

Abrams M1A2 System Enhancement Package version 4 (SE Pv4) Tank



The Abrams M1A2 System Enhancement Package version 4 (SE Pv4) is an incremental upgrade to the Abrams M1A2 SEPv3. The Army intends for the Abrams SEPv4 to improve lethality and survivability, primarily by integrating technologies to the platform's optics and fire control system to maximize the effectiveness of the M1147 Advanced Multi-Purpose Round. The Army is writing the Abrams SEPv4 Test and Evaluation Master Plan which they intend to submit to DOT&E for approval in 2QFY23. A materiel release decision is planned for 1QFY26.

SYSTEM DESCRIPTION

The Abrams M1A2 SEPv4 is an upgrade to the Abrams M1A2 SEPv3 to improve lethality. The Army intends to begin fielding the Abrams M1A2 SEPv4 in 3QFY28. The upgrades include:

- An improved gunner's primary sight (GPS) with 3rd Generation Forward Looking Infrared (3GEN FLIR), an improved laser range finder (LRF), and color day camera
- An improved Commander's Primary Sight with 3GEN FLIR, a LRF with laser pointer, and color day camera
- Improved lethality by providing the ability for the fire control system to digitally communicate with the new M1147 Advanced Multi-Purpose round
- Improved firing accuracy through the installation of a meteorological sensor
- Improved onboard diagnostics
- Improved thermal management system
- Improved laser warning receiver system

MISSION

Commanders employ the Abrams M1A2 SEPv4 tank to close with the enemy by means of fire and maneuver to defeat enemy forces.

PROGRAM

The Abrams M1A2 is an Acquisition Category IC program. The Army is incrementally upgrading the tank design through engineering change proposals. The current SEPv4 is known as the lethality upgrade. The Program Executive Office for Ground Combat Systems is the Decision Authority for the Abrams SEPv4 program. A materiel release is scheduled for 1QFY26. DOT&E will publish a FOT&E report upon conclusion of operational and live fire testing.

» MAJOR CONTRACTOR

- General Dynamics Land Systems – Sterling Heights, Michigan

TEST ADEQUACY

The Army is writing the Abrams SEPv4 Test and Evaluation Master Plan which they intend to submit to DOT&E for approval in 2QFY23. Operational testing will assess the operational effectiveness, suitability, and survivability of the Abrams SEPv4 equipped unit. The LFT&E program includes Full-Up System-Level testing, exploitation testing, Controlled Damage Experiments, and Modeling and Simulation (M&S). The Army is planning to begin integrated testing on the 3GEN FLIR in 1QFY23, with the remainder of DT beginning in 3QFY23.

PERFORMANCE

» EFFECTIVENESS, SUITABILITY, AND SURVIVABILITY

Operational testing will assess the operational effectiveness, suitability, and survivability of the Abrams SEPv4 equipped unit in 2QFY25.

RECOMMENDATIONS

The Army should:

1. Adequately scope live fire and operational testing to be able to assess effectiveness, suitability and survivability.