

LAV Meets ARV: Researching the Marines' Next-Generation Light Armored Vehicle

ARLINGTON, Va. – The Office of Naval Research (ONR) is sponsoring research to develop the next-generation Armored Reconnaissance Vehicle (ARV), slated to replace the Marine Corps' current Light Armored Vehicle (LAV), the office's public affairs said in a release.

The LAV supports Light Armored Reconnaissance Battalions, which perform sustained reconnaissance, counter-reconnaissance and security missions in all weather. It's been in service since the early 1980s, and the Marine Corps plans to start replacing it at the end of the next decade.

ONR's ARV effort is part of the Department of the Navy's Future Naval Capabilities program, which aims to discover, assess and fast-track the most mature and useful new technologies into acquisition programs of record once the research is complete.

The ARV will provide transformational sensor, communications and combat capabilities to collect and communicate information, while integrating robotics and artificial intelligence in manned-unmanned teams. Using ARV, a crew will be able to use advanced onboard sensors and unmanned systems to detect, recognize and identify threats at extended ranges.

Beginning in 2018, ONR awarded several contracts for full-system concept/trade studies and for individual advanced technology research efforts. This year, ONR has awarded contracts to two defense companies to design, fabricate and test full-scale technology-demonstration vehicles.

One vehicle, by General Dynamics Land Systems, will

incorporate advanced technologies available today or in the near future around a theoretical unit price. This is known as the “base-vehicle” approach.

The other vehicle, by SAIC, is conceived as an “at-the-edge” vehicle with advanced technologies that, while fully mature today, could be incorporated into the ARV as new capabilities when threats and missions evolve. The objective of this approach is to envision the most advanced technology, beyond current capabilities.

Both technology-demonstrator platforms should be ready for government evaluation near the end of 2020.

Additionally, ONR is investing in component technology development meant to enhance the armored reconnaissance mission of the future through investments in platform cybersecurity; logistics management; mobility; and autonomous aerial vehicles with Battelle, Cougar Software, QinetiQ and SRI International, respectively.

To ensure full collaboration and a smooth transition of research products to the Marine Corps, close alignment is maintained with acquisition and requirements representatives from the Program Manager for Light Armored Vehicles within the Marine Corps Systems Command and the Ground Combat Element Division within the Marine Corps Combat Development Command.