

# P&SN **Police and Security News**

Serving Law Enforcement & Homeland Security

JULY/AUGUST 2022  
VOLUME 38 ISSUE 4

## Active Shooter Preparation: **LESSONS LEARNED**

**Gunfighting in  
the Red Zone**

**New Forensic  
Science Technology**

**The Latest  
SWAT/Tactical  
Equipment**

**Ballistic  
Armor  
Update**







**HARD ARMOR**

**BALLISTIC SHIELDS**

PATENTED VENGEANCE VIEWPORT

ERGONOMIC TACTICAL DESIGN

HIGH PERFORMANCE BALLISTIC COMPOSITE

MULTIPLE LIGHT OPTIONS

COREBOND LARGE FORMAT ID

**PROTECT WITH  
A VENGEANCE™**



SCAN AND BUILD  
YOUR OWN VENGEANCE  
SHIELD ONLINE  
MODEL SHOWN: WMX6

[info@blueridgearmor.com](mailto:info@blueridgearmor.com)

844-556-6855

[blueridgearmor.com](http://blueridgearmor.com)

TRIDEXTROUS GRIP INTEGRATED LIGHTING  
NIJ 0108.01 IIIA AND SPECIAL THREAT TESTED  
SOLID AND MULTICAM COLOR OPTIONS  
MADE IN AMERICA

**VENGEANCE**





SETINA FIRST IN LAW ENFORCEMENT

***UNEQUALED PERFORMANCE & SEAMLESS DESIGNS  
INSPIRED BY OUR COMMITMENT TO LAW ENFORCEMENT.***



[www.setina.com](http://www.setina.com)

**DESIGNING FOR THE FUTURE**



**Rear Cargo Storage**



**Partitions & Seating**



**Firearm Mounts**



# P&SN Police and Security News

Serving Law Enforcement & Homeland Security

## CONTENTS

JULY/AUGUST 2022

Volume 38 • Issue 4

policeandsecuritynews.com



## FOCUS POLICE SCIENCE/FORENSICS

### New Forensic Science Techniques and Technology .....16

Stephenie Slahor, Ph.D.

Like most endeavors in science, forensic technology develops new techniques to solve problems and improve processes. Some of those recent examples are discussed.

## FEATURES

### Gunfighting in the Red Zone .....20

Mike Boyle

History has shown that police gunfights typically unfold at very short range. Approximately 90% occur inside of seven yards and a great many take place inside of double arm's length.

### Active Shooter Preparation: Lessons Learned .....36

Jon Becker

The recent active shooter events in Buffalo, NY, and Uvalde, TX, have once again driven many departments to question their own ability to effectively respond to an active shooter incident.



## SPECIAL REPORT

### Ballistic Armor Update: 2022.....26

P&SN Staff

The 29th Annual Report on the Latest Advances in Ballistic Armor Technology and Design.

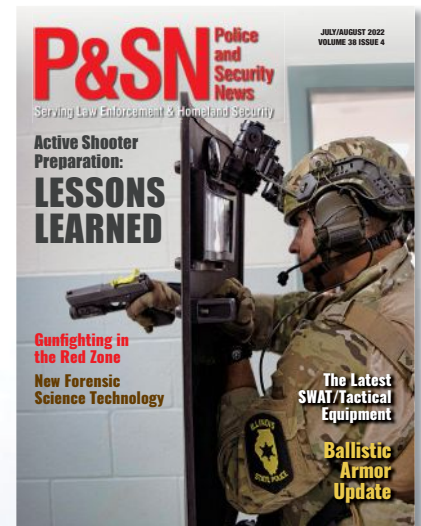
## COLUMNS

...and nothing but the truth.....6  
Not in Kansas Anymore

Product Highlight .....10  
Uniforms, Badges and Apparel

Focus on Technology .....14  
SWAT/Tactical Equipment

Busted! .....42  
Real Stories of Genuine Absurdity



## ON THE COVER

Recent distressing events have some departments questioning their own ability to effectively respond to an active shooter incident. What are some of the lessons learned from previous occurrences?



**NEW!**  
**N • ear**  
**360 Flexo**



**N • ear**  
**360** Flexo  
Single  
3.5mm



- **New Patented Stabilizing Bend**
- **Wear in Left or Right Ear**
- **Most advanced Knowles Mirco Speaker**



**0% Ear Fatigue**  
**4 Patents**  
**In-Ear Mirco Technology**  
**100% Situational Awareness**  
**2-Year Warranty**

**360 Flexo Single or Dual Ear**  
**Available in 22" or 48" cable length**



# ...AND NOTHING BUT THE TRUTH

**T**his column is a first – I'm writing it from another country. I'm in Kolkata, West Bengal, India, nearly 10,000 nautical miles from Miami, staying at my in-laws' house. To say things are "different" would be quite the understatement. It's culture shock at every turn. I've had some remarkable experiences in just the first seven days I've been here, but, for this column, we'll stick to the justice system, the traffic and policing of the place formerly known as "Calcutta."

A Westerner riding in the streets of Kolkata for the first time is alarmed – if not outright terrified – of the intense jostle of traffic. Lane markers exist, but are commonly ignored. The idea of "right of way" is just plain laughable. Kolkata's traffic is an endless coursing river of auto rickshaws, bicycles, motorbikes (tons of them), buses, and pedestrians, all jockeying aggressively for position. To a cacophony of beeping horns, this jumble of humanity somehow manag-



## Not in Kansas Anymore

RAMESH NYBERG

es to snake and seep forward with no one hitting each other. During a 20 minute car ride, I sat on the passenger side (left) and marveled at our young driver, who wordlessly navigated his way through an ever changing gauntlet of vehicles and people. I witnessed at least 50 near miss collisions. When I say "near," I'm talking about *inches*. To my astonishment, no one screams and yells; indeed, the pedestrians who stroll on the roadside (sidewalks are a rarity) barely even flinch when this swarm of hornets

sweeps past and through them. They almost seem oblivious to it all. The honking is not done in anger or frustration – rather, it is a way of saying, "I'm here, on your left." On our first trip, I discovered (to my complete amazement) that this twenty-something driver of ours is accomplishing all of this without a passenger side-view mirror. In my eyes, the kid has fighter pilot status.

Kolkata's 15 million people are serviced by 20,000 sworn police officers. A sergeant I spoke with said that they rotate shifts *daily*. That's right: Today, you're on day shift; tomorrow, you're on afternoon shift, and so on. He has since moved up to mounted patrol, a 12 man unit, so he is immune to that type of crazy scheduling. It's rare to see a marked police car on the road. Our idea of "patrol" just won't work. The majority of streets are too cramped with the chaotic traffic I described earlier. Another factor is the lack of zoning. For the most part, commercial and residential are all woven together, so concentrating on a particular area would be problematic. Along any city street, you'll see a dozen tiny shops selling snacks and sundries, then two apartment buildings and then a narrow living space in the crevice between the two buildings where a poor family lives on the edge of survival. There is no consistency except that no space is wasted. Someone is living in, or selling from, every nook and cranny. Residential and commercial and poor and wealthy all share the same community.

The department has ministations which are about the size of a guard shack, posted on various streets where the traffic cops (also a rarity) can take a break and have tea and samosas (the equivalent of our coffee and doughnuts). My wife and in-laws tell me there is no real violent crime in public areas. Though the occasional pickpocket is common, it is unheard of for a citizen to be forcibly robbed or attacked on the street. This makes sense, as there

## OFFERING LAW ENFORCEMENT PROFESSIONALS A CHOICE!



Restraint Chair



Stops  
Squad Car  
Damage!

Nylon Control Strap



DuraGuard Bench



Controls  
Spitters!

TranZport Hood



Protective Helmets for Headbangers



CALL TO REQUEST A CATALOG TODAY!

**Humane  
Restraint**

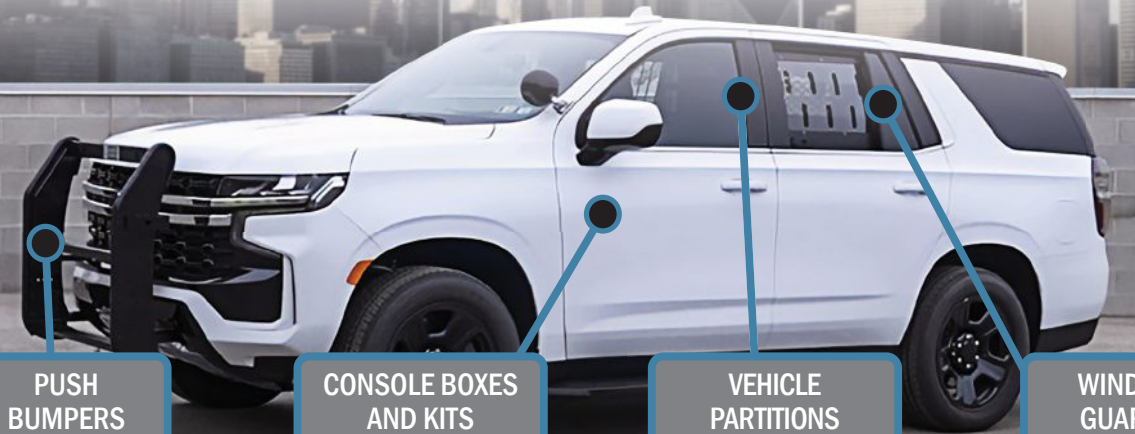
912 Bethel Circle • Waunakee, WI 53597

PHONE: 800-356-7472 • FAX: 608-849-6315

[www.humanerestraint.com](http://www.humanerestraint.com)



# BUMPER-TO-BUMPER PURSUIT VEHICLE SOLUTIONS



PUSH  
BUMPERS

CONSOLE BOXES  
AND KITS

VEHICLE  
PARTITIONS

WINDOW  
GUARDS



## ALSO SEE

- CRADLES & DOCKS
- MOTION ATTACHMENTS



[WWW.GAMBERJOHNSON.COM](http://WWW.GAMBERJOHNSON.COM)



@gamberjohnson



@gamberjohnson



@gamber\_johnson



@gamber-johnson



@Gamber\_Johnson



**GAMBER  
JOHNSON**

**RUGGED. RELIABLE. RESPONSIVE.**





**SUPPORTING  
FREEDOM**  
SINCE 2000



**PROUDLY  
DESIGNED  
ENGINEERED  
MACHINED &  
ASSEMBLED  
IN AMERICA**



**WE ARE SUPPORT**

accu-shot.com • 316.721.3222  
CAGE CODE 3L7F2

## ...AND NOTHING BUT THE TRUTH

*Continued from page 6*

are thousands of witnesses all around. Unlike witnesses of Western mentality, folks here will chase down and pummel anyone unfortunate enough to attempt violence on an innocent citizen. Once the offender is subdued, only *then* will Kolkata's finest be called to scoop him up and take him to jail. It's likely that the criminal (there is no "alleged" over here) would again get his clock cleaned by the arresting officers for interrupting tea and samosas at the station.

One of the disorienting aspects of being a visitor here is the perception – again, Western influenced – that nothing can get done. Indeed, you drive for miles and see buildings in disrepair, trash accumulating in street corners, insane traffic, and poverty. It's easy to look at all of this and conclude that to do business, take care of legal matters and get help with technology is next to impossible. Before the trip, I had a "to-do" list: I had been trying to get my Indian birth certificate (destroyed in Hurricane Andrew) rebuilt through a company online. Almost two years later, I was still going back and forth with them. I also needed to get the screen protector on my phone fixed. When we arrived, my wife briefed her father on the errands we needed to do.

"Don't worry," my father-in-law tells me, "I know a lawyer who can get it done today."

A lawyer! No way, I tell him. I've spent enough money on this. There must be a better way. Fans of legal procedure, hang on to your hats: The lawyer *came to our house at 7:30 in the morning*, took my information and a copy of my US Passport, and came back two hours later with a notarized certification from the court – signed by a magistrate – which said I held an Indian birth certificate. Cost? The equivalent of five US dollars.

As for the cell phone, there was a tiny place amidst a row of cubbyhole-type businesses about a ten minute drive from the house. They fixed the phone in ten minutes for about three bucks. My wife wanted to open a bank account here. The banker also made a home visit to handle that – way past 5:00 pm. Try asking your manager at Bank of America if he can swing by your place with the paperwork later.

After a while, you start to realize that, not only do things get done here, they get done faster, cheaper and with customer service which makes you feel like a king. You are "Sir" or "Ma'am" wherever you go around here. I ordered a beer at a restaurant and the waiter brought it over, held the bottle out and said something in Bengali.

"What's he asking?" I asked my wife.

"He wants you to check the temperature of the bottle and tell him if it's cold enough for you. If it's not, he'll go back and get another one."

Naturally, there's are downsides. As with

many non-Western societies, corruption in government is rampant. Cops regularly take payoffs for various things and, sometimes, "police service" depends on your ability to pay. The idea of picking up the phone and calling for police because your kid's bike got stolen is nonexistent. If you want to file a police report, you go to the police station, *unless* you are in the elite class of society. If you're poor, tough luck. If you're well-off, they might send a couple of officers to your house with the understanding that there should be something more substantial than tea and samosas waiting when they get there.

What gets enforced? Whatever the government wants is enforced which includes unethical behavior. In some areas of the country, the police will arrest a would-be groom for failing to complete the engagement and marry the girl. And, they will arrest him. Like I said, it's *different* here.

For criminal matters, forget jury trials – there is no such thing. You're at the mercy of a judge who might not like the way you look or is simply predisposed to thinking you're guilty. You *do* get a lawyer, but I doubt you get anything like discovery. The bottom line is the same mantra we tell people here: Don't screw up (and that includes breaking off an engagement).

As I write this, I'm seven days away from boarding my plane back to the US. In today's paper, a man was arrested for protesting the state prime minister and calling her a prostitute. Vulgar or offensive speech is arrestable here.

I've been watching the protests back home about the *Dobbs* decision and, as divided as our nation is, I couldn't help but feel pride that we have the freedom to go out and scream at each other, call each other names and criticize politicians without being arrested. I'll miss things about Kolkata. It is truly a unique and magical place whose nickname is the "City of Joy." But, I love my freedom and the wheels on my plane will be touching down at Miami International on July 4th.

Until then, cheers from the other side of the planet. **P&SN**

*Ramesh Nyberg retired from law enforcement in November 2006 after 27 years in police work. He lives in Miami and teaches criminal justice at a local high school. He also teaches regional law enforcement courses through Training Force, USA. He enjoys getting feedback from readers and can be reached at [ramesh.nyberg@gmail.com](mailto:ramesh.nyberg@gmail.com). Also, Ram has recently announced his newly published book, The Ten Must-Haves to Be a Great Detective, available on Amazon in both paperback and Kindle eBook. You can find it by visiting <https://tinyurl.com/hwc2xajm>*



INNOVATION   PERFORMANCE   COMMITMENT   DURABILITY

Innovative lighting and control systems  
to meet the needs of **your fleet.**



**SoundOff**  
**Signal** |||||®



SCAN TO LEARN MORE ABOUT  
OUR FULL LINE OF SOLUTIONS

[soundoffsignal.com/emergency](http://soundoffsignal.com/emergency)  
(800) 338-7337



# PRODUCT HIGHLIGHT



## AKER INTERNATIONAL, INC.

The new **510L Double Magazine Pouch** for extended magazines accommodates two 17 round 9mm magazines such as from SIG SAUER (size 2) and Staccato (size 3). These fit standard duty belts, either horizontally or vertically, and are available in plain or basketweave with chrome, brass, black, or hidden snaps.

Also new is the model **558 NARCAN® Pouch** which holds two NARCAN units. These fit standard duty belts and are available in basketweave or plain leather with a VELCRO® closure.

[akerleather.com](http://akerleather.com)



## BLACKINTON®

Blackinton developed its proprietary **Unlimited Coloring technology** to offer departments a unique way of showing support for a cause. Blackinton can incorporate color on a metal badge without disrupting the detail in the metal. Traditionally, adding color to a metal badge was limited to finishing the surface or adding color within the badge's metal walls. With **Unlimited Coloring**, Blackinton can add unique designs to badges economically without the need for a new die.

[blackinton.com](http://blackinton.com)

# Uniforms, Badges and Apparel

## ELBECO

Elbeco's new **CX360 Uniform Series** has been designed to stand up to the demanding conditions of the streets while maintaining a professional public image. Elevated fabric technology combined with performance-driven design provides for enhanced function, comfort and versatility in all climates and conditions.

Made from NanoSpun, the four-way stretch, wrinkle-resistant, lightweight fabric provides a high range of motion and comfort and is nonabsorbent which means that moisture from the skin evaporates instead of being drawn into the material. Nanofluid repellency repels fluids, stains and soil; antimicrobial technology inhibits odors; and UV 50 protection prevents sun damage. **CX360** is machine washable for easy maintenance.

[elbeco.com](http://elbeco.com)



## INFERNO USA EYEWEAR

Available for law enforcement from Inferno USA Eyewear, these best-selling frames are the **BURN** style sunglass/goggle. Made from aluminum which allows you to shape them perfectly to your face, you can also add a prescription to the lenses. The foam insert is removable, as is the prescription insert; the polarized high-def transitional lenses can be worn for indoor or outdoor shooting. Designed for high performance, custom engraving and colors are available and they come with a lifetime warranty.

[infernousa.com](http://infernousa.com)



## SMITH & WARREN

The **S692** and **S692E** are available exclusively from Smith & Warren. The **S692** and **S692E** eagle top shields feature two American flags flanking the center seal and are available in various Smith & Warren finishes. These brand-new styles are perfect as an anniversary badge or as an update to your department's image. You can design your **S692** and **S692E** badge online or choose from 1200+ other custom badge models.

[smithwarren.com](http://smithwarren.com)

## WATERSHED®



The WaterShed **StormForce™ Zulu Pull Over** is perfect for maximum comfort and performance under an external carrier. The sleek, half zippered front and CORDURA® reinforced shoulders offer a smooth finish ideal for on or off duty use. Manufactured from 2-layer GORE-TEX®, it boasts the ultimate abrasion-resistant, waterproof, windproof, and highly breathable barrier you demand to stay warm and dry. Customizable with an assortment of options, it is made in the USA and is Berry Compliant.

[wearewatershed.com](http://wearewatershed.com)





# WHAT CAUSE IS CLOSEST TO YOUR **HEART?**

Show Support. Bring Awareness. Celebrate an Event.  
All with your Blackinton® badge and our innovative  
*Unlimited Coloring™* technology.

CONTACT US



*Blackinton®*





# NEWS

## Roadway Safety Resource Toolkit

Published by the National Policing Institute, this toolkit is provided to help agencies develop or modify policy, provide additional training to officers, and change organizational culture to improve officer safety on the roadways. The toolkit includes safety messaging, example policies, traffic incident management resources, and more.

The toolkit is available at <https://tinyurl.com/bdeahjja>



**A Serious Risk to Officer Safety**

According to data collected from the Officer Down Memorial Page, **509** law enforcement officers were killed from 2011-2020 from collisions and struck-by incidents on the nation's roadways. More recently, the National Law Enforcement Officers Memorial Fund reported **58** law enforcement officers were killed in 2021 as a result of traffic-related incidents. **27** of these fatalities were the result of struck-by incidents, and **9** involved single-vehicle crashes.

**More can be done to protect our officers.**



## New Toolkit for Preventing Mass Shootings and Other Attacks

NIJ-funded researchers created a toolkit to help reduce the likelihood of mass shootings and other public attacks, and reduce the casualties of completed attacks.

After studying 600 mass attack events and plots, interviewing dozens of experts and reviewing hundreds of references, the team identified the Mass Attacks Defense Chain, a series of defenses which work together to reduce the probability of mass attacks and their impacts.

In this toolkit, researchers describe the most important tips they found to help reduce the likelihood and casualties of mass attacks. They also point to key guidance and resources to provide more detailed information.

To access the toolkit, visit <https://tinyurl.com/42jrnuft>



**TO SERVE AND PROTECT**

**This Officer Wears a Stratton Hat and So Should You.**

MADE IN USA

Stratton Hats is the world's largest manufacturer of hats for uniformed personnel. Stratton Uniform Hats enhance authority and dignity, and have the added benefit of opaque, sun-shielding brims for valuable protection against harmful UV rays.

All Stratton Hats are made in the USA. Nothing tops a Stratton Hat.

Visit our website or call today.  
Phone: 708-544-5220 Fax: 708-544-5243

**WWW.STRATTONHATS.COM**

After the workday, keep your style on with an authentic Stratton Western Hat!

Use your Smart Phone and QR code scanner to visit our web site.



**2 NEW LIGHT SERIES**

800.557.0098 | 308.278.3131 | [www.golight.com](http://www.golight.com)

- >> Updated Design / Increased IP Ratings
- >> LED or Halogen Lighting Heads
- >> 2x Stronger Magnetic Grip
- >> Multi Unit Selection Remote
- >> Home Position Button
- >> Low Amp Draw

**G GOLIGHT INC**



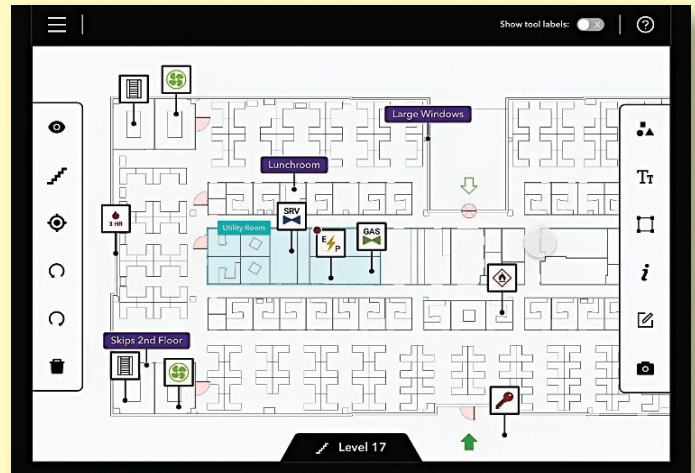
# New Digital Indoor Mapping Capability Now Available for First Responders

The Department of Homeland Security (DHS) Science and Technology Directorate (S&T) funded the development of a cloud-based capability which enables first responders to review and analyze indoor floor plans in real-time when responding to incidents. Mappedin Response was developed in collaboration with Mappedin Inc. of Waterloo, Ontario, and is available to first responders and local governments as a licensed cloud-based service.

"It has been a major challenge for first responders to quickly determine the layouts of structures, hindering them from making informed decisions before entering a building," said Kathryn Coulter Mitchell, DHS Senior Official Performing the Duties of the Under Secretary for Science and Technology. "Mappedin Response provides the ability to conduct a 360 degree assessment with digitized floor plans, better positioning responders to take necessary precautions and ensure they have the necessary equipment and tools to act more effectively in protecting people, property and their own lives."


With Mappedin Response, first responders can create, update and maintain a digital "warehouse" of 3-D floor plans they can access on tablets and mobile devices, eliminating the need to rely on outdated hard copy floor plans and maps. In addition, responders can add key information such as the building's construction materials, locations of fire hydrants and the presence of hazardous materials. During the development of Mappedin Response, S&T and Mappedin incorporated feedback from first responders and local government across the United States and Canada while developing the software.

"This new tool will also help federal, state and local commu-




nities plan for different types of incidents which is an essential element of effective response by any first responder agency," said Anthony Caracciolo, S&T First Responder Capability Program Manager. "For example, the Mappedin Response platform will complement detection and tracking technologies, such as sensors which can detect gunshots or the presence of life, allowing these systems to overlay their specific outputs onto a floor plan. This provides first responders a holistic view of what they are dealing with so they can coordinate their plans accordingly."

For more information on Mappedin Response, visit [mappedin.com/industries/public-safety/](https://mappedin.com/industries/public-safety/)




**STREAMLIGHT®**  
**TLR® RM 1 LASER**  
**TLR® RM 2 LASER**



### The Next Generation of Rail-Mounted Lighting Systems for Long Guns.

The TLR® RM 1 Laser & TLR® RM 2 Laser feature both an ambidextrous tail switch and remote pressure switch, with independent switch operation giving you the security of knowing you'll always have light. This complete lighting system provides everything needed to mount to your long gun in a compact and lightweight package.

TLR® RM 1 - 500 LUMENS | TLR® RM 2 - 1,000 LUMENS | AVAILABLE WITH RED OR GREEN LASER | DUAL SWITCHES INCLUDED | CR123A POWERED



[STREAMLIGHT.COM/TLR-RM](https://streamlight.com/tlr-rm)

© 2022 STREAMLIGHT, INC. ALL RIGHTS RESERVED.



# FOCUS ON TECHNOLOGY



## New SIGYN Mk1 Throwable Robot

The **SIGYN Mk1** is an operator-friendly robot which provides teams with scouting capability through two ultrasensitive day/night cameras. While 150 degree views allow for an impressive scope, dimmable IR LEDs on the front, back and top of the vehicle provide video clarity and NVG lighting. **SIGYN Mk1** is purpose-built with aviation-grade carbon fiber and reinforced with polycarbonate frames for a rugged but lightweight build, allowing the operator to deploy the bot with a single-handed throw.

The **SIGYN Mk1** is seamlessly integrated into the Sky-Hero Tactical Robotics Suite and is operated via the Odyssey GCS, the same handheld GCS controller which operates the LOKI Mk2 Tactical sUAS (drone system). The Odyssey GCS controller employs the superior Odyssey platform, an ultrasecure interface which doesn't require the use of GPS, WiFi or cell service. Its AES 256 encryption and diversified analog audio-video receptors prohibit signal interception and secure all vehicle, payload and intelligence data. The GCS can operate up to four devices simultaneously.

[loki.aardvarktactical.com/sigyn/](http://loki.aardvarktactical.com/sigyn/)



## New Under Door Camera Adapter

The new **Under Door Camera Adapter** enables a tactical team operator to single-handedly deploy the Zistos Dual View Under Door Camera, while freeing their other hand to hold a weapon or shield. The dual sensor camera system is equipped with IR illumination, a high gain microphone, and generates a video image of a room from underneath the door. It can also look up at the door for a barricade or booby trap.

[zistos.com](http://zistos.com)

# SWAT/Tactical Equipment

## Kinetic Breaching Tool

The **Kinetic Breaching Tool (KBT)**, available from AARDVARK Tactical, has been purpose-built to fill the gap between manual forced entry and explosive breaching. This tool employs physics in the form of a self-contained impact ram which utilizes powder-actuated cartridges. The **KBT** is positioned directly into a door or entryway, and captures the force of the ram within the tool, ensuring that no projectile or explosive energy leaves the device.

The **KBT** also increases operator safety by allowing operators to breach from behind a shield or to the side of the door. This is a ready-to-use device which can completely replace explosive and hydraulic breaching, battering rams and other manual forced entry techniques which drain valuable time and energy. The **KBT** breaches metal security screen doors and also defeats outward opening steel doors within a steel frame.

[kbt.aardvarktactical.com](http://kbt.aardvarktactical.com)



## New Line of NV and Thermal Imaging Products



New for 2022, EOTECH® has partnered with a world-renowned manufacturer of electro-optics to provide a full line of EOTECH branded, military-grade Night Vision (NV) and thermal imaging products. This full line includes everything from head worn NV devices to clip-on weapon systems.

Included is the new **EOTECH MonoNV Monocular**, an image intensified, tubed night vision device built to the same standard as the military AN/PVS-14 system. This multipurpose monocular is adapted for operation as handheld, helmet/head-mounted or weapon-mounted.

An integrated IR LED illuminator is used for short-range illumination and Gen 3 White Phosphor tube technology gives maximum target detection and recognition range.

[eotechinc.com](http://eotechinc.com)



## New Crossbow Suppressor™ Eyeshield

The **ESS Crossbow Suppressor** frame is designed for use with ear cup hearing protection and communications devices. Featuring Z-Bend™ Geometry, the frame's ultrathin temple arms help keep noise out by minimizing the effect on the padded seal of ear cups. The slim temples eliminate the hot spots and pressure points which commonly occur when normal eyewear is worn under ear cups.

The **Suppressor** frame is compatible with all Crossbow® lenses. These 2.4mm polycarbonate lenses feature distortion-free ESSOPTICS™ and ClearZone™ FlowCoat technology to combat fogging on the inside and scratches on the outside. The frame's DedBolt™ Lens Lock provides quick lens interchange and rock-solid retention under impact.

[esseyepro.com](http://esseyepro.com)



## New FN Five-seveN® MRD

FN America recently introduced the **FN Five-seveN MRD** optics-ready pistol chambered in 5.7x28mm and coupled with major upgrades to the frame and slide.

The **Five-seveN MRD**'s optic mount consists of a series of plates which mate the optic to the slide. Users are able to mount a miniature red dot sight utilizing the corresponding plates and screws provided. The three dot photo luminescent sights are adjustable for elevation and windage and co-witness with certain optics.

With newly enhanced slide serrations and extended cocking ridges at the rear of the slide, the **Five-seveN MRD**'s overall operability and user manipulations are vastly improved. A new stippled texturing on the grip frame, along with more extensive front strap serrations, improve grip consistency for complete control. The magazine release has also been enlarged and reshaped for intuitive control and rapid reloads.

[fnamerica.com](http://fnamerica.com)





### N-ear 360 Flexo™ Earpiece

The new **N-ear 360 Flexo** is the most comfortable earpiece in law enforcement – providing 100% situational awareness with 0% ear fatigue for all-day wear. The **N-ear 360 Flexo** replaces existing acoustic tube earpieces with its low profile (nearly invisible to the eye) and sound quality which makes radio calls ten times clearer.

The **N-ear 360** earpiece is designed by Denmark's leading in-ear experts to be the most comfortable, covert and best-sounding earpiece for two-way radios, with the sophistication to handle smartphones and push-to-talk applications.

[n-ear.com](http://n-ear.com)



### New XD-M® Elite 4.5" OSP™ 10mm

The new **XD-M Elite 4.5" OSP 10mm**, from Springfield Armory, combines all of the refinements of the Elite series with the power of the 10mm cartridge. Offering a 16+1 capacity, the pistol features the Match Enhanced Trigger Assembly (META™) with a flat face, crisp break and integral overtravel stop. Additional features include an optics cut slide, an extended/removable flared magwell, improved slide serrations, and an ambidextrous slide stop. The result is a highly shootable and powerful polymer-framed pistol.

[springfield-armory.com](http://springfield-armory.com)



### Hellion™ 5.56 Rifle

The **Hellion**, from Springfield Armory, represents an innovative approach to firearms design, redefining perceptions of semiauto 5.56mm performance. Featuring a "bullpup" configuration where the action is located behind the trigger, the **Hellion** features an overall length of just 28.25 inches while still possessing a 16 inch barrel. Its ambidextrous controls work jointly with a reversible case ejection system.

The **Hellion** comes with QD mount points on both sides of the 5.56mm bullpup, ensuring you can use the sling of your choice, arranged for use from either side.

It also features a two position adjustable gas block with "S" (suppressed) and "N" (normal) modes to adapt to conditions and ammo availability.

[springfield-armory.com](http://springfield-armory.com)



### New FN 15® DMR3 Rifles

FN America has recently announced the release of three new FN 15 models in Designated Marksman Rifle (DMR) configuration. In its third edition, the **FN 15 DMR3** is now available in several new colors – matte black anodize, Flat Dark Earth (FDE) or tungsten gray Cerakote.

The **FN 15 DMR3** designated marksman rifle has an 18 inch hybrid profile barrel which is chrome lined and made from FN's proprietary machine gun steel. The rifle also features a rifle-length gas system, a SureFire ProComp Muzzle Brake which reduces recoil and muzzle rise, and a Geissele two-stage G2S trigger which allows for precise trigger control.

[fnamerica.com](http://fnamerica.com)



### New Future-proofed Armor Plate

Adept Armor has recently introduced the **Colossus™** armor plate which offers protective capabilities beyond Level IV or RF3 plates. The **Colossus** utilizes advanced materials to produce the strongest plate in its category, yet weighs significantly less than the average Level IV or RF3 plate at just over six pounds (in the Shooter's Cut) and is only 1.13" in thickness.

The **Colossus** was built and tested to VPAM 12 with a ballistic rating for 7.62x51mm Swiss P AP (tungsten core) at 810 m/s. VPAM is the European standard for testing and measurement of ballistic materials and products. Additionally, the **Colossus** is also rated for: VPAM 11 – 7.62x51mm M993 (tungsten core) at 940 m/s; Level IV (RF3) – .30-06 AP M2 at 880 m/s; and special threats such as the 5.56x45mm M995 at 1000 m/s (along with similar and lesser threats).

The **Colossus** is available in a variety of configurations and offers edge-to-edge protection.

[adeptarmor.com](http://adeptarmor.com)

### New Level IIIA Tactical Clipboard



Designed specifically to augment standard law enforcement duty gear without an overbearing presence or a hindering weight (about the weight of an iPad®), the **tactical clipboard**, from Hardwire®, layers over the forearm, discreetly allowing officers to be outfitted with ballistic protection throughout their shift. Equipped with an ergonomic handle and durable VELCRO® elastic strap, the **clipboard** allows for hands-free control and utilizes natural response to threat maneuvers. While the handle empowers the user with another tool for blocking or shielding in confrontations, the **tactical clipboard** protects the head or vital torso area with highly effective ballistic protection.

[hardwirellc.com](http://hardwirellc.com)



# NEW FORENSIC SCIENCE TECHNIQUES AND TECHNOLOGY

Stephenie Slahor, Ph.D.

Like most endeavors in science, forensic technology develops new techniques to solve problems and improve processes. Here are some of those recent examples.



## Drones

Ground-based crime scene analysis can be effective, of course, but adding in the help of drone-mounted assistance may mean better efficiency and speed in analyzing a scene. And, unlike ground-based techniques (i.e., taking photos, creating maps and charts, sketching, laser scanning) which might contaminate a crime scene because someone has to walk through it, drone-mounted technology may eliminate such contamination and the possibility of exposing someone to potential hazards.

Researchers at Kansas State University recently tested drone-mounted remote sensors versus terrestrial laser scanning. While terrestrial laser scanning did a better job of creating accurate images of (staged) outdoor crime scenes, when partnered with drone-mounted scanning, the data became even more accu-

rate and less likely to have evidence contamination or destruction.

Using terrestrial scanning methods with drone-mounted motion photogrammetric sensing and LiDAR (Light Detection And Ranging), the researchers collected both quantitative and qualitative data at staged crime scenes in both daylight and at night. The terrestrial laser scanning took longer and had “blind spots” where scan positions or obstacles blocked a full view. The drone-mounted scans had no blind spots, but sometimes had low levels of distinguishable detail. Reduced detail from both methods occurred under night light conditions.

The research concluded that investigators and juries viewing data from drones could view a crime scene in a more complete and virtually unaltered state. But, the study added that, the better the LiDAR system equipment, the more likely performance would be enhanced in capturing data and images.

The project was funded through the National Institute of Justice (NIJ) Grant 2018-R2-CX-0031, “Evaluation of Terrestrial Laser Scanning and Aerial Remote Sensing with Small Unmanned Aircraft Systems for Forensic Crime-Scene Reconstruction,” by Kurt J. Carraway.

## Three-dimensional Laser Scanning

Evidence at a crime scene needs to be documented and there must be reliable data collection in order to be used in court. Traditional methods of data collection are now being augmented by three-dimensional laser scanning which produces quality images and precise measurements. Alas, three-dimensional laser scanning is expensive and you need a well-trained person to do it correctly, but it is superior to the less expensive two-dimensional methods of informing and convincing investigators and juries. Acquiring this technology may be worth considering.

To that end, the NIJ supported research at the University of Tennessee to examine cost/benefit considerations of three-dimensional laser scanning versus traditional crime scene documentation (two-dimensional topographic diagrams, photos and sketches).

The study found that hand drawn sketches were the least expensive to create (.79/minute per sketch), followed by photography (\$126/minute); two-dimensional diagrams (\$297/minute); and, finally, three-dimensional scanners (\$852/minute).

Considering the time involved, photography was the quickest, followed by hand drawn sketches, three-dimensional scanners and two-dimensional diagrams.

While expensive and time-consuming in terms of equipment and user training, the study implied that data from three-dimensional scanners can be accurate and reliable in court and can rank as the preferred method of documentation of different angles at a crime scene, leaving nothing to conjecture.

# FORENSCOPE

Available Exclusively From **EVIDENT**

[www.ShopEVIDENT.com](http://www.ShopEVIDENT.com)



Mobile Multispectral Forensic Tablet



Mobile Multispectral Contactless Fingerprint Detection System



# WaterShed®



**Stormforce™ Zulu Pull Over**

**WeAreWaterShed.com**



- **Breathable**
- **Light Weight**
- **100% Waterproof**
- **Maximum Comfort Under External Carrier**



scan me



## EMBRACE THE ELEMENTS

800-848-8092 • [orders@goWaterShed.com](mailto:orders@goWaterShed.com)





**A recent study has found that juries viewing data and images from drones could view a crime scene in a more complete and unaltered state.**

NIJ award 2016-DN-BX-0177 funded the study, "Implications of Three-Dimensional Laser Scanned Images for the Criminal Justice System," by Giovanna Vidoli, Joanne Devlin, Jenna Watson, Michael Kenyhercz, and Jason Keller.

## The "NamUs" Database

Missing and unidentified person cases top 600,000 annually in the US. Nicknamed the nation's "silent mass disaster," many (if not most) cases are resolved quickly, but some are not. The Department

of Justice's "National Missing and Unidentified Persons System" (NamUs) is a database established for information and case characteristics about such persons.

The NIJ found that there was a lack of empirical data about whether some cases are violence-related. Also lacking data is the question of whether there is a disproportionate number of Native American Indian and Alaska natives in missing and unidentified persons cases.

Using keywords, researchers at the University of North Texas Health Science

Center mined the NamUs case entries to classify them as violent or nonviolent cases. Examined were the manner of death, DNA availability, age of the case, and types of violence. The researchers found that the level of violence was lower than expected at about ten percent of all missing person cases and that most missing person cases were resolved with the person found alive in either violent or nonviolent cases.

The findings also showed violence more common in cases involving female victims and that physical violence was the most common form of violence for males or females. Older "cold" cases (more than 20 years unsolved) usually involved violence more often than more recent cases.

For females, the highest number of missing person cases – whether violent or nonviolent – were persons under age 18. For males, the cases were more evenly distributed across age groups.

The research could not draw any definitive data about Native American Indian and Alaskan native cases in the frequency of missing and unidentified persons.

Recommendations from the study point toward using more particular biometrics, DNA analysis, fingerprints, and dental information. But, the study emphasized that

WE PRODUCE IN SMALL QUANTITIES, EACH OF OUR STATIONS CRAFTING NO MORE THAN 20,000 ROUNDS PER DAY. WE'RE A BOUTIQUE AMMO COMPANY IN THAT SENSE.

**MORE IS NOT BETTER. BETTER IS BETTER.**

THE POWER OF  
• BLACK HILLS •  
Performance

Ammunition

TO LOCATE A DEALER NEAR YOU, PLEASE CALL 800.568.6625 | [www.black-hills.com](http://www.black-hills.com)



NamUs is an ever changing data collection and that case entries might not indicate whether violence was a factor in the individual case.

The NIJ award for the study is 2016-MU-BX-K007, "Cases Associated with Violence in the National Missing and Unidentified Persons System," by Steven Hafner, B.J. Spamer and Bruce Budowle.

## DNA Forensic Laboratory Efficiency

The NIJ has published a guide to help DNA forensic labs cope with both rising costs and the rising demand for timely and competent analysis. The guide is titled, "National Best Practices for Improving DNA Laboratory Process Efficiency," and lists 67 recommendations for enhanced lab work.

The recommendations range among such topics as improved management and operations; leadership and teams; evidence screening; DNA analysis; case acceptance policies; case prioritization; recruitment, training and retention of staff; workflow; automation versus bench work; information technology and data management; allele (gene forms and DNA sequences); relevancy of samples; geno-

typing software; and short- and long-term planning for new technologies.

The format features ease of use to focus on five main chapter sections: laboratory management and operations; accepting and managing cases; staffing; data analysis and management; and new technology best practices.

The guide also includes a glossary and appendices for a sample of an evidence submission policy; city/county/state examples of evidence submission policies; and considerations to make before purchasing a Laboratory Information Management System.

The guide can be downloaded at <https://tinyurl.com/2p885jc2>

## Field Drug Testing Programs

The Forensic Technology Center of Excellence of the NIJ has created a training framework to certify law enforcement officers in presumptively identifying drugs while in the field.

In the US, drugs and certain chemicals are classified in one of five schedules, depending on their medical use and their abuse potential. Forensic laboratories confirm these substances after screening with a variety of methods, but recent tech-

nology has created screening techniques which use portable instruments for testing in the field.

Pilot programs with the Phoenix (AZ) Police Department; the Utah Bureau of Forensic Services; the Philadelphia (PA) Police Department and District Attorney; the Oregon State Police; the Ontario (OR) Police Department; and the Michigan State Police tested various commercial drug testing kits to be used in the field and examined the training needed for the proper use of the kits.

Among the results of these pilot programs were conclusions such as keeping testing protocols simple and easy to use, especially afield; doing annual and even periodic training in correct testing protocols; and collaborating data with prosecuting attorneys and crime laboratories in the jurisdiction.

Details about the commercial drug testing kits, training, the implementing of field testing capabilities, and the use of portable testing devices can be found at [forensiccocoe.org](http://forensiccocoe.org) at "Model Strategies for Field Drug Testing Programs." **P&SN**

*Stephenie Slahor, Ph.D., JD, is a writer in the fields of law enforcement and security. She can be reached at [drss12@msn.com](mailto:drss12@msn.com).*

**KBT**  
KINETIC  
BREACHING  
TOOL

## THE REVOLUTION IN BREACHING TECHNOLOGY IS HERE: POWERFUL, PRECISE KINETIC BREACHING.

In time-sensitive and high-stress situations, traditional breaching tools require too much time and energy from operators. The **KINETIC BREACHING TOOL** from KBT is a mechanical breaching tool that uses powder actuated kinetic energy to bridge the gap between traditional breaching and explosive entry.

### KEY FEATURES INCLUDE:

- The ramming surface is narrow enough to focus on a single lock
- Powerful enough to breach steel security doors
- Delivers up to 1,000ft.lb of force
- Powered by .45 caliber blanks
- 8-round cylinder for multiple breaches
- Safe for operators and individuals on both sides of the door

EXCLUSIVELY DISTRIBUTED IN NORTH AMERICA BY:

**AARDVARK**

[AARDVARKTACTICAL.COM](http://AARDVARKTACTICAL.COM) // 800.997.3773





# GUNFIGHTING IN THE RED ZONE

History has shown that police gunfights typically unfold at very short range. Approximately 90% occur inside of seven yards and a great many take place inside of double arm's length.

MIKE BOYLE



**W**ithin close quarters, there is precious little time to react and no special skill is needed to inflict a serious injury or even death.

In 2019, the FBI reported that 48 law enforcement officers were feloniously slain in the line of duty. Of that total, 14 were killed at distances of five feet or less. That represents a significant piece of the pie with roughly 29% of all fatalities. This is hardly an anomaly and this trend has been evident for years. Quite frankly, it causes you to wonder if our training is up to the challenge.

Football fans are familiar with the term “red zone” where the offensive team has driven within 20 yards of the goal line in the defensive team’s territory. The likelihood of scoring a touchdown or field goal is much higher and both teams play with greater intensity. As a result, both offensive and defensive strategies have to make adjustments in order to succeed. Can we draw a parallel between football and defeating an attack in close quarters? Clearly, drawing from the holster and rais-

ing the gun to eye level with two hands may not be the answer when an armed assailant is just a step or two away.

Although most contemporary police qualification courses include an element where officers fire at a target at short range, we need to do much better. Simply put, qualification does not equate to training. Firing a requisite number of rounds at a static target does not prepare you to succeed in a fight against a violent, moving aggressor who has sucker punched you or pushed you to the ground. Granted, the use of deadly force cannot be justified in many of these attacks, but when a weapon or improvised weapon is being brought into play, the game changes completely.

## HANDS-ON TO HANDGUN

The fact that you are armed doesn’t mean that you are in total control. Should an assailant introduce a knife or club in close quarters, you have little time to counter and going to the gun right away may get you killed. Sure, you can execute that one second draw on the sterile range, but by the time you process all that information and go for the gun, the bad guy has already plunged that screwdriver into your neck.

The reality of the situation is that your “go to the gun” response is going to eat up a few seconds and give your opponent the advantage. In many instances, you will be far better served initially responding with an empty hand technique which may allow you time to access your higher power. Unfortunately, many officers have not had the opportunity to train in bridging

that gap between empty hand skills and the firearm. If your agency has been remiss in this regard, you would be well advised to seek it out on your own. Contrary to popular opinion, you do not have to be a black belt in the martial arts to meet with a measure of success.

Effective countermeasures in any close quarters conflict can be realized by doing any of the following to your opponent: interrupt the breathing; interrupt the vision; or interrupt the balance.

If possible, combinations of the above will dramatically increase your odds of success. Your initial response should be to block the incoming attack and protect the vital areas of your head, neck and chest. Immediately take the fight to the assailant before he can regroup.

Fingers in the eyes, palm strikes, hammer fists, knees to the groin or common peroneal nerve (nerve in the outside of the upper leg in the thigh) can be very effective in taking the fight out of an aggressor in close quarters. Consider working out with a training partner to master a few simple blocks which can protect you in a close quarters attack.

## THE RETENTION POSITION

Over the years, there have been a number of close quarters techniques devised – some are good; others are best forgotten. For this discussion, I will offer a few which provide the best chance of success. Recognize there is no one technique which is best and you have to pick and choose based on what is going on around you and what the assailant is do-



***In extreme close quarters, you might have to fight it out before you can resort to your higher power.***





**CUSTOM**

**UNIFORM**

**JUMPSUITS**



[WeAreWaterShed.com](http://WeAreWaterShed.com)

**MADE IN  
USA**  
SALEM, OREGON

**800-848-8092**  
[orders@gowatershed.com](mailto:orders@gowatershed.com)



## GUNFIGHTING IN THE RED ZONE

Continued from page 20



**Contact with a subject may push your gun out of battery and prevent it from firing.**



**The support hand comes over the top of the slide to return it to battery and allows you to fire. This, however, will cause a stoppage. Disengage, clear the stoppage and fire additional shots, if necessary.**

ing. Needless to say, a firearm response would only be justified if there was an immediate and unavoidable threat of death or serious bodily injury.

Probably the most commonly taught extreme close quarters shooting technique is the retention position. Unlike the range, we have to consider that you may be in physical contact with your assailant at the moment of truth and this simple fact is often ignored in traditional police firearms training. To avoid a disarm attempt or having the muzzle deflected, the gun is drawn and held tight to the body at chest level. As soon as a decision to fire has been made, both hands are in motion. As the strong hand goes for the gun, the support hand is brought to the back of the neck while the arm protects the head and upper body.

Depending on the situation, the muzzle of your firearm may be level or angled down. Bringing the elbow all the way to the rear will put shots on the assailant's lower torso, groin or even the legs. The key is to get your pistol as far to the rear as possible. The pistol should also be slightly canted to the outside so that the slide does not come in contact with the

upper body or a jacket.

After firing those initial shots, break contact and, if possible, step back out of the hole to create distance. Be prepared to fire additional shots if the threat is still viable. A common mistake in watching officers using this technique is that the gun is extended too far forward. Instructors need to take note of this and make sure their students do not reinforce an unsafe technique by having the gun too close to an assailant.

### SHOVE AND SHOOT

Another effective close quarters technique is best described as shove and shoot. Should you find yourself in very close proximity to a subject and it appears he is trying to bring some sort of weapon into play, this may be the solution. As soon as you recognize the threat, strike hard with your support hand, create distance and quickly move backwards as the gun is brought to eye level. Ideally, the subject has been driven a short distance to the rear while you have moved in the opposite direction.

There are many variations devised around this theme including a sudden

INTRODUCING THE

# FLAT IFAK

The design doesn't add bulk but still carries what you need in an emergency.



Mount medical supplies to a vest, headrest or belt.



**RESCUE ESSENTIALS**

[rescue-essentials.com](http://rescue-essentials.com)





**Driving forward can be an effective technique in certain circumstances.**

strike with one or both hands. Some trainers advocate that the strike should be directed to the face. Unless I am physically tied up with the subject, I prefer to direct that blast to the solar plexus rather than the face. There are simply too many bad guys with some training or skill who might be able to avoid your strike. The chest offers a much bigger target. If possible, your rearward movement should be on a slight oblique angle as your opponent will have a hard time adjusting.

Does it work? At best, this is a sometimes solution. Should an assailant be moving aggressively toward you, it's unlikely that your strike will move him to the rear far enough where you can disengage. Keep in mind that the assailant can move much faster forward than you can move backwards and he is likely to run right over you. Where it may work is on a static threat who is inside your personal space. The key to success remains that hard blast. Also, consider what is behind you. While this may work just fine on the range, it would not be the technique of choice in a confined space with furniture or alongside a busy highway where you might move into traffic.



**Firing from a retention position is another viable extreme close quarters technique.**

# **DRAGON SKIN<sup>®</sup>**

100% Ergonomic

Watch Us On



**4 ERGONOMIC advantages over any other duty belt in the world.**

- ① •No rubbing on upper hip bones
- ② •No pulling on lower back
- ③ •No pinching the sciatic nerve
- ④ •No squeezing off blood flow to lower legs



Sold only in sets ie: (INNER AND OUTER BELT)

**The most comfortable duty belt in the world**




Made in Canada 

[www.hi-tec.qc.ca](http://www.hi-tec.qc.ca)
1-888-709-4400
[service@hi-tec.qc.ca](mailto:service@hi-tec.qc.ca)

**SIG<sup>®</sup> P365X/XL**  
GRIP EXTENSION

Adds 1/2" grip length to P365X/XL magazines. Increases the overall ergonomics of the grip ensuring a consistent and repeatable grip.

**MSRP \$10.95**





**PEARCE GRIP<sup>®</sup>**  
(800) 390-9420  
[www.PearceGrip.com](http://www.PearceGrip.com)

Ask For Product #  
**PG-365X**



### DRIVE FORWARD

Yet another possibility is the drive forward technique. Again, the presumption is that you have an aggressor in very close proximity attempting to access a weapon from their pocket or waistband. The support hand comes up and the idea is to get the palm under the chin as you quickly move forward. The gun is drawn and held close to the body very much like the retention position discussed earlier. If all goes well, your adversary is knocked

off balance and unable to bring his weapon into play while you deliver a burst of shots.

Much like weapon retention or shove and shoot, the viability of using the drive forward technique depends on what is going on around you. Clearly, you wouldn't want to move in on a subject with a knife in hand. However, it can work very well against subjects who may be in light contact with you. Quickly sliding your support hand from the chest to

the chin while you aggressively move forward will get things going your way. A smack on the nose and fingers in the eyes will also pay dividends. It is extremely important that the muzzle of the handgun is angled down as to not cover your own body parts.

### CONTACT SHOTS

Violent struggles are unpredictable and there is a very real possibility that the muzzle of your firearm comes in contact with the body of the aggressor. Body contact may very well push the slide out of battery and prevent the pistol from firing. When revolvers ruled, this was a nonissue as you can still fire multiple shots with the barrel in hard contact with an adversary. But, that was then and this is now. Quite simply, we need to find a solution.

Do you think that is not going to happen? Guess again! A stronger, larger opponent may push you up against a wall or vehicle or take you to the ground. While you're in this compromised position, he is doing his best to choke you out or smash you in the head with a brick. Lesser measures have failed or are clearly impossible and you have no alternative but to resort to deadly force.

Let's assume you have gotten the gun out of the holster, but it has come in contact with the body of your assailant, pushing the slide out of battery. Either the wall or the ground prevents you from pulling your arm to the rear and having the pistol return to battery. To remedy this, try to get the support hand over the top of the slide and take a firm grip. If you can retract the strong side arm just a fraction of an inch, your gun will return to battery and you can trigger off a shot. Because the support hand is in contact with the slide, you will experience a stoppage, but that one shot has probably changed your opponent's focus. Disengage to create distance, clear the stoppage and fire additional rounds, if necessary.

Having a weapon light mounted on your pistol may actually alleviate this problem. With many lights, the bezel extends beyond the muzzle and body contact typically will not push the gun out of battery, but I wouldn't bet the mortgage on it!

### OTHER CONCERNS

Be sure to incorporate a good bit of one-handed shooting into your training regimen. Although the overwhelming percentage of police firearms training is conducted with two hands on the pistol, real life tells a slightly different story. Footage from both dash and body cams shows



## 39TH ANNUAL LAW ENFORCEMENT OPERATIONS CONFERENCE & TRADE SHOW

MILWAUKEE, WI • SEPT. 25 - 30, 2022

INCIDENT DEBRIEFS • SEMINARS • TRADE SHOW  
SPECIAL EVENTS • NETWORKING & MORE

[NTOA.ORG/TACTICAL-CONFERENCE](http://NTOA.ORG/TACTICAL-CONFERENCE)



that officers often fire one-handed only when confronted with danger at very close range. Techniques often don't look like anything we see or teach on the range, but as long as we're getting hits on the threat, I'm not all that concerned about form. I do make it a point to regularly include quite a bit of one-handed shooting with movement when training the officers in my outfit.

Another area of concern involves firing from nontypical positions, including the ground or while seated. It doesn't take too much imagination to come up with scenarios where you slipped on the ice or have been injured and fallen to the ground. You may be down, but the fight is still on. Hopefully, you can draw and still deliver active fire.

Law enforcement officers spend a good amount of their workday in a seated position inside the vehicle. Additionally, you may find yourself seated behind a table in some café or fast food restaurant. Could you quickly react to a deadly threat in close proximity? I make it a point to have our guys and girls shoot from the patrol vehicle at least once per year and, on occasion, we bring a bunch of chairs out to the range and work that angle as well.

For many officers, they haven't trained for a sudden violent attack in close quarters. My advice would be to go outside your comfort zone and try to fill in some of the gaps. I find that Airsoft technology is a great tool to help integrate open hand and firearms skills with minimal risk. By incorporating some basic empty hand blocks and strikes, along with some tactically sound firearms skills, an officer will be in a much better position to defeat a potentially lethal attack in close quarters. **P&SN**



**The support side arm can be used to block incoming blows.**

*Captain Mike Boyle served with the New Jersey Division of Fish & Wildlife, Bureau of Law Enforcement, and has been an active firearms instructor for more than 30 years. He has been an assistant police academy director and remains active as an academy rangemaster and instructor. Mike has served on the Board of Directors of the International Association of Law Enforcement Firearms Instructors (IALEFI) since 1996. He is the architect and coordinator of IALEFI's Master Instructor Development Program.*

loki/  
MkII  
sigyn  
MkI

## THE WORLD'S ONLY INTERIOR USE sUAS and THROWABLE ROBOT ON a SINGLE GROUND CONTROLLER.

The **LOKI Mk2** tactical sUAS and **SIGYN Mk1** throwable robot from Sky-Hero were designed in conjunction with some of the world's top counterterrorism teams, produced in NATO-allied countries, and purpose-built for superior scouting.

### KEY FEATURES INCLUDE:

- Entirely analog, requiring no GPS, cellular, or WiFi
- Readily deployable with minimal to no training
- Encrypted to prohibit signal interception
- Highly sensitive day/night cameras
- Dimmable IR LEDs on both systems

EXCLUSIVELY DISTRIBUTED IN NORTH AMERICA BY:

**AARDVARK**

**AARDVARKTACTICAL.COM // 800.997.3773**



# Ballistic Armor Update: 2022



## The 29th Annual Report on the Latest Advances in Ballistic Armor Technology and Design

P&SN Staff

Photo courtesy of Adept Armor

**A**s of the beginning of July, the NIJ's revised ballistic-resistant body armor standard 0101.07 is still awaiting implementation. Announced back in 2018, the National Institute of Justice (NIJ) had planned to release a revised version of the current ballistic-resistant body armor standard in late 2020. Implementation was delayed due to the COVID-19 pandemic. However, unnamed industry sources state that the new stan-

dard will be released to manufacturers in the fall of 2022.

### New Book Now Available

Jake Ganor, CEO of Adept Armor, has recently published a book providing a comprehensive understanding of how armor plates are designed, the materials used, performance characteristics, ballistic testing protocols, and what's in the near future for body armor.

Available on Amazon, *Body Armor and Light Ballistic Armor Materials and Systems* helps readers better understand the materials and science behind ballistic body armor systems. It gives a general overview of today's offerings, as well as providing a history of body armor in the modern era.

The initial chapters review the main types of body armor offered today. Subsequent chapters dive deeper into body armor materials, properties, histories, uses, and what the future holds. The third section reviews the combat helmet and its history. The final section includes appendices providing the reader with supplemental statistical, technical and terminological information, including a comprehensive glossary.

A Kindle edition is available for only \$5.99 and can be found at [amazon.com/dp/B09H57P92G](https://amazon.com/dp/B09H57P92G)

### NIJ Body Armor Poster

The National Institute of Justice has recently created a poster which provides critical information concerning the care of law enforcement body armor, including where to check for NIJ compliance certification and essential pointers for the proper upkeep of body armor.

The NIJ will be making full-size printed copies of this poster. If you are interested in being alerted when copies are avail-



**PIONEERING THE WORLD'S MOST ADVANCED HARD ARMOR PLATES**

**LEO/MIL DISCOUNT CODE: PSN2022**

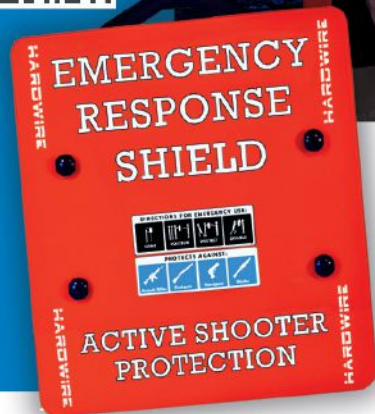
[WWW.ADEPTARMOR.COM](http://WWW.ADEPTARMOR.COM)





**HARDWIRE®****HARDWIRELLC.COM**

SCAN to learn  
about ERS +  
Order Online



# SCHOOL RESOURCE OFFICER

**Active Shooter Protection tools on site**

**"The Emergency Response Shield (ERS) is the fire extinguisher for gunfire and should be placed with other emergency tools for ease of access."** -Hardwire CEO, George Tunis

From SWAT to schools, Hardwire offers optimized armor protection. With government contracts from the FBI and SOCOM to U.S. Army and Marines, Hardwire's military-grade technology has been crafted into affordable school protection. These ballistic products, which can already be found in schools in every U.S. state, work with the Department of Homeland Security's recommendation to "Run, Hide, Fight" and ALERRT's "Avoid, Deny, Defend" protocol. These products empower students, faculty, and staff to defend themselves, buying critical time until first responders arrive, and ensuring that proper ballistic shield technology is already on site for law enforcement response. Similar to its tactical shield product line, Hardwire's ERS comes in both NIJ Level IIIA (handgun/shotgun) and Level III+ (rifle) protection options. The ERS steel option stops Green Tip rifle rounds.

## IMPLEMENTS LIKE FIRE CODE

Remember the days when fire was fought with buckets of water and a line of humans? Then someone invented the fire extinguisher, the smoke detector, and Smokey the Bear to promote fire prevention. The same is needed for active shooter prevention and protection. Emergency Response Shields are the fire extinguisher for gunfire. Distributed throughout schools and public facilities, they stop bullets and are easily available in an emergency. Teachers today face the problem bare-handed. The ERS is a tool to help – a tool that empowers survival until first responders arrive.

## PROTECT YOUR COMMUNITY

Mass shootings are community-shattering events. That's why Hardwire donated 1,600 shields to their tri-county schools on the lower Eastern Shore of Maryland. If you'd like to see this protection in your community, scan the QR code above and contact us. It is our mission to protect every school in America.



# BALLISTIC ARMOR UPDATE: 2022

Continued from page 26

able, please fill out the AskNIJ form (<https://nij.ojp.gov/asknij>) and be sure to include the following information in the question or comment field:

- "I am interested in the body armor poster;"
- The name of your agency or organization;
- The number of posters you would be interested in receiving; and
- An active E-mail address.

Once the posters are available, the NIJ will reach out with ordering instructions.



**This NIJ poster provides critical information concerning the care of law enforcement body armor.**



**The Scalable Plate Rack (SPR) provides both ballistic scalability and loadout configurability.**

## AARDVARK Tactical

The new Scalable Plate Rack (SPR) from PROJECT7 ARMOR is purpose-built to provide scalability from a plate rack to an entry vest and configurability allowing you to change your loadout to fit your mission. Scalability refers to the ability to add optional soft ballistics to the SPR platform, "scaling" it either up or down. Configurability refers to the ability to "configure" various features of the SPR to the end-user's preference.

Configurable features include: a Loadout System, In-Cummerbund Adaptive Pouch and Lining. The SPR is designed

for special operations personnel who have a broad range of missions including high-speed dynamic entries, linear assaults, vertical access work, and rural operations. ([spr.aardvarktactical.com](http://spr.aardvarktactical.com))

## Adept Armor

Adept Armor has recently introduced the Colossus™ armor plate which offers protective capabilities beyond Level IV or RF3 plates. The Colossus utilizes advanced materials to produce the strongest plate in its category, yet weighs significantly less than the average Level IV or RF3 plate at just over six pounds (in the Shooter's Cut), and is only 1.13" in thickness.

The Colossus was built and tested to VPAM 12 with a ballistic rating for 7.62x51mm Swiss P AP (tungsten core) at 810 m/s. VPAM is the European standard for testing and measurement of ballistic materials and products. Additionally, the Colossus is also rated for: VPAM 11 – 7.62x51mm M993 (tungsten core) at 940 m/s; Level IV (RF3) – .30-06 AP M2 at 880 m/s; and special threats such as the 5.56x45mm M995 at 1000 m/s (along with similar and lesser threats). The Colossus is available in a variety of configurations and offers edge-to-edge protection.

Also new from Adept is the new Storm Foundation UHMWPE plate which enables users to upgrade from Level III, to III+, to Level IV on the same base plate. The Storm: Titanium, which is currently available, is a low-profile titanium plate

## STILL THE BEST ACTIVE SHOOTER SOLUTION AVAILABLE

MADE IN  
U. S. A.

### Rifle & Handgun Threat Levels Available

**INSTANT ARMOR**

www.instantarmor.com  
Toll Free: 877-BLT-PRUF





**POLICEAMMO** FROM **THE GUN SHOP**

# **FIREARMS TRAINING ALTERNATIVES**

## **Reality-Based Training Ammo**

**FORCE on FORCE – The Industry Leader**



**UMAREX T4E – Train More Spend Less**



## **UMAREX BB Training**



## **Mantis X Dry Fire Training Aids**



60 Main Street #D | Vincentown, New Jersey 08088-8870

Tel: 609-859-1997 | Fax: 609-859-3099 | [info@policeammo.com](mailto:info@policeammo.com)

## BALLISTIC ARMOR UPDATE: 2022

Continued from page 28



**The new Storm Body Armor System from Adept Armor features one plate with multiple removable strike faces.**

which can attach to the strike-face of the Foundation plate. When the two are combined, they bring the total thickness to just 1.1" and the weight to 5.5 pounds, offering protection from high velocity, steel cored rifle ball threats such as the M855 and 5.45x39mm 7N6. The Storm: Disruptor is a forthcoming add-on armor plate, intended for the most extreme threat environments. Made of a toughened ceramic composite, it can combine with the Foundation to upgrade protection to Level IV. ([adeptarmor.com](http://adeptarmor.com))

### Armor Express

New from Armor Express is the RAVEN 2.0, a modular tactical entry vest with integrated thermal management technology from BODY ARMOR VENT®. The Raven

2.0 emphasizes comfort and control and features Advanced Shoulder Pads (ASP) with Routing Channel and Front and Rear Integrated I.C.E.™ Ventilation System with EVAP Technology™.

Its 360 degree Raschel Mesh construction includes a four fully adjustable, streamlined shoulder strap system. ([armorexpress.com](http://armorexpress.com))

### BlueRidge Armor, LLC

The VENGEANCE™ Series WMX6 IIIA Ballistic Entry Shield by BlueRidge Armor has been designed with direct input from federal law enforcement agents. Features include the VENGEANCE Viewport and the Elzetta Horizontal Handle system. The Viewport maintains a wide field of sight when compared to standard rectangular viewports while enhancing lower peripheral vision giving a clear forward view of obstacles and trip hazards.

The BlueRidge Armor WMX6 is a weapon mount upper shield platform designed for maximum coverage with a tapered lower which improves mobility in narrow passageways. The WMX6 measures 20" x 34" and weighs only 14.5 pounds (with Viewport). It is NIJ 0108.01



*The BlueRidge Armor WMX6 has a tapered lower which improves mobility in narrow passageways.*

Rated IIIA and Special Threat tested. ([blueridgegeararmor.com](http://blueridgegeararmor.com))

### BODY ARMOR VENT

BODY ARMOR VENT's B-24 Custom Fit Kit, available in three sizes, is designed to be a make your own BODY ARMOR VENT custom cut to fit your specific tactical gear.

The B-24 panels feature evaporation and ventilation technology. EVAP is the continuous air flow between your body and your gear. Air flow around and through the panel is driven as the hot air expands

## THE ELSAG® VPH900 LPR SOLUTION SAVES TIME AND MONEY

### The low-cost video camera LPR solution

Every agency, regardless of size, can benefit from our affordable LPR solution, the ELSAG® VPH900, which brings substantial efficiencies to law enforcement for interdiction and investigations. We'll bundle our LPR software with the appropriate standard IP video cameras for your needs to create a budget-friendly LPR solution. Monthly subscriptions starting at \$315.



Made in the USA

[leonardocompany-us.com](http://leonardocompany-us.com)





# HELLCAT<sup>®</sup> PRO



**SPRINGFIELD ARMORY.**

**SPRINGFIELD-ARMORY.COM**



## BALLISTIC ARMOR UPDATE: 2022

Continued from page 30



**Hardwire®, LLC has recently armored a patrol boat with a modular tactical shield barrier which can be assembled and disassembled with ease.**

and your own body movement provides the air flow which then produces evaporative cooling.

BODY ARMOR VENT's foam filled, vertical air channels force air flow upwards and also through horizontal vent holes to enable true evaporation of sweat from behind your gear. ([bodyarmorvent.com](http://bodyarmorvent.com))

### BulletSafe

New to the BulletSafe lineup, and designed specifically for BulletSafe vests, the Tactical Plate Carrier is perfectly compatible with BulletSafe's American-made, NIJ-certified, 10" x 12", 7.5 pound Level IV

Armored Plates. The Tactical Plate Carrier features robust front and back plate carrier pockets complete with top side, hook and loop closures.

The one-size-fits-most BulletSafe Tactical Plate Carrier also features a 600 denier polyester and neoprene construction; a padded interior; adjustable, nonslip shoulder pads; and adjustable, padded waist straps. A drag handle is included for easy carry or emergency extraction. The vest's front and rear hook and loop areas and MOLLE straps provide mounting surfaces for patches, identification and other accessories. ([bulletSAFE.com](http://bulletSAFE.com))

### Fiber Brokers International, LLC

Fiber Brokers International continues to provide secure destruction and environmentally safe disposal of personal protective equipment. They provide law enforcement agencies with an easy way to securely decommission, deconstruct and recycle their expired body armor. They've also established relationships with manufacturing companies, recycling organizations, environmental organizations, community organizations, and the NIJ, ensuring that the materials they receive are disposed of properly and responsibly while creating a positive impact within the community.

Due to disposal issues related to ballistic body armor, they honor strict material logging and tracking methods for aged soft body armor and other sensitive ballistic materials. ([fiberbrokers.com](http://fiberbrokers.com))

### Hardwire®, LLC

Hardwire, LLC has recently armored a patrol boat for the Maryland DNR with a modular tactical shield barrier which can be assembled and disassembled with ease. The engineers at Hardwire designed and installed eight feet of lower



**STRONG**

Badge Cases, Gear Bags & Holsters

**Breast Cancer Awareness**



**81PX7**

Show your support for Breast Cancer Awareness and treatment by displaying your own Pink Badge holder proudly around your neck or on your belt. Our 81PX7 comes with its own custom made pink chain. All models are custom cut to fit your badge.

**Proudly Made in America**

StrongBadgeCase.com Since 1932

Contact your local dealer or email us at [sales@strongbadgecase.com](mailto:sales@strongbadgecase.com)

**HYDRA RAM** USED BY ONE FIRE COMPANY TO FORCE 109 DOORS AFTER THE FIRST EXPLOSION AT THE WORLD TRADE CENTER IN 1993

THE FIRST AND ONLY ONE-PIECE INTEGRATED, PRESSURIZED HYDRAULIC FORCIBLE ENTRY TOOL



Truly a one man operation.

Weights only 11 lbs.

Full Extension in Only 7 Pumps. Other Spreaders Require Up To 30 Pumps.

**CALL FOR FREE CATALOG OF ALL OUR FORCIBLE ENTRY TOOLS**

**The KAYO**  
With the 1-2 Punch

THE HIGHEST KINETIC IMPACT OF ANY RAM ON THE MARKET

Weight: 40+ lbs. of longlasting epoxy/steel construction. Only 30 inches long with two forward handles and one rear, but enough for the second man to hold. Exclusive Celtex shock absorbing grips.

E-Z to stow, E-Z to carry, E-Z to use...\$390.00

One man battering ram - \$330.00

**The Pro-Bar -**

A 30 inch Halligan-type forcible entry tool. One piece construction. Length: 30" Weight: 8.5 lbs., Ship. wt. 10 lbs. **\$299.00**

**Li'l Pro-Bar -**

Type "A" lockpuller on adz and gas shut off key on fork. Length: 12", Weight: 2 lbs., Ship. wt. 3 lbs. **\$84.00**

**Mini Pro-Bar -** Diamond knurled grip, type "A" lockpuller on adz, and gas shut off on fork. Length: 20", Weight: 3 lbs., Ship. wt. 4 lbs. **\$102.00**

**FIRE HOOKS UNLIMITED, INC.**  
1827 Old Mill Road, Wall, NJ 07719  
PHONE: (732) 280-7737 • FAX: (732) 280-7792  
[www.firehooksunlimited.net](http://www.firehooksunlimited.net)



**SIONYX**

# HEIGHTEN YOUR SENSES

Observe threats. Identify friend or foe. Capture the scene.

All after dark - with the power of clear color digital night vision.



[SIONYX.COM](http://SIONYX.COM)



## BALLISTIC ARMOR UPDATE: 2022

Continued from page 32



***The new Origin allows users to adapt the system according to the immediate threat level through interchangeable components.***

gunnel armor panels on the port and starboard bow; 12 removable upper gunner police shields for higher bow protection; three center console panels for crew and driver protection; and a storage box for all the assemblies to stow away in the bow area. The angled gunner shield design offers aerodynamic sailing and overhead coverage. The reconfigurable nature of the shields and brackets offers versatility to the design as well as access to the dock when removed. All of the installed armor is NIJ Level III protection.

Hardwire also has the distinction of being the first company to armor an electric vehicle. Featured at the 2022 New York International Automobile Show, the NYPD 2022 Mustang GT Mach-E is a fully electric, all-wheel-drive vehicle equipped with Hardwire ballistic door panels and window inserts on both driver and passenger doors. The new NYPD armored electric fleet of 100 cars is currently in service. ([hardwirellc.com](http://hardwirellc.com))

### Point Blank Body Armor

The new Origin by PARACLETE® is a body armor tactical platform which is scalable, modular and designed to “armor up” from concealable to full tactical. The Origin allows users to adapt the system according to the immediate threat level through interchangeable components.

The Origin Ballistic Mantle is the foundation of this platform. The ultra-low profile ballistic throat protector is designed to be quickly deployed or stowed at the low ready while you have your gear on. This design offers ballistic coverage which

does not interfere with equipment, movement and gas masks.

The Origin system includes numerous components such as ballistic mantle, telescopic bicep deltoid, MOLLE compatible panels, adjustable cummerbund, belt system, three-part thigh protection, posterior protection, and more.

Also new is the Vanguard ballistic shield which provides Level III protection and is available in three shapes. A wide, rectangular shaped viewport provides improved

viewing capabilities while the mounted platform on each side allows the operator to position their weapon for optimum firing position. The Vanguard measures 20" x 30" (with viewport) and weighs 14.4 pounds. ([pointblankenterprises.com](http://pointblankenterprises.com))

### Ring Power Corporation

The Rook, fabricated by Ring Power Corporation, is a tracked armored vehicle which utilizes mission-specific attachments.

The Rook's newly upgraded Armored Deployment Platform (ADP) now provides entry into a three-story structure while providing NIJ Level IV armor protection.

The ADP is one of four attachments which come standard with The Rook and has always supported second-story entry from the floor of the platform. The new improvements have added a ladder system and rooftop platform, enabling officers to make third-story entry by climbing to the rooftop of the ADP.

The ADP includes a sloping, partial roof cover and a floor-to-roof front shield. The shield features sliding center doors and bat wing doors on the outer edges, plus independent power for two Golights. The ADP provides room for up to four officers and is equipped with two locking gun ports, four 5" x 9" sliding gun ports, six ballistic glass sight ports, and wireless video cameras with video feed to the equipment operator. ([therook.ringpower.com](http://therook.ringpower.com)) P&SN

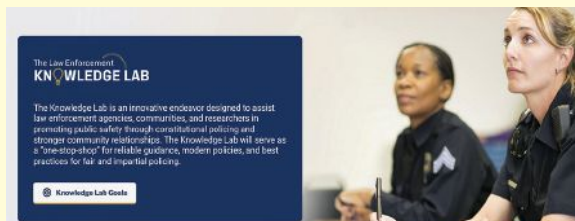


***When the Armored Deployment Platform is mounted on The Rook, the operator can raise it to 11 feet.***

# NEWS

## New Resource Hub for Law Enforcement

On April 27, 2022, the Department of Justice announced the creation of the National Law Enforcement Knowledge Lab, a free training, technical assistance and resource



hub for law enforcement designed to promote constitutional policing, improve public safety, and build trust in communities across the country. Agencies will be able to turn to the Knowledge Lab for free, voluntary resources, including research summaries, profiles of best practices, training curricula, and a roster of constitutional policing experts to support their needs. The Knowledge Lab is managed by the Bureau of Justice Assistance through a partnership with the National Policing Institute, in collaboration with 21st Century Policing Solutions and a diverse cohort of policing experts from across the country. It is intended to grow and adapt over time to meet the needs of law enforcement agencies and communities.

For more information on the Knowledge Lab, visit <https://leknowledgehub.org/>



## Preventing Attacks Using Targeted Violence Manifestos

Published by the Federal Bureau of Investigation (FBI), this article argues that written and spoken communications authored and leaked by lone perpetrators who actively plan and prepare targeted violence can be utilized to prevent destructive attacks. Targeted violence refers to intended attacks by an offender who preselects one or more targets, such as people at a specific location in a public setting (e.g., school, workplace, concert).

A copy of the article can be found at <https://tinyurl.com/bdaxkw78>



# SMITH & WARREN®

Built With Care. Worn With Pride.

# WEAR PINK

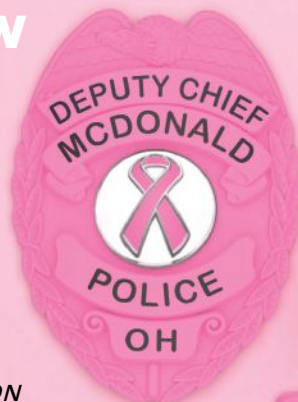
HELP WOMEN NOW  
WITH PINK  
BREAST CANCER  
AWARENESS  
BADGES FROM  
SMITH & WARREN

10% OF PROCEEDS DONATED TO  
NATIONAL BREAST CANCER FOUNDATION



NATIONAL  
BREAST  
CANCER  
FOUNDATION, INC.®

Design Your Pink Badge  
[www.SmithWarren.com/pink-badges](http://www.SmithWarren.com/pink-badges)







# ACTIVE SHOOTER PREPARATION: LESSONS LEARNED

JON BECKER

The recent active shooter events in Buffalo, NY, and Uvalde, TX, have once again driven many departments to question their own ability to effectively respond to an active shooter incident.

**A**s agencies are considering these capabilities, they frequently find themselves at a crossroads between choosing equipment and building a program. Attempting to select the proper equipment, as well as determining a fielding methodology for this equipment and gear, can lead to confusion and frustration. In some cases, this results in agencies losing their momentum and never completing their programs or, worse yet, making the same mistakes as those who have gone before them. In the past three decades, we have worked with numerous agencies in helping them prepare for active shooter response. As a result, we have collected a series of lessons learned and effective strategies employed by those with successful programs. The purpose of this article is to pass along ten of these lessons in hopes that it will assist others in developing an effective program while avoiding the mistakes made by other agencies.

## LESSON LEARNED #1: Equipment Does Not Equal Capability

When beginning a new program, it is essential to consider what capabilities the agency needs to have in place. While agencies often tend to think in terms of equipment rather than capabilities, this



***Capability, not equipment, is what saves lives during an active shooter situation.***

can be a trap, but equipment alone does not provide capability. Capability means not only having the tools and equipment necessary to accomplish an objective, but also having the knowledge and processes in place for effective use. When considering what equipment to purchase, first consider what you will be able to train officers to use and retain their skill. Too often, agencies buy equipment (gas masks are a good example) which they field, but then do not consistently train or maintain. The result of this is often that, when an officer needs the capability, he/she doesn't have the requisite knowledge to use it or the equipment is in poor working order. Capability is what saves people in an active shooter situation, not equipment. So, step one is to build a sustainable approach which you will be able to maintain.

## LESSON LEARNED #2: Use a Cadre Approach for Building Technical Skills

The skill set required of the modern police officer is broad and continually growing. When combined with shrinking training budgets, maintaining even basic skills has become an issue. As a result, trying to add specialized new skills for unusual events (e.g., mechanical breaching, ballistic shields, etc.) presents a real challenge. Of course, this is not just a problem for patrol units. Even the world's most elite counterterrorism units find it challenging to maintain expertise through such a broad set of skills. What elite units do – and what patrol units do not do – is divide up their skill sets among their personnel and train Subject Matter Experts (SMEs) by specialized cadres. Simply put, there is too much for any single person to know. Fortunately, in these situations, it is only necessary that someone on the team have the skills and equipment, not that everyone has them. As a result, even in tier one units, you will find a breaching cadre, a sniper cadre, a climbing cadre, etc. This approach allows them to have insightful knowledge spread widely across the team and ensures that there is always a subject matter expert on hand for any situation. There is no reason this approach cannot be used for ac-

tive shooter preparedness in patrol units. After all, it is already in use for other areas of expertise like drug recognition, accident investigation, etc.

### **LESSON LEARNED #3:**

#### **People Do What Is Inspected, Not What Is Expected**

For equipment to be effective, it must be present at the event and in good working order. Too often with specialized equipment, it is fielded once and forgotten about by the agency. The result is its eventual loss and the almost immediate loss of capability. When new gear is fielded, everyone initially takes care of this equipment and carries it with them on every shift. But, over time, it gets left in the trunk of the car, then in the locker room and, finally, it gets lost in a closet. The fielding of WMD equipment following 9/11 was a perfect example of this. Agencies were doing regular gas mask fit tests, WMD equipment was being replaced on a timeline, and training was done annually. Twenty years later, almost no one is still conducting these inspections and the WMD equipment is nowhere to be found. If you want your agency to have specific equipment when an event occurs, it must be fielded in a way which requires the equipment to be carried and cared for. To date, the only approach which we have seen work is to randomly inspect equipment and to unexpectedly require the equipment to be at training and qualifications.

### **LESSON LEARNED #4:**

#### **Field Systems, Not Equipment**

Another area where we see mistakes is the way in which agencies field equipment. When fielding multiple pieces of equipment, you need to kit and deliver them as a system rather than as a random collection. Fielding equipment as systems (with organization and storage built in) provides clear guidance on how the equipment should be carried and allows the agency to ensure rapid deployment and ease of inspection. No one carries a PB&J sandwich as a bag of peanut butter, a bag of jelly, a knife, and two slices of bread, yet this is the approach some agencies take with equipment when preparing for active shooters. They issue a plate carrier, two plates, magazine pouches, and a helmet, but do not take the time to assemble the equipment or to put it into a bag or case to facilitate deployment. Something as simple as a proper gear bag, preassembly, and training on deployment makes a big difference. This is especially true for items like plate racks and helmets which will need to be donned quickly. Taking the time to field active shooter sets will deliver capability and help maintain these systems.

### **LESSON LEARNED #5:**

#### **Whenever Possible, Issue Equipment Individually**

The fastest way to ensure that gear is well cared for and available when needed is to issue the equipment individually to everyone on the team. By contrast, equipment that is "team issued" or "assigned to vehicles" has no one person accountable for it. As a result, it tends to get lost, fall into disrepair or be left behind. By individually issuing equipment, you create a single point of responsibility which promotes readiness. You also ensure that the equipment properly fits the user and creates an incentive for them to learn about and train with their equipment. This can be counterintuitive for some agencies because it seems like it will cost more. But, any agency which issues police cars to individuals rather than pooling them can tell you that their fleet lasts much longer and is better cared for and the program pays for itself.



***Strive to issue equipment individually to everyone on the team.***



#### **The Debrief with Jon Becker Podcast**

What does it mean to lead an elite team? Is greatness born through tending to the culture of the team or does it stem from how individuals are trained to behave under pressure? What strategies allow law enforcement and tactical unit commanders to remain collected and in control in some of the world's most dangerous situations? And, what can we learn from them in order to become better leaders ourselves?

These are just some of the questions Jon Becker and his guests are addressing in The Debrief, a newly released podcast which looks at leadership through the eyes of current and retired law enforcement, military and tactical team leaders. From stories and experiences on the job to ruminations on accountability, psychology, history, and American culture, The Debrief's goal is to make us all better leaders, better thinkers and better people.

The host of The Debrief is Jon Becker. Jon is the founder of AARDVARK Tactical, the creator of PROJECT7 armor, and an attorney admitted for practice in California. After founding AARDVARK Tactical as a rock climbing distributor, Jon went on to grow AARDVARK into one of the top manufacturers, integrators and distributors of tactical equipment in the world. Over the past three decades, Jon has had the opportunity to work with many of the top tactical units in the world.

During this time, Jon has cultivated a deep understanding of the skills, self-discipline, knowledge, and motivation required to lead an elite team – and it's clear that his guests have as well. With an impressive lineup of individuals who have spent their careers putting their lives on the line, The Debrief is not only a podcast about tactical unit commanders, but it is also intended for anyone who is interested in leading like the elite.

In the two part series premier, Jon sits down with the late Charles "Sid" Heal, the special tactics legend, former Marine CWO5 and retired Commander at the LA County Sheriff's Department, to discuss Sid's experience, his work on tactical science and some of the most important habits and traits for leaders to cultivate.

With new episodes every other week, The Debrief is bringing together leaders from all spheres to learn from individuals who lead under fire. You can listen to The Debrief with Jon Becker on the Web site, [thedebrief.live](https://thedebrief.live); on YouTube at <https://tinyurl.com/yr89ehc2>; on Spotify at <https://tinyurl.com/ykrcnske>; on Apple® at <https://tinyurl.com/mr432un3>; or anywhere you get your podcasts.



## ACTIVE SHOOTER PREPARATION: LESSONS LEARNED

Continued from page 37

### LESSON LEARNED #16:

#### Make Sure “Team Equipment” Is Forward Deployed

Of course, issuing equipment to individuals is not always possible. For some items, it may not be affordable or practical to individually issue, such as breaching tools or ballistic shields. However, in these instances, it is critical to make sure that the equipment is staged so that it will be available when needed most. Locating equipment in an armory or station locker usually makes it unavailable when required. This may also be true of fielding equipment in supervisors' cars. While it makes sense at first glance to put the breaching tools in the sergeant's car, if the sergeant is usually at the station or will be tasked with setting up an offsite command post, then the tools will not be immediately available. Instead, it may make more sense to spread the required team gear through the fleet of officers' or deputies' cars and ensure there are multiple sets fielded per shift. This will ensure there is always specialized equipment arriving

at the incident in the hands of a forward deployed user.

### LESSON LEARNED #17:

#### Issue Everyone Active Shooter Kits

Apart from rifles and ammunition, the most important equipment component for an active shooter capability is armor. Because of the increased risk in responding to an active shooter, the goal should be to increase both the coverage area and threat protection of the responding officers' armor. This means not only providing a ballistic helmet, but also providing a plate carrier with appropriate rifle plates. The best approach will be to issue each officer an Active Shooter Kit which contains their ballistic helmet; a plate carrier; appropriately installed rifle plates (see below); additional loaded magazines for their rifles in a pouch or kangaroo system; a personal Individual First Aid Kit (IFAK) located on the plate carrier; appropriate (and large) ID panels for the plate carrier; and a carrying bag to house the entire system. It is essential that this system be completely assembled and stored in a

“ready to deploy” configuration. If there is assembly required in the field, if the system takes longer than a few seconds to deploy, or if the equipment is issued in an ad hoc fashion, it may be left behind when the officer is responding to the event. It is also essential that officers understand and train with this system regularly so that it is second nature to install when their heart rate and adrenaline are maxed out.

### LESSON LEARNED #18:

#### Keep It Simple and Certified for Rifle Plates

The likelihood of an active shooter utilizing a rifle is high. According to the FBI's *Active Shooter Incidents 20-Year Review, 2000-2019*, one third of active shooters use a rifle. Moreover, because these events are usually preplanned (often for months), the likelihood of encountering AP or high penetration ammunition (e.g., M855 Green Tip rounds) is higher than it is for normal tactical operations. As a result, the selection of a plate becomes critical. The options in ballistic plates these days are myriad. There are a wide variety of ballistic materials (HDPE, ceramic, steel, etc.), NIJ compliant and noncompliant options, stand-alone and ICW plates, etc. For most agencies, the best solution for active shooter response is to purchase Level IV, stand-alone, ceramic, NIJ compliant plates from a mainstream domestic manufacturer. The rationale for this is that Level IV plates, although heavier, can stop virtually all common high threat rounds. Because active shooter incidents are short in duration, the added weight of a Level IV plate is less of a concern. Sticking with stand-alone plates rather than plates which work In Conjunction With (ICW) soft armor is important because some responders to an active shooter incident (e.g., narcotics, detectives, etc.) may not be wearing soft armor and, therefore, would not be protected by ICW options. Sticking with domestically made and NIJ compliant options ensures quality. One added benefit to Level IV plates is that they are usually less expensive than Level III options because of the ubiquity of the ceramic used in them.

### LESSON LEARNED #19:

#### Hemorrhage Control and Field Mass Casualty Bags

The first mission after “stopping the killing” is, of course, “stopping the dying” and the key to that in mass casualty situations is hemorrhage control. There are numerous stories of people being saved in mass casualty events since the national “stop

## PROPERTY ROOM CONSULTING, INC

We Rescue Law Enforcement Property Rooms

What skeletons lie in your evidence room?



Chief Michael Miller

We offer Law Enforcement Property Evidence Room Solutions to:

**INCREASE INTEGRITY &  
DECREASE LIABILITY**

Our professional staff has expertise in auditing, best practices, policy development, chain of custody, storage, destruction and integrity controls related to the law enforcement property and evidence function.

[www.propertyroomconsulting.com](http://www.propertyroomconsulting.com)

**609-228-8588**



**Pistol Bullets  
and  
Ammunition**



**Zero Bullet Company, Inc.**

**P.O. Box 1188 • Cullman, AL 35056**

**Tel: 256-739-1606 • Fax: 256-739-4683**

**Toll Free: 800-545-9376**

**[www.zerobullets.com](http://www.zerobullets.com)**

## IN MEMORY OF Charles "Sid" Heal



1950-2022

We recently lost a hero to everyone in the tactical community, Charles "Sid" Heal. Sid served his country and his community in the USMC and LASD for almost his entire life. He was truly a Warrior Poet and taught something to everyone he met. Although it is difficult to condense 72 years of greatness into a couple of paragraphs, it is not an exaggeration to say that Sid's work has affected the lives of everyone working in special tactics.

A retired CWO5 in the United States Marine Corps, Sid served numerous combat deployments including the Vietnam War, the Gulf War and Operation United Shield in Somalia. Sid was also a retired Commander from the LA County Sheriff's Department where he worked in the Special Enforcement Bureau, the Emergency Operations Bureau, Technology, and a wide variety of other assignments. Sid had two master's degrees; was a graduate of the FBI National Academy; and was one of the most prolific authors on tactical topics, having authored three books and hundreds of articles. In addition, he had the unique distinction of teaching at all of the United States War Colleges, serving as a section head for the National Tactical Officers Association and serving as the president of the California Association of Tactical Officers.

Most of all, Sid was a teacher and a mentor to two generations of tactical operators all over the world, having personally instructed tens of thousands of students in his career. His work with flashbangs and less-lethal munitions shaped the way both law enforcement and military operators utilize and conceive of these tools. His work in tactical science alongside Col. Tim Anderson and Capt. Richard Odenthal fused the doctrines of military science with modern law enforcement and produced a new way "to think" about tactical situations.

Sid was also a devoted husband to Linda for 52 years, a loving father to five children and a doting grandfather to 16 grandchildren.

the bleed" campaign and TCCC/TEMS practices began. One of the key lessons is that, for hemorrhage control equipment to be effective, it must be plentiful, easy to access and easy to disperse. For this reason, we are seeing more agencies fielding mass casualty bags which contain numerous separate "throw bags" in them. While exact composition will vary, they all usually contain a tourniquet, rolled or Z-Fold Gauze, a compression bandage, and sometimes a chest seal or hemostatic gauze. Each bag is separately packaged so that it can be thrown or dropped to injured parties quickly, allowing simultaneous treatment of large groups. The throw bags are then packed into a large brightly colored duffel or backpack for ease of carrying. This methodology allows a single tactical medic to manage several patients by instructing them, or bystanders, how to apply tourniquets or gauze. This also allows the medic to focus his/her attention on the most severe cases.

Mass casualty bags should also contain equipment to move victims quickly and safely. A common theme at debriefs from mass shooting events is the difficulty in moving victims. Whether that's simply moving them off the X or getting them to care, large and heavy people, covered in slippery blood, provide a much greater challenge than expected. As a result, it is important to prepare ahead of time for these challenges and field transportation equipment like disposable litters, Sked® sleds or drag slings in your mass casualty bags. To be effective, it is essential that these kits are available in quantity and forward deployed at the scene. To accomplish this, it is wise to field them in large numbers and into all patrol units; supervisors' cars; tactical vehicles; and, if possible, fire vehicles.

**ACI**<sup>TM</sup>

The Original  
High-Angle  
Shooting Tool

**SNIPER TOOLS DESIGN COMPANY, LLC.**  
info@snipertools.com  
Phone (818)359-0512 [www.snipertools.com](http://www.snipertools.com)



## ACTIVE SHOOTER PREPARATION: LESSONS LEARNED

Continued from page 39

### Host an Instructor Development Class

Provide Your Firearms Instructors with the Tips, Techniques, and Teaching Strategies for Coaching Shooters on the Skills Necessary to Prevail

- Advanced Carbine Instructor
- Building Better Shooters
- Practical Combative Carbine
- Practical Combative Handgun
- Advanced Coaching & Diagnostics

And much more...



**COMBATIVE  
FIREARMS  
TRAINING**



Combative Firearms Training is proud to be a member of the following organizations:



**ILEETA**  
International Law Enforcement Officers Association



541-598-8372 or 940-445-1110 [Todd@CombativeFirearms.com](mailto:Todd@CombativeFirearms.com)



**Teams should be properly equipped and capable of breaching many doors.**

### LESSON LEARNED #10:

**Be Prepared to Breach Doors – a LOT of Doors**

Another common theme in after actions from active shooter events is the difficulty posed by locked doors. While breaching is an integral part of tactical work, that is usually not the case for patrol assignments. Yet, to reach victims or a suspect who is behind locked doors, a rescue team must have a robust breaching capability. This capability must include the ability to breach fortified secure doors like those in schools, pharmacies and warehouses. Whether this capability comes from mechanical tools, a Kinetic Breaching Tool (KBT) or from shotgun breaching, this is not a skill which can be acquired on the day of the event. Rather, it requires forward deployed tools and breaching expertise to prevent the rescue team from becoming powerless by a locked door.

### CONCLUSION

Perhaps the most frustrating part of incidents of active shooters is that we seem to keep repeating the same mistakes over and over. It seems that we start from scratch each time and, rather than preparing for the next incident, we just react to the last one. While the strategies discussed herein are far from perfect and may not work for all agencies, they can hopefully form the basis for discussion and planning within your agency. It is only through learning from the mistakes of the past that we will prevent the catastrophes of the future. **P&SN**

Jon Becker is the Founder/CEO of AARDVARK Tactical and the creator of Project7 Armor. He is also the host of the podcast, **The Debrief with Jon Becker**. Mr. Becker has over 35 years of experience equipping and training tactical units ranging from municipal and county law enforcement agencies to federal, military and international counterterrorism teams. He can be reached at [jbecker@aardvark-tactical.com](mailto:jbecker@aardvark-tactical.com) or by visiting [thedebrief.live](http://thedebrief.live)



**DEPARTMENT & AGENCY DISCOUNTS**

**OF 25% OR MORE!**

**PLACE YOUR ORDER TODAY!**



**T4EGUNS.COM**



**CHAMBERSNAKE™.COM**



**Your Gun Guardian**

HANDGUNS • SUBGUNS • RIFLES • SHOTGUNS

Use Promo Code **CHAMBERFREE** for **FREE SHIPPING** for On-line Orders

**1.866.467.9723**



# Advertiser Index

Page #	Advertiser	Web Site
19	AARDVARK Tactical	aardvarktactical.com
25	AARDVARK Tactical	aardvarktactical.com
8	Accu-Shot	accu-shot.com
26	Adept Armor	adeptarmor.com
40	Ammo-Safe, LLC	chambersnake.com
18	Black Hills Ammunition	black-hills.com
11	Blackinton	blackinton.com
Cover 2	BlueRidge Armor, LLC	blueridgearmor.com
40	Combative Firearms Training, LLC	combativefirearms.com
23	Dragon Skin	hi-tec.qc.ca
16	EVIDENT, Inc.	shopevident.com
32	Fire Hooks Unlimited, Inc.	firehooksunlimited.net
7	Gamber-Johnson, LLC	gamberjohnson.com
12	Golight, Inc.	golight.com
29	Gun Shop, The	policeammo.com
27	Hardwire, LLC	hardwirellc.com
6	Humane Restraint Co., Inc.	humanerestraint.com
28	Instant Armor, Inc.	instantarmor.com
Cover 3	Jotto Desk	jottopublicsafety.gojotto.com
30	Leonardo/ELSAG ALPR Systems	leonardocompany-us.com
5	N-ear, Inc.	n-ear.com
24	NTOA Conference	ntoa.org
23	Pearce Grip, Inc.	pearcegrip.com
38	Property Room Consulting, Inc.	propertyroomconsulting.com
Cover 4	Pulsar	pulsarnv.com/aff
22	Rescue Essentials	rescue-essentials.com
3	Setina Manufacturing Co., Inc.	setina.com
33	SIONYX	sionyx.com
35	Smith & Warren	smithwarren.com/pink-badges
39	Sniper Tools Design Co., LLC	snipertools.com
9	SoundOff Signal	soundoffsignal.com
31	Springfield Armory	springfield-armory.com
12	Stratton Hats	strattonhats.com
13	Streamlight, Inc.	streamlight.com/tlr-rm
32	Strong Leather Co.	strongbadgcase.com
40	Umarex USA, Inc.	t4eguns.com
17	WaterShed, LLC	wearewatershed.com
21	WaterShed, LLC	wearewatershed.com
38	Zero Bullet Co., Inc.	zerobullets.com

## P&SN Police and Security News

Serving Law Enforcement & Homeland Security

**PUBLISHER:** Al Menear

**ASSOCIATE PUBLISHER:** Toni Saturno

**MANAGING EDITOR:** John G. Stephenson

**ART DIRECTOR:** Jeanne Daubner

**GENERAL MANAGER:** Cindie Bonsall

**CIRCULATION MANAGER:** Bill Zadlo

### ADVERTISING:

Al Menear

Toni Saturno

Performance Publishing, LLC

PO Box 1185

Quakertown, PA 18951-0079

**Phone: (215) 538-1240**

**Fax: (215) 538-1208**

**E-mail:**

**info@policeandsecuritynews.com**

Police and Security News is published bimonthly by Performance Publishing, LLC, PO Box 1185, Quakertown, PA 18951-0079.

Published photos and written material are the property of Performance Publishing, LLC and may not be reproduced without permission from the publisher.

Opinions expressed in cartoons and editorial in Police and Security News are those of the author and do not necessarily represent the management or ownership of Performance Publishing, LLC

Standard Rate Postage Paid at Bellmawr, NJ (permit #1239).

POSTMASTER: Please send form #3579 to Performance Publishing, LLC, PO Box 1185, Quakertown, PA 18951-0079.

All subscriptions and editorial should be directed to: Performance Publishing, LLC, PO Box 1185, Quakertown, PA 18951-0079.

Performance Publishing, LLC does not assume, and hereby disavows, any liability to any person for any loss or damage caused by errors or omissions in the information contained herein, regardless of any cause whatsoever.

Police and Security News is edited to provide accurate and reliable information in relation to the subject matter it covers. Police and Security News is distributed with the understanding that its publisher and employees of Performance Publishing, LLC are not engaged in rendering professional advice in absolute terms. It is strongly recommended that expert assistance be utilized whenever such advice or information is required.





# BUSTED!

JAMES L. MCCLINTON, PH.D.

**This sounds “hissssterical”...** A 54-year-old woman from Vero Beach, Florida, was arrested after crashing into multiple vehicles and throwing a fake rubber snake at deputies. Investigators say the chase began when the suspect intentionally hit one of the Martin County Sheriff's Office vehicles as she tried to evade a traffic stop. She led deputies on a 100 mph chase, hitting another patrol car and a civilian truck, injuring the three people inside. When deputies approached the suspect, she threw a fake snake at them. While the woman was not injured, four people were transported to the hospital with nonlife-threatening injuries. *(She ended up making an asp out of herself.)*

**Don't worry. If you don't have the right change, look around – bricks are free...** A man in Detroit was arrested and charged with the illegal possession of guns. However, the federal agents who arrived at his home with a search warrant were more interested in how he made a living: Officials say he sold marijuana from a vending machine attached to his house, netting \$2,000 a day (according to the accused). News sources reported that agents with the Bureau of Alcohol, Tobacco, Firearms, and Explosives had made purchases from the machine to collect evidence before the bust. *(Change is inevitable – except from this vending machine.)*

**“Okay, show me your license and registra...say what?”...** When a San Francisco police officer approached an idling car with its headlights off around 10:00 p.m., he observed that it was empty. That's when the car suddenly moved forward, crossed the intersection and came to a stop with its emergency flashers on. As it turned out, the AV, or Autonomous Vehicle, was operated remotely by a company and it was just trying to move into a safe position before yielding to officers. “An officer contacted [company] personnel and no citation was issued,” the company explained in a statement. A maintenance team was dispatched to take control of the vehicle. *(It would have been a little difficult issuing a citation to a driver who wasn't there.)*

**I'll have a grape slushie, bag of chips, dime bag of weed, and some magic mushrooms...** A “convenience store” in

## REAL STORIES OF GENUINE ABSURDITY



Like a scene from a Three Stooges movie, a man in Maine attempted to hide from police by sitting in a chair and hiding under a blanket. Belfast police had been dispatched on the report of an intoxicated man causing a disturbance at a local bar. When they arrived, they met up with the man and removed him from the property. They also told him he would be arrested if he came back. A few hours later, a sergeant with the department was checking the parking lot of the inn where he found someone sitting in a chair and hiding under a blanket. When the sergeant pulled the blanket off, he found the same man hiding under it. He was then taken into custody and charged with criminal trespass. *(Is this guy a moron? “Soitenly,” nyuk nyuk nyuk!)*

a Lumberton, New Jersey, strip mall was reportedly selling more than Scratch-Offs and cigarettes. The Burlington County Prosecutor's Office said “shoppers” surrendered their cell phones to an armed guard wearing body armor and were scanned by handheld metal detectors before being shown into a back room. Afterwards, they could browse for marijuana, edibles and psychedelic mushrooms with colorful packages mimicking popular food items such as “CHEETOS®, LIFE SAVERS®, NERDS and SKITTLES®,” as well as a Cocoa PEBBLES™ Krispy Bar which featured a picture on the package of Fred Flintstone with red eyes. The store's owners were charged with possessing marijuana and psilocybin mushrooms, along with other offenses. *(The worst part of the story...the besmirching of Fred Flintstone's character.)*

**His whole life suddenly flashed before his eyes...face, nose, ears, and singed hairline...** A resident in New Orleans who has had his truck targeted in the past for smash-and-grab type robberies left a little surprise for would-be thieves in the form of a rigged flashbang. He set up his center console so that it would trigger if someone tried to get into it. A video shows the thief hanging out

through the broken window of the truck when, suddenly, a bright explosion is observed. Predictably, the thief made a hasty exit and got back into the getaway vehicle after experiencing a flashbang right to the face. The truck's owner had his windows smashed on six other occasions over the previous eight weeks which is his reason for taking matters into his own hands. *(Perhaps including a bright green dye pack may help with future investigations.)*

**Wouldn't it be simpler to just get a job?...** A 60-year-old German man allegedly had himself vaccinated against COVID-19 90 times in in order to sell forged vaccination cards with real vaccine batch numbers to people not wanting to get vaccinated themselves. The Magdeburg resident received the shots at vaccination centers for months until criminal police caught him. The suspect was not detained, but is under investigation for unauthorized issuance of vaccination cards and document forgery. Police confiscated several blank vaccination cards from him and initiated criminal proceedings. It was not immediately clear what kind of impact the shots had on the man's personal health. *(And I was worried about getting three.) P&SN*

# Are You Tired of Waiting 12 weeks for delivery?

# STOP

**Eliminate delays  
and frustrations  
by trusting**

**JOTTO DESK®**

VEHICLE MOUNTING SOLUTIONS

JOTTOPUBLICSAFETY.COM

**CONSOLES | COMPUTER MOUNTS | GUN RACKS | PARTITIONS | SINGLE CELLS  
PRISONER TRANSPORT SEATING | CARGO BARRIERS | WINDOW ARMOR & DOOR PANELS**







**PULSAR**  
IMAGE.QUALITY

NEW  
**MULTISPECTRAL  
TECHNOLOGY**

**TRIONYX T3 BINOCULARS**



- Multi-channel thermal/digital/fusion overlay imaging modes
- 384x288 thermal resolution sensor
- 1280x720 AMOLED display
- 1000yd thermal detection range

# MULTISPECTRAL FUSION BINOCULARS



**DIGITAL NIGHT VISION**



**THERMAL IMAGING**



**FUSION OVERLAY**