



News Release

Defense Advanced Research Projects Agency

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IMMEDIATE RELEASE

October 26, 2005

JOINT UNMANNED COMBAT AIR SYSTEMS PROGRAM TRANSITIONING TO THE SERVICES

Program Management Shifting to the Joint U.S. Air Force/Navy Office Ahead of Schedule

The Joint Unmanned Combat Air Systems (J-UCAS) program, managed by the Defense Advanced Research Projects Agency (DARPA) since October 2003, will be transitioning to Service leadership by November 1, 2005. The new joint U.S. Air Force/Navy office will be headquartered at Wright-Patterson Air Force Base in Dayton, Ohio, and will continue to be supported by personnel at Naval Air Station Patuxent River, Md., and other Navy facilities.

The objective of the J-UCAS program is to develop, demonstrate and transition an affordable, lethal, survivable, and supportable unmanned combat air system to meet the operational needs of the Air Force and Navy. DARPA has been working with two air vehicle prime contractors, The Boeing Company and Northrop Grumman Corporation, to design, build and demonstrate full-scale, flight-worthy air vehicles and mission control elements.

A unique attribute of this program is the coordinated development of a Common Operating System (COS) that will provide the mission functionality for the unmanned combat air vehicles within the system. The COS is being developed by the two vehicle prime contractors in collaboration with Johns Hopkins University Applied Physics Laboratory serving as the integrator/broker. This consortium-like business arrangement also permits other technology contributors to provide advanced software applications and "best of breed" algorithms.

"It has been my privilege to be involved with this precedent-setting and historic program," said Dr. Michael S. Francis, J-UCAS program director at DARPA. "The interest in the J-UCAS concept, combined with our joint team's notable successes, have given us the opportunity to rapidly transition the program to the Services."

In addition to providing unique mission capabilities for operation in the most dangerous denied and highly defended environments, the program provides opportunities for addressing key issues that will affect the larger defense landscape. J-UCAS' system-level approach provides a substantial and practical option for implementing network centric operations.

"J-UCAS has been a catalyst in the acceleration of unmanned survivable strike systems within our armed forces," said Dyke Weatherington, deputy for unmanned aircraft systems planning for the Department of Defense. "Its revolutionary approach has potential across many systems within the military, and it is likely to chart the future of DoD tactical aircraft."

(more)

“J-UCAS’ unique combat versatility will change our perspective of airpower projection in much the same way that stealth did when it was introduced over 30 years ago,” said Dr. Tony Tether, director of DARPA. “J-UCAS’ early transition to the new Service-led program office is a major success for DARPA and an indicator of the program’s importance to the future of our national defense.”

The program will be transitioned in its current form, with the same milestones that have been outlined and with the same technical staff. The only major change will be to the program’s upper management and the location of its headquarters.

“Under DARPA’s leadership, J-UCAS efforts have maintained an intense pace and we are committed to keeping that momentum going,” said CAPT Ralph N. Alderson, USN, current program manager of the J-UCAS X-45 program and newly selected incoming J-UCAS program director. “Dr. Francis built a strong foundation with the help of the program’s superb government and contractor teams and we’ll take it to the next level by actually demonstrating what unmanned combat air systems can bring to the fight.”

Since the office was established at DARPA, the J-UCAS team has sustained an aggressive schedule, demonstrating significant advances that will shape aviation history:

- Demonstration of multi-vehicle unmanned combat air vehicle operations, employing two demonstrator air vehicles under the control of a single operator.
- Autonomous single-vehicle and multi-vehicle response to simulated “pop-up” threats, engaging those threats with operator consent, simulating weapons release and battle damage assessment against the targets.
- Successful GPS-guided weapon deployment from an unmanned combat air vehicle.
- Demonstration of key mission control functionality needed for future aircraft carrier operations.
- Accelerated development to two new J-UCAS low-observable air vehicle designs, the X-45C and the X-47B.

Assembly of the first two X-45C vehicles is currently underway in St. Louis, Mo., and the program is on schedule for first flight in Spring 2007. The X-47 program has begun initial carrier integration testing and will be conducting the critical design review of its air vehicles in May 2006. The middleware for the first build of the COS software has been delivered to the Government and initial demonstrations are scheduled for December 2005.

The revolutionary air vehicles, combined with the functionality provided by the J-UCAS COS, will allow for a robust Operational Assessment to begin in Spring 2007.

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The J-UCAS program is a joint Defense Advanced Research Projects Agency/U.S. Air Force/U.S. Navy effort to demonstrate the technical feasibility, military utility, and the operational value of a networked system of high-performance, weaponized, unmanned air vehicles to effectively and affordably execute combat missions. The J-UCAS Common Operating System will allow unmanned aircraft systems to intra-operate with each other and with the Global Information Grid. The J-UCAS system-of-systems concept plans to demonstrate the military utility and the operational value of airpower in the 21st century combat environment. More information on the J-UCAS program can be found at <http://www.darpa.mil/j-ucas>.

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