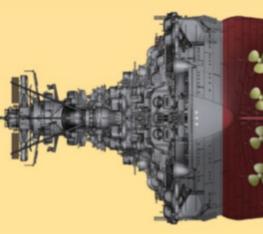


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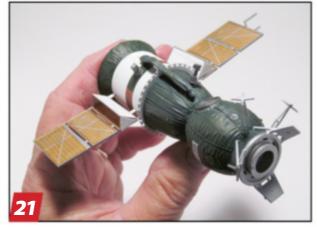
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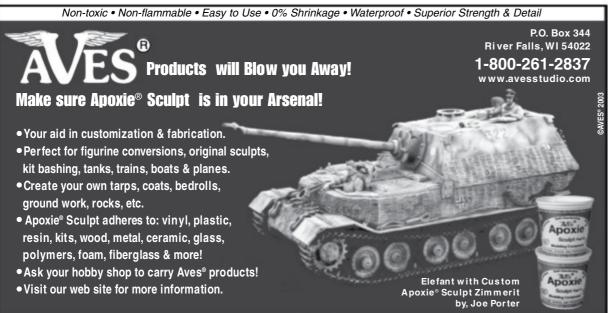
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By Aaron Skinner

Build and share the fun!!

y hope is that if you are reading this magazine, it is because you enjoy building models. Chances are that you, like me, have told friends and family that modeling is fun. Chances are equally good that a high percentage of that audience seems skeptical that spending hours at the workbench gluing parts together and obsessing over small details is fun. How many times have you said to someone, "I wish I could show you how much fun modeling is," or "You'd enjoy it if you gave it a chance."

Well, now's your chance. As part of International Build a Model Month (coming in November), *FSM* is challenging readers to introduce a newbie to the fun of the hobby. Grab a child, grandchild, parent, spouse, friend, or neighbor and build something with them.

Here are a few tips to make sure everyone has a good time: 1) Pick something simple for the first build. You want the newcomer to want to build a second model, not give up in frustration. 2) Lower your expectations. We were all new modelers once, and I know my first efforts were far and away from perfect — I made plenty of mistakes. Remember, a novice's first efforts don't need to be perfect. 3) Don't take it too seriously. Hey, we're here to have fun, so let's have fun. Let the potential modeler-for-life pick the subject and decide how they want to finish it. A pink Sherman with green polka dots may not be your choice, but that's OK.

We want to hear your stories about the experience. Did the model get finished? What were the challenges? What did the newcomer think? Perhaps most importantly, did everyone have a good time and are there plans to build a second?

While you are doing that, consider what model you'd like to enter in the inaugural International Build a Model Month contest. That's right! In celebration, we are running a contest giving you a chance to win cash and see your model on the cover of *FSM*. Entries will be accepted from November 1–30, 2022, and submissions will be judged by a group of FSM staff and contributors. So, head to the workbench and show us what you've got.

Before I let you get on with reading all of the great stories about detailing models and I head back to the workbench, I want to remind you about the FSM DLCs (DownLoadable Content), our digital editions that are published in February, April, October, and December. We are hard at work on the October 2022 DLC and subscribers should receive an email with a link to download it in early September. Or you can visit FineScale.com/DLC to find all the available DLCs.

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Your voice in FSM

Where are the modern F1 cars?

I look forward to your magazine and the online videos are great! My interest is in race cars and military aircraft.

Why are there so few new Formula One kits on the market? Tamiya no longer releases a series of kits like they did a long time ago. How about someone releasing kits that represent the latest F1 cars? After all, it is becoming a spec series like NASCAR.

– Wade Middleton Highlands Ranch, Colo.

Ed.: It does appear that if you are looking to model recent Formula One cars, Revell Germany is the only option. Maybe other model companies will read your letter and put some others into the starting grid. – Aaron Shinner

About HMS Victory and Testors

I'm a long time subscriber to *FSM* and I have two questions that I would like your thoughts on.

First, I would love to see an in-depth article by someone who has built or is currently building Heller's 1/100 scale HMS *Victory*. I'm actually going to be starting this build soon, so it would be great to read something from someone who has built this. I know and understand that this kit is a huge challenge to build. I realize it might be hard to find someone who could submit a detailed article or do a multipart series on how they did it. Maybe *FSM* has done this in the past and I just missed it. If that's the case, if you could direct me to it that would be terrific. But I would love to read a good article about it.

My second question is in regards to Testors [paints]. I remember using them back in the early to mid-'70s. I've been getting back into more serious modeling, albeit slowly, in the past 10 years, and I support Testors products. They are all I use.

But it has been disappointing to see what has happened to them over the years since being bought by RPM, the parent company of Rust-Oleum. The discontinuation of the Model Master line was a poor business decision, even though the company stated the market was changing. I don't agree.

I support Testors, in part, because they are a 93-year-old American company. They were the leader in the model hobby industry for years. I hate to see that history lost as well as the jobs. But when I go into my local hobby shop now I see Testors in one

little section and huge new sections of paints by Vallejo, Revell, Tamiya, etc.

It appears that Testors is just dying on the vine. It's sad to see. But I understand it's a business. I actually looked up some financial info on them because I was curious about their revenue for last year. I saw a figure of \$18 million. But I don't know how accurate that number is. But if that's accurate, that is not a great revenue number. I don't know what other companies like Revell or Tamiya are bringing in, but I'm sure it's a lot more than that.

I learned recently that Testors saw a significant price increase; one YouTube video indicated a 48% price increase as of May 16. I also saw it firsthand yesterday when I purchased a good amount of paint. Part of my reason for purchasing some is I'm storing up Testors paints for the two big sailing ship kits I will build. I believe (and I hope I'm very wrong) that Testors may not be around all that much longer. I'm kind of hearing that from some people online as well as people I know at the hobby shop I go to.

My question for you is what is your perspective on Testors and what do you see happening? What are you hearing about them and where they might be headed? What are the industry insiders saying that you know about what has happened with Testors?

Thank you for your time and I look forward to your response to these two questions and getting your insights.

– Mark Blankenburg via email

Ed.: Thank you for writing. First, yes, an article about the Heller HMS Victory would be great. That said, stories about ships are difficult to write effectively and publish adequately. If one were ever to come our way we would be more than happy to evaluate the submission.

Second, we don't have an official opinion about RPM and Testors. FSM covered the purchase at the time it happened, and we have reported about the changes in the brand over the years. (I've written about the it for both B2B and consumer magazines). The hobby brand is a very small segment of the overall operation and the message I've always received from those in the know is that the executive team is focused on maximizing profitability. The hobby paint market, particularly in the last 10 years, has become increasingly more competitive with paints easier to use than enamels or lacquers with growing color availability. Combine that with growing weather-

ing and detailing products from these same companies and excellent outreach to veteran and new modelers, they are positioned well for growth.

In comparison, Testors is a legacy brand that has a dedicated but shrinking market. It would require a reinvention of the brand to reverse the tide. Does that mean it will close at some point in the future? Without being inside the executive committee meetings and brand manager meetings at RPM, there's no way to know for sure.

The good news is that similar paints do exist with a wide range of excellent colors from other brands, like MCW and Tru-North and veteran makers like Humbrol and Revell. And with companies like Vallejo, AK Interactive, Splash, and many more, there are a lot of options beyond Testors. – Tim Kidwell

Nice editorial, Tim!

Dear Mr. Kidwell,

I was very intrigued by your editorial in the July/August 2020 *FSM*.

I started building models in the mid-'50s. I haven't been at as long as some, but have been at it longer than others. I began with cars — during this time, who didn't? — from AMT and Monogram. Later, I began building armor from Aurora, Monogram, and Revell.

Today, my vision and my shakes limit what I can do, but I still enjoy reading what others can produce. Truth be told, I still sit at the work table and, well, enjoy myself.

I am happy to say I have every issue of *FSM* except one. And I may never acquire that one; sometimes the fun is in the search more than the acquisition.

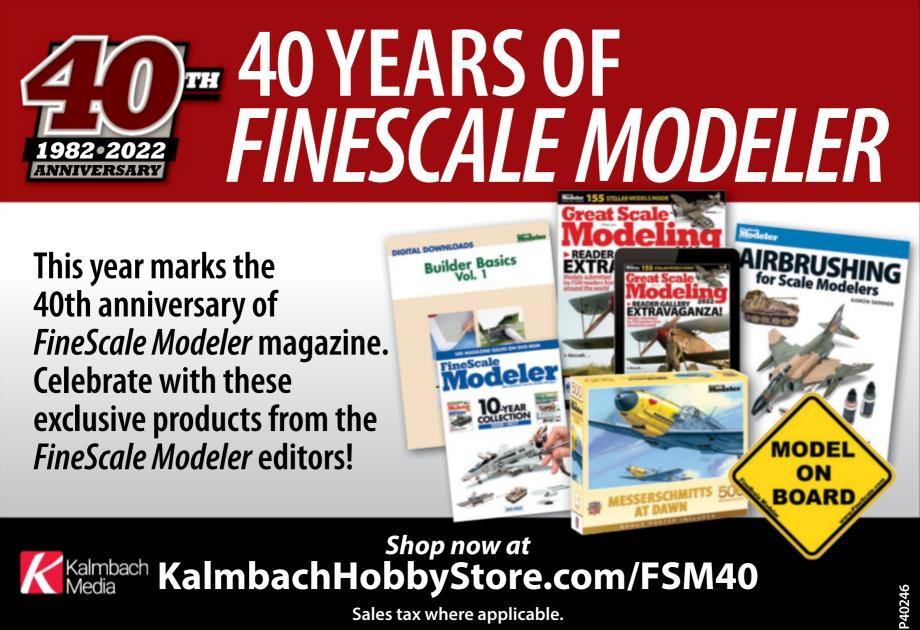
This letter is to congratulate you on promoting the positives in the modeling field. Although I started with *Car Model* and *Model Car Science*, I have to say the publishing part of the hobby has never been better represented than it is today. The fact is, the modeling hobby has never been more interesting.

Like many, I am frustrated by the cost—but, then again, buying gas or groceries isn't much fun either.

Keep up the great work! – *John C. Hopkins Lexington, S.C.*

Ed.: Thank you so much for your kind words and for supporting FSM over the years. The scale model hobby has come a long way since our first issue, and we are working to show readers like you how vibrant the hobby continues to be. – T.K.







NEW PRODUCTS | | |

Compiled by Monica Freitag

AIRCRAFT

1/48 SCALE



Lockheed P-38J Lightning from Tamiya, No. 61123, \$81.



AF-3S Guardian 'MAD Boom' from Special Hobby, No. SH48194, \$57.90.



Sopwith Camel Comic from Eduard, No. 82175, \$39.95.

1/72 SCALE



Nakajima Ki-84 Hayate (Expert Set) from Arma Hobby, No. 70051, \$35. WBR



SAAB J-21A from Special Hobby, No. SH72215, \$24.



Mirage F.1B/BE from Special Hobby, No. SH72291, \$22.70.



Junkers Ju 87D-5/N/D-8 Night Attack Stukas from Special Hobby, No. SH72458, \$22.70.



F-6C Mustang Expert Set from Arma Hobby, No. 70040, \$35.

ARMOR

1/16 SCALE



PzKpfw.III Ausf. tank 3 in 1 from Model Rectifier Corp/Gallery Models, No. 64011, \$199.98.

1/35 SCALE



Jagdtiger 128mm PaK L66/88mm PaK L71 2 in 1 from Takom, No. 8008, \$62.95.



StuH 42 & StuG III Ausf G Early Production 2 in 1 from Takom, No. 8009, \$49.95.



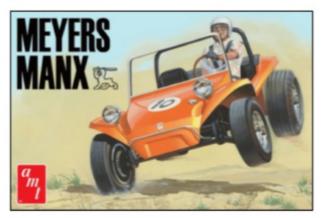
Ersatz M7 2 in 1 from Takom, No. 8007, \$49.95. **WBR**



Flakpanzer V 'Kugelblitz' from Takom, No. 2150, \$69.95.



'76 Chevy Caprice 3 in 1 from Round2/MPC, No. MPC963M, \$31.99.



Meyers Manx from Round2/AMT, No. AMT1320, \$29.99.

SHIPS

1/200 SCALE



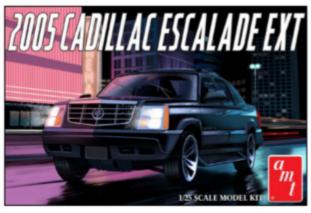
Battleship *Yamato* from Model Rectifier/ Gallery Models, No. 64010, \$829.99.

AUTOS

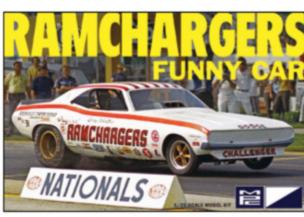
1/25 SCALE



Barris "T" Buggy - Classic dune buggy from Round2/MPC, No. MPC971, \$31.99.



Cadillac Escalade EXT from Round2/AMT, No. AMT1317, \$33.99. WBR



Ramchargers Funny Car from Round2/MPC, No. MPC964, \$31.99. WBR



1980 Dodge Ram D-50 from Round2/AMT, No. AMT1306M, \$33.99.

FIGURES

1/35 SCALE



Ukrainian Soldier with NLAW and **AK-74MN** from Special Hobby, No. 129-F35379, \$17.20.

1/72 SCALE



Mosquito Pilot and Navigator from Special Hobby, No. 129-F72378, \$10.70.

AIRCRAFT DETAILS

1/48 SCALE

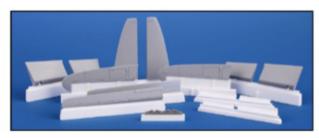


Canadair CL-13 Sabre Mk.4 undercarriage bays from Special Hobby, No. 129-4446, \$22.



Lancaster Mk.I/III mainwheels and tailwheel with leg from Special Hobby, No. 129-4450, \$10.70.

1/72 SCALE



Mosquito B Mk.XVI control surfaces from Special Hobby, No. 129-7502, \$13.30.



Mosquito undercarriage wheels from Special Hobby, No. 129-7510, \$7.20.

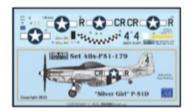
AIRCRAFT DECALS

1/144 SCALE



Lufthansa Flight of Fancy 757 from Draw Decal, No. 44-757-68, \$14. Also available in 1:100 No. 10-757-68 \$28; 1/200 No. 20-757-68 \$10:

1/400 No. 40-757-68 \$7; 1/500 No. 50-757-68 \$7.



Silver Girl P-51D from Draw Decal.

No. 44-P51-179, \$5 Also available in 1:24 24-P51-179

\$16; 1/32 No. 32-P51-179 \$12; 1/48 No. 48-P51-179 \$8 and 1/72 No. 72-P51-179 \$6.

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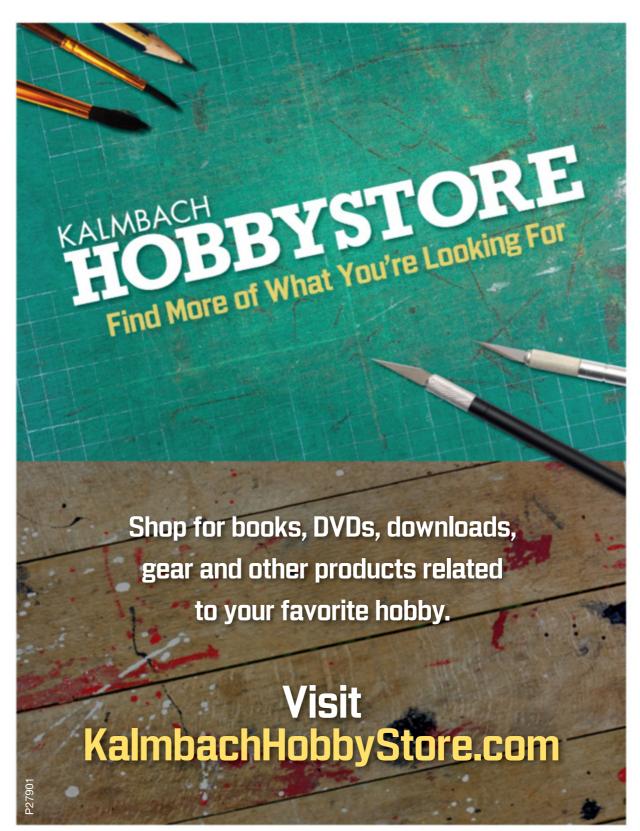




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Marek goes all in on his Eduard 1/48 scale Supermarine Spitfire Mk.IXc (Late) with aftermarket parts galore and an attentive eye for the smallest details.



he legendary Supermarine Spitfire Mk.IX, to my mind, counts as one of the most elegant World War II fighter designs. How could it not, with its smooth aerodynamic lines, elliptical wing, and thin profile?

Being Czech, I wanted to model the Spitfire DU-L MJ931 flown by Flying Officer Ladislav Světlík, a member of No. 312 (Czechoslovak) Squadron RAF, during the first half of 1944. In

this aircraft, he shot down Lt. Georg Kiefner of I./JG 26 who piloted an Fw 190A.

After the war, Světlík became a Czechoslovak Airlines captain. In 1950, he helped plan and execute the famous coordinated escape flight of three Douglas DC-3s from then-communist Czechoslovakia to U.S.-controlled Erding Air Base near Munich, Germany.



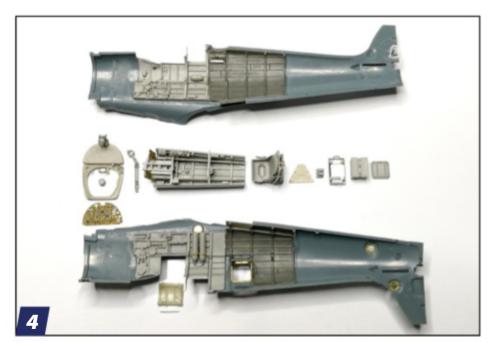
I planned to source a wide range of aftermarket details from various manufacturers to create a model with much of its interior exposed. Because the build was so complex, I sorted the parts into small boxes organized by what section of the Spitfire they belonged to.



Also, I intended to improve exterior surface appearance by scraping the plastic parts. In preparation for this process, I deepened the rivet details all over the wings, tail planes, and fuselage with a sharp needle in a hobby knife handle and micro drill.



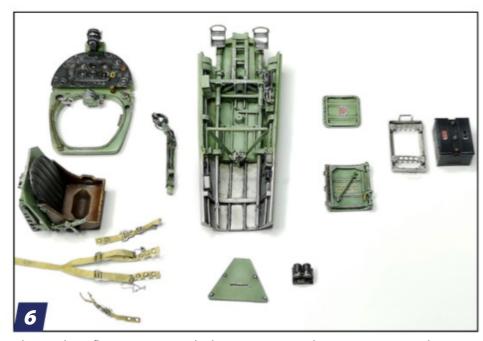
Then I scraped the rivet rows with a scalpel to get the correct indentation that is ever-so-slight at this scale, but still noticeable if you do the work. I rough sanded the surface with a cloth and abrasive paste and polished with a cotton disk chucked in a rotary tool. The stressed-skin effect finally became apparent on the surface.



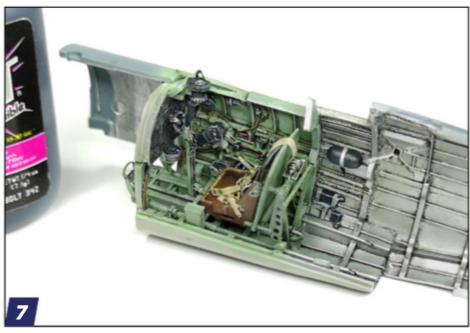
The fuselage required extensive modification to fit all the aftermarket parts, especially around the engine and cockpit. I opened inspection hatches for resin components, and, in some cases, had to grind certain spots in the fuselage to paper thickness.



I primed the cockpit interior with Mr. Surfacer 1000 and painted MRP Interior Grey-Green (No. MRP-111) and Mr. Color Super Metallic Silver (No. SM01). Oil washes helped pick out details and provide a patina to simulate wear and tear.



The cockpit floor, HGW seat belt, Aires seat and instrument panel, control stick, hatches, and radio unit and tray were all detail painted separately. The gauges each received a drop of gloss clear to represent glass.



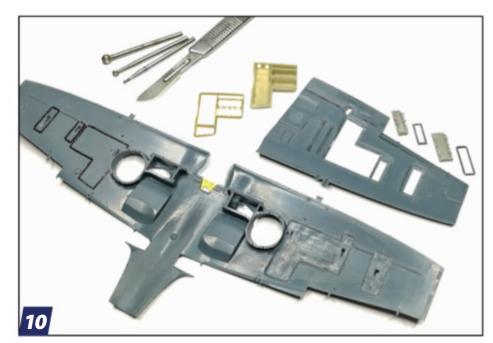
After assembling the cockpit, I attached it to the inside of the fuselage's starboard half. Rubber-infused superglue holds the assembly fast, but also allows play while fitting and gluing the other half of the fuselage in place.



Speaking of the other fuselage half, I had to install the radio and its tray in the port side of the Spirfire's fuselage before closing it all up. A little wear and tear on the interior components, like the two pressurized tanks, lends more credibility to the overall appearance.



With the fuselage glued together, I fit the Eduard firewall to the front end and began detailing with parts from the kit, my spares box, and lead wire to represent plumbing.

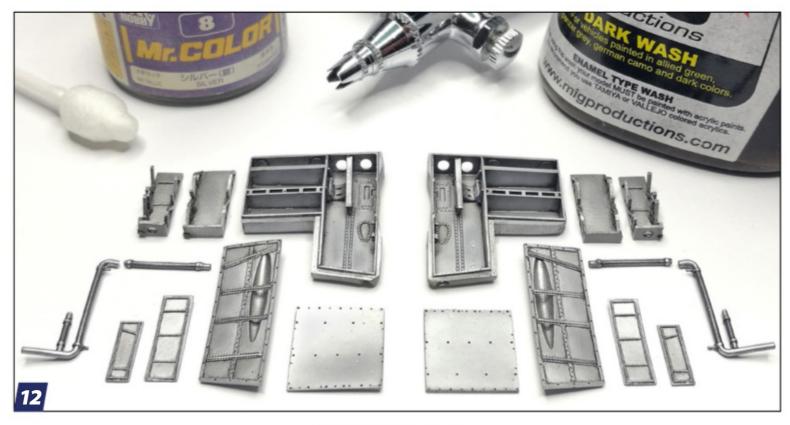


Similar to the fuselage, I had to thin areas in the wings to accommodate aftermarket weapons and undercarriage bays. Because I wanted to display the details, I also cut open access hatches. Variously, I used a scalpel and a rotary tool chucked with different-sized cutting burs.



Eduard's photo-etched metal (PE) flaps were beautifully detailed, and even included indicators for flap position revealed when they are open. The PE weapon-bay coamings fit well into the areas I'd previously thinned and removed.

To fully detail the weapons bays required aftermarket parts from Aires and Eduard, along with brass barrels from Master Models. After cleaning up the resin pieces, I airbrushed them Mr. Color Silver (No. 8) and went in with Mig Productions Dark Wash (No. P220) for a bit of dirt.

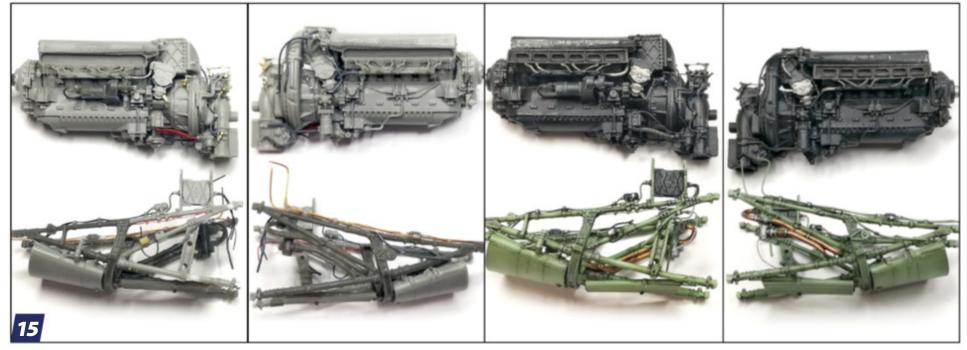




The 20mm Hispano cannons, detailed ammunition box, and Browning .303-caliber machine guns all fit nicely into position. I painted each individual bullet by hand with a fine-tipped paintbrush.



Underneath, I fit the pre-painted landing gear bays in position, closed up the wings, and finished detailing the flaps.



The engine became the most challenging part of the build. The Eduard Brassin set gave me a good start, and I added a wiring harness and replaced the flat PE engine control rods with wire. When the engine was assembled, I painted it black and silver and picked out smaller details with various colors. The engine mount was painted interior gray-green.



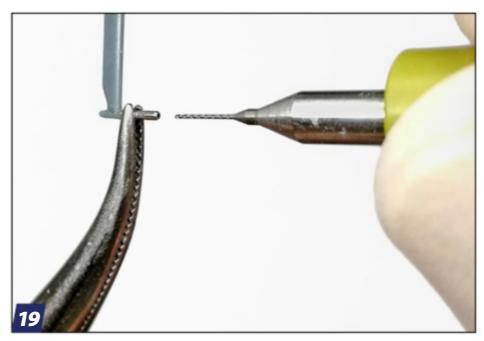
At the same time I was working on the engine, I painted the firewall using the same colors as I had on the powerplant and mount. A dark wash helped the rivets and other small details pop.



The Department of Correction prop was much better than the kit's. Still, it needed work, too. I carefully added rivets to the brass plating on the wooden blades' leading edges.



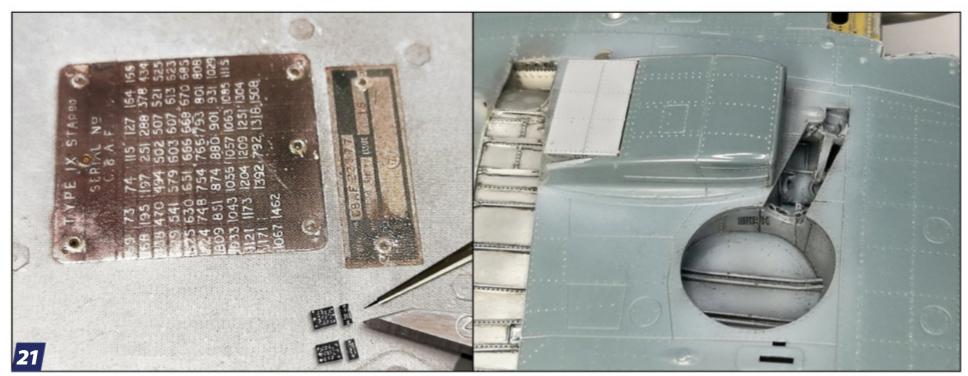
I painted the spinner MR. Paint Sky (No. MRP-118) and the blades Black (No. MRP-5). The soft smudges were achieved with variious colors of Ammo by Mig Jimenez Oilbrushers and AK Interactive Weathering Pencils. The decals came from HGW.



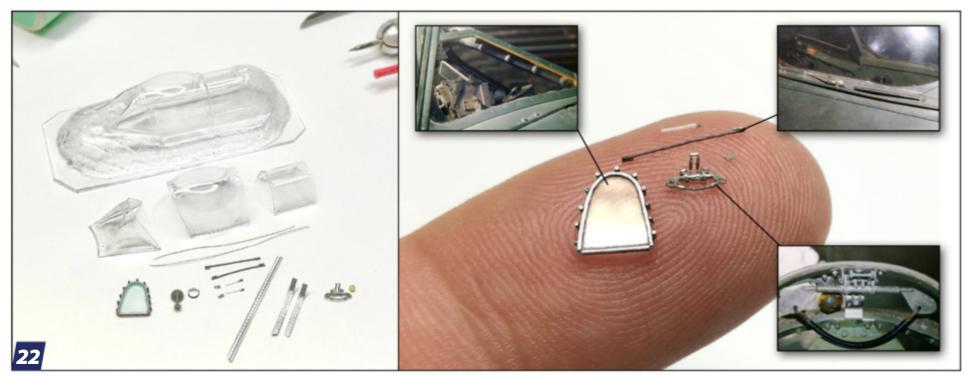
The kit's pitot tube, as one would expect, came as a tiny plastic rod. I replaced the tip with a .25mm i.d. aluminum tube to improve the accuracy.



I replaced the kit's main landing gear with bronze legs from Eduard. With all the extra weight on the model from the aftermarket parts, these made sense. I painted the shock absorbers Mr. Color Super Metallic Super Chrome Silver (No. SM206), and the doors MR. Paint Medium Sea Grey (No. MRP-112).



When modeling a superdetailed replica, it's easy to overlook some aspects, like the data plates inside the landing gear bays. I made my own from leftover black decal. I cut the sizes I needed and made marks with silver paint to immitate the technical data on the real thing.



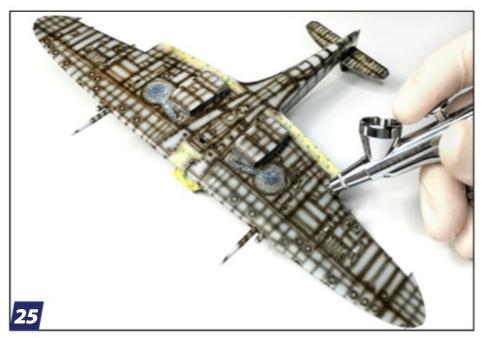
I replaced the canopy from the kit by an even thinner, vacuum-formed one from Rob-Taurus. I made the tinted armored glass from clear floil and a frame of thin lead tape. The windshield surrounds are aluminum foil, and the canopy lock came from the Eduard PE set.



I masked the inside and outside of the canopy with tape and liquid mask before priming with Mr. Color Super Metallic Super Fine Silver (No. SM01). Then I followed up with MR. Paint Dark Green (No. MRP-110) for the exterior and Interior Grey-Green and Black for the interior.



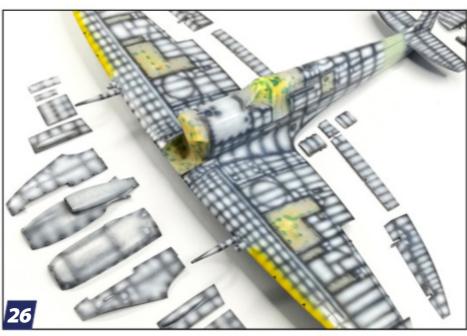
After carefully masking exposed interior components, the windshield, and cockpit, I washed the wings and fuselage with water sudsy with liquid dish detergent. Then I primed with Mr. Surfacer 1000 and sanded with 2000-grit emery paper before polishing with a cotton wheel.



To pre-shade, I airbrushed a paint mix of 70% black/30% brown along the panel lines and rivets and then punched up the center of individual panels with white.



For the camouflage, I airbrushed MR. Paint Medium Sea Grey (No. MRP-112) onto the Spitfire's underside and painted the topside camo with Ocean Grey (No. MRP-115) and Dark Green (No. MRP-110). Finally, I touched up the camo with lighter and darker shades on specific panels.



The leading edges on each wing were painted MR. Paint Marking Yellow (No. MRP-122). The stripe just forward of the tail and the area for the aircraft code are MR. Paint Sky. Then I masked the stripe and leading edges with tape and the code with self-adhesive letters.



I gloss coated the entire model in preparation for decals. For the main markings and labels, I chose HGW wet transfers. First, I applied a thin layer of Mr. Mark Softer. Next, I placed the wet transfer on the model and let it dry for six hours before carefully removing the plastic backing.

AFTERMARKET UPGRADES

Eduard

- Brassin Spitfire Mk.IXc Essential (No. SIN64808; OOP)
- Brassin Spitfire Mk.IXc Advanced (No. SIN6809)
- Spitfire Mk.IX surface panels (No. 48766)
- Spitfire bronze undercarriage legs (No. 648124)

Aires

- Spitfire Mk.IXc cockpit set (No. 4596)
- Spitfire Mk.IXc (late) gun bay set (No. 4269)

Master Model

 Spitfire Mk.IXc Hispano 20mm cannons in fairings (No. AM48086)

Rob-Taurus

 Vacuum-formed canopy (No. 48058)

Department of Correction

 Spitfire Mk.IX propeller and spinner (No. 48007)

AWL decals and HGW wet transfers

REFERENCES

Spitfire LF. Mk.IX in Detail, Miroslav Koran, Wings and Wheels Publications, ISBN 978-8-08641-6-250

Supermarine Spitfire Monographie 1, Alfred Price, AJ Press, ISBN 978-83-86208-93-7

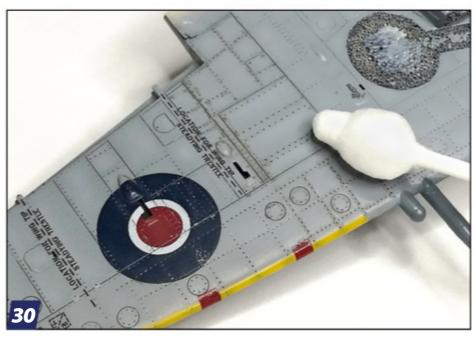
Monografie Lotnicze 38 - Supermarine Spitfire Cz. 1, Alfred Price, AJ Press, ISBN 978-83-86208-75-3

KIT

Eduard 1/48 scale Spitfire Mk.IXc (Late) (No. 8281)



With the markings on, I airbrushed the model Mr. Color Semigloss Clear (No. C181). After it dried, I started weathering. First up, chipping with Agama Aluminum Paste (No. 1341) thinned and dotted around the wing root, cockpit, and other areas chipping would likely occur.



The chipping was followed by applying Ammo of Mig Jimenez Neutral Wash (No. A.MIG-1010) on the lower surfaces and Dark Wash (No. AMIG1008) on the upper surfaces.



I used a combination of dot filters, pigments, and watercolor pencils to model exhaust stains, smudges of dirt and grime, fuel and oil leaks and spills, accumulated dirt, and additional chipping.



When I was satisfied with all of the wear and tear, I airbrushed everything a mix two parts Mr. Color Semigloss Clear and one part Super Smooth Clear Matte (No. GX-114).



Ahandshake INSPACE

Modeling the Apollo-Soyuz Test Project in 1/72 scale

BY DOUG JONES

in December 1972, the race to the moon between the United States and Soviet Union ended. Seven months earlier, U.S President Richard Nixon and Soviet General Secretary Leonid Brezhnev, met at the Moscow Summit to sign the Strategic Arms Limitation Treaty (SALT I). While there, they signed a second accord for a joint U.S.-Soviet manned space flight.

• The Apollo-Soyuz Test Project marked the first international space mission where an American spacecraft would rendezvous and dock with a Soviet craft. The crews would meet in orbit, exchange greetings, and visit each other's spacecraft. The Apollo crew was commanded by Gen. Tom Stafford along with astronauts Deke Slayton and Vance Brand. The Soyuz 19 crew was commanded by Alexei Leonov (the first human to walk in space) and Valeri Kubasov. The mission is seen as the end if the space race and laid the groundwork for future joint American-Soviet (now, Russian) space ventures.

The Apollo-Soyuz mission launched July 15, 1975 and ended with the splashdown of the Apollo command module July 24.1975. Flight hardware consisted of an Apollo spacecraft, an Apollo Docking Module, and a Russian Soyuz. Because each spacecraft utilized different atmospheric mixtures, the Apollo docking module served as an airlock between them.

It also served as a docking interface between the differing docking mechanisms.

In recent years, Dragon has offered a nice range of real space subjects, many in popular 1/72 and 1/48 scales. Although well-designed, many have inaccuracies that require correction. Dragon's 1/72 scale Apollo-Soyuz comprises three distinct parts: The Apollo Command and Service Module (CSM), the Apollo Docking Module, and the Soyuz spacecraft. Essentially, you build three separate models. The Apollo CSM is all injection-molded plastic, while the Soyuz and docking module consist of hard vinyl with smaller injection-molded plastic and metal parts. The instructions feature illustrated diagrams for the Apollo spacecraft, but the illustrations for the docking module and Soyuz are limited. The lack of clear instructions required several test-fittings.



WHATIS AVAXHOME?

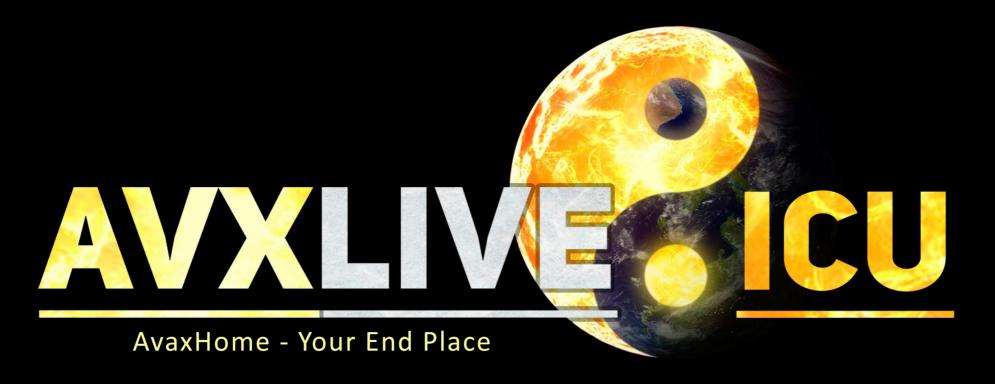
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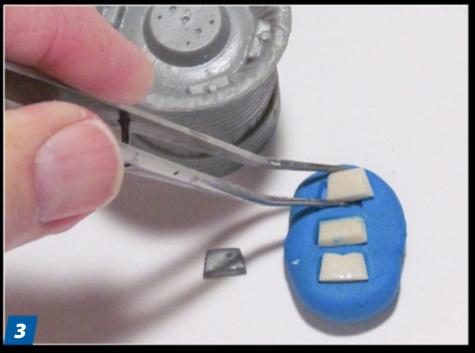
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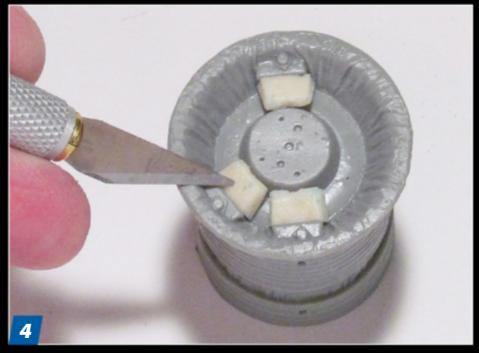
Even though the Dragon kit is fairly accurate, it omitted details that required corrections and additions to the kit. The kit includes partial avionics bays under the propulsion module that need to be extended.



To create the full propulsion module avionics units, I shaped styrene to match the extension. Pushing this master into modeling clay three times produced adequate molds.



I poured a little Alumilite two-part resin into the impressions to create the missing parts of the propulsion section avionics.

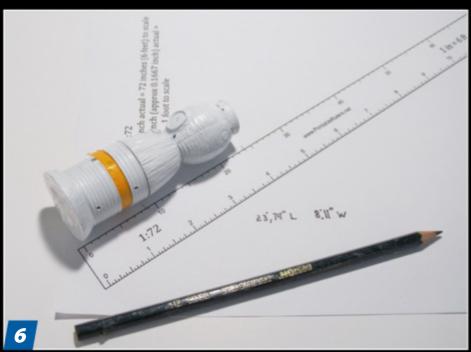


After refining the resin parts for fit, I superglued them into the underside of the Soyuz propulsion section.





Using candy wrapper foil attached with Microscale Micro Metal Foil Adhesive, I simulated the thermal blankets that covered the avionics bays. Burnishing the foil helped match the parts to the molded blanketing on the part.



The two major sections of the Soyuz fit together snugly. Without gluing them, I sprayed the vinyl parts with white Tamiya Fine Surface Primer and checked to see if the model's dimensions matched the real spacecraft in scale.



I painted the thermal-wrapped lower area of the service module with Vallejo Model Air Olive Green (No. 71.007). Dragon modeled the service module's mid-section recessed with thermal blanketing, but photos show it flush with the surrounding surface.



I protected adjoining surfaces with tape and filled the depression with Tamiya putty and sanded it smooth with 600- and 800-grit wet-or-dry sandpaper. After restoring the white paint, I painted half the filled section olive green and the other red-brown.



After airbrushing Olive Green over the orbital and descent modules, I highlighted the texture of the molded thermal blankets with Vallejo Model Color U.S. Dark Green (No. 70.983).

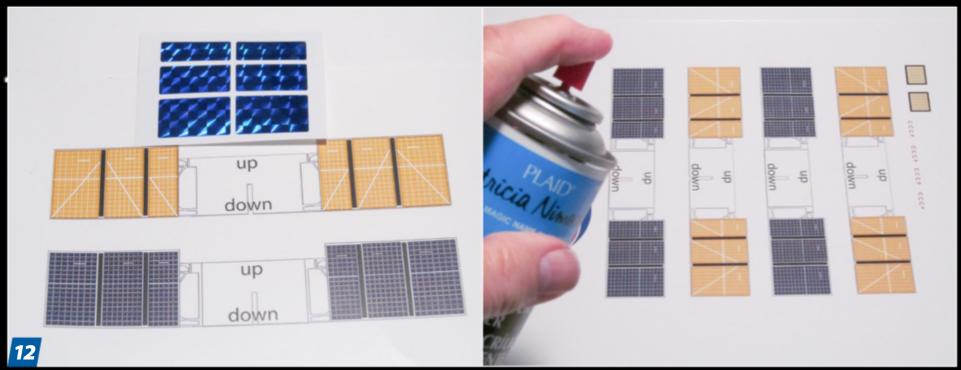


Using gel superglue, I attached the antenna array to the bottom of the descent module and then glued the service module to the rest of the spacecraft.

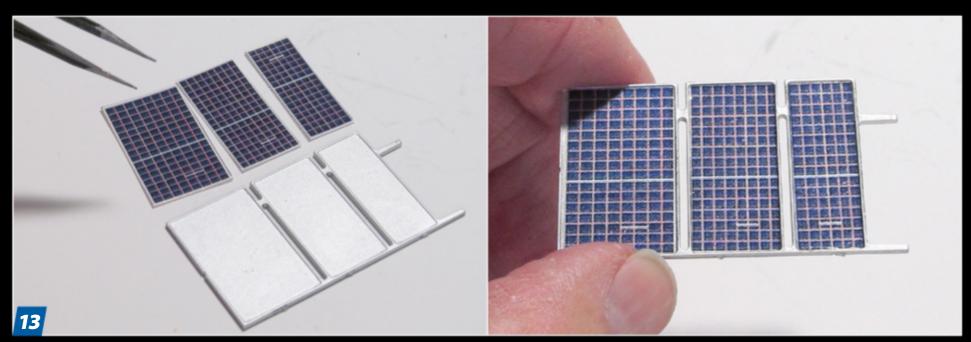




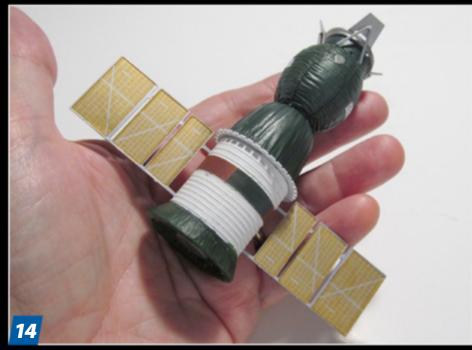
I added surface details and decals to the Soviet spacecraft: Formaline Charting and Graphic Art Tape produced the dark seams on the thermal blankets. Then I attached the docking mechanism armatures to the collar of the orbital section and superglued the docking clamps in place.



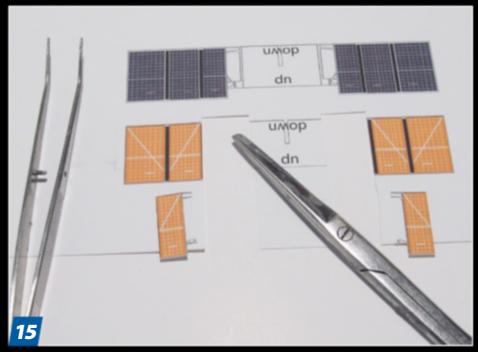
Rather than use the kit's blue foil stickers, I scaled up the solar panels from an AMX Paper Models Soyuz (axmpaperspacescalemodels.com) to match the plastic parts and printed them on ink-jet decal paper. I printed two of each panel in case of mistakes. Multiple coats of clear acrylic sealed the decals; I allowed each coat to dry thoroughly before spraying the next.



I sprayed the solar wing parts with Testors Model Master Metalizer Aluminum Plate (No. 1401); the decals were printed on clear decal paper, so this gives them a solid background color. Next, I closely cut around each panel and applied the individual decals.

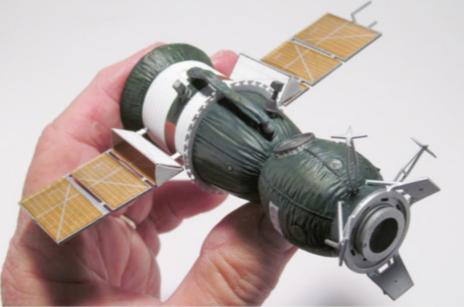


With the decals in place, I attached the panels to the service module. The aluminum base coat also improves the appearance of the backside of the panels.

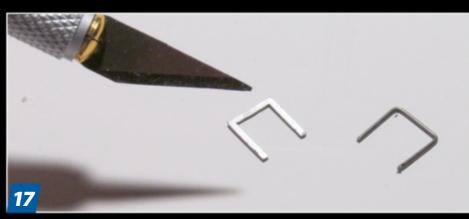


Dragon omitted a pair of secondary panels that I scratchbuilt from .01-inch styrene sheet. Rather than decals, I printed the parts from the AMX Soyuz on 90-pound card stock and attached them to the styrene with Aleene's Tacky Glue.





I attached the auxiliary panels with Aleene's Tacky Glue and built up the additional structures with card stock before adding the upper side of the panels. Various antennas were also glued on at this point.



The kit's solar-wing antennas were too thick, so I made replacements from K&S Precision Metals Music Wire (No. 5005). I cut a notch in the ends of the wing panels to attach them.

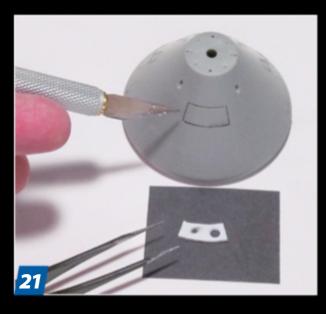


After spraying the docking module with Tamiya primer, I airbrushed Vallejo Model Color Black Grey (No. 70.862). Dry-brushing with Vallejo Model Color Sky Grey (70.989) popped details before I sprayed it with Vallejo Matt Varnish (No. 70.520).



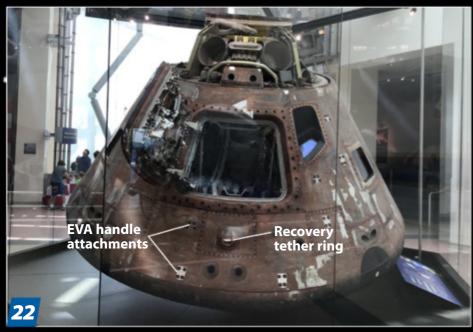
For strength, I attached the docking module to the Soyuz with two-part epoxy, taking care to align the docking clamps on each section.

To make the missing sextant and scanning telescope, I cut the base from styrene sheet and drilled appropriately sized holes. A pencil outline ensured I positioned it correctly when I superglued it to the kit part.





To build an accurate Apollo command module, I had to scratchbuild a sextant and scanning telescope. Fortunately, I was able to photograph a flight-ready Apollo spacecraft at the Kennedy Space Center. This ship was intended to be a rescue vehicle during the Skylab program and as a backup spacecraft for the Apollo-Soyuz project.



The command module from CSM-111, the vehicle used for the actual Apollo Soyuz mission is on display at the California Science Center. Photos show that it is missing the Extra Vehicular Activity (EVA) handles around the hatch used so I left them off and puttied over the locators.



The kit omits the recovery tether ring below the hatch, so I scratchbuilt one from styrene rod.



The command module was covered with reflective Mylar to help regulate temperature. After priming the CM with Krylon Gloss Black and letting it dry for two days, I followed up with Krylon Foil Metallic Silver (No. 01417-9345) to good effect.



I coated the assembled service module with white Tamiya primer and then masked the radiators.



Next, I sprayed Testors Metalizer Aluminum Plate. The paint is a buffable lacquer, so I polished the model for extra shine.



The service propulsion system radiator was chrome, so I masked and sprayed it with Krylon Foil Metallic Silver. The center around the engine bell mount will be painted with Vallejo Model Air Medium Yellow (No. 71.002).



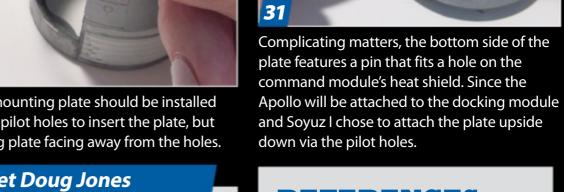
The service modules used for the Skylab and Apollo-Soyuz flight had striping on the Y reaction control system panel. I added them with white stripe decals cut to fit before application.



I created a Doppler antenna decal on an ink-jet printer and applied it over a square of white decal paper. This keeps the panel properly opaque.



The instructions are confusing regarding which side of the mounting plate should be installed inside the service module. The mounting ring features three pilot holes to insert the plate, but the instructions seem to show the pins on the corresponding plate facing away from the holes.





I attached the plate to the heat shield and used Microscale Micro Kristal Klear to glue it to the mounting ring inside the service module. After mating the CSM and the docking module to complete the historic rendezvous, I called the project done. FSM

Meet Doug Jones

Doug Jones is a retired college professor and a professional classical musician and composer. Having grown up during the space race, he has been an avid spaceflight enthusiast, real spacecraft modeler, and novice spaceflight historian since the 1960s. He also enjoys research trips to air and space museums across the country to

photograph historic spacecraft and rocket planes. He has had several space modeling articles published in the IPMS Journal.

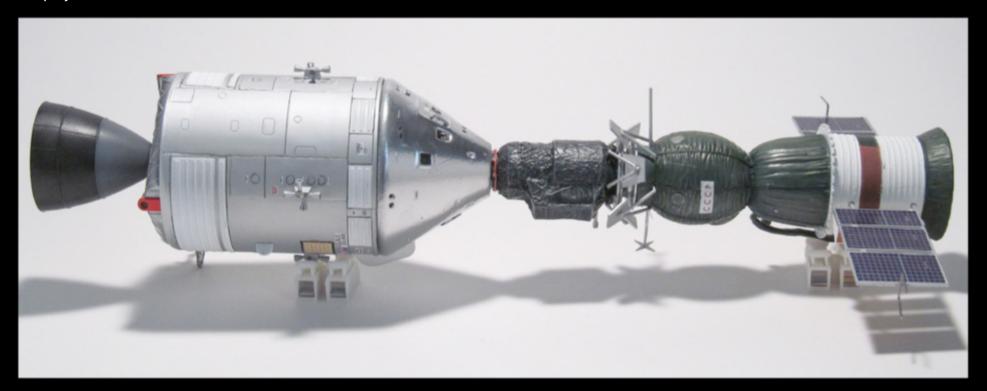


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Mike Mackowski, Space in Miniature No.6 — Apollo CSM Robert Godwin, Rocket and Space Corporation Energia: The Legacy of S.P. Korolev, Apogee, ISBN 978-1-896522-81-4

Edward Clinton Ezell and Linda Neuman Ezell The Partnership: A History of the Apollo-Soyuz Test **Project**, NASA Special Publication-4209



SCRATCHBUILD a simplified TANKINTERIOR

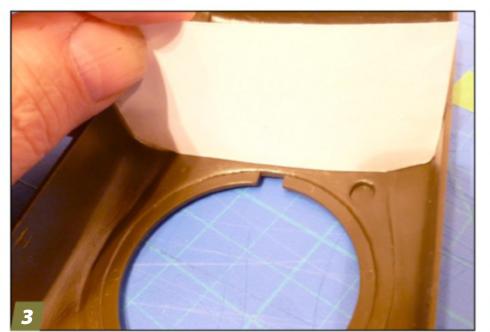
Fill the empty space in the pit of an old kit

BY RON PONIATOWSKI

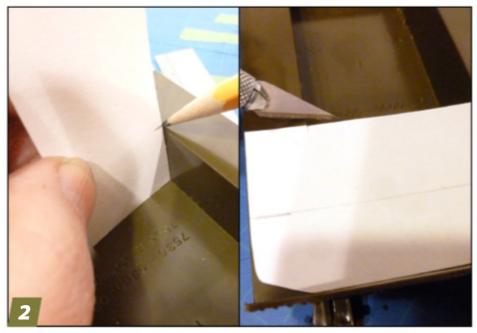




My first scratchbuilding adventure was this basic interior for my 1/32 scale T-6 Sherman prototype in the mid-1970s. It gave viewers something to look at through the open side hatch. It's not accurate, but it was better than empty space, and I enjoyed doing it.



I test-fit the pattern often, not only to check accuracy but also proportions for parts that need to relate to each other.



Now, with more experience, I wanted to build another 1/32 scale M4A1 with a correctly arranged interior. Starting with the engine compartment bulkhead, I measured the lower hull height to the sponsons and width of the upper hull by holding an index card against the kit part.



To ensure the engine compartment bulkhead's pattern was correct, I installed it with the upper and lower hull in position; tape held the pattern in place.

y modeling includes almost every subject from aircraft and tanks to cars, submarines, anatomical, and sci-fi. Having modeled since the 1960s, I'm fond of both new and classic kits and don't mind a bit of flash, sink marks, or other imperfections if the subject is right.

On the other hand, when modeling armor, I like tanks with hatches open. Of course, for both modern kits and older ones, too, this means a fine view of a totally empty interior — a less than ideal result on an otherwise good-looking replica.

In the mid 1970s, Monogram released a line of 1/32 armor kits, including several German Panzer IV variants, the M3 Lee/ Grant, and early production M4 and M4A1 Shermans. As a boy who liked 1/32 scale and both the M3 and M4, these kits

were quite welcome. They may not be up to today's standards, but what they lack in detail and parts count they make up for in fun. In fact, features like individual pioneer tools and spare equipment to stow lifted them a bit above the norm in their day. The M4A1 could be built with the T34 4.5inch rocket launcher, nicknamed the *Calliope*, or as a standard early production M4A1 with a mid-production M34A1 mantlet for the main gun.

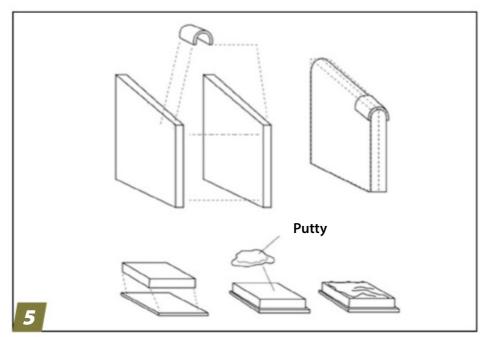
Learning how to scratchbuild

No aftermarket was available for these kits in the 1970s and the large commander's hatch on the M4 left the empty interior glaringly evident if you used the commander figure.

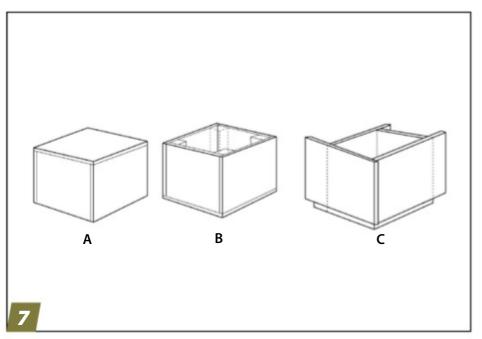
I wanted to remedy that, but, as a neophyte scratchbuilder, it took me a long time to learn the simplest of things, like what styrene sheet was. Had it just been called "white sheets of plastic" I'd have been good, but I had to rely on the dictionary to explain styrene. Then I had to find a supply. My local hobby shop helped me out and ordered a pack of assorted thicknesses from a dealer for me. It was the start of a decades-long journey into scratchbuilding.

I really enjoyed styrene as soon as I started to use it. It was easy to cut, responded readily to glue, and bent into smooth curves without complaint.

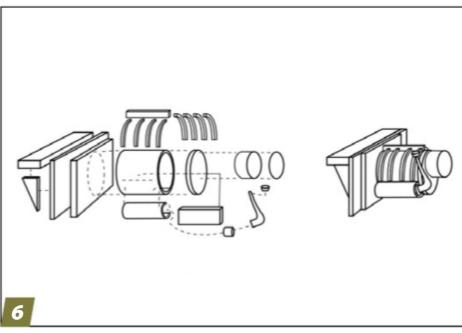
After some basic experience, in 1975, I converted an M4A1 into the prototype T-6 vehicle, with a representation, albeit inaccurate, of the interior. I enjoyed the project very much and was happy that something other than air was visible through the side hatches, 1. After that,



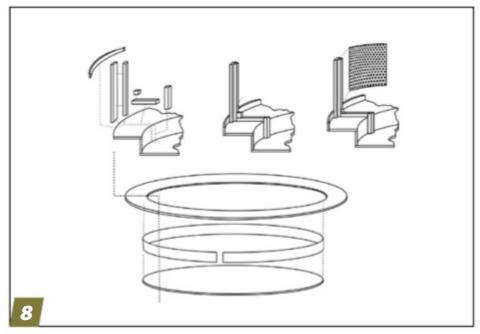
Layering styrene makes it easy to build up simple shapes. Using ½-inch styrene sheet, I constructed the driveshaft tunnel and seats. Styrene tube gives the tunnel a round top; thin styrene sheet added pans to the seats. Textured putty on the top of the seat brings the cushion to life.



Early on, when scratchbuilding boxes, I cut every side precisely and used braces at the corners if the box was to be closed (A and B). I learned that the sides could be various lengths, then trimmed to the top or bottom of the box, so I could use scrap pieces and save time (C).



For the transmission, I combined styrene tubes and square rod with styrene sheet. The same technique produced other components such as the hydraulic motor and traversing equipment in the turret and the auxiliary generator.



I constructed the turret basket mostly using styrene sheet. The floor of the basket was made of three simple sheets. The side braces were made from layered styrene.

almost every model I built had a crude interior. Decades later, Revell reissued Monogram's M4A1 Calliope, and I wanted to make another for memory's sake. As a much older modeler who has read many books on the Sherman and even driven and maintained them for museums and collectors, I was ready to make a more accurate interior, but how detailed did I want to get?

Accuracy

As I planned the project, I reminded myself that this was a trip down memory lane that wasn't meant to be a huge project. The detail on the exterior of the old Monogram Sherman is good and the contours are fine, although it comes with classic rubber-band style tracks. My aim was to scratchbuild a basic interior with the correct arrangement

but leave out fine details like bolt heads, wiring, and such.

I also wanted to bring back some techniques I'd left by the wayside as I became more skilled. These included drawing in details like wiring with a marker and using sprue for details. Mainly, I wanted to have fun.

Making patterns

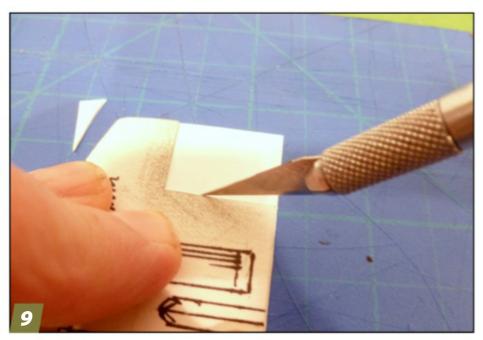
Creating patterns for major parts works well for me. It takes a little longer, but saves on styrene. My favorite medium for flat patterns is an index card, but any thin cardboard works. Calipers, a ruler, and direct measurement from the kit parts are used to get dimensions, **2**.

The good thing about a paper pattern is that if it goes wrong, then simply throw it away and make another. It's not so easy when you're working directly with a styrene master that you've measured and cut out only to find it doesn't fit. As you work, check the pattern against the kit part, **3**.

When the pattern is done, check its overall fit to confirm how it will sit in its final location, **4**. This should minimize fit issues at final assembly. In the case of the bulkhead, I could sketch my radiators and other equipment just to get an idea of how it will all look when completed.

Construction

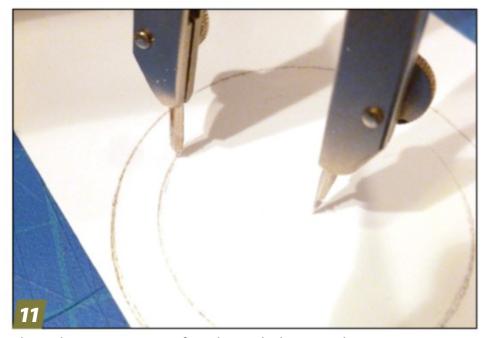
Scratchbuilding isn't difficult if you remember two simple rules: 1) Break complex shapes and forms into basic, simple ones. 2) Work from larger to smaller shapes and forms as you add details. Following these rules, you can construct almost anything.



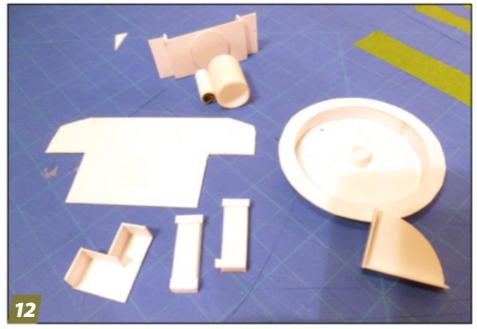
Using a hobby knife, I scored the styrene for the engine compartment bulkhead. After this, it will be cut out and test-fit in place. The pattern was darkened with pencil to make the edges more apparent.



The thin line produced by dividers is barely visible, but this piece will be cut into ammunition rack faces and backs. I used a hobby knife to finish the cut; on thin styrene, repeat the passes with the dividers would have been enough to cut through.



This is the easiest way I've found to make larger circles in styrene is to use dividers with two points. Here are the turret floor and step, which extends the entire turret floor over the sponson area. This technique works great for any larger circle.



Constructing basic shapes is quick and easy. Here are the engine compartment bulkhead, a pair of radiators with upper and lower 'heads' of thin styrene, the turret basket floor and gunner's platform, and transmission and brake/gear housing.

My plan called for simple layering, **5**, combining styrene shapes with sheet, **6**, and basic construction, 7 and 8.

I had styrene sheet in thicknesses from .01 inch to ½ inch along with various sizes and shapes of square and round tubes and rods. The nice thing about the thickest styrene is that it can be layered or laminated to make the driveshaft tunnel or cut it into small pieces of a single thickness for boxes.

Transferring a pattern onto the styrene is easy. You can use a sharp pencil, a fine marker that won't smear, or just scribe with the tip of a hobby knife or needle tool, **9**. After that, I just cut out the part and testfit it like I did the pattern.

Lately, I've discovered the advantages of using a pair of dividers that have an adjustment knob to set the spread of the

jaws, **10**. With two points installed, rather than one point and graphite lead, I can use them to scribe long lines in the styrene, keeping an even width throughout by dragging one point along the edge of the sheet. The big advantage is that there's no ruler to slip. You can even use it to scribe larger circles, 11. If the plastic is thin enough, scribing several times can cut most of the way through. I also cut styrene with a hobby knife guided by a steel ruler, scissors, and even nail clippers or sprue cutters to remove small sections.

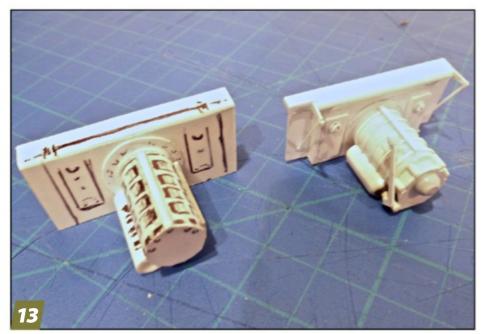
It took about an hour to assemble the basic shapes for the Sherman, 12. How much detail to add to these basic shapes is a matter of personal taste. I cut thin strips of styrene to add things like lock hasps to boxes and stretched sprue for hinges. Square rod became cooling fins on the

transmission. It takes a little longer but creates a lot of visual interest. Another option is to 'illustrate' texture, a sort of theater make-up for your model, such as a basic transmission and brake/planetary gear housing, **13**.

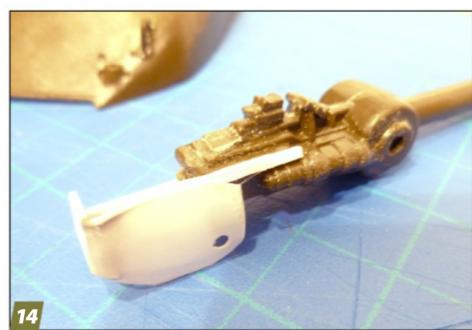
The 75mm cannon received a simple recoil guard of bent styrene and rod, **14**.

Little by little, my pile of finished parts grew, including crew seats, stowage boxes, radio, radiators, and ammunition racks with shell casing bases punched from thin styrene. For the perforated walls around the turret basket, I used screen from a stereo speaker, 15. Sure, it's around sixteen sizes too big but it does the job of suggesting the pattern. After about four hours spread over three days, I had a nice collection of interior components.

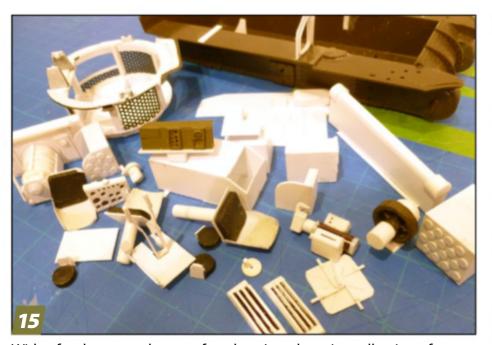
As I work, I test-fit the various parts in



Using a fine permanent marker, it's easy to illustrate detail on an object such as this transmission assembly (left). It looks rough, but through an open hatch it all creates visual interest. Or you can build detail with styrene strip and tube (right).



Keeping it simple, the gun guard is a piece of curved styrene with a rod frame. I filledthe upper seam of this, so I don't want to forget to brush away all of those annoying little shavings before painting!



With a few hours work over a few days, I made a nice collection of interior components. Remember, I started with large shapes and then added details.



I weathered the interior with grime, dirt, and dust painted where it would gather. I find that photos (often found on the internet) help me see where weathering needs to be added or toned down.

place to see how they relate to each other and how the space looks. Remember, my idea for this project was to make a good impression of an interior, not bring out every little detail — maybe you want to!

When you using patterns, keep them. You never know if you'll build another model that you'll be able to use them on. I store mine in labeled plastic bags or paper envelopes, depending on size, and place them in a file named "Patterns."

Putting it all together

Usually, Sherman interiors were painted white with black seat pads, olive drab instrument panels on later vehicles, and green generator and radio boxes. Research the interior layout of the vehicle you are building. Shermans show variation in the

appearance of the ammo racks, turret basket floors, batteries, and instrument panels among other details. Crews also moved things around. A little research is good, but imagineering detail is better than a blank space.

Interior weathering is fun and brings out details. Oil, dust, and grime as well as worn away paint are all common inside a tank; rust would be uncommon on a maintained vehicle, so keep it to a minimum, **16**. In spots, I drew wiring with a marker, but there's not a lot of it visible through the hatches.

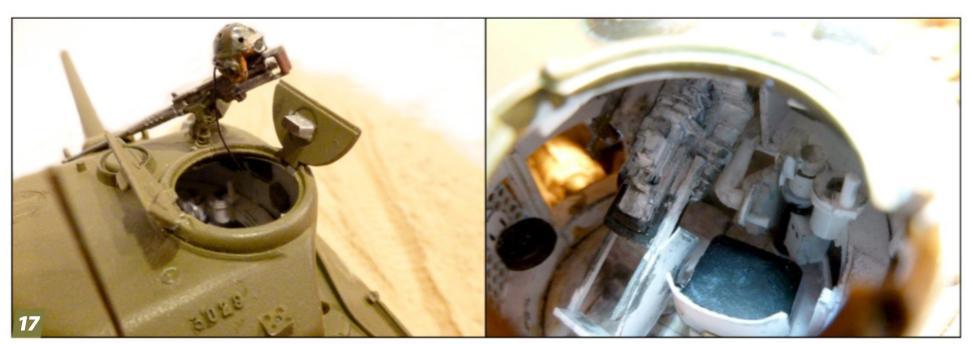
Now the view through the large commander's hatch reveals something other than an empty void, **17**. I purposely kept the antenna short, so it wouldn't poke viewers in the eye.

Finishing up

With everything together, I prepped the exterior for paint and weathering. I modified the exterior as I worked on the interior because I wanted to model an early production tank after the direct vision slots were eliminated. I like the clean lines of the hull after the direct-vision covers were done away with, plus more of this version were produced. I eliminated the direct-vision covers by adding styrene sheet in front of the hatches and contouring layers of putty.

At the rear of the hull, I added the hand-crank hole, round air cleaners, and exhausts.

The turret's later M34A1 gun mount was backdated to resemble an M34, which afforded me the opportunity to expose the barrel of the coaxial .30-caliber machine



I added the tanker helmet, cut from a kit figure, and dropped its overly long headphone cable through the hatch to break the visual plane for the viewer. Since there are no figures with the model, it also suggests there is a crew around somewhere.



efforts, including that T-6.

store!

All in all, a lot of fun modeling is in







▲ SCOTT GLATSTEIN MINNETONKA, MINNESOTA

Scott revved up Revell's 1/24 scale Porsche 918 Spyder with a detail set from Hobby Design and opened the vents behind the doors. "The body is painted with Splash Soul Red Crystal, Pepper Black Metallic, and Semigloss Black," he says. The final gloss was provided by a layer of Splash 2K Clear.

◀ ANTONIO THUEMLER MIAMI, FLORIDA

Using Vallejo acrylics and decals from Aztec Models, Antonio finished a Tamiya 1/48 scale F4U-1D as a Salvadoran air force Corsair from the 1969 100 Hour War.



◀ MARC D. TYLER

ALPHARETTA, GEORGIA

"This is the old AMT USS Defiant, painted and primed with Vallejo Model Color and Vallejo Model Air acrylics," Marc says. "The decals were original to the model, and I really wanted to see if I could build this model out of the box." He adds that he learned a lot of lessons from this build, but overall, it was a great experience.

GET DOWN!



as a kid, but, thankfully, books, magazines, the internet, and model cars allow me to feel a part of it. A custom van offers a large canvas for personal expression and often portrays the owner's fun-loving attitude. The van craze spawned unique factory vehicles, such as the Dodge Street Van, as well as gobs of conversion offerings and aftermarket accessories. I could spend hours researching the brochures of Leisure & Recreation Products (LRP), Gerring, and Hop Cap — just to name a few — each

offering unique custom features that made their vans standout in a crowded field.

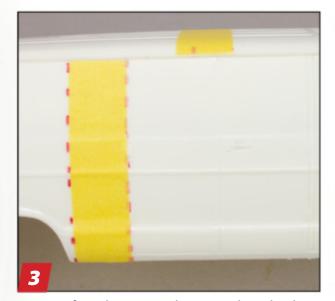
One of the most popular subjects for a period-correct custom (or "boogie") van is the short-wheelbase (109-inch) Dodge. Unfortunately, all MPC Dodge van releases, beginning in 1971 and ending in 1982, were all based on the longer 127-inch platform. The itch to build a custom van has been one I've been longing to scratch. So, starting with the recently released MPC 1/25 scale Turtle Wax 1982 Dodge Van (No. MPC943M), let's boogie!



The starting point for this project involves the Turtle Wax Dodge Van, AMT 1977 Surfer Van Ford Econoline (No. AMT1229M), and AMT Goodyear Polyglas GT Tires set (No. AMTPP06). You'll also want a razor saw like my Zona 42 TPI (No. 795-150), Tamiya 18mm masking tape, and a roll of The Paper Store brand Removeable Vinyl (No. 1787373).



For a short wheelbase, naturally, the body must be shortened. Start at the far-left door line on the right side of the body and mark a section from top to bottom %-inch (16mm) wide. Mark a similar section across the the roof but do it close to the center where the curve along the top from front to back is less pronounced.



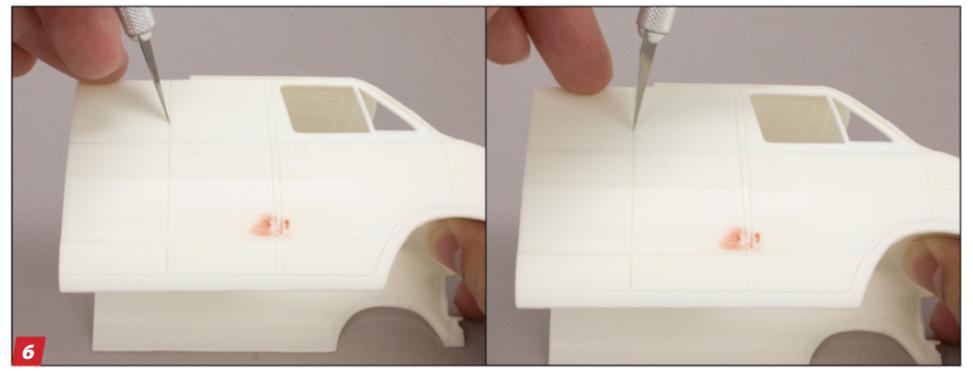
A strip of masking tape denotes where body material will be removed. Score the initial lines with the back side of a No.11 hobby blade and then move to a razor saw. Make a horizontal cut just below the drip rail to connect the roof and wall incisions and fully separate the two sections.



Remove all the decorative trim, badges, turn signals, door handles, and hinges. This will make custom paintwork much easier. A pencil can help make the details easier to see. After scraping away these features with a No. 17 chisel blade, use a 240-grit sanding stick to smooth them out.



You'll have to fill any sink marks that you find. Here, there were substantial sink marks along the hood sides and near the rear hinges. Automotive spot filler available from big-box stores makes for a quick solution.



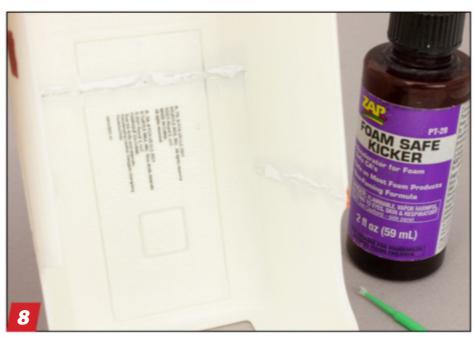
Deepen shallow panel lines. Begin by gently dragging the backside of a No. 11 hobby blade along the line straight up and down to deepen it. Then, to make it slightly wider, drag the blade along the line tilted 10-degrees to the left and repeat with the blade tilted 10-degrees to the right.



Remove the remains of the old door handles with a round cutting burr in a rotary tool. This will allow your body filler to bite a little better. More detailed handles are available from Fireball Modelworks (No. FMR-048): insert a small piece of wire as an attachment point and paint the handle with Molotow Liquid Chrome.



Fill the new joins and sand them smooth. For filler in hard-to-reach places, such as the corrugations in the roof, wrap 320-grit sandpaper around a flexible rubber contour sanding grip, also known as a woodworker's tadpole.



Join the body halves together with superglue and hasten the drying with accelerator, like Zap Foam Safe Kicker (No. PT-28). Using superglue will create a quick, firm bond that you won't need to hold. In a situation like this, plastic cement takes too long to cure and runs the risk of causing deformations in the body.



Once the body halves are joined and primer sprayed, assess the four wheel-arch flares from the AMT Surfer Van kit. The shape is not perfect for a Dodge, so remove 2-3mm from the middle of each and join the ends together with superglue and accelerator.



A lip on each flare helps secure it to the wheel arch. Remove 5mm off the edges of each lip to better fit the wheel-arch radius.



Fiberglass flares were a common custom accessory for '70s and '80s vans, and some included an integrated mud flap. To make this, sculpt Milliput epoxy putty to the desired shape; keep water nearby to help smooth the surface of the putty. Protect the van body from the Milliput with masking tape.



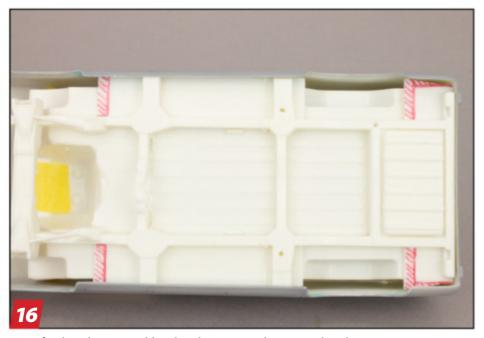
To integrate the front flares to the chin spoiler (also from the Surfer Van kit), tack a piece of .020-inch styrene rod between the two. This serves as the profile edge and will visually create width from the head-on view. Fill the area from the back with Milliput.



Allow the Milliput to cure overnight and then trim away the extraneous portion of the .020-inch styrene rod. Sand the spoiler, wheel flares, and Milliput until they are smooth.



Use the same method as you did with the body to shorten the interior bucket. Remove the section behind the driver and passenger doors. The red Ds mark the location of the side doors on the interior bucket. They align with the 1977 and older MPC Dodge van kits (background), and you want them to match the doors on the shorter custom body.



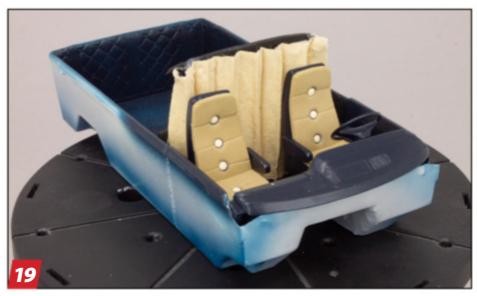
Test-fit the shortened body, chassis, and interior bucket to ensure a good fit. Some material (in red) should be removed from the chassis to avoid interference with the newly crafted mud flaps.



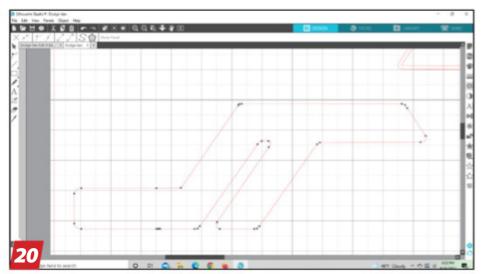
While this build doesn't show off a lot of the interior, the seats in the cab are in full view. Make custom seat cushions with thin foam sheets available from a craft or art store.



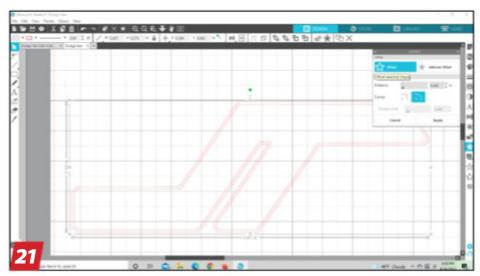
You can create a curtain from any cloth that you may have around the house, like this retail store jewelry bag. First, soak it in coffee for a deep rich color. Mix water and white glue in a 1:1 ratio and completely cover the cloth. Fold it back and forth onto itself, fix both ends with alligator clips, and allow to dry overnight.



Once dried, stretch it out the width of the van's interior and attach it to the kit partition with a hot-glue gun. The bone-colored curtain lends a little mystery to what may be happening in the rear of the van and provides another pop of color and texture in the cabin.



Silhouette Studio is a free software program included with the purchase of a Silhouette die-cutting machine, like the Cameo 4. It is available for PC, Mac, and as a smartphone app. With just a little work, anyone can create shapes comparable to the graphics on the side of a '70s van.



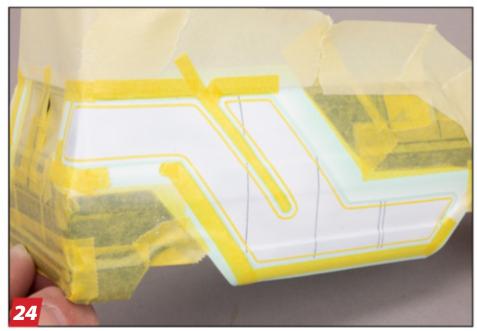
One useful feature of the software for creating this layout was the Offset command, found in the menu on the right-hand side of the screen.



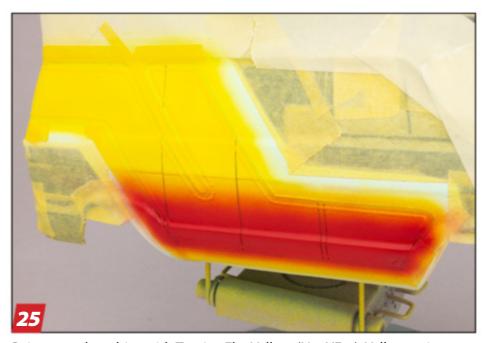
While you can paint your design any way you'd like, I finished mine on the computer, fed a sheet of removeable vinyl into a Cameo 4 diecutting machine and pressed go. Within minutes, I had masks perfect for use on both sides of the van.



After painting the body — in this case, Model Car World Jamaica Blue (No. MCW 6952) — let it cure 48 hours. Then remove the backing paper and position the vinyl outline on the body.



Airbrush three light coats of Tamiya Flat White (No. XF-2), let it dry, and then apply the thin vinyl offset mask around the interior edge of the larger mask. For more flare, cut Tamiya masking tape into .5mm-wide strips and create a second offset as shown here.



Paint over the white with Tamiya Flat Yellow (No. XF-8). Yellow paints are notoriously translucent, so the white provides excellent backing and keeps the color true. Spray the lower third of the graphic Tamiya Flat Red (No. XF-7). Let the color fade into the yellow to create a gradient.



To create more depth to the gradient, airbrush Tamiya Clear Yellow (No. X-24), Clear Orange (No. X-26), Clear Red (No. X-27), and Smoke (No. X-19) onto the graphic at 10-12 psi. Make sure to create smooth transitions and use artistic license.



Lastly, you'll need stylish exhaust pipes. I took the side pipes from an MPC 1980 Plymouth "Fuzz Duster" Volare Road Runner (No. MPC843/12), cleaned them up and painted with Molotow Liquid Chrome. Add strip styrene to create an attachment point that hugs the rocker panel.



With the graphic finished and clear coat applied, mask the areas surrounding the windshield, fuel filler, and rear windows and paint them Tamiya Rubber Black (No. XF-85) to replicate the surrounds and gasket on a real van.

FINAL THOUGHTS

ROUND OUT YOUR VAN as you see fit. Have fun! Me? I plucked a number of custom goodies from other kits: a roof vent from the previously plundered Surfer Van; slotted mag wheels from an AMT 1965 Buick Riviera (No. AMT1121); side mirrors from an AMT "Deserter" 1984 GMC pickup (No. MPC848), and the rear window louvres from a vintage (and rare) Revell "Mean Mudder" Chevy van (No. H-1393). I bought the Indiana license plates from eBay seller Three Inches Under and the Cooper Cobra raised white-letter decals came from Fireball Modelworks (No. WL-09). **FSM**



Raise a South Atlantic

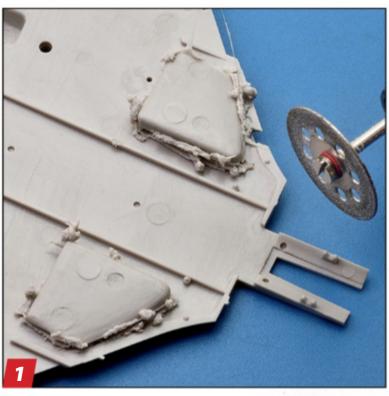
Accurize a Hasegawa A-4 to build an Argentine striker

BY RICARDO DACOBA

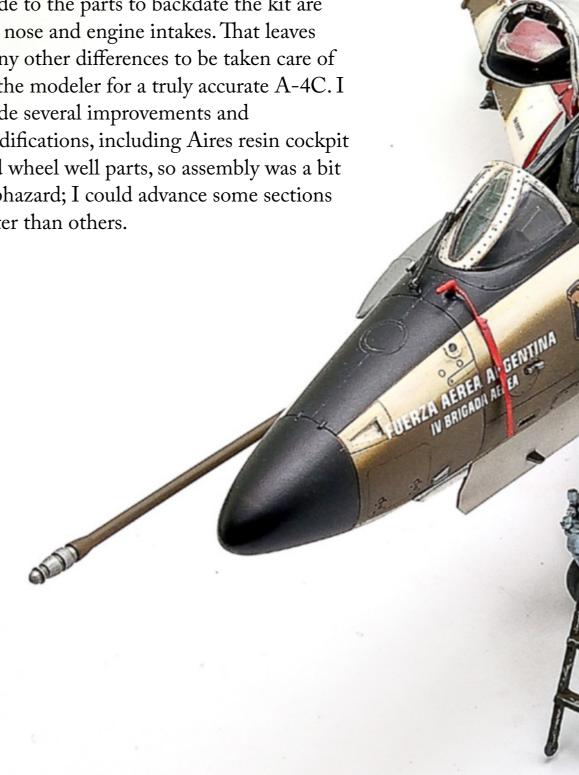
o mark the 40th anniversary of the Guerra de las Malvinas, or Falklands War, I wanted to build an Argentine A-4C. Specifically, I aimed to replicate one of four Skyhawks that took part in a May 30, 1982, mission to attack the British carrier, HMS Invincible. Only two of the four aircraft survived that day, including C-318 flown by 2nd Lt. Gerardo Issac.

Released in 2004, Hasegawa's 1/48 scale

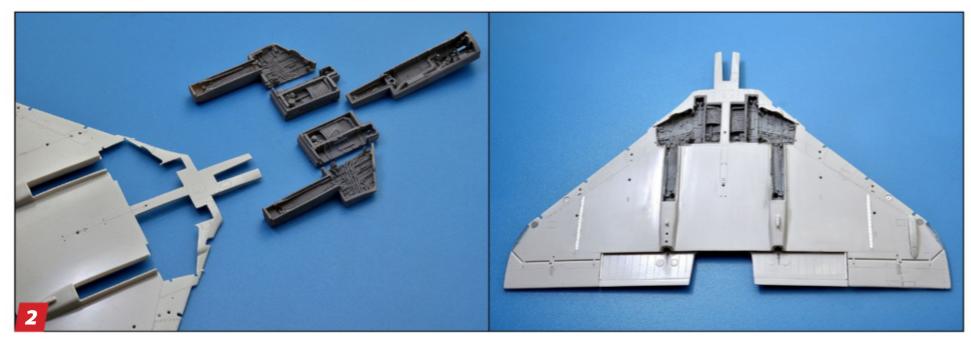
A-4C is a modification of the company's A-4E. Unfortunately, the only changes made to the parts to backdate the kit are the nose and engine intakes. That leaves many other differences to be taken care of by the modeler for a truly accurate A-4C. I made several improvements and modifications, including Aires resin cockpit and wheel well parts, so assembly was a bit haphazard; I could advance some sections faster than others.



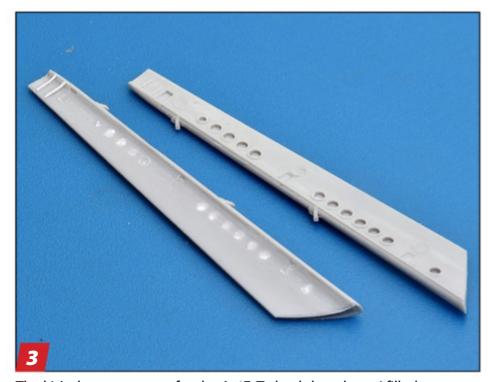
Using a cut-off wheel in a rotary tool, I removed the landing gear bays molded into the lower wings. Then I thinned the surrounding plastic as much as possible to accommodate the Aires resin wells.



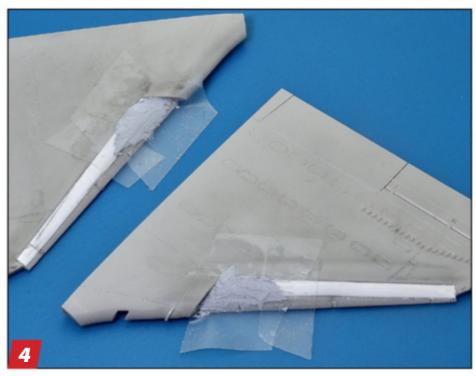




To fit the Aires bays, it was not enough to make precise cuts in the plastic. I ended up having to cut the wheel bays apart from the adjoining gun bays and removed a thin section at the mating edge to fit the openings.



The kit's slats are correct for the A-4E. To backdate them, I filled lightening holes before thinning the trailing edges for accuracy.



Rather than a step at the rear of the slat housing as molded, it should be a smooth surface to the wing. So, I blended the transition with styrene sheet and re-created an inspection cover by taping the outline and applying putty and sanding.



The kit's tailplanes are set in the neutral position, but I wanted to pose them at an angle. That meant removing the tailplane seal plates molded on the vertical tail because they move with the stabilators. First, I used silicone to take molds of the plates on the model.



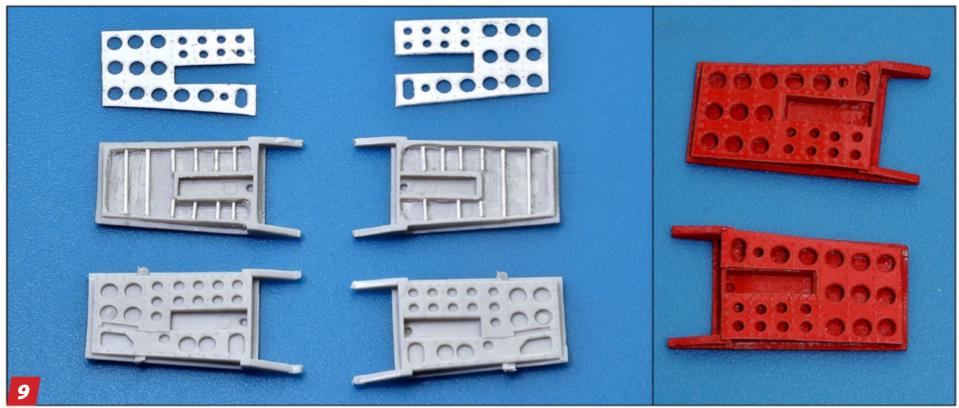
Then, to protect the fuselage, I reinforced the inside of the tail with two-part epoxy putty. This will give more surface area as I sand off the seals.



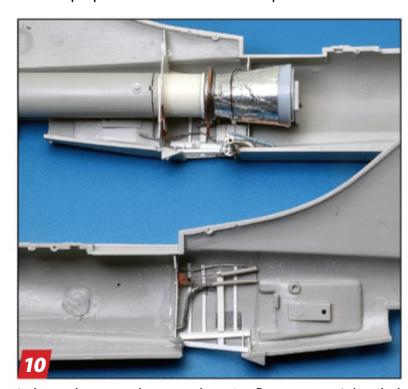
After protecting surrounding surfaces with tape, I removed the molded seals with a medium flat metal file. I followed with a fine metal file and then 600-grit sandpaper.



When I attached the resin seals I cast from the silicone molds, I made sure that the parts were positioned symmetrically. Holes cut in the tail match openings in the real Skyhawk when the elevators are at this jaunty angle and styrene strips replicate the tracks.



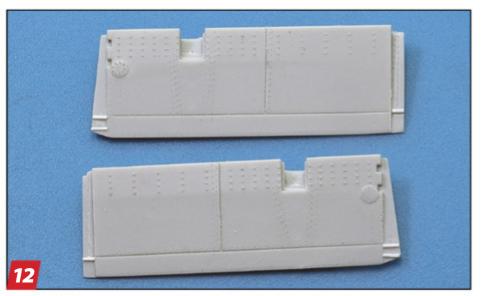
To improve the airbrakes, I hollowed out the kit parts and built internal framing with styrene strip. I replicated the facing with styrene cut to shape and the proper holes for the A-4C were punched out. Both the inner faces of the airbrakes and their housings were painted red.



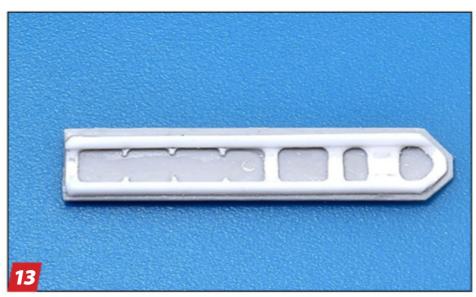
I planned to pose the ventral service flap open, so I detailed the area inside the fuselage with styrene strip, copper wire, solder, and tubing as well as a few bits from my spare parts box.



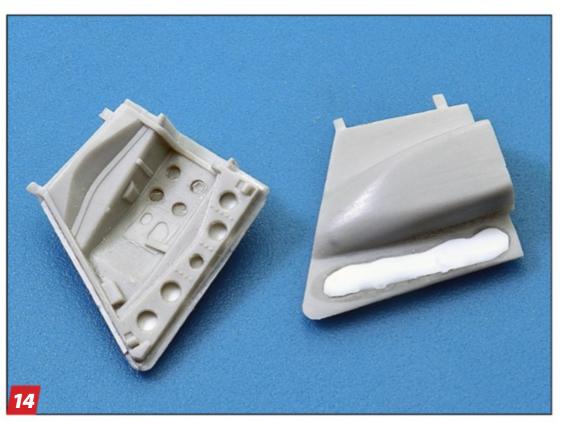
Argentine A-4s carried two extra wing pylons requiring four structural reinforcements, two on the upper surface and two underneath. I added them with thin styrene marked with rivets and trimmed to fit around surface details.



I improved the inner faces of the flaps with styrene strip for missing structural details and rivets impressed with a pounce wheel.



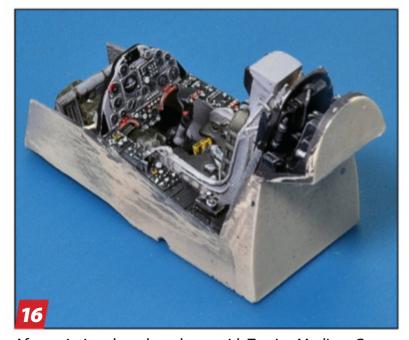
After sanding off molded details, I built structural details inside the nose-gear door with styrene strip and half-round.



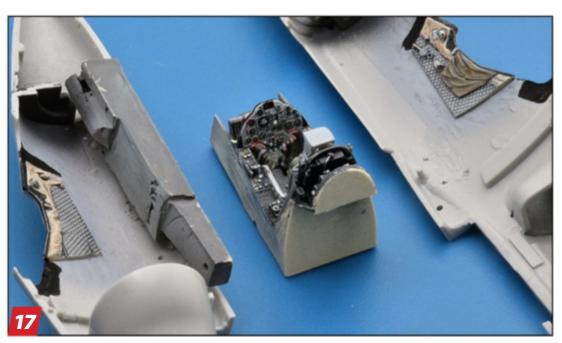
I thinned the edges of the main gear doors and hollowed out one section to accurately represent the open internal structure. Styrene sheet and superglue replaced the upper surface.



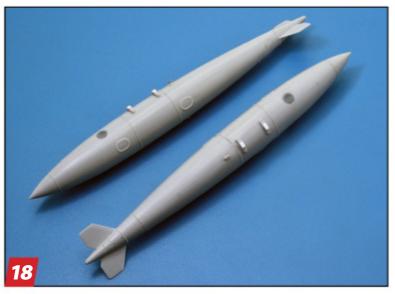
The Aires cockpit is designed for the A-4E, so I added the C panel from the kit. Other parts like the rudder pedals, throttle, and parts shaved from the kit cockpit for the side consoles produced an accurate Argentine Skyhawk.



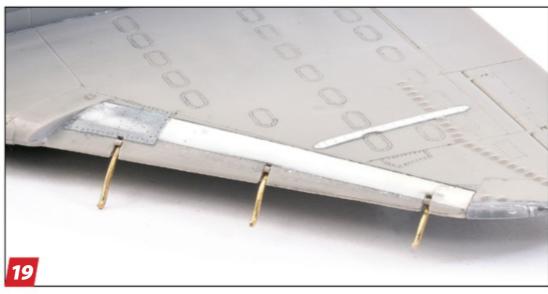
After painting the tub and seat with Tamiya Medium Gray (No. XF-20), I brushed the instruments and panels with black, picked out the dials with white, and painted cloth on the seat, floor, and walls with olive green, khaki, and deck tan.



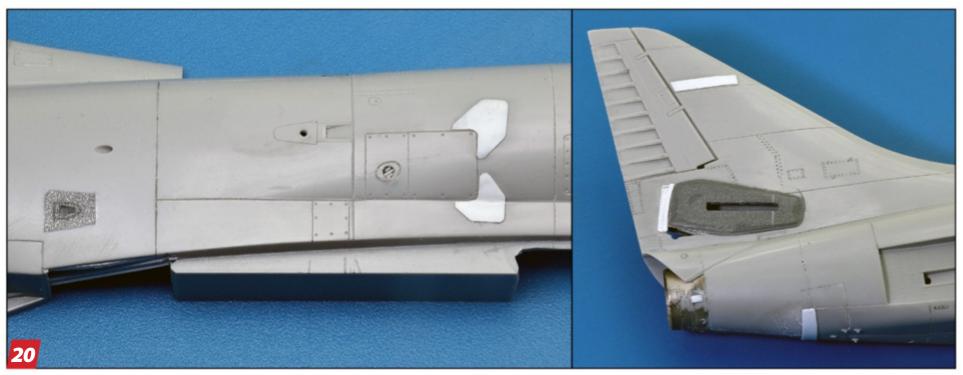
I spent a lot of time test-fitting, scraping, and sanding the resin cockpit, sides, and gear bay as well as the inside of the fuselage to ensure all of the components fit and the fuselage closed around them.



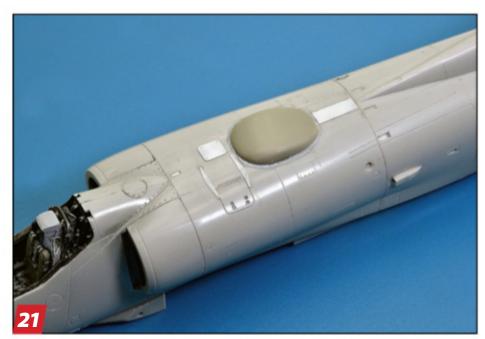
The aircraft carried two supplementary fuel tanks. Before painting them with Tamiya Sky Grey (No. XF-19), I refined the shape of the kit tanks, improved the filler caps, added styrene strip details, pressed rivets, and replaced weld seams with stretched sprue.



For realism and strength, I replaced the slat guide rails molded on the kit's upper wing halves with Albion Alloys brass tube hammered square and shaped to match the kit parts.



On the starboard side (left) and at the rear (right), I added reinforcement plates made from thin styrene sheet. The kit's exhaust nozzle is too short, so I extended it with a 2mm wide styrene ring.



I shaped the dorsal radome from a block of excess resin using files and a lot of sandpaper. Note the reinforcements and other panels added to the upper fuselage.



After fixing blemishes revealed by a coat of Mr. Hobby Mr. Base White 1000, I painted the undersides off-white mixed by adding a few drops of Tamiya Black (No. X-1) to a bottle of Tamiya White (No. X-2).



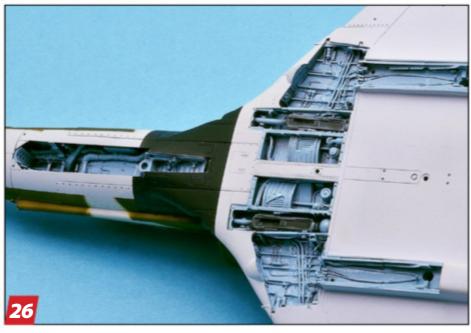
For the upper surfaces, I airbrushed a light gray mixed from 98% Tamiya White and 2% Light Sea Grey (No. XF-25). Tape kept the demarcation between the colors sharp.



To add the second color in the upper camo, I airbrushed Tamiya Olive Drab (No. XF-62) using Blu-Tack poster putty to produce slightly soft demarcations between the colors.



I tried to replicate some painting defects I could see in photographs of the real plane. Poster putty allows for precise pattern adjustments, a great advantage to painting camouflage freehand.



The landing gear wells were painted with Humbrol Sea Blue (No. 47) and the 20mm cannons Tamiya Gun Metal (No. X-10) enamel. For the interiors of the flaps and slats, I used Tamiya Red (No. X-7).



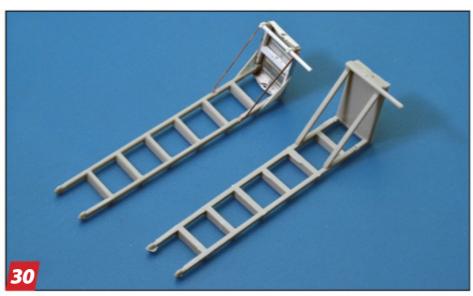
To start weathering, I brushed on dark tempera thinned with water and mixed with acrylic extender. This serves as a wash and has the advantage that excess and mistakes can easily be removed with a damp cloth.



Watercolor pencils have the same advantage and are a great way to add fluid streaks and other fine marks to the airframe.



After painting the landing gear legs and wheels with Humbrol Sea Blue, I detailed them with copper-wire brake lines. I replaced the extended oleo on the nose leg with .8mm steel rod.



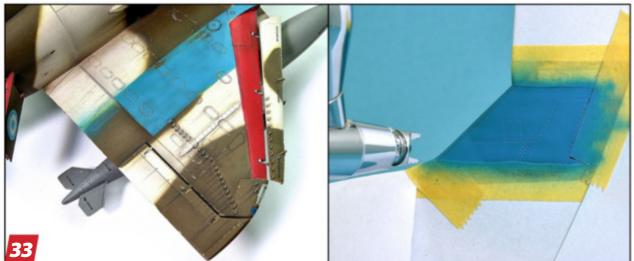
I improved the access ladder by thinning the steps and rebuilding the platform with styrene strip supports and an aluminum surface.



I scratchbuilt the engine service cover using brass sheet and styrene strip.



I turned three 1/48 scale Mk.82 bombs on a lathe to change their profile to match the Spanish Expal BR250 carried by Argentine A-4s. Styrene sheet fins and scratchbuilt braces finished the ordnance.



During the war, the aircraft wore identification bands. They were initially yellow but were repainted blue with a turquoise hue. These were added hastily, so I did not use precise masking. **FSM**



ORKBENCH REVIEWS

FSM experts build and evaluate new kits

Gallery StuG III **Ausf G**

erhaps surprisingly, this 1/16 scale StuG III Ausf G is the first kit I've built from Gallery Models. Inside the big box reside over 1,000 parts that include a single-piece hull bottom and sides, individual-link tracks, road wheels, tires, periscopes, a rear rack, and a metal barrel. Decals with markings for four different vehicles are included, too.

Assembly starts with the suspension and torsion bars. Early on, I realized the plastic torsion bars didn't line up correctly, I glued them in place, checking them with a ruler. The multipart road wheels made cleaning up the separate tires a lengthy process, with eight sprue points per tire. That aside, the tires were nicely molded with a Continental logo on each side.

A cleat, horn, and pin completed each track, and every part required cleanup. The track pins did not fit consistently and the holes needed frequent drilling.

The hull's one-piece fender included all the hardware. I used a mix of plastic and photo-etched metal (PE) clasps for the tools and tow cables. The PE lock mechanisms gave me trouble, particularly the pin (Part PE-A7) — too short and fiddly to

insert. The locating holes in the fenders were undersized, which required drilling. The tow cables were made of copper wire that needed straightening from being rolled up in the box. Installing them in the holders was a challenge because of the wire's memory — it wanted to keep curling back up. The instructions are vague on where to attach the fenders, so I made my best guess and glued them to the hull.

The kit offers the choice between a plastic or metal barrel for the main gun. I chose metal, built the breech, and attached the two. I primed the assembly before installing

The upper hull and engine deck fit without any difficulty. With it all closed up, I painted the camo. Lastly, I added the side skirts, and, like the prototype, they just hang there loose. I glued them to keep them from falling off and applied the decals. Unfortunately, the decals silvered after drying for a day. I used decal solvent to get them to settle down. A light misting

of Floquil Dust from an airbrush added a bit of light weathering.

Gallery Models' 1/16 scale StuG III Ausf G took longer than I expected: 65 hours with a good portion spent on running gear. Well organized, the biggest stumbling block for me was the amount of cleanup required. It makes an impressive model and will interest fans of German armor, especially those looking to superdetail a big model.

- Tom Foti





down makes for a straightforward build **Cons:** Fit issues; parts cleanup; no inte-

rior; decals silvered



he OV-10D Bronco was a modernized version of the OV-10A aircraft with a forwardlooking night vision system and a rotating camera in the extended nose. The improved capabilities of the aircraft made it possible to complete a wide range of tasks, including observation and target designation, and still retain the functions of an attack aircraft.

ICM's 1/48 scale OV-10D+ plastic model kit comes molded in gray, slightly soft plastic that makes it easier to trim small parts from the trees without breaking them. Many of the 367 pieces wind up building the 11 different ordnance options. All the parts appear precise, thin where necessary, and well detailed, although the rivets seemed a little oversized. The instruction book has 28 pages with a total of 94 steps and is nicely illustrated, including five color diagrams.

As per usual, the build starts with the cockpit. I followed the instructions with no problems, painting as I went. The decals for the instrument panel needed to be cut into pieces to fit correctly and required setting solution to conform. On steps 33, 36, and

Kit: No. 48301 **Scale:** 1/48

Mfr: ICM, www.icm.com.ua (Sample courtesy of mfr.) Price: \$57.99 **Comments:** Injection-molded plastic (gray); 367 parts; decals **Pros:** Excellent parts fit; 11 ordnance options **Cons:** No seat belts; rivets on some parts too large

45, I drilled holes for pylons with a 1mm micro bit. In Step 53, I had to sand a little off the bottom of the gun sight (Part F5) so it would not hit the instrument panel. In steps 69 and 79, I painted the exhausts a burnt metal color but waited until after painting the rest of the aircraft before attaching them to cut down on masking. While Step 49 does not show it, you can position the ailerons and flaps up or down, if you're careful.

The canopy was the most difficult part of the build because of its fine attachment points. I followed the instructions, but it might be possible to glue the four pieces together before attaching them to the fuselage if you have a steadier hand than mine.

I painted my Bronco light ghost gray, white and olive drab on the ordnance, and burnt metal for the large 150-gallon fuel tank. I chose markings for the Marine Observation Squadron 2 (VMO-2) from early 1990.

At 1/48 scale, ICM's OV-D+ Bronco kit is just the right size for enough detail but where are the seat belts? A small oversight, yet, I'd have liked to see them. It took me about 35 hours to build the Bronco, but I'm slow. ICM did an excellent job on the precision molding and fit. I would recommend this kit for experienced modelers.

55494

– Ted Horn

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- AMT 1/25 scale "Dyno" Don Bel Air
- ICM 1/35 scale Model T 1914 fire truck



MARINES



NuNu Models Audi R8 LMS GT3

he GT3 category of racing has been one of the most hotly contested series in recent years. The cars are based on the production platform and modifications are reined in by cost limits. Strong manufacturer support and large fields have produced exciting races.

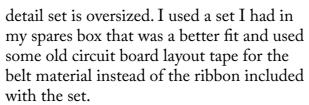
I reviewed this kit upon its initial release a couple of years ago, without the NuNu Models 1/24 scale Detail Up Parts Series (No. NE24004; \$24.99). This build incorporates the detail set, which includes carbon-fiber decals, a sheet of photo-etched metal details, ribbon material for the seat belts, and a turned-aluminum base for the antenna. Marking options for the two works-team cars run at the 2015 Spa 24-hour race are included in the kit. My first build was the second-place silver car; this time, the ninth-place red version.

First, I applied the carbon-fiber decals from the detail set to the underside of the chassis. I split the decals for the diffuser strakes figuring it would be easier to apply the sides separately rather than trying to wrap them around. The fit was excellent, and the decals responded well to setting solutions and a little heat when needed. The rest of the chassis was assembled per the instructions, with the addition of the photo-etched metal (PE) rotor faces for the brakes and radiator grille.

NuNu molded the upper half of the engine and engine compartment as a single piece. Masking this would be nearly impossible, so I cut out the engine with a razor saw to make painting easier. My search for detailed shots of the engine compartment didn't reveal much, so I added only minimal additional wiring; most of it won't

be visible once complete, anyway.

I added more carbon fiber decals for the interior door panels, seat backs, and dashboard next. The dash decals needed careful coaxing due to compound curves, but they settled nicely. The PE seat belt hardware supplied in the



The rest of the build went smoothly, following the instructions and substituting the PE parts where appropriate. As with most PE sets, I didn't use all of them because I felt some of the stock parts had better detail or would be substantially easier to use instead of the PE.

Minimal cleanup of mold lines is needed on the body in preparation for paint. I used Tamiya Pure Red (No. TS-86) for the main body. It's close, but not quite an exact match, for the decals. The decals on all the NuNu kits I've built so far have been an absolute joy to work with. They cover well, their fit is spot on, and they conform beautifully to contours with little effort.

The NuNu Models 1/24 scale Audi R8 LMS GT3 Spa 24 Hours '15 base kit is

very good on its own, but the addition of the detail set really steps it up a notch. If you're not happy with the kit-supplied decal options, or if you've already done the two kit versions and want to build some more, there are several aftermarket sets available. Either way, it's an enjoyable kit, and you won't be disappointed.

- Mike Klessig





Kit: No. 24004 Scale: 1/24 Mfr: NuNu/Platz, nunumodelkit.com (Sample courtesy of mfr.) Price: \$70 **Comments:** Injection-molded plastic (white, black, and clear); 127 parts (8 rubber); decals Pros: Excellent decals; overall good parts fit and detail Cons: More cleanup than expected for a new tool; some part locations aren't well defined



Takom M114A1E1 CRV

he M114 A1E1 CRV is a Vietnam War-era tracked command and reconnaissance vehicle. It was developed as a lightweight, low-silhouette vehicle to complement the M113 armored personnel carrier. Like the larger M113, it was constructed out of aluminum and could be transported by cargo plane or even airdropped. The M114 had a crew of three, was powered by a 160 horsepower GM V8 engine, and was amphibious, ideal for deployment in Vietnam. However, it proved to be mechanically unreliable and underpowered, and its aluminum hull left the vehicle vulnerable to

Takom's M114 is the first plastic kit of the armored fighting vehicle. The smaller vehicle and relatively low parts count make for an enjoyable, reasonably quick build.

land mines.

The lower hull is a single, bathtubstyle piece to which the roadwheel arms and suspension attach. A

> track jig fits over them, making it easy to verify that the placement is correct and helping build the link-and-length tracks.

The upper hull build goes quickly. There isn't much in the way of interior detail, but there is some detailing on the inside walls. I wish there were more to see inside because it would be great to pose the large rear door open.

Part fits were generally good, and I

found only one error in the instructions: In Step 18, the headlight guard pieces are flipped — A12 goes where G13-14 should and vice versa. It's not a huge issue but will cause a headache if you don't catch it.

Photos show pronounced weld beads between the panels that aren't represented on the model. It's not a make-or-break omission, but there is a nice notch where the panels meet. That makes it easy to add the weld seams using putty or stretched sprue.

The kit includes markings for four M114s stationed in Germany in the 1970s. Two are overall olive drab and two wear four-color camouflage.

I enjoyed painting and weathering the little vehicle, but the decals were a bit thick and the clear carrier on my sample seemed a tad milky. A sealing clear coat and filters helped to blend them into the surface.

Due to the number of parts and wellengineered construction, I spent about 20 enjoyable hours on the M114, much of that on painting and weathering. I would recommend Takom's M114 to anyone; it's a one-of-a-kind model that doesn't take up much room, so you can easily add an interesting subject to your collection.

- Chris Cortez









he new Tamiya 1/48 scale British Tank Challenger 2 represents the "desertised" version of the UK's main battle tank. It features over 150 parts molded in tan plastic, link-andlength tracks keyed to the road wheels for nearly foolproof installation, and decals for just one vehicle of the Royal Scots Guards

in Iraq in 2003. The clear instructions present clear diagrams and detail painting callouts, and a separate, small painting and decal guide is included.

Following the instructions, I began the assembly with the lower hull, which, interestingly, has no side panels. The reactive armor side skirts hide this fact on the finished model. Two bulkheads align the side armor and hull top.

All the suspension arms are molded in place on the hull.

As is typical of Tamiya's 1/48 scale

armor kits, a metal weight inside the hull adds heft to the finished model.

The assembly sequence moves to the running gear and tracks next, but I decided to leave them until I had assembled and painted the lower hull (minus the side armor). Following the instructions would have been easier because adding the tracks later turned out to be tricky.

When adding the upper hull, I noticed a significant gap where it met the rear plate. A strong rubber band wrapped around the hull pulled the rear panel tight until the

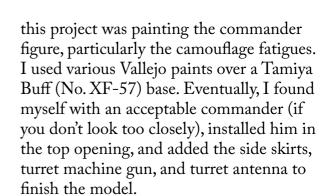
> glue dried. It worked so well, it didn't need filler. I left the larger details on the rear plate until last to make painting easier.

The turret parts fit well and required no filler for the joins.

Vinyl keepers allow you to elevate the gun on the finished model. I left the rear IFF panels (Part A20), machine gun, commander figure, and hatch until I finished the main painting.

After the base color dried, I gloss-coated everything in preparation for decals and pinwash. Tamiya gets a lot of criticism for their thick decals, but I found these decals thin and workable, and paired well with Micro Set and Sol. The kit provides decals for all the vision ports and some sensors. While the vision ports should have a reddish anti-laser coating, they often appear black in photos.

For me, the most challenging part of



I spent about 13 hours building Tamiya's 1/48 scale Challenger 2 (desertised), and the finished model matched the vehicle dimensions. While I wouldn't recommend this kit for a young beginner, a teen or adult with a little bit of experience should have no problem building and painting this kit. The Challenger 2 is exactly what we have come to expect from Tamiya: good detail, good fit, and excellent engineering.

-John Plzak





Mfr.: Tamiya, tamiya.com (Sample courtesy of Tamiya America, tamiyausa.com) Price: \$33 Comments: Injection-molded plastic (light tan); 163 parts (1 cast metal; 4 vinyls; string); decals

Pros: Excellent detail; good fit; link-andlength tracks Cons: Solid molded headlights; lack of alternate markings

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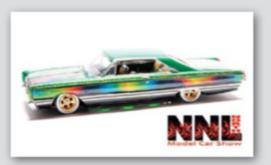
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IL, WHEATON: 80th ILLINOIS PLASTIC KIT & TOY SHOW. Dupage County Fairgrounds, 2015 W. Manchester Rd., 60187. September 25, 2022, 9am-2pm. Adults: \$7.00, children under 12 yrs: \$3.00. 150 tables available, BUY/SELL/TRADE/OR JUST BROWSE. Come out and have a great time. Cars, Trucks, Airplanes, Trains/Military, Fire/Police, Muscle Cars. Re-live your childhood memories. Past-Time Hobbies, Inc. 630-969-1847

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MPC Super Hawk Street Modified Skyhawk

Giving a Buick two-door a street-machine makeover

ver the 100-plus years of the automotive industry, Buick remains among the few early surviving nameplates still in operation today. Regrettably, Buick success has not translated to the world of scale model cars, where Buick kits are very much a rarity.

One little-known Buick kit is a replica of the Skyhawk introduced in 1975. The Buick Skyhawk joined the Oldsmobile Starfire as badge-engineered offshoots of the then new Chevy Monza 2+2. This low-slung Mustang II competitor with Ferrari design cues was largely based on Chevy Vega mechanicals and was originally planned to showcase GM's stillborn Wankel engine.

MPC started with an all-new Chevy Monza 2+2 (No. 1-7516) in its 1975 annual kit lineup and made minor changes to the kit tool to justify a second production a few months later, thus yielding the 1/25 scale Super Hawk.

Living up to the "street modified" label on the box art, the kit omitted a showroom stock version, instead providing a fictitious street warrior that might have terrorized Gratiot Avenue, the local cruising boulevard near MPC's head-quarters. Accordingly, the kit replaced the real Skyhawk's V6 engine with a small-block Chevy V8 carried over from the earlier Monza 2+2 kit.

That Chevy engine was among the best scale replicas at the time and included separately molded components, like the fuel pump, oil filter with molded-in finger grips, starter, and two-part GM HEI distributor. Other annual kit engines often missed these parts. A set of beautifully molded tubular exhaust headers and an early

1960s-style Rochester fuel-injection setup further augmented the powerplant.

While the engine compartment had five separately molded components, the chassis was a pure promo-style execution, complete with an engraved and unrealistic (for a street machine) catalytic converter and single-exhaust setup. Traction bars and tubular side-pipe connectors were period correct for street machines, and the four-point roll bar, auxiliary gauge panel, and steering column tachometer carried the theme to the interior.



The body casting added gently engraved Buick nameplates above the molded front grille inlet and along the right edge of the hatchback, complimented by Skyhawk front fender badging rendered in the cursive script matching Buick's print advertisements. Myriad exterior accessories included clear headlight covers, Pontiac Trans Am-style front fender air extractors, rear fender opening spats, rear spoiler, a separate hood bulge, rear quarter window scoops, and a louvered backlight cover. Nicely rendered MiniLites were a singular wheel choice paired with vinyl tires sourced from contemporary NASCAR kits.

MPC's Buick Super Hawk was a one-time-only offering, as the

tool returned to Monza 2+2 form for 1976 and later annual kits. Chevy dropped the Monza 2+2 in 1980, but MPC's kit continued in production through 1981 with fresh updates. The last kit iteration, the Monza "Long Shot" (No. 1-0710) was the best value for kit buyers, with tons of extra street machine and racing parts. Today those Monza-branded kits demand only about half the price of this Buick Skyhawk kit, reflecting the latter's status as a rare and desirable collectible. **FSM**

MPC SUPER HAWK STREET MODIFIED SKYHAWK

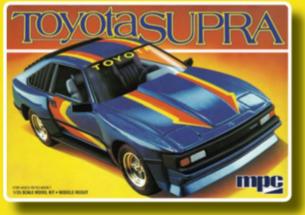
Kit No.: 1-0770

Introduced: February 1975, never

reissued in this form **Present Value:** \$75

ONE SUPER SUPERA





1983 TOYOTA SUPRA #MPC891 (1:25 SCALE) MPC's 1/25 scale 1983 Toyota Celica Supra is a great project for any experienced modeler who likes 80s classics. This radical Supra kit features details like custom body panels, window louvers, air dam, spoiler, turbocharger option, detailed interior and 2 wheel options. This kit also includes a remastered & expanded decal sheet and Retro Deluxe™ MPC packaging. With so many different ways to build, modelers can create their own super Supra that fits any style!

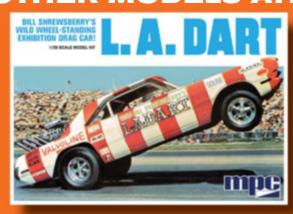
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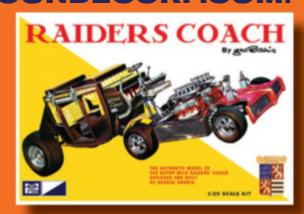
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"STREAKER VETTE" '67 CORVETTE STINGRAY #MPC973 (1:25 SCALE)



L.A. DART WHEELSTANDER #MPC974 (1:25 SCALE)

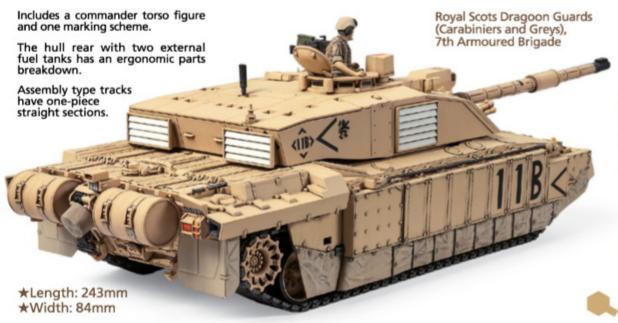


GEORGE BARRIS RAIDERS COACH #MPC977 (1:25 SCALE)





The Challenger 2 was deployed as the British main battle tank in the Iraq War in March 2003, and it defeated enemy T-54 and T-55 armor with its state-of-the-art 120mm rifled gun. Now, Tamiya welcomes this main battle tank - which was modified to make it suitable for desert warfare - to the extensive 1/48 Military Miniature Series. Not only is the cutting-edge, powerful form realistically depicted, the model's easy assembly - which is one of the features of this series - is facilitated by ergonomic parts breakdown. Also, parts authentically capture additional armor, side skirts and engine grille area. Enjoy recreating realistic diorama in the desert and comparing the model with the U.S. Main Battle Tank M1A2 Abrams.





★Decals depict periscope detail, turret-front Combat Identification Panels and more.

★Weights installed inside the model give a realistic heavy feel. **★**Canvas side skirt depictions

have realistic surface textures.



1/48 Military Miniature Series (Item 32601)

British Main Battle Tank Challenger 2 (Desertised)

Painting the British Main Battle Tank Challenger 2 (Desertised) (Tamiya Color Spray Paints (TS) / Tamiya Color Lacquer Paints (LP)) TS-46/LP-30 Light Sand



Modern Japanese & U.S. Vehicles from the 1/48 Military Miniature Series

U.S. Main Battle Tank M1A2 Abrams (32592)

Japan Ground Self Defense Force Type 10 Tank (32588)

Japan Ground Self Defense Force Type 16 Maneuver Combat Vehicle (32596)



















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