Baseline Program to Link Boeing Apache Longbow, UAV to Explore Capabilities of Manned/Unmanned Teaming

Future U.S. Army combat helicopter pilots could enhance their tactical advantages on the battlefield through a unique manned/unmanned vehicle-teaming concept that is being studied by the U.S. Army and The Boeing Company.

The Boeing Phantom Works recently was awarded a $1.2 million contract by the U.S. Army Aviation and Missile Command's Aviation Applied Technology Directorate, Ft. Eustis, Va., to explore teaming capabilities of manned and unmanned systems.

The teaming concept will allow helicopter pilots to obtain valuable information transmitted from an unmanned aerial vehicle (UAV) to locate, identify and target the enemy, and share that information in real time with friendly forces.

Validation of the manned/unmanned vehicle-teaming concept could lead to its use throughout the Army's aviation fleet.

The program, Airborne Manned/Unmanned System Technology Demonstration (AMUST-D), nicknamed "AMUST-Baseline" by the Army, will team an AH-64D Apache Longbow helicopter, produced by The Boeing Company, with a Hunter UAV, developed jointly by TRW and Israel Aircraft Industries.

The AMUST-Baseline program is being conducted as a risk-reduction effort for the upcoming Army Science and Technology Objective AMUST-D demonstration.

During the 22-month effort, Boeing will apply teaming technologies, develop command and control system software, modify the Apache man-machine interface and support flight tests of the teamed aircraft.

Boeing will perform the required engineering, logistics support services and analysis, while TRW will adapt existing Hunter UAV control software to interface with the Apache Longbow. The Hunter UAV can be equipped with a variety of sensors and cameras to provide day/night reconnaissance, surveillance and target acquisition support in the field operations.

The AMUST-Baseline program is acting as a bridge between earlier Boeing programs that developed technology that will enable UAV surveillance video imagery to be viewed in real-time on the Apache Longbow's multi-purpose displays. The new technology also will allow the Apache Longbow aircrew to manually control the UAV and its sensor package when desired.

The AMUST-Baseline program will use hardware, software and system integration technology developed over the past three years to validate assessments made by the Air Maneuver Battle Lab at Ft. Rucker, Ala. Battle Lab test results show that tactical advantages can be gained by teaming manned and unmanned aerial platforms to conduct tactical reconnaissance.

Two Apache Longbow helicopters will be used in the test program. Boeing will modify the controls and displays of the Apache Longbow to allow active control of the Hunter system in a teamed environment.

All work will be managed by the Boeing Phantom Works in Mesa, Ariz., where the Apache Longbow is produced. The Phantom Works is the advanced research and development arm of Boeing, specializing in providing innovative, affordable solutions to meet aerospace needs.

###

99-64

For further information:
Doug Kinneard
480-891-2896