LOCKHEED MARTIN

F-35 Lightning II Program Status and Fast Facts
March 13, 2012

Program Status

- Cumulative flight test activity totals for 2012 as of Feb. 29, are provided below:
  - F-35A conventional takeoff and landing (CTOL) jets have flown 61 times.
  - F-35B short takeoff/vertical landing (STOVL) aircraft have completed 57flights.
  - F-35C carrier variant (CV) jets have flown 29 times.
- From the start of flight testing in December 2006 through Feb. 29, 2012, F-35s flew 1,737 times, including the production-model jets and AA-1, the original flight test aircraft.
- On Jan. 9, AF-4, an F-35A CTOL test aircraft, reached the highest altitude to date in an F-35; 43,000 feet Mean Sea Level (MSL).
- Lockheed Martin ferried the first two production model F-35B STOVL aircraft to the U.S. Marine Corps on Jan. 11. The aircraft, known as BF-6 and BF-8, are now assigned to the 2nd Marine Aircraft Wing's Marine Fighter/Attack Training Squadron 501 residing with the host 33d Fighter Wing at Eglin Air Force Base (AFB), Fla.
- Demonstrating the ongoing maturation of the F-35 integrated sensor suite, AF-3, an F-35A CTOL test jet, completed the first low Distributed Aperture System (DAS) approach on Jan. 17.
- On Jan. 18, the first night flight in the history of the Lockheed Martin F-35 program was completed at Edwards AFB, Calif. Piloted by Lockheed Martin test pilot Mark Ward, AF-6, an F-35A CTOL test jet, took off at 5:05 p.m. PST and landed after sunset at 6:22 p.m.
- With the ferry flight of BF-7, an F-35B STOVL, Eglin AFB, Fla., became home of the largest F-35 fleet in the DOD on Jan. 19. BF-7 was the 23rd F-35 Lightning II delivered to the DOD.
- On Jan. 20, citing the tremendous progress the F-35B STOVL variant made in 2011, Secretary of Defense Leon Panetta rescinded probation for the F-35B, almost a full year ahead of schedule.
- The F-35 SDD fleet including AA-1, the original test aircraft, crossed the 2,500 flight hour threshold on Jan. 25.
- On Feb. 16 at Edwards AFB, Calif., AF-1, an F-35A CTOL test jet, flew the first external weapons test mission in program history.
- The 33d Fighter Wing at Eglin AFB, Fla. conducted its first F-35 Lightning II local sortie on March 6.

System Development and Demonstration (SDD) and Low Rate Initial Production (LRIP)

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; DD250: May 12, 2011; Ferry May 13, 2011
- AF-7 – FF March 4, 2011; DD250: May 5, 2011; Ferry May 6, 2011

Eight 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
- BF-5 – FF Jan. 27, 2011; Ferry July 16, 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

Nine Jets at Eglin AFB, Fla.

- AF-8 – FF May 6, 2011; DD250: July 17, 2011; Ferry: July 20, 2011

- AF-9 –FF May 13, 2011; DD250: July 8, 2011; Ferry: July 14, 2011
- AF-10 – FF June 29, 2011; DD250: Aug. 15, 2011; Ferry: Aug. 31, 2011
- AF-11 – FF July 1, 2011; DD250: Aug. 2, 2011; Ferry: Aug. 31, 2011
- AF-12 – FF July 8, 2011; DD250: Sept. 2, 2011; Ferry: Oct. 19, 2011
- AF-13 – FF July 14, 2011; DD250: Oct. 21, 2011; Ferry: Oct. 26, 2011
- BF-6 – FF Oct. 26, 2011; DD250: Dec. 30, 2011; Ferry: Jan. 11, 2012
- BF-8 – FF Nov. 29, 2011; DD250: Jan. 8, 2012; Ferry: Jan. 11, 2012
- BF-7 – FF Dec. 21, 2011; DD250: Jan. 16, 2012; Ferry: Jan. 19, 2012

Currently Flying in Fort Worth

- AF-14 – FF March 2, 2012
- AF-15 – FF March 3, 2012
- BF-9 – FF March 6, 2012

FF = first flight; VL = vertical landing; DD250 = contractual delivery

F-35 Cooperative Avionics Test Bed (CATB)

- The F-35 Cooperative Avionics Test Bed (CATB), is a highly modified 737-300 aircraft originally designed to integrate, test and validate the entire F-35 Lightning II sensor suite before it ever flies in an F-35 aircraft.
- The CATB completed the last of the major mission systems modification periods in April 2011 and is configured with the full F-35 sensor suite.
- CATB began integration and testing of Block 2 software in June 2011 as the principle development venue.
- CATB is configured with data links to support key sensor and fusion capability enhancements incorporated in Block 2.

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

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

Funding

- Long-lead funding approved for Low Rate Initial Production (LRIP) lot 5 and an undefinitized contract action (UCA) was signed on Dec. 9, 2011(approx. 30 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

Decisions

- The Turkish Defense Industry Executive Committee authorized the procurement of two F-35 Lightning II aircraft that will be built in Low Rate Initial Production Lot 7. (January 2012)

- The Japan Ministry of Defense announced its selection of the F-35 Lightning II as the Japan Air Self Defense Force's (JASDF) next generation fighter aircraft, following the F-X competitive bid process. The F-35A conventional takeoff and landing variant (CTOL) was offered by the United States government with participation from Lockheed Martin. The initial contract will be for four jets in Japan Fiscal Year 2012, which begins April 1, 2012. (December 2011)
- The Norwegian Parliament unanimously approved the funding of four (4) F-35 Lightning II training jets to begin fulfilling Norway's future air-combat capability requirements. (June 2011)
- The Dutch Parliament made a decision and agreed to procure a second test F-35 Netherlands aircraft for inclusion in the test and evaluation phase of SDD. (April 2011)
- 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. (December 2009)
- The Australian government made the decision to purchase 14 F-35 aircraft. (November 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. (April 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. (April 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
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
Weight empty	29,300 lb	32,300 lb	34,800 lb
Internal fuel capacity	18,250 lb / 8278 kg	13,500 lb / 6,125 kg	19,750 lb / 8,960kg
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
Maximum weight	70,000 lb class	60,000 lb class	70,000 lb class
Propulsion* (uninstalled thrust ratings)	F135-PW-100 40,000 lbs Max. 25,000 lbs Mil. Vertical N/A	F135-PW-600 38,000 lbs Max. 26,000 lbs Mil. 40,500 lbs Vertical	F135-PW-100 40,000 lbs Max. 25,000 lbs Mil. Vertical N/A
Speed (full internal weapons load)	Mach 1.6 (~1,200 mph)	Mach 1.6 (~1,200 mph)	Mach 1.6 (~1,200 mph)
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
Max g-rating	9.0	7.0	7.5

**Maximum Power (Max) = with afterburner; Military Power (Mil) = without afterburner; Vertical = without afterburner*