

## PRODUCT FEATURE:

# WHEN THE BEST OFFENSE IS A GOOD DEFENSE: BODY ARMOR MOVES BEYOND THE VEST

By Scott Harris, Freelance Writer

Senior Deputy Robert Riggs watched as the men surrounded the squad car and opened fire, covering the car—and his partner—in a swarm of bullets. The armor-paneled doors withstood the attack, but the glass in the driver's side window blew out, leaving Riggs' partner's head vulnerable. His partner raised his hands to protect his face and head, taking bullet wounds to his hands in the process, while also firing his own weapon. Ultimately, he survived the attack, with his ballistic retaliation likely saving his life.

The incident set Riggs, who serves with the Kern County Sheriff's Office in California, to thinking about officer protection. According to figures from the Federal Bureau of Investigation, most law enforcement officers who were killed with a firearm while wearing body armor were shot in the head or throat. Between 2005 and 2014, only 29 percent of the officers who were killed with a firearm while wearing body armor were shot in the torso.<sup>1</sup>

Thanks in large part to the federal government's Matching Grant Program for Law Enforcement Armor Vests, which began in fiscal year 1999, traditional body armor has become a widespread and common asset for law enforcement professionals. Its use became even more common in 2010, when the U.S. Department of Justice's Bulletproof Vest Partnership program mandated that law enforcement officers don body armor during patrol or field operations in order for departments to receive those matching grants.<sup>2</sup>

These measures have helped to increase officer safety tremendously, with the federal government estimating that, as of July 2013, body armor had saved more than 3,000 lives in the past three decades.<sup>3</sup>

The importance and benefits of traditional body armor is clear, but the protection it offers is not perfect and might not be ideal for every situation. However, there are several innovators working to close that gap by expanding the field of body armor options for law enforcement.

### An Active Tactical Advantage

As a result of what occurred with his partner, Riggs invented the Riggs Shield, a lightweight shield that can be mounted on the inside of a car door. The shield weighs about five pounds and is certified by the National Institute of Justice to Type IIIA level, meaning it can withstand shots fired from a .357 SIG and a .44 Magnum, among other ballistic attacks.

"It's the only ballistic shield that can be deployed in a matter of seconds in the case of an ambush," said Steve Bush, president of Police Ballistic Shield, based in Lutz, Florida.<sup>4</sup>

Just as the incident with his partner set Riggs to thinking, the Riggs Shield itself got Bush to thinking. An experienced martial artist as well as a law enforcement professional, Bush began seeking—and finding—ways of expanding the shield's effectiveness. "I thought, what can we do to protect ourselves? Regular body armor





#### RIGHT HAND GRAB

1. Officer pins hand against own body with right hand.
2. Keeping hand pinned, shield presses down on elbow
3. Step back and pivot.
4. Press down and twist suspect to ground. Stun.

Photo by Lt. Col. Tom Repetti, USMC (Ret.), for Police Ballistic Shield

doesn't protect your head, and that's what they aim for. It's great for an ambush, but why not take it outside? It can be a good defensive tool."<sup>5</sup>

Drawing on his hand-to-hand combat training, Bush put together a package of techniques that turns the Riggs Shield into a means of self-defense when outside the car. Although it's defensive in nature, there are ways to deploy the shield that can help an officer more easily neutralize an aggressive suspect. That capability is an important advantage in today's law enforcement climate—in which awareness around officer-involved shootings is arguably at an all-time high. At \$299, the shield can be a less expensive tactical tool than a Taser or similar option. According to Bush, learning the techniques is not costly and can be done in as little as eight hours.

"You can take a suspect down in seconds," Bush said. "It stops bullets, bites, and everything else. It's stab proof. It prevents crossbow bolts. We've had archers take shots at it with arrows. It breaks off the blades of knives. If you hit it with your hand, it's like hitting the side of the station wall. It's Taser and stun-gun proof. And it weighs only five pounds. You can run with it and reload without putting it down."<sup>6</sup>

#### Outside the Vest

Body armor is closely associated with the traditional bullet-resistant vest model, and that model is indispensable, but thanks to innovative technologies, there are plenty of ways to supplement the vest, depending on need and circumstances.

One such option, soft body armor, can enhance or even replace traditional body armor and can increase comfort and mobility without sacrificing safety.

For example, ProWearGear, based in Winnipeg, Manitoba, Canada, produces lightweight body armor certified at levels up to and beyond NIJ Spike Level 3. It is designed to supplement traditional armor—many models of which are not as effective against stabbing and similar attacks—and be worn easily in areas the vest does not cover, such as sides, underarms, lower torso, neck, and legs.

The armor stops direct stab attacks, spikes, slashes, and just about anything else, from fire to razor wire to hypodermic needles. The fabric has even gone through more unusual tests.

"I knew someone who took [a ProWearGear garment] to a snake farm," recalled Linda "Laz" Lazarowich, president and CEO of ProWearGear. "And there was I guess a huge diamondback rattlesnake in there, eight feet long or so. The guy was on a truck and he dropped it in. And the big snake came up and latched on to it. Then a few seconds later he let it go, without releasing venom. He put it in again, and the snake wouldn't approach it."<sup>7</sup>

The specially armored garments are 50 percent lighter, 70 percent thinner, and 100 percent more flexible than other gear on the market, in addition to being fire retardant, according to ProWearGear officials. They are designed to be worn with standard issue spike or ballistic vests as vests, jackets, coveralls, gaiters, and gauntlets for fully-body options. The garments also are modular, expandable, and removable, while still protecting the user from internal trauma and bruising. The comfort level far exceeds that of most traditional body armors, offering protection without binding or chafing and without limiting range of motion, even in the most extreme situations.

"It's a unique, new patented technology for stab and spike threats," Lazarowich said.



360-degree body armor protects vulnerable areas such as underarms, sides, lower front, and chest. (Image courtesy of ProWearGear.)



Full-body options can include gaiters and other pieces to protect body areas not covered by traditional body armor. (Image courtesy of ProWearGear.)

“The key thing with this is it’s light, thin, flexible, and fire retardant. So it’s also more than a ballistic and spike vest.”<sup>8</sup>

Despite its thinness, Lazarowich estimated that the patented material is a thick as four or five layers of denim stacked together. On top of its strength and durability, it’s convenient to wear and to own. It’s easy to maintain and easy to combine with traditional body armor or other ProWearGear garments.

“It’s modular,” Lazarowich said. “You can take it in and out and expand on it, or add pieces to it. It’s full body protection, with head to toe options.”<sup>9</sup> Lazarowich said she is now considering military and other applications, but garments for law enforcement will remain the company’s key item.

There are several other companies that also produce products to help protect officers while maximizing comfort and convenience. Blauer Manufacturing Company, based in Boston, Massachusetts, created ArmorSkin, an outer vest cover billed as the only product of its kind that can cover any brand, make, or model of body armor. The three-part armor concealment package moves armor to the outer layer of a uniform shirt to increase range of motion and prevent back stiffness and skin rashes.

A range of both hard and soft body armor options are also available through Armor Express, headquartered in Central Lake, Michigan. The company’s Razor and Vortex models are touted as being some of the most comfortable body armor in the world. The Razor and Vortex ballistic vests are significantly lighter than other models, with both being NIJ certified to level IIIA. ❖

**Notes:**

<sup>1</sup>Nathan James, *Body Armor for Law Enforcement Officers: In Brief* (Washington, DC: Congressional Research Service, 2016), 8, <https://fas.org/sgp/crs/misc/R43544.pdf>.

<sup>2</sup>Ibid., 2.

<sup>3</sup>Ibid., 6.

<sup>4</sup>Steve Bush (president, Police Ballistic Shield), telephone interview, August 21, 2017.

<sup>5</sup>Ibid.

<sup>6</sup>Ibid.

<sup>7</sup>Linda Lazarowich (president and CEO, ProWearGear), telephone interview, August 22, 2017.

<sup>8</sup>Ibid.

<sup>9</sup>Ibid.

**PRODUCT FEATURE:**

**BODY ARMOR PROVIDERS**

For contact information, please visit [www.policechiefmagazine.org](http://www.policechiefmagazine.org).

- Armor Express
- ATS Armor
- Blauer Manufacturing Company
- BPS Tactical
- GH Armor Systems
- MarkI Supply Company
- Police Ballistic Shield
- ProWearGear
- Rescue Essentials
- SecureWatch24
- T3 Motion
- Teijin Aramid USA Inc.

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