Army Tactical Missile System - Service Life Extension Program (ATACMS- SLEP)

Executive Summary

- The Army is converting the M39/M39A1 Army Tactical Missile System (ATACMS) with anti-personnel and anti-materiel (APAM) bomblets to the M57 ATACMS Unitary using the same single warhead used in the Navy's Harpoon missile.
- The Army is integrating a proximity sensor into the ATACMS Unitary to add an airburst mode and regain some area effects capability.
- To date, five of five M57E1 ATACMS with proximity sensors have detonated within the required burst range. An operational test is planned for March 2018. DOT&E intends to publish a report in 3QFY18.

System

- The ATACMS Service Life Extension Program converts the M39/M39A1 ATACMS with APAM bomblets to the M57 ATACMS with a single 500-pound APAM warhead and then will add a proximity sensor to regain an area effects capability. The new missile will be designated M57E1 ATACMS Unitary.
- The Army will re-grain the M39/M39A1 motor, update obsolete navigation and guidance software and hardware, and replace the M39/M39A1 APAM bomblets with the WDU-18/B warhead that is used in the Navy's Harpoon missile. The Army intends the warhead change to meet the unexploded ordnance rate requirement defined in the 2008 DOD Policy on Cluster Munitions and Unintended Harm to Civilians.
- The M57E1 missile uses Inertial Measurement Unit and GPS guidance to engage point and area targets out to a range of 300 kilometers.
- The M57E1 missiles can be fired from the tracked M270A1 Multiple Launch Rocket System and the wheeled M142 High Mobility Artillery Rocket System.

Mission

Commanders intend to use M57E1 ATACMS missiles to engage long-range point or area-located targets including air defense, command posts, assembly areas, and high value targets without the hazard of unexploded sub munitions.

Major Contractor

Lockheed Martin Missiles and Fire Control – Grand Prairie, Texas; assembled in Camden, Arkansas

Activity

- In FY17, the Army conducted seven system qualification tests of the ATACMS Unitary with and without the proximity sensor at White Sands Missile Range, New Mexico. The Army conducted two ATACMS tests without the proximity sensor in order to qualify electronics and the re-grained solid rock motor; these tests did not have targets. Live fire testing consisted of two M57E1 ATACMS with the proximity sensor fired against witness panels and two M57E1s fired against an array of targets.
- The Army conducted a soldier-executed user demonstration on September 14, 2017, in accordance with a DOT&E-approved test plan. During this demonstration, a soldier crew fired one M57E1 against a larger array of targets.
- As part of the M57 Stockpile Reliability Program, a missile was fired against the same array of targets as the M57E1 live fire tests. This will allow a comparison of effects between ATACMS with and without the airburst capability.
- The Army has planned for operational testing of the M57E1 in March 2018, which will support the Army decision to produce the M57E1 ATACMS with proximity sensor.

Assessment

- ATACMS continues to perform reliably. Five of five ATACMS with proximity sensors reliably detonated.
- The proximity sensor consistently detonated within the required height of burst range and within the accuracy requirement.
- Lethality results are being assessed.

Recommendations

- Status of Previous Recommendations. This is the first annual report for this program.
- FY17 Recommendations. None.