# Boeing Begins Fabrication for Joint Strike Fighter Mid-Fuselage

Fabrication of mid-fuselage components for the Boeing Joint Strike Fighter (JSF) is underway in Seattle. The commencement of fabrication for the upper center frame, which took place today, is a significant first step toward building the two Boeing JSF X-32 demonstrator aircraft.

"Starting mid-fuselage fabrication moves a major JSF element from the drawing board to the shop floor and represents our overall approach to building this aircraft," said Frank Statkus, Boeing vice president and JSF program manager. "The lean manufacturing processes and advanced technologies used to accomplish this work are the ones employed across the program to ensure the Boeing JSF meets the affordability objectives."

The upper center frame, the first JSF component to be fabricated, is an integral part of the JSF mid-fuselage forward frame assemblies. The processes and technology used in the fabrication demonstrate the Boeing JSF team's leverage of best commercial practices, in this case, ones used to develop the Boeing 777 and 737.

Conducted at the Kent Space Center, near Seattle, Boeing engineers used Automated Numerical Control (ANC), a system that automatically programs 5 Axis milling and inspection machines for efficient part fabrication, to complete the machining.

ANC allows Boeing JSF engineers to develop complex and weight-efficient design solutions while reducing the amount of time and labor required to program the manufacturing equipment. A supplemental Boeing proprietary program eliminates the need for computer-generated drawings, affording the use of three-dimensional solid part models for both design and manufacturing simulation. Boeing uses these technologies to ensure a lean, digitally-driven manufacturing process that provides increased affordability and performance value for the JSF customer.

The JSF mid-fuselage forward frame assemblies consist of four major structural parts, allowing for ease of assembly and eventual engine removal and installation. The first fuselage part to be located in the assembly jig is the upper center frame, which is nested between keel segments and situated above the engine. The upper center frame will accommodate wing attachment, engine and keel assembly, and support fuselage torsional stiffness.

The completed JSF mid-fuselage will eventually be mated with the forward and aft fuselage sections prior to system checkout and final assembly of the two X-32 demonstrator aircraft.

"This marks the start of one of the major areas of production for our X-32 aircraft, Statkus said. "Placing this milestone behind us serves as a catalyst for additional component manufacturing and places us on our way to delivering a highly capable aircraft within the time frame we've established for this program."

Boeing is one of two companies competing to build the JSF. Under the current Concept Demonstration Phase (CDP) contract, Boeing is building two X-32 demonstrator aircraft scheduled for first flight during the second quarter of 2000. One aircraft will demonstrate characteristics of both the Air Force and allied conventional take-off and landing (CTOL) and the Navy's CV variants. The second aircraft will demonstrate the short take-off and vertical landing (STOVL) variant envisioned for use by the Marine Corps, the Royal Navy and other U.S. allies. The company also is defining the Preferred Weapon System Concept (PWSC) for the next phase of the program, the Engineering and Manufacturing Development phase.

A JSF CDP competition winner will be selected in 2001, with actual fighter deployment set for 2008.

###

97-222

For further information:
Terrance Scott
(206) 662-0949