

RCV-L Robotic Combat Vehicle – Light

Forward scout and reconnaissance missions on the battlefield have always carried inherent operational challenges and risk.

Unmanned systems provide a unique tactical advantage extending the operational reach of our soldiers while simultaneously increasing their protection through threat standoff. **Breaking new ground** with combat integration, the RCV-L solution provides a force multiplying intelligence and reconnaissance platform that can be used for forward operations carrying a range of lethality payloads to provide direct and indirect fire effectors for a range of offensive and defensive operations.

The RCV-L variant of the Expeditionary Modular Autonomous Vehicle (EMAV) from QinetiQ Inc. and Pratt Miller Defense provide the soldier with an advanced, purpose-built unmanned ground combat vehicle (UGCV). The RCV-L system is a diesel-electric hybrid platform weighing just over 4 tons with the ability to travel at more than 40 mph while carrying a maximum payload of 6,000 lbs.

The RCV-L builds upon the proven maturity provided by the Pratt Miller Expeditionary Modular Autonomous Vehicle (EMAV) and integrates QinetiQ's Modular Open System Architecture (MOSA) robotic control systems to make it both highly flexible and payload agnostic.

The MOSA systems enable support of the government owned and furnished Robotic Technology Kernel (RTK) autonomy software Warfighter Machine Interface (WMI) operator control software and ongoing support of iterative technology insertions through the program lifecycle.

QinetiQ and Pratt Miller have delivered 12 platforms to the USG and continue to support platform experimentation through logistics and sustainment as well as technology insertions based upon soldier feedback.

QINETIQ



Transportability

Footprint (5'x12') supports widest range of air and ground transport on market including 20' container, CH-47 Internal & sling, and 2 on a C-130. USMC version designed for MV-22 and supports CH53.

Autonomous Modes

Autonomy agnostic, Open architecture with defined interfaces supports range of government owned and/or commercially available autonomous software systems.

Communications Methodology

Radio agnostic, with proven integration of Program of Record radio systems, and experimental mesh and NEO Satellite radio systems.

Payload Integration

In cooperation with DOD partners, 40+ POR and experimental payloads developed and integrated. Including RWS, EW, bulk liquids, integrated communications solutions, loitering munitions and more.

Controller Interface

Controller agnostic; Open Architecture IOP unmanned control interface. Proven positive control with range of universal controllers including QinetiQ Universal Controller and USMC Tactical Robot Controller. Compatible with US DOD WMI.

Safety

Validated safety system. Integrated safety systems developed and governmentvalidated to fulfill requirements of MIL-STD-822E LOR1 for unmanned mobility and fire control operations.

Testing

Years of testing and experimentation with Marine Corps Warfighting Laboratory and ongoing US Army Robotic Combat Vehicle - Light (RCV-L) testing and experimentation.

Collaborating with QinetiQ

At QinetiQ we bring organizations and people together to provide innovative solutions to real world problems, creating customer advantage. Working with our partners and customers, we collaborate widely, working in partnership, listening hard and thinking through what customers need. Building trusted partnerships, we are helping customers anticipate and shape future requirements, adding value and future advantage.

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RCV-L General Specifications

Maximum Speed	>50MPH
Range	200 miles
Payload Capacity	6000lbs
Gross Vehicle Weight Rating	14000 LBS
Vehicle Curb Weight	8000 LBS
Vehicle Curb Weight with Crows & teUAS	8800 LBS
Military Grade Power Generation	320Vdc 30 kW at Peak ~20kW continuous stationary
	28Vdc 3.4 kW moving ~6kW stationary



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