F/A-18 Hornet

The Indian Government Announced in April 2022, that the Indian Navy will receive two F-18 Super Hornets (a variant of the F/18 Hornet) as the main weapon on India's indegenous aircraft, the INS Vikrant. The Dassault Fighter jet is also being considered as a primary aircraft for both INS VIkrant and INS Vikramditya.

Should the trials be successful, the government will consider buying the F-18 Hornet form the US government to supplement its fleet of aircrafts.

Overview of the F/A-18 Hornet

The McDonnel Douglas F/A-18 (also known as F-18) is a twin engine, supersonic capable, multi-role combat jet which is a fighter and attack aircraft (thus the F/A acronym). It was designed by McDonnell Douglas and Northrop, both part of Boeing and Northrop Grunman respectively. The Hornet is also used by the Air forces from around the world for close air-support as well as for other roles.

The FA/18 was created as a highly versatile aircraft with avionics, cockpit displays, and an ability to carry a wide array of armaments. The aircraft can perform tasks such as escorts, air defense, destruction of enemy air defenses, close air support, aerial reconnaissance etc. Its versatility and reliability have been praised, but it has been criticized for its limited range and lesser payload options as compared to other aircrafts, such as the Grunman F-15 TOcat in the fighter role and the LTV A-7 Corsair II in the attack role.

The Hornet first saw combat action during the 1986 United States bombing of Libya and subsequently participated in the 1991 Gulf War and 2003 Iraq War.

Characteristics of T90 (Non-Export Model)	
General characteristics	**Performance**
● **Crew:** 1 (C)/2 (D - pilot and weapon systems officer) ● **Length:** 56 ft 1 in (17.1 m) ● **Wingspan:** 40 ft 4 in (12.3 m) with AIM-9 Sidewinders on wingtip LAU-7 launchers ● **Width:** 27 ft 7 in (8.4 m) wing folded ● **Height:** 15 ft 5 in (4.7 m) ● **Wing area:** 410 sq ft (38 m^2) ● **Aspect ratio:** 4	● **Maximum speed:** 1,034 kn (1,190 mph, 1,915 km/h) at 40,000 ft (12,000 m) ● **Maximum speed:** Mach 1.8 ● **Cruise speed:** 570 kn (660 mph, 1,060 km/h) ● **Range:** 1,089 nmi (1,253 mi, 2,017 km) ● **Combat range:** 400 nmi (460 mi, 740 km) air-air mission

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- **Airfoil:** root:NACA 65A005 mod.; tip:NACA 65A003.5 mod.
- **Empty weight:** 23,000 lb (10,433 kg)
- **Gross weight:** 36,970 lb (16,769 kg)
- **Max takeoff weight:** 51,900 lb (23,541 kg)
- **Fuel capacity:** 10,860 pounds (4,930 kg) internally
- **Powerplant:** 2 × General Electric F404-GE-402 afterburning turbofan engines, 11,000 lbf (49 kN) thrust each dry, 17,750 lbf (79.0 kN) with afterburner

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- **Ferry range:** 1,800 nmi (2,100 mi, 3,300 km)
- **Service ceiling:** 50,000 ft (15,000 m)
- **Rate of climb:** 50,000 ft/min (250 m/s)
- **Wing loading:** 93 lb/sq ft (450 kg/m^2)
- **Thrust/weight:** 0.96 (1.13 with loaded weight at 50% internal fuel)

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<td>Armament</td>
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- **Guns:** 1× 20 mm (0.787 in) M61A1 Vulcan nose mounted 6-barrel rotary cannon, 578 rounds
- **Hardpoints:** 9 total: 2× wingtips missile launch rail, 4× under-wing, and 3× under-fuselage with a capacity of 13,700 lb (6,200 kg) external fuel and ordnance, with provisions to carry combinations of:
  - **Rockets:**
    - 2.75 in (70 mm) Hydra 70 rockets
    - 5 in (127.0 mm) Zuni rockets
  - **Missiles:**
    - Air-to-air missiles:
      - 2× AIM-9 Sidewinder on wingtips *and*
      - 8× AIM-9 Sidewinder (with double-racks) or 4× AIM-132 ASRAAM or 4× IRIS-T (EF-18A/B) or 8× AIM-120 AMRAAM

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- Hughes APG-73 radar
- ROVER (Remotely Operated Video Enhanced Receiver) antenna for use by U.S. Navy's F/A-18C strike fighter squadrons

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(with double-racks) *and* ■ 2× AIM-7 Sparrow or 2× AIM-120 AMRAAM ■ Air-to-surface missiles: ■ 4x AGM-65 Maverick ■ AGM-84H/K Standoff Land Attack Missile Expanded Response (SLAM-ER) ■ AGM-88 HARM Anti-radiation missile (ARM) ■ 4x AGM-154 Joint Standoff Weapon (JSOW) ■ AGM-158 Joint Air-to-Surface Standoff Missile (JASSM) ■ Taurus Cruise missile ■ Anti-ship missile: ■ AGM-84 Harpoon ○ **Bombs:** ■ B83 nuclear bomb ■ B61 nuclear bomb[j] ■ Joint Direct Attack Munition JDAM precision-guided munition (PGMs) ■ Paveway series of laser-guided bombs ■ Mk 80 series of unguided bombs ■ CBU-78 Gator ■ CBU-87 Combined Effects Munition	

■ CBU-97 Sensor Fuzed Weapon ■ Mk 20 Rockeye II ■ Mk 77 Incendiary bomb	

Variants of the F-18 Hornets

F/A-18A: Original single-seat version, can carry the AGM-84 ASM, AGM-62 Walleye, AGM-88 HARM and the TV guided versions AGM-65 Maverick.

F/A-18B: Two-seat version of the F/A-18B, combat capable but mainly used for training.

F/A-18C: Improved version of the F/A-18A, can carry the AIM-120 AMRAAM, AGM-84E SLAM and the IR guided versions AGM-65 Maverick.

F/A-18D: Two-seat version of the F/A-18C, used only by USMC.

F-18(R): This was a proposed reconnaissance version of the F/A-18A. It included a sensor package that replaced the 20 mm cannon. The first of two prototypes flew in August 1984. Small numbers were produced.

RF-18D: Proposed two-seat reconnaissance version for the US Marine Corps in the mid-1980s. It was to carry a radar reconnaissance pod. The system was canceled after it was unfunded in 1988. This ability was later realized on the F/A-18D(RC).

TF-18A: Two-seat training version of the F/A-18A fighter, later redesignated *F/A-18B*.

F-18 HAR: Single-seat High Alpha Research Vehicle for NASA. High angles of attack using thrust vectoring, modifications to the flight controls, and forebody strakes

Frequently Asked Questions about F 18 Hornets

Is the F 18 Super Hornet still in service?

The last operational deployment of the F/A-18C Hornet in U.S. Navy service was aboard the USS Carl Vinson and ended on 12 March 2018. The aircraft briefly went back to sea for routine carrier qualifications in October, but it was retired from active Navy service on 1 February 2019.

What's the difference between an F 18 Hornet and an F 18 Super Hornet?

The Super Hornet is largely a new aircraft at about 20% larger, 7,000 lb (3,200 kg) heavier empty weight, and 15,000 lb (6,800 kg) heavier maximum weight than the Legacy Hornet. The Super Hornet carries 33% more internal fuel, increasing mission range by 41% and endurance by 50% over the Legacy Hornet.

How good is the F 18 Super Hornet?

The Super Hornet carries 33 percent more internal fuel, increasing mission range by 41 percent and endurance by 50 percent over the earlier Hornet.