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BY EUGENE NIELSEN

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52 COVER STORY



BY JASON SWARR | Cover photo by Straight 8 Photography

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BY JACOB PARKER

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rooftops and doesn't include hours of math lessons? Where do we sign up?

BY DAVE BAHDE



70 WAR BELTS
Rigging Up for Battle
BY JEFF GURWITCH

76 PREPPER SPECIAL

Versatile Pump Shotgun

BY JEFF HALL



WATER STORAGE ESSENTIALS
What To Do Before the Tap Runs Dry
BY RICHARD DUARTE

AROUND AND AROUND THEY GO



Tumblers for Handloading

BY DENNY HANSEN

COLUMNS

- 6 BRIEFING ROOM
 Concealed Carry: Reasons or Excuses?
 BY DENNY HANSEN
- 16 STREET SMARTS
 Hospitals Can Be a Pain
 BY BRENT T. WHEAT
- 20 AGAINST ALL ODDS
 Adventure Apparel
 BY REUBEN BOLIEU
- **32 FRONTLINE DEBRIEFS**Reality Disconnect in Firearms Training
 BY SCOTT REITZ
- 36 ENEMY AT THE GATE

 "Assault Weapons" Under Attack
 BY KURT HOFMANN
- 96 GOOD GUYS WIN!
 BY TAMARA KEEL
- 98 TRAINING AND TACTICS
 The Photograph
 BY LOUIS AWERBUCK

DEPARTMENTS

- 8 MAIL ROOM Letters from Our Readers
- 12 LAWFUL CARRY
 DeSantis Speed Scabbard
 BY FLINT HANSEN
- 38 LONG GUNS

 Mossberg HS12 TR Over/Under
 Combat Shotgun
 BY LEROY THOMPSON
- 90 THE CUTTING EDGE
 TOPS Knives VI AX
 BY DENNY HANSEN
- 92 OFFBEAT

 LaserMax UNI-Green Rifle Pack

 BY EUGENE NIELSEN
- 94 GEAR LOCKER

 New Products and Accessories
- 97 ADVERTISERS' INDEX

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BRIEFING ROOM

BY DENNY HANSEN

Concealed Carry: Reasons or Excuses?

while back I conducted a short, informal survey with 100 of my former concealed-carry class students.

The questions included:

- Do you carry your handgun every day?
- If not every day, how often do you carry?
- What handgun do you carry?
- How do you carry (OWB, IWB, appendix, etc)?
- How often do you practice?

Sixty-two said they carry every day. This group preferred auto pistols, with only three of them carrying revolvers. All but four carried outside the waistband, and replied they went to the range at least twice a month, and devoted a total of around two hours a week to dry fire.

Thirteen replied they carry three to four times a week. All carried pistols and in every imaginable way, including ankle and cross-draw rigs. This group went to the range one to two times a month, and only six said they did any dry fire.

I was very disappointed in the remaining 25—a full quarter of the students questioned. Most carried a concealed weapon only once or twice a month. They often switched between different handguns as well as how they carried, and practice was almost non-existent. The reasons they gave were that handguns were too uncomfortable to carry, they only carried when going into a "dangerous area," and they couldn't find the time to go to the range or dry fire.

Let's break down the reasons of the third group:

Carrying is uncomfortable. It's not supposed to be comfortable; it's supposed ... I'm sure all S.W.A.T. readers can complete this sentence.

Carrying in a dangerous area: Until I get my crystal ball replaced, all areas can be dangerous at a moment's notice.

Can't find time to practice: While finding time to go to a range is somewhat understandable, not finding time to squeeze in a few minutes for

The above are not "reasons," they are excuses—and there's a big difference. I feel guilty that, as an instructor, I somehow failed the last group of students by not impressing upon them how important carrying a firearm for self-protection is. It is my fervent hope that S.W.A.T. readers fall into the first group of respondents.

Until next time, stay low and watch your back.

tenny Harren





INFORMATION

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TACTICAL LIGHTS

It was nice to see the article about the SureFire XC1 tactical light and its use (*OFFBEAT: SureFire XC1 Pistol Light,* October 2016 *S.W.A.T.*).

For many years, I have used an Insight M6 on my Glock 23 that I carry concealed. I use an M3 on my Benelli M1 tactical shotgun using a GG&G mount.

I feel that anyone using a gun for self-defense should have a tactical light on it, but sadly I think the shooting world is behind on this subject.

There are many ads in magazines, but few ads offering a holster that will hold a gun with a light. I don't see many ads for the sale of weapon-mounted lights and many good pistols are for sale that don't even have a rail system for a light/laser.

Many of the training centers do not put the use of lights in their training, and you don't see much written about the subject in gun magazines.

If you're going to use a gun for self-defense, you'd better have a light to be ready to shoot in low light so as to be sure of your target. I would hate to shoot the wrong person.

I hope you will write more articles about lights and their use, along with holsters that will hold them and any other good info you might have.

J. Dodd, Arizona

Thank you for the feedback.

Actually we cover tactical lights, both handheld and weapon mounted, on a fairly regular basis—either as standalone features or incorporated into an article.

I agree that low-light/no-light target identification is critical. While many good lights are available, there are also many that don't live up to the hype seen in print ads or on TV. It is paramount that the light be reliable. My personal EDC light is an Elzetta "Bravo" model.

I have no idea where you have at-

tended training, but reputable instructors include lights in their repertoire. Almost every class I have gone to—and I have attended more than 100—has at least touched on flashlight techniques.

Denny Hansen

BUILDING A MONSTER

Thanks for the article on assembling an AR-15 from various parts (*IT'S ALIVE: Frankengun Accessories and Ammo*, October 2016 *S.W.A.T.*).

While many people have "built" an AR-15, I have long thought that quality should pre-empt low cost, and the way in which the rifle in the article was put together exemplifies that.

Keep up the good work. T. Hilliard. Nevada

We appreciate the feedback, and wholeheartedly agree that the difference between a quality build and one that is only good for occasional plinking is the sum of the parts put into it.





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PRECISION AK

I read the recent article on the Rifle Dynamics precision AK (*AK PRECISION RIFLE: Rifle Dynamics RD700 DMR*, October 2016 *S.W.A.T.*) and have to say the entire piece was a bunch of BS, and I believe this is another case of a magazine pandering to its advertisers.

There is no way an AK rifle is capable of sub minute-of-angle accuracy. Since I cannot legally own an AK where I live, I get a lot of my information from carefully reading blogs on the Internet. Besides the fact that the Soviet Union AK 7.62x39mm cartridge is more powerful

than the AR-15's .223 round, the AK offers nothing.

R. Mueller, New Jersey

To begin with, Rifle Dynamics has never advertised in S.W.A.T., so accusing us of "pandering to ... advertisers" is laughable. In fact, we cover many manufacturers who don't advertise, but whose products we believe are of interest to our readers.

While it's true that AK-type rifles are less ergonomic than the AR-15 family of weapons, the rifle in the article was definitely sub-MOA. Some cheap ARs are



not capable of that kind of accuracy.

You refer to the "Soviet Union." Since you get so much of your information from the Errornet, if you perform a search for "Soviet Union," you may be interested to learn that the Soviet Union dissolved in 1991, and over 20 countries have made AKs.

Great article on the Rifle Dynamics RD700 DMR! I have long preferred the AK system to the M4 due to its extreme reliability and because it does not need the care that the M4 does.

While I can't afford the rifle at this time, Rifle Dynamics has a stellar reputation for quality and, due to the article, the RD700 DMR has gone to the top of my "must have" list.

D. Jackson, Mississippi

Thank you for taking the time to contact and share your thoughts with us. We'll continue to have articles on many different weapon platforms in the future.

FEEL THE BURN

Dave Morelli wrote a very impressive article about different powders and how they react at different temperatures (FEEL THE BURN: How Temperature Affects Ballistic Performance, September 2016 S.W.A.T.). He was fair with the IMR and Hodgdon powder temperature tests. Thank you for the honest feedback. We appreciate your support and consideration.

Chris Hodgdon, Hodgdon Powder

Thank you for your feedback, I liked the results I got from the Enduron. One important thing I learned was powder temp is not as worrisome to me as change in air temperature for the shooting I do, but I'm not an anal bench guy.

I worked up some very accurate loads with 4166. Thanks for the help with the piece.

Dave Morelli ()

WE WANT TO HEAR FROM YOU

Write S.W.A.T. Magazine at denny@swatmag.com





DeSantis Speed Scabbard

I have carried a gun most of my life. Even if it's just to go to the drugstore in the middle of the night to buy cold medicine for my son, I go armed. I admit that in the past at two AM, I may not have had my 1911 with a spare magazine. More likely than not, it was a J-Frame with a speed strip.

Those days are gone. A line has been drawn in the sand, and America is at war. Turn on the TV and you may see that a police officer has been shot or another terror attack has taken place. The lives of my family, friends, and fellow Americans are too important for me to trust a lower capacity weapon system. Now I take the time to strap on a 1911, an XD, or an S&W M&P.

I recently received a Speed Scabbard holster from DeSantis Gunhide. The Speed Scabbard is available for most popular handguns. The one evaluated here was for an S&W M&P.

The holster is a pancake, outsidethe-waistband style. It carries a pistol very close to the body and almost eliminates "printing," making it a very good choice for concealed carry.

The top of the holster is an open top with no thumb break or other retention device. Friction fit applied by the belt and body keep a pistol secured in the Front of DeSantis Speed Scabbard with S&W M&P. Each holster is molded for a specific model of pistol and has two belt loops, so it can be carried as a straight drop or canted slightly forward.





holster. The bottom is also open-ended.

Behind the trigger guard area are a rubber washer and tension screw to adjust how tightly you choose to have your weapon held in place. The trigger guard is completely covered.

Like all pancake styles, the holster is made of two separate pieces of leather. The holster is molded to fit a specific model of gun, then glued together and double stitched.

The holster has three belt loops—one at the rear of the holster and two at the front. The area around all three is reinforced with stitching. This design, with three belt loops, allows the pistol to be worn in a straight drop or canted slightly forward. The entire holster is dehorned. No sharp edges means it can be worn comfortably, all day, every day.

I have always been a big believer in





Above: Front of Double Magazine pouch, which has two tension devices to hold magazines securely and separately.

Right: Rear of Double Magazine pouch shows two "pull-the-dot" snaps and slots for carrying vertically or horizontally.

having a reload. One of the main reasons is the fact that most semi-auto weapon malfunctions are magazine related. Ending up with a magazine that won't function properly transforms a fighting pistol into an ungainly club that can only be deployed at bad-breath distance.

Another reason is that you may face multiple attackers. For good measure, throw in the possibilities that all your shots may not connect and that some aggressors require multiple hits before they stop their actions. A gunfight is an exercise in democracy, and the bad guy gets a vote.

For these reasons, I also acquired a DeSantis Gunhide Double Magazine pouch. It's made of two pieces of leather. The magazine body is one piece and

the belt loop part is the second. Two tension screws with a rubber spacer placed between the pockets hold the magazines securely and separately.

The back of the magazine has two heavy-duty "pull-the-dot" snaps to remove the mag pouch without removing the belt each time. Three slots cut into the back of the pouch allow it to be worn with a narrow belt either vertically or horizontally. Like the holster, it is dehorned of rough edges and can be worn for extended periods.

Now when I need to run to the store in the middle of the night, instead of a five-shot revolver with a five-round speed strip, I have an S&W M&P with 18 rounds in the gun and two 17-round magazines on the belt.

The DeSantis Speed Scabbard has a suggested retail price of \$76.99, while the Double Magazine pouch goes for \$52.99.

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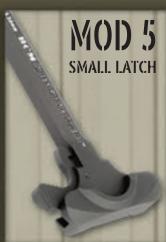


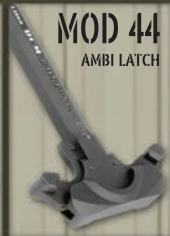
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Hospitals Can Be a Pain

The list of places I visited regularly during my cop career, the hospital is near the top.

This came to mind yesterday while visiting a friend who is recuperating from a serious illness. While traipsing those spotless floors that undoubtedly harbored more bacteria per square inch than the restroom of a downtown bus station, I realized that, for trouble and crime, it is hard to beat your local infirmary.

Over the years, I've witnessed everything from theft to attempted murder around and upon the grounds of the local hospital. But for my friends who have worked at inner-city hospitals, such a tally would be a normal Friday night shift. Any cop will tell you that hospitals are breeding grounds for both infectious diseases and a lot of mayhem.

I make this point because folks typi-



cally view a hospital as the place to get well or occasionally die. Either way, assault or robbery is very much the last thing on your mind when you or someone you know is lying on the crisp white sheets. Hospitals themselves aren't really to blame. The primary problem is that while hospitals treat everyone, people on the fringes of society tend to spend inordinate amounts of time there.

Whether the mentally ill, homeless people, folks without health insurance, or everyday victims of crime, in a hospital you meet people who bring a great deal of baggage with them. And I'm not talking about Louis Vuitton luggage. When you add the fact that many hospitals are located in the oldest and poorest neighborhoods, you can begin to understand why they end up being such a crime magnet.

The problems start in the parking lot. Few hospital parking lots offer clear sight lines and good security. Typically, parking areas are either a collection of cobbled-together small parcels or poorly patrolled, dimly lit parking garages. Because staff and visitors offer an around-the-clock stream of traffic, hospital parking areas present a great hunting ground for muggers and thieves.

But the biggest trouble spot in any hospital, and the one you are most likely to visit, is the emergency department (ED). It is here that the sick and injured bits of humanity end up, and





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those patients also have families and friends who show up in the waiting room shortly thereafter.

When you consider the roiling stew of often-troubled people, it's not surprising that assaults and even hostage or active-shooter incidents aren't uncommon in EDs across the country.

Like all cops, I've been in uncounted physical altercations at or near the ED. If you happen to be sitting in the waiting area, you might become an unwilling participant in the festivities.

Sadly you are not in a situation where "taking your business elsewhere" is an option, so the key to staying safe and secure is knowing where the exit is located and heading there immediately if people start doing stupid things. Actually, it would be more accurate to say "stupider" things.

One important issue is weapon carry. Whether a patient, visitor, or staff, most hospitals forbid any type of gun, knife or even chemical spray on the premises. In some cases, it is also against the law. If you decide to remain armed in spite of signage to the contrary, make sure your weapon is well hidden.

Hospital employees have little choice in the matter of weapon carry and must be exceptionally circumspect under penalty of termination. I know of several healthcare professionals who carry firearms on a daily basis but are extremely cautious to use deep concealment measures and keep their mouth shut about it to co-workers.

If you find yourself headed to the hospital as a patient, immediately remove all weapons and secure them somewhere safe. During treatment, even for something minor, staff will certainly find your weapon and order you to remove it. It will end up someplace where it may or may not be properly stored, and there could even be legal trouble. Whenever possible, it's far easier to get rid of it before you go.

Trouble lurks elsewhere aside from the parking lot and emergency department. Avoid or minimize time spent in unoccupied or infrequently traveled areas of the hospital. Tunnels between buildings, seldom-used elevators, empty wings, and dark stairways are common locations for robberies and sexual assaults.

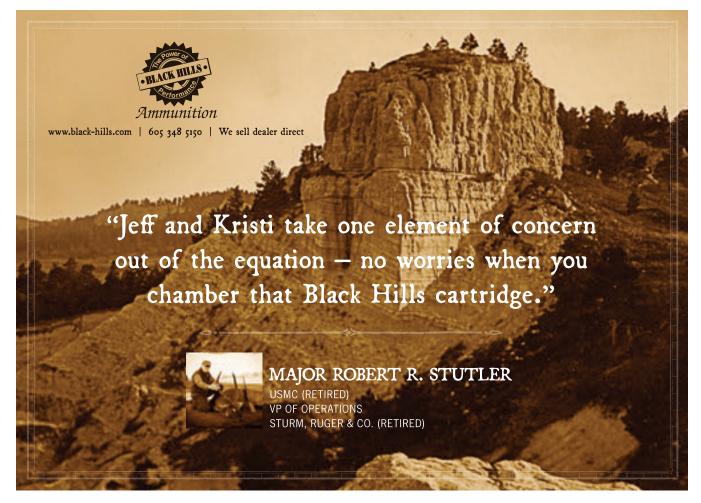
If you must traverse such parts of

a hospital, especially at night, use a buddy system or contact hospital security for an escort. Keep your cell phone handy and, if unarmed, at least carry a heavy object such as a bludgeon or keep your keys in hand to serve as makeshift brass knuckles.

Should you be assaulted, fight back and make lots of noise, but keep in mind the hospital setting was probably chosen by the bad guy with privacy in mind. One good way to attract lots of attention in a life-or-death situation is by pulling a fire alarm. Just make sure you are truly in danger, because pulling an alarm is a serious matter in itself.

We usually don't have a choice about going to the hospital, either as a patient or visitor. Not too many people enjoy such a visit, but at least if you are aware of the dangers, you can avoid a much more serious pain in the neck.

Brent T. Wheat is a former SWAT officer, canine handler, detective, and patrol supervisor who retired after a 30-year law enforcement career. Brent is the publisher of WildIndiana Magazine, a regionally focused outdoor magazine. He can be reached at btwheat@wildindiana.com.





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M erino wool comes from one of the world's most ancient breeds of sheep, as well as one of the toughest. Merino sheep usually live in extreme weather. Domesticated in Australia and New Zealand, the Merino breed originated in Spain.

In summer, the thin Merino's coat is light and breathable, keeping them cool at 95 degrees F. In winter, they grow an extra layer of wool over their regular base coat. This adds extra protection at -4 degrees F.

Merino wool is popular for highend performance gear and athletic wear because it breathes in the summer and insulates in the winter, while staying lightweight and super soft. Merino wool is finely "crimped" and soft, even directly up against the skin. This crimped fiber construction is also a factor when it comes to strength and durability, much like the natural coat of the mighty sheep.

Said to have the best warmth-toweight ratio, Merino wool has small fibers that create microscopic cortices



Above: North x North Merino wool kerchief can be worn as a head cover in hot conditions to keep sweat out of the face. In cold weather, it insulates and helps retain body heat. Photo: Kevin Plymette



Wool kerchief used as a sash to hold a water bottle. It can also be used as a haversack or belt to store items. Photo: Kevin Plymette

of dead air space, trapping body heat. Like cotton, wool absorbs water—up to 1/3 its weight—but unlike cotton, wool retains warmth when wet. This warmth retention helps combat one of the stealthy killers of winter, hypothermia. This could be from sweating after exertion or if the skies open up with a downpour.

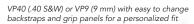
Merino wool is known for its superior insulation, but not many people understand that it works both ways. To keep heat off your skin, dark-colored, loose-fitting garments are the way to go. The Bedouin tribes in the Middle East and Northern Africa use black robes and head coverings, which block



From the company that pioneered the first striker fired and polymer pistols more than forty years ago comes the reset the industry has been waiting for. The Heckler & Koch VP Series has all of the features that you're looking for in a handgun. VP pistols use HK's ergonomic handgun grip design that includes changeable backstraps and grip side panels — accommodating all hand sizes. Only HK handguns have such a personalized grip.

The VP trigger surpasses those found on competitors and has been widely hailed as a ground-breaking component. It has a short, light take-up with a solid, single action type break followed by a short positive reset. Add in features like controls that are completely ambidextrous, HK's patented charging supports for better gripping to rack the slide rearward, and a cold hammer forged polygonal barrel made from cannon grade steel and you can see why this is a "No Compromise" pistol.

All at a remarkable price and backed by Heckler & Koch's legendary German quality and an exceptional lifetime warranty.











out more UV rays than white garments.

Lanolin is a natural oil that is emitted from the sheep's skin. It serves as their natural DWR (durable water repellant) and helps prevent skin infection. Much of the lanolin is washed off during the wool processing, but just enough remains to help cut down on odor. This makes Merino wool ideal for adventure wear.

MERINO WOOL KERCHIEF

North x North (North by North) is a new company with two Australian Merino wool products on the market: a kerchief and a neck gaiter. NxN's website has a video showing a variety of ways to wear and use the wool kerchief in survival, camping and medical emergency situations. NxN calls it the wearable multi-tool.

Survival experts have often noted the importance of keeping a bandana for the many uses it provides. They usually recommend cotton, with a size of 3x3 feet to cover as many bases as possible. Cotton can be charred in a metal container and used for tinder. It's absorbent, so it makes a great towel. Cotton bandanas are usually very thin and dry fast.

I'd say the most popular reasons cotton bandanas have been carried for so many years are that they are readily available, inexpensive, and in some



North x North neck gaiter keeps sun off the neck and can be soaked in water to help keep the body cool. In cold conditions, neck gaiter prevents heat loss through the neck.



Neck gaiter is long enough to cover the neck and face in a sandstorm or windy conditions. Breathing into neck gaiter helps reduce heat loss through respiration.

places the only option. Now North x North has come out with their wool kerchief, which at approximately 3.5x3.5 feet is larger than a standard cotton bandana.

I took the NxN Merino wool kerchief on a summer backpacking trip to act as my bandana, head cover, and

light blanket. Temperatures were not supposed to be very low, but it rained heavily. I rarely take a blanket or sleep covering in the Northeast during the summer. I did use a bivy, which was perfect for sleeping in to block some sprayed rain and to trap body heat, but at about four AM, the chill set in.

The wool kerchief was just large enough to fend off the cold. I couldn't believe how much warmth the Merino wool offered for such a light, thin garment. I am eager to see how it fares in the colder months.

When a bag or extra stuff sack is lacking in camp, the wool kerchief can be used to hang food in, high above the ground to keep little critters away from it. By putting food in the middle and tying the four corners together, it forms a good-sized sack.

More camp uses for the wool kerchief include making a haversack out of the generous-sized material for day hikes or exploring around a camp area. It can easily fit a water bottle, food, and some "must-take" items.

With the wool kerchief wrapped around your hand as an oven mitt, handling hot pots and pans is safer. The wool kerchief is long enough for field-expedient lashing of a ridgepole for shelter, a tripod or to attach gear to a pack. It can even act as a belt or sash



By tying off one end of neck gaiter, author was able to use it as a collection sack for gathering birch bark tinder. It can also be stuffed with cattails, grasses, or dried moss to act as a pillow.



Wool kerchief used as a belt to help secure space blanket tightly against the body in windy or wet conditions. In low winds, wool kerchief can be wrapped around the body under the space blanket.



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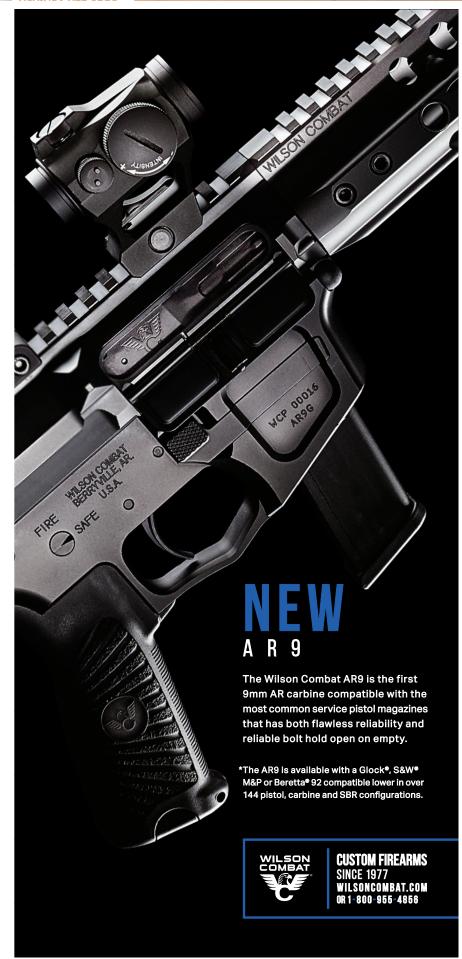
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that can be used to stash items.

The NxN wool kerchief can be worn like a shemagh (a length of material wrapped around a person's head and tied to protect against sun, wind and sand), which is part of an ancient Middle Eastern headgear tradition. The kerchief is cut like a square, making this type of wrap possible, but with the added benefits of Merino wool.

In a much simpler approach, the wool kerchief can just be draped over your head and held in place. It doubles as a scarf to not only keep the neck and chest area covered, but the face too.

In the first aid department, the wool kerchief can be used to slow bleeding, much like a bandage. It can become a field-expedient sling for an injured limb. Ice can be wrapped in the wool kerchief to make a compress. It can be soaked in water and cover a person who is experiencing heat-related injuries like hyperthermia and heatstroke.

NECK GAITER

In addition to the wool kerchief, North x North offers a neck gaiter. It measures 9x21 inches (tube style) and can cover both the neck and face up to the bridge of the nose. It works well when worn loose, bunched around the neck to block the sun. Because it's Merino wool, it does amazingly well in cold weather.

While I was camped out, I used the neck gaiter to collect pieces of birch bark for tinder. I tied one end off and used it as a collection sack. Later that night, I stuffed the tube with articles of clothing and it became my pillow. I am looking forward to discovering more ways to use the neck gaiter over the coming months.

Now there is an alternative to the cotton bandana that offers more warmth, insulation, and versatility than cotton ever could. The many uses of the wool kerchief and neck gaiter are just too good to do without!

Reuben Bolieu is an adventurer, writer, photographer, and survival instructor for Randall's Adventure & Training. He has spent most of his life hiking and backpacking through the wildernesses of the world. A lifetime student of survival, he has studied primitive survival techniques from all over the world.



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SIG Sauer Advanced Sport Pellet Airguns

BY EUGENE NIELSEN

SIG MPX ASP is ideal for training and has added benefits of reduced cost and minimal noise.

Sauer®'s cool new line of high-performance airguns are not only a lot of fun, but great training tools as well. SIG Sauer Advanced Sport Pellet (ASP) CO²-powered rifles and pistols take airguns to a new level of performance while also offering a wide variety of ASP targets and pellet ammunition.

The starting lineup of SIG Sauer ASP airguns includes the SIG MPX $^{\text{\tiny{TM}}}$ and SIG MCX $^{\text{\tiny{TM}}}$ CO 2 semiautomatic pelletonly rifles in .177 and .22 calibers, and SIG P226 $^{\text{\tiny{8}}}$ and SIG P250 $^{\text{\tiny{8}}}$ semiauto pellet-only CO 2 pistols in .177 caliber. They are matched to original model specs and utilize authentic materials.

JUST LIKE THE REAL THING

SIG Sauer ASP airguns mimic the weight, balance, controls, and feel of the original guns and even have a similar trigger pull. They allow you to hone your skills at home for a fraction of the cost of going to the range. And the skills you learn with the ASP airguns translate directly to the actual firearm that's replicated.

Most of us don't have the time to train as often as we want or should. And ammo is not cheap these days. Even .22 LR is going for a premium if you can find it. And that currently is a big if, at least where I live. An airgun is a logical choice to enhance training.

SIG Sauer ASP airguns are not licensed copies. They are made exclusively for SIG and designed and engineered to the same exacting standards as SIG Sauer firearms.

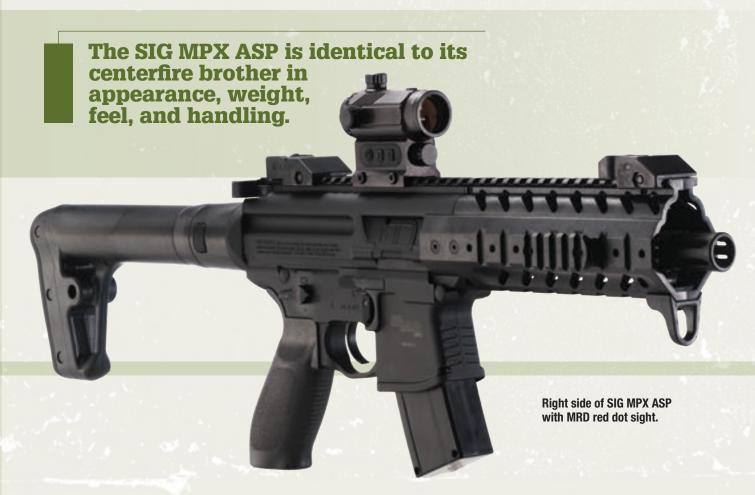
Although SIG ASP airguns are designed primarily for training purposes, one cannot ignore the fun factor. SIG didn't either.

The company is offering an assortment of ASP targets that are high on the fun factor, including spinners, traps, and a Texas Star with nine center-mass targets that spin around a central axis. All targets are compatible with .177-and .22-caliber airguns and are recommended for use with lead airgun pellet and lead shot only, not for steel BBs.

SIG Sauer also offers a variety of lead-free and lead copper-jacketed pellets. According to SIG, generally speaking flat-topped pellets are superior for target, domed designs have greater aerodynamics for long-range accuracy, and pointed tops increase velocity.

SIG Sauer provided me with a SIG MPX ASP in .177 caliber for evaluation.

The SIG MPX ASP is identical to its centerfire brother in appearance, weight, feel, and handling. The housing, controls, sights, barrel, and "flash suppressor" of the SIG MPX ASP are metal. The buttstock, pistol grip, forend, and magazine are made out of hard polymer. The buttstock is equipped with a rubber recoil pad. The pistol grip features an internal storage compartment.





The only cosmetic differences are in the shape of the magazine, lack of a folding stock due to the CO² cylinder, and lack of QD sling attachment points on the SIG MPX ASP.

CONTROLS AND ACCESSORIES

All controls on the SIG MPX ASP are ambidextrous except the magazine release, which is right-hand release. The safety selector is positioned for easy thumb operation just as on an actual SIG MPX. The charging handle on the SIG MPX ASP is fully functional and utilized to reset the valve after changing CO² cylinders. The bolt catch on the SIG MPX ASP is for cosmetic purposes only and non-functional.

The SIG MPX ASP comes with flip-up adjustable front and rear iron sights that are identical in appearance and function to those on an actual SIG MPX. A sight adjustment tool is included. An MRD red dot sight package is available from SIG Sauer as an option.

Like its big brother, the SIG MPX ASP has an integrated full-length 1913 (Picatinny) top rail. The forend features two moveable 1913 rail sections and a forend hand stop. The rail has plenty of space for optics and accessories.

Although the SIG MPX ASP lacks QD sling attachment points, SIG Sauer offers a low-profile QD socket for QD slings that mounts using any 1913-style rail section. Other companies, including Bravo Company Mfg and Magpul, also offer

1913 rail sling mounts.

POWER AND PELLETS

A single 88/90g pre-filled CO² cylinder powers the SIG MPX ASP. The cylinder screws into a threaded port on the rear of the rifle and is covered by the stock. Using other types of gas cylinders may damage the gun and could result in injury.

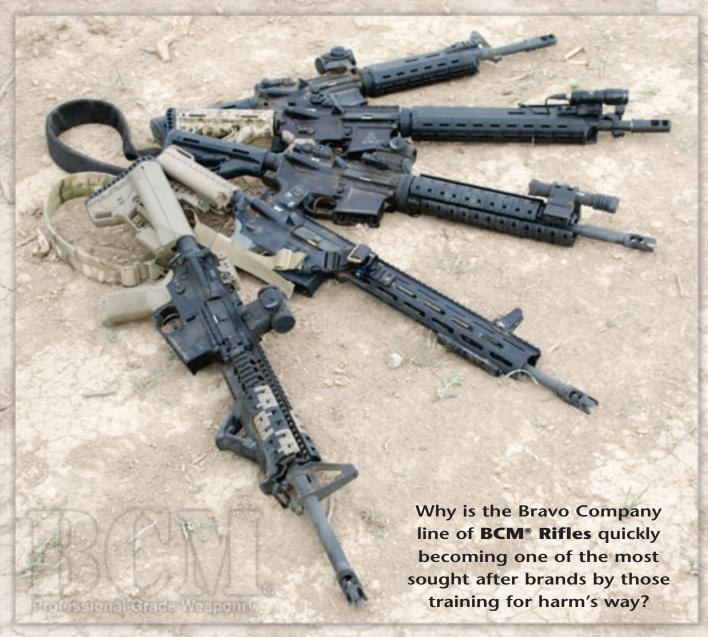
The CO² cylinders are widely used in paintball and pellet guns and readily available. SIG-branded 90g (88g) CO² cylinders are available from SIG Sauer dealers and come in packs of two.

The SIG MPX ASP utilizes SIG Sauer's patentpending RPM™ (Rapid Pellet Magazine) Pellet Drive System, which is only offered on SIG Sauer airguns and allows for true semiautomatic function.

The RPM Pellet Drive System is a refillable, belt-driven loading system that consists of 30 pellets traveling along a continuous track contained in a rugged polymer composite magazine. Unlike MPX centerfire magazines, RPM magazines are not drop free and must be pulled from the magazine well after pressing the magazine release.

Reliability issues, if they occur, generally can be attributed to the pellets being used, failure to seat the pellets properly in the pellet belt, or low CO² cylinder pressure. Pellets must be fully seated flush in the pellet belt for optimal performance. A pellet-seating tool comes with the SIG MPX ASP for this purpose.

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SIG offers a variety of airgun practice and training tools, including traps and targets like this SIG ASP Quad Spinner Target.

SOURCES

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MAGPUL INDUSTRIES CORP.

(877) 4MAGPUL www.magpul.com A vast number of airgun pellets are on the market, with many variables. Differences include

skirt diameter, overall length, and composite materials (lead, alloy metal, and polymer composite). These variables impart different ballistic coefficients and impact performance. You can't go wrong with SIG Sauer airgun pellets.

ACCURACY TESTING

The SIG MPX ASP features an eight-inch rifled steel barrel that provides aerodynamic pellet stability and preserves original model weight and balance. Although the SIG MPX ASP was designed as a training gun, not for target shooting, accuracy is quite good. During my accuracy testing, I was able to keep groups under three inches shooting offhand with iron sights at 25 yards at a local indoor range. During testing, I used SIG 5.25-grain .177-caliber Match Ballistic Alloy Pellets, which are lead free, lightweight, and accurate. Recommended by SIG Sauer for competition and training, they produce tight groups and cut clean holes.

Velocity of the SIG MPX ASP is on par with similar CO² powered airguns—up to 600 feet-per-second (fps) in the .177-caliber model and 475 fps in the .22-caliber model. At the range, I got velocities from the high 400s to the mid-500s.

As with any CO² powered airgun, the number of shots per cylinder and the velocity vary depending on environmental and shooting factors. You get more shots and greater velocity at warmer ambient temperatures. And on any given day, you get the best velocity and consistency with slow fire.

Fast shooting results in decrease in temperature of the CO² cylinder and gun, and therefore reduced velocity, which can mean reduced accuracy and fewer shots per cylinder.

CONCLUSION

The SIG MPX ASP is made in Japan for SIG Sauer. It is a rugged, well-designed and well-built airgun with features that make it eminently suitable for both professional training and recreation.

It has a suggested retail price of \$229.99 and

comes boxed with a 30-round (RPM) magazine, sight adjustment tool, pellet seating tool, and owner's manual. Additional magazines are available from SIG and include three refillable belts with each magazine. The SIG MPX ASP is available in either Black or Flat Dark Earth (FDE) and comes with a one-year warranty.

The SIG MPX ASP is performance tested for up to 15,000 shots. It's a great companion to your SIG MPX firearm or AR and a heck of a lot of fun.

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Reality Disconnect in Firearms Training

Recently, on a working vacation with the family, we watched a movie wherein the hero traveled to the center of the earth in order to save it. Now being the curious sort, I figured out the degree of plausibility of such an endeavor. Here it is:

The earth's core is estimated to run at a balmy 10,800 degrees Fahrenheit. Titanium melts at 3,034 degrees Fahrenheit. The pressure at the core is estimated to run in the neighborhood of around 3.6 million atmospheres. Since the core is solid nickel/iron, this equates to about 13,000 kilograms of pressure per cubic meter. In short, any crew in any vessel in this situation would be squashed and toasted beyond all recognition. Hollywood screenwriting magic, folks!

What is not Hollywood magic is the subject of deadly force. A bad or out-of-

policy shooting or below-boards shooting is pretty much instantaneous news in this day and age. I know this because news stations have interviewed me within 30 minutes of such incidents, even as the crime scene tape was going up at the incident location.

Cell-phone cameras, body cameras, and aspiring "wanna-be" news reporters are all the rage. There's a fairly good chance your actions are being digitally captured.

I was recently approached by a student who works for an agency. He inquired what my thoughts are on the philosophy of "reactive/reflex-shooting," wherein five to six shots are automatically discharged each time a weapon is deployed.

Oh boy! Where do I begin?

You are responsible for each and

every round discharged. Not just the overall, "I kinda sprayed here and there because it seemed the right thing to do," but rather the following.

Each, and I mean each and *every* round, must be accounted for. The detail, by the way, in which each and every round is accounted for is eye-wateringly precise, detailed, exact, and parsed into seconds and portions thereof.

Sit through a deposition or trial and you will observe the melting process of a defendant when no plausible answers are forthcoming and no reasonable thought sequence is in evidence. It is beyond brutal. Said defendant will have also most probably lost the case right out of the gate.

Here's the hypothetical:

A suspect presents a deadly force threat. Five to six shots are discharged

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faster than the mind can process the evolution. Multiple cameras illustrate that within the first two shots, the deadly force threat was clearly not in evidence, the suspect was clearly no longer a threat, and the remaining rounds fired by our erstwhile officer were in fact the rounds that directly resulted in his or her demise. (A case similar to this was widely broadcast in a major city, with multiple rounds discharged into a "proned-out" suspect well after the threat had ceased.)

Philosophy is nice. Speculation is amusing. Conjecture is always entertaining. In most endeavors—those not affecting life-or-death decisions—one can employ any of these processes on any given subject matter over cold beer or within the confines of air-conditioned cubicles while blazing away on red-hot keyboards.

Since I work within the courts on a fairly consistent basis, I can assure you that all this goes out the window when the first Federal Civil Rights lawsuit hits you square in the face like a North Shore 40-foot Waimea breaker. Wipeout!

I have arrived at that point in life when I simply view the reality discon-

nect of certain techniques that are presented to me from time to time with a degree of amusement.

First, who is espousing such a technique? What is their verifiable background? What is their verifiable Curriculum Vitae? What is their background within the judicial process? How many times has this technique been employed in a verifiable fashion in the field? How many depositions, trials, interrogatories, and Federal Rule 26 cases have they participated in?

When queries such as these are answered again and again in an obscure and nebulous fashion, one after another, I walk away.

It is patently unfair and quite honestly disingenuous when one advocates a philosophy in which others place their lives, futures and careers and which *they* have to answer for in each and every action but it is *not* the one espousing such flawed techniques and philosophies who is held accountable.

Spin and marketing and smoke and mirrors are fine if you're dealing with golf, badminton, or cupcake baking. Most of these are not going to be life altering (with the exception of a really, really bad cupcake).

The individual referenced above asked me why they are instructed in this manner and what is the rationale behind it. I don't have a clue and I don't have a cogent or lucid answer for him other than that whoever is instructing should read this article.

I have adopted a "you can pay me now or you can pay me later" ethos. The latter is far more costly in funding, reputation, and notoriety. A clear thought process backed by solid fundamentals always wins out over the mud flap and whip antenna, flux capacitor "wanna-bes."

Training should never disconnect from reality. ()

Scott Reitz is a 30-year veteran of the Los Angeles Police Department and director of the highly acclaimed International Tactical Training Seminars. Course information and schedules are available at their website at www.internationaltactical.com. Looking Back, a free monthly newsletter, is available by email at itts@gte.net.



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"Assault Weapons" Under Attack

AHEAD

IN July, Massachusetts Attorney General Maura Healey announced a "crackdown," effective immediately, on so-called "assault weapons."

Firearms that had for decades been deemed legal even under the state's ban of semi-automatic detachable magazine-fed rifles with certain "military features" like barrel shrouds and flash suppressors would now suddenly be illegal even *without* such features, despite no new law having passed, and no modification made to the existing law.

Healey argues that when gun manufacturers released new models, these without the offending "military features" that the law specifies as being what makes the weapons illegal in the first place, they simply offered "copycat" guns in the place of the previous models, in violation of a different provision of the same law.

The "logic" of this rationale has numerous problems, perhaps chief among them the question of what is the point of naming barrel shrouds, collapsing or folding stocks, bayonet lugs, etc, as banned features for semiautomatic detachable magazine-fed rifles, if the absence of those features makes no difference to a gun's legal status?

If those features were not listed as a means of informing manufacturers of how they could produce firearms compliant with the state's law, why list them at all? When the law was passed in 1998, it was widely understood that the inclusion of those features on such rifles was what made them "copycats" of the named banned firearms (such as Colt's AR-15).

Ironically, in arguing that those features have little or nothing to do with how "lethal" a given rifle is, but are instead merely ergonomic or even cosmetic enhancements, Healey is repeating ("copycatting?") a point made by gun rights advocates in the "assault weapon" debate for nearly 30 years. She has merely changed the perspective.

Rather than arguing that the existence of such features does nothing to make a gun more "lethal," she is arguing that their removal does nothing to make it less so. Basically the same point, and therefore I, as a gun rights advocate who has made that point for years, can hardly fault her for it.

The problem is that the law, the foolishness of its focus on such "military features" notwithstanding, is the law she has at her disposal. For her to argue it means something other than what it says, simply because she now recognizes that what it says is illogical, is to bestow upon herself the de facto power to *write* the laws she enforces.

But it gets worse.

By declaring that the tens of thousands of such rifles sold in the state since the ban was enacted in 1998 (she claims 10,000 were sold in Massachusetts just last year) are illegal, she has with the stroke of a pen made criminals of tens of thousands of gun owners in the state, along with the gun

dealers. She assures us she realizes that in the past, those rifles were bought and sold in good faith by people who were trying to comply with the law, and so she will not prosecute them.

How generous of her. But, um, what if she changes her mind? What if the next Attorney General isn't such a good sport? If, after all, the sale of those firearms is a crime now, under a law enacted in 1998, then it must have been a crime all along.

There is no way for the same law to ban now what had been legal for the first 18 years of its existence. Whether she acknowledges it or not, she is calling all those people criminals and giving them no assurance of their staying out of dire legal

trouble beyond her vague assurances that she will not prosecute them.

Keep in mind that so far we have not mentioned the Second Amendment or the fact that the right to keep and bear arms is a

fundamental part of the human condition. That's because even those who refuse to acknowledge that right should acknowledge Healey's end run around the legislative process as an egregious abuse of power.

State Attorneys General often describe themselves as "the state's top cop." This top cop now presumes to usurp the legislature's power to set the parameters of the laws she enforces.

Of course since there *is* the Second Amendment, and because it *does* grant Constitutional protection against infringement on the fundamental human right of the individual to keep and bear arms, the legislature is hardly blameless. If it had never slipped the leash of Constitutional limits on the power of government, no such ban would ever have been enacted, and there would be no law for Healey to rewrite to her liking.

And the citizens of the state cannot be left entirely off the hook, either. The legislature they elected passed that legislation. The governor they elected signed it into law—and the people tolerated it.

Healey's action, ironically, may be changing that. As of this writing, Massachusetts gun owners are protesting against Healey's "crackdown" with an enraged intensity that has prompted at least one article claiming that she has awoken "a sleeping giant."

And keep in mind, this newly woken giant (and who isn't cranky when first awoken?) owns a great many of the very firearms Healey and her fellow gun-ban zealots refer to as "weapons of war." Maybe she ought to rethink this move.

A former paratrooper, Kurt Hofmann was paralyzed in a car accident in 2002. The helplessness inherent to confinement to a wheelchair prompted him to explore armed self-defense, only to discover that Illinois denied that right. This inspired him to become active in gun rights advocacy.

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Mossberg HS12 TR Over/Under Combat Shotgun

A while back I wrote in this column about some friends who used over and under (O/U) shotguns for sporting clays, but had decided they needed a shotgun for home defense.

Only later did I learn that Mossberg is actually making an O/U shotgun for close combat. The fact that it was in conjunction with Thunder Ranch indicated to me that some knowledgeable people obviously think it has combat applications. I decided to get one to test that precept for myself.

The HS12 TR comes disassembled into two parts but may be quickly assembled. My first reactions upon putting it together were that it is a nicelooking shotgun and of a very handy size. At 35.25 inches overall, with an 18.5-inch barrel, that compares well with a 14-inch barreled Remington 870 at 34.25 inches. And the HS12 TR does not require registration as an SBS.

For a home-defense shotgun, a shorter barrel is a real plus, as it allows the shotgun to be pulled closer in to the body when passing through doorways or in other places where an intruder might grab it, and it is less likely to impede movement.

Another plus for the HS12 TR is the location of the sliding safety atop the receiver. For most people, this location allows faster and simpler operation



HS12's safety atop the receiver, lever for opening the barrels, and top Picatinny rail.

than a crossbolt on the trigger guard. Having said that, I've used shotguns with the crossbolt safeties for so long that I can operate them rather smoothly. Another good feature is the single trigger. Double-barreled guns with two triggers always raise the possibility of pulling both triggers at once if care is not taken.

Although the shotgun comes with a

short Picatinny rail, I find the open sights sufficient for the ranges at which it is likely to be used. Actually, the fiberoptic insert in the front sight and the white bar at the base of the rear notch make a good combination.

Mini red dots are popular on shotguns with some, so the rail is probably a plus. Short rails on each side of the barrels allow mounting of a light or laser.



HS12 Thunder Ranch features include elastic shell carrier, thick recoil pad, and side Picatinny rail for a light.



I like a light on a combat shotgun, so that is a good feature. I have not yet experimented to see which weaponlight works best, but any that fits a Picatinny rail and is compact should suffice.

On the downside, the HS12 TR only holds two shots and, to be ready for use, rounds must be chambered and the safety on. I normally keep my pump or semi-auto shotguns "cruiser ready"—full magazine, empty chamber. Operating the slide or bolt is a quick procedure if the shotgun is needed.

But the only choices with the HS12 TR other than keeping it loaded/safety on are keeping it unloaded and inserting a couple of rounds if needed or keeping it broken open with rounds in the chamber. To ready the gun for action, the barrels can just be pushed up to lock.

Neither of those choices is optimal. Not keeping the O/U HS12 loaded is the safest solution, but it takes time to prepare the shotgun for action. Mossberg supplies an elastic five-round shell-carrying sleeve to fit over the stock, so at least rounds can be kept ready with the gun.

Keeping the shotgun broken open with loaded chambers creates various problems: Where to store it? What if it



Close-up of fiber-optic tube in HS12's front sight and side Picatinny rail.

falls and the shells fall out? Will debris get in the action or might something block the action with it open?

Another point to note in deciding whether to keep the HS12 loaded or

not is that the safety does not automatically go to safe when the action is closed; hence, if the safety is not consciously applied, you will have a loaded weapon with the safety off.

One other point about quickly loading the HS12 should be made. I find the action somewhat stiff to open. I have to grasp the barrels and pull down fairly hard while operating the release lever. That will probably work in after opening and closing many times.

I assumed that recoil would be noticeable with the HS12. Even though it will take three-inch shells, I used 2¾-inch Federal and Winchester Low Recoil buckshot loads. With those, recoil wasn't bad, though the muzzle did come up 30 degrees or more when I fired.

The nice thick recoil pad did its job well. While performing handling and patterning tests, I felt no shoulder discomfort.

I fired patterns at 15 yards and found them well centered on the torso of silhouette targets. Normally, I fired the second barrel as soon as I got the shotgun back on target. Chokes for both barrels, by the way, are modified.

The sights worked well but were a little hard to align for a fast second shot. I'm spoiled from using a ghostring rear sight on my tactical shotguns.

When shooting the HS12, it be-



Muzzle flip when firing Federal Tactical 00 Buckshot. Because Mossberg HS12 TR is light and compact, recoil is more apparent than with most combat shotguns.



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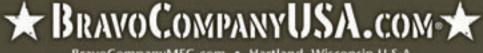


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comes apparent that a user will need to make those two rounds count, as the shotgun is equipped with extractors rather than ejectors. The shells are only pulled out far enough to catch with the fingernail to complete extraction.

The greatest arguments for the HS12 Thunder Ranch are its compactness, shortness, and simplicity. Those would seem to be arguments in favor of its use by those who don't want to deal with a pump or semi-auto combat shotgun.

For the typical home-defense scenario, two rounds of buckshot should do the job, and those stacked 12-gauge bores should be intimidating.

Given a user who does not shoot much, the compactness and lightness of the HS12, which make it handy for moving through a residence, also enhance recoil. As a result, I recommend choosing low-recoil self-defense loads and shooting them enough to know what to expect from the shotgun.

Suggested retail price on the HS12 TR is \$594. Mossberg's excellent Pump 590 combat shotgun has an MSRP of \$441. I like the little HS12 and want to do some more shooting with it and think further about its applicability. But for \$150 less, I would normally choose a 590.

Leroy Thompson has trained hostage rescue, close protection, counterinsurgency, and anti-terrorist units in various parts of the world. Prior to Operation Desert Shield, he trained U.S. Army protective teams and hostage rescue units. He is the author of over 50 books on weapons and tactics and somewhere between 2,500 and 3,000 magazine articles.

Fifteen-yard pattern for both barrels with Federal Tactical 00 Buck is quite good.







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HOTRENDS VS COLD FACTS

Perspectives on .308 ARs

BY JUSTIN DYAL

Semi-auto 7.62s. Everyone wants one, but do they represent a trend or a capability? THE past seven years or so have seen a strong trend toward 7.62x51mm (.308 Winchester) semiautomatic rifles. Each service has dabbled in a handful of platforms, several federal agencies are issuing them in decent numbers, and the market response has been strong.

Most shooters want one and many are convinced they *need* one. I'm here to throw a mildly wet blanket onto the idea and help sort tactical trendiness from actual capability.

I NEED A 7.62!

Over the past couple of years, I've studiously hit every shooter I respect as both experienced *and* knowledgeable with a question: Given a choice between standard "ball" 7.62 such as the classic 147-grain FMJ and a 5.56 round of your choosing, what do you pick? None has chosen 7.62 yet and I'd be shocked if any did. Minus a great-performing projectile, the .308 often underperforms the hype.



When I dig further into which 5.56 load would be the choice, several often pop up: the newer GMX loads from Hornady or Black Hills, TSX loads, Black Hills 77-grain Tipped Match Kings (TMKs), "Brown Tip," and occasionally a bonded softpoint make the cut.

The latest generation of 5.56 loads pushes the carbine into pretty respectable terminal and barrier performance unimagined 15 years ago. Meanwhile, .30-caliber ball isn't a standout choice for much of anything.

Once you open the aperture to the full buffet of .308 options, the story changes. There is a load appropriate to most any task that you can shoulder a rifle for. But this is one of those areas where many options can lead to misalignment of selection and mission. A 110-grain TAP Urban might be a great choice in an open-air scenario with a sniper engaging a target amongst friendlies. The recovered weight tends to be dust, and overpenetration is unlikely.

That is fantastic unless penetration is what is needed. At the other end, a Black Hills 180-grain Accubond drills straight through intermediate barriers of about any type and still delivers messy jello and extreme penetration. That could be perfect or tragically ill-suited, depending on the mission. Most department loads walk the middle ground, with loads such as Black Hills 155-grain AMAX that balance expansion and penetration.

As I quiz folks on the universal scenario .30-cal load choice, most tend to pick the middle-ground rounds, with 155- and 168-grain AMAX popular choices. The FBI was undoubtedly thinking similarly with its choice of 150-grain Core-Lokt. Perhaps noteworthy is that the touted heavy match rounds that military snipers have experience with and an affinity for are rarely a first pick for short-barreled autos in a general role.

THE MYTH OF FLAT

I've heard any number of Afghanistan vets who embraced the 7.62 extoll the virtues of their flat-shooting SCAR Heavies or short-barreled M110 or MK 11. That is a strong perception, and the only problem is that it just ain't so.

Boxcars of otherwise savvy shooters conflate data and confer "sniper rifle," i.e., 24-inch barrel, ballistics and drops onto their 14.5- or 16-inch gun. The short barrel drops a lot of steam off of the bullet. Table 1 shows velocities



Strong suit of 7.62 is versatility in load selection. Top to bottom: 180-grain Black Hills Accubond, 155-grain Black Hills AMAX, and 110-grain Hornady TAP, alongside their ballistic gel penetration.



LaRue PredatAR in action. Light .30s such as this have the best chance of working in a multi-role fashion that tilts to patrol rather than precision.



Brit LMT with its issue six-power ACOG on patrol halt in Afghanistan. As pictured, marksman's rifle dresses out at about 14.5 pounds.



Many shooters do their best work with the bolt gun and have to train harder to get the best level of hit out of the gas gun.



of some common high-performance rounds from a 16-inch LaRue PredatAR at the muzzle.

The shorties tend to take a .308 and turn it into a .30-40 Krag, the Spanish American War cartridge that was criticized for not shooting flat enough. Table 2 shows the data pulled from a smartphone ballistic calculator comparing the projected drops of a 14.5-inch 5.56 AR launching the common 77-grain Open Tip Match with the PredatAR pushing the popular 168-grain AMAX.

The drops are essentially identical, the minor difference hiding inside the margin of error inherent with even a one MOA rifle. Wind drift is another story, and the .30-cal gas guns do provide an edge on bucking the wind. I've just never heard an operator point to that as the selling point. It's usually the flatness.

Guys I respect have been very attached to their semi-auto 7.62 battle rifles. My conjecture is that at the time in question, the 7.62 gun was a better *system*: it had good glass on it, a bipod, a better trigger, and was a little heavier and thus typically shot supported.

Designated Marksmen (DMs) and

snipers carrying these guns also tend to be much more discerning about their data and zeros. Compared to a beat-up M4 with a "good enough" 36- or 50-yard zero on its red dot, the 7.62 does allow better hits at distance, but not necessarily because of the cartridge unless the wind was full value.

LOAD	VELOCITY	STANDARD DEVIATION
Black Hills 168-gr. BTHP	2,372	23
Black Hills 175-gr. BTHP	2,331	25
Hornady 155-gr. AMAX	2,513	9
Winchester 147-gr. FMJ	2,514	24
Winchester .30-40 Krag 180-gr. SP	2,430	(Factory Advertised Velocity)

TABLE 2: PROJECTED DROPS OVER DISTANCE

RIFLE/LOAD	300-yard path (inches)	400-yard path (inches)	500-yard path (inches)	600-yard path (inches)	800-yard path (inches)
14.5-inch 5.56 AR / 77-gr. OTM	-9	-28	-58	-103	-252
.308 16-inch LaRue PredatAR / 168-gr. AMAX	-10	-31	-63	-109	-253

DEAD WEIGHT

The weight I just detailed as an advantage in supported shots is no free lunch when it comes time to hump the rifle around and run it from the shoulder. I was involved in some of the early testing of the SCAR Heavy, and it is among the lighter .30s out there in any numbers. But once it gets a filled magazine and the typical optics and accessories installed, it lives up to its name.

The British Army LMT is an ungainly hoss that discourages offhand use. The M110 is not much better. Most of the 7.62 autos wind up in the "Whoa, this is heavy!" 12- to 15-pound range by the time they get ammo and all their optics and accessories strapped on.

The saying is, "strong men, armed" and they need to be strong with many of the 7.62 guns out there. As a rifle crosses the 8.5-pound mark, unsupported performance begins to drop, and as it gets over ten, performance plummets. We're not talking 200-yard offhand slow fire steadied with a lead-filled 12- to 14-pound match gun, but the "winded, tired, and need to snap shoot a fleeting target hustling an RPG into position" kind of shot.

The heavy system weight of the 7.62 battle rifles is perhaps the primary counterpoint to the upside of enhanced terminal and barrier performance with the right ammo. One close friend, a federal agent who has been issued a 7.62, relayed to me that he thought the weight issue cancelled out the .308 goodness for most of the non-gun-guy types compared to the easy shootability of an M4.

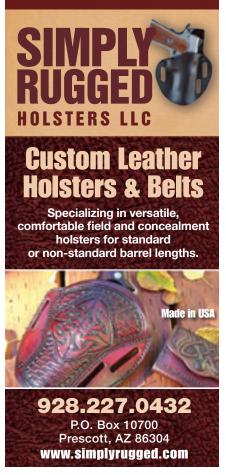
A direct correlation exists between how much a veteran likes the .308 and how far and often he had to lug it around. The vehicle-borne and shortpatrol guys probably have much kinder feelings than the up-and-over-themountain sort. The recurring exchange I hear from individuals who have tried one of the better .30s is enthusiasm for how it shot, followed by concern and regret over how heavy it was.

HITTING

Some of the best long-range shots in the less than .300 Win Mag class that I have personal knowledge of came from great special operation shooters and issue 7.62 gas guns. One benchmark example was two SEAL snipers taking the Taliban driver and passenger off a mov-









Most of the .30 autos are at their best prone in a Designated Marksman role.

ing motorbike at 800 yards. A bolt gun couldn't have done it any better than their SR-25/MK 11s did. The gas guns tend to give up a little in pure mechanical precision relative to the bolt gun, but the difference can hide inside the margin of error.

However, I have seen a decent sample of shooters in advanced sniper courses transition from their bolt gun to the auto and there is often a dip in performance. I've seen plenty of solid bolt-gun shooters blame the auto as the culprit only to have another shooter or instructor lie down behind it and knot up a sub-minute group.

Many shooters do their best work with the bolt gun and have to train harder to get the best level of hit out of the gas gun. Some shooters may actually shoot the auto as well as the bolt gun or better, but that isn't typical. When that occurs, the bolt gun likely had a poor stock fit or lawyer trigger.

When the scenario moves into rapid multiple-target engagement inside 600 yards, the auto tends to win across the class. Occasionally a long-time sniper can run a bolt like a thing of beauty and can hold with the autos, but not often. Of course in any running scenario with movement and standing snapshots, the

auto's ergonomics tend to skunk the typical precision bolt gun.

OUTLAY AND UPKEEP

As a friend with experience fielding a 7.62 program told me, "7.62 autos are an expensive and frustrating rabbit hole." Agencies need deep pockets to pull it off successfully because the top-shelf rifles are shockingly expensive, the right optics to take advantage of the system are just as bad, the ammo is steep, etc.

If you look at the rifles that have successfully competed in government trials and been selected and fielded, such as the Knight's M110, FN SCAR 17, HK 417, and LaRue OBR/PredatOBR, you will see costs ranging from high to "seriously?"

Yes, the big-box sporting goods store has a rifle that looks similar and costs half the entry price, but it is a different animal made for the occasional hobby shooter or hunter.

Even the professional guns that cost an arm and a leg struggle to balance reliability, durability, and accuracy to a degree that a high-end 5.56 AR can without quibble. Just about all the major-program 7.62 semis have some experienced and vocal detractors who have seen some guns not live up to expectations. I tend to view them as semi-custom precision machinery. They must be lubricated, maintained, and treated much more like a tight custom 1911 than casually cared for in the Glock or AK mode.

Parts tend to be a dedicated proposition for the semi-auto big gun, unlike the standard AR, whose parts can be had at just about any local shop and in a sea of online options. None of the high-end 7.62 makers has a reputation for ready and user-friendly availabil-



Above: Shortened M110 is a serious tool in a solid shooter's hands, but the system's weight with all the associated "stuff" challenges most to run it well off of the ground.

Right: M14-based EBR and similar rifles were a stopgap effort that was popular for a couple of years until current-issue 7.62s were fielded. It was an awkwardly balanced collection of sharp edges and snag points.



ity of parts. If you stray to the broader end of the 7.62 market, there is no common "standard" and makers have been known to tweak their individual proprietary designs as they go. You may get plug-and-play replacement fit and you may not.

For those who *need* the capabilities and flexibility of a 7.62 repeater, the "get what you pay for" adage applies. For those who occasionally need full-power precision and barrier capability, economical choices are emerging in the mid-price light sniper/tactical bolt gun market.

It is not difficult to spec out a solid 5.56 patrol rifle *and* a quality bolt .308 for less than most of the top-tier autos. The savings accrue as training ammo is procured. Some shooters may be better off on both ends—a patrol rifle that handles 95% of problems and that they shoot well, and a bolt gun that covers the 5% exceptions that they can grab and shoot even better. The two-gun solution isn't as workable on the military side of things, hence the emergence of the precision .30-cal auto.

PARTY POOPER

I realize that bucking trends is a buzz kill. Everyone wants in on the latest tactical fad. There are factors that fuel the trend and make it attractive. Due to increased demand, .308 blasting ammo is now available at prices that rival the glory days of NATO surplus as countries transitioned to 5.56.

It is still the equivalent of two quarters flying out of the ejection port rather than fired brass, but better than gold dollars. The parallel developments of 1-6X/1-8X and the 3-18X riflescopes have really helped the .30-cal auto explore its full potential for flexibility.

New rifle models seem to come to market quarterly at every price point, many with attractive features. I understand the interest. As a shooter, I welcome the developments and appreciate the trend. I simply want to provide counterpoints to help those on the fence think through the risk/reward calculus.

The .308 auto is a great fit for three types of guys, as long as they understand the downsides and make good choices:

■ The serious shooter who wants AR ergonomics and accessory crossover

>> Continued on page 88









Pistols made on the AR-15/M4 platform have become popular in recent years.
Although not as easy to conceal as a handgun, they are more concealable than a carbine and offer greater range and ballistic capability downrange. This month's Sweepstakes features the Bravo Company Manufacturing (BCM) RECCE-11 KMR-A pistol.

The BCM RECCE-11 KMR-A pistol features all the quality you expect from BCM. It has an 11.5-inch, independently certified milspec 11595E barrel with M4 feed ramp extensions, is chambered in 5.56mm NATO, and has a carbine-length gas system. Both the upper and lower receivers are machined from 7075-T6 aluminum forgings and hardcoat anodized per MIL-A-8625F, Type III Class 2. The pistol weighs 5.1 pounds and measures a mere 27 inches long.

BCM upgrades include:

- BCM KMR-A10 Free Float Handguard
- BCM KeyMod QD Sling Swivel Mount
- BCM Mod 4 Charging Handle
- BCM Mod 0 Compensator
- BCM Mod 3 Pistol Grip
- BCM QD End Plate
- BCM PNT™ Trigger
- BCM Trigger Guard

AIMPOINT MICRO T-2

To make the most of the accuracy potential of the BCM RECCE-11 KMR-A, this Sweepstakes includes an Aimpoint[®] Micro T-2 compact red dot sight. Cuttingedge lens coatings radically improve the shape and clarity of the 2 MOA red dot, and physical protection has been added for even more ruggedness. With over five years of battery life, a redesigned and reinforced body, as well as flipup covers protecting the lenses, the Aimpoint® Micro T-2 can withstand all types of environmental conditions. The new lens and breakthrough reflective lens coatings dramatically improve the optical performance, making the Micro T-2 the perfect companion to the 3XMag-1 and the 6XMag-1. This AR Ready version comes with a 39mm spacer and LRP (Lever Release Picatinny) Mount.



BLACK HILLS PREMIUM AMMUNITION

A quality firearm deserves quality ammunition, so to feed the BCM pistol we are including 300 rounds of Black Hills 5.56 62-grain TSX ammunition. This versatile ammo is great for hunting as well as defense.

The 62-grain TSX projectile is an all-copper hollow point designed to expand rapidly, give deep penetration, and still offer nearly 100% weight retention. From coyotes to wild hogs, or from whitetail deer to pronghorn antelope, the 62-grain TSX will do the job.

For law enforcement and defense, the 62-grain TSX makes an excellent choice for light barriers. Tested on windshield glass, penetration in gelatin blocks exceeded 15 inches while creating a temporary cavity diameter of five inches! The 62-grain TSX requires a twist rate of 1:9 or faster.



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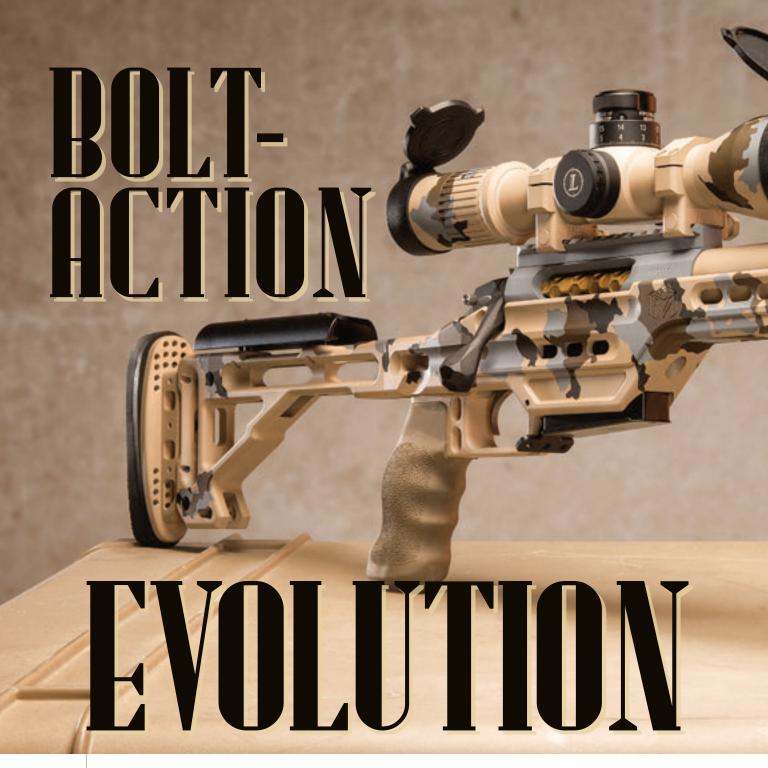
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Modern Outfitters MR1 Lightweight Hunter

ocial media, magazines, and outdoor TV are full of new product releases associated with the popular AR platform, but seldom do you see anything truly new in the world of bolt rifles. So I was intrigued when I heard that AR manufacturer Modern Outfitters had come out with their own bolt rifle design.

They labeled their new rifle the "MR1" and the initial offering comes in several configurations. The rifle itself is offered in three configurations: M24, Medium Sporter, and Lightweight Hunter. Since hunting season was around the corner, I selected the Lightweight variant to try out.

BY JASON SWARR

PHOTOS BY
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BOLT-ACTION EVOLUTION





chose a chassis system that I wasn't familiar with but quickly came to love. The chassis is made for Modern Outfitters by MasterPiece Arms. They utilize the Competition and Lightweight chassis. The main differences are a forward Picatinny rail for mounting night vision or thermal optics, rear monopod, adjustable length of pull, and cheek riser. Both versions accept Accuracy International magazines.

The action is on a 700 footprint, so you can go with additional chassis options. They will have complete rifles available on their website and in their stores, but you can custom order to your specifications. All manufacturing, machining, and coating are done in-house by Modern Outfitters.

THE INSPIRATIONS

I had the opportunity to visit two of the Modern Outfitters principals, Eric Stubbs and Andrew Houser, and ask them about the inspiration for the MR1.

Modern Outfitters started as a retail store in 2010 with no aspirations of branching out into manufacturing. Eric summed it up concisely: "We got into retail because we wanted to change the gun store experience, and we got into manufacturing because we thought we could make something better." They told me they serve a variety of law enforcement and citizen consumers, but a large portion of their base is avid hunters.

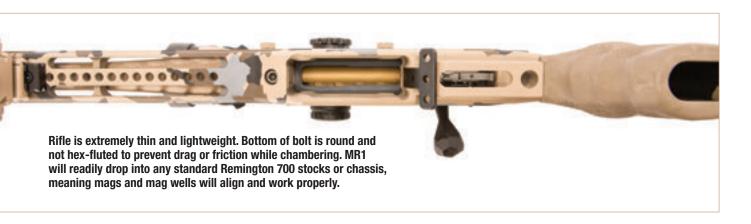
"When we design a rifle, we want it as light, short, and accurate as possible," added Stubbs. Houser summed up their brand strategy: "We don't sell every brand in our stores. We focus as much as possible on products made in the USA that are backed by a lifetime warranty. We don't make or sell anything we wouldn't spend our own money on." They told me the common gripe from customers is how long it takes to get a custom rifle. Many customers have to settle for semicustom rifles. "Our rifles are match grade, 100% custom, and they are in stock."

My first impression of the MR1 Lightweight was that it almost didn't look real. It is a rifle you have to hold to appreciate just how light it is. The distinctive hex fluting of the bolt was flawless, and the custom Cerakote looked incredible. So it looks cool, but is it a shooter? I had a variety of 168- and 175-grain .308 loads and intended to find out.

RANGE TESTING

I shot off an Atlas bipod and a rear bag. Felt recoil was less than it should've been from a 4.5-pound rifle, but I suspect the awesome ergonomics of the stock helped in that department. There was considerable movement of the rifle after the shot, as to be expected shooting such a featherweight off a bipod.

I opted for three-shot groups instead of five due to the slim profile of the barrel. Accuracy was awesome, with an aver-



age of .560 inch across five different factory loads. I let the barrel cool and then started stretching it out. I worked my way out to 1,000 yards in 100-yard increments.

It took a few shots to deprogram my muscles and get accustomed to the 60-degree bolt throw. I soon found my rhythm, and working the bolt became second nature. Feeding and extracting were perfect, and chambering a round felt like one movement. Not quite a straight pull feeling like a Blaser, but not far off. I put 200 rounds through this little rifle without any issues. Now it was time to get off the bench and try it out in the field.

Most hunting in Texas is done from hunting blinds or high racks, which allows for use of heavier rifles without much aerobic exertion. I imagine that I would really appreciate using this little rifle on a backcountry hunt.

It was July in Texas, so the prospect of sitting in a metal box to hunt was not very appealing. We opted to break out the topdrive Excursion and see the ranch. They



MR1 bridges gap between hunting and tactical rifles, offering a five-pound precision rifle capable of sub-minute accuracy and extended ranges, yet light enough to hike with through the steepest terrain. With its ultra-thin and featherweight design, shooters will appreciate use of titanium and aluminum that keeps MR1 light, comfortable, and deadly accurate.



- ◆ 6AL-4V Grade-5 Titanium construction with Certification of Alloy (medical and aerospace grade). CNC machined for enhanced accuracy and tightest tolerances. The action is 47% lighter than other steel actions.
- → Bolts and handles made of 4140 Chrome-moly, with the same steel in crank and cam shafts.
- ◆ Recoil lugs made from O-1 Tool steel, surface ground to be flat within .0002 inch, double pinned for absolute alignment even after a barrel change. This allows for multi-caliber options and interchangeable barrels.
- ♦ 3-Lug design provides short 60-degree bolt throw for faster follow-up shots, faster bolt cycling, and less shooter position disruption.
- Cone-shaped bolt nose meets cone-shaped breach for faster and more reliable feeding and extraction.
- ♦ Six anchor points for scope base vs. four on Remington and similar actions.
- Larger ejection port to accommodate longer seated projectiles and custom hand loads.
- ◆ Complete action weighs in at 1 pound, 3 ounces (action, bolt, and hardware only).
- ◆ 20-degree extraction/ejection angle provides ejection low and away from expensive scope windage knobs. This prevents brass from hitting parts of the scope and being pushed back into the ejection port.
- → Mini M16-style extractor for the most positive grip you can get on the rim of a case. Bolt design and mini M16 extractor make replacing an extractor in the field easier and faster.
- Fits Remington 700 footprint stocks and chassis.
- ♦ Compatible with aftermarket Remington 700-style triggers. MR1 comes with 1.5- to 2.5-pound Jewel Trigger.
- ◆ Side bolt release.
- Aesthetically pleasing bolt knob and cocking piece shroud made from aluminum.
- ◆ 0 and 20 MOA Picatinny bases available.
- → Bayonet-style fire control system. Quickly and easily remove fire control to clean bolt of debris or foreign objects without a tool. Dual lobe allows for equal even pressure on cocking-piece shroud for more concentric mating of parts.
- Barrels are threaded and chambered by hand to ensure high-quality chambers.
- ♦ Barrels that have been threaded for muzzle devices are also done by hand and cut to tight 2A thread fit to ensure suppressor fit.
- ◆ Each barrel threaded for a muzzle device also receives a thread protector that is flush to the barrel to give a seamless look when not in use.
- ♦ Barrels are available in three different contours: Heavy M24, 3B Medium Sporter, and 2B Lightweight Slim.
- ◆ Available in .308 Win and 6.5 Creedmoor.
- Chassis system features aluminum construction, adjustable comb, and adjustable length of pull.

BOLT-ACTION EVOLUTION





"Lite Chassis" is preferable for anyone wanting a lightweight setup. By skeletonizing rear of chassis, weight is removed, lightening entire weapon system. There are pre-drilled mounting areas for a monopod, and QD flush-cup sling mounts are found throughout chassis.



asked me to help cull Axis does, and I was more than eager to assist. Axis is my favorite venison and the skins are beautiful. As the sun went down, animals appeared.

HUNT TESTING

Did I mention that Modern Outfitters also offers hunting packages? In Texas, they offer trophy whitetail, exotics, hogs, helicopter hog hunts, free-range Aoudad sheep, and mule deer hunts. On their New Mexico ranch, they have a limited number of elk, mule deer, and bear tags available. These are not brokered hunts. All hunts take place on their properties with their people.

Stand 1 Armory is a boutique ammo manufacturer located across the street from Modern Outfitters' Dallas, Texas retail store. The guys at Stand 1 equipped me with their .308



Bolt is a work of art, hex-fluted to remove weight and coated in titanium-nitride to harden and reduce wear. On top of TiN coating is a proprietary aluminum and titanium DLP coating to make it smooth as silk.



Modern Outfitters has incorporated a hi-viz level into the chassis. It can easily be seen while on the scope from either left- or right-handed shooter. Shooter does not have to add weight by mounting an aftermarket level, which is expensive and side specific.



Left: All rifles are "phantom threaded" and have matching thread protector. These are machined so precisely that most people have thought they were not threaded at all, hence the name.

Below: Rifle offers two different scope base options. For hunters, a 0 MOA base is available. For long-range tactical shooters, there's a 20 MOA base. Modern Outfitters always uses Leupold optics, like this Mark 6 4-18X44mm with Horus H-59 reticle.

loads using Hornady 165-grain SST bullets.

As we drove the ranch, we saw several groups of Axis playing peekaboo with us through the thick mesquite. It was unusually green for summer in Texas due to recent rains. Hunting the South Texas brush country in the summer is a totally different game than in the fall or winter. The dense foliage and knee-high grass make spotting game much more challenging than if they are coming to a feeder. The groups we did see that evening immediately took off when the Excursion came to a stop. They seemed to know how this movie ended. The beautiful pink sunset signaled the end of the evening hunt, and we headed back to the camp house.

The next morning was a cool 85 degrees at 0800. We spotted a good size herd of 20 to 30 Axis feeding through the brush about 600 yards away. We wanted to make sure we didn't shoot any does with young ones, so we disembarked and started our stalk. We carefully made our way through the

>> Continued on page 88





recently had the opportunity to attend an Esoteric, LLC training company CQB course. This was easily one of the most eye-opening courses I have ever attended. Prior to diving deep into the best-kept secret in the training community, I should note I am basing this after-action review on previous training experience under some of the industry's best instructors, ranging from Larry Vickers to Travis Haley.

The course's subject matter related directly to what I do in my job on a regular basis. Employed at a midsize police department (160 sworn officers), I am tasked with many roles: investigator, firearms instructor, rapid deployment instructor, and the role I am most passionate about, SWAT.

Many police officers, SWAT officers included, across the United States find it difficult to make time for training. Whether the lack of training is due to logistics or funding, our local agencies field SWAT officers who have attended a basic SWAT course, with on-the-job experience encompassing all further formal training.

This leaves SWAT teams victim to "institutional inbreeding." My refusal to succumb to the standard minimal training offered, combined with a desire to better myself and become a tactical asset to my agency, leaves me continuously searching for courses that focus on practical applications of SWAT tactics.

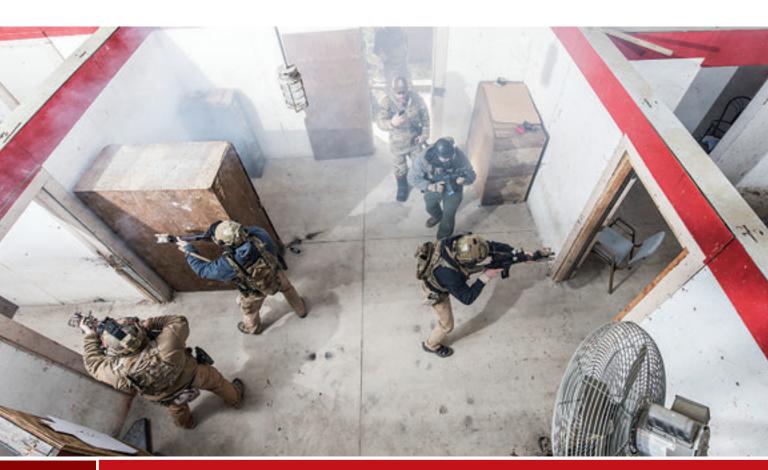
A few years ago, a fellow detective and SWAT team member told me about a training company called Esoteric. After visiting their website, I learned the owner/lead instructor is loaded full of certifications, with high-speed, low-drag experience to back up his wealth of knowledge.

Impressed with what I'd read, I emailed the company and they replied about a hostage rescue course I was interested in attending. A few months later, another detective and I found ourselves in Guilford County, North Carolina soaking up valuable instruction in the area of hostage rescue. Upon returning to my agency, I addressed our team with just a fraction of the knowledge we'd gained, showing how truly unprepared we were for a hostage rescue mission.

BEST-KEPT TRAINING SECRET

Esoteric High Intensity CQB

BY JACOB PARKER



After deploying flash bang, team makes entry and members move to their areas of responsibility.

A few months later, I received an email from Esoteric notifying me they were going to hold a "High Intensity CQB" course, and the tactics were completely different than the HR course I'd attended. Upon learning about a second opportunity to train with Esoteric, the same detective and I were signed up and packed before we even had the chance to break it to our wives that we would be away training for another week.

TRAINING DAY 1

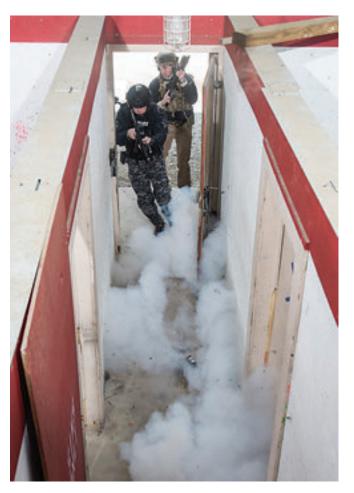
At the end of February 2016, I was back in Guilford County for the first day of a four-day CQB course. The class was held at the High Point Police Department range, which is a state-of-the-art facility. The course began in a large classroom, where our instructors, Yousef Sansour and Matt Holder, established rules and regulations for the facility, and firearm safety rules.

After the initial brief, we headed to the flat range, where Yousef and Matt evaluated our current skill levels. They ensured we were safe in manipulating our weapon systems and able to hold a group on target.

Being an exclusively LE/MIL class, everyone was utilizing an AR/M4 of some sort, along with several different handguns. The students who are actively serving our country thought the techniques taught were relevant to the way they operate overseas as well, and adapted certain

methods taught.

Since Yousef and Matt shoot competitively, all our work was scored on an IPSC/USPSA-style target. Anything outside the 6x10-inch "A" zone was unsatisfactory, and most drills





Above: Guilford County SERT member slicing the pie before entering hallway with rest of his team.

Left: Team enters hallway after deploying flash bang to regain momentum entering another room.

Below: Yousef explains how to work points of domination in a room versus the strong-wall style of room clearing.



pushed movement and time to make sure all students could function under stress.

Yousef is an accomplished Grandmaster shooter in the United States Practical Shooting Association, hence the reason for using USPSA-style targets. This is also a plus when dealing with a training company: knowing they have instructors who push themselves on a competitive level.

We performed several drills on the square range, and after a lunch break, headed up the hill to the shoot house, an impressive one-story structure with a catwalk overhead. This training area is covered, so training can continue even in adverse weather conditions. All doors and windows in the building can be breached in various ways, e.g., mechanical, ballistic and explosive, so if your team has explosive breaching capabilities, you can bring them with you and work on a specific technique.

Yousef and Matt began the shoot house portion of the course with empty weapons and two-man room entries. They are firm believers in working points of domination and making a tactical "L" when the team enters the room. We repeatedly trained these techniques to perfect the movements, ironing out bad habits and ensuring students were not married to their optic.

As we entered each room, the instructors taught us to look around as we cleared our objectives, so we were looking for work, and ultimately checking to make sure our buddy had entered the room safely. Once we grasped the two-man entry, they quickly added three- and four-man elements into the mix, along with audible commands.

When approaching a door, it was expected that everyone was saying, "Open door right!" or "Closed door left!" so the team knew which way the mission was moving. The instructors explained each student's role in their area of responsibility as they entered the room. We trained on this for the remainder of the first day, with class ending at 1700 hours. But when class was formally dismissed, Yousef and Matt hung around so students could bounce ideas off them and ask about the way their team operates.





Above: Matt points out areas of responsibility to students as they are about to enter a room.

Left: Yousef gives teaching point on what can be cleared outside the entry point.

TRAINING DAY 2

TD 2 also started off in the classroom, and during this block of instruction, Yousef described some of his previous work experience, along with some of the groups he has worked with over the years.

Yousef's humble nature kept this short, at which time we dove into PowerPoint instruction. He explained how his team prioritizes their work, e.g., armed subject, unarmed subject, open door, closed door. Yousef also explained the difference between points of domination (POD) and the strong wall technique, and why they prefer the POD technique.

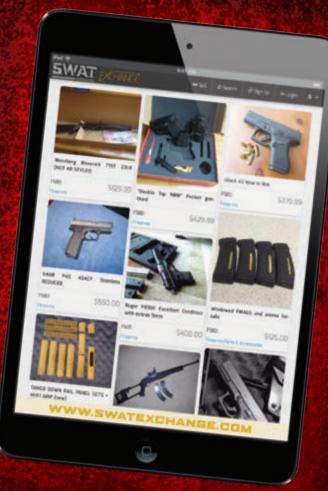
Some instructors have a "my way or the highway" approach, but these guys take the time to explain why certain techniques work on missions and others don't. Another thing they do as a team is fight room-to-room. The thought process behind this technique is that any tool needed is already in the

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Above: Entry element has cleared room and is moving to next unknown threat.

Left: Team member holds rear security while rest of team deals with unknown threat.

room, instead of having your team flood the house and needing a tool that is on the other side of the structure.

This might sound like it takes longer, but in small innercity houses, you can literally open the front door and see the back door. It also allows for accountability and, if shots need to be fired in a specific direction, anyone can engage and they don't have to worry about a teammate in a room that shares an adjoining wall.

The application of this concept to a large structure is even more logical because you have all the necessary equipment in one room. If you run into a breaching problem, someone on the entry element has a tool for that specific job.

After completing the PowerPoint, we broke for lunch, then headed back to the shoot house. We started off by running four-man entries to get the flow from the previous day, and next started working hallways.

From a basic hallway to more complex T-hallways and

four-way intersection hallways, Esoteric is a big believer in getting the team out of the hallway. They base this strategy on opportunities to work with some legit teams on the west coast, teams who have lost good men in hallways due to running a "Hall Boss."

As we worked hallways, we did solo operator up front and a two-man front with crossing fields of fire. These hallway movements were fast! We used a pace just under a run, slowing down before getting to the next priority of work. If this is a small area of operation, you're not moving very far, but if it's a school or another large structure, the team needs to be moving quickly.

This concluded the second day of training. Again, both instructors stayed around so if students had questions that weren't fully answered, they could address them.

TRAINING DAY 3

TD3 started like the previous two. We practiced flowing as a team through the shoot house. When the instructors were satisfied with everyone's movement, we grabbed ammunition.

Unlike the previous two days, when we had the option to wear body armor, once we started with live ammo, everyone was required to wear all their PPE (personal protective equipment). Yousef and Matt made it very clear that if they observed anything unsafe, they would stop everything immediately and address it appropriately. Any major violations could result in dismissal.

After the safety brief was completed, it was back to square one with two-man entries. By the end of the day, we had worked our way up to executing four-man room clears. Flowing from room to room with full kit (30 to 40 pounds) can be exhausting, especially when it's repetition after repetition, but that's why I take these courses.

Replicating the feeling of being mentally drained yet still needing to process what I must do when entering a room is a critical ability when it is my turn in the real world. Every run through the house was different. Just the simple movement of a threat can throw you in an OODA loop.

Even better, the shoot house we trained in was completely ballistic, so the instructors could put the threat anywhere if they thought students were gaming the room clear.

TRAINING DAY 4

The final day was reserved for scenario-based training. Everyone who had Sim-bolts for their weapon installed them, and the ones who didn't used someone's spares. All the toys got pulled out. We threw distraction devices, used explosives to breach our entry points, and even utilized a chainsaw to solve a problem during one scenario.

The final day showed each student what could go wrong on a callout, and what tools you need to address each problem. It also showed angles. There is no better way to teach someone than sending them deep into a room, then shooting them with a Simunition round from another room. Scenario-based training truly saves lives when paired with Simunitions.

At the end of the day, we debriefed the course. The instructors truly cared about our input and how they could improve the class, if that is even possible. At the conclusion of TD4, Yousef handed out our certificates, we said our goodbyes and headed back home.



Debrief was conducted after each evolution to determine what went right and, more importantly, what went wrong.

On the lengthy drive back to our agency, my teammate and I began a debrief of the past week's events. Of course our initial thoughts were how the techniques we'd learned would benefit our SWAT team.

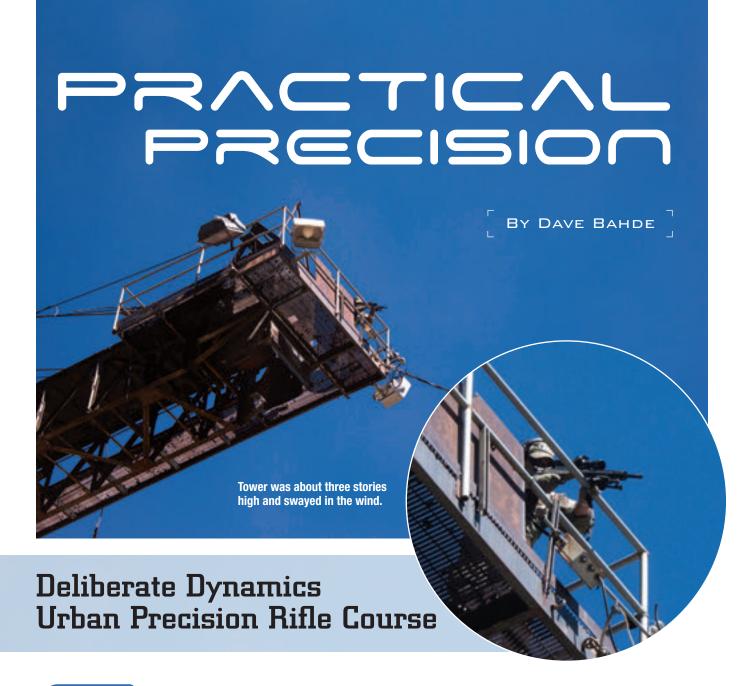
My teammate, who is also a narcotics detective, made a good point. Narcotics and other specialized units within departments often execute more warrants than the SWAT team. As we continued to discuss the course, it was obvious that the benefits of the training and its particular techniques go far beyond just SWAT applications.

As I have now taken two courses with Esoteric, I cannot say enough about this training company. The instructors have impressive backgrounds and a wealth of knowledge, as was clear throughout the course. I highly recommend you visit Esoteric's website and read up on the company for yourself, to determine if their training is appropriate for you.

Training classes as good as Esoteric's are few and far between. You won't be disappointed if you drop the coin for one of their courses.

Jacob Parker has been in law enforcement for over seven years and an active member of his department's SWAT team for over six years. He worked in the Patrol Division for six years and is currently assigned to the Criminal Investigative Division. In addition to his regular duties, he is also a Specialized Firearms Instructor and Rapid Deployment Instructor.





oaxing me to a precision rifle/sniper/police sniper class is about as easy as getting me to the dentist.

After well over a dozen, I can say they are pretty much the same. Zero your rifle, shoot groups, gather dope, dress like a tree, and "stalk" a large steel target to pistol distances with a long-range precision rifle. Throw in hours of mind-numbing lectures on mils and MOA and you describe 95% of these courses. Fun the first few times, at this point they amount to torture for me.

Occasionally urban precision rifle classes are advertised. Too often they are filled with promises that don't materialize. Years ago I took one of my department snipers to an "Urban Police Sniper" school in California. Long trip, mostly at my expense. We were going to shoot from "deep angles" from "real buildings" in and around the LA area.

I called and was told we would set up bullet traps with the help of LAPD in actual buildings, and also work in the Urban facility at Camp Pendleton. Sounded fantastic! In reality, we never left the range, mostly lying in brass that had accumulated over decades. The final exercise was, you guessed it, a "stalk" through woods and trees. That range was closed for health reasons a few months later.

To this day, whenever I see an urban precision rifle class advertised, my skepticism is immediately triggered. Deliberate Dynamics Urban Precision Rifle was no exception when it came across one of my social media pages. But it did look interesting. Taught at a mostly abandoned mining town, it had movers that crossed between windows and shooting from an actual roof. I was intrigued enough to sign up.

GUNS USED

I took two guns to the class, both chambered in 6.5 Creedmoor using Proof Research barrels, one semi-auto and the other a bolt rifle. My semi started as a Seekins Precision SP10. I added a Proof Research 20-inch 6.5 Creedmoor carbon-wrapped barrel using a JP Enterprises Low Mass BCG and Silent Captured spring. Safety and charging handle are AXTS, trigger is



Author's build on a Stiller action (left) proved smooth, accurate, and very easy to run. Seekins Precision (right) with Proof Research barrel and Nightforce ATACR scope. Both rifles performed flawlessly. Proof Barrels were tack-driving machines.

a Geissele Automatics Super Dynamic Enhanced. Scope is a Leupold Mark 6 with Horus TReMoR 3 reticle mounted in a Spuhr mount. Bipod was an Atlas, coated in Cerakote camo by my friend Ernie Bray from Red Creek Tactical.

The bolt gun is a Stiller Precision Tac-30 AW action with a Proof Research 24-inch 6.5 Creedmoor barrel, McMillan A3-5 stock, Seekins Precision bottom metal, and AW ten-round magazines. Trigger is a two-stage X-Treme Mod 22 Tactical. I topped it with a Kahles 624i 6-24X scope with an AMR reticle and used a LaRue Tactical bipod using tactical spokes. Hornady 140-grain ELD Match was used in both guns.

DELIBERATE DYNAMICS URBAN PRECISION RIFLE

Deliberate Dynamics is known for working outside the box. They do have some classes that are more the norm, but they push the envelope. Jim Stahle is a former Recon Marine with combat experience and years training professionals. All of his staff has similar experience. Marcus Blanchard, the only non-combat Marine (still a Marine, though) is a top 10 PRS (Precision Rifle Series) competitor.

The facility is a non-working mining town in Hiawatha, Utah, just outside Price. It was an incorporated city until 1992, so it's more abandoned than ghost. It's no amusement



Buildings are mostly modern with several rooms and vantage points.



Above: Shooting from a real roof takes effort, along with some teamwork.

Below: Unlike most classes, shots were often taken from the back of a room through windows. park for sure, but it is about as close as you get to urban training in real buildings with a 360-degree field of fire.

The class was a mix of retired and active law enforcement, military, and previous DDI students. Rifles were mostly bolt guns with a few semiautomatics. Classroom on TD1 lasted about an hour and dealt with safety and equipment checks.

The equipment requirement was a one-MOA rifle, and it really is a must. Some targets are full silhouettes but most are smaller. There's even a four-inch target at 430 yards. You can take all kinds of stuff, but you have to carry it around, so I suggest keeping it simple. My gear consisted of a pack, rear bag, sling, and ammo.



MOUNTAIN RANGE

Our Training Day 1 range sat at about 8,500 feet above sea level up a winding mountain road. A short flat range allowed for zeroing, but that was the last we saw of conventional shooting.

Zero confirmed, the "course" was pointed out and we confirmed range to each target and our holds to hit them. These targets, along with some others in the same proximity, were used. The focus was on shooting, not ranging or trickery. The largest target was an IPSC silhouette. Partial presentations covered by buildings, debris, or other obstructions were the norm. Nothing flat: everything was at an angle.

Once dialed in, Marcus Blanchard took over on the obstacles. Marcus is an accomplished PRS shooter and masterful at positional shooting. Obstacles consisted of a rooftop, tiered barricade using pipe, tripod with support, and positions from an abandoned conveyer tower. Marcus explained how to work each obstacle, then let us work them dry. Each barricade had two or three targets to engage at various distances. After dry runs, we worked each live fire.

I ran the bolt rifle on TD1. This let me practice positions using a pack and single bag. Marcus covered sling use developed during PRS shooting. It works. Misses were rare and the spikes on the LaRue modified bipod really helped, especially on the rooftop. Running through several times completed the day and prepped us for the next day. The Stiller was, well, stellar. My only change was to shorten the length of pull for future use.

STRESS AND THE URBAN RANGE

Our warm up the morning of TD2 was the same course with time constraints. The Seekins was dragged out of the bag for this. Our first run was cold, with 90 seconds to get into position, shoot, then be ready to move. Cleaning the roof stage, there was some confusion on stage two, which resulted in timing out.

Tripod targets were another one, two, three affair. My last stage, the tower, took a bit to get into position with first-

Right: Tower ladder was tight, with no room for excessive gear. Just the shooter, the rifle, and some ammo.

Below: Marcus Blanchard shoots left-handed from the tower. Shooting off-hand was often the case, using a rail for support.

Unlike many courses of its type, the Deliberate Dynamics Urban Precision Rifle course lived up to its sales pitch—and this was the first time it was ever run.





round hits on the first two targets. The last one took two. On my second run, my time was shaved a bit and one student commented, "You're smoking it." Not bad for an old guy. The Seekins was flawless and the Proof barrel a tack driver with the ELD Match.

Moving to the "city," we shot from inside, through windows at targets as far as 200 yards away sitting in and around a house. A 200-yard mover trotted across several windows with very little time to engage. Stationary targets were pretty much no-brainers, but the movers were tough.

We fired from windowsills, from tables across the room through windows, kneeling and other positions. Time for moving between stations was limited, and my mostly first-round hits confirmed my affinity for the 6.5 Creedmoor. No time to set out the blanket, dial in wind, find it, get set, engage, then move on. Great training and the most fun I've had at a precision rifle school in years.

Working police and military moved to a class on urban hides. Everyone else moved to the roof. We got a lecture on building a hide then we built it, set up on a target from 50 to 200 yards, and engaged it. Other students and the instructors were watching for flash and trying to see the shooter from the target location. Two hides were set up and neither was easy, but it was very useful practice.

Shooting from a "roof" built on the ground is valuable, but nothing like the real world. Make no mistake, this is not ideal—at least it never was for me. Sitting on a roof in either 90+ or below zero temps is not smart. Still, it may be all you can do to get some high ground.

In this case, we tied on to a safety rope and walked out onto a three-story roof. We engaged a hostage target at roughly 100 yards, then other targets hidden in the trees. Getting solid while making sure not to drop our gear was much different than walking around on a "roof" on the ground. Realistic, practical, and a great time.

NIGHTTIME

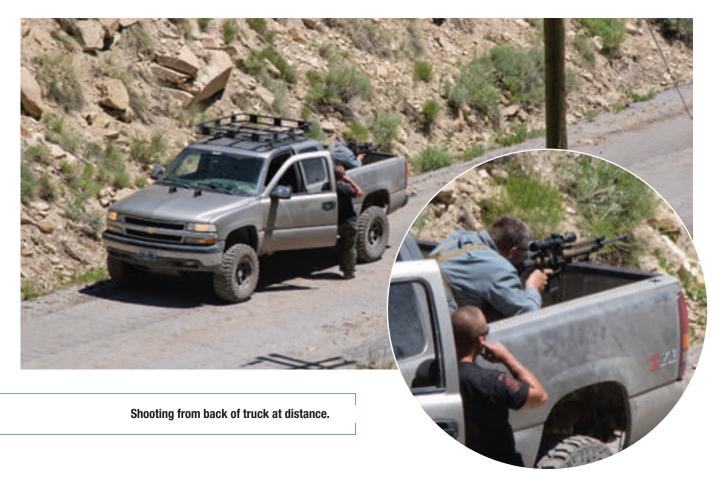
There was no shooting in the dark, but we used several quality night-vision devices including thermal clip-ons inside the city. Rather than looking at glowing targets, we were allowed to observe actual human movement. We looked at a vehicle moving our way, people walking with weapons, and others moving inside buildings across the street.

It dispelled much of the comic-book mythology when it comes to night vision, including thermal. Identification is far more difficult in real life. It's great stuff and provides a huge advantage, but it does not see through walls or even closed windows. Once again, Deliberate Dynamics gave us more practical application and less sales pitch.

I've shot targets with night vision and had fun. It's generally at ranges never seen on duty or short of a zombie invasion. This was a welcome change and far more valuable.

FINAL EXERCISE

Our final field exercise was unlike most precision rifle classes. We jumped in the truck with our rifles and headed into a tunnel shooting at what amounted to a three-inch target with an incredibly tight window from a tripod. It was a difficult shot



from inside a dirty environment. Very nasty with a brake, even with hearing protection. Between the cloud of dust and concussion, it adds a whole new appreciation for suppression.

Moving forward, we shot from a ramp at another target at 150 yards or so from the offhand side, using a rail as a rest. The only way we could even see it was by hanging over the rail.

Getting back into the truck, we started up the road, where we engaged from the back of the truck at a small steel target at around 300 yards, then continued up to the last course—the tower.

Stepping on the tower, the first target was 80 yards through

a very tight window. We moved to a ladder, climbing down first one story to engage targets, then down another story. We climbed back up the ladder to our previous spot, engaging different targets, and then climbed back to the top. Walking out to the end of the tower, we engaged a three-inch square target at 40 yards at about the same angle (40 degrees).

The last target sat at 550 yards, but at least we could shoot from prone, although the tower was swaying back and forth so even that was not easy. It ended a challenging and diverse course that most will never see, especially in the law enforcement world.

LAST THOUGHTS

If you're looking for conventional, this isn't it. Very practical, yes. Conventional, not so much. You don't need to be a gym specimen, but there is some physical exertion and it all takes place at significant elevation. Work at your own pace for sure, but this is not three days of prone shooting from a bag, so prepare accordingly.

Rifles rest and bang on rails and obstacles, so be sure your gear can hold up. Jim and his staff make every effort to be as safe as possible, but you are moving outside the box. You *must* be safe. Failure to do so means you observe unarmed or they hand you a blue gun, so watch your muzzle.

Shooting on a swaying tower is part of the equation, along with lying on a three-story roof. If you get queasy walking up stairs, this may not be the course for you. Nor is this some surgically pristine groomed range. It's dusty and dirty and you need to watch where you step. If you're afraid to dirty up your tacticool gear, think twice.

Given the opportunity, every police sniper on the unit I once commanded would have been through this class, maybe yearly. It has more in common with real life than ranging tar-

gets at 1,000 yards, dressing up like a tree, or crawling around on your gut. No math class needed and, while I moved more slowly than most, I rarely missed, and that was without ever touching a dial but using only the reticles in each scope.

Deliberate Dynamics lists this as a precision rifle class, but any patrol officer would benefit, and a 5.56mm rifle will do the trick just fine as long as it holds one MOA, uses a quality optic, and you can shoot. With range limited to 500 yards, even a decent 1-8X power scope will work. Ideal? Probably not, but excellent training either way. Nothing wrong with using what you deploy.



There were no pristine positions. Everything required some work.

Unlike many courses of its type, the Deliberate Dynamics Urban Precision Rifle course lived up to its sales pitch—and this was the first time it was ever run. Subsequent classes will likely be even smoother. If you want to push your limits and work in a more realistic environment, this class is for you. Take the time to prepare your gear and yourself, then be ready to learn a ton and have the time of your life with a rifle!

Dave Bahde is a retired police lieutenant with over 20 years police experience and over ten years SWAT experience as a police sniper, team leader, and commander. Attending hundreds of hours of firearms and tactical training from world-renowned instructors keeps him current.

SOURCES

DELIBERATE DYNAMICS

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BY JEFF GURWITCH

RICCRIC UP FOR BATTLE

Afghanistan 2015: ATS War Belt is just visible below plate carrier. Not visible are low pro suspenders under plate carrier connected to belt. Suspenders keep plate carrier from pushing belt down onto the hips. This is not only more comfortable on long hikes, but also allows for better freedom of movement over rough terrain.

arrying spare ammunition for both primary and secondary weapons, medical items, night-vision equipment, communications gear, breaching charges, and maybe a couple of grenades or flash bangs can add up to quite a combat load. And let's face it, there is only so much space on plate carriers, body armor, or chest racks to mount and store these items.

One solution to help carry and better distribute a full combat load is wearing a battle or "war" belt. Even for those who do not run a pistol, these belts offer more real estate for mounting pouches and, because of their padded design, remain comfortable even when loaded down.

What's the difference between a war belt and a battle belt? Really nothing. It just depends on how the manufacturer of the belt refers to their product. The belts generally consist of a padded sleeve with three rows of MOLLE webbing running the length of it and requiring an inner belt to secure it around your waist.

Not just for combat operations, war belts make great overall range belts. Again because of the built-in padding, they make a very comfortable platform for a holster, multiple magazines, and other pouches.

Looking for a belt for competition use? I find war belts ideal for 2-Gun matches (rifle and pistol). The comfort cannot be beat, and

it creates a stable platform for the three pistol and two rifle magazines I typically carry during a course of fire in a match.

CHOOSING A BELT

Aside from quality of craftsmanship (and price), the biggest differences among most belts are the thickness of the padding and what the inside of the belt is lined with.

The biggest complaint from battle-belt users is that the belt can sag or move around on the waist. This is because some belts are overly padded. While they might feel great, very thick padding does not provide a solid grip around your waist unless you cinch it down to a ludicrous level to compress the padding—in which case, you lose the comfort value you were looking for in the first place.

I have also found some belts to be too wide. While the majority of battle belts have three rows of MOLLE webbing, the space it takes to have three rows of MOLLE generally determines the width of the belt.

Some belts have extra material past (above or below or both) the MOLLE webbing, making them slightly wider. I have found that the wider the belt is, the more likely it will have the same issues as too much padding. The belt does not grab well around the waist or stay in place while running and jumping.

Aside from padding thickness, the other big difference among a lot of belts is what the in-



Author's full kit laid out as used in his last deployment in Afghanistan.

side of the belt is lined with. The three most common options are a rubber non-slip lining, mesh-style breathable fabric, or hard padding with slots between the pads to let air in. Which is best seems to be a matter of personal preference. For me, it's the breathable mesh-style lined belts. Most of the conflict areas around the world are in very hot climates. Rubberized lined belts—which do have better non-slip properties—are a little too moist and sticky for my taste when I have to wear one for 12 or more hours a day in 90+ degree temps.

RIGGING UP: TACTICAL PRIORITY!

One very popular principle to follow in terms of rigging up gear is the "line priority" method, which divides your gear into levels or "lines" based on the order in which you would put it on.

The first line is the bare minimum—sometimes based just on what you carry in your pockets—but can also be applied to tactical belts.

The second line is your basic fighting load: what you would wear in a firefight (vest or plate carrier/body armor).

The third line is usually mission sustainment: what you would carry to last 24 to 72 hours (what goes in a rucksack or go bag).

With this line method, the idea is to be ready to handle an immediate threat with your base layer, then fight to your other lines or, as the situation progresses, you line up to full-blown mission sustainment phase.

While this is a very organized method of looking at how to approach a combat load-out, I find it flawed. No matter what, when going into harm's way, I want some sort of ballistic protection first.

While one could argue that you can wear a belt all day in a relaxed environment or grab an easy-to-reach fully loaded war belt in an emergency, do you really want to head into a firefight with no ballistic protection?

My approach to rigging up a battle belt is that it should be used for supplementary gear—just more of the stuff you already have on your plate carrier that you might need for a fight, such as a few extra rifle or pistol mags, grenades, or another general-purpose (GP) pouch for extra charges, chemlights, etc.

For medical items, there is some merit to mounting an individual first aid kit (IFAK) on a battle belt in the small of your back so you can reach it with either hand.

If something kicks off, I'd rather just have to grab one item (besides a rifle) that has a little bit of everything, including an IFAK, that I might need and that also provides ballistic protection. So again, when approaching what and how much to put on a battle belt, I view it as supplementary to already having a basic combat load on a plate carrier.

WHAT AND WHERE TO CARRY

Keeping the above in mind, everything needed for a fight is already on a plate carrier, with the exception of a pistol, which really is a contingency to the rifle going down. Everything on the belt is extra stuff needed or enhancement items such as a multi-tool—not a required item for a firefight, but very handy for multiple reasons.

For the pistol, I recommend at least two magazines and up to four. If you have to transition to the pistol, seeing as you are now most likely going up against rifles, you cannot shoot back too much.

Double tapping a threat is great for training, but most shooters' normal response to a real threat is to shoot the threat until it's down and stops moving.



Above: Five battle belt set-ups from different assaulters. Minimal amount of spare magazines on each belt indicates they are using their belts just to supplement their combat loads. All but one has a dump pouch attached.

Right: Top belt for work, bottom rigged up for range training and 2-Gun matches. Aside from the extra pouches, their layout is consistent. Train as you fight is not a bad idea to follow.





Three approaches to belt liners (left to right): mesh with raised pads with slots in between pads to allow for air flow, rubberized liner, and mesh lined over padding.

In reality, we're talking at least five-round strings. Since most 9mm mags have 15 to 17 rounds, that's enough ammo for three threats per mag. Having at least two extra mags gives you some wiggle room.

If your battle belt double duties as a competition rig, you always want to carry one extra magazine than a course of fire in a match requires in case you need to make up for misses or you have a malfunction and need to jettison that mag and

go for a fresh one.

In the majority of action shooting sports such as 3-Gun and USPSA pistol shooting, the longest courses of fire for a pistol are about 40 rounds, which means three extra magazines (based on 15-round capacity). One in your pistol and three on the belt give you plenty of ammo to make up misses, or if you have a malfunction, you can ditch the mag and go for a fresh one.





This also applies to rifle magazines. The rifle magazine load-out for going into harm's way is one to two on the belt. The average extra mags most soldiers run is between six and eight. Having six mags on your carrier and one or two extra on the war belt spreads out the weight a little.

For many, including myself, it is faster to get an emergency reload off the belt as opposed to a plate carrier.

KNIVES, TOOLS AND LIGHTS

While I am not of fan of giant fixed blades, having a knife on you is a good idea. In fact, the "two is one and one is none" rule applies pretty well here: one on the plate carrier and one on the battle belt is my preference.

In terms of having to fight with one, I don't relish the notion of a one-on-one knife fight, slashing it out

space via stabbing to allow drawing the pistol to finish the fight. Also like a pistol, you have to ensure the knife's placement is not easily accessible by an attacker. On a battle belt, I utilize a push dagger off my left hip (opposite) side of the holster. This gives me options: if one hand is busy holding a threat at bay, I can go either to the pistol or knife depending on which arm is free.

I already mentioned the handiness of carrying a multi-tool. If you're trying to decide between a standard multi-tool versus one of the weapon-specific tools, go with the weapon specific. Many have great AR-specific tools such as front sight movers, special bolt scrapers, etc. When looking for a multi-tool pouch, 90% of the pistol-mag pouches made for double-stack magazines work great for holding multitools and flashlights.

Speaking of flashlights, like knives, having more than one-spread between plate carrier and battle

Pistol mag pouches, like this triple pistol Taco by HSGI, can also be used to hold items like multi-tools and flashlights.



Gurwitch's preferred battle belt load-out: three pistol mags, handheld light, push dagger, Gerber AR multi-tool, GP pouch for storing night vision, dump pouch, rifle mag, and pistol. He shoots pistol right-handed and rifle lefthanded, hence placement of rifle mag on right side of belt.

until one man is left standing. Instead the knife should

be used as a space maker. If an attacker is on you for a gun grab or trying to stab you, you can go to the knife

if there's not enough space or time to go to the pistol.

trained to keep one hand on the pistol to prevent a

gun grab, while the free hand goes to the knife to make

One example is getting tackled by a threat. I was

belt—is not a bad idea. Even if you run a pistol light, having a handheld white light gives you the ability to check things out without flagging everyone with your pistol. And if Murphy strikes, you still have the ability to see targets if your weapon-mounted lights go down.

TO DUMP OR NOT TO DUMP?

Depending on your method of retaining partial and fully spent magazines, a dump pouch may or may not be a necessity.

Detractors of using dump pouches will point out that if you throw all your mags in there, you never know what you might pull out if you are down to needing partially filled mags to stay in the fight. Thrusting your hand into your dump pouch and having to fish around a sea of empties to find a partial may not only cost you time but could cost you your life.

I hate to say this, but I bet most who are against running a dump pouch have not been in an extended gunfight. Having a dump pouch on your belt gives you an option. I agree that if you have time, you should be tac-loading and putting partial magazines back in your kit, but sometimes the enemy does not give you time to do this.

There are times when keeping lead going downrange toward the enemy at a very rapid rate is necessary. Gaining fire superiority, covering movement of fellow assaulters, or reacting to a close ambush can call for more than just controlled well-aimed fire at a single target, especially if you are moving to different positions or places of cover to engage a threat.

Pausing to practice good magazine management could cost you the advantage in rate of fire on a threat or slow you down when trying to maneuver on a threat. Not having a dump pouch in a high rate of fire situation means your empty mags are getting tossed on the ground, in the hope that you have time to pick them up at some point.

The way to go is to wear a dump pouch on your belt purely as a contingency as opposed to just dumping a used magazine on the ground and possibly never getting it back. If the situation allows for proper magazine management—rotating full magazines to the front of your kit and stowing the partials and empties in the rear pouches—then by all means do it.

GP POUCHES AND IFAKS

The last two items I would like to cover are GP pouches and IFAKs. Having some sort of GP pouch on a battle belt can come in very handy if you need to plus up on grenades, small breaching charges, chemlights, extra IFAK items, or simply as a pouch to stick a Pro Timer in when you are not using it on the flat range.

I have a GP pouch on my belt specifically to place my NODs in when not wearing them on my helmet. I believe you should have NODs on you at all times as the quick trip out in daytime often turns into an all-night slug fest. In a pouch on my belt allows me one-handed quick access to put on or take off night vision as needed.



You may want to run an IFAK on your battle belt, especially if you rely on belt for range training. Ensure you can reach it with either hand.

I previously mentioned in regard to the line principle that I prefer to have my IFAK on my body armor. That does not mean running an IFAK or other medical items such as tourniquets on your battle belt is a bad idea. I have worked with plenty of assaulters who run theirs in the middle of the back of their battle belts, allowing access with either hand.

If you are planning on just using a belt for range training or matches, having a small IFAK or tourniquet on the belt is a good idea.

THE WRAP UP

The first belt I was ever issued in Special Operations back in 1998 was a rigid two-inch-wide reinforced nylon belt—the same style that most law enforcement SWAT teams wore. It was fine for a few hours on the flat range and short movements.

During the early years in Iraq and Afghanistan after 9/11, we all learned through hard use that this type of belt fell way short of what was needed, including not being designed to mount the new MOLLE-style pouches as they came out and total lack of comfort when loaded down with what is really needed for a fight.

Thankfully tactical nylon manufacturers stepped up and rose to the challenge of creating belts built with both comfort and carrying capability in mind. Whether you call it a war belt or a battle belt, the three-row MOLLE padded belt has secured its place as a "don't leave home without it" piece of kit with many of America's best. If you're looking for a way to enhance your tactical load-out, I recommend giving one of these belts a try.

Jeff Gurwitch has 25 years military experience—17 with U.S. Army Special Forces. He served in the first Gulf War, three tours in OIF, and three tours OEF. He has been a competitive shooter for over a dozen years, competing in USPSA, IDPA, and 3-Gun.



PREPPER SPECIAL

Versatile Pump Shotgun

BY JEFF HALL

had the good fortune to train with some of the great instructors, most of whom come from Gunsite lineage—Chuck Taylor, Clint Smith, Bill Jeans, Pat Rogers, Bill Murphy, and Louis Awerbuck. Bill Murphy ran the 260 Shotgun class at Gunsite, and Louis taught "the gauge" through his company, Yavapai Firearms Academy. I took Louis' shotgun class three times (I'm a little slow) and will take it again. It's now taught by Steve McDaniel of Alaska Tactical.

Some of these guys liked the shotgun, while others preferred carbines or rifles. For my first year as an Alaska State Trooper, the shotgun was the only long gun issued, so I decided to get good with it. I started taking classes and grew to love the effectiveness and versatility of the pump shotgun. As Bill Murphy put it, "It's the thinking man's weapon."

GUN WORLD'S MULTI-TOOL

Properly trained with and properly outfitted, a shotgun will do almost anything a person needs to do with a gun—it's the multitool of the gun world. You can shoot a pheasant with birdshot and a deer with a slug in just a few seconds.

I did a lot of backcountry travel in Alaska, and a Remington 870 was with me most of the time, for the following reasons. I killed a lot of problem critters with a shotgun—moose, bear, whatever needed to be put down went down for good after a

The Prepper Special: low profile, simple, versatile, effective.

Brenneke slug hit it. I shot lots of grouse and ptarmigan, harassed a few bears out of camp, and came to have a lot of faith in "the gauge."

I once had to use a shotgun in its defensive role, and it was very effective. Pump shotguns are better than any auto in this role, since a pump will cycle anything you feed it, while many autos are finicky.

A disclaimer: *no* police trainer I know suggests carrying lethal and less-lethal munitions on a service shotgun. There's simply too much chance of the wrong load at the wrong time in a high-stress situation. For this article, combat is not the primary focus. Long-term survival, in a variety of situations, is.

The reason for the shotgun's versatility is the range of munitions available—slugs, buckshot, birdshot, flares, bean bags, rubber buckshot or slugs, fleshettes, tear gas, cracker rounds, breaching rounds, and more.

NON-THREATENING TO POLITICIANS

I write this as anti-gun rhetoric heats up: ban "weapons of war" from the streets of America. The shotgun depicted here has no evil features. No detachable magazine, bayonet lug, flash hider, or pistol grip—and it isn't black! It has a gray finish, rifle sights, one-round mag extension, leather sling, and that brown substance at the rear and on the forearm is called "wood." This is your turkey or deer gun, not an "assault weapon." At some point in the future, the gun's appearance may be more important than the gun's capabilities: look at the laws recently passed in Kalifornia.

OK, you live in New Jersey or Kalifornia or some other Marxist paradise. You're not a gun guy, don't see a need for

or can't buy a black rifle or a handgun, but want *something* to protect self and family WTSHTF.

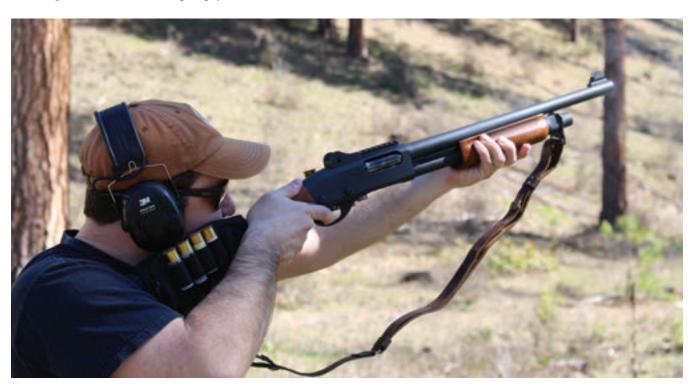
Let's say you live outside a city, where you see the occasional wild critter, or have a plan to leave the city and go to your uncle's house in the Poconos. You know it'll be a long walk, there may be brigands on the way, and you may have to scrounge for food. Buckshot can deal with the bad guys, and #7 1/2 birdshot take care of the raccoon for the pot.

I live in a fairly isolated area. This year my cherry trees went crazy, which drew a lot of birds—I get the cherries, not the birds. A shell-cracker (an M80 firecracker that shoots out about 50 yards before it explodes) over the trees scared off the birds. A stray dog showed up a while back, and a rubber slug in the butt sent him out of the county. In the above scenarios, a trained guy can respond accordingly with the munitions carried on the gun.

MY PREPPER SPECIAL

This gun started as a used Remington 870 Wingmaster, \$250 at the local gun shop. I sent the gun to Larry Lyles of Covert Tactical Resources. I know Larry from Scattergun Technologies and Nighthawk Custom, before he went out on his own. Larry tunes fighting shotguns with new springs, extractors, etc and hand fits and polishes each part as it goes into the gun. He can do anything needed on a shotgun, and the action of this gun is incredibly smooth.

Frank P. fires a cracker round, which pops 50 yards downrange.







Larry had a flood and had to close down for a month, so he shipped my Remington to VangComp Systems to be finished. Hans Vang is a legend in the fighting shotgun world. He mounted sights and a one-round mag extension, and back-bored the barrel for tighter patterns. He finished the entire gun in a matte gray Cerakote™ finish.

Loads are carried on the gun two ways: a SideSaddle-type carrier made by VangComp on the left side of the receiver and an Eagle Industries stock carrier. Vang's carrier has nylon loops sewn to a Velcro back, which allows pre-loaded carriers to be changed quickly, depending on the situation.

If I were hunting birds, I'd have four #6 shotshells, primer down, and two slugs, primer up, in the left-side carrier. On the right of the buttstock, in the Eagle Industries stock carrier, I'd have my special-purpose loads—a bean bag, shell cracker, rubber slug, rubber buckshot, a flare or breaching round, all depending on my situation.

If food gathering were less important than defense, the



Left to right: Brenneke slug, 00 buckshot, #6 birdshot, bean bag, rubber slug, rubber buckshot, shell cracker, tear gas, and breaching round. Just some of the munitions available for the 12-gauge pump shotgun.

loads would be almost the same, but the birdshot would be replaced with 00 buckshot.

This gun purposely does not have a light or anything else that says "tactical." In states that require shotguns for deer hunting, this is a perfect setup; the same for states with large turkey populations. This will pass muster as just a hunting gun if contacted by some authority bent on limiting "assault weapons."

Those of you old enough will recall Joe Biden brandishing a Streetsweeper shotgun and saying it had no sporting purpose and should, therefore, be banned. The Streetsweeper and the USAS-12, an AR-design shotgun, were reclassified as NFA weapons and had to be registered, just like suppressors. This gun should never suffer the same fate.

After buying and modifying the gun, the next critical step is training. The best shotgun classes I know are from Alaska Tactical and Gunsite.

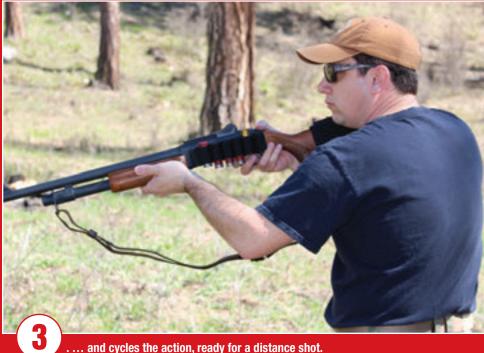
UNIVERSAL PROBLEM SOLVER

Almost any problem a survivor could face can be addressed with a proper shotgun. Lost? Fire a flare into the air when a search plane passes. Need access through a locked door? A breaching round can remove the lock. Does someone need convincing but not killing? Hit him with a bean-bag round. Got a deer 100 yards away? Load a slug and shoot. Finally, if someone needs to be shot, a round or two of buckshot would solve that problem.

In a post-disaster scenario, I'd set up this gun for my most-likely need. If I wanted to hunt, I'd attach the carrier loaded with birdshot and two slugs, and load three shot rounds into the magazine. If I were afraid of armed opponents, I'd slap on the buckshot/slug carrier and load the magazine with buckshot. Either carrier always has two slugs, which turns the shotgun into a .458 Win Mag within 100-plus yards.

The Eagle buttstock carrier, with rounds on the right side





of the gun, always stays the same, with special-purpose munitions available if needed.

One more caveat: *look at the round before you load it.* To be used in this thinking-man's weapon role, you need to be certain that the round loaded is the round needed. It would be a disaster on many levels if the less-lethal round you thought you were loading turned out to be a lethal round, so train hard and use your head.

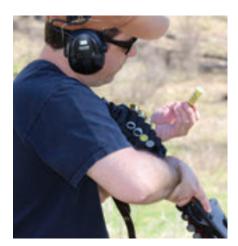
BUDGETING

A Prepper Special set up like this costs \$600 to \$700. Training costs from \$400 to \$1,200, depending on where you go. Do *not* watch a couple of videos on the Infernalnet and think you're good to go. You need quality training under a really

good teacher to get the most out of the gun.

I have three combat shotguns, all outfitted with Mesa Tactical, SureFire, VangComp, and other accessories. All are black and look exactly like what they are—fighting weapons. One is in the bedroom, one in the basement, and one in the shop. Any authority looking for "bad" guns would see them in these weapons but would probably not notice the Prepper Special. After all, it's just a turkey gun. <a> ⑥

Jeff Hall is an Army veteran, retired Alaska State Trooper lieutenant, and NRA staff instructor. He also teaches for several state POST agencies. He is a martial arts grandmaster and founder of Hojutsu-Ryu, the martial art of shooting. He can be reached at soke@hojutsu.com.



Always visually confirm type of specialty munitions selected before loading them into the gun.





Eagle Industries stock pouch holds five rounds of special-purpose munitions on right side of stock.



What To Do Before the Tap Runs Dry

uring a disaster, one of the most significant problems you're likely to face is the lack of clean drinking water. People living in highly congested urban areas are especially vulnerable, since municipal water supplies can be contaminated or may stop flowing altogether.

When things go very wrong, having an ample supply of clean drinking water can make all the difference. While storing water may seem simple, there are usually some significant obstacles to overcome.

If you found yourself in the middle of a serious crisis, would you have enough stored water to sustain yourself and your family? Let's take a critical look at water storage: the options, challenges, gear, and essential preparations that may help you stay alive.

WATER PREPS

Considering that water is such a crucial resource, it's amazing how often people fail to adequately plan for it in their disaster preparations. As a core survival priority, water is second only to security and self-defense. Yet many people frequently take water completely for granted—until the day they don't have any.

The reason for this complacency is simple: water is normally available in great abundance. It's cheap, plentiful, and as close as the nearest faucet. This illusion of plenty leaves many with a false sense of confidence. To compound an already difficult situation, water storage is full of challenges. It's never as easy as filling a few containers and checking off the "water" box.

BY RICHARD DUARTE

But the good news is that, with some solid planning and the right gear, effective water storage is very doable.

WHERE TO START

The first step in your water-storage efforts is to assess your personal situation. Here are a few questions to get you started.

- How many people are in your group? (Don't forget to account for all those unexpected souls who will show up at your doorstep. These are the folks you won't be able to turn away—you know who they are.)
- How much water will you need for drinking, cooking, etc?
- How much for sanitation and hygiene?
- How much room do you have for water storage? (Is it a large continuous storage area, or several smaller spaces?)
- How will you rotate your water supplies?
- How will you protect your stored water from contamination and possible spoilage?
- How will you move the water to where you need it? (Pumps, siphons, gravity, etc?)
- Do you have alternate water sources for extended survival situations?
- How will you treat and disinfect suspect water you get from alternate sources?

Since every situation is different, accounting for these dif-

ferences is critical to the success of your overall water plan. In any event, the process of examining your needs and answering these questions will help you come up with strategies that address your particular circumstances, rather than relying on a one-size-fits-all solution.

HOW MUCH IS ENOUGH?

We've all seen the common water-storage guidelines—store one gallon per person per day for a minimum of three days. In my experience, these anemic recommendations are absolutely insufficient. Having such a small amount of water is definitely better than having none at all, but not by much.

A far more realistic amount is no less than two gallons per person per day for at least 30 days. But estimates are nothing more than educated guesses. The actual amount you store needs to be adjusted to your particular needs and the circumstances. In very hot environments, your water needs increase significantly—and with water, more is always better.

SHORT-TERM WATER STORAGE

A short-term water supply is the backbone of your waterstorage efforts. You're far more likely to need, and use, your short-term water stores than longer-term storage or alternative sources. For this and many other reasons, no one should ever be without a minimum supply of emergency short-term





Titan Ready USA Hydrant Water Storage System racks can stack and connect up to four 55-gallon water barrels. Plumbing kit included with system makes filling, rotating, and using the stored water easy and sanitary. You never need to remove the connections or introduce a siphon or pump into the barrels—gravity does all the work for you. Fill all barrels by connecting your drinkingwater-safe hose to the bottom spigot. Use the same spout when you need water or simply want to rotate your supply.

water. For the purposes of this article, "short term" means three to four weeks, although 30 days should be considered the minimum short-term goal.

The most reliable short-term emergency water supply comes in the form of commercially bottled water. Bottled water kept in its original containers has a number of significant advantages. Here are a few:

- Relatively inexpensive.
- Easy to store and move.
- Small containers can be stored in tight spaces.
- Weight can be spread out over a large area.
- If stored properly and kept unopened, your supply is probably fine, even after the expiration date printed on the bottle.

If you drink bottled water on a regular basis, you can easily build up to a 30-day supply and then just use and rotate it on an ongoing basis, always making sure to replace what you use.

The Food and Drug Administration (FDA), which regulates bottled water as a food product, has determined that the shelf life for bottled water has no limit as long as it has not been opened or contaminated. Water that is bottled in sanitary conditions and kept in properly sealed containers will stay fresh for extended periods of time if stored in a cool, dry environment, far away from direct sunlight and any hazardous substances.

LONG-TERM WATER STORAGE

While bottled water has many advantages, once you decide to increase your water storage, you need strategies for the longer term. The more water you store, the more challenges you'll face. Water takes up a lot of space, it's heavy (weighing about eight pounds per gallon), and it must be stored properly to avoid contamination.

Storing enough water for a family of four (drinking and cooking) for 30 days means storing approximately 240 gallons (two gallons per person per day) weighing 1,920 pounds. Double those to 60 days and you are now dealing with nearly 4,000 pounds of water or about the weight of an average motor vehicle in the U.S. Not everyone has the space or a structure sufficiently robust to hold that much weight.

While there are many options for storing that much water, 55-gallon drums being among the most popular, not everybody has the space to store the barrels. Filled with water, each 55-gallon barrel weighs about 440 pounds. Getting the water out of these barrels is another significant challenge. All

Inset: WaterBOB bladder comes neatly folded in a small box and is easy to deploy, fill, and use. It's a very handy resource to quickly and cleanly store a substantial amount of short-term emergency water.



you need is one dirty siphon hose to contaminate the entire contents of the barrel.

One excellent product is the Titan Ready USA Hydrant Water Storage System, which includes everything you need to securely stack and connect up to four 55-gallon water storage barrels. This clever system allows you to rotate the water in all the connected barrels without opening them. This means you never have to worry about introducing a dirty or contaminated siphon pump into your precious water supply. The barrels connect via a drinking-water-safe hose(s), and gravity does all the hard work for you. The design is simply genius for its simplicity and functionality. If you have room for 55-gallon barrels, the Titan Ready System is hard to beat.

The Titan racks are welded and powder coated for durability. The wide base offers incredible stability and is pre-drilled to allow for easy attachment to the floor. This impressive product addresses many of the issues that normally discourage people from using 55-gallon water barrels, and makes long-term water storage as easy as turning a valve.

LAST-MINUTE EMERGENCY WATER

So you're confident that your short- and long-term water storage preps are all on point, but a storm is heading your way and you'd like to collect a wee bit more water, just in case. You can start filling buckets and empty soda bottles, or you can pull out a waterBOB, unfold the sealed liner in a standard bathtub and proceed to very quickly store an additional 100 gallons of clean, fresh water for drinking, cooking or hygiene.

Sound too good to be true?

The waterBOB is a sealed bladder constructed of heavy-duty food-grade BPA-free plastic. It comes folded in a small box and stores conveniently, ready to deploy at a moment's notice. When unfolded, the liner fits perfectly into a standard bathtub and is ready to be filled. Fill times differ, but you can figure approximately 30 minutes on average, depending on water pressure.

Water stored in the waterBOB is ready to be used as needed, and until used remains protected from exposure to dirt



Always use a lead-free, drinking-water-safe hose to fill your storage containers. These hoses are normally used to fill water containment units in boats or campers and can be identified by their white color.



Bung wrenches and siphons. Heavy-duty wrenches are best way to open and close water barrels without causing damage to bung plugs. Having a few drinking-water-safe siphons makes it much easier to move water around.

and other contaminants. The waterBOB comes with a fill sleeve and an easy-to-use siphon pump to quickly move the stored water out of the bladder and into smaller containers for use.

The waterBOB is not recommended for long-term water storage. It's a disposable, one-time-use product meant to provide an additional option for economical emergency water storage. The waterBOB should not be used for your primary water storage. For one thing, it needs to be filled in anticipation of a crisis and, depending on the crisis, you may not have any advance warning that the water will stop flowing or has become contaminated.

Hopefully for those needs, you have your short- and longterm storage. In any event, at \$20 a pop, you can't go wrong. Buy a few waterBOBs and keep them in reserve.

WRAP UP

Storing emergency water is extremely important. Doing it correctly is critical. While there are challenges to overcome, doing so will yield tremendous rewards. With some solid planning and the help of some innovative products, you too can be ready for the next water emergency.

Stay safe and be prepared.

Richard Duarte is an urban survival consultant, writer and firearms enthusiast. He's the author of Surviving Doomsday: A Guide for Surviving an Urban Disaster, and the Quick-Start Guide for urban preparedness. For the latest news and updates, connect with Richard on www.quickstartsurvival.com.





Around and Around They Go

Tumblers for Handloading

BY DENNY HANSEN

hen I began reloading in 1976, my department used .38 Special/.357 Magnum revolvers. Naturally, this was the first cartridge I reloaded. After a few hundred rounds, I started seeing scratch marks on my cases. I sent the die to RCBS, which sent a replacement die with a note asking how long I tumbled my brass to get them clean before resizing them.

What?!

This was years before Al Gore claimed he invented the Internet, and I had no idea what a tumbler was. I sought advice from knowledgeable sales staff (now pretty much a thing of the past), who turned me on to the Thumler's Tumbler—a rotary tumbler used to polish rocks and gems.

I used the Thumler's Tumbler for years. Many handloaders still use them. Numerous models can be used with either wet or dry media.

Lyman Cyclone does a great job of cleaning and polishing inside, outside, and primer pockets of cases, as shown here with this batch of .357 Magnum.

VIBRATORY TUMBLERS

In the mid 1980s, I began using the new (at the time) vibratory tumblers. My first was a Lyman Turbo 600, and it's still in use today. The Turbo 600 can polish up to 175 .38 Special cases and is good for comparatively small quantities of brass or for folks with limited space.

In the late 1990s, I moved up to a Dillon CV-500. (This unit is no longer available, replaced by the slightly larger CV-750.) This tumbler has a large bowl capable of about 500 .45 cases.

With carbide pistol dies, an hour or two vibrating in dry media makes most cases ready to load. For this step, I normally use crushed walnut shell with no polishing compound added.

With rifle or other dies requiring lubricant, my SOP is more complicated. First I size and trim them if necessary. Next I put them in a solution to remove the sticky lubricant. I use concentrated Dawn detergent and water. After the cases dry inside and out, I put them back in the tumbler for polishing. That should do for most applications. But I frequently run them through a cycle of crushed walnut shell with a polishing compound, followed by a cycle of untreated crushed corncob for a lustrous finish. The process is time consuming, but the end results are worth the effort.

It is worth noting at this point that the main purposes of tumbling are to reduce wear on costly dies and to ensure proper functioning in firearms. The outward aesthetics are secondary to everything else.

WET PIN TUMBLERS

I was first exposed to a rotary tumbler using a combination of water, polishing solution, and stainless steel pins at the Lyman Products booth during the 2016 SHOT Show. I was impressed enough to place an order for their new Cyclone Rotary Tumbler.

The Cyclone comes with a large rubber-lined drum that holds up to 1,000 .223 cases (more on this later). The rubber lining not only protects the brass but also offers very quiet operation. The drum has a large end cap that makes loading and unloading it a snap. The cap consists of an inner cap with rubber gasket and an outer cap that tightens the inner cap down snugly.

The heavy-duty plastic base the drum sits on is very sturdy. One thing that I appreciate about this unit is the fact that the power cord can be unplugged and stored in the drum when not in use. No more loose cords or tediously wrapping them around the tumbler. A built-in timer can set the tumbler to run from zero to three hours



Author's first vibratory tumbler was a Lyman Turbo 600. He still uses it today.

and shuts off automatically when the time set has been reached.

The Cyclone comes with a pair of sifter trays. The first tray catches the brass, while the second tray has a very fine screen that catches the pins. Five pounds of stainless-steel media pins and a sample of Lyman Brass Cleaning

Solution are also included.

At first I was a bit concerned that the stainless-steel pins would scratch the cases, but I quickly learned that my worries were unfounded.

Although the pins that came with the test tumbler were not completely uniform in size, they averaged .272-inch long and .036-inch in diameter. The length prevents them from binding in the primer pocket. If the cases have been deprimed, the small diameters of the pins allow them to slip through the flash hole, resulting in what appears to be virgin brass. A vibratory tumbler must run many, many hours to even come close.

I found two small problems with the Cyclone.

When the unit first turns on, it leaks a small amount for the first few minutes and then stops. I figure that the cleaning solution foams up and builds some pressure, keeping it from leaking.

The second "problem" is due to the way the rubber lining fits around the drum. A gap is left at the top and bottom



Clockwise from above: Lyman Cyclone Rotary Tumbler comes complete with pair of sifter trays, five pounds of stainless steel media pins, and sample of Lyman Brass Cleaning Solution. Cyclone's drum is rubber lined to protect brass and provide quieter running. Lyman Cyclone can be set from zero to three hours and features automatic shutoff.



Right: Dillon CV-500 has provided years of dependable service. Below: Here with approximately 400 .223 cases, Dillon CV-500 tumbler has a large bowl for cases and media.









Whether homemade or commercial, a brass/media separator is almost a must.



Tumblers that use water and stainlesssteel pins do not need several types of bulky, dry media that vibratory tumblers require.



Frankford Arsenal Transfer Magnet makes transferring media pins a piece of cake.



Tumbling approximately 6,000 pieces of .45 cases in Lyman Cyclone was accomplished in a fraction of the time it would have taken in a vibratory tumbler.

of the drum, and cases may become lodged in these gaps.

Earlier I mentioned that Lyman claims the drum holds 1,000 .223 cases. While this number is technically accurate, 1,000 cases fills the drum to the top and doesn't let the cases rotate freely in the cleaning solution. I have found that filling the drum about halfway full works more efficiently.

CLEANING/POLISHING SOLUTION

Lyman Brass Cleaning Solution works great but may be on the expensive side if the Cyclone is used a lot. A more costeffective solution can be made from Lemi Shine, a hard water softener made of citric acid, and Dawn dishwashing detergent, which cleans the brass.

My own solution consists of adding about ½ teaspoon of Lemi Shine and ¾ teaspoon of Armorall Wash & Wax. I add this solution to the brass and pins, and then add water to a few inches above the mix. This mix seems to prevent the cases from tarnishing when stored.

CASE SEPARATION

Dry or wet, you need a way of separating the media and cases. For dry media with a vibratory tumbler, I made a separator by drilling hundreds of holes in the bottom of a three-gallon bucket. I put the homemade separator into a five-gallon bucket, pour in the brass and media from the tumbler, and spin the separator back and forth by the handle. It actually does a pretty good job.

Although Lyman includes the aforementioned sifting trays with the Cyclone, they are the bare minimum. Some cases, notably .45 ACP, rest with the case head down, and it can be a real pain to get the pins out.

I obtained a Lyman Rotary case/Media Separator to make things easier. The brass is poured into one half of the separator, then the other side, and latches together. Turn the crank handle a few times and the media is separated from the cases. Simple.

One thing the Lyman separator has that some brands

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don't is a cover for the unit. This keeps all media inside the separator and not on the floor.

Regardless of how careful you are, some of the small pins end up on the ground. One handy accessory is the Frankford Arsenal Transfer Magnet. It's great for the pins that somehow make their way free from either the tray or the separator. The heavy-duty magnet also makes transferring media pins from the screen separator tray and placing them back into the drum a piece of cake. Pick up the pins and pull a handle to release them into the tumbler's drum or other storage container. I highly recommend it.

After the cases and media have been separated, to prevent water spots, put the cases on a towel, rub them a bit, and let the sun finish drying them.

A friend who lives in an area with high humidity uses a food dehydrator to dry the cases. Similarly, Frankford Arsenal has a forced-air convection brass dryer that can dry up to 1,000 pieces of .223 rifle brass or up to 2,000 pieces of 9mm pistol brass in under an hour.

WRAP UP

I have really come to like the Lyman Cyclone Rotary Tumbler and now use it almost exclusively. I was so enthusiastic about it that I've tumbled about 10,000 .45 ACP cases that were sitting dormant in a couple of five-gallon buckets mostly because tumbling them in a vibratory tumbler was tedious work.

I don't plan on giving up my vibratory tumblers just yet, but I have relegated them to doing small quantities of brass, such as .30-30.

I started with a rotary tumbler, switched to the vibratory type, and now have come full circle back to rotary.



Hot Trends vs Cold Facts

Continued from page 49

in a .30-cal platform for hunting or long-range shooting. This part of the market winds up pretty satisfied.

- The ranch rifle kind of guy who wants a semi-auto "just in case" but wants to be able to hunt with it if he chooses. This guy tends not to have a safe full of ARs and this is his one splurge.
- The professional who needs the terminal and barrier performance and will use the rifle primarily in Marksman mode but may need some "walking around" patrol capability. The lightest, best-quality rifles tend to make the happiest customers here.

Outfits that try to make every patrol rifle a heavy DM platform have sacrificed primary performance for potential secondary capability. In numerous venues, I have seen shooters tackle carbine-type training or scenarios with the top-shelf.308s.

Broadly, the times and scores of the better shooters with the .308s tend to overlay the average-skill shooters with the M4. The average shooter with the big gun tends to "bump down" and overlay the bottom of the class 5.56 shooter. In cases where the rifle is one of the even heavier models or has dedicated long-range glass, the negative effect is magnified.

For those who carefully choose to go the 7.62 route, the primary question to answer is: Is this a "walking around" or "laying down" gun? The answer should drive the rifle weight, optic, accessories, and to some degree the bullet selected.

Too often the folks doing the selecting envision a patrol rifle, then spec out a sniper system (or the reverse). It's possible to split the difference and come out well, but that typically requires a truly high-level shooter (and the training and resources to make and maintain his skills).

If you're thinking about a .30 auto, don't let me talk you out of it. Choose wisely and be honest about your needs, and you may well escape getting trendburn.

Justin Dyal retired from the U.S. Marines as a Lt. Colonel with worldwide experience in specialized units. He has taught and been responsible for numerous advanced skills and weapons courses within multiple organizations.

Bolt-Action Evolution Continued from page 57

brush, meticulously placing each step to make sure Mr. Rattlesnake wasn't hanging out. We finally worked our way to within 200 yards of the browsing herd and set up in the shade of a small live oak.

Through an opening in the brush near the herd we could see five to ten Axis at any one time. The grass was too high to shoot prone, so I used a friendly branch from our shade tree. I picked out a mature doe, dialed the Leupold VX-6 3-18X50 to "2" and broke the shot. Few things are sweeter than a finely tuned Jewell trigger, and the shot was on the money. My doe didn't take a step. We made our way through the brush to check her out.

It wasn't a difficult shot (especially for the MR1) and an Axis doe isn't a crazy tough animal, so I won't pretend it was a strenuous test for the rifle or caliber. But the MR1 was a breeze to carry during the stalk, both in weight and length.

MORE TO COME

Modern Outfitters is a young company by gun company standards, but they are doing it the right way. These aren't budget guns, and no corners are cut. The pride of craftsmanship is evident through conversations with the owners and when you hold their rifles. It's refreshing to hear their passion when they speak about their stores, their products, and their customers. They believe their customers are an extension of their family, and they want a long-term relationship with them.

I look forward to trying out Modern Outfitters' AR rifles and future offerings in their bolt gun line. (1)







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TOPS Knives VI Ax

MY grandparents and some of their brothers and sisters emigrated from Denmark to the United States. They settled in Arizona in 1912 the same year Arizona became a state.

One of my great Uncle Hans' passions was making Viking jewelry and weapons using techniques passed down through the ages. When I was about eight, he gifted me a scaled-down Viking battle axe and shield. They were my prized possessions and over the years I triumphed in many imaginary battles. I've had a soft spot for axes ever since.

At the SHOT Show back in January, I spotted a prototype of an axe with a Viking-type look at the TOPS Knives booth and asked Craig Powell of TOPS to send me one when they started production.

TOPS does nothing halfway, and

so it took eight months, but it finally arrived—just as the last of the crops were harvested and raiding season was about to begin.

THE VI AX

The VI Ax was designed by Leo Espinoza to resemble a Viking axe, but with more flair and the modern construction TOPS is famous for. And it has TOPS' great differential heat-treat.

Made from one piece of 5/16-inch 1075 steel, this is the largest piece of its kind TOPS has ever made. TOPS often uses 1095 steel, but utilized 1075 for the VI as the latter steel has higher impact resistance with a slight trade-off in edge retention.

The VI's overall length is 15.25 inches. The Viking-style bearded blade's length is 5.25 inches, with a thickness at the edge a sharp .021 inch. The spike

opposite the blade is double-edged and sharpened to create maximum damage. The top edge of the spike measures 2.13 inches, and the bottom edge is 1.88 inches long.

The VI weighs in at two pounds, seven ounces sans sheath. The axe has a definite heavy forward feel to it, but actually balances well in the hand.

Cast into the head and along the shaft are lines that, to me, have a certain Viking-esque appearance.

The handles are made from green linen Micarta with grooves that give an exceptionally good grip. The handles can be removed for cleaning if necessary and attached to the axe with 5/64-inch Allen head screws. A hole in the pommel can be used to attach a lanvard.

The finish is what TOPS refers to as Black Traction Coating. It is extremely



TOPS Knives VI is an axe a Viking would be proud to wield. Photo: TOPS Knives

» SPECIFICATIONS

TOPS VI AX	
MODEL	VI Ax
OVERALL LENGTH	15.25 inches
WEIGHT (without sheath)	2 pounds, 7 ounces
BLADE LENGTH	5.25 inches
TOP EDGE OF SPIKE	2.13 inches
BOTTOM EDGE OF SPIKE	1.88 inches
BLADE THICKNESS	.031 inch
STEEL	1075, RC 56-58
FINISH	Black traction coating
HANDLE MATERIAL	Green linen Micarta
SHEATH	Black leather
SUGGESTED RETAIL	\$330.00



VI Ax split wet wood easily.

durable against any scratches and is also rust resistant.

When the VI arrived, I put it to the test against a piece of 2x4. It split it without any effort, so I soaked a similar 2x4 overnight to tighten up the grain.



Removable handles are made from green linen Micarta, with grooves to provide a good grip.

Applying a very small amount of force, the VI again split it easily.

Granted, splitting a 2x4 is not a hard feat with any large cutting tool, so I spent about an hour trimming low green branches off an apple tree. Branches up to about two inches in diameter were hacked off with one swing. I believe the VI's large blade will chop through just about anything you put in front of it.

The spike end of the axe head also performed very well and penetrated roughly one inch into a piece of hardwood, struck against the grain.

The blade and spike remained sharp and, though some residue was left on the blade as seen in the photo above, it was easily removed from the Black Traction Coating with a damp cloth.

A high-quality black leather sheath is included. The axe is secured into the sheath with two heavy-duty snaps. For safety reasons, the sheath was designed only as a blade cover, not as a belt sheath. Small loops on the back can be used to secure it to a pack or other MOLLE gear using paracord.

Alternatively, a simple strap, such as used on a camera case, can be attached for over-the-shoulder carry. This would be my preference.

Suggested retail base price for the TOPS VI Ax is \$330.00. Options include a polished blade (add \$10) and black O-ring handle (add \$7). At press time, the TOPS website had the VI on sale



High-quality leather sheath is included with VI Ax.

for \$264, so it's worth checking.

The VI Ax now lives in my truck with other emergency gear. If necessary, I have no doubt I could chop a car apart to extricate a victim of a crash, and push come to shove, I could use the VI as an effective self-defense weapon.

I agree with TOPS: the VI is an axe a Viking would be proud to wield. And I think Uncle Hans would approve. Skol. ©



LaserMax UNI-Green Rifle Pack

When it comes to visible lasers, green is good. Green lasers appear significantly brighter than red lasers of the same output and collimation. The color sensing cones of the human eye have their peak response in the green.

A green laser is also ideal for law enforcement agencies seeking to ensure safety by distinguishing the laser colors of lethal-force options from the red laser sights used by non-lethal-force options.

LaserMax® has been pioneering green laser technology for over 17 years. The company recently announced the debut of its new Native Green technology and has transitioned its green laser sighting systems over to it.

The groundbreaking Native Green laser diode offers significant advantages over frequency-doubled green Yttrium-Aluminum-Garnet (YAG) lasers, which have been the only option in the past to get a green laser beam, including far superior reliability and improved operating temperature range (0°F - 160°F).

To understand why we need to get technical, bear with me. Frequency-doubled green YAG lasers employ diode-pumped, solid-state (DPSS) technology. DPSS lasers are made by pumping a solid gain medium. Frequency-doubled green YAG lasers pump infrared (IR) light into crystals, which then convert the infrared to synthesized green laser light.

Yes, this is very complex. With the complexity come issues that make frequency-doubled green YAG lasers less than ideal for many tactical applications. Although DPSS lasers are an obsolete technology, many commer-

cial laser-sighting systems continue to employ them.

DPSS laser crystals are very inefficient, meaning a lot of power is lost when the frequency is converted to make green. It takes up to 300 mW of power to produce a mere 5 mW green beam. The energy that is not emitted as light is emitted as heat, and lasers with this technology are prone to thermal shutdown.

DPSS lasers are also sensitive to extremes in ambient temperature. They can only operate optimally within a relatively small range, meaning they can malfunction in extremely hot or cold weather.

The recent advent of green laser diodes has been the game changer. A green laser diode simply produces a green beam. There is no conversion in frequency and no excess heat. As is the



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case with red laser diodes, they operate over a wide temperature range. They are simple, reliable, and less expensive. Problems solved!

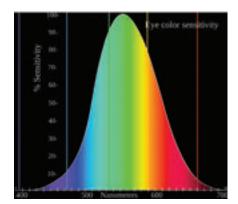
LaserMax recently provided me with its UNI-Green Rifle Pack, which employs Native Green technology. The Rifle Pack comes with a UNI-Green Laser, Momentary Activation Switch (MAS) with a six-inch MAS cord, and Manta Rail System. Also available in red and IR versions, the patented UNI series offers the world's only stackable rail interface for mounting of ancillary accessories.

LaserMax designed the UNI series to be suitable for both pistol and long gun applications. It fits any MIL-STD-1913 (Picatinny) or Weaver style rail with 1.75-inch minimum length.

Smaller than a matchbox, the UNI series weighs roughly one ounce without accessories. The low-profile housing places the laser closer to the barrel to reduce parallax for maximum accuracy. The housing is constructed of rugged fiberglass-reinforced nylon (FRN) and is equipped with an Integral Picatinny Rail (IPR), which allows the operator to stack additional rail-mounted accessories (such as a light or other UNI systems) together and creates an integrated module. For example, one could incorporate a visible and IR laser, as well as a tactical light, while still keeping a small overall footprint.

The UNI series features advanced programming that lets the operator easily select between a steady or high-vis pulsing beam. Changing the laser mode is simple and foolproof. An automatic time-out mode shuts the laser off after ten minutes to prevent inadvertent depletion of the batteries.

The Native Green laser has a 520 nm wavelength. Power output is <5 mW,



Relative brightness sensitivity of human visual system as a function of wavelength.



which is the maximum output permitted in the U.S. for consumer sales. Power is provided by two common 1/3N lithium photo batteries (included).

Changing the batteries is simple, although a small Phillips screwdriver is required. The batteries can be changed without dismounting the laser from the weapon.

The UNI series has a clamping screw/rail system that provides a more secure fit on the rails and repeatable accuracy. No tools are necessary for installation, although LaserMax recommends that the clamping screw be further tightened with a screwdriver or coin.

The UNI series is fully adjustable for both windage and elevation using the included adjustment tool. When the laser is installed for the first time, a slight shift in alignment may be noticed after firing due to settling.

To activate the laser, one simply presses in on the activation switch from the right or left side. The center position is off. There is no master override (disable) with the standard switch.

The UNI Rifle Pack's MAS pressure pad switch replaces the mechanical slide switch and allows for comfortable pressure activation. The MAS is equipped with a master override switch.

The Manta Rail System attaches to Picatinny and Weaver rail systems without the need for tape or Velcro® and provides Neoprene® protection for the MAS. The MAS pressure pad slides into the Manta Rail Panel. The Manta comes

with two end caps and a cut-to-fit cord clip to ensure snag-free operation.

The UNI series meets demanding MIL-STD and DHS durability standards, including drop tests, blowing sand, temperature and humidity extremes, and 20,000+ rounds of live fire.

How demanding is this? In the DHS drop tests, they had to survive six drops onto concrete from a height of four feet. In the DHS submersion tests, they remained fully functional after submersion in water to a depth of 66 feet for one hour.

The LaserMax UNI-Green Rifle Pack (LMS-UNI-GVP) is a versatile multiplatform laser sighting system. It offers outstanding performance and provides operators with the highest visibility laser under all operating conditions. It has a suggested retail price of \$309.00 and comes with a five-year warranty. (6)

Eugene Nielsen's background includes protective intelligence investigations and threat management, as well as red teaming security consulting. He has a BA degree from the University of California. He currently owns and operates an investigative and security consulting firm and is licensed in both California and Arizona.



OGEAR LOCKERO

NEW PRODUCTS & ACCESSORIES

Federal Practice & Defend Combo Packs

Several years ago, Federal Premium Ammunition invented the concept of combining personal defense ammunition and ballistically matched training loads into one convenient and affordable package with Practice & Defend Combo Packs. Now the company has made these products even better by combining top-of-the line HST loads with American Eagle training rounds.

The HST bullet design delivers industry-leading performance in FBI protocol testing, while the American Eagle FMJ target rounds provide consistent accuracy. Grain weights of both loads match for familiar feel and realistic practice. Available in .380 Auto, 9mm Luger, .40 S&W, and .45 ACP, the packs include 100 rounds of target ammunition and 20 rounds of HST Personal Defense.



FEDERAL PREMIUM AMMUNITION (800) 379-1732 www.federalpremium.com

Shoot-N-Spin Targets

Birchwood Casey® Shoot-N-Spin metal targets can be easily suspended in any safe shooting area for a fun shooting session. Their compact size makes them easy to transport.

The targets are
5.75 inches in diameter and feature
a heavy-duty swivel and lock snap.
Airgun, rimfire, and
centerfire capable
versions are available.
The targets come with
either orange or green Target
Spots® and can be strung together for
added action and excitement.

Shoot-N-Spin Targets are proudly made in the USA. The airgun target has a suggested retail of \$14.80. The rimfire target sells for \$28.10, and the centerfire version—constructed of 3/8-inch AR500 steel—sells for \$38.00.

BIRCHWOOD CASEY (800) 746-6862 www.birchwoodcasey.com

Spyderco Nirvana

The winner of *Blade Magazine's* "Imported Knife of the Year" award, the Spyderco Nirvana™ faithfully translates the spirit and breathtaking attention to detail of knifemaker Peter Rassenti's handcrafted custom design. The distinctive one-piece handle is meticulously machined from a solid block of titanium to produce every detail, includ-

ing the high-strength Reeve Integral Lock mechanism. The ergonomic handle is then matte finished and embellished with a spectacular CNC-machined geometric design that wraps around its entire outer surface.

The Nirvana's impressive blade is crafted from .158-inch thick CPM® S90V stainless steel. The PlainEdge™ blade features a saber grind and clip-point profile for a superior balance of strength and edge geometry with a stonewashed finish to match the handle. Spyderco's Trademark Round Hole™ provides leverage for swift, positive one-handed opening, while an hourglass clip on the handle offers convenient right-side, tip-up carry. Suggested retail price is \$719.95.



Stevens Muddy Girl Camo 20-Gauge

Stevens has expanded its popular 320 pump shotgun line with new 20-gauge models designed specifically with women and youth in mind. The 320 series has a reputation for solid, affordable performance in everything from wing shooting to home defense.

The new shotguns boast the same great features as Stevens' other 20-gauge 320 field-grade models, including dual slide bars, a rotary bolt, rugged synthetic stock, vent rib, and five-round capacity. The shotguns are finished in Muddy Girl® camo. Models include interchangeable chokes and come in compact and standard length-of-pull models. Suggested retail price is \$264.00.



Galco WalkAbout

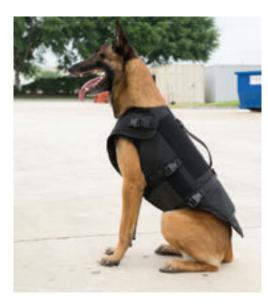
Galco Gunleather has introduced a version of the popular WalkAbout™ inside-the-waistband holster for revolvers. Carrying an HKS-style speedloader or a moon clip in addition to the revolver, the WalkAbout offers a grab-and-go.

Previously available for semiautomatic pistols only, the WalkAbout for revolvers joins Galco's extensive Carry Lite line of holsters and accessories. Similar to Galco's wildly popular Stow-N-Go™ IWB but with the addition of an attached ammo carrier, the WalkAbout offers an exceptional combination of high performance, comfort, and affordability.

The WalkAbout's open top allows a very fast draw, while the reinforced mouth ensures a smooth and easy return to the holster. A sturdy injection-molded nylon clip secures the holster on to the belt. Constructed of comfortable premium Center Cut Steerhide™, the WalkAbout fits belts up to 1¾ inches wide.



Protech New Bark-9 Carrier



Safariland has introduced the all-new Protech Tactical Bark-9 carrier, the next generation of protection in canine tactical carriers. As the industry's best-in-class canine armor, the Bark-9 carrier meets the needs of police dogs for coverage, flexibility, and maneuverability in high-threat situations.

The interior of the Bark-9 tactical carrier features 420-denier Cordura® diamond ripstop nylon for breathability and a comfortable fit. Reinforced stitching on the exterior of the 1000-denier Cordura® nylon carrier resists mission wear and tear, prolonging the life of the carrier.

The Bark-9 carrier is offered in four ballistic packages to accommodate various mission requirements. Suggested retail prices range from \$1,410 to \$2,050, based on ballistics selection.

SAFARILAND GROUP | (800) 347-1200 | www.safariland.com

It Was a Scream

A robber wearing all-black clothing and a mask styled after the one worn by the killer in the movie Scream burst into a laundromat in Camden, South Carolina. The masked figure threatened the 80-year-old owner with a pistol, demanding cash. The octogenarian great-grandfather indicated the laundromat's cash box, which the robber picked up and headed out the door.

The owner followed the robber, pulling out his own handgun, a small .25-caliber pistol, which he discharged once into the air. Startled at the sound of the shot, the robber dropped the cash box and piled into a getaway vehicle, which sped away from the scene of the crime.

SOURCE: WLTX, Columbia, South Carolina, 7/16/16

Crowbar vs. Pistol

A Phoenix, Arizona man awakened in the wee hours of a July morning to find a crowbar-armed intruder in his house. The man had apparently forced entry through a sliding door that had been damaged in a previous burglary. Grabbing a firearm, the homeowner confronted the intruder.

In the ensuing chase and subsequent scuffle, the homeowner shot the intruder in the leg and held the wounded suspect for police. The intruder was transported to a hospital with a non-life-threatening injury. The homeowner was questioned and released by police.

SOURCE: KTVK, Phoenix, Arizona, 7/11/16

Hunting Knife Nightmare

A Buffalo Grove, Illinois teenager and his friend were playing video games late on an August night when they saw the air conditioner pop out of the room's window. A man with a bandana tied around his face forced his head through the opening, waved a large hunting knife at the pair, then ran around the house to the front door, kicking it open and bursting inside.

A confused melee followed, during which the 46-yearold homeowner, his teenage son, his son's friend, and the family's German Shepherd dog were all stabbed by the invader. The homeowner was able to retrieve his semiautomatic handgun from a safe and open fire, causing the intruder to flee. The intruder was uninjured and captured by police at a nearby convenience store. The teens were treated and released, while the homeowner and his dog were hospitalized with serious injuries, but were expected to recover.

SOURCE: WLS-TV, Chicago, Illinois, 8/11/16

Pushing His Luck

On a Sunday night in late June, an armed robber entered a Domino's Pizza restaurant in Albuquerque, New Mexico. Taking the staff at gunpoint, the robber grabbed the cash and exited the building into the parking lot. While the employees were calling police, the robber noticed a Domino's driver pull into the lot. Figuring to double his take, the robber advanced on the pizza delivery driver.

> The robbery call then became a shots-fired call, as police rolled into the lot to find that the delivery driver had pulled a handgun of his own and opened fire on the robber, who collapsed in the parking lot with a gunshot wound to the leg. The robber was rushed to the hospital in critical condition, facing charges of armed robbery and attempted armed robbery.

SOURCE: Albuquerque Journal, Albuquerque, New Mexico, 6/29/16 (1)



If your gun winds up in an evidence locker, a spare that uses the same holsters, ammo, and magazines may be a lifesaver.

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S.W.A.T. Vault	store.swatvault.com	43
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Warrior Foundation	www.warriorfoundation.org	42
Wilson Combat	www.wilsoncombat.com	24





JANUARY ISSUE ON SALE DECEMBER 6th

The Photograph

Pay attention, young man And I'll tell you the ode Of the battle-weary soldier And the Pale Horse that he rode

And when it's all over When the telling is done Maybe you'll understand That killing isn't fun

Yes, you do the job And you have to win But there are none who do battle And return home without sin

He engaged the enemy And fired with pride But when he's alone at night There's nowhere to hide

Tossing and turning Between the bedposts His only companions The bullet-riddled ghosts

When he was young Hale and hearty Life was a game Just an endless party

Then the years rolled by On golden wings Whatever happened To the innocent things?

Heed these words, young man While your guns are still cool Or you'll die in despair A lonely old fool

Listen to the advice Of parents too soon long dead They had all the right answers To puzzles in your young head

Then the bell tolled
To ship out to war
And even though he was well trained
He hadn't a clue what was in store

In boot camp they told him
To go by the book
Then the bullets started flying
And he got his first true look

Gone was the young man So full of dash and dare When incoming rounds Started puncturing the air

He put on the face Of a soldier so brave A terrified young man Barely old enough to shave

But somehow he made it Through the fight and the day He killed his first man Now the Piper he must pay

While those who surrounded him Looked like they showed grief Every one to a man Was filled with relief

For it wasn't the battle That stilled their young laughter It was his anguish they witnessed In the scene that came after

It was him or the enemy So he shot first Riddling the man's torso With a machine-gun burst

He fell to the ground With a look of surprise The light quickly fading From the dead soldier's eyes

Approaching him slowly As if in a dream He knelt down beside him Stifling a silent scream

He removed the helmet To see the enemy's face Seeing only a youth like himself Gone to a better place In all the noise of battle He couldn't hear a sound When the photo fell out And drifted to the ground

Beautiful she was And laden with child Enough to break his silence With a primal scream so wild

He never laughed again After that tormented day Gone was his adolescence Of wine, women, and play

Now he'd become a man Setting out on life's bloody path That nothing could wash clean No shower, no bath

So pay attention, young man Don't get to enjoy killing too much Don't romanticize old men's stories Of forgotten wars and blood and such

Don't look forward To the first notch on your gun Take it from one who's been there And whose last ride is nearly done

You're still young and happy With a chance for many years All he has left are the ghosts And empty nights filled with dry tears

I told you it was an ode So open your ears while you can It's about an old Pale Rider And I was that young man **③**

[This column first appeared in the December 2007 issue of S.W.A.T.]

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^{**} State compliant model 8502 is offered with a fixed stock, heavy contour barrel, no bayonet lug or flash suppressor and includes one, 10-round magazine.



^{*} Some rifles may not be available in all states and locales due to laws limiting magazine capacity and feature-based restrictions. Please check with your local law enforcement agency prior to purchasing this firearm to verify that it may legally be purchased and/or possessed in your particular state and locale.







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