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Export version includes  
Item 35339 WWI British  
Infantry Set!



# Changing the Face of Warfare

1/35 Motorized Tank Series WWI British Tank Mk.IV Male (Item 30057)

100 years on from the outbreak of the Great War, Tamiya releases its maiden WWI tank model

The Mk.IV, the world's first mass-produced tank, makes a much-anticipated appearance in 1/35 scale and becomes Tamiya's first WWI tank model. Extensive study of a surviving example at the Tank Museum in Bovington, U.K. allowed Tamiya designers to unerringly capture the rhomboid form of the Mk.IV, highlighted by the model's depiction of the riveted armor panels. A pre-assembled single motor gearbox also lets you recreate the forward motion of the real tank. Take this opportunity to examine the roots of the modern day tank with this masterful model of the Mk.IV, which proved the viability of the tank as a weapon in its deployment at the Battle of Cambrai in 1917.



Power is supplied from the gearbox via multiple gears to the durable metal rear sprockets, realizing powerful motion.  
\*Requires one R6/AA/UM3 battery (not included).

Unditching log features metal chain for attachment.



Select open or closed visor flaps and upper hatch. Lewis machine gun parts are movable



6-pounder gun  
6-pounder's breech is fully recreated in the sponson interior.

7.62mm Lewis gun

Kit includes choice of  
3 marking options.

Moving link-type tracks  
encircle the hull.

**1/35 SCALE** **WWI BRITISH TANK**  
**Mk.IV MALE**

Length: 230mm

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figure set.

WWI British  
Infantry Set (35339)



(About the Mk.IV) A century ago, the world was about to be thrust into the grip of a war which would see much of Western Europe reduced to a massive battlefield criss-crossed by a seemingly unending network of trenches. The original British Mk.I tank was developed to break the deadlock, the name 'tank' originally used to disguise the true purpose of the vehicle from enemy intelligence, passing it off as a simple water tank. It stuck, however, and continues to be used even in the present day. The Mk.IV was an improved variant of the original design,

and with over 1,000 units produced was the first major production variant of a rhomboid tank. The Male variant was developed to smash through enemy lines and in addition to machine guns it utilized large 6-pounder guns, in contrast to the separate Female variant equipped with only machine guns for armament. The Mk.IV saw a variety of action, including a mass deployment of around 400 at the Battle of Cambrai in November 1917, additionally prevailing in the world's first tank on tank battle with the German A7V in April 1918.



**1:48 Scale**



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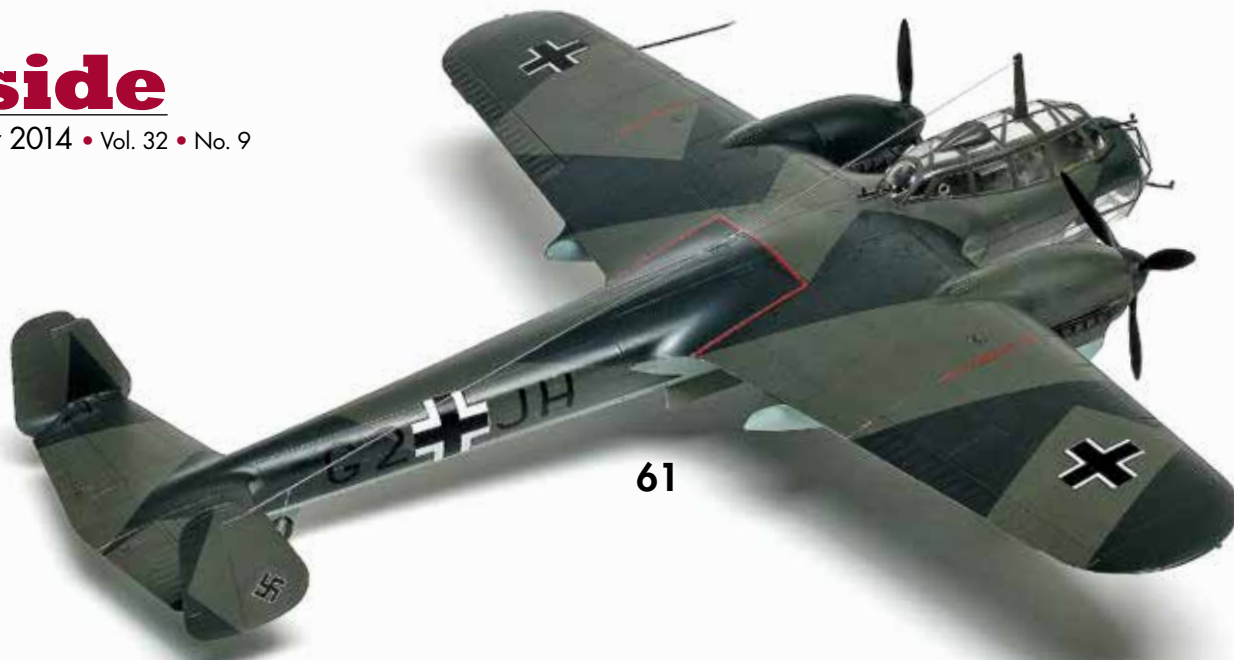
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## On the Cover

From high-flying natural-metal aircraft to ground-pounding armored fighting vehicles covered in mud, we'll show you fine finishes for all those models you're going to build this winter!

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# Editor's Page

By Matthew Usher

## Authentic plastic nostalgia

**WELCOME TO** the November *FineScale Modeler*! I think you'll find a great variety of how-to modeling stories inside, especially our guide to getting started with acrylic paint (pg. 24). Acrylics have come a long way in the decades since *FSM* started publishing, and with great color selection and ease of use, now may be the best time to give them a try.

While there's nothing I love more than a brand-new, state-of-the-art kit, I have to admit to having a big soft spot for Aurora's 1/48 scale Fokker D7. It's a fun, easy-to-build World War I kit that was produced in massive numbers by Aurora before taking on a second life at Monogram after Aurora's demise. Hit the vendor room at a contest and you're bound to find at least one for sale for less than \$10.

Alternately, you could take a look at my stock of unbuilt kits. I couldn't tell you how many I have, but I know I'm not going to run out anytime soon. When I need a break between projects (or when my son wants to build a model)

### IT'S A FUN, EASY-TO-BUILD KIT THAT WAS PRODUCED IN MASSIVE NUMBERS

I'll break one out and build one in an afternoon with a little tube glue and some brush-painting.

I know my fondness for the kit comes from memories of building my first one. My father and I were headed out for a fishing trip to Canada, and on one of our last stops for supplies dad grabbed a copy of the kit and a tube of glue. "Just in case it rains," he said.

And sure enough, it rained. A

lot. The Fokker helped kill the time while we were stuck in the cabin. I worked on top of dad's metal tackle box, armed with a pocket knife. The model did a great job keeping me entertained and helping to kill time until the clouds parted and we could hit the lake. Model building was the perfect distraction, just like it is now.

(Dad also used the rainy days to teach me to play gin rummy, but that's probably a story for another magazine.)

Enjoy the issue!

MATTHEW USHER

editor@finescale.com

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# Scale Talk

Your voice in *FSM*

## Becoming a better modeler

I just read Matthew Usher's September 2014 Editor's Page, and it brings something to mind: When I taught high school art, and I would invite a commercial artist to speak to my class. He explained his technique for becoming a great artist as: evaluating your work; deciding what gives you the most trouble or is your weakest technique; and then working on that until it is your best thing. If you keep doing that until you master something, you will be unbeatable.

– Steve Hanson  
Seminole, Okla.

## FSM videos built my skill set

I wanted to let you know your how-to videos built my skill set and helped with a project entirely unrelated to models.

I am restoring my 1979 Triumph TR7, and part of the project includes rewiring some existing switches for new functions. The switches are labeled with a clear bezel that has the words etched into the plastic. I watched the "Removing scratches from clear parts" video hosted by Matthew

## Helping veterans in need

I am a graduate student at the University of Southern California School of Social Work and intern at U.S. Vets Inc., a facility dedicated to helping unemployed and homeless veterans get back on their feet and integrated into civilian society. I know from my personal experience as a modeler that the hobby has many therapeutic qualities.

I would like to ask *FSM* readers able to spare small model car or military vehicle kits to donate to:

United States Veteran Initiative  
1505 6th St.  
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The generosity of fellow modelers to help our returning veterans heal and begin their lives again is greatly appreciated.

– Frank Perez  
Fullerton, Calif.



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### AMPS 2014 Gallery

The best military models were on display in Fredricksburg, Va., at the Armor Modeling and Preservation Society's annual show. Here are 20 models we didn't have room to show you in the September 2014 issue.

## FineScale.com/Videos

### Video issue previews

*FSM* Editor Matthew Usher highlights what's inside the current and past issues.

### FSM Basics

Watch the new series of how-to videos hosted by Associate Editor Aaron Skinner as he explains the basics of construction, paint, glue, and more.

### New Product Rundown

Associate Editors Tim Kidwell and Aaron Skinner pick the hottest scale-model hobby releases, open up the boxes, and show you why they rock.

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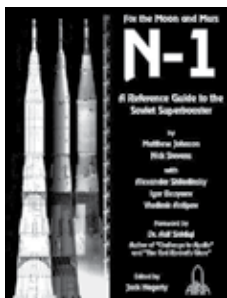
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## Scale Talk

Your voice in *FSM*

### Tell us about Bill Plunk

I was blown away by the exceptional cover story of Bill Plunk's model ship in the April 2014 *FSM*. His first ship build reminded me of my first armor model, when some fellow modelers from the local club challenged me, an aircraft guy, to build a tank for our local contest. Then they got annoyed when I took first place in armor. Bill clearly has the same crossover modeling skills.

Usually, you include something about the author, but in this case, not so much. [*You can read Bill's first FSM bio in the May 2008 issue.*] I've wanted to build a ship model for the longest time, but have been intimidated by the multitude of tiny parts. Yet Bill found useful ways of mastering that, and I want to try to emulate his success. However, knowing nothing about him, I don't know



where to begin to ask questions.

If it's not too late, can you tell us something about Bill?

- Ned Barnett  
Las Vegas, Nev.

*Bill lives in El Paso, Texas, and has been building models of different types since the age of 8. He started out building aircraft kits with his dad around the kitchen table and returned as an adult to the hobby in 2002, focusing primarily on WWII German armor with an occasional detour into other subjects when the inspiration hits.*

Usher and armed myself with the products he suggests. Ninety minutes later, the etched lettering was removed and all sections had been sanded and polished. I dipped the bezel in Pledge FloorCare Multi-Surface Finish (PFM), and I am pleased with the results. Thanks for the help!

- Scott Picha  
Gaston, Ind.

### PFM in Australia

In response to Simon Wallace-Tarry's question in the May 2014 *FSM* Questions & Answers about finding Pledge FloorCare Multi-Surface Finish in Australia, I managed to purchase two bottles of Pledge One Go from our local Foodworks Supermarket in Mansfield, Victoria. Seemingly, it isn't readily available but shows up from time to time. Simon may want to contact his local

supermarket or S.C. Johnson ([www.scjohnson.com.au](http://www.scjohnson.com.au)). One Go is a cloudy product that does have a slight ammonia smell, but I have used it on acrylics without issue.

Love your magazine. Keep up the great work.

- John Currie  
Macs Cove, Victoria, Australia

### Let us know what you think!

Comments, suggestions, corrections, and additional views on *FSM* articles are welcome. E-mail your thoughts to [editor@FineScale.com](mailto:editor@FineScale.com), or visit [FineScale.com](http://FineScale.com) and click on "Contribute to *FSM*." You can also mail typed or handwritten letters to the address on Page 6. Clearly mark "To the Editor" on the envelope. Please limit your comments to no more than 300 words and include your name and location.



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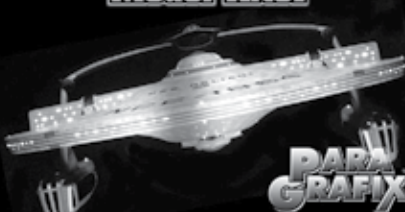
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## Revell's design, engineering shine in all-new Spit

**Big-scale Battle of Britain fighter shows balance of buildability and detail**

Revell released a 1/32 scale Supermarine Spitfire Mk.I in the late 1960s and a Mk.V in the '90s. Now Revell Germany ([www.revell.de](http://www.revell.de)) comes to the table with a state-of-the-art Mk.II (No. 3986).

Modern molding technology shows in the fine engraved panel lines and rivets over the major airframe parts. This kit

has the A-style wings housing a total of eight .303-caliber machine guns.

The kit features a terrific-looking cockpit with frames, seat, supports, controls, pedals, and more. Decals complement the molded instrument faces and panels.

That attention to detail is apparent in the landing-gear bays and air- and

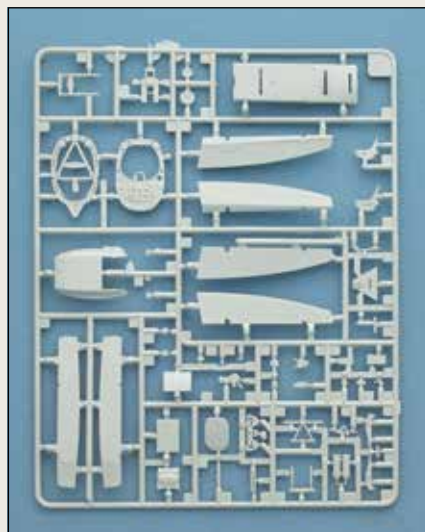
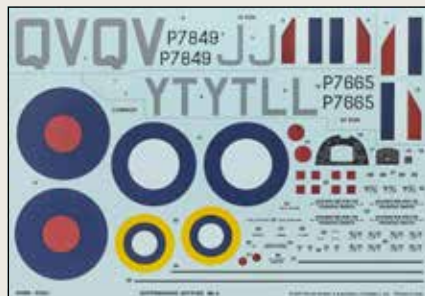
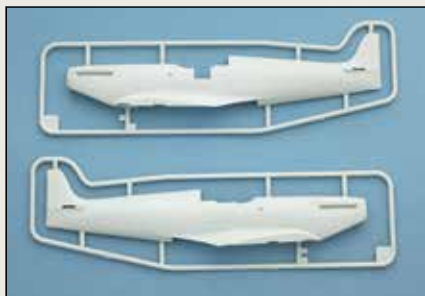
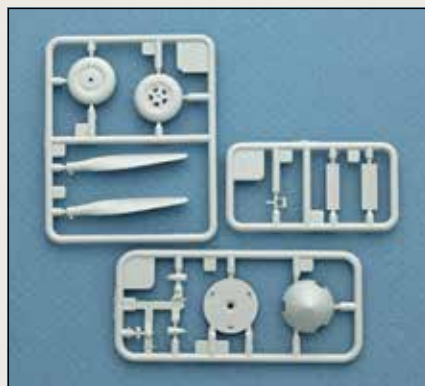
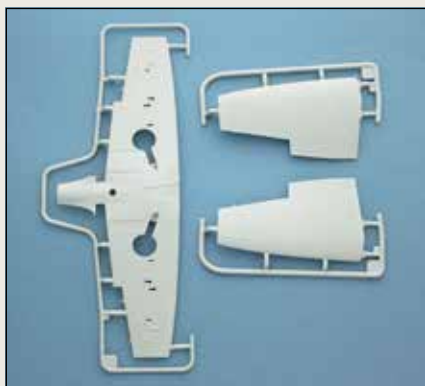
oil-cooler intakes. The oil-cooler intake is the later circular type, more common to Spitfire Mk.Vs but also found on late production Mk.IIs.

There's no engine or ammunition bay detail in the wings, so the build should progress quickly.

The ailerons, elevators, rudder, and flaps are separate, and the boarding hatch and canopy can be posed open or closed.

Well-printed decals provide markings for two Battle of Britain Spitfires from No. 19 and No. 65 squadrons in summer 1941. Both wear dark green and dark earth camouflage over sky undersides.

The kit costs \$24.95.





## Eduard dresses up Academy King Tiger

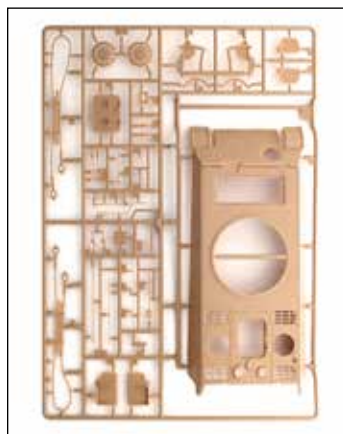
Czech Republic-based Eduard ([www.eduard.com](http://www.eduard.com)) has reboxed several Academy 1/48 scale aircraft with photoetched-metal parts and new decals. Now it turns that attention to the recent Tiger II from the Korean manufacturer.

The kit includes the nicely molded Academy King Tiger parts with working torsion-bar suspension, link-and-length transport tracks, and posable hatches.

Eduard throws in a fret of photoetched-metal grilles for the engine deck along with a few other details.

The highlight is the inclusion of instructions for three late-war camouflage schemes.

The Eduard Tiger II (No. 3715) costs \$74.95.



## BOOKSHELF

### U.S. Army trucks, 'dozer in detail

Support vehicles, like trucks and tractors, are in vogue with kit manufacturers and modelers alike. The two latest releases in Ampersand's ([www.ampersandpubco.com](http://www.ampersandpubco.com)) visual history series tap into that popularity.

*The Big Macks* (ISBN 978-0-9895547-5-6) and *The D7 Tractor* (ISBN 978-0-9773781-8-0), both by David Doyle, feature hundreds of photos. Most are full-page in the 11" x 8.5" landscape



format, so there's plenty of detail on display. Each soft-cover volume has historical images of the vehicles in service as well as detail photos of restored Mack

trucks and D7 bulldozers.

The 120-page book on the D7 costs \$22.95; the 112-page Mack book, \$19.95.

## New-tool Dragonfly hits the market

Trumpeter ([www.trumpeter-china.com](http://www.trumpeter-china.com)) continues its interest in classic U.S. Cold War warplanes with the release of a 1/48 scale A-37A Dragonfly (No. 2888). The Cessna trainer was repurposed for counterinsurgency (COIN) operations during the Vietnam War.

Finely engraved panel lines and hatch details highlight the airframe parts. The well-appointed tandem cockpit fea-

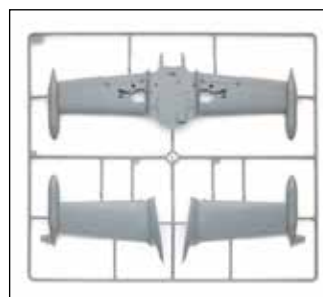
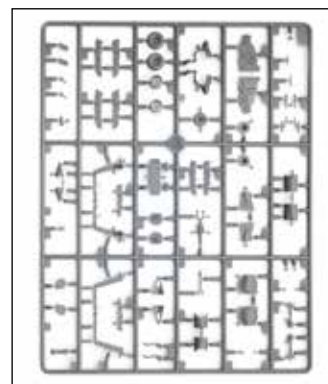
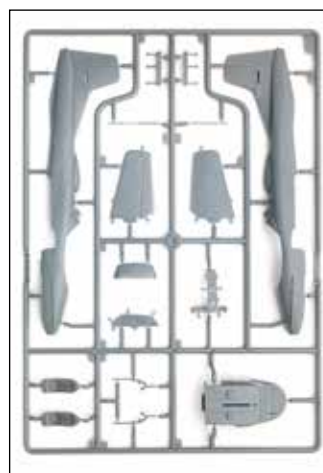
tures seats, controls, instruments, and a gunsight.

The intakes and exhausts terminate with fans, and there are photoetched-metal parts for the foldaway intake screens and exhaust attenuators. The speed brake can be posed open or closed.

The Dragonfly has three or four hardpoints under each wing, and the kit provides a bunch of stores to hang on them: two types of fuel tanks, LAU-3 and SUU-14A/A rocket pods, SUU-11 minigun pods, and Mk.81 and M1117 bombs.

Decals provide marking for a single U.S. Air Force COIN Dragonfly at Ben Hoa air base.

Trumpeter's A-37A costs \$48.95.



# New Products

Compiled by Monica Freitag

## AIRCRAFT

### 1/24 DETAIL SETS

**P-47D Thunderbolt landing gear (for Kinetic)** from Scale Aircraft Conversions, No. 24007, \$21.95.

### 1/32 SCALE KITS



**Supermarine Spitfire Mk. IIa** from Revell Germany, No. 03986, \$24.95.



**IAR-81C** from Azur Frrom, No. FR8001, \$74.99.



**DFW C.V. Mid-production** from Wingnut Wings, No. 32040, \$99.

**DFW C.V. Late-production** from Wingnut Wings, No. 32057, \$99.

### 1/32 DETAIL SETS

**U.S. 500lb bombs** from Eduard, No. 632-037, \$14.95.

[www.FineScale.com](http://www.FineScale.com)

FineScale Modeler magazine receives new products from a variety of manufacturers on a daily basis and we are now able to share all of them with you through our interactive exclusive FSM product database. Click on the Product News link at [www.FineScale.com](http://www.FineScale.com).

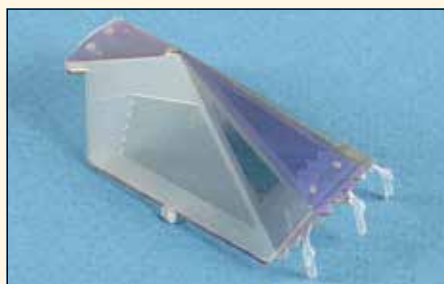
### 1/35 SCALE KITS



**Israeli "Anafa" helicopter** from Dragon, No. 3543, \$54.95.



**E.E. Lightning landing gear (for Trumpeter)** from Scale Aircraft Conversions, No. 32084, \$18.95.



**Have Glass II - anti-reflection coating for canopy** from AFV Club, No. AC32002 (for HobbyBoss,) AC32005 (for Trumpeter shown). Contact your local dealer for price information. From AFV Club.

### 1/48 SCALE KITS



**Luftwaffe JG73 Operation Sniper 2003 MiG-29 9-12 late type "Farewell USA 2003"** from GWH, No. S4801, \$79.95.



**A-37A Dragonfly** from Trumpeter, No. 02888, \$48.95.

### 1/48 DETAIL SETS

**AGM-65 Maverick** from Eduard, No. 648-151, \$12.95.

**X-47B landing gear (for Freedom Model)** from Scale Aircraft Conversions, No. 48264, \$17.95.

**YF-23 landing gear (for HobbyBoss)** from Scale Aircraft Conversions, No. 48254, \$17.95.

**F-101 Voodoo landing gear (for Kitty Hawk)** from Scale Aircraft Conversions, No. 48266, \$17.95.

**Dornier Do215 landing gear (for ICM)** from Scale Aircraft Conversions, No. 48263, \$17.95.

### 1/48 DECAL SETS

**USAF/US Coast Guard Albatross SA-16A & UF-1G** from Caracal Models, No. CD48047, \$15.99.



**Alpha Jet** from Caracal Models, No. CD48044, \$13.99.



**US Navy "Blue Angels" C-130** from Caracal Models, No. CD48065, \$14.99.





**EMB-314 Super Tucano** from Caracal Models, No. CD48066, \$14.99.



**F-5F/N Defenders of the Conch Republic** from TwoBobs, No. 48-242, \$14.

## 1/72 SCALE KITS



**PZL P.11f "In Rumania"** from Azur From, No. FR0023, \$25.99.

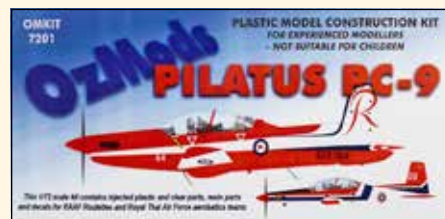
**EC-121 Warning Star** from Plus Model, No. AL7010, \$84.20. Aero Line.



**Bristol Blenheim Mk.I** from Airfix, No. A04016, \$20.



**KZ-VII Lark (Kramme & Zeuthen)** from Airfix, No. 697217. Contact your local dealer for price information.



**Pilatus PC-9** from OzMods, No. 7201, \$39.60. Includes plastic, clear and resin parts, decals for RAAF Roulettes and Royal Thai Air Force aerobatics teams.

# Manufacturer/Distributor Directory

**Aero Research Co.**  
www.AeroResearchCDs.com

**Airfix**  
www.airfix.com

**Ampersand Publishing Company**  
http://ampersandpubco.com/

**Caracal Models**  
www.caracalmodels.com

**Dragon Models USA Inc.**  
626-968-0322  
www.dragonmodelsusa.com

- Aoshima
- Bronco
- Cyber-hobby
- Dragon
- Fine Molds
- Fujimi
- G.W.H.
- Master Box
- Platz
- Riich
- Showcase Models Australia
- Zvezda
- Concord
- Firefly Books
- Nuts & Bolts Books

**Eduard**  
www.eduard.com

**Flagship Models**  
405-330-6525  
flagshipmodels.com

**Hannants**  
44-1502-517444  
www.hannants.co.uk

- Xtradecal
- Xtrakit

**Lanasta**  
www.lanasta.com

**Merit International**  
626-912-2212  
www.merit-intl.com

- Merit
- AFV Club
- Kinetic

**MIG Productions**  
www.migproductions.com

**Osprey Publishing**  
www.ospreypublishing.com

**OzMods Scale Models**  
www.ozmods-kits.com

**Pacific Coast Models, Inc.**  
707-538-4850  
www.pacmodels.com

- HK Models
- Takom
- Pacific Coast
- Amusing Hobby
- Asuka
- Ebbro
- Kitty Hawk
- Panda
- Xactscale

**Plus Model**  
38-7220111  
www.plusmodel.cz

**Revell**  
847-758-3200  
www.revell.com

- Monogram

**Revell Germany**  
www.revell.de

**Round 2**  
574-243-3000  
www.round2corp.com

- AMT
- MPC
- Polar Lights
- Lindberg
- Hawk

**Scale Aircraft Conversions**  
214-477-7163  
scaleaircraftconversions.com

**Specialty Press**  
651-277-1400  
www.specialtypress.com

- Ginter
- Crecy
- Hikoki
- Zenith
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**Squadron Products**  
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www.squadron.com

- Encore Models
- HobbyBoss
- ICM
- Meng
- Roden
- Super Scale International
- Sword
- True Details
- Trumpeter

**Stevens International**  
856-435-1555  
www.stevenshobby.com

- Trumpeter
- Meng
- Noys Miniatures

**Tamiya America Inc.**  
949-362-2240  
www.tamiyausa.com

**TwoBobs Aviation Graphics**  
www.twobobs.net

**Wingnut Wings**  
www.wingnutwings.com

# New Products



**Fairchild C-123B Provider** from Roden, No. 056, \$73.

## 1/72 DETAIL SETS

**Remove Before Flight** from Eduard, No. 73021, \$12.95.

**F-35A/B Lightning II landing gear (for Hasegawa)** from Scale Aircraft Conversions, No. 72091, \$12.95.

**Su-27 Flanker landing gear (for Zvezda)** from Scale Aircraft Conversions, No. 72092, \$14.95.

**Tail surfaces for Constellation** from Plus Model, No. AL7008, \$11.80. Aero Line.

**Engine cowling for L-1049 Lockheed Constellation (for Heller)** from Plus Model, No. AL7009, \$21.20.

**Flaps for C-121 Warning Star** from Plus Model, No. AL7007, \$20.60.



**Wheel bays for EC-121 Warning Star (for Heller or Plus Model)** from Plus Model, No. AL7006, \$40.60.

**Douglas C-47/Dakota/DC-3 landing gear (for Airfix)** from Scale Aircraft Conversions, No. 72089, \$14.95.

**Lightning T.Mk.4/5 landing gear (for Sword)** from Scale Aircraft Conversions, No. 72090, \$12.95.

## 1/72 DECAL SETS

**F-16C/D Vipers - The Next Generation** from Caracal Models, No. CD72019, \$13.99.

[www.FineScale.com](http://www.FineScale.com)

Subscribers have exclusive access to model kit photos not published in the magazine! Simply go to [FineScale.com/Reviews](http://FineScale.com/Reviews).



**White rounded and basic numbers** from Babibi Model, \$27.99. Shown in 1/72, also available in 1/48 and 1/32.

## 1/144 SCALE KITS



**Boeing 720B Pan American** from Roden, No. 319, \$15.99.



**Lockheed C-140A Jetstar** from Roden, No. 316, \$26.

## OTHER SCALE KITS



**Hindenburg** from AMT, No. AMT844/06, \$24.99.

A description of our new-product announcement and review policies is available from Product News Coordinator, FSM, 21027 Crossroads Circle, P.O. Box 1612, Waukesha, WI 53187, 262-796-8776, fax 262-796-1383, or e-mail at [newproducts@finescale.com](mailto:newproducts@finescale.com). *FineScale Modeler* is not responsible for content of external sites linked through our site. Visit our website at [www.finescale.com](http://www.finescale.com).

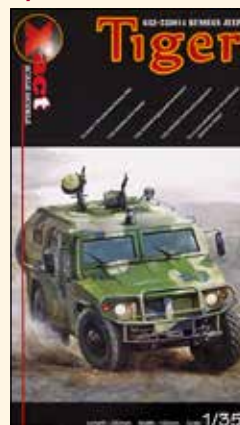
# ARMOR

## 1/32 SCALE KITS



**Panzer IV tank** from Monogram, No. 85-7861, \$22.95.

## 1/35 SCALE KITS



**GAZ-233014 Russian jeep Tiger** from Xact, No. XS35002, \$48.



**Soviet JS-4 Heavy tank** from Trumpeter, No. 05573, \$92.95.



**WWI British tank Mk.IV Male with single motor** from Tamiya, No. 30057, \$127.





**Churchill TLC Type A with carpet laying devices** from AFV Club, No. AF35285. Contact your local dealer for price information.



**Soviet Super Heavy KV 5** from Takom, No. 2006, \$57.95.



**US Army armored half track multiple gun carriage** from Monogram, No. 85-0034, \$22.95.



**WWII British Airborne weapon & equipment set** from Bronco Models, No. AB3567, \$39.99.

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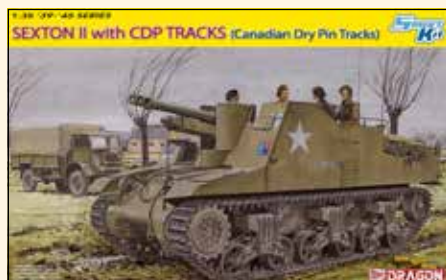
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**Pz.Bef.Wg.III Ausf.J with Schürzen** from Dragon, No. 6570, \$58.99. 1939-1945 series, Smart Kit.



**Panzerbeobachtungswagen III Ausf.F (SdKfz.143)** from Dragon, No. 6792, \$58.99. 1939-1945 Series, Smart Kit.



**Sexton II with CDP tracks (Canadian Dry Pin Tracks)** from Dragon, No. 6793, \$54.99. 1939-1945 series, Smart Kit.

### 1/35 DETAIL SETS

**M2 Browning** from Eduard, No. 635 001, \$7.95.

**MG 34 gun** from Eduard, No. 635 002, \$7.95.



**T80E1 workable track link set (steel type) for M26/M46** from Bronco Models, No. AB3565, \$19.99. Bonus: Late version sprocket wheels for Korean War period M26/M46.

### 1/48 SCALE KITS



**M10 IIC Achilles (British tank destroyer)** from Tamiya, No. 32582, \$33. Military Miniature Series No. 82.



**Russian self-propelled gun SU-152 (KV-14 April 1943 production)** from Bronco Models, No. ZB48004, \$44.99.

### 1/72 SCALE KITS



**GTK Boxer GTFz A1** from Revell Germany, No. 03198, \$14.95.



**Selbstfahrlatette auf fahrgestell Vomag** from Roden, No. 727, \$31.



# New Products



**Opel Blitz with wooden cab** from Roden, No. 719, \$26.95.



**Opel Blitz Omnibus** model W.39 Ludwig-built, late, from Roden, No. 721, \$21.

## MISCELLANEOUS DETAIL SETS

**Mesh 4x4 Rhomb Steel** from Eduard, No. 00035, \$9.95.

**Mesh 6x6 Steel** from Eduard, No. 00033, \$9.95.

**Template ovals steel** from Eduard, No. 00032, \$9.95.

**Template ovals and oblong steel** from Eduard, No. 00031, \$9.95.

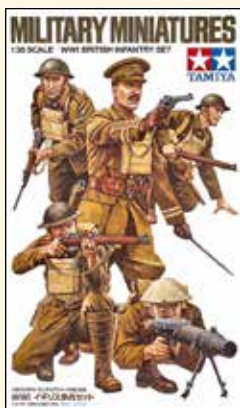
**Template access steel** from Eduard, No. 00030, \$9.95.

**Mesh 6x6 Rhomb type steel** from Eduard, No. 00025, \$9.95.

**Mesh 4x4 square steel** from Eduard, No. 00034, \$9.95.

**Mesh 4x4 square steel** from Eduard, No. 00034, \$9.95.

## MILITARY FIGURES



**WWI British Infantry set** from Tamiya, No. 35339, \$21.50.

## FANTASY FIGURES

### 1/9 SCALE KITS



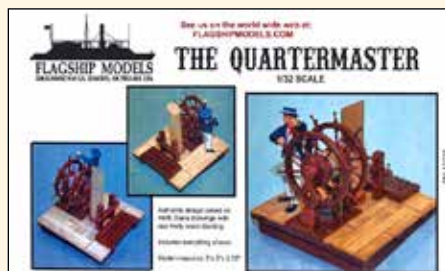
**Iron Man 3 Mark XXII Hot Rod Armor** from Dragon, No. 38332, \$54.99. Marvel. Pre-painted easy assemble version also available.



**Iron Man 3 Mark XLIII Battle Damage Version** from Dragon, No. 38328, \$62.99. Marvel. Pre-painted easy assemble version also available.

## SHIPS

### 1/32 SCALE KITS



**The QuarterMaster** from Flagship Models, No. FM13238, \$50.

### 1/170 SCALE KITS



**USS Carronade (fire support ship)** from Lindberg, No. HL403/12, \$21.99.

### 1/200 SCALE KITS



**PLA Navy Type 051C DDG-115 Shenyang** from Trumpeter, No. 03619, \$159.95.

### 1/350 SCALE KITS



**HMS Type 23 Frigate Monmouth (F235)** from Trumpeter, No. 04547, \$69.95.



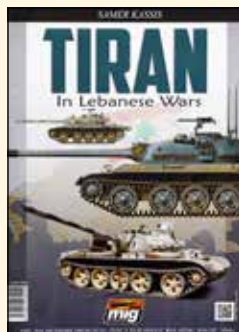
**I-19 Ironclad submarine** from Aoshima, No. 047347, \$40.99.

### 1/700 SCALE KITS



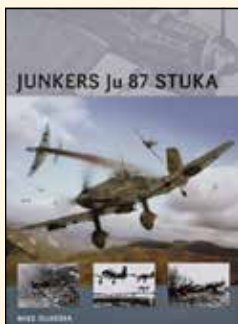
**USS Zumwalt DDG-1000 Zumwalt Class Destroyer** Black Label Smart kit from Dragon, No. 7141, \$34.99.

## BOOKSHELF

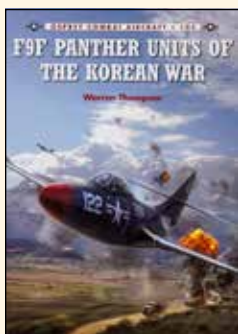


**Tiran in Lebanese Wars**, \$37.95, by Samer Kassis, soft cover, 96 pages, 300 color photos, ISBN: 8-432074-060000. From MIG Productions.





**Junkers Ju87 Stuka**, \$18.95, by Mike Guardia, soft cover, 64 pages, color renderings, mostly black-and-white photos, ISBN: 978-1-4728-0119-7. From Osprey Publishing.



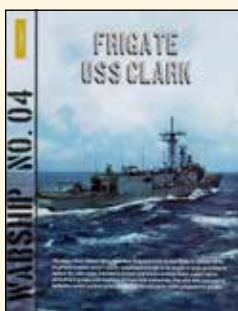
**F9F Panther Units of The Korean War**, \$22.95, by Warren Thompson, soft cover, 96 pages, mostly color photos, ISBN: 978-1-78200-350-2, Osprey Combat Aircraft 103. From Osprey Publishing.



**Mikoyan-Gurevich MiG-21**, \$18.95, by Alexander Mladenov, soft cover, 64 pages, mostly black-and-white photos, ISBN: 978-1-78200-374-8. From Osprey Publishing.



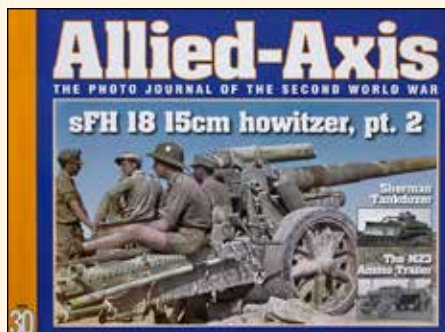
**AV-8B Harrier II Units of Operation Enduring Freedom**, \$22.95, by Lon Nordeen, soft cover, 96 pages, all photos, ISBN: 978-1-78200-344-1, Osprey Combat Aircraft 104. From Osprey Publishing.



**Frigate USS Clark - Warship No. 04**, \$20, by Rindert van Zinderen Bakker, soft cover, 48 pages, all color photos, ISBN: 978-90-8616-194-2. From Lanasta.



**Black Knights Rule! (BKR)**, \$49.95, by Angelo Romano with Robert L. Lawson, soft cover, 138 pages, over 485 color photos, ISBN: 978-0-9892583-4-0. From Ginter Books.



**Allied-Axis sFH 18 15cm Howitzer, Part 2, Issue 30**, \$15.95, soft cover, 96 pages, all black-and-white photos. From Ampersand Publishing Company, Inc.



**The Big Macks**, \$19.95, soft cover, 112 pages, all black-and-white photos. From Ampersand Publishing Company, Inc.

## ELECTRONIC MEDIA



**E-2 Hawkeye** (including C-2 Greyhound) from Aero Research, No.1044, \$12.95.

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# 10 tips for a better

Take NMF from “not my forte” to “no more frustration” • BY JOHN ADELMANN

When a project calls for a natural-metal finish, some modelers cringe. How can you make gray styrene look like metal without it looking like it was painted?

Sure, you can burnish foil onto it, or spray metallic paint and buff it with powder. But those techniques have serious limitations: Masking is virtually impossible; raised surfaces are hard to cover; and fingerprints ruin the look. Plus, both methods complicate weathering and decal application.

Other techniques require rubbing compounds and polishes that give plastic super smooth, shiny surfaces. But that requires a lot of time and effort, and overlooked residue in recessed areas can spell disaster.

Filler putty is another pitfall in the quest for a good natural-metal finish. Even after sanding and blending, putty remains porous and doesn't have the same texture as plastic. But some kits require a little putty. What to do?

After years of frustration and experimentation, I have developed a technique that uses a combination of Alclad II lacquers and Pledge FloorCare Multi-Surface Finish (PFM) that produces great results.

## 1: CLEAN CONSTRUCTION AND SURFACE PREPARATION

I apply Tenax-7R with a fine paintbrush to attach large parts; it creates a strong bond, dries quickly, and can be sanded. For delicate parts, I prefer Testors liquid cement; it doesn't melt the plastic as much as Tenax-7R, so it preserves tiny recessed panel lines and rivets.

I go over all of the seams with 1800-grit sanding pads to eliminate shiny residue from the cement, **A** and **B**. Even small imperfections will be magnified under metallic finishes.

Next, I wipe the model with a tack cloth to remove any dust. Don't rub too much or you may create static electricity that attracts fuzz, dust, and other stuff I like to call *schkootz*, **C**. Working by sections minimizes the problem.



## 2: PAINT IT BLACK

On one area at a time, I airbrush several coats of Testors Model Master flat black enamel as a base coat. That's right — flat black (more on why later).

After each layer dries, I remove dust and any stray paint attracted to unpainted plastic, **D**, with 2400-grit sanding pads. Then, I repaint the area and keep working until the plane is completely flat black and free of blemishes.

Now, I know what you're thinking: How can flat paint be the foundation for natural metal?

Yes, the key to great-looking natural metal is getting the surface as smooth as possible before applying the finish. Flat paint may feel smooth, but the surface is actually uneven.

Many modelers prime with gloss black to provide the smoothest surface. But gloss enamels dry slowly, extending the time spent painting, fixing, and repainting touch-ups. And any blemishes seem to need sanding back to the plastic to be eliminated.

Working with flat finishes, I discovered I could sand and remove problems without removing all of the paint, **E**. Sanding smooths out the flat paint. I carefully sand around hinges and other raised surfaces to remove excess paint. The tack cloth returns to remove paint dust, **F**.

## 3: A LAYER OF CLEAR

With pressure at 10 psi, I airbrush the model with PFM straight from the bottle, usually starting with a wing and working one section at a time, **G**. I'm ever watchful



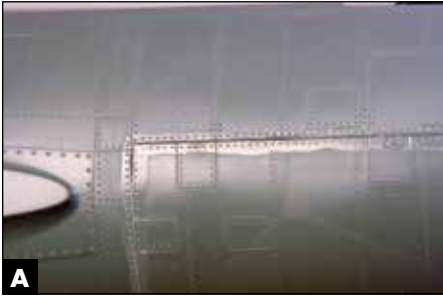
Layers of clear acrylic and Alclad II lacquers give John's 1/32 scale F-84 a sturdy natural-metal finish.

Some modelers wash sanded models with warm, soapy water. Even after using a hairdryer, there may be water trapped inside that can emerge during painting! Water spots have to be sanded or rubbed out later.

Now, I seal puttied areas with several coats of PFM. The F-84's plastic was a bit pebbly; even though sanding made the surfaces smoother, I sprayed several coats of PFM on the bare plastic to even out microscopic nooks and crannies that can dull natural-metal shine.



# natural-metal finish



**A** Surface preparation starts with construction. John brushed on Testors Plastic Cement to attach hatches.



**B** Careful sanding removed the shine left by the glue. Thin and unforgiving, metallic paints reveal even small differences in surfaces.



**C** Sanding generates not only dust but also static electricity, which attracts more dust and fluff — *schkootz*, the bane of natural-metal finishes.



**D** Static also draws loose particles of paint to the model. It's important to remove them with light sanding before painting the next area.



**E** John discovered flat paint is easier to smooth than gloss paint is to apply. The outboard section of the F-84's wing has been sanded.



**F** Smoothing corners and details, such as ridges on the drop tanks, is just as important as tending big surfaces. A tack cloth removes sanding dust.



**G** Here comes the shine: In this case, light coats of PFM are applied straight out of the bottle a section at a time.



**H** It takes time, but after multiple coats of PFM, with sanding in between, John's F-84 had a glass-smooth foundation for the metallic finish.



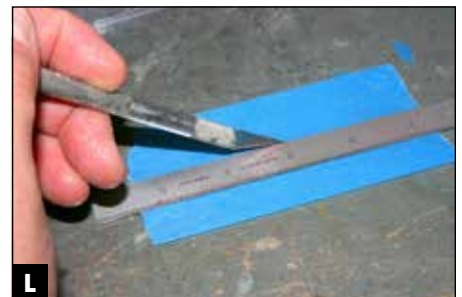
**I** A too-thick layer of PFM clouded the wingtip tanks, but the haze disappeared as the clear acrylic dried.



**J** John painted and glossed the gear doors and canopy at the same time as the airframe to ensure they had the same sheen.



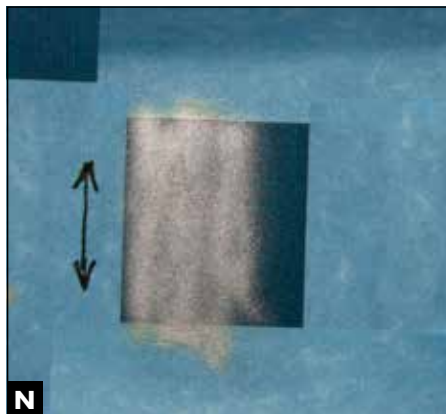
**K** Post-it notes have straight edges and low-tack adhesive — ideal for masking panels.



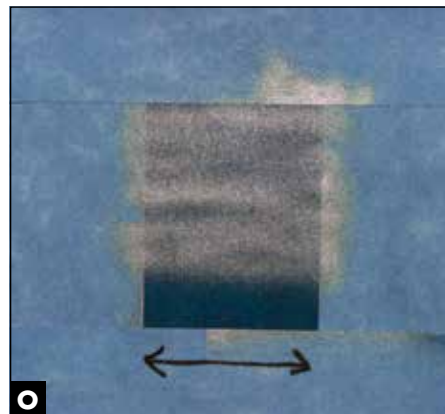
**L** Not trusting the edge of the tape, John cuts a new edge on blue painter's tape with a fresh hobby knife guided by a metal ruler.



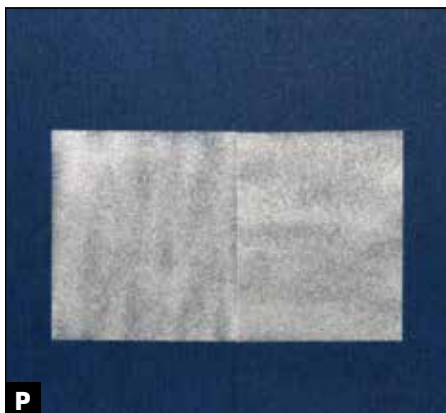
**M** Low-tack tape sticks to curved and uneven surfaces better than Post-it notes when masking panels.



**N** For subtle panel variation, John airbrushes a panel in one direction ...



**O** ... then airbrushes an adjoining panel by moving the airbrush in strokes perpendicular to those used on the first.



**P** Even though John airbrushed these panels with the same Alclad II color, they look different due to the direction of the strokes.



**Q** In addition to washes, spraying a slightly darker shade of Alclad II along panel lines adds subtle variation.



**R** Changing the density of the Alclad II over the black base gives the finish more drama. John varied the width to emphasize curves.

for schkootz — unless you work in a high-tech dust-free environment, you will get particles in your paint. Letting one section dry before moving on to the next, rather than painting an entire model in one sitting, helps prevent this problem. When I find schkootz, I let the PFM dry before sanding and wiping the area clean, then I apply more clear. I repeat this process until all surfaces are dust-free. You can achieve a virtually flawless surface this way if you're patient and persistent, **H**.

I apply several more layers, then set the plane aside for a couple of days to ensure the PFM cures completely.

The acrylic clear can become a little hazy if applied too heavily, **I**. Don't panic. Haze will disappear as it dries.

Remember the plane's landing-gear doors, windscreen, and canopy while you are airbrushing PFM to ensure an appearance and sheen that is uniform with the metallic paint, **J**.

If I plan to mask over the metal finish, I lightly sand with 2400-grit pads to give the PFM a little more "tooth" to hold the metallic paint.

#### 4: MASK PANEL LINES

Models painted with several metallic shades can end up looking like toys because the contrast is unrealistic. On the other hand, natural-metal aircraft rarely look monochromatic. The key is to go slowly and apply the paint in sections.

I create a subtle, quilted appearance by masking panels and airbrushing them individually. It takes more time, but the results are worth it.

Post-it notes work well because of their low adhesion and straight edges, **K**. To get good results on larger areas, such as wings, use low-tack tape cut on glass using a straight-edge and a sharp hobby knife, **L** and **M**.

I only mask off areas bordered by recessed panel lines; I don't use rivet lines to divide and paint panels.

#### 5: SPRAYING ALCLAD II

Alclad lacquers contain very fine pigment that will settle in your airbrush's paint cup. Stir and agitate the paint as you airbrush to keep the mixture right. I sometimes thin Alclad II with a drop or two of acetone, but be careful — it's easy to overdo.

For subtle contrast, I airbrush a panel in one direction, say left to right, **N**. After masking, I spray the adjoining panel with a perpendicular pattern — up and down, **O**. The difference between the panels is apparent, even with the same color, **P**.

Alclad paints withstand sanding and masking because the acetone base etches the PFM. But it's still possible to pull the paint up with tape. If that happens, feather the edges of the damaged area with sanding and spray more Alclad. Proceed with caution.

You can enhance surface detail by carefully airbrushing a slightly darker shade of Alclad along prominent panel lines, **Q**.

#### 6: STREAKING THE PAINT

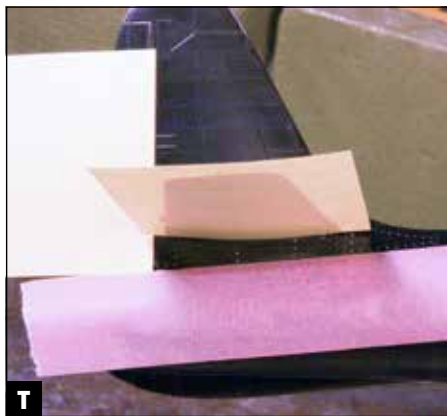
To add more contrast, I apply paint in streaks, varying the density instead of completely covering the surface.

I use a similar technique to enhance curved surfaces, applying paint vertically from top to bottom and widening the spray pattern as I go, **R**. I mask off sections with Post-it notes or low-tack tape. (This technique also works well with regular military

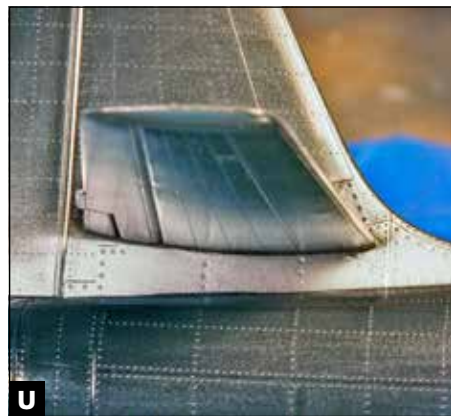




**S** Paint swirling around in corners can dry prematurely, creating grit. To prevent this, John masked surrounding surfaces not being painted.



**T** Swirling is exacerbated in tight spots like the F-84's tail. John masked all of the surfaces under the horizontal stabilizer.



**U** After airbrushing with Alclad II lacquer, he removed the masking. Later, he covered the strip and sprayed the underside of the stabilizer.



**V** Don't overlook other uses for metallic finishes. They are a great way to give landing gear legs a heavy-metal appearance, says John.



**W** A sealing coat of PFM helps washes flow into engraved detail. John painted the areas between the spokes black.



**X** It looks messy, but John removed excess wash with a soft cloth and cotton swabs to enhance engraved detail

flat paint to create a stressed, weather-beaten look.)

## 7: AVOID OVERSPRAY

Oversprayed paint dries before it lands on surfaces surrounding the section being airbrushed, producing a fuzzy or gritty feel. The roughness makes washes more difficult to apply. Overspray is very common at right angles (like wing roots). Masking the adjoining surface solves the problem, **S**.

Preventing overspray in tight spots, such as around the F-84's stabilizers, presents challenges. I masked the undersides of the horizontal stabilizers with Post-it notes and used low-tack tape for the curved fuselage, **T**. I sprayed the narrow section of the vertical tail, **U**. After the paint dried, I covered it to paint the undersides of the stabilizers. I masked them, then finished the rear fuselage. When the stabs were dry, I re-covered them and finished the tail section by painting the remaining portion of the fuselage.

## 8: REMEMBER THE GEAR

Landing gear legs and wheels need metallic finishes. Remove mold seams and ejector-

pin marks, then apply several coats of PFM. I don't paint them flat black first — that's a little too much sanding, even for me! Gear legs painted with PFM, then metallic paint, seem to reflect light better, **V**.

The F-84's three wheels have spokes, which the natural-metal finish made easy to enhance with a wash, then fill with black paint, **W**.

## 9: MORE CLEAR GLOSS

What I am about to say will be considered heresy by some modelers: Seal the Alclad II with PFM. Some claim that coating metallic paint takes the *natural* out of natural metal.

I understand the argument. But if PFM is applied carefully, the results can be satisfying. The key is to avoid applying too much in one pass.

After PFM, apply a water-based dark gray wash to panel lines and recesses with a fine brush, **X**. A clean, soft cotton cloth — an old T-shirt works well — removes excess wash. Stubborn wash can be rubbed away by adding a drop — and I mean *only* one drop — of Model Master airbrush thinner

to the cloth. You can use small amounts of thinner on cotton swabs to remove wash from hard-to-reach spots.

## 10: FINAL TOUCHES

Decals settle well over glossy surfaces and may stick quickly. Plan ahead and put them as close as possible to their final location to minimize poking and prodding.

You may not need decal-setting solutions, but they can help adhesion. Keep an eye out for spots left by these solutions. If they appear, gently sand them out; there's no need to apply more PFM unless you've dug into the clear coat.

Spray clear flat over any areas that need it, such as the anti-glare panels on the F-84. I misted a little over the rest of the model to slightly knock down the sheen. You may want shinier metal — or not. Some photos show that metal loses its sheen quickly in the elements unless ground crews constantly maintain it. This certainly is fodder for debate.

Try these tips, and, hopefully, you can take NMF to "Now More Fun" with your next natural-metal finish. **FSM**

# Getting the most out of **ACRYLICS**

11 things you should know for better finishes • BY AARON SKINNER

Once the new kids on the block, acrylic paints are now on an even footing with enamels and lacquers as a choice for modelers. Established brands have improved their formulations, and new manufacturers seem to spring up all the time.

Acrylics work as well as enamels and lacquers, but they need to be handled a little differently. Let's take a look at 11 things that will help you get to know these terrific paints and achieve the results you want.

## 1. WHAT ARE ACRYLIC PAINTS?

Paint is a combination of three things: pigment, binder, and solvent (sometimes called *carrier*). Regardless of type, pigment gives paint its color.

The binder, or vehicle, is the main difference between enamels and acrylics. It sticks particles of pigment together and to the model; as it dries or cures, it forms a

hard skin on the surface with the pigment in suspension. For traditional model enamels, the binder is a petroleum distillate or oil. Acrylics use an acrylic resin or polymer.

The solvent or carrier makes the binder-pigment mix less viscous, so it can be applied in thin layers and dry fairly quickly. Mineral spirits, turpentine, or xylene work for most enamel paints. But for acrylics, the carriers vary. Despite the fact that acrylics are often referred to as water-based, water is not always the solvent. Some paints use alcohol.

All acrylics are water-soluble before they dry, so cleanup with soap and water is quick and easy. Once dry, acrylic paints form a durable finish that resists most solvents. This makes them an ideal base coat for enthusiastic weathering.

## 2. MIXING

Any paint left sitting will separate and settle, so it needs to be mixed before use. With apologies to James Bond, acrylics are better stirred, not shaken. Shaking bottles can introduce bubbles, and that can affect coverage.

Instead, stir the paint thoroughly with a wooden stir stick or, if you don't have one of those handy, clip off a piece of sprue. Stir until all of the heavy material that settled gets thoroughly mixed, **A**. You'll know it's ready when no globs of material remain on the stick, **B**.

To prevent fragments of dry paint or unmixed pigment clogging your airbrush, consider a filter attachment for your airbrush siphon feed, **C**.

## 3. THINNING

When thinning acrylics, follow the manufacturer's instructions and use what they recommend. Most paint companies make thinner



Acrylics have become a preeminent choice for painting models. Producing first-rate finishes with them is just a matter of understanding their peculiarities.





**A** Paint performs best when the components are mixed. A sludge of settled pigment and filler covers the bottom of this bottle of paint.



**B** Ready to paint: After stirring for a couple of minutes, the stick comes out of the paint with a smooth, even layer of color.



**C** This simple filter prevents paint blobs or chunks from clogging the airbrush or marring your model.



**D** Use the thinner recommended by the paint manufacturer to avoid compatibility problems.



The flow test is a good measure of getting the right consistency for airbrushing. If a drop of paint runs down the side of the mixing jar smoothly and leaves an even film it's ready (left). If it doesn't run, it's too thick (center), and if runs fast and leaves an uneven film of color, it's too thin.

especially for their brand of paint, **D**. You can and will run into compatibility issues if you use a different brand. For example, Tamiya and Gunze Sangyo acrylics use alcohol as a thinner. But alcohol turns Vallejo and Italeri paints into a gummy mess.

Proprietary thinners often contain additives to improve paint flow and slow drying, especially useful for figure painting or airbrushing.

How much thinner to add depends on the paint and how it is being used. If you are hand-brushing, keep a little thinner nearby to wet the bristles and clean the brush. For airbrushing, the consistency of 2-percent milk is still a good rule of thumb. But not all acrylics are the same, **E**. Some may need to be thicker or thinner for trouble-free coverage. The chart on page 26 lists popular acrylics with their recommended thinner and thinning ratio.

Only thin as much paint as you need, and don't return thinned paint to the original bottle. Thinner shortens its shelf life.

#### 4. SURFACE PREP

Acrylic paints are adversely affected by oil and grease. Release agents (used during manufacturing to ease the separation of parts from the molds) as well as skin oil from handling during construction are primary sources. You need to remove them before painting.

Wash the sprues with water and a little dish soap and let them air dry before construction, **F**. This should remove any release agent.

Before painting, wipe the model with rubbing alcohol or Testors Plastic Prep to remove dust or any skin oil left during construction, **G**.

If you had to do a lot of sanding during construction, run a toothpick along panel lines to remove any debris, **H**. Immediately before painting, use a tack cloth to remove any loose particles, fluff, and dust.

Another way to promote adhesion is by using a primer. But be sure it is compatible with the acrylics you plan to use.

#### 5. COMPATIBILITY

Different kinds of paint can affect paints applied over or under them. So, it's important to be aware of any compatibility problems.

Don't apply heavy coats of enamels or lacquers over acrylics. The aggressive solvents can crinkle, dissolve, and destroy the acrylic resin. Acrylics can be brushed or sprayed over enamels and lacquers as long as the underlying paint is completely cured. If not, the chemicals gassing out of the oil-based paint can damage the acrylics.

I apply enamel and artist's-oil washes over acrylics all the time because they usually have no effect on the base coat. But it's

important to test compatibility before trying a new combination.

#### 6. MASKING

Unlike their oil-based brethren, acrylic paints don't bite into the plastic. As a result, they are more easily pulled up by masking tape.

Prevent problems by ensuring the surface is clean and oil-free. Primer can help give the paint something to grip.

Use low-tack tape for all masking over acrylics. You can further reduce the stickiness of the tape by applying it to a smooth surface and peeling it off. Repeat several times before masking the model.

#### 7. PAINT FLOW

Acrylics dry quickly and may not flow and level as well as oil-based paints. This can cause uneven finishes, rough patches, and tip-drying in your airbrush.

Adding retarder or flow enhancer slows drying and allows the paint to flow better, **I**. With slower drying, you have more time to work the paint. That's useful for painting figures, giving acrylics blending properties more like artist's oils.

Flow enhancer or improver does exactly what it says, and it's great for preventing tip-drying when airbrushing acrylics. It doesn't take much; most should be mixed with water before being added to paint.



**F** Washing the sprues in a tub eliminates the chance of losing a part down the kitchen drain.



**G** Wiping the model with alcohol removes any body oil deposited during construction.



**H** Dust is the enemy of good paint. A toothpick gets it out of panel lines; a tack cloth takes care of the last bits before airbrushing.

## 8. BRUSH HYGIENE

The resins in acrylics dry very hard and are resistant to many solvents. So, keep brushes, especially airbrushes, clean. Break down and clean your airbrush immediately after painting. I generally flush the brush with thinner for the brand of paint used. Then, I break down the brush and thoroughly clean all of the parts with hardware-store lacquer thinner.

While airbrushing, keep a cotton swab dipped in thinner handy to remove any dried paint from around the nozzle.

## 9. COLOR CHANGE

Never judge a shade of acrylic paint by the color in the bottle or as it appears immediately after application. It's my experience that acrylics, more than enamels, change color as they dry. In some cases it may be three days before the paint's true color shows. If in doubt, test the color before committing paint to a model, especially if you are mixing colors.

## 10. SAFETY

Acrylic paints are sometimes considered "safe" and "nontoxic." Compared to their oil-based cousins, acrylics tend to be less harmful to the environment and modelers. But they are far from nontoxic, so take simple precautions when using them.



**I** Flow enhancer (left) and retarder can make fast-drying acrylic paints act more like enamels or artist's oils.

Work in a well-ventilated environment, as the fumes from alcohol and other solvents used in acrylics can be harmful and flammable. A spray booth vented outdoors is essential if airbrushing indoors. Remember: If you can smell the paint, you are inhaling it.

Protect your hands with gloves, and your lungs with a respirator, **J**. Toxins in paint can be absorbed through skin; I keep a box of disposable gloves near the workbench for mixing and airbrushing paint. A cartridge-style respirator will keep paint particulates out of your lungs.



**J** Safety first! They may not be as lethal as oil-based paints, but it's important to protect yourself from acrylic paints nonetheless.

Read labels for other safety information and seek medical attention in an emergency.

## 11. EDUCATION

Unlike most enamels, each brand of acrylics needs to be handled differently, uses a unique thinner, and requires time to learn best practices. Don't be disappointed if your initial experience with a new brand is not successful. Keep at it: Learn which thinning ratios, pressures, and nozzles work best. And practice. There's no substitute for experience. **FSM**

## Common paint-thinner ratios\*

Paint	Thinner	Ratio (paint:thinner)
GSI Creos (Gunze Sangyo) acrylics	Tamiya thinner, alcohol, distilled water	1:1 to 2:1
Humbrol acrylics	Water	1:1 or 2:1
Italeri acrylics	Italeri thinner	2:1
LifeColor acrylics	LifeColor thinner	Pre-thinned, but add a few drops
Polly Scale acrylics	Distilled water	9:1
Tamiya acrylics	Tamiya acrylic thinner or alcohol	2:1
Testors Model Master Acryl	Universal thinner	Pre-thinned, but add a few drops
Vallejo Model Color	Vallejo thinner	3:1
Vallejo Model Air	Vallejo thinner	Pre-thinned, but add a few drops
Xtracrylix	Xtracrylix thinner	3:2

\*These ratios are based on my experience as well as those posted by the manufacturers. They should be considered starting points for basic painting. Keep in mind that things like type of brush, air pressure, air temperature, and humidity can affect how paint sprays. Adjustments may be necessary.



After reading an article by Pat Covert in the November 1996 *FSM*, Mike Brignola came to "love rust buckets." He proves his adoration by piling 80 years of wear and tear on a Lindberg 1/25 scale '34 Ford pickup and making it fit for a scale model junkyard.

# Realistic RUST

A motor tool, salt, paint, and pigments help show a model's mileage • BY MIKE BRIGNOLA



Dale Jolley

Mike happened upon this photo of an old Ford pickup and used it as inspiration for his model.

I developed a passion for old beaters after reading Pat Covert's "Building up a wrecker" (November 1996 *FSM*). Strange for an aircraft and armor modeler, I know. But the idea for realistic rust just stuck with me.

I started visiting junkyards or pulling off the road whenever I saw a relic, snapping pictures to capture the vehicles in their natural habitat. Another member of my model club enjoys the same fascination, so we started sharing ideas and techniques. I even entered a rusted pickup diorama at the 2007 IPMS/USA National Convention and won second place. But there was still room to improve my rusty techniques.



**1** Mike textured the truck bed with a motor tool and cutting bit. Sparing applications of liquid cement and a rubdown with synthetic steel wool helped soften unwanted burrs.



**2** Sophisticated Finishes Rust Antiquing Set can be found in craft stores. It comes in two parts: metal shavings in an acrylic base and an antiquing solution.



**4** Even though it's going to be heavily weathered and rusted, Mike added spark-plug wires to the flathead V-8.



**5** With the salt washed away, the Ford's patchy appearance is well on its way to completion.



**6** Mike scraped and chipped the green paint and primer. In a couple of places he went too deep, exposing the plastic. He came back and covered those with rust-colored pigments.



**7** The engine suffered some of the heaviest weathering. Mike often looked at photos of rusty engines to get the textures and colors just right.



**3** The Sophisticated Finishes texture applied to the cab roof and the fender tops provided a more random and realistic rust appearance than talcum powder or baking soda.



**8** A rusty pickup needs an equally weathered bed. Mike masked off the metal areas of the bed before layering paint and pigments on the wood.

Realizing color and texture are key to pulling off a realistic rust effect, I turned my attention to Lindberg's 1/25 scale '34 Ford pickup.

### Before we rust

My first task was to bang up the truck body. Rust eats metal unevenly, so some places suffer more than others. With that in mind, I roughed up the truck bed with a cutting bit and motor tool. I also banged around on the fenders and lower cab replicating wear and water rot, **1**.

I applied another texture method to the cab roof and fender tops: Sophisticated Finishes Rust Antiquing Set. Found in

craft stores, each pack contains a bottle of metal shavings suspended in an acrylic resin and an antiquing solution to discolor the shavings, **2**.

The metal shavings make the perfect random, pitted effect for a rusted-metal finish. I brushed on the shavings and let them dry. I didn't use the antiquing solution because I planned to use other techniques to get the desired rust colors, **3**.

Though the flathead Ford V-8 would be a rusted ghost of its glorious youth, I still wanted a little more detail than the kit provided. I added a spark-plug harness and wires and hollowed out the horn, **4**.

Wearing gloves and working in a well-

ventilated area, I removed the chrome finish from the headlights, bumper, grille, and similar plated parts with oven cleaner. I did preserve the chrome on the headlight interiors for added realism.

For ease, I glued together subassemblies — cab, bed, radiator, hood, chassis — but didn't install them until near the end of the painting process.

### Time to rust

After studying my reference photo, I air-brushed Humbrol RLM 61 dark brown enamel (HG15) as the rust base coat. A thin coat of black enamel went over where I planned heavy rust: Vehicles weathered a





**9** Notice how the chrome plating inside the headlights adds realism and life to the pickup's front end.



**10** A little work with sandpaper gave the tires an old, weighted look. Mike also gave the tires a coat of PFM before finishing them with enamels and pigments.



**11** The seat received a coat of Model Master black enamel followed by dry-brushed tan. Cotton from a cotton ball served as escaped padding.



**12** You can find shiny Mylar in chip snack bags you buy from the grocery store. Mike used it to provide a reflective surface for the pickup's mirrors and taillight.



long time by the elements produce a darker color than more recent oxidation.

Waiting a week to let the enamel fully cure, I applied a mix of kosher and table salt to the model with a paintbrush and water. Once the salt dried, I coated the body with Testors Model Master neutral gray enamel, carefully avoiding the spots where I planned large rust patches. I followed right away with a coat of Tamiya green acrylic (X-5), spraying only over the gray.

I flaked and rinsed off the salt, then used synthetic steel wool, a toothbrush, and Tamiya thinner to gently chip the fresh green off the gray enamel underneath. The result is a contrasting rust, gray primer, and green finish, **5**.

Some modelers use hairspray between the enamel and acrylic coats to ease the chipping process. As you can see, I had to get a little aggressive with the weathering and removed some of the paint down to the plastic, **6**.

In retrospect, I should have sealed the Sophisticated Finishes with a clear lacquer before applying the gray. On the upside, I ended up creating a more modulated rust finish when I went back to touch up these areas. Happy accidents!

The engine proved to be its own project. Checking photos of severely rusted engines, I turned to Mig Productions light, standard, and old rust pigments. I layered them with either mineral spirits or alcohol, **7**, then went back over the truck with the same pigments to create a darker, modulated shade on all of the rusted areas.

In a sudden burst of inspiration, I soaked a small clump of steel wool with water and placed it in a cup to dry. The steel wool rusted nicely. I crushed it into powder and used it on the Ford. You can't get more realistic than real rust.

### Finishing touches

It's all well and good to finish a rusty exterior, but there's more to modeling a weather-beaten chariot.

Focusing on the pickup's wooden bed, I masked the rusted metal with tape. The wood planks received a gray enamel base coat. A thin coat of Tamiya desert yellow (XF-59) went over that. Then I streaked Mig Productions black smoke pigment onto the wood with a paintbrush wet with Tamiya thinner, **8**.

I primed the radiator grille with black enamel and followed up with Humbrol polished steel (No. 27003), then misted on

neutral gray to dull the finish. After a little scuffing with synthetic steel wool, a wash of Mig Productions black smoke pigment finished the job, **9**.

To get the appearance of flabby, half-inflated tires, I sanded a flat edge on each. As insurance against the rubber affecting my paint job, I coated them in Pledge FloorCare Multi-Surface Finish (PFM). Then I painted them with enamels, **10**.

I hit the bench seat pretty hard, banging it up with my motor tool to give it texture and saggy springs. Again employing my motor tool, I thinned the plastic from underneath and made tears with a sharp hobby knife, **11**.

Mylar, readily available in snack bags, provided a shiny chrome finish for the mirrors and taillight. Then I coated the taillight with a smidge of Tamiya clear red (X-27), **12**.

Finally, I sprayed Tamiya buff (XF-57) and a flat coat over the window glass to simulate dust.

After almost 50 hours of work over three months, I believe this is my best effort, so far, to model a rusted relic. I think I'll put the Ford in a junkyard setting adorned with more rusty details. The quest continues. **FSM**



How tricky could a gray-on-gray paint scheme be? Paul decided to put this question to the test, modeling Hasegawa's 1/48 scale F-22 as an Alaskan Raptor in flight, flashing its missiles over Mount McKinley.

# WHEN GRAY IS MORE THAN GRAY

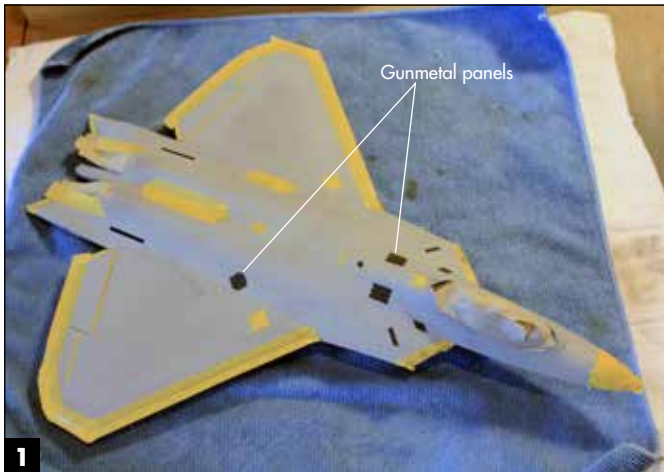
## Achieve a subtle metallic camouflage

BY PAUL KINNEY

**A** diehard F-15 and F-16 fan, I was slow to come around to the F-22. However, after a long stint on a Zoukei-Mura Skyraider, I thought a simple, wheels-up, closed-missile-bays, gray jet would be just the thing. Easy, right?

After studying photos of the Raptor in flight, I became enamored of its looks. Then I noticed that the paint was gray at certain angles, but flashed metallic at others. And it just looked menacing with the missile bays open. I had no choice but to do my best to model a hunter with its claws extended and capture a paint job more challenging than the gray Eagles and Falcons already gracing my shelves.





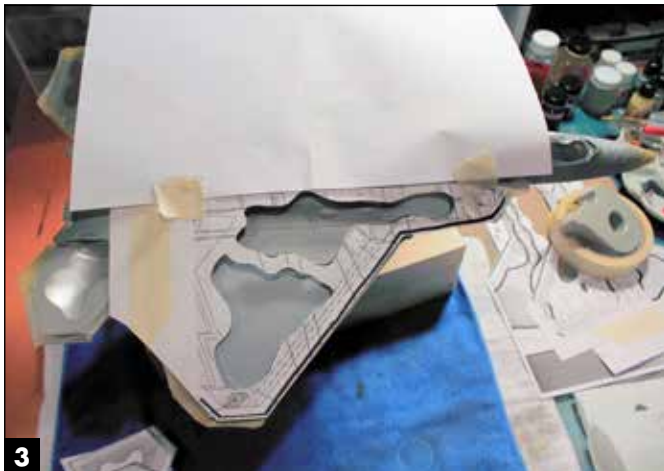
1

After painting the tricolor intake trunking and finishing the weapons bays, I closed up the fuselage and primed the aircraft with Testors Model Master light ghost gray. I masked the wing and stabilizer edges and numerous panels. I picked out a few panels with gunmetal to avoid using decals, then masked them, too.



2

The first shade of the semimetallic camouflage was a 4:1 mix of Model Master aluminum and graphite toned down with a bit of aggressor gray. I airbrushed a coat over the entire model.



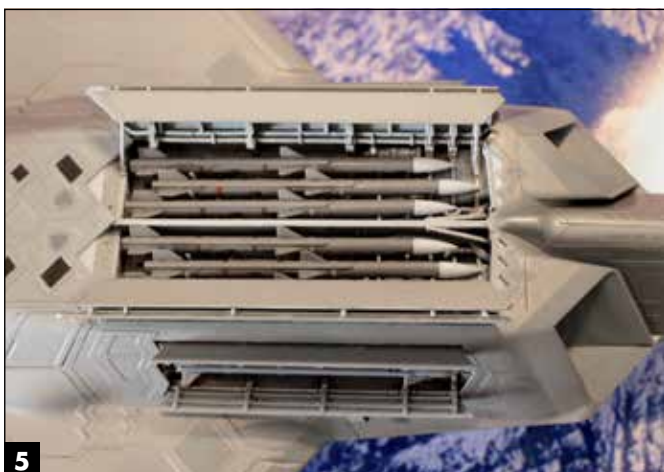
3

Afraid that masking tape might mar the semimetallic finish, I enlarged the painting instructions on card stock, then carefully attached them to the masking tape already on the model.



4

Then I airbrushed the darker camo color: a 1:3 mix of aluminum and graphite toned down with a bit of aggressor gray. Tedious, but the effort resulted in an accurate, feathered edge. A coat of Model Master flat clear sealed the deal.



5

For ease, I left off the missile-bay doors and painted them separately, masking the bay interiors. Once everything was finished, I loaded the ordnance and attached the doors.



6

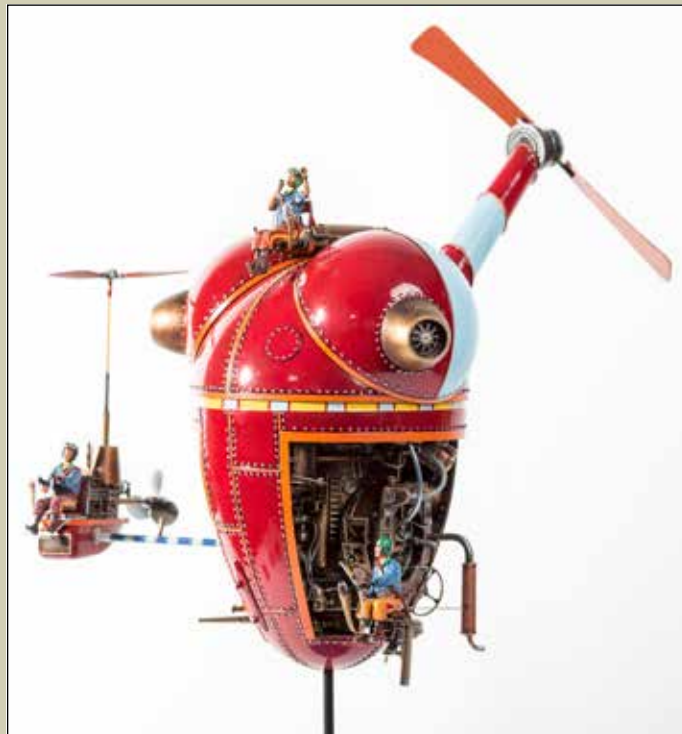
One final thought: Neither the clear nor the smoked canopy supplied with the kit has the correct golden color. I dipped the smoked canopy into Pledge FloorCare Multi-Surface Finish (PFM) tinted with Acrylicos Vallejo yellow. The result matched my references nicely. **FSM**

# Reader Gallery



▲ **TOM HALLIGAN**  
**AUSTIN, TEXAS**

Tom weathered MPC's Imperial All-Terrain Armored Transport using washes and graphite smears refined with blending stumps. The terrain is styrene foam built up and shaped with a hot knife, coated with tile grout and Woodland Scenics soft flake snow, then airbrushed with shades of gray and blue. The snowspeeder's lasso had Tom puzzled initially. He says, "I tried a variety of wires, but none were thin enough for scale but strong enough to support the speeder. I found some very thin armature wire at a sculpting specialty store that did the trick."



▲ **HARRY ARLING**  
**GRONINGEN, NETHERLANDS**

Harry's 1/35 scale "Flying Heart" is just one of an art series he calls "Kosmotronics." He explains: "I use all kinds of kits and scraps from plastic bottles, clocks, coffee machines, packing materials, you name it. It's the adventure of building something out of materials and not knowing what it will become. I don't make a drawing first; I just start and see where it goes."



**HENRY LEE**  
**CHELSEA, ALABAMA**

In March 1945, while launching planes against the islands of Honshu and Kyushu, the USS *Franklin* was hit by two bombs that set the carrier ablaze, killing more than 700 of the crew. Nevertheless, "Big Ben" made it back to Brooklyn Navy Yard. Henry detailed the *Essex*-class carrier with styrene and metal rods, flags, and photoetched metal from Tom's Modelworks.





▲ **JACQUES NIOT**

**MENNECY, ESSONNE, FRANCE**

Great to hear from Jacques again — it's been a long time (Heinkel He 111H-6, May 1997 *FSM*). He scratchbuilt this 1/48 scale Nord 262 of the French navy. The French army also flew the turboprop and, in the United States, Allegheny Airlines flew a modification known as the Mohawk 298.

▼ **JOHN GRIMA**

**SAYLORSBURG, PENNSYLVANIA**

John says, "This 1/6 scale M3 Lee started off as a roto-molded plastic hull and turret from Plastic Panzers. I corrected the rear deck and hull compartment and replaced molded details with scratchbuilt metal, plastic, and resin parts. The model has an M1919A4 gun from Dragon mounted in the cupola. Riveting was painstakingly added by hand; I counted all fasteners, directly referring to the M3 Grant preserved at the Aberdeen Proving Ground in Maryland."





## Reader Gallery



▲ **GREGORY CORREIA**  
**MIDDLETOWN, RHODE ISLAND**

Inspired by a YouTube clip, Gregory rolled out a HobbyBoss 1/35 scale M1070 with an M1000 trailer hauling an AFV Club M88A1. A Legend Productions resin conversion set made it an M88A2. Gregory painted with Testors Model Master U.S. Army/Marines Gulf armor and gave it a light wash of Winsor & Newton raw umber artist's oils. Norm Kaplan photo.

▼ **BRAD SHINN**  
**HATFIELD, PENNSYLVANIA**

Brad converted Revell's 1/144 scale Boeing 737-800 with Contrails' resin 737-900 fuselage, added a TV antenna, and scratchbuilt the flaps and slats from styrene. The retro Continental decals are from TwoSix Decals. He finished the airliner with Tamiya spray paints and weathering powders (also from Tamiya).







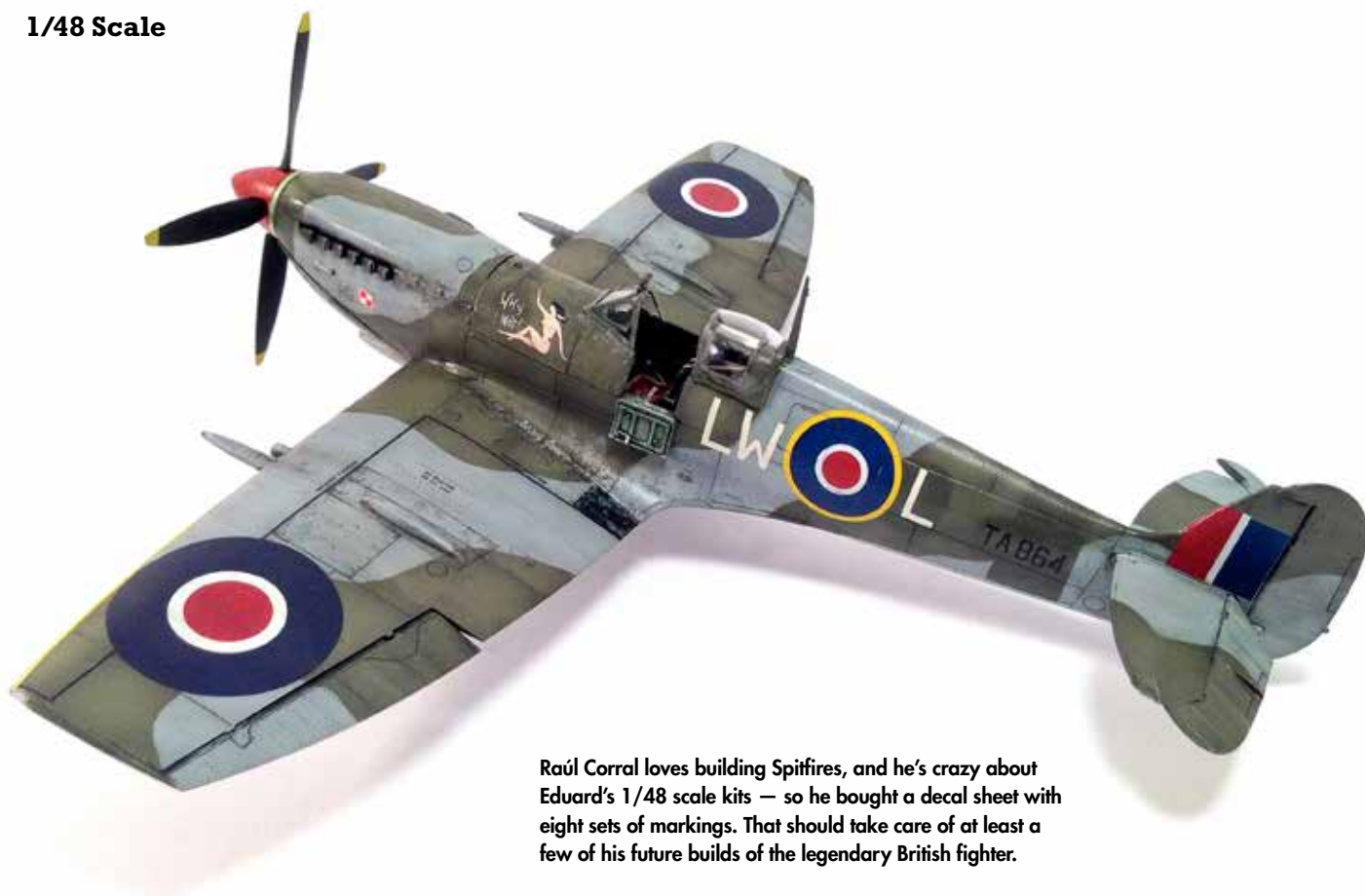
► **MICHAEL  
EPSTEIN  
PRAIRIE VILLAGE,  
KANSAS**

Michael writes, "I already had the 1/32 Revell kit of the Ju 87D Stuka, but I wanted to fashion the kit after Ray Waddy's painting 'Eagle of The Eastern Front' showing Hans-Ulrich Rudel's Stuka in winter camouflage. So, I bought the Hasegawa kit for the cannon and combined the two kits."

► **JOHN CHUNG  
MARKHAM, ONTARIO,  
CANADA**

Several modifications were necessary for John to model Revell's 1/48 scale F-86D as a Sabre Dog of the Taiwan air force. But he says most of the effort went into the paint and decals. With few references, he mixed his own best-guess base coat using Federal Standard 16440 gray and FS 16473 ADC gray. The national insignia is air-brushed through stencils cut from frisket.





Raúl Corral loves building Spitfires, and he's crazy about Eduard's 1/48 scale kits — so he bought a decal sheet with eight sets of markings. That should take care of at least a few of his future builds of the legendary British fighter.

# WEATHERING FOR A well-worn Spitfire

Savvy tips for modeling a Mk.IXe

BY RAÚL CORRAL

I was delighted when Eduard released its Supermarine Spitfire Mk.IX in 1/48 scale and offered “overtrees” to provide for variants of the mark. It was everything I needed to build a Spitfire Mk.IXe except for the decals. But I already had those: Kagero's Mini Topcolors No. 27, Polish Spitfires, a deluxe sheet printed by Cartograf with eight sets of markings in three scales for Polish pilots flying with the Royal Air Force. I chose *Why Not?* for its pretty nose art and big roundels.

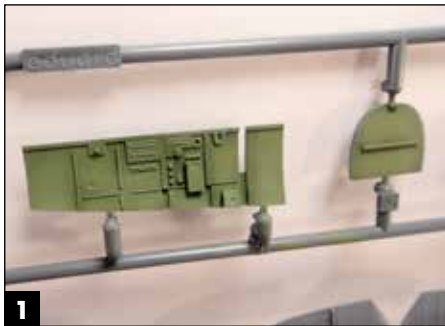
## Cockpit

I mixed my own British interior gray-green with Tamiya paints, 1 part deep green (XF-26) and 2 parts light blue (XF-23), leaving the main parts on the sprue to airbrush them, **1**. Then I added two or three drops of Gunze Sangyo Aqueous Hobby Color yellow (No. H413, RLM 04) and sprayed a light coat on the inner parts of selected panels to add depth to details.

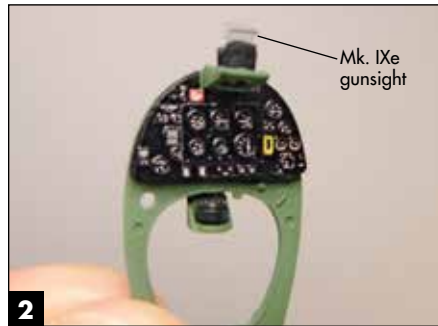
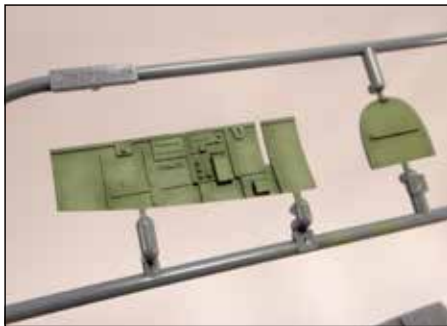
For the instrument panel, I installed Eduard's photoetched metal from its Profipack Mk.IXc late version (No. 8281), **2**.

Humbrol enamels covered several small components in flat black or aluminum, with some red for switches, handles and buttons, **3**. Selective dry-brushing with lightened shades of all these colors highlighted raised details. Then I airbrushed all the parts with a light coat of Humbrol flat varnish (No. 49) to make them look like they all belonged in the same place, **4**.





**1** Raúl mixed his own interior color (left), then added a drop or two of yellow to the mix to highlight and add relief before installing and painting more cockpit details.



**2** Raúl used Eduard's Mk. IXc (late) photoetched-metal instrument panel, but he was careful to mount a gunsight that would agree with the Mk.IXe he was building.



**3** Humbrol enamels picked out particulars inside the cockpit. Dry-brushing each color with a lighter shade called out details on the parts.



**4** A coat of Humbrol flat clear unified the finish on the cockpit components.



**5** Careful test-fitting ensured the cockpit and wings would fit, not fight.



**6** Just in case the plastic developed a mind of its own, Raúl taped the wings into position before he glued them to make sure they would stay that way, rather than revert to earlier form.

Dry-fitting ensured the fuselage sides and cockpit walls were aligned, **5** — critical for mating with the wings. I taped the fuselage and wings in position to give the plastic some “memory” and discourage it from springing back to previous form, **6**.

Meanwhile, I turned to other details. Unlike other Spitfires, *Why Not?* had no crowbar on the cockpit door. So, I bought Ultracast's resin cockpit door set (No. 48096), **7**. I painted the door with the same interior color, adding a drop or two of yellow to spray highlights. I flowed a flat black wash into details, dry-brushed raised details with the lighter interior shade, and used a

fine brush and Humbrol aluminum (No. 56) for scratches, **8**.

While I was in superdetailing mode, I used wire to replicate brake lines on the landing gear, **9**.

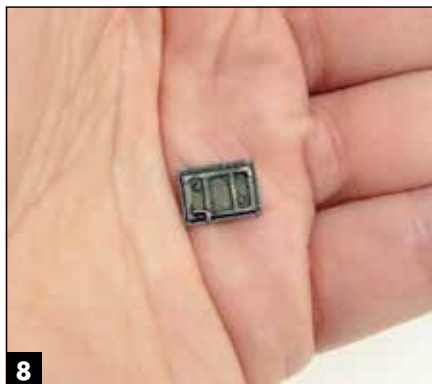
### Exterior painting

I pre-shaded the exterior with Tamiya flat black (XF-1), **10**. Next came the underside, which I painted with Tamiya medium sea gray (XF-83), keeping it thin to let the pre-shading show, **11**. I added a few drops of Tamiya flat white (XF-2) and airbrushed central portions of large panels to provide variety, **12**.



7

A resin detail set from Ultracast gave Raúl the cockpit door he wanted for his specific plane. "Naturally, a few weeks later Eduard provided a similar door!" he says.



8

Base coat, wash, dry-brushing, and chipping combine for the worn look Raúl wanted.



9

The kit's gear legs had no brake lines, but Raúl installed some wire to remedy that.



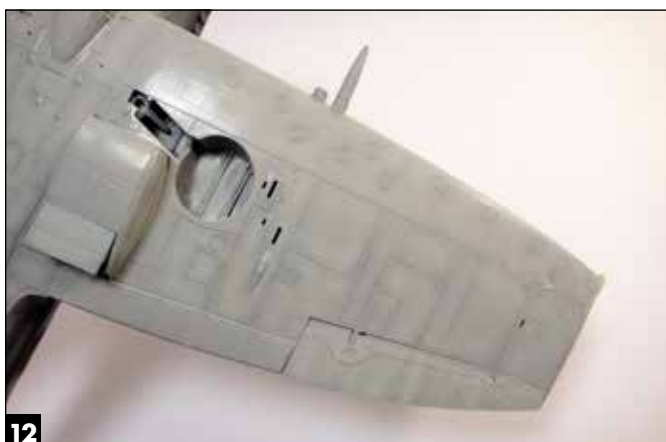
10

Pre-shading provides depth to panel lines underneath subsequent layers of paint.



11

Keeping the underside color thin lets the pre-shading show through ...



12

... while post-shading central areas of large panels with a lightened tone provides realistic color variation.



13

Raúl's efficient use of masking tape kept the camouflage colors off the underside.

After 24 hours to let everything dry, I carefully covered the underside to prepare for the topside camouflage, **13**. I paid special attention around the engine cowls, where the camouflage goes farther down than on the rest of the fuselage.

To mask RAF camouflage, I copied the excellent templates provided in Tamiya's Supermarine Spitfire Mk.Vb (No. 61033).

Starting with the brighter color, I airbrushed Tamiya ocean gray (XF-82), **14**, again keeping it thin to let the pre-shading show through. Mixing in a little Tamiya flat white, I airbrushed

central portions of panels, lending further contrast to the finish.

After that paint dried, I was ready to attach masks and apply the darkest colors, **15**, Tamiya RAF dark green 2 (XF-81) mixed with a few drops of Tamiya dark green (XF-61). Again, I lightened this mix and airbrushed panel centers for greater contrast.

A further step for this particular aircraft, *Why Not?*, is that the original aircraft code and fuselage band had been painted over in dark green. Because the new paint would have been fresher, I carefully masked, then painted these areas with a darker tone of

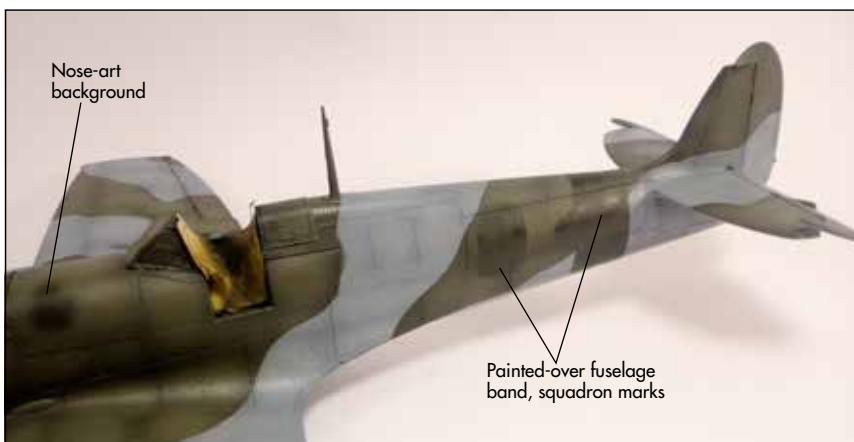




Topside, the gray camo color comes first. Again, post-shading with a lightened mix of the same color (right) emphasizes individual panels.



Paper masks close to the surface provide hard edges as Raúl airbrushes the dark green camo. Then, post-shading picks out the panels.



Hewing to his references, Raúl replicates an overpainted fuselage band, sprayed-out squadron markings, and a background area for the nose art. The “freshened” paint looks darker than its surroundings (right).

the dark green, **16**. Also, without masking, I sprayed a small circle of this same darkened mixture where part of the *Why Not?* nose art would appear, referring to a photo of the plane as well as the color profile that came with the Kagero decals.

Tamiya tape was all I needed to mask and paint the yellow leading edges with Hobby Color RLM 04 yellow (No. H413), **17**. Then I sprayed a light coat of Tamiya clear acrylic gloss (X-22) over the whole plane to make all surfaces more receptive to decals and washes.

### Decals and washes

Even with all the decals I had on hand, I needed more big late-war RAF roundels: I got these from Eduard (“Spitfire British WW2 roundels late,” No. D48017). While I was waiting for Eduard’s decals to arrive, I lightened both the dark green and the ocean gray with a little flat white and used a fine brush to precisely apply these mixes, selectively simulating worn paint in areas where pilots, ground crews, and mechanics would walk or work.

After applying all the decals, I airbrushed thick coats of



17

Tamiya tape does the trick for airbrushing yellow leading edges: It's flexible enough to follow curves, and low-tack enough to leave paint in place.



18

A wash deepens panel lines and other recesses. "The fine surface detail of Eduard's kit becomes a joy to behold!" Raúl says.



19

Raúl uses cotton swabs to remove excess wash or spread it around to simulate the flow of fluids and grime along the path of the airflow.



20

Chipped paint shows up as bright metal in heavily worn areas like this, where pilots and maintenance men often trod.



21

A needle lends further emphasis to the wear and tear of heavy use.

Tamiya clear gloss. Then I let the plane dry for several days, allowing the finish to level and fully clear. This ensured the washes I applied would flow smoothly.

I diluted a 1:1 mix of Humbrol flat black (No. 33) and red brown (No. 100) with Humbrol thinner and applied this wash to all recessed panel lines, **18**.

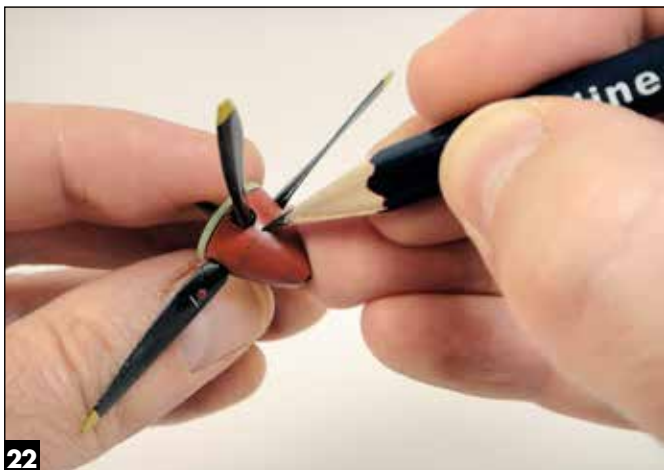
A few minutes later I removed the excess wash using a cotton swab dampened with thinner, **19**. *Tip:* When the swab is dirty

with the excess wash, you can use it to apply stains to selected areas. Draw the swab in the direction of airflow over wings and fuselage, depict exhausts streaks, or apply stains around the wing cannons. If you want less, change to a clean swab and keep going.

### Chipped paint

A hard-working Spitfire always shows extensive wear, including paint chips exposing bare metal underneath. I use Tamiya flat





22

A pencil comes in handy for precise paint-chipping.



23

Dry-brushed flat black replicates exhaust and gun-smoke stains.

aluminum (XF-16), first applied by hand with a fine-point brush, **20**. After that, I used a needle to create a few deeper scratches to vary the effect here and there, **21**. A No. 2 pencil is a precise tool for enhancing these chip effects, **22**.

Stain from exhausts is painted by dry-brushing these areas with Humbrol flat black, **23**. The same reinforces the dirt and smoke around the 20mm cannons.

A final coat of Tamiya clear gloss gave a consistent sheen to the various layers of weathering before I applied a final coat of Humbrol flat varnish. I installed the finished canopy and installed the cockpit door, adding just a little more chipping with Humbrol flat aluminum, **24**.

My Spitfire was ready to show. I pulled some pictures and emblems from the Internet and printed a placard on glossy stock to fit a store-bought picture frame for an easy and informative display base, **25**.

I enjoyed this model, and I am sure I will build at least one more Spitfire this year. *Why Not?* **FSM**



24

Humbrol flat aluminum shows slightly brighter wear on the cockpit door.



25

Easy display base: Raúl gathered imagery from the Internet, typed information about the plane, and printed it all on glossy stock that fit under the glass of a premade frame.

Spitfire LF.IXe (TA864) coded "LM-L"  
Belonging to 318 SAAF Polish Fighter Squadron  
Risako (USine), Italy, May-June 1945  
Pilot: Edzislav Schmet

POLANG

1/35 Scale



When Federico found a Trumpeter kit of the Soviet T-64 tank, he snatched it up, took it home, swept off his workbench, and started building it. He says, “I set aside all other projects — that is what I call the many models abandoned half-built all over the place.”

# Top off a T-64 with paints, filters, pigments, and washes

Finishing fundamentals for a 1960s Soviet tank • BY FEDERICO COLLADA

Like the T-34 in its time, the T-64 was a revolutionary tank design. With several distinctive innovations, such as combined ceramic/steel armor, an auto-loader system (reducing the crew to three), “gill armor” that popped out from the sides, rounded “frying pan” turret, and a low profile, it followed the T-54/55/62 line of medium tanks.

In the late 1960s, improvements in the T-64 led to the T-64A, notable for its new 125mm main gun — the most powerful of any tank in the world at the time.

I had a Skif kit waiting in my closet, but when I saw Trumpeter’s 1/35 scale T-64 Model 1972 (kit No. 01578) I took it home and immediately started gluing pieces together. Soon I realized I would

have to stop at some point if I wanted to paint the model properly — so I put the wheels, tracks, commander’s cupola and machine gun, and a few other details aside to treat them separately.

Throughout the model, I used Vallejo acrylic paints and washes and weathered heavily with AK Interactive washes, pigments, and stains.





1

I airbrushed the model with Vallejo Russian green 4BO (No. 70.609), then applied Vallejo Russian green (71.017) for a base coat.



2

Airbrushing a thin mix of the base color and flat white (No. 71.001) — 75 percent acrylic thinner — gave highlights and emphasized detail on the upper turret, glacis plates, and rear of the hull.



3

After allowing a day for the paint to dry, I applied a gloss clear coat so washes would run freely. Using a fine brush for precision, I selectively applied dark green wash to recesses.



4

More of the dark green wash reinforced the shadowy effect lower on the hull. This time, I moistened surrounding surfaces with Windex to make it easier to remove traces and ensure a sharp contrast.



5

I was eager to experiment with AK Interactive products. I chose a few of the grime effects, painted little lines on the surface, and faded them downwards with a brush and AK's white spirit. The effect is subtle, utilizing many colors without being too loud.



6

I also wanted to try AK Interactive's oils as a filter on horizontal surfaces. I put down little dots of gray, earth, orange, black, and white, then spread them around with a brush and white spirit.



7

For the machine gun, I mixed Alclad II gunmetal and AK Interactive dark steel pigment, keeping the mix thin to prevent brush marks. When that was dry, I rubbed it with a swatch of cotton cloth; the pigment imparted a blued finish.



8

I wanted my tank to look dirty on the upper surfaces, a lot dirtier in lower regions, and really muddy at the bottom. I airbrushed the lower hull, wheels, and suspension with AK Interactive earth effects: dark mud (AK-023) and summer Kursk earth (AK-080).



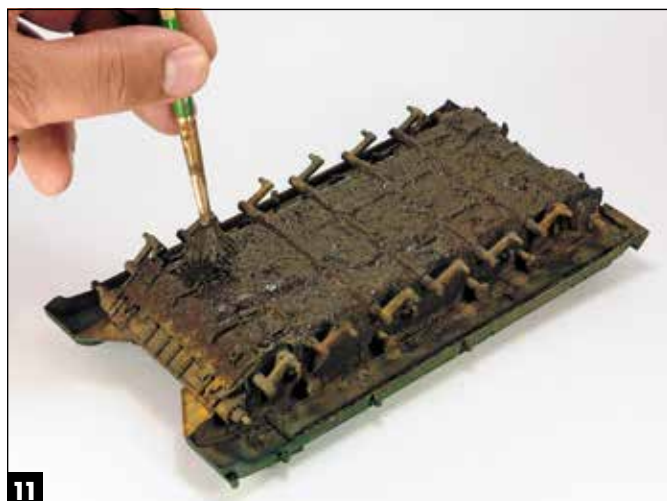
9

I've tried various substances for mud: pigment, plaster, baking soda, salt, and white glue, to name a few. Plaster was difficult to mix, absorbed color, and was hard to paint over. Salt was the right density but didn't mix well with the pigment (they tended to separate on the surface). But baking soda worked well, providing body and mixing nicely with the pigments.



10

I added AK Interactive sand and gravel fixer, a very strong binder I diluted with water before mixing in.



11

I used a throwaway brush to stipple thick mud onto the hull bottom.



12

Once the mud was dry, I made what I call "pigment rain," loading a mix of pigments and water in a spray bottle and "raining" it down on the model, then letting it dry.





13

When I realized I had used too much pigment, I airbrushed the tank from above with water; the pressurized spray washed most of the pigment downwards, leaving more or less the amount I wanted topside.



14

Rubbing road wheels, tracks, and handles with AK's dark steel pigment produced a natural worn-metal look.



15

AK Interactive has an acrylic paint set for tracks and wheels: dark tracks (AK-722) is a perfect base for running gear. I went over that with a wash of rusty tracks (AK-721) and followed by spraying the same pigments I used for the "rain."



16

I replaced the kit's plastic unditching log with a wood twig. Much better! Vallejo brown wash quickly turned the twig into a log.



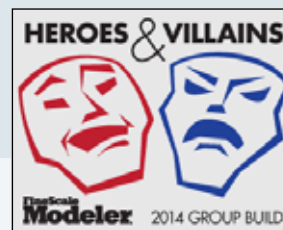
17

I painted the inside of the infrared light silver, then painted the lens Tamiya clear red and over-coated it with Tamiya smoke. A coat of clear gloss made it look glassy. Sculpted epoxy putty looked better than the kit part for the snorkel cover.



18

I painted around filler caps, exhausts, and other likely places with AK's fuel stains (AK-025), applying it in varying thicknesses and splattering some of it with a small brush. I used AK engine oil (AK-084) for stains around the exhaust, wheels, and the glacis plates — and, just like that, my T-64 was finished! **FSM**



## FineScale Modeler Heroes & Villains Group Build

From October 2013 until March 2014, Associate Editors Aaron Skinner and Tim Kidwell hosted *FineScale Modeler's* Heroes & Villains Group Build on the FSM Forum. Big fans of science fiction and fantasy, they thought hosting a group build devoted to large-scale figures from popular culture would be a unique experience for Forum members. It turns out that many of the participants had never built figure kits before!

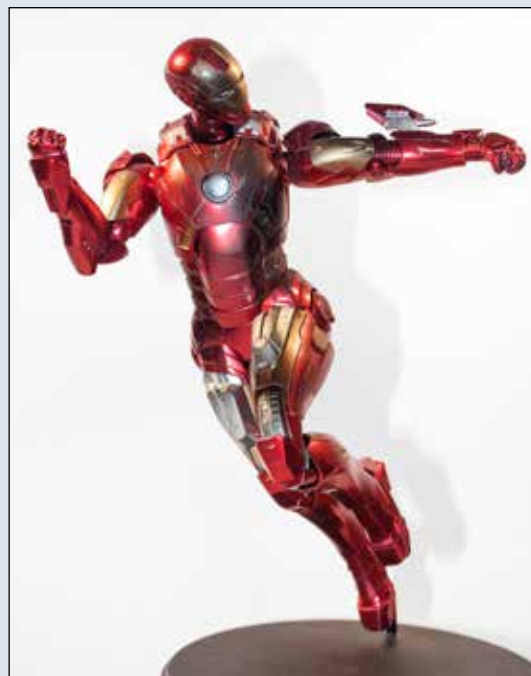
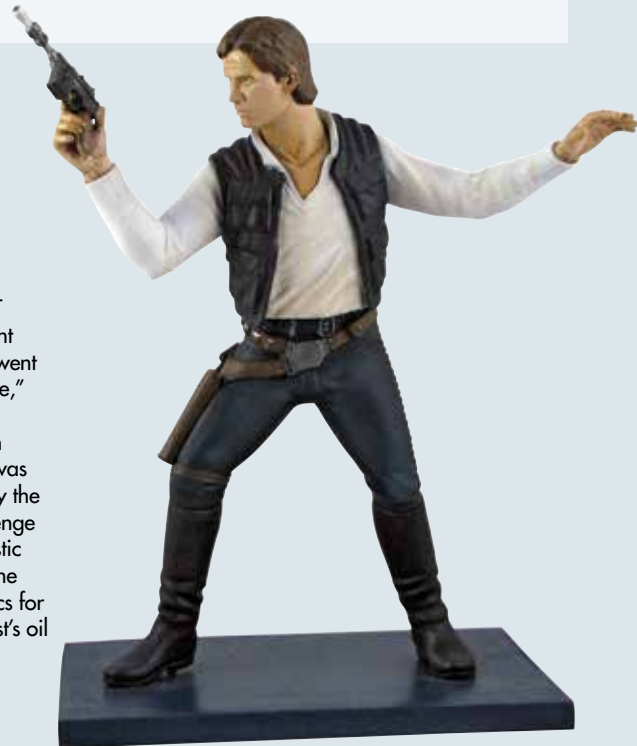


### ▲ MARC ROCCA (WING\_NUT) PISCATAWAY, NEW JERSEY

"Right around the time this group build was coming together, I had been searching the Internet for old horror films that scared me when I was a kid," Marc says. "This was one." While Moebius Models' 1/8 scale Creature from the Black Lagoon contains just a handful of parts, it does require a bit of filling and putty work. The toughest challenge Marc faced was replacing lost surface texture. "I made a very fine tip for a bottle of gap-filling super glue by heating and stretching a plastic pipette like sprue," he says. This way, Marc was able to make tiny dots, disguising the figure's seams. A black-and-white film fan, he chose a gray-scale paint job, base-coating with Tamiya neutral gray. Artist's oil washes and dry-brushing with enamels brought out the texture on the gill-man. The victim was first painted Tamiya flat white. Marc gradually added black to the white, airbrushing shades onto the female figure, working from light to dark. Additional shading on both figures was accomplished with various tones of finely ground gray pastels.

### ► STEPHEN STONER (NUCMEDTECH) TEMPLE, TEXAS

Stephen built the old AMT vinyl 12" Han Solo straight from the box. "The build went quickly and was enjoyable," he says. "I airbrushed the torso, legs, and arms with Model Master acrylics. I was very satisfied with the way the outfit came out. My challenge was trying to create realistic flesh tones and painting the face. I used Vallejo acrylics for a base and [applied] artist's oil washes."



### ◄ PHILIP MITCHELL (P MITCH) SMITHERS, BRITISH COLUMBIA, CANADA

Philip built Dragon's 1/9 scale Iron Man and finished with Alclad II candy red and gold. He lighted Shell-Head's repulsors and powered them with a 9-volt battery. "The main thing I had to remember was to make sure all of the connections were good because once the model was closed up, that was it," Philip says. And because it's not right to have a hero who isn't a little battered, Philip added some battle damage to the sweet hot-rod finish.





◀ **TERRY STAFFORD**  
(JIBBER)  
**TRENTON, MICHIGAN**

Originally designed by Dr. Morbius for household chores, Robby the Robot quickly became the hero of the 1956 science-fiction film "Forbidden Planet" and a pop-culture icon. Terry built Polar Lights' 1/12 scale Robby. "I shaved some plastic from the legs and applied Tamiya putty to correct some fit issues, but everything else went smoothly," he says. "I primed Robby with Army Painter red and airbrushed a thin base coat of Tamiya gunmetal acrylic for a deep violet hue. The clear parts were painted with Tamiya clear red and blue. For the base, I tried to get an 'alien world' look by airbrushing a mix of Tamiya dark yellow and flat earth acrylics as a base and dry-brushing with red brown."



▲ **CLIFTON YOUNG (GAMERA)**  
**ROCKY MOUNT, VIRGINIA**

"Star Trek: The Next Generation" was one of Clifton's favorite shows as a teen. So, when Geometric Designs released its 1/6 scale Capt. Jean-Luc Picard, he had to have it. "Picard collected dust in my stash for years until I decided to pull him out for Tim and Aaron's group build," Clifton says. He finished Picard with Acrylicos Vallejo and Testors Model Master acrylics, using a mixture of hand-painting and airbrushing.

◀ **TIM KIDWELL**  
**WAUKESHA, WISCONSIN**

"My goal was to paint a figure with an airbrush," Tim says. He chose Moebius Models' 1/6 scale Conan the Barbarian: Death on the Black Coast resin kit. The ship's deck is made from basswood with thick black string for the caulking between planks. "I scratchbuilt the treasure chest from birch plywood, basswood strips, styrene strips, and brass dollhouse hardware," he says. Tim custom-mixed the flesh tones for Conan and his recently deceased lady love, Bêlit, from Vallejo Model Color blue, red, yellow, green, and white paints. "I used a lot of Kneadatite 'Green Stuff' to sculpt new contours for Conan's hair and fur kilt. I also used it to hide the obvious joints between his lower and upper arms."



## Figure Gallery



▲ **JACK GERATIC (JGERATIC)**  
SOUTH PORCUPINE, ONTARIO, CANADA

When his initial choice for the Heroes & Villains Group Build faced delivery delays, Jack turned to his stash. In it he found a 1/12 scale Solarwind Productions figure and immediately thought it would be a good starting point to model Robert Howard's Red Sonja. "The most challenging aspect of the build was the sculpting," Jack says. "She needed gloves, more detail on her boots, and an 'armored' skirt." Originally, he intended to punch the discs for the skirt from sheet styrene, but remembered he had something else that would work just as well, if not better: contents from an ankle weight.

► **MARTIN BISHOP (BISH)**  
BURY ST. EDMUNDS,  
SUFFOLK, ENGLAND

This Screamin' 1/4 scale vinyl Darth Vader was Martin's first large-scale figure. "I chose him because I am a big 'Star Wars' fan and had wanted to build one of these figures for some time — and the Heroes & Villains Group Build was the perfect chance," he says. Martin achieved Darth's sinister black-on-black costume with Tamiya gloss and semi-gloss acrylics for the leather and armor bits, and flat for the cape and surcoat. He added a length of clear acrylic rod for the lightsaber and some chain for the cape. Inspired by a story in the July 2013 *FSM*, Martin made Darth's base from two pieces of wood and fashioned the Imperial crest from 6mm-thick MDF.



► **GREG BALE**  
(GREGBALE)  
TOWSON,  
MARYLAND

Greg relates that Revell's "Retro Classics" re-release of the old Aurora Superman kit has a badly redesigned head. "I'd had the kit sitting in the stash for a number of years (having built the original Aurora version with my dad as a kid), and pulled it out as a suitable 'old-school' entry for the group build," he says. He tried to restore normal proportions to the head, sanding off the "weirdly arched" eyebrows and adding new ones with Testors putty. He gave the Man of Steel a new coiffure with putty, too, lending a more realistic



shape to the head and rescribing the hair to finish it off. All flesh tones were painted with artist's oils over Testors Model Master acrylic white primer. The eyes are Archer decals. Greg hand-brushed the "S" on Superman's chest and finished the costume with Tamiya flat red (XF-7) and Model Master midship blue. "I'm pretty pleased with it, considering it was the first serious figure I'd done in decades. But, mainly, it was just great group-build fun," Greg says.





◀ **AARON SKINNER**  
**WAUKESHA, WISCONSIN**

"I've been a huge fan of Mega-City One's leading lawman since a high-school friend introduced me to 2000 AD in the '80s," says Aaron. That drove his decision to build Halcyon's 1/6 scale Judge Dredd, a vinyl kit he picked up at a London comic store in the mid-1990s. "I replaced poorly molded detail on the eagle and pauldron with styrene, and the chain with brass links," he says. "The gun is styrene rod and tube combined with kit details. I airbrushed base colors and major shading with Tamiya and Vallejo acrylics, then hand-brushed details and blended to highlight the kit's terrific pose." After drilling holes to pin the feet, Aaron sprayed the base black and dry-brushed the shield gold.

► **BILL COMSTOCK**  
**(GMORRISON)**  
**TIBURON, CALIFORNIA**

Attempting his first figure model larger than 1/35 scale, Bill settled on Dimensional Designs' 1/8 scale Capt. Nemo in a roundabout way. He says: "When the Heroes & Villains Group Build was announced, I was the technical consultant for a fashion show my daughter organized relating to early 20th-century architecture — in particular, Frank Lloyd Wright and Charles Mackintosh. So, we both spent a lot of time studying late Victorian-era technology. And because she's a fan of the *League of Extraordinary Gentlemen* graphic novels, and I'm a reader of fantasy fiction, I thought an older gentleman with a bizarre rifle would be the thing. Allan Quatermain will be my next figure. I settled on Nemo for this one." Bill used only the legs, torso, arms, and helmet from the kit, scratchbuilding all of the equipment and underwater rifle. He even wired the helmet for light!



▲ **BOBBY GIANINO (EAGLE90)**  
**ST. ALBANS, VERMONT**

AMT/Ertl's 'Star Trek' 12" Mr. Scott was Bobby's first figure build. "As a kid, I would come home from school and race to turn on 'Star Trek' to see how Mr. Scott would save the *Enterprise* from the overwhelming odds they faced," Bobby says. "He has always been my favorite 'Star Trek' character." Bobby used Tamiya acrylic primer and paints to finish Scotty. The kit had some fit issues around the waist, but, after some surgery on Mr. Scott's midsection, everything turned out fine. "I'd like to thank everyone in the group build for all their advice and help. This was my first figure model and will not be my last!" **FSM**

# Questions & Answers

## A clinic for your modeling problems

By Aaron Skinner

### Paint cross-reference

**Q** Do you maintain a paint color cross-reference or is there one available?

— Robert Caswell

Watertown, N.Y.

**A** FSM doesn't maintain a cross-reference for paint, but here's a site I use all the time: [www.paint4models.com](http://www.paint4models.com). It has both an interactive search function and the ability to download the entire chart.

**Got a modeling problem?** Our Questions & Answers column is here to help. E-mail [questions@finescale.com](mailto:questions@finescale.com), or visit [FineScale.com](http://FineScale.com) and click on "Contact Us." We are not able to conduct lengthy research, such as answering questions on markings and unit histories. We publish letters of general interest in the magazine; however, mail volume and space limitations prevent us from printing every question. Please include your name, town, state, and a daytime phone number.

### What is that putty?

**Q** In the video "Filling seams with putty" on [www.FineScale.com](http://www.FineScale.com), you mention a new product described as an acrylic filler. It's water- rather than solvent-based. I could not ascertain the manufacturer or the name of this product. Could you please enlighten me as to who makes this acrylic filler and what the name is?

— Robert Pierson

North Sioux City, S.D.

**A** The putty I showed in the video is Deluxe Materials Perfect Plastic Putty. It's distributed in the U.S. by Horizon Hobby and can be found at hobby stores.

Acrylicos Vallejo makes a similar product: Vallejo Plastic Putty. I haven't tried it, but I understand it works the same way.

### Thinning putty with acetone

**Q** I've never been able to fill and sand successfully. I bought a tube of Squadron white putty and a small bottle of acetone.

How much of each do I mix together to get a workable paste for filling? How can I tell if I have properly sanded the putty on my model? I'm using various grades of emery boards. What will the sanded putty look like when it's done?

— Jason Mitchell

Browns Mills, N.J.

**A** To thin Squadron putty with acetone, mix roughly equal amounts. Err on the side of more putty than acetone. Some advise 60 percent putty to 40 percent acetone.

I suggest squeezing putty onto a palette — a piece of glass works well — then adding acetone until you get the consistency you want. Most people brush it on when it is thinned. The other option is to apply it as it comes from the tube, then smooth over the seam with a cotton swab dipped in acetone to remove the excess.

The final appearance depends a little on the gap being filled. Ideally, you want putty in the gap only, so sand until plastic shows

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on either side of a clean putty line. But be careful and sand across the seam, rather than along it, to avoid removing putty from the seam.

To see a demonstration of putty being used to fill gaps, check out the video "Filling seams with putty," part of the FSM Basics series at [www.FineScale.com/Videos](http://www.FineScale.com/Videos).

### Removing chrome plating

**Q** How do you remove chrome plating from model parts like those found in motorcycle and car kits?

— *Alexis Viner*

*Brossard, Quebec, Canada*

**A** There are several ways to remove plating from parts. Some are quicker than others, and most are pretty caustic; wear gloves and eye protection during handling. Several produce harmful vapors, so use them in a well-ventilated space and wear breathing protection like a respirator.

Here's a list of the substances you can

soak the parts in that will remove the plating but should not affect the plastic (it's always a good idea to test them first):

- Household bleach
- Brake fluid
- Oven cleaner

Fill a container with enough of the fluid to cover the parts, then submerge them in the liquid. You should see the plating dissolve or slough off the surface pretty quickly. Once it's done, remove the parts — use gloves — and rinse them in cool water. Some of the substances will leave a shiny surface. That's a clear coat applied before the plating process. You can remove it with a paint stripper like PollyScale Easy Lift Off.

A safer alternative to strip chrome suggested on Starship Modeler ([www.starship-modeler.com](http://www.starship-modeler.com)) is Coca-Cola. It's not toxic and doesn't give off fumes (although it can make your hands sticky), but it takes several hours, rather than a few minutes.

Give these a whirl, but be sure you protect your hands and face.

### Help, I'm seeing spots in my clear

**Q** Recently, as I was finishing a Greyhound scout car, I sprayed clear flat over the model. It left white spots all over the surface. Can I fix it? How do I avoid this in the future? I've been modeling for more than 40 years and have never seen it before.

— *Ken Shields*

*Strathmore, Alberta, Canada*

**A** You didn't mention which kind of clear flat you used. Based on the information you supplied, I suspect one of three things:

First, the paint may have not been mixed completely and the dots are unmixed "pigment" landing on the surface. In clear flat, that would be specks of finely ground material that give the paint body.

Another possibility is moisture in the airbrush or supply line. It condenses under pressure and causes spotting on the model. On a clear coat, those spots can appear as white. This is usually related directly to hu-

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A45F

# Questions & Answers



Post-it notes make a quick, easy mask to prevent stray paint hitting the fuselage as Aaron primes the wing of a Bf 109.



Removing the Post-its reveals a clean surface free of any grit that results when stray paint lands on neighboring surfaces.



Once the paint is dry, Aaron masks the wing to paint the fuselage.

## Avoiding unnecessary roughness

**Q** I recently built Tamiya's 1/32 scale Spitfire Mk.IXc, and Cyber-hobby's 1/32 scale Bf 109E-7. Both times, I ran into the same problem and haven't figured out what went wrong. When I airbrushed along the wing root, the paint seemed to bead up, and become coarse. On the Spitfire in particular it was almost like sandpaper. I was able to dust a bit of it off with my hand. What happened?

— *Jared Demes, Hill Spring, Alberta, Canada*

**A** You've discovered one of the classic problems with airbrushing, and a wing root is one of the spots where it most commonly occurs. What happens is atomized paint gets caught up in vortices generated when the fast-moving air swirls in the tight

corner. The airborne paint dries while still in the air before finally settling on the surface as a hard spot. That causes the rough, sandpaper texture you described. It also explains why you could dust some of it away.

Physics being physics, there's no way to avoid creating the vortices. So, the thing to do is prevent paint hitting any surface you aren't actively painting. You can do this by masking the fuselage while painting the wing, and vice versa. It doesn't need to be fancy — something as simple as a piece of paper or Post-it note can prevent loose particles from settling. The only fix for the existing problem is to sand the paint. But you may need to respray the affected areas.

One more thing: This effect is more pronounced with acrylics because they dry faster. You can mitigate the problem by adding retarder to the paint.

midity and temperature; the conditions may have been just right on the day you sprayed to cause these problems.

The third possibility may be related to the brush itself. If there is some kind of occlusion at the nozzle that is preventing the paint from atomizing completely, you may be getting minute droplets being sprayed onto the model. Check to make sure the needle is not bent and the nozzle is not cracked, bent, or split.

If none of these seem like the cause, let me know and I'll puzzle it over some more.

The only way I can think to fix the problem is to lightly sand away the spots, then respray the clear flat.

## Lead-foil sources

**Q** I have read about modelers using lead foil for belts, straps, and harness. Where can you find this lead material?

— *John Thomas  
Pittsburgh, Pa.*

**A** Verlinden sells lead foil just for modelers.

An online search reveals it for sale from laboratory supply shops, but some are restricted as to whom they can sell it to. Another option is wine bottles; the foil is often used to seal corks.

## Tell us about FSM's reviewers

**Q** I'm curious about your kit-reviewing process. Do you have specialized modelers for kit genres (ships, armor, etc.)? Or is it a grab bag (what you get is what you build)? Are the models built in your workshop, or do the reviewers send you pictures?

— *Jeff Baldwin  
Jericho, Vt.*

**A** We use a group of modelers in the Milwaukee area, where the magazine's offices are located. All are builders with many years of experience, and most have won a few awards at local or national contests. Some are generalists, like me (I'll build almost anything), but others have genres or scales they prefer.

The reviewers work at home, not in our workshop. We collect the models during a monthly lunch at a local restaurant and photograph them in our studio.

## Making tape less tacky

**Q** A quick question: Masking tape, I find, gets rather sticky with time and can be troublesome to use. One solution, I've been told, is to rub the piece you intend to use against a surface to get some of its tackiness off before using it. Can you suggest something else, or is this the only option?

— *Shishir Phansalkar  
Bombay, Maharashtra, India*

**A** The easy way to reduce the tackiness of tape is to press the tape onto a smooth surface, like glass or a clean workbench, then peel it off. Repeating the process will make the tape a lot less sticky and less likely to pull up paint as it is removed. If the tape is very sticky, applying it to cloth (like denim or cotton), then removing it, will reduce the tackiness even more. **FSM**



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# Reader Tips

## Solutions and innovations

By Mark Hembree

### Do-it-yourself raised rivets

Here's a way I've found to model exposed rivets on World War I and early World War II armor:

1. Stretch sprue to the diameter of the scale rivet's shaft.
2. Drill holes where the rivets should go, just large enough to accept the stretched-sprue rivet shafts.
3. Cut the sprue long enough to go in the drilled hole, but leave a portion sticking out (probably a couple of millimeters, or  $\frac{1}{16}$ "- $\frac{1}{8}$ ", depending on the scale).
4. Insert the rivet shafts in the holes and glue them in place — liquid styrene cement (thin) should work well, but super glue works, too.
5. Take a mild heat source, like a burning incense stick or a hot knife, and pass it close to the exposed rivet shaft — but not too close.

This should soften, then melt, the shaft, forming a mushroom-shaped head that rests on the surface — and there is your rivet!

— Ned Barnett  
Las Vegas, Nev.



**Resin dust is an irritant you can do without — that is, if you wear a dust mask, eye protection, and gloves. You'll be glad you did.**

### If you're messin' with resin, suit up!

One big difference between resin and plastic kits is that while the plastic parts usually have a thin, easily cut connection to the sprue, resin parts often are attached to casting blocks (leftover resin poured into the mold) that can be thick and troublesome to remove. You may need to saw or sand away a lot of resin. The dust that generates is highly irritating — and removing large plugs can generate a *lot* of resin dust. So wear a dust mask, eye protection, and a pair of gloves. Take the same precautions cleaning up. You'll feel much better for it afterwards!

— Steven Andreano  
Merrick, N.Y.



### Paint clips aplenty!

I came across a bag of copper clips at Radio Shack (No. 270-373) and realized they would make great clips to hold small parts for painting. They also make great miniature clamps for gluing, positioning, and other detail work. You can easily bend the tips of the clip to conform to odd profiles.

I solder these clips onto long copper stems to keep the part away from my hand and give more maneuverability during spray painting. You can pull the copper stems from household wiring; if you don't already have some on hand, you can buy it by the foot at a hardware store or at a home-improvement center.

I cut 9"-long pieces and strip off the insulation, which yields three segments of bare copper wire.

I apply flux to the crimp end of the copper clip and the end of a copper wire, then solder them together. Once you're set up, you can make a dozen of these in no time.

After painting, you can stick the copper stem in a plastic foam block, piece of clay, or on a modeling turntable to let the part dry.

When the clips get full of paint, soak them in thinner to clean them or just throw them away.

— Bob Davidovitch, Corinth, Miss.

### Pinholes, not drill holes

To make small holes in plastic to hold the very end of guy wires or rigging, I prefer to heat a straight pin, push it through the plastic, then twist it to remove it. Makes a nice, small hole with no ragged edge.

— Paul Gilday  
Southport, Fla.

### Coins can be valuable shims

To keep airplane wings symmetrical while the glue dries, use a flat, level surface, and set equal amounts of the same denomination of coins under each wing. You can raise or lower both sides by an equal amount. You'll still need to support the tail or nose so the wings are at the right angle of attack,





Here's a tip that could gain currency: A flat surface and two equal rolls of coins can help you set the wings evenly while the glue dries.

and be sure that the model will remain level. After gluing, let everything rest that way for 24 hours for a strong bond.

— Jose Sanchez

Angono, Rizal, Philippines

### Magnetic paint-cup holder

I glue hobby magnets to the bottom of my airbrush paint cups. Then I glue a large



Glue a magnet to the bottom of an airbrush cup and a metal washer to your paint area and you have a paint-cup stand — without the stand!

washer to the bottom of my paint booth. It works great for holding up the paint cups. Some magnets will even hold up the whole airbrush.

— Dennis Rossko

Carrollton, Texas

### Modeling with recycled materials

Because recycling is so important, here are

### Would you like to share an idea about a tool or technique?

Send a brief description along with a photograph or sketch to "Reader Tips." E-mail tips@finescale.com or visit FineScale.com and click on "Contact Us." Tips are paid for upon publication; if you live in the U.S., we'll need your Social Security number to pay you. FSM obtains all publication rights (including electronic rights) to the text and images upon payment.

a few reusable ideas:

- Baby-food jars as brush-cleaning bottles for painting
- 2-liter bottles for airbrush practice surfaces
- Food-storage containers that come with deli meats for all kinds of storage
- Foam trays are great as parts organizers
- Contact-lens solution bottles make good squirt bottles for airbrush uses

— Branson Langley

Staley, N.C.

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### COMING EVENTS

**CA, BUENA PARK:** Kit Collectors Exposition & Sale, UFCW Hall, 8550 Stanton Ave. Sunday, November 9, 2014, 9:00am-3:00pm. Admission \$5.00, under 12 free w/adult. Thousands of rare, hard-to-find model kits and collectibles! Door prizes, snack bar. free parking. Information: Edie Keller, 714-826-5218, PO Box 38, Stanton, CA 90680, kitcollectorshow@yahoo.com Facebook at Buena-Park-Model-Kit-Collectors-Expo BS Twitter @Kitcollectors

**IL, SCHAUMBURG:** The Military Miniature Society of Illinois holds its 40th Annual Chicago Show at the Hyatt Regency, 1800 E. Golf Road. Saturday, October 11, 2014, 9:00am-4:00pm. For more information contact Show Chairmen John Van Der Meulen (JVanDerMeulen1@aol.com 847-918-8456) or Pat Vess (pat@livezey.net 630-730-2492) or website www.mmsichicago.com

**LA, LAFAYETTE:** IPMS/Cajun Plastic Modelers' GatorCon 2014 Model Show and Contest. Lafayette Event Center, 607 Johnston Street. Saturday, November 1, 2014, 9:00am-4:30pm. Theme: Fifty Shades of Gray. Admission: \$10.00, unlimited models, General Admission: \$2.00, vendor tables: \$15.00. Vendors, raffle, how-to's, make-n-take. Contact Kaliste Saloom 337-962-5836, kaliste@aol.com Website: www.cajunmodelers.com

**MD, BALTIMORE:** Maraudercon 2014 presented by IPMS Baltimore and Washington, DC. Hilton Garden Inn - Whitmarsh, 5015 Campbell Blvd. Saturday, November 15, 2014, 9:00am-5:00pm. Contest: 69 categories; Registration \$15.00; Under 12 and spouses/children of entrants free; Walk-ins \$8.00; Vendor tables \$35.00 each. Prizes; Raffle; See www.maraudercon.org; E-mail maltizer1@verizon.net, 410-682-4939 or garymichel13@yahoo.com, 301-922-5308.

**NY, POUGHKEEPSIE:** HVHMG 2014, Celebrating 28 years, Elks Club Lodge, Overlook Rd. October 18, 2014. Sponsored by IPMS Mid-Hudson. Registration 9:00am-noon. More information at: www.HVHMG.com or contact John Gallagher at: 845-462-4740 or ggallagherjoh@optonline.net

**TN, MURFREESBORO:** IPMS Middle Tennessee Modelers Annual Model Show and Contest. Rutherford County Agricultural Center, 315 John Rice Blvd. Saturday, Theme: 50th Anniversary of the Mustang and 100th Anniversary of the Great War. November 15, 2014. \$2.00 admission and vendor room. Website www.ipmsmiddletennessee.com for more information. Contact Walter Bowen 615-429-5191, bowen723@juno.com

**CANADA, AJAX, ONTARIO:** Ajax 34 Model Contest. J. Clarke Richardson Collegiate, 1355 Harwood Ave. N. Saturday, October 25, 2014 10:00am-4:00pm. Admission: \$5.00, Model entry \$2.00 to max \$15.00 (no limit on models). Sponsored by IPMS Toronto, IPMS De Havilland & Peel Scale Modelers. Contact: Bernie Hengst: 705-878-1740 or berniehengst@xplornet.ca Visit: info@ajaxscalemodelcontest.com

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## Workbench Reviews

FSM evaluations of new kits on the market



## Up-to-date Bradley with all the extras

In 1967, the Soviet Union introduced a new class of military vehicle — the Infantry Fighting Vehicle (IFV) — when it displayed the BMP-1. Not just a troop carrier, the BMP was armed with a turret and sophisticated weaponry. The U.S. responded with the M2 Bradley IFV, developed in the 1970s, with production starting in 1981.

Since then, the Bradley has undergone extensive upgrades: Besides the addition of explosive reactive armor (ERA) to the turret and hull, the Bradley Urban Survival Kit (BUSK) was often fitted to M2s fighting in Iraq and Afghanistan.

While there have been several fine Bradley kits over the years, Meng has released a superb kit of the M2A3 with BUSK III. It features not only excellent exterior details but a complete interior as

well. Interior parts are molded in green plastic; the engine parts are dark gray and the hull is tan. The hull and turret have a delicate antiskid texture molded in place. Three small photoetched frets hold screens for the hull and air conditioners, brackets for the turret ERA blocks, and a mask for the road wheels and track pads. Three clear sprues (one tinted green) provide all of the periscopes, light lenses, and glass for the commander's turret. Decals are provided for three vehicles, as well as lots of stencils and placards. The large instruction booklet features clear assembly diagrams, and extensive detail-painting instructions are provided, but only Vallejo paints are referenced in the instructions.

Building the Bradley starts with running gear that features an actual working torsion-bar suspension. To allow the suspen-

sion to flex, the shock absorbers are made of small metal tubes. You should note that the inner shock part (A17) only fits on the suspension arm one way. If yours doesn't want to snap onto the arm's pin, try turning it around. The suspension works well, but I found it very delicate; I broke a couple of torsion bars while handling the model, requiring that I glue those arms in place. I left off the running gear until painting was complete.

I assembled as much of the interior as I could and still paint it, using a lightened Tamiya cockpit green inside. When going back to add the parts that were painted separately, make sure you follow the instruction steps. I had a hard time installing the fire extinguishers (parts M24 and P32) because I added the turret bulkhead first instead of following the instructions.





Nonetheless, I was impressed with how well everything fit inside.

Before gluing the top half of the hull in place, I added all of the exterior details so I could paint the outside with a 1:1 mix of Tamiya buff and wood deck tan and still easily mask the openings in the hull to protect the interior paint. Before adding the rear plate to the lower hull, I attached all the exterior parts so I could fill the location holes and ejector-pin marks on their inside faces (because they are visible through the open top hatch). There seemed to be a slight warp in my upper hull (even before adding the exterior detail), which required clamping when I glued the upper and lower hull halves together.



All of the hatches open to reveal the Bradley's interior. This is the driver's position.

The individual-link tracks are some of the nicest I've seen. They only require a bit of cleanup where they were removed from the sprue, and they have no sink or ejector-pin marks. They snap securely together; while there are about 20 extra links provided, I didn't need to use any of them. Meng suggests 80 links per side, which is a little loose, but when I went to 79 the tracks would pull up the front and rear road wheels. So, I stuck to 80 links per side.

Once the tracks were in place, I added the side skirts. Remove ejector-pin stubs from the insides of the side skirts (parts C7 and C8) so they fit snugly to the hull.

While the turret is a complex assembly, it goes together smoothly according to instructions. The TOW missile launcher can be put in either the stowed or deployed position. I left off the commander's protection system until final assembly so I didn't have to mask the glass.

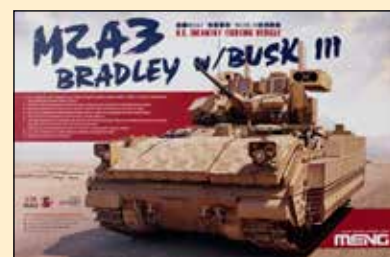
You are given a choice of filled or empty ammo storage bins for the back of the turret basket, as well as smoke-grenade launchers that can be empty, loaded with no caps, or capped. While the kit's hinged hatches work well, they are so delicate that I broke several while handling the model during painting and final assembly. So, I had to glue the hatches in place. But because I wanted to show off the interior as much as I could, I built it with all hatches open.

I spent about 43 hours on my Bradley. There is a great deal of detail to it, and photo references indicate even more is pos-

sible. I couldn't find any dimensional data on a Bradley fitted like the kit with all its side armor, air-conditioners, and turret antennas, but the measurements that I could make matched other published sources well.

This kit is clearly aimed at the experienced modeler. Already, Meng has announced an M3A3 version (with interior to be sold separately). I hope Meng has a whole family of Bradleys on the horizon.

— John Plzak



**Kit:** No. SS-004 **Scale:** 1/35

**Manufacturer:** Meng,

www.meng-model.com **Price:** \$99.99

**Comments:** Injection-molded, 903 parts (35 photoetched metal, 8 vinyl), decals

**Pros:** Full interior, including engine bay and turret; click-together individual-link tracks; working suspension; excellent photoetched metal; tinted glass for commander's hatch; clear lenses for lights

**Cons:** Suspension and hatch hinges delicate; color callouts for Acrylicos Vallejo paints only



### Airfix C-47 Skytrain

Airfix's resurrection continues with a brand-new kit of the venerable "Dak" (short for the British nickname "Dakota"). Interestingly, Airfix's original mold of the C-47 was retired years ago; recent Airfix releases have been repackaged Italeri kits! But this kit has no relation to earlier kits – it's all-new tooling.

Molded in Airfix's now-standard soft (but not rubbery) light gray plastic, the moldings include good interior detailing for the flight deck and cabin. You even get both lowered and folded troop seats. The main cargo door is molded in three pieces and can be posed open. Alternate parts include narrow-blade props, small intake

scoops for the top of the nacelles, and a jeep ramp; these are not mentioned in the instructions but will be in future issues of the kit. This kit has a set of skis for the landing gear to go along with markings provided on the decal sheet for a postwar Arctic-service machine.

I like Airfix's new instructions. They clearly show each assembly step including only a few parts. Then, in the next step, they highlight (in red shading) the final position of the previous step's parts. This helps you confirm that you have the installations right.

The fit of the parts was excellent overall, even though I had my doubts about the separate wing fillets. No problems, and I didn't need filler anywhere.

The cockpit detail is great, even including what may be a galley behind the cockpit. But, truth is, you won't see any of it, even with the little forward crew door open. It took only an hour to assemble, paint, and install the interior and close the fuselage halves.

Airfix includes two pilot figures that I will save for other projects.

The rudder and elevators are separate and can be installed offset if you like. But be careful installing them; the hinge tabs won't take much strain.

Watch out assembling the forward engine nacelles; the firewalls look the same and will fit into either front, but the little notch in the firewall fits onto a tab on the rear nacelles (molded on the wing's upper surfaces). If you get them mixed up, your cowls will be out of kilter. Yes, I screwed up mine and had to chop off the tabs to make 'em right.

The main landing-gear strut assemblies are impressive, and you get alternate parts if you want to show the gear retracted. Each main bogie has seven parts, plus the wheel/tire halves. They are fiddly, but once installed have adequate strength to support the model. The tires are "flattened"; if you want to have the gear retracted, roll the flat side inside the well. The props, antennas, and pitot tubes are beautifully molded.

The skis are neat, but they hold onto the gear struts only at the axles. I would also have liked a more positive method of mounting the cargo doors open. As it is, you have to glue the faces of the hinge covers to each other without the benefit of pins and holes.

I liked adding the windows after painting. The cabin windows fit fine, but I had to carefully sand the edges of the cockpit window inserts and windscreen to get them to sit right. If you're not careful, the cockpit windows could fall inside as you install them, so proceed with caution.

I painted the model with black primer and Alclad II aluminum, then masked and painted the Arctic markings with Testors guards red. The decals, printed with silver surrounds on the national insignias, went on perfectly. (The box says they are Cartograf decals, but there's no label on the sheet.) Alternate markings are for a D-Day Skytrain, *Kilroy Is Here*.

Another great kit from the "new" Airfix. I spent 23 hours on mine. It is clearly the best C-47 kit in the scale now, and offers plenty of possibilities for different versions of military transports and Douglas DC-3 airliners.

— Paul Boyer



**Kit:** No. A08014 **Scale:** 1/72

**Manufacturer:** Airfix, 44-1428-701191, [www.airfix.com](http://www.airfix.com) **Price:** \$39.99

**Comments:** Injection-molded, 174 parts, decals **Pros:** Good detail inside and out; great fit; alternate ski landing gear, folded troop seats, retracted landing gear, and separate rudder and elevators; excellent instructions and decals **Cons:** No parts map on instructions; landing gear is fiddly; much of the interior detail is invisible on finished model; no positive attachment for open cargo doors



# Moebius Cylon Raider

Moebius Models thrilled science-fiction fans when it released 1/32 scale Viper and Cylon Raider kits for the rebooted, gritty *Battlestar Galactica* on Syfy. Some of us hoped Moebius would somehow snag the license to release the original-series ships in constant scale. Guess what — it has!

The care that Frank Winspur and the Moebius crew took researching the Raider is apparent, from capturing the correct shape and proportions all the way down to the greeblies that were borrowed from other kits, such as tank tracks and gun barrels, to build the filming miniature.

For the first time in years, I felt like a kid while building a model. And it felt magnificent! Modeling the Raider was pure enjoyment, and I used Testors plastic cement in a tube in abundance. That isn't to say that there wasn't modeling work to be done.

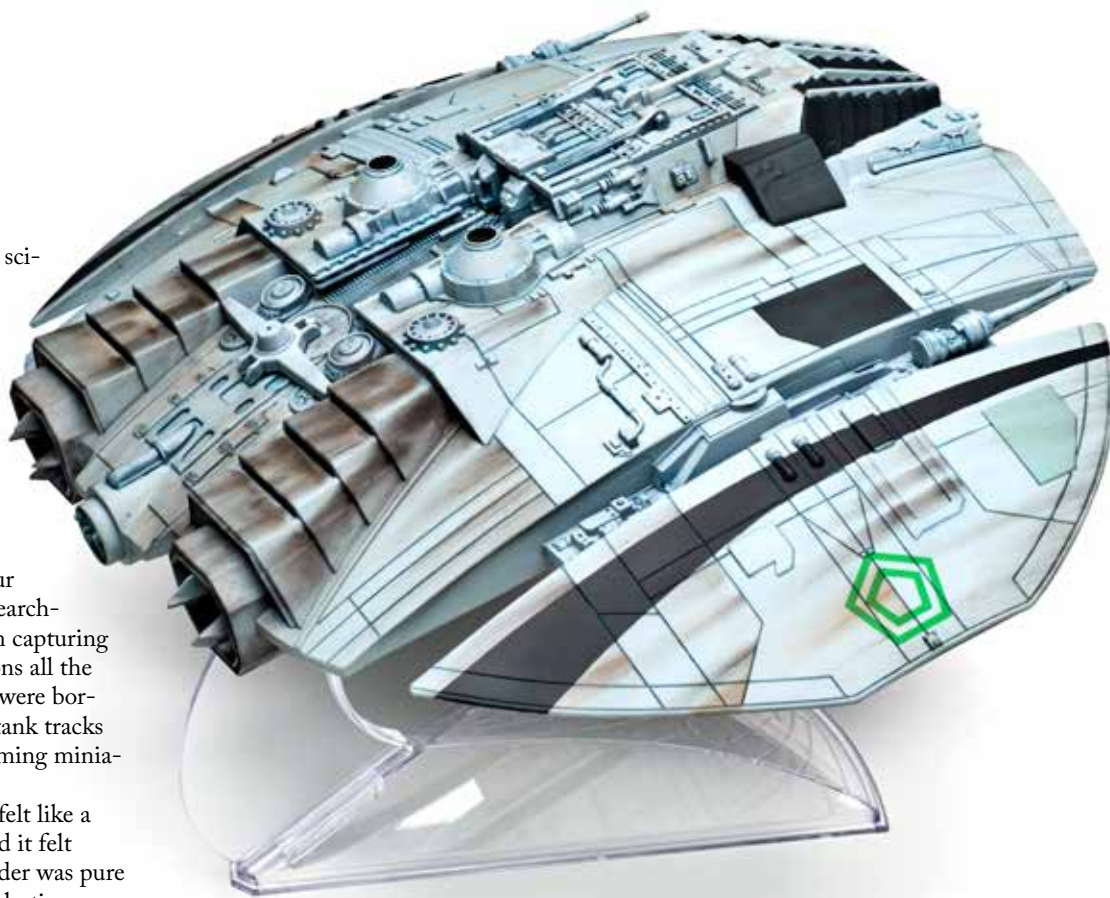
There are four major steps to putting the spaceship together: the engines, main body, wings, and stand.

Molded in soft, beige plastic, the parts trees are thick, and the parts themselves are beefy, with deep panel lines and a lot of surface detail.

I began with the engines, cleaning some ejector-pin marks on the exhaust cones (parts No. 21) and mold lines on the exhaust vanes (parts 22 and 23). The engine back plates are clear, anticipating modelers who will want to add lighting. To get the vanes to fit, I widened the alignment notches with a hobby knife.

There are a couple of sink marks on the lower main body (Part 2), but nothing a little putty won't fix. To get the engines to seat correctly, I opened up the connection points on the lower hull with a file.

I expanded the engine-intake-bulkhead attachment slots on the intake roofs (parts 17 and 19) before gluing them in place — and was glad that I did. When attaching the upper and lower hull halves, because of their size, complex shape, and multiple attachment points (14 in all, not counting the joining seam itself), everything has to fit all at once. Thick plastic cement and clamps were the answer.



Despite my best efforts, everything didn't fit as it should. The port intake roof went askew on the intake bulkhead, leaving a gap. I recommend attaching the intake bulkheads first, then gluing the intake roofs atop the bulkheads before assembling the hull. That should take care of fiddly fit issues there. I fixed the gap with a wedge of .030" sheet styrene.

Adding the upper hull fittings was a blast and went quickly. The engine fairings (parts 13, 14) needed some minor cleanup. Eliminate the ridge in front of the fairings' rear locator to allow the part to sit flush.

Make sure to apply plenty of glue to the amidships-housing (Part 11) locator pegs to help grease the way. I had to pry the part up, reapply glue and push it back into place. Set it aside and put a heavy book on it. Even so, you'll still probably have to fill a seam along the upper hull after it's dry.

The wings aren't hard to locate or clamp, but keeping them flush is another story. I held mine in place by hand using a combination of Tamiya liquid cement and Testors tube glue. Even so, I had to add some sheet styrene to fill a couple of gaps. I hollowed the tips of the gun barrels with a hobby knife.

I base-coated with Vallejo gray primer (74.601), pre-shaded with black (73.602), and airbrushed pale gray blue (70.907) over

the lot. Vallejo Model Wash blue gray (76.524) picked out the panel lines and surface details. I made masks for the wing stripes out of Tamiya tape using the pattern from the instructions. Black (3001) and track rust (3008) pigments from Ammo of Mig Jimenez gave the Raider just the battleworn appearance I desired. Finished in a little more than 15 hours, I'm ready to build another!

— Tim Kidwell



**Kit:** No. 941 **Scale:** 1/32

**Manufacturer:** Moebius Models, [www.moebiusmodels.com](http://www.moebiusmodels.com) **Price:** \$59.99

**Comments:** Injection-molded, 50 parts, decals **Pros:** Nice decals; plenty of detail; templates for wing stripes **Cons:** Soft plastic; lots of clamping; big seams need filling



### AFV Club M24 Chaffee

Around the world, the M24 was a workhorse from the end of World War II through the Vietnam War. This AFV Club release is a Korean War version. The kit has posable hatches, a metal barrel with a recoil feature, and vinyl one-piece tracks with metal pins. Markings are supplied for four vehicles.

The build starts with the torsion bars and suspension pieces. I found that the swing arms (parts B4 and B3) need to be switched or the arms move in the wrong direction. I checked the ride height with a ruler to keep the swing arms in line. For the track tensioner, I did not glue Part B9 in place until I had all the running gear finished. I placed the completed tracks over the running gear, then glued B9 for the right amount of tension.

Building the upper hull presented no fit problems. I did have trouble with the hull gun assembly not calling out the part numbers; it just shows the assembly going into the hull. I made the subassembly up from parts E1, E2, E3, and C43, and installed it after painting.

I glued the fenders in place and added the photoetched-metal supports after the glue dried. I painted the tools olive drab, which was customary. Omit Step 19, building the folding storage shelf: You will need

to add Part I8. The instructions incorrectly refer to it as N1.

The main armament has an added spring so the cannon can recoil. I found this feature complicates the build with no added benefit. There is a complete breech assembly. For the turret roof, you must choose which version to build and make the changes. I chose the tiger-faced tank. So, the .50-caliber machine gun is mounted forward of the commander's hatch.

To do the paint scheme, I photocopied the decals, then cut the ones with the red pinstripe and used those as a template on masking tape. (I left off the headlights and machine gun to make the masking easier.) I painted the yellow first, then tire black using the templates I had made from the decals. I tackled the turret in the same fashion, painting the yellow first, masking, then painting the turret olive drab. I painted the rest of the model with Gunze Sangyo olive drab, yellow, and tire black.

I cut most of the clear film away from the decals to help them settle down. I also used Mr. Mark Softer to get them to conform to the surfaces more easily. Finally, I weathered the model with Tamiya pastels and a dark brown wash.

My reference book, *Tanks Illustrated No. 14: Tank War Korea*, by Simon Dunstan

(Arms & Armour, ISBN 978-0-85368-682-8), provided pictures of the tiger-face tank.

It took me 40 hours to finish this model. Given the issues with parts identification, I can only recommend it to those with enough armor-building experience to work independent of the instructions.

— Tom Foti



**Kit:** No. 35209 **Scale:** 1/35

**Manufacturer:** AFV Club,  
www.afvclub.com.tw **Price:** \$65

**Comments:** Injection-molded, 493 parts, (46 photoetched metal, 2 vinyl, 4 brass tubes, 1 spring, metal barrel, string), decals **Pros:** Well detailed; good fits

**Cons:** Instruction errors; complicated recoiling barrel; no masks for "tiger face"





## ICM Dornier Do 215B-4

The Do 215B-4, a variation of the Dornier-built Do 17 “Flying Pencil,” was equipped with 1,159-horsepower Daimler-Benz DB 601Ba engines that produced superior performance compared with previous models. Maximum speed was 292 mph at 13,123 feet. The B-4 variant became the Dornier standard as 105 were produced from 1939-1941.

The kit comes in a large, bright blue, top-opening box with artwork depicting one of the planes for which decals are included. The box sides have profiles of the same aircraft. Gray and clear sprues are bagged separately. In addition to the 20-page instruction booklet, a brief history of the type is displayed on the box cover flap. The bottom of the box has nine black-and-white photos of model details.

The highly detailed instruction booklet

includes aircraft specifications, a paint-color chart, symbol keys in Ukrainian and English, and a parts map.

Assembly is sequenced in 93 steps with detailed, thorough drawings. Subassemblies are marked by step number. The last three pages of the booklet show four-view drawings of colors and markings. The only thing I was unable to locate on the drawings was the anchor location for the secondary antenna wire atop the fuselage.

The build begins with the cockpit. The first part installed, Part C41, is the cockpit floor frame, mounted in the left fuselage half. When properly located, this part extends aft into the ventral gun position. The instructions’ cautionary notes at this point should bring pause to those of who “don’t need no stinkin’ instructions” to make sure parts such as this are positioned properly. Everything fits as intended with no extra work required.

The build continues briskly until it is time to install the six MG 15 *Flugzeugmaschinengewehr* (machine guns). Four guns have ports in the canopy; one has a port in the nose; and one goes into the ventral gun position just forward of the bomb bay. All six of these fragile gun barrels were broken in my kit. I cut off the barrel stubs, drilled the receivers with a barrel-sized drill, and glued in new barrels made from stretched sprue. I salvaged sights from the broken parts.

After masking, I painted from my private stash of AeroMaster Warbird Colors (out of production), using RLM 70, 71, 65, and 02. Testors Model Master gloss clear lacquer prepped surfaces for decals, and Model Master semigloss clear lacquer was

the finish. I sprayed the tires with Floquil grimy black.

German firearms of World War II were not the same color as American guns; they were black with just a hint of dark blue. My local hobby shop recommended that I try Model Master gunmetal (No. 1795). It’s a little glossy, but that’s easily toned down with a semigloss clear. This color looks correct for those German blued barrels.

Decals provide for four aircraft: a Do 215B-4, 4./Aufkl. Gr.Ob.d.L., France, August 1940; a Do 215B-4, 1./Aufkl. Gr.Ob.d.L., Luonetjarvi, Finland, July 1941; a Do 215B-4, 3./Aufkl. Gr.Ob.d.L., Ukraine, August 1941; and a Do 215B-4, 1./1 Long-range Recce Squadron of the royal Hungarian air force, Ukraine, August 1942.

I selected markings for the first, and the worst part of this project began. The decal images are very thin and fragile — even after thorough soaking in warm water, many of them shattered when I attempted to slide them from their backing. For these decals, I recommend starting with a coat of Microscale Liquid Decal Film. Neither Micro Sol nor Walther’s Solvaset improved the decals’ performance.

Still, ICM has done a super job of engineering this kit. My old-school wooden ruler shows the model is close to scale. Working with the decals and the guns cost me a lot of time — well past 50 hours — but I am so impressed with this kit that I have already purchased a second and will do it as Dornier Do 215B-4, 1./Aufkl. Gr. Ob.d.L., Luonetjarvi, Finland, July 1941 — the one with the yellow fuselage band.

— Allan F. Jones



**Kit:** No. 48241 **Scale:** 1/48

**Manufacturer:** ICM, [www.icm.com.ua](http://www.icm.com.ua)

**Price:** \$59.99 **Comments:** Injection-molded, 238 parts, decals **Pros:** Excellent engineering, molding, parts fit, and clear parts **Cons:** Thin, fragile decals; six fragile MG 15 barrels broken in the box



### Hasegawa F-35A Lightning II

Having previously reviewed the Academy 1/72 F-35A, I jumped at the chance to review Hasegawa's release. I wanted to compare how each approached the peculiarities of the real aircraft. A straightforward build and comparison should be relatively simple, right? Not quite, it turns out.

Hasegawa's release is the latest 1/72 scale Lightning II on the market, after the Italeri and Academy kits. With detail typical of Hasegawa's recent models, the kit features exquisite, recessed surface detail molded in light gray plastic, decal options for two U.S. Air Force test aircraft, a nicely

detailed pilot figure, and a movable stand. Instructions, offered in Hasegawa's standard exploded views, take you through eight steps and provide a decal and painting guide (referring to Gunze Sangyo paints only).

Since the kit has relatively few parts, construction is a snap. Fit and engineering are excellent, particularly regarding the landing gear and intake trunks. I used only a touch of filler throughout construction. Since the weapon bays come closed, there are no weapons in the kit. This made it quicker to build than the Academy kit, but at the price of internal detail and no external stores. On the other hand, Hasegawa provides an optional tinted canopy and clear wing navigation lights.

A significant difference between the two kits is the execution of the light gray outlines for many of the aircraft's panels.

Academy has you mask and paint them, while Hasegawa provides them as decals. Additionally, these areas on the former kit are elevated, while in the latter, they are recessed. Elevated detail is better for masking and painting, while the recessed detail is better for applying decals. You still have to mask and paint the trailing edges of the flying surfaces and some panels on Hasegawa's F-35A — but none of the intricate zigzags. I sprayed the Federal Standard 36270 panels with the recommended Gunze Sangyo gray (H306) and the darker body color with Tamiya neutral gray (XF-53). As with my Academy build, the contrast between the two colors didn't

appear as pronounced as I had seen in pictures. To compensate, I added 1 part Tamiya dark gray (XF-24) to 4 parts neutral gray and repainted.

Given the number of decals, I made sure I had several smooth gloss coats as a base. I was rewarded with decals that settled nicely into the recessed panel lines and over compound curves. Their color, however, was a shade more blue than Gunze Sangyo's H306. It took me approximately five hours to mask, paint the relevant panels, and apply the decals — less than half the time I spent masking and painting the Academy kit.

One more note on the decals: As seen on the actual aircraft, you get a "det cord" decal for inside the canopy. I recommend you cut the vertical sections in half so they can more easily follow the inner surface of the canopy.

The finished model looks great and was a joy to build. I spent a bit more than 27 hours on it, and beginners should have no trouble with it.

As for the comparison, it comes down to a matter of personal choice. The kits' prices are pretty close to each other. If you want open weapon bays and lots of weapons, the Academy release has the edge. Hasegawa's appeal is in the more-realistic surface detail and the decal panel lines. We are fortunate to have those choices.

Hasegawa has also released the prototype F-35, so I hope the F-35C isn't far behind.

— Phil Pignataro



**Kit:** No. E42 **Scale:** 1/72

**Manufacturer:** Hasegawa,  
www.hasegawa-model.co.jp

**Price:** \$37.99 **Comments:** Injection-molded, 97 parts, decals **Pros:** Great decals including the intricate panel lines; option of clear or tinted canopy and navigation lights; pilot figure; stand included **Cons:** Sparse detail in cockpit and wheel wells





## Kinetic Magister CM.170

The Fouga Magister is a French-developed primary jet trainer that first flew in 1952 and was built in France until 1962 (a licensed operation in Finland continued until 1967). The aircraft was a popular choice for aerobatic teams, but also was used in combat by Israel, El Salvador, and Katanga.

Kinetic's new Magister double kit is the first mainstream 1/48 scale model of this well-known jet. The kit is molded in gray plastic; main parts are clean and flash-free, but many of the small parts have minor flash. Options provide choices for the canopy, nose guns, wing racks, rockets, separate control surfaces, and photoetched-metal detail.

After checking the instructions, which seemed a bit simplistic, I started construction with the nose gear and cockpit interior. The nose gear assembly is a bit tricky, with four separate parts forming a triangle. This is then attached to the nose-wheel bulkhead. Be careful of alignment, as it will affect the attachment of the wheel fork.

After installing the cockpit tub to a fuselage side and joining the fuselage halves, I checked the fit of the canopy and found the fuselage had been pushed out by the cockpit tub. This resulted in the canopy being too narrow at its midpoint; on the second plane, I narrowed the cockpit tub by filling and sanding. This helped, but it wasn't perfect. I had test-fitted the fuselage and canopy without the cockpit in place at the start of construction and saw no issues, so I have to conclude that the cockpit tub needs a major rework to make it fit properly.

The aft cockpit deck has no positive attachment point; without some help, it will just drop inside the fuselage. I laid a sheet-styrene shelf across the cockpit opening aft of the back seat bulkhead.

On the Israeli version, I used the nose-gun parts — nose panels with gun ports and the gun barrels. When I found the gun barrel had no positive attachment point, I had to carefully trap it in place as I installed the gun-bay cover. The guns are given in a staggered configuration, but photos show barrels of the same length. Check your references if you're taking this option.

The engine intake fit is poor. I needed a fair amount of filler to close up the gaps.

The main wing assembled easily. Flaps and ailerons are separate. The flaps (B1/2 and B9/10) have optional mounting pegs for up or down positions — and this is where I started running into mistakes and omissions in the instructions. The drawings actually show mounting the flaps with both pegs in place! Optional parts are provided for the ailerons, but the instructions are not very clear about those either.

When I got to assembling and installing the V-shaped tail planes, the poor instructions struck again! There is no parts callout for the three-piece assemblies; the instructions just show the assembled part placement. But don't worry — it is easy to figure out which parts to use.

The transparent parts are well molded and very clear. The kit provides a full-length closed canopy as well as a five-piece option for open canopies. Optional parts are given for a metal-covered rear canopy section.

Be sure to add weight to the nose to prevent the plane from being a tail-sitter.

I painted the two kits with both Tamiya spray and acrylic paints.

Decals by Cartograf are provided for five aircraft. They applied well with a touch of decal solution. The two sets of aerobatic markings are colorful and well done.

I completed my two Magisters in 30 hours, and the finished models look neat. On the downside, more effort than I anticipated was required to overcome the inconsistent molding, poor fits, and poor instructions. Consequently, I would recommend this kit to experienced modelers only.

— Jim Zeske



**Kit:** No. 48051 **Scale:** 1/48

**Manufacturer:** Kinetic,  
www.kineticmodel.com **Price:** \$50

**Comments:** Two aircraft; injection-molded, 338 parts (24 photoetched), decals **Pros:** Excellent clear parts; interesting selection of markings **Cons:** Poorly drawn, incorrect instructions; poor fit; flash on smaller parts



## AMK L-29 Delfin

A new 1/48 scale jet kit manufacturer on the modeling scene is AvantGarde Model Kits (AMK) of China. Having been fortunate enough to see several Aero L-29 Delfins fly at Oshkosh AirVenture in recent years, and having an interest in Soviet/Warsaw Pact-era aircraft, I was keen to see AMK's kit.

In the box there are 113 finely produced, flash-free injection-molded plastic parts, with nine of these being clear parts for the canopies, gunsight, and wingtip navigation lights. Also included are 27 photoetched-brass pieces for items such as interior wing ribs in the open flap bays, air-brake attachment arms, and ventral access panels. The brass fuselage panels were a little thick and were tough to form to the diameter of the fuselage, even after annealing over a candle flame. On my next model, I will scribe

these panels. Interestingly, there are no seat harnesses included.

Cockpit construction is straightforward with no nasty surprises. Detail is accurate, clean, and crisply molded. The only let-down would be the seats. They are well molded but a little simplified. And, as stated earlier, there are no seat belts. (Quickboost has already issued a fabulous set of resin seats for this kit that includes molded-in harnesses.) I used the kit-supplied decals for the instrument panels and was quite happy with the result; several applications of Micro Sol setting solution settled them around the molded detail.

The kit's options include open or closed canopy and speed brakes and raised or lowered flaps. The nose battery compartment can also be shown open, as I have done. My only complaint would be with the mounting of the main canopy: There are no positive alignment/attachment points, and it can be tricky to get it placed correctly. Overall, the fit is fine, though, with little need for filler and no guesswork thanks to the clear, concise instructions. I especially liked how the engine air intakes were constructed. Brilliant! Detail throughout is well executed — sharp and perfectly defined, and responding well to both washes and dry-brushing to bring out such things as the wheel-well structural members and undercarriage doors. The separate hubs and tires on the main wheels makes accurate painting and weathering a breeze!

There is a fantastic choice of color schemes offered in this kit to depict aircraft from the air forces of the USSR, Czech Republic, Slovakia, Czechoslovakia, Iraq, Indonesia, and East Germany (I chose the latter). There are also several schemes depicted in silver/natural metal. (I decided against that because there is a fine texture

on the outer surfaces of the wings and fuselage that would have required a lot of effort and time to eliminate.) The decals performed perfectly over a coat of Pledge FloorCare Multi-Surface Finish (formerly Future) with no silvering at all. They do tend to grab the surface quite quickly, though, making them tricky to move if you don't manage to get them in the right place on your first attempt. One thing to note: I believe the German markings in the kit are based on a modern, restored warbird; the nose number 338 is in the correct font but is much too small for an active-duty military aircraft. The color callouts are odd, too. I used Testors Model Master enamel RLM 78 for the underside, and Mr. Color C-131 propeller color and a slightly modified C-18 RLM 70 for the topside camouflage, all airbrushed freehand. Reference photos showed the entire wingtip should be painted yellow, not just the front quarter as depicted in the instructions.

The L-29 was built and employed in the heyday of the Soviet Union and Warsaw Pact, and it was flown by virtually all the nations politically aligned with the USSR. It was used in many roles, from initial fighter-pilot training to light Combat Air Support/Strike armed with rockets and gun pods. It also has become a popular aircraft in civilian warbird circles worldwide. As such, the kit-supplied marking options are only a light smattering of possible schemes.

I don't know of any associations with any other kit manufacturer, but AMK has really hit the market running. All I can say is *wow!* AMK has a MiG-31 Foxhound on its list of future products. If the standard of this L-29 is anything to go by, I will eagerly await the release of that kit with little fear of disappointment!

— Matthew Walker



**Kit:** No. 88002 **Scale:** 1/48

**Manufacturer:** AvantGarde Model Kits (AMK), [www.amkhobby.com](http://www.amkhobby.com)

**Price:** \$44.99 **Comments:** Injection-

molded, 140 parts (27 photoetched), decals **Pros:** Interesting options for construction and markings; a joy to build!

**Cons:** Thick photoetched-brass fuselage plates difficult to form; no seat harnesses; surface texture would add work to natural-metal finishes



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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.

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## Final Details

Compiled by Mark Hembree

# What inspires your modeling?

Great models begin with inspiration. In that moment, you see or read about something and want to build it. In our forum at [www.FineScale.com](http://www.FineScale.com), we asked members to tell us what film, television show, book, play, or work of art most memorably inspired their choices in modeling. Their replies were, well, inspiring.

Strange as it may sound, my early modeling was inspired by the TV show "Black Sheep Squadron" (the syndicated "Baa Baa Black Sheep"). I didn't care about the story plot lines or characters. I just wanted to see the birds flying!

*Bill Plunk, El Paso, Texas*

The history and heritage of the organization I served most proudly with, the U.S. Marine Corps — and the television show "Baa Baa Black Sheep," even as bad as it was.

*Keith Lewis, Havelock, N.C.*

"The World at War" from the BBC.

*Mark Partis, Brisbane, Queensland, Australia*

"The World at War" took me from the patriotism of "Victory at Sea" into the cold-blooded business of war. It affected my modeling for 40 years.

*Mike Still, Norton, Va.*

It's hard for me to pick one ... books, movies, documentaries, all have a part ... One influence stands out: My father was a veteran of the USAAF and USAF, both World War II and Korea. I inherited my love of aviation from him ... Two movies came to mind, "The Bridges at

Toko-Ri" and "The Final Countdown." The flying sequences in both films are just outstanding; I never get tired of them. Those aircraft ended up sitting on my model shelf as a direct result, the F-9F Panther and F-14 Tomcat ... I dreamed of a career as a U.S. Navy pilot ... never realized that dream in real life, but I can still keep it alive in model form.

*Barry Harmon  
California City, Calif.*

At age 10, I watched the movie "Midway." The rest is history. My brother and I would save our allowance and run to the Woolworth store to spend it on Revell 1/144 scale models — for \$1 a pop, I believe!

*Salvador Sanchez, Quincy, Ill.*

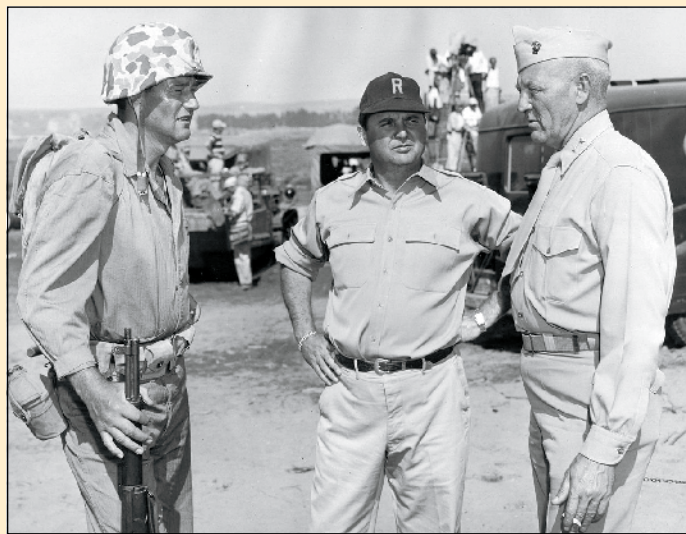
A good one was "Dr. Strangelove" — I got a 1/72 scale B-52 after that.

*William Comstock  
Tiburon, Calif.*

Probably the movies and TV shows of the mid-1950s. "Navy Log" got me to do a Hawk Banshee, Aurora Panther, and Revell Cougar; "Strategic Air Command" brought on the Revell bombers (B-29, B-36, B-47, and B-52).

*Stephen Sewell, Aberdeen, Md.*

All the old-timey movies: John Wayne, Humphrey and Hepburn in "African Queen," "Buck Rogers," "Victory at Sea,"



U.S. Marine Corps

John Wayne confers with Gen. Graves B. Erskine on the set of the 1949 film "Sands of Iwo Jima" while director Allan Dwan stands by.

"20,000 Leagues Under the Sea" ... must not forget Robert Mitchum and Kurt Jürgens in the "Enemy Below," either!

*G.J. Geracci  
New Braunfels, Texas*

The Horatio Hornblower books inspired me to try sailing warships after doing mostly airplanes for several years.

*Don Stauffer  
Coon Rapids, Minn.*

"Reach for the Sky," "The Dam Busters," and "Battle of Britain."

*Wayne Daly, Cairns  
Queensland, Australia*

Gerry Anderson's "UFO," "Space 1999" ... but the one that started the fire was "The Longest Day." I was about 9 or 10 when I first watched it on TV with my dad and my grandfather. I still remember the gleam in my grandfather's eye when the C-47s came on. He was a radio operator on C-47s in WWII, stationed in England. Man, the stories he told while we watched the movie were awe-inspiring to a 10-year-old!

I built a C-47 for him for Christmas that year. As pathetic as it was, he loved it. That is my inspiration — the joy I felt then, I get every time!

*Bobby Gianino, St. Albans, Vt.*

"Combat!" Books on WWII, and comic books: "Sgt. Rock," "Haunted Tank," "Capt. America." Also, "The World at War" helped me get into history and serious modeling.

*Steven Andreano, Merrick, N.Y.*

I met "Pappy" Boyington once; he called me an idiot and told me to go away. I was 15, but it never diminished my respect for marines or aviators. "Top Gun" helped me become a sailor. As far as inspiration, all things winged and large modern warships came before those incidents. Just about anything unique, ugly, or serving a specific duty fires me up. I do have a large stash of SP guns and towed cannons, though. I like how lethal and maneuverable they are if commanded right.

*Perry Stevens*

*Deer Park, Wash. FSM*

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SCALE**

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- ▶ Cargo compartment with troop seats
- ▶ Two M2 .50 cal machine guns and ammo canister
- ▶ Doors for pilot, gunner and cabin are positionable

**While major features are accurately rendered, the little details have not been short-changed, like the flawless pilot seats; FLIR controls; rotor brake handle; infrared missile jammer; clear position light lenses; rescue hoist; wind screen wipers; engine exhaust infrared reduction system; interior auxiliary fuel tank; decal sheet with choice of three squadrons... and so much more. Now available at your favorite hobby shop.**

*\*Kit's rotor blades, tail and tail stabilizer do not fold and are molded in the flight position*



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