Lockheed Martin's Navy JSF Completes Historic Flight-Test Program

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PATUXENT RIVER, Md.

The Lockheed Martin Joint Strike Fighter (JSF) X-35C, flying at a rate of up to six missions per day, completed its flight-test program with all objectives achieved on Sunday, March 11, at Naval Air Station Patuxent River, Md. The airplane logged a total of 73 flights and 58 hours aloft.

"This is a milestone in what is clearly one of the most successful flight- test programs in aviation history," said Tom Burbage, executive vice president and general manager of the Lockheed Martin JSF program. "Our team kept the X-35C's design common with our other JSF variants, but gave this plane some unique features to optimize it for carrier operations. The outcome, as we've shown in flight testing, is a magnificent carrier strike aircraft that for the first time will bring the element of stealth technology to the Navy."

The X-35C carrier variant (CV), designed to demonstrate carrier-suitable flying qualities for the United States Navy, first flew on Dec. 16, 2000. On Jan. 31, it became the second Lockheed Martin JSF demonstrator to fly supersonic, and on Feb. 10 it flew from coast to coast, becoming the first "X" plane in history to complete a transcontinental flight. Eight pilots have flown the aircraft.

"I could tell from the first flight that the X-35C was going to be representative of a very good carrier plane. When we began aggressive FCLPs (field carrier landing practices) the aircraft really showed off its superb responsiveness and controllability," said test pilot Joe Sweeney, a former U.S. Navy carrier pilot. "We deliberately forced errors in the glide slope, speed and line-up, challenging the plane's ability to respond, and it performed exceedingly well. I can't say enough about this engineering and flight test team."

During an FCLP, the pilot shoots an approach exactly as he would on an aircraft carrier. The X-35C, which features a larger wing and control surfaces than the other JSF variants, completed 250 FCLPs during testing.

"We put the airplane through a battery of practice carrier approaches in a very short time. The airplane's performance was outstanding," said Lt. Cmdr. Greg Fenton, a U.S. Navy test pilot assigned to the X-35. "Several of Strike's Landing Signal Officers (LSOs) got an opportunity to observe the airplane 'on the ball', and were quite impressed with its ability to handle intentional deviations during the practice carrier landings."

The X-35C becomes the second Lockheed Martin JSF variant to successfully complete a flight-test program. The JSF X-35A conventional takeoff and landing (CTOL) variant finished its testing on Nov. 22, 2000, establishing a host of new flight-test records. Both aircraft completed all test points required by the government, as well as additional Lockheed Martin JSF team objectives designed to reduce technical risk.

JSF X-35 Milestones

2001

March 11 -- The X-35C completes its flight-test program with all objectives achieved.
March 10 -- The X-35B achieves full operational thrust from its STOVL propulsion system during force and moment testing.
March 1 -- The X-35C, piloted by Lt. Cmdr. Greg Fenton (USN), successfully completes its 100th field carrier landing practice (FCLP) test.
Feb. 22 -- The short-takeoff/vertical landing (STOVL) JSF X-35B begins testing its shaft-driven lift-fan propulsion system on a specially designed hover pit.
Feb. 18 -- Lt. Cmdr. Greg Fenton becomes the second U.S. Navy pilot, and the eighth pilot overall, to fly the X-35C.
Feb. 9-10 -- The X-35C completes a 2,500-mile transcontinental flight from Edwards Air Force Base, Calif., to Patuxent River Naval Air Station, Md. The coast-to-coast flight is believed to be the first ever for an "X" plane.
Jan. 31 -- The X-35C flies supersonic.
Jan. 30 -- Maj. Art Tomassetti becomes the first U.S. Marine to fly the X-35C.

2000

Dec. 28-29 -- The shaft-driven lift fan is installed in the JSF X-35B short-takeoff/vertical landing (STOVL) variant.
Dec. 22 -- Lt. Cmdr. Brian Goszkowicz becomes the first U.S. Navy pilot to

fly the X-35C.
Dec. 16 -- The X-35C, piloted by Joe Sweeney, makes its first flight, from Palmdale, Calif., to Edwards Air Force Base.
Nov. 22 -- The X-35A completes its flight-test program with all objectives and test points achieved.
Nov. 21 -- The X-35A flies supersonic.
Nov. 18 -- Squadron Leader Justin Paines becomes the first Royal Air Force pilot to fly the X-35A.
Nov. 11 -- The X-35A completes its first aerial refueling. Chief Test Pilot Tom Morgenfeld praised the plane's stability, saying, "Far and away the easiest tanking I've done."
Nov. 10 -- Maj. Art Tomassetti becomes the first U.S. Marine to fly the X-35A.
Nov. 3 -- Lt. Col. Paul Smith becomes the first U.S. Air Force pilot to fly the X-35A.
Oct. 24 -- The X-35A, piloted by Tom Morgenfeld, makes its first flight, from Palmdale, Calif., to Edwards Air Force Base.

Lockheed Martin, in partnership with Northrop Grummanand BAE SYSTEMS, is competing to build the JSF for the United States and United Kingdom. Government selection of a single contractor for the Engineering and Manufacturing Development phase is set for fall 2001.

For information on JSF and Lockheed Martin Aeronautics Company, visit:http://www.lmaeronautics.com/

For information on Lockheed Martin Corporation, visit: http://www.lockheedmartin.com

For government information on the Joint Strike Fighter program, visit:http://www.jast.mil/

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