F-35 Lightning II Program Status and Fast Facts

Program Status

- As of June 6, 2011, the F-35 flight test program has conducted 940 flights total, including 395 flights in 2011
- All three variants are progressing through their flight test programs
- Six Aircraft Delivered to Flight Test
- First Two Production Aircraft (AF-6 and AF-7) Delivered to Edwards AFB, Calif.
- Flew Most Flights on One Day in Program History (10) – May 25
- Passed 350 System Development and Demonstration Flights for 2011
- Passed 110 Vertical Landings for Program
- CTOL Passed 300 Flight Mark at Edwards AFB
- AF-8/AF-9 First Flights, Delivery to Eglin AFB, Fla., set for June 2011
- Two mission systems F-35s have begun in-flight avionics testing, and have achieved sensor fusion
- Integration and verification of the Mission Systems suite continues in parallel on our cooperative avionics test bed aircraft, and in our ground-based laboratories

System Development and Demonstration (SDD)

Six Jets at Edwards AFB, Calif.

- AF-1–FF Nov. 14, 2009; Ferry May 17, 2010
- AF-2 –FF April 20, 2010; Ferry May 17, 2010
- AF-3 –FF July 6, 2010; Ferry Dec. 11, 2010
- AF-4 - FF Dec. 30, 2010; Ferry Jan. 22, 2011
- AF-6 – FF Feb. 25, 2011; Ferry May 13, 2011
- AF-7 – FF March 4, 2011; Ferry May 6, 2011

Seven Jets at Naval Air Station Patuxent River, Md.

- BF-1– FF June 2008; Ferry Nov. 15, 2009; First VL March 18, 2010
- BF-2 – FF Feb. 25, 2009; Ferry Dec. 29, 2009; First VL Jan. 26, 2011
- BF-3– FF Feb. 2, 2010; Ferry Feb. 17, 2010; First VL April 29, 2011
- BF-4– FF April 6, 2010; Ferry June 7, 2010; First VL April 27, 2011
- CF-1– FF June 6, 2010; Ferry Nov. 6, 2010
- CF-2– FF April 29, 2011; Ferry May 16, 2011
- CF-3– FF May 21, 2011; Ferry June 2, 2011

One Jet Currently in Fort Worth

- BF-5 (FW) – FF Jan. 27, 20 (will ferry to PAX in Summer 2011)

FF = first flight; VL = vertical landing

Training

- AF-8 – FF May 6, 2011; Ferry to Eglin AFB, Fla., set for June 2011
- AF-9- FF May 13, 2011; Ferry to Eglin AFB, Fla., set for June 2011

Current as of June 6, 2011
Produced by F-35 Communications Team

Miscellaneous Facts

- Block 1, the first of three principal software-development blocks for the F-35's mission systems, made its inaugural flight in BF-4 in November 2010.
- BF-3's first flight was Feb. 2, 2010; included first use of Generation II Helmet Mounted Display System; arrived at NAS Patuxent River, Md., on Feb. 17, 2009.
- On March 17, 2010, BF-1 demonstrated the capability to hover and conduct a short takeoff during a test flight at NAS Patuxent River, Md.
- On Jan. 7, 2010, BF-1 engaged its STOVL propulsion system in flight for the first time near NAS Patuxent River, Md.

F-35 Cooperative Avionics Test Bed (CATBird)

- CATBird, a highly modified 737, is flying and proof-testing the complete, integrated F-35 mission systems package ahead of mission systems flights in F-35 aircraft.
- CATB returned to Fort Worth from Edwards AFB on Aug. 13, 2010, having successfully operated the integrated electro-optical targeting system (EOTS) for the first time.
- CATBird produced first synthetic aperture radar (SAR) maps, first multi-sensor fusion tracks, in November 2009.
- On Nov. 25, 2008, CATBird began in-flight integration of F-35 avionics.

F-35 Autonomic Logistics and Global Sustainment (ALGS) system

- F-35 Autonomic Logistics Information System Operations Center is now operational and supporting flight test aircraft

Funding

- Long-lead funding approved for Low Rate Initial Production (LRIP) lot 5 (approx 35 aircraft)
- Full funding approved for LRIP lot 4 (31 aircraft, with an option for one Netherlands F-35A)
- Full funding approved for LRIP lot 3 (17 aircraft)
- Full funding approved for LRIP lot 2 (12 aircraft)
- Full funding approved for LRIP lot 1 (2 aircraft)

International Partners and Planned Quantities

- USAF 1,763
- USN/USMC 680
- U.K. RAF/RN 138
- Italy 131
- Netherlands 85
- Turkey 100
- Australia 100
- Norway 48
- Denmark 30
- Canada 65

Current as of June 6, 2011
Produced by F-35 Communications Team

2010 Estimated Average Unit Recurring Flyaway Cost

- F-35A CTOL $65 million

Decisions

- Following the Israeli Government decision to select the F-35 as the Israel Air Force's next-generation fighter aircraft, Israeli Ministry of Defense Director General (Maj. Gen. Ret.) Udi Shani on Oct. 7 signed the Letter of Offer and Acceptance for the procurement of the F-35 aircraft. (October 2010)
- Canada announced its selection of the F-35 to fulfill its future fighter requirements. (July 2010)
- The Joint Combat Aircraft program announced that the United Kingdom has received financial approval to purchase its third F-35B operational test aircraft. (Dec. 2009)
- The Australian government made the decision to purchase 14 F-35 aircraft. (Nov. 2009)
- The Norwegian Parliament has decided to support the government's recent decision to replace its F-16 aircraft with 56 F-35 aircraft. The quantity is higher than the 48 aircraft originally planned. (June 2009)
- Dutch parliament made a decision and agreed to procure one test F-35 Netherlands aircraft for inclusion in the test and evaluation phase of SDD. (Apr. 2009)
- The Italian Parliament approved the Ministry of Defence plan to enter into the next phase of their involvement in the program, including the purchase of 131 F-35 aircraft and construction of a final assembly facility at Cameri Air Base. (Apr. 2009)

F-35 Specifications

	F-35A CTOL	F-35B STOVL	F-35C CV
Length	51.4 ft / 15.7 m	51.2 ft / 15.6 m	51.5 ft / 15.7 m
Height	14.4 ft / 4.38 m	14.3 ft / 4.36 m	14.7 ft / 4.48 m
Speed (full internal weapons load)	Mach 1.6 (~1,200 mph)	Mach 1.6 (~1,200 mph)	Mach 1.6 (~1,200 mph)
Wingspan	35 ft / 10.7 m	35 ft / 10.7 m	43 ft / 13.1 m
Wing area	460 ft2 / 42.7 m2	460 ft2 / 42.7 m2	668 ft2 / 62.1 m2
Horizontal tail span	22.5 ft / 6.86 m	21.8 ft / 6.65 m	26.3 ft / 8.02 m
Combat radius (internal fuel)	>590 nm / 1,093 km	>450 nm / 833 km	>600 n.mi / 1,100 km
Range (internal fuel)	>1,200 nm / 2,200 km	>900 nm / 1,667 km	>1,200 n.mi / 2,200 km
Internal fuel capacity	18,250 lb / 8278 kg	13,500 lb / 6,125 kg	19,750 lb / 8,960kg
Weight empty	29,300 lb	32,300 lb	34,800 lb
Maximum weight	70,000 lb class	60,000 lb class	70,000 lb class
Max g-rating	9.0	7.0	7.5
Weapons payload	18,000 lb / 8,160 kg	15,000 lb / 6,800kg	18,000 lb / 8,160 kg
Standard internal weapons load	• 25 mm GAU-22/A cannon • Two AIM-120C air-to-air missiles • Two 2,000-pound GBU-31 JDAM guided bombs	• Two AIM-120C air-to-air missiles • Two 1,000-pound GBU-32 JDAM guided bombs	• Two AIM-120C air-to-air missiles • Two 2,000-pound GBU-31 JDAM guided bombs