

120mm Advanced Multi-Purpose (AMP) Cartridge, High Explosive Multi-Purpose with Tracer, M1147



The Army completed M1147 120mm Advanced Multi-Purpose (AMP) combat ballistic validation testing and First Article Acceptance Testing (FAAT). Testing supported the previously delayed full-rate production decision.

SYSTEM DESCRIPTION

The M1147 AMP cartridge is a line of sight, full-bore multipurpose munition employed by Abrams tanks. The AMP cartridge consolidates the capabilities of four cartridges: the M830 High Explosive Anti-Tank cartridge, M830A1 Multi-Purpose Anti-Tank cartridge, M1028 Canister cartridge, and M908 Obstacle Reduction cartridge, into one cartridge. The AMP cartridge is intended to add new capabilities for breaching walls and defeating dismounted Anti-Tank Guided Missile teams at extended ranges.

MISSION

Commanders employ units equipped with the M1147 120mm AMP cartridge to close with and destroy the enemy by direct fire across the full range of military operations.

PROGRAM

The 120mm AMP cartridge is an Acquisition Category III program. DOT&E approved the M1147 120mm AMP TEMP, to include LFT&E Strategy in December 2020, and the IOT&E plan in August 2021. After the publication of the DOT&E combined IOT&E and LFT&E report in December 2022, the full-rate

production decision was delayed due to an investigation to identify the root cause of failure from the FAAT. The Army's root cause analysis was successful, failures were fixed, and follow-on FAAT in May 2024 supported the full-rate production decision.

» MAJOR CONTRACTOR

- Northrop Grumman Defense Systems – Plymouth, Minnesota

TEST ADEQUACY

The Army completed combat ballistic validation testing and follow-on FAAT. Both events were

program office-led tests – not operational or live fire tests – and thus their test plans did not require DOT&E approval, nor did DOT&E observe the tests.

PERFORMANCE

» EFFECTIVENESS, LETHALITY, SUITABILITY, AND SURVIVABILITY

DOT&E published a classified combined IOT&E and LFT&E report in December 2022, providing assessments of M1147 120mm AMP cartridge's operational effectiveness, lethality, suitability, and survivability. DOT&E found performance of the round was operationally effective, lethal, suitable, and survivable. The program office-led tests in FY24 do not affect those assessments.

RECOMMENDATION

All recommendations have been addressed.