Boeing Completes JSF X-32A Flight Test with Loaded Weapons Bay

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Boeing has successfully completed the Joint Strike Fighter X-32A concept demonstrator's flight test with a loaded internal weapons bay.

Test pilot Air Force Lt. Col. Edward Cabrera opened and cycled the X-32A's weapons bay doors as part of vibration and acoustic testing during the aircraft's 61st flight. The testing validates the design predictions of the X-32A's weapons carriage environment. In the test flights, the X-32A carried an instrumented AIM-120 Advanced Medium Range Air-to-Air Missile, or AMRAAM, and a Joint Direct Attack Munition.

"The tests were successful; the vibration and acoustics data validated our predictions that the environment inside the side-mounted weapons bays is excellent for weapons carriage and release," said Mike Heinz, Boeing vice president and JSF deputy program manager. "This milestone is another positive step in reducing risk as we move closer to the next phase of the program."

Boeing designed its JSF with side-mounted weapons bays for both operational and supportability reasons.

"Side-mounted bays allow the pilot to open the bay away from enemy radar and drop a weapon without compromising the JSF's low observability and the pilot's safety," Heinz said. "Our design also benefits the ground crews by allowing eye-level access to the weapons bays for maintenance and weapons loading."

The operational JSF will be able to internally carry two air-to-ground weapons and two AMRAAMs as a baseline load, as well as a full range of other conventional weapons.

During the four-month test program to validate the JSF's predicted flying characteristics, the X-32A has completed 44.9 flight hours with six different Boeing and government pilots at the controls.

Heinz said commonality is one of the customer's primary objectives in this phase of the program.

To underscore the commonality of its JSF design, Boeing is using the X-32A to demonstrate both the aircraftcarrier variant and conventional-takeoff-and-landing, or CTOL, variant handling qualities, without modifications or changes to the aircraft.

"The commonality built into our 'X' aircraft is paying off as we prepare the X-32B for its first flight," Heinz said. "We've had an extremely productive X-32A flight-test program, and I expect our upcoming X-32B program to be just as successful."

With its X-32A aircraft, Boeing completed the government-required carrier low-speed approach handling qualities testing on Dec. 2 and then demonstrated key CTOL performance capabilities, including supersonic flight, before the end of the year.

The second of the two JSF concept demonstrators, the X-32B, will demonstrate the company's direct-lift approach to the short-takeoff-and-vertical-landing requirements for the U.S. Marine Corps and the United Kingdom's Royal Air Force and Royal Navy. Earlier this month, the X-32B successfully completed low- and medium-speed taxi tests at Palmdale, Calif.

Boeing X-32 flight test is another key piece of the company's aggressive risk-reduction program. Last June, groundbreaking avionics flying lab demonstrations culminated in delivery of a Joint Direct Attack Munition on a ground target. In addition, the Boeing One Team concluded four highly successful full-mission simulation demonstrations with government pilots, as well as full-scale signature and supportability pole model testing at both Boeing and government facilities.

The Boeing-led One Team is competing to build the JSF under a four-year U.S. Air Force, Navy and Marine Corps concept demonstration contract, while also defining the design for the operational JSF. A winner is scheduled to be selected later this year.

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