

M80A1 7.62 mm Cartridge

Executive Summary

- Forces will use the M80A1 cartridge, fired by several different weapons systems, to defeat targets with improved lethality compared to the current M80 ball cartridge.
- The Army successfully completed live fire testing of the M80A1 in July 2014. DOT&E assessed the M80A1 as lethal.
- The Army authorized fielding in September 2014.

System

- The 7.62 mm M80A1 cartridge is intended to replace the lead-based projectile contained in the current M80 ball cartridge with a projectile utilizing environmentally-friendly materials. It is designed to provide improved lethality compared to the current M80 ball cartridge.
- The M80A1 cartridge is compatible with the M240 series of machine guns, the M134 “mini gun,” the Mk48 machine gun, and the M110, MK17, M40A5, and M14 series rifles. This new cartridge is intended to be a direct replacement for the currently fielded M80 cartridge.
- The M80A1 is a three-part projectile consisting of a steel penetrator, a copper slug, and a reverse-drawn copper jacket.

Mission

Forces equipped with weapons that fire the M80A1 will engage enemy combatants during tactical operations in accordance with applicable tactics, techniques, and procedures to accomplish assigned missions.

Activity

- The Army successfully completed live fire testing of the M80A1 in July 2014. Testing was conducted in accordance with the DOT&E-approved live fire strategy and test plans.
- The Army used gelatin targets to obtain data as inputs for complex computer modeling of M80A1 performance. Testing also included shots against light material barriers and other targets to determine the projectile’s ability to perforate the target.
- The Army approved fielding of the M80A1 as an Enhanced Performance Round via an Engineering Change Proposal to the M80 in September 2014.
- DOT&E will publish a classified lethality report for the M80A1 in January 2015.



- 1 - Assembled Round (Penetrator, Slug, and Copper Jacket)
- 2 - Copper Slug
- 3 - Steel Penetrator
- 4 - Copper Jacket
- 5 - Complete Cartridge

Major Contractors

- Alliant-Techsystems, Small Caliber Systems – Independence, Missouri
- Olin Winchester – East Alton, Illinois

Assessment

- The M80A1 demonstrated adequate performance and lethality.
- The classified DOT&E lethality report provides a detailed description of the M80A1’s performance.

Recommendations

- Status of Previous Recommendations. This is the first annual report for this program.
- FY14 Recommendations. None

FY14 ARMY PROGRAMS