Accurate F-106 Delta Dart Scale Modeling Tips

By Robert Wegeman

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1) Select the paint scheme you wish to do, prior to construction. In this determination process, determine if it is an early in service or later in service aircraft you are modeling (this is important to determine if the aircraft you are modeling has the early or late intake opening styles, earlier spoked main landing gear wheels, the Infra-Red seeker ahead of the windscreen, wing fences or no wing fences, the shorter exhaust of the earlier J-75-P-9 engines, the later J-75-P-17 engine, the subsonic or later supersonic external fuel tanks and pylons, the tail hook mod, or the inflight refueling modification).

   The inflight refueling modification to the heat exchanger vent area of the F-106A/B fleet started in 1967 and took several years to implement before the fleet was fully fitted with the exceptions noted on this post.

   The supersonic external fuel tanks started to be adopted in the F-106A/B fleet beginning in 1965 and took several years before it was fully implemented as well.

   Determine if it has the top barred canopy or the later clear top canopy for the period aircraft you are modeling. The clear top canopies were added to the F-106A fleet during the 1972 through 1975 time frame. The three mirrors added to the canopy were added in 1979.

   Additional note here, F-106A 56-0451, 56-0542 and F-106B 57-2507 retained their original curved intakes throughout. 56-0451 and 56-0452, never had the Heat Exchanger Vent mod, and were never fitted with the in-flight refueling mod. F-106A 56-0451, early into her flight testing had the F-102A style nose radome as well, being changed early on to the F-106 style nose radome.

   F-106A's 56-0451, 56-0452 and 59-0134 were never fitted with the clear top canopies. F-106B 57-2507 and 57-2516 was never fitted with the in-flight refueling mod, either. F-106A 56-0451, 56-0452 and F-106B's 57-2507 and 57-2516 were never fitted with the Infra-Red Seekers. F-106A 56-0453 was the first to go from test to tactical. F-106A 56-0467 set the speed record in December, 1959. F-106A 59-0047 set a distance record in 1960.

2) Determine the instrument configuration (Round eye or Vertical Tape) of your desired aircraft BEFORE construction. Step 6, below will help you determine if the bird you have decided to build is either a Round eye or Vertical Tape instrumented aircraft.

3) if You model a Round eye Montana ANG186th FIS, 120th FIG Bird, the cockpit and radar bays interior color being "Foxbat Blue", with black floorboards, not the standard "Gull Gray", or "Zinc Chromate Yellow" for the radar bay interior side of the radar bay doors.

4) An additional hint to remember if modeling a Monogram, Revell/Monogram or Revell 1/48th Scale F-106A. If modeling with the weapons bay doors open, the curved surface part of the clamshell doors should be fitted to the Fuselage sides, NOT the flat sides. This is incorrectly depicted in any of those versions of instructions. Also pictured in the instructions wrong is the forward launcher Crossbridge web assembly when missile rails retracted and the Bay is open. The wide part of the Web on the forward missile Crossbridge assembly should be forward, not the thinner end of it.

5) If modeling a Gun Bird, Vertical Taped Instrumentation should only be used for the model in that case. See Step 6, below. Also note: that these aircraft had the small TACAN antenna moved from its original location under the nose to a little further aft and slightly left of its original location, being replaced in its original location by a Yaw Vane. The change adding the yaw vane was applied to all Vertical Tape instrumented F-106A's and F-106B's, starting in 1977. And this was a permanent change. The pitch vane on the left radar bay doors was always present in the total F-106A and F-106B Fleet. The Radar Scope Face being replaced by the Gun/HUD sight mod. Also three small mirrors were added to the forward inside of the clear topped canopy which was slightly bulged. An Additional note: F-106B's were never fitted with the gun, although one F-106B, 59-0157 was fitted with the hydraulic quick disconnects for it in the rear inside portion of the weapons bay. Unfortunately 59-0157 was lost in a non-fatal flying accident in February of 1977, before any more work could be done in this area. The gun system housing would have required a minor engineering change to the front of the housing assembly due to the F-106B's "Coffin Rack" (Avionics relocation, due to the addition of the second seat in the F-106B.) at the forward portion of the F-106B's weapons bay. It also would have required a different cooling air setup to the gun housing.

   Vertical Tape Instrumented F-106A's modified for the gun system retained the capability to return to AIR-2A standard if need be. The system was completely reversible, if need be. Gun system operations within the Vertical Tape equipped F-106A Fighter Interceptor Squadrons began with the 48th FIS in the late summer of 1980.

6) Round eye Birds are primarily 57-2XXX series tail numbers, though this is not all inclusive. Some 56 and very early 57 models retained Round eye instrumentation. Some 56 and very early 57 models converted to Vertical Tape instrumentation early on. 58 and 59 models were primarily Vertical Tape Instrumented Birds. Some 57-2XXX series tail numbers were many years later converted to Vertical Taped instrumented aircraft (only a very small number converted), though these later conversions were not modded to carry the gun. (Which would have required another contract with "Speedline" at Kelly AFB, Texas. $ Money.) an additional note: Round eye F-106A's nonetheless were later fitted with the clear top canopies and still later fitted with the three small mirrors inside the canopies.

   An additional note on Round eye Birds: later in the Six's service life, the Round eye birds were primarily grouped into two FIS units and a small number at Tyndall for pilot training purposes. Those two FIS units being Montana's 186th FIS, 120th FIG (ANG) and Massachusetts 101st FIS, 102nd FIW (ANG). The 84th FIS (active duty) was the last FIS that

operated a mix of Round eye Birds and Vertical Tape instrumented birds. The 84th FIS relinquished its F-106's in the late1980-1981 time period, becoming the 84th FITS, primarily equipped with more T-33A's. This grouping took place in the latter '70's and remained this way until the end of the aircraft's frontline service life. This grouping took place to ease logistical support supply lines to the units. They were primarily 57-2XXX serial numbers, both F-106A and F-106B models. Tyndall (active duty) maintained a mix of Round eye Birds and Vertical Taped Birds for Pilot Training Purposes. All the other FIS units (both active duty and ANG) at this time had Vertical Taped Instrumented F-106A's and F-106B's.

7) I do not yet have the Trumpeter 1/48 F-106A kits; however, I understand there is a problem with the intakes. There is an aftermarket correction kit available for this. Have been informed the nose wheels for this kit are incorrect, as well. Trumpeter also modeled the elevons as four pieces, two per each Elevon. A frequent modeling mistake seen is those sections operating independently of each other. This is definitely not the case. The two sections of the elevons were linked as one flying Elevon surface, both sides.

8) MENG with their excellent 1/72 F-106A kit has a very minor problem with the rudder. Darned near imperceptible. Caracal makes decals for especially for this kit, due to its rudder. Highly recommended.

9) For Hasegawa's 1/72 F-106A kit, Falcon makes an excellent Clearvax set of Canopies in its set #43 USAF aircraft which includes the top barred and clear top canopies, as well as the windshield. Falcon also offers a 1/72 F-106B conversion kit as well for the Hasegawa kit.

10) Painting Guide. General normal overall color for the F-106A/B is FS 16473, ADC grey with flat black, or semi-gloss black anti-glare panel ahead of the windscreen.
The nose radome varying shades of black, from flat, semi-gloss, to glossy. Weapons Bay interiors, main landing gear wheel wells, the inside portions of the outer and main landing gear doors, and the inside of the speed brakes (though there was levity here allowed to the different units as to their painting of the speed brake interiors, as seen in photos) being Zinc Chromate Green. Zinc Chromate Yellow being seen inside the engine bays and the inside the radar bay doors, Montana ANG being the exception with their "Foxbat Blue" on the inside of their radar bay doors and cockpits. Primary cockpit colors with the noted exception of the Montana ANG being Gull Grey or Dark Gull Grey, with flat black or dark brown fiberglass floorboards. The inside wall sections of the nose wheel wells being Zinc Chromate Yellow (the majority) or Zinc Chromate Green. The inside of the Nose Landing gear doors for many years being Zinc Chromate Green or in some cases Zinc Chromate Yellow. In 1980 Depot (McClellan, at Sacramento) began painting the interiors of the Nose Landing Gear Doors ADC Grey FS 16473. For many years the main and nose landing gear struts were painted silver. This changed in the 1979-1980 time period to gloss white for ease of cleaning and upkeep. Cockpit side instrument consoles being flat black with Gull Grey switch knobs, dull red flip switch guards and small dull silver switches. Writing on the console panels done in white, but this is practically invisible in other than 1/1 scale. The instrument framing on the instrument gauges, including the AMI and AVVI of the Vertical Taped birds, as well as the Round eyes, is flat black; again with Gull Grey knobs and dull silver flip switches. The two reinforcing strips

inside the two sandwiched windshield panes, each side is grey. The two heat strips, near the upper and lower forward framing, also sandwiched in between the two pains being grey, though also every once in a while, red being seen. An additional note on the two windshield heat strips: early windshields, the heat strips were so close to the upper and lower windshield framing, they were practically invisible. Early F-106A top barred canopies and F-106B Plexiglas edging, near the frames is actually thin fiberglass stripping, sometimes either represented in a light grey or close to yellow. If representing this pane edging, the paint to this edging should be applied as a thinned color, not a solid color.

Note to myself. Next installment, I'll cover the painting of the nose wheel well components, cable wiring, plumbing, clamps and the ejection seat. Also, I will cover the early Genie standby optical sight, the much later ACMI Pod and ECM Pod Mods and the standby G meter and standby compass (whiskey compass) as well as the Inside weapons bay Gun housing paint. Test bird external armament variations, as well. Timing of Circular or shield type ANG badges in relation to top barred or clear top canopy usage. Trumpeter's mis-rendering on its 1/48 scale F-106B aft avionics bay panels due to the fact that the F-106B moved this equipment to the "Coffin Rack" in the forward portion of the weapons bay due to the inclusion of the tandemly placed second ejection seat & cockpit.

There are indeed examples of nonstandard paint schemes. Such as the early test aircraft, NASA usage, bicentennial aircraft, etc. this is where, indeed photo references come in handy.

11) Weathering. Weathering should be held to an absolutely bare minimum when modeling either the F-106A or F-106B! We did everything we could possibly do to get the maximum Knots or MACH out of them! Including keeping them Spotless! We kept them Waxed, Also for Maximum Speed and Performance! "Scab Patching" was ILLEGAL on this Aircraft! "Flush Patching" was the only accepted norm on this aircraft by Either Convair or USAF! General norm was very clean exteriors on F-106 Aircraft! We all wanted the maximum performance out of our Jets! They were kept Clean!

12) Many aftermarket add-ons and decals available for all these kits. Metal pitot tubes and landing gear struts, Vertical Tape or Round eye instrument panels are available as aftermarket items as well for the 1/48 and 1/72 scale kits.

Trumpeter has had a 1/48 F-106B as well as a 1/48 F-106A available for some time, now. Trumpeter has recently released a 1/72 F-106A and is soon to release a 1/72 F-106B, as well.

Hobby Master offers prebuilt 1/72 F-106A die cast versions as well.

There are 1/144 scale kits of the F-106A, as well.

Revell has a very early 1/71st scale F-106A and can with work, be made into very nice models of the F-106A, as well.

Bert Kinzey of Detail & Scale published two excellent references on the F-106, F-106 Delta Dart, The Ultimate Interceptor Volume 13 (which has a model review guide and also a "How To" guide on modeling Hasegawa's 1/72 F-106A) and Color and Markings Volume 1, The F-106 Delta Dart. Detail & Scale is indeed on Facebook.

William Holder Aero Series Volume 27, The F-106 Delta Dart also published many years ago.

Doug Barbier also recently, through Specialty Press, released his outstanding book of the F-106, as well!

The above are excellent references.

The Absolute Best Online Resource for Reference on The F-106 Delta Dart is the website by Patrick McGee at **http://www.f-106deltadart.com**

Enjoy and Happy F-106 Modeling!
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