

Douglas X-3 Stiletto Walkaround



This walkaround was inspired by our Expo 2003 Contest Theme, "Fabulous Failures". If any aircraft evokes the adjective, "Fabulous", it is the Douglas X-3 Stiletto. Its needle-like shape and diminutive wings were the ultimate embodiment of streamlining and speed, at least by the aerodynamic principles of the late 1940s.

The X-1 and X-2 opened the door to supersonic flight, but both were rocket powered with very limited flight duration and used a drop-ship for launch. The X-3 was to be powered by twin turbojets and have an endurance of 10 minutes at Mach 2. Unfortunately, the engines proved to be woefully short of their promised thrust and that rapier profile did not slice through the sound barrier, but rather contributed enormous surface drag. After the first flight in 1952, it was clear that the X-3 was a "ground hog". Takeoff speed was 260 mph and the highest speed ever achieved was Mach 1.21, in a 30-degree power dive! Some flight-testing was conducted to investigate the flight characteristics of those stubby wings and the phenomenon of roll coupling, but as a vehicle for "pushing the envelope", it was a complete dud. The order for a second aircraft was cancelled and the sole Stiletto was quietly put to pasture at the Air Force Museum in 1956.

These photos were taken in 1981. While the AFM has one of the premier aircraft collections in the world, it also has the worst lighting of any museum I have visited. The black painted interior of the cavernous main "hanger" and the dark concrete floor soak up stobe light like outer space while the suspended spotlights casting glare on the exhibits are landmines for light meters. Overall, I'm pretty happy with way most of these shots cleaned up in Photoshop, but there are a couple where the harsh lighting adds a bizzare aura to an already strange aircraft.



• **Image 2:** Although the photo isn't all that clear, you can clearly see that the "X-3" logo has a black shadow on the lower and right edges.

• **Image 4:** This is the leading edge of the wing. The X-3 Wing featured a movable leading edge to increase the camber of the airfoil for low airspeed flight. The fairings under the wing house the actuators. (The mass balance seen in the background is part of a neighboring exhibit.)



• **Image 5:** No, this is not a negative. Like a stealth fighter, the oblique surfaces of the X-3 when seen from this view, reflected very little strobe light back to the camera. Only the intakes, edges of the gear doors and sheet metal joints reflected brightly, creating this ghostly image.

• **Image 6:** You can catch a glimpse of the compressor blades behind the intake duct. The XJ34-WE-19 had *eleven* compressor stages. Also, notice that there is no canopy - only windscreen. How did the pilot get in? Through a hatch in the cockpit floor!



• **Image 10:** Notice the fuel injectors and flame holders for the afterburner. More modern engines feature variable geometry exhaust nozzles (so called "turkey feathers") to further accelerate the exhaust gas and increase thrust.





• **Image 16:** The nose gear well and door are painted aluminum.

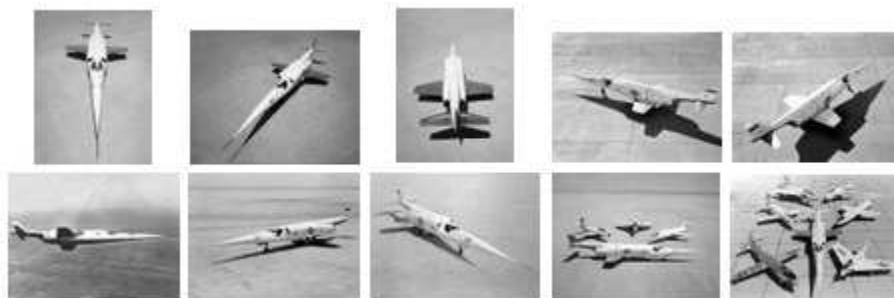


• **Image 18:** Left side, looking aft. The doors and well interior are mostly aluminum paint.

• **Image 19:** Right side, looking forward. The forward bulkhead is yellow chromate, the electrical boxes are black.



• **Image 20:** Most of the airframe and instrument panel surfaces are medium grey. The seat frame is a little lighter grey. The cockpit floor hatch is green chromate. The instrument bezels are black. Throttle knobs are white. Gear retraction knob is black. That big "facet" handle in the foreground appears to be silver. Assorted switch covers are red.



There are two other online photo collection taken at the AFM, which include some nice color photos of the cockpit (it wasn't lighted when I was there!). One, taken by Sven Knudson, can be found at his [Ninfinger Scale Models](#) website.

Another by Garfield Ingram can be found on [Hyper Scale](#).

Models of the Douglas X-3 Stiletto



In addition to being a "Fabulous Failure", most models of the Stiletto also qualify for the "Sow's Ear" Award. I wouldn't be surprised if the original 1/64 scale **Revell** kit was a contemporary of the actual aircraft, making it about 50 years old. It is currently out of production, but was reissued several times and is not terribly rare. A review by Scott Van Aken can be found on [Modeling Madness](#).



Only slightly better, but in a standard scale, is the 1/48 **Lindberg** kit. Incredibly, it is in the current catalog. A review by Caz Dalton can also be found on [Modeling Madness](#).

Project-X Vacuforms issued an X-3 in 1/72. It's pretty basic. Photos of one built by Meindert can be found on his website, [Aircraft Modelling In Plastic](#).



Your best bet however, is a 1/72 resin kit issued by **Planet Models**. A review by Sven Knudson can be found on his [Ninfinger Scale Models](#) website.

Happy modeling! - Greg