

Mine Resistant Ambush Protected (MRAP) Family of Vehicles (FoV) – Marine Corps

Executive Summary

- The U.S. Marine Corps will retain 2,510 Mine Resistant Ambush Protected (MRAP) vehicles in its enduring fleet including 300 Cougar Category (CAT) II A1 variants.
- Live fire testing conducted in FY15 indicates that the Cougar CAT II A1 variant with seat survivability upgrades will meet its required level of performance.
- The Marine Corps is planning to retrofit all retained Cougar variants with egress upgrades. Live fire testing of these upgrades will commence in 2QFY16, and the first test will be conducted on a CAT II A1 variant with both the seat and egress upgrades.

System

- MRAP Family of Vehicles (FoV) consists of medium-armored, all-wheel drive, tactical wheeled vehicles designed to provide protected mobility for personnel in a threat environment. Relative to the High Mobility Multipurpose Wheeled Vehicle, MRAPs provide improved crew protection and vehicle survivability against current battlefield threats, such as IEDs, mines, small arms fire, rocket-propelled grenades, and explosively formed penetrators.
- Based on a recommendation in DOT&E's 2010 assessment of the MRAP FoV to improve the seats in the Cougar A1 vehicles, the Marine Corps intends to retrofit the Cougar Cat II A1 vehicles with a seat survivability upgrade (SSU) kit. The SSU is primarily a redesign of the rear crew compartment of the Cougar, focusing on improved seating for vulnerability reduction, safety, and human factors integration. A Cat II A1 Cougar with the SSU can carry 10 Marines and 1 gunner.
- Currently, the Marine Corps will retain 2,510 MRAP vehicles in its enduring fleet, including 300 CAT II A1 vehicles. The



Cougar Category (CAT) II A1

Marine Corps will remain the Primary Inventory Control Activity for all Cougar platforms, including those vehicles divested to the Navy and Air Force.

Mission

Commanders will employ Marine units equipped with the MRAP Cougar CAT II A1 to conduct mounted patrols, reconnaissance, communications, and command and control missions in a threat environment.

Major Contractor

General Dynamics Land Systems – Ladson, South Carolina

Activity

- The Marine Corps plans to retrofit a total of 263 Marine Corps, 41 Air Force, and 114 Navy CAT II A1 vehicles with the SSU upgrade. The SSU upgrade is designed to achieve Capabilities Production Document 1.1 objective-level force protection against underbody and under-wheel blast mines. The Marine Corps will also install egress upgrades on all of these vehicles, as well as other retained Cougar variants.
- From August 2014 through March 2015, the Marines Corps conducted three of four planned live fire tests of the CAT II A1 Cougar with the SSU. The fourth test, projected to occur in 2QFY16, will be conducted with both SSU and egress

upgrades when egress modifications are available to be outfitted on the test asset.

- The Marine Corps conducted all testing in accordance with a DOT&E-approved test plan.

Assessment

- Live fire testing to date indicates that the Cougar CAT II A1 with the SSU meets its contract specifications and provides force protection at the required Capabilities Production Document 1.1 objective level. However, additional planned live fire testing remains to determine the response of the

FY15 NAVY PROGRAMS

Cougar Cat II A1 when outfitted with the both the SSU and egress modifications.

- The results from the legacy Cougar live fire test program (as found in the 2010 DOT&E report on the original MRAP FoV Cougar vehicles) relative to other tested threats such as IEDs, indirect fire, small arms fires, rocket-propelled grenades, and explosively-formed penetrators are applicable to the Cougar CAT II A1 with the SSU.

Recommendations

- Status of Previous Recommendations. The program is making progress implementing the previous recommendations regarding upgrading the seats in the Cougar CAT II A1 vehicles.
- FY15 Recommendations. None.