

Armored Tactical Wheeled Vehicles – Navy

Executive Summary

- The Logistic Vehicle System Replacement (LVSR) program completed operational and live fire testing for the cargo variant in FY08.
- The Medium Tactical Vehicle Replacement (MTVR) is a key Marine Corps vehicle in the Operation Iraqi Freedom theater of operation. In June 2008, DOT&E placed the MTVR program on oversight because it had reached the Acquisition Category (ACAT) IC threshold requirement. The Navy is nearly complete with the operational and live fire testing on the MTVR.

System

- The Services are adding armor protection kits to the cabs of tactical wheeled vehicles. The urban and non-linear battlefields of Iraq and Afghanistan made crews of tactical wheeled vehicles susceptible to small arms fire, mines, IEDs, and rocket-propelled grenades.
- The following tactical wheeled vehicle systems have applied and tested an armor protection kit in the last fiscal year:
 - The LVSR is a heavy tactical truck with a 22.5-ton capacity. The Marine Corps uses it as a heavy tactical logistics distribution system for the transport of bulk liquids and cargo, ammunition, containers, and tactical support equipment.
 - The MTVR is a family of medium trucks with an increased capacity of 7 tons off-road and 12 tons on-road.

Mission

The Marine Corps employs truck systems as multi-purpose transportation and unit mobility vehicles in combat, combat



LVSR



MTVR

support, and combat service support units. The threat to tactical wheeled vehicles has increased, which created a need for augmented and flexible mission ballistic protection.

- The LVSR-equipped unit is capable of completing its missions utilizing a series of variants to include a cargo variant, a wrecker variant, and a fifth-wheel variant. The LVSR cargo variant can self-load, transport, and self-unload its payloads, including standardized containers, fuel and water, palletized cargo, and heavy equipment.
- The Marine Corps uses the MTVR as their prime mover for the howitzer, fuel and water assets, troops, and a wide variety of equipment. This vehicle is a key Marine Corps vehicle in the Operation Iraqi Freedom theater of operation.

Prime Contractor

- LVSR and MTVR: Oshkosh

Activity

- All the truck programs are taking a common building block approach to live fire testing. It begins with ballistically characterizing the armor solutions, followed by a series of ballistic cab exploitation shots against the base armor and armor protection kits of prototype cabs. The focus is on armor and door seams, windows, latches, and seals using small arms threats. Final testing includes full-up and system-level tests against production vehicles using realistic threats such as mines, IEDs, explosively formed penetrators, and rocket-propelled grenades.
- DOT&E approved the LVSR Test and Evaluation Master Plan (TEMP), which included the LFT&E Strategy in July 2006.
- The Marine Corps completed all LVSR cargo variant live fire testing, including full-up and system-level testing, in November 2008 at the Aberdeen Test Center, Maryland.
- The Marine Corps Operational Test and Evaluation Activity (MCOTEA) intends to release the LVSR Cargo Variant Report in October 2008. The Marine Corps conducted testing at Camp Lejeune, North Carolina; Fort Greely, Alaska; and the Marine Corps Air-Ground Combat Center at Twentynine Palms, California. The Marine Corps scheduled follow-on LVSR Wrecker and Tractor variants' IOT&E for FY09/FY10.
- In June 2008, DOT&E placed the MTVR program on oversight because it had reached the ACAT IC threshold requirement. The program office is currently updating the MTVR TEMP.
- The MTVR program completed Follow-on Production Testing, which included 10,000 miles of durability testing in addition to a full-up performance test.

NAVY PROGRAMS

- The Marine Corps conducted MTRV LFT&E in FY07, and will conduct any additional LFT&E in FY09 to ensure all upgrades are survivable.

Assessment

- DOT&E submitted the LVSR LFT&E Report to Congress in 1QFY09.
- The LVSR provides armor protection to the crews against the likely threats while still maintaining mission capability.
- The Marine Corps completed nearly all of the operational and live fire testing on the MTRV.
- Since the Marine Corps conducted live fire testing prior to being on DOT&E oversight, MCOTEA is evaluating data from all of the MTRV live fire tests to ensure that testing was thorough.

- Results from this evaluation may lead to additional testing of the new reducible armor package and troop carrying upgrades.

Recommendations

- Status of Previous Recommendations. This is the first annual report for these programs.
- FY08 Recommendations.
 1. The Marine Corps should require additional live fire testing to assess if changes to the current LVSR cab armor transpire.
 2. Once MCOTEA assesses the live fire data, they may require additional testing to evaluate the upgraded armor for cab vulnerability and crew protection capabilities.