Leidos Introduces New Portable X-Ray System for Dismounted Operations

By Calvin Biesecker

Leidos [LDOS] has unveiled a new portable, scalable X-Ray system that it is touting for dismounted operations for military, law enforcement, customs and security personnel that can be set up quickly to detect and identify potential threats and contraband hidden inside packages, vehicles, and various structures.

The Xpose system builds off the company’s RTR-4 portable X-Ray system used for rapid inspection of suspicious packages and improvised explosive devices. The new capability is that the Xpose can be quickly scaled to inspect larger targets, Doug Ramsayer, business development manager with Leidos, tells HSR.

The Xpose can image a suspicious package but if the imaging plate is removed and tiled with additional plates a much larger target can be imaged, he says.

“So now with one system I can do a suspicious package which might fit inside the image envelope of the imager itself or an entire quarter panel of a vehicle or a trunk or a gas tank for a vehicle that would be suspicious,” Ramsayer says. “Nominally you would need like a VACIS or a backscatter van or something to inspect something that large, now you can do it with the smaller handheld portable system.”

VACIS is a family of large scanners that Leidos sells globally to image cargo conveyances and vehicles.

The RTR-4 system never gained much traction with U.S. Customs and Border Protection but Ramsayer says with the ability to scale Xpose to the size of a target Leidos is hopeful the agency will be more interested. He says the system’s potential for CBP wouldn’t be for at ports of entry but rather in more remote locations where a temporary checkpoint might be set up or for when agents intercept a suspicious vehicle.

Ramsayer says the Xpose isn’t in competition with handheld imaging systems sold by companies like OSI Systems’ [OSIS] Rapiscan division and Viken Detection.

The handheld systems are “great” for a quick inspection of a vehicle, particularly a tire or quarter panel, but unless
contraband or a threat object is pressed against the surface of an area such as the trunk, or if its buried under blankets and boxes, the those systems won’t see it, he says.

With Xpose, an agent will snap together a small X-Ray panel, slide it under a vehicle, mount the X-Ray source on top, then walk back to his or her vehicle to the control station and take the image, which will show all the way through the suspect vehicle, Ramsayer says. This way an agent won’t have to necessarily do a manual entry, which could damage the vehicle if nothing is there, and protects personnel because they don’t risk clipping a trip wire, he says.

If agents intercept a vehicle hundreds of miles from the nearest port of entry or border station, in “a matter of minutes” they can deploy Xpose and make a determination on what to do next, Ramsayer says.

Xpose is based on transmission X-Ray so users will operate the system from a safe distance, Ramsayer says. The system can also be used in a denied-radio frequency environment, he says.

“We like to think of it as a multi-mission X-Ray system that delivers state of the art image quality,” Ramsayer says. “It’s a new capability for explosive ordnance disposal teams and other security teams looking to do on-the-go X-Ray inspection.”

Leidos plans to launch Xpose this summer. The company has already done field trials with some customers, largely in the EOD community, and the reception has been “very positive,” Ramsayer says.

CBP’s small-scale non-intrusive inspection team is interested in a demonstration, he says. Once travel restrictions in place due to the ongoing pandemic are lifted, “we expect to get with them and show what we can do.”