

F-35 JSF Flight Plan

March 2006



The F-35 JSF Flight Plan is a monthly report on the F-35 Joint Strike Fighter Program

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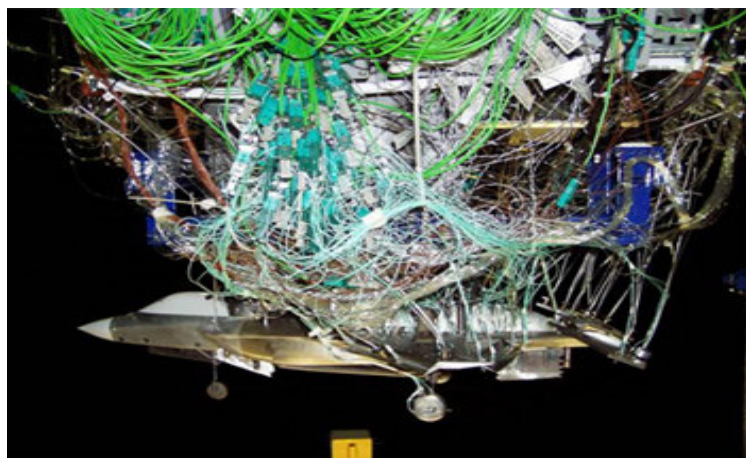
Production Progress of the First F-35 Aircraft Fort Worth, Texas

F-35 Completes Fuel System Checkout

Flight operations and fuel system teams began flushing operations on the fuel tanks of the first F-35, and final fuel system checkouts were concluded on March 11. Fuel leaks are a common problem on modern fighters, but none were noted on the F-35 during the fuel operations. "The F-35 is a stealthy aircraft built with very tight tolerances, and it is remarkable that during the entire comprehensive fuel system testing there were *no* external leaks from any of the aircraft fuel tanks," said Doug Pearson, F-35 Integrated Test Force director. The F-35 was moved from the fueling facility to a nearby run station (above) where structural tests will begin. The aircraft remains on schedule for first flight this fall.



F-35 Variants Conduct Critical Milestone – The conventional takeoff and landing (CTOL) and short takeoff/vertical landing (STOVL) variants of the F-35 successfully underwent [their](#) Critical Design Reviews (CDR) in late February. CDR validates the maturity of the F-35's design, and is a prerequisite for approval of Low Rate Initial Production long-lead funding by the Defense Acquisition Board this spring. CDR for the Navy's F-35 carrier variant is planned for this fall.



model of the F-35B (above) with main nozzle, lift fan and roll nozzles all operating at full-scale jet pressures and temperatures.

Brough, England

Final Ground-Environment Test

Concluded – The JSF team completed the ground-environment test for the short takeoff/vertical landing (STOVL) F-35B version of the aircraft in the thermal acoustic facility (TAF) at BAE Systems in Brough, England. The data acquired during this test will be used to define thermal and acoustic loads acting on the aircraft structure during short takeoffs, vertical landings and while hovering. The TAF is a unique facility featuring a 1/15th scale

Structural Test Rigs Complete – Construction was completed on the first of two structural test rigs at BAE Systems' Brough site. The rigs will be used to perform static and durability tests on two F-35 CTOL aircraft. The first rig will weigh over 300 tons with the test aircraft in place, and stands more than 30 feet high. Construction on the second rig will begin on March 20. The test aircraft are due to arrive at the Brough site in early 2008.

Team News

Flying Test-Bed Power Switched On - Electrical power flowed into the JSF Cooperative Avionics Test Bed, or "CATBird," for the first time on March 16 in Mojave, Calif. The CATBird is a Boeing 737 undergoing extensive modifications by BAE Systems, under contract with Lockheed Martin. The one-of-a-kind modification program is nearing completion and will create an airborne platform for testing and evaluating all of the F-35's integrated avionics and sensors – before they're flown in an F-35 aircraft. The modifications, including 20 interior equipment racks, workstations and an F-35 cockpit, will be completed over the next several months, and the CATBird's first flight is planned for this summer.



Supplier Spotlight

Transonic Wind Tunnel Test Started – High-speed wind tunnel testing on the F-35B STOVL variant is under way at the Calspan 8-Foot Transonic Wind Tunnel (left) in Buffalo, N.Y. The tests are designed to investigate methods to optimize transonic (the transition between subsonic and supersonic speeds) lateral stability.

Supplier Stork Fokker Elmo Celebrates STOVL Parts Delivery – On March 3, Fokker Elmo employees at the Hoogerheide plant in the Netherlands (right) celebrated the first delivery of wiring harnesses for the first F-35B STOVL test aircraft. Fokker Elmo is providing the wiring harnesses for all F-35s. The F-35B is the first-ever aircraft to be produced with the ability to take off in less than 500 feet, operate at supersonic speeds and land vertically. Assembly of the first F-35B is under way, with first flight planned for late 2007.



Upcoming Events

April 4-6, 2006	Navy League Sea, Air & Space Symposium – Washington, D.C.
Spring 2006	F-35 begins running installed F135 engine
July 2006	F-35 CEO Conference
Fall 2006	F-35 first flight