

Section 7.10 PEO LS Program

MEDIUM TACTICAL VEHICLE REPLACEMENT

Program Background

The Medium Tactical Vehicle Replacement (MTVR) family of 6-wheel, 7-ton, all-terrain multi-purpose vehicles serves as the Marine Corps' key means of moving supplies and equipment across severe environments. Manufactured by Oshkosh Corporation, the vehicles were first fielded in 2001 as replacements for the obsolete M809 series and M939 series vehicles. The platforms have an on-road cruising range of 300 miles (483 kilometers) and the ability to ford five feet (1.5 meters) of water, and they can traverse 60% gradients and 30% side slopes with the maximum cross-country load.

Operational performance is further enhanced by advanced technologies such as the Oshkosh TAK-4® independent suspension system and Command Zone™ integrated control and diagnostics system. MTVR variants include: Standard Cargo and Extended Wheel Base Cargo Trucks; dump trucks; tractors; wreckers; and High Mobility Artillery Rocket System Resupply Trucks. Approximately half of the vehicles are armored, and some possess a reducible height capability.

More than 8,900 MTVRs are in service with the Marine Corps. The Marine Corps' Ground Combat Tactical Vehicle Strategy reduced the MTVR





Authorized Acquisition Objective to 8,750 vehicles. The Navy Expeditionary Combat Command also possesses over 1,800 MTVRs that are used in riverine and combat engineering missions. More than 800 USMC MTVRs have been in service in Afghanistan.

To improve the vehicle's level of protection against mines and IEDs, the MTVR Armor System was designed as a permanent modification to the vehicle. It provides complete 360-degree protection as well as overhead and underbody protection for the cab occupants.

The MTVR was designed with a 22-year service life, and neither a Service Life Extension Program nor a modernization upgrade is currently scheduled.

Program Status

The MTVR has been in service since 2001. More than 2,000 MTVRs have seen service in Iraq and Afghanistan. With its 70% off-road mission profile and highly survivable armor package, the MTVR has been used heavily in theater for logistics missions as well as for other missions as assigned. The MTVR is currently in sustainment.

MTVR's Top Technical Issues:

1. Fuel Economy

Given the MTVR's 3.8 miles per gallon fuel consumption rate and the fully burdened cost of fuel, even moderate increases in the fuel efficiency of the MTVR can potentially save millions of dollars.

Therefore, technologies that improve MTVR fuel efficiency will have a dramatic effect across the MAGTF. Such technologies include idle reduction/Auxiliary Power Unit; accessory electrification; engine-mounted fuel efficiency technologies; high efficiency transmissions; regenerative braking; hybrids; and electric drives.

2. Increased Survivability

Technologies are needed that maintain or increase the survivability of the vehicle and the occupants, which include technologies that can increase armor protection while maintaining or reducing current weight; improvements in blast resistant seats; crew egress systems; and advanced fire suppression systems.

3. Safety

Technologies are needed that increase vehicle stability and that can mitigate the effects of vehicle rollovers while maintaining the ability of the MTVR to achieve its 70% off-road/30% on-road mission profile.





MTVR Technical Issue #3 Safety

