

# P&SN

## Police and Security News

Serving Law Enforcement & Homeland Security

JANUARY/FEBRUARY 2023  
VOLUME 39 ISSUE 1

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## CONTENTS

JANUARY/FEBRUARY 2023

Volume 39 • Issue 1

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## FOCUS SWAT/Tactical Operations

### What Are the Leadership Principles of Elite Tactical Teams? .....18

Jon Becker

The question of what creates elite performance in a team is a frequent topic for discussion in both law enforcement training and textbooks.

### Ballistic Shields Part 1: Basics and Tactics.....34

Jake Ganor

The shield is older than civilization itself and no other implement has shaped warfare to such a tremendous extent.

## FEATURES

### It's in the Eyes .....12

Ward Brien

A little bit of the science behind precision shooting helps to explain a lot.

### Better Education = Greater Advancement .....22

Dr. Stephenie Slahor

You can reach new heights in your law enforcement career if you plan carefully and add supplementary education to your abilities.

## COLUMNS

...and nothing but the truth.....6  
From Defund to Retool

Focus on Technology .....10  
Firearms, Ammunition and Accessories

The Wheels of Justice .....26  
Protecting the Thin Blue Line Is Job One

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



## ON THE COVER

At NASA's Protective Services Training Academy at the Kennedy Space Center in Florida, a member of the Emergency Response Team tosses a diversionary device during a specialized training simulation as a helicopter hovers above.





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...AND  
NOTHING BUT  
THE TRUTH

BACK  
—the—  
BLUE

# From Defund to Retool

RAMESH NYBERG

**T**he joke goes: A man is having a bad day. He gets fired from work, goes out to find his car vandalized, then goes home to find that his home was burglarized. It's a busy day in the district and the nearest available officer is a K-9 unit. The sunglasses-wearing officer gets out and the German Shepherd comes bounding out of the vehicle after him.

The man laments, "Oh, God...I've been fired...my car gets vandalized...my house gets broken into...and they send me a *blind policeman*!"

Okay, not as funny as when I first heard it in 1979 in the police academy. When you're new to everything, police instructors' jokes are always funny. You could even tell jokes like that in the company of non-law enforcement people at a party or a picnic and get a few laughs. Today, there's very little about police work which makes people laugh (and, to be honest, no one in society today would dare laugh at anything referring to a disability). We all know about the unfortunate era which started with the Ferguson, Missouri, riots and the ensuing nationwide anti-police demonstrations. From that point on, we were under the microscope like never before. I explained it to a classroom full of teenagers like this: Imagine you go

to a restaurant and you see a rat scurry across the floor. You blab it to the local newspaper and they run a short story about it. You do a little research and find that another restaurant a few cities away had the same thing happen. You go on social media and tweet about the rat and, in no time at all, there are hundreds of responses from people who have experienced a roach on the wall or a fly in their salad. Soon, it's viral — thousands of tweets are crisscrossing the social media universe about this appalling crisis of the unsanitary conditions in American restaurants. Dining in the United States is going to get you sick or infected. It's a menace.

Plug in any profession you want in that template — health care, education, you name it. Social media hasn't been our friend in police work because we never bothered to play in its sandbox and we found ourselves without a social media strategy when the sand was thrown at us. The horrific George Floyd case plunged the reputation of the police to depths we've never seen in this country. Then, the frenzied demands of "defund the police!" echoed from coast to coast. More protests, a rash of ambushes on cops and, before long, it seemed like we could never recover. Indeed, it seemed we would succumb

to the "defund" and "disarm" demands.

Now, in post-COVID America, where are those angry voices? Where is the "defund" movement? Moreover, where was that "movement" even going in the first place?

To begin with, I can't think of a more poorly named movement. I've lost count of how many times I've read and heard *defund* proponents try to explain, defend and define what the phrase "really" means. Someone very close to me, in fact, was adamant that "people misinterpret" what *defund the police* means. It sounded clear and direct to me, but okay, I said, I'm all ears.

"It means to reallocate the funds, not take them away completely."

Reallocate them *where*, exactly? He said that too much money was being spent on police military equipment. Suddenly, everyone has access to police agency budgets and knows where all the money is going. The "militarization" of police departments has turned police officers into salivating, trigger-happy mercenaries. I also heard that community service expenditures, like a policed-out Batmobile visiting schools was also a stupid waste of money. We have to defund! But wait — it means *reallocate*. Where? Reallocate it anywhere but to armored personnel





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## ...AND NOTHING BUT THE TRUTH

Continued from page 6

carriers and SWAT gear (or Batmobiles). It doesn't matter, just take it away; we'll figure out where later!

Then, there was more horror in our schools. Students gunned down in classrooms and hallways. A seemingly bumbling, timid police response in Uvalde, Texas, cost young lives. Citizens loudly called for more aggressive police tactics to take down the killer. The sight of heavily armed, even militaristic, cops guarding our schools became a comfort, not a threat. By mid-2022, only 31% of Americans believe that police funding needs to be redirected to community social services (*Newsweek*, May 2022) and a left-wing president even said, "Fund our police and give them the tools they need."

Perhaps people are figuring out some simple truths. Maybe they started asking questions in a rational manner:

Do we want more professionalism in our police departments?

Do we want better training or better supervision? Do we want to hire more mature, intelligent officers?

Yes, we want it all. Now, here is the big one: Can we do all that with *less* funding?

We, brothers and sisters, have known the answer to this all along. We are the ones who have always wanted more professional, mature, intelligent people to serve beside us and at all levels of the chain of command. We are the ones who have dutifully added weight to our already heavy uniform gear, donning TASER®s, bodycams and other items in the name of less-than-lethal weaponry and better accountability. We are the ones who have faced the onslaught of mental illness and violence, and often paid with our own lives.

So, what has become of the movement? The better question is: What has it become? In some places, social services and police have come to a meeting of the minds to address the critical problem of mental illness. In Denver, Colorado, the city's STAR (Support Team Assisted Response)

personnel respond to nonviolent cases of trespassing, vagrancy and low-level public nuisances. STAR personnel are unarmed mental health "first responders" whose first task is to determine if police are needed on scene at all. If they can handle the situation without law enforcement, they put their social work training in gear and get the individual the help they need, be it medical or otherwise. STAR has relieved police officers of some 3,000 calls for service since it went into action. STAR currently operates only from 6:00 a.m. to 10:00 p.m., when their highest call volume occurs, to respond to "low-level behavioral health problems."

The "defund" movement isn't quite dead. Instead, it might be taking on a new form. What once appeared to be a hopeless, irrevocable conflict has instead evolved into new strategies and efforts to tackle a problem which has long been dumped only on police officers.

When you work with food, there's going to be the occasional rodent which evades your best sanitary efforts. When you work around unpredictable, volatile situations and unstable humans, you're going to get the occasional overreaction, error and misuse of authority.

And when you stop paying attention to what's "going viral" and use teamwork to find solutions, new roles can be created to address old problems.

Then, maybe, we can start laughing at jokes again. **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>*

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## SAINT® Victor 9mm Carbine

The **SAINT Victor 9mm Carbine** delivers a pistol caliber carbine with all of the performance and capabilities expected from the SAINT Victor line. From its full-length, free-floated handguard with M-Lok® real estate for accessories to its forged upper and lower receivers designed around pistol-caliber cartridges, this 9mm carbine features a direct blowback system of operation which ensures rock-solid reliability.

The B5 Systems Bravo Stock features an ergonomic cheek weld, as well as integrated QD sling mounts and no slip cushioned butt pad.

The **SAINT Victor 9mm Carbine's** SA Forward Blast Diverter is designed to maximize control and minimize muzzle flip, and the flip-up sights come standard, ensuring the rifle is ready to go when you need it.

Constructed of rugged steel, the Colt® pattern magazines for the **SAINT Victor 9mm Carbine** feature a 32 round capacity and interface with the carbine's dedicated lower and magazine well designed specifically for this round.

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

# Firearms, Ammunition and Accessories

## New .300 Blackout Ammo

Shooters looking for ultimate performance will be pleased with the **110-grain Tipped TSX (TTSX)™** from Black Hills Ammunition. This projectile was designed with a long ogive to ensure smooth and positive feeding – even from full 30 round magazines. It expands immediately upon impact and retains nearly 100% of its weight, penetrating to desired depths of 18" +.

Testing has shown that it performs well through tough barriers, such as car doors and windshields, making this suitable for police patrol rifles.

[black-hills.com](http://black-hills.com)



## New Swivel Drop Leg Extension

Alien Gear Holsters® recently announced the new **Swivel Drop Leg** extension for the Rapid Force™ duty holster product line. Made from a high impact strength, polymer blend, the **Swivel Drop Leg** is a single strap, Quick Disconnect System (QDS), drop leg holster extension which uses a swivel design to move in tandem with the wearer's leg. The innovative movement system increases overall mobility without sacrificing security. The **Swivel Drop Leg** extension covers less leg space and has an easy reach for a secure draw and reholster. It offers an adjustable ride height for low, middle and high and works with the Alien Gear Locking Belt Slide and other QDS mounts.

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

## JG STO-5 Special Tactical Operator

Jacob Grey Firearms' **ULTRALIGHT Operator SBR** is made in the USA. Its billet aluminum construction makes it lightweight, yet solid and highly accurate. Built with a 10.5 inch barrel, it can be chambered in 5.56 or .300 Blackout and includes a highly polished DLC bolt carrier group and a tactical quad rail for add on accessories. The **ULTRALIGHT Operator SBR** incorporates a lengthy list of high quality components



and the included accessories are numerous as well.

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



## FN SCAR® 15P Rifle Caliber Pistol

The **FN SCAR 15P** in 5.56x45mm features a light recoiling, piston-driven platform. This platform enables all shooting positions, locking in any grip on the upper receiver under fire. Its nonreciprocating, dual charging handles remain static under fire, allowing the shooter to grip the rail at any location. The fully ambidextrous operating controls also adapt to any shooter.

The **15P** utilizes a short stroke gas piston system with an adjustable low flash gas regulator. The new bolt carrier produces less felt recoil perfected for a pistol length gas system. It also features a free-floating, cold hammer forged, chrome lined 7.5" barrel and a one-piece machined aluminum upper for lasting accuracy.

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

## New S&W® EQUALIZER™

Smith & Wesson® Brands has recently introduced the **S&W EQUALIZER**.

Next gen EZ technology, low recoil impulse and versatile magazine capacity make the **EQUALIZER** an impressive CCW.

This 9mm handgun provides a balance of power and capacity across ten, 13 and 15 round magazines. The **EQUALIZER** features a single-action trigger which allows for a short take-up, clean break and fast reset to make follow-up shots quicker. The slide operates using easy to rack technology to cater to a wide variety of needs and the frame includes a picatinny-style rail to mount lights or lasers. A new optic cut pattern allows the user to mount their choice of sight for enhanced accuracy and the 3.675" barrel gives a longer sight radius for increased iron sight precision.



[smith-wesson.com](http://smith-wesson.com)



### **Hellcat® Pro with Shield SMSc Optic**

The Springfield Armory® Hellcat Pro 9mm pistol is now offered packaged with the **Shield SMSc 4 M.O.A. micro red dot optic**.

The slide is milled with the Springfield Micro™ footprint, designed to direct mount the smallest, most popular micro red dots on the market for the lowest mount possible. The included **Shield SMSc 4 M.O.A. micro red dot** fits the slide cut perfectly.

The **Shield** optic weighs just a hair over ½ ounce and is powered by a single included CR2032 battery for years of use without replacement. The optic automatically adjusts the brightness of the dot for seamless use and it co-witnesses with the Hellcat Pro's U-Dot™ sights which are made up of a high visibility tritium and luminescent front sight paired with a Tactical Rack rear sight.

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



### **Duty RDS™ Red Dot Sight**

The **Duty RDS**, from Aimpoint, offers a bright, crisp 2 MOA dot which is ideal for short to medium range target engagements. The windage and elevation adjustments are flush mounted and waterproof, eliminating the need for protective caps. The turret adjustments provide audible “clicks” to aid in zeroing the optic. The brightness intensity switch is a new digital keypad designed for ease of use even while wearing gloves.

A pressure forged aluminum alloy housing provides durability against extreme abuse and drastic temperature changes. The sight is vibration- and shock-resistant, and submersible up to 80 feet. Powered by a single CR2032 battery, the ACET technology provides over three years of constant-on use at daylight position seven and even longer on the night vision compatible settings.

The **Duty RDS** comes with a one-piece torsion nut mount which attaches to MIL-STD-1913 Picatinny rails.

[aimpoint.us](http://aimpoint.us)



### **Hellcat® Pro in Desert FDE**

Springfield Armory® has recently announced the release of the **Hellcat Pro 9mm pistol in Desert Flat Dark Earth (FDE)**. The **Desert FDE Hellcat Pro** is a compact pistol chambered in 9mm which offers 15+1 capacity in a smaller footprint than any other gun in its class.

At just one inch wide, the slim-line grip increases contact and control, while the additional mass in the longer slide and barrel translates into reduced muzzle flip and faster follow-up shots. The lightweight polymer frame features an Adaptive Grip Texture™, as well as an OSP™ (Optical Sight Pistol) configuration. The slide is milled with the Springfield Micro™ footprint, designed to direct mount the smallest, most popular micro red dots on the market for the lowest mount possible.

The Hellcat Pro's proven performance helped it gain the respected and highest “gold” ranking in the “Member Tested and Recommended” (MTR) program of the National Tactical Officers Association (NTOA).

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



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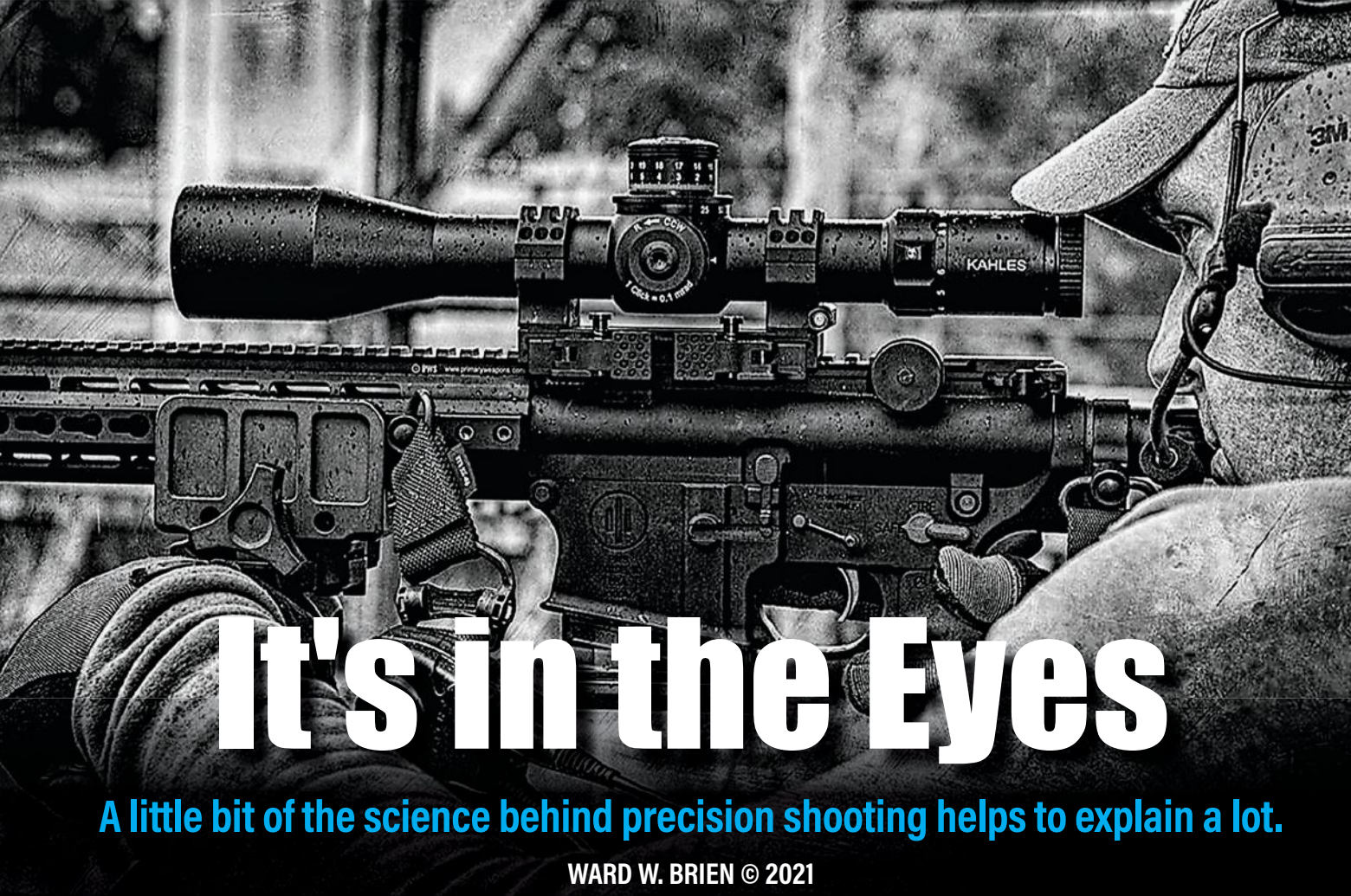
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# It's in the Eyes

A little bit of the science behind precision shooting helps to explain a lot.

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**R**iflescopes, spotting scopes and binoculars share a similar purpose. The optics are designed to magnify the image of an object you are looking at. Lenses are designed to focus or concentrate a large amount of light into a narrow beam of light through the center of the lenses so that, upon exiting, it will match the size of your pupil. This is why the shape of the lenses and proper eye relief (the distance from the ocular lens to your pupil) are so very important. If the beam of light is larger or smaller than your

pupil, you will reduce the field of view or lose your sight picture altogether. The lenses must be precisely placed in proper array or the centrally focused beam of light will not be produced. Likewise, the "milliradian" or "minute of angle" reticle must also be properly positioned within the erector tube assembly or it will be out of calibration.

When light interfaces with a medium such as glass or water, it follows the nature of light. There are mathematical models utilized to describe this "nature of light"

which are based on a set of principles. One of these principles is "Snell's Law of Refraction" which describes what the light does when it penetrates the surface.



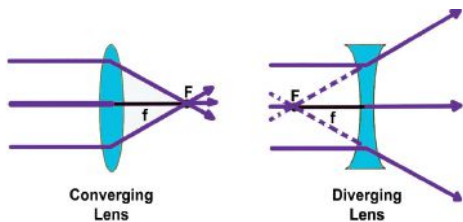
Snell's Law of Refraction at play

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**Convex and concave lens**

Think about what occurs when a spoon is placed in a glass of water. The deeper the spoon travels into the water, the larger the linear offset or the larger the spoon appears to bend even though the angle of the spoon is constant.

Due to Snell's Law, the photons bend at different angles when encountering each individual lens because the lenses are designed with different indexes of refraction. The shape and purposes of the multiple lenses are an attempt to correct for the negative effects by constraining and/or guiding the path of the photons. A convex shaped lens will cause the light to be focused inward towards the center, producing an accurate exiting "focal point" or where the light's path meets. In contrast, a concave lens which is hollowed or rounded inward like a bowl will cause the light to spread, bending outward and away from the lens's center.

If the shooter moves his (or her) eye away from the constrained or guided beam of light, he (or she) is *countering* the optical design of the optics. When you move your eye away from the optical center (center of the reticle), you are changing *all* of the incident and refractive angles of every single lens in the stack; everything that the scope has been designed to accomplish has been corrupted. These negative results of accuracy are caused in part by the optical effects of "coma aberration."

The coma aberration image (see page 14) is a milliradian reticle which is being aimed at a tall ladder paper target. The tall ladder target is utilized to calibrate your scope, assuring that its click adjustments are accurate. However, if you look closely at the reticle, you will notice that the third mil mark, left, right and down, do not line up with the mil marks on the target. As you move lower, or right and left, you will notice that the additional mil marks of the reticle progressively move further and further away from the mil marks on the target. This is due to Snell's Law of Refraction

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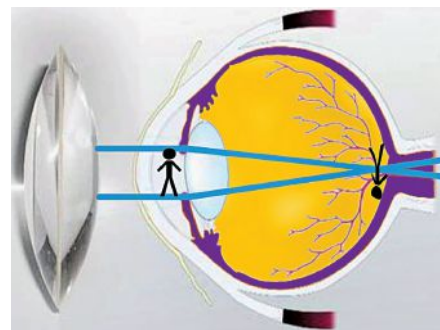
**“Coma aberration” – the mil marks do not line up with the precisely measured mil marks on the tall ladder paper target.**

and is why you must never use the hold-over method of aiming *when aiming outside one third of the optical center of the viewing portion of the center of the lens.*

## Optical Errors

If you refer to a book titled *Principles of Optics*, authored by Max Born and Emil Wolf, it discusses optical errors and a class of aberrations called “Seidel Aberrations” of which there are five: spherical, coma, astigmatism, curvature of field, and distortion.

It is the coma aberration due to Snell’s Law of Refraction which states that, when your eye or pupil is moved off of the center of the viewing axis by more than one third of the visual field of view of the lens, the image becomes distorted and appears to be displaced. This is why you will encounter a high vertical miss, as well as an off-center horizontal miss, when utilizing the hold-over method of aiming. The error/miss will be significantly magnified when aiming up or down on angles because the lenses will be positioned at a greater obtuse or acute angle. This produces an increased incidence of light onto the lenses which will cause the light to bend at a steeper downward angle



**Lens focusing an image which has an infinite focal length. The lens of the pupil then focuses the inverted image onto the back of the eye/receptors (upside down). Then, your brain reinverts it.**

on the back side of the lenses. This in turn causes the distorted image to be *greatly* magnified. Again, for these reasons, it is imperative that you keep your eye in the optical center of the viewing portion of the lens and use your turrets.

Some people have tried to excuse

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away the use of turrets, suggesting that the click value isn't precise; the solution which has been used for years is to simply calibrate your scope. As with all precision machines, mills, lathes, and screws, the further into the adjustment, the more backlash may be encountered. Backlash is caused by the pitch angle of the screw's threads and the gap in between them. There is a simple remedy for backlash. Simply adjust your turret(s) four clicks beyond where you want to be and then return to the correct setting.

Correctly shaped lenses (a combination of convex, concave and others) will produce a small beam of light which is colinear with the centerline of the optical stack. Upon exiting, the beam of light will theoretically be parallel and match the size of your pupil.

Obviously, there is much more here than "meets the eye," as the optic(s) create(s) a clear, non-chromatic aberration (to focus all colors to the same point).

Eyes are an extension of the brain.

Each eye has approximately 120,000,000 photoreceptive rods, cones and ganglion cells. However, to put this in layman's terms, these photoreceptive cells (rods and cones) are what receive the light/image(s) and transfer them to the brain. Interestingly enough, men's and women's eyes are uniquely different.

### Men vs. Women: One Key Physical Difference Explained

A potential Mountain Shooting Center student once asked if he and his wife could attend a course and share the same rifle. I said that they could attend the course, although they could not share the same rifle. So, what's the difference? Women have more photoreceptive cells than men do. The reason for this is that men's and women's eyes are designed for different tasks and purposes.

Men's eyes are designed to see fine movement at long distances. Women's eyes are designed to be able to see many more colors and shades of colors than men can see and excel at

close distances. In fact, when a man looks at a bouquet of red roses, he sees only one color – red. However, when a woman looks at a bouquet of red roses, every rose is a different shade of red. She sees an entirely different spectrum of colors!

When it comes to men, their pupils can dilate to an average of about six millimeters during low light conditions. Women's pupils can dilate to eight or even nine millimeters during low light conditions. In fact, women's pupils are dilated larger than men's most of the time which is why they may often contract headaches and wearing sunglasses is a must.

### Objective Lenses and Eye Relief

Riflescope objective size is not designed by happenstance. Based upon a factor of six (for men) which is the average pupil size of a young man in low or reduced light conditions (6mm pupil size), the objective size of the riflescope or other optics determines the maximum magnification setting which can be uti-



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## IT'S IN THE EYES

Continued from page 15

lized to promote maximum light transmission. This is because the exiting light size or "exit pupil" diameter emitted from the ocular lens of the scope must match the size of *your* pupil.

To accomplish this, the relationship is as follows:

Objective size/pupil size = maximum magnification setting for maximum light transmission.

For example, based upon a 6mm pupil size, a 40mm objective can transmit maximum light in a low light condition when the magnification is set to 6.6 power. A 44mm objective can transmit maximum light in a low light condition when the magnification is set to 7.3 power. A 50mm objective transmits maximum light in a low light condition when the magnification is set at 8.3 power and a 56mm objective can transmit maximum light in a low light condition when magnification is set to 9.3 power.

These numbers change for women's eyes. For example, based upon an 8mm pupil size, a 40mm objective can transmit maximum light in a low light condition when the magnification is set to 5 power. A 44mm objective can transmit maximum light in a low light condition when the magnification is set to 5.5 power. A 50mm objective transmits maximum light in a low light condition when the magnification is set at 6.25 power and a 56mm objective can transmit maximum light in a low light condition when the magnification is set to 7 power.

When setting up your scope, it is imperative to set the eye relief specifically for either a man or a woman. *Eye relief* is how far the exit pupil floats behind the ocular lens. The eye relief for a man will be further away from the ocular lens than for a woman. This situation of eye relief distance also brings to light the topic of length of pull into consideration and, again, is why men and women should not share the same rifle. **P&SN**

Mr. Brien is a US Army veteran and owner of Sniper Tools Design Company, LLC. He manufactures the Angle Cosine Indicator (ACI) and Angle Degree Indicator (ADI) used by snipers to determine the "corrected for gravity" distance to target when engaging targets on angles. Mr. Brien also owns the Mountain Shooting Center and instructs a Steep Angle, High Altitude Mountain Shooting Course to US and foreign Special Forces snipers. Mr. Brien has published many articles regarding precision shooting.



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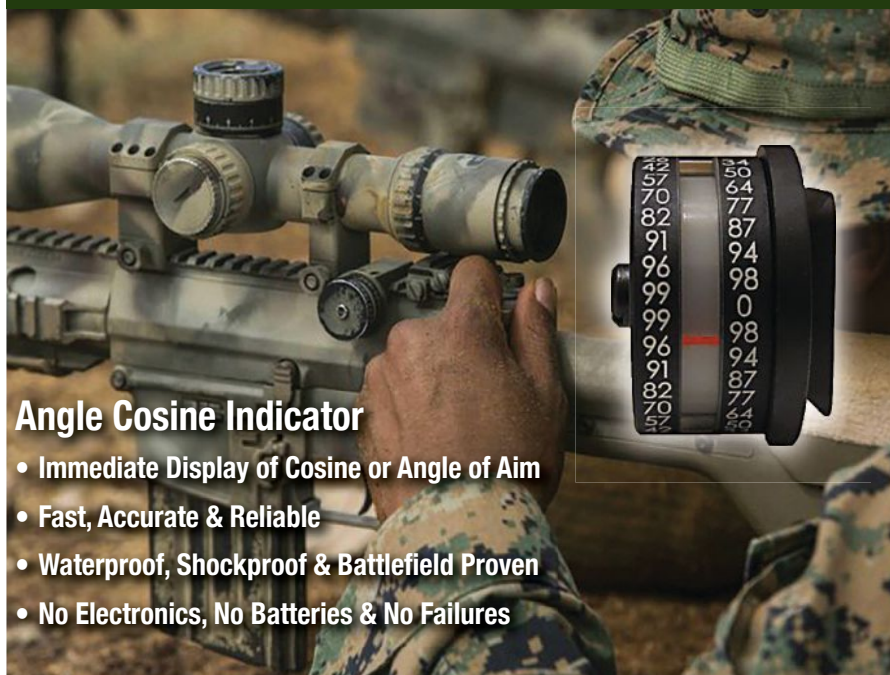
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# What Are the LEADERSHIP PRINCIPLES of ELITE TACTICAL TEAMS?

JON BECKER

**The question of what creates elite performance in a team is a frequent topic for discussion in both law enforcement training and textbooks.**

**T**he strategies and approaches for creating elite performance are myriad as are the number of “leadership gurus” who, for a price, will teach you their foolproof method for forging a high performing team. Yet, somehow, despite this abundance of information, poor leadership continues to occur and we continue to see catastrophic failures during critical events rather than high performance. What is it that separates success and failure? What makes elite teams perform at such a high level in complicated and demanding environments? The answer is one word: culture.

For the past four decades, I have had the privilege of working with, and serving, some of the most elite tactical units in the world. As the CEO of a business which focuses on the protection of tactical opera-

tors, I have had the gift of a ringside seat to observe what makes elite units so unique. Strikingly, the most interesting observation I have made is that, despite being located all over the world, coming from a variety of origins, and operating under divergent mission sets, all elite units I have worked with have a similar culture which resolves around a set of five core practices: intentionality of culture, individual accountability, direct communication, rigorous enforcement of high standards, and obsessive attention to fundamentals. These practices facilitate the unit culture which then drives the elite performance.

## **Culture: Intentionally Built**

Culture is like a reputation; you have one whether you want it or not and, if you are not paying attention to it, it’s probably not a good one. Culture drives the limits of personal behavior and, for elite units, culture is a very intentional thing. Nothing is left to chance. Cultural rules are deliberate, are usually written, are taught to everyone, and are enshrined into unit traditions. These traditions indoctrinate new members to the unit’s rules; they remind members of their responsibilities to each other and to the unit; and they provide a standard against which members can measure themselves. The celebration and veneration of unit heroes create role models for new members and serve to ensure

that everyone in the organization is educated about what it means to be a part of the team. To an outsider, the mission statements, unit mottos, logos, challenge coins, etc. which are common in elite units may seem superficial. But, they are anything but superficial. They are cultural icons which quietly and steadfastly share the gospel of the unit and establish the values against which everyone will be measured.

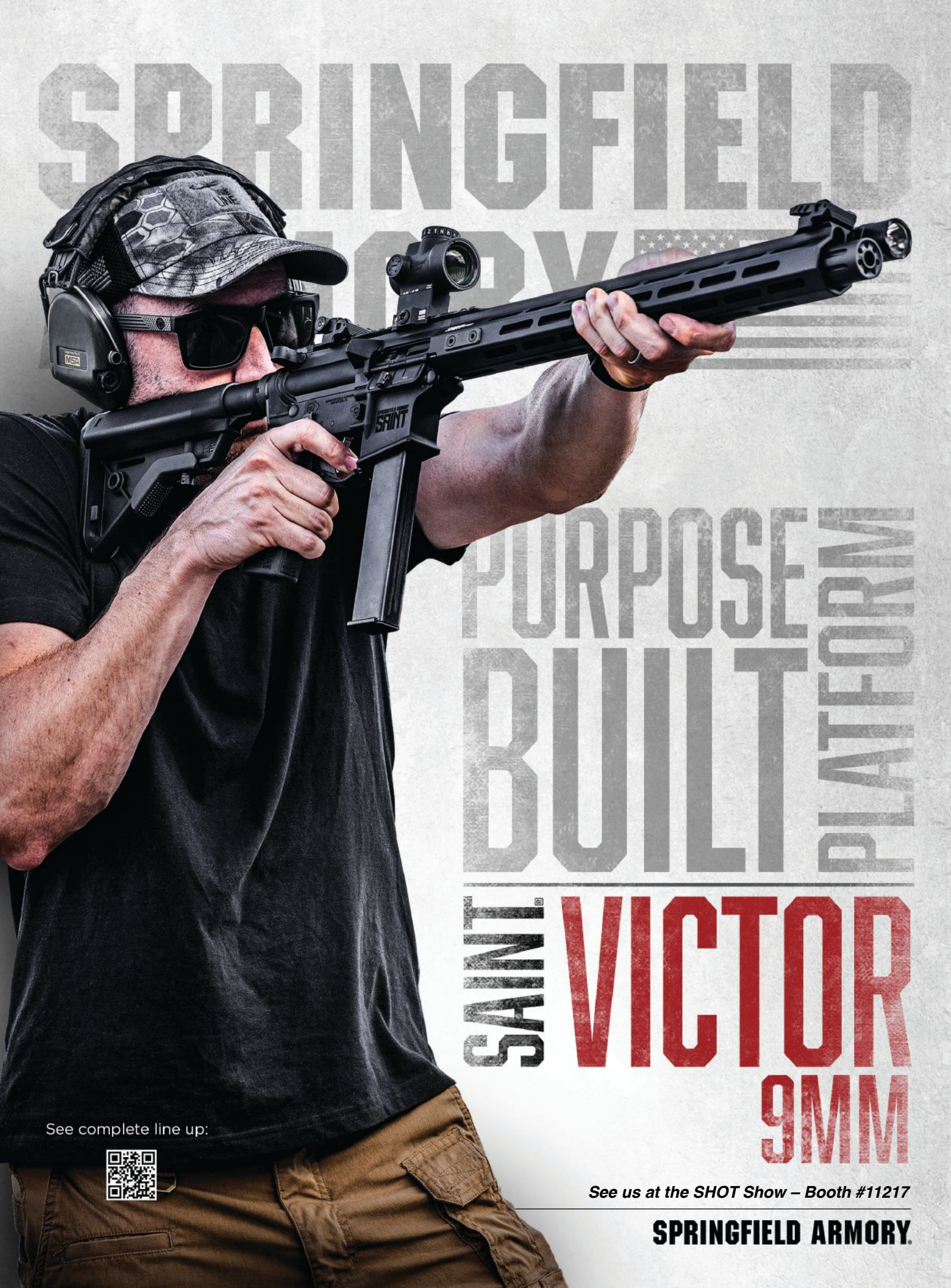
## **Accountability: Individual**

A team is no greater than the sum of its parts. To achieve high performance, elite units focus on individual performance first. During an operation, each member of the team must deliver 100% of their capabilities. This means that they must be fit, mentally clear, well trained, and maintain an extremely high level of skills across a very wide swath of disciplines. Core to



**Each team member must provide 100% of their talent and skills to each operation.**





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## WHAT ARE THE LEADERSHIP PRINCIPLES OF ELITE TACTICAL TEAMS?

Continued from page 18

achieving this is a culture of individual accountability. Every single person is responsible for himself/herself and for meeting the requirements of his/her job. This is a responsibility not only to oneself, but to every man and woman he/she works with, as well as to the unit as a whole. Each member is expected to conduct himself/herself as a professional and to constantly strive toward excellence. Moreover, members are personally accountable to one another for their actions.

### Communication: Unvarnished and Direct

As a result of individual accountability (or perhaps an enabler of it), virtually all elite units have communication which is direct, unvarnished and driven by a culture of saying exactly what you are thinking. This does not mean that it's okay to be rude or abusive (although there is plenty of that recreationally), just direct and candid. In other words, their culture allows members to challenge one another in a direct way without being considered rude. Although much of this is accomplished through indirect social pressure (e.g., "Hey, Becker, are you getting fat?" or "Wow, you really



***The after-action debrief should be an unrestrained meeting for open and honest discussions regarding patterns and tactics.***

shot bad today, huh, buddy?"), it is also perfectly acceptable to directly challenge one another on their thinking, behavior, skills, etc. This even carries over to the team's self-assessments. The after-action debrief which follows an operation is a no-holds-barred event for most units when movement patterns and tactics are agonized over in relentless pursuit of improvement. Being professional takes priority over being nice. This is the land of "brutal honesty" and it has to be – their lives directly depend on each other. Proper social graces and mediocrity can often run hand-

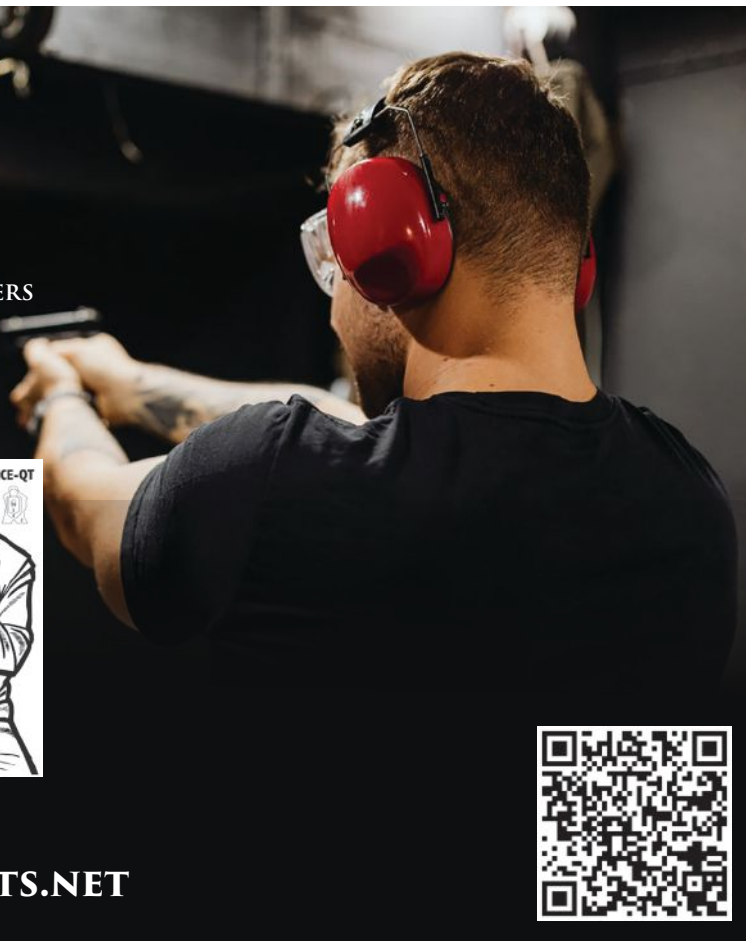
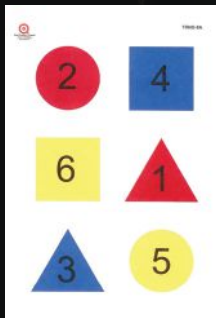
in-hand. Being too concerned about each other's feelings or how to express oneself can prevent accountability. If preserving egos becomes the primary concern, it becomes very easy to ignore people's negative behavior, failing to meet standards, or their inattention to detail which ultimately may lead to tragedy.

### Fundamental Skills: Agonized Over

A common trait among all elite performers is an obsessive attention to fundamental details. There are myriad stories about Michael Jordan shooting thousands of free throws, working on shot fundamentals and binge-watching game films. The same is true with elite tactical units. Small details are essential to elite performance. Good technique forms the basis for skills and skills form the basis for tactics. Elite units know this and spend a great deal of time working on them. The amount of time elite units spend working on fundamental shooting skills, basic tactical movement and other perishable skills would surprise most people. While it is very easy to think that the best of the best spend their time working on only su-

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per difficult and high-end skills, nothing could be further from the truth. They drill the basics obsessively and, as a result, acquire fundamental skills which are second to none. Interestingly, this is often not the case for less elite performers who sometime chase higher end gains while overlooking the low hanging fruit of consistency and technical proficiency.

### **Standards: Very High and Rigorously Enforced**

Whether it is the US Navy SEALs BUD/s Program, the FBI-HRT Selection, or the LAPD SWAT school, elite units pride themselves on using difficult processes with very high standards for those who will join the unit. By running difficult selection processes, they are able to weed out those who are unfit for the unit, ensure individual commitment, indoctrinate members to the culture, and prepare future members for what they can expect. Interestingly, for these units, these high standards don't stop with selection. Rather, they continue on to all phases of training and to all members of the unit in perpetuity. While the selection processes may be intentionally



**Standards should be equally enforced on all members – regardless of seniority or experience.**

more physically or emotionally demanding, the standards for normal unit operations like the shooting standards, physical fitness standards and personal codes of conduct are equally rigorous. More importantly, they are rigidly enforced on all members, regardless of seniority or experience. As a result, even among the most elite operators, failing to make a qualifying score on a shooting test will remove them from duty status. Taking dangerous chances or conducting themselves inappropriately will get them removed from their assignments or even the unit. Seniority and experience are not a defense used to mask incompetence or to tolerate unprofessionalism.

High standards are essential to elite performance and you cannot achieve high performance without rigorously enforcing the rules.

### **Conclusion**

Elite units are high performers because of the practices of their members. These practices drive their collective behavior and establish the ground rules for being a member of their organization. In other words, the practices facilitate the unit culture which then drives the performance. While this is far from an exhaustive list, application of just these five practices can almost certainly improve the performance of any organization or team. **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@aardvarktactical.com](mailto:jbecker@aardvarktactical.com) or by visiting [thedebrief.live](http://thedebrief.live).*



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# Online Education: Keeping it Manageable and Efficient

**Online education is a viable and respected way to attend classes, complete courses and earn a degree without ever setting foot on the campus.**

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Off campus learning has made a quantum leap from the days of “correspondence school” when courses were taught through a series of mailed lessons, projects and answers. With the rise of the Internet and its associated technologies came such “innovations” as computers, laptops, tablets, E-mail, conference calls, and messaging. Then came two-way videoconferencing, interactive TV, and now mainstay communications such as Zoom, Skype and smart-phone apps.

Whether off campus education could equal being in an on campus program gave rise to some skepticism about “fly by night” or “instant degree” stigmas, but they were countered when it was found that the requirements and quality of teaching were being maintained by reputable colleges and universities, just as though the course was taking place on their campuses. Not only did that eliminate any qualms a student might have when learning online, it also helped assure employers and academia that online programs were reliably conducted according to high standards in content, student-to-teacher, and student-to-student interaction and progress.

Not all faculty members like online programs and not all subject fields lend themselves to the online setting. But, most schools have adapted large portions of their curricula to the online format. Students are usually required to attend orientation meetings to “learn how to learn” online.

If you are embarking on a course or degree program which will be taught online, be prepared for the school’s requirements in terms of the learning management mode of operation; student identity verification; student portals; course content and scheduling; textbook(s), references and reading lists; access for your computer/laptop/smartphone/ tablet devices; integration of supplemental library resources; course methods in lecture, readings, graded discussions, writing assignments,



projects, quizzes, and examinations; and how your professors will track your participation, assignments, use of reference and resource materials, and in following and meeting the requirements of the course.

Consider exactly which online programs are best suited for your career or personal goals. If you have a bachelor’s degree or want to work from that degree toward a future master’s, certificate or other graduate program, see if the college offers both undergraduate and graduate level courses because you may want the benefit of continuity with the professors and your program. Undergraduate courses are your foundation and most students will share nearly similar learning experiences in those courses, but, at the graduate level, the advanced study will be more specific to a particular area such as forensics, technology, administrative leadership, etc. If you aren’t sure about the available programs and degrees, use the school’s E-mail links and online chats for the answers you need.

If you need to brush up your knowledge of computer and Internet skills, get some tutoring from a community center, library or computer savvy friends or businesses which can help. Know how to type; how to manage files (name, save, copy, paste, spellcheck, save in a different format, backup, delete, etc.); how to use

software (Word®, PowerPoint®, etc.); how to E-mail and chat (discussion boards, messengers, etc.); and how to use search engines and library databases.

You’ll need a high-speed Internet connection and a recent model of computer, laptop or tablet and software. Your college or university may be able to evaluate if your device and technical requirements are capable and it may even have technical support 24/7.

For Zoom or similar “meetings,” be well acquainted with the process of joining a meeting, and how to share your documents or Dropbox or Google Drive files. Be sure you have yourself muted unless you’re actually speaking. Everyone will hear the dog bark, the doorbell ring, or the kids shout if you’re not muted! For your background, a simple screen, blanket or a few yards of fabric will look better behind you instead of that window or a lot of clutter. Determine whether you must appear on camera or not. Your professor may want to see you. When joining a meeting, be sure to test your audio every time. And, be aware that your professor just might be using Zoom’s “attention tracking” capability in which you can be monitored to determine if you’re doing something other than paying attention such as answering E-mails or text messages or being away from your desk!

Beyond the technical side, be sure your personal reading and writing skills are strong. Most of what you will learn in an online format will be written and text-based communications, besides the professor led lectures and discussions. Have the self-discipline to stay on track with your attendance, coursework, and homework. Most three credit hour courses need about ten to twelve hours or more per week of study. Budget your time well because your motivation and learning are up to you alone. Follow through with every assignment, discussion, messaging interaction with the professor and/or students, and the full substance of the course.

For many, that’s where the formal education ends and the practical experiences begin. But, for those who want to advance on the pay scale, or step up to administrative work, or develop expertise in a specialization, a master’s degree is the next option in education. Most often, the curriculum focuses on administration or advanced specific studies such as computers, forensics, homeland security, disaster management, cybersecurity, or psychology.

## Doctorate Degree

Beyond that degree is the powerful step of

pursuing a doctorate in a general or specialized area of law enforcement. That degree poses major educational challenges unmatched by the way bachelor’s or master’s degree courses of study occur. Besides taking advanced level coursework, a doctorate also involves committee meetings between you and your faculty advisors; oral and written examinations; a new and creative project for the dissertation; and, of course, your time and money. Most doctoral programs take at least two years to complete and, sometimes, even longer. Is it worth the effort? Yes, but it takes personal discipline and pa-

tience to achieve a doctorate. It is a new “mind-set” about the ways you will learn and the ways you’ll “learn how to learn.” Bottom line: Doctoral degrees are not easy. Should you want to teach at the university level, a doctorate will likely be a requirement in your qualifications. The same applies for helping establish your credence as a writer in police procedures and administration.

## College Certificates

While these are the established routes in higher education, a fairly recent addition to the traditional bachelor’s, master’s and doctorate

has come in the form of certificates. These programs offer a very specific field of study in administration, analysis or special skills which can advance a career for the person completing such a program. Like many other professions, specializations are being added and developed in law enforcement and security methodologies.

Some certificate programs can be done as a standalone course of study, but, in other universities and colleges, credits earned from the courses taken in a certificate program can be applied to future degree programs, usually at master's or doctorate levels.

A starting point for learning about certificate programs which might match your interests can be found at <https://police-schools.com/certificate>. The Web site also provides tabs for bachelor, master and doctoral programs at a variety of universities in criminal justice, corrections, technology, administration, and specialty fields.

The following are a few examples of certificate programs:

- Fairleigh Dickinson University: Graduate certificates are available in a number of different areas; some are offered on campus, some are offered online – and some are both. To earn certificates, such as the Law and Public Safety Administration Graduate certificate or the Leadership Theory and Practice Graduate certificate, students complete a certain number of courses chosen from the master's program course offerings. The credits earned can then be applied towards the master's degree program. Other certificate programs include Homeland Security Administration and Homeland Security Leadership, among others. ([fdu.edu](http://fdu.edu))
- George Mason University: The post-bachelor's certificate programs are offered in computer forensics and counterterrorism; and forensic science and technology. ([gmu.edu](http://gmu.edu))
- George Washington University: Post-bachelor's degree certificates are currently offered in computer forensics and counterterrorism; forensic science and technology; law enforcement intelligence analysis; and securities services administration. ([gwu.edu](http://gwu.edu))
- John Jay College of Criminal Justice – CUNY: The school offers certificate programs in computer forensics and counterterrorism; corrections administration; criminal justice and law enforcement administration; criminalistics and criminal science; financial forensics and fraud investigation; and law enforcement intelligence analysis. ([jjay.cuny.edu](http://jjay.cuny.edu))
- University of Virginia: Presently offering two certificate programs, the University has both one year and less than two year courses of study and post-bachelor's degree programs in criminal justice and police studies and in criminal justice and safety studies. ([virginia.edu](http://virginia.edu))



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More detailed certificate programs can be found at Arizona State University ([asu.edu](http://asu.edu)). The school's certificate programs center on control and operation of police administration, management, program analysis, and policy development. The emphasis is on developing supervisory and administrative skills.

The Crime Analysis Certificate identifies and analyzes patterns and trends in crime through the collection of data and the using of crime mapping, statistics, management, and related techniques. The certificate is appropriate for analysis of crime data, intelligence and investigations, and in creating strategies in technology and research.

The Certificate in Domestic Violence and Evidence-Based Practice provides instruction

in safe and effective intervention through policies and processes for safe and effective case management.

Related is the Certificate in Homeland Security which includes such topics as domestic and international terrorism, global security, intelligence analysis, cybersecurity, and prevention.

The Certificate in Law Enforcement Administration is a comprehensive course of study in organization, program analysis, leadership, and policy development.

For further information about degree and certificate programs, visit <https://tinyurl.com/4jsc77nx>  
**P&SN**

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



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Because of a nonstop two year crime wave, starting with the death of George Floyd, and the riots which followed across the country, cops became the targets of criminals and, worse yet, were also disrespected and defunded by their elected officials. Officers began retiring and resigning in record numbers and now LE recruitment is at an all-time low. Who could blame eligible men and women for not wanting to be shot by the bad guys and simultaneously stabbed in the back by politicians?

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at officers seated in their cruisers; many are still wearing their seat belts. There are companies which can retrofit police cars with bullet-resistant glass, but with prices starting at \$2000 each, some departments are reluctant to add that expense to their vehicles in this economy.

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#### WEAPON MOUNTS

##### BIG SKY RACKS, INC. ([bigsky racks.com](http://bigsky racks.com))

For over 30 years, Big Sky Racks has been providing LE with their Electronic Locking System (ELS) gun racks. They offer eight basic rack models with a ten second delay and a mechanical override. Their component design allows easy transfer from old to new vehicles and their durable steel construction provides a variety of solid mounting options.

##### BLAC-RAC ([blac-rac.com](http://blac-rac.com))

Blac-Rac offers four 1082 models for AR-style weapons. Their exclusive two opposing side plates protect takedown pins, the mag release and trigger. They

also offer a version for shotguns. Their locks feature a unique rotating handcuff design retainer.

##### GAMBER-JOHNSON ([gamberjohnson.com](http://gamberjohnson.com))

Gamber-Johnson provides SC-6 dual weapon gun mounts for either horizontal or vertical positions. Additional SC-6 gunlocks are also available for other manufacturers' mounting brackets and all feature an adjustable diameter and sliding mounting brackets. They also provide an economical model which consists of an adjustable lock head, butt plate and mounting bar. The locking mechanism in the rack can be wired to open the lock with the press of a (discreetly placed) button,



**Gamber-Johnson's Trunk Box secures firearms and equipment in the sliding drawer using a dual lock system.**

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Gamber-Johnson's equipment storage trunk box and vehicle specific leg kit. The trunk box can be easily installed with or without a cargo partition and is designed to safely secure important equipment with a dual lock system.

**[gamberjohnson.com](http://gamberjohnson.com)**





bypassing the keyed lock and allowing weapons to be retrieved quickly, saving officers valuable time in an emergency. Additionally, a manual lock override ensures that weapons are always accessible, even in the case of electronic failure.

Gamber-Johnson also offers cargo storage with its Trunk Box solution to improve security and organization of gear and equipment. Its lightweight aluminum construction features a sliding drawer using a dual lock system to access crucial gear quickly and the inverted top provides additional mounting space. Vehicle-specific mounts are available for the newest pursuit SUVs.

## JOTTO DESK ([jottopublicsafety.com](http://jottopublicsafety.com))

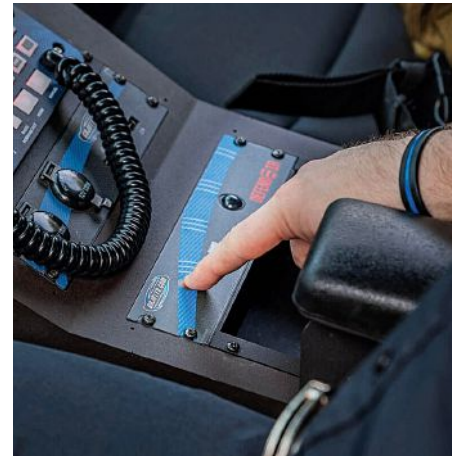
Jotto Desk's ZRT Gun Racks, featuring SmartLok Technology, were designed for both shotguns and AR-style rifles. They were engineered to eliminate several common theft weaknesses: hot-wiring with a 12 volt battery and use of a strong magnet. The ZRT Lock Head also features an exclusive zinc design which deforms instead of breaking, even after repeated attacks. Proof of this was demonstrated when a department recently experienced



**The ZRT AR Secure Gun Rack cannot be circumvented through hot-wiring or by the use of a magnet.**

a break in and the thief attempted to destroy the lock with two 9mm rounds – with

no success. The ZRT Gun Rack secures either single or dual weapons and features both adjustable locks and butt plate positioning. Silicone inserts in the lock heads protect weapons from both scratches and damage, and its AR Secure Housing design prevents those looking to utilize the takedown pins to strip the weapon from the rack, making it one of the most secure,



**Jotto Desk's Defend IR is an infrared security system designed specifically for patrol vehicles.**

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- Three Levels of Locking: A Locked Vehicle, the LOFT Compartment, and the Individual Gun Lock
- Available for 2013+ Ford Interceptor Utility, 2019+ Ford Expedition, 2015+ Chevy Tahoe, and 2012+ Dodge Durango

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yet accessible, gun racks on the market.

Jotto Desk also produces the Defend IR Security System explicitly designed for patrol vehicles. This programmable infra-red system, which fits either in an equipment console or stand-alone, monitors the interior of your vehicle. The Defend IR automatically arms upon the ignition being turned off and not sensing movement for an adjustable period. If movement/temperature change is sensed, a count-down begins (adjustable to ten, 20, 30, or 40 seconds). If the cause is a good guy, simply start the vehicle and the Defend IR is disabled. If it's a bad guy, the Defend IR will then activate your lights and siren, alerting the officer and scaring off any potential criminal. A honking horn OEM alarm won't get much attention, but full-blown lights and siren will have every neighbor on the lookout as it protects parked take-home units. In the case of an accidental alarm trip, simply start your vehicle and the Defend IR will disarm.

**LUND INDUSTRIES, INC.**  
(lund-industries.com)

The LOFT secures an M4-style patrol rifle or an 18.5" shotgun out of sight up



***The LOFT provides secured single and dual firearms storage in the rear quarter of your vehicle – in the unused space near the headliner, up and out of your line of sight through the rearview mirror.***

near the headliner in the rear of an SUV, utilizing a unique and patented design. The LOFT is one of a few vehicle storage solutions which provide three levels of locking to secure weapons for storage: the locked vehicle, the LOFT compartment and the individual electric gun locks. The LOFT is available in one or two gun configurations and XL configurations.

A number of agencies have added LOFTs to vehicles equipped with gun

racks between the front seats specifically for overnight storage in take-home vehicles. The officer can choose to carry one, both or neither of their long guns up front in the vehicle while on duty, but can secure both in the LOFT at the end of their shift for overnight storage. If a thief looks into a parked police SUV overnight, all they will see are open racks and locks between the seats without the guns in them!

Some police units "hide" the gun lock switch on the siren box with a switch labeled "gun" or "lock" and keep it wired hot when the vehicle is running. The out of



***Lund's new Sub Floor Cargo Storage System expands your Chevy Tahoe's rear storage area, allowing you to securely stow your firearms and other valuable equipment.***

## X-LOCK

### Gun Racks for Your Vehicle

Only the X-Lock gives officers quick, one-handed access to guns – when they are needed fast.

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- Padding protects guns and prevents rattling.
- Lock operates with a key or with an electronic timer for immediate access.
- Components can be adjusted to custom fit most makes/models of guns.
- Quick installation! Can be mounted with little or no drilling.

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- Lock operates with a key or with an optional keypad that incorporates fingerprint recognition technology.
- Components can be adjusted to custom fit most makes/models of guns.
- Quick installation!

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## THE WHEELS OF JUSTICE

Continued from page 29

sight storage can be a benefit for on duty use as the guns do not stand out as available or easy prey in an idling unattended police unit.

Lund's all-new Sub Floor Cargo Storage System expands your 2021+ Chevy Tahoe's rear storage area, allowing you to securely stow equipment and weapons. It creates a slightly raised level floor in the cargo area which allows "Sub Floor" storage including two hinged locking compartments. It is designed to work with or without a rear cargo partition and securely mounts to OEM mounting points. There are a variety of options available, including trays, covers and utility boxes.

### PRO-GARD PRODUCTS, LLC ([pro-gard.com](http://pro-gard.com))

The Tri-Lock Self-Supporting Gun Rack can secure up to two long guns and one handgun within easy reach of the officer. It mounts vertically between the driver and the passenger seats with adjustable brackets and lock heads to meet the specifications of each officer's weapons. There are three styles of gun lock override keys available: straight, vending or handcuff.

### SANTA CRUZ GUNLOCKS, LLC ([santacruzgunlocks.com](http://santacruzgunlocks.com))

Santa Cruz Gunlocks features partition mounted racks for single or dual weapons with a choice of four lock styles and a manual key override. A new, fully adjustable system is available for vehicles with a K-9 insert; it works with all varieties of their gun locks.

### SETINA MANUFACTURING CO., INC. ([setina.com](http://setina.com))

Setina Mfg. has developed a Rear Cargo Management System with electronics and firearms storage designed to maximize its rear storage capabilities. It is easily installed and provides a flat surface for upper storage, along with two lower storage bays for electronics, cargo and firearms. A lift-up gas spring assists opening the lid for easy access to the storage bays beneath and features a choice of advanced locking systems. The design works with or without a rear partition and is compatible with Setina's cargo box systems.

Setina also sells their exclusive T-rail



**The new Rear Cargo Management System from Setina is easily installed.**

weapon mount either as a stand-alone floor mount or partition mount for one or two weapons. They provide maximum security with a fully enclosed, one-piece shroud and lock design which protects an AR's takedown pins, magazine and trigger. Setina also offers Blac-Rac and Vault Lock systems.

An interesting bit of Setina trivia comes from my early days as a cop. Our vehicles were equipped with Setina's Gen 1

## Tahoe SubFloor Cargo Storage System

### Expand Your 2021+ Chevy Tahoe's Rear Storage Area

- Securely Stow Equipment, Radios, Weapons, and More
- Creates a Slightly Raised Level Floor in the Cargo Area Allowing "SubFloor" Storage including Two Hinged Locking Compartments: Rear Compartment Can Be Used for Weapons and Equipment and the Front Compartment Is Ideal for Radios or Additional Gear
- Works With or Without a Rear Cargo Partition
- Securely Mounts to OEM Mounting Points
- Optional Accessories Available: Covers, Electronics Boxes, Etc.



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**Setina's Double T-Rail systems can be used as a partition mount or placed on a freestanding base.**

shotgun racks which featured an innovative locking system. The locking system featured a large brass assembly which popped out about 3/4" when unlocked. They were all keyed the same so relief officers, like me, could operate them in whichever car we were assigned. The cool thing was that we always kept them in the unlocked position for instant access, but thugs, arrestees, thieves, or whomever, when trying to steal the shotgun, instinctively pushed the brass locking mechanism which was nice and shiny and all they achieved was locking the weapon again! However, on the driver's side of the unit was a nondescript looking button about the size of a pencil eraser which was the actual release.

## TUFLOC® (tufloc.com)

Tufloc provides a variety of mounting positions for their Gun Lock systems: roll bar, divider screen, overhead, partition, floor mount with the muzzle down, or horizontally under the officer's legs. Their mounts stow weapons well out of the way of vehicle

occupants and deployment of the air bags. Their X-Lock systems feature a trigger guard and a key controlled time delay using either a handcuff key or tubular key which can be keyed alike or individually.

The TufBox is a high security, locking drawer system which secures your weapons and is available for all SUVs and cruisers.

One final note about gun mounts with electric opening switches. Have your upfitter or department mechanic mount the switch in a concealed, but easy to reach location. A recent widely circulated video showed a female arrestee in an Oklahoma deputy's vehicle who slipped one hand out of her handcuffs, wrestled her way through a gap in the prisoner partition, obtained the deputy's AR-15, and began firing it out the passenger window, striking a deputy and a citizen. Fortunately, neither wound was fatal. When investigators questioned her how she obtained the weapon, she replied, "I just pushed the red button on the console marked GUN." A video of the incident can be viewed here: <https://tinyurl.com/mw9z6ee6>



**Tufloc's X-Lock is self-adjusting – it secures most long guns by simply pressing the gun into the lock.**

## REMOVE IT OR LOSE IT

Our final section deals with the alarming nationwide rise in weapon thefts from LE vehicles. This is not just a "big city" issue as rural departments lose firearms, too. The problem escalated dramatically during the "social unrest" (aka riots) of 2020 across the country.

Regrettably, weapon losses from the 2020 riots were nothing new for America's cops; at least 100 police agencies reported 1781 guns lost or stolen between 2008 and 2017 and most are still missing. Nearly half were taken from cars and these police weapons were used in multiple crimes, including gang shootouts and even attacks on cops themselves! In addition to threatening the safety of the public, thefts of LE firearms can potentially result in financial liability for agencies and officers alike.

Recently, police in Central Illinois broke up a theft ring which specifically targeted weapons in police cars. The case broke with the arrest of an 18-year-old suspect after two AR-15s stolen from police vehicles were found in his home. He later admitted to being involved in 30 vehicle burglaries with a 19-year-old suspect, targeting cars throughout Central Illinois.

A 2016 study revealed that, over five years, 329 police firearms had been stolen from Southern California departments and at least 108 were stolen from police vehicles; many left unlocked and unattended by seasoned officers. The list included GLOCK®s, SIG SAUERs, Remington shotguns, and AR-style rifles. The alarming findings resulted in a bill signed into law by then Governor Brown which requires officers to secure weapons left in unattended vehicles or face fines up to \$1000.

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## WHAT'S IN YOUR DRIVEWAY?

We've written several articles highlighting the pros and cons of take-home car programs across the United States, but firearm thefts from police vehicles have been exacerbated by these programs. We reported on roving bands of anti-police individuals driving through residential neighborhoods searching for parked police cars and, using rattle cans, painting "COP" in front with an arrow pointing at the home. Officers have been assaulted and killed driving to and from work in marked and unmarked cars and parked police cars have been firebombed and broken into in driveways. The turbulent times we're experiencing – not the fuel prices – could actually bring about the end of these programs.

Obviously, the simplest method to secure a police car and contents is to park it in a locked garage, even if it means leaving a soccer mom's SUV outside. If this is not possible, at least park it in a side or rear yard, preferably behind a stockade fence, but never park it on a street which invites hit and runs, vandalism, slashed tires and break-ins. Officers living in apartment complexes have no choice other than taking their chances in parking lots.

All police vehicles parked outside residences (and official buildings, too) should be emptied when parked. Weapons, tactical gear, nonlethal weapons, and handcuffs should be removed. Even the best weapon mounts can eventually be defeated by aggressive criminals with ample time and portable power tools. Even if they can't dislodge a weapon, they can certainly destroy it.



***Parking your take-home vehicle on the street overnight invites vandalism, slashed tires and break-ins.***

I know these protective measures may seem too extreme or a nuisance, but it certainly beats the alternative of department weapons being used on you or innocent citizens. **P&SN**

*Sergeant James Post welcomes your feedback with comments and suggestions. He can be contacted at [kopkars@ar-kansas.net](mailto:kopkars@ar-kansas.net).*



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# BALLISTIC SHIELDS

## PART 1:

# BASICS AND TACTICS

The shield is older than civilization itself and no other implement has shaped warfare to such a tremendous extent.

JAKE GANOR

Shield walls and phalanx tactics are plainly visible in carvings from ancient Sumeria which date back to 2600 BC. Shield wall tactics were also used by ancient Egyptians. In Ancient Greece, all infantry tactics were built around the shield – a hoplite was not considered armed without his *aspis* which enabled the phalanx formations of the age – and the skirmishers who fought outside formation, peltasts, were named after their light shields, *pelta*. So, too, was the Roman shield, the *scutum*, the most essential piece of a legionnaire's kit; the infantryman could fight without body armor, but never without his shield.



*The scutum, used by the armies of ancient Rome, was a 22 lb. large rectangle curved shield.*

As centuries passed and the age of the lance and crossbow bolt developed into the age of gunpowder, the shield fell into disuse. The wooden or light iron shield was no match for firepower. By the 18th century, it was already effectively obsolete in a military context. But, unlike the lance and the saber, the shield has evolved, and today's ballistic shields differ enormously in their construction from the shields of ages past. They are also used in a very different manner.

### CURRENT TECHNOLOGY

Today's shields can be described very simply as "man-portable hard armor ballistic barriers." The most common type, which most closely fits the classical definition of the word "shield," is handheld or supported by its user's body. A somewhat less common type is too large and heavy to be used in such a manner, so is supported by a wheeled trolley.

Ballistic shields are similar to hard body armor plates in their construction. In fact, they are usually made along *exactly* the same lines as body armor plates. This means that they are generally built from a

small handful of common ballistic materials:

- Fiber-resin composites, e.g., Kevlar® (Para-Aramid) fabrics stiffened with phenolic resin, or Ultra-High-Molecular-Weight Polyethylene (UHMWPE) fiber or tape laminates held in place with polyurethane resins;
- Ceramics, e.g., aluminum oxide, silicon carbide, or boron carbide; or
- Steel, e.g., MIL-DTL32332, AR550 or other ballistic grades of steel, typically martensitic low alloys.

These materials are often used in combination. A "ceramic armor plate" usually consists of a ceramic layer bonded to a backing layer made of a fiber composite (Fiber-Reinforced Plastic, FRP). The ceramic layer will typically be anywhere from 0.13" thick to 0.4" thick and the FRP backing layer in the 0.25" to 0.6" thickness range. In this sort of material configuration, to simplify things a bit, the high hardness ceramic layer serves to break up any incoming bullet core and the FRP backer absorbs the fragments and residual kinetic energy. Far less frequently, a ceramic layer can be used over a ductile





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# BALLISTIC SHIELDS PART 1: BASICS AND TACTICS

Continued from page 34

metallic backer or a hard metallic strike face can be layered over an FRP backer.

In practice, ballistic shield material selection hinges on the answers to two questions: (1) What level of protection is the shield going to offer? and (2) What is the target weight?

The answer to the first question determines *where and when* the shield ought to be used. The answer to the second determines *how* the shield can be used.

## LEVELS OF PROTECTION

Let's take them one at a time. So, with respect to the first question, the first step is to refer to the NIJ specification for ballistic shields, 0108.01. This specification was released in September 1985 and has not been updated since because, frankly, it hasn't really needed updating. The table to the right summarizes the levels which shields can be rated to:

Levels I through IIIA offer protection from handgun threats. In practice, Levels I and IIA are now depreciated, and Level II, along with Level IIIA, are today the only commercially available options for shields rated to protect from handgun threats. Level III – without the “A” – offers protection from most rifle ball rounds. Level IV offers protection from steel cored AP threats and all rifle ball rounds, including high velocity and magnum rifle threats.

Commercially, shields rated to Level III+ are also commonly encountered. Level III+ has no clear definition. It *should* refer to armor which complies with the Level III specification *and also* is capable of defeating common steel core ball rounds like M855/SS109 and 7.62x54mmR LPS. In practice, it means whatever the manu-

Armor Type	Test Ammunition	Nominal Bullet Mass	Suggested Barrel Length	Required Bullet Velocity	Required Hits Per Armor Specimen	Permitted Penetration
I	22 LRHV Lead	2.6g 40gr	15 to 16.5cm 6 to 6.5in	320 ± 12m/s 1050 ± 40ft/s	5	0
	38 Special RN Lead	10.2g 158gr	15 to 16.5cm 6 to 6.5in	259 ± 15m/s 850 ± 50ft/s	5	0
II - A	357 Magnum JSP	10.2g 158gr	10 to 12cm 4 to 4.75in	381 ± 15m/s 1250 ± 50ft/s	5	0
	9mm FMJ	8.0g 124gr	10 to 12cm 4 to 4.75in	332 ± 12m/s 1090 ± 40ft/s	5	0
II	357 Magnum JSP	10.2g 158gr	15 to 16.5cm 6 to 6.5in	425 ± 15m/s 1395 ± 50ft/s	5	0
	9mm FMJ	8.0g 124gr	10 to 12cm 4 to 4.75in	358 ± 12m/s 1175 ± 40ft/s	5	0
III - A	44 Magnum Lead SWC Gas Checked	15.55g 240gr	14 to 16cm 5.5 to 6.25in	426 ± 15m/s 1400 ± 50ft/s	5	0
	9mm FMJ	8.0g 124gr	24 to 26cm 9.5 to 10.25in	426 ± 15m/s 1400 ± 50ft/s	5	0
III	7.62mm 308 Winchester FMJ	9.7g 150gr	56cm 22in	838 ± 15m/s	1	0
IV	30-06AP	10.8g 166gr	56cm 22in	868 ± 15m/s 2850 ± 50ft/s	1	0

## Ballistic Resistant Protective Materials – NIJ Standard 0108.01

facturer wants it to mean. Because there is no official definition, and the industry definition is so vague and ambiguous, we'll set it aside.

Naturally, as shields move up the level ranking, they get heavier. Typically, a Level IIIA shield weighs *less than half* of what a Level III shield weighs which itself is *less than half* the weight of a Level IV shield.

Shields rated to Level III and below are now usually made entirely from UHM-WPE-based fiber composites – they do not make use of ceramic or metallic ballistic materials. Level IV shields *must* be made either with ceramic armor techniques – for e.g., a ceramic layer bonded to a fiber

composite layer – or from extremely heavy plates of steel nearly ½" thick.

If all shields were 12" x 12" square, the average Level IIIA shield would weigh about two pounds, including paint, trim and a lightweight handle. The Level III shield would weigh around 4.2 pounds. The ceramic composite Level IV shield would weigh just north of 8.5 pounds.

Because they share materials and technologies, these weights are within striking distance of the average weights for 10" x 12" body armor plates. But, 12" x 12" was a hypothetical example – shields typically measure much larger than that; the smallest are rarely under 18" x 24",



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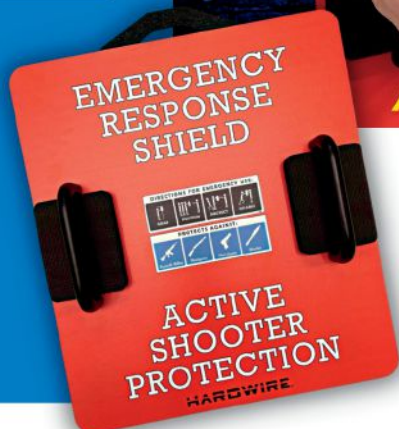
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**"The Emergency Response Shield (ERS) is the fire extinguisher for gunfire and should be placed with other emergency tools for ease of access."** -Hardwire CEO, George Tunis

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 SHIELDS PART 1: BASICS AND TACTICS

Continued from page 36



**Your appropriate stance is a static hold position which is sometimes called a "combat stance."**

and even that "small" 18" x 24" shield has a surface area which is three times larger than our one square foot hypothetical and four times larger than a 10" x 12" SAPI-style armor plate. A small IIIA shield can be substantially heavier than a Level IV body armor plate; a small Level III shield weighs about as much as two Level IV body armor plates combined; and practically all Level IV shields are well

over 30 pounds.

For reasons pertaining to weight, the Level IIIA shield is the most common type on the market today. Rifle rated Level III shields are considerably rarer. Level IV shields are highly specialized, very rare and typically resemble wheeled barricades.

## BALLISTIC SHIELD TACTICS

Needless to say, it's impossible to learn how to use a shield just by reading about it, just as it's impossible to learn how to play a sport just by reading about it. What's more, there are many different types of shields – with different geometries, viewport styles and handle types, among many other potential points of difference – so what might be good advice for the use of one model may not necessarily be good advice for the use of any other model. Generally, if you take a ballistic shield operator course, it'll focus on the model you're going to be using.

What we can do in print is briefly cover the basics and highlight some best practices which should apply no matter what type of shield you're using. We'll also focus on Level II, IIIA and III shields which are carried by shield operators – as opposed to Level IV shields which are

pushed along as mobile barricades on wheels.

Ballistic shield handles come in various styles – U-handles, ring handles, strap handles, bar handles, etc. – and how the shield is held will vary depending on which handle setup you're using. As a general rule, the optimal tactical hold is one where the shield is held away from your body, directly in front of your torso, without any cant at all or with a very slight downwards cant. If your shield has a viewport, it's generally recommended to bring your helmet in contact with the upper rim of the shield which stabilizes it and should keep your eyes at a constant distance from the viewport. In this case, your entire upper body – head and neck included – will be behind the shield. If your shield does not have a viewport, you've got two options. Either you can keep your face behind the shield – taking quick peeks for visibility and otherwise trusting your squad mates for guidance – or the shield can be held lower, with the top rim of the shield at roughly nose level, with your eyes above the shield for visibility. The shield in this position will protect your torso, neck and most of your face.

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## MOVEMENT

In a static hold position, the appropriate stance *is not* a boxing stance with (assuming you're right-handed) your left foot 15 inches forward of your right foot, a slight tilt to the right and your knees bent. You should adopt a tall forward stance, with your left foot about six to nine inches behind your right for balance and your lead foot pointing straight forward. This static hold position is sometimes called a "combat stance."

Once you've found a comfortable static hold, you should be able to move laterally, forward and to the rear quickly – and you should be able to pivot very quickly. Mobility is of paramount importance because the shield operator typically leads the tactical entry squad – all of the others move at *his* (or *her*) pace.

If you're using a handgun alongside a ballistic shield, keep two things in mind: If the slide hits the shield, you're much more likely to experience a malfunction such as a failure to eject. Also, if your arm is in contact with the shield, your shots will likely experience some horizontal drift. Practice clearing malfunctions and handgun plus shield shooting. It's also worth noting that certain optics, such as laser sights, can be especially useful for shield operators.

Reloading while carrying a shield can be a challenge. With many shield types, you'll need to crouch behind the shield to free up your off hand. Even with light shields, reloading is always slower and more difficult than it would otherwise be. As such, it is generally recommended that you carry a second loaded sidearm.

Some shields – typically those without viewports – are designed with cutouts which serve as weapon supports. These are often, but not always, designed for use with carbines rather than handguns. When using a shield of this type, make sure that you can use your weapon with the shield in a proper tactical hold and that you can operate your shield, as well as your weapon, with sufficiently unimpaired mobility. If you can't make use of a supported long gun unless the shield is shunted to the side or angled downwards, or if supporting a long gun makes it difficult to move, pivot or respond to a dynamic situation, it's recommended that you skip the supports and simply use the shield alongside a handgun.

Various unique techniques are open to the shield operator. "Lipping" involves pressing the edge of a shield against a structural feature like a wall or door frame. When turning a corner or entering a room and making a turn, the shield can be lipped at the entry point and pivoted around



**The shield operator typically leads the tactical entry team and the other team members move at his pace.**

which keeps the operator and his squad mates protected. With practice, this can be done very quickly; with a lot of practice, it becomes reflexive.


"Splitting" is commonly done when the shield operator enters a room and expects a threat to engage his support side. If the operator is right-handed, he would pivot the shield outwards and to the left, typically via external rotation of the shoulder. In this position, the operator's weapon and attention are facing forward, but the shield is covering and protecting the left side of his body.

In a close combat situation, or when making an arrest, lower your center of gravity by bending your knees, adopt a wider stance and slightly angle your shield outwards so that your assailant cannot easily grab it. If necessary, and if your shield's handle allows for it, the shield can be used as a striking implement. In this case, it's best to strike with the side edge of the ballistic shield – this is most effective as a compliance measure as it concentrates force on the smallest possible surface area, makes the shield difficult or impossible to grab, and reduces the likelihood of damage to the shield's ballistic materials.

Now, unless your shield is made of steel, it should be noted that ballistic shields are *not* riot shields and are *not* built to withstand repeated or severe blunt impacts. Even moderate impacts, on the order of 25-70 joules of impact energy, can damage or degrade the ballistic materials used in their construction. UHMWPE composite layers can delaminate – and this has been clearly observed at 50 J – and the ceramic layer, if there is a ceramic layer, can crack. Some situations are unavoidable, but non-steel ballistic shields are, emphatically,

neither blunt impact tools nor suitable for use as riot shields. **P&SN**

*Jake Ganor is a materials scientist, armor engineer and a designer of ballistic shields. His company, Adept Armor ([www.ade.pt](http://www.ade.pt)), is pioneering next generation armor systems. His book, Body Armor and Light Ballistic Armor Materials and Systems is now available on Amazon.*



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# NEWS

## New Research Article Available: Indicators of Sex Trafficking in Online Escort Ads

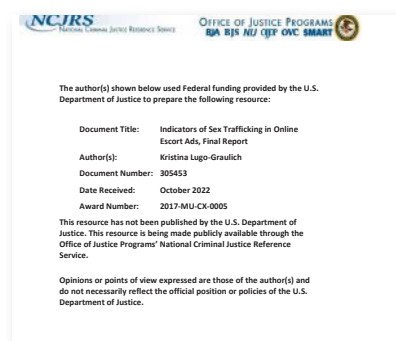
Law enforcement have long used online escort advertisements to identify sex trafficking victims and investigate cases. Investigators have used and shared several indicators with each other in practice over the years, but these indicators have not been empirically tested for predictive power to support investigative decisions or the use of ads as evidence in court.

This study has two objectives: Examine whether there are indicators which can differentiate escort ads related to sex trafficking from ads for consensual,

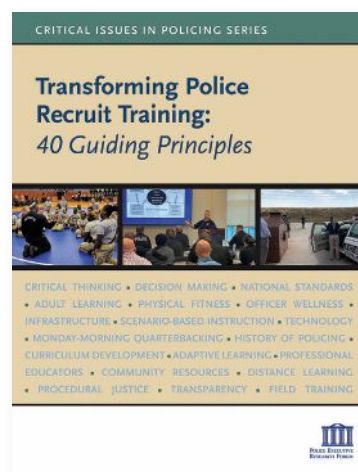
non-trafficking sex work and, if so, determine which indicators are most likely to predict whether the ad represents a trafficking case.

The goal of this research is to create guidance investigators can use to increase precision in victim identification and help focus limited investigational resources on ads more likely to be associated with trafficking.

A copy of this research article can be downloaded at the following link:  
<https://tinyurl.com/yx6n29mj>



## New Report: Transforming Police Recruit Training – 40 Guiding Principles



Published by the Police Executive Research Forum (PERF), this report is part of PERF's Critical Issues in Policing series. The report discusses the current state of recruitment training, with its demand that we rethink – and remake – the system for how new police officers are trained. We need national consensus and national standards on what the training contains, how it is delivered

and by whom. While this report may present a grim picture of the current state of recruit training, it also puts forth a series of principles which can help guide the transformation of training to meet the challenges of policing for today and tomorrow.

A PDF of the report can be downloaded at  
<https://tinyurl.com/4uucers2>



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Page #	Advertiser	Web Site
8.....	Accu-Shot.....	accu-shot.com
14.....	Aerko International/Shamrock Filling, LLC.....	aerko.com
9.....	Alien Gear Holsters.....	aliengearholsters.com
12.....	Ammo-Safe, LLC.....	chambersnake.com
15.....	Black Hills Ammunition.....	black-hills.com
35.....	BlueRidge Armor.....	blueridgearmor.com
Cover 4.....	BulletSafe.....	bulletsafe.com
13.....	Dragon Skin.....	hi-tec.qc.ca
38.....	Earphone Connection.....	earphoneconnect.com
32.....	EVIDENT, Inc.....	shopevident.com
25.....	Fairleigh Dickinson University.....	fd.edu/lp/mpa-custom/
38.....	Fire Hooks Unlimited, Inc.....	firehooksunlimited.net
27.....	Gamber-Johnson, LLC.....	gamberjohnson.com
31.....	Golight, Inc.....	golight.com
17.....	Gun Shop, The.....	policeammo.com
37.....	Hardwire, LLC.....	hardwirellc.com
16.....	Humane Restraint Co., Inc.....	humanerestraint.com
21.....	ILEETA Conference & Expo.....	ileeta.org
36.....	Instant Armor, Inc.....	instantarmor.com
Cover 3.....	Jotto Desk.....	jottopublicsafety.com
28.....	Lund Industries, Inc.....	lund-industries.com
30.....	Lund Industries, Inc.....	lund-industries.com
Cover 2.....	MILO Range.....	miilo-lvc.com
5.....	N-ear, Inc.....	n-ear.com
14.....	Next Generation Tool Co.....	nextgentool.com
11.....	Noble Training/Expo.....	nobletrax.com
13.....	Pearce Grip, Inc.....	pearcegrip.com
20.....	Qualification Targets, Inc.....	targets.net
3.....	Setina Manufacturing Co., Inc.....	setina.com
22.....	Slippery Rock University.....	sru.edu/graduate
16.....	Sniper Tools Design Co., LLC.....	snipertools.com
19.....	Springfield Armory.....	springfield-armory.com
40.....	Stratton Hats.....	strattonhats.com
33.....	Streamlight, Inc.....	streamlight.com/protac2.0
29.....	Tufloc.....	tufloc.com
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# BUSTED!

JAMES L. MCCLINTON, PH.D.

**What do you call a moron who's had too much to drink? A cab...** The Oklahoma Highway Patrol said a person called in a report, saying that "there appears to be a man on the back of this truck." It all started in Wichita when investigators say a 30-year-old man hopped on the back rail of a semitruck as it was leaving a shipping yard. He held on for 130 miles – nearly two hours – and ended up in Guthrie, Oklahoma. Kansas Department of Corrections records show that he served time for aggravated battery. Police arrested him for public intoxication and joyriding – both misdemeanor charges to which he pleaded not guilty. When troopers asked him why he was on the truck, he said he was "hoping to find his wife." (*Now, he's "looking for love in all the wrong places."*)

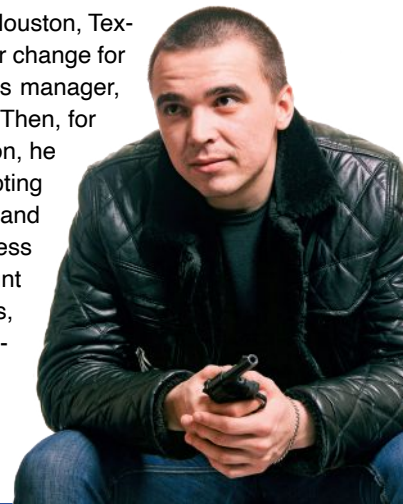
**May the fraud be with you...** A man claiming to be a Russian astronaut in space allegedly scammed a 65-year-old Japanese woman into paying for his return trip to Earth, vowing to marry her once he landed. The man found the victim on social media. On his profile, he uploaded random photos of space and said he worked at the International Space Station where astronauts have limited access to cell service. The woman said their relationship quickly evolved into one of love. A Japanese messaging app reveals that he repeatedly said he loved her and proposed marriage. But, to actually tie the knot, he said, he first needed money to return to Earth. Believing this man would be her future fiancé, the woman paid him about 4.4 million yen (about \$30,000) in five installments. But, when he kept making demands, the woman grew suspicious of his intent and reported him to the police. (*Ground control to Major Con...*)

**"A woman and a raccoon walk into a bar"...** A 38-year-old woman who brought a wild raccoon into a North Dakota bar during happy hour, which prompted state health officials to issue a warning about potential rabies exposure, is now facing criminal charges. The Maddock woman is charged with misdemeanor counts of providing false information to law enforcement, tampering with physical evidence and unlawful possession of furbearers. She was arrested after authorities found

## REAL STORIES OF GENUINE ABSURDITY

### When you want to be a criminal and a nice guy at the same time...

A man strolled into a fast-food restaurant in Houston, Texas, and asked the person behind the counter for change for a \$100 bill. When the employee called over his manager, the suspect pulled a gun and demanded cash. Then, for reasons which can only be known to a simpleton, he told the manager that it was his first time attempting a robbery. The manager seized the opportunity and simply refused to open the register. The hapless thief then proceeded to try to negotiate an amount which would be reasonable to both parties. Alas, the manager heard nothing which would sweeten the deal. The robber then left the restaurant, probably to go home and practice in front of a mirror. (*As with most occupations, experience is required.*)



her and the raccoon by serving several search warrants in and around Maddock. (*I once picked a cougar up in a bar; however, that story is for a different time!*)

**"Billy the Kid" reportedly terrorizes the local sheriff's office...** "What we're dealing with here is a complete lack of respect for the law." An Arizona sheriff's office said a loose goat "terrorized" a community for hours before being apprehended. The Maricopa County Sheriff's Office posted that the outlaw goat, which they dubbed Billy, "terrorized some residents of Tonopah" for hours by causing damage to a garage door and an electrical cord before chasing a resident around a car. "Deputies from District 2 were able to take Billy into custody, at which point he assaulted one of our deputies by urinating on them," the post said. "Deputies charged Billy with trespassing, assault, criminal damage, and disorderly conduct," the post joked. (*He's b-a-a-a-a-d to the bone!*)

**They should make a movie about this...call the movie "Saw."**... You may have heard of Jack the Ripper or the Taco Bell Strangler. But, now, Gresham, Oregon, is dealing with its own serial criminal...of sorts. That would be the Gresham Lumberjack. Someone is cutting down trees along the Springwater Corridor Trail – to the tune of 750 trees since August 2021. But, they're not doing it to poach

firewood; the lumberjack leaves the trees right where they fall. The cutting seems to take place at night and is carried out with a hand saw (likely because it's quieter). The city has installed cameras along the trail, but, in the meantime, they're asking for the public's help in nabbing the culprit. (*I can cut down a tree just by looking at it – I saw it with my own eyes!*)

#### **Thirty hours of community service cleaning up trash should do the trick...**

After knocking a golf ball into the Grand Canyon and appearing to lose her driver, a woman who posted a video of the episode on TikTok was charged and a court appearance has been scheduled. The incident prompted the National Park Service to post what appears to be a silly, but, apparently, a necessary question on social media: Do we really need to say, "Don't hit golf balls into the Grand Canyon?" The woman had posted a video to her personal TikTok page showing her hitting a golf ball and throwing a golf club into the canyon near Mather Point. Public viewers of the video helped identify the individual's social media account. The NPS went on to explain that throwing objects over the rim of the canyon is not only illegal, but can also endanger hikers and wildlife who may be below. (*Also, go down there and retrieve your golf ball and club!*) **P&SN**



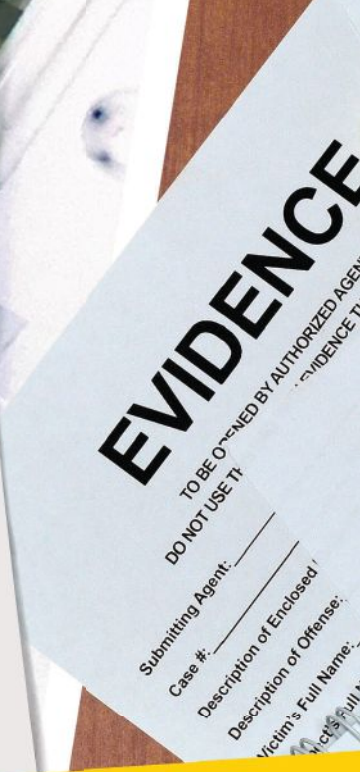


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