

MQ-9 Predator B Armed Unmanned Aerial Vehicle (UAV)

Executive Summary

- DOT&E approved the MQ-9 Predator B Unmanned Aerial Vehicle (UAV) (MQ-9) Test and Evaluation Master Plan in October 2005.
- An operational assessment is planned for 3QFY06.
- IOT&E is scheduled to occur during FY08 and Milestone C is scheduled for the end of FY08.

System

- The MQ-9 uses optical, infrared, and radar sensors to employ ground attack weapons.
- This system includes ground stations for launch/recovery and mission control of sensors and weapons.
- This UAV is a larger version of the MQ-1 Predator A UAV and has an operating ceiling up to 50,000 feet, an internal sensor payload of 800 pounds, external payload of 3,000 pounds, and an endurance of approximately 24-hours.
- The MQ-9 communicates with ground elements by Ku-band satellite and secure voice relay.
- It carries Hellfire II anti-armor missiles and 500-pound laser-guided or Global Positioning System-guided bombs.



Mission

- The combatant commander uses the MQ-9 to conduct armed reconnaissance. This system can detect, identify, attack, and destroy critical emerging targets (both moving and stationary) using the air vehicle's onboard sensors and weapons.
- The MQ-9's secondary mission is to conduct aerial reconnaissance, surveillance, and target acquisition for other platforms.

Activity

This is an Acquisition Category 2 program currently in System Development and Demonstration Increment 1 until FY08. The following are highlights of developmental testing for this year:

- The Air Force submitted their MQ-9 Test and Evaluation Master Plan to DOT&E.
- GBU-12 (a 500-pound Laser-Guided Bomb) and AGM-114P Hellfire integration and employment demonstrations were conducted during November 2004 and May 2005.
- Final phase of flight performance data testing to support development of flight performance tables commenced in July 2005.
- The program successfully integrated LYNX Synthetic Aperture Radar with a Predator B aircraft platform during 1QFY05 testing.
- Flight testing of pre-production Multi-spectral Targeting System-Model B (MTS-B) occurred from September through October 2005.
- The program completed ground tests of a digital electronic engine control during September 2005.
- The program integrated tracking, classifier, and cross cue update functions of the LYNX and MTS-B electro-optical and infrared sensors during testing in October 2005.

- The onboard navigation system was upgraded with Honeywell H-764G Embedded Global Positioning System/Inertial Navigational System with flight testing continuing through February 2006.

Assessment

The Air Force Program Manager is attempting to begin integrated testing following the reorganization of internal Service test activities. DOT&E needs access to the test data. The Air Force continues to refine their test strategy in order to better specify operational assessment objectives, scope of testing, and required resources.

Recommendations

The Air Force should:

1. Refine system requirements in order to facilitate the engineering and development.
2. Provide DOT&E with all test data.
3. Refine acquisition and fielding strategies to permit more focused and effective operational testing.

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