

Extended Range/Multipurpose Unmanned Aerial Vehicle (ER/MP UAV)

Executive Summary

- The Army incorporated lessons learned in operational testing from other unmanned aerial systems including Shadow 200, Hunter, and Predator to develop an adequate test strategy for the Extended Range/Multipurpose Unmanned Aerial Vehicle (ER/MP UAV).
- The Army conducted a systems capability demonstration with two contractors in February 2005 at Fort Huachuca, Arizona.

System

- The ER/MP UAV is a medium altitude UAV system.
- The ER/MP system consists of:
 - Twelve air vehicles
 - Five ground control stations
 - Launch and recovery equipment
 - Communications equipment
- The ER/MP UAV is capable of carrying various payloads:
 - Electro-optic/infrared sensors with laser range finder/laser designator for target surveillance and acquisition
 - Synthetic aperture radar with ground moving target indicator
 - Communications relays
 - Hellfire missiles

Mission

- Army Corps units and below will use ER/MP UAV for reconnaissance, surveillance, target acquisition, and search and attack missions.



- ER/MP UAVs are intended to:
 - Provide dedicated wide area surveillance with persistent coverage
 - Support the Warfighter Information Network-Tactical communications network and communications relay
 - Execute manned-unmanned teaming with Apache helicopter and Aerial Common Sensor
 - Acquire and attack targets with onboard weapons

Activity

- The Test and Evaluation Master Plan outlines an adequate test and evaluation strategy and supported a Milestone B decision on March 28, 2005. DOT&E approved the ER/MP UAV Test and Evaluation Master Plan on June 1, 2005.
- The Army conducted a systems capability demonstration with two contractors in February 2005, at Fort Huachuca, Arizona. The Army awarded the Source Selection Demonstration contract to General Atomics for the Warrior UAV in August 2005.
- The Army plans a Limited User Test in FY07 to support Milestone C. The Army plans to conduct the IOT&E in 1QFY09 to support full-rate production beginning in 3QFY09.

Assessment

- The Army incorporated lessons learned in operational testing from other unmanned aerial systems including Shadow 200, Hunter, and Predator to develop an adequate test strategy.
- The contractor testing and government developmental testing acquired sufficient technical data and operational performance results for baseline development.
- The ER/MP UAV payloads are being developed by a separate program office, which will complicate integration. The Army Program Manager Night Vision under Intelligence and Electronic Warfare manages the electro-optic/infrared and synthetic aperture radar payloads, while the UAV systems

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program manager under Army aviation manages the ER/MP program executive office.

- The developmental testing schedule is ambitious. Environmental, transportability, interoperability, and airworthiness/safety tests are planned prior to the FY07 Limited User Test.

2. In order to develop adequate testing, the Army should update and complete fielding plans and tactics development thus defining reconnaissance and surveillance missions.

Recommendations

1. ER/MP UAV payloads are under separate programs. The Army should require close coordination to ensure adequate test integration and mission performance.