

## F-14A Tomcat - 1990

### United States

Type: Fighter

Min Speed: 350 kt

Max Speed: 920 kt

Commissioned: 1990

Length: 19.1 m

Wingspan: 19.6 m

Height: 4.9 m

Crew: 2

Empty Weight: 18110 kg

Max Weight: 32098 kg

Max Payload: 5900 kg

Propulsion: 2x TF30-PW-414A



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

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

- AN/ALR-50 Charger Blue - (Navy) ESM, RWR, Radar Warning Receiver, Max range: 222.2 km

- AN/ALR-45 Compass Tie - (Navy) ESM, RWR, Radar Warning Receiver, Max range: 222.2 km

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

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### Weapons / Loadouts:

- AIM-54C Phoenix - (1985-2004, Mk47 Mod 1 Smokeless Motor) Guided Weapon. Air Max: 184.1 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.

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

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

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superiority fighter, fleet defense interceptor and tactical reconnaissance platform. In the 1990s, it added the Low 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>