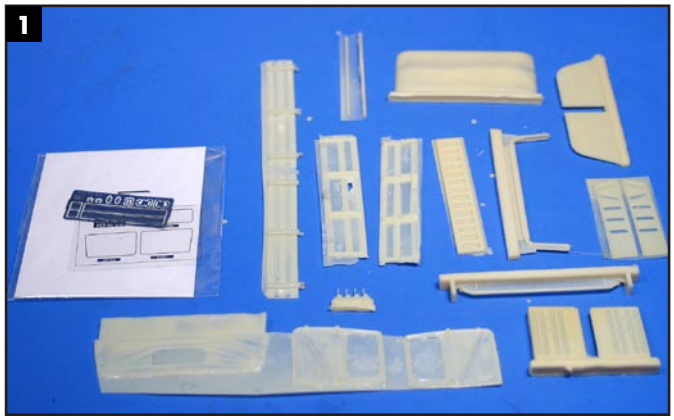


Heavy-duty Humvee

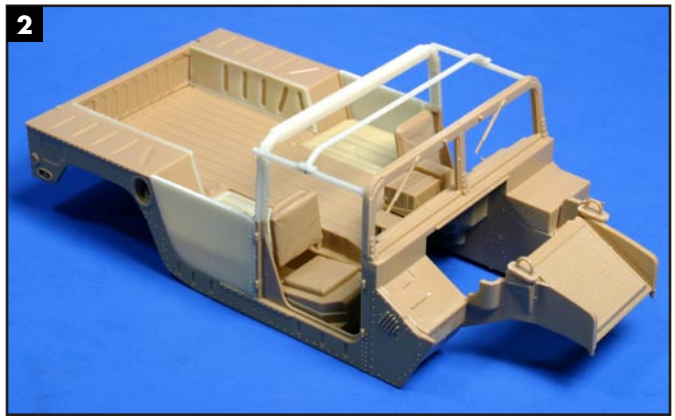
Building and weathering an M998 Humvee

By Brett Avants

WHILE SURFING THE INTERNET, I found a series of great shots of an engineer Humvee. The vehicle was based at Camp Warhorse in Iraq and was hit by a rocket-propelled grenade that failed to explode. The Hummer in those photos was just begging to be modeled, so I set out to duplicate it in miniature. It wasn't fancy – just an open-topped pickup version of the M998. The weathering, though, made the vehicle.



Brett added the Calibre 35 resin conversion kit to model the pickup version of the standard Humvee.



The Tamiya kit required little modification, and the resin parts fit well.



Brett originally chose Trackz resin wheels but switched to parts from Blast after he noticed the Trackz wheels had the earlier tread pattern.



With the major assembly complete, it's time for paint.

Building the kit

I started with the 1/35 scale Tamiya kit, which is a real gem. It is very detailed and the fit of the parts is great. I built the Humvee pretty much straight from the box, only substituting aftermarket resin wheels for the kit parts. I did not build the rear seats, the TOW missile racks, or the other racks for the rear of the truck. Since I was building the cargo carrier version, none of these parts was necessary.

The Tamiya kit is the standard version of the Humvee, so I needed the Calibre 35 M998 cargo conversion set to complete this project, **1**. This set is nicely molded in cream-colored resin. The parts are thin, maybe too thin. Some of the parts were slightly warped, so I used a blow dryer on low heat to soften the resin and straighten them. Cleanup is fairly easy, except for the rear bed seats and back rests. These required a lot of cleanup. Use a good file and a sharp hobby knife. All in all, this was an easy conversion set to use.

The cab and bed details in the Calibre 35 set fit perfectly. Everything worked like a charm and looked great, **2**.

I originally had the cross-beams above the cab with the canvas drape between the rear bed and the cab, but after deciding to duplicate the M998 from Camp Warhorse, I carefully removed those pieces. I also noticed the Trakz resin wheels I originally intended to use (as shown on the in-progress photos) were the early type tread pattern and not the ones used in Operation Iraqi Freedom (OIF), at least not on the vehicle I was modeling. So I substituted the Blast Models resin wheels for the Trakz wheels, **3**. The moral of the story: Don't change the vehicle midway through construction! Or, careful research beforehand prevents a lot of extra work during the construction phase, **4**.

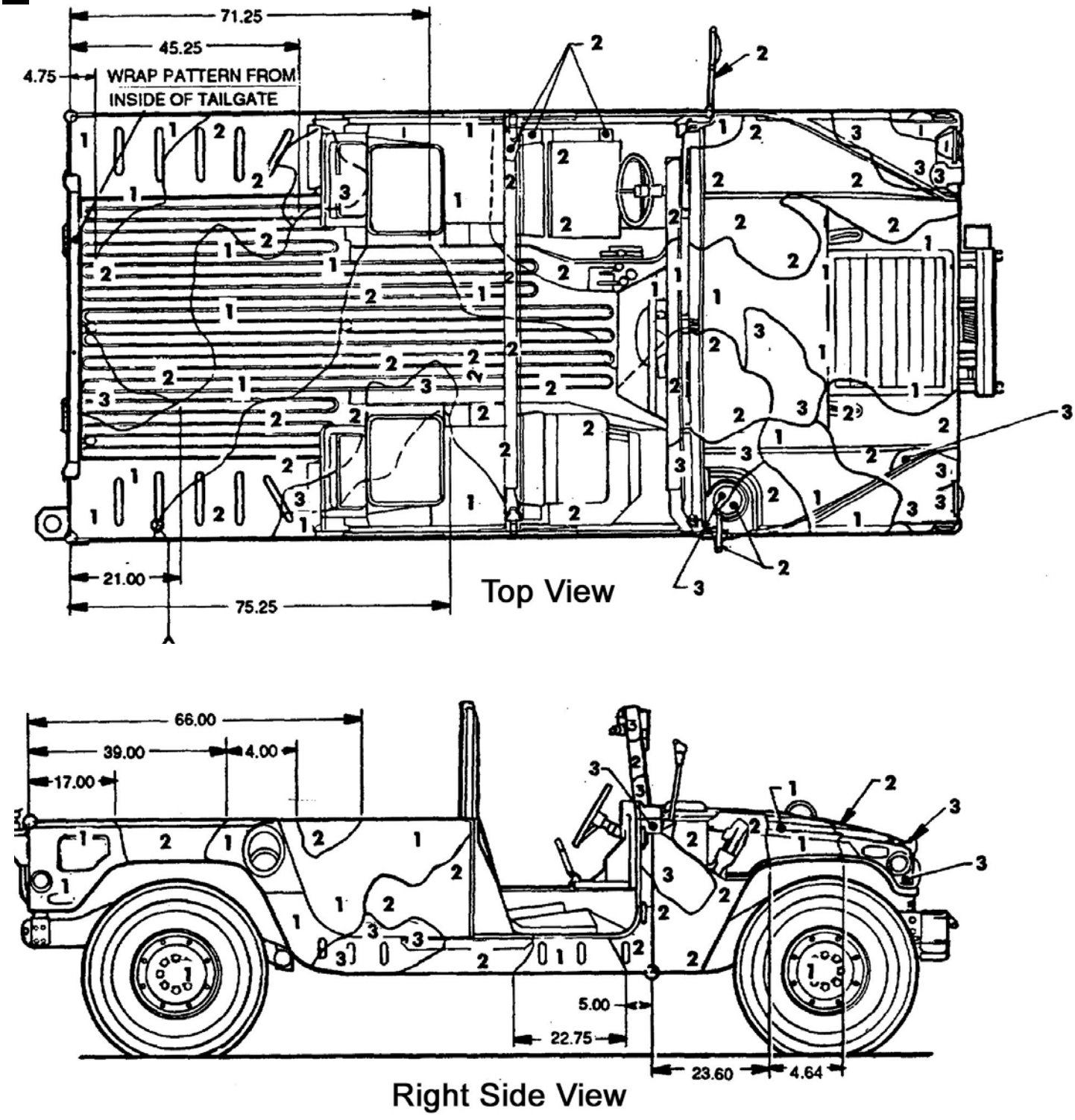
Painting and weathering

The real fun of this kit was the painting and weathering. I used MIG and MMP pigments extensively for the weathering process. If you have never used pigments to weather models, then I suggest you give them a try. They allow you to give the model a completely different look than typical washing and dry-brushing.

I printed the appropriate pages from the U.S. Army technical brief TB-43-0209, **5**, **6**, which showed the M998's official U.S. Army color scheme. I used green and brown colored pencils to color in the areas of the Hummer's camouflage scheme for an easy-to-read diagram.

I painted the entire model with Tamiya

5



Brett used actual painting templates for the Humvee from the U.S. Army tech bulletin TB-43-0209.

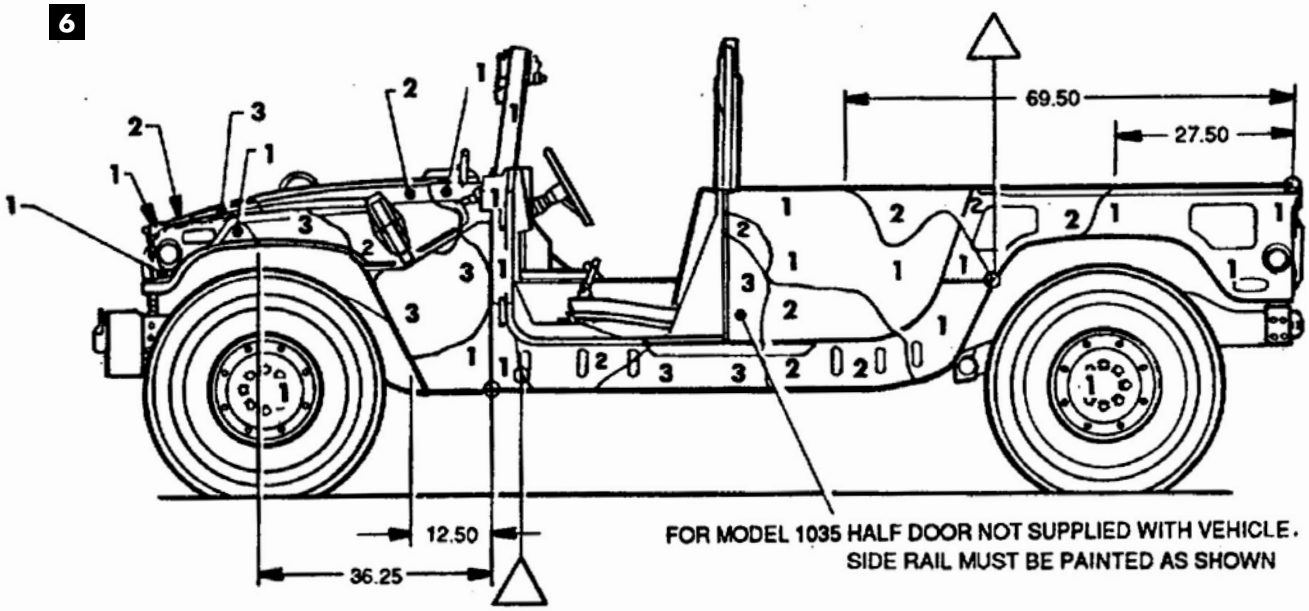
flat black, then painted the camouflage using Tamiya NATO green (XF-67) and NATO brown (XF-68), using my color plate as a reference, **7**.

Next, I painted all of the details, including the instrument panel, seats, gear shift levers, and radio. I also applied the small decals to the information plates found on the dash of the vehicle.

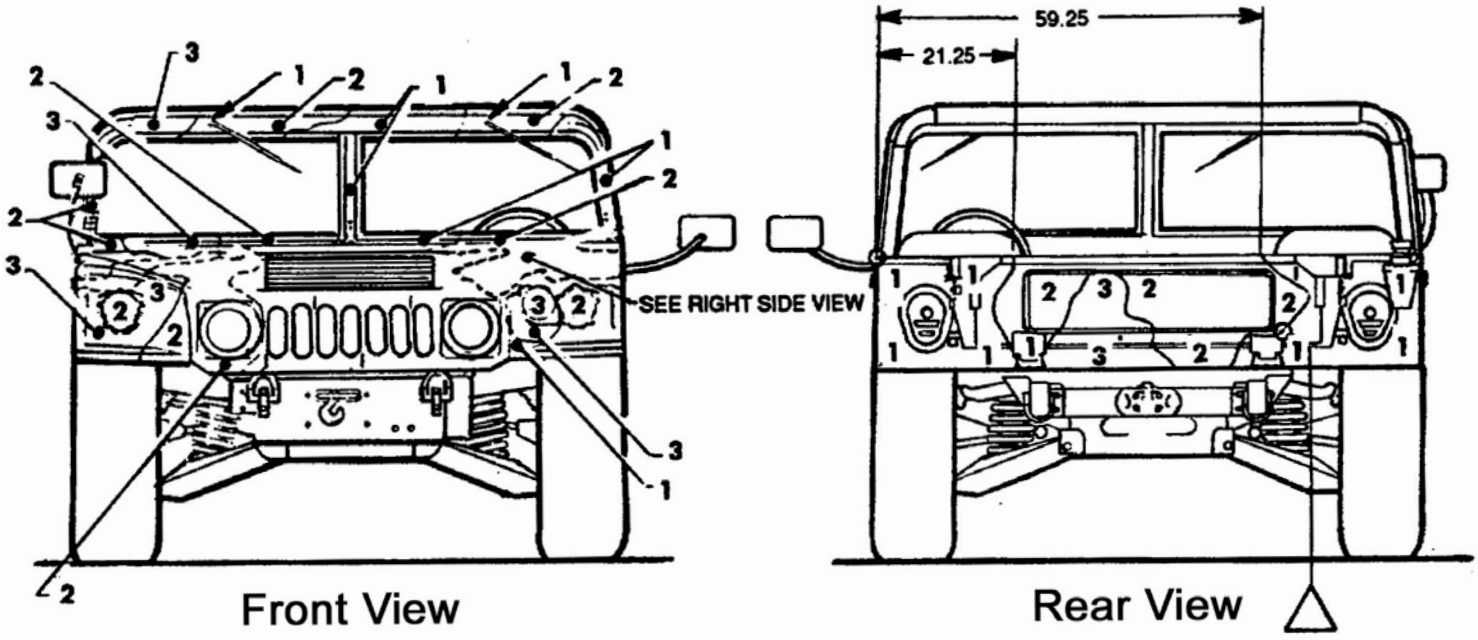
After the paint had dried overnight, I gave the vehicle a wash of Mars black oil paint, about 90 percent thinner and 10 percent paint. Then I washed it again with burnt umber thinned to the same consistency. I don't really measure, but just eyeball it. I let this dry again overnight.

I used a series of different applications of pigments to get the weathered effect of

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Left Side View



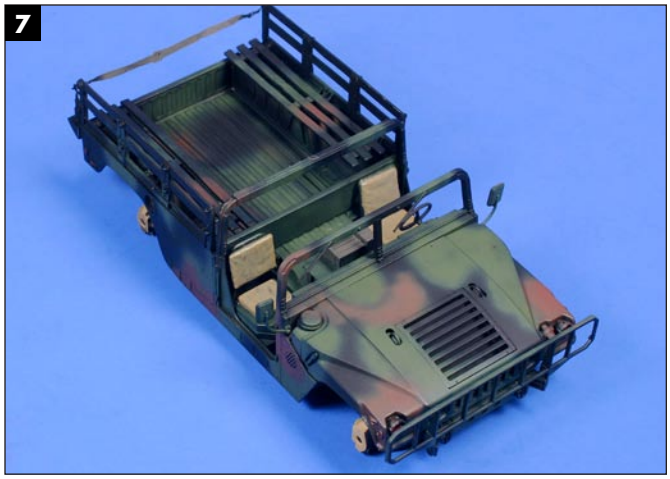
Front View

Rear View

1. Flat Black
2. NATO Green
3. NATO Brown

the Humvee I was modeling. I first weathered the vehicle undercarriage and the wheels. I simulated this by mixing MMP weathering powder sand No. 5 with a bit of MIG pigment light rust in a soupy mix with rubbing alcohol. The mixture is about 30 percent pigment with 70 percent alcohol. I applied this mixture with an old brush to the undercarriage areas and the wheel hubs. It appears darker when mixed with alcohol or water but dries to a color similar to that in the photos. I applied this all over the underside of the vehicle, both front and back, and inside the wheel wells.

Once the model was dry, I used a stiff-bristled brush to knock some of the pigment off of the upper details of the hubs, to reveal the black underneath, **8**. I then



Brett painted the model in the standard three-tone scheme using Tamiya acrylics.



After weathering the rims with pigments, Brett scrubbed them with a stiff brush to remove the excess. A light dry-brushing of gray on the rims simulates the steel underneath.



To simulate lighter dust, Brett lightly brushed MMP No. 5 sand weathering pigment over the flat surfaces of the model.

used a bit of Vallejo black gray on a stiff brush to dry-brush the high details. The effect on the model is similar to the photo.

Next, I added MMP sand No. 5 with about 90 percent alcohol and painted this mixture on with a soft brush to areas such as the bumpers, the upper treads of the tires, and the sides of the vehicle, **9**. I applied this gently so I wouldn't rub off the base coat of paint. It appears almost transparent. I let this dry for a few minutes and watched the sand color start to appear as the alcohol evaporated.

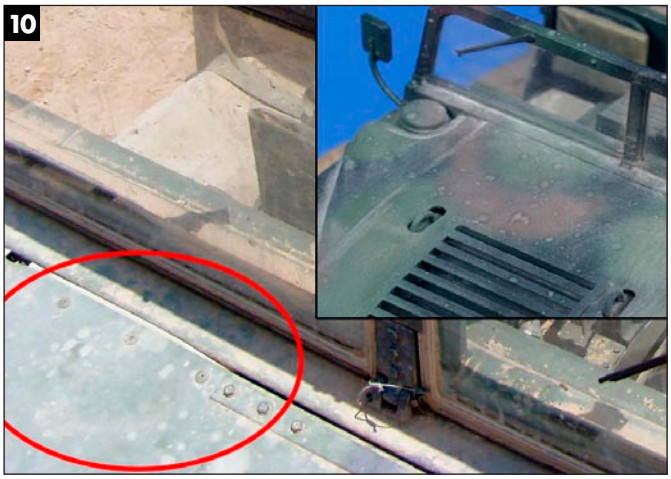
I used dry MMP sand No. 5 with a flat brush and scrubbed some of the pigment on various surfaces. I used several colors including sand No. 5 and MIG light rust, and a little MMP No. 6 medium earth and MMP No. 14 North African sand to get different effects. I brushed all of these on sparingly using an old No. 0 or No. 00 sable brush to get the pigment into the creases and crevices of the vehicle. I used a wider ¼" to ½" brush for the larger surface areas.

For a splattered effect, I mixed the MMP sand No. 5 with about 90 percent alcohol. I loaded a soft brush with the mixture, pulled the bristles back with my finger, and flicked them on the hood of the Hummer. The result was a splattered effect, similar to the actual vehicle, **10**.

The gravel, sand, and dirt filling the back of the bed is made from MMP sand No. 5, some fine model-railroad ballast, and a few larger rocks – all mixed with alcohol. I also added some brass-rod pieces that look like empty cartridge casings, **11**.

Conclusion

This was a fun model to build, and it allowed me to use photos of an actual vehicle to duplicate the weathering and combat effects of the vehicle. Using the MMP and MIG pigments was also an



The splatter marks on the hood were achieved by mixing weathering pigments and rubbing alcohol and flicking the bristles of a soaked paintbrush onto the model.



Brett added dirt and sand to the rear bed of the model and included small bits of brass wire to simulate spent shell casings. This Humvee has obviously seen combat.



Although it's a simple conversion, Brett's M998 captures the essence of vehicles currently operating in Iraq and Afghanistan.

enjoyable learning experience. I would encourage anyone to surf the net for a good series of photos of an actual vehicle and use those as primary references to duplicate weathering effects.

I'd like to thank Don Busack, Monte Claussen, and the Prime Portal website for the photos of the Camp Warhorse Humvee in Iraq. Visit them at http://www.primeportal.net. **FSM**

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SOURCES

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