

# Directed Energy Maneuver-Short Range Air Defense (DE M-SHORAD)



In June 2025, three Directed Energy Maneuver-Short Range Air Defense (DE M-SHORAD) prototypes participated in a 4th Battalion, 60th Air Defense Artillery Regiment-led training and live fire exercise at Fort Sill, Oklahoma, meant to develop tactics, techniques, and procedures for directed energy and kinetic effector systems. DE M-SHORAD is a prototyping effort led by the Army's Rapid Capabilities and Critical Technologies Office (RCCTO) under its Other Transaction Authority. RCCTO will take lessons learned from DE M-SHORAD prototypes to inform a 4QFY26 Enduring High Energy Laser (E-HEL) system procurement decision. In June 2025, RCCTO demilitarized DE M-SHORAD prototypes and inducted one into the U.S. Army Air Defense Artillery Training Support Facility. In July 2025, DOT&E removed DE M-SHORAD from oversight as the Army is no longer pursuing it as a program of record.

## SYSTEM DESCRIPTION

The DE M-SHORAD integrated sensor and shooter capabilities onto a Stryker Mortar Carrier

Double-V Hull A1 vehicle to defend supported forces against unmanned aircraft systems that are within Groups 1 – 3; fixed- and rotary-wing aircraft threats; and rockets, artillery, and mortars. The primary weapon included

a 50-kilowatt spectral beam combined laser, powered by lithium nickel cobalt aluminum oxides (Li-NCA) batteries that were recharged by diesel generators onboard the vehicle.

## DE M-SHORAD

DE M-SHORAD briefly augmented M-SHORAD Increment 1 vehicles armed with kinetic weapons (e.g., Stinger missiles, 30mm chain gun, and 7.62mm machine gun) as part of short-range air defense (SHORAD) battalions.

### MISSION

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The Army intended to employ the DE M-SHORAD units and vehicles to provide air defense to maneuver units and fixed sites across the battlespace. The vehicles were intended to defeat unmanned aircraft systems, rockets, artillery and mortar rounds, and fixed- and rotary-wing aircraft. DE M-SHORAD vehicles were intended to be organized as platoons of four vehicles assigned to Army SHORAD battalions.

### PROGRAM OVERSIGHT HISTORY

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DE M-SHORAD is a prototyping effort led by RCCTO under its Other Transaction Authority. The program did not have an acquisition strategy. The Army procured a total of six DE M-SHORAD prototype vehicles.

- In May 2019, the Secretary of the Army initiated the DE M-SHORAD program, approving the initial Directed Energy Strategy and directing RCCTO's Directed Energy Program Office to develop and deliver the DE M-SHORAD prototype system.
- In September 2023, after completing contractor and government acceptance testing, RCCTO delivered four prototype DE M-SHORAD vehicles to the 4-60th Air

Defense Artillery Regiment at Fort Sill, Oklahoma, establishing the first DE M-SHORAD platoon.

- In January 2024, the Army Aviation and Missile Command issued an urgent materiel release authority for the first four prototypes. The Air Transportability Test Loading Activity awarded C-17 transportability certification in January 2024. In February 2024, the Army deployed the four DE M-SHORAD prototype vehicles to support OCONUS operations. DOT&E placed the DE M-SHORAD program on oversight in March 2024. By November 2024, all four DE M-SHORADs redeployed to the CONUS.
- In June 2025, three DE M-SHORAD prototypes participated in a 4-60th Air Defense Artillery Regiment-led training and live fire exercise of at Fort Sill, Oklahoma, meant to develop tactics, techniques, and procedures for directed energy and kinetic effector systems. At the conclusion of the live fire exercise, the Army demilitarized DE M-SHORAD prototypes one through four and inducted one of the prototypes into the U.S. Army Air Defense Artillery Training Support Facility. DOT&E intended to publish an early fielding report in FY25 but no longer will, as the Army is no longer pursuing the program.

DE M-SHORAD prototypes five and six are additional test articles that provide alternative technical and competitive laser weapon solutions. RCCTO plans to execute government acceptance testing for prototype five in 2QFY26. RCCTO

will transition prototype six to support Science and Technology efforts. RCCTO is using the DE M-SHORAD prototypes to inform a 4QFY26 E-HEL system procurement decision. E-HEL is a RCCTO prototyping effort for a modular, open-interface air defense high energy laser weapon system. In July 2025, DOT&E removed DE M-SHORAD from oversight as the Army is no longer pursuing it as a program of record.