

Pentagon Builds Urban-Warfare Package To Equip Combat Vehicles

The Pentagon's Office of Force Transformation is developing a package of lethal and non-lethal capabilities that can outfit vehicles for urban battle.

The Army is expected to decide soon which type of vehicle will sport OFT's "Project Sheriff" technologies, according to an official involved with the program. OFT has recommended the Army outfit three previously fielded vehicles -- Strykers or M113 Humvees. Operational experimentation in theater could begin by summer 2005.

With an eye toward future asymmetrical warfare, OFT has been looking at new technologies that would aid the warfighter. In places like Iraq and Afghanistan, the need to preserve buildings and prevent collateral damage, as well as the use of non-combatants as shields, has increased the need for non-lethal and precision munitions.

"The battlefield is very compressed," Col. Wade Hall, OFT transformation strategist, told *Inside the Army* last week. "You don't have the one, two miles of distance that you would like to have between you and the adversary to adjust fires or adjust maneuvers. The adversary can be right there in your face at an unexpected moment, which creates problems for timeliness, creates problems for maneuver, creates adverse risks."

Non-lethal Project Sheriff capabilities will include multi-spectral sensors, a high-power white light, acoustics and active denial technology.

The active denial technology to be used in Project Sheriff has evolved from the Energy Department's tri-pod configuration, which is designed to secure energy facilities. The Project Sheriff system is designed to function as a "counter-personnel" weapon system.

Similar technology is being developed as part of the Defense Department's Joint Non-Lethal Weapons Directorate's Active Denial System.

ADS works by using a transmitter that produces an energy frequency of 95 GHz and an antenna to direct an invisible beam at a human target. Once the energy reaches the subject, the light beam penetrates the skin by less than 1/64 th of an inch. Within seconds, the target experiences an intolerable heating sensation.

The sensation stops if the target moves or the system is turned off (*ITA*, Sept. 20, p1).

Though ADS and the technology in Project Sheriff are similar in functionality, Hall contends that there are notable differences. Project Sheriff's active denial technology will weigh significantly less than ADS, and it will also have fewer components, reduced signature size and less range.

By reducing the size and complexity of the technology, Project Sheriff's active denial technology will provide the warfighter with different capabilities than ADS.

Project Sheriff "is designed primarily for a warfighter in a zone where he has a lot of lethal effects that he has to worry about, where this current version of the ADS system may not be able to go into certain areas because of its high visibility or its potential vulnerability," Hall said.

Raytheon, the prime contractor for both technologies, is preparing a humvee-mounted prototype of the ADS system for upcoming DOD testing.

Project Sheriff's lethal capabilities also will be vital, according to Hall.

"It's not prudent to go in and be Andy Griffith," Hall said. "This is not Mayberry."

Complementing Project Sheriff's non-lethal capabilities will be a rapid-fire gun and an active protection system.

The leading candidate to fulfill the rapid-fire role is Gunslinger. Under development at the Naval Surface Warfare Center in Dahlgren, VA, the weapon works uses acoustic and infrared sensors to identify a sniper. Then, at the discretion of the operator, manual or automatic mode is used to return fire.

Likewise, the Active Protection System will incorporate acoustic and infrared sensors to locate signatures. The system reacts to a potential threat by destroying it before it hits a vehicle.

Hall estimates that once vehicles are turned over by the services for technology integration, it will take four to five months to outfit the first vehicle. Outfitting subsequent vehicles is expected to take 30 to 45 days. If an "aggressive time line" is followed, according to Hall, troops could begin training with Project Sheriff in April 2005 in preparation for theater deployment in July 2005.

Project Sheriff technologies will be fueled by vehicles' existing power sources.