Lockheed Martin F-35 Succeeds In First Aerial Refueling Test

Program on track for first production deliveries in 2010

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FORT WORTH, Texas

The Lockheed Martin F-35 Lightning II successfully completed the first stage of its airborne refueling tests during the aircraft's 34th flight yesterday. Aerial refueling capability will expand the F-35 operating envelope enabling longer duration flights. The milestone is another in a series leading to first production deliveries in 2010.

"Our progress on the F-35 program remains strong. The F-35 is flying and proving its value every day," said Dan Crowley, Lockheed Martin executive vice president and F-35 program general manager. "The F-35B, the first short takeoff/vertical landing aircraft, is on plan for a mid-2008 first flight. All 19 test aircraft are in manufacturing flow or on the flight line and assembly is under way on the first two production aircraft, which are on schedule for delivery to the U.S. Air Force in 2010."

A specially instrumented KC-135 tanker from Edwards Air Force Base, Calif., is deployed to Fort Worth to support the refueling missions, which will continue over the next two weeks.

"We've known since our first flight in 2006 that the F-35 is extraordinarily stable and controllable, and we've conducted extensive ground testing on the aerial refueling equipment, so it was no surprise that the tests today went smoothly," Crowley said. The tests are designed to evaluate and confirm the operation of the aerial refueling system, procedures and aircraft handling qualities, and are being conducted from Lockheed Martin Aeronautics Co. headquarters in Fort Worth.

On Wednesday's flight, Beesley climbed to 20,000 feet and performed a series of maneuvers to verify the F-35's compatibility with the KC-135's refueling boom and its aerodynamic wake. The sortie also evaluated aircraft systems and handling while connected to the refueling boom. All systems functioned as designed. Beesley reported that the F-35's flight control system provided excellent handling qualities near the tanker, and while connected to the tanker refueling boom.

The Lightning II was aloft for one hour and 34 minutes and completed multiple tanker engagements. "The test team is completely satisfied we can maneuver in the vicinity of the KC-135, and the tanker boom can easily connect with the F-35," said Doug Pearson, Lockheed Martin vice president of the F-35 Integrated Test Force. "We will begin to evaluate the F-35 fuel system during the next refueling test mission by transferring various amounts of fuel from the tanker."

The F-35 carries a prodigious amount of internal fuel -- more than 18,000 pounds -- giving it exceptionally long range without external tanks, and dramatically reducing its need for tanker support. The internal-fuel configuration enables the Lightning II to remain stealthy by avoiding external tank carriage typically used by legacy fighters to extend range. Drop tanks reflect radar energy and can betray an aircraft's location. Operating without drop tanks also frees more stations for external weapons carriage when stealth is not required to fulfill mission objectives.

As the program progresses, international-participant support remains strong. The Netherlands Cabinet recently made a recommendation to Parliament to approve the procurement of two aircraft for operational test and evaluation. The United Kingdom and Italy also are in the process of making decisions on the procurement of test aircraft. All partner nations have parts or systems flying on the first Lightning II.

The F-35 is a supersonic, multi-role, 5th generation stealth fighter designed to replace a wide range of existing aircraft, including AV-8B Harriers, A-10s, F-16s, F/A-18 Hornets and United Kingdom Harrier GR.7s and Sea Harriers.

Lockheed Martin is developing the F-35 with its principal industrial partners, Northrop Grumman and BAE Systems. Two separate, interchangeable F-35 engines are under development: the Pratt & Whitney F135 and the GE Rolls-Royce Fighter Engine Team F136.

Headquartered in Bethesda, Md., Lockheed Martin employs about 140,000 people worldwide and is

principally engaged in the research, design, development, manufacture, integration and sustainment of advanced technology systems, products and services. The Corporation reported 2007 sales of $41.9 billion.

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