the same parts, including the decal sheet. The R1 kit has a new sprue to accommodate the bigger engine and cowl.

Molded in light gray plastic, the kit fea-

tures finely molded parts, however the treatment of the fabric covered area of the fuselage is overstated. Two clear parts are provided for the canopy — while they are fairly clear, they are too thick. A small photo-etch (PE) fret includes interior details, a support ring for the rear of the cowl, and the flying wires.

A set of vinyl masks is provided to paint the scallop design on the wings and fuselage. The nice looking decal sheet is the same one provided in the R2 kit, having all the markings for both planes. While the instruction booklet is small, it contains clear assembly diagrams and a full four-view painting and decaling instructions.

Once all of the major parts of the cockpit were glued together I used the fuselage halves to make sure all of the bulkheads were aligned.

Once dry, the interior was detailed and painted. A decal is provided for the instrument panel. To be honest, virtually none on the interior is visible once the canopy is in place. You do have the option of opening the side hatch by cutting out the opening and using a separate door to show off more of the interior.

The fuselage halves fit together well but I spent a lot of time working on the lower rear part A6 and the forward vent panel A7. Once I got them to fit, just a little bit of putty and some Mr. Surfacer blended them into the fuselage.

The wings went together quickly. They are thin with good trailing edges. The separate ailerons required careful sanding on the ends for fit. I assembled the cowl but waited to install it until it was painted, bucking the directions.



Kit: No. DW48002 **Scale:** 1/48

Mfg.: Dora Wings, www.dorawings.com

Price: \$44.99 **Comments:** Injection-molded, 76 parts (20 PE), decals, masks

Pros: Excellent decals; nice engine; vinyl painting masks **Cons:** Canopy too thick; heavy rib detail; fiddly PE flying wires





The landing gear was assembled but left it off until final assembly. I found that I got a better fit if I drilled out the location dimples in the wing roots and the landing gear locations with an appropriately sized bit.

Once the wings were glued to the fuselage, gaps were filled with some stretched sprue. After removing excess sprue, Mr. Surfacer was added and sanded smooth. Don't forget to remove the navigation lights from the wings and fuselage, the R1 didn't have them.

The engine parts required a lot of cleanup and at first I wasn't impressed with the detail, but once it was assembled and painted it looked quite nice.

Using Tamiya paint, I primed the body, cowl, and landing gear with a coat of fine white primer. After checking the seams, I sprayed pure white (TS-26). Once that dried, I applied the vinyl masks and painted the red areas with bright red (TS-49). The vinyl masks worked well. I only had issues with where they went over the fuselage's heavy ribbing — these areas had to be re-masked with Tamiya tape, sprayed white, and then hand-painted red.

The thin decals are nicely printed and reacted well to Microscale Micro Set and Sol. Once the decals were dry I gave the painted surfaces a coat of clear (TS-13).

Perhaps the most trying part of assembly was adding the PE flying wires. While they are nice and thin, they curled as soon as I cut them from the fret. I eventually got them in place, but there are a few wobbly ones. If I were to build another Gee Bee I would replace the flying wires.

I spent 44 hours building my Gee Bee R1 — most of that was in parts prep and painting. The finished model matched reference dimensions perfectly.

While glossy airplanes are not my strong suit, I've always loved the Gee Bee. One of my early builds back in the '60s was the Hawk Gee Bee kit. I think this one might have turned out a little better.

— John Plzak



Dora Wings Percival Vega Gull

Dora Wings' multimedia Vega Gull kit features crisp recessed panel lines, a well-done representation of the fabric-covered flying surfaces, and includes a fret of 37 photo-etched (PE) parts plus masks.

Optional parts are given for different versions of the aircraft, but the instructions are vague and chaotic. Some part numbers and illustrations are incorrect, and although the instructions have an "A/B" notation for different versions, there's no clear definition of which is which. There are no paint color callouts or interior color references.

Another problem is the inclusion of parts for Dora Wings' Proctor kit, as the instructions bounce back and forth between its parts and the Gull's.

In spite of that, the fit of parts is generally good, requiring only slight mold-line removal and deepening sockets for the locating pins. The clear cabin enclosure comprises five parts; when assembled, a step between its aft upper edge and the fuselage turtledeck needed building up with putty. The separate control surfaces required a little refining to fit their hinge points and adjacent flying surfaces. The film instrument panel to back up the corresponding PE part was missing from my sample.

The wings have a slightly deeper cross-section than the fuselage wing root extensions. I matched the upper contours and used filler to even up the lower surfaces with the belly. To ease painting, I cut a notch into each main wheel so I could insert them into the finished fairings.

I opted to build the Vega Gull flown by aviatrix Beryl Markham, the first pilot to fly east-to-west across the Atlantic. Basic color illustrations of the kit's four markings

schemes are supplied; I mixed my own turquoise color to match the decals using GSI Creos and Tamiya acrylics, with Testors Aluminum Metalizer for the silver-doped flying surfaces. The decals are terrific — they're thin but tough and are a highpoint of the kit. I ultimately had to rely on online sources to replicate the aircraft's minutia.

This project took me into two areas of modeling I'd never been: 1930s civil aviation, and making plastic look like wood. Due to those hurdles, the many small PE parts, and the vague instructions, my Gull required about 30 hours to build.

The model is true to scale and successfully captures the Gull's jaunty appearance. However, due to the many difficulties, it is best suited for a modeler who either possesses a good knowledge of the subject matter or good references.

— Walt Fink



Kit: No. DW72002 **Scale:** 1/72

Mfg.: Dora Wings, www.dora-wings.com

Price: \$31.99 **Comments:** Type of kit: Injection-molded, 119 parts (37 PE, film), decals, masks **Pros:** Great decals; good recreation of fabric on flying surfaces **Cons:** Vagueness and mistakes in the instructions; no color callouts

Takom Bergepanther Ausf A

Packed inside the box for Takom's Bergepanther Ausf A are 27 sprues of crisply detailed gray parts with terrific detail. A nice rolled metal print is subtle on the hull as is the wood grain on the floor and the walls of the workers tub.

This kit features a full interior with the Maybach engine, the massive winch, and the drivers' compartment.

The 34-page instruction book includes a brief history of the Bergepanther, a parts-tree map, and color images of the interior with paint callouts. The instructions reference Ammo by Mig Jimenez colors which I matched to Tamiya acrylics on my build. I found the instructions difficult to follow in places as the locations of many subassemblies are unclear. Also, the kit features several build options, but those are not matched to the marking choices.

The hull comprises a floor and two side-walls that assemble around the transmission and drivers' compartment. Take care to align the torsion bars so the sides fit properly.

Building the link-and-length tracks was the most frustrating part of the build. If you follow the instructions like I did, the tracks are simply unworkable. The instructions have you install the guide horns on the individual track links, then wrap the links around a jig to shape the runs around the drive sprocket and idler and produce realistic sag in the upper run. After the run is set, it is supposed to be installed over the road wheels already on the hull, a task made almost impossible

because the guide horns interfere with the wheels. I ended up breaking off the guide horns and mounting the tracks over the road wheels. But, that made it almost impossible to correctly install the guide horns. It may be possible to mount the parts in layers, but I recommend replacing the kit tracks with an aftermarket set. The tracks are a letdown on an otherwise great kit.

The 40,000-kilogram winch came next. Running the nylon wire around the numerous spools and gears is a bit tedious and you need to pay attention to the instructions to ensure the cables and wires get strung correctly. The hard work pays off with a very convincing bit of machinery at the end.

Assembly of the detailed Maybach engine was straightforward, but be careful attaching the engine compartment components; if anything is off, the upper hull won't fit over it. Sadly, most of the detail will be hidden unless you open one or more of the engine hatches.

The workers tub will hide the winch, but it can be left loose. The wood grain molded

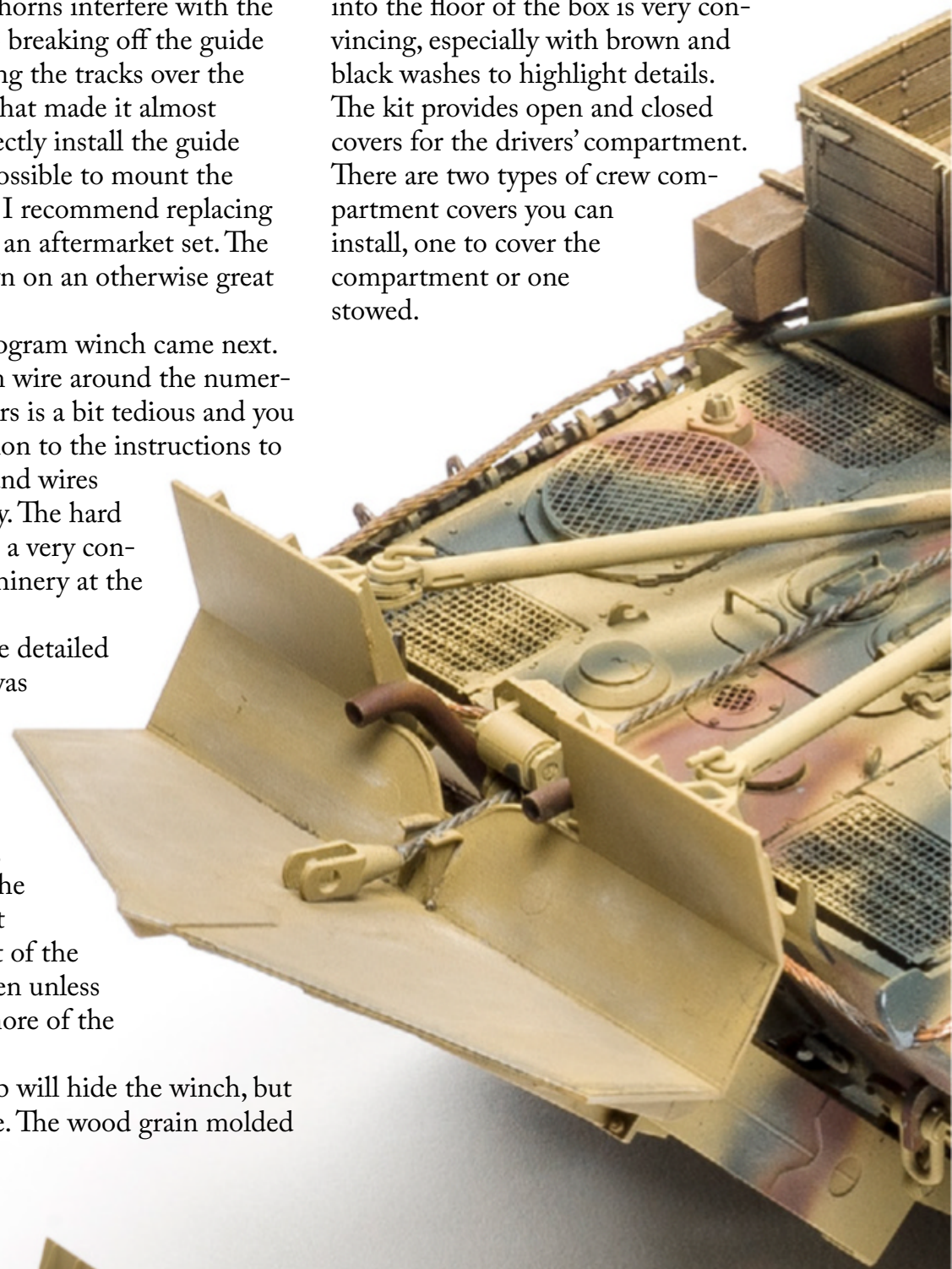
into the floor of the box is very convincing, especially with brown and black washes to highlight details. The kit provides open and closed covers for the drivers' compartment. There are two types of crew compartment covers you can install, one to cover the compartment or one stowed.

The boom can be position stowed or deployed, and the kit provides a choice of brass chain or plastic parts for the rigging.

The few decals went on without issues.

I spent 82 hours building Takom's Bergepanther, far longer than I anticipated. Most of that time was spent on the tracks and trying to get them to fit right. The rest of the project was straightforward and a blast to build. I love the detail this kit offers and I am pretty sure anyone who likes German armor will want to build Takom's Bergepanther.

— Chris Oglesby





Kit: No. 2101 **Scale:** 1/35

Mfg.: Takom, www.takom-world.com

Price: \$75.99 **Comments:** Injection-molded, 1050 parts (7 PE, chain, nylon thread, cable), decals **Pros:** Great detail with full interior and engine; minimal PE; good moldings **Cons:** High part count; paint guide refers to Ammo by Mig Jimenez colors only; confusing instructions; some ejector-pin marks

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March closes December 14, April closes January 15,
May closes February 15, July closes April 19, September
closes June 18, October closes July 19, November closes
August 13, December closes September 18.

COMING EVENTS

CA, CAMARILLO: Modelfest 2019. Sunday, February 24, 2019 from 8:30am-3:00pm. Plastic model contest and swap meet to be held at the Commemorative Air Force Hangar/Southern California Wing. 455 Aviation Drive. Admission \$10 per person. For more information contact Vernon Morseman or Stuart Mackie at 805-658-8138

GA, MARIETTA: 2019 AtlantaCon, Region 3 Regional Model Show. IMAW Local Lodge 709, 1032 South Marietta Parkway. Saturday, March 9th, 2019, 9:00am-5:00pm. Admission \$5.00/ person, 12 and under free. \$10.00 unlimited model entries. For more information go to <http://ipms-atlanta.org> or contact Brian Speer at 770-820-9738 or grandoldguy@gmail.com

COMING EVENTS (CONT.)

IL, WHEATON: 73rd Illinois Plastic Kit & Toy Show. Dupage County Fairgrounds, 2015 W. Manchester Rd., Zip, 60187. February 24, 2019, 9:00am-2:00pm. Adults: \$5.00, under 12, \$2.00. 150 tables available, Buy/Sell/Trade or just browse. Come out and have a great time! Cars, Trucks, Airplanes, Trains/Military, Fire/Police, and Muscle-Cars. All scales, RE-LIVE your childhood memories. Past-Time Hobbies, Inc. 630-969-1847.

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

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By Mark Savage



The Dambusters diorama that Charles donated to the Royal Air Force's No. 617 Squadron and a closeup of the Lancaster about to complete its mission.

One man's journey

Sometimes a build becomes something more, something special beyond all the PE, electronics, and such that goes into a project. That's what happened to retired Army helicopter pilot Lt. Col. Charles M. Schlom once he finished a dynamic diorama. Here's his tale.

My project, my journey, began more than a year ago after I was inspired by a Robert Taylor print of the famous 1943 Dambuster Raid, otherwise known as Operation Chastise.

This raid on May 16-17 was led by the remarkable Guy Gibson and No. 617 Squadron. It would go down as the RAF's most famous bombing mission, breaching two dams and causing massive flooding of the Ruhr River valley in Germany to cripple its manufacturing abilities.

Easily my most complicated build, the modeling work was intense. But after six and a half months, I was finished.

My build consisted of a Hasegawa 1/72 scale Lancaster B.Mk.III, modified to accept four Doyusha electric motors, bomb release altitude lights,

cockpit communications, Merlin engine sound via an MP3 player, Airfix diorama of the Möhne dam, two Zvezda 1/72 scale FlaK 28 guns with crew, Techmod, and Kits-World decals to mark Squadron Leader David Maltby's Lancaster, plus an Airfix pilot and flight engineer.

I was proud of the build, but after displaying it at shows, I began thinking where to keep it. An idea struck me. Why not give it to No. 617 Squadron, based at RAF Marham in England? It was the raid's 75th anniversary.

Then a surprise: The squadron was at Marine Corps Air Station Beaufort, South Carolina, transitioning to the F-35B. Thus, my adventure began!

A call to the airbase hooked

me up with the unit, including a young fighter pilot, call sign "Goffey," who emailed that he would gladly accept the diorama on behalf of the squadron. He also was the squadron's memorabilia officer. I certainly had reached the right man!

While the RAF would pay packing and shipping costs from Chicago to Beaufort, I was worried for the diorama's delivery, fearing it would arrive in pieces. So, I made arrangements to stay with an old college buddy, Mark Bonner, in North Carolina, six hours from Beaufort. After an overnight we pointed his Chevy pickup, the display secured in the back seat, southeast to the airbase.

Goffey met us, took us to lunch at the base's officers' club, and introduced us to the extraordinary young men from No. 617 Squadron and the Royal Navy's Fleet Air Arm who were just completing a year's training on the F-35B. They happily accepted the

diorama, and Goffey told us it would be placed in the 617's new museum of the squadron's history. I couldn't be happier.

Added bonus: We received a great tour of an F-35.

Afterward it occurred to me that this is why I build models, not so much for my enjoyment, but the enjoyment of others.

All in all, a very special day. My thanks to all! **FSM**



Charles also got a tour of the new F-35B while visiting with the RAF pilots. Here he stands with Goffey, right, and L-C, left, with the jet the pilots have been training on for a year. The RAF prefers their pilots only be identified by their call signs for security reasons, thus no full names here.



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