

M917A3 Heavy Dump Truck (HDT)

The Army will employ the M917A3 Heavy Dump Truck (HDT) to construct and maintain air and ground supply lines. The Army completed live fire testing of the armored M917A3 in November 2020 and will issue a full material release for the armored and armor-capable variants in March 2023. The armored M917A3 HDT demonstrated the expected survivability against operationally relevant kinetic threat engagements. Additional details are summarized in a classified HDT LFT&E report published in September 2021.



System Description

The M917A3 HDT is a 22.5-ton capacity dump truck that will replace the M917 and F5070 HDTs, both of which are beyond their intended economic useful life. U.S. Army Horizontal Construction Companies, Equipment Support Platoons, Asphalt Teams, and Quarry Teams employ the M917A3 HDT throughout all operational theaters to construct and maintain air and ground supply lines by hauling, spreading, and dumping materials to build roads, landing strips, logistical facilities, helipads, parking areas, and motor pools. The M917A3 will be built in two variants: armor-capable and armored to protect the crew from kinetic threat-related accelerative injuries.

Program

The M917A3 is an Acquisition Category III program in the post Milestone C stage of the acquisition cycle. DOT&E approved the Test and Evaluation Master Plan in August 2020. The full material release decision is planned for March 2023.

Major Contractor

Mack Defense – Allentown, Pennsylvania.

Test Adequacy

The Army executed live fire testing of the armored M917A3 HDT from July 2019 to November 2020 at Aberdeen Test Center in Aberdeen, Maryland. Testing included: 1) armor coupon testing to determine how well the cab armor solutions protect the crew against penetrating bullets and fragments, 2) exploitation testing of the armored cab to determine if welds, seams, gaps between armor plates, and attachments to the armor introduced

vulnerabilities, 3) fuel tank fire suppression testing to assess the fuel tank fire suppression kit's ability to extinguish fuel tank fires initiated by side Improvised Explosive Devices (IEDs), and 4) full-up system-level testing to assess force protection from side and underbody IEDs and mines. Testing was adequate and conducted in accordance with DOT&E-approved test plans. DOT&E published a classified HDT LFT&E report in September 2021.

Performance

Survivability

The armored M917A3 HDT demonstrated the expected survivability against operationally relevant

kinetic threat engagements. Additional details including threat descriptions and survivability performance can be found in the classified HDT LFT&E report. Specifically, the classified report assesses test adequacy, force protection, mission functionality, and recoverability of the armored M917A3 HDT when exposed to enemy forces.

Recommendation

1. The Army should consider the recommendations identified in the classified HDT LFT&E report to improve the HDT survivability, to include force protection against operationally relevant kinetic threat engagements.