

Lockheed Martin F-35 Program Exceeds 2011 Flight Test Goals

FORT WORTH, Texas, Jan. 12, 2012 /PRNewswire/ -- The Lockheed Martin (NYSE: LMT) F-35 System Development and Demonstration 2011 flight test program resulted in the completion of more test flights and test points than in any year.

The 2011 flight test plan called for the accumulation of 872 flights and 6,622 test points by Dec. 31. For the year, the SDD program flew 972 flights and tallied 7,823 test points. The F-35A Conventional Takeoff and Landing (CTOL) variant flew 474 flights and accomplished 3,600 test points. The F-35B Short Takeoff/Vertical Landing (STOVL) variant accomplished 333 flights and 2,636 test points. The F-35C Carrier Variant (CV) flew 165 flights and tallied 1,587 test points. Along with this, the STOVL executed 268 vertical landings. The cumulative 2011 milestones were achieved through a combination of planned test flights and test points along with test flights and test points added throughout the year.

"The success of the flight test program is the result of a team of dedicated government and contractor professionals," said Larry Lawson, Lockheed Martin's F-35 program executive vice president and general manager. "The test team continues to gain momentum and they will build upon this success for an even better 2012. I couldn't be prouder of the team."

The overall F-35 SDD flight test program plan calls for the verification of 59,585 test points through developmental test flights by Dec. 31, 2016. Through 2011, the flight test team has accomplished 12,728 test points or 21.4 percent of overall testing requirements.

"These achievements speak to the rapid maturation of the F-35 program and to our team's commitment to performing with excellence," said J.D. McFarlan, vice president of F-35 Test and Verification. "We will now turn towards 2012, expanding the flight envelope as we continue to demonstrate the F-35's excellent flight characteristics for all three variants."

Major flight test achievements in 2011 include:

- A major highlight for October was the completion of F-35B short takeoff/vertical landing (STOVL) [ship suitability testing aboard the USS WASP \(LHD-1\)](#) off the coast of Virginia. The test began when [BF-2 executed the first shipboard vertical landing on Oct. 3](#). The next day, [BF-2 executed the first short takeoff from the WASP](#). During the third week of sea trials, [BF-2 and BF-4 operated simultaneously on the ship](#). Combined, they accomplished 72 short takeoffs and 72 vertical landings during the three-week testing period.
- The mission systems test aircraft performed Block 1A and Block 1B software testing including demonstrating Communication Navigation and Identification (CNI) range and accuracy and integrated Electro-Optical Targeting System testing that included Tactical FLIR (Forward Looking Infra-Red) and combat laser firing. The software also displayed imagery from the Distributed Aperture System on the Helmet Mounted Display. Further testing accomplished radar search and target tracking, Synthetic Aperture Radar Mapping, Electronic Warfare testing, and multi-sensor fusion of four sensors. In addition, baseline Radar Cross Section signature testing was accomplished on three mission system aircraft.
- On Nov. 18, CF-3, an F-35C test aircraft, conducted the first F-35 launch from the Navy's new Electromagnetic Aircraft Launch System (EMALS). Testing the F-35C on EMALS marked the beginning of the process to integrate the carrier variant with the future carrier fleet aircraft launching system.
- The F-35B STOVL jets conducted 268 vertical landings (VLs) in 2011 compared to 10 VLs in 2010. F-35B aircraft also completed 395 short takeoffs (STOs) last year.
- AF-1 achieved the F-35's maximum design limit speed of Mach 1.6 for the first time on Oct. 25.
- Jet Blast Deflector (JBD) testing was performed by F-35C Lightning II carrier variant (CV) aircraft CF-2 at Joint Base McGuire-Dix-Lakehurst, N.J. from June 25-July 8. CF-2 successfully completed this portion of tests required to ensure the F-35C is compatible aboard an aircraft carrier.
- AF-6 and AF-7 completed Maturity Flight testing of the training syllabus software at Edwards Air Force Base,

Calif., designed to simulate operating an F-35 without a mission control room.

- The F-35 program successfully performed aerial refueling testing with KC-135 and KC-10 aircraft.

The F-35 Lightning II is a 5th Generation fighter, combining advanced stealth with fighter speed and agility, fully fused sensor information, network-enabled operations and advanced sustainment. Lockheed Martin is developing the F-35 with its principal industrial partners, Northrop Grumman and BAE Systems.

Headquartered in Bethesda, Md., Lockheed Martin is a global security company that employs about 126,000 people worldwide and is principally engaged in the research, design, development, manufacture, integration and sustainment of advanced technology systems, products and services. The Corporation's 2010 sales from continuing operations were \$45.8 billion.

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