

Detail a Cold War-era missile launcher >

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October 2019

Modeler



p. 36

Amp up an old kit!

Fix inaccurate details, add panel lines to a Wildcat



+ Form & Figure: Unnatural colors make peepers pop p. 14

James Green shows how you can spiff up this old Monogram Wildcat – p. 18

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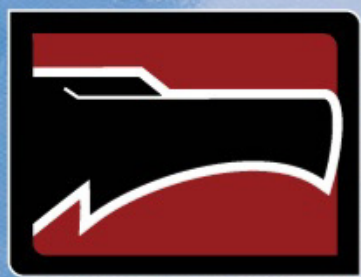
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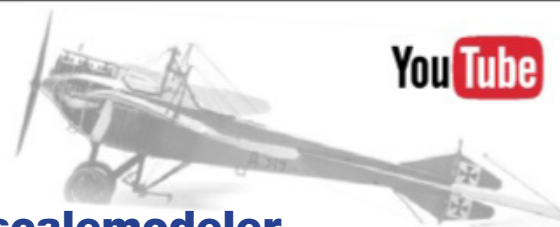
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By Mark Savage

Expanded how-to + great photo galleries

Sometimes one of our how-to stories commands a bit more attention as the detail is so fine and the information so good that we simply must pump up the page count.

That's the case with James Green's story this issue where he finishes and drastically improves a classic old Monogram Wildcat kit.

Originally, this kit was released in 1961 and is woefully short on detail while also featuring major raised panel lines. James corrects a number of inaccuracies, while adding missing panel lines, enhancing cockpit detail and he does it all in creating a handsome wheels-up version of this popular U.S. Navy fighter.

We hope you get some useful tips from James' Wildcat build.

Speaking of detail, we also wrap up Ron Poniatowski's great how-to series on building America's first tank. Part 2 delves into updating the suspension, turret, and then painting

the Takom Renault FT to look like the U.S. version.

There's a lot more this issue, including a helicopter diorama, rocket launcher, and Beachcraft build.

But wait, there's more! We love taking photos of inspirational builds at major modeling shows each year.

This issue we run a gallery from the Armor Modeling and Preservation Society's annual convention.

We posted a battalion of photos on our Facebook page while at the show, now we roll out some of the best images we took, with the promise of even more in our fall Special Issue, *Great Scale Modeling*. A quick commercial here, you can pre-order *GSM* at KalmbachHobbyStore.com right now. You'll be seeing images

from EagleQuest, WonderFest, and the national IPMS show in future issues, along with many more in *GSM* this November.

Congrats to all the fantastic builders out there who display their talents at these great shows.



editor@FineScale.com



Off the sprue: The furthest you've been from home?

For some, getting away means going to the beach, mountains, a campground, or maybe even a modeling show. All travel is good, right?



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Went to the Nuremberg International Toy Fair in Germany years ago and spent a couple extra days exploring gorgeous castles and cathedrals near Munich, plus a few car museums. Travel, I feel, is as vital to the soul as eating is to the body!

Depends on what I call home. If I say Australia, where I grew up, then I would say Milwaukee is pretty far. If I say Milwaukee, then maybe Iraq. If I say Earth, then nowhere at all.

4,779 miles from Kalmbach Media is Budapest, Hungary, which I've been lucky enough to visit twice. No tourists, history on every corner, amazing street food, centuries old bathhouses, and insane nightlife. Highly recommend for any traveler wanting to visit a less well-known city.

Acapulco Mexico. In my early 20s I had a friend who was a travel agent. Back then they got fantastic deals and freebies on everything from airfare to cocktails. Initially we planned for a 7-day vacation. Let's just say that a lot of things and events went in our favor on that trip and we ended up coming home 21 days later.

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The two photos at left show the real downed Phantom, while the photo at right shows Joe's clever diorama based on the scene.

Damaged Phantom diorama

You asked for diorama build photos: This is my decades-old 1/48 scale Iranian F-4E diorama. Using the news photo (left) I started building this in early 1981 using Monogram's Phantom II (No. 5800). It wasn't until progress had been made that the (center) news photo of the nose appeared. I removed the nose from an Esci F-4E Phantom II (No. C-4041U) for my diorama.

The figure comes from a Monogram Devastator; I reworked it with putty. The fuselage edges were thinned and I used foil from wine bottles for the crumpled aircraft skin. I created concrete panels with a hobby knife cutting into artist mat board, then air-brushed the color and stains.

— Joe Nottingham, Beaumont, Calif.

Learning at shows

I recently went to a local model show, and brought along several completed pieces, 12 entries in all. The show was in an aircraft museum so along with the vendors and models, we had the benefit of seeing actual subjects; some of which participated in combat during World War II.

While I had hoped to place better than I did, I found one of the best rewards was having other modelers ask questions, take photos, and give praise for almost all of my pieces. I gained a friend with similar sci-fi modeling interests, and we have exchanged web contact information.

An interesting thing happened at the end of the show. A fellow was taking a lot of photos of my models as I was collecting them. He discussed them with me, then confessed to being one of the judges of some of the categories I had entered.

I asked for some feedback, if he didn't mind. He gave me some excellent pointers that I will use toward my next builds. My last model to collect was a fighter from the sci-fi TV show, *Macross*. I asked if he was familiar with Hasegawa's YF-19. He said, "No."

So, I showed him my model and all of the modifications I had made to make it look completely different from one I had completed a couple years earlier. (As a side note, I have a twin brother, and we both like the model, and have twice held a personal competition with the kit).

The judge said he was unaware of all that had gone into the model, because my entry form that listed everything was covered by my model. He said the judging team was trying not to disturb any models and therefore did not pull out the form to read the notes, which he confessed to

regretting since he was unfamiliar with the kit. He had considered the model to have been built out-of-the-box. It may or may not have changed the outcome.

Please understand that I am not complaining on this point, I got my reward just then. I want to express that my reward was in the praise and appreciation I personally received, rather than public accolades.

Sadly, I never caught this fellow's name, but with similar interests he too would have been a good person to connect with on the web.

I like to model for the wow factor and have included photos of each of the YF-19 models (below) that I've completed ... so far! The tan one more closely reflects the actual kit, with the addition of ordnance.

— Jonathan Botting
Alliston, Ontario, Canada



Jonathan shows us two renditions of his *Macross* YF-19, the tan model being closest to an out-of-the-box build. But he's always making improvements, hence the darker YF-19.

It's not just 'another one of those'

In early 2018, at age 26, I took up modeling again after a couple of years break due to college. For a couple of months now, I've been subscribing to *FineScale Modeler* and enjoy reading every bit, and, of course, learning a lot from it. Many thanks for that!

My main subjects are WWII airplanes, and the Messerschmitt 109 and Supermarine Spitfire are my absolute favorites. So, I have many kits of those planes. And I think a lot of modelers with a certain favorite subject will recognize the question we often get from friends, family, or partners: "Not another one of those ... don't you have enough of them?"

For me, the answer is simple: No!

I have dozens of 109s and Spits waiting

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Reviewer Andy Keyes dishes up this delicious Airfix Bristol Blenheim in a review on p. 54, but you can download this snazzy shot as a wallpaper for your computer.

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Find dozens of computer backgrounds of cool military and sci-fi models that you can download for free. Time to give your monitor 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.

to be assembled, and there are many more to come, because for me it's also about the history behind them. When I look at my display or stash, I don't see similar planes — not even when they feature the same camo. I see replicas, each representing a unique airplane, with a unique history and a unique pilot. Diving into that history is part of the fun! I think many can relate.

— *Herman Keizer*

Hoogland, The Netherlands

Ship finishing suggestion

Having been a subscriber to *FSM* for many years, I often read where ship modelers will finish their masterpieces with Testors Dullcote, or some other dull finish. As a former fleet sailor, I think that isn't realistic. A ship at sea, for even a minimum amount of time, will eventually be coated in a fine film of sea salt. All areas of the weather deck, superstructure and hull will glisten with dried salt, and appear somewhat shiny.

In fact, before painting, all surfaces will have to be washed down with fresh water to allow the paint to stick; often, varnish will be added to the haze and deck gray to make it shine. So, when finished with a sea-going vessel I apply a thin coat of clear satin to the entire ship to replicate this "shine."

— *Douglas Bauer*

Albany, Ore.

More thoughts on the A-4

Regarding the letter, "A few thoughts on the A-4," by Greg Qualtieri in the May

2019 issue. I was a west coast A-4 Skyhawk captain and instructor with VA-125 in 1968. VA-125 was one of the squadrons responsible for training pilots and mechanics deploying to Vietnam.

The canopies on the A-4s that I was responsible for were only closed when on the wash rack or when being polished. The "normal canopy release" handle was located on the port side, just below and forward of the Emergency Canopy Jettison Door that held the jettison handle and its lanyard.

As to underwater "egress" NAVWEPS 01-40AVA-1 section I, page 39 describes the use of the Underwater Canopy-Jettison Relief Valve as a last resort for canopy removal, and refers you to Section III, where on page 73 it only talks about using your revolver or knife in the event that the Canopy-Harness Release Handle or Canopy Jettison Handle fail, as the canopy was to be GONE before you hit the water. Those handles were to be used to release you from your seat, once you came to rest in the water.

Nice job Darren (Roberts), especially the slats. No manufacturer has got them right yet. I thought Trumpeter would have gotten that right, but it was not to be. Just one more thing to fix. Great magazine!

— *Friedrich Zachmann*
Sterling Heights, Mich.

Gravity diorama lands hard

I'm a little late to this party, but here is a space exploration themed diorama. The title

Reader tips

Decant spray paint

Sometimes there are only certain colors of paint available in spray cans, so how do you transfer the contents of the rattle can, so that it can be used in an airbrush, with little to no mess? I found a technique that seems to solve this issue.

Parts needed: Can of spray paint, transfer straw (from WD40, compressed air, etc.), paint pipette, and paint catch bottle.

Here are my steps:

1. Remove the spray valve (red) assembly from the paint can.
2. Remove the spray nozzle (white) from the valve.
3. Insert a transfer straw (from WD40, compressed air, etc.) into nozzle open-



ing. Super glue in place, if needed.

4. Cut round end off pipette, and insert straw into narrow end of pipette.

Next it's time to transfer the paint.

1. Shake rattle can for the time required to fully mix the paint.
2. Insert modified valve assembly back onto top of spray can, but be sure not to depress the valve yet.
3. Place open end of pipette into paint catch

bottle, about three-quarters of the way down from the top of the jar.

4. Depress the valve to start the paint transfer.

5. Monitor the amount of paint being transferred, because propellant also is being released with the paint.

Once the paint and propellant settle, you may use the paint as is, in your airbrush.

I also recommend separating and cleaning the parts right away, so you'll be ready for your next paint transfer.

– Ken Meyer
Colorado Springs, Colo.

Emery board use

I've found a great use for

broken emery boards. I just came across an old 1/32 scale Airfix Morris Cowley that I thought would be great for a post-WWI airplane diorama for my upcoming Camel. But, surprise, there was flash between the spokes of the wheels and the steering wheel.

After worrying about the problem for a while I thought of the broken emery boards I had lying around and, with two or four swipes of a sharp knife I made some fine, pointed emery files.

These fit the tiny spaces perfectly.

– Mike Ballantyne
Central Saanich,
British Columbia, Canada

is "Gravity Wins Again." It represents a typical Soyuz capsule landing, sometimes termed a "dust-down" as opposed to a "splashdown."

The diorama is in 1/48 scale, and uses the NewWare resin Soyuz capsule as the main feature, built with few modifications. All the figures are from a Hasegawa USAF ground crew set, heavily modified to get the required body positions. The two cosmonaut figures are from the NewWare kit. These started as identical figures in a standing position and had to be heavily modified to get the results seen here.

– Mike Mackowski
Gilbert, Ariz.



Mike Mackowski created this clever diorama of a Soyuz "dust-down."




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1/48 SCALE



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Bf 108 from Eduard, No. 8479, \$24.95. Weekend Edition.

1/72 SCALE



RWD-8 DWL in Palestine (Israeli Service) from IBG Models, No. 72527, \$12.20.



MiG-17 "Fresco" from Zvezda, No. 7318, \$18.99. **WBR**



F6F-3 from Eduard, No. 7074, \$24.95. ProfiPack. Includes photo-etched details and masks.



PZL. 37 A bis Łoś – Polish Bomber Plane from IBG Models, No. 72512, \$21.75.

Workbench Reviews

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

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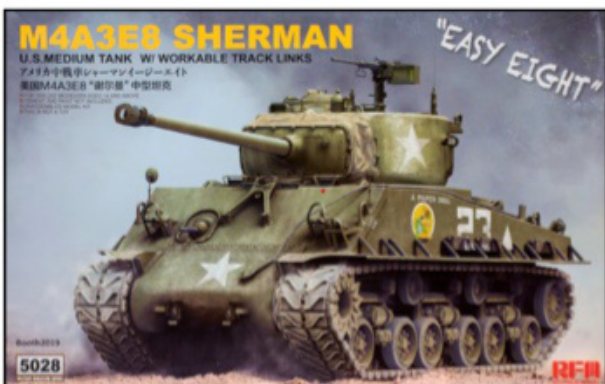
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1/72 SCALE



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1/35 SCALE



German staff car Type 82E from Rye Field Model, No. 5023, \$27.50. Includes full interior. **WBR**

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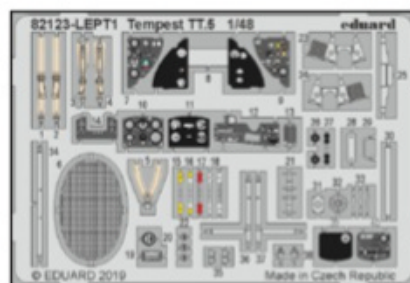


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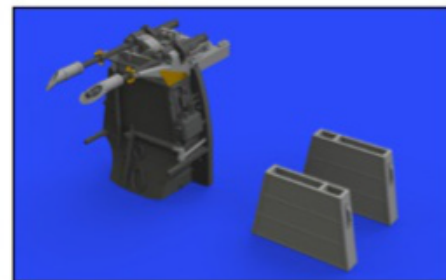
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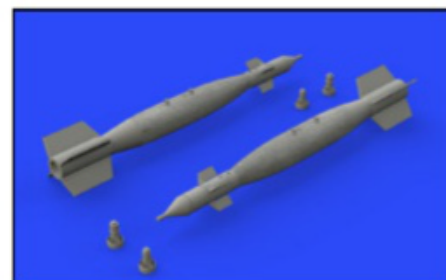
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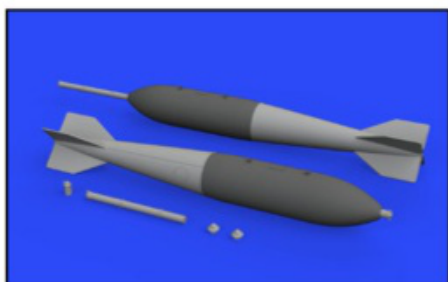


SUU-7 dispenser from Eduard, No. 648477, \$14.95.

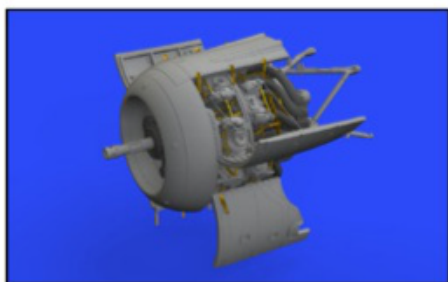
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AK Interactive WW2 U.S. Aircraft Interior Colors Paint Set, No. 85049, \$24.99. For more products visit <https://kalmbachhobbystore.com/>

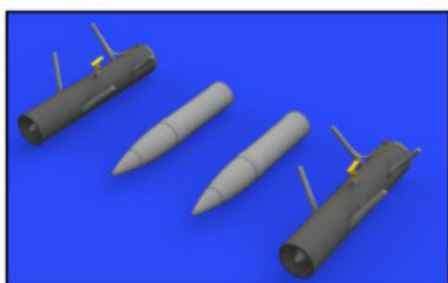




M 118 bomb from Eduard, No. 648481, \$19.95.

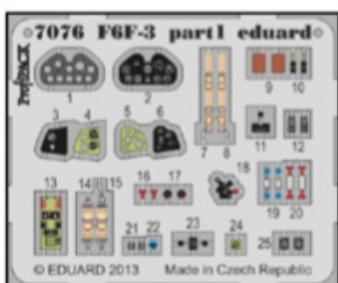


Fw 190A-8/ R2 engine from Eduard, No. 648482, \$39.95.



WGr.21 for Fw 190A from Eduard, No. 648483, \$14.95.

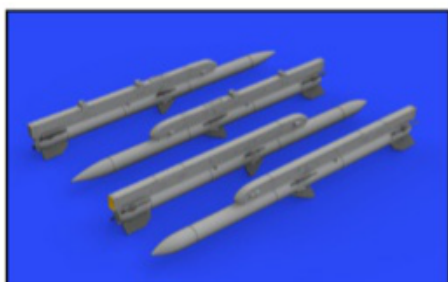
1/72 SCALE



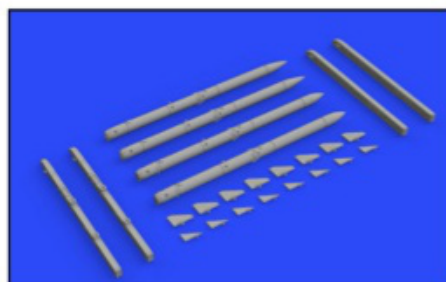
F6F-3 from Eduard, No. 7076, \$12.95.



F6F-3 from Eduard, No. 7074-LEPT1, \$9.95.



AIM-120C AMRAAM from Eduard, No. 672219, \$12.95.



AIM-120A/ B AMRAAM from Eduard, No. 672220, \$12.95.

ARMOR DETAILS

1/35 SCALE



Panzerfaust 60 from Eduard, No. 635016, \$14.95.

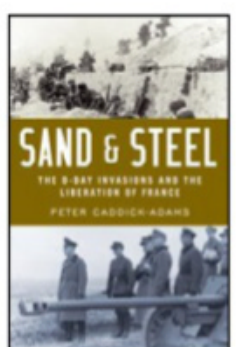
BOOKS



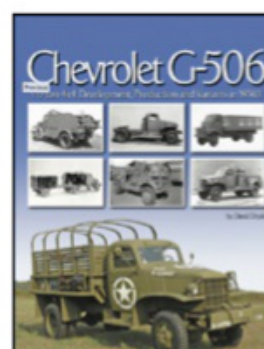
WWII in the Desert (Painting Wargaming Figures), \$22.95, by Andy Singleton, soft cover, 157 pages, all color photos, ISBN: 1526716313. From Pen & Sword Books Limited.



StuG III & IV —German Army, Waffen-SS and Luftwaffe Western Front, 1944-1945, \$22.95, by Dennis Oliver, soft cover, 64 pages, color photos and renderings, few B/W photos, ISBN: 1526755866 Tank Craft. From Pen & Sword Books Limited.



Sand & Steel — The D-Day Invasion and the Liberation of France, \$34.95, by Peter Caddick-Adams, hard cover, 1072 pages, few B/W photos, ISBN: 978-0-19-060189-8. From Pen & Sword Books Limited.



Chevrolet G-506 1½-ton 4x4 — Development, Production and Variants in WWII, \$89, by David Doyle, hard cover, 448 pages, B/W photos, ISBN: 978-0-93-824206-2. From Portrayal Press.

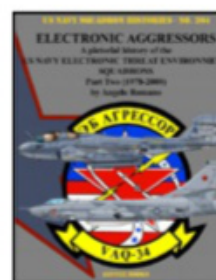


Scale Model Handbook Ancient Warriors, \$28.11, soft cover, 82 pages, all color photos, ISSN: 2653-8636. From Mr. Black Publications.



Specialty Press.

Electronic Aggressors: Part One 1949-1977 (Navy Electronic Threat Environment Squadrons), \$54.95, No. 580, soft cover, 218 pages, 648 color, B/W photos and charts, ISBN: 978-0-99-682580-1. From



From Specialty Press.

Electronic Aggressors: Part Two 1978-2000 (Navy Electronic Threat Environment Squadrons), \$54.95, soft cover, 218 pages, 604 color, B/W photos and charts, ISBN: 978-0-99-682588-7.



A-26/B-26 Invader in Action, \$19.95, soft cover, 80 pages, color photos, ISBN: 9780897478182. From Specialty Press.



Scale Model Handbook, Figure Modeling 24, \$19.95, soft cover, 52 pages, all color photos, ISSN: 2241-1054. From Mr. Black Publications.

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The doctor will see you now



Want to paint your own creepy Joker? Find the same one, sculpted by Dennis Zarnowski for Savage Forged Minis, at savageforgedminis.com.

Unnatural colors make this surgeon's peepers even more manic

This month is the perfect time to break out your creepiest of figures. In my case, it was this hideously beautiful bust of the Joker at about 1/20 scale or 50mm tall. It comes in four parts: the body with the head, two arms, and the hands that are molded together. All are cast in crisp gray resin.

To paint him, I used my new brushes from ZEM Brush (zembrush.com). They are well constructed and affordable — highly recommend.

I primed with my usual Tamiya sky gray (XF-19). The face's base is Vallejo deck tan (70.986) mixed with Nocturna purple shadow (74.011).

More at www.FineScale.com

Go online to see how Joe prepped the figure and painted his outfit: www.FineScale.com/TheJoker



1 To the face's base color I mixed Andrea's 1st shadow from its black set and blocked in the darker areas. I kept this mix on hand to later add to the eyes and other deep areas.



2 Eyes were painted Vallejo light flesh (70.928). Facial highlights are thin coats of the base color mixed with deck tan. Andrea green blocked off the hair before ...



3 ... filling in the pupils. I had the Joker looking left, locked on to his next victim. I mixed light flesh with the green to define the arched eyebrows.



4 The same light green painted the center of each pupil. Many layers of colors on eyes give them a realistic 3D effect.



5 To give the surgeon an unhinged look, I added glazes of red with Scale 75 fuchsia (SC-34).



6 The red glazes are heavier in the corners of the eye and gradually disappear moving closer to the pupil.



7 Fuchsia colored the lips. I can't image that the Joker takes oral hygiene seriously so I painted his teeth with a yellowing base of Vallejo dark sand (70.847).



8 Highlighted areas include the nose, chin, and apples of the cheeks. I like to layer my highlights to keep the 3D appearance going. The base is a mix of deck tan and Vallejo Panzer Aces white (70.344).



9 A mix of more Panzer Aces white and Vallejo off-white (70.820) is brushed over a slightly smaller area on top of the base highlight. Pure off-white adds the brightest points.



10 Thin glazes of brown Panel Line Accent Color from Tamiya cover the teeth. Once dry, I lightly touched each tooth with dark sand. Those are ugly choppers!



11 A very thin glaze of Vallejo violet red (70.812) added eyeshadow. I extended the red lips up to his dimples. The hair tendrils were defined with highlights of light green and shadows of black.



12 Lastly, a few more shadows around the cheeks increased the size of his grin. Now he looks certifiable! **FSM**

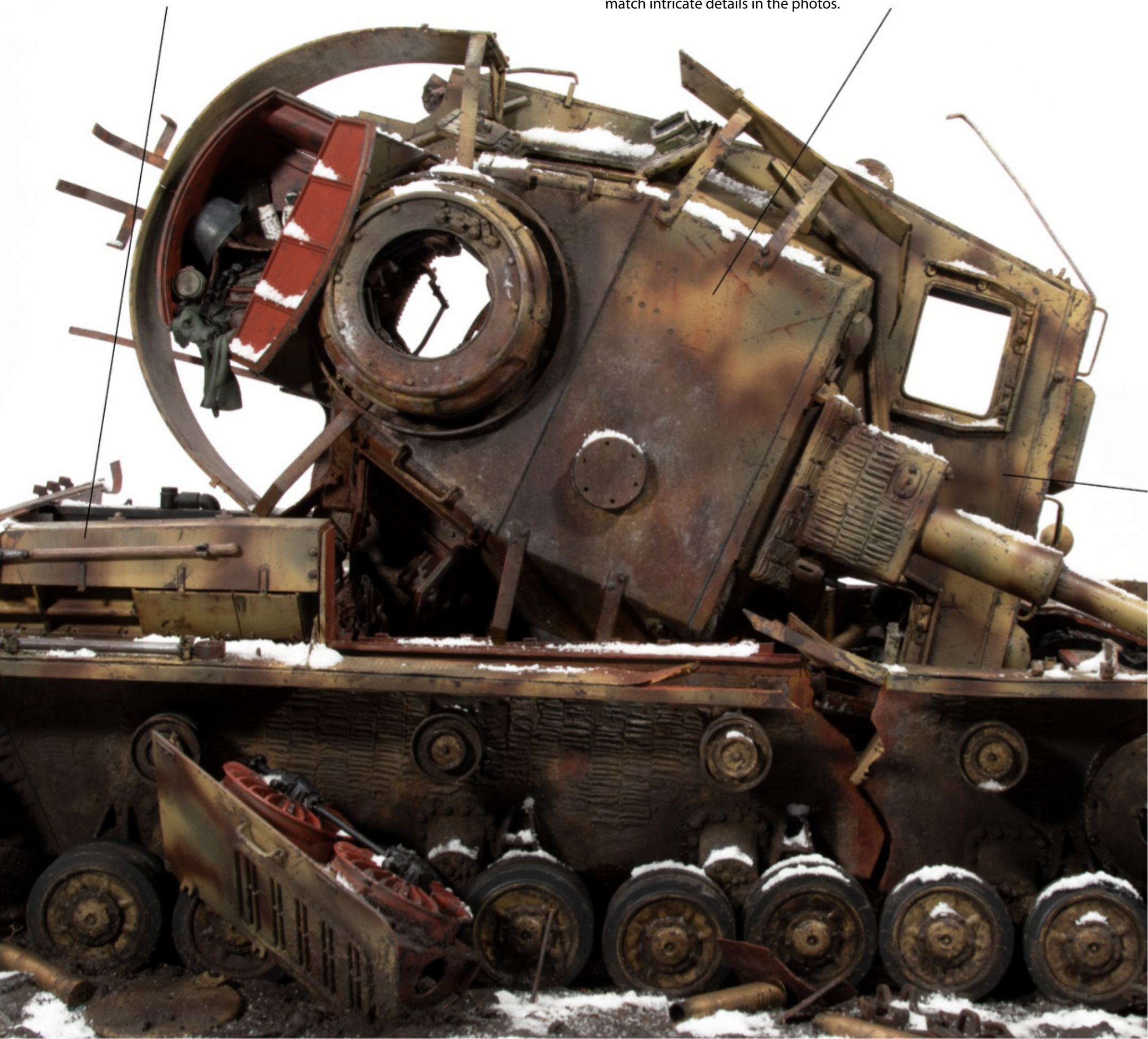
By Aaron Skinner

Painting massive destruction

Modeler fires his creativity with layers of acrylics, oils, and pigments

Engine: The engine was completely wrong. "I did my best to get it as close as possible but did not get too discouraged as most of it is concealed," Dustin says. "Once I was happy with the construction, composure, and overall appearance, I was confident in my ability to keep pressing forward with the project. Taking a break for a day or two helps clear my mind so it was not overwhelming." After painting the engine with gray base, he weathered it with Ammo fuel stains (AMIG1409), engine grime (AMIG1407), and fresh engine oil (AMIG1408) along with soot pigment for a grimy worn-out appearance.

The kit: Dustin based his scene around Trumpeter's 1/16 scale PzKpfw IV Ausf H (No. 00920), a kit he describes as basic and lacking detail. But, combined with plenty of scratchbuilding, it provided the perfect foundation for his wrecked tank. Using photos from *Panzerwrecks No. 5* (ISBN 978-0-9555940-1-4), he got up the courage to start cutting and removing plastic from the kit parts. Turning to the interior parts, he built wrecked pieces — as opposed to building them and tearing them apart — with strip styrene and bits and pieces from his "scratchbuilding drawer." Dry-fitting many times over consumed a lot of time as he attempted to match intricate details in the photos.



Besides the physical deconstruction necessary to model a destroyed vehicle, much work needs to be done with painting and weathering to replicate the effects of fires and explosions. Such was the case when Dustin Dias of Wellsburg, West Virginia, spent eight months replicating a disemboweled Panzer IV photographed north of Bastogne during the Battle of the Bulge.

Once the parts were primed, Dustin began painting with Ammo by Mig Jimenez acrylics mixed with Ammo thinner. He used an Iwata Eclipse-HP-BCS powered by a mini compressor with tank. "I find that compressors with tanks tend to be more forgiving because they allow continuous air flow without jittering," he says.

After painting the inside of the hull, engine bay, and components with rotbraun (AMIG0014), crèmeweiss (AMIG0017), gray base (AMIG0908), or satin black (AMIG0032) — masking putty protected each layer — Dustin weathered with chipping (AMIG0044) and rust tracks (AMIG0034) applied with a bit of sponge and a fine brush. Heavier chips in the turret and engine compartment mark tool use and the scraping of muddy boots. He followed with pinwashes to emphasize details as well as filters, including thin rust tracks to soften the off-white.

Now he was ready to "torch" the interior with Winsor & Newton artist oils and Ammo pigments. First, he flicked a slightly thin mix of burnt umber and burnt sienna oils onto the areas of greatest burn damage,

the center of the lower hull and part of the turret that sits inside the race. After letting this layer dry a few hours, he repeated the process after adding different pigments to the mixture, including medium rust (AMIG3005), track rust (AMIG3008), and light rust (AMIG3006). The next day, while the oils were tacky, but not wet, he applied dry pigments to further vary the shades.

After another 24 hours, burnt sienna, ivory black, and titanium white artist oils were lightly flicked on to simulate ash and soot of the once-painted surfaces.

Once the oils were dry, Dustin misted on light rust (AMIG0039) over the burned areas to show a hint of fresh rust.

Before masking the interior with tape and plastic bags, he installed and plumbed the painted and weathered engine.

Next, he sprayed the exterior with dunkelgelb (AMIG0010) mixed with a few drops of Ultra Matt Lucky Varnish (AMIG2050). Olivgrun (AMIG0002) and schokobraun (AMIG0015), both mixed with matt varnish and airbrushed freehand to finish the camouflage.

Weathering followed a similar path to the interior, starting with chipping applied by sponge and a fine brush. After adding a filter of thin US modern vehicles wash (AMIG1007) and a darker pinwash, Dustin brushed on rust streaks of burnt sienna artist oil applied to chips and pulled down the surface with a thinner-damp brush.

To finish the burn damage, he used the same colors and techniques as he had used

inside, limiting the damage to the center of the tank. His final steps were an application of titanium white artist oils for ashy burned paint followed by a dusting of Ammo satin black to show smoke and ash. Testors Dullcote sealed the layers. **FSM**

Meet Dustin Dias

"My modeling experience goes back to when I was a kid. My father always had model car kits around the house," Dustin says. "I remember how detailed they



were compared to my toys." Dustin built car and truck models too, but lost interest when he started driving and teen activities and jobs took precedence. Poring over *Great Scale Modeling 2006*, rekindled his modeling fire. "I was most impressed with the armor, especially the wrecks!" he says. "I bought a model tank and a few supplies to get me started and have never looked back." Settled in his career, he enjoys spending time with his family and at the workbench. "I only hope that someday, someone will pick up a magazine with my work in it and be completely inspired like I was," he says.

Primer: "Due to the many different textures and materials used in the construction, primer was a must!" says Dustin. But he primes all of his projects to avoid headaches later. On the Panzer IV, he used Ammo by Mig Jimenez One Shot Primer, which sprays perfectly flat and smooth straight from the bottle at 10-15 psi.

Groundwork: Dustin grounded the diorama by painting Muddy Ground (A.MIG-2105) from Ammo's Acrylic Mud for Diorama collection over foam board. After texturing it with a 2-inch brush, he sprinkled on filtered topsoil, placed strands of weeds and shrubs from his yard, and then pressed the model and debris into the still-wet material. Once the groundwork dried, he brushed on lightly shaded pigments to highlight textures.

Snow: To place the scene in winter, Dustin applied Woodland Scenics soft flake (SN140) with a fine-tip applicator using Pledge Floor Gloss (PFG) to fix the powder. To build up thin layers of snow on the base and tank, he brushed on PFG, added a mix of the snowflakes and water, working it into position with a brush. A little more PFG followed, but Dustin worked carefully to avoid flooding the areas, especially on the model. The base areas received a sprinkling of dry powder. Then he sealed everything with Testors Dullcote.

Amp up that old kit



Determined not to let Monogram's classic, slightly clunky Wildcat get the better of him, James turned a sow's ear into a silk purse with some needed updates and detailed paneling.

Correct details and add missing panel lines to Monogram's 1/48 scale Wildcat

BY JAMES GREEN

Many of us have older kits in our stash that we haven't built simply because there is always a newer, better engineered kit of the same subject available that is far easier to build. But I contend that there is still a lot of modeling satisfaction to be had in that old plastic!

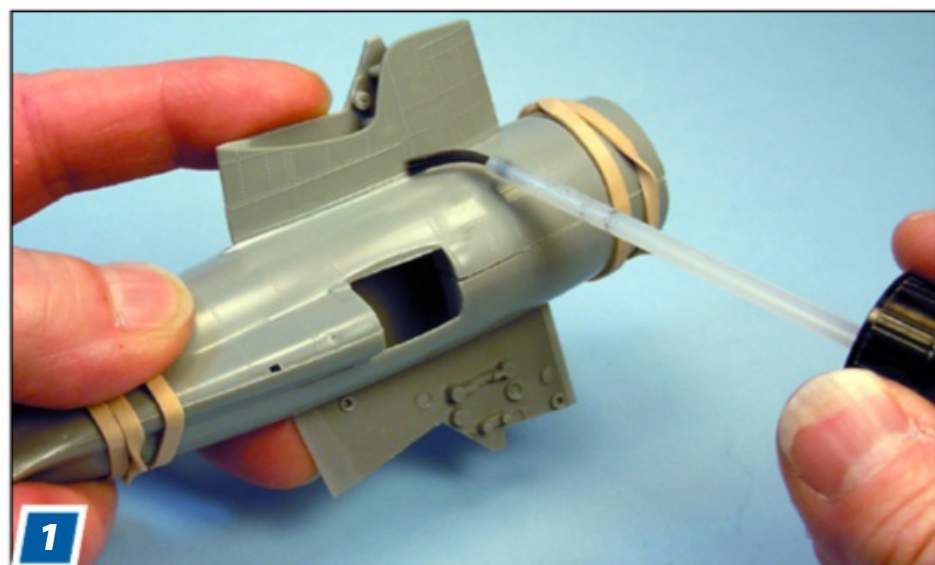
Take Monogram's "authentic quarter-inch-scale" Wildcat, first released in 1961: Its outline

and shape are correct, but it lacks detail and has heavy, raised panel lines and rivets covering it that lack scale fidelity. It also suffers from the toy-like working features such as the folding wings and rolling wheels. And other than a pilot and instrument panel decal, there is no cockpit interior to speak of.

So, to take advantage of this old kit's strengths, I decided to

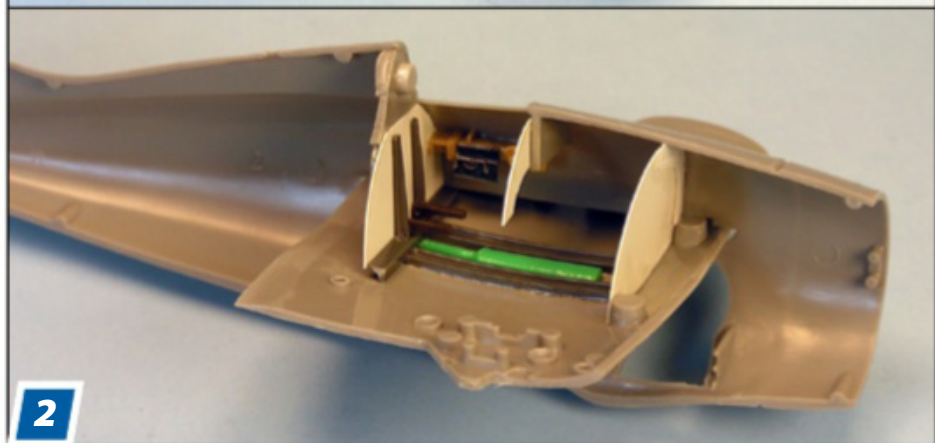
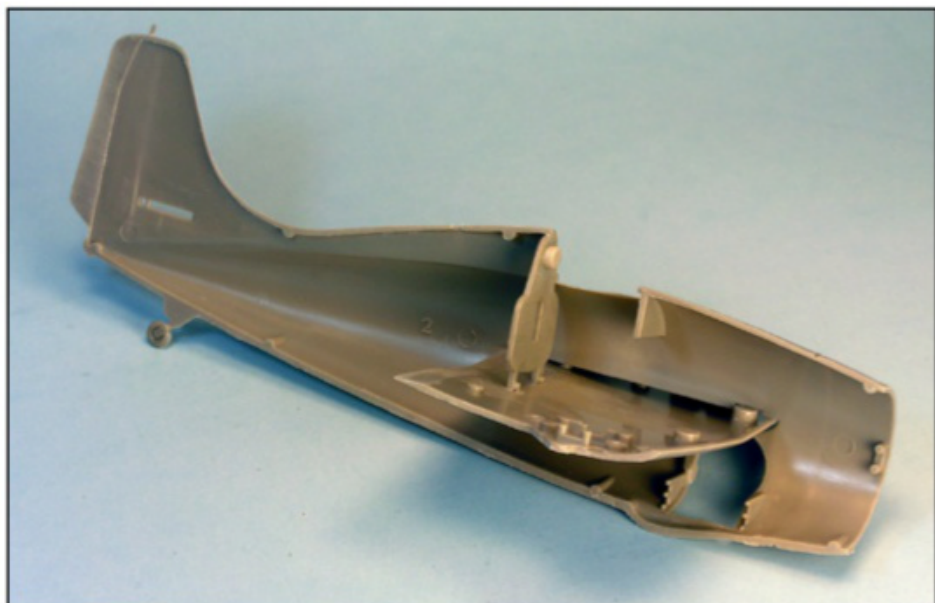
More at www.FineScale.com

Go online to see how James painted his Wildcat: **www.FineScale.com/Monogram-Wildcat**



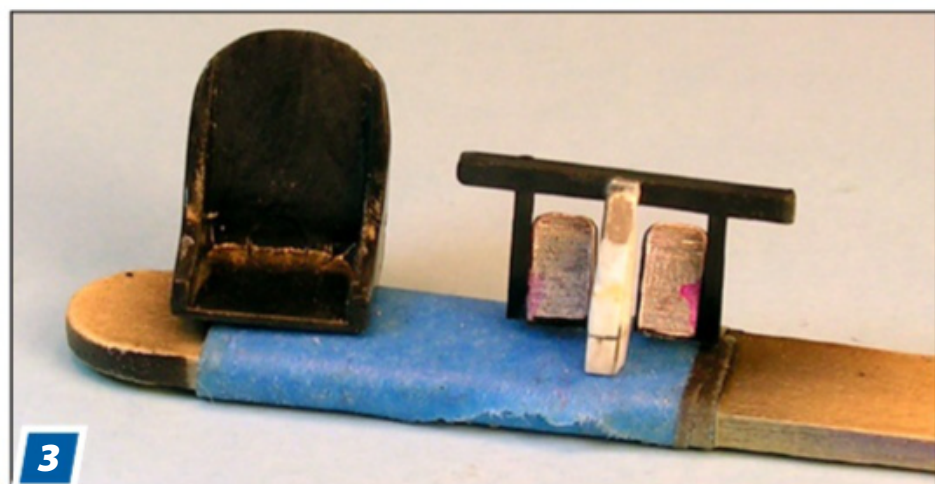
1

To position the wing center section, I temporarily connected the fuselages halves. Here, I discovered that the wing openings were too large and would have to be filled with shims later. In the meantime, I secured the wing center section to the left fuselage with weld cement.



2

I removed the right fuselage half to glue the panel to the left fuselage, insuring that it securely "jigged" the wing to the fuselage half. I cobbled together a basic Wildcat cockpit interior made of styrene sheet, spare parts, Plastruct angles, and channel stock.



3

Then I re-shaped a spare seat with emery boards and files. The rudder pedals were made from scrap plastic, HO scale fencing, and spare parts.

build it in a wheels-up in-flight display, seating the kit's pilot figure in a basic cockpit.

I would paint it as an FM-1 built by the Eastern Aircraft division of General Motors and adorn it in the Atlantic scheme used by antisubmarine escort carrier groups. (You can read about the painting process online.) After painting, I drew each and every panel line on the exterior to replace the raised surface detail.

While taking this modeling journey I had to improvise a bit from my original plan due to unforeseeable problems, but, I still managed to achieve a desirable result with this classic kit!



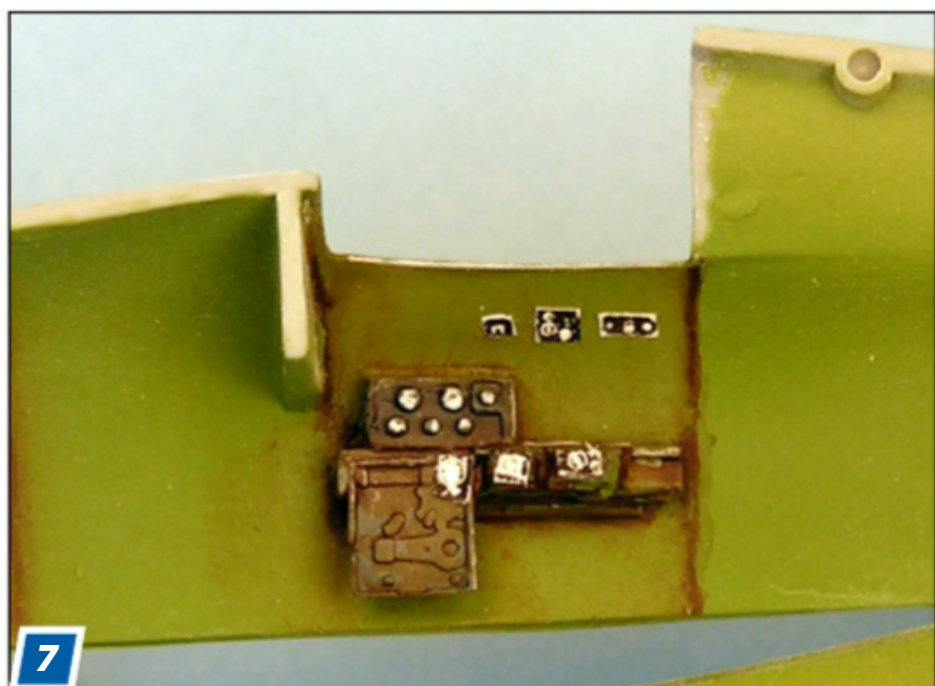
4 To add color, I base-coated the cockpit British interior green followed with a dry-brushing of chromate green. A paper instrument panel made by scanning a spare decal sheet was applied with white glue.



5 A segment of hardwood foot molding was applied under the floor using 5-minute epoxy. This provided a firm mount inside the fuselage to accept brass tubing for my in-flight display rod.



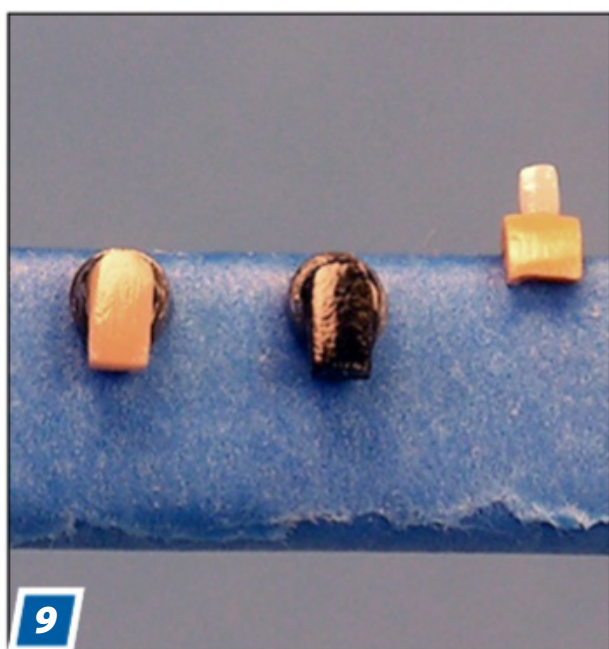
6 The inaccurate square headrest was replaced with a round one cut from sprue. A silver Prismacolor pencil added wear to the floor scuff plates, consoles, and seat. This was sealed with Testors Dullcote. Then I secured both the pilot and pedals, ensuring the feet connected with the pedals.



7 I weathered with watercolors before applying scanned placards and dials with white glue. Now I had an interior that, while not highly detailed, would look convincing enough when seen through the canopy. I then joined the fuselage halves.



8 Monogram molded the radial engine face with the cowling. It featured crisply molded cylinders, but lacked intercooler intakes, so I scratchbuilt them at 4- and 8-o'clock positions with styrene.



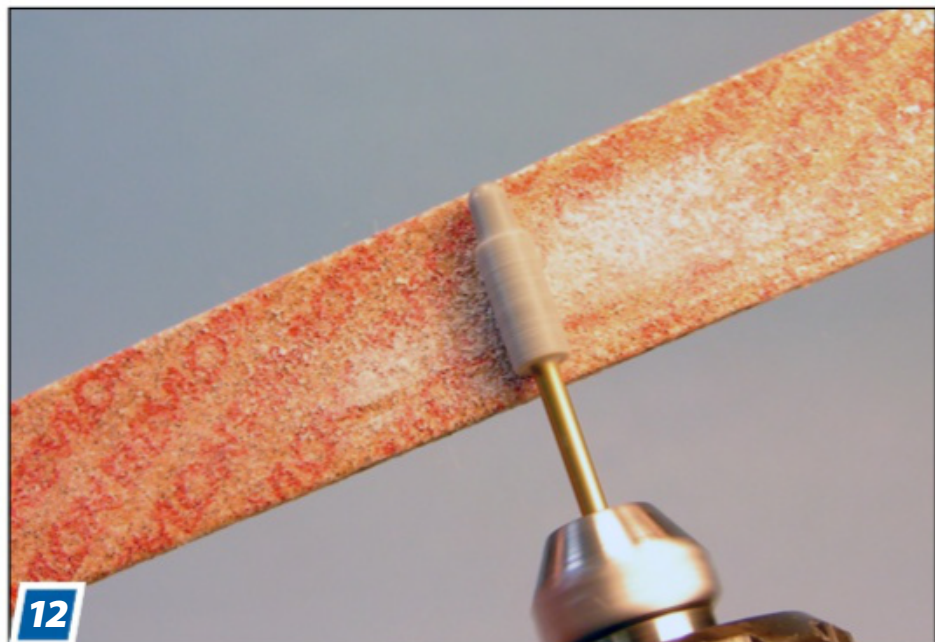
9 It also lacks the magnetos and propeller governor housing on the crankcase, so I cobbled up reasonable facsimiles from spare parts and set them aside to add to the model after painting and weathering the engine cylinders.



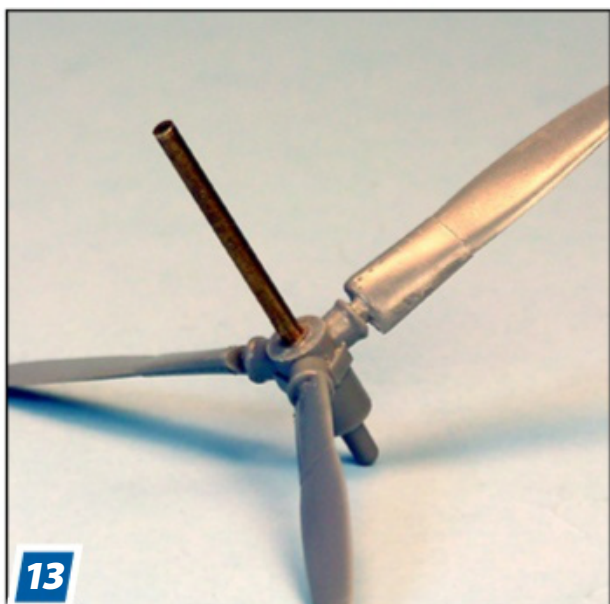
10 I secured a 3/32-inch diameter section of brass tubing to the engine cowling with super glue to accept prop shafts of 1/16-inch diameter brass tube to mount the prop. I then glued the engine cowl to the fuselage.



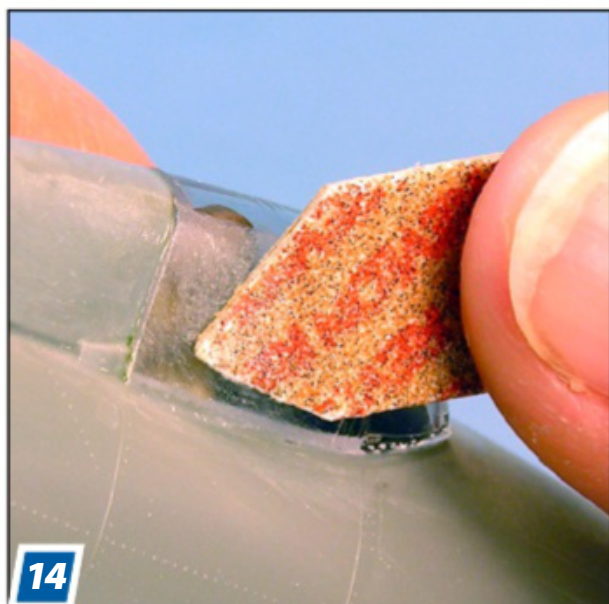
11 Since the kit's uncuffed prop isn't correct for an FM-1, I modified it with blades from Tamiya's 1/48 scale Wildcat. First, I removed the blades with a micro saw, as close to the hub as possible. Then, I secured the hub to a shaft of 1/16-inch diameter brass tube with superglue.



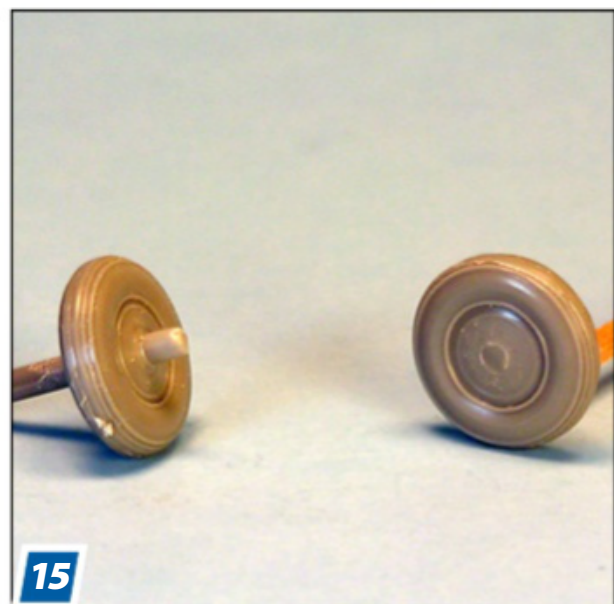
12 I chucked the hub in my motor tool and turned it at low speed against an emery board to smooth it evenly. A segment of heat-stretched styrene tub was slipped over the hub to restore the correct diameter and secured with liquid cement.



13 I glued the correctly configured blades to the hub. Now I would be able to insert this spinnable prop into the engine, make it turn with help from a fan, and take in-flight photos.



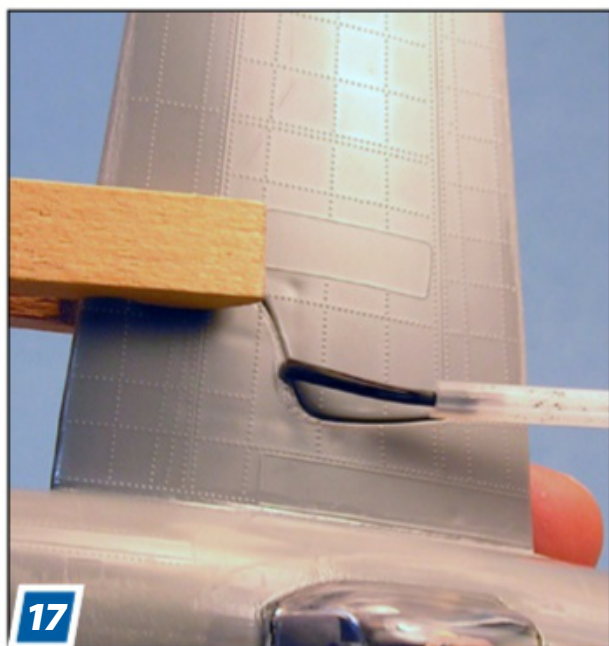
14 The canopy sill on the right side wasn't straight, but because of the thickness, I could shunt the part to the right to compensate and then sand down excess with 400- to 2,000-grit sanding sticks. (See sidebar for more canopy info.)



15 To correct the toy-like rolling wheels, I sharpened the shaft of the unused wing hinges and plugged each hole (left). Then, I trimmed the shaft and blended it into the wheel hub (right).



16 After cleaning up the wheels, I added styrene strips to fill gaps under the wing at the wing-root. I smoothed the join, leaving a round notch for the wheels to fit. Now, I could add wheels and doors and fill the gaps with superglue.



17 I assembled the outer wing panels and clamped them to the center section along the wing fold, ensuring that the trailing edges and flap hinge were properly aligned. Then I applied liquid cement generously to the joint.



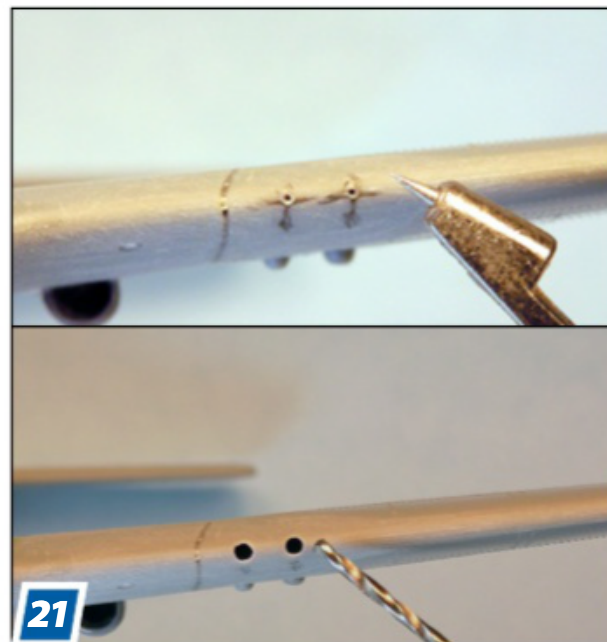
18 I attached the stabilizers, and filled the drop tank holes, wing fold joints, and adjacent sink marks with superglue. I smoothed the seams and restored the mismatched leading-edge shape at the wing fold with emery boards and sandpaper.



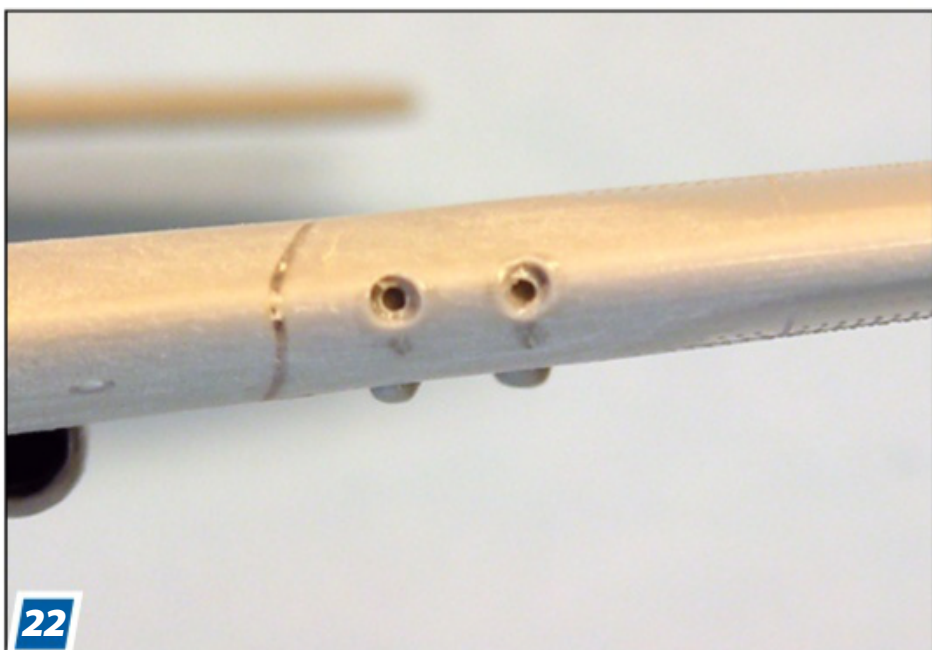
19 Cutting down an emery board with scissors enabled me to smooth the wing joint between the flap hinge blisters.



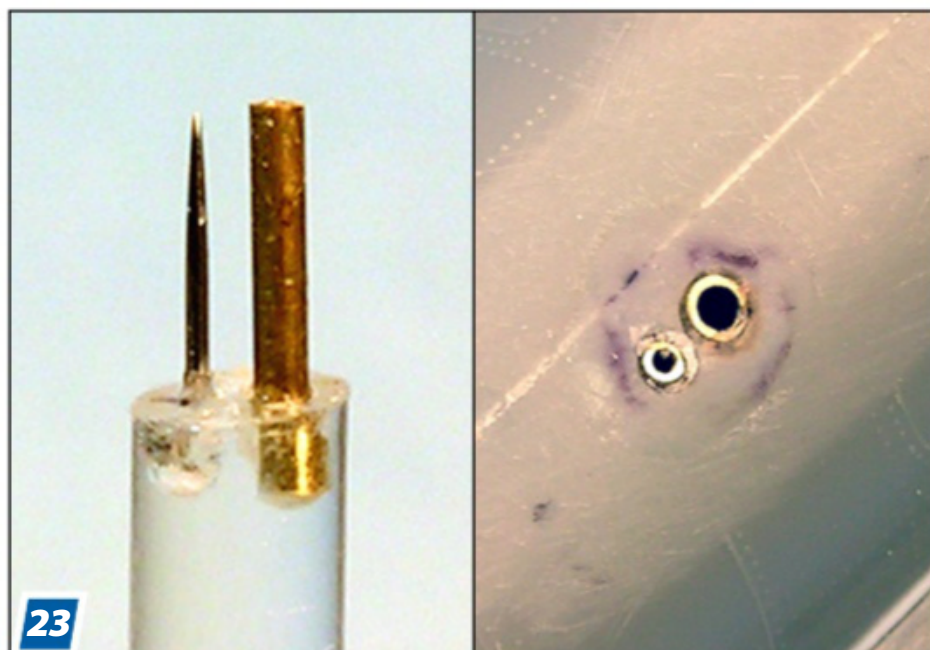
20 Afterward, I restored the recessed flap hinge line with a knife-edge file. With the outer panels attached, I addressed the lack of machinegun blast tubes.



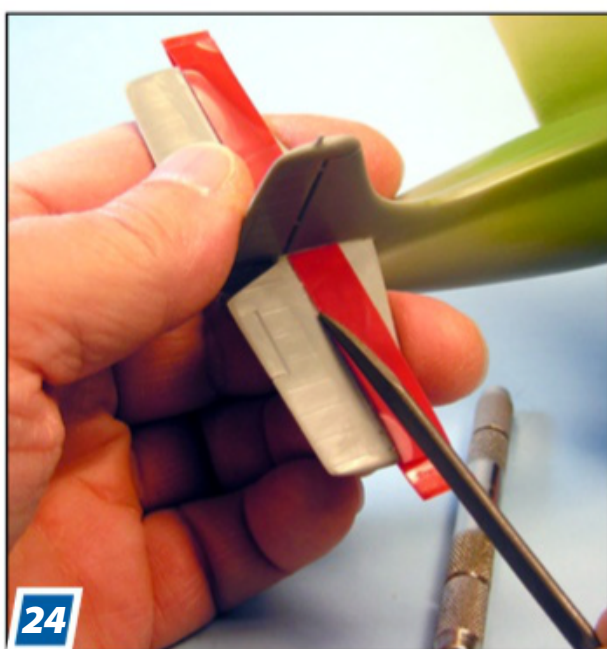
21 I marked the the firing port locations in pencil on the leading edges, made small impressions using the sharp point of a compass, and bored out holes with a drill bit in a pin vise.



22 Next, I squeezed tube cement into the openings and filled them with sprue. Using a dental probe, I pushed the plugs in far enough to give them a recessed look. Liquid cement secured them. When dry, I drilled with a fine bit to simulate the bores of the machine gun barrels.



23 It was time to make it airborne. I drilled holes in the end of a 1/4-inch diameter Lucite rod for a pin and 1/16-inch brass tubing. Corresponding holes were drilled through the fuselage into the hardwood inside (see sidebar). Sections of 3/32-inch and 1/16-inch brass tubing were inserted.



24 The elevator hinge line was misaligned because Monogram keyed the stabilizer tabs to interlock. I filled the hinge recess with stretched sprue, sanded it flush, then re-scribed it with a knife-edge file, using Dymo label tape as a guide.



25 Then I added details to the elevator hinge and control tabs with scrap plastic. I also added the rear towing and tail hook bracket under the tail cone. Finished with construction, I now gave it a thorough wet-sanding to start with a clean slate.



26 Go online to see how I painted this Wildcat. After, I had to re-apply all the panel lines lost in construction, so I drew them on with pencil. Starting on top of the wings, I traced along narrow strips of carefully-placed drafting tape.

How to remove and clean a canopy

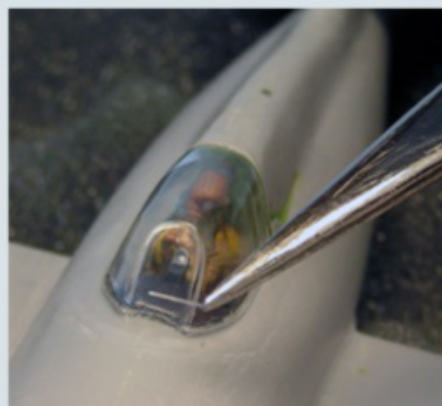
After mounting holes into the bottom of the fuselage, I realized that drilling crud had lodged itself underneath the canopy, already in position.

There was no alternative but to remove the clear piece and clean out the offending debris.

Note that I would end up doing this procedure twice when I decided to leave the sliding hood open, so I was glad to have a fail-proof system that didn't damage the canopy.



Using a needle chucked in my pin vise, I carefully scored around the canopy until I had an undercut started. I then used a sharp, curved blade to deepen the cut. I finished with a brand-new No. 11 blade to free the canopy from the model. No imprecise cutting here!



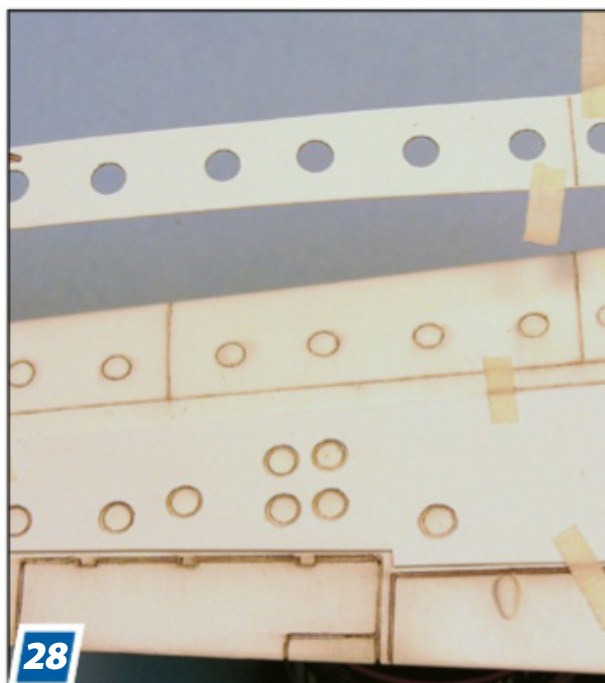
After cleaning up the edges of the canopy, I reattached it with single drops of weld cement applied under the aft corners and windscreen. Then I filled the undercut created by the removal process with lengths of stretched clear sprue.



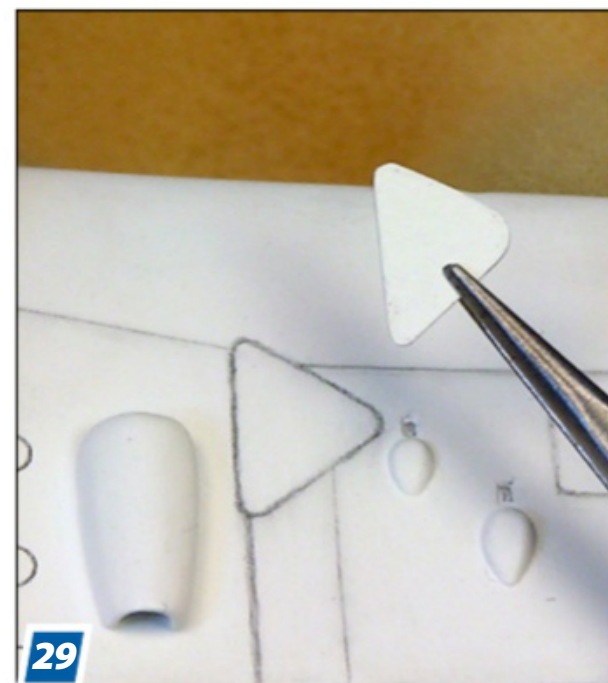
A careful application of cement wicked into the joint melted the sprue, filled gaps, and made a strong bond.



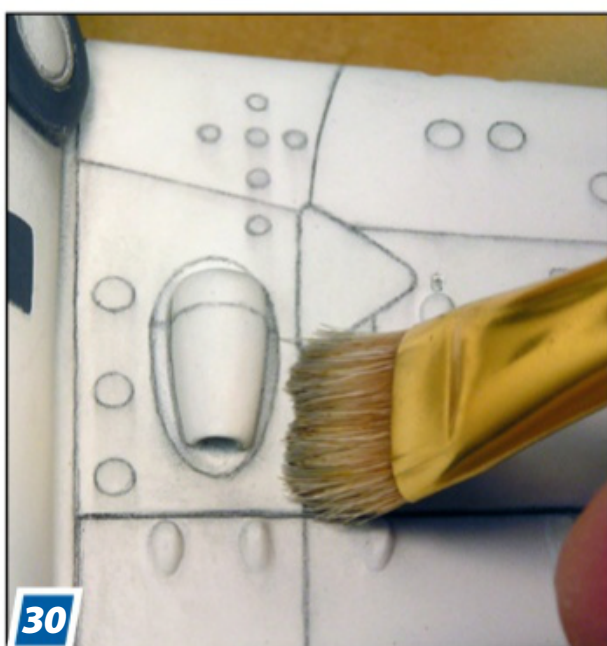
For circular inspection panels on the wings' underside, I made plastic templates with the No. 5 punch of my Waldron punch and die set.



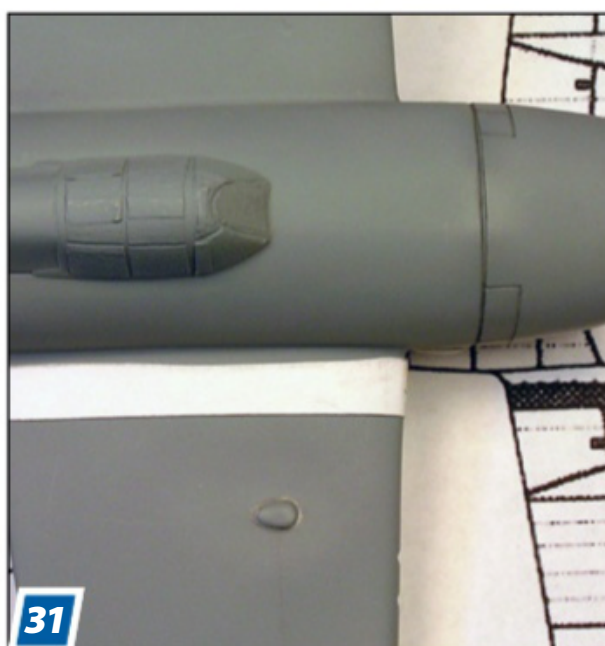
I aligned the plastic sheets against the adjacent straight panel lines, then secured them with short strips of drafting tape.



To render the triangular wing fold plate and the oval panel around the oil coolers, I again used templates of thin vinyl.



As I finished drawing panel lines on an area, I would follow with an artist's stump and a flat bristle brush to smudge the graphite, blending it and creating a grimy appearance.



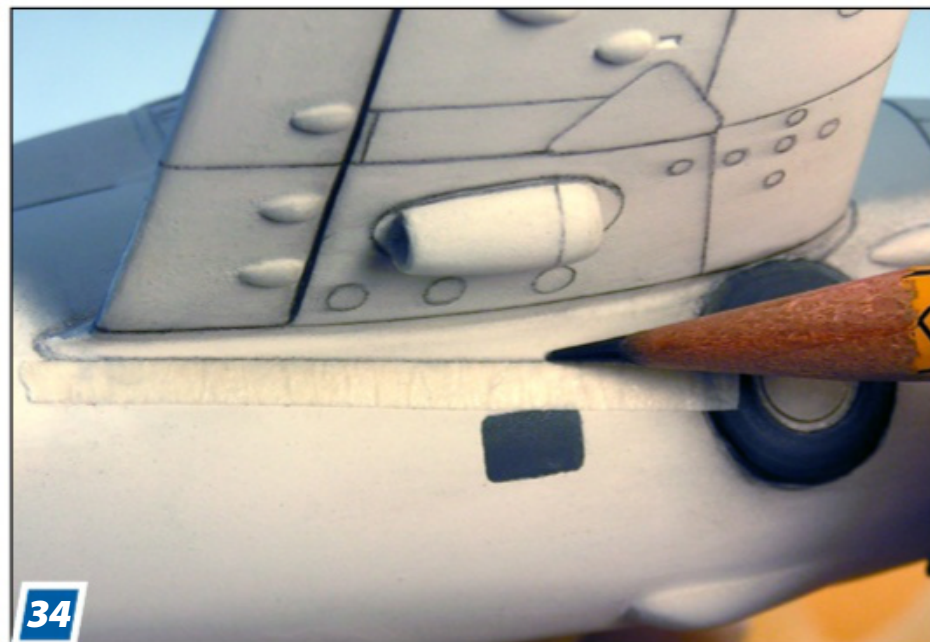
On the wing's upper surfaces, I tackled the Wildcat's wing root fillet and curved wing-fold lines with a combination of flat vinyl and note card templates.



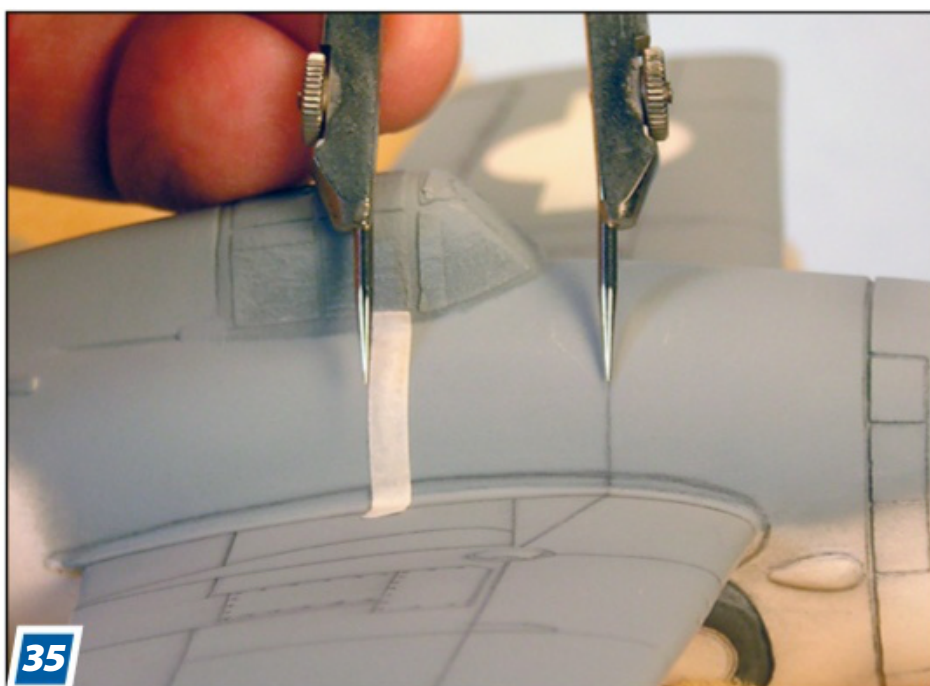
Here I am tracing around one of my homemade templates.



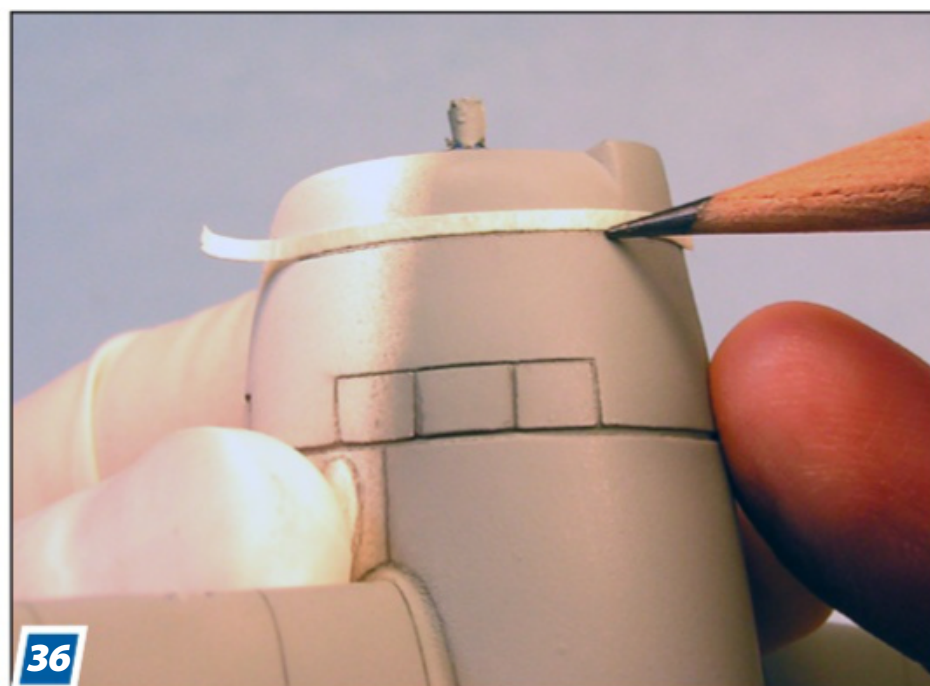
33 To render the wing root fairing curve where it turns upward onto the fuselage, I again used a note card template to guide my pencil. Tip: Holding the model with a gloved hand prevents skin oil transfer.



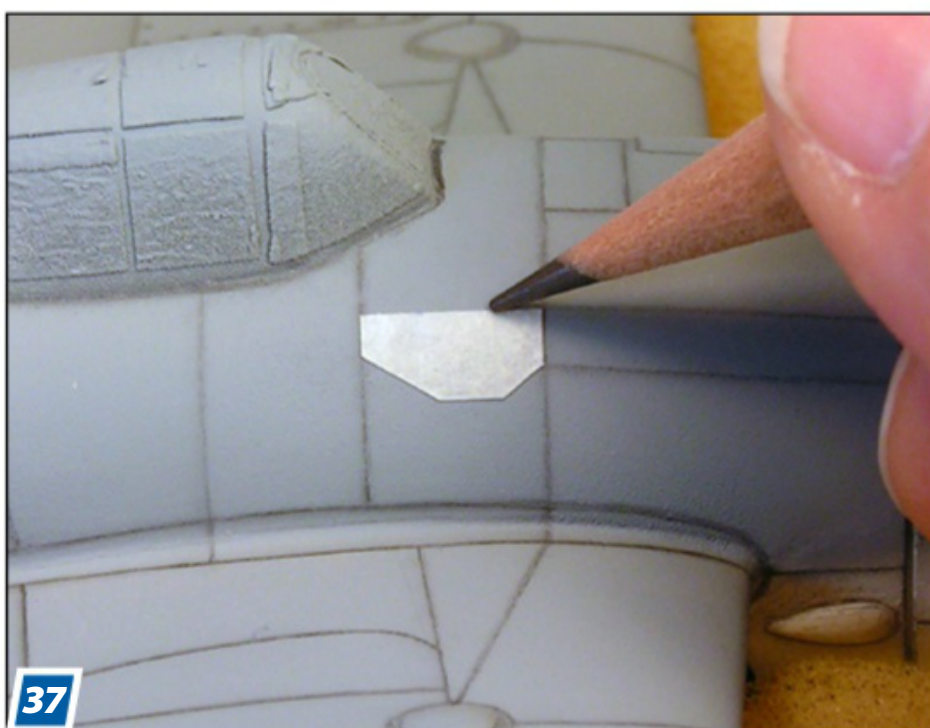
34 Where the fairing turns underneath the trailing edge of the wing and runs in a straight line, I switched back to drafting tape.



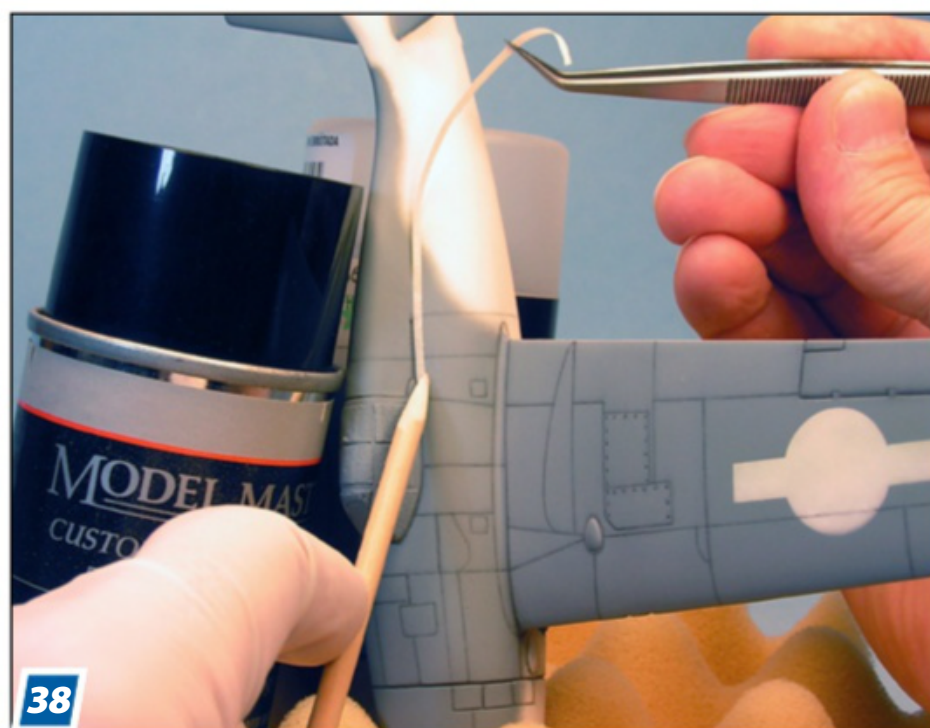
35 On the fuselage, I used dividers to establish the locations for the first panel lines beneath the cockpit. I did this by measuring aft from the recess that marked the rear edge of the model's engine cowl.



36 For lines that wrap the tubby fuselage, such as on the cowl, I measured a series of marks a uniform distance from the same point. Then I aligned a short segment of tape from mark to mark to guide my pencil. This kept the frame lines perpendicular to the aircraft's line of thrust.



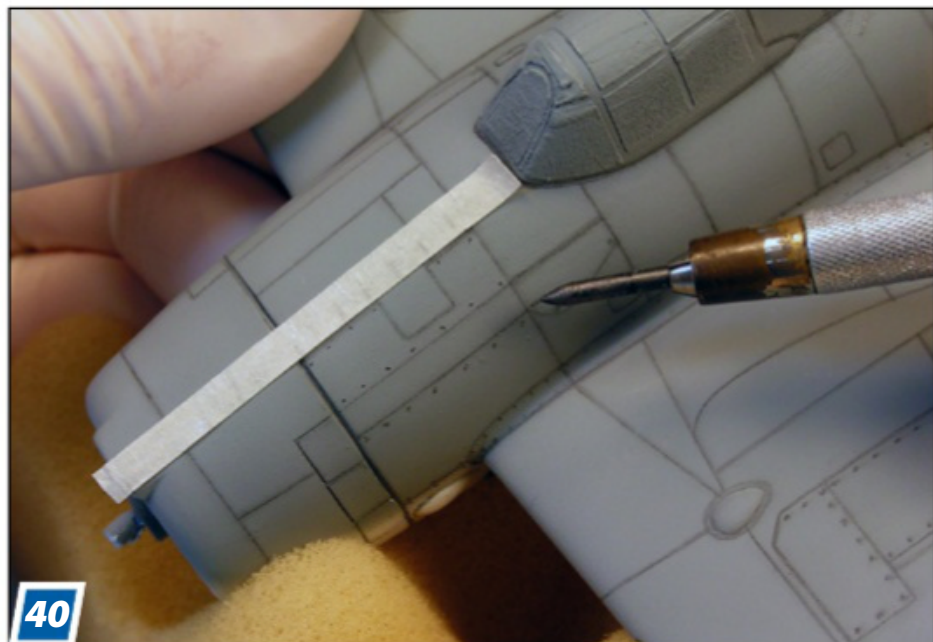
37 To draw uniquely shaped panels, I cut out templates from drafting tape and applied them directly to the model.



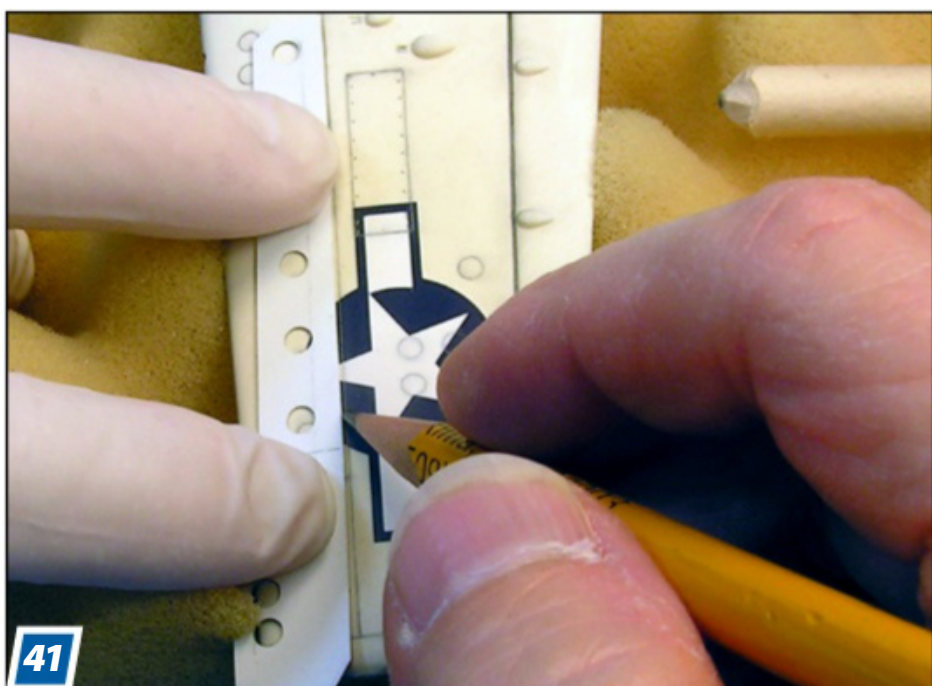
38 I propped the Wildcat up to render the gently curving longitudinal panel lines at the base of the dorsal spine. With my free hands I could apply the tape strips that would guide my pencil.



The lengthwise panel lines on the underside were easy to draw. Again, I used thin strips of tape to apply the pretty straight lines. The panel lines were now done and sealed with Dullcote to prevent smudging.



I added rivets and fasteners where needed with a draftsman's lead holder pencil. Marked templates of tape kept the spacing uniform.



Once the decals were settled and dry (more about that online), they were sealed with Dullcote. I redrew panel lines over the markings using a spare vinyl plastic template as a straight edge rather than tape to avoid inflicting damage to the decals.



As mentioned in the sidebar, I ended up removing the canopy twice. When reattaching it the second time, I wanted the sliding hood to be open. I made a canopy copy by stretching a heated piece of Squadron's clear thermoform over a clay mold, cutting the hood free, and painting it.



I added the pitot tube, radio mast, antenna wire, and insulator. Position and navigation lights are stretched sprue melted with a candle. Finally, I was able to place my Wildcat from Squadron VC-58 on its display rod mounted to a base depicting it in flight above its carrier, the USS Guadalcanal! **FSM**

Model America's first tank



Converting Takom's Renault FT into an M1917 Part 2: Suspension, turret, and paint

BY RON PONIATOWSKI

In the first part of this project (September 2019 *FSM*), I modified the hull of Takom's 1/16 scale FT tank to account for differences in the American M1917 Six-Ton Light Tank. The changes included new armor around the driver, flipping the engine and exhaust, and relocating plenty of rivets. Now I could focus on the suspension and turret.

Suspension

At first glance, the M1917's suspension is almost identical to the FT. The most noticeable differences are the adjustment mechanism for the compensating idler and

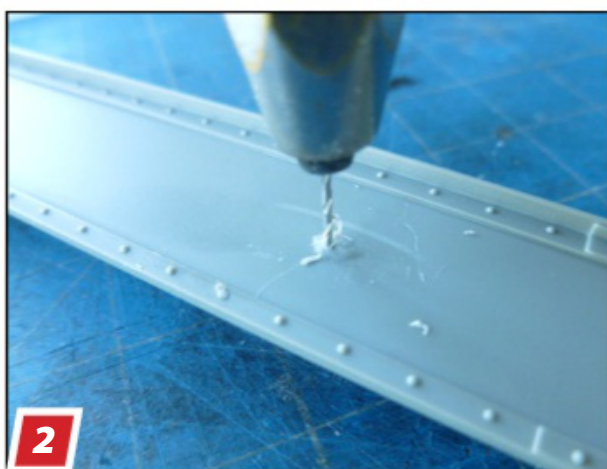
the idler itself, but there are a few other changes I needed to add.

On the FT, the side plates of the suspension units are reinforced with angle iron riveted to the top and bottom edges. The M1917 incorporates a wide U-beam with shallow flanges, so I had to remove rivets. Also, castings at the rear into which the sprockets are set are shorter on the M1917.

Daunted by having to remove so much detail, I settled on a little deception instead. I could fill the space between the raised details with sheet styrene. This could be puttied and sanded to look as if it was a single flat area between a U-beam's flanges.



First things first, I shaved away unwanted detail. It really did hurt to remove that cool Renault manufacturer's plate!



Mark locations you'll need later, such as the placement of the leaf-spring through-bolt detail.



I filled the flanges of the wheels with sections of styrene tube glued in place and sanded flush. A square hole was added to each wheel and return roller to represent an oil filler.



The deception: I cut thin sheet styrene to fit into the recess on the sides. With filling, this created a flat surface for M1917 detail.



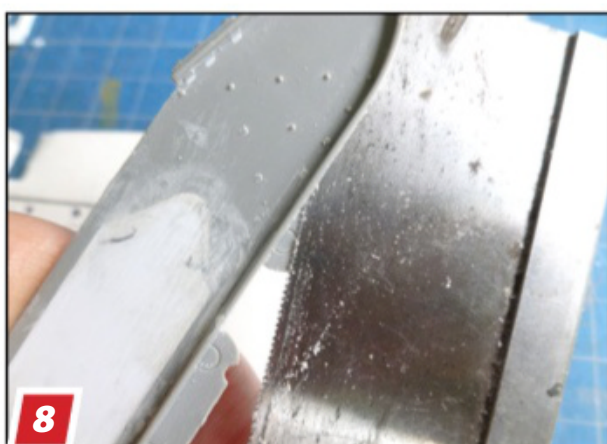
Details were added to the housings inside and out using Grandt Line bolts and rivets, as well as bolt heads from the kit. At this point, assembly was pretty easy.



Some FTs and M1917s, sit back at about 3 degrees and I wanted to incorporate it into this model. Step 1 was to make a template for the axles, then add a 3-degree tilt to it.



The bogies were marked before proceeding, so they could be accurately reattached.



Then, the bogie units were carefully cut from the suspension housings using a razor saw.



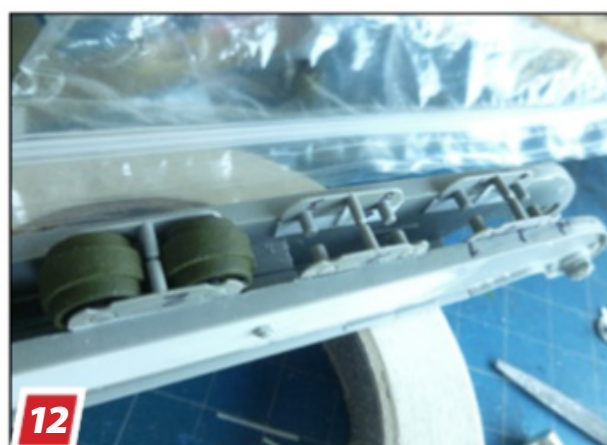
To bolster the bogies and add gluing surface for when they are reattached, I extended them with sheet styrene; extra strips ensured the joins stayed together.



Once the bogies were dry, I set the axles into the template and the side of the large suspension unit set at the marked angle. Then it was a simple matter to glue them in place.



I didn't use the template to attach the other side. Instead, the wheels were set on the axles and the other bogie units set onto them. The wheels guided the remaining bogies in place.



Each unit was glued in place separately and allowed to dry before the next was attached to ensure proper alignment.



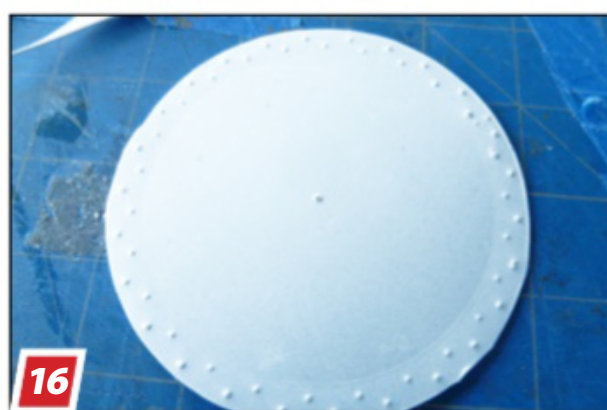
The kit's post-WWI steel idlers could be modified for use on the M1917, which lacks spokes in the web between the rim and axle. But, I decided to make my own wheels.



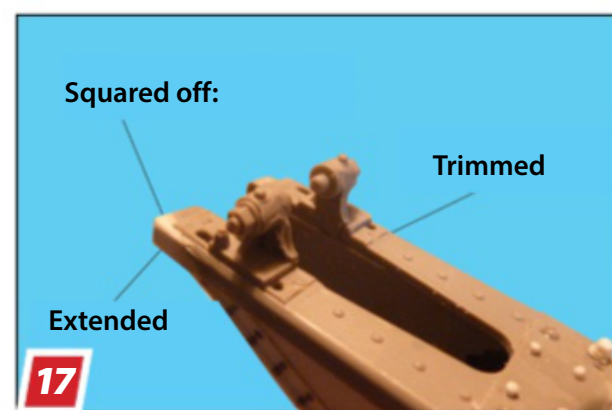
14 Using compass dividers, it was a simple matter to find the diameter of the wheel web and rim re-enforcement and transfer them to sheet styrene so they could be cut out.



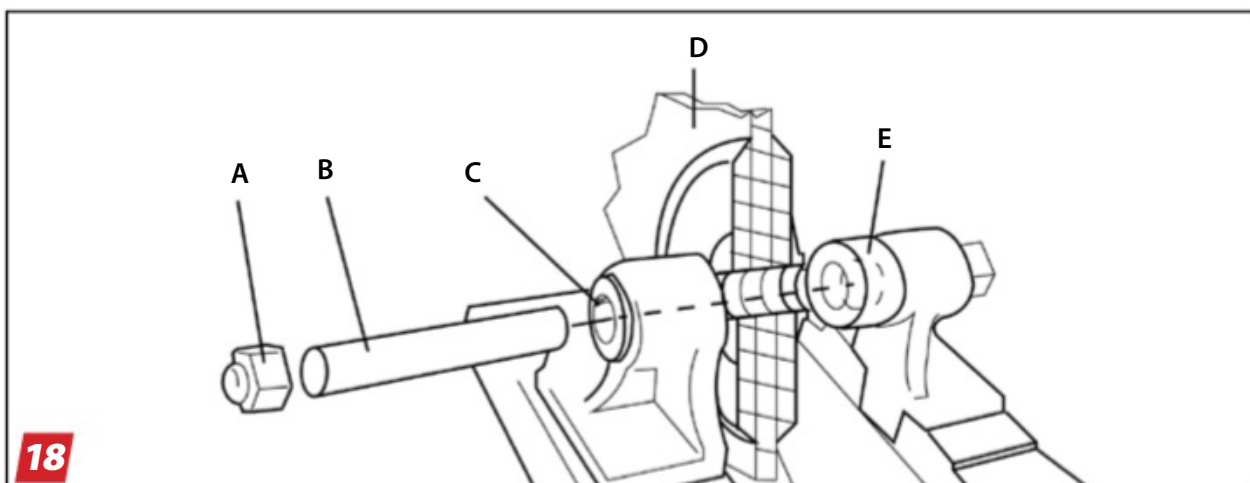
15 I also used the compass dividers to mark the location of rivets around the rim of the idlers.



16 This disc's outer ring will be the reinforcement on the inside face. The compass point dimpled the plastic enough to create the rivets.



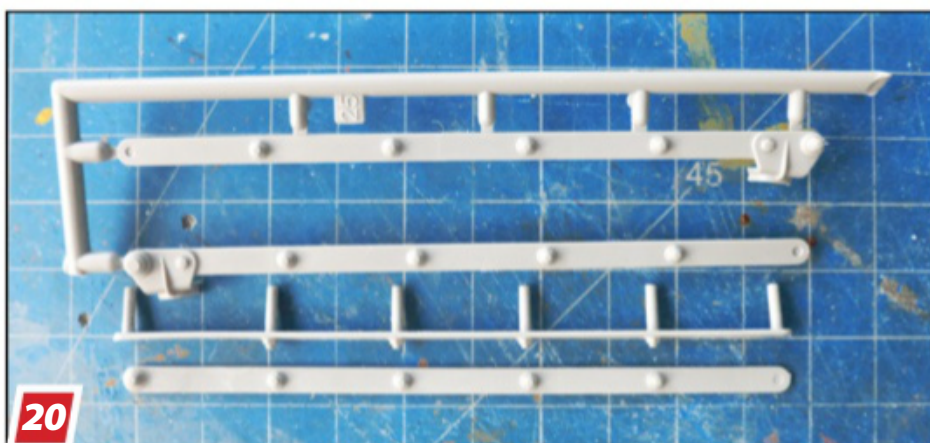
17 I corrected the idler mounts (A6) by trimming the tensioning forks after gluing them in place. Use parts C1 and D1 to aid alignment.



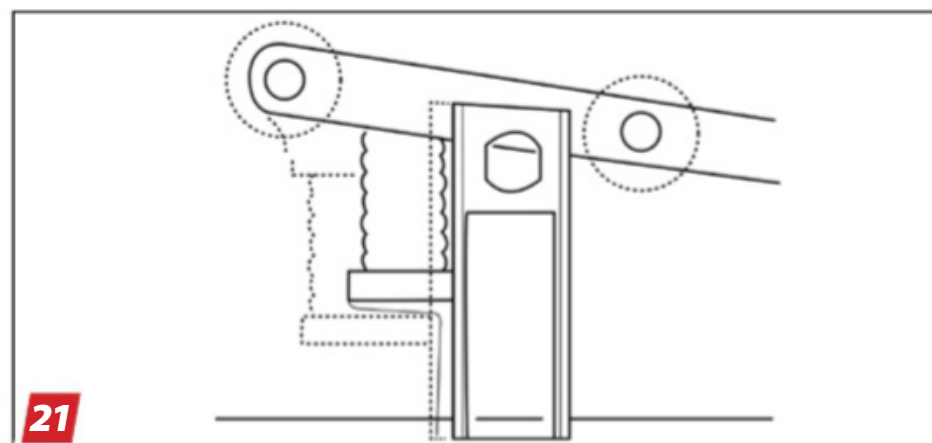
18 Here's how I made the idler wheel axles. I cut off the nut (A) from the trimmed mount (A6). I carefully drilled (C) through the mount to accept axle (B), which passes through the idler (D) and into a styrene-tube washer (E) that was fitted over the mounting pin on the other mount.



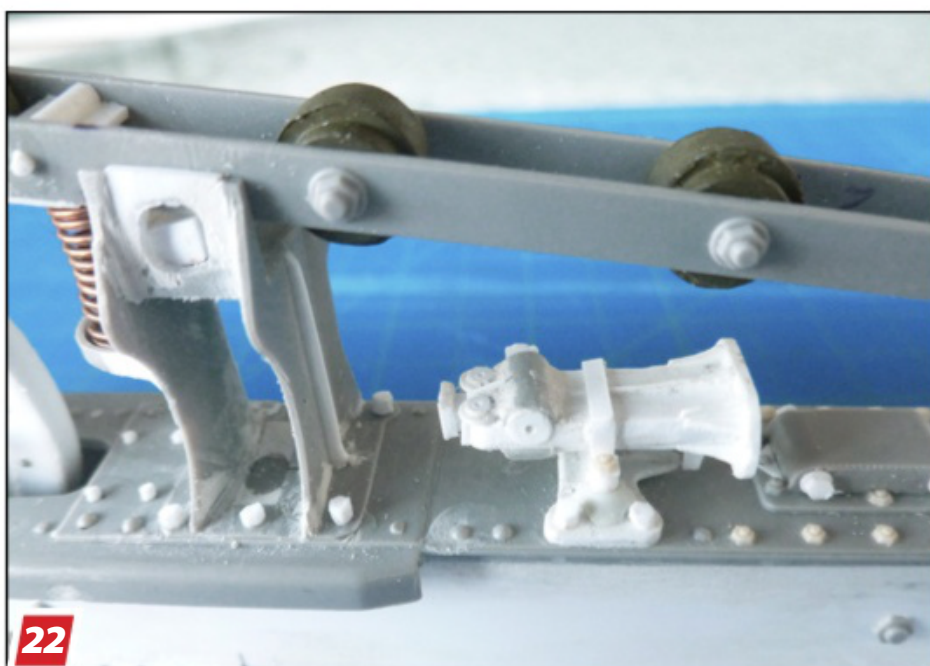
19 Referring to photos, I made tensioners using styrene rod and strip. Thin armature wire from an electric motor represents screw threads.



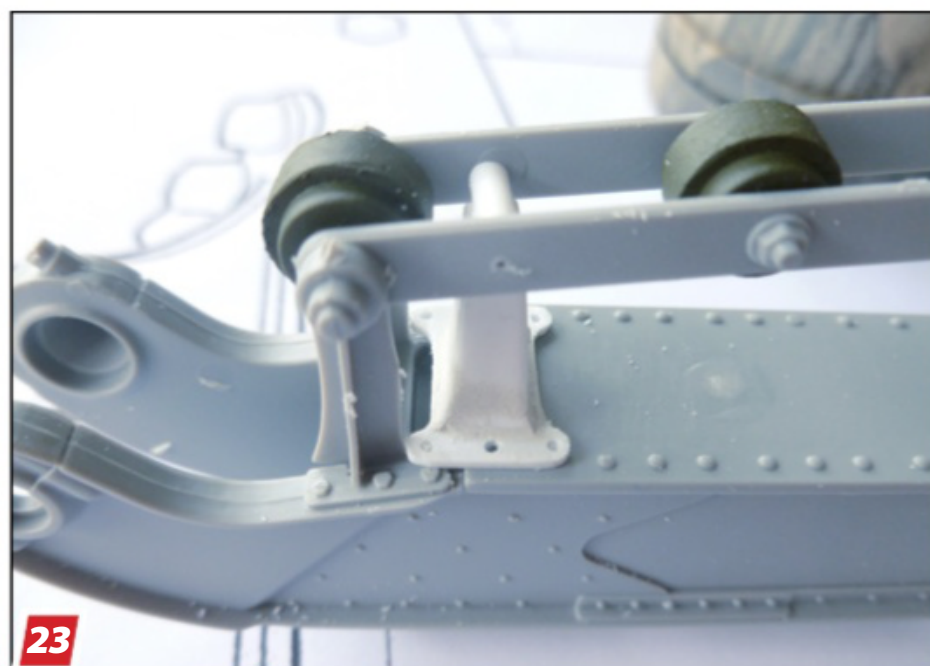
20 On the return-roller rails, I relieved parts C24, C25, D24, and D25 of their spring mounts. Nuts and washers inside were moved to the outside as needed. Missing nuts and washers were scratchbuilt with styrene rod.



21 The return rollers front pedestals were rearranged. Except for the rollers, common to both, the dashed line is the FT, solid the M1917. The spring moves forward and the pedestal narrows from front to back.



This photo shows where details were added, although there is still cleanup to do. Hidden on the front of the pedestal is a strip of thin styrene that is angled forward to accommodate the hull suspension spring. This had to be modified after moving the other parts aft.



I scratchbuilt the rear support for the return rollers using styrene sheet and tube. It's an easy assembly to create and was fitted for height with the return roller assembly in place on the kit supports tacked in place and trimmed for clearance.



To re-create the sprockets' wobbly web pattern, I removed molded detail from the kit parts. Then, I cut sections to fill the areas between the ribs from thick sheet styrene. These will be alternated on both sides to create the bulges of the wobbly web.



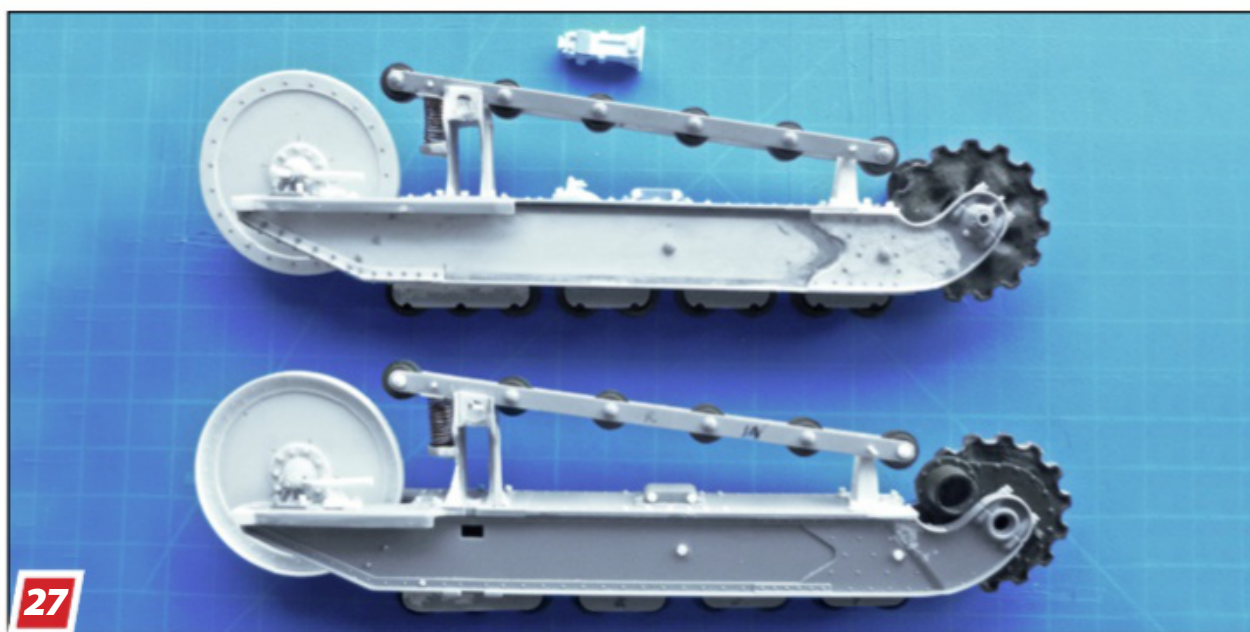
The pieces I made for the sprocket were too large, but work with a motor tool soon got them down to size. Then, I covered the surface with filler putty and sculpted it to the correct shapes. It looks super-bad at this point, but it turned out just fine.



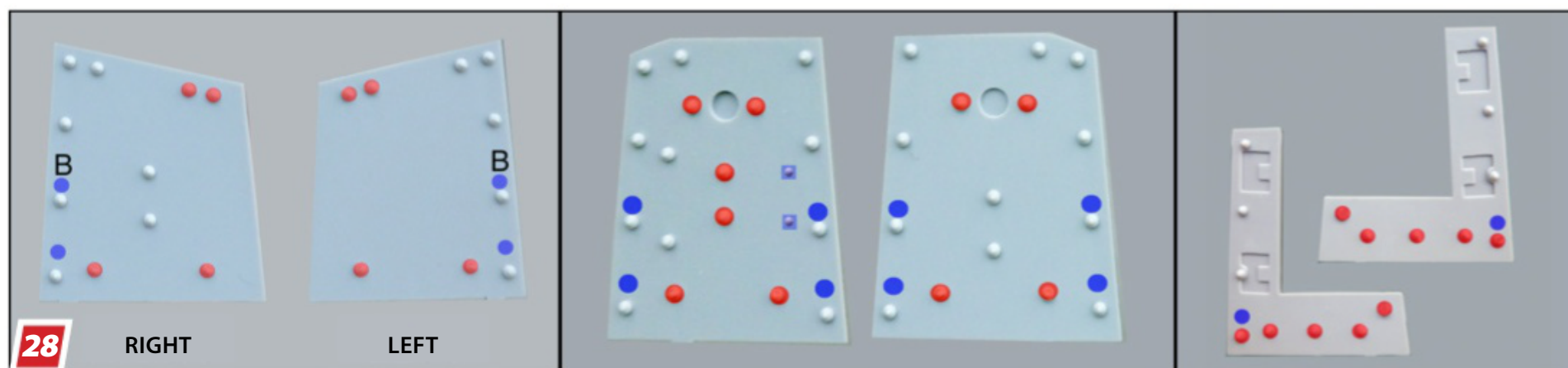
Using a pattern made from a photo in Adobe Illustrator, I modified the sprocket mount areas of the suspension with thin styrene sheet sanded thin to the rear so that it would blend with the kit parts using minimal filler.

The turret

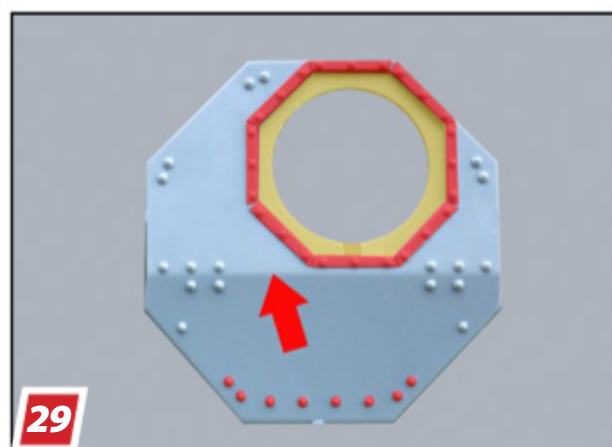
The M1917 turret was almost identical to the French Berliet octagonal turret, but major changes were made to the gun mount and cupola (or 'tower' according to the M1917 manual). The mount for the main armament had its own evolution on the U.S. tank, but the version I would be replicating was a casting with a shielded ball mount, while the tower was changed from an octagonal, bolted structure to a cylindrical casting. Although the tower's vent cover remained very similar, it had a slightly different profile. For me, it wasn't different enough, so I used the kit cover. The entry hatch on the M1917 is also shifted to the right, an important detail to keep in mind during assembly!



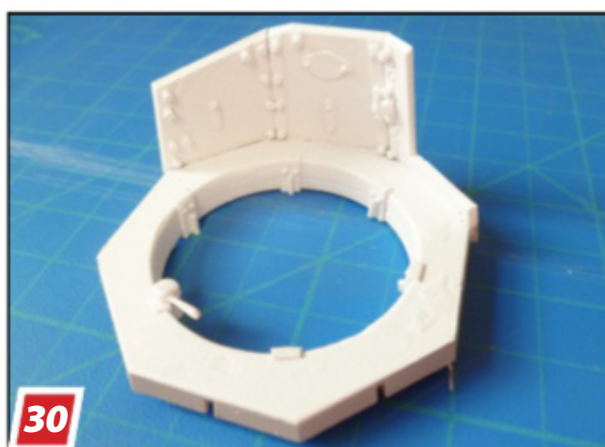
Here are the completed assemblies inside and out. You'll notice that the inner sides of the suspension housing aren't filled with styrene. A little dirt applied here will hide the FT details.



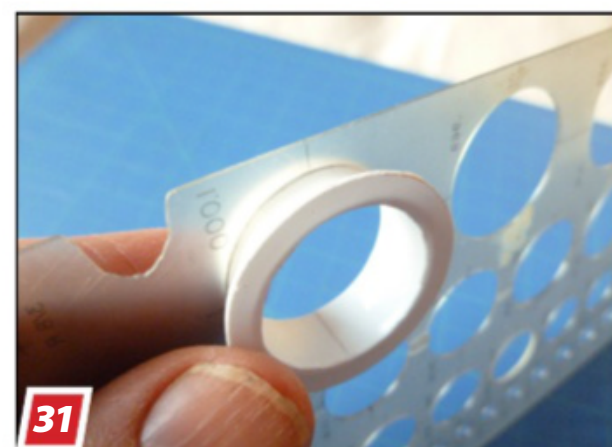
As with the hull, the first step was to relocate rivets. Those marked in red should be removed, blue indicates their new position. On each side of the pistol port (gun loop), there are bolts rather than rivets on the M1917.



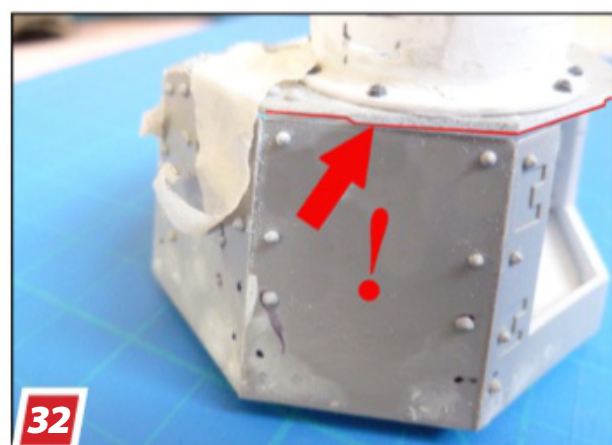
The roof needs to be scratchbuilt or have the fittings for cupola removed. The red arrow indicates that the M1917 roof comprised two plates, so a line should be scribed at the bend.



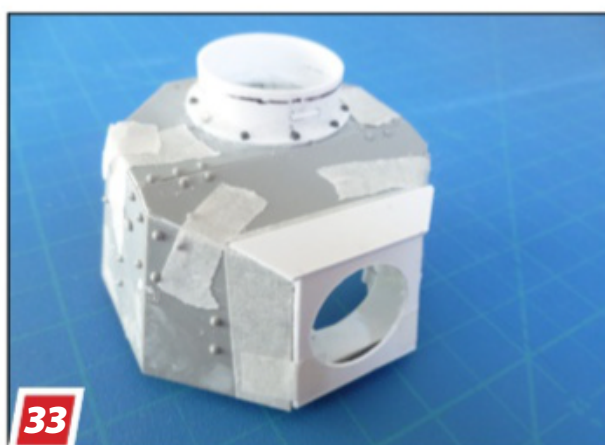
Construction proceeds much as in the instructions except that doors are on the opposite side. Here, the right side armor and door frame have been fitted in their new spot.



The tower was easy, I coiled thin styrene inside a 1-inch circle template opening and glued the lamination together. Two days later, I fitted the lower flange and cut view slits.



Be sure to shave or file the step in the roof armor where the door was originally located on the French FT so it fits cleanly into the turret's side armor.



Making room for the 37mm gun was a simple case of cutting sheet styrene to fit the turret's front and sides. The opening is 11 scale inches for the gun's ball mount.



I used photos of the M1916 37mm gun to build the tank's gun using parts from the kit and scratchbuilding. I made a working ball mount because I wanted it to rotate.



I modified the kit's ammo racks for the interior of the M1917 by narrowing them and staggering the ammunition holes.



The kit floor was used and it's easy to see that the ammo racks no longer overlap the screen for the cooling vents in the engine bulkhead.



The functioning mount allows me to pose the gun in any position, including slightly askew as seen here as the gunner gets a sight picture.

Painting and weathering

My intent was to model a well-maintained M1917 just returned from a training drive.

The tracks were painted to show remnants of black paint that was applied and worn away from use. I painted the kit tracks black, panzer gray, steel, and even SAC bomber green, before applying graphite and dust for weathering.

Rather than using a multicolored camouflage, I painted my M1917 with an overall dark green base coat.

Powdered artist pastels were applied with a brush. In some areas I left the powder rather thick, but brushed it off of oth-

ers. The idea was to depict a tank that the crew has cleaned off with a broom rather than hosing it down with water.

Something to remember with an M1917 is that the crew didn't really walk over the armor. Instead, the commander/gunner used the tracks to reach the turret and the driver just climbed in from a foot-step on the hull. With that in mind, most of the tank was left dusty, while areas where the crew would sit, step, or handle the armor, were cleaned. In the case of the commander/gunner, the paint over the fuel tank was rubbed to a sheen where he sat.

Since the tracks aren't muddied up, I

placed the model on a quickly made 'concrete' base to emphasize the fact that it had found its way from the dirt of the field into cleaner spaces. On a dry day, the dirt would quickly shed from the tracks as they impacted pavement. (If you've ever had to shovel out the gate to a paved tank park, you know what I'm talking about.)

If you enjoy scratchbuilding and modifying kits when there isn't a lot of aftermarket accessories to choose from, this is a good project for you. Next up, I'm going to crew the tank with a 1/16 scale Ernst Udet converted into a post-WWI U.S. Army Tank Corps trooper. **FSM**



All in all, my two-month project that stretched into six was a lot of fun. The 3-degree lean back isn't really noticeable until the model is placed next to another FT, so I'm happy with the extra time I put into that.

Detail and paint a **Beech 18**

Revell's C-45F Expeditor shines up nicely

BY STEVE EVANS



Interested in something off the beaten path? Steve shows you how to build a C-45 with added detail and crisp paint job.

First produced from the Beechcraft Model 18 airliner back in 1937, the little Beech Expeditor was in continuous production until 1969 with more than 4,500 being supplied to the military. It took on a number of roles and was given a bewildering array of designations to go with. In fact, the Model 18 in its multiple versions had well over 30 military variants.

Although there are none left in U.S. military service today, there are nearly 300 still on the FAA register in the U.S. alone and worldwide the figure is close to double that. Not bad for a machine first flown in 1937!

Revell's 1/48 scale C-45F (No. 03966), a re-box of ICM's kit, suits the aircraft's diminutive size. There's a lot to love but also some areas that desperately need improvement. Let's jump in!

Beautifying the inside

The interior comes first. The instrument panel is pretty good, with some nicely molded detail for the dials, but no throttle levers. These were easily added with short

lengths of stretched sprue, **1**. A lick of paint and the supplied decal had the panel looking much busier. It'll be in the shadows so perfection is not necessary, **2**.

Even with the windows along the fuselage and the opened access door, the view inside will remain pretty poor. With that in mind, I opted to do a fairly simple paint job for the interior. A single coat of olive drab covered the walls, **3**.

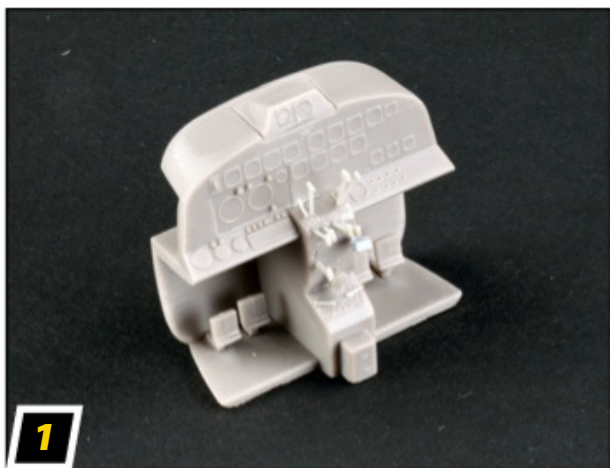
I painted the floor to mimic varnished wood. The seats were then decorated with decal seat belts, **4**. The most time I spent with the interior was with the door, which will hang open giving onlookers a nice view of the padded surface. I scribed along the

pattern before painting it to look like leatherette, **5**. I kept it, along with the hinges and retaining wire, off until the end of the build.

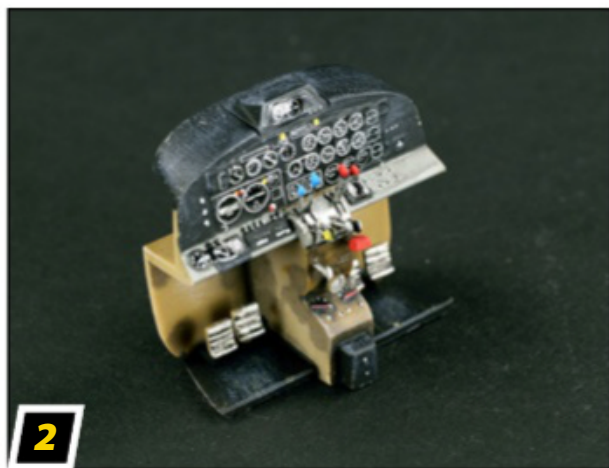
Improving the engines

The next part is easily the most complicated of the whole kit: The engine bearers and undercarriage units. It's also at this point, when you most need them, that the instructions completely let you down. The multiple parts used in each bit are molded well enough, but the drawings give absolutely no indication of which way round some of the angled bits go, **6**. This leaves you doing multiple trial fits and a lot of head scratching trying to get everything lined up. This is no fun at all but you just gotta get through it.

The little Pratt & Whitney Wasp Junior engines are simply too plain — not a lot of detail here, considering that they will be fully exposed on the finished model, these definitely need all the help they can get, **7**.



1 The instrument panel has some nicely molded features, but requires the addition of throttle and mixture controls.



2 The dial decal doesn't quite fit the molded detail on the panel, but it's not very noticeable.



3 A simple paint job of olive drab is all the interior walls need.



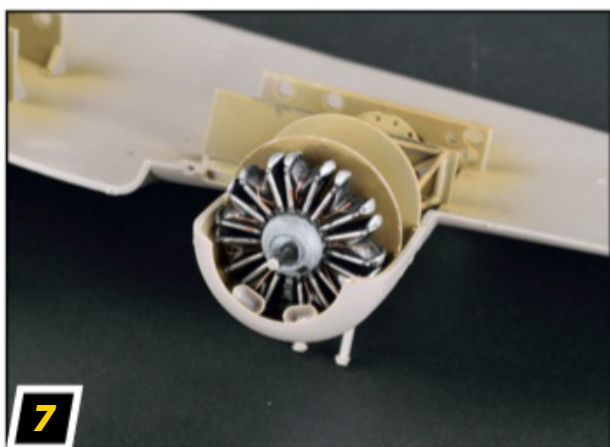
4 The seats belts are supplied on the decal sheet and they look pretty good for what little of them will be seen.



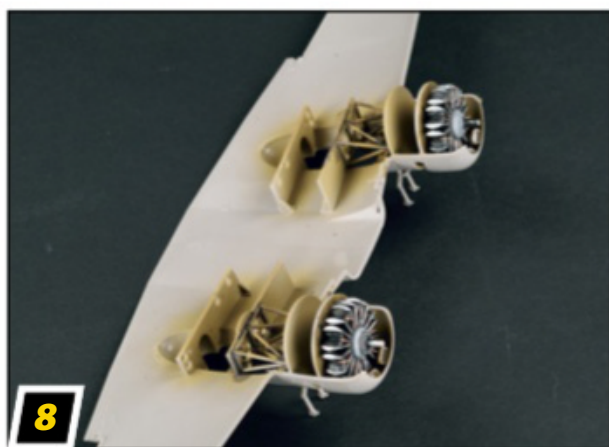
5 The door is detailed with leatherette padding and an aluminum kick plate. The lock is a tiny bit of sheet styrene and the handle is stretched sprue.



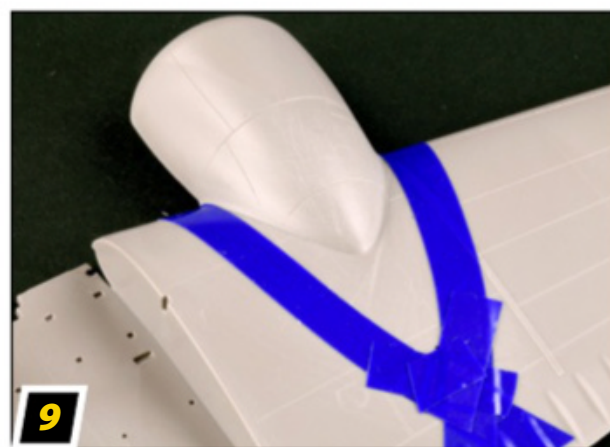
6 While the landing gear parts are quite clean, it's still tricky trying to get everything to match up. It's a game of trial and error. Be patient and you'll be rewarded.



7 Here is an upgraded engine with added wiring. The kit's trumpet intakes added a nice touch.



8 Once both engines were decorated with ignition harnesses, I nestled them in position.



9 The longer shape of the extended nacelle marked out with flexible vinyl tape.



10 Good old-fashioned Milliput (superfine white) was used to fill out the elongated curve of the new nacelles.



11 A lot of sanding and sculpting was needed to get the nacelles near the right shape. I used several different files of varying coarseness.



12 A mix of superglue and talcum powder is used as a filler, building up the edges and adding strength to the nacelles' joins.



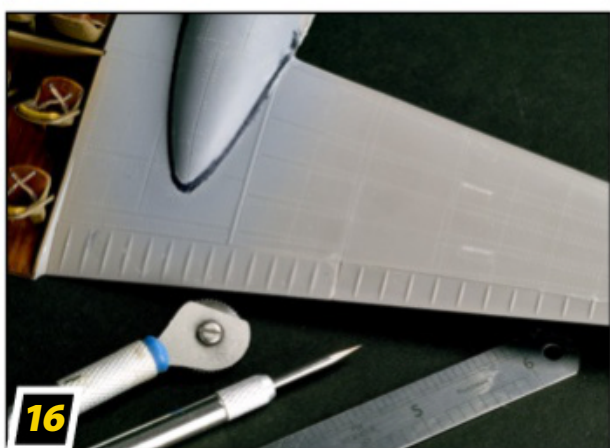
I made a mistake of using Mr. Finishing Surfacers 1500 to smooth the nacelles. Although it dries hard, it does not stick to the Milliput underneath very well at all. *Drat!*



To get the surface smooth, Alclad II gray primer and microfiller was applied. It took a couple of coats and a lot more sanding to get a respectable result.



I added strips of plastic on parts of the cowlings to get the joint straps looking right.



My handy dandy riveting tool livened up the airframe with extra texture. The larger spike added individual marks on the access panels.



Now that is a neat looking aircraft! Personally, I think the longer nacelles keep the look sleek.



As counterintuitive as it sounds, gloss black primer from Alclad II keeps the following silvers bright.



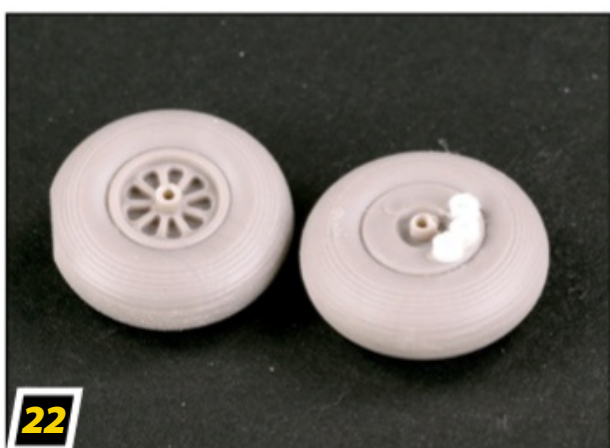
With many aircraft kits, character comes from the paint job — and this build is no different. With just one coat of Alclad aluminum, the beauty of this plane comes through.



Alclad Duralumin across a few random panels created variation. A mix of aluminum and light gray enamel dulled down the control surfaces.



The combination of the white and black panels make for a high-contrast, eye-catching scheme.



I continued to add detail toward the end by re-creating the brake calipers on the main wheels with plastic rod and fuse wire.

32 years
The number of years the Beechcraft Model 18 was produced. At the time it was discontinued in 1969, it held the world record.



Now that there was no fear of breaking them during construction, I could safely add all of the fiddly bits.



Revell's 1/48 scale Expeditor provides a good starting point. The only big changes needed are to upgrade the engines and elongate the nacelles. It turns into a real looker with metallic paint and aftermarket decals.

A little wiring for the plug leads is the least I could do, **8**.

The wings determine the version of the aircraft built. The way the kit's wings are molded are for the earlier C-45s because the nacelles are molded as the short, stubby ones of the original Model 18. If you want to do one of the later, more capable versions, then it's mod time.

First, I marked out the shape of the new nacelle, extending it down the wing and bringing it to more streamlined shape, **9**. I used flexible vinyl tape to give a clean edge. The new shape was constructed out of Milliput in superfine white, **10**.

Once that dried for 24 hours, I sanded and shaped it to the proper profile, **11**. Note: a dust mask is an absolute necessity here. The edges were then taped up again, readying them for filling with super glue mixed with talcum powder; this not only makes a smooth joint but also adds a huge amount of strength to the area, **12**.

When it came to smoothing the new nacelle, I messed up by using the wrong product; while Mr. Finishing Surfacer 1500 dries hard and smooth, I discovered that it doesn't like to stick to Milliput, **13**.

After sanding all that off, I used Alclad II gray primer and microfiller, which did the job admirably, **14**.

Adding rivets

The wings went together without drama, although detail work was needed on the cowlings around the joint straps — strips of .05-inch plastic card performed well, **15**.

As nice as the exterior panel lines are, it is rather smooth, so some rivet detail

wouldn't go amiss. I freehanded this addition using a pounce wheel, **16**. While most of the airframe got the rivet treatment, don't forget that the control surfaces were all fabric covered on this aircraft, even the main wing flaps, so no rivets on those bits were needed, **17**.

The subassemblies of fuselage, wings, and tail are then brought together to make a pretty looking little aircraft.

Time to paint

Over its years of service, Expeditors and their many variants wore a huge number of schemes. Everything from olive drab to Day-Glo orange and all points in between.

In the box you get two sets of decals: a USAF machine from 1948, and an unexpected British Fleet Air Arm version with the bright post-war roundels and black lettering, from 1949.

Personally however, I didn't want either of these after seeing the decal sheets available from Caracal Models.

I opted for the Military Air Transport Service (MATS) version, from 1961 — a classy silver with white roof and bold markings. To keep the silver finish bright, I chose an undercoat of Alclad II gloss black base, which remains tacky for quite a while, **18**.

This was followed by a quick application of Alclad II aluminium over the whole frame, **19**. A few sprays of Duralumin added tonal differences to some panels, **20**.

I then mixed the aluminium with 25% Humbrol flat light gray (H147) which tones down the shine on the fabric control surfaces.

Weathering and decaling

I masked and sprayed Humbrol gloss white (H22) over the fuselage crown. Then the antiglare panels and the de-icing boots were masked and painted with Vallejo Model Color black (70.950), **21**. The beauty of using a soft acrylic on top of the hard Alclad is that it can be picked off with a cocktail stick to give a slightly weathered and chipped look.

Speaking of which, just a few bits of pastel dust worked into panel lines and a little soot around the exhaust will do for the weathering this VIP transport. Pledge Floor Gloss (PFG) sealed everything.

The Caracal decals are thin and brittle and also very "grabby" so a lot of water was needed. Once in place, however, they settled down beautifully.

A little gray pastel dust worked into the markings made them look realistically faded. A quick spray of the PFG sealed the decals and pastels.

Finishing touches

Missing from the kit are the brake calipers on the otherwise well-molded wheels. Tiny slices of 1mm plastic rod with some fuse wire brake lines replicated them, **22**.

I attached the aerials, propellers, landing light in the wing, and the doors to the undercarriage and main cabin, **23**.

A dusting of satin varnish on the silver airframe and flat varnish on the black area finished off the build. I carefully removed the masking from the glazed areas (and breathed a sigh of relief that they were still clear). With that, I had a complete Expeditor. **FSM**

Keeping the peace

Detailing a Cold War-era nuclear missile and launcher

BY MIKE DEL VECCHIO



NATO first deployed the MGM-31 Pershing intermediate range ballistic missile to Europe in 1960 as part of its nuclear force. Both the missile and launcher underwent upgrades 1969 and '70: the former to the 1a, and the latter to the M757A1.

Martin Marietta Corp. manufactured the Pershing, and its prototype and tooling department made a 1/32 scale plastic model kit of the missile and its launcher. The model, once assembled, was meant to be posable, allowing the builder to show the missile stowed or ready for launch. Marked EPL-1 and dated for 1973, it's a rare find,

and one that I couldn't pass up.

The parts suffered from sink and ejector-pin marks, and many had their part numbers prominently molded on. On the plus side, the instructions called out the parts by their actual names and were easy to understand. Between the clear instructions, the kit's large scale, and the accurate though poorly produced parts, I couldn't resist the challenge to build and detail it.

I finished basic assembly on the trailer, which included about 60 parts and made a frame about 16 inches long. The launch platform (left) had a lot of sink marks and flash, **1**.

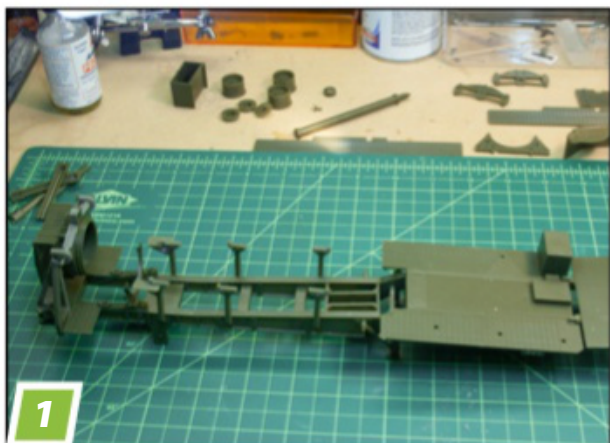
The first scratchbuilt items were new rear levelers made from .187-inch and .25-



The box says it contains an "authentic working model," which it does, to a degree.



While the kit parts may have accurate shapes, they suffered from poor production quality.



Before beginning to detail the model, I assembled the basic chassis for the launch trailer.

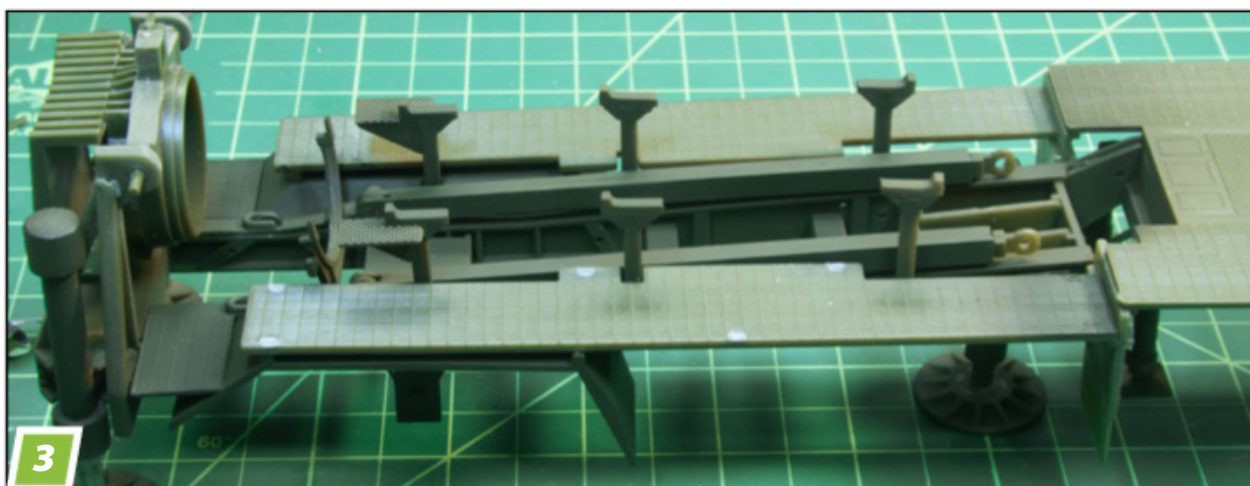


Rather than try to fix the problems with the rear hydraulic levelers from the kit, it was easier to make new ones.

inch styrene tube and Milliput to form the top, **2**.

To enhance the realism, I fashioned pistons for the levelers from aluminum rod. After filling ejector-pin marks on the leveling pads, I mounted them to the pistons and then installed them on the trailer. I filled the ejector-pin marks on the decks and restored the grate detail with 26AWG stainless-steel wire, **3**.

After cleaning up the booms, I assembled the lower split ring. The front guideposts were added, clevis for the erector cylinders and then the booms. The booms



3 Before gluing the pistons to the trailer, I primed them with Tamiya flat black (XF-1) and followed with Tamiya olive green (XF-58).



4 The model was designed to be posable. Here the launch assembly is between the stowed and launch positions.

are held in place by the large nut on the launch platform, **4**.

The last of the basic building included the warhead carrier, cable mast, upper missile connector, and the split top ring, **5**.

Handles fashioned from 26AWG stainless-steel wire were attached to the both booms with super glue. I sanded any excess glue, **6**.

I used the same wire to make handles for the leveling plates — two each. I also shaped a set of cranks (normally stowed under the deck) from .047-inch styrene-coated wire, **7**.

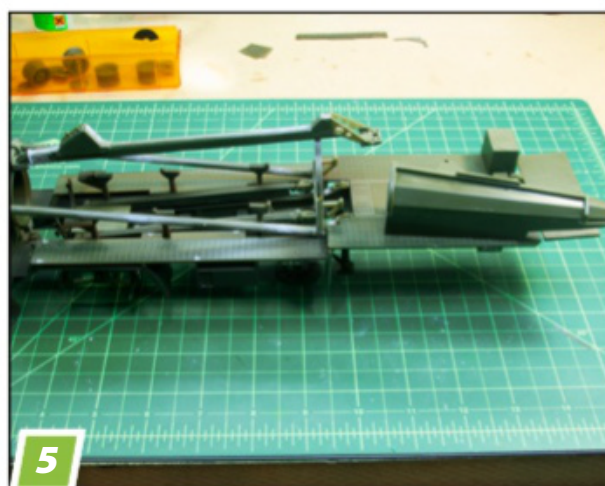
My references revealed that kit was missing storage boxes: a double box on the driver's side to store missile umbilical cables, and a small box on the opposite side for the load levelers' hydraulic cables.

I made the double box from .020-inch sheet styrene, painted the interior flat olive drab, then attached the whole to the trailer. The small box by the mudflap was made the same way from scrap photo-etched metal (PE), **8**. The smaller box for the hydraulic cables fits next to the load leveler control system and was made the same way, **9**.

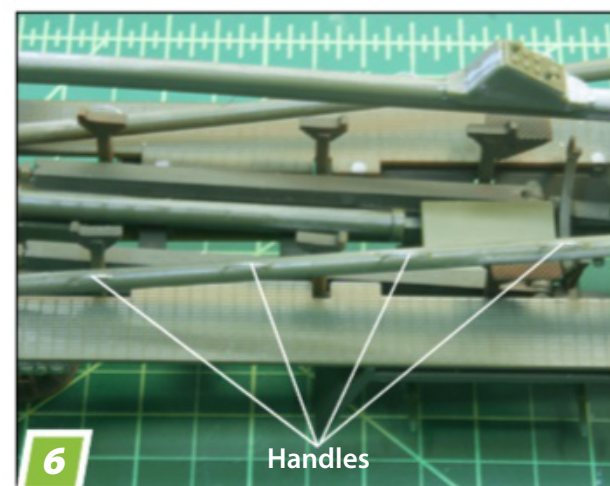
Two hydraulic pistons and springs adjust the front launch leveler, which resides under the launcher chassis. I made the pistons from .080-inch styrene rod with a 26AWG wire coiled around them to form the spring. The top and bottom piston rings were punched from .020-inch sheet styrene. The attachment clip is scrap PE cut and bent to shape, **10**.

I fabricated the C-channel steps using scrap PE. The missing rear reflectors came from .010-inch styrene sheet using a punch-and-die set, first making the outer diameter, then punching the center hole, **11**.

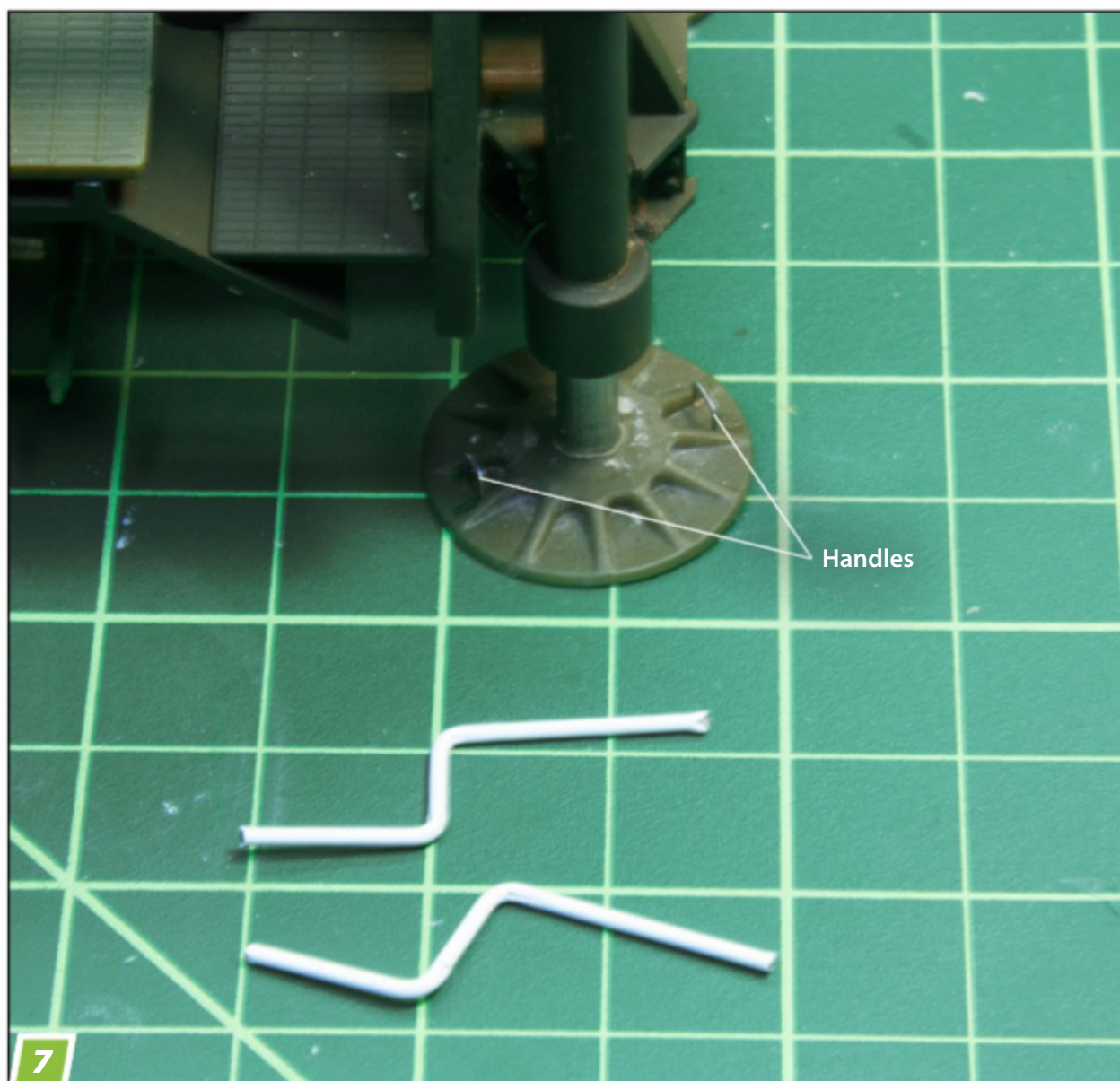
The kit's davit crane was essentially a hunk of plastic in about the right shape. After filling and cleaning it up, I added a control handle from my spares box and ran hydraulic and electrical lines using .040-inch black insulated wire. Rivets, plates, and axle ends came from .020-inch sheet



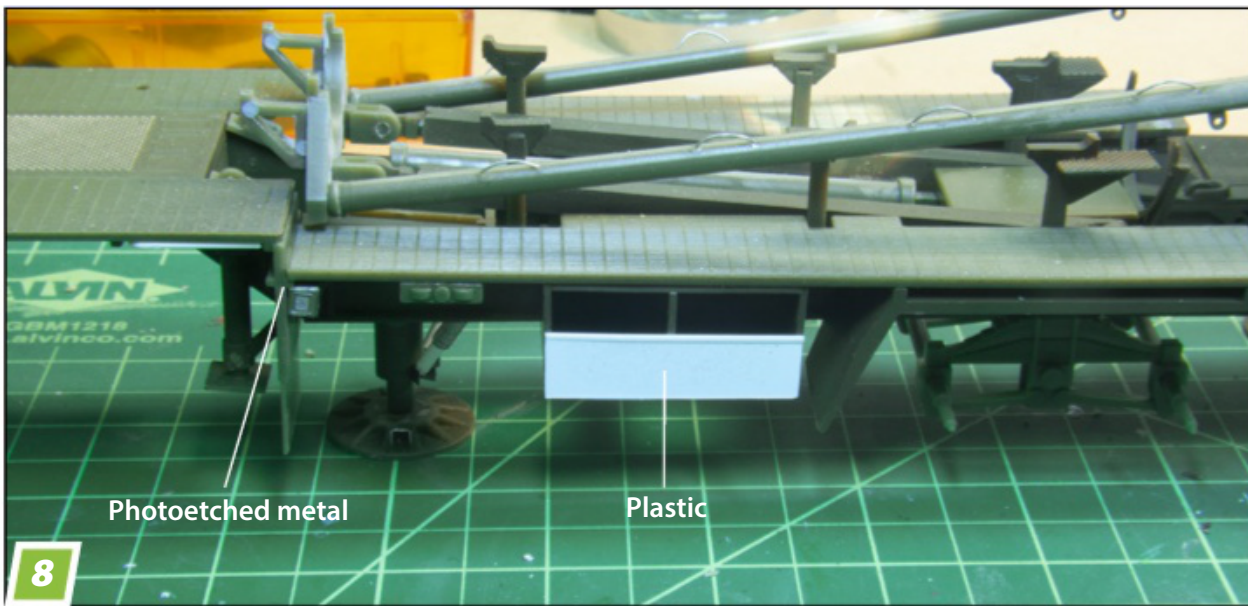
5 With the major portions assembled, including the warhead carrier, it's time to start adding the details.



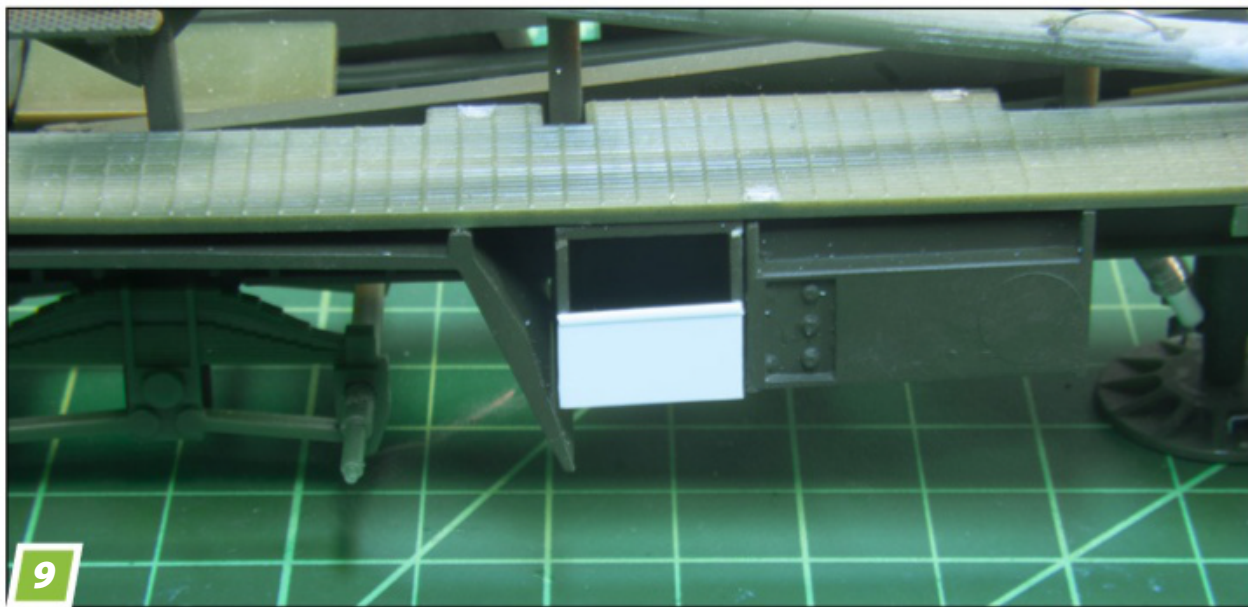
6 You can see the wire handles I added along the boom.



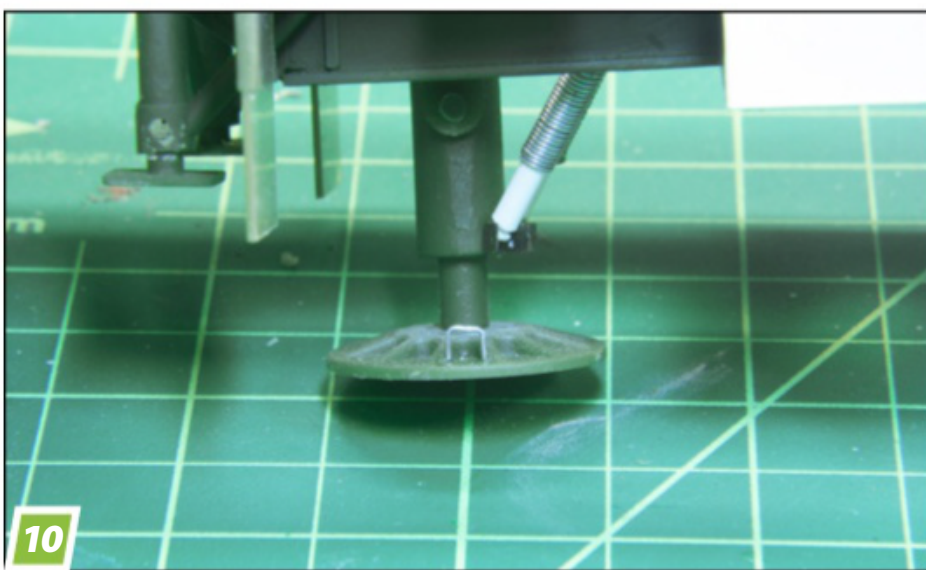
7 Simple additions like the handles and these cranks make all the difference in the level of a model's realism.



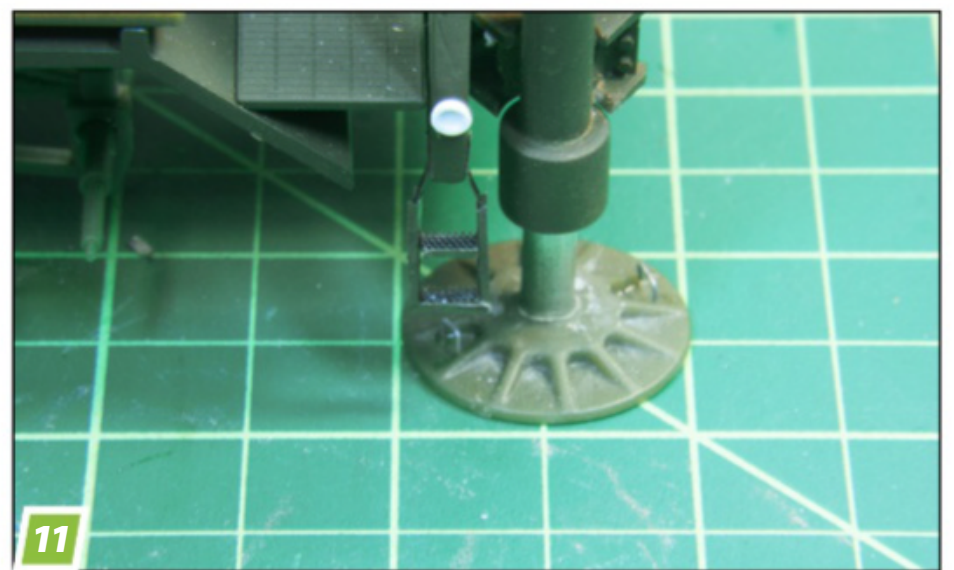
Leaving off the storage boxes seemed like an odd miss for the kit, but they were an easy fix.



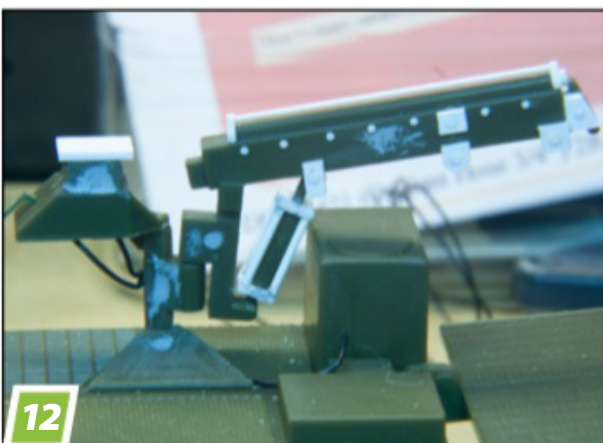
It would have been easy to leave this box off, but the model would have looked incomplete.



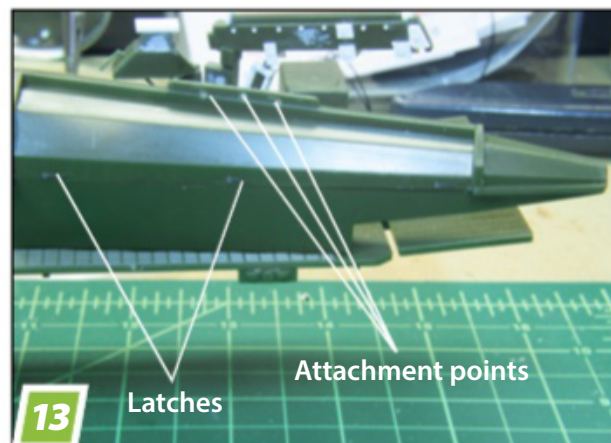
While the main leveler looked OK, it needed the hydraulic pistons for accuracy.



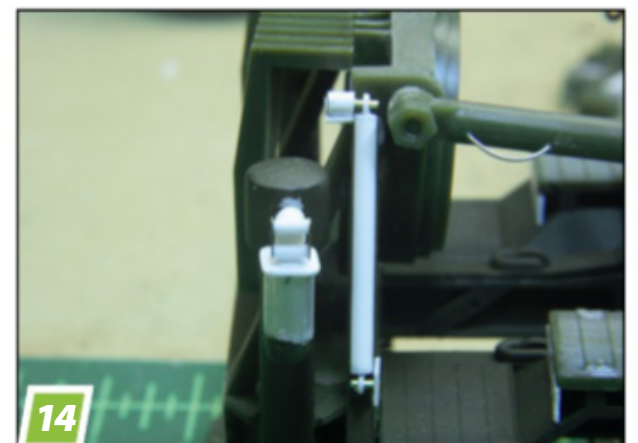
The steps were made from scrap pieces of PE. I used reference photos as a guide.



I pulled out the stops on the davit crane, adding details from top to bottom.



As with so many parts on this kit, the warhead carrier was missing key details.



Sometimes easiest is best: I fashioned the bottom of the hydraulic filter from Milliput.

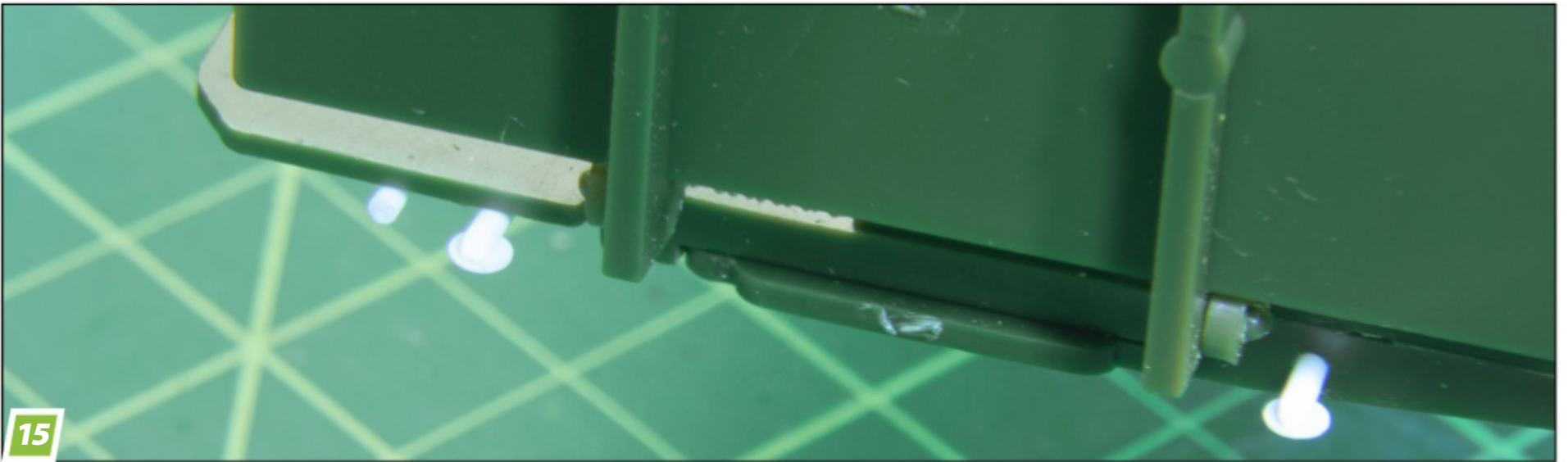
styrene. The hydraulic bar on top of the crane is a length of .030-inch styrene rod; the cover over the controls is .040-inch sheet styrene, **12**.

The warhead carrier was missing attachment points for the crane. I drilled three .039-inch holes atop the warhead carrier as attachment points for the crane. Spare PE handles approximated the latches shown in my references, **13**.

The rear hydraulic leveling cylinders had a filter assembly hanging on the side. The cylinder is .150-inch diameter aluminum tube with Milliput to form the bottom. I made the top from a square of .020-inch sheet styrene, spare PE parts, and .030-inch styrene rod for the release handle. Next to it is a support piston built from .080-inch styrene rod and .020-inch brass rod for the connectors, **14**.

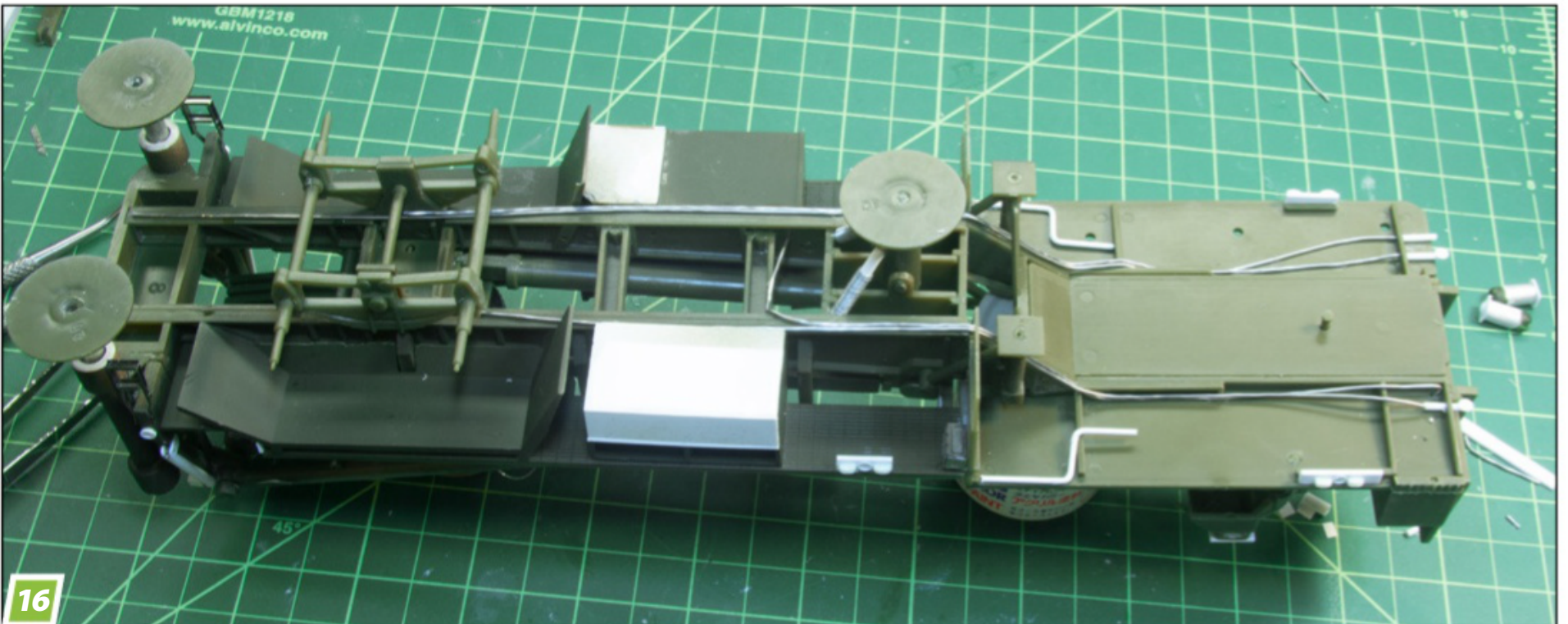
The Chicago fittings for the trailer air brake and electrical connections were made with .040-inch styrene rod and discs punched from sheet styrene, **15**. I estimated where the electrical and brake lines would run and installed them underneath using some .032-inch solder, **16**.

I made a mold of the side markers from an Italeri M923 5-ton truck and cast new markers in resin. Then I made the new assemblies using .040-inch styrene sheet, punched rings for the reflector, and the new resin markers, **17**.



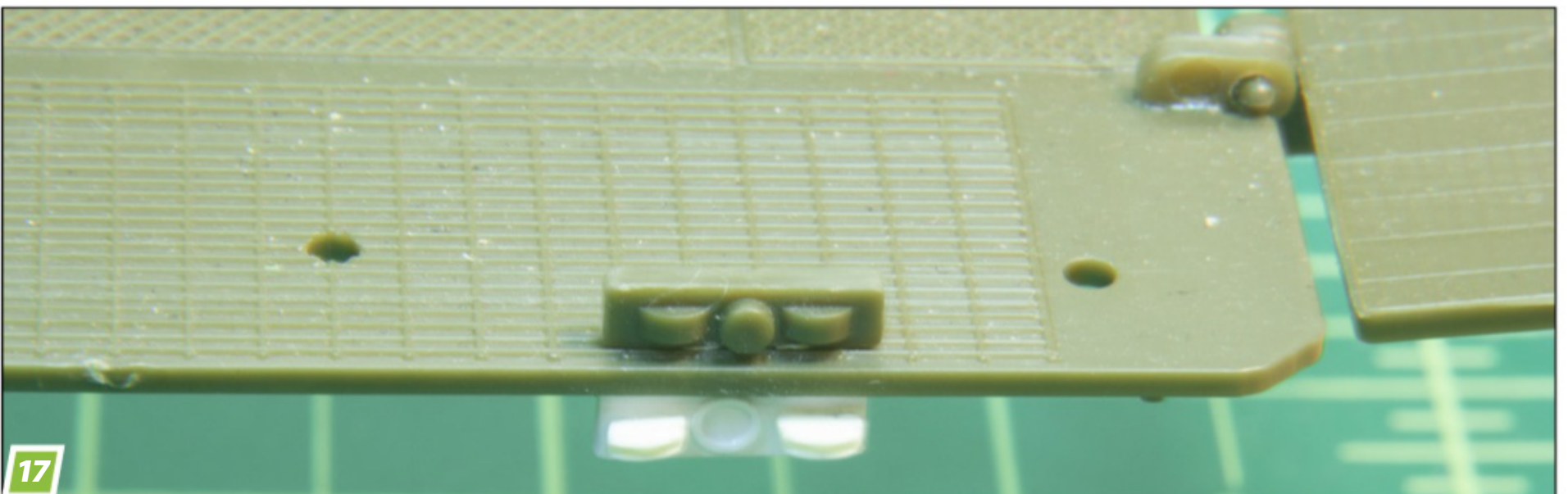
15

The brake and electrical connectors were an interesting challenge, but needed only suggest the correct shapes.



16

I didn't have many detailed references for the undercarriage, so I made an educated guess when I ran the lines.



17

Here, you can see a kit side marker (top) and a new one I made from resin and sheet styrene.



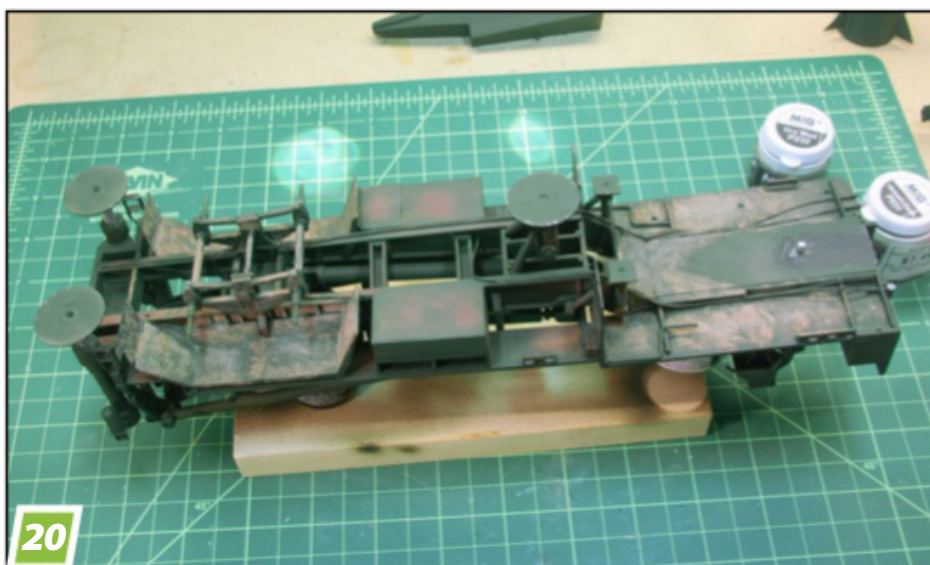
18

Similar to the side markers, the kit bumper was a disappointment. So I made a better one.



19

The fiberglass coverings for the umbilicals didn't need to be perfect, because they simulate canvas.



20 There wasn't a ton of opportunity to dirty up the trailer, but I took advantage of what little there was.



21 Washes help to make details pop, but also to lend that weatherworn, used look that so many military vehicles take on.



22 Making side-marker and reflective decals with paint was a new technique for me, and I think it worked well.



23 Even with all the details I'd added to the crane, it still needed a cable and hook after paint.

The kit bumper was a solid no. I made a new bumper by laminating strips of .020-inch sheet styrene and punched holes in the top strip to simulate recessed taillights. I also used a punch-and-die set to make rings for the reflectors and light housings. The side markers on the end are resin casts from the mold I made earlier, **18**.

The upper umbilical on the missile boom has a quarter round to guide the wires. On the lower end is a large connector to group all the wires. I made both from 1/8-inch pipe caps and used Milliput to finish the shapes. Both umbilicals were then covered with fiberglass to have a realistic canvas look. Thin lead sheet cut into strips simulated tie-down straps, **19**.

I primed the trailer with Tamiya olive drab (XF-62). A couple of washes with Winton Oils sap green and raw sienna weathered underneath nicely. A black pinwash brought out the details. I also painted the tow pintle with Alclad II polished aluminum (No. ALC105) and followed up with a mix of Mig pigments to create the greasy black area where the fifth wheel connects. A mix of white glue and earth-tone pigments simulated mud, **20**.

The kit tires were bad and had Martin Marietta molded on them. I opted for tires

from an Italeri M923 (No. 279); right size, wrong tread, but close enough.

I weathered the tires with the same earth-tone pigments used for the mud. The hydraulic lifters were finished with Alclad II polished aluminum (No. ALC105). The canvas and straps on the boom received a coat of Model Master dark green (FS34079) and field green (FS34097) respectively.

A wash of Mig Allied green (No. P036) gave the paint on the large exposed areas up top a worn look. A pinwash of black artist oils brought out the grate details, **21**.

For the side markers and reflectors, I base-coated decal paper with white primer, followed with Alclad II chrome (No. ALC107). After that dried, I airbrushed a coat of Tamiya clear red (X-27) or clear orange (X-26). I cut them to the appropriate size and applied them, **22**.

The cable on the davit crane is 22AWG stranded wire. The end crimps were made from soft lead and I found a shackle and hook in my spares box. The two hydraulic lines from the controls to the boom are .032-inch black insulated wire, **23**.

I finished the warhead container with olive drab, a black pinwash, and Model Master flat clear (No. 4636). After every-

thing was dry I mounted the container in the position for the missile to be assembled.

The Pershing missile itself was painted Tamiya flat black (XF-1) and then olive drab. A black artist oil pinwash brought out the details. I replaced the kit decals with Woodland Scenics Condensed Gothic dry-transfer letters (No. MG738). A coat of flat clear sealed the work, **24**.

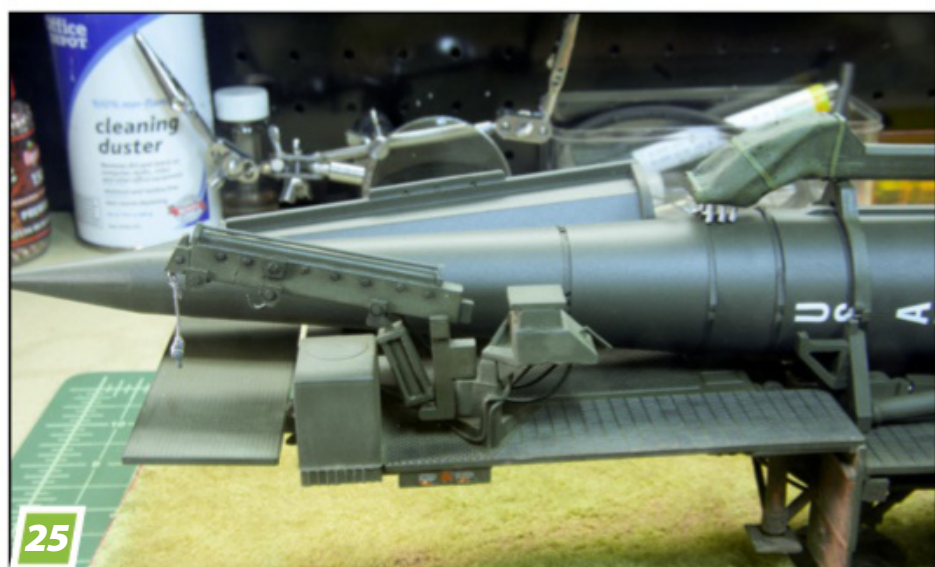
I connected the boom to the missile with .060-inch styrene rod painted polished aluminum, **25**.

To make the heater hose, I coiled 26AWG stainless steel wire and covered it with aircraft tissue saturated with Woodland Scenics scenic cement (No. S191). A coat of flat black finished the job. Six lengths of .032-inch black insulated wire comprise the harness with soft lead for cable ties. The hydraulic hoses for the lifters are .026-inch black insulated wire, **26**.

I made a base for my completed and detailed M757A1 erector/launcher and Pershing 1a missile and mounted on it the nameplate included in the kit. I finished off the build with a Russian ruble made with metal from crushed missiles commemorating the treaty that removed the Pershing from service. **FSM**



Finally, I was able to get to building the Pershing itself! I test-fit it to the launcher to make sure everything lined up.



I scratchbuilt the connector pins from styrene rod cut to length and painted.



You can see the heater hose, cable harness, and hydraulic lines here on the finished model.

Mike shows that you can improve complex but dated kits with some research, scratchbuilding, and judicious use of spare parts.



AMPS 2019

In early May, more than 150 modelers shuffled off to Buffalo for the annual international convention of the Armor Modeling and Preservation Society. The contest tables were crowded with nearly 600 tanks, figures, trucks, cannons, and dioramas. *FSM* editors Mark Savage and Aaron Skinner hit the city on the shore of Lake Erie to take in the show and shoot photos of the entries.

The 2020 convention is slated for May 7-9 in Harrisburg, Pennsylvania. Check amps-armor.org for updates and more info.

Want to see more?

You can find more photos from the AMPS convention in *Great Scale Modeling* 2019 on sale November 19. Preorder your copy today online at KalmbachHobbyStore.com.



BRETT AVANTS

ST. CHARLES, MISSOURI

The war-weary face on this Young Miniatures 1/9 scale soldier from the 101st Airborne was all painted with Scale 75 and P3 acrylics.



▲ **PETER ESPADA**
CAMP HILL, PENNSYLVANIA
 An MP urges an M103A1 to “move it” in Peter’s 1/35 scale scene set in Germany in February 1960. To improve Dragon’s kit, he used Voyager parts including photo-etch and a turned-metal gun, added Value Gear stowage and Tamiya jerrycans in Def.Model racks, and installed a Verlinden .50-caliber machine gun, M.V. Products lenses, and stiff wire antennas with a fine paper signal flag.



▲ **BART CAMPBELL**
LINDSAY, ONTARIO, CANADA
 Dragon’s 1/35 scale Panther Ausf A looks at home in the late-winter mud thanks to Bart. He detailed the German tank with Aber photo-etch, a Panzer Art turned-metal barrel, and Friulmodel metal tracks. Hairspray weathering produced the worn white-wash over the camouflage; other weathering was added with artist oils, enamels, and pigments.

► **WILL ALCOTT**
TORONTO, ONTARIO, CANADA
 Will accurized Academy’s 1/72 scale WC-54 by reshaping the windshield and rebuilding the front grille. Airbrushed red crosses and decal serial numbers put the ambulance in French service in Indochina in the early 1950s.





DUSTIN DIAS
WELLSBURG, WEST VIRGINIA

A battle-worn T-34 climbs through the remains of a factory in Dustin's scene. He added tarps and damage to Dragon's 1/35 scale tank and airbrushed it with Ammo by Mig Jimenez acrylics. The ruins are MiniArt steps and gentries with bricks from a Mig Productions mold on a foam base.

CHRIS GREEN
SPARTA, NEW JERSEY

Chris sculpted Western Front groundwork from Durham's Rock-Hard Water Putty over foam, then covered it with dirt from his backyard, Woodland Scenics static grass, real leaves, and kitchen spices. He painted the Meng's 1/35 scale Whippet with layers of color over black primer.



JAMES GULD
HUNTINGTON STATION, NEW YORK

Using scratchbuilt parts, James built one of Hobart's Funnies, specialized tanks deployed on D-Day to overcome obstacles and clear paths. Basing his conversion on AFV Club's 1/35 scale Churchill AVRE, he added scratchbuilt Bangalore rods, a log carpet device, and wading stacks. After priming it with Vallejo acrylics, he airbrushed the camouflage with Tamiya colors.



DR. WILLIAM KALMAR
IMLAY CITY, MICHIGAN

Inspired by last year's 50th anniversary of the Tet Offensive, William corrected flaws in Dragon's 1/35 scale M67 flamethrower tank and painted it with Testors Model Master USMC green over pre-shading layers. "This M67A2 fought at Hue City in Vietnam — the red-brown dust is very distinctive," he says of the weathering.



**CHRIS JOHNSON
NEWCASTLE, ONTARIO,
CANADA**

After improving Takom's 1/35 scale Finnish ItPsv 90 Marksman by adding antennas and antiskid texture to the upper surfaces, and metal tracks, Chris painted the anti-aircraft vehicle with acrylics.



**▲ SANDY McRORIE
TORONTO,
ONTARIO, CANADA**

Sandy built Great Wall Hobby's 1/35 scale 12.8cm PaK 44 out of the box, then painted it with Tamiya acrylics. He weathered the German antitank gun with washes and pigments.

**► FRANK CICCARELLA
OAK LAWN, ILLINOIS**

A Soviet OTR-23, known to NATO as the SS-23 Spider, prepares to launch a missile in Frank's Cold War scene. The 1/35 scale launcher is a HobbyBoss kit detailed with photo-etched clasps, vents, and footholds, plus DEF.Model resin weighted wheels. Frank painted it with Vallejo acrylics. The trees were scratchbuilt using furnace filter material for foliage.





◀ **ASHLEY ABERNATHY**
GLEN ALLEN, VIRGINIA

Ashley's improvements to Italeri's 1/35 scale T-26 include a resin mantlet from CMK with a turned-aluminum 45mm gun, Modelkasten individual-link tracks, and Eduard photo-etched details. After priming with a coat of Mr. Surfacer, he airbrushed the camouflage freehand with AK-Interactive colors. "I then masked the turret and painted the turret colors, first white, then yellow then the red," he says. These colors and the black X on the roof mark the tank as serving with the Spanish Foreign Legion in the Spanish Civil War.



DAN ROTHENBERGER
SHELBURNE, VERMONT

"It is a kitbash using the Dragon turret and Tamiya hull," Dan says of his Korean War flamethrower Sherman. He added the antenna and tarps made from Kneadatite epoxy. Def.Model Marines and snow-covered groundwork place the scene at Chosin Reservoir in winter 1950.



STEVE MOSKOVSKY
FISHERS, INDIANA

Steve enhanced Tamiya's 1/48 scale F-14A with Eduard photo-etched metal cockpit details. Aftermarket decals from Furball provided the Strike Fighter Squadron 41 (VF-41) "Black Aces" high-visibility scheme. The subtle weathering is thanks to pre- and post-shading coupled with salt masking.

► **CHARLIE MILLER**
GARLAND, TEXAS

Charlie built this B-52D following the article "Painting Monogram's 1/72 scale BUFF" by Paul Boyer, found in the February 2018 *FSM*. He then mounted the beast on a 32-x-41-inch frame meant to display a jersey. The background is a Fastsigns vinyl print. The model has threaded inserts in the fuselage and wingtips that connect it to the frame with brass stand-offs. Charlie gifted this wall-hanging model to his grandson who is a B-52 avionics/navigation airman at Barksdale Air Force Base in Louisiana.





◀ **FRANK STEFFENS**
RONKONKOMA, NEW YORK

Tamiya's 1/48 scale Spitfire Mk. Vb is depicted here as EP210, a Lend-Lease aircraft assigned to the Soviet 57th Guards Fighter Aviation Regiment during the Battle of Kuban in 1943. Frank painted it with MRP (Mr. Paint) acrylic lacquers and adorned it with AML decals and Eduard photo-etched metal.

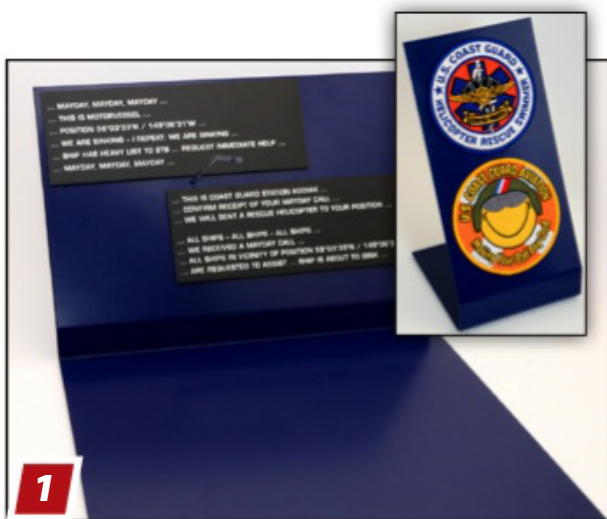
Jayhawk *to the rescue*

How to create an action-oriented helicopter diorama

BY THOMAS NEUSS



Thomas Neuss re-creates a rescue scene with a HobbyBoss 1/72 scale Coast Guard helicopter.



I started with a 2mm aluminum plate powder-coated in dark blue, then added an aluminum plate bent to stand erect, powder-coated it and added two U.S. Coast Guard patches to it.



Next, I made rolls of Magic-Sculp, cut and put two together for the raft's body, then added pieces of electrical wire to create roof supports.



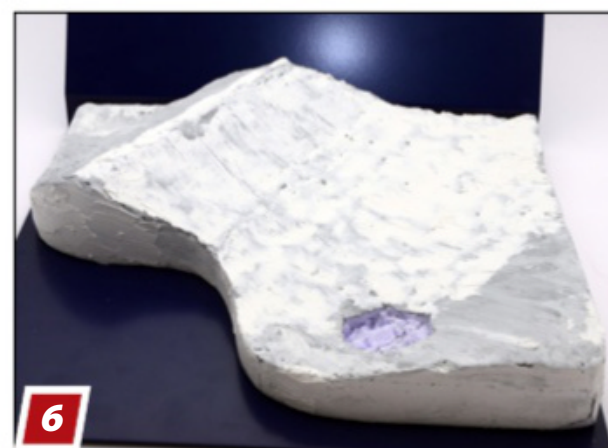
Next, Parafilm M was stretched to size over the electrical wire supports to create the raft's roof.



I used Tamiya tape to make straps, patches, and entrance steps. Markings are homemade decals along with silver stripes from TL-Decals.



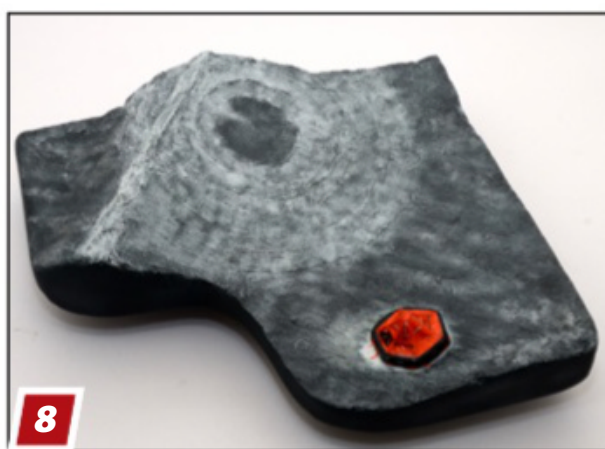
Before starting on the water, I temporarily fixed the helo to the base, then cut insulating foam with a band saw. Waves were formed using a cutter, rasp, and hot-air gun.



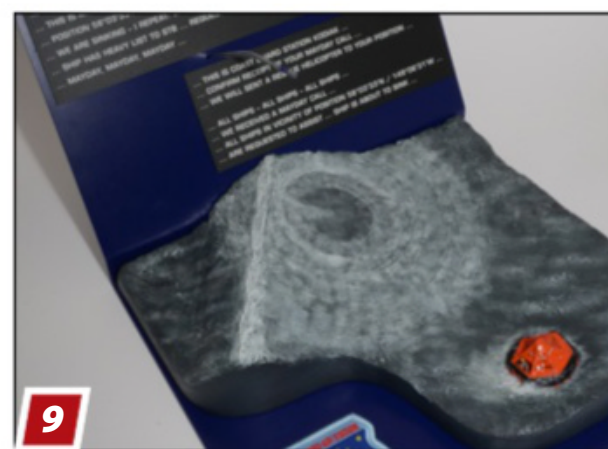
The helo placement helped me define the rotor downwash area and where I wanted the raft placed so I could carve out that area in the foam.



I then formed the downwash rings in several steps, always using a wet brush to wipe the acrylic gel toward the outside of the downwash's rings until I was satisfied.



Applying various shades of gray to the rings by using the dry-brushing method, I created the illusion of depth.



Next, I attached the raft and blended it into the water with more gel medium. Now, with the Coast Guard Air Station Kodiak patch applied, the base was finished.

I find a display more interesting if it tells a story. Helicopters offer a wide range of options, but how to display a flying helo in a static display?

That's exactly what I wanted to do in my North Pacific rescue scene.

Creating a U.S. Coast Guard Jayhawk in a dramatic rescue took shape after watching the 2006 movie, *The Guardian*. I found pictures of this great Coast Guard search and rescue

helo in its red-and-white high-visibility scheme on a gray northern pacific background and they were stunning. That's exactly what I wanted to show.

So, I chose the 1/72 scale HH-60J (No. 87235) from HobbyBoss as my centerpiece. From the beginning, the focus was on how to make a static helo appear to fly. Motorizing the kit was not an option; I wanted a static model with no technical gimmicks.

As an alternative to the kit's

main rotor blades, there was the option of using a clear disc, or perhaps creating single blades to look like a moving rotor. For the tail rotor I would use PropBlur photo-etched (PE) parts; but there was nothing suitable for the main blades.

The display

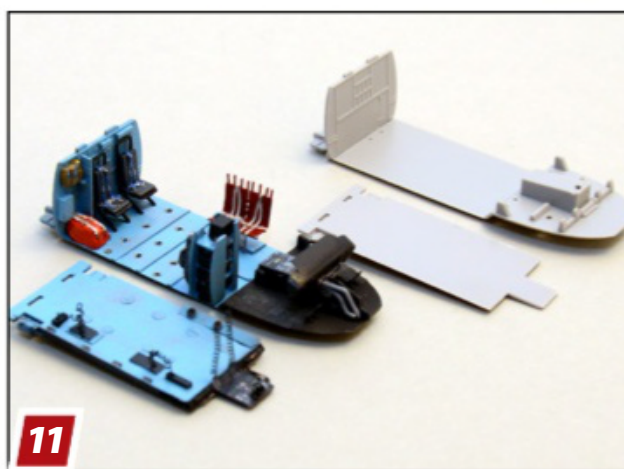
Kit chosen, I focused on display composition. There would be two levels, helo overhead and the ocean below. On the water would be a life raft for the cor-

relation between the two levels. The idea was to use a rear panel to mount the helo and add drama, 1. I used a 2mm aluminum plate canted to shape and powder-coated it in dark blue. A hole was drilled to fix the 6mm clear acrylic rod to hold the helicopter.

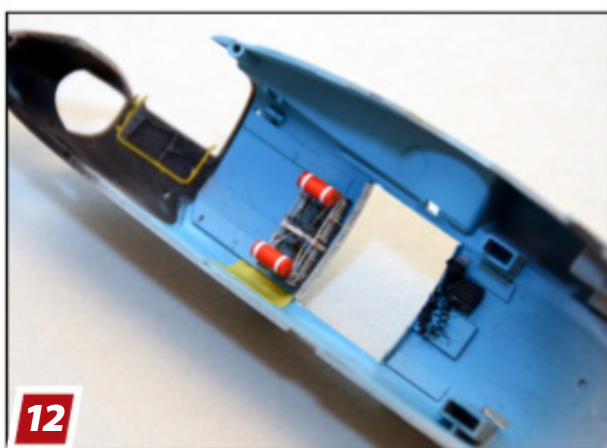
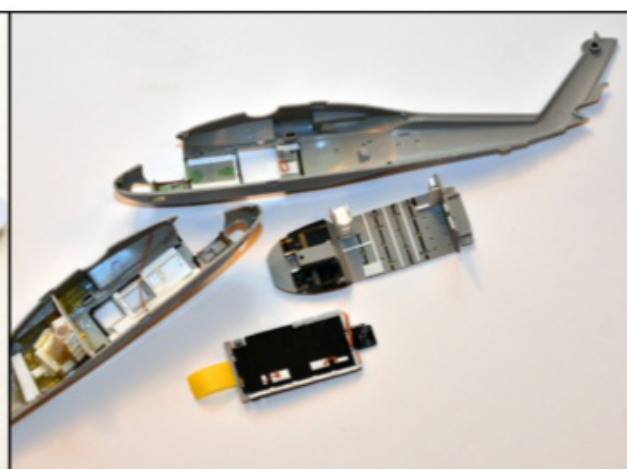
A smaller aluminum plate was canted and powder-coated to display two additional Coast Guard patches. While in the background I added two text panels with text of radio traffic



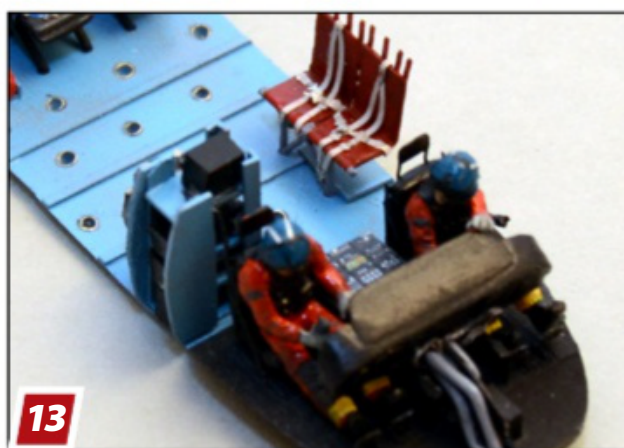
10 To create the shorter auxiliary fuel tank needed on the starboard sponson, I cut down an extra tank that I had from another kit.



11 I updated the helicopter's interior with an Eduard PE set, plus a variety of scratchbuilt details from Evergreen sheet styrene.



12 Making the rescue basket from PE mesh, thin copper wire, plastic rod, and Tamiya tape was a chore, but looks great.



13 Final interior detailing involved painting and altering figures by Modern Hobbies, PJ Production, and The Aviation Workshop to make a realistic rescue and flight crew.



The real thing

The HH-60J Jayhawk is a development of the SH-60 Sea Hawk family of helicopters and replaced the HH-3F Pelican in Coast Guard service in the 1990s. It is used for SAR-duty, drug interdiction, general transport, and surveillance.

The modernized MH-60J and T have a FLIR turret and can be armed with a machine gun. Typical for the Jayhawk (aside from the color scheme) is the radar nose, in addition to the configuration with three external fuel tanks.



that would describe the scene. The panels are photo prints on aluminum, available from a mail-order photo shop.

Raft and water

Next, I built the life raft, which was pure fun. I found dimensions on the internet, then cut a sheet disc, marking the corners. I made rolls of Magic-Sculp — a two-component putty — cut them to length, and formed them into hexigons, and put two together for the floating body of the raft, **2**.

Supports holding the roof aloft were made from electric wire, and the rubber roof cut from Parafilm M and stretched to size, **3**. Straps, strengthening patches and entrance steps were made from Tamiya tape. I added markings using home-made decals and silver stripes from TL-Decals, **4**.

To create the water, I used Styrodur (polystyrene) plates, an insulating material found at a hardware store. To outline the shape with a band saw, I had to

determine the height of the Pacific waves rolling through the display diagonally. I added a second piece of polystyrene to get the correct height and everything was cut roughly using a cutter, a rasp, and a hot-air gun, **5**. Next, I covered the polystyrene with putty and sanded it to the shape I desired.

Next, I defined the rotor downwash area and proper raft placement, then cut out the area where the raft would be placed, **6**. I painted the first layer dark gray, marking the downwash rings with a circle while using an acrylic gel medium. The downwash rings were formed in steps and wiped to the outside using a wet brush, **7**. Those rings were then painted different shades of gray using dry-brushing, **8**.

Next I placed the raft and blended it into the water with more gel medium. I could now put the water on the plate together with a Coast Guard Air Station Kodiak patch to finish the base, **9**.

The helo

I wanted to build a Kodiak-based helo and my internet research led me to make an HH-60J. I had to make a few choices though.

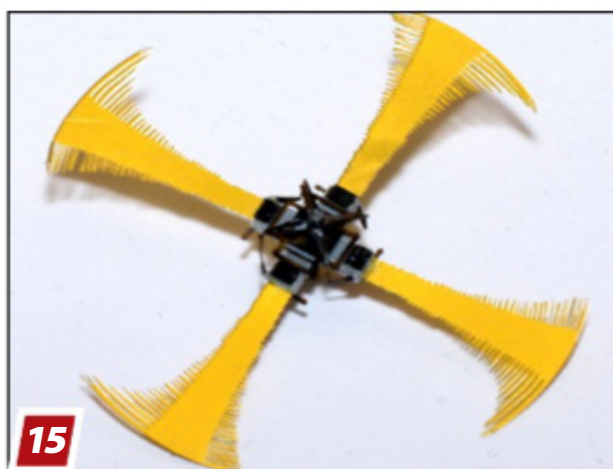
There are decals for nearly every Jayhawk in the aftermarket. I used decals from Fireball and Model Alliance. Plus, Jayhawks can carry a searchlight or auxiliary fuel tank on the starboard sponson. The tank is shorter than the two on the port sponson, so that's the way I went, simply shortening a tank from another kit, **10**.

I began by building the interior, but the kit is somewhat basic, so I added parts from an Eduard PE set for a Sea Hawk, plus many scratchbuilt details made from Evergreen sheet styrene in varying sizes, **11**.

I found the rescue basket here to be a little tricky. It's made from PE mesh, thin copper wire, plastic rod, and Tamiya tape, but its small size posed a real challenge, **12**. Yet to be honest, it is hardly visible



14 Outside, I also added a mix of Eduard PE and scratchbuilt parts. Also note the landing gear's suspension is extended in flight.



15 Making the tail rotor appear to spin was easy. I used PropBlur PE blades and detailed the hub with PE bits from the Eduard sheet, and some thin wire. Painting some pink and gray on the rotor's outer edges also enhanced the illusion of motion.



16 I designed my own PE main rotors. A small German company reproduced them for me at minimal cost. I also replaced the rotor shaft and pins with metal rods.



17 To further simulate the main rotor's blur I used pink, gray, beige, and dark gray instead of red and white, yellow, and black.



18 I was happy with the final appearance of the blurring rotors to give my diorama the sense of action that I desired for a daring rescue scene.

inside the closed fuselage, so I needn't have worried much.

To complete the interior, I hobbled together a crew from various figures made by Modern Hobbies, PJ Production, and The Aviation Workshop. Each was altered and adapted to fit the needed configurations, 13.

With figures in place, I prepared the helo for base attachment. This was handled via a 6mm acrylic rod that was fixed inside the cabin with plastic parts and two-component glue, Stabilit Express.

Next, I detailed the fuselage with a mix of Eduard PE and scratchbuilt parts, followed by painting. Care was taken with the landing gear, as the hydraulic suspension is extended in flight, 14.

I used my Aztek airbrush to apply Hobby Color acrylics. This color scheme requires a lot of masking and several painting sessions. Under all the red areas I applied several layers of yellow to enhance the red and increase

its shine. A gray wash was added to bring out the copter's panel lines.

Usually these helicopters are kept quite clean, so I kept weathering to a minimum.

The rotors

Creating realistic in-motion rotors was a must for this build.

I made the tail rotor using PropBlur PE blades, in addition to some PE bits from the Eduard sheet, plus thin wire, 15. Additionally, the kit rotor shaft was replaced with a metal rod to ensure a straight shaft.

The big challenge though was the main rotor blades.

As no PropBlur parts are available for a full-size rotor, I designed my own from PE parts with .3mm nickel silver material. I contacted Moog Modellbautechnik, a small German company that mainly makes model railroad parts. From my drawing, Moog created the PE I needed. The process was quick and cost about \$30. I was happy because the

blades are robust and do not droop. But they are heavy; so I needed to strengthen the main rotor head by replacing the rotor shaft and plastic pins with metal rods, 16.

Painting the blades also required a somewhat unusual approach. The effect of a turning prop means that the colors must be subdued, as the eye should not be able to fix hard demarcation lines between the colored stripes or the rotor's outline. Using pink, gray, beige and dark gray instead of red and white, yellow, and black gave the blurred motion effect when a viewer stands at a reasonable distance from the diorama, 17.

Naturally there were a lot of compromises in making a static model look as if it were flying. But I am satisfied with the result and the overall appearance of the "turning" rotors, the downwash effect in the water, and the overall dramatic scene, 18. This was fun and certainly won't be my last project that incorporates a flying helo. **FSM**

Meet Thomas

Thomas, 41, has been building models for nearly 25 years. Starting with U.S. Navy ships, he has broadened his interests to include 1/35 military vehicles, and aircraft in 1/72 and 1/48 scale. He mainly focuses on modern equipment related to special missions (rescue, etc.). Thomas is a paramedic and lives with his wife and two children in northern Germany.





Airfix Bristol Blenheim Mk.IF

The Blenheim first flew in 1935 and entered service as a light bomber that was as fast or faster than contemporary biplane fighters. The Mk.IF was a fighter conversion primarily used at night, establishing the intercept and interdiction tactics mastered by its offspring, the Beaufighter.

Options include open or closed cowl flaps, raised or lowered landing gear, and posable flaps. Crisp recessed panel lines and rivets detail the airframe and raised instruments detail the cockpit. Bombs, racks and what looks

like a strike camera indicate that a bomber version is on the way. Decals are provided for a plane in dark earth and dark green over black, and a night fighter in overall black.

The 20-pages of instructions start with the cockpit, although you may want to skip ahead to Page 19 (more on this later). The tube framework is well represented and goes together quickly. I had to thin Part D7 to allow room to correctly mount the jump-seat (A28). The instrument panel faces are provided with two decals, a center panel, and the surrounding details. I split the latter into four parts to ease alignment over the raised detail. Once applied they look fantastic.

While it looks complicated, the engineering of the landing-gear struts made construction and installation easy.

The wing spars make setting the correct dihedral simple, and the horizontal tail surfaces join without any seams to fill.

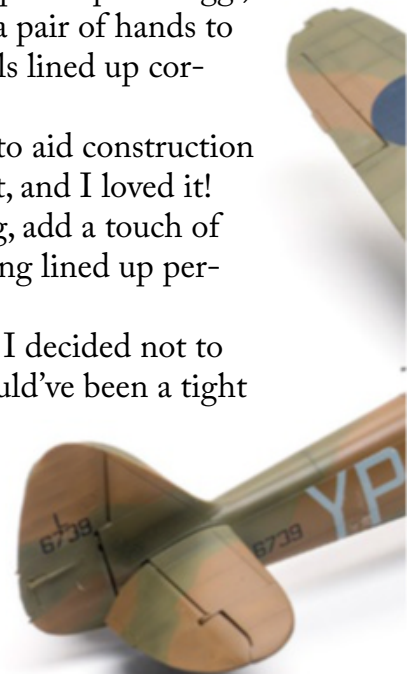
However, you may want to add wire pins to the rudder to help secure what is essen-

tially a butt join and may be a bit weak otherwise.

Pay close attention to the drawings in Step 66. I didn't and had to tear apart the engines. The two slots for the air intakes are on the left side as you face the front of the engines (as clearly shown in the drawing), not the top! (The intakes will be on the starboard side of the completed power egg.) I could have used an extra pair of hands to get the multi-piece cowls lined up correctly.

Airfix provides a jig to aid construction of the multi-piece turret, and I loved it! Place the parts in the jig, add a touch of super glue, and everything lined up perfectly.

Now about Page 19: I decided not to install the pilot as it would've been a tight fit. The assembled fuselage was narrower than the clear parts that make up the nose and canopy. So, I used a piece of tubing dis-





guised as part of the cockpit structure to spread it. I am planning on building a second kit as a night-fighter flown by U.S. Navy crewmembers sent to learn British tactics. When I do, I am planning on building the clear nose first, then going back to Page 1 and making sure everything aligns to the nose. Another option would be to connect G4 and G11, the vertically split nose halves, to their respective fuselage halves before assembling the fuselage.



I painted the cowls, flaps and, gear doors separate from the airframe. I used Testors Model Master paints inside and Mr. Color on the exterior.

The decals went down well over a coat of Pledge Floor Gloss (PFG). I tried to accelerate the process with a hair dryer on the fuselage codes, but I don't recommend it. They began to bubble rather than conform to the surface. I sealed them with PFG and then Testors Dullcote.

The flaps are a simple butt joint, but I wish they had a more positive system for alignment. The engines, props and gear doors fit well, just be sure the gear doors "snap" all the way in. The hole for the antennae mast is a little large. You may want to add some filler. All that was left was to drop in the completed turret.

Although this kit has minor challenges, most modelers should easily overcome them. I thoroughly enjoyed mine. Airfix continues to give us great kits of interesting subjects and I can't wait to see what's next.

— Andy Keyes



Kit: No. A09186 **Scale:** 1/48

Mfr.: Airfix, airfix.com **Price:** \$49.99

Comments: Injection-molded, 216 parts, decals **Pros:** Great fits overall; landing gear structure easy to assemble, solid; turret-assembly jig is absolute genius

Cons: Wish there was a jig to build the multi-piece engine cowls; glass nose difficult to assemble



Amodel C-37B Gulfstream

Over the years, several branches of the U.S. military have had several versions of the Gulfstream biz-jet in their inventories to shuttle VIPs and command staff. The latest is the C-37, a version of the Gulfstream G-550. As biz-jets go, the Gulfstreams are just a notch down from converted airliners. They're big, fast, and transport passengers comfortably in the stratosphere. And they're pretty, too!

I was impressed at the size of Amodel's C-37 — it's just a bit smaller than a B-17. The Ukrainian manufacturer has announced multiple versions of the basic kit, so the fuselage in six parts — forward, center, and rear halves — to accommodate those variations.

There's a good cockpit with separate seats, control columns, rudder pedals, and bulkheads. Small parts need a lot of cleanup and are difficult to handle.

The instructions don't mention adding

nose weight, but once you add the engine pods and horizontal stabilizers, the model will rotate onto its tail. I fashioned a clear plastic tail prop for my model, but you'll probably want to add weight in the nose.

The fuselage presented challenges. Neither the fuselage parts nor the 14 windows have rims to assist fit, so it's best to install them before closing the fuselage. I had to shave the edges of each window and dry-fit them several times. And even then, they didn't fit cleanly, so I ended up sanding and polishing the windows.

The engine pods have multipart intakes and exhausts. I like that they produced the intake rims as separate parts so they're easy to paint. It's not clear in the instructions, but the pylons attach to the fuselage at an upward angle.

Each wing has top and bottom halves that attach to a center section that fits into the opened-bottom fuselage. The fit here wasn't good, producing a 1/16-inch gap at each wing root. I closed the gaps by expanding the bottom of the fuselage with pieces of sprue, then smoothed the seams with gap-filling superglue and sandpaper.

The wings feature winglets and include clear navigation lights that fit into separate leading-edge sockets.

The landing gear looks good,

but interestingly, the main mounts have separate shims that you place between the top of the strut and the wheel well — looks like they were trying to ensure the proper nose-down appearance of the jet.

There are no fewer than 45 small blisters, antennas, probes, and sensors that must be attached to the fuselage and tail and their placement of many of these items is hampered by the instruction's small drawings. The fuselage has no holes, and none of the tiny parts have pins, so I drilled tiny holes and used the nubs of the sprue attachment points as pins to assist placement. The trickiest was the long thin spine on the top of the fuselage; attaching it flush to the fuselage and keeping it straight was difficult. The flight data sensors (pitot, static, angle-of-attack) are over-size.

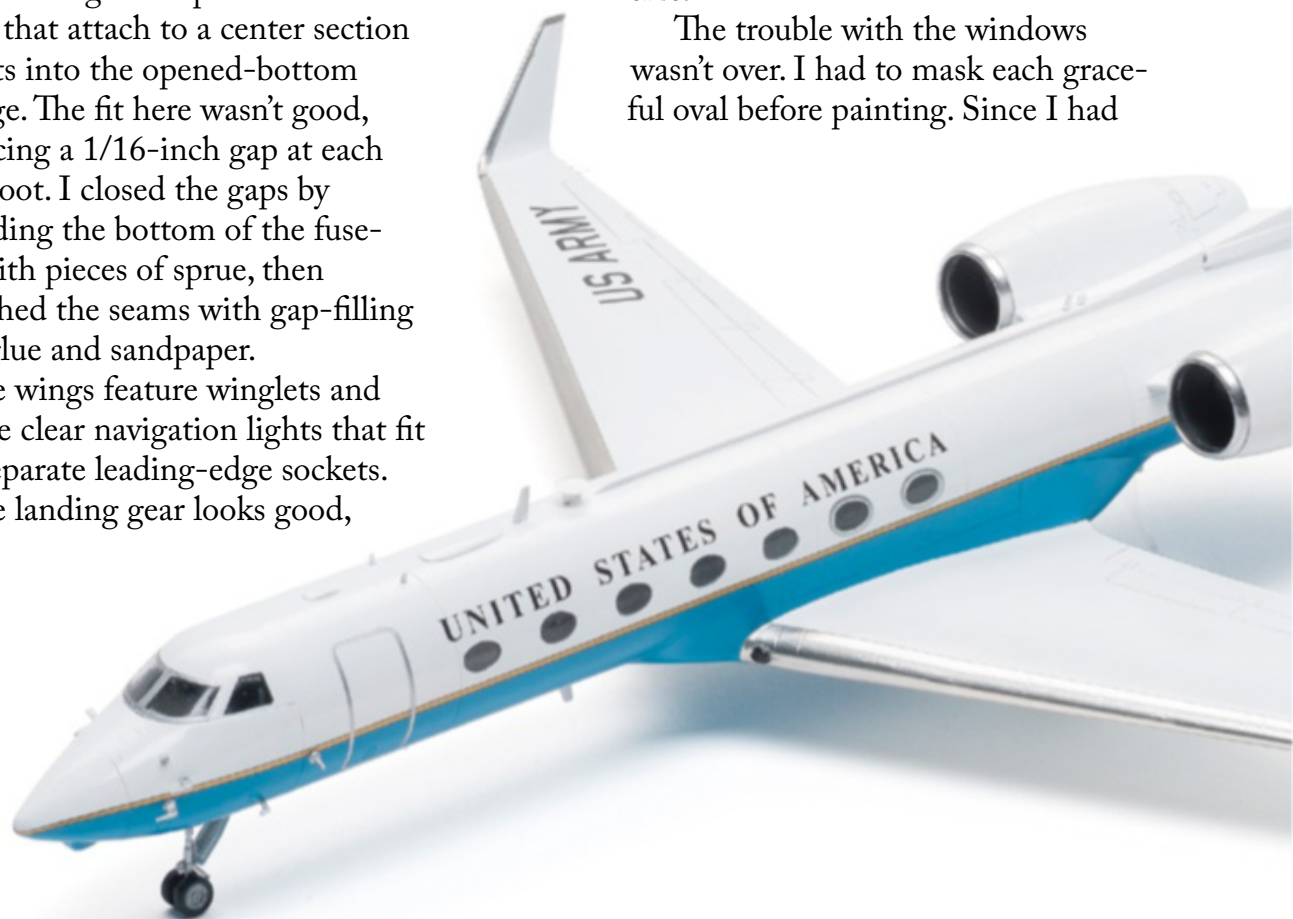
The trouble with the windows wasn't over. I had to mask each graceful oval before painting. Since I had



Kit: No. 72327 **Scale:** 1/72

Mfr.: Amodel **Price:** \$59.99

Comments: Injection-molded, 180 parts (27 PE), decals **Pros:** Good surface detail and PE; excellent decals **Cons:** Thick windows difficult to install and mask; small parts need cleanup; six-part fuselage awkward to build; assembly illustrations need close-up views





sanded them smooth, there were no defined rims to mask along. I covered the windows with clear frosty tape and hand-cut around each with a sharp blade. I wish Amodel had provided window decals.

However, the kit's decals went on perfectly, including the black-bordered gold cheatline, over multiple coats of Pledge Floor Gloss. Before applying them, I added a coat of Microscale Liquid Decal Film to the kit's beautiful decal sheet to make each item easier to handle.

Attaching the 14 tiny photoetched static dischargers to the trailing edges of the wing and tail tips was the final task.

Spiffy and streamlined, the finished model looks the part of a VIP transport. I spent 34 hours on the model, more than usual due to the struggles with the window and external details.

— Paul Boyer



Zvezda Elefant

Just as the German army updated the Ferdinand tank destroyer based on experiences from the Battle of Kursk, Zvezda has updated its 1/35 scale Ferdinand to produce the Elefant. New in this kit are a bow machine gun, commander's cupola, and Zimmerit provided here as decals. Other kit features include clear vision blocks: a one-piece gun barrel; posable hatches; link-and-length tracks; and markings for two vehicles.

The chassis builds from several parts. Gaps showed up at each side of the upper transmission piece, but the fenders covered them. The road wheels come in two styles, so be careful to get the correct ones in the right places. I painted and weathered the lower hull along with the road wheels.

Each track run came up about half a link short and the drive and idler sprockets are locked in place with pins so the fits can't be adjusted to compensate. I suggest removing the locator pins from the rear sprockets and leaving them loose until the tracks are fitted.

Instructions indicate applying the Zimmerit decal at this time before painting. The relief of the 3D decals was apparent on the sheet, but it relaxed after being applied to the model and are hard to see. I also had trouble with the sections lifting after painting; applying them to primed plastic might alleviate that problem.

I added the hull top next and installed the engine grilles. Separate posable hatches for the driver and bow gunner make it easy to add aftermarket figures. The clear plastic periscopes resisted paint.

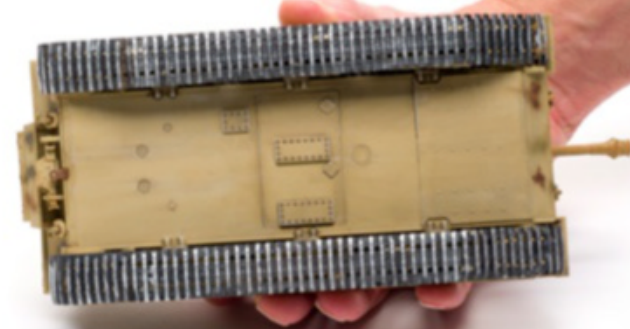
I assembled the main gun breech and attached it to the casemate, which is made up of six plates that fit well. Periscopes and their hatches, and the commander's cupola, came next. Note: If you pose the periscope hatches closed, omit the clear parts.

The main gun consists of a solid barrel and a three-part muzzle brake. Optional parts allow for the gun to be posed in the travel lock or ready for battle.

After painting with Tamiya acrylics and weathering supplies, I added decals for an Elefant in Rome in summer 1944. The other marking option is a vehicle captured by the Allies in Italy in July 1944.

I spent 31 hours building my Elefant. If you are looking for an easy Elefant, especially for a diorama, Zvezda's kit would be a good choice.

— Tom Foti



Kit: No. 3659 **Scale:** 1/35

Mfr.: Zvezda, zvezda.org.ru **Price:** \$54.99

Comments: Injection-molded, 292 parts, decals, Zimmerit decals **Pros:** Simple, straightforward build; relatively low parts count **Cons:** Fit issues with tracks; Zimmerit relief too shallow



Zvezda Yak-130

There has never been a better time to be a modeler of Russian aviation! We have seen kits of quite a lot of the prominent aircraft used by the Russian air force over the last few years, some of which have been stunning.

The Yak-130 is a two-seat, twin-engine, light-attack jet currently in service with Russian forces and several of Russia's client states.

Zvezda plastic is somewhat softer than that of most kit manufacturers. This does have an influence on how the kit parts are handled, especially the 13 clear plastic parts. I found it very easy to clip the parts from their respective gates, and carefully slice off the remaining excess, with little concern for the part fracturing since the plastic is not at all brittle, and actually slices well.

The one thing that became clear very early in the build was the importance of following the instructions exactly! If you do, the assembly sequence is logical and proceeds very smoothly, with excellent fit being evident throughout the entire airframe. Some areas are quite complex in shape and assembly but have no concerns as everything will fit very well.

I did deviate very slightly with the front landing gear assembly, removing the two nubs on the sides of the top of the gear, so that I could slide the assembly into the nose gear bay after painting/assembly had been completed. I was concerned by the possibility of having the nose gear mounted so early in the process that I may damage it or have masking problems.

It is obvious that Zvezda had access to the real jet and did its homework because the kit really captures the fine nuance of the design. One example is the auxiliary air intake doors located above the Leading-Edge Extension (LEX) of each wing. On the real aircraft, these swing down to block off the main air intake when the aircraft is



on the ground to avoid Foreign Object Digestion (FOD). There are S-shaped pieces that act as springs to hold the intake door in the closed position. With a little push, the door will unlatch, and swing down into the closed position, blocking off the main air intakes below the LEX. The fit in both open and closed position is perfect. Zvezda also includes intake and exhaust covers, both of which also fit perfectly into their respective positions. Impressive.

Detail throughout is terrific. In fact, I decided to leave the undercarriage bay doors open — they are usually closed when the aircraft is on the ground — because the detail is so good.

The well-appointed cockpit features beautifully done K-36L seats, unique to the Yak-130 and Su-35, including seat cushions with convincing seat belts and hoses. There is some detail missing on the sides of the seat, but it is not that obvious once installed in the cockpit. I don't think aftermarket seats are an essential addition here.

The weapons supplied with the kit are all appropriate for the subject, and all fit their respective pylons/mounts correctly and positively. The kit provided numerous display options, including in flight, with two nicely molded pilots, or all opened up on the ground. Both





leading-edge and trailing-edge flaps can be posed either neutral or deflected. The trailing-edge flaps feature foolproof mounts and molded eyelid flaps. There are even chocks supplied for an airfield diorama.

Five markings choices are provided, including Russian, Algerian, Belarusian, and Burmese aircraft. The decals are extremely thin and grip the surface of the model quickly. Flood the surface with water so you can move the markings into their final positions. The thin decals conformed to surface detail easily and did not silver.

So now that I have built both the Kitty Hawk and Zvezda 1/48 scale Yak-130s, how do they compare? Zvezda is the clear choice presenting a well-thought-out kit with clever design and engineering that is easy to build. It was obviously created by people who really knew the subject and how to present it in scale. I hope Zvezda continues to expand its 1/48 scale aircraft range as this kit really is a delight to build, is accurate, and reasonably priced. Well done Zvezda!

— Matthew Walker



Kit: No. 4821 **Scale:** 1/48

Mfr.: Zvezda, zvezda.org.ru **Price:** \$59.99

Comments: Injection-molded, 293 parts, decals **Pros:** Terrific engineering, accuracy, and detail; plenty of options; pilots included **Cons:** I'm not sure it's really a negative, but you need to follow the instructions to the letter

Takom Russian army tank transporter



Following up its 1/72 scale U.S. M1070 heavy equipment transport, Takom released another great small-scale tank transporter, the Russian MAZ-537G with ChMZAP-5247G trailer. Produced between 1959 and 1990, this combination has moved everything, including tanks, rockets, and tractors, and served in Chernobyl, Iran, and Afghanistan among other locations. Given so many options for modeling and painting this kit should be a welcome fit in many collections.

Construction began with the main tractor frame and transmission. Small parts were tight and crisp; Takom continues to impress me with this kind of molding, finding the perfect balance between a lower parts count and separate details. The frame and cab built quickly and without issue. I liked that Takom molds each door and window as a single unit, keeping the doors and windows scale thin.

I wish the kit included even a little engine detail. Although it's mostly invisible, the engine compartment is empty.

The trailer builds just as smoothly as the truck itself with the major sections of the frame and bed being large slide-molded parts. The kit provides the option to pose the trailer's support legs stowed or lowered and the ramps can be left movable. The trailer looks great when finished and it's just begging for a T-55 or bulldozer to haul.

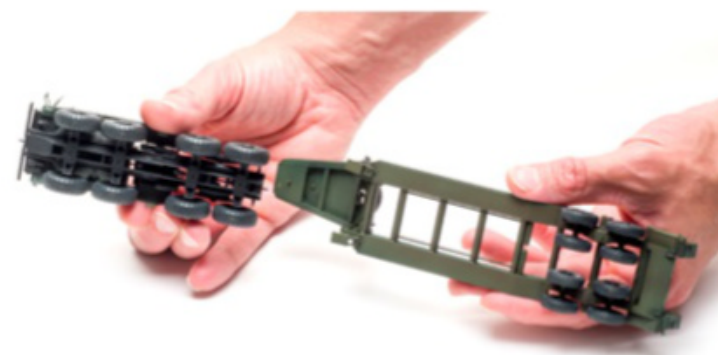
I painted the truck and trailer with Tamiya acrylics. At some point, I scratched the windshield and, rather than polishing the blemish out, I added to it to make it look more like a rock chip or bullet hole to hide my mistake.



Kit: No. 5004 **Scale:** 1/72

Mfr.: Takom, takom-world.com

Price: \$42.50 **Comments:** Injection-molded, 234 parts (16 PE, 18 vinyl), decals **Pros:** Great fits; scale thin doors and small parts; well-engineered for ease of assembly **Cons:** No engine; driver's detail simplified



I spent a little less than 30 hours building and painting Takom's Russian tank hauler and it would make an ideal weekend project for any modeler. Or it could easily be taken to the next level with a little more work, such as replacing the solid grab handles with thin wire, opening hatches, or adding an engine. I really enjoyed building this kit and see myself building another in the future.

— Chris Cortez





Airfix Vickers Wellington

Nicknamed “Wimpy” after a famous contemporary British comic strip character, the Vickers Wellington was anything but wimpy, relying on a unique geodetic structure for immense strength. The Wellington served as the backbone of Royal Air Force Bomber Command from the beginning of World War II until the Lancaster and Halifax heavies pushed it to second-line service.

Airfix’s new 1/72 scale Wellington portrays the early-war Mk.1A or Mk.1C, but unused parts and flashed over holes point to future versions. The kit includes markings options for one “A” and one “C” version. The instructions are very clear about

build options and which parts are needed for each version, and helpfully point out up to 15 parts that may be left off as they will be nearly invisible on the finished model.

Build options include open or closed bomb bay, open hatch with boarding ladder, and landing gear up or down. Also included but unmentioned are clear waist windows and machine guns, as well as simple instructions to trim away the nose-turret shroud, a common modification on Mk.1C and later aircraft.

There is significant interior detail, including a flare chute that matches with the external opening. Bulkhead assembly angles are mentioned in the instructions, but I found it easier to use the fuselage as an alignment jig.

The instrument panel decals do not fit well and must be trimmed.

Even if you leave out the parts indicated by Airfix be aware of other viewpoints into the fuselage, for example through the bomb bay if it is posed open. Before painting the inside, I added the covers for the waist windows and the window on the side of the nose. Be aware the fit is not good, requiring filling and carving to match the well-done fabric covering of

the fuselage. The waist window cover part numbers (E46 and E47) are reversed in the instructions, which caused even more fit issues. I added the bombs to the racks, but they are a bit crude and clunky.

A robust spar installed prior to closing the fuselage provides a solid mount for the wings; they join with a nearly perfect seam. The wings assemble well, even with the complicated engineering of the nacelles. The engine bulkheads include details molded on the front side, even though they aren’t visible.

The molded geodetic fabric covering on the wings is restrained but visible. All control surfaces are separate and fit perfectly. A nice touch is the elements molded into the clear plastic landing light lenses.

The instructions have you mount the landing gear right away, but I left mine off. It is easy to trim off the mounting peg for the retraction strut which makes assembly much easier, while the main gear struts attach easily and firmly.

For painting, I used Eduard’s masking set. While it is a huge help for accurate framing, be aware it does not include both sides of the bomb-bay vision windows, nor does it include the landing lights. I used a punch to create my own from leftover masking material.

Airfix has the major airframe colors listed by name — all other paint callouts are by Humbrol paint number only so grab a cross-reference if you are using another brand.

The decals are the best I’ve ever used in an Airfix kit, not a surprise as they are printed by Cartograf. Installing the remaining details was easy, but be careful when placing the astrodome on top of the fuselage as it can fall in.

I spent almost 26 enjoyable hours creating my Wimpy and can recommend the kit to anyone interested in having a Wellington in their collection.

— Chuck Davis



Kit: A08019 **Scale:** 1/72

Mfr.: Airfix, airfix.com **Price:** \$42.99

Comments: Injection-molded, 140 parts, decals **Pros:** Good fits, despite some over-engineering on the nacelles; great clear parts; best Airfix decals ever! **Cons:** Clear plastic rear bomb-bay bulkhead complicates masking; mislabeled parts in instructions

MikroMir Blackburn Beverley

“Like something out of the Ark, but it was a superb supply dropper,” said Royal Air Force Air Chief Marshal Sir Robert Freer, describing Blackburn’s Beverley. A thing of beauty, well...no, but a design of practicality, the transport could carry 30 paratroops in the tail boom who bailed out of a belly hatch just forward of the tail, and 40 on its main deck who exited side doors.

MikroMir’s Beverley features recessed panel lines, a nice flight deck, main deck interior detail, and the option of open or closed rear clamshell doors. A fret of 11 photo-etched metal (PE) parts and a set of masks are included.

Flash on the larger parts was easily removed but it proved more of a hindrance on small ones.

The fuselage halves lack locating pins, so I used scrap plastic zipper tabs for strength and alignment.

The wings and tail fit well. To strengthen the wing-to-fuselage joints, I inserted a short piece of Evergreen styrene tube through the fuselage to act as a stub spar.

The inboard engine nacelles needed filler where they joined the wings’ undersides. To get a good fit between nacelles and cowlings, I reamed out the cowls slightly.

The wheel hubs lack sharply-defined rims, so brush-painting the tires took a little extra time.

The PE was nicely done but, in this scale, it was pretty fragile. I omitted the PE anti-flail piping attached to the lower rear of the plane. (They were fitted during airdrops to prevent static lines whipping around and beating the plane.)

The propellers were the most difficult part of the build.

There are no

prop shafts, just nubs on the aft side of the backplates, and no holes in the “engine fronts” for them, either. Flash on the spinners made refining them difficult, and the spinners, backplates, and fragile propellers simply didn’t fit together very well; their frailty and size made filling and sanding tedious. There’s no need to detail the Centaurus engine “fronts” because the spinners hide them anyway.

Of the three markings options, I chose No. 84 Squadron’s desert camouflage for my model. The decals are excellent but the “Middle East” legend intended to be applied forward of the fuselage roundels was misspelled as “Midle.” Unable to find two matching white D’s in my decal stash to correct the error, I left those off.

The kit and instructions omit the real aircraft’s prominent propeller blade cuffs and de-icers; I used black decal film to simulate them. The fuselage “porthole” windows are decal dots and look fine in this scale. The masks left residue behind after removal so a little touch-up was needed.

One of my go-to references was The Beverley Association’s website (<http://www.beverley-association.org.uk/html/photos/stories.htm>) whose members have posted great photographs — and even greater stories.

My interest in the subject matter easily trumped my

frustration with the kit’s irritating small parts. Overall, I enjoyed the project, though it took me a little longer to build than a comparable subject and I’d recommend it to more experienced builders.

— Walt Fink



Kit: No. 144-008 **Scale:** 1/144

Mfr.: MikroMir, mikro-mir.com **Price:** \$31

Comments: Injection-molded, 111 parts (11 PE), decals, masks **Pros:** Great decals; good interior detail; historically important RAF subject **Cons:** Excess flash on small parts; no locating aids in places; propeller assemblies tedious to build





IBG 3Ro with 100mm howitzer

The Italian army often mounted outdated guns on Italian and captured trucks for increased mobility in the vast North African desert. This kit, one of three Italian truck kits recently released by IBG, is a good example, with a Skoda 100/17 howitzer in the modified bed of a Lancia 3Ro NM. (The Polish manufacturer has also released troop and cargo versions of the 3Ro.) To make room for the gun, the sides of the bed and the cab's roof and windshield were cut down, and ammo lockers were added.

Most of the parts are molded in light gray plastic with two light lenses molded in clear. The styrene is on the brittle side and I damaged several parts handling the trees or removing small delicate parts from the large sprue gates. A fret of 33 photo-etched metal (PE) parts and a metal barrel for the main gun are also included. The PE is soft and easily damaged — I put my thumb

through the front grill handling the part.

The instructions feature CAD exploded views and a view of each finished step; the latter is helpful to double-checking vague part placement directions. Angles are shown for bending PE parts and a finished view is given if it is especially complicated.

The plastic tires come in two parts — tread and sidewall on one, the other sidewall and the rim on the other. Careful gluing will hide the seam on the sidewall.

A full engine is included, but I encountered fit issues with the major parts of the engine block. Make sure that Part D12, one of the frame cross members is straight on the rear of the engine, or the engine will mount crooked.

The chassis frame comprises separate parts but good fits ensured everything was square. Note: In Step 15, cross member B26 should be D35. The front wheels are not posable. I replaced the thin PE brake lines with .025-inch brass rod because the PE parts were too soft, hard to clean up, and easily damaged during handling.



Placement of the cab components is vague, so I diverged from the instructions and glued the cab front to the floor, followed by the doors and cab sides. Finally, the rear of the cab was glued in place. This made sure everything was in its proper place.

There is not a lot holding the radiator grille, so I glued a styrene strip inside of the hood to secure it.

I removed the side turn indicators from the cab and left off the grab handles since they were not present in pictures of the truck I was modeling. However, I did add the spotlights (B12 and B13) since I liked



Kit: No. 35053 **Scale:** 1/35

Mfr.: IBG, ibg.com.pl **Price:** \$74.95

Comments: Injection-molded, 267 parts (33 PE, 1 metal), decals **Pros:** Metal barrel for howitzer; detail plastic tires; good instructions **Cons:** No decals for instruments; brittle plastic and large attachment points



the way they looked. They are molded solid, so I drilled them out and filled them Kristal Klear for the lenses.

Included on the parts trees but not mentioned in the instructions is a toolbox with an obvious mount for it on the frame. However, don't use it since it interferes with the fuel rack when the bed is added. Instead, fill the locating holes. One thing missing from the kit is the hanger for the end of the tailpipe. It is not shown in the directions and no part was leftover, but there is a spot on the frame where it should be mounted.



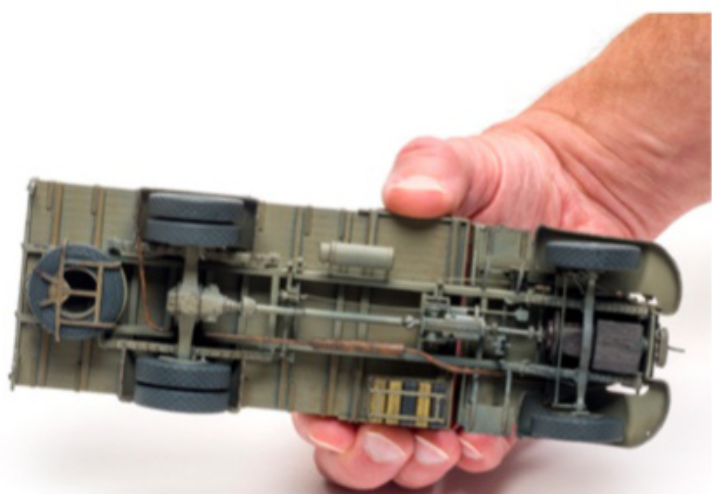
The howitzer uses parts from one of IBG's early kits with a new sprue included to mount it in the back of the truck. The parts are not as sharply molded as the truck parts and the directions are vague

about the placement of many of the parts. Start by attaching the parts whose placement is obvious, then use the process of elimination to glue others in place. The optional turned-metal barrel features rifling.

I painted the truck with Vallejo acrylics over Tamiya pre-shading. The thin decal went on easily and the carrier film completely disappeared under a coat of clear flat.

This wasn't an easy build due especially to the fineness of the PE and vague placement instructions, and I spent nearly 41 hours on it. But it has great detail and looks great when done. The book *Italian Truck-Mounted Artillery In Action* (Squadron/Signal, ISBN 978-0-89747-601-0) has several pictures of these trucks in North Africa that show modifications that would be easy to do and make each model unique.

— Mike Scharf



Revell Bucker Bü 131D

Sturdy and agile, the Bucker Bü 131 became the primary trainer for the Luftwaffe and it served with "virtually all" the Luftwaffe's primary flying schools during the World War II, as well as with night harassment units.

The Revell kit, a reboxed ICM offering, features two bags of gray finely molded plastic and a small bag of clear parts, a colorful instruction manual, and decals to mark two aircraft.

Overall the kit is beautifully molded and construction progresses smoothly. I had no fit issues what so ever.

The thin cockpit framing can break during removal from the large attachment points. My only complaint was the ejector-pin marks in the middle of the seats.

The clear instrument panels add realism, but the decal dials were out of register. Fortunately, they are hard to see in the completed cockpit. Decal seat belts, separate rudder pedals, and throttles complete the simple cockpit.

The engine shows nice details but lacks an exhaust manifold. If you want to pose the multipart cowl open, you will want to add one. I closed the cowl on mine and all of the panels fit perfectly.

The wings, including separate control surfaces, were a straightforward assembly, and the lower wing comprises the lower half full span, including the bottom of the fuselage. Pay attention to the outer wing struts as they differ. I removed mine from the sprue and forgot which one was which during painting.

The landing gear looks flimsy in the kit with its small and very authentic attachment points but it was strong enough to support the completed model.

The instructions are clear and concise, but the rigging step is vague; extra references are invaluable.

The decals were trouble-free over a smooth surface.

Revell's Bü 131 was a breeze to build, looks terrific when done, and will fit on most shelves — despite being 1/32 scale, it's about the same size as a 1/48 scale single-engine fighter. I would recommend this model to anyone looking to build a fun and unique trainer.

— Caleb Horn



Kit: No. 03886 **Scale:** 1/32

Mfr.: Revell, revell.de **Price:** \$39.95

Comments: Injection-molded, 91 parts, decals **Pros:** Easy build with good fits and detail **Cons:** Large attachment points; instrument decals don't match panels; some ejector-pin marks



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IL, SCHAUMBURG: The Military Miniature Society of Illinois holds its 45th Annual Chicago Show Saturday, October 12, 2019 at the Chicago Marriott Schaumburg, 50 N. Martingale Road, Schaumburg, IL, 9:00am-4:00pm. For more information contact Show Chairman Pat Vess (pat@livezey.net 630-730-2492) or visit our website: military-miniature-society-of-illinois.com

IL, WHEATON: 74th ILLINOIS PLASTIC KIT & TOY SHOW. Dupage County Fairgrounds, 2015 W. Manchester Rd. Zip 60187. September 29, 2019, 9:00am-2:00pm. Adults, \$5.00, 12 and under \$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, Muscle Cars. Re-live your childhood memories. Past-Time Hobbies, Inc. 630-969-1847.

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NY, POUGHKEEPSIE: HVHMG 2019, Celebrating 33 years, Elks Club Lodge, 29 Overocker Road, October 19, 2019. Sponsored by IPMS Mid-Hudson. Registration 9:00am-noon. More information at: www.hvhmg.org or contact John Gallagher at 845-462-4740 or ggallagherjoh@optonline.net

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

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By Elizabeth Nash

It's in the bag, er, pail!

Practice makes perfect, even on tiny subjects

The hairspray technique: The process of sandwiching the styling product in between layers of paint, allowing the top color to be scrubbed off easily, creates a weathered, rusty look — be it on a model or, in this case, a galvanized steel bucket.

Aaron Kuck from Hilliard, Ohio, built Meng's World War Toons Panther, which he converted to a Bergepanther recovery vehicle using Evergreen styrene sheet. For the three-color camo scheme, he airbrushed Mission Models paints. Oils and pigments weathered it.

For a fitting and unique base, he built groundwork in a small pail. Not wanting a dusty tank on top of a shiny stand, he turned to hairspray to help him rust the steel. Static grass and a dirt road gave the model a sense of place.

Aaron says that he enjoys building Toon tanks because their compact size makes them perfect for practicing new techniques. **FSM**

Toon tanks are a great way to work on your modeling skills. Just ask Aaron, who practiced the hairspray technique while weathering this compact diorama.





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