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Blinding Lasers Replace Guns for Peacekeeping

By Traci McMillan - Jul 27, 2011

The laser's emerald beam is so piercingly brilliant that it temporarily blinds and disorients a would-be assailant. Few attackers would push on toward the Marine wielding the light-based weapon.

The laser is a new tool for the military as its mission shifts from combat to nation-building and humanitarian aid in Iraq and [Afghanistan](#), activities that can require controlling crowds, distributing food and policing checkpoints. Marines are researching and testing similar devices for all services through a Joint Non-Lethal Weapons Directorate that began in 1996.

The Pentagon's budget for non-lethal weapons research and procurement was about \$120 million in fiscal 2010, which ended Sept. 30, according to the directorate's annual report. The military is buying spotlights, flash-bang grenades and electric shock weapons to stun instead of kill, and handheld translators and extra-loud speakers to warn away attackers.

"Non-lethal weapons can help defuse potential hostilities by filling the gap between verbal commands and the use of lethal force," said Kelley Hughes, spokeswoman for the program, in an interview at the Quantico Marine Corps Base in [Virginia](#) on July 19. The program is run from Quantico.

The Pentagon spent more than \$20.7 million of the budgeted amount in fiscal 2010, according to data compiled by Bloomberg Government. The Joint Non-Lethal Weapons Directorate's budget was \$64 million, up 21 percent from \$53 million in fiscal 2005.

Warning Devices

The Army spent \$8.6 million on non-lethal weapons in 2010, the Navy, \$994,343, and [Air Force](#), \$735,494, according to Bloomberg data. The Defense Logistics Agency spent \$10.3 million on items such as spotlights to avoid escalation of force, the data shows.

The biggest non-lethal investment in 2010 was in long-range speakers. The warning devices can shoot sound hundreds and sometimes thousands of meters -- as far as 2 miles -- to caution people to stay back, scare them with loud noise, or to send an alarm. They also have been used for rescue efforts after the Japan earthquake and tsunami, and to keep birds away from mining sites.

The military services spent as much as \$7 million in 2010 on such long-range acoustic devices, or LRADs, buying the majority from closely held ADS Inc., based in [Virginia Beach](#), Virginia. The LRAD is made by San Diego-based [LRAD Corp. \(LRAD\)](#), and is distributed by companies such as ADS.

LRAD posted net income of \$5.7 million in the second quarter of 2011, up from \$163,823 in the same period a year earlier, according to Bloomberg data. Revenue in that period rose to \$15.5 million from \$3.3 million.

Fewer Checkpoint Deaths

Connecting a handheld digital translator, such as the Phraselator, created by Voxel International Inc. of Annapolis, [Maryland](#), soldiers can communicate with people in their native languages, according to LRAD.

Optical distracters, such as dazzling lasers and bright white flashlights, are used to deter approaching vehicles as well as people. The military spent almost \$9,000 on the lasers and as much as \$4.9 million on spotlights in 2010, according to data compiled by Bloomberg. The Pentagon spent more than \$11 million on lasers during the last 10 years, the data shows.

Dazzling lasers have helped reduce accidental Iraqi civilian deaths at checkpoints, according to Bruce Westcoat, vice president of closely held B.E. Meyers & Co., of Redmond, Washington, the leading military provider.

Nets and Spikes

Soldiers use the lasers to capture and distract the driver's attention if a car doesn't slow down when signaled to stop, he said.

The Air Force and other services use Tasers to stun people into submission, Kelley said. The Pentagon bought all but a few of its Tasers from Aardvark Tactical Inc., according to data compiled by Bloomberg. Closely held Aardvark Tactical, based in La Verne, [California](#), is [Taser International Inc. \(TASR\)](#)'s distributor to the U.S. government, according to Stacey Todd, a spokeswoman for Taser, based in Scottsdale, [Arizona](#).

Marines have used nets and spikes to slow or stop moving cars. Within nine months, the non-lethal weapons program plans to have developed a launcher to shoot a net to entangle boat propellers.

Soldiers have used rubber bullets and pepper spray to break up crowds during humanitarian missions when fights have broken out at food and water distribution points, Navy Lieutenant

Commander Shawn Kelley, spokesman for the directorate, said during a July 19 interview at Quantico.

‘Cold Rubber’

“Soldiers did not want to fire on individuals because all they wanted was food,” he said. “They weren’t trying to harm.”

To prevent injuries or death, non-lethal weapons require significant testing and training, Hughes, the Marine spokeswoman, said.

“An operator needs to know that in extreme cold weather, a rubber impact round is harder due to the temperature, and therefore it is going to have a greater chance of injuring an individual,” she said.

Hughes said the joint directorate plans to push to increase the number of non-lethal weapons used in the field, in part by urging companies to develop new types and methods for using them. The program and the North Atlantic Treaty Organization will host the first major non-lethal weapons conference and exposition, taking place Oct. 25-27 in Ottawa, she said.

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