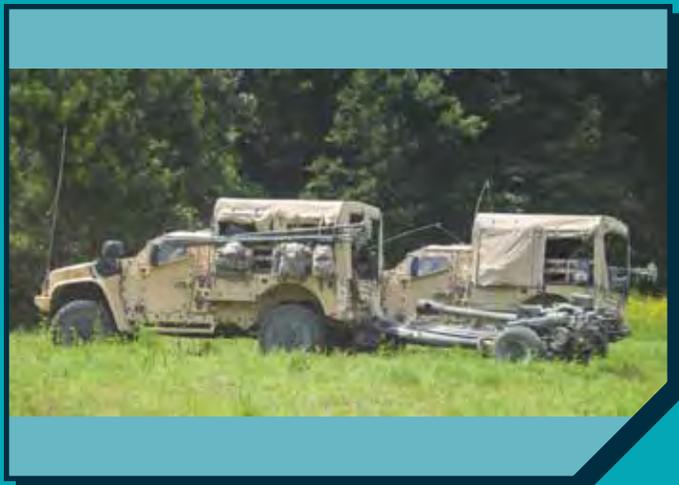


Joint Light Tactical Vehicle (JLTV) Utility (UTL) and Fire Direction Center (FDC)

A field artillery unit equipped with the JLTV Fire Detection Center (FDC) with companion trailer and JLTV Utility (UTL) towing the M119A3 Howitzer can support fire support for a maneuver unit. During the developmental and operational testing (DT/OT), the JLTV FDC and UTL towing the Howitzer were reliable for the unit to accomplish fire missions. The JLTV UTL and FDC experienced suitability shortcomings in training, safety, and human factors. The program is developing a plan to address these challenges prior to fielding to artillery units. The program intends to re-compete the JLTV contract and make a production decision for the FDC Integration Kit and Howitzer interface in FY22.



System Description

The JLTV Family of Vehicles is the partial replacement for the High Mobility Multipurpose Wheeled Vehicle (HMMWV) fleet for the Army, Marine Corps, and Air Force. The Services intend for the JLTV to provide increased crew protection against improvised explosive devices and underbody attacks, improved mobility, and higher reliability than the HMMWV to support various military operations. The JLTV Family of Vehicles consists of the Combat Tactical Vehicle, with three mission package configurations (General Purpose Variant, Heavy Guns Carrier Variant, and Close Combat Weapon Carrier Variant) and the Combat Support Vehicle, with one mission package configuration (UTL Prime Mover Variant).

Program

The JLTV is an Acquisition Category IC program. The program is in full-rate production and fielding vehicles to Army, Marine Corps, and Air Force units. The program developed a JLTV FDC Integration Kit and an M119A3 Howitzer interface for the UTL variant in FY20. This engineering change proposal will allow artillery units to employ the UTL, in lieu of the HMMWV, as an FDC, the prime mover, and ammunition carrier for the towed M119A3 Howitzer. The program intends to make a production decision for the FDC Integration Kit and Howitzer interface in FY22.

Major Contractor

Oshkosh Corporation – Oshkosh, Wisconsin.

Test Adequacy

The Army Test and Evaluation Command executed the Fires DT/OT in August 2021 at Fort Campbell, Kentucky. The integrated testing was conducted in accordance with the DOT&E-approved test plan.

Performance

Effectiveness

A field artillery unit equipped with the JLTV FDC and JLTV UTL towing the M119A3 Howitzer can support fire support operations for a maneuver unit. During the DT/OT, the platoon used the JLTV FDC to perform tactical fire direction and employ the UTL to emplace the M119A3 to execute 75 fire missions. The JLTV demonstrated similar mobility as shown during the 2018 JLTV Multi-Service Operational Test and Evaluation. The vehicle provided good acceleration, enhanced off-road mobility for the platoon to successfully complete 31 tactical moves over 1,273 miles. The M119A3 Howitzer has less mobility than the JLTV UTL, resulting in the platoon reducing the operational tempo to prevent damage to their Howitzers.

During the DT/OT, the platoon employed the JLTV's adjustable suspension to lower the height of the vehicle to facilitate loading/unloading ammunition and reduce the egress height from the vehicle during emplacement. Adjusting the suspension was time-consuming, increasing emplacement and displacement times, and delaying movement. The platoon considered suspension adjustments during operations and modified their tactics, techniques, and procedures to account for the additional time. Delays in movement can affect the ability of an artillery unit to quickly react to changes in the tactical situation, and increase units' susceptibility to threats.

The JLTV UTL lacks sufficient storage for all mission equipment. The tarp and bow structure of the cargo cover does not have the capability to safely stow equipment on top of the cargo cover while moving. The platoon stored their camouflage nets and force protection equipment inside the cargo area of the JLTV, reducing the available space for other supplies

and soldiers. This deficiency increased the time for the unit to erect camouflage netting and degraded the unit's ability to establish a security perimeter during the DT/OT.

The unit recommended the communication speakers be relocated to the rear of the JLTV UTL to improve audibility of firing commands and communication with the FDC. The JLTV UTL had sufficient ammunition carry capability and good ride quality. The tailgate had ample space for use as a ready rack for projectiles and fuses in preparation for firing.

Suitability

The JLTV FDC and JLTV UTL towing the Howitzer were reliable for the unit to accomplish fire missions during the DT/OT. The JLTV experienced one operational mission failure due to a fuel draw problem. The JLTV FDC and UTL demonstrated suitability shortcomings in training, safety, and human factors.

Based on soldier feedback, more hands-on time training is needed for emplacing and displacing the Howitzer with the JLTV UTL. Soldier egress from the rear of the JLTV UTL using the vehicle steps is a safety hazard because the steps failed to stay in the stowed position; the location of the steps made their use difficult and interfered with Howitzer's tow bar.

The location of the peer-to-peer communication speakers needs to be improved for soldiers to hear and understand information communicated from the crew in the cab to the rear of vehicle. The JLTV UTL provides poor visibility for the crew in the rear of vehicle to observe their surroundings and react quickly to tactical situation changes.

The cargo cover height of the JLTV trailer is low and lacks an opening in front for ease of access for erecting camouflage netting, loading/unloading cargo, and operating as a secondary FDC for chart operations.

Survivability

The JLTV survivability assessment in a contested kinetic threat environment is detailed in the 2018 classified LFT&E report. JLTV artillery units are vulnerable in a cyber-contested environment.

Recommendation

1. The Joint Program Office should develop a plan to address recommendations identified in the JLTV UTL and FDC Operational Assessment report published in December 2021, before the fielding of the JLTV to artillery units.