



Israeli Hawk

This all-resin kit presents unique challenges

By Michael Conforti

The Hawk surface-to-air missile was developed by Raytheon in the 1950s for the U.S. military. Its first combat use was by the Israel Defense Forces (IDF) during the 1967 war. The Hawk is still the primary surface-to-air missile in use with many of the world's armies.



1 To keep track of the cast-resin parts during assembly, Michael marked them with their part numbers.



2 Mounting the missiles on rods made them easier to handle during painting.



3 A few bits from Michael's parts box added detail to the kit-provided cast-resin wheels.



4 Lengths of brass tubing strengthened the model's delicate legs.

I first saw Nimix's 1/35 scale cast-resin Hawk missile launcher (kit No. 3536) in the Workbench Review section of the September, 2001 FSM. When my own copy of the kit arrived I knew I wanted to build it and add Israeli markings. The launcher would be my second all-resin kit, and I soon found that references were scarce. I decided not to get too concerned about "total accuracy" and instead decided to simply concentrate on building a good overall likeness.

I built the model in three major sub-assemblies: the missiles, the launcher base, and the launcher assembly. The first step was to remove the parts from their pour stubs. Since some of the parts were numbered on their stubs, I went through the kit and marked the part numbers directly onto each part with a permanent marker, **1**. This way I could clean up all the pieces in one go without worrying about getting parts mixed up.

Missiles

The missiles turned out to be the easiest part of the kit. Only the nosecones have alignment points; the exhausts need to be

carefully lined up to minimize filling and sanding. After gluing the parts together, I filled the gaps with small amounts of super glue and sanded the joints smooth.

Each missile has four fins that must be carefully aligned. I tacked each fin in place with two small spots of super glue. As I added them, I made sure each new fin was at right angles to the others and parallel to the missile tube. When I added all four fins and was satisfied with their alignment, I applied small amounts of thin super glue to one end of each fin seam and allowed capillary action to draw the glue down between the parts. When the glue was dry, I sanded the joints with small squares of 400-grit wet-or-dry sandpaper. I did all of the sanding with copious amounts of water to reduce resin dust.

To make them easier to paint, I mounted the missiles on rods, securing them with a spot of super glue. When I was done painting, I popped off the rods and touched up the bare areas with a paintbrush, **2**.

Launcher base

The main body of the launcher base had a

large pour stub. I removed most of it using a grinding bit chucked in my motor tool. The rest was sanded away in a water-filled casserole dish that had a sheet of sandpaper mounted in the bottom. I replaced the kit's resin wheel axles with brass rod.

The wheels had most of their lug nuts incompletely cast. I sliced them all off and replaced them with bolts I shaved off a Tamiya Merkava road wheel. The wheel centers didn't include hubs, so I added some from my spares box, **3**.

The launcher-base support armature is cast with a thin resin wafer between the bars. Removing this without damaging the tubular cross section was a challenge. I drilled a large hole in the center of the wafer, then cut a line to each corner, creating pieces that could be cut out without stressing the armature. Careful sanding with a variety of small files and sanding sticks took care of things from there.

I inserted a small length of brass tubing into the end of each of the hydraulic arms where they meet the armature, **4**. This provided added strength, as the armatures support the weight of the entire model. The kit's side support arms are



5 Michael filed a groove into the top of each launcher rail to make the missiles sit more realistically.



6 Michael added brass tubing to the launcher's hydraulic arms to change the angle of the launcher platform.

plastic rods; I replaced them with brass rod for strength. The armature base plates were cast as simple discs. I detailed them with triangular strengthening braces I cut from styrene sheet.

Launcher assembly

The launcher assembly turned out to be the most challenging section of the kit. The kit instructions weren't helpful, but reference photos helped me figure out how to proceed with assembly. The launch rails have flat tops. I thought this might be a problem when I mounted the missiles, so I filed a groove along the top of each one, **5**. This allows the missiles to sit in place without mounting pins.

I detailed the back faces of the rear launch rails by drilling a small hole in each of the four corners to simulate recessed screw heads. The cylindrical cover on the front end (below the center rail) received the same treatment. There's a small tank below the center-rear launch rail; I detailed it with a valve from my scrap box and a length of solder.

Out of the box, the launcher sits with the missiles almost parallel to the ground. I wanted mine to be angled upward. To do this, I had to lengthen the central hydraulic arm that raises and lowers the launcher. I cut out the central portion of the arm and replaced it with brass tubing.

I elongated the front hydraulic arms by replacing them with telescoping brass tubing, **6**. This turned out to be a mistake, which I only discovered after completing the model. On the full-size launcher, these arms aren't hydraulic, they simply support the launcher when in its neutral position, with the missiles parallel to the ground. When the launcher is raised, they

simply disengage from the bottom. Since I had already completed the model when I discovered the error, I left them in place. They look the part even if they're not accurate.

The assembly attaches to the base with a small resin pin. I replaced this with a longer, sturdier length of aluminium rod, which also allows the launcher to swivel on its base.

Finishing

I washed all the subassemblies with warm soapy water and primed them with Tamiya's spray-can gray surface primer. This revealed a few surface imperfections that had to be filled. I airbrushed the launcher and base with Testor Model Master Acryl Israeli armor sand gray (No. 4814) lightened slightly with white. A dark artist's oil wash and light dry-brushing helped add definition. I brush-painted the tires charcoal black and dry-brushed them with gray.

Reference photos showed the missiles painted in a variety of schemes, both with and without markings. From the beginning, I wanted to model the missiles with Star of David insignias. I painted the missiles Model Master light gray (No. 4765) with Blue Angel blue (No. 4687) wings. The kit doesn't provide decals, so I used two Microscale decal sheets (Nos. 72-220 and 72-105) to get the 24 Star of David emblems I needed. All the emblems aren't the same size, but it is not that noticeable on the finished model. I applied the decals over brushed-on Future floor polish, and when they were dry, I sealed them with a second coat of Future.

The completed model looks great on my display shelf. The missile colors and emblems really stand out among the other IDF vehicles in my collection. **FSM**

SOURCES

Nimix Apartado De Correos 45.117, 28080 Madrid, Spain

Michael found Star of David decals on an Internet auction site. The missiles got their high-gloss finish from a final coat of Future floor polish.

