



With the help of resin details, Aaron built a Falklands War Sea Harrier from Tamiya's 25-year-old kit.

1/48 Scale | detailing

Improving aircraft with resin details

Photos by Jim Forbes, Mark Hembree, and Aaron Skinner

The Sea Harrier entered service in the late 1970s. Many of its available kits are the same vintage. Most of them have accurate shapes and are buildable but lack detail, particularly in the cockpit.

Such is the case with Tamiya's 1/48 scale rendition. There's a tub with a modicum of side-console detail, a simple seat, a flat part with a decal for the instrument panel, and a simple control stick. (They also throw in a pilot figure.)



Building a better Sea Harrier and marking it as a Falklands fighter

By Aaron Skinner

The Harrier's cockpit is small, but the big bubble canopy leaves a lot of it visible. So, I wanted more detail when I built a Falkland Islands War Sea Harrier. I found what I was looking for in resin from Russian aftermarket man-

ufacturer NeOmega. Deciding to go all out, I added resin intakes and other details from Heritage Aviation.

If you're used to plastic, resin can be a different experience. Not hard, just different – as the following steps attest.



1

NeOmega's green-resin cockpit includes a tub with pedals and side-panels, a Martin-Baker Mk.10 seat, side and back walls, instrument panel and coaming, and a vacuum-formed canopy with resin details. Aaron used two butter-colored-resin Heritage Aviation sets for intakes, horizontal stabilizers, nozzles, a wheel well, and white-metal landing gear.



2

Aaron soaks the resin in Westley's Bleche-Wite, a tire cleaner, leaving it overnight to remove any mold-release agent. (Although it won't harm the resin, Westley's is pretty caustic; always wear gloves when using it.) Then, Aaron rinsed the parts with clear water and set them aside to dry.



3

Aaron prepares to remove the mold plugs attached to the parts. Resin dust is a potent irritant, so it's important to wear eye protection, gloves, and a respirator mask while cutting and sanding.



4

Using a razor saw, Aaron removes a smaller plug from the instrument panel coaming. After cutting close to the part, he'll follow up with a sanding stick to remove the remaining excess and shape the piece.



5

Aaron prefers to use a cutoff wheel in a motor tool to get rid of extra material on larger parts. First, he cuts a grid of parallel lines $\frac{1}{4}$ " apart in the block, taking care to avoid cutting completely through to the part.



6

Turning the part on its side, Aaron slices the blocks off one-by-one, working slowly to avoid damaging the part.



7

Trading the cutoff wheel for a cylindrical sander, Aaron removes more of the plug. Resin is very soft and sands quickly, so exercise care when employing a motor tool to shape parts.



8

For final shaping, Aaron grinds away the remaining pour-plug against a sheet of sandpaper laid flat on the workbench. Work slowly and check your progress often to avoid taking off too much.



9

The paper-thin layer falling away from the edge of the block indicates sanding is complete.



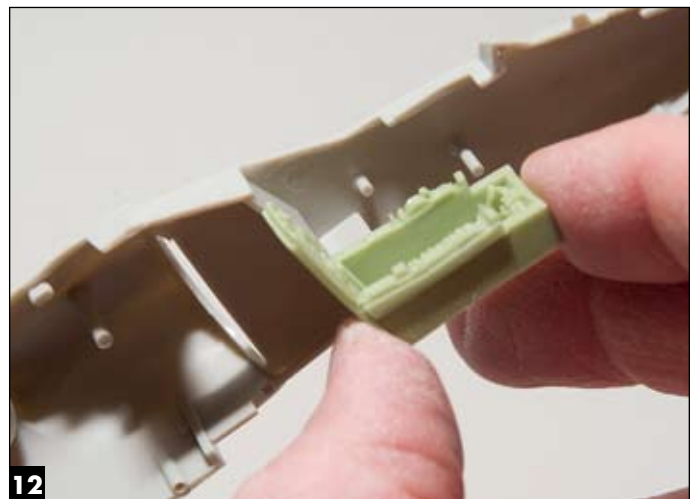
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A quick swipe with a sanding stick cleans up the part in preparation for construction.



11

Pinholes result from bubbles forming in the resin as it sets. Aaron fills a hole in an exhaust nozzle with super-glue gel, then sands it to shape.



12

After super gluing the cockpit's rear wall to the tub, Aaron checks its fit against the nose section of the kit and discovers it is deeper than the kit's cockpit. He marked the areas to be removed.



13

Aaron removes the molded-on rear wall of the cockpit as well as part of the nose gear well. The cockpit wall will be replaced by a resin part. The deeper resin cockpit made it necessary to remove the nose gear roof.



14

While the Harrier is under the knife, Aaron cuts away the cockpit fairing molded on the nose, a feature that is integral to the vacuum-formed canopy provided in the NeOmega detail set.



15

Aaron first painted the cockpit components with a dark sea gray base coat. To make details pop, he applied a wash of burnt umber artist's oils, then dry-brushed the high spots with neutral gray.



16

Sitting well above the cockpit sill, the head of the ejection seat will be very visible. So, Aaron adds Afterburner Decals placards designed for a 1/48 scale F-18 to enhance the headrest.

SHARs over the South Atlantic

IN EARLY 1982, the Royal Navy's fixed-wing air arm comprised 32 British Aerospace Sea Harrier FRS Mk.1 aircraft, often referred to as SHARs. A derivative of the Harrier GR Mk.3, the Sea Harrier's primary role was air defense (FRS stood for Fighter, Reconnaissance, Strike), so radar was fitted, changing the profile of the nose. In addition, the cockpit floor was raised and a bubble canopy fitted, improving the pilot's all-around view.

When Argentine military forces occupied the Falkland Islands on April 2, 1982,

British Prime Minister Margaret Thatcher immediately ordered a naval task force mobilized under the title of Operation Corporate. Two carriers, HMS *Hermes* and HMS *Invincible*, were the centerpieces of the fleet and sailed with 20 SHARs aboard in two units: 800 Squadron on *Hermes*, 801 on *Invincible*.

Before the conflict, the Sea Harriers' standard camouflage was gloss extra dark sea grey on the upper surfaces and gloss white underneath. All carried vibrant tail markings and blue, white, and red roundels. To

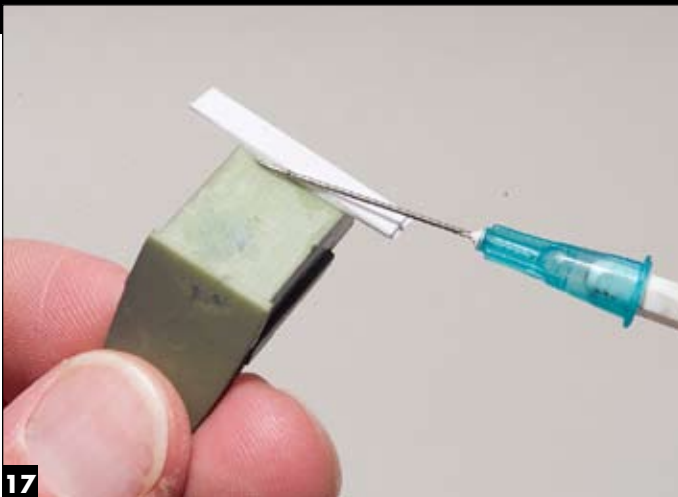
tone down the finish on the aircraft and make them harder to spot, extra dark sea grey was painted over the white undersides. Likewise, tail markings were painted out and the white of the national markings was covered with roundel blue. Aboard *Hermes*, all this work was hand-brushed. Still, the gloss finish remained.

A third squadron, 809, was pulled together with eight of the 12 remaining aircraft in Britain. These Sea Harriers were resprayed medium sea grey with Barley grey under the wings. They had low-visibility

roundels and squadron markings applied before being sent south aboard the container ship *Atlantic Conveyor*. In theater, they were divided between the two carriers.

Although SHARs carried out bombing raids, in their primary role as combat air patrol they were armed with an AIM-9L Sidewinder under each wing and twin 30mm Aden cannon pods under the fuselage.

On May 1, Harriers achieved their first air-to-air victories when Lt. Paul Barton shot down a Mirage III. Three more Argentine aircraft fell that day,



17

The resin cockpit tub is narrower than the Tamiya fuselage. So, Aaron super glues a scrap of .040" styrene to the bottom; trimming the ends of the styrene strip produces a firm, centered fit.



18

After installing the engine and intake bell, Aaron assembled the fuselage. The 25-year-old kit needed some rubber-band and clamp encouragement to go together.



19

Aaron applies Mr. Surfacer 500 to the gap around the engine hatch insert on the top of the fuselage. The part, designed to be left unglued, needed shimming and more filling with super glue to fit flush.



20

The Tamiya molding represented the mere outline of a vent on the side of the intake. Carving out the vent added dimension to the surface. Aaron used a dab of liquid cement to smooth the opening.



Aaron Skinner photos

An 800 Squadron Sea Harrier FRS.1 is displayed on the deck of HMS *Illustrious* during a visit to Brisbane, Australia, in 1986. The carrier was part of a large contingent of foreign vessels visiting Australian ports to mark the Royal Australian Navy's 75th anniversary.

and over the next six weeks Royal Navy pilots shot down 23 Argentine aircraft. The fleet lost six SHARs, but none of them to enemy aircraft.

The FRS Mk.1 remained in service after the war, with the entire fleet being upgraded in the early 1990s to FRS Mk. 2 and FA.2 standards, featuring a

new radar unit and AIM-120 air-to-air missile. These Harriers served over Bosnia and Iraq during the '90s.

The Royal Navy retired the

last of the SHARs in 2006, replacing them with Harrier GR Mk.9s until the F-35 Joint Strike Fighter enters service in 2010.

— Aaron Skinner



21

Another solid intake, another bit of carving: Aaron started the opening with a bit in a pin vise, then refined the shape with a hobby knife. Again, liquid cement smoothed out the rough spots.



22

When Harriers sit idle, auxiliary intakes around the top of the main intakes fall open. The Heritage Aviation intakes show this feature. After dry-fitting and sanding, Aaron attaches them with extra-thick super glue.



23

Aaron flows thinner super glue into gaps between the resin intakes and the fuselage to blend them into the airframe. After hardening the joints with super-glue accelerator, he sanded them smooth.



24

Using .010" and .020" styrene strip, Aaron adds detail to the air-brake well under the rear fuselage. (He also detailed the nose-gear bay the same way.) He wasn't aiming for 100 percent accuracy, only an approximation that would fill the void.



25

Tamiya molded distinctive vortex generators on the Harrier's wing as ovoid posts. After carving away the generators, Aaron super glued 1/4"-long pieces of .010" x .060" strip styrene in place, trimming them to length and shape after the glue dried.



26

Thick super glue allows Aaron to fiddle with the angle of the horizontal stabilizers as he attaches them. He posed them in a nose-down angle seen in many photos of Sea Harriers on the ground.



27

Aaron secures brass tubing in holes drilled in the front of the Aden 30mm gun pods. The barrels, as well as drilled-out cooling holes and shell-ejection ports, lend detail to the previously featureless kit parts.



28

After carefully cutting apart the vacuum-formed canopy, Aaron attaches the windshield with Testors Clear Parts Cement. A thick bead of cement and Squadron putty filled a gap after he trimmed the part a tad short.



29

Because he wanted to use the better-detailed metal front gear, Aaron trimmed the mount from the kit part and glued it to the model. He drilled a hole in the mount and in the top of the gear leg and inserted a paper-clip dowel to secure it to the model after painting.



30

After priming with light gray, Aaron masked off the top and sprayed the undersides of the airplane white. On the voyage south, Falklands War Sea Harriers had the white over-painted extra dark sea gray, with the old white areas appearing slightly lighter. Aaron aimed to replicate this effect.



31

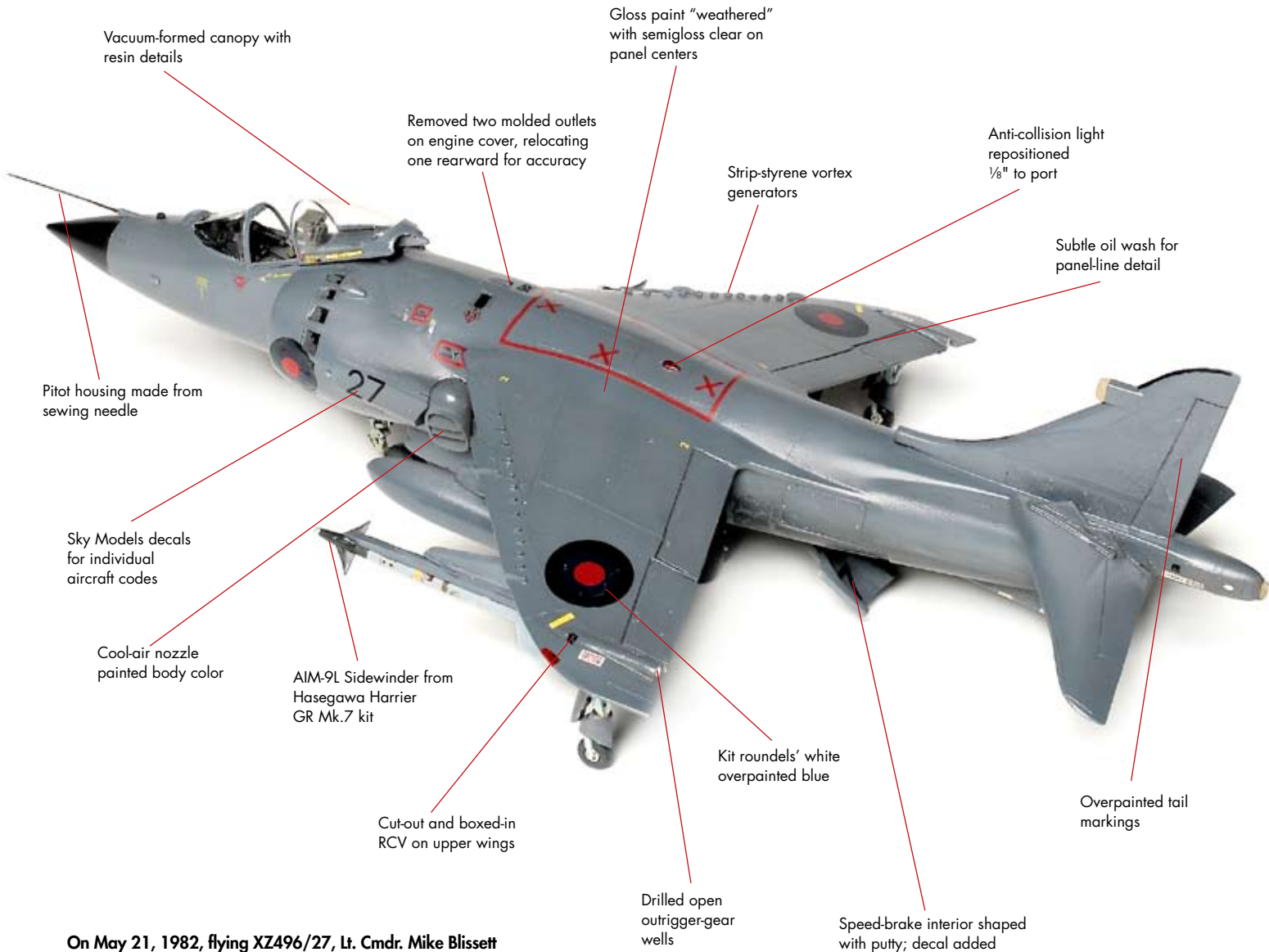
Next, Aaron airbrushed Polly Scale extra dark sea gray over the airframe as well as the pylons and fuel tanks. The flat paint then was overcoated with Tamiya clear in preparation for decals.



32

Choosing to model XZ496, an 800 Squadron bird deployed aboard HMS *Hermes*, Aaron combined kit decals with markings from Sky Decals. Like the Royal Navy crews, Aaron toned down the markings by hand-painting over tail insignia as well as the white areas of the roundels.

Extra details finish a Falklands War Sea Harrier FRS Mk.1



On May 21, 1982, flying XZ496/27, Lt. Cmdr. Mike Blissett downed an Argentinian A-4C Skyhawk. The Harrier was part of the Royal Navy's 800 Squadron aboard HMS *Hermes*. The same aircraft suffered engine failure and was ditched in the North Sea alongside HMS *Illustrious* on March 16, 1984.

SOURCES

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