

Army Tactical Missile System (ATACMS) Modification (MOD)

Executive Summary

- The Army converted the M39 and M39A1 Army Tactical Missile System (ATACMS) with anti-personnel and anti-materiel (APAM) bomblets to the M57 ATACMS 500-pound Unitary warhead using the same single warhead used in the Navy Harpoon missile.
- The Army integrated a proximity sensor into the M57 ATACMS Unitary to add an airburst mode and regain some area effects capability. The new missile is designated M57E1 ATACMS Modification (MOD).
- Seven of seven M57E1 ATACMS MOD missiles detonated with the required accuracy and height of burst. The Army conducted an operational test in March 2018. DOT&E published a classified report in September 2018.

System

- The ATACMS Service Life Extension Program converted the M39 and M39A1 ATACMS with APAM bomblets to the M57 ATACMS with a single 500-pound warhead. The M57E1 ATACMS MOD adds a proximity sensor.
- The Army re-grained the M39/M39A1 motor, updated obsolete navigation and guidance software and hardware, and replaced the M39/M39A1 APAM bomblets with the Navy Harpoon WDU-18/B warhead. The Army intends for the warhead change to meet the unexploded ordnance rate requirement defined in the 2017 DOD Policy on Cluster Munitions.
- The M57E1 ATACMS MOD missile uses Inertial Measurement Unit and GPS guidance to engage point and area targets out to a range of 300 kilometers.
- The M57E1 ATACMS MOD missile can be fired from the tracked M270A1 Multiple Launch Rocket System and the wheeled M142 High Mobility Artillery Rocket System.



Mission

Commanders use M57E1 ATACMS MOD 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 submunitions.

Major Contractor

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

Activity

- In FY17, the Army conducted four system qualification tests of the M57E1 ATACMS MOD at White Sands Missile Range, New Mexico. Live fire testing consisted of two M57E1s fired against witness panels and two M57E1s fired against an array of three operationally representative targets.
- The Army conducted a soldier-executed user demonstration on September 14, 2017, in accordance with a DOT&E-approved test plan. During the test, a soldier crew fired one M57E1 against an array of six operationally representative targets.
- As part of the M57 ATACMS Unitary Stockpile Reliability Program, the Army fired a missile against the same array of targets as the M57E1 live fire tests. This allowed a comparison of effects with and without the airburst.
- In March 2018, the Army conducted an operational test of the M57E1 ATACMS MOD, in accordance with the DOT&E-approved test plan. The operational test consisted of two missiles fired against an array of targets with countermeasures, which are described in the DOT&E September 2018 classified report.

FY18 ARMY PROGRAMS

Assessment

- The M57E1 ATACMS MOD is operationally effective, operationally suitable, and survivable. The complete assessment can be found in the DOT&E September 2018 classified report.
- There were no reliability failures in the M57E1 ATACMS MOD testing. The M57E1 ATACMS MOD is the same design as the M57 ATACMS Unitary with the exception of the proximity sensor, thus it should have a similar reliability.
- The M57E1 ATACMS MOD met accuracy requirements.

Recommendation

1. The Army should address the recommendations found in the September 2018 classified report.