

# F-14B Tomcat - 1990

## United States

Type: Fighter

Min Speed: 350 kt

Max Speed: 920 kt

Commissioned: 1990

Length: 19.2 m

Wingspan: 19.6 m

Height: 4.9 m

Crew: 2

Empty Weight: 18200 kg

Max Weight: 32098 kg

Max Payload: 5900 kg

Propulsion: 2x F110-GE-400



Sensors / EW: - AN/ALQ-126A - ECM, DECM, Defensive ECM, Max range: 0 km

- AN/ALR-67(V)2 - ESM, RWR, Radar Warning Receiver, Max range: 222.2 km

- AN/AWG-9 - Radar, Radar, FCR, Air-to-Air, Long-Range, Max range: 333.4 km

- AN/AXX-1 TCS - Visual, Visual, Target Search, Slaved Tracking and Identification TV Camera, Max range: 185.2 km

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### Weapons / Loadouts:

- AIM-54C Phoenix - (1989, Mk47 Mod 1 Smokeless Motor) Guided Weapon. Air Max: 222.2 km.

- 267 USG Drop Tank - Drop Tank.

- AIM-7M Sparrow III - (1985) Guided Weapon. Air Max: 70.4 km.

- AIM-9M Sidewinder - (1984) Guided Weapon. Air Max: 18.5 km.

- ADM-141A TALD [Active RF] - (1988) Decoy (Vehicle). Surface Max: 74.1 km. Land Max: 74.1 km.

- LA-610 TARPS Pod [IR + EO] - Sensor Pod.

- Expanded Chaff Adapter (ECA) Pod - (F-14A/B, 1990/91) Sensor Pod.

- AN/ALQ-167 Bullwinkle DECM Pod - Sensor Pod.

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**OVERVIEW:** The Grumman F-14 Tomcat is a fourth-generation, supersonic, twinjet, two-seat, variable-sweep wing fighter aircraft. The Tomcat was developed for the United States Navy's Naval Fighter Experimental (VFX) program following the collapse of the F-111B project. The F-14 was the first of the American teen-series fighters, which were designed incorporating the experience of air combat against MiG fighters during the Vietnam War.

The F-14 first flew in December 1970 and made its first deployment in 1974 with the U.S. Navy aboard USS Enterprise (CVN-65), replacing the McDonnell Douglas F-4 Phantom II. The F-14 served as the U.S. Navy's primary maritime air superiority fighter, fleet defense interceptor and tactical reconnaissance platform. In the 1990s, it added the Low

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Altitude Navigation and Targeting Infrared for Night (LANTIRN) pod system and began performing precision ground-attack missions.

The Tomcat was retired from the U.S. Navy's active fleet on 22 September 2006, having been supplanted by the Boeing F/A-18E and F Super Hornets.

**DETAILS:** The F-14 Tomcat was designed as both an air superiority fighter and a long-range naval interceptor. The F-14 has a two-seat cockpit with a bubble canopy that affords all-round visibility. It features variable geometry wings that swing automatically during flight. For high-speed intercept, they are swept back and they swing forward for lower speed flight. It was designed to improve on the F-4 Phantom's air combat performance in most respects.

The F-14's fuselage and wings allow it to climb faster than the F-4, while the twin-tail arrangement offers better stability. The F-14 is equipped with an internal 20 mm M61 Vulcan Gatling cannon mounted on the left side, and can carry AIM-54 Phoenix, AIM-7 Sparrow, and AIM-9 Sidewinder anti-aircraft missiles. The twin engines are housed in nacelles, spaced apart by 1 to 3 ft (0.30 to 0.91 m). The flat area of the fuselage between the nacelles is used to contain fuel and avionics systems such as the wing-sweep mechanism and flight controls, and the underside used to carry the F-14's complement of Phoenix or Sparrow missiles, or assorted bombs. By itself, the fuselage provides approximately 40 to 60 percent of the F-14's aerodynamic lifting surface depending on the wing sweep position.

**SPECIFICATION:** Crew: (2) || Length: 62 ft 9 in (19.1 m) || Wingspan: Spread 64 ft (19.55 m), Swept 38 ft (11.58 m) || Height: 16 ft (4.88 m) || Max. takeoff weight: 74,350 lb (33,720 kg) || Powerplant: (2) General Electric F110-GE-400 afterburning turbofans || Dry thrust: 13,810 lbf (61.4 kN) each || AB Thrust: 27,800 lbf (123.7 kN) each || Maximum fuel capacity: 16,200 lb internal; 20,000 lb with (2) 267 gallon external tanks.

**PERFORMANCE:** Max Speed: Mach 2.34 (1,544 mph, 2,485 km/h) at high altitude || Combat radius: 500 nmi (575 mi, 926 km) || Service ceiling: 50,000+ ft (15,200 m) || Rate of climb: >45,000 ft/min (229 m/s) || Thrust/weight: 0.92.

**SENSORS:** Hughes AN/APG-71 radar || AN/ASN-130 INS,IRST, TCS || Remotely Operated Video Enhanced Receiver (ROVER) upgrade || Tactical Airborne Reconnaissance Pod System (TARPS) || Tactical Airborne Reconnaissance Pod System (TARPS).

**ARMAMENT:** Guns: (1) 20 mm (0.787 in) M61A1 Vulcan 6-barreled Gatling cannon, with 675 rounds || (10) hardpoints total: (6) under-fuselage, (2) under nacelles and (2) on wing gloves with a capacity of 14,500 lb (6,600 kg) of ordnance and fuel tanks || AIM-54 Phoenix Missile || AIM-7 Sparrow Missile || AIM-9 Sidewinder Missile || JDAM precision-guided munition (PGMs) || Paveway series of laser-guided bombs || Mk 80 series of unguided iron bombs || Mk 20 Rockeye II.

**SOURCE:** [SCO] Wikipedia <http://en.wikipedia.org>