

Paint & Play Light up a Luke Skywalker figure >

FineScale.com

FineScale Modeler

The essential tool for model builders

November 2018

p.16

EASY DETAILING FOR A FOKKER



Joseph Marranta's fabulous Fokker D.VII helps us mark the end of WWI — 100 years ago
— p. 22

**Beef up a
Takom Canadian
Leopard** p. 28

**Create a WWI
diorama to
remember** p. 20

**Simple ways
to warm a
Cold War jet** p. 32

**Special 6-page
EagleQuest
gallery** p. 40

Ulf Lundberg offers tips and tools to scratch-build a gorgeous Italian destroyer, the *Saetta*!
— p. 34



**BONUS
ONLINE
CONTENT
CODE
PAGE 3**

Vol. 36 • Issue 9

GREAT MINDS

MODEL A LIKE



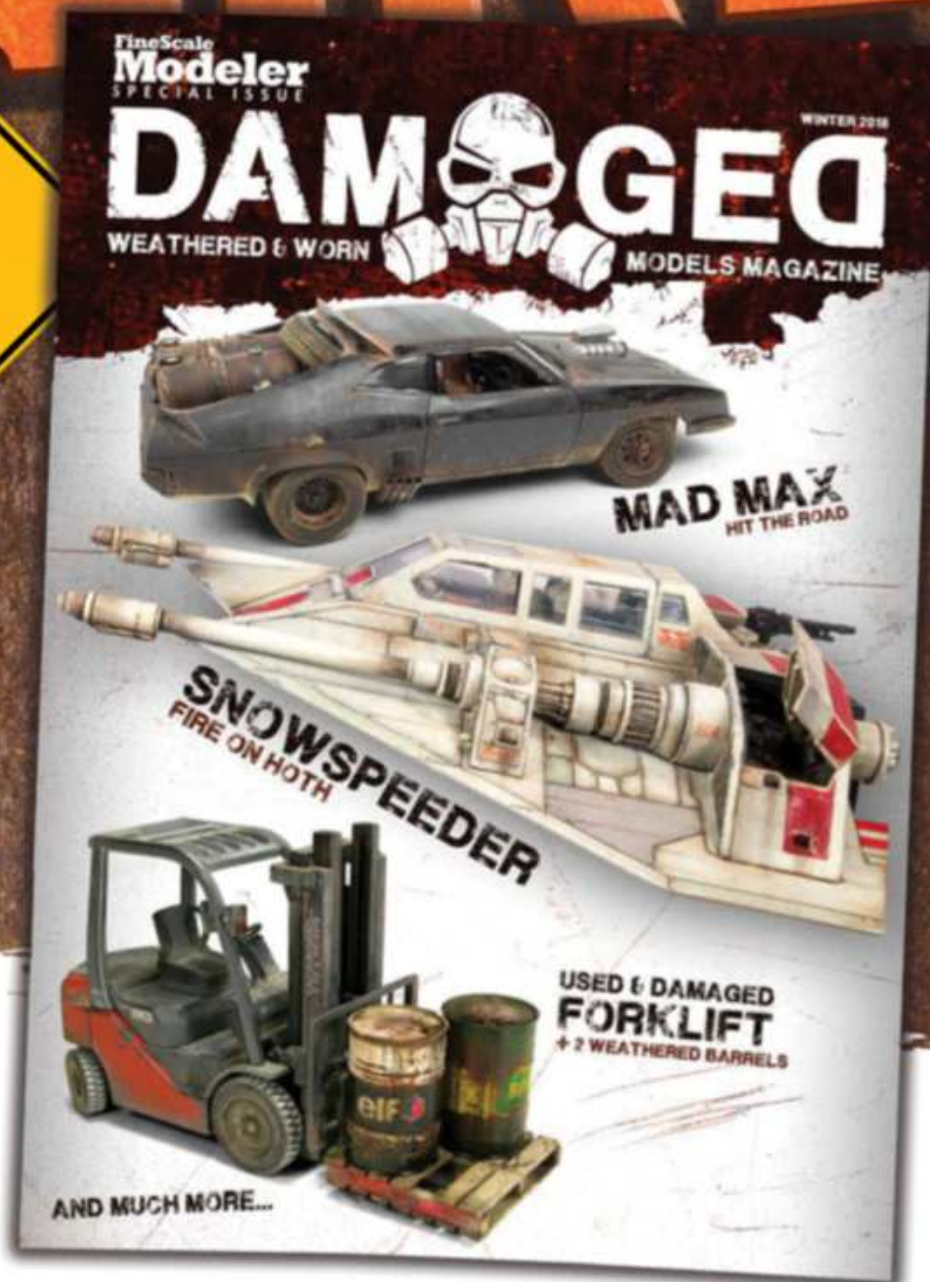
\$1 OFF
+
FREE
SHIPPING

Damaged, an all-new special issue from *FineScale Modeler*, shows you the fun side of modeling with a focus on weathered models from Europe's top modelers.

Filled with stunning full-color photos and step-by-step instructions, this multi-themed edition features the most imaginative builds in the world — from "Star Wars"™ and sci-fi, to steampunk and dioramas.

OVERSIZED PAGES • HIGH-QUALITY PAPER

Whether you're distressing a WWII M4 Sherman tank or adding some "wear and tear" to a futuristic forklift, the same weathering techniques are essential for adding realism. Let the experts from **Damaged** show you how!



Reserve your copy today at
KalmbachHobbyStore.com/DamagedSIP



FEATURES

- 16 Paint & Play**
Light up Luke Skywalker
RICH ERICKSON
- 18 Airbrushing & Finishing**
Pre-shading a Whippet for action
AARON SKINNER
- 20 Showcase: Pause at the front**
A show of humanity in the face of war
JONAS DAHLBERG
- 22 Detailing a Fokker D. VII**
A little help for Roden's 1/48 scale
Fokker biplane
JOSEPH MARRANCA
- 28 Don't mess with a MEXAS**
Beefing up Takom's 1/35 Leopard
SEAN M. LYNCH
- 32 Warm up a Cold War jet**
Use color modulation to enhance
shape and scale on a B-47
FAUSTO MUTO
- 34 Ship scratchbuilding tips**
Tools and tips for making a destroyer
ULF LUNDBERG
- 40 Show Gallery**
EagleQuest 2018
- 46 Rum-running A-20G Havoc**
How to add detail, unique markings
FRANK CUDEN
- 53 Let's talk tanks**
Just where is the bogie? ... and more
RON PONIATOWSKI



20



22



28



34

KIT REVIEWS

- 56 Kitty Hawk F-5E Tiger II**
- 58 Dora Wings P-63E Kingcobra**
- 59 Meng Merkava Mk.4M**
- 60 Airfix Phantom FG.1**
- 61 Wingnut Wings Junkers D.1**
- 62 Takom V-2 Meillerwagen and Hanomag SS100**

IN EVERY ISSUE

- 5 Editor's Page**
- 7 Scale Talk**
- 10 New Products**
- 50 Reader Gallery**
- 64 Classified Marketplace**
- 65 Hobby Shop Directory**
- 65 Advertiser Index**
- 66 Final Details**



SQUADRON.com

MAKING YOUR HOBBY TAKE FLIGHT

Enjoy an Extra
15% OFF your
next purchase!

Use coupon code:
SQFS1118

Offer expires November 30, 2018. Cannot be combined with any other coupons.

HOBBY BOSS

Revell



SQUADRON
PRODUCTS

ICM MiniArt



MENG

HOBBY
HOBBY ENGINE



RODEN

AV
vallejo

When shopping at Squadron, know that you are getting the best prices out there - guaranteed. If we're not the lowest, our customer service will price match our direct competitor's advertisements. *Some exclusions apply.

**LOWEST
PRICE
GUARANTEED!**

Order Today at WWW.SQUADRON.COM or call 1-877-414-0434

Attention Scale Modelers —



from *FineScale Modeler*

**Great
Gift Ideas**

Using the best modeling tools can make all the difference when you're assembling and finishing your model aircraft, ship, or armor. So we asked the editors of *FineScale Modeler* to share their recommendations.

From sanding sticks to finishing tools, you'll find dozens of essential tools when you shop online at the Kalmbach Hobby Store. Best of all, they're editor tested and approved!

Shop modeling tools at
KalmbachHobbyStore.com/HobbyTools

By Mark Savage

Special issues are heading your way

One hundred years ago World War I, known as the Great War at the time, was ending. Like all wars it was a horrible and bloody conflict, one made all the worse by the use of chlorine, phosgene, and mustard gas. The trenches were dark, dirty, and disgusting — a living hell on their own.

But the weapons of war were undergoing a huge transformation. Tanks were just being developed and this newfangled thing called the aeroplane was taking shape.

This month we feature a beautiful German Fokker D.VII biplane, a British Whippet, and a WWI diorama to set the mood for modeling the Great War.

We wanted to whet your appetites as the cooler fall weather starts to set in across the northern tier of states, Canada, and northern Europe.

That's because two special issues

from *FSM* are coming to a newsstand near you soon.

First, *Great War Scale Modeling*, our annual special issue this year focuses in depth on modeling WWI planes, tanks, and ships.

There's a detailed story on biplane rigging, a couple on tanks, several great dioramas, plus a WWI photo gallery. Also look for three other photo galleries featuring great builds we saw at national contests this year. Think of it as a mini version of our popular *Great Scale Modeling*.

Second, we are introducing *Damaged, Weathered and Worn Models Magazine*. Some of you may have seen this. It's published in Europe by AK-Interactive. We'll publish the premium title for North America.

Damaged will be a larger format magazine on high-quality paper with excellent photography and stories from the world's top modelers. It will focus on tips and techniques for



building models and dioramas from the realms of fantasy and science fiction, growing hobby segments.

The fall issue will be its premier issue, with three more exciting issues already planned for release in 2019.

So watch your newsstand and our website for both. Remember you can always order directly online at KalmbachHobbyStore.com.

editor@FineScale.com

Off the sprue: What living person is a hero to you?

Hmmm, it appears not everyone interprets "person" as one individual, or maybe they're just seeing double.



Editor
Mark Savage
msavage@Kalmbach.com



Senior Editor
Aaron Skinner
askinner@FineScale.com



Assistant Editor
Elizabeth Nash
enash@FineScale.com



Editorial Associate
Monica Freitag
mfreitag@FineScale.com

Hank Aaron has always been my hero for how he conducts himself, the dignity he shows, and the help he offers others — saw him at an airport listening to a young man drone on about sports. He just smiled and nodded, a gentleman.

Caretakers. Anyone who gives up a part of themselves to make life better for those in need deserves a pat on the back ... and probably a vacation.

I don't know her name, but I once saw a petite older woman chastise three grown men for picking on a disabled person. We should all be more like her by setting a good example and standing up to those who are not.

Can't give one person that title. The people I think are heroes are our police officers, firefighters, animal rescuers, teachers — any normal everyday folks who give their all each day to put themselves aside and help humanity.

Designed by a Modeler for Scale Modelers



Easily trim delicate, tightly spaced parts.
Clean, close cuts. No pinching or twisting.
Large, ergonomic grips for greater control.

Purchase at hobby stores worldwide.

Subscribe to our Xuron Blog to be
automatically enrolled in frequent
product giveaways.

xuron.me/consumerblog



Micro-Mark®

Berkeley Heights, New Jersey 07922

Your source for OVER 3,000
unique tools, model kits and
building supplies, including...

Doctor
DRYBooth
Cuts Drying
Time in
Half!

#88043

15% OFF ANY ORDER!*

To receive discount, place your order online at

www.micromark.com
and enter Promo Code 4418

*Gift Certificates, 3D Printers, Pre-Orders and other exclusions apply.
Offer cannot be combined. 15% discount offer ends 11/30/18.

ARA Press

The Spaceship Enthusiasts'
One-Stop Data Shop!

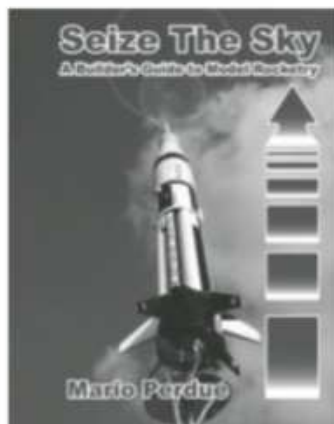
Available Again!

Seize The Sky

A Builder's Guide to Model Rocketry
by Mario Perdue

- 244 pages, Softcover
- Color cover w/ B&W illustrations
- Over 400 photos and diagrams

A project-oriented guide to the rocket hobby, primarily for people interested in rockets in the A to G motor range. There are tips for hobbyists of every skill level so that it will continue to prove useful as the reader gains experience in the hobby.



Only \$19.95! (plus shipping)

Available Again!



The rocket hobby lost a valuable resource when *Extreme Rocketry* magazine ceased publication. Over eight years, they had built up a sizable library of how-to articles on all phases of the hobby.

The most generally helpful articles were published in a series of booklets. To keep this important resource available for hobbyists, ARA Press has revived publication of the *Extreme Rocketry* booklets.

Future titles may become available if there is sufficient demand.

Only \$14.95 ea! (plus shipping)

Visit our website to order on-line.
All Credit Cards and PayPal accepted.
Call or write "info@arapress.com"
for shipping options.

Sales Tax added for CA orders

Follow us on Facebook!



ARA Press

785 Jefferson Ave.
Livermore, CA 94550
(925) 583-5126
www.arapress.com

FineScale Modeler

Editor Mark Savage
Art Director Tom Danneman

EDITORIAL

Senior Editor Aaron Skinner
Associate Editor Mark Hembree
Assistant Editor Elizabeth Nash
Editorial Associate Monica Freitag

ART

Senior Graphic Designer Scott Krall
Senior Graphic Designer Drew Halverson
Illustrator Kellie Jaeger
Photographer William Zuback
Production Coordinator Cindy Barder

CONTRIBUTING MODELERS

Paul Boyer, Federico Collada, Andy Cooper, Raúl Corral, Frank Cuden, Phillip Gore, James Green, Joe Hudson, Rick Lawler, Karl Logan, Harvey Low, Rato Marczak, Chris Mrosko, Bill Plunk, Darren Roberts, Chuck Sawyer, Cookie Sewell, Bob Steinbrunn, Cristóbal Vergara, Jim Wechsler, Adam Wilder

KALMBACH MEDIA

Chief Executive Officer Dan Hickey
Senior Vice President, Finance Christine Metcalf
Vice President, Content Stephen C. George
Vice President, Consumer Marketing Nicole McGuire
Vice President, Operations Brian J. Schmidt
Vice President, Human Resources Sarah A. Horner

Senior Director, Advertising Sales and Events
David T. Sherman

Advertising Sales Director Scott Redmond
Circulation Director Liz Runyon
Art and Production Manager Michael Soliday
New Business Manager Cathy Daniels
Retention Manager Kathy Steele
Single Copy Specialist Kim Redmond

EDITORIAL

262-796-8776

ADVERTISING DEPARTMENT

888-558-1544
Advertising Sales Representative
Michael Wieloch, Ext. 630
Advertising Services Representative
ads@FineScale.com

RETAIL, TRADE ORDERS, AND INQUIRIES

Selling *FineScale Modeler* magazine or products
in your store:

Phone 800-558-1544
Outside U.S. & Canada 262-796-8776, Ext. 818
Fax 262-798-6592
E-mail tss@Kalmbach.com
Website www.Retailers.Kalmbach.com

CUSTOMER SALES AND SERVICE

Phone 877-246-4847
Outside the U.S. and Canada 813-910-3616
Customer Service
FineScaleModeler@customersvc.com
Digital
FineScaleModelerDigital@customersvc.com
Back Issues
FineScaleModelerSingleCopy@customersvc.com

SPECIAL E-MAIL & WEB ADDRESSES

Ad Sales adsales@FineScale.com
Letters to the Editor editor@FineScale.com
New Products mfreitag@FineScale.com
Reader Gallery Contribute.Kalmbach.com
Reader Questions questions@FineScale.com
Reader Tips tips@FineScale.com

©2018, Kalmbach Media Co., all rights reserved. This publication may not be reproduced in any form without permission. Printed in the U.S.A. Allow 6 to 8 weeks for new subscriptions and address changes. Subscription rate: single copy \$6.99; U.S. 1 year (10 issues), \$39.95; 2 years (20 issues), \$74.95; 3 years (30 issues), \$94.95. Canadian: Add \$8.00 postage per year. Canadian price includes GST, payable in U.S. funds. All other international subscriptions: Add \$12 postage per year, payable in U.S. funds, drawn on a U.S. bank. BN 12271 3209 RT. Not responsible for unsolicited materials.





Kim Taylor used bright shades to bring to life Snazzgar Stinkmullett, a Fungoid Shaman from the tabletop game *Warhammer: Age of Sigmar*.

Like the new column

Thanks for the article on painting the *Warhammer* figure in your new column, Paint & Play.

I am an aircraft modeler, so although the subject matter was not my thing, my 27-year-old nephew enjoys the genre. He is a talented artist but I always tell him his gifts are wasted on such a small scale!

Still, I think anything that brings in young people and fresh blood to the hobby is sorely needed.

When you attend a modeling show, it

feels like the early-bird special night at your local diner!

— *Steve Berktold*
Covina, Calif.

Ed.: If you want more tabletop figures, turn to p. 16 and see how you can easily paint Luke from the new game, Star Wars: Legion.

A new way to look at weathering

I am a retired soldier with a lot of field time, which has influenced my builds considerably.

When I begin a project, I start with the end in mind. All planes, tanks, trucks, cars, and even people look very different at different stages in their life's journey.

For instance, a P-51D Mustang first delivered to an 8th or 9th USAAF might be factory fresh. Two months into service, it will show some wear, as it is being flown about four combat missions a week. Six months into service, and it will look very beat up.

The ground crews assigned to that P-51 also worked on aircraft to keep them flying if they were "deadlined" (can't safely fly). They would worry about "deficiencies" or other matters once all aircraft in the squadron were either able to fly or waiting on parts to make them fly.

Considering the crews were always short-handed and planes were always returning from missions, it is easy to see

Now at FineScale.com



Free desktop wallpaper

Download a computer background of Wingnut Wings' 1/32 scale Junkers D.1 built by Caleb Horn for Workbench Reviews and featured on p. 61 in this issue.

Find out how

If you've ever had questions about construction or finishing, find answers online with *FSM's* collection of free videos and articles detailing the build process from start to finish.

New Product Rundown

Want to know about a kit before you buy? Aaron Skinner and Elizabeth Nash host a twice-monthly review of the newest models where they open the boxes and show you what's inside.

Individual-link tracks debate

For

- Having read the remarks against individual-link tracks, I felt I should jump to their defense.

I won't build an AFV model without them. If the kit comes with them, great — doesn't matter to me if they are workable or the glue-together type.

But if the kit only has those rubber band thingies, then it's time to shop the aftermarket.

I find the extra time spent is very much worth it. They are easy to fit and maneuver to get the right look.

I also use them to show thrown track or repairs being made in dioramas.

Having spent 12 years in an armored infantry battalion in the

British Army, individual-link tracks are certainly less back-breaking.

Note: Those rubber band tracks aren't completely useless; they are great for making track impressions in a diorama base.

— *Martin Bishop*
Suffolk, England

- Individual-link tracks do take more time, but aftermarket sets are a great addition to any tracked AFV.

Not only do they look realistic, they have the obligatory sag when and where required.

— *William S. Merrihew*
Medford, Ore.

- Those who are dissatisfied are not alone. But instead of giving up on them entirely, there could be a solution. If building a Panzer II, III, or IV try Easy Metal Link tracks. No wire is required and neither is any cleanup (unlike Fruilmodel types). You also don't have to worry about the fragility of the connecting pins (found in MasterClub products).

There is one drawback: there aren't many variations. Still, Easy Metal Link tracks simply are the best individual links I've worked with. They're a snap to put together and not time-consuming at all.

— *Larry Morgan*
LaMirada, Calif.

Against

- I agree that they are terrific looking, but I just can't be bothered.

I've looked at Dragon and Meng tank kits a number of times, but don't want to deal with those fiddly tracks.

Now if that's your thing, fine, but I wish a set of vinyl tracks was included along with individual links.

These companies are missing out on a large group of modelers who might otherwise build their kits..

— *Dennis Rieke*
Weeki Wachee, Fla.

SCALE TALK

how weathering would take its toll. This happens with all military vehicles, in both peace and wartime.

And, if the vehicles are famous enough, they would be restored to better than factory fresh with all of the markings for War Bond drives.

So, I start with asking myself do I want a factory fresh, combat weary, or a restored War Bond drive look? Or something in between? Then, I find as many reference materials of the subject in the condition I wish for my model.

Works every time and nothing is ever overdone or underdone.

– *Don Eisenhart*
Hanover, Md.

Little did I know...

I got a kick out of September's Final Details by Richard Rutledge about the best waylaid plans.

Circa 1969, I got the Revell F-111 tactical fighter kit from my aunt and uncle for Christmas. Somewhere along the line I also read a magazine article by Ernest K. Gann about early F-111s.

A few short years later, I was responsible for the care and feeding of "Aardvarks" as a maintainer at Mountain Home AFB, Idaho. In the end, I spent 22 years supporting the F-111.

Little did I know what the future held when I got that kit.

– *John Book*
Clovis, N.M.

Aviation memories

April's Final Details prompted me to write in with early aviation memories.

My father flew B-377s for Pan Am from 1949 to 1953, along with many other airliner types from the 1930s and '40s.

Reader tips



Mold your own details by scribing designs into setting epoxy putty.

Sculpting epoxy putty

Because putty is sticky right out of the tube, you shouldn't rush forming it into the desired shape right away. Wait several minutes until it starts to cure and it will be easier to handle.

Soaking your sculpting tools or spraying warm water onto the part also aids sculpting.

– *Michal Swiniarski*
Brentwood, Essex, England

Cheap paint filters

Go to a hardware store and pick up a stainless steel inline filter used in plumbing. For about \$1 you'll have the perfect paint filter.

Because of the conical design, they'll fit around any paint manufacturer's bottle or jar.

If you use water-based paints,

clean up is a breeze. Just run them under the faucet or soak them in a jar of water then scrub with a toothbrush. Because they are stainless they won't rust.

Using these filters, 99% of my clogging problems have disappeared!

– *Rich Zolla*
Monson, Mass.

Styrene strips, sheets and shapes for scratchbuilding and model detailing.

At your favorite hobby retailer

evergreen
scale models

Call or write for free product information
65 E Bradrock Dr, Des Plaines, IL 60018
Toll-free: 877-376-9099 Fax: 847-813-6330
www.EvergreenScaleModels.com

Celebrating 50 Years 1968-2018

Demand the Brand™

It's Hobby Time! Stock Up Now!

New Products Just Added

Order ONLINE Today

www.flex-i-file.com

FLEX-I-FILE™

We have your lighting needs!

LED

Lighting & Effects for:

Aircraft, Ships, Cars, Trucks, Tanks, Armaments, Mechs, Railroad, Cityscape, Medieval fantasy, Western, Sci-fi, Aliens, Rural scenics, Buildings, Fires, Weather, and much more!

With dimmers, controllers, and free apps, visit us at

PowerCookieBoards.com

Refit Enterprise Engine Grills

DARA GRAFIX .biz

For the newly re-released 1/537 scale kit from AMT.

Window templates also available.

My first and only memory of the Stratocruiser was a trip to the cockpit with my father on the ramp at San Francisco airport. I was maybe 4 years old. All I remember was one big red knob or lever in the middle of the control panel.

Another memorable flight came in college, when I flew Trans Texas DC-3s from Houston to Galveston to Lake Charles, Louisiana. There were three passengers and a load of white mice for John Sealy Hospital. It was fun watching the traffic below on the Gulf Freeway going almost faster than we were.

—John Britton
Jonesborough, Tenn.

Aviation memories, cont.

I've had so much fun reading others' early experiences on airliners that I decided to submit mine.

My father started taking me with him on flights to Pittsburgh in 1960. My first flight was out of Washington (now Reagan) National Airport on a Capital Airlines DC-6.

In those days, the flight from Washington D.C. to Pittsburgh took two hours, enough time for you to enjoy an in-flight lunch. The stewardess put a pillow on my lap and set a cafeteria tray on top of it. My lunch consisted of meat loaf, mashed potatoes, buttered peas, a roll, and dessert. I remember relishing every bite as though I were dining at the Ritz.

Later in the flight, we flew through heavy weather with violent jerks and stomach-churning drops, which I thought were great fun!

The following year my father took me on a new airliner: Capital Airlines' Vickers Viscount. The Viscount was so nice! The interior was light and pleasant, the ride was smooth, and the windows were *huge*!

It also had something I'd never seen: fold-down tray tables! I asked the stewardesses to bring me paper and I spent much of the flight drawing on my cool table. It was sunny and clear all the way.

—Matt Dudzinski
Springfield, Va.

Ed.: Alert readers will notice that, like Reader Tips, the Question & Answer column isn't in this issue. Starting in December, both will be a part of the Scale Talk section. We hope you'll enjoy the new format.



HumbrolTM

Paints & Accessories

- Enamel & Acrylic Paints
- Weathering Powders
- Enamel Washes
- Acrylic Spray Paints
- Enamel & Acrylic Varnishes





Turn your model kit into a masterpiece!

Humbrol.com













SPECIALTY MINIATURE POWER TOOLS FOR YOUR INTRICATE PROJECTS

MICRO woodturning lathe DB 250. Center distance 250mm (10") and 40mm (1 3/5") swing. Variable speed control covering 1,000 – 5,000rpm.

For hundreds of classical miniature turning tasks. Ball bearing spindle is bored through at 10mm (3/8") for series production of small parts. Total length 400mm (15 3/4"). Weight 2.8kg (6.1lbs).

The PROXXON MICROMOT system features more than 50 high-quality power tools and a huge selection of matching accessories.



**Please contact us
for a free catalog.**

PROXXON

www.proxxon.com/us

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

Prices that will Blow You Away!

55,000+ ITEMS! NEW ONES
ADDED WEEKLY!

1/35 Early Tiran 4



\$69 from MiniArt

1/32 Ar 234B-2
Fly Models \$142.00

YOU Want it!
WE Have it!

Arado Ar 234B-2/53



SIKORSKY

HR2S-1/CH-37C DEUCE
H-37A/CH-37B MOJAVE
HEAVY - LIFT HELICOPTER

\$33.75

1/72 Brengun



\$19.75

**COOL
STUFF!
GREAT
PRICES!**

1/32
MK 103 \$10.75

Master Models

H-37 Series
from Ginter! **\$33.75**



ROLL MODELS INC.

www.rollmodels.com
orders@rollmodels.com
 Phone 763.545.0399
 Fax 763.545.0899
 P.O. Box 27066
 Golden Valley, MN
 55427-0066 USA

Spotlight

Picture this, KH's newest 1/48 Voodoo

It's been four years since Kitty Hawk released its first 1/48 scale Voodoo. Since then, modelers have been expecting and hoping for other versions which have finally arrived in the last couple of months including the two-seat F-101B and this kit, the dedicated reconnaissance

platform RF-101C (No. KH80116; \$70.99, which includes optional nose parts to build G/H variants.

Finely recessed panel lines and tiny rivets mark the airframe, including the modular fuselage and the new nose parts. Clear parts supply the camera windows in the nose.

Be aware that some molding problems encountered in the initial kit are still present, including sinkholes on the speed brakes and a missing tab on one tailplane. In common with the previous Voodoos, cockpit panels are replicated with photo-etched (PE) plates and

decal dials. PE also supplies exhaust nozzle details and seat belts.

Decals mark five aircraft; three USAF Cs, an Air National Guard G/H, and a Taiwanese C.



AIRCRAFT KITS

1/48 SCALE



SE.5a Night Fighter from Eduard, No. 82133, \$44.95. ProfiPack Edition.



L-29 Delfin from Eduard, No. 8464, \$39.95. Weekend Edition.

1/72 SCALE



CASA C-212-300 "France" from Azur From, No. FR0040, \$29. Look for a detailed review in an upcoming issue of *FSM*.



Renard R-31 from Azur From, No. FR0039, \$24.



MiG-21MF dual combo from Eduard, No. R0017, \$89.95. Royal Class. Look for a detailed review in an upcoming issue of *FSM*.



Bristol Blenheim Mk IV British bomber from Warlord Games, No. 772011010, \$32. Blood Red Skies.

Get Your Product Featured Here

It's easy! Visit www.finescale.com/magazine/contribute-to-fsm and click on the New Product guidelines. We'd love to showcase your products here!



Junkers Ju 88A from Warlord Games, No. 772012010, \$32. Blood Red Skies.

1/144 SCALE



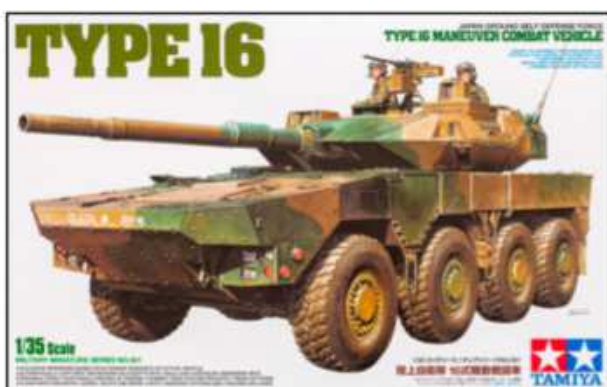
A-50 Mainstay Russian airborne early warning and control (AEW) aircraft from Zvezda, No. 7024, \$49.99.

ARMOR KITS

1/35 SCALE



SMK Soviet heavy tank from Takom, No. 2112, \$64.95.



Type 16 maneuver combat vehicle (Japan ground self-defense force) from Tamiya America, No. 35361, \$67. Look for a detailed review in an upcoming issue of *FSM*.



M60A1 with explosive reactive armor from Takom, No. 2113, \$64.95.



SU-100 Soviet tank destroyer from Zvezda, No. 3688, \$46.99. Look for a detailed review in an upcoming issue of *FSM*.



Terminator-2 Russian fire support combat vehicle from Zvezda, No. 3695, \$TBA.



Sturmörser Tiger from Rye Field Model, No. RM-5012, \$82. Look for a detailed review in an upcoming issue of *FSM*.



Nashorn SdKfz 164 (4 n' 1) from Dragon, No. DRA6459, \$79.99.



88mm FlaK 36/37 (2 n' 1) from Dragon, No. DRA6923, \$69.99.



TPz 1 Fuchs A4 from Revell Germany, No. 03256, \$22.95.

1/72 SCALE



T-34/76 Mod. 1940 from Dragon, No. DRA7589, \$17.99.



T-34/76 Mod. 1941 from Dragon, No. DRA7590, \$17.99.



T-34/76 Mod. 1942 from Dragon, No. DRA7595, \$17.99.



T-34/76 Mod. 1943 from Dragon, No. DRA7596, \$17.99.

1/100 SCALE



T-44 Soviet medium tank from Zvezda, No. 6238, \$5.99.

SHIP KITS

1/700 SCALE



HMS Lance 1941 from Flyhawk Model, No. FH1115S, \$32.99.

More at www.FineScale.com

Check out New Product Rundown, the twice-monthly video series where *FSM* opens the lids on kits: www.finescale.com/videos/new-product-rundown

FIGURES KITS

1/24 SCALE



Bart and Radley (dog) from Master Box Ltd, No. MB24049, \$14.95.

1/35 SCALE



"Do or Die!" from Master Box Ltd, No. MB3581, \$19.95.

1/48 SCALE



German Luftwaffe crew (winter) with Kettenkraftrad from Tamiya, No. 32412, \$27.

OTHER SCALE



Virai Dronesquad Scavenger Squad from Warlord Games, No. 502216505, \$24.95.



Strontium Dog: The Good the Bad and the Mutie — starter game from Warlord Games, No. 641510001, \$60.



Australian platoon scout team (Pacific) — from Warlord Games, No. 403015009, \$8. For Bolt Action.

AUTO KITS

1/25 SCALE



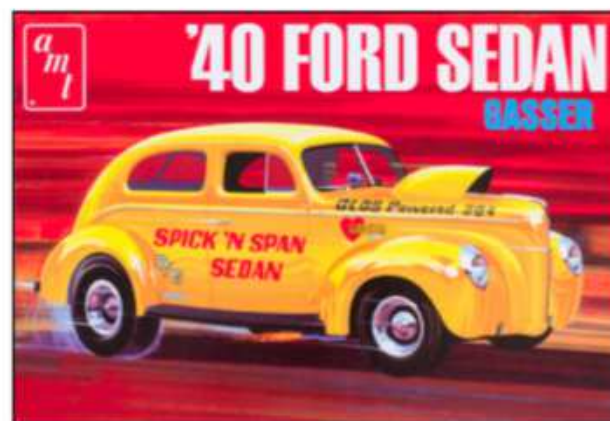
'57 Chrysler 300C from AMT/Round2, No. AMT1100/12, \$31.95.



Autocar A64B tractor from AMT/Round2, No. AMT1099/06, \$47.95.



Tiger Shark from MPC/Round2, No. MPC876/12, \$30.95.



'40 Ford Sedan Gasser from AMT/Round2, No. AMT1088/12, \$31.95.



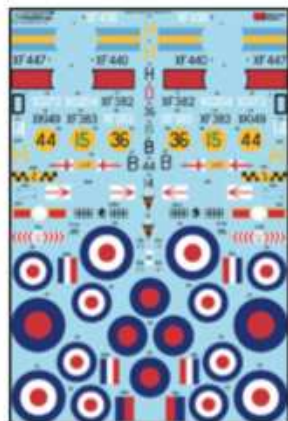
City Slicker 1969 Dodge Charger from MPC/Round2, No. MPC879M/12, \$28.95.



Gear Hustler (Chevy Camino equipped for construction field service) from AMT/Round2, No. AMT1096/12, \$31.96.

AIRCRAFT DECALS

1/48 SCALE



Hawker Hunter F.6 Pt. 1 from Hannants/Xtradecal, No. X48189, \$11.50.



McDonnell Douglas Phantom FGR.2 from Hannants/Xtradecal, No. X48190, \$10.25.

1/72 SCALE



Handley-Page Victor K.2 Collection from Hannants/Xtradecal, No. X72299, \$11.50.



Martin B-26 Marauder Collection from Hannants/Xtradecal, No. X72300, \$10.25.



English Electric Canberra B.2 Collection from Hannants/Xtradecal, No. X72301, \$10.25.



Vickers Wellington Collection from Hannants/Xtradecal, No. X72302, \$10.25.

FAR AFT AND FAINTLY A NOVEL BY MARK KLIMASZEWSKI

Join Admiral Maarten Sweers as he leads the Netherlands Oriental Fleet of hybrid Battlecruiser-Carriers against the might of Imperial Japan in the epic air and sea clash of the Battle of the South China Sea

Lulu.com BARNES&NOBLE amazon.com

Take advantage of the publisher's discount at Lulu.com for the paperback, or choose the economical e-book for 1/3 the cost

faraftandfaintly.com
southchinaseacrucible.com

NEW PRODUCTS



Westland Sea King Collection from Hannants/Xtradecal, No. X72303, \$10.25.



Typhoon Mk.Ib wheels late (for Hasegawa) from Eduard, No. 648-413, \$9.95. Brassin Line.



Typhoon Mk.Ib exhaust stacks (for Hasegawa) from Eduard, No. 648-414, \$7.95. Brassin Line.



Sea Fury brass landing gear - early from BarracudaCast, No. BR48345, \$18.95.



Sea Fury main-wheels block tread from BarracudaCast, No. BR48344, \$6.95.



Sea Fury main-wheels diamond tread from BarracudaCast, No. BR48343, \$6.95.



Sea Fury complete cockpit set from BarracudaCast, No. BR48347, \$17.95.

P-51 Mustang block tread mainwheels from BarracudaCast, No. BR48347, \$17.95.

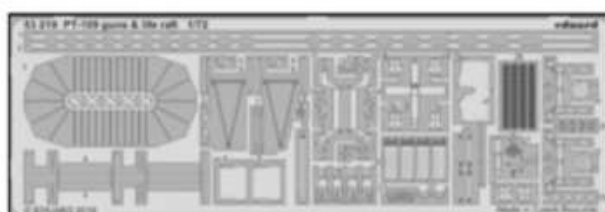
OTHER SCALE



Australian 6-pdr anti-tank gun (Pacific) from Warlord Games, No. 403015003, \$20.75.

SHIP DETAILS

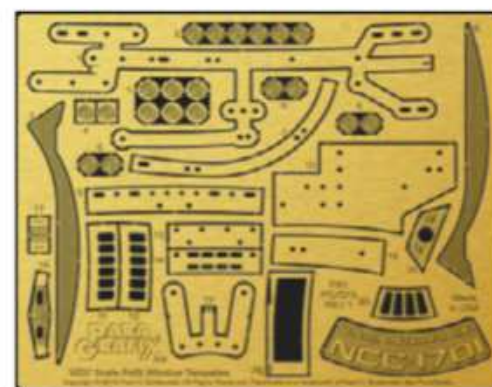
1/72 SCALE



PT-109 guns and lift raft (for Revell) from Eduard, No. 53219, \$29.95.

SCI-FI DETAILS

1/537 SCALE



Enterprise window templates (Refit) (for AMT) from ParaGrafix, No. PGX213, \$28.95.

AIRCRAFT DETAILS

1/32 SCALE



P-51D-5 Look (for Revell) from Eduard, No. 634001, \$12.95. 3-D pre-finished instrument panel and PE seat belt.



F4U-1A Look (for Tamiya) from Eduard, No. 634002, \$12.95. 3-D pre-finished instrument panel and PE seat belt.



P-51 Mustang block tread mainwheels from BarracudaCast, No. BR32381, \$8.95.



P-51 Mustang diamond tread mainwheels from BarracudaCast, No. BR32380, \$8.95.

1/48 SCALE

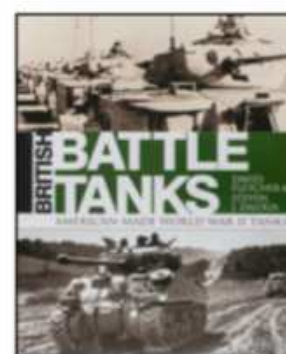


Typhoon Mk.Ib wheels early (for Hasegawa) from Eduard, No. 648-412, \$9.95. Brassin Line.



Bf 109G-6/U4 cockpit (for Tamiya) from Eduard, No. 648-411, \$39.95. Brassin Line.

BOOKS & MEDIA



British Battle Tanks - American-made World War II Tanks, \$30, by David Fletcher and Steven J. Zaloga, hard cover, 256 pages, all B/W photos, ISBN: 978-1-4728-2006-8. From Osprey Publishing.



World War II US Marine Infantry Regiments, \$19, by Gordon Rottman, soft cover, 64 pages, all B/W photos, ISBN: 978-1-4728-2608-4. From Osprey Publishing.



Italian Armoured & Reconnaissance Cars 1911-45, \$16, by Filippo Cappellano and Pier Paolo Battistelli, soft cover, 48 pages, all B/W photos, ISBN: 978-1-4728-2433-2. From Osprey Publishing.



Heinkel He 177 Units of World War 2, \$23, by Robert Forsyth, soft cover, 96 pages, all B/W photos, ISBN: 978-1-4728-2039-6. From Osprey Publishing.

NEW PRODUCTS



Blanc Mont Ridge 1918 — America's forgotten victory, \$24, by Romain Cansiere and Ed Gilbert, soft cover, 96 pages, all B/W photos, ISBN: 978-1-4728-2496-7. From Osprey Publishing.



Operation Crossbow 1944 — Hunting Hitler's V-weapons, \$20, by Steven J. Zaloga, soft cover, 96 pages, all B/W photos, ISBN: 978-1-4728-2614-5. From Osprey Publishing.



British Secret Projects 2 — Jet Bombers since 1949, \$44.95, by Tony Buttler, hard cover, 352 pages, all B/W photos, ISBN: 978-1-910809-10-5. From Specialty Press.



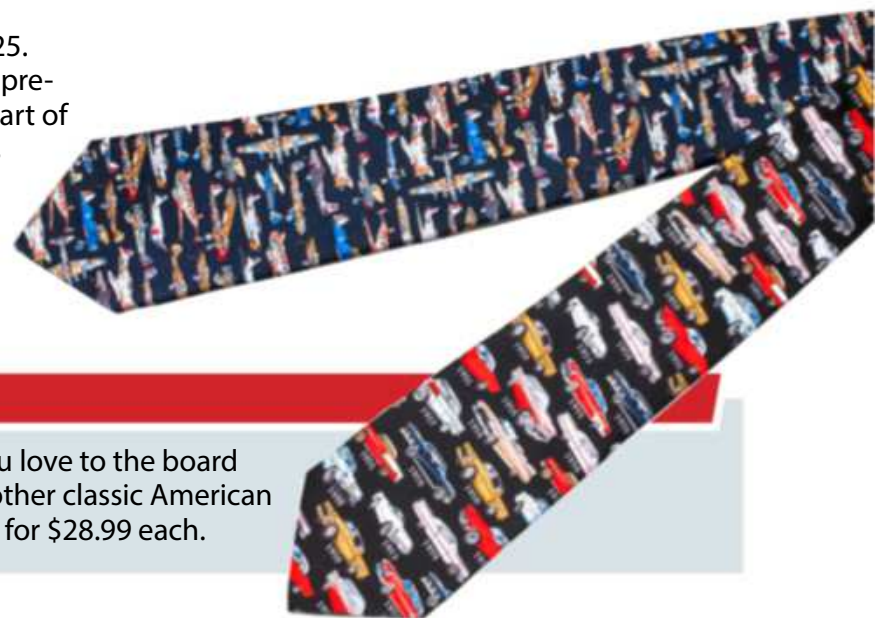
B-17 Time from Greg Scholl Video Productions, \$25. 90 mins., three preserved B-17s, part of WWII Memphis Belle film, plus ride along in a B-17 that was later destroyed by fire.



B-25s and the Final Toast from Greg Scholl Video Productions, \$24.95. 90 min. Five B-25s stage at Urbana, Ohio, on Nov. 8, 2013, as the remaining Doolittle Raiders gathered in nearby Dayton for a final toast.

Show your love of modeling on your sleeve, er, around your neck

You may not be able to take your latest kit to the office, but you can take the subjects you love to the board meeting thanks to these terrific silk ties, one showing WWII-era aircraft (No. 85017), the other classic American cars (No. 85017). Both are available at KalmbachHobbyStore.com/catalog/products/gifts for \$28.99 each.



MIG★
productions

**I'M
BACK**



www.migproductions.com

By Rich Erickson

Light up Luke Skywalker

The Tatooine farmboy looks good in brown and blue

Meet Rich Erikson

Rich lives in the cornfields of Indiana. To pay the bills, he paints cars at a collision shop. He first got into modeling with *Star Wars* ships and later graduated to *Warhammer 40K*. Since he started competing, Rich has won numerous awards, including Golden Demons, Crystal Brushes, and Wonder-Fest trophies.



Tabletop gamers have been chomping at the bit for years for a larger-scale *Star Wars* miniatures game. Fantasy Flight Games answered the call by introducing the 35mm scale *Star Wars: Legion*.

The starter box includes 33 plastic miniatures and the dice and cards needed to start play.

Looking for something that stood out on the gaming table, I chose the one, the only, Luke Skywalker.

Most people, like me, want to play, not compete with these pieces — so I finished Luke using tabletop standards, not competition standards. Makes the painting process more fun, less stressful.

I used Games Workshop Citadel paints except where noted.



1 First, I carved off mold lines with a hobby knife and glued the arm onto the body. Using my Iwata Eclipse airbrush, I primed with Badger Stynylrez black. Pointing the brush at a downward angle, I highlighted Luke with white, leaving the crevices dark.



2 To keep the paint wet, I squeezed blobs onto parchment paper resting over a damp paper towel. I gradually blended them, creating many midtones for the flesh. Formula P3 paints from left: coal black, sanguine base, midlund flesh, ryn flesh, and Menoth white.



3 I basecoated the face and hands midlund flesh. A Winsor & Newton Series 7 kolinsky sable paint brush is my weapon of choice because it keeps a crisp point when applying detail work.



4 I gave the base a wash of Reikland fleshshade to darken it slightly. The hair was painted P3 battlefield brown; I added Menoth white streaks throughout the locks after finishing the skin.



5 Highlights on the forehead, cheeks, and nose are Menoth white. Shadows on cheeks, neck, and under the nose are a mix of coal black and sanguine base.



6 I blended the harsh lines with watered-down midtones from my wet palette. Once dry, I added one more wash of fleshshade, and then touched up the highlights.



7 Moving onto the outfit: I basecoated the clothes with pallid Wych flesh. I mixed another wet palette with Rhinox hide, Karak stone, and more pallid Wych flesh.



8 Starting with flesh at the top of the folds, I worked down the color palette as I moved into crevices. White highlights and an Agrax earthshade wash added depth.



9 Leather pieces are a mix of Rhinox hide and Karak stone. Metal bits are Leadbelcher, washed with Nuln oil, and highlighted Stormhost silver.



10 I filled the base with earthy bits from my yard and a decapitated Stormtrooper. I primed it black and painted with greens and browns.



11 To make the lightsaber glow, I lightly painted it and the surrounding area on Luke's body white. I then dotted the eyes with black.



12 A wash of Temple Guard blue over the white provided the iconic hue. Skin and hair closest to the saber received white highlights. **FSM**

By Aaron Skinner

Pre-shading a Whippet for a trench drama

Sometimes base coats are a black-and-white issue

A club group build of Whippet tanks inspired John Werwie's World War I diorama, called "The End."

"As I began to research the Whippet, its lore, development, and history triggered a deep emotional need to portray the history of this era," he says, "perhaps because my grandfather served in WWI."

After building Meng's 1/35 scale Whippet out of the box, he sprayed it with Brite Touch gray primer to prepare the surface.

Although the Vallejo Model Air colors used on the Whippet are designed to be applied straight from the bottle, John added a little Vallejo acrylic thinner, testing the consistency and flow of the mix on scrap plastic or poster board; it usually takes 5-15% thinner to spray properly, he says.

In addition to learning the nuances of the paint, patience is key when airbrushing Vallejo paints, he advises. A cotton swab saturated with thinner keeps the nozzle clear of drying paint.

An Iwata fan, John uses either a single- or double-action airbrush, depending on the scope of the area to be covered. Using a dual connector, he powers both with an Iwata compressor operating at 10-16 psi.

To pre-shade the camouflage, John used

the black-and-white technique popularized by José Luis López and demonstrated by John Bonanni in the May 2016 *FSM*. He applied pure black to lower areas and deep corners, and pure white on upper surfaces, allowing the spray to produce gradual transitions between them on vertical plates.

Thin, almost transparent layers of the camouflage color airbrushed over the base coats left the contrast visible.

John further modified the finish by spraying varied shades of the camouflage. "I kept in mind how light would fall on the tank," he says. "Light casts shadows and influences color transition and intensity." John painted highlights and shadows to indicate a light source above and slightly forward of the tank.

After sealing the paint with clear flat, he applied an overall wash of artist's oils to blend the finish and mute the contrast.

Pinwashes emphasized the Whippet's angles, hinges, bolts, and hatches.

He sealed the washes with more clear flat, then applied Mig Productions, AK Interactive, and Bar Mills rust pigments. **FSM**

Groundwork: John built the base from layers of scrap wood and Durham's Rock Hard Water Putty sculpted with a small trowel and a tongue depressor. After pushing the figures and the Whippet into the still-wet putty to set their future final positions, he covered it with a mix of fine sand and wood glue. The barbed wire was cut from an old window screen.



Meet John Werwie

JOHN STARTED MODELING in the late 1950s and, despite stopping in the mid '60s, he never lost the urge to build. Years later, then 53, he attended a model show at the Experimental Aircraft Association Museum in Oshkosh, Wisconsin,

where he met members of the IPMS/Richard I. Bong Chapter. "It was their warm and invitational demeanor that persuaded me to attend a club meeting," he says. "Once there, I saw quality builds, weathering, finishes, and information-sharing that I didn't

know existed." Spurred by that encouragement, he's been building ever since, primarily military vehicles and dioramas. John lives in Milwaukee, Wisconsin, with his wife, whom he says supports his hobby. They have three adult children.





Figures: John modified Tamiya figures for the British defenders and their German assailants. He wanted body positions to demonstrate motion, which required thought and repeated dry-fitting to get right. In between, he cut and beveled joints between limbs and torsos, then pinned them with copper wire before gluing; epoxy putty filled gaps. He took extra care to ensure that slings, canteens, and other equipment matched the final poses. After spraying the soldiers with black primer, he painted them with Vallejo acrylics.

Trench: To shore up the trench, John used wooden coffee stirrers and balsa strips supported by posts made from fine tree branches from his yard. "All were hacked, carved, or poked to create the roughness needed to represent reality," he says. Gluing twigs together formed the trench ladder. John bolstered the defenses with sandbags made from A+B epoxy putty.

Base: John's unique base started as a chunk of an elm tree. The piece sat in his backyard for a couple of years before he was inspired to turn it into a section of the Western Front. He tossed it against a telephone pole, fracturing it and producing jagged sections that resembled a trench. After an application of stain, it was ready for groundwork.

A pause at the front

Showing a little humanity in the face of war

BY JONAS DAHLBERG

To capitalize on gains made in the Spring Offensive, on July 15, 1918, 23 German army divisions attacked French positions around the city of Reims. The offensive, known as Operation *Friedensturm* (Peace Storm), was designed to draw Allied troops from the Flanders front in preparation for a larger offensive that, it was hoped, would force the French to seek an armistice.

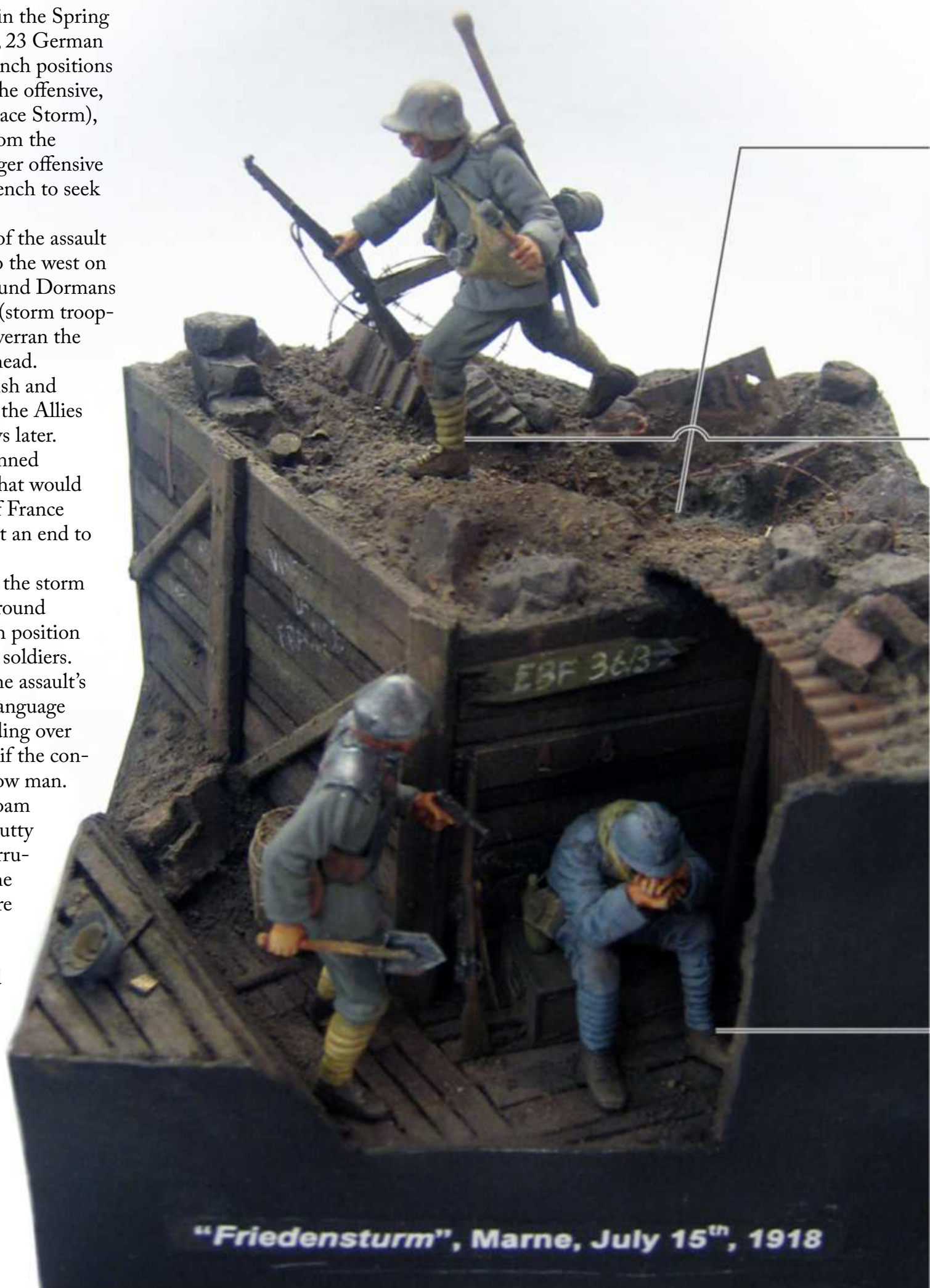
Allied troops on the eastern flank of the assault held their ground but the defenders to the west on the south side of the Marne River around Dormans faced a sustained assault. *Stosstruppen* (storm troopers) led the way as German soldiers overran the French lines and established a bridgehead.

The success was short lived as British and American reinforcements arrived and the Allies attacked the German salient three days later. The counterattack, part of a larger planned offensive, kicked off Allied advances that would ultimately push German troops out of France and lead to the Armistice that brought an end to World War I.

Imagining a small moment during the storm troopers' assault on the French lines around Dormans, my diorama shows a French position being over-run by advancing German soldiers. The *poilu* harbors no illusions about the assault's outcome and his own fate. His body language gives the German storm trooper standing over him pause in the heat of battle. It's as if the conquering trooper feels sorry for his fellow man.

I sculpted the groundwork using foam board covered with plaster and filler putty and enhanced with real stones and corrugated sheet styrene. The shoring for the trench and the door to the bunker were scratchbuilt from strips of wood.

I painted the base, details, and figures with Tamiya acrylics, then picked out details with Vallejo colors. Weathering was applied with a combination of acrylics, oils, pigments, and pastels. Painting everything at once ties all of the elements together. **FSM**





This is the scene before painting and the addition of the figures. Photo-etched barbed wire, a resin French helmet, and a rifle magazine are all aftermarket accessories that add details to the scene and flesh out the story.



The running German above the trench is from Model Cellar. I painted all three figures with Vallejo acrylics over Tamiya base coats.



I drafted an ICM WWI infantryman into the *stosstruppen* with scratchbuilt torso armor and a new helmet. The French soldier is a backdated Dunkerque, 1940 figure from SKP.

Detailing a D.VII

A little help for Roden's 1/48 scale Fokker

BY JOSEPH MARRANCA



When Germany sought to regain the upper hand in World War I aerial combat, a competition for new fighter designs was held in January 1918. The winner was Fokker's D.VII.

Lately I have been into World War I modeling subjects. I'm sure it has something to do with these kits being somewhat of a challenge to build, the number of different schemes to choose from in painting them, and that there are so many new kits now on the market. So I jumped at the chance to build and add detail to Roden's 1/48 scale Fokker D.VII, a worthy replica of one of the most successful airframes of The Great War.

Modifications and subassemblies

When I compared Roden's kit to my references for a later-model D.VII, I noticed several minor discrepancies that could be handled with minor modifications to the kit's parts. But the corrections began with repairs, filling ejector-pin marks, and trimming mold seams.

The major modification was to the right-side engine cowling around the exhaust. The exhaust pipe should be mounted above the cowling, which was cut

away, instead of through a small hole in it. The kit provided two separate exhaust pipes for either option, but not both types of cowlings.

So, I modified the cowling: I marked the area that had to be cut and removed most of the plastic with a razor saw and hobby knife, **1**, and finished with a file, making sure to thin the edges for scale, **2**.

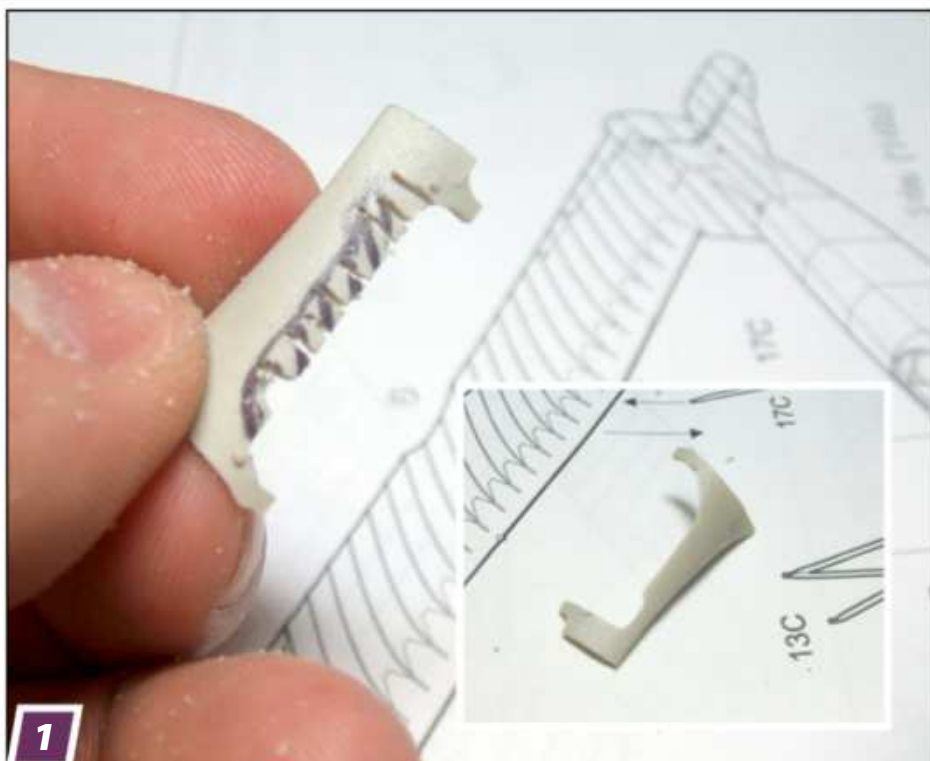
Having read about fit and alignment problems between the engine bay, panels, and the fuselage, I cemented the engine

panels to their fuselage halves but did not build the complete engine bay, departing from the instructions.

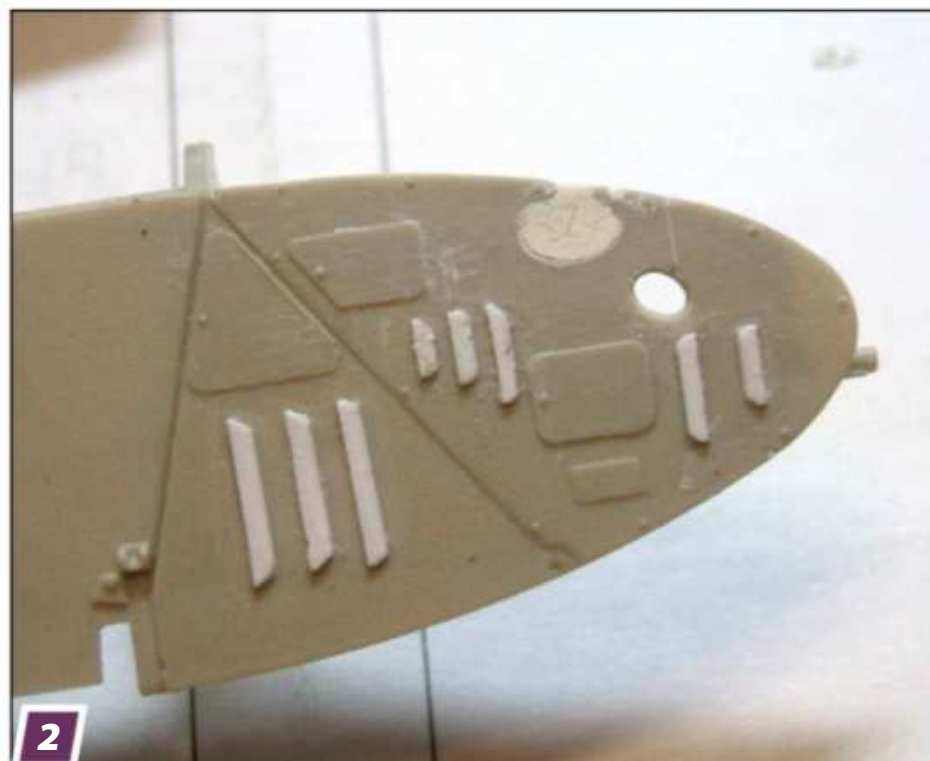
On the real D.VII, the engine panels had cooling vents not represented by the kit. I showed these with thin strips of styrene cut to shape, **3**. The strips were tacked on with a small dab of hobby cement, aligned, then fixed in place by running thin cement over them. I also scribed the leading edges of the forward vents and the trailing edges of the aft vents where they attached to the fuselage panels to represent the vent openings.

The kit provides a detailed engine, but there's room to improve. I super glued fine-gauge ignition wires to the engine. I also made lifter springs from wire, cut the originals from the engine, and replaced them with mine, **4**.

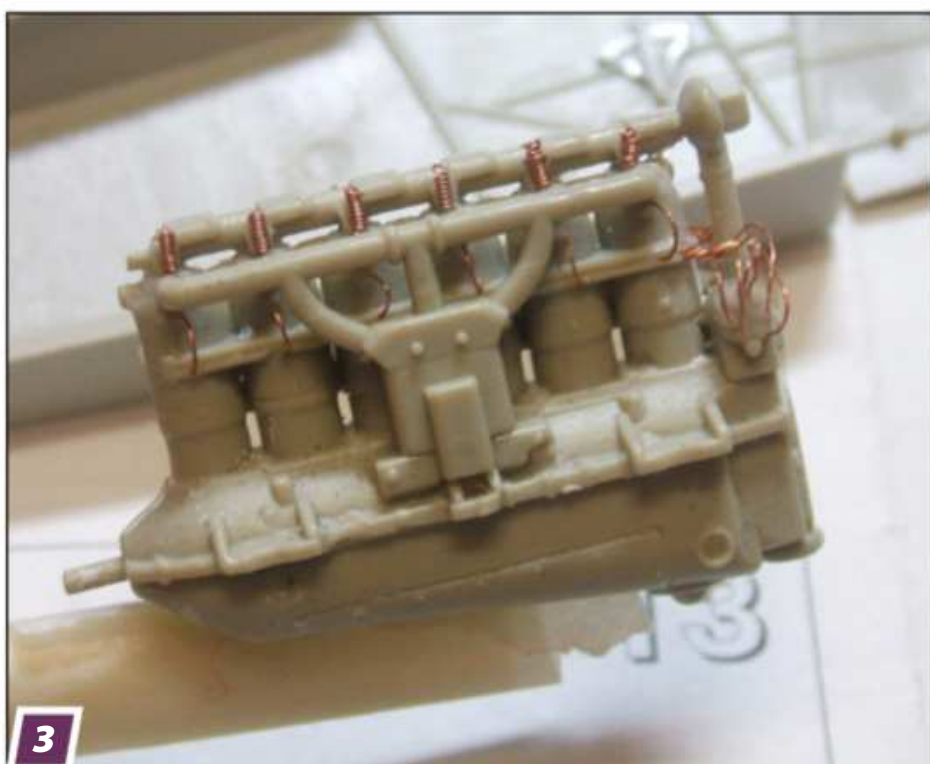
I painted the engine assembly silver, then brush-painted the cylinders with a mixture of silver and black. I tinted the



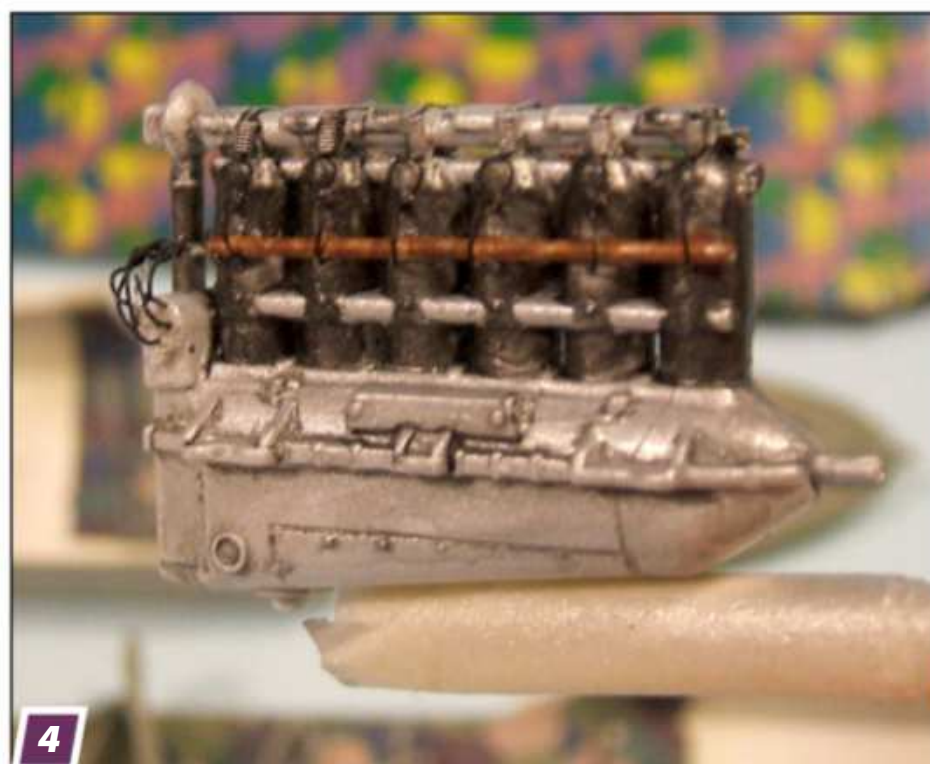
1 To properly open the cowl, I marked the plastic to be removed, then sawed and sliced it gradually. I thinned the edges for an in-scale look.



2 Small strips of styrene replicate vents not represented in the kit molding.



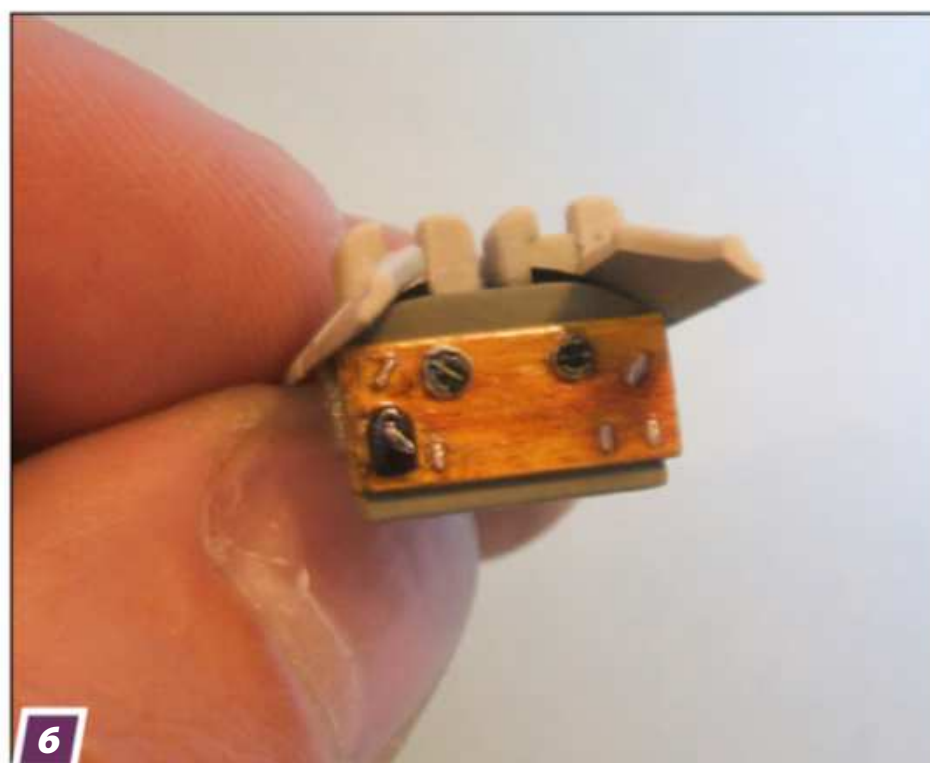
3 Fine wires charge up the detail on the kit's engine ...



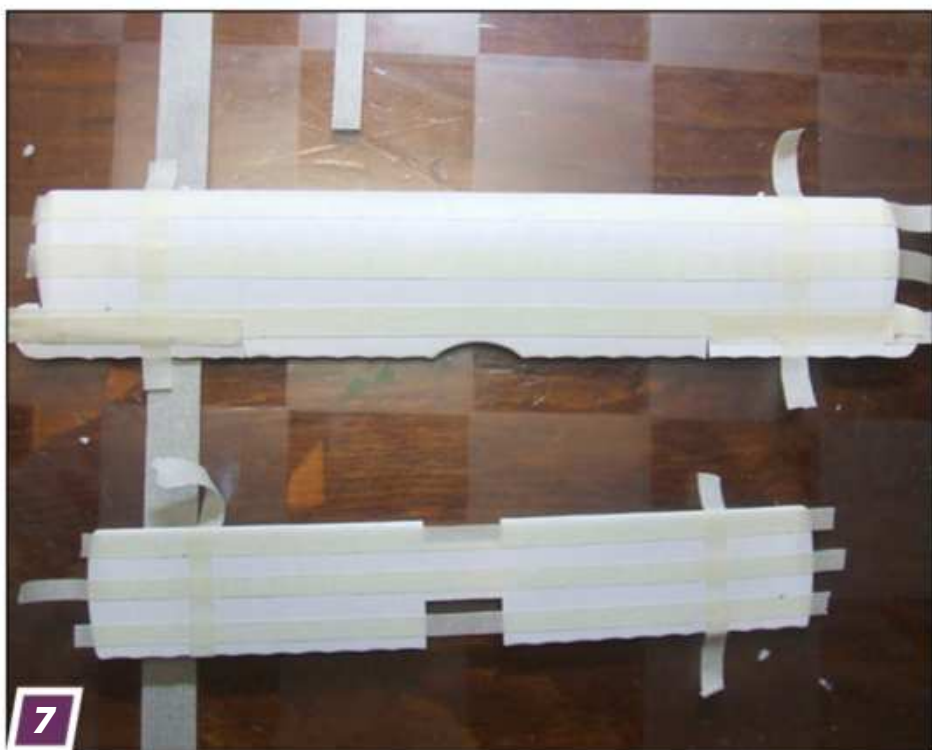
4 ... and fine painting with dark washes complete the convincing effect.



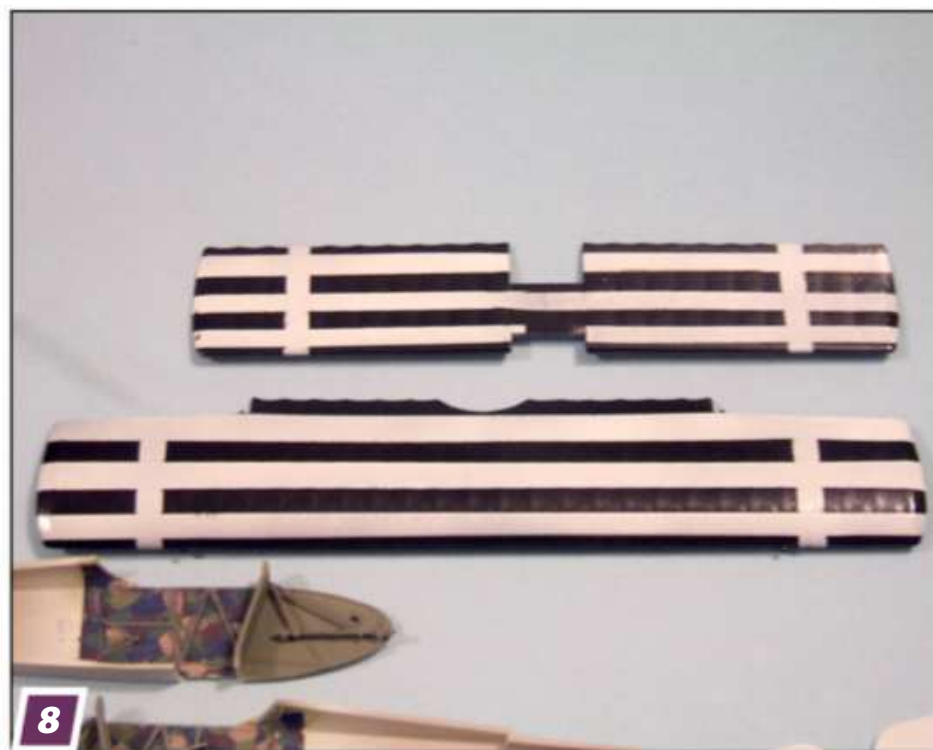
5 Added detail on the cockpit wall was removed to apply lozenge decals.



6 Decals were printed for the minimal instrumentation in the cockpit.



7 The wings' undersides will wear black and white stripes. After the masking is on, another coat of white seals it.



8 Et voilà! After black is sprayed, removing the masks reveals stripes that need only a little touch-up.



9 Even while swimming in decal-setting solution, the large lozenge decals were stiff and unwieldy.



10 Aggressive acetone-infused decal-setting solution forced lozenge decals to behave in the cockpit.

manifold with brown artist's oils and deepened the molded detail with black acrylic paint thinned about 10:1 (thinner to paint).

In the cockpit, I added control levers and cables to the port-side wall — but then removed them when I realized I was going to have to apply a decal to depict the lozenge fabric covering, **5**. I also printed decals for gauges, **6**.

Painting and decaling wings

Modeling WWI aircraft, and biplanes in particular, differs from those of other eras. The fuselage and wings are painted separately. For the D.VII, I painted the wings separately and applied lozenge decals.

It was at this stage that I had to decide which aircraft I was modeling. I chose the Fokker flown by Bruno Loerzer, whose D.VII wore black and white stripes on the

wings' undersides as well as its fuselage and empennage.

First, I painted the wings' tops and bottoms white. (Incidentally, the white base coat adds brilliance to the lozenge colors.)

Once the wings were painted white, I cut tape to mask according to the kit's drawings. Another coat of white sealed the edges of the tape to prevent black from seeping underneath, **7**. When that had dried, I shot the black, then removed the tape, **8**.

Next came a coating of Pledge Floor Gloss (PFG) to prepare for decals. The lozenge decals come in large sheets, and getting such large decals to conform to the wings is not easy! Save this task for when you have plenty of time to allow for the patience needed.

Before applying the decals, I brushed

Microscale decal-setting solution on the wings. Then I laid down the decals and brushed more setting solution over them, **9**. Still, my results varied.

What really worked — and I don't necessarily recommend it — was a 1:1 mix of acetone and water. This is an incredibly hot solution, and it will smear paint as well as the decal film if you're not careful. But it does melt decals into place.

I still wound up with some decals cracking, showing the underlying white coat. I touched up with either artist's oil or acrylic paint.

Interior painting

Several different materials were used in constructing D.VIIs, including wood, metal, canvas, and leather. The side walls of the cockpit were lozenge fabric; to replicate



11 Dragging artist's oils across a tan acrylic base coat replicates grain on the propeller and other wood parts.



12 Cockpit appointments were spartan — styrene rod and fine painting detail the space. Belts, buckles, and a cushion make the seat more plush.



13 More stripes means more white and more masking. Sticking tissue in the openings keeps paint out of the interior.



14 With landing gear, prop, and lower wing on, the model is beginning to look like an airplane.

this, I applied some of the leftover lozenge decals, **10**. I got them to settle using some of the more-aggressive setting solutions from before.

I painted the interior frame of the airplane a German shade of green, allowed it to dry, and sealed it all with PFG. I then weathered the interior and applied a flat clear varnish.

The seat was painted black. The instrument panel, the board behind the seat, the floor of the cockpit, and the propeller were given a wood finish in the same manner: a tan base coat, then artist's oils brushed and drawn into streaks to replicate wood grain, **11**.

Assembly, Part 1

After that round of decals and paint, I built the interior, **12**. I added more details,

including a throttle lever, the cable at the bottom of the throttle lever and one at the bottom of the control stick. I installed the floor board, the back panel and the fuel tank on the right half of the fuselage, cementing them all in place.

I test-fitted then glued the fuselage halves together, installed the engine, then began fitting the remaining panels around the engine. The radiator's back side required aggressive sanding to fit in place.

While the cement and filler were drying on the fuselage, I detailed the pilot's seat. I formed a seat cushion from oven-hardening clay and painted it with acrylic paints mixed to the color of leather; dots of thickened paint replicated buttons on the cushion. I cut masking tape for seat belts and added buckles made from wire formed over a squared toothpick, with latches made

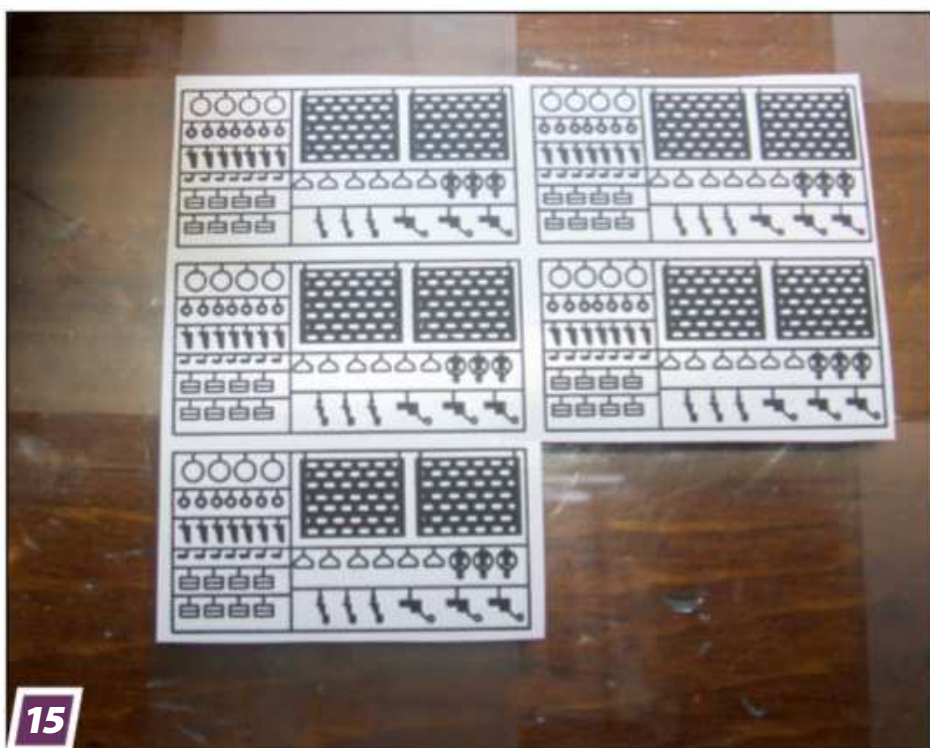
from little lead-foil triangles. Each of the buckles was painted and super glued in place. I set the seat aside to install after painting the exterior.

Exterior painting

After painting the fuselage white, I masked stripes and cut out a masking template for the area close to the cowl that was to remain white. To keep paint out of the interior, I stuffed tissue in the openings, **13**.

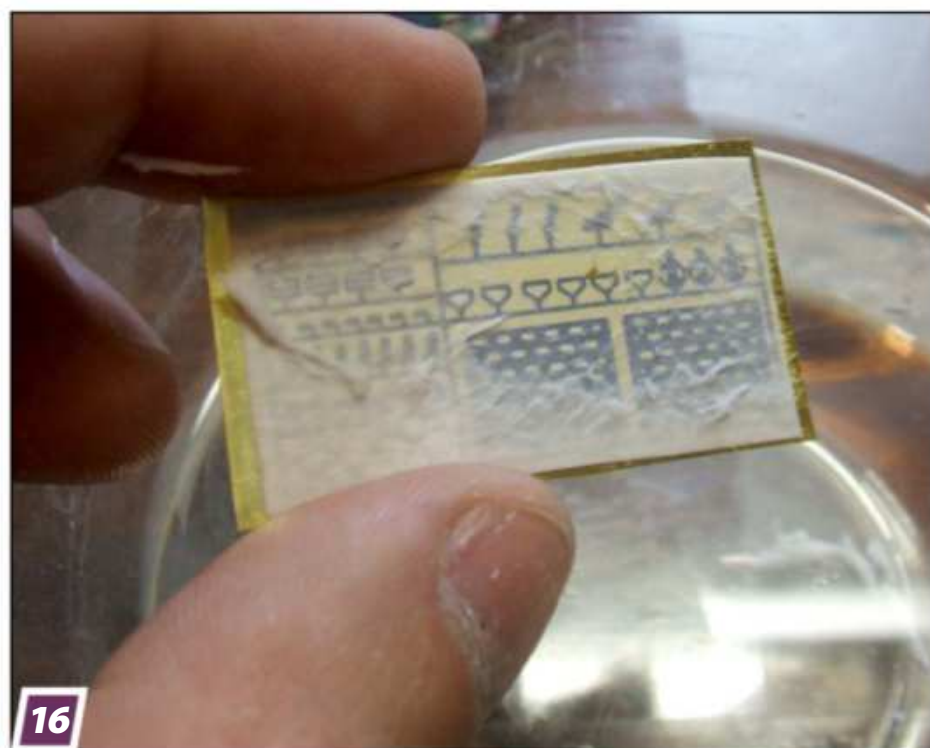
As with the wings, after masking I sprayed over the masking tape with white paint to seal the masks. Once this was dry, I sprayed the model black. I removed the masking tape, noted touch-ups, and sprayed a protective coat of PFG.

When the PFG dried, I sanded the entire fuselage and wings with 2000-grit sandpaper. This revealed additional touch-



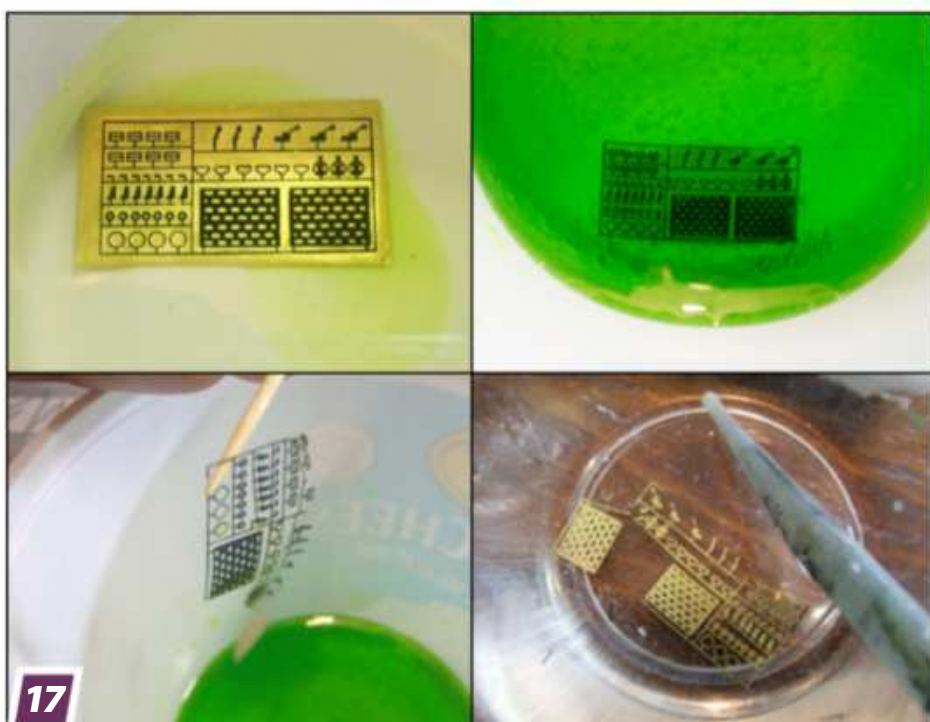
15

I flattened an electronic drawing of the jackets and printed it out using a high-quality laser printer.



16

After a hot iron bonds the ink toner to the brass sheet, water and gentle scrubbing remove the paper.



17

With toner acting as a mask, the acid begins to etch the brass. The brass, still covered by toner, is pulled out of the acid bath. Water rinses off the acid and, eventually, the toner, leaving the etched brass ready for use.



18

The perforated brass is wrapped around a drill bit to form a machine-gun cooling jacket. After the molded cooling jackets are ground off the kit part, the brass parts are super glued in place.

ups and meant more work with the air-brush, but this step really smoothed out the finish.

When touch-ups were complete, I sprayed another coat of PFG to prepare for decals.

Assembly, Part 2

Remaining parts still required fitting, filling, and more touch-ups.

To fit the bottom wing, I had to trim and file plastic from both the fuselage and the wing. After attaching that wing, I had to touch up the paint on the underside to match the stripes on the fuselage.

With all that straightened out, I finished up with the decals and mounted the landing gear. When that firmed up, I installed the pilot's seat and the propeller, **14**.

Caution — Chemicals are hazardous!

Always wear eye protection, an apron, and gloves, and work in a well-ventilated area. Mix only as much solution as needed per job. Do not add water to the acid. Use only

recommended containers; follow label directions and your local waste-management regulations for proper disposal. Keep out of reach of children.

Photo-etching something more

I enhanced the kit's twin Spandau machine guns with cooling jackets etched from sheet brass.

I started with an electronic drawing of the jackets, flattened to two dimensions, and ran it out of my laser printer, **15**. I also cut a sheet of brass and cleaned it with alcohol. The toner on the printout would act as an etching mask once I transfer it to the brass sheet.

I transferred the image from the paper

to the brass by pressing the printout onto the brass with a hot iron for about a minute. The heat from the iron melts the toner onto the brass as the paper adheres to the metal.

To remove the paper, I soaked it in water for about five minutes, then gently rubbed with my finger, dipping the brass back in water as necessary to remove all of the paper, **16**.

Using an old yogurt container, I mixed an etching solution of half muriatic (hydro-



19

Such was its reputation that the Fokker D.VII was specified as an aircraft Germany would be required to surrender to the Allies at the end of WWI. However, this model holds firm on its display shelf.

chloric) acid (from a pool-supply store) and half hydrogen peroxide. I placed the brass in the solution and swirled it every so often. After about 20 minutes, the delicate fret of parts was ready to be removed from the solution.

I removed the brass from the etching solution, thoroughly rinsed it in water to remove the toner, **17**. I removed the parts I needed, smoothed them, shaped them around a drill bit, and installed them on the kit machine guns, **18**.

Rigging, weathering, and out

In the remaining work, I had the hardest time installing the wing struts and even managed to snap a couple of them in half while trying to align the wings while installing the top wing and struts freehand.

I made replacement struts from sanded

and shaped toothpicks, using super glue as an adhesive.

I used stretched sprue for rigging, super gluing each end of the line and waving a soldering iron under the sprue to tighten it. I painted all the lines black.

I applied a pinwash of artist's oils to details for contrast. Then I added another coat of flat varnish. I hand-brushed a coat of satin polyurethane to parts of the airplane that were glossier than others, such as the propeller and the leather padding around the cockpit opening. I finished with dusted pastels to the wheels and around the machine guns, **19**.

Though it challenged my skills and whether I really wanted a Fokker D.VII on my shelf, I enjoyed the build and I like the outcome — and I was able to experiment with some new techniques. **FSM**

Meet Joseph Marranca

JOSEPH, 49, RETURNED TO THE HOBBY in recent years. Now an enthusiastic member of the Raleigh IPMS Eagle Squadron chapter, he lives in Chapel Hill, N.C., with his wife, son, two daughters, and two cats. Joseph has a degree in chemical engineering and works in the chemical-processing industry. He enjoys time with his family, aircraft models, home restoration, and traveling.





Canadian Leopard 1 tanks uparmored with the MEXAS package have been deployed in Kosovo and Afghanistan — and now on Sean's workbench, where he found an easier route to modeling the tank he wanted.

Don't mess with a MEXAS

Beefing up Takom's 1/35 scale Canadian Leopard /// BY SEAN M. LYNCH

Before I saw the photo reference book *Canadian Leopard C2 MEXAS in Afghanistan*, by Anthony Sowards, Rick Saucier, and Miloslav Hraban (MPA Publications, no ISBN), I had little knowledge of this tank. But after thumbing through the book, I came to really appreci-

ate the beefy look the added armor gave to the sleek Leopard 1. I knew I wanted to build this bad boy.

When Takom released a MEXAS Leopard (No. 2003), I bought it — and then it sat on my shelf for years, waiting but not forgotten. I wanted to update the Takom kit, but in an economical way.

I've found the easiest way is to use the update set from Legend Productions (No. 1272). You still have to mind your references and chosen time frame to combine the right features. One example: The auxiliary cooling unit appeared later in deployment. If you use it you will also need to add the thermal blanket that covered the

turret and upper hull.

Still, this is a much easier route than converting other Leopard kits.

MEXAS
Modular
Expandable
Armor System



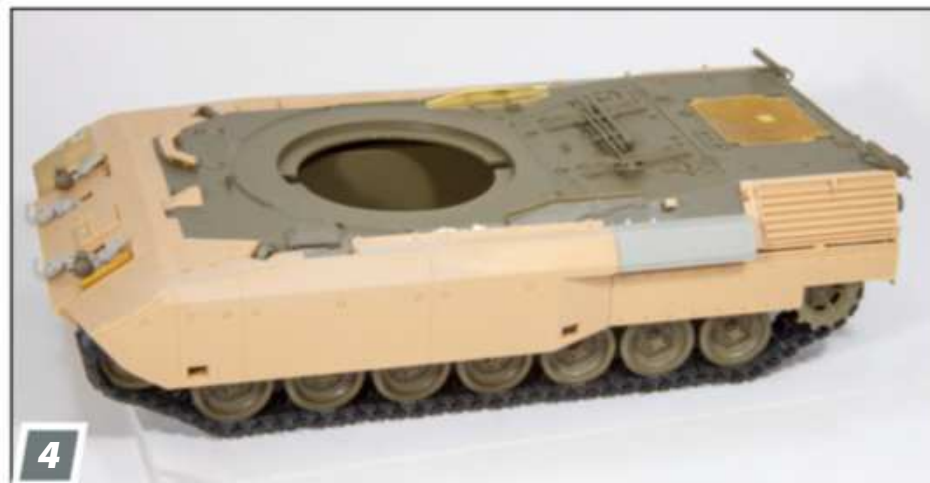
The extra heft of MEXAS armor is apparent even at this early stage of the build.



Tracks made by Orochi excel in detail and assembly, but I only built a half run on each side — the top run won't be visible under the fender skirts.



Legend's photo-etched (PE) detail aft improves the kit, as do the gray resin parts that replace towing eyes and shackles.



A resin toolbox captures details, but the bolts holding the armor to the hull should be hexagonal, not round as in the kit.



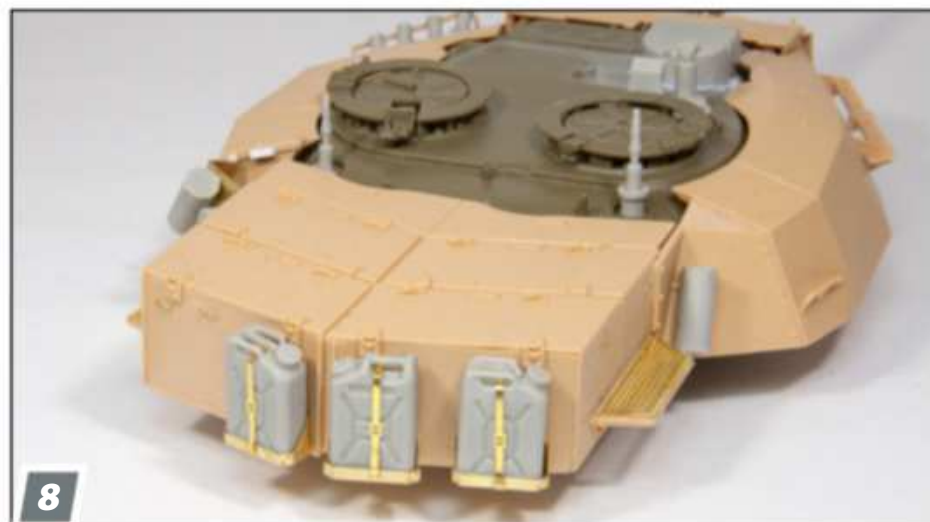
The kit-supplied gunner's sight and housing are undersized, but the resin replacements require some grinding to fit. Replacements for the commander's optics are an improvement, too.



Legend provides resin smoke-grenade dischargers and PE chains for their caps. Wire and PE is provided to replace the bracket, too, but I thought the kit parts were good enough and would bond better.



I replaced the shield on the rear left side between the MEXAS turret armor and stowage bins to make room for electronic countermeasures. White styrene bits add further detail.



The kit got the fuel and water cans wrong, but Legend's set corrects that with resin and PE.



To model antiskid areas, I hand-brushed them with AK-Interactive Gravel & Sand Fixer, sprinkled on chinchilla sand, and blew off excess.



Legend PE and resin improve the machine-gun mount — but it's still a finicky assembly.



The completed build before paint: The tan and olive pieces are kit parts; the gray resin and brass PE are from Legend's update set.



I found the green of Canadian vehicles a bit tricky. Using Tamiya acrylic paints, I base-coated with JA green (XF-13) and black green (XF-27), 2:1. Then I lightened the black green with field gray (XF-65) to spray edges and panel centers. Further steps will darken it appropriately.



Detail-painting followed, such as highlighting bolt heads with pure field gray ...



... flowing dark brown artist's oils into shadowy areas ...

Tip: Save time and track

If you are building a vehicle with fender skirts, no need for a top run — no one will see it. Those extra links may come in handy.



15

... highlighting panels and salients with gray and olive green artist's oils ...



16

... and a satin varnish that darkened the overall tone. A dark brown pinwash was applied to the deepest recesses.



17

A summary of weathering and paint detailing: artist's oil pinwashes; highlighted bolt heads; and graphite rubbed on edges to depict bared metal.



18

For a MEXAS in Afghanistan, it's dirt, dirt, and more dirt. I applied chipping fluid to the lower extremities and undersides and airbrushed Tamiya buff (XF-57), flat earth (XF-52), and flat brown (XF-10), then "chipped" by stippling with a damp, wide brush.



19

Stowage included bed cots, ration boxes, water bottles and an air-identification panel. A light misting of mud, pigments, plus fuel and oil stains, were the finishing touches.

Warm up a Cold War jet

Use color modulation to enhance shape and scale /// BY FAUSTO MUTO



Savvy shading lends depth and definition to this 1/144 scale jet — and you can use the same easy tricks to make your plane pop, no matter the scale.

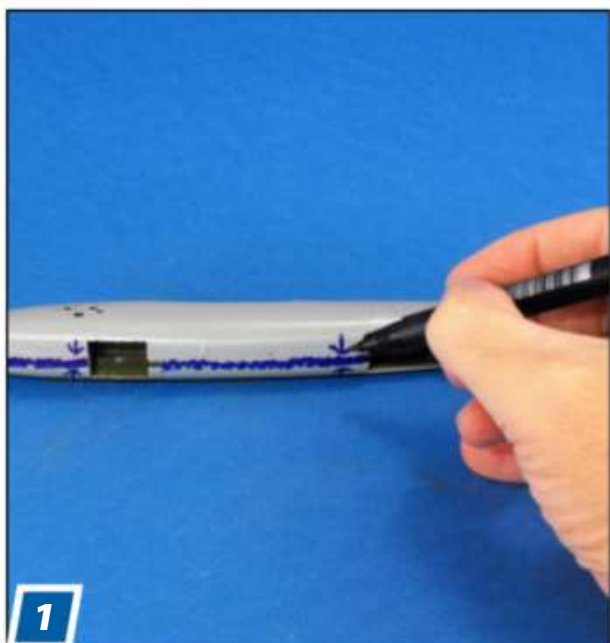
The main mission of the Boeing B-47 Stratojet was to carry nuclear bombs to the Soviet Union. However, it was only a threat — the jet never flew as a bomber in combat.

The B-47E was the definitive variant, with more than 1,300 produced. Also, B-47Bs were modified to E standards, which included upgraded engines and racks for Jet-Assisted Takeoff (JATO) bottles along with several other changes.

Academy's 1/144 scale B-47B/E

(No. 12617) originated as a Hobbycraft kit. There are construction options and decals for two versions: a B-47B, No. 51-2212, 306th Bombardment Wing; and a B-47E, No. 51-2320, 441st Bombardment Squadron/320th Bombardment Wing.

Despite its small scale the kit's details are great, with finely engraved panel lines. I used color modulation to heighten the details, subtly darkening the undersides and lightening top surfaces to mimic the play of light on the aircraft and further define its shape.



1
Once the fuselage halves are joined, coloring the long seams with a marker helps find the inevitable gaps ...



2
... and, after filler is applied, indicates sanding progress. Any panel lines erased by the sanding are restored by scribing.



3
Brushing GSI Creos Mr. Surfacers on the wing root covers that seam ...



4
... and Tamiya lacquer thinner makes it easy to smoothly remove excess.



5
After careful cleaning, color modulation begins by airbrushing black primer underneath. This has dual effects: The primer improves paint adhesion; its darkness pre-shades shadows and recesses as it darkens the underside.



6
For the sides, a gray primer provides a transitional shade, graduating ...



7
... to the top, where a white primer is used.



8
The scheme is gloss white underneath and metal topside. I airbrushed acrylics in very thin coats to allow the modulation to show.



9
The washes are shades of gray that I pull away with a thinner-soaked brush to remove excess. A final overcoat with a blend of clear gloss and 30-40% clear satin replicates the slightly dull sheen of this Cold War icon. **FSM**

How to scratchbuild *a destroyer*

Tools and techniques for making your own

BY ULF LUNDBERG

When you want a model like the Italian *Freccia*-class destroyer *Saetta* — but no one makes a kit — there's only one thing to do: Build it from scratch! Here's how to take your modeling up a notch.



6/8

**Number of Freccia-
class destroyers lost
of the total built**

What do you do if you've built the only two kits of Italian ships in 1/350 scale and you want more? What do you do if you've been building model kits for 15 years and you find it less and less challenging? What's the next natural step if you find yourself superdetailing all the kits you build?

The answer is obvious: Scratchbuilding. That's what I did to model the Italian destroyer *Saetta*. Here are the lessons I learned from my first scratchbuild.

Attitude and tools

Good enough is good enough. The first thing to do is to dump the idea of building the perfect model. Modeling is a learning process, and imperfections, setbacks, and minor failures are part of it.

Three main ways to deal with mistakes:

- Just rebuild the part, **1**. Sometimes I build a "practice part" just to find out where the potential problems are.
- Conceal the mistake. On military vehicles, you can hide mistakes behind equipment or mud. Ship modelers enjoy fewer such opportunities.
- Leave minor imperfections as they are and go on with your build. Many times,

mistakes that have really irritated me have gone unnoticed by experienced judges at high-level competitions, **2**.

• It's better to lower your goals a bit and finish the model than to give up. Use the lessons you've learned on the next build. There is no perfect model; good enough is good enough.

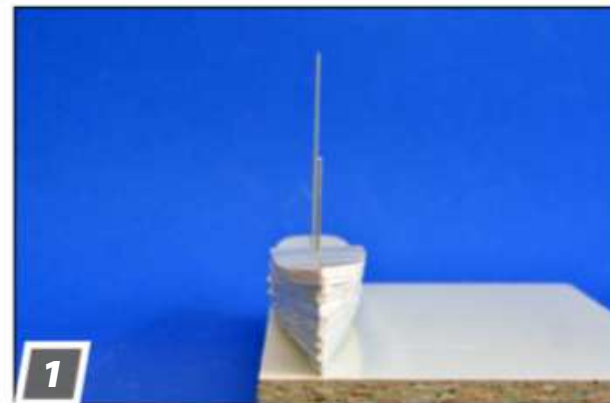
Some of the tools mentioned here can be expensive. But good tools last a lifetime (or more), and you can use them around your home as well. The importance of good, sharp tools cannot be overemphasized — not just for the results, but, more importantly, for your enjoyment.

Materials, measuring, and marking

Having built plastic kits most of my life, polystyrene is my chosen medium. I have the tools, the glues, and the know-how. Large sheets of polystyrene are easily available, and Evergreen and Plastruct offer strips, tubes, and profiles in several shapes and sizes.

Wood, paper, or brass are other possibilities if you have the tools and techniques to work with them.

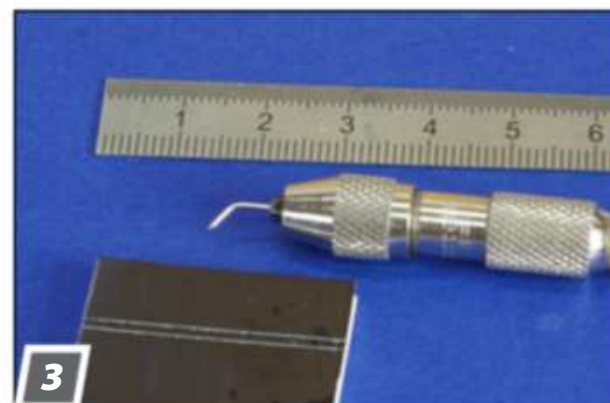
Building a part usually starts with transferring measurements from plans to your material. A pair of dividers with an adjustment screw is the best tool: It's underrated and versatile. A steel ruler and a small square are a must. Calipers can be useful, too.



On my first attempt, I glued and clamped layered hull pieces. However, the clamps also pushed the layers sideways. Time to try again.



This row of portholes is not perfectly straight. But on the finished model this imperfection usually goes unnoticed. I made propeller shafts from piano wire and styrene tubing.

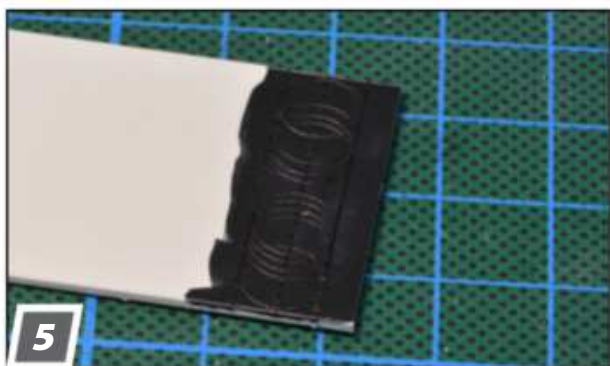


A bent needle in a pin vise makes an excellent scribing tool.

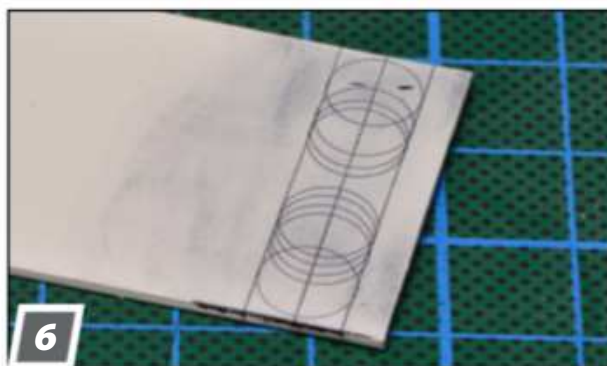


Put one point of the dividers at the edge of your material and press the other point gently into the material. Then pull the dividers along the edge for a straight, true mark.





5 Scribed lines on white styrene are hard to see; cover them with a black marking pen ...



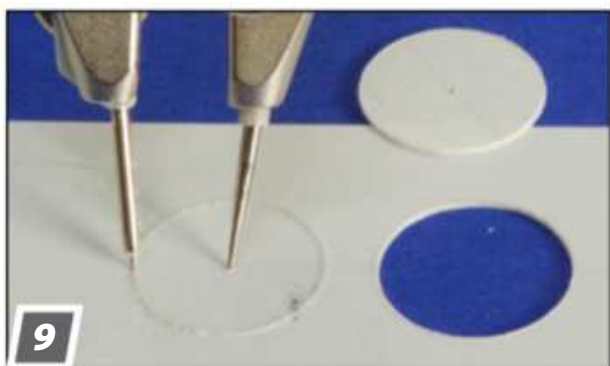
6 ... then sand away the excess ink for wonderfully precise lines.



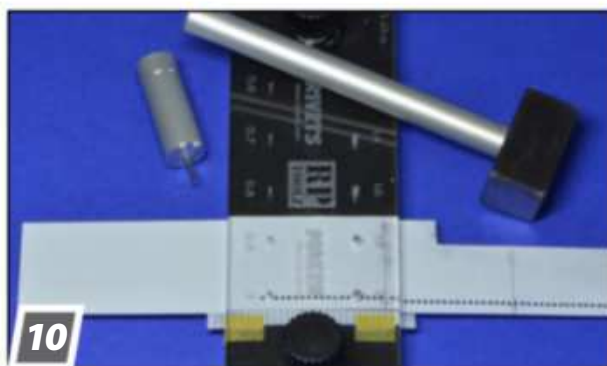
7 Cutting the platform for the aftermost 12cm gun mount to shape. The smallest chisel is made by Trumpeter.



8 On thicker styrene sheet, make the first cut slightly outside of your scribed line. Plant the chisel in the scribed line and press from above.



9 I use dividers to cut circular pieces; this works for masking tape, too.



10 Punching out skylights: The marked strip taped to the tool is a homemade gauge to get uniform distances between holes.



11 Shaving a small piece by pulling it over an upturned plane. Watch your fingers!



12 Drilling holes for the rangefinder arms; it's best to do this work before cutting it from the larger plastic piece.



13 With most components in place, the piece can be cut loose and the last fragile details added. The rangefinder is now finished.



14 A high-quality vise holds the hull while .1mm strips are being glued. Cardboard over the jaws prevents damage.

Remember the age-old rule: "Measure twice, cut once." When marking measurements on your material, scribing is much more accurate than a pen or a pencil. You can buy scribing tools, but you can easily make one, **3**. Sometimes, you can use your dividers as a marking gauge, **4**.

To make scribed lines more visible, go over them with a marker, **5**, then sand away excess ink, **6**.

Sometimes you can skip measuring altogether. Cut out a piece of your plans, white glue it to a piece of styrene, and cut directly from the plans. The paper can then be removed with water.

A word of caution here: An ordinary copying machine may distort measurements. It's better to print copies direct from a computer file. If you only have "hard copy" paper plans, scan them and print from the scanned file.

Shaping parts

The hobby knife is, of course, essential. But I would like to make a case for chisels. You can buy cheap ones at flea markets or on eBay, **7**.

What's more expensive are the sharpening stones — and they are absolutely necessary for precision work. You can use them to get your hobby knife blades much sharper than when you buy them, too. (To learn sharpening, look up an instructional video on YouTube.)

To cut thin sheet styrene, put the edge of the chisel in a scribed line and press down vertically. If the sheet is thicker than .5mm, make a first cut just outside of the final cut, since the chisel's beveled edge will cause it to cut slightly sideways into the material. With some practice, this is a fast and accurate way to cut styrene, **8**.

A small hobby saw is also useful. But the miter boxes that I've tried so far have failed to guide square, true cuts.

Circular or semicircular parts can be cut using dividers or a compass. Set the radius, put one point in the center, and start turning, **9**. If your material is thick, you'll need patience; it might be a good idea to sharpen the points.

To make small, round parts or holes, I use a punch-and-die set from RP Toolz, **10**.

Sometimes a small plane comes in useful. If the part is large enough, hold your

More at FineScale.com

See a complete description of heat-forming styrene in "Scratchbuilding the USS Texas," by Derek Brown, January 2003 *FSM*.

plane with the sole up and pull the part over it, **11**.

Some parts are too small to hold, which takes us to the next topic.

How to hold parts

More often than not, the problem is not how to shape a part but how to hold it while you shape it. The first thing to do is to plan your working order. For example, if you are making a small part out of a bigger piece of plastic, **12**, you should try to do as much as possible before cutting it off, **13**.

Large and medium-sized parts can be held fast in a vise. Buy a good one that has interchangeable jaws and no play, **14**.

If your part is too small to hold with fingers or a vise, there are other solutions. You can use tweezers or a small alligator clamp with the teeth filed off. Or you can attach the part to a piece of wood with double-sided tape, Blu-Tack, or white glue, **15**.

If none of those things work, you can build a jig to hold the part. I usually build mine from wood, plywood or particle board, materials that are cheap and easy to work with, **16, 17**.

Bending styrene to shape

Styrene, dipped in boiling water, can be bent and twisted into all kinds of shapes.

For instance, making rings is easy. Just wrap styrene rod around a dowel or the butt end of a drill bit, **18**, secure it with plenty of tape, and dip it into boiling water for a minute or two. Let it cool, remove the tape, and you have a spiral you can cut apart and form as you please, **19, 20**.

You can form sections of styrene sheet the same way and combine different-size forms to make almost anything you can imagine, **21**. (I learned this trick from a January 2003 *FSM* article, "Scratchbuilding the USS *Texas*," by Derek Brown.)

Thin styrene sheet can be folded if you work gently, **22, 23**.

Now scratch(build) that itch

The tools and techniques just described cover most of what I did to build my own *Saetta* in 1/350 scale.

There are three basic ways to build a hull: Plank-on-frame, carving from a solid block, or gluing sectioned layers together. I had plans from Profile Morskie, and the hull was relatively small (27cm, or 10.6 inches), so I decided to build it in layers.

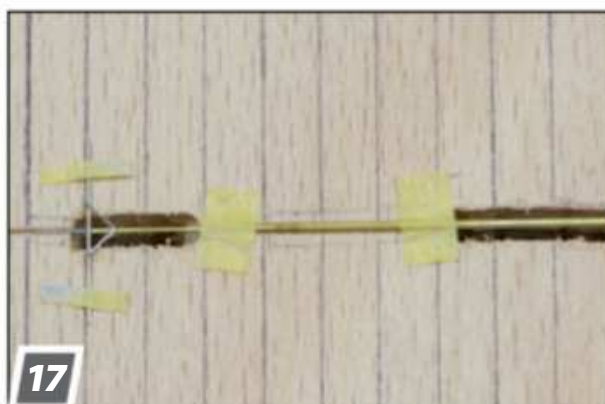
As I mentioned earlier, the first attempt failed, **1**. I cut new layers, each one corresponding to a waterline in the plans, and this time I scribed a centerline into each piece. When I glued them together, I carefully oriented the centerlines and used no



15 Double-sided tape can hold a strip of styrene to be planed or sanded to shape. This cheap plane uses a razor blade, but it's worth it to buy a higher quality block plane.



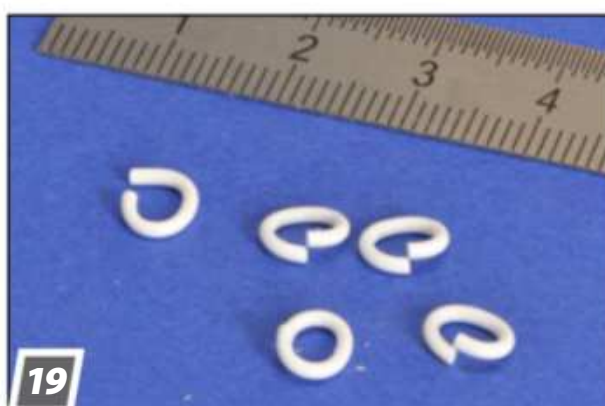
16 A small plywood jig holds a torpedo tube while I saw it to shape. I inserted styrene rod to keep the tube from being deformed.



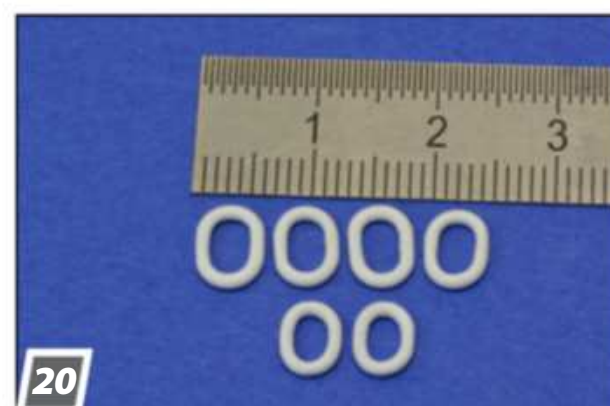
17 My trusty mast-building jig: The cutouts prevent gluing the mast to the jig while attaching yardarms. Perpendicular lines help square things up.



18 Making life rafts: Secure styrene rod by sticking it through a hole in a dowel, dip it into boiling water, and wind the rod around the stick by turning the stick and gently stretching the rod.



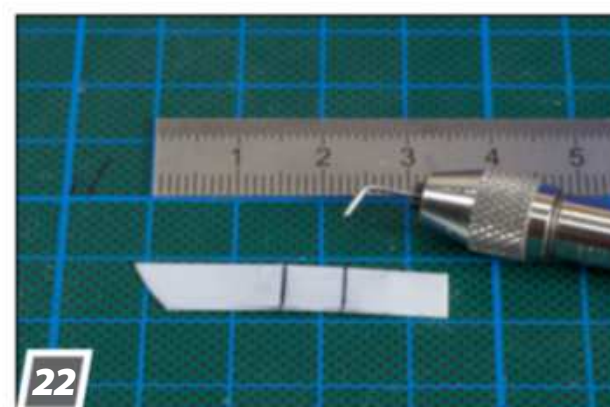
19 Let cool, then cut the resulting spiral into segments.



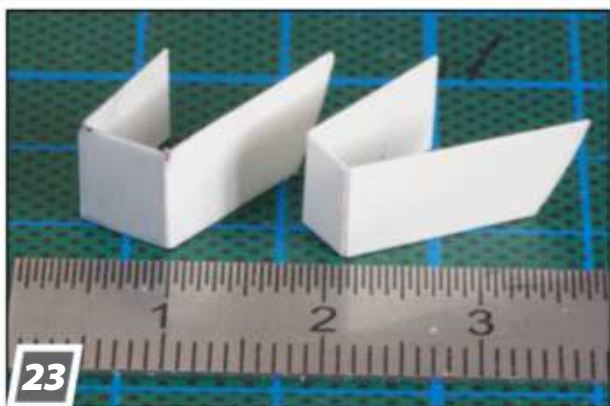
20 Bend the segments to shape and glue them together. Note there are two different sizes here



21 Making a funnel: I wrapped three layers of .3mm styrene sheet around a stick, taped it, and dipped it into boiling water. After cooling, the sheet can be cut off, removed from the stick and glued together again.



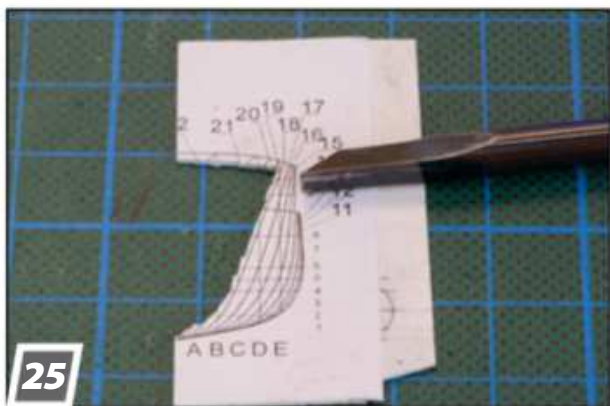
22 I prepare a styrene strip for folding by deeply scribing lines on the inside of the fold. I sharpened a needle tip at an angle so it scribes a slightly wider line, which makes folding easier.



Two pieces of styrene, folded; the one on the right was folded without scribing and, consequently, cracked.



I glued the hull together in layers: The centerlines of the layers have been carefully aligned.



Making a frame template: After roughing out the shape with a chisel, I filed it to match the frame line on the body plan.



Initial rough cuts to shape the hull were made with a gouge. Old chisels, well sharpened, are often better than new ones.



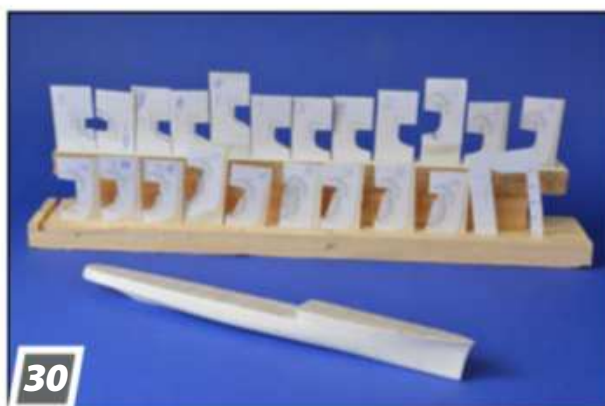
Refining the hull shape: I mark where the frame template touches the hull.



Sand the markings away and repeat the process until all templates fit.



Despite my precautions, I had to putty and sculpt the port bow and glue a strip of styrene to the stem.



After hours of sanding, the hull's beautiful lines can be admired. In the background are frame templates and one to shape the stem, or bow.

clamps, pressing the layers together with my fingers instead, **24**.

While the glue cured, I cut templates for each frame (or rib, perpendicular to the keel) in the body plan. For each one I glued a copy of the body plan to .5mm sheet styrene, then carefully cut out the templates, **25**. Then I scribed lines into the deck to

mark where each template should fit.

I started shaping the hull by shaving away surplus, **26**. Then I held the templates against the hull and marked where they touched the hull, **27**. Having done that to a section of the hull, I wet-sanded away the markings and repeated the process until all the templates fit, **28**.

This required patience, but it was fascinating to see the hull slowly taking shape.

Despite allowing .5mm extra on all hull layers, I still had to use some putty to shape the port side of the bow, **29**. To hide sanding marks and other imperfections, I covered the hull with Mr. Surfacer and wet-sanded it smooth, **30**.

I replicated the plating of the hull by gluing strips of Tamiya .1mm Pla-Paper to it. With some gentle stretching and liquid cement, they could be made to follow the complex curves of the hull, **31**.

Bring in the big guns

Each open-back turret comprises 12 pieces of armor plating joined at various angles. I planed a wood stick to the inner dimensions of the turret, then cut the floor and sides and glued them together around the end of the wood, **32, 33**. My first attempt failed, but I adjusted the form and finally got it right. I made three and used the best two, **34**.

I found no 12cm turned-brass barrels for Italian ships in the aftermarket, but I had some American barrels that looked similar. They were too short, so I lengthened them with brass tubing, **35**. I formed breeches from strip styrene, fitting the barrels and details before I cut them from the larger piece. Building the cradles and assembling the mounts was relatively easy, **36**.

Finally finishing

After the superstructure and main armament, the build became a seemingly endless assembly of ammo boxes, davits, skylights, ventilators, life rafts, anti-aircraft guns, and other equipment, **37, 38, 39**. You need a strategy to get through such phases or you'll never finish a model. Mine was to work a little each day. In the end, it was almost laughable to see how several weeks of work could fit in a matchbox.

I primed the model with chaos black from Games Workshop, then sprayed Schmincke Aerocolor artist's airbrush paints. I mixed the colors myself and applied several semitransparent layers of different shades to add drama.

Then I rigged the model and glued the railings to the main and forecastle decks with diluted white glue. The last step was to spray the model with mixes of flat and semigloss varnish to hide shiny glue stains and unify the paint job.

Thus ended my first scratchbuild. I still see countless minor mistakes and imperfections, but I can easily live with that. I'm happy with the overall impression, which is what counts. The experiences gained will be used on the next one. **FSM**



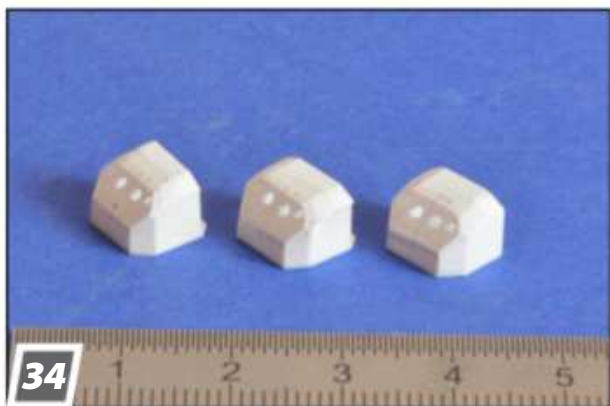
31 The finished hull with propeller shafts, rudder, plating, bilge keels and portholes.



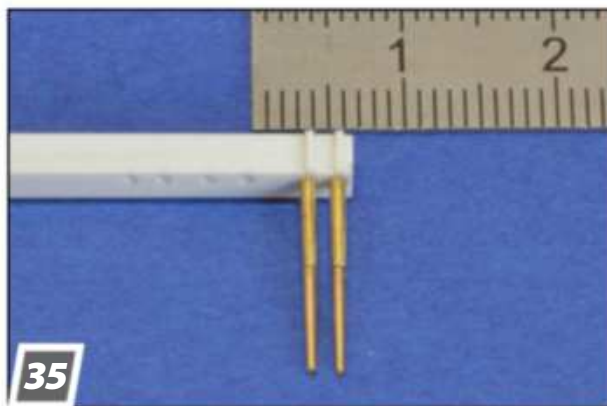
32 The sides of the turret are supported by the wood form.



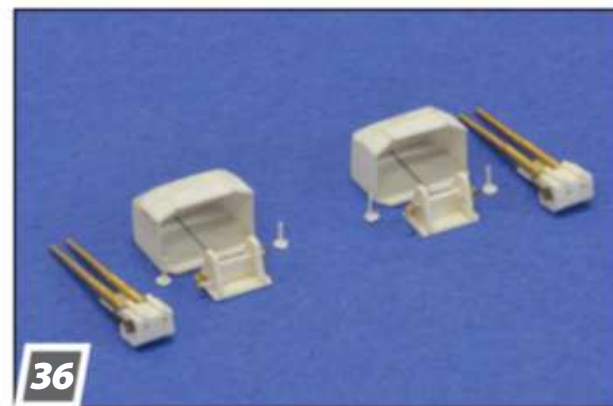
33 Further sections added: The lower front piece was made thicker to help stabilize the turret walls.



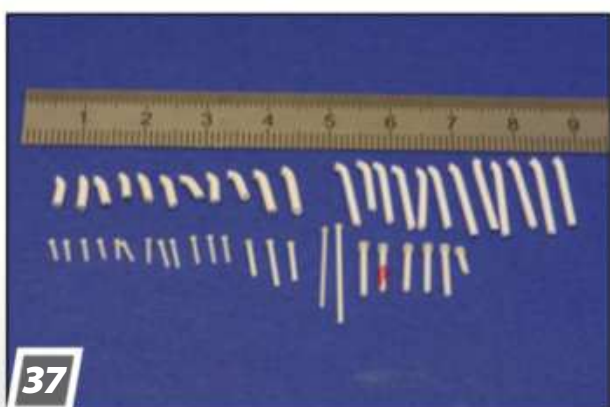
34 Predrilled openings await guns and sighting devices. The middle and right assemblies went on the ship, the third went to my spares.



35 I filed brass tubing to a cone to accept turned-brass 5-inch U.S. gun barrels from Master Models. The breech is made from styrene ...



36 ... then cut to size. Now, guns, cradles and turrets are ready for assembly.



37 Air intakes and ventilators; I made extras and picked out the best ones.



38 Ammo boxes, davits, cranes, rafts, platforms, ventilators, compass house, fairleads, piping for the funnel, etc. — weeks of work.



39 Ready for priming: The model looks a bit like those bone models that French prisoners of war made during the Napoleonic Wars.



And there it is. *Saetta* was launched in 1932, sank a Spanish Republican tanker in the Strait of Sicily in 1937, and was sunk by a mine in 1943 off Tunisia with the loss of 170 hands, including the captain. This 1/350 scale model enjoyed a more-successful result.

EagleQuest 2018

In June, Squadron celebrated 50 years of business in grand style at EagleQuest. In addition to seminars, speakers, and shopping the warehouse, the hopping event featured a peer-judged model contest that attracted more than 300 models. *FSM* Senior Editor Aaron Skinner braved the Texas heat for the event and shot photos of the entries.



**BRIAN CAVET
PICAYUNE, MISSISSIPPI**

Brian improved Tamiya's 1/48 scale F-14A with Eduard photo-etch in the cockpit, Cross Delta self-adhesive metal tail stiffeners, Def.Model resin wheels, and a Quickboost TCS pod. After priming the Tomcat with black enamel, he pre-shaded random panels and panel lines with white as well as different shades of gray and blue. Then he airbrushed thin layers of the final camouflage shade, letting the other colors show to mimic F-14 weathering.

► **MICHAEL CRANE
KELLER, TEXAS**

Debate rages about the existence of female Viking warriors outside of mythology, but that didn't dissuade Michael from finishing Nuts Planet's 1/10 scale shield-maiden. After pre-shading the bust with airbrushed Scale 75 black and white primers, he hand-painted Vallejo and Citadel acrylics; Army Painter washes shaded leather clothing and straps.



◀ **TOM RODGERS**
COLLEYVILLE, TEXAS

To model one of the more than 90,000 motorcycles built by Harley-Davidson during World War II, Tom built Italeri's 1/9 scale WLA out of the box and painted it with Vallejo Model Air acrylics. After treating a base coat of rust and aluminum with Ammo by Mig Jimenez chipping fluid, he air-brushed olive drab. Light rubbing with a damp brush chipped the camouflage to make the bike appear slightly used.



▲ **BLAKE HAMILTON**
DENTON, TEXAS

Long after its last watch, a fire truck stripped of anything useful rusts in a field somewhere. That's how Blake imagined AMT's 1/25 scale American LaFrance ladder truck when he attacked the parts with a motor tool to thin corroded spots. He weathered the cab and chassis using salt to mask chips of red and white Testors enamels over base coats of Vallejo light and dark rust.



WILLIAM HIGGINS

HENDERSON, NEVADA

Academy's 1/35 scale M4A3 Sherman included the 'dozer blade and a 105mm main gun. William added an interior including Tank Workshop resin details for the hull and scratchbuilt features for the turret. He painted with Tamiya, Vallejo, and Citadel acrylics and posed the tank on a Mig Productions base.



► TONY STIZZA

OKLAHOMA CITY,
OKLAHOMA

"This was supposed to be a straight-ahead project," says Tony about building HobbyBoss' 1/48 scale F8F-1. "Then the aftermarket intervened." Aires resin replaced the landing-gear bays, engine, and wheels, and Eduard photo-etch detailed the cockpit, including seat belts. He painted the Bearcat with Testors Model Master enamels and Tamiya acrylics. The only weathering was a few chips in the paint applied with a silver Prismacolor pencil. "I finished the night before EagleQuest opened!" he adds.





◀ **JOEY BENZENHAFFER**
MIDLAND, TEXAS

In Operation Desert Storm, unarmed U.S. Army OH-58s flew recon missions ahead of the armored columns moving into Iraq and Kuwait. Joey painted Italeri's 1/48 scale Kiowa with several shades of tan mixed with Tamiya acrylics, then weathered with oil washes to replicate an OH-58 from H Company, 4th Brigade, 3rd Aviation Battalion, 3rd Infantry Division.

▶ **ED GRUNE**
MANSFIELD, TEXAS

The 1/148 scale U.S. Coast Guard response boat-medium is designed by Shipshape and 3-D printed by Shapeways. Ed replaced too-thick antennas with wire and painted with Vallejo acrylics. Then, he put it to sea on several layers of pink insulation foam sculpted into a wave and covered with Apoxie Sculpt. He painted with multiple layers of Payne's gray, viridian green, and white artist's acrylics. The spray is rayon fiberfill embedded in clear acrylic along the waterline.



◀ **JEFFREY RIEDESEL**
GOODLAND, KANSAS

Jeffrey replicated a captured German halftrack repurposed as an American rocket launcher, much like the original SdKfz 251 was modified. He cut a section from the side of AFV Club's 1/35 scale halftrack to make room for a Tamiya PaK 40 mounted on a frame made from Plastruct C-channel styrene. Then he added the T34 Calliope multiple-rocket launcher from an Italeri Sherman, using more styrene for supports. The vehicle was painted with Testors and Humbrol enamels.



**MICHAEL MALONE
LEWISVILLE, TEXAS**

ParaGrafix photo-etch improved the details of Moebius' 1/4105 scale Battlestar *Pegasus*, but Michael's multicolor finish makes it soar. After priming the *Battlestar Galactica* ship with Mr. Surfacer, he airbrushed a base coat of Testors Model Master magnesium, then oversprayed it with GSI Creos Mr. Color steel. Aztek Dummy generic plating masks and a layer of gunmetal produced panel detail. "I spent about 40 hours on the paint," Michael says.

► **JASON NIKL
ARLINGTON, TEXAS**

Before sending Meng's 1/24 scale Hummer H1 crawling over plaster rocks, Jason upgraded the kit with a rear bumper, wheels, and tires he designed and 3-D printed. The roof rack is an aftermarket detail from Meng. He painted with Tamiya colors, then weathered with Ammo by Mig Jimenez products.





◀ **REESE INMAN**
WICHITA FALLS, TEXAS

To model an early German airliner, Reese added detail to the cockpit of Revell's 1/72 scale Junkers F.13, then sprayed the airframe with Tamiya primer. Alcad II aluminum and duralumin add shine to the corrugated skin. Artist's oil washes, Tamiya Panel Line Accent colors, and Rub 'n Buff weathered the Lufthansa liner.



▲ **TOBY NELSON**
FORT WORTH, TEXAS

Improving Meng's 1/48 scale F-35A with a Kasl Hobby resin ejection seat and Hasegawa GBU-31 bombs, Toby built the U.S. Air Force's latest strike fighter. To mimic the Lightning II's radar-absorbent coating, he painted the model with GSI Creos Mr. Color engine gray mixed with Mr. Color Super Metallic stainless steel; masks from Galaxy Models accounted for the hatch surrounds.



◀ **RICHARD REGGIO**
HAMMOND, LOUISIANA

Real life meets 1/35 scale fantasy in this diorama as Richard's cat tells a German soldier his name is Tiger Too. The scene combines a Tamiya Tiger I and figures from Dragon and Alpine. **FSM**

A rum-running A-20G Havoc



Colorful Kits-World
decals adorn a unique
"grocery-getter."

Details and paint promote *Little Chief*

BY FRANK CUDEN

Every once in a while, there appears an out-of-the-ordinary scheme for a model. Enter a Douglas A-20G Havoc with interesting nose and tail art and an interesting history.

MPM 1/72 scale Havoc (No. 72539) was already in my inventory when I saw Kits-World's A-20G decals (No. KW72146) that included a bare metal Havoc. *Little Chief*, with its expansive starboard-side nose art and a distinctive skull and crossbones on the rudder, immediately prompted me to build the kit.

A little history: During World War II, *Little Chief* flew with the 321st Bombardment Squadron, 90th Bombardment Group. Stripped of much of its armament, the Havoc carried the "fat cat" designation for flights from New Guinea to Australia to secure booze and food for the troops.

Assembling subassemblies

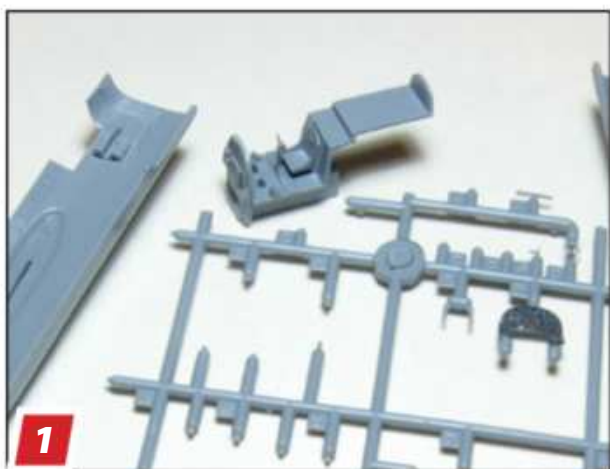
The MPM kit is molded in medium gray, rather soft plastic and bears characteristics of earlier short-run kits with no locating pins to aid construction.

Starting with the cockpit, I glued together the seat, instrument panel, and control wheel, **1**. I would later add a scratchbuilt fire extinguisher and life raft behind the seat.

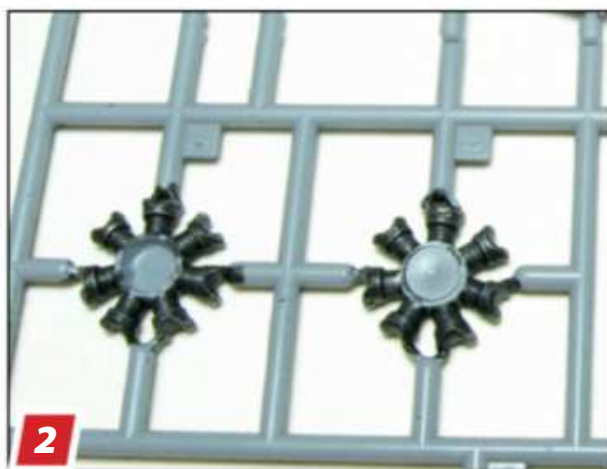
I painted some of the subassemblies before construction, starting with the engine cylinders. (I used now discontinued Floquil enamels unless otherwise noted.)

Appropriately, I painted them engine black along with a dry-brushing of Testors enamel steel, **2**.

Testors dark gray covered the crank-



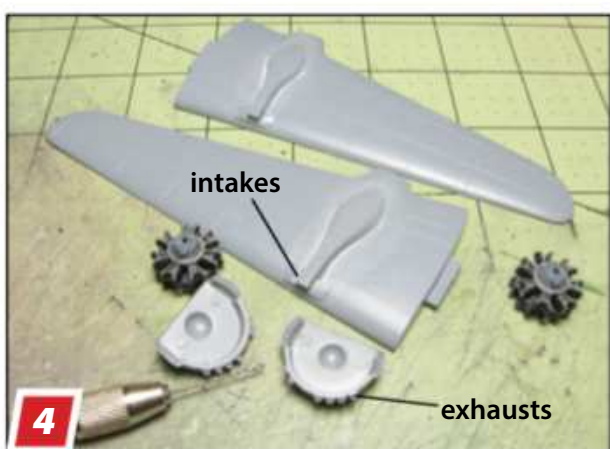
1 I painted the instrument panel with dark gray and dry-brushed acrylic white over that. Additional dots of red and white on the raised switches and knobs added realism.



2 After a coat of Floquil engine black, I dry-brushed the engine cylinders with Testors enamel steel.



3 While tedious work, adding 4/32-inch pushrods (two per cylinder) to all 14 cylinders, created noticeable detail. However, I'd had enough and opted to omit ignition wires.



4 The air intake housings on top of the wings did not fit flush without pressure. I used numerous layers of Squadron white putty to finally get rid of the seams. So it goes with a short-run kit.



5 I used thin wire to sculpt wrinkles and indentations in the putty to accommodate solder tie-downs on the shelf behind the cockpit.



6 It was a mistake to add the turret at this early stage. I didn't want to mask it when the natural metal finish was applied, so shortly after I removed it, adding it later in the build.



7 Once I drilled open the vents for the air cowlings, I sanded them smooth by pulling thin strips of 320-grit sandpaper back and forth through the openings.



8 The instructions weren't clear as to the positioning of the main landing gear legs, but I fiddled around with them until certain of their location.



9 It took three or four putty applications to eliminate nacelle-to-wing seams.

cases; black wash from The Detailer dirtied them up.

I added push rods to the engines by cutting short sections of .015-inch styrene rod and secured them with Gator's Grip white glue, **3**.

I chose an exhaust configuration with closed cowl flaps, **4**. I deepened the individual stacks with my twist drill.

After painting the cockpit tub and adding the instrument panel and control yoke, I used 2-part epoxy putty to form a rolled life raft, **5**. It was easy to work with and its slow drying time allowed me to trim excess putty and form a raft to look the part.

I added Eduard seat belts (No. 73-004). Also note the small seat cushion I made out of putty.

Fixing fittings

The fuselage seams needed several coats of putty to finally disappear, **6**.

To open the cowl vents, I drilled a series of holes and carved out remaining plastic with a No. 11 hobby knife. Then, I pulled strips of 320-grit sandpaper back and forth through the opening to refine the shape of vents, **7**.

I glued the main landing gear "tree farm" in position, making sure the assembled

cowlings would fit over the myriad of struts, **8**.

I glued the wing halves to the fuselage, using white putty to eliminate the large gaps that resulted.

With the nacelles in place, additional filling was needed where the aft nacelles mated with the wing's trailing edges, **9**.

Next up were the cowlings. First, I glued the engine fronts in place. A small raised tab and corresponding indentation aligned them perfectly. The cowlings had curved indentations to fit to the wing leading edge, but the fit was not good.

To fill the gaps, I smeared on spackling



To fill the gap left by the ill-fitting cowls, I used spackling compound. I would have never been able to smooth the gaps had I used putty.



Wet-sanding the plastic provided the smooth surface necessary for a metal finish.



I masked the engines, wheel wells, cockpit, and turret openings before applying a base coat of old silver.



I sprayed the control surfaces with Testors Dullcote, while the wing spars received Alclad II stainless steel.



Alclad II Duralumin covered the flaps and dull aluminum covered the turret panel and the forward outer wing leading edge panels. So much silver, so little time.



Here is the completed "metal" work. Engine black sprayed on the rudder served as a backdrop for the white skull and crossbones decal.



Steel — yet another shade of natural metal — covered the fuselage and wing access panels. The wheel wells were spray with interior green and enamel steel covered the gear legs.



I used thin drafting tape as a guide to re-establish the lines.



The raft was painted with railbox yellow, a deep orange/yellow. Thin solder served as tie-downs.

compound, **10**. A damp cotton swab removed excess.

Metal painting

After covering the model with Alclad II gray primer, I carefully wet-sanded the airframe with 6000-grit sandpaper, **11**.

I masked the cowl openings, wheel wells, cockpit, and turret holes and airbrushed the airframe with old silver as a natural-metal base coat, **12**.

I began applying dissimilar paneling by masking and

spraying Testors Dullcote on control surfaces to differentiate painted fabric from metal surfaces. For contrast, Alclad II stainless steel covered the wing spar areas, top and bottom, **13**.

Next, the flaps were masked and sprayed with Alclad II Duralumin. The forward outer wing leading edge panels and the panel surrounding the turret received a coat of dull aluminum, **14**.

The central panels on

the vertical and horizontal tail surfaces were shot with a coat of stainless steel, **15**.

I used my own mix of interior green for the wheel wells and Testors enamel steel for the gear legs. I hand-painted small fuselage and wing access panels with steel as well, which provided yet another natural metal shade to the model, **16**.

Refining the look

Rather than re-scribe the sanded-off portion of panel lines, I simply drew them back on, **17**.

I placed the life raft in its compartment and began adding its decals, including a

7,478
— The number of Havocs
produced

2,908
— The number of Havocs
received by the
Soviet Air Forces and
Soviet Naval Aviation



I was a bit concerned about the nose art taking hold over the compound curves, but I needn't have worried because it settled into the recessed panels perfectly.



After the radome tan dried, I dry-brushed the tread with the black gray, leaving a residue of the tan on the tread.



Pre-painted photo-etch ammunition belts from Eduard (No. 73-207) spruced up the turret.



“No Step” sign, **18**.

I used Eduard pre-painted “US WWII filler neck caps (No. 48-018) for the wing tank gas caps. These are 1/48 scale but worked just fine on the Havoc wings.

Then, I added the turret to the fuselage for the second time. Small decal placards on the deck behind the pilot’s seat came from AirScale.

The Kits-World decals were applied next, **19**. They conformed well with the help of Micro Set and Solvaset.

Moving on to the small parts, the gear doors were sprayed interior green inside and old silver outside. I hand-painted the

tires with Model Color black gray (No. 70862), and sprayed the treads with thin radome tan, **20**.

The props, turret, machine guns, and canopy were glued in place, **21**.

I applied a black wash to the lightening holes in the life raft compartment hatch to give them depth.

The propeller-blade housings were hand-painted with Testors enamel steel and the prop hubs were coated with Testors chrome.

After masking, I hand-painted the canopy and life raft hatch frames old silver to match the body. I added a scratchbuilt fire



I added black rivet decal strips to the cowl panel lines. Note the addition of the ring antenna and mast. The propeller blades were sprayed with engine black after the tips recieved a shot of railbox yellow. Small Hamilton-Standard prop logos came from the kit.

extinguisher and hatch support strut on the shelf behind the cockpit. Black decal stock cut to fit the intakes above the cowlings gives the impression they are open.

I added navigation lights on the wing tips, using Tamiya clear red and green. Blue formation lights were added behind the navigation lights on the wing tips.

The antenna wire was added using thin fishing line and that completed the project, **22**.

While I wouldn't recommend MPM's Havoc to beginners, the basics are in the kit and with additional work, a respectable model can be the result. **FSM**



▲ **FRANCISCO GUTIERREZ**
SANTIAGO, CHILE

Operating under the alias of "Block50," Francisco super-detailed HobbyBoss' 1/48 scale A-6E Intruder with folding wings, open access, and plenty inside.

► **CHRIS FILTZ**
WAUSAU, WISCONSIN

From Lindberg's Jolly Roger series comes the spooky 1/12 scale "Hex Marks the Spot." Chris hand-brushed and weathered with craft-store paints and The Army Painter paints and washes.





▲ **REMCO TIJMONS**

WORMER, NORTH HOLLAND, NETHERLANDS

The Soviet MiG-3 was better at high altitudes than below 16,000 feet — which, unfortunately, is where it usually fought and was outclassed by the German Bf 109. Remco dressed Trumpeter's 1/48 scale plane in winter camouflage.



◀ **LIM EWE GEN**
PORT MORESBY,
PAPUA NEW
GUINEA

Lim took his Meng 1/72 scale F-102 outdoors and got a well-lit shot that has his Delta Dagger looking sharp.



▲ **WES BEATTY**

PARRY SOUND, ONTARIO, CANADA

Wes writes: "This is an Airfix 54mm Scots Grey converted to a Royal Canadian Mounted Police corporal, circa 1878, at Fort Walsh, Saskatchewan. He's 'tent pegging' — trying to hit a small peg while riding at full speed."

◀ **ŁUKASZ ZIÓŁKOWSKI**

ŁÓDŹ, POLAND

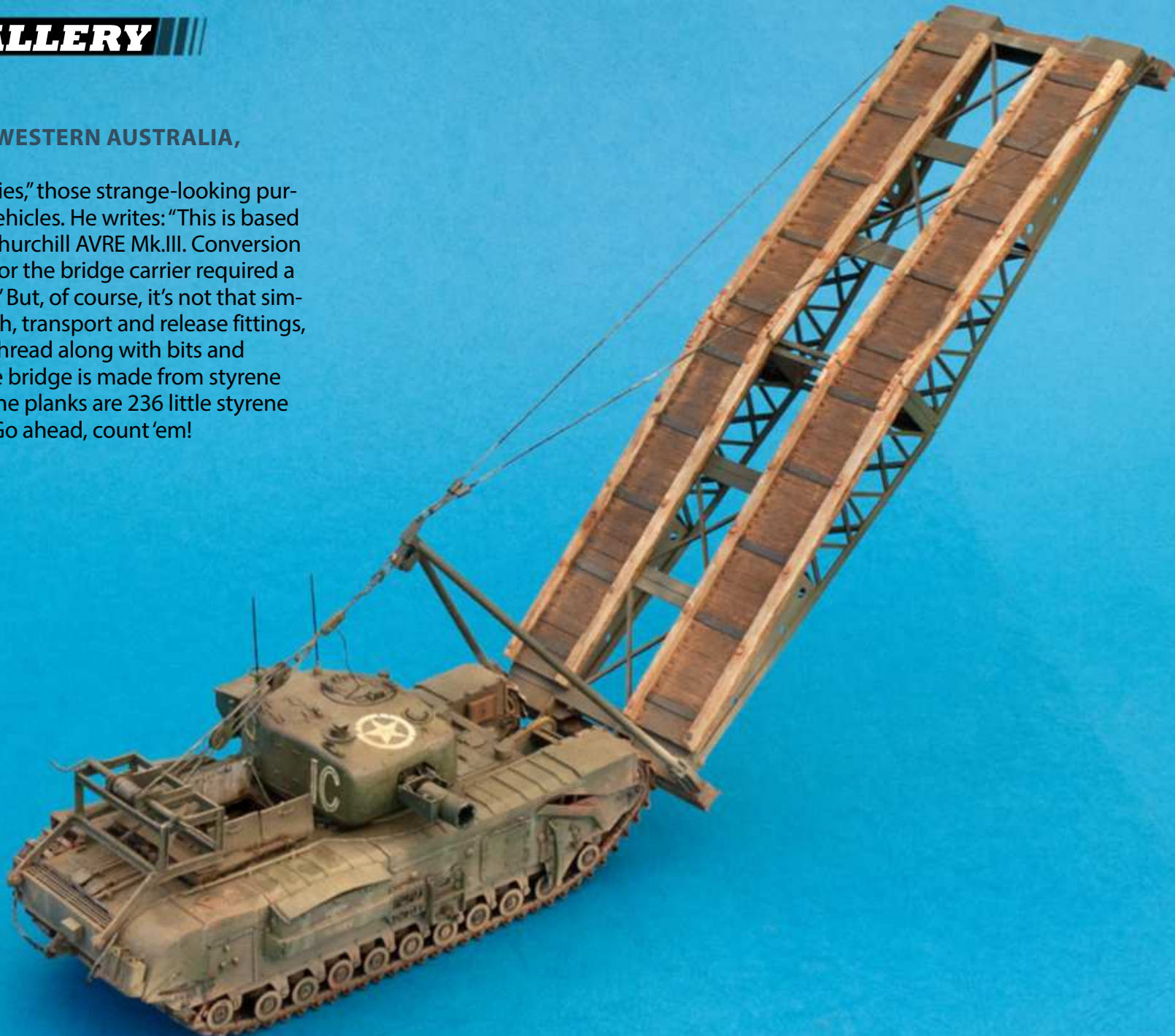
Łukasz painted Mig Productions' 1/9 scale Roman Signifer bust with artist's oils and acrylics.

READER GALLERY

ANDY COOPER

**EAST VICTORIA PARK, WESTERN AUSTRALIA,
AUSTRALIA**

Andy has a thing for "funnies," those strange-looking purpose-modified armored vehicles. He writes: "This is based on AFV Club's 1/35 scale Churchill AVRE Mk.III. Conversion to the Mk.IV variant used for the bridge carrier required a Mk.IV turret from Resicast." But, of course, it's not that simple: He scratchbuilt a winch, transport and release fittings, and incorporated cotton thread along with bits and pieces from his spares. The bridge is made from styrene stock and basswood. On the planks are 236 little styrene discs representing rivets. Go ahead, count 'em!



MAX LACOBARA

MIAMI, FLORIDA

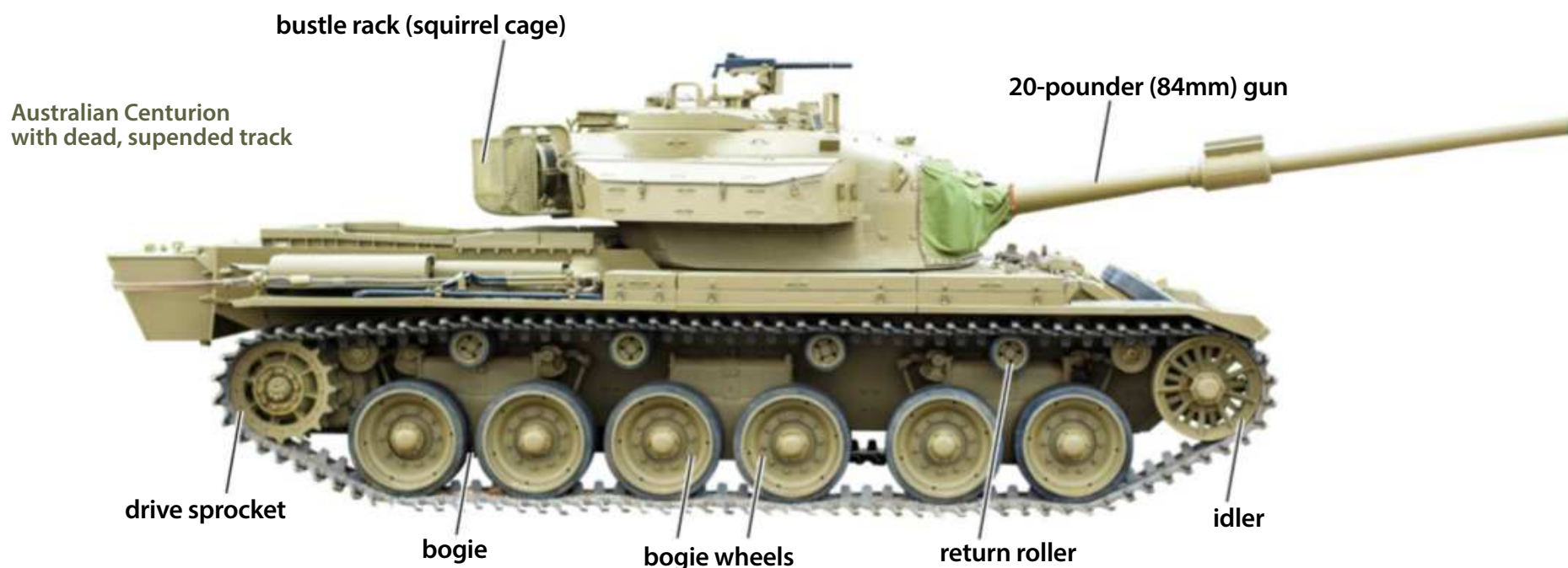
Early on, flying boats were a specialty of the Curtiss Aeroplane and Motor Co. Max built Omega Models' 1/72 scale Curtiss Model F, placing it at NAS Pensacola in 1917.



Let's talk tanks

Just where is the bogie, and can I get to it from here?

BY RON PONIATOWSKI



When I was young, the neighborhood kids and I would spend hours building models and then, of course, playing with our creations — big fun!

The only problem was that almost everybody on my block was older than I, and therefore, more “in the know.” Example: If I called an elevator a flap, I’d be set upon by the older boys.

It became important for me to differentiate a drive sprocket from an idler wheel and a deck from a floor.

So with the help of technical manuals and other books with *plenty* of pictures, I diligently learned the correct nomenclature.

Here are some of the most often misidentified or unidentified parts on a tank.

Turret basket vs. bustle rack



1
Anniston Army Depot (ANAD) employees guide a repaired turret, complete with turret basket, to an M1A2 hull.



2
The bustle on a T-43 120mm gun tank at Fort Knox. Without caged sides it's easy to see how this was known as a bustle rack, as it resembles the wire frame once worn under clothing, also called a bustle. It supports gear with straps.



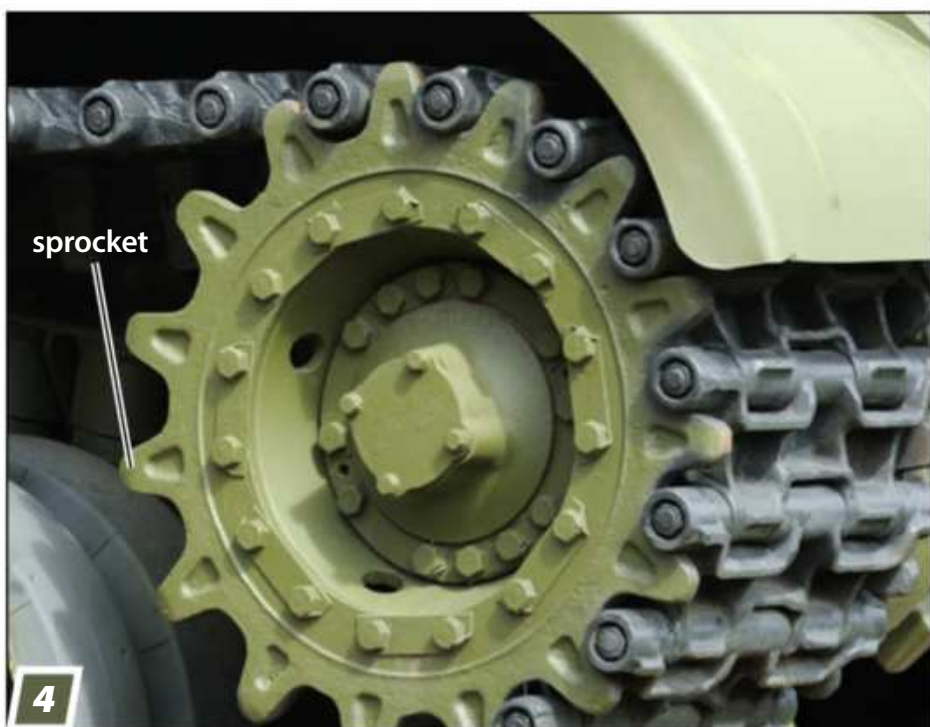
3
The large squirrel cage on an M60A3. The expanded steel screen kept crew gear intact (although there were never any guarantees).

The open stowage bin at the back of a tank's turret is sometimes mistakenly referred to as a turret basket. In actuality, the turret basket is an interior holding compartment made of the turret floor and supports or supporting walls inside the tank, **1**. One to two crewmen can sit inside the turret basket, turning as the turret

swivels. Turret baskets are seen on Shermans and Stuarts.

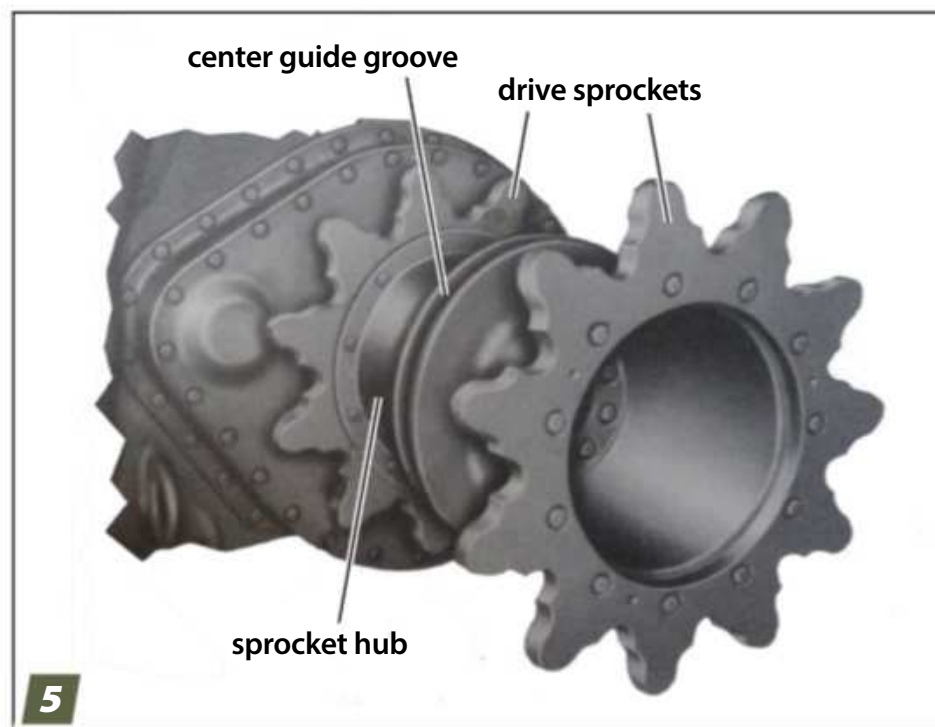
The exterior stowage compartment on a tank is a bustle rack, **2**. These hold supplies and gear. Bustle racks are seen on the M48 Patton and later main battle tanks. If a cage wall is present, a bustle rack might also be called a squirrel cage, **3**.

Drive sprockets



The sprockets on the wheel engage the track, pulling it forward, and making the tank move.

The drive sprocket is a part of the drive train, usually located at the same end as the engine, **4**. The assembly mainly consists of the drive sprockets bolted to the hub. Sometimes, as on the



The major components on an M103 drive sprocket. This assembly could move the tank at 20 mph.

M1 Abrams and M103, the hub has center guide grooves, which keep the track from being thrown, **5**. The hub may have lightening holes to lighten the wheel's weight and disperse built-up mud.

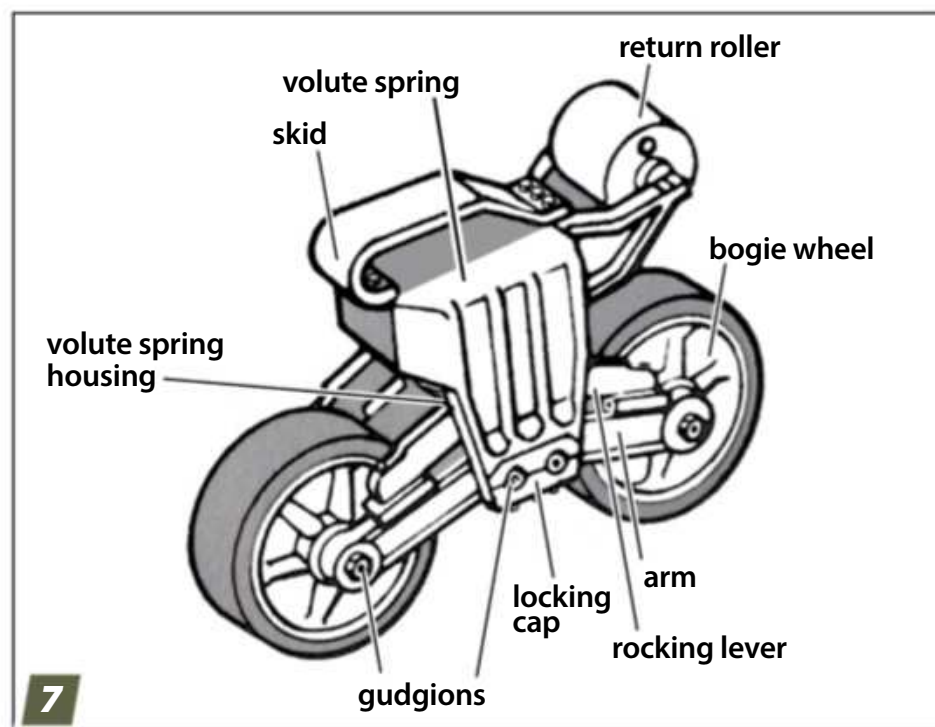
Road wheels and bogies



The road wheels on a tank with torsion bar suspension (more on that momentarily). The return rollers support the upper run and help guide the track around.

The wheels touching the ground are road wheels, **6**. Road wheels differ widely in size, shape, construction material, and in how they are connected.

Some road wheels are connected by a suspension assembly called a bogie, in which case they are called bogie wheels. A bogie



A Sherman vertical volute spring bogie. Bogies support the tank and the track's upper run as well as absorb much of the impact when crossing rough terrain.

suspension is often seen on older tanks. It was easier to repair and replace but more susceptible to damage, **7**.

Many modern tanks have torsion bar suspension rather than bogies. A metal bar attached to each road wheel allows each one to move independently. Torsion bars can support heavier vehicles.

More at www.FineScale.com

Go online to FineScale.com/TankTalk to see a list of all the tank terms a modeler could ever want.

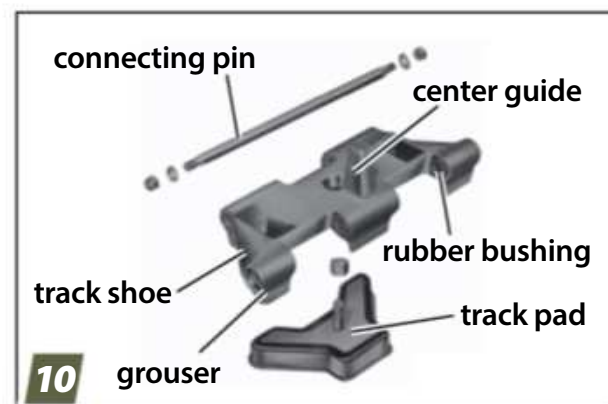
Supporting the upper run



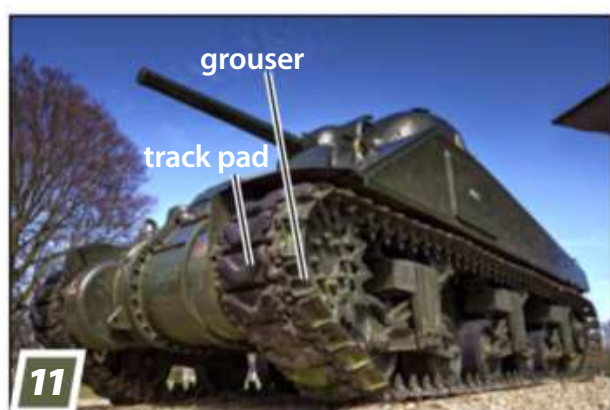
Suspended track supported by return rollers on an A41 Centurion. This tank has a bogie suspension.



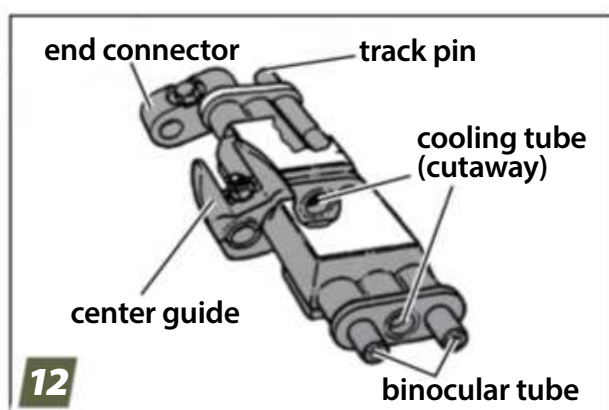
A U.S. M109 howitzer with flat track supported by the drive sprocket and idler. This vehicle has torsion bar suspension.



M41 track shoe. This is a single pin, live, suspended track system. From the M52 105mm self-propelled howitzer training manual.



The continuous track of a Sherman with grousers and track pads clearly visible.



M60 track shoe. Oddity: This is called a shoe with a pad, but the same manual identifies those with integral rubber grousers as links.



The Soviet T-34/85 with dead track that is unsuspended and sags along the upper run.

Tracks can be suspended or flat.

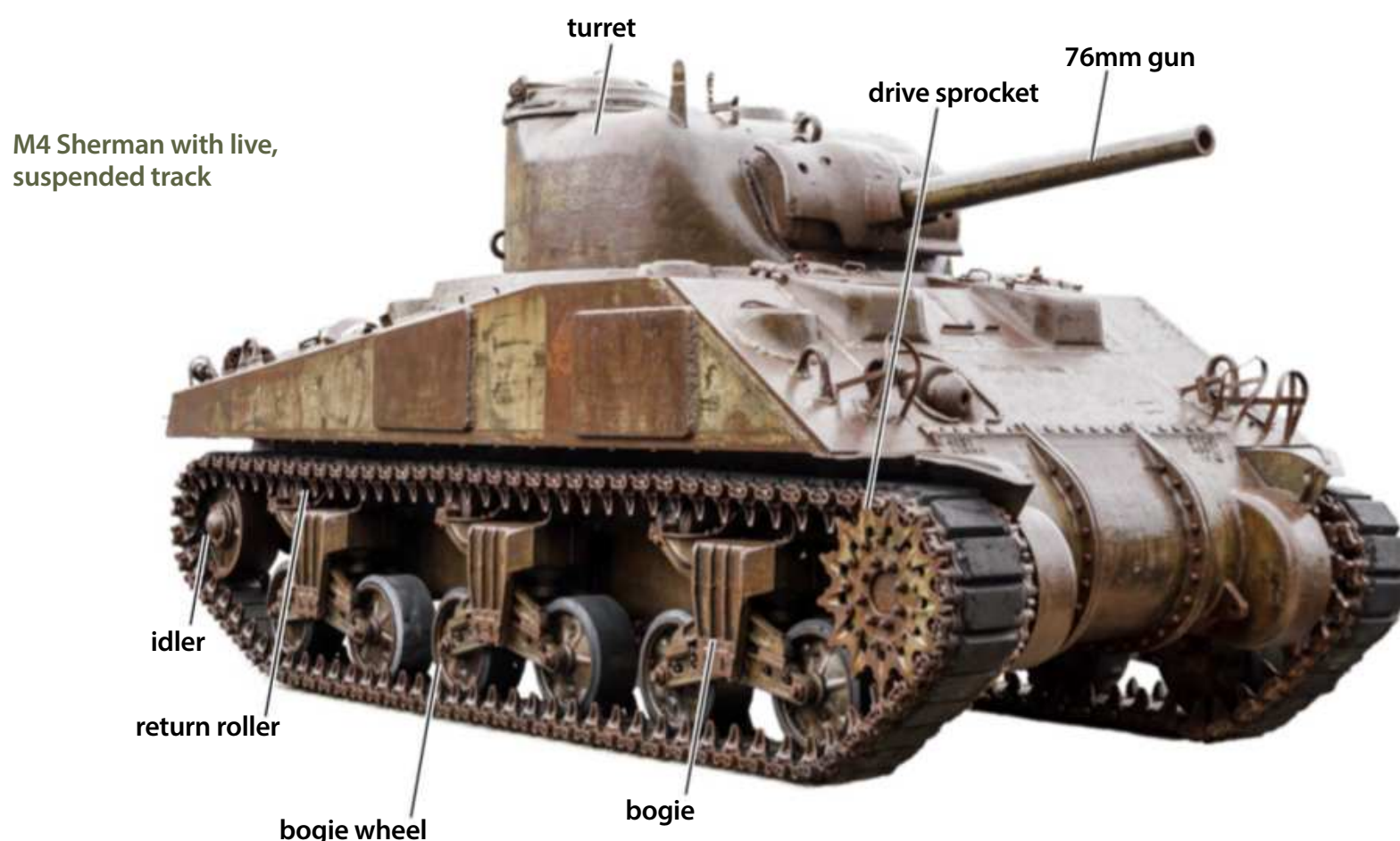
Suspended tracks rely on support rollers or skids to support its upper run. This eliminates track lash (where the track is whipped up and down). Examples are Sherman and Centurion tanks, **8**.

A flat (unsuspended) track will have larger road wheels that support the return run. Examples are the T-34 tank and the M109 self-propelled howitzer, **9**.

Tracks may also be live or dead.

A live track is self-tensioning with a rubber bushing (lining) around the pin or pin housing that gives spring to the shoe and reduces both the noise and the power needed to drive the track, **10**. Examples are the M109 and Sherman, **11**.

On dead, or dry-pin track, the pins that pass between the shoes or links aren't bushed with rubber, **12**. This type of track is quicker and cheaper to produce, but requires more power to operate and is noisier. Examples are the Centurion and T-34, **13**. **FSM**





Kitty Hawk Northrop F-5E Tiger II

Northrop originally designed the F-5 as a low-cost alternative to other supersonic jet fighters of the late 1950s and it was widely exported to countries in Asia, Africa, and South America. Developed in the early 1970s, the F-5E Tiger II added more powerful engines, greater fuel capacity, and a larger wing as well as improved radar.

The 450-part kit is crammed with details and options, including two nose types that can be left off to display the radar, detailed cannon bays, open or closed auxiliary intakes on the rear fuselage, separate control surfaces and speed brakes, and optional resin or plastic afterburner nozzles. Also in the box is a selection of underwing stores: two sizes of fuel tanks; AIM-9B and

-9E Sidewinder and AIM-7 Sparrow air-to-air missiles, and Mk.20 and Mk.84 bombs.

Finally, the kit provides a pair of resin pilots, one standing, the other sitting to fit the ejection seat, control stick, and throttle. Both are beautifully cast with realistic wrinkles in their flight suits and sharp helmets. Reflecting how widely the Tiger II has been exported, the kit provides markings for nine fighters, four American and one each from South Korea, Iran, Singapore, Mexico, and Brazil.

Cockpit assembly proceeded quickly, but I had to sand a few parts so the locators fit properly. Photo-etched (PE) seat belts are provided if you don't use the seated pilot. Brackets fitted behind the seat support the

canopy in the open position, the kit's only option. If you want to pose the cockpit closed, you'll need to modify the parts.

The nose gear bay must be built around the nose gear leg, so be careful handling the model to avoid snagging it on something.

The gun bay fits around the nose-gear bay. The parts fit perfectly, although it takes care to get the guns and ammo belts in as they must be installed at the same time.

A single upper fuselage part accounts for most of the airframe aft of the cockpit, eliminating a lot of awkward filling, sanding, and rescribing.

Nicely detailed engines fill the rear half of the fuselage but, oddly, no trunks link the front fans with the open intakes.

The wings and separate control surfaces



assembled easily. Crisply molded detail fills the main wheel wells and marks the landing gear legs.

Choosing the VFC-111 Sundowners U.S. Navy adversary from among the myriad marking options, I used only the large centerline fuel tank to match photos.

I painted the three-color soft-edged camouflage with Tamiya acrylics, then applied the decals. The markings were beautifully printed but they are a little thick. Decal solvent helped settle them.

Kitty Hawk's big F-5E presented few challenges and I spent roughly 60 hours building and painting it. I recommend it to modelers with a bit of experience masking irregular shapes.

— Chris Cortez



Kit: No. KH32018

Scale: 1/32 **Mfg.:** Kitty Hawk, www.kittyhawkmodel.com **Price:** \$129.95

Comments: Injection-molded, 450 parts (24 PE, 4 resin), decals **Pros:** Good fits and crisp details; nice resin figures

Cons: Many ejection-pin marks; no option to pose the canopy down or the gear up





Dora Wings P-63E Kingcobra

Bell Aircraft created the P-63 to overcome the Airacobra's shortcomings. Their efforts resulted in a bigger, better, and faster fighter, which is often described as the P-39's big brother. Although the Kingcobra was only used in training by the U.S. Army Air Forces, more than 2,000 ended up in Soviet service through Lend-Lease.

Dora Wings, a new Ukrainian company, released the 1/48 scale Kingcobra as one of its initial releases. At first glance, the eight small sprues, a photo-etched (PE) fret, and slightly chunky landing gear legs had me thinking this was a short-run kit. But a closer look at the parts convinced me of the contrary. The recessed panel lines are so petite, I feared they would disappear under the primer, base, and finish coats I apply for a bare-metal finish.

(Although the history in the instructions talks about the two-seat TP-63 and some rear cockpit details are molded in the fuselage, no other parts for the two-seater are included in this boxing.)

Most small cockpit details are PE. The black-and-white instrument-panel decal looks great and conforms to molded panel detail.

I removed part of the V-shaped nose-gear actuator thinking it was a flow gate; I shouldn't have.

Some of the instruction's illustrations could be clearer. I recommend consulting photos for details. A case in point is the throttle: It should be forward of the door opening, not aft as seemingly indicated in the instructions.

The assembled cockpit's fit into the fuselage is precise. I had trouble closing the body around it at first and was about to

resort to widening the locating slots with a motor tool when it clicked into place. However, as I glued the halves together, the cockpit slipped and created a cascade of fit problems. The cockpit bulkheads forced the fuselage wide so the wings didn't want to fit. Later, the canopy was too narrow for the still-too-wide fuselage. Attempting to spread the center section just a little, I immediately cracked the thin clear parts. The curve of the separate doors did not match the wider fuselage and narrow canopy either.

I thinned the assembled main gear wells with a coarse woodworking file until they fit inside the wings. The separate ailerons and flaps have sharp trailing edges and excellent fit. I added the gun pods and drop tank racks at this time.

The separate nose piece means an additional seam to fill, but it allows weight to be added near the end of construction and eliminates guesswork — this plane will not be a tail sitter!

The prop shaft in my kit was short shot. But the prop fits tightly in the spinner so this isn't a problem.

I love canopy masks — they save so much time and effort. The kit masks mostly fit well, but I added tape to the aft bubble section to ensure full coverage.

Over a base coat of Tamiya spray-can primer, I applied Mr. Color silver.

The kit features markings for six aircraft, three American, two Honduran, and one wearing civilian registration. Unfortunately, the insignia blue of the U.S. insignia is a little light and the spacing for the serial numbers is uneven. The good news is that the decals laid down perfectly over a coat of Pledge Floor Gloss.



Most of my problems were my fault rather than an issue with the kit. Had I checked fit before adding glue, I would have had an easier time. And take care with small parts — my carpet monster ate well on this kit.

While not for beginners, if you have a few builds under your belt, you will be happy with the results. The surface detail is beautiful, and the P-63 has largely been overlooked by other manufacturers.

I look forward to seeing what Dora Wings comes out with next and hope to see earlier versions of the Kingcobra. I'd love to build a P-63C.

— Andy Keyes



Kit: No. 48004

Scale: 1/48 **Mfg.:** Dora Wings, www.dorawings.com **Price:** \$56.99

Comments: Injection-molded, 142 parts (19 PE), decals, masks **Pros:** Canopy masks included; great surface detail; good fits **Cons:** Some tiny and fiddly photo-etch; cockpit fit is too tight

Meng Merkava Mk.IVM

Israel's current main battle tank, the Merkava, (chariot in Hebrew) entered service in 1979. Since then, the design has undergone several updates leading to the Mk.IV with enhanced protection and modular armor for quick repairs.

The latest tanks, Mk.IVMs, are fitted with the Trophy active protection system that can intercept incoming rockets and missiles.

Meng's Mark IVM packs in the details, including crisp, slide-molded machine-gun barrels and perfectly formed V-shaped belly armor. Despite the relatively high parts count, the kit builds rather quickly.

The seams on the hull virtually disappear with many components joining along welds seams. The Merkava's suspension is a neat combination of torsion bars and external springs. The kit's parts, including slide-molded springs, provide for a convincing working suspension. Unfortunately, most of this terrific detail won't be visible after the skirts are fitted.

The individual-link tracks presented the kit's biggest challenge. Designed to be working with the suspension, each link

comprises two parts. The links in my sample were marred by flash and ejection marks that needed to be removed for the tracks to assemble properly.

The upper hull built up quickly without any real hiccups as most of the parts seemingly fell into place. The molded antiskid texture on upper surfaces looks scale correct.

The majority of the turret builds from upper and lower halves that perfectly nails late-variant Merkava shapes. At first glance, the main gun split in halves seems like a throwback, but the fit is spot-on and the thermal jacket hides the seam. The cannon's elevation is fixed because the mantlet is fixed in the turret. On the other hand, all of the hatches are movable and have detail on inside surfaces. The turret bustle rack is scale thin; sharply molded ball-and-chain sections attach underneath.

I painted my Merkava with a custom mix of Tamiya acrylics.

Helped by good fits, I finished Meng's Merkava in less than 30 hours.

— Chris Cortez



Kit: No. TS-036 **Scale:** 1/35

Mfg.: Meng, www.meng-model.com

Price: \$94.99 **Comments:** Injection-molded, 1,006 parts (27 PE, 18 vinyl, chain, cable, wire), decals **Pros:** Good fits throughout; superb slide-molded machine guns **Cons:** A lot of flash on the track links





Airfix McDonnell Douglas Phantom FG.1

Growing up in the 1970s, the F4 Phantom was the coolest plane around and has since remained one of my favorites. Airfix recently introduced an all-new tooling of the Spey-engined Phantom and it's a beauty!

I was surprised at the size of the box for a 1/72 scale kit, but it's packed to the gills with parts. Molded in soft blue-gray plastic, they feature excellent surface detail and finely recessed panel lines. Out of the box, there are three basic build options: in-flight, ready for a catapult launch, and stowed. Three marking options also are provided and the decals include airframe stencils — and there are a ton of them.

The 111 assembly steps may seem daunting. Study the instructions carefully and decide which version and options you wish to build. That choice can have you jumping between pages, but stay calm, take time to absorb it all, and everything will make sense.

The basic three-piece ejection seats feature molded belts that omit buckle detail. The smooth cockpit side consoles and instrument panels rely on decals for dials and controls. Overall fit of the cockpit was good, but I had to trim the center bulkhead. The bottom of the tub also serves as the ceiling of the nose-gear well and it had ejector-pin marks to eliminate.

The next couple of steps deal with cutting off the nose if you want to expose the radar. Separate inserts allow for the horizontal stabilizers to be posed level or in a nose-up angle of attack.

I painted the full-length intake trunking flat white before assembly, then masked and painted the appropriate areas and fuselage sides with gunship gray, as it was the closest thing I had to extra dark sea gray. I sanded a little off the front bulkhead of the cockpit

to ensure a sound, tight fit of the cockpit sides at the nose. The rear was perfect. The upper backbone of the fuselage is handled by a separate piece cleverly split along panel lines, so there's no need for seam filling or rescribing. Hooray!

I wanted to load my Phantom with a full complement of stores, which requires opening holes and slots in the center section of the lower wing. There are two in this kit so be sure to choose the correct one. I believe the other is for the upcoming FGR.2 version with added strengthening plates.

I deviated slightly from the instructions and attached the upper wings to the lower wing section before attaching it to the fuselage. Once joined, I noticed a slight gap so I cut a piece of scrap sprue and glued it inside the fuselage to spread the sides out ever-so-slightly to close the gap.

It seems with most Phantom kits the biggest fit problem are the front outer intake panels. It was true here, too. While not terrible, it does need careful manipulating and clamping to minimize the seams.

Now comes decision time: folded wings or not, flaps and slats up or down, air brakes extended or closed. Opting for a clean wing, I trimmed most of the mounting tabs for the slats and flaps as the fit was just too tight.

The main gear and nose gear are each two-piece assemblies. The main gear mounts with a tab that makes a stout joint.

The tires are slightly flattened so pay attention when attaching. The nose gear doors are part of the clear sprue.

I chose to load my Phantom with centerline and wing tanks, Sparrow, and Sidewinder missiles. There are also rocket pods and bombs. Further build options include posable in-flight refueling probe and/or tail hook. I was originally going to

use the one-piece closed canopy but the piece cracked while masking, so an open canopy it was.

Last but certainly not least is all the decaling. Be prepared to spend at least a couple of sessions on the decals as there are about 300 of them! Printing quality is excellent and they work perfectly. I found it best to just pick a starting spot and follow down the line, cutting the stencils into strips made locating them a little easier.

Checking dimensions, the jet scales out pretty much on the money and a quick comparison with my Academy, Hasegawa, and Fujimi Phantoms shows the fuselage to be slightly wider and shorter, correct for the Spey engined airframe.

It took a little longer to build than other 1/72 scale Phantoms, mostly because of the decals.

Overall, I'm pleased with the result and continue to be impressed with the kits Airfix has been turning out of late. Anyone with moderate modeling experience should be able to build this and enjoy it as much as I did.

— Mike Klessig



Kit: No. A06016

Scale: 1/72 **Mfg.:** Airfix, www.airfix.com

Price: \$32.99 **Comments:** Injection-molded, 162 parts, decals **Pros:** Excellent surface detail; tons of build options **Cons:** Inaccurate framing on one-piece canopy

Wingnut Wings Junkers D.1

The Junkers D.1 is an unusual aircraft given the time it was conceived. The original design goes back to 1912, but the D.1 didn't enter service till late 1918. With its single cantilever wing and all-metal construction, the D.1 looks more the part of an inter-war aircraft than a WWI fighter.

I had never built a Wingnut Wings kit before, but I'd heard amazing things and had high expectations. I was not let down.

The box contains four gray spruces, a small fret of photo-etch (PE), and gorgeous Cartograf decals. There's also an exceptional booklet, with colored instructions, photos of the real aircraft, and an illustrative history of Junkers aircraft leading up to the D.1. Five variants can be built — they are all displayed on the box side. I chose to build the box art variant, which served in Hombeek, Belgium in 1918.

Construction starts with the cockpit. And what a cockpit it is! Every bit was detailed and all the separate parts fit perfectly. There is too much to list here, but I can assure you that you won't be disappointed. There is even a diagram to wire and plumb the cockpit as well. Color call-outs are provided with Tamiya, Humbrol, and the Federal Standard paint numbers. (Most of the colors called for are questionable since no color photos exist.)

Then comes engine assembly. Five color photos of the Mercedes D. IIIa in rough condition and six color photos of a fully restored engine are provided; these help immensely with painting. You can build either the D.IIIa or the D.IIIaü. Pay attention to the instructions for which version you are making because there are small differences between the two. The engine is a little gem. Fully plumbed, it has most everything the real one has.

A great feature of this kit is that it follows the production of the real duralumin, meaning no filling or sanding has to be done. The four-sided fuselage fits perfectly.

You can build the kit with wings on or off. I played with the idea of leaving them off to save shelf space but decided against it. Beautiful trusses detail the fuselage, but no details are given for the inside of the wings.

The wings fit great, but the duralumin wraps around the leading edge. Meticulous sanding is required to blend the ridges together. I could not produce a seamless fit.

Otherwise, the kit falls together; even the little bits up front, such as the guns, which have PE cooling jackets. I left the cowl doors off to show the engine.

The Cartograf decals lay down well everywhere except in the valleys and peaks of the duralumin. I was using Microscale decal solution, so maybe something harsher would work better.

The only rigging is the two support wires for the landing gear.

Wingnut Wings' D.1 is a truly fantastic kit. It's an easy build — just pay close attention to the notes in the instructions and you'll be fine.

— Caleb Horn



Kit: No. 32065 **Scale:** 1/32

Price: \$79 **Mfg.:** Wingnut Wings, www.wingnutwings.com

Comments: Injection molded, 124 parts (11 PE), decals **Pros:** Excellent fits; detailed cockpit; clear instructions **Cons:** Eliminating seams on the corrugated skin is tough



Takom V-2 Meillerwagen an

German V-2 rockets at their launch sites are among the iconic images of World War II. The popularity among modelers of this first long-range missile has led Takom to scale its 1/35 scale kit to 1/72. This small-scale kit comprises 261 parts molded in light gray plastic with the windows molded clear; I found the styrene to be brittle. Just picking up parts trees caused many delicate parts to break. An example: I fixed the width indicators multiple times and finally gave up on them during final assembly.

Photo-etched (PE) metal provides the ladders/steps on the Meillerwagen and the tires are molded in vinyl.

Know too that even in 1/72 scale this is a large model, measuring eight inches long by nine inches tall with the missile erect.

Like other Takom kits, you get the directions in a familiar 8½- by 5½-inch format with color profiles from Ammo by Mig Jimenez. The Hanomag features four marking choices with five views of each. These seem to be the same markings as the 1/35 scale Hanomag. For the V-2 you get four one-sided views and for the Meillerwagen just two color choices with one view each. However, there are no decals included so plates and tactical markings will have to be found elsewhere.

Overall fits were excellent. I only needed filler to repair construction errors. Likewise, knockout marks are minimal and in hard-to-see places.

Construction starts with the Hanomag and it's not too difficult. But there are many small and delicate parts



that are easily broken or lost. I speak from experience.

The upper body and frame/fenders are one piece units. I filled two small holes on the bottom of the passenger side running board with scrap styrene.

The tires are vinyl with good tread pattern, but there is no sidewall detail and there was flash on the inside of the tires. I also had trouble getting the small wheel rim (C2) to glue solidly to the larger rims. No matter what glue I used the vinyl tires seemed to push the parts apart.

However, the truck is easily built in sub-assemblies, making painting easier. The rearview mirrors, front lights, and width indicators were left off and painted separately.

In Step 7 the directions have you glue the windshield into the frame and then glue it into place on the body. I chose to glue the window frame to the body and install the front window after the model was painted. Note that you will have to glue the windshield in place before gluing the side windows or they will get in the way.



d Hanomag SS100

Construction of the Meillerwagon is next and it's the most complex portion. You'll need a plan of attack.

The center post (B70) on my kit was warped and I did my best to straighten it, but it still had a slight curve. It was easiest to assemble by first cleaning all of the parts on one side of the center post. I then glued the outer side of the trailer (B72 or B73) to the narrow end of the center post. Once dry I worked my way down the frame gluing cross members into place. Once finished, move to the other side. This will ensure the frame is square.

When building the trailer's wheel assembly in Step 23, I left part B50 off. This was glued in place with the tires after the trailer was painted.

Luckily the kit allows you to pose the missile erector being towed and there are optional parts for either. I posed the rocket in the process of being erected so used parts from both options.

Part 59 is a box with a hollow underside so I filled it with scrap styrene. The PE included is for the stairs along the side of the trailer's erector section. This seemed a bit intimidating, but everything went smoothly. Just make sure you do it in the proper order with each step having specific placement. However, directions are vague about the placement of parts B31 and B51 on the trailer's front. On the 1:1 trailer, part B51 is used to lock onto the trailer tongue (D42) to keep the front unit from rotating.

Assembly of the missile and launch pad finish construction. The missile is made of four pieces separated along panel lines. This helps with cleanup. I left the upper and

lower halves of the missile separate because it made painting easier. I left the fins separate for the same reason.

Most reference photos show the trailer and Hanomag painted a single color. But I painted the Hanomag with Tamiya German gray and the launch pad Tamiya dark sea gray.

I also found color pictures of the Meillerwagon in camouflage, so took creative license and painted it German three-tone camouflage. The trailer was painted in Tamiya XF 60 dark yellow with various amounts of Tamiya XF 57 buff added to the dark yellow for highlights. The camouflage colors are Vallejo Model Air Tank brown 71.041 and Panzer olive green 71.096.

Filters, washes, and dry brushing finished the weathering. Operational missiles were painted in various camouflage schemes while test rockets were painted black and white. I painted the missile in the Fall 1943 to Spring 1944 scheme. Tamiya olive green was used for the top of the missile and Tamiya white for the tail.

This model looks complicated but should be within the skills of anyone with some modeling experience. This is not a weekend build, however — took me 37 hours.

A new book, *V-2 — The A4 Rocket From Peenemunde to Redstone*, by Murray R. Barber (ISBN 978-1-906537-53-1) has everything you need if you are interested in the V-2, including many pictures of the rocket and its support vehicle.

— Mike Scharf



Kit: No. 5001 **Scale:** 1/72

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

Price: \$44.99 **Comments:** Injection-molded, 310 parts (34 PE, 15 vinyl)

Pros: High level of detail; ease of assembly **Cons:** No decals for plate and rocket stripe; vinyl tires; brittle plastic



SS NORMANDIE
1/350
KIT
OLDMODELKITS.COM

WE CARRY THE BEST Find it with our easy-to-use search engine
from A-Model to Zvezda
and 50,000 items in between!
ROLL MODELS Cool Stuff @ Great Prices! 763-545-0399
www.rollmodels.com

GLENN HOOVER
Model Build Instructions
I do the prep work for you...
Reorganize the model kit instructions
Combine aftermarket part instructions
...into a seamless, single checklist
See my website for a list of books
glennhoovermodels.com

We Buy Collections!
Dean's Hobby STOP
Specializing in hard-to-find & OOP kits. OVER 10,000 IN STOCK!
Visit us on the web at:
www.deanshobbystop.com
Contact us for a FREE catalog! (specify car or military list)
116 N. Washington Street, Owosso, MI 48867
989-720-2137 • Fax: 989-720-0937
Email: dean@deanshobbystop.com

FANTASTIC PLASTIC
Unique Resin Kits for Experienced Modelers
Visit the Virtual Museum Store
www.fantastic-plastic.com
Concept Aircraft • Spacecraft • Sci-Fi • Luft '46

MICHIGAN TOY SOLDIER CO.
World's Best Selection of...
Weathering, Paints, Tools, Supplies
Reference, Scenic & Diorama
& Everything to use them on!
Since 1996
Visit our Retail Shop in Metro-Detroit
1400 E. Eleven Mile Road
Royal Oak MI, 48067
Ph: 1-888-642-4869
www.michtoy.com
Save 10% with Promo Code FSM2018

TOTALNAVY.COM
ALL SHIPS, ALL NAVIES, ALL KINDS
(718) 471-5464
www.TotalNavy.com

"Since 1969"
"Your Spare Time is Our Business"
COLPAR'S HobbyTown USA
PLANES • ARMOR • CARS • SHIPS • SCI-FI
We carry a huge inventory of plastic model kits from around the world! Full Line of Detailing Accessories. Airline models, Decals, Books, Promos, Die Cast Collectibles, Historical & RPG Games & Miniatures, Airbrushes & parts. Large Paint and Tool inventory. Full line R/C department. We ship worldwide.
www.colpar.com
COLPAR'S HobbyTown USA To order call: 1-800-876-0414
1915 S. Havana St. For information: 303-341-0414
Aurora, Co 80014

MEGA HOBBY
The Largest Selection of Hobbies on the Web!
Over 40,000 items from hundreds of manufacturers
FREE SHIPPING ON LOWER 48 USA ORDERS OVER \$100
MegaHobby.com
110 Hurlock Avenue
Magnolia, NJ, 08049
Order securely online or call toll free: 888-642-0093
WWW.MEGAHOBBY.COM

Classified Marketplace

This section is open to anyone who wants to sell or buy scale modeling merchandise. FSM reserves the right to edit undesirable copy or refuse listing. For FSM's private records, please furnish: a telephone number and a street address.

Coming Events Rate: \$35 per issue (55 word maximum). Ads will contain the following information about the event: state, city, sponsoring organization and name of event, meet, auction or show, dates, location, times, admission fee, name and/or telephone number and/or email of person to contact for information. **Word Ad Rates:** 1 insertion - \$1.13 per word, 5 insertions - \$1.08 per word, 10 insertions - 99¢ per word. \$20 minimum per issue. Count all initials, single numbers, street number or name, city, state, zip, phone numbers each as one word. Payment must accompany the ad. To receive the discount you must order and prepay for all ads at one time. We accept Visa, Mastercard, American Express and Discover.

Send Your Ads To: *FineScale Modeler* - Classified Marketplace, 21027 Crossroads Circle, P.O. Box 1612, Waukesha, WI 53187-1612. Phone toll-free: 1-888-558-1544, Ext. 440, or fax: 262-796-0126. E-mail: onlineclassads@kalmbach.com

Closing Date: Feb. 2018 issue closes Nov. 1st.

COMING EVENTS

CO, DENVER: Rocky Mountain Hobby-Expo, Denver Mart, 451 East 58th Avenue. October 27-28, 2018, Saturday 9:00am-5:00pm; Sunday 10:00am-5:00pm. Admission \$12.00, under 12 free. Model kits, Gaming, Trains, RC, Drones, slot cars and diecast- 120,000sf of manufacturers, vendors, demos, workshops and hands-on activities. Free Parking. Information: Jim Marski 303-345-5031 or www.RockyMountainHobby-Expo.com

IL, SCHAUMBURG: The Military Miniature Society of Illinois holds its 44th Annual Chicago Show Saturday, October 20, 2018 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

COMING EVENTS (CONT.)

MD, BALTIMORE: Marauderson 2018 presented by IPMS Baltimore and Washington DC, Level Volunteer Fire Company, 3633 Level Village Road, Havre de Grace, MD, Saturday, November 17, 2018 9:00am-5:00pm. Contest: 70 categories. Registration \$15.00, under 12 and spouses/children of entrants free. Walk-ins \$8.00, families \$12.00. Vendor tables \$40.00. Prizes, Raffles. www.maraudercon.org; Email, maltizer1@verizon.net. or garymichel13@yahoo.com, 301-922-5308.

NY, POUGHKEEPSIE: HVHMG 2018, Celebrating 32 years, Elks Club Lodge, 29 Overlook Road, October 27, 2018. 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

FOR SALE

AVIATION ART STORE Famous American, Allied and Axis Aviator limited edition prints. Rare signatures of French, Italian, and Japanese aviators. Aviationartstore.com

CANOPY MASKING AND MORE! **WWW.EZMASKS.COM** List \$3.00. Chris Loney, 75 Golf Club Rd., Smiths Falls, ON, Canada K7A 4S5. 613-283-5206, ezmasksgmail.com

HUGE MODEL COLLECTION: Over 300 built cars, trucks, classics, drags, hot rods @ 1/25 many show winners. Plus model building supplies tools, air brushes and custom made dioramas!! Downsizing MUST SELL. Photos by email available. Dennis 513-607-6700 or dennisnpc@aol.com

SHIP AND AIRCRAFT MODELS. Built for display. For additional information contact, Ray Guinta, PO Box 74, Leonia, NJ 07605. www.modelshipsbyrayguinta.com

THOUSANDS OF MODEL KITS for sale. All types from Old Aurora to new releases. Send a \$.70 SASE to: Dean Sills, 116 N. Washington, Owosso, MI 48867. Specify Military List. Phone: 989-720-2137. Fax: 989-720-0937. E-mail: dean@deanshobbystop.com

For more, check out
www.FineScale.com

FOR SALE (CONT.)

WOODEN SHIP MODEL KITS: Inside every BlueJacket kit, all the parts are first quality, historically accurate, and exquisitely detailed. They're produced using the latest laser, photo etching, die casting, and wood shaping technologies. All the parts fit together perfectly - the first time. And, the plans and instructions are clear and concise. These assurances are in every kit and goes out our door. Find out how this attention to quality, authenticity, and detail make a BlueJacket model ship kit a more satisfying simpler build that you'll be proud of! Move up to wooden ship modeling!

WANTED

AIRCRAFT, ARMOR, SCI-FI, FIGURES, AUTO, ETC. Buying kit collections, large or small, worldwide. Top prices paid. Call Jim Banko 610-814-2784 or mail list to 122 Independence Ct., Bethlehem, PA 18020, fax 610-439-4141. E-mail: cth1@prodigy.net

CASH PAID FOR PLASTIC MODEL COLLECTIONS. Call John in Michigan 248-814-8359. Fax: 248-814-0385. E-mail: flightlinehobby@yahoo.com

I WANT TO BUY YOUR UNBUILT MODEL KITS. Any size collection. Dean Sills, 116 N. Washington St. Owosso, MI 48867. 989-720-2137. Fax: 989-720-0937. E-mail: dean@deanshobbystop.com

MODEL CAR AND TRUCK KITS. Unbuilt or built. Any size collection. Good prices paid. Please contact: Fred Sterns, 48 Standish, Buffalo, NY 14216. Phone: 716-838-6797. Fax: 716-836-6057. E-mail: fsterns@aol.com

MISCELLANEOUS

1ST AND ABSOLUTELY THE BEST MUSEUM-QUALITY MODELS. IPMS Nationals winner building aircraft and armor to your specification, including conversions and scratchbuilt. Call BC Models for quote and information at 913-385-9594 or visit www.bcmmodels.com

FINESCALE MODELER AUTHOR and IPMS medalist will build your favorite aircraft, specializing in metal finishes. Contact John Adelman at 563-556-7641 or jadelmann@yahoo.com

Local Hobby Shop Directory

Local Hobby Shop Directory listings are available for the next ten issues for \$275 (payable in advance) or at \$37 per issue (billed to established accounts for a minimum of ten insertions). Ads will be set in standard listing typography. All insertions must be consecutive and may be invoiced if you have credit established with us. No mention of mail order business permitted. For information call 1-888-558-1544, ext. 815. Closing dates listed in Classifieds section.

ALASKA • Anchorage www.anchoragehouseofhobbies.com Alaska's best hobby supplier since 1964. Two stories, 6,300sf, 1st floor all R/C, 2nd floor general hobbies, plastics, trains, slot cars, telescopes & more! ANCHORAGE HOUSE OF HOBBIES 2803 Spenard Rd. 907-277-7778
ARKANSAS • Jacksonville Headquarters for scale hobbies. Models; N-HO-O trains; gaming; tools; paints, etc. Discounts & special orders. Open 10-6, closed Sundays and Wednesdays RAIL & SPRUE HOBBIES 1200 John Harden Dr. 501-982-6836
CALIFORNIA • Burbank Large selection of plastic kits, paints, and supplies. Special orders no problem Visit us in person or online www.houseofhobbies.com Secure online ordering BURBANK'S HOUSE OF HOBBIES 911 S. Victory Blvd. 818-848-3674
CALIFORNIA • Canoga Park Kits, plastic & wood, Slot cars & toys. Rockets, paint, glue and tools. Model trains. Mon thru Sat 10-6 Closed Sun & Major Holidays. www.scalemodelstuff.com SCALE MODEL STUFF 7259 Canoga Avenue 818-716-7847
CALIFORNIA • Garden Grove Rewards program for 10% back on purchases. Plastic aircraft, armor, ships, cars, decals, books, paints, tools, miniatures war-games. Mon-Thur 11-8, Fri 11-midnight, Sat 10-mid- night, Sun 11-7 www.brookhursthobbies.com BROOKHURST HOBBIES 12188 Brookhurst St. 714-636-3580
CALIFORNIA • Hollister Model planes, car, ships & figures. Model train scales: Z, N, HO, O & G. Paints, tools. R/C & parts, incl. service. Craft & educational kits, supplies, products. Clinics available. Tu-Sat 11- 6; Sun 12-4. www.debbiebartunek@mac.com B.C.T. HOBBY & CRAFTS 201-C McCray St. 831-635-0537
COLORADO • Aurora Large inventory of models from the world over! Detailing accessories, research publications, games, trains, R/C, tools, and supplies. Easy access from D.I.A. http://www.colpar.com COLPAR HOBBIES 1915 S. Havana St. 800-876-0414
CONNECTICUT • Cos Cob Planes, tanks, cars, ships, rockets, plastic and wood kits. Trains. Authorized Lionel dealer & repair. Die-cast, RC, slot cars, structural and diorama supplier. Special orders welcome. ANN'S HOBBY CENTER 405 E. Putnam Avenue 203-869-0969

CONNECTICUT • Manchester Largest hobby shop in NE. Military, cars, trucks, plastic models, diecast cars, trucks. Planes, RC planes, cars, trucks, slot cars, rockets, Breyer, Detailing supplies, games! Mon-Wed 10-6 Th-Fri 10-9 Sat-Sun 10-6 TIME MACHINE HOBBY 71 Hilliard St. 860-646-0610
CONNECTICUT • Milford Extensive selection of armor kits & Verlinden accessories. Military, auto & aircraft plastic models. Photo-etched parts. O gauge train sets. Open Tues - Sat 11-6, Sun 12-5. www.HQHobbies.com HQ HOBBIES 394 New Haven Ave., Unit 1 203-882-1979
FLORIDA • Ft. Myers Plastic modeling kits. Paint, tools, scenery, accessories, & scale model railroads. Mon - Sat 10:00am-6:00pm; Closed Sun www.metrotrainsandhobbies.com METRO TRAINS & HOBBIES 12951 Metro Parkway 239-332-0422
HAWAII • Kailua, Oahu Wide selection of plastic model kits, paint, books, magazines and tools. Located on the beautiful windward side, a scenic 20 minute drive from Honolulu. Mon - Fri 10-6, Sat 10-5, Sun 11-2 WELLER'S HOBBYCRAFT 767 Kailua Road 808-262-0211
MASSACHUSETTS • Malden (Boston) Largest store in area, easy access via I-93, Rt. 1, and the T. Complete line of model kits & supplies, plus toy soldiers, figure kits, games, etc. Shipping available. Info: hobbybunker.com HOBBY BUNKER, INC. 33 Exchange St. 781-321-8855
MASSACHUSETTS • Norton 6,000 model kits, old and new: Autos, armor, planes & sci-fi. Reference books & supplies. Open T-Th 11-7, F 11-8, Sa 10-5. Rt. 495 to Rt. 123E, behind Dunkin' Donuts. www.mymummy. com E: mummy@mymummy.com HARRY'S HOBBIES & COLLECTABLES 250 E. Main St., Rt 123 508-285-8080
MICHIGAN • Owosso Thousands of model kits from old Aurora to new releases. Mon 4pm-7pm, Tues - Fri 11:30am-5pm. Sat 11:30am-4:00pm E-mail: dean@deanshobbystop.com DEAN'S HOBBY STOP 116 N. Washington Street 989-720-2137
MICHIGAN • Royal Oak (Metro Detroit) New & Old Toy Soldiers, Historical Miniatures, Models and Figure Kits from Around the World. Our famous selection of hobby supplies includes scenics, paints, reference and more. www.michtoy.com MICHIGAN TOY SOLDIER & FIGURE CO. 1400 E. 11 Mile Rd. 248-586-1022
MICHIGAN • Traverse City Let your imagination run wild! Aircraft, ships, cars, armor, special orders, diecast cars, model railroading Z to G and more... TRAINS & THINGS HOBBIES 210 East Front St. 231-947-1353
MICHIGAN • Ypsilanti-Metro Detroit Your single stop model building shop. Michigan's largest selection of new and vin-tage kits in all genres plus everything needed to build them. Wed - Fri 11-8 Sat 11-6, Sun 12-5 Visit us on Facebook. www.modelcave.com MODELCAVE 103 W. Michigan Avenue 734-316-2281

NEVADA • Las Vegas While in Las Vegas, come see our wide selection of models and detail accessories. Less than 5 miles off the Las Vegas strip Hours Mon-Fri 10-7, Sat 10-6, Sun noon-5. HOBBYTOWN USA 4590 W Sahara Ave Ste 103 702-889-9554
NEW HAMPSHIRE • Dover Best plastic, resin & balsa kits from around the world. Scratch building & diorama supplies, reference books, large paint selection including Humbrol, Citadel & Testors ELITE HOBBIES #334 90 Washington St. 603-749-0800
NEW JERSEY • Kenvil Full service hobbies, a full line of HO, N, 3-Rail, military, cars, boats, planes, dollhouses, scratchbuilding supplies, plus details-details-details! KENVIL HOBBIES 590 Rt. 46 973-584-1188
NEW JERSEY • Magnolia (Camden) Huge foreign & domestic model selection all scales. Automobiles, aircraft, ship, books, wargames, scenery, diorama supplies, parts & tools. Open 7 days AAA HOBBIES & CRAFTS 706 N. White Horse Pike 856-435-1188
NEW YORK • ASTORIA Car, Plane, Military, Models, Trains, Paints, Tools, Diecast. Art Supplies, Wood & Wood Models. Open Wed., Thur., Fri., Sat. 11:00 to 6:30. RUDY'S HOBBY & ART 3516 30TH AVE 718-545-8280
NEW YORK • Middle Island Excellent selection of lead miniatures- historical and fantasy. Plastic models, wargames & modeling supplies. Books and magazines. MEN AT ARMS HOBBIES, INC. 134 Middle Country Rd. 631-924-0583
NEW YORK • Upr Eastside GR Manhattan Visit our in-house Aircraft Model Museum. Foreign and domestic plastic and wood kits. Open 7 days. JAN'S HOBBY SHOP INC. 1435 Lexington Ave. 212-987-4765
OKLAHOMA • Owasso Oklahoma's largest plastic kit, paint & after- market inventory. Planes, cars, trucks, armor, ships, trains & sci-fi. Special orders welcome! Tue - Fri 10-5:30, Sat 10-5, Sun 1-4:30 Web site: www.topshelfmodelsllc.com TOP SHELF MODELS 119 S. Main St. 918-274-0433
OREGON • Beaverton Complete full line hobby shop. Z, N, HO, O, Lionel, and LGB. Open Mon - Fri 10-8, Sat 10-5, Sun 12-5. TAMMIES HOBBIES 12024 SW Canyon Rd. 503-644-4535
PENNSYLVANIA • Landisville (Lancaster) Large Selection New & Used Kits Tools, paint, airbrushes & scratch building supplies. Full line hobby shop open Tue, Thur & Fri 10-5, Wed & Sat 10-2 www.CoolTrains.com COOLTRAINS TOYS & HOBBIES 106 W. Main Street 717-898-7119

TEXAS • Houston HO & N, Lionel trains. Complete line of plastic kits, military and architecture supplies. Open 11am-6pm M-F, Sat. 10am-5pm www.gandgmodelshop.com G & G MODEL SHOP 2029 Southwest FWY 713-529-7752
TEXAS • Irving (Dallas Area) Imported & Domestic Aviation Books & Plastic Kits. Paint, Decals, HO, N trains, R/C, U/C airplanes. Mon 1-6, Tue-Wed 12-6, Thur-Fri 10:30-7. Sat 10:30-6. www.malhobby.com M-A-L HOBBY SHOP 108 S. Lee Street 972-438-9233
TEXAS • San Antonio Scale modeling from beginner to expert. A wide selection of aircraft, armor, autos, figures, ships, & sci-fi. Lots of reference material, detail parts, decals, tools, & eight lines of paint. Open Tues-Sat 10am-6pm. DIBBLE'S HOBBIES 1029 Donaldson Ave. 210-735-7721
WASHINGTON • Lynnwood We are a full line hobby shop. Huge model selection. Gundam, supplies, tool, educational, kit, parts, kite, game. Huge selection, paint, train & R/C items. www.galaxyhobby.com GALAXY HOBBY 19332 60TH AVE W 425-670-0454
WASHINGTON • Seattle Plastic Model Specialists. Largest selection of plastic models in NW! We have Aircraft, Armor, Auto, SCI-FI, and Gundam, along with great paint selection. Email us at skyway@nwlinc.com or look us up at www.skywaymodel.com SKYWAY MODEL SHOP 12615 Renton Ave. S. 206-772-1211
CANADA-ON • Ottawa (Vanier) One of Canada's leading model shops. Complete line of military & aircraft kits, decals, paints and accessories. Free parking. On Parle Francais. HOBBY HOUSE, LTD 80 Montreal Rd. 613-749-5245
CANADA-ON • Toronto Large selection of new & out-of-production kits. Accessories & finishing products. Servicing the hobbies since 1986. We buy kit collections. www.wheelswingshobbies.com WHEELS AND WINGS 1880 Danforth Ave. 416-752-0071

Run your Retail Directory
ad in the next issue of
FineScale Modeler!

Call 888-558-1544,
ext. 440 for more information.

FineScale
Modeler

Ad Index

We believe that our readers are as important as our advertisers. If you do not receive your merchandise or a reply from an advertiser within a reasonable period, please contact us. Provide details about what you ordered and the amount you paid. If no action is obtained after we forward your complaint to the advertiser, we will not accept further advertising from them. *FineScale Modeler* magazine, 21027 Crossroads Circle, Waukesha, WI 53187. The Advertiser Index is provided as a service to *FineScale Modeler* magazine readers. The magazine is not responsible for omissions or for typographical errors in names or page numbers.

Alpha Precision Abrasives, Inc.____	8	Glenn Hoover Models _____	64	ParaGrafix Modeling Systems ____	8
ARA Press_____	6	Great War Modeling_____	67	Powercookie Boards LLC_____	8
Colpar's Hobbytown USA _____	64	Hornby America _____	9	Proxxon, Inc. _____	9
Damaged Magazine _____	2	Mark Klimaszewski _____	13	Roll Models_____	9, 64
Dean's Hobby Stop _____	64	MegaHobby.com_____	64	Squadron Mail Order _____	4
Evergreen Scale Models _____	8	Michigan Toy Soldier Co._____	64	Tamiya America, Inc. _____	68
Fantastic Plastic Models _____	64	Micro-Mark Tools _____	6	TotalNavy.com _____	64
FineScale Modeler Books _____	67	MIG Productions _____	15	Xuron Corporation _____	6
FineScale Modeler Modeling Tools	67	Oldmodelkits.com _____	64		

By Mark Savage



Model meltdown

OK, so we headed to Phoenix, Arizona, in August for the IPMS/USA

National Convention. Yes, that's right, to Phoenix, THAT Phoenix, in summer.

We knew it would be hot — really hot — and it was. How's 107-109 degrees Fahrenheit every day sound? There was even a dust storm one evening.

But we're tough, so that didn't bother us or the other modelers attending the International Plastic Modelers Society nationals because the show was a couple floors down in the convention center. Nice and cool there.

But heat, that stifling heat of an Arizona summer, was a major topic of conversation. It started at the club meetings and on the forums months before, folks talking about those who had left models in their cars or

trucks when attending the last IPMS event in Phoenix, in 2010. There was talk of sagging and melted models.

So a meltdown had been on all of our minds before we even set the compass for Phoenix. Melting was on Peter Litwincuk's mind, too. Peter is from Jenison, Michigan, near Grand Rapids on the Lake Michigan side of the state.

Unlike the rest of us though, Peter expressed his Fahrenheit frets by building and entering a model in the show's Humor category. It's title? *The Hot Road to Phoenix*.

You're seeing it here, a gorgeous red 1953 Ford pickup from the 1/25 scale AMT/Ertl kit. Peter says that was built in all seriousness several years ago for a club group build. He went the hot-rod route adding tall stacks and scratchbuilding the bed from wood before sanding I-beam brass to create metal cleats for the floor. You can't see that here though because of what's in that bed.

In back are a host of melted models in miniature, plus kit



boxes, all looking sadly saggy from the heat they've been exposed to enroute to broiling Phoenix. At the steering wheel is a skeleton holding a "Phoenix or bust!" sign.

Peter mostly builds aircraft, but says he varies his work. The melted aircraft here are from a 1/700 scale aircraft carrier. Then there are missiles and bombs from various kits, all torched using matches. The boxes are shrunk from box art he found on the web. And then there's the skeleton, store-bought, but he had to saw an arm off and

readjust it to hold the sign.

Since he already had the truck, he says from concept to completion the diorama took just a week to complete.

And yes, he drove the hot road to Phoenix (about 1,900 miles, one way) with no sizzling styrene to show for it. Peter entered six models in the show, his ninth nationals, and while he scored no trophies he stirred a lot of laughs with this creation. All told there were 424 entrants and 3,524 models on the tables in Phoenix — a hot show indeed! **FSM**

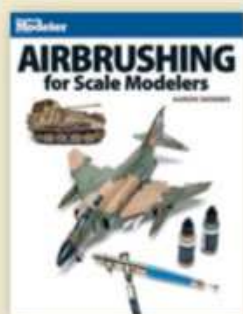
Look for our Special Issue

Great War Scale Modeling is available at www.KalmbachHobbyStore.com

Essential Scale Modeling GUIDEBOOKS



Make sure your learning is to scale. These essential scale modeling books will help you enhance your skills and take your models to the next level.



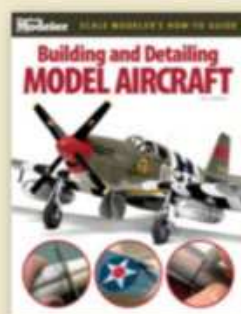
#12485 • \$22.99



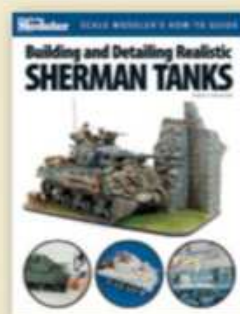
#12427 • \$21.95



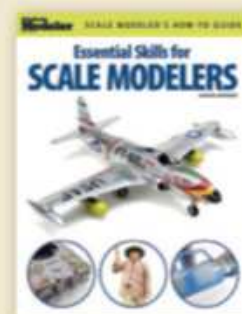
#12431 • \$18.95



#12440 • \$21.95



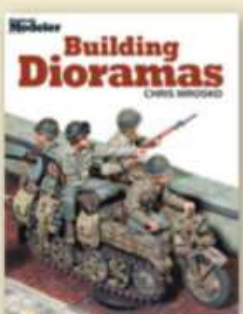
#12445 • \$21.95



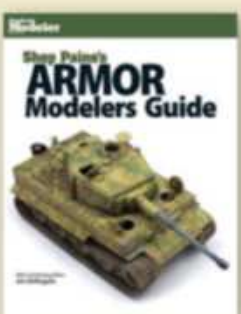
#12446 • \$21.95



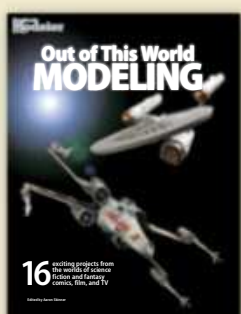
#12470 • \$19.95



#12476 • \$21.99



#12805 • \$24.99



#12807 • \$24.99



**Buy now from your
local hobby shop!**

**Shop at
KalmbachHobbyStore.com**

Sales tax where applicable.

P33700

MODELING THE GREAT WAR

Great War Scale Modeling, a new special issue from *FineScale Modeler*, shows you how to build iconic tanks, ships, and biplanes from a long-neglected part of modeling history — WWI.

Stories include:

- Recreating the famous Red Baron's Fokker Triplane.
- How to rig the wings of a WWI biplane.
- Building a realistic German battleship, the SMS Konig.
- Creating a killer Renault FT for U.S. service.
- 30+ pages of photo galleries and much more!

Whether you're a beginner or advanced modeler, you'll find a wealth of ideas and tips from notable experts in the field.

RESERVE YOUR COPY TODAY!

KalmbachHobbyStore.com/FS10



**Save \$1 +
FREE
SHIPPING**

Promotional offer available for a limited time. Free standard shipping to U.S. addresses only. Canadian and foreign addresses, add \$3.95 for shipping and handling. Sales tax where applicable. *Great War Scale Modeling* will arrive in November 2018.

P33283