

## Armored Tactical Vehicles – Army

### Executive Summary

- The Joint Light Tactical Vehicle (JLTV) program continues in the Technology Development phase. In June 2010, the program began test activities in the U.S. and Australia, continued to confirm maturity of vehicle technology, and refined operational requirements prior to entry into the Engineering and Manufacturing Development phase.
- The Family of Medium Tactical Vehicles (FMTV) Re-buy Product Verification Test (PVT) is ongoing.
- The FMTV System-Level Live Fire Test (LFT) began in November 2010 and the Integrated Developmental Test/Operational Test is planned for March 2011.
- DOT&E delivered the M915A5 Line Haul Tractor Operational and Live Fire Report to Congress in May 2010. The M915A5 Line Haul Tractor is operationally effective, operationally suitable, and survivable.



**JLTV**  
**General Purpose**



**JLTV**  
**Combat Tactical Vehicle**



**JLTV**  
**Utility Vehicle**



**FMTV**



**M915A5**

### System

#### JLTV

The JLTV will consist of Mission Role Variants (MRVs) and right hand drive vehicles for Australia:

- JLTV General Purpose Vehicle
  - General Purpose Vehicle
  - Heavy Guns Carrier Vehicle
  - Close Combat Weapons Vehicle
  - Reconnaissance Vehicles
- JLTV Combat Tactical Vehicle
  - Command and Control on the Move (C2OTM) Vehicle
- JLTV Utility Vehicle
  - Utility Prime Mover/Shelter Carrier
- Right Hand Drive (RHD) JLTV General Purpose Vehicle, C2OTM Vehicle, and Utility Vehicle

#### FMTV

The FMTV Re-buy is the fourth stage of FMTV evolution. These vehicles consist of light and medium variants intended to operate on- and off-road.

- Light Medium Tactical Vehicle (LMTV)
  - Transports a minimum of 5,000-pound payload and a 12,000-pound towed load
- Medium Tactical Vehicle (MTV)
  - Transports 10,000-pound payload and a 21,000-pound towed load

#### M915A5 Line Haul Tractor

The M915A5 is a 6 by 4 truck tractor system that is compatible with the M872 trailer and other legacy tankers and trailers.

### Mission

#### JLTV

- The Services will employ JLTV as a light tactical wheeled vehicle for battlefield situational awareness, force application, and focused logistics.

#### FMTV

- The Army employs the FMTV as multi-purpose transportation and unit mobility vehicles in maneuver, maneuver support, and sustainment units.

#### M915A5 Line Haul Tractor

- The M915A5 is a line haul tractor truck used in transportation units to transport bulk and containerized supplies from point of origin to as far forward as brigade areas within a theater of operation.

### Major Contractors

#### JLTV

- BAE Ground Systems – Santa Clara, California
- Lockheed Martin Systems – Owego, New York
- General Dynamics Land Systems – Sterling Heights, Michigan

#### FMTV

- Oshkosh Corporation – Oshkosh, Wisconsin

#### M915A5

- Daimler Truck North America – Charlotte, North Carolina

# ARMY PROGRAMS

## Activity

### JLTV

- The program awarded three competitive technology development contracts in October 2008. In May 2010, each contractor delivered prototype vehicles, ballistic hulls, and ballistic armor for test.
- The Army and Marine Corps began Technology Development phase test activities in June 2010. In order to assess technical maturity, system integration, and achievability of requirements, testing will examine the system performance, reliability, and vulnerability of each contractor's vehicles. The program plans to complete Technology Development phase testing by March 2011.
- JLTV Vendors prototype vehicles are undergoing 20,000 miles endurance testing at Montegetta Proving Ground, Australia, and Aberdeen Test Center, Maryland, to assess reliability and maintainability of these variants.
- Soldiers and Marines will conduct a User Evaluation planned for January 2011 to assess the capability of employing the JLTV to conduct crew and individual mission tasks. Testers at Aberdeen Proving Ground, Maryland, began ballistic testing in FY10 to assess the capability of the JLTV to meet Force Protection requirements.
- The JLTV Milestone B decision is planned for 4QFY11.

### FMTV

- The Army awarded a competitive re-procurement contract to Oshkosh Defense for 23,341 vehicles over a five year contract (FY09-13).
- The program began the FMTV Re-buy PVT at Aberdeen Proving Ground, Maryland, and Yuma Test Center, Arizona, in July 2010. Performance testing consisted of six trucks and trailers and was designed to assure the FMTV produced by Oshkosh meets the requirements of the system. In July 2010, the 20,000-mile endurance testing commenced on 12 vehicles to assess the reliability and maintainability of the FMTV.
- The FMTV developmental/operational test is scheduled to begin in early 2011. The purpose of the test is to confirm that FMTV-trained Soldiers can employ the new LMTV and MTV variants to support multi-purpose transportation missions.
- The FMTV ballistic exploitation began in July 2010 and System-Level Live Fire began in November 2010. The purpose of the test is to confirm that the armor improvements provide increased protection.

### M915A5 Line Haul Tractor

- The Army completed the FOT&E of the M915A5 in September 2009 and the live fire testing in December 2009. Testing was conducted in accordance with the DOT&E-approved Test and Evaluation Master Plan (TEMP) and test plan.

## Assessment

### JLTV

- Testing conducted during the Technology Development phase is allowing the program to assess the maturity of the vendors' technology, refine requirements, and further develop its acquisition strategy and TEMP.
- During on-going Reliability, Availability, and Maintainability (RAM) testing, vendor prototype vehicles experienced failures related to ride height adjustment, brakes, vehicle power loss, and fluid leaks.
- The JLTV vendor RHD variant vehicles are experiencing similar failure modes as the JLTV Left Hand Drive vehicles.
- DOT&E will provide an Operational Assessment of the JLTV to support a Milestone B decision in 4QFY11.

### FMTV

- On-going analysis and assessment of PVT data indicate that the FMTV Re-buy vehicles are meeting most performance requirements.
- Endurance Testing is ongoing. The LMTVs have accumulated 35,607 miles and the MTVs have accumulated 35,811 miles out of 40,000.
- Initial ballistic LFT indicates that improved armor used in the Re-buy vehicles increases Soldier protection compared to earlier versions of the FMTV.

### M915A5 Line Haul Tractor

- The M915A5 Line Haul Tractor is operationally effective, operationally suitable, and survivable. Transportation units equipped with the M915A5 have the ability to move and transport required loads of cargo and relocate unit equipment.
- Based upon live fire testing, the M915A5 provides armor protection to the crews against the required threats while maintaining mission capability.

## Recommendations

- Status of Previous Recommendations. The Army addressed all previous recommendations.
- FY10 Recommendations.

### JLTV

1. The program should capitalize on the lessons learned from the JLTV Technology Development phase testing to update the Engineering Manufacturing and Development RAM Growth Plan.
2. The JLTV program must submit a TEMP to support the Milestone B Decision in 4QFY11.

### FMTV

3. The program should continue with the existing planned PVT Integrated Test Event to confirm the operational effectiveness and suitability of the FMTV.