# F-16CM Blk 40 Falcon - 2005, CCIP

### **United States**

Type: Multirole (Fighter/Attack)

Min Speed: 350 kt Max Speed: 920 kt Commissioned: 2005

Length: 14.5 m Wingspan: 9.5 m

Height: 4.8 m

Crew: 1

Empty Weight: 8280 kg Max Weight: 19200 kg Max Payload: 6894 kg

Propulsion: 1x F110-GE-100



Sensors / EW: - AN/APG-68(V)9 CCIP - Radar, Radar, FCR, Air-to-Air & Air-to-Surface, Medium-Range, Max range: 111.1 km

- AN/ALR-56M ESM, RWR, Radar Warning Receiver, Max range: 222.2 km
- AN/AAR-57 CMWS (Common Missile Warning System) Infrared, MAWS, Missile Approach Warning System, Max range: 9.3 km

## Weapons / Loadouts:

- AIM-9X Sidewinder (2005) Guided Weapon. Air Max: 25.9 km.
- AN/AAQ-14 LANTIRN Pod [FLIR + LRMTS, 12k ft] Sensor Pod.
- AN/AAQ-13 LANTIRN Pod [FLIR + TFR] Sensor Pod.
- AN/ALQ-184(V) DECM Pod (1989) Sensor Pod.
- AIM-120C-5 AMRAAM P3I.2 (2003) Guided Weapon. Air Max: 105 km.
- Mk82 500lb LDGP (1954) Bomb. Surface Max: 1.9 km. Land Max: 1.9 km.
- Mk84 2000lb LDGP (1955) Bomb. Surface Max: 1.9 km. Land Max: 1.9 km.
- 370 USG Drop Tank Drop Tank.
- AGM-65D Maverick IR (1984) Guided Weapon. Surface Max: 14.8 km. Land Max: 14.8 km.
- AGM-65G Maverick IR (1991) Guided Weapon. Surface Max: 14.8 km. Land Max: 14.8 km.
- AGM-65K Maverick IR Guided Weapon. Surface Max: 14.8 km. Land Max: 14.8 km.
- AN/ASQ-213 HTS R4/5/6 [PIP] Pod (1999) Sensor Pod.
- AGM-88C HARM (1994) Guided Weapon. Surface Max: 129.6 km. Land Max: 129.6 km.
- AGM-158A JASSM [Penetrator] (2004) Guided Weapon. Land Max: 398.2 km.
- GBU-10E/B Paveway II LGB [Mk84] (USAF) Guided Weapon. Surface Max: 7.4 km. Land Max: 7.4 km.
- GBU-10J/B Paveway II LGB [BLU-109/B] Guided Weapon. Surface Max: 7.4 km. Land Max: 7.4 km.
- GBU-12D/B Paveway II LGB [Mk82] Guided Weapon. Surface Max: 7.4 km. Land Max: 7.4 km.
- GBU-24/B Paveway III LGB [Mk84] (USAF, 1988) Guided Weapon. Surface Max: 14.8 km. Land Max: 14.8 km.
- GBU-24A/B Paveway III LGB [BLU-109/B] (USAF) Guided Weapon. Surface Max: 14.8 km. Land Max: 14.8 km.

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- GBU-24C/B Paveway III LGB [BLU-116/B] (USAF, 2001) Guided Weapon. Surface Max: 14.8 km. Land Max: 14.8 km.
- GBU-31(V)1/B JDAM [Mk84] (USAF, 1999) Guided Weapon. Land Max: 24.1 km.
- GBU-31(V)3/B JDAM [BLU-109/B] (USAF) Guided Weapon. Land Max: 24.1 km.
- CBU-105 WCMD [CBU-97/B SFW, 10 x BLU-108/B Anti-Tank Bomblets] (2000, CBU-97) Guided Weapon. Land Max: 27.8 km.
- 300 USG Drop Tank Drop Tank.
- CBU-97/B SFW [10 x BLU-108/B Anti-Tank Bomblets] (1998) Bomb. Surface Max: 1.9 km. Land Max: 1.9 km.
- GBU-38(V)1/B JDAM [Mk82] (USAF, 2004) Guided Weapon. Land Max: 24.1 km.
- AN/AAQ-33 Sniper XR Pod [FLIR + LRMTS, 40k ft] (2005) Sensor Pod.
- CBU-103 WCMD [CBU-87/B CEM, 202 x BLU-97/B Dual-Purpose Bomblets] (2000) Guided Weapon. Land Max: 27.8 km.

OVERVIEW: The General Dynamics F-16 Fighting Falcon is a single-engine multirole fighter aircraft originally developed by General Dynamics for the United States Air Force (USAF). Designed as an air superiority day fighter, it evolved into a successful all-weather multirole aircraft. Over 4,500 aircraft have been built since production was approved in 1976. Although no longer being purchased by the U.S. Air Force, improved versions are still being built for export customers. In 1993, General Dynamics sold its aircraft manufacturing business to the Lockheed Corporation, which in turn became part of Lockheed Martin after a 1995 merger with Martin Marietta.

The Fighting Falcon has key features including a frameless bubble canopy for better visibility, side-mounted control stick to ease control while maneuvering, a seat reclined 30 degrees to reduce the effect of g-forces on the pilot, and the first use of a relaxed static stability/fly-by-wire flight control system helps to make it a nimble aircraft. The F-16 has an internal M61 Vulcan cannon and 11 locations for mounting weapons and other mission equipment. The F-16's official name is "Fighting Falcon", but "Viper" is commonly used by its pilots, due to a perceived resemblance to a viper snake as well as the Battlestar Galactica Colonial Viper starfighter.

In addition to active duty U.S. Air Force, Air Force Reserve Command, and Air National Guard units, the aircraft is also used by the USAF aerial demonstration team, the U.S. Air Force Thunderbirds, and as an adversary/aggressor aircraft by the United States Navy. The F-16 has also been procured to serve in the air forces of 25 other nations.

DETAILS: The F-16 is a single-engine, very maneuverable, supersonic, multi-role tactical fighter aircraft; it was designed to be a cost-effective combat "workhorse" that can perform various missions and maintain around-the-clock readiness. It is much smaller and lighter than predecessors, but uses advanced aerodynamics and avionics, including the first use of a relaxed static stability/fly-by-wire (RSS/FBW) flight control system, to achieve enhanced maneuver performance. Highly nimble, the F-16 was the first fighter aircraft purpose-built to pull 9-g maneuvers and can reach a maximum speed of over Mach 2. Innovations include a frameless bubble canopy for better visibility, side-mounted control stick, and reclined seat to reduce g-force effects on the pilot. The F-16 has an internal M61 Vulcan cannon in the left wing root and has multiple locations for mounting various missiles, bombs and pods. It has a thrust-to-weight ratio greater than one, providing power to climb and accelerate vertically.

SPECIFICATION: Crew: (1)  $\parallel$  Length: 49 ft 5 in (15.06 m)  $\parallel$  Wingspan: 32 ft 8 in (9.96 m)  $\parallel$  Height: 16 ft (4.88 m)  $\parallel$  Max. takeoff weight: 42,300 lb (19,200 kg)  $\parallel$  Powerplant: (1) F110-GE-100 afterburning turbofan  $\parallel$  Dry thrust: 17,155 lbf (76.3 kN)  $\parallel$  AB Thrust: 28,600 lbf (127 kN).

PERFORMANCE: Max Speed: Mach 2.0 (1,320 mph, 2,120 km/h) || Combat radius: 340 mi (295 nmi, 550 km) on a hi-lo-hi mission with four 1,000 lb (450 kg) bombs || Service ceiling: 50,000+ ft (15,240+ m) || Rate of climb: 50,000

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ft/min (254 m/s) || Thrust/weight: 1.095 || Maximum g-load: +9.0 g.

SENSORS: AN/APG-68 radar  $\parallel$  SUU-42A/A Flares/Infrared decoys dispenser pod and chaff pod  $\parallel$  AN/ALQ-131 & AN/ALQ-184 ECM pods  $\parallel$  LANTIRN, Lockheed Martin Sniper XR & LITENING targeting pods  $\parallel$  UTC Aerospace DB-110 long range EO/IR sensor pod.

ARMAMENT: (1) 20 mm (0.787 in) M61A1 Vulcan 6-barrel Gatling cannon, 511 rounds || Hardpoints: (2( wing-tip Air-to-air missile launch rails, (6) under-wing, and (3) under-fuselage pylon (2 of 3 for sensors) stations with a capacity of up to 17,000 lb (7,700 kg) of stores || LAU-61/LAU-68 rocket pods with Hydra 70 mm rockets || LAU-5003 rocket pods with CRV7 70 mm rockets || LAU-10 rocket pods with Zuni 127 mm rockets || AIM-7 Sparrow || AIM-9 Sidewinder || AIM-120 AMRAAM || IRIS-T || Python-4 || AGM-65 Maverick || AGM-88 HARM || AGM-158 Joint Air-to-Surface Standoff Missile (JASSM) || AGM-84 Harpoon || AGM-119 Penguin || CBU-87 Combined Effects Munition || CBU-89 Gator mine || CBU-97 Sensor Fuzed Weapon || Mark 84 general-purpose bombs || Mark 83 GP bombs || Mark 82 GP bombs || GBU-39 Small Diameter Bomb (SDB) || GBU-10 Paveway II || GBU-12 Paveway II || GBU-24 Paveway III || GBU-27 Paveway III || Joint Direct Attack Munition (JDAM) series || AGM-154 Joint Standoff Weapon (JSOW) || Wind Corrected Munitions Dispenser (WCMD) || B61 nuclear bomb || B83 nuclear bomb.

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