



# FACT SHEET

## U.S. Air Force Fact Sheet BOEING BIRD OF PREY

The Bird of Prey is a single-seat stealth technology demonstrator used to test "low-observable" stealth techniques and new methods of aircraft design and construction. The secret Bird of Prey project ran from 1992 to 1999, and the aircraft first flew in the fall of 1996. The Bird of Prey was named for its resemblance to the Klingon spacecraft from the science fiction series Star Trek.

In its 38 flights, the Bird of Prey tested ways to make aircraft less observable to the eye and to radar. It also validated new ways to design and build aircraft using large single-piece composite structures, "virtual reality" computerized design and assembly, and disposable tooling. The Bird of Prey was revealed in 2002 because its design techniques had become standard practice -- Boeing used them in its X-32 Joint Strike Fighter demonstrators and later in its X-45A Unmanned Combat Air Vehicle prototype.



DAYTON, Ohio -- Lockheed Martin F-22A Raptor (bottom) and Boeing Bird of Prey at the National Museum of the United States Air Force. (U.S. Air Force photo)

The aircraft demonstrates advanced stealth concepts, notably its "gapless" control surfaces that blend smoothly into the wings to reduce radar visibility, and an engine intake completely shielded from the front. The Bird of Prey, however, used some "off the shelf" technology to reduce costs and speed production. Its control system is all-manual with no computer assists, and the landing gear is adapted from Beech King Air and Queen Air aircraft.

Boeing donated the Bird of Prey to the museum in 2002.

### TECHNICAL NOTES:

**Engine:** One Pratt & Whitney JT15D-5C turbofan of 3,190 lbs. thrust

**Maximum speed:** 300 mph

**Celling:** 20,000 ft.

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