



The Lightning II Flash is a monthly report on the F-35 Joint Strike Fighter Program
<http://www.TeamJSF.com>

JSF Program Progress
Fort Worth, Texas

F-35 'Performed Beautifully' on First Flight

The F-35 Lightning II completed its inaugural flight on Dec. 15 and initiated the most comprehensive flight test program in military aviation history.

"The Lightning II performed beautifully," said F-35 Chief Test Pilot Jon Beesley following the flight. "What a great start for the flight-test program, and a testimony to the people who have worked so hard to make this happen."

The flight of the conventional takeoff and landing F-35 variant began at 12:44 p.m. CST at Lockheed Martin in Fort Worth, Texas, when the jet lifted off and began a climb-out to 15,000 feet. The most powerful engine ever placed in a fighter aircraft – the Pratt & Whitney F135 turbofan, with 40,000 pounds of thrust – effortlessly pushed the F-35 skyward. Beesley then performed a series of maneuvers to test aircraft handling and the operation of the engine and subsystems. He returned for a landing at 1:19 p.m. CST. Two F-16s and an F/A-18 served as chase aircraft.



The F-35 Lightning II takes off for the first time on Dec. 15.

Dan Crowley, Lockheed Martin executive vice president and general manager of the F-35 program, said the aircraft has continued to meet or exceed expectations during its assembly and pre-flight checkouts. It has now embarked on a 12,000-hour flight-test program designed to validate tens of thousands of hours of testing already completed in F-35 laboratories. "The F-35 will enter service as the most exhaustively tested, most thoroughly proven fighter system in history," Crowley said.

"For the first time ever, we are seeing the dawn of an aircraft with all the 5TH Generation attributes – including advanced stealth, fighter agility, sensor fusion and greatly improved supportability – combined in an affordable package," said Ralph Heath, president of Lockheed Martin Aeronautics Co.



The first F-35 cruises over North Texas on its inaugural flight.



First Flight Impressions From Chief Test Pilot Jon Beesley

“It was easily the smoothest test airplane I’ve ever flown.”
[Beesley’s prior test pilot experience includes the F-117 stealth fighter, the YF-22 and the F-22.]

“I’ve had the chance in my career to be involved with several airplanes that have changed the way wars are fought - one of them being the F-117 stealth fighter, one of them being the F-22. The F-35 is really going to change the way we’re able to defend ourselves, defend our friends, defend freedom. This is an opening to a tremendous future for our country and our friends.”

“There are a lot of flags on this airplane. They’re not just there as decoration; they are part of our program.”

Palmdale, Calif.

STOVL Center Fuselage Delivered

Northrop Grumman unveiled the center fuselage for the short takeoff/vertical landing (STOVL) variant of the F-35 on Dec. 18. The fuselages for all three versions of the F-35 are manufactured at Northrop Grumman’s facility in Palmdale. The center fuselage will be mated with other major subassemblies built by Lockheed Martin and BAE Systems to create the first F-35B, set to make its first flight in 2008. The Palmdale ceremony also marked the beginning of work on the third Lightning II variant, the F-35C. That fuselage is expected to be delivered to Fort Worth at the end of next year, with first flight slated for 2009. Ten fuselages are in various stages of assembly at the plant today.

Propulsion Highlights

Fighter Engine Team Completes Preliminary Design Review

The GE Rolls-Royce Fighter Engine Team (FET) held a successful Preliminary Design Review for the F136 engine. Through optimizing engineering design and materials, the FET was able to reduce total engine weight by more than 550 pounds. Completing this review process gives the FET the green light to proceed with Critical Design Review activities.

Upcoming Events

Early 2007

Remaining Partners sign F-35 Production, Sustainment and Follow-on Development Memorandum of Understanding

Jan. 2007

Forward and center fuselages joined on first F-35B, the first short takeoff/vertical landing version of the Lightning II

