## News Release



## **Defense Advanced Research Projects Agency**

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IMMEDIATE RELEASE

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## J-UCAS MAKES HISTORY, DROPS INERT BOMB

The Joint Unmanned Combat Air Systems (J-UCAS) program conducted a weapons separation test of an inert bomb from a X-45A technology demonstrator, marking the first time that an unmanned aircraft has released a weapon from an internal bay, and the first time that a weapon has been released from a high-speed, high-performance, unmanned aircraft with a stealthy shape.

On March 20, during its fourth flight in 10 days, X-45A air vehicle 1 took off from the NASA Dryden Flight Research Center on Edwards Air Force Base, Calif. The release went flawlessly and the separation was clean, smooth, and stable. The jettison, at 0.67 Mach and 35,000 feet, was conducted over the Edwards Precision Impact Range Area. The weapon release used an inert (non-explosive), unguided 250-pound Small Smart Bomb. In the coming weeks, an X-45A will release a guided, inert Small Smart Bomb in a joint demonstration at the Naval Air Warfare Center Weapons Division, China Lake, Calif. That release will mark the first time that a GPS-guided weapon has been released from an unmanned system.

The weapons separation test demonstrates the potential of the J-UCAS to complement manned aircraft in some of the most dangerous lethal missions expected in the 21<sup>st</sup> century, such as suppression of enemy air defenses and precision strike. "This demonstration is part of the J-UCAS program's look at the challenges of designing a system to penetrate the heaviest defenses, deliver weapons, and keep the human-in-the-loop where required for rules of engagement," explained DARPA's X-45 program manager, CAPT Ralph Alderson, USN.

The J-UCAS program is a joint DARPA/Air Force/Navy effort to demonstrate the technical feasibility, military utility, and operational value of a networked system of high performance, weaponized unmanned air vehicles to effectively and affordably prosecute 21<sup>st</sup> century combat missions. The Boeing X-45A vehicles are tools for demonstrating the initial technical feasibility of the J-UCAS concept. Boeing and Northrop Grumman are now developing the next generation of vehicles (the X-45C and X-47B, respectively) to demonstrate the military utility and operational value of the J-UCAS concept. The J-UCAS Common Operating System will allow the two systems to intra-operate with each other and inter-operate with the global information grid. More information on the J-UCAS program, including video of the test, can be found at <a href="http://www.darpa.mil/j-ucas">http://www.darpa.mil/j-ucas</a>.

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