

The Lightning II

Flash

November 2007



DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited

JOINT STRIKE FIGHTER Program Progress

Fabrication Begins for First Production-Model F-35

Northrop Grumman hosted a ceremony Oct. 25 at its Advanced Composites Manufacturing Center in El Segundo, Calif., to celebrate the start of fabrication of the first all-composite inlet duct for the Air Force's first production F-35A. Matt Maxwell (top right), Lockheed Martin's program manager for the first phase of Low Rate Initial Production, thanked Northrop Grumman employees at the ceremony for their hard work and dedication to the F-35 program and to the country. The duct is created by laying down and compressing composite fiber against a duct-shaped mandrel as the mandrel rotates.



New Hover Pit Awaits F-35B

On Nov. 9, Lockheed Martin introduced the new F-35B hover pit at the company's Fort Worth, Texas, plant. The state-of-the-art hover pit (right) comprises a 160-foot by 80-foot galvanized steel grate suspended over a sloping pit that graduates from 6 feet to 16 feet in depth. It will enable the F-35B to run its short takeoff/vertical landing propulsion system at all power settings while the aircraft is anchored to the pit. Engineers will measure the STOVL system's output and its effect on the aircraft's structure and behavior, comparing it to computer-model predictions. The tests will ensure that the STOVL system is operating as intended before the plane's first flight next spring.



The Lightning II Flash is a monthly report on the F-35 Lightning II Program

www.teamjsf.com



Helmet Mounted Display Tested At 9Gs

Vision Systems International, LLC announced that its F-35 Helmet Mounted Display (HMD) was successfully demonstrated in a series of flights performed by the Royal Air Force Centre for Aviation Medicine. The test pilots (left) employed the F-35 HMD while flying two specially modified BAE Hawk T Mk1 aircraft. Pilots from the RAF, U.S. Air Force, Lockheed Martin and BAE Systems took the helmet from negative 2 to positive 9 Gs in flights designed to simulate air combat. The pilots' assessments were that the HMD shows significant promise given its comfortable fit and the solid, stable symbology provided throughout the flight envelope. The HMD displays both flight and targeting information on the helmet visor, replacing the head-up display used in current-generation fighters.

Tail Assembly Complete for First F-35B

The horizontal tails have been fitted to the first short takeoff/vertical landing aircraft, BF-1. The tails, designed and manufactured by BAE Systems, were the final major airframe mate for BF-1 and were described by BAE Systems as a "perfect fit," demonstrating again the high production quality that is being achieved by all of the F-35 industry partners.



Northrop Grumman Delivers Center Fuselage for First Weight-Optimized F-35A

Northrop Grumman has completed the center fuselage for the first weight-optimized Air Force F-35 Lightning II test aircraft (left) – a conventional take-off and landing (CTOL) variant. The company celebrated the milestone with a ceremony Oct. 26 at its F-35 assembly facility in Palmdale, Calif. The event also marked the sixth anniversary of the awarding of the original F-35 System Development and Demonstration contract to the Lockheed Martin-led team.

Upcoming Events:

- Fourth Quarter 2007 - F-35 AA-1 Returns To Flight
- Fourth Quarter 2007 - Assembly Of First F-35B Completed
- Fourth Quarter 2007 - F-35 Cooperative Avionics Test Bed Starts Mission Systems Flights
- December 2007 - F-35B Rollout From The Factory To The Flightline
- Mid-2008 - F-35B First Flight