Joint Light Tactical Vehicle (JLTV)

Executive Summary

- The Army Acquisition Executive approved the Joint Light Tactical Vehicle (JLTV) program to enter Full-Rate Production in May 2019.
- OSD approved the JLTV Family of Vehicle (FoV) Test and Evaluation Master Plan (TEMP) update in May 2019 for the production and deployment phase of the program.
- The Marine Corps Operational Test and Evaluation Activity (MCOTEA) conducted the JLTV FOT&E in August 2019 at Camp Lejeune, North Carolina, in accordance with the DOT&E-approved Operational Test Plan.

General Purpose

Heavy Guns Carrier

Utility/Troop Seat Kit

Close Combat Weapons Carrier

System

- The JLTV FoV is the partial replacement for the High-Mobility Multipurpose Wheeled Vehicle (HMMWV) fleet for the Army, Marine Corps, and Air Force. The Services intend the JLTV to provide increased crew protection against IEDs and underbody attacks, improved mobility, and higher reliability than the HMMWV.
- The JLTV FoV consists of two mission categories: the JLTV Combat Tactical Vehicle, designed to seat four passengers, and the JLTV Combat Support Vehicle, designed to seat two passengers.
- The JLTV Combat Tactical Vehicle has a 3,500-pound payload and three mission package configurations:
  - General Purpose Variant
  - Heavy Guns Carrier Variant
  - Close Combat Weapon Carrier Variant
- The JLTV Combat Support Vehicle has a 5,100-pound payload and one mission package configuration:
  - Utility Prime Mover Variant that can accept a Troop Seat Kit to carry up to eight soldiers or a cargo shelter
- The program plans to procure approximately 49,099 vehicles for the Army, 15,390 vehicles for the Marines, and 180 vehicles for the Air Force.

Mission

- Army and Marine Commanders employ units equipped with JLTV as a tactical-wheeled vehicle to support all types of military operations. Airborne, air assault, amphibious, light, Stryker, and heavy forces use JLTVs as reconnaissance, maneuver, and maneuver sustainment platforms. Air Force units intend to employ JLTVs for security and special operations.
- Small ground combat units will employ JLTV in combat patrols, raids, long-range reconnaissance, and convoy escort.

Major Contractor

Oshkosh Corporation – Oshkosh, Wisconsin

Activity

- The program developed upgrades to address some of the operational deficiencies identified in the 2018 Multi-Service Operational Test and Evaluation.
- In April 2019, the Army Test and Evaluation Command conducted the JLTV Soldier Demonstration at Fort Stewart, Georgia, to collect soldier feedback on vehicle upgrades.
- The Army Acquisition Executive approved the JLTV program to enter full-rate production in May 2019.
- OSD approved the JLTV FoV TEMP update in May 2019 for the production and deployment phase of the program.
- MCOTEA conducted the JLTV FOT&E in August 2019 at Camp Lejeune, North Carolina, in accordance with the DOT&E-approved Operational Test Plan. The FOT&E provided data to assess a Marine Unit accomplishing missions employing the Marine Command, Control, and Communication equipment and JLTV Engineering Change Proposals (ECPs).
  - Mounted Family of Computer Systems (MFoCS)
  - Troop Seat Kit (TSK)
  - JLTV Trailer

Assessment

- Based on early analysis of the FOT&E, a Marine Weapons Company with the JLTV can conduct combat and mortar fire support missions.
  - The Mortar Section with the JLTV TSK accomplished mortar fire missions similar to a Mortar Section with the HMMWV Troop Carrier. The JLTV mobility expanded the terrain available for the Mortar Section to set up and conceal their position.
  - Several failures of the electronic weapons turret required manual operations affected timely fire engagements. The Marines need to ensure fielded weapon systems are restored to operational condition prior to integrating on the JLTV.
  - The lack of a means to communicate between marines transported in the rear of the JLTV TSK, the driver, and commander in the cab is a safety deficiency particularly while the vehicle is moving over rough terrain.
  - Voice and Digital communication from the vehicle was poor, delayed, and degraded mission accomplishment.
  - Trained marines were successful at using the MFoCS with Joint Battle Command – Platform (JBC-P) for planning and administrative reporting.
  - Marines experienced degraded position location information during some missions. Marines lost confidence in displayed information for use in decision-making and situational awareness.
- The Soldier Demonstration provided the program with early user feedback to the planned upgrades to the JLTV prior to production planned for December 2019. The program is incorporating user feedback into vehicle modification decisions.
  - Soldier feedback was positive on the larger rear door windows to increase visibility close in and around the vehicle.
  - The forward facing camera provided additional awareness of conditions in front of vehicle to enable the driver to effectively maneuver across terrain and avoid obstacles.
  - The addition of the muffler lessened the external noise from the vehicle compared to the baseline JLTV.
  - The noise abatement material added to JLTV did not reduce cab interior noise. The majority of soldiers assessed the intercom system as essential for communicating in the cab. Soldiers commented that the interior noise level seemed to increase at higher vehicle speeds.
  - Soldiers assessed the height of the canopy cover of the TSK as too high for some tactical missions and susceptible to damage in a high foliage environment. The program is pursuing a reduced height canopy cover in addition to current configuration.
  - The cargo troop strap and low tailgate across the rear of the TSK does not provide adequate protection to prevent soldiers or mission equipment from being ejected out of the cargo bed during movement. The program is investigating a design change to the rear strap to resolve this problem.

Recommendation

1. The Marines should develop a plan to correct performance deficiencies of the Marine command, control, and communication equipment integrated on the JLTV and other shortcomings discovered during the Marine JLTV FOT&E.