Boeing Completes Series of JSF STOVL Propulsion Testing

The Boeing Joint Strike Fighter One Team has completed a series of tests of its short takeoff/vertical landing (STOVL) propulsion system, successfully accomplishing more than 220 transitions between conventional and STOVL operating modes. All performance and operability testing, as well as control-law development, is complete. The remaining durability testing will be the final phase of the test program.

The team has accumulated more than 200 hours of STOVL test time.

"We are extremely pleased that the results continue to match our predictions," said Boeing JSF Propulsion Director Steve Kyle. "These tests further validate that our direct-lift system is the robust, low-risk STOVL approach JSF requires."

The system was stable and responsive even when experiencing aggressive pitch, yaw and roll commands. Performance during hover attitude control and stall recovery tests also met or exceeded expectations.

Many transitions between vertical and conventional flight modes were accomplished with Pratt & Whitney's JSF119-614 engine running at full power. Boeing met its goal of performing transitions in one and three seconds. Rolls-Royce vertical lift and attitude control components are key elements in the STOVL mode testing.

The test program also is confirming that the JSF direct-lift system performs within acceptable ground-effects thresholds.

The flight-rated STOVL engine was installed July 12 in the X-32B concept demonstration aircraft, which will fly later this year.

Boeing has decades of experience with direct lift, the only operationally successful, combat-proven STOVL system. To perform STOVL maneuvers, the system redirects engine thrust downward through lift nozzles in the airframe. For conventional flight the lift nozzle is closed so thrust flows rearward through a cruise nozzle to propel the aircraft forward.

The U.S. Marine Corps and U.K. Royal Navy are expected to be the primary STOVL Joint Strike Fighter users. Boeing is competing to build JSF, with a winner to be selected during 2001.

###

00-77

For further information:
Randy Harrison
(206) 655-1198