

Mine Resistant Ambush Protected (MRAP) All-Terrain Vehicle (M-ATV)

Executive Summary

- The Mine Resistant Ambush Protected (MRAP) All-Terrain Vehicle (M-ATV) with Underbody Improvement Kit (UIK) participated in the Dash MRAP Ambulance Limited User Test (LUT) in November 2011 at Yuma Proving Ground, Arizona, in accordance with the DOT&E-approved test plan.
- DOT&E provided an Operational Assessment of the M-ATV with UIK in August 2012.
- The M-ATV with UIK is operationally effective, operationally suitable, and survivable.
 - A unit equipped with the M-ATV with UIK can accomplish tactical transport missions.
 - The M-ATV with UIK provides sufficient armored mobility to conduct missions over the type of terrain typically found in Afghanistan.
 - The M-ATV with UIK demonstrated off-road mobility and maneuver capability similar to the base M-ATV during the MRAP Dash Ambulance LUT. The M-ATV with UIK met its reliability, operational availability, and maintainability requirements based on the LUT.
 - The M-ATV with UIK meets the level for improved protection against underbody blast threats specified in the Joint Urgent Operational Need Statement.
- In October 2014, the Joint Program Office (JPO) MRAP will transition management of the of the Special Operations Forces (SOF) M-ATV fleet to the Services.
- United States Special Operations Command (USSOCOM) is planning an FOT&E of the SOF M-ATV in 2QFY13.

System

- The M-ATV is designed for five passenger positions including a gunner. The vehicle incorporates current Service command and control and counter-IED systems. The M-ATV includes gun mounts with gunner protection kits capable of mounting a variety of weapons systems such as the M240B medium machine gun, the M2 .50 caliber heavy machine gun, and the Mk 19 grenade launcher.



M-ATV with Underbody Improvement Kit (UIK)



Special Operations Forces M-ATV UIK

- The M-ATV has the capability to add protection against attacks by explosively formed penetrators, and rocket-propelled grenades to support mounted patrols, reconnaissance, security, and convoy protection.
- USSOCOM required modifications to the Army M-ATV to support SOF missions. The modifications included five passenger positions including a gunner, protection for the cargo area, rear area access, and some other improvements for human factors.
- The M-ATV with UIK and SOF M-ATV UIK are designed to provide improved underbody blast protection to the M-ATV variants.

Mission

Multi-service and special operations units equipped with the M-ATV conduct mounted patrols, convoy patrols, convoy protection, reconnaissance, and communications, as well as command and control missions to support combat and stability operations in highly restricted rural, mountainous, and urban terrain.

Major Contractor

Oshkosh Defense – Oshkosh, Wisconsin

Activity

- The M-ATV with UIK participated in the Dash MRAP Ambulance LUT in November 2011 at Yuma Proving Ground, Arizona, in accordance with the DOT&E-approved test plan.
- In FY12, the program integrated the SOF-specific UIK onto the SOF M-ATV fleet to improve SOF M-ATV underbody blast protection.
- DOT&E provided an Operational Assessment of the M-ATV with UIK in August 2012.
- USSOCOM completed the developmental test weapons firing event of the SOF M-ATV with the Common Remotely Operated Weapon Station (CROWS) at Fort Campbell, Kentucky, in April 2012 to examine the capability to fire the

Mk 19 grenade machine gun with the CROWS integrated on the SOF M-ATV in an operational environment.

- The program is developing, procuring, and integrating the Army network capabilities onto base M-ATVs.
- The SOF M-ATV UIK Live Fire testing was completed in August 2012.
- In October 2014, the JPO MRAP will transition management of the SOF M-ATV fleet to the Services.
- USSOCOM is planning an FOT&E of the SOF M-ATV in 2QFY13.

Assessment

- The M-ATV with UIK is operationally effective, operationally suitable, and survivable. A unit equipped with the M-ATV with UIK can accomplish tactical transport missions. The M-ATV with UIK provides sufficient armored mobility to conduct missions over the type of terrain typically found in Afghanistan.
- The M-ATV with UIK demonstrated off-road mobility and maneuver capability similar to the base M-ATV during the MRAP Dash Ambulance LUT. The M-ATV with UIK met

its reliability, operational availability, and maintainability requirements based on the LUT.

- The M-ATV with UIK meets the level for improved protection against underbody blast threats specified in the Joint Urgent Operational Need Statement.
- During developmental test weapons firing of the SOF M-ATV, no CROWS/SOF M-ATV integration failures were observed after firing approximately 480 rounds of high-explosive dual-purpose ammunition. Four weapon-firing failures were attributed to operator error indicating more CROWS and weapon proficiency training is needed before FOT&E.

Recommendations

- Status of Previous Recommendations. USSOCOM has addressed two of the three previous SOF M-ATV recommendations. USSOCOM did not address the recommendation related to improving the visibility of the SOF passenger by installing larger rear windows in SOF M-ATV.
- FY12 Recommendation.
 1. USSOCOM should continue to plan and conduct the SOF M-ATV FOT&E.