



Academy's Stuka is a great kit straight from the box, but it gets even better with extra detail and realistic weathering.

Dive-bomber detail

Modeling a show-stopping small-scale Stuka

By Russell M. Field

While I build model aircraft for fun and not for competition, I still enter model contests whenever I can. I enter 1/72 scale single-prop models in the Seattle IPMS contest year after year, and in 2004, not only did one of my entries place for the first time, it took first place!

So what was different about my winning entry? Like any culinary effort, there are three major elements: ingredients, recipe, and presentation. This entry had a good combination of quality materials, more attention to the assembly and finishing basics, and distinctive staging.

Ingredients

Academy's Stuka (kit No. 1641) was reviewed in the March 2003 FSM by Walt Fink. My experiences generally mirrored Walt's, except that I didn't recognize that the circular indentation in the

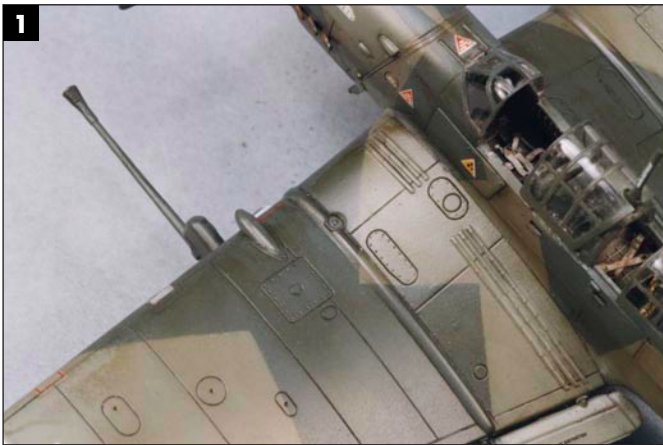
port wing shouldn't be there, **1**.

There's really not much else to say, except "Wow!" The kit has clean moldings, reasonable detail, and great engineering – it practically falls together.

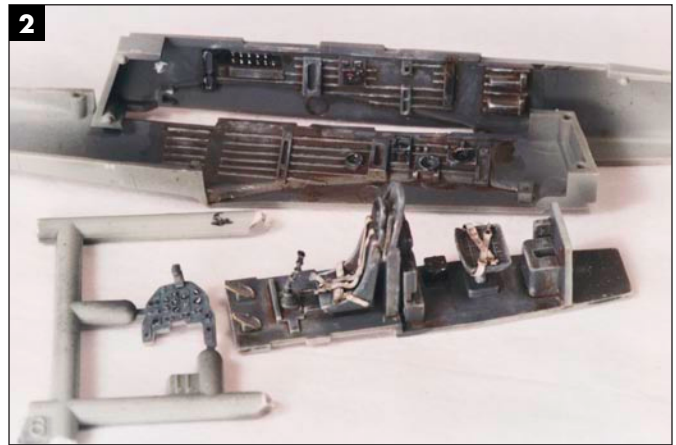
To dress up the interior, I used Eduard's photoetched seat harnesses and MG81Z rear sights, along with True Details' ammo belts. I used different diameters of wire to detail the cannons; Testor Model Master enamels provided the basic camouflage, with Winsor & Newton's oil paints providing a wash and light weathering.

The cockpit, **2**, went together with the exception of two styrene blocks on either side of the MG81Z mount to represent the ammo boxes.

Testor Model Master gunship gray (FS 36118) serves as a good substitute for RLM 66. I picked out details with a small



1 The “mystery hole” just aft of the leading edge.



2 The Academy kit has a nice interior, lacking only the seat harnesses and MG81Z ammo boxes.



3 The assembled interior; note the orientation of the rear MG81Z mount.



4 The cannons are prepared for plumbing by drilling in four locations with a #80 drill.

brush, then a little dry-brushing finished things off. My one regret is that I didn't drill out the mesh of the gunner's seat, **3**.

Call the plumber

The underwing 37mm flak cannons are beautiful little pieces. The flash-hider muzzles are “drilled out” on the sprue, but they don't have provisions for the rather prominent external plumbing.

A No. 80 drill made holes in four locations, **4**. Use a sharp bit, go slowly and carefully, and always have a couple of spares!

The results can be seen in the completed model, **5**. The plumbing didn't come out as neatly as I would have liked. The beading wire I used was really too soft and didn't hold its shape well; the brass wire I used for the main line worked just fine.

Hold the elevator, please!

I usually like to offset aircraft control surfaces slightly, at least the elevators and rudder. In this kit, the elevators are separate from their outboard caps. A few passes with the back of a No. 11 blade on the top and bottom of the elevators will make it easy enough to reposition them.

I fixed the elevators in position by adding a little super glue along the bend. Again with the back of No. 11 blade, I held one end of an outboard cap on a flat, hard surface and scored the curved line between the forward and aft sections until they separated, **6**. I repeated the process for the other side, of course. A bit

tedious, but the end effect is worth it, **7**.

The rudder was fairly easy to score and separate, especially since the main rudder is molded entirely on one fuselage half. However, the counterbalance on the top of the fin is molded on both halves, so be careful. I put a little glue on just the counterbalance halves, then clamped the rudder together. When scoring the separation lines, be careful with the fragile upper extension of the rudder, **8**.

Doin' wheelies

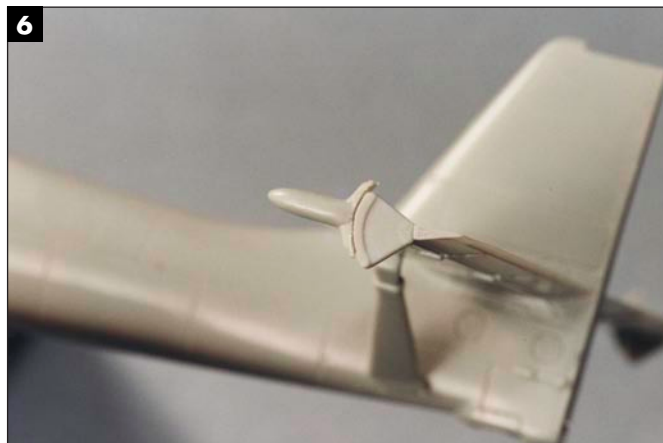
Spatted wheels are often a pain, especially in 1/72 scale. Academy has done a good thing by making the wheels separate, but having the spats in halves presents some other challenges.

The instructions would have you completely assemble the spats and wheels prior to installation. This means that you have to paint the wheels and spats before assembly, or mask the wheels when painting the spats, or vice-versa. I chose to go a different route and alter the wheels and axles so that the wheels could be painted separately and mounted in the assembled after painting and touch-up, **9**. Basically, I just cut a deep groove in the wheel and trimmed the axles to allow the wheel to slide into the assembled spat. This greatly simplifies clean-up of the spat and helps you get a good paint job on both parts.

Speaking of clean-up, the accordion section of the spats is a bit trying. Some careful work with a sharp blade should clean it



5 The underwing cannons assembled, plumbed, and installed.



6 Repositioning the elevators meant Russell had to reposition the mass balances, too.



7 The mass balances after painting and weathering. The tiny change rewards viewers who give the model a closer look.



8 The rudder was separated before the tailplanes were attached.

up just fine, **10**.

The “B” decal was another challenge. I had to slit the decal in several places and apply copious amounts of Solvaset to get it to lay down properly.

The greenhouse effect

I did a lot of work on the canopy, **11**. The gunsights were a prominent feature of the MG81Z twin machine guns. They were attached to the rear canopy, and moved with it as it opened and closed. Unfortunately (or perhaps understandably), Academy provides no sites, so I turned to the Eduard set which offers a variety of styles. A small dab of glue will hold them in place just inside the gun port in the rear glass.

If you look closely, you may see there’s a shiny band of dark green toward the aft end of the rear canopy. That’s because armor was underneath the glass, so I painted it from the inside.

I really wanted to display this model with the canopy open. The kit offers separate pieces, but while the parts are nicely molded, the main canopy (part F3) and the mid canopy (part F2) are too thick to slide over one another. There are a couple of ways to address this situation; I chose to carefully file down the thickness of the mid canopy only where it would be covered by the opened main canopy. I used a three-grit fingernail board to get the file marks out and bring back the canopy’s shine, then dipped it in Future.

Some Stukas had a kidney-shaped rearview mirror at about 1

o’clock on the rear frame of the windscreen. True Details has a “variety” set of aircraft mirrors, one of which I painted silver and attached.

A little more light, please!

There’s always at least one “oops” episode with every project. This time, it was the landing-light lens, **12**. While there’s an opening and the clear covering lens, Academy doesn’t include the light itself. I took a piece of aluminum rod, counter-sunk the end and filled it with Testor clear window cement. Then I glued it in the landing-light opening and added the lens, which fit perfectly.

The Stuka’s wingtip navigation lights protrude from ends of the wings. I considered different ways to represent these, but finally took the easy way out and just applied a small dab of super glue where the light should be, **13**. A couple of applications gave me the look I wanted.

Pre-paint details

Details included antenna work. I decided that my model should have the FuG 25 installation with a whip antenna protruding from the fuselage underside, aft of the wing trailing edge. A No. 80 hole and a short piece of monofilament fishing line did the trick, **14**.

I cut the gunsight reflector from a thin piece of clear acetate and glued it in place. I masked the windscreen with Bare-Metal Foil, then glued it in place on the fuselage.



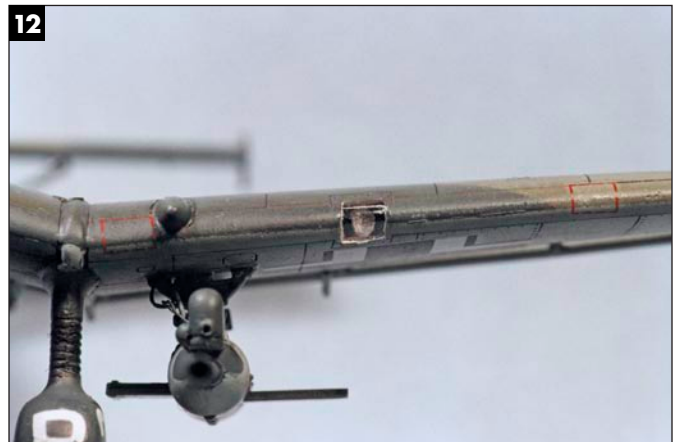
9 Modifying the spats and wheels made it easier to paint and assemble them.



10 Cleaning up the landing-gear “accordion” and getting the “B” to lay down were both tricky.



11 A view of the MG81Z breech, ammo belts and sights; also note the open canopies and the mast stencil.



12 I got lucky on the landing light lens. Note the dished-out aluminum rod representing the light.

I slit the tip of the main antenna mast just a little bit with a razor saw to accept another fishing-line antenna. After the mid canopy was installed I added the mast. The main canopy was positioned on the altered mid canopy and fixed in place with a couple of small dabs of clear window cement.

The radar bay aft of the rear canopy was masked, as were the remaining fuselage openings, with small pieces of foam rubber carefully pushed in with a toothpick.

One neat design feature of this kit is the exhausts. Not only are they well molded, they're separate pieces, that install from the outside. They can be painted and weathered, then slipped into place when you're done.

The paint booth

Overall, the construction was really straightforward. What really pulled the model together was the paint job.

Over the years, I had gotten in the habit of using automotive spray primer, but on this model, I decided to try Testor Model Master gray primer. What a difference! This stuff went on like a second skin!

The kit decals supply a yellow fuselage band, but I decided to paint one on. I painted the general area of the band white, then added RLM 04 yellow. After giving this a couple of days to cure, I masked the band with Bare-Metal Foil.

I airbrushed the canopies with the same gray I used on the interior so that the inside of the frames would match the cockpit.

Now the main painting could begin.

Lay on, MacDuff!

I sprayed the underside RLM 65 light blue, lightened 10 percent with white for scale effect. I extended the color up the sides and over the wing leading edges. It was about this time that I realized I should have left off both the landing gear and the tailplane supports and painted them separately; oh, well ...

The cannon fairings and barrels, as well as the landing gear spats, would all be painted RLM 70 dark green, so they weren't detail-masked yet. Instead, masking was focused on the wing leading edges and the fuselage demarcation between the underside and topside colors. Regular masking tape was used, but first it was “de-tacked” by pressing it down repeatedly on my jeans until lifting it felt like it would adhere but not bond with the paint. Perhaps not the best approach, but what I had available at the time and can work well in a pinch. The underside of the tailplanes were masked around the supports with tape, and the undersides of the tailplane supports – being relatively smooth and completely accessible – were masked with MicroScale liquid mask. Then the upper base coat of RLM 71 light green, lightened 15 – 20 percent was applied on all upper surfaces including the canopies. I made sure to keep the paint thinned and the coats light to preserve the beautiful surface finish presented by the primer. This coat was allowed to cure overnight.

Then came the time for the main masking event, **15**. I again



13 Super glue wingtip navigation light.

FuG 25 antenna installed.



16 The display base ingredients.

The splinter pattern was easy to mask. Note the oil-paint drybrush weathering.

used regular masking tape, de-tacked as before. Masking the main splinter pattern wasn't as hard as I thought it would be. I used smaller pieces to mask edges, then covered the interior of the masked area with larger pieces. This gives better control over the location of the masks.

Masking points in a pattern, like those seen forward and aft of the canopy, can seem tricky, but it's really very simple using this approach. I cut a long triangle from a piece of de-tacked tape, making sure that it was narrower than the triangular area to be masked. I placed the point right where I wanted it, then used the tape to mark the outer edge of the triangle. I then trimmed another tape triangle, also narrower than needed. I placed its point over the first one, then used it to mark the inner edge of the triangle. All that was left was to fill in the exposed area between the masks.

The underside needed to be masked to protect the light blue coat while leaving the landing-gear spats exposed. The cannons needed to be masked, too. I was concerned about the cannon plumbing, but care in masking and painting in multiple light coats helped. I used liquid mask on the cannon fairings below the plumbing.

With all the masking done, I sprayed the RLM 70, including the propeller, its spinner, and backplate. Even with multiple light coats, the whole spray session took less than 20 minutes – about a third of the masking time! But that's the way it goes, folks; over

half of any job is preparation.

Later, I mounted the wheels and exhausts on a piece of cardboard and I sprayed them with slightly lightened black – not so much for scale effect, but to cut the harshness that pure black can bring to a small-scale model. The tires were later weathered with brown chalk dust.

Finally it was time to unmask. This is where you find out just how good a job you did on prep and painting. One thing I've learned through hard experience is not to let a mask stay on a model any longer than necessary.

The tape masks were carefully peeled off, the Bare-Metal Foil masks were delicately removed from the canopies and fuselage band, and the liquid masks peeled from the cannon fairings and tailplane supports. The foam rubber was taken out of the cockpit openings and any little pieces that had stuck to the cockpit sill were removed.

Final assembly

Once everything was painted and decaled, I slid the wheels into the spats and secured them with a drop of glue. I installed the canopies and the main antenna, which I secured at both ends with a tiny drop of super glue.

The FuG 25 antenna is a piece of monofilament fishing line I colored with a black permanent marker I glued it in place, then trimmed it to length.



The wooden planks were weathered with sepia water color.



The starter cart is a Hawkeye Designs piece.



Requiring just a little extra work, the display base does a nice job of presenting the Stuka in its element.

Weathering

Weathering was kept to a minimum. All I did was apply a moderate wash to tint the surface and accent the panel lines, then a light drybrush with lightened olive oil paint. This was followed with some light panel shading with burnt umber oil paint; I like to use oils at this stage since I find I can control the effect better than enamels or acrylics.

Presentation

Half the experience of any meal is the presentation. Likewise, the visual impact of a simple display can really enhance how the subject is perceived. I typically place my contest entries on very simple wooden bases, or a mirror if there's some underside detail I want to show off. This time, though, I wanted a hardstand "setting" without creating a diorama.

The form is a plastic picture frame, the kind that the picture and glass come out the front of the flexible frame. The primary materials used to create the base were: DAP wallboard putty, Liquitex acrylic artists paint, rectangular wooden stir sticks, Academy sepia water color paint, Woodland Scenics field grass and mixed turf colors, and thin Styrofoam sheet, **16**.

I replaced the frame's glass with the Styrofoam sheet. This had to be compressed a bit by stepping on it, since it was a tad too thick to begin with. Next time I'll use something else, as the Styrofoam, though porous, seems to trap moisture and make the

wallboard putty take longer to cure.

The first thing to do was cut the stir sticks to length. I did this using a small miter box. I laid them on the Styrofoam in the frame to get an idea when I had enough of them cut. Man! There's a lotta them things!

An eye-balled amount of the putty was put in a separate container and the artists acrylic added until I thought I had a good "ground" color. I masked the edges of the frame, then used a spatula to spread on the wallboard putty. I had plenty of time to press the "planks" in place and make some adjustments.

A few days later, after the putty had dried, I applied a sepia water color wash to the whole surface. The planks took the wash well and took on a weathered look, while the groundwork tinted nicely. Then came the diluted white glue around the perimeter, followed immediately by a generous sprinkling of mixed turf colors. After a while, the excess was shaken off and the base put aside to dry for another few days, **17**.

Finally, the accoutrements. The starter cart, **18**, is a Hawkeye Designs piece, while the barrels, funnel and box are from Mars and Pend Oreille. Painting is a combination of enamels and oil paints. The "tree" is a sprig of foliage from the local craft store. It's inserted in a small hole drilled in the base. The assembled display was well worth the effort, and the contest trophy it earned makes a nice addition to the presentation! **FSM**