

What's New in Princeton & Central New Jersey?

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Laser Energetics: Subduing the Bad Guy with Non-Lethal Force

by Kathleen McGinn Spring

Laser Energetics, an 18-year-old laser technology company based in Mercerville, unveiled two new products this summer that have caught the attention of the law enforcement community. Called Dazer Lasers, they are designed to incapacitate wrongdoers of any kind — from a lone burglar to a band of pirates to a mob of rioters — without causing any kind of permanent injury.

A recent article in Law Enforcement magazine featured the dazers and praised their unique capabilities to subdue bad guys. The article, which appears in the September issue, is titled "Beaming Pain and Confusion."

Robert Battis, founder of Laser Energetics, says that his company has been working on the dazer technology for three years. Its internal salespeople, complemented by 30 manufacturers' reps, are now marketing the devices, which will sell for upwards of \$1,000. The reception so far has been positive. "Everyone says they want them yesterday," he says.

Battis says that he is looking for a large facility in Mercer County in which he will manufacture the dazers. He plans to hire "hundreds" of workers at all levels and says that he is about to seek incentives from the government to create the jobs.

The non-lethal weapons are designed for law enforcement entities of all kinds, from Homeland Security to park services as well as all branches of the military. "Cruise ships are another market," says Battis, pointing to the dazers' potential effectiveness in fighting off pirates.

The dazers work by sending out a wide beam. "Think of a pizza," says Battis. This modulating green beam temporarily impairs a person's vision, equilibrium, and awareness, and causes nausea.

Battis can testify that it works. "I dazed myself," he says. "It was awful. I was sick all day." He says that during one sales demonstration a SWAT team member, a "tough guy" who had been tasered something like 20 times, insisted on being hit with the dazer. "We made him close his eyes," says Battis. "We shined it five seconds at his closed eyes." The effect was immediate. "He couldn't walk or talk. He asked to be taken to the bathroom, and he stayed there."

While those who have been hit with the dazer feel horrible, they suffer no lasting effects — no matter how close they were when the beam hit them. That, says Battis, is what differentiates his Dazer Laser, for which he has applied for five patents. There are other dazers, but none that are eye-safe from any distance. Battis says this is a big selling point. Tasers, another non-lethal device used to subdue people seen as a threat, send a dart into the victim. "Every time a taser is used an EMT has to be called to remove the dart," he says. "This costs \$1,000."

Another drawback to the taser, says Battis, is that the person using it needs to be within 35 feet of his target. "If you miss, it's all over," he says. Also, only one person at a time can be hit with a taser, while a dazer can subdue any number of people at one time. "Think of a flashlight beam," he says. "You just move it around."

Battis' devices will be sold under two names, the Guardian and the Defender. The Defender looks much like a pistol. Weighing less than 1.5 pounds and requiring four 3V lithium batteries, it is about six inches high and six inches long. Its maximum beam range is one-and-a-half miles.

The Defender's sibling, the Guardian, resembles more of a rear- and front-button flashlight or short baton than a pistol. At 6.6 inches long, the Guardian weighs one pound with its two 3V lithium batteries. Designed for close encounters, this dazer's maximum range peaks at about 300 meters.

Each consists of a visible green laser light, which is difficult to see in daylight, and each meets the American National Standard Institute standard for the safe use of lasers.

A laser itself begins much like the buckshot from a shotgun, where the energy is concentrated in a narrow beam expanding outward in a cone-like shape. Like the shotgun, at a close range the blast is contained to a small space yet is overwhelmingly powerful; at long range the blast spreads apart, reducing the effectiveness.

Battis' dazers include a countdown clock that shuts the device down once a set time expires. An officer would begin his patrol by programming the dazer's security code, turning the tool on. The weapon then remains on until the internal timer reaches zero — turning the dazer automatically off. Programming would repeat each time the unit is required to be turned on. While on, the dazer requires the user to press the trigger or button to activate.

Dazers are just one of Laser Energetics' products. The company spends about half of its time working on lasers that are used in an ITT system, contracted by the U.S. Army, that detects chemical and biological agents.

computer industries to materials science work on the ingredients in chewing gum.

When he went out on his own he chose central Florida for his location because he wanted to be near the College of Optics and Photonics of the University of Central Florida, which he says is one of the top laser schools in the country.

Battis moved back to New Jersey in 2004 for personal reasons. He does have roots in this area. He was born in Summit but moved to Hamilton at the age of 10 and graduated from Notre Dame High School.

In addition to his work with laser technology, Battis, a Skillman resident, is a songwriter and the founder of a rock pop band called the Bangers All American Rock and Roll Band, whose specialty is patriotic music. "All net proceeds go to homeless soldiers," he says.

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