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Handgun Accuracy

JULY 2016

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BY DENNY HANSEN

Cover photo by Straight 8 Photography

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Roll Your Own

Along with evaluating firearms and training, one of my passions is handloading. I began reloading when I received an RCBS Rock Chucker press, powder measure, scales, and a set of .38 Special dies in 1976 as a Father's Day present. Four decades and hundreds of thousands of rounds later, I'm still at it.

People reload for several reasons, including saving over the cost of factory ammunition, tailoring a load to exactly suit your firearms, an increase in accuracy (especially compared to "bargain" ammo), the pure satisfaction that comes from rolling your own, and relaxation.

I'm presently loading for 26 different cartridges. Although I still use the original Rock Chucker press for cartridges such as the .30-06, I now spend the bulk of my time at a progressive press loading for handguns and .223 ammo to feed the appetite of my family's ARs.

For almost as long as I've been handloading, I've also been casting my own bullets for handguns and rifles. Common wheel weights work well for the mild velocity I drive most of my handgun rounds at, although I add a bit of antimony to the mix for hotter handgun and rifle loads.

Going to what some may consider an extreme, I make my own .223 bullets from fired .22 Long Rifle cases using Corbon swaging dies on a Corbon press. It's a time-consuming process, but figuring about 3 cents for primers and 5 cents for powder, and not factoring in my time, I reload .223 for less than a dime per round. At \$80 for 1,000 rounds, the initial cost of the equipment has long since paid for itself.

Shotguns? You bet! Although some big-box stores sell birdshot for less than it costs to load it, I save a lot by casting slugs and buckshot for 12 and 20 gauges. I recently hit on a recipe for buckshot that outperformed everything except Federal FLITECONTROL and Hornady Critical Defense.

The Sweepstakes in this issue has almost everything you need to get started reloading with products from Hornady, one of the most trusted names in the industry. Prizes are a Lock-N-Load AP progressive press, Lock-N-Load Sonic Cleaner, American Series pistol dies, and XTP bullets.

Thousands of shooters have discovered the benefits and enjoyment of handloading. Isn't it about time you did too?

Until next time, stay low and watch your back. ☺

Denny Hansen

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BEWARE OF FALLING ROCKS

The cover photo on the May issue is pretty dramatic, but I just have to ask what is that giant hunk of cement behind the shooter? Is it a blown-up building in Afghanistan?

C. Elliot, Ohio

The photo was shot adjacent to the York Range at Gunsite. It was originally a reinforced concrete wall that was purpose-built for an explosive breaching course.

SWITCH HITTER

The only semi-auto rifle I presently own and have familiarity with is a Ruger Mini-14, but I want a rifle that will use an AR-15 magazine due to the fact that AR mags are less expensive and more available.

I enjoyed the article on the Beretta ARX (*SWITCH HITTER: Beretta ARX*, May 2016 *S.W.A.T.*) and was thinking I might buy one—that is, until I read *Other Impressions* at the end of the article.

I like your magazine and have bought



handguns and accessories based on reviews I have read in it, but this one left me in a state of bewilderment. On the one hand it sounds like a great rifle, but on the other hand it sounds like it isn't.

Your advice on this would be greatly appreciated.

R. Velmer, New Mexico

The people in the initial evaluation and those I sought feedback from are all ex-

perienced shooters. In truth it mostly comes down to a matter of personal opinions and preferences. For example, the six people I queried have strong preferences for the handgun they carry, with three carrying a Glock, one an S&W M&P, one a 1911, and one an S&W Model 686+ revolver.

I'm confident that the negative impressions from those whose opinions I asked were based on their many years' experience with the AR-15/M4 platform. Since you stated up front that you are only familiar with the Mini-14, you may not have any problem with the ARX. If you can find a range that rents rifles or a friend who has one, my advice is to shoot one and form your own conclusions.

Denny Hansen

The only magazine my acquaintances and I trust is *S.W.A.T.* because of the honest reports. While many publications have articles that come out sounding like advertisements, you have honest evaluations that tell it like it is. A



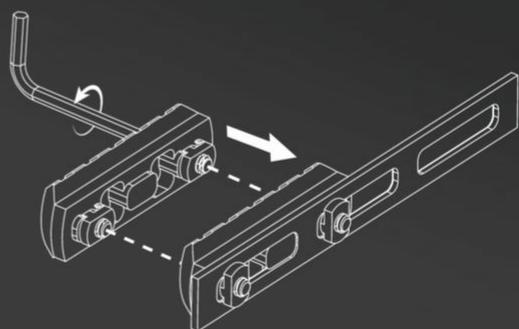
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perfect example of this is the article on the Beretta ARX.

You deserve major kudos for telling "the rest of the story" in the insert at the end of the article, allowing a potential buyer to consider more than the rifle's looks if thinking about buying one.

K. Stewart, Kansas

Thank you for the kind words and taking the time to share your thoughts.

Why did Denny Hansen decide to meddle with Nick Jacobellis' article on the Beretta ARX? After all, Jacobellis' opin-

ions are just that—his opinions, and I think readers are smart enough to realize that!

D. Washington, Colorado

Thanks for sharing your opinion.

Always desiring to shoot different weapons when the opportunity arises, when I received the ARX for photo-taking, I brought it to the range to give it a test drive. My deductions did not totally agree with Nick's and so—without letting them know my sentiments—I asked other shooters for their feedback. The conclusions of the shooters on Nick's test

crew and of those I asked were different enough that I thought it important to include the results in the sidebar.

Denny Hansen

CALIBER CONFUSION

I have a .40 S&W Glock pistol and would like to know if I can shoot 10mm Auto ammunition in it. Thanks for your assistance in the matter.

S. Ilin, Israel

Thanks for the question. While the .40 S&W and 10mm Auto use bullets that are 10mm, the two cartridges headspace on the shoulder of the case. The .40 S&W case is .850 inch (21.6mm) long and the 10mm is .992 inch (25.2mm) long, so the 10mm is too long to fit in the .40 S&W chamber and thus not interchangeable. Also, since the 10mm is a higher-pressure cartridge, we would not ever try it.

I KNOW YOU

I just finished *I Know You* (TRAINING AND TACTICS, April 2016 S.W.A.T.) and it gave me chills. Inevitably we all face the ultimate and I hope I'm standing tall when I do.

M. Holmes, USMC

Thank you for your service and for contacting us. We're sure you'll be up to the challenge when the time comes.

TECH TIPS

In addition to being a passionate shooter, I'm also somewhat of an electronic devices junkie, so the articles on emergency beacons and the mobile ballistics app (*HELP FROM ABOVE: Emergency Satellite Beacons* and *ON TARGET: GeoBallistics External Ballistic Mobile App*, May 2016 S.W.A.T.) were of great interest to me.

In the event of an electromagnetic pulse (EMP), all our electronic devices would be worthless. With the prospect of hostile nations gaining access to nuclear devices, this is becoming more of a possibility. Please consider an article on how to construct or options for a Faraday cage to protect our devices from an EMP.

Please keep articles like this coming for us "techno geeks."

A. Ruddock, Florida

Thank you for your feedback and the article suggestion. We'll look into it and see if we can offer some useful options. ☺

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DeSantis New York Undercover Rig

I have carried a gun most of my life and all of my adult life. People think that working in law enforcement is the reason I carry a gun. Truth be told, it started long before that.

When I was growing up, it was perfectly normal to see adults wearing a weapon. My Dad, Grandpa and Uncle were all peace officers before I was born. It was not until I was in grade school that I realized not everyone carried a gun.

Growing up on a ranch, I wore a Ruger Single-Six in a cowboy rig every day, mostly because varmints and rattlesnakes were everywhere. I also thought it looked cool. Of course there was always a long gun in the ranch trucks.

Responsible citizens all over this great nation are taking advantage of their states' concealed carry laws. In my home state of Arizona, there are currently over a quarter million active concealed weapon permits. Many people obtain an Arizona permit to take advantage of side benefits the permit



Above: DeSantis New York Undercover comes complete with holster and double magazine pouch.

Left: New York Undercover with the Commander-size Ruger SR1911 it was evaluated with.



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Backside of thumb break is reinforced with metal strip.



Holsters and pouches attach to harness with one-way snaps. This means a user can switch holsters and pouches without buying an entirely new rig.

offers, such as being legal to carry in states that reciprocate with Arizona and not having to wait for an NICS check when buying a firearm.

But being one of a handful of Constitutional Carry states, no permit is actually needed for either concealed or open carry in Arizona. I have heard estimates that for every one person with a permit, there are three who don't obtain a permit. If accurate, that's a lot of law-abiding people who are packing handguns—and they all need holsters.

I have said for years that if you are going to carry a weapon daily, you will have several holsters. This may be because you have different holsters for different missions or clothes style, or you have upgraded to a better quality holster as your budget allowed.

I recently received the New York Undercover™ holster from DeSantis Gunhide®. DeSantis has been making quality holsters since 1972 and has grown to be one of the largest holster manufacturers in the world.

The New York Undercover™ shoulder holster rig is crafted from top-grain cowhide and molded to fit the exact firearm it is designed to carry. Each rig is shipped fully assembled with a double ammo carrier. The Undercover is available for 82 different handgun models.

The holster reviewed here was for a 1911. Any 1911-type pistol fits, though the muzzle/slide of larger models protrudes slightly from the bottom of the holster. I evaluated the rig with a Ruger Commander-size SR1911™.

The holster is a wrap-around design made from a single piece of leather. A tensioning screw under the trigger guard area lets the user decide how much or how little resistance is needed to withdraw the pistol. The holster is equipped with a thumb break that is reinforced by a strip of metal on the back-side. The holster is attached to the harness with heavy-duty one-way snaps. Handgun orientation is horizontal.

The harness consists of four straps—two front and two rear. The straps are one-inch wide, although for comfort the two front straps widen to about three inches where they ride over the shoulder. Meeting in the middle of the back, the straps attach to a plastic connector that allows all four harness straps to pivot and gives much more flex with natural movement than some shoulder holsters.



Plastic connector on back of harness links four harness straps and lets them pivot, so they can flex and conform with natural movement.

The double mag pouch does a great job of offsetting the weight of the pistol, making the rig more comfortable to wear. Magazines are carried base down and retained by flaps with snap closures. Two snaps are on the body of the holster. The higher snap contains standard seven- or eight-round magazines, and the lower snap holds magazines with base pads.

Like the holster, the mag pouch attaches to the harness with one-way snaps. This system permits a user to change holsters without needing to buy a complete rig. On the pouch side, accessories such as a cartridge pouch, speed loader pouch, or cuff case can be attached.

While not worn as commonly as they once were, shoulder holsters have their place. For example, when I worked as a court bailiff, it was the easiest way to conceal my firearm under my suit coat without printing.

Shoulder holsters are also great for drivers. In the event of a carjacking or robbery, it is much easier to access a shoulder holster than a holster worn anywhere on the waist.

The DeSantis New York Undercover is one of the best shoulder rigs I have ever worn. Suggested retail price is \$179.99. ◎

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Archery—Not the Answer for the Apocalypse

AS a Prepared American, I enjoy reading, listening to and writing about all things related to that particular focus. But a cancerous idea is spreading within the preparedness community that, if things go very badly, will get people killed: the bow and arrow.

Archery is hot right now for a number of reasons, and our January visit to the Archery Trade Association (ATA) show in Louisville reflected that reality. The show has grown quite large and proves that, in a somewhat stagnant hunting industry, archery and bow hunting are putting more people both in the field and on the shooting range. Aside from all that over-inflated "extreme" and militaristic marketing used on too many hunting products, the archery business is alive and thriving.

But as an avid reader of blogs, aficionado of Pinterest, and regular user of Instagram, I know that many people

within the preparedness ecosystem really think a bow and arrow will solve their problems when the zombies arrive, "the balloon goes up," martial law is declared, or the Cubs win the World Series.

Ask a Native American how that whole "arrow versus bullet" thing panned out. That's not slighting the Indians, as they were skilled warriors and brave to a fault. It's simply an acknowledgement that one side of that conflict was (initially) using inferior weapon technology.

Now before the archery enthusiasts start writing spittle-soaked letters of protest, keep in mind that I'm a big fan of archery. I love target shooting and hunting deer with my bow, though I have somewhat lapsed in that regard because of too many other distractions. Regardless, I love bows.

Except for self-defense.

What finally set me off today, after

hundreds of other incidents of head-shaking, was a blog post and photo I stumbled upon where the earnest correspondent proclaimed he was ready for societal upheaval and showed us why. Our Hero, dressed in camouflage and wearing a full kit of high-end load-bearing equipment, was armed with a "stick" (traditional) wooden bow and quiver of arrows on his hip. He only needed a few more wry morale patches to win our coveted "Internet Dolt of the Month" prize.

Trying to minimize the number of emailed death threats, let me restate my love of archery. But if you think even a modern, high-speed, laser-equipped crossbow is a reasonable self-defense weapon, you've been reading too many superhero comics. Thinking a stick bow is an effective response to any lethal threat except a stone tomahawk is simply unimaginable.

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Modern bows are incredible. Killing shots on large game can sometimes even be made to 60 or 70 yards, though due to wind and obstructions, not too many ethical hunters choose to take such shots. With an average bow and archer, 40 to 50 yards is often considered a practical limit.

Obviously, the bow falls very short of providing protection against a firearm-armed assailant, but there are even more problems awaiting our wannabe Daryl from *The Walking Dead*.

Though bows have gotten much smaller over the years, they are still cumbersome compared to firearms. When you add 28 inches of razor-tipped arrows strapped to your hip or sticking out in front of the bow, the whole thing is a significant impediment to movement. That's why the vast majority of archers hunt from a stand, as walking through even sparse vegetation is a real pain in the neck.

There is also the matter of reloading speed. Even a good archer can only fire an effective shot every five to ten seconds until running out of ammo, itself

another serious drawback. At maximum, a quiver contains only 10 or so arrows, though most carry even less.

Let's take stock: we have a weapon that is slow to fire, has an effective range of half a football field, has limited ammunition capacity, and yet costs approximately the same as a decent handgun. Why wouldn't you want to carry one for self-defense?

That was sarcasm, by the way.

Before the "tactical bow experts" bring up their final salient point, I readily agree that a bow is better than a rock or club if you don't have a firearm. If, due to extenuating circumstances, your only weapon is bare knuckles or bow, consider yourself armed—but just barely.

And in case you were wondering, those Internet videos that show how to build a "survival" bow out of PVC tubing are accurate. The videos typically don't mention that the bows have all the strength of those little fiberglass jobs you shot in junior high gym class, but they indeed can launch an arrow. In fact, you might even kill the occasional lethargic vole with one.

Of course, there are benefits to owning a bow. In the hands of a skillful hunter, a bow can kill a variety of animals ranging from squirrel to brown bear. A bow is supremely quiet compared to a firearm, ongoing cost of ammunition is minimal, and you can shoot nearly anywhere with reasonable precautions. Moreover, it seems unlikely in the near-to-medium future that "common-sense archery control" will become a government priority.

Overall, a bow is a great part of the survival arsenal simply for the sake of developing and maintaining good shooting habits. When you add in the ability to harvest game animals and fish, owning a bow makes sense.

But not if you plan on using it to fight off the bad guys. ☺

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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Battling Wilderness Boredom

Having spent long periods of time stuck under my shelter during torrential rain, I can attest to how much of a damper it can put on a backpacking trip. Being stuck in your shelter for extended periods of time takes its toll: boredom sets in, the risk of mild depression looms, your mind gets restless, and you get a little anxious for anything to occupy your time.

If time flies when you're having fun, then the opposite also applies. But in the field you don't have the creature comforts of home to occupy yourself. You only have what little you carried in with you and the materials around you. But that really is enough.

As the old adage says, if you have space, you will fill it. So while being careful not to overfill your pack, you can take some items from home in the event of being hunkered down, or just for around the campfire in the evening.

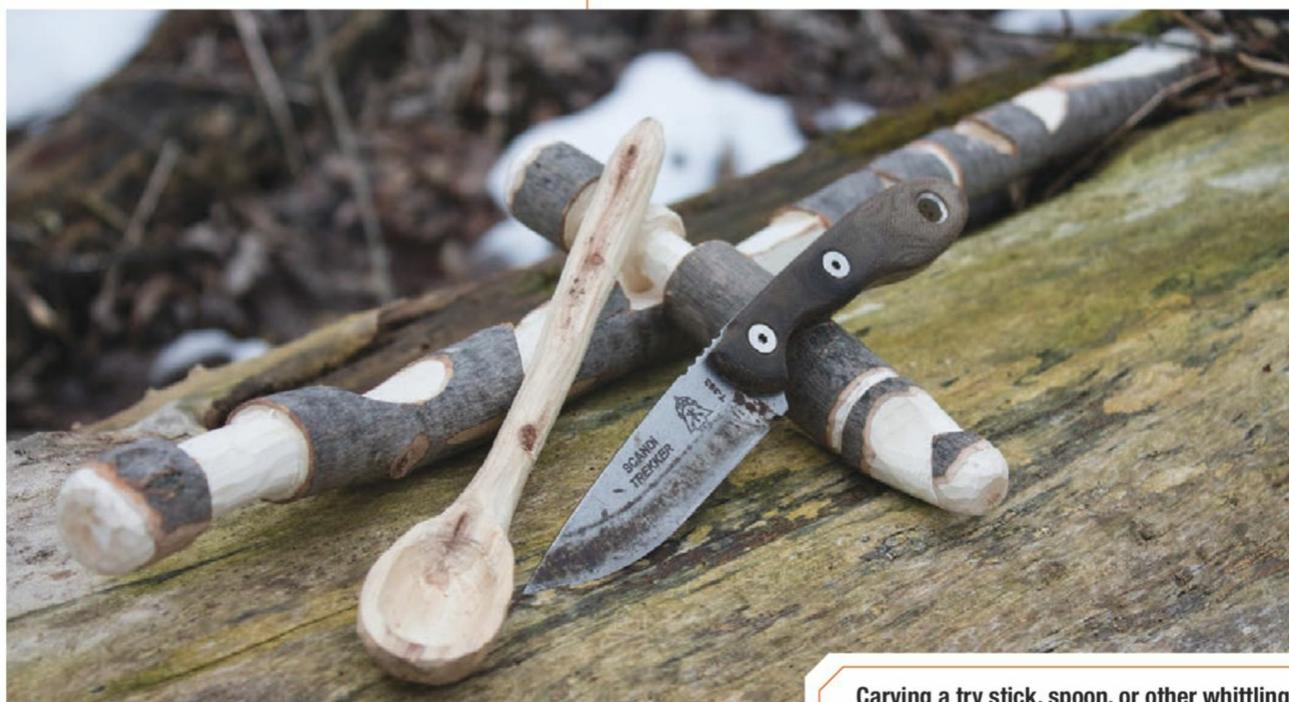
WATERPROOF PLAYING CARDS

Waterproof playing cards take up very little space in your pack and provide a great way to kill time, playing solitaire if alone or other card games if you are traveling with someone. A few companies make waterproof playing cards. You can find them via a quick online search.

Plastic cards are slightly heavier than standard playing cards, but have earned their small footprint in my pack on countless occasions.



When you're hunkered down in your shelter, it's a great time to prep material for your fire. Split kindling, make feather sticks, or build a large pile of tinder you can draw from for the rest of your trip.



Carving a try stick, spoon, or other whittling project is a great way to pass the time.

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BOOKS OR MAGAZINES

Reading is a great way to pass the time during the doldrums and gain some knowledge while you're at it, and can be done with little space taken up in your pack. This is the perfect time to read something topical to your current excursion, such as *Woodcraft and Camping* by George Washington Sears or *The Book of Camp-Lore and Woodcraft* by Dan Beard.

If you don't mind taking some technology into the field, you can bring a small digital reader like the Kindle Fire and have multiple books and magazines with you. Inexpensive portable chargers can keep it charged up.

KEEP A LOG

One great way to occupy your mind is to put it to work. Carrying a small notebook and pen will give you an opportunity to keep a log of your trip and the different things you encountered. You can make it as simple or as detailed as you like.

CAMP PREP

Work is never done when in the wilderness—there is always something to do to keep camp running smoothly. Assuming that you had stockpiled some good



Reading material, journal, and cards take up little room in your pack but provide great ways to pass the time.

firewood under your shelter to keep dry during the coming deluge, a lot of prep work can be done under your shelter.

FIRE PREP

Creating feather sticks and shaving wood to make tinder bundles is not only a great way to have the fixins for a fire, but also a great skill for practicing knife work. Since kindling is a necessity in

fire building, this is also a good time to create piles of kindling in various diameters so you can grow your fire rapidly.

Finally, if the area you're in has already been having an issue with rain or other moisture, you may find that a lot of the wood you have collected is wet. This is a good opportunity to either shave the wet wood down to dry, or split it to expose the dry wood for use in your fire building.

SHELTER REFINEMENTS

This is the perfect opportunity to refine your shelter, making it a little homier or keeping it in good order from any transformation it sustains from wind and rain. You could adjust a ridgeline under your tarp, allowing you to hang useful camp items such as a candleholder.

You might also consider creating some form of seat back by splitting a log into planks and weaving them together with paracord, leaving the two end pieces longer than the middle pieces so you can drive them into the ground, giving you a comfortable place to sit while you wait out the storm.

BUSHCRAFTING

Bushcrafting is an art that goes back as far as man and encompasses skills that everyone should know if they are going to forge the wilderness. Bushcrafting helps you hone your skills in the wild and gives you the ability to lighten your load when backpacking, because you make most of the items you need right in the field.



Backside of expedient seat backs author made during some heavy rain.

Photo: Stan Quirin

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Try Sticks

A try stick is a stick used to practice carving different shapes and notches in. They are a great way to practice your knife skills while simultaneously helping you practice different notches and other various woodcarvings. Made popular by Mors Kochanski, try sticks help pass the time and improve your skills.

Utensil Carving

Although you probably brought utensils with you, carving a spoon is another great time killer and skill enhancer. Due to the intricacies of carving a rounded, hollowed-out object, spoon carving will greatly enhance your knife skills. Far simpler are other cooking utilities and utensils, such as a spit, pot hook, pot hanger, tongs, cooking grate, and fire tripod.

A knife, some rope, the woods around you, and time are all you need to construct necessary items and save yourself a lot of pack space.

PRACTICE YOUR SKILLS

Many skills are associated with bushcrafting and survival and, when you have nothing but time and are confined in a small area, this is the perfect opportunity to practice some of the skills you want to keep fresh.

Some of the top skills that can be done under a tarp (in addition to the knife skills listed above) and require practice to become proficient are fire starting, trap building and knot tying. All are essential survival skills and can really help pass the time.

CONCLUSION

Going out into the field only to get soaked in by rain or other inclement weather can put a damper on any situation. But it is important that you avoid the temptation to just lie down and wait it out. Spending an entire day napping or lying around wishing it would stop raining will only make you lethargic and depressed, which will make it harder to get going again once the rain lets up—plus it really makes time seem to stand still.

Taking breaks or even a short nap is not a bad thing—just limit it. Keep your mind and body active to help pass the time faster and be ready to get moving when the rain stops.

Keep it real and stay safe. ☺



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MAXIMIZE YOUR PRACTICE

Gletcher CLT 1911

BY EUGENE NIELSEN



Gletcher CLT 1911 CO2 pistol replicates size and weight of original military-issue M1911A1 pistol, and has same manual of arms as the original.

Most of us don't get to the range as often as we'd like to or should. Few of us live where we can just step outside and shoot. Even when we do get to the range, restrictions often limit our training. And then there's the cost—ammo isn't cheap. It takes time to become proficient with firearms. It's an art that needs to be developed. And no matter how finely tuned a shooter you have become, shooting is a perishable skill.

One answer is to bring the range home to you and maximize your CCW training with air pistols, which, while not a replacement for live-fire firearm training, are a valuable adjunct to it. They are also a great training tool for beginning shooters to learn the fundamentals.

A wide range of air pistols are available that are designed to replicate the dimensions, weight and handling characteristics of their





firearm counterparts. Some of the air pistols even feature blowback action for added realism. Not only do air pistols allow you to train more affordably and conveniently, they also let you practice a lot of the CCW drills you may not be able to practice at your local range. The full metal construction and similar weight and dimensions of many of the air pistols to their firearm counterparts make it easy to incorporate holster use into your training drills.

GLETCHER AIR PISTOLS

Established in 2008, Sport Manufacturing Group Inc (SMG Inc) is an American company that specializes in the production of pneumatic replica firearms and accessories under the Gletcher® brand. While it's not the only player in the field, Gletcher has taken a leading position in the pneumatic gun market worldwide and offers a wide and ever-growing range of models.

The company recently provided me with the Gletcher CLT 1911 CO2 pistol for evaluation. A copy of the classic U.S. military 1911A1 pistol, the CLT 1911 is designed to accurately reflect the weight, size, appearance, and manual of arms of the original.

Gletcher uses modern zinc-aluminum alloys for a weight nearly identical to the original firearm, although

it weighs slightly less than an actual M1911A1 (1.98 pounds versus 2.44 pounds). The finish on the CLT 1911 is a semi-matte black, a close match to the military finish.

Except for the markings, the CLT 1911 is a very good replica of the actual military-issue pistol. It even has the same checkered plastic grips and small lanyard loop. As with the original, the CLT 1911 is a single-action semiautomatic magazine-fed pistol. It features a fully functional thumb safety, grip safety, magazine release, and slide stop that are identical in appearance and operation to the military pistol. It has a blowback system to simulate recoil. The slide locks back after the last round is fired.

The CLT 1911 even fieldstrips like the original, the only difference being that the recoil spring plug on the CLT 1911 is removed from inside the slide. This is a better design than the original M1911, since there is no potential for a flying recoil-spring plug—and we've all had those on occasion!

The only functional differences that are not replicated by the CLT 1911 are that the manual safety can be engaged with the hammer down, and the hammer cannot be lowered on a cocked-and-loaded pistol without the pistol discharging. Pulling the trigger fires the

Gletcher CLT 1911 fits standard holsters, such as excellent Galco Triton Kydex IWB holster. SureFire P2X Fury Intellibeam flashlight equipped with Thrym/Costa SwitchBack Tactical Flashlight Ring is also shown.

pistol and releases the hammer. Not an issue for training, but something to be aware of nonetheless.

OOMPH FACTORS

The CLT 1911 is powered by a 12-gram CO2 cylinder. The CO2 cartridge is neatly concealed inside the full-size drop-free magazine and held in place by a hidden retention screw. The pistol fires standard steel .177 caliber BBs.

Magazine capacity is 18 or less. Using more than 18 may cause damage to the magazine. For training, I recommend loading the same number of rounds as your actual carry pistol, e.g., seven or eight for a single-stack 1911. The CLT 1911 comes with a single magazine. Extra magazines are available and are a must for CCW drills.

Muzzle velocity averages 328 feet-per-second. Energy is approximately 2.21 foot-pounds. With all CO2-powered air guns, the number of shots that can be made with one CO2 cartridge and their velocity vary with environmental and shooting factors. Figure on it being anywhere from 40 to 60 shots



Above: CO2-powered blowback system of Gletcher CLT 1911 provides added realism. Recoil is comparable to a small-caliber pistol. Slide locks open after last shot.



Left: Gletcher CLT 1911 has a hidden CO2 cylinder tightening/retention screw. Attention to small details such as this result in an air pistol that is visually indistinguishable from the firearm it replicates.



As with the original, Gletcher CLT is a single-action semiautomatic recoil-operated pistol. It has a fully functional thumb safety, grip safety, slide stop, and magazine release.

per cartridge—the lower end with blowback pistols, the higher number with non-blowback models. Once these shot numbers are reached, velocity and accuracy taper off.

You'll get more shots and greater velocity at warmer ambient temperatures. And on any given day, you'll get the best velocity and consistency with any CO2 gun with slow fire.

The CO2 blowback system provides a degree of added realism that enhances training. The recoil from the blowback is obviously nowhere near that of a centerfire pistol. It approximates that of a small-caliber pistol, which is just enough to make you have to reacquire the sights after shooting.

Since the CO2 cartridge operates the blowback system and propels the BBs, the velocity is less than with non-blowback air pistols, and you get fewer shots per CO2 cartridge. For training purposes, it's a worthwhile tradeoff.

ACCURACY AND WORKMANSHIP

The CLT 1911 has a zinc-aluminum barrel with a brass .177-caliber smoothbore barrel insert that's recessed 3/8 inch from the muzzle. The recessed insert and faux rifling are designed to give the appearance of an actual .45 ACP barrel.

Accuracy from the sample CLT 1911 was consistently very good to excellent for an air pistol of this type, with eight-shot groups averaging about two inches at 33 feet fired from a rest. Trigger pull weight averaged 3.6 pounds and was consistent. The CLT 1911 performed flawlessly during my testing. There were no malfunctions, misfires, or CO2 leaks. Ambient temperature during my testing was 70° F. I used Gletcher steel BBs and Gletcher CO2 cartridges exclusively.

Workmanship on the CLT 1911 I received was excellent. As has been the case with all the Gletcher air guns I have examined, the CLT 1911 exhibited great attention to detail. A lot of thought clearly went into the design. It's a superb training tool and a heck of a lot of fun to shoot.

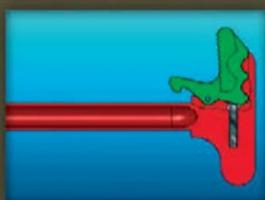
GALCO TRITON IWB HOLSTER

A big plus with replica air pistols like the CLT 1911 is that they allow you to train with your regular CCW holster. In my case, it was the Galco® Triton™ IWB holster I regularly use to carry my .45 ACP 1911 Government Model. The CLT 1911 fit the Triton perfectly, with no adjustments.



A CHARGING HANDLE FOR THE 21ST CENTURY GUNFIGHTER! BCM GUNFIGHTER CHARGING HANDLE

Like everything else in the last 45 years, tactics and weaponry have undergone a continuing evolution. Current CQB techniques have the shooter maintaining a firing grip while using their non dominant hand in the operation of the charging handle for loading or immediate action. This enables the shooter to utilize a faster and more efficient weapon manipulation technique in an effort to bring a hot weapon back into the fight. The drawback of this technique was that the entire operation became contingent on the sheer strength of the tiny roll pin securing the tactical latch.

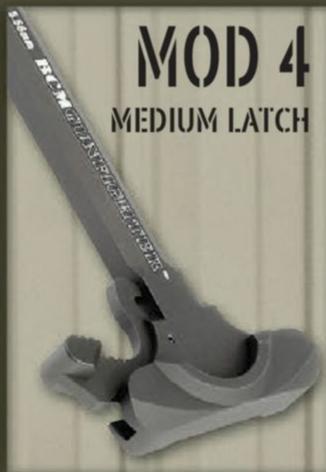


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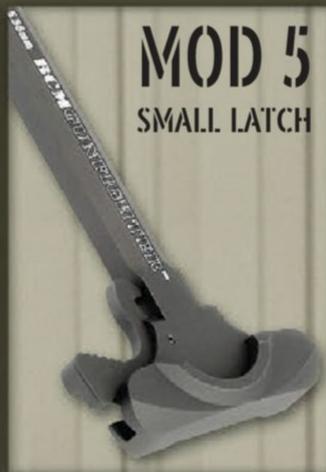
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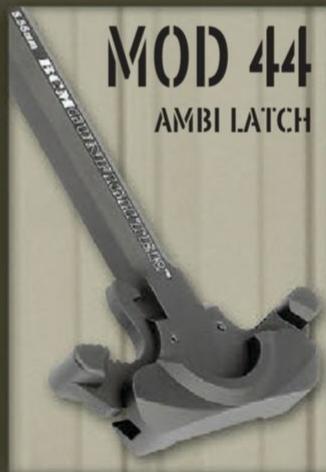
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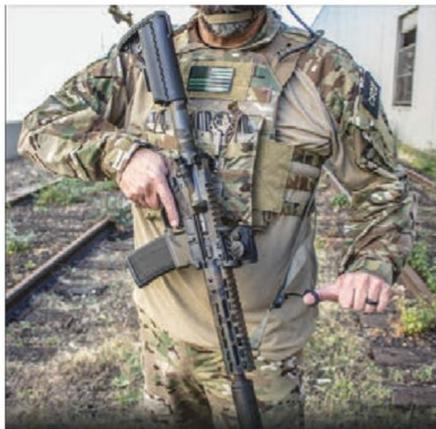
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Gletcher CLT 1911 fieldstrips in nearly identical manner to actual M1911. Only difference is that recoil spring plug must be removed from inside the slide.

The Triton has proven to be an excellent IWB holster for EDC. Constructed of durable and maintenance-free Kydex®, it features a thin design for comfort and concealment, adjustable tension screws, and a raised sweat guard. It comes with a sturdy belt clip that fits up to 1 3/4-inch belts. Optional belt loops for the Triton are also available from Galco.

The Triton is available for a wide range of handguns. As with all Galco products, the Triton is of the highest quality and made in the USA. It's comfortable and provides excellent retention and easy reholstering.

The Galco Triton IWB holster has an MSRP of \$59.95. Optional belt loops run \$12.95 and \$14.95. All Galco products come with a full satisfaction guarantee and an easy and hassle-free return process.

SAFETY FIRST

Safety should be paramount in all training, and training with air guns is no exception. They are definitely not toys and should be treated in the same manner as actual firearms. All rules of firearm safety apply. Eye protection is important for everyone on the range. BBs have a propensity to ricochet.

A good target trap and backstop are essential for indoor shooting. A number of commercial traps are designed for use with BB guns. Be aware that

many air-gun traps are designed solely for use with lead pellets, which deform and don't pose the ricochet danger of steel BBs. It's also easy to build your own trap.

The Youth Programs Division of the National Rifle Association has an excellent manual online for its Home Air Gun Program. It includes info on building your own air-gun range.

The Gletcher CLT 1911 has a suggested retail price of \$148.00. It's made by Sport Manufacturing Group Inc in Taiwan. It has an 18-month warranty and comes nicely packaged with one magazine, Allen wrench for the magazine CO2 retention screw, and an illustrated instruction manual. ☺

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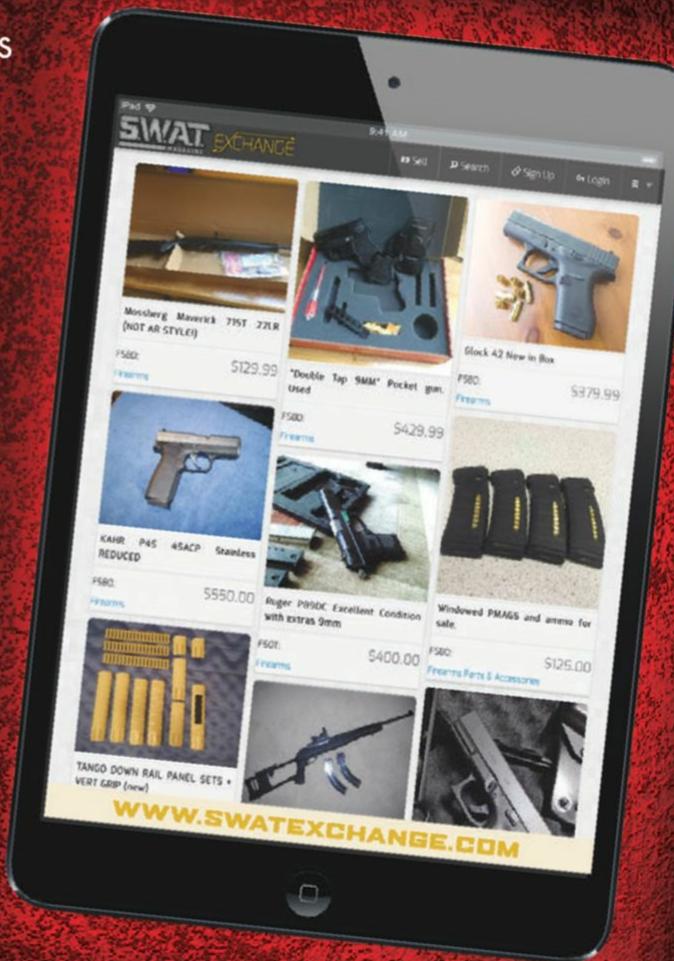
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DIY Machine Guns

Since 2012, Cody Wilson, at that time a law student at the University of Texas, has been the face of, and driving force behind, the movement to bring home manufacture of firearms to the masses.

His company, Defense Distributed, released plans in 2013 for the "Liberator" pistol—a gun that would be made entirely of plastic except for a nail to act as the firing pin and a small, non-functional piece of steel included in order to comply with the federal law against firearms that have no metallic components and could thus theoretically be "undetectable" by conventional means. The plastic components would be made on 3-D printers, which were just becoming available at prices practical for individual consumers.

The Liberator name was presumably chosen with some care. The original Liberators were cheap stamped-metal single-shot .45s with crude sights that in World War II were air-dropped by the Allies for the benefit of Resistance fighters behind German lines.



Defense Distributed's Ghost Gunner. Photo via <https://defdist.org>

The idea was that the fighter, pretending to be a frightened conquered subject of the Third Reich, could get within a few feet of an unsuspecting German soldier, shoot him with the Liberator, and then, er ... *liberate* that soldier's far more effective arms.

Cody Wilson's Liberator could be considered an even less formidable arm than the original. Chambered not for the respected .45 ACP caliber but for the less powerful .380 ACP, it is also single shot, capable of being "aimed" only in the most general sense, and (unlike the original) not likely to be fired and reloaded many times before blowing up.

Wilson was not proposing that anyone use his Liberator to kill any law enforcement or military personnel in order to take their weapons. But the name is still appropriate, because the mere existence of guns that anyone can make at home, without any government official's permission, or even knowledge, "liberates" the people from the notion that the government can control their ability to arm themselves.

Wilson did not sell the computer files that a user's 3-D printer would use to make these guns. His intention was to provide those files for free to anyone who had Internet access. The Obama regime was not slow to recognize this threat

to its ability to throttle down, or even block completely, the people's access to liberty-preserving firepower.

In the face of that threat, the government forced Defense Distributed to remove the file from their Internet server, under a tortured interpretation of a law that forbids "exportation" of weapons without State Department approval.

Posting a file on a domestic Internet server seems a long way from "exporting" anything, and electronic files are not exactly "weapons," but the government has not yet relented. Wilson, with the help of the Second Amendment Foundation, has turned to the courts to get the ruling lifted.

In the end, the ham-handed attempt to control not just guns but also information about guns was an abject failure, as by the time Defense Distributed was forced to remove the files, they could be found on many foreign servers, over which the U.S. government has no control. Within days, the files had been downloaded hundreds of thousands of times.

Since the release of (and the government's failed attempt

Defense Distributed cannot build the \$1,500 Ghost Gunners fast enough to keep up with demand.

to recapture) the Liberator plans, Wilson and Defense Distributed have not been idle, and have indeed moved on to projects that are not just conceptual or symbolic threats to gun control but actually make practical, effective firepower more accessible than ever before.

Anyone with an Internet connection and a 3-D printer can now print his or her own 30-round "high-capacity" magazines for AR or AK pattern rifles. And in jurisdictions that ban such magazines, there is very little to be done to prevent it.

Perhaps even more significantly, one can "print" an entire lower receiver for an AR-15 pattern rifle. This is significant because, unlike the upper receiver, a lower receiver is not subject to most of the forces generated with the firing of a 5.56x45mm NATO or .223 Remington cartridge, and thus can be counted on to stand up to the firing of hundreds, maybe even thousands, of rounds.

Additionally, in the eyes of the law, the lower receiver *is* the gun. It's the only part regulated under federal law, the only part required to be marked with a serial number, the only part for which a background check is required for its purchase. In other words, if you can make that part, you can legally buy everything else needed to build a gun—without the government's permission or even knowledge.

After that, Defense Distributed moved beyond 3-D print-

ing, which, despite its vast and rapidly improving potential, is still probably not (yet) the best way to outfit oneself with effective firepower. The next project was the "Ghost Gunner," a consumer-grade CNC (Computer Numerically Controlled) milling machine that, instead of printing lower receivers out of plastic, mills them from aluminum.

Again, the name was no accident. Rabidly anti-gun California state senator Kevin de León invented the term "ghost gun," both for guns that are produced at home without government knowledge (scary, scary!) and for guns that metal detectors can't find (or can't if someone ever invents all-plastic ammunition).

Defense Distributed cannot build the \$1,500 Ghost Gunners fast enough to keep up with demand.

Now Wilson has upped the ante yet again, promising (or "threatening," as the forcible citizen disarmament lobby undoubtedly sees it) to release plans for a homemade machine gun to be made from about \$150 worth of components. Of course, this has gun-ban fanatics in a lather, and not just those in the U.S.

The British tabloid the *Daily Mirror*, calling Wilson a "gun fanatic," quoted British counterterrorism expert Hamish de Bretton Gordon claiming that Wilson "is making terrorists' jobs so much easier." He goes on to express his hope that "the authorities in the U.S. are going to deal with this individual. It's absolutely crazy." What he means by "deal with" is not clear, but now he wants governments to monitor anyone who owns a 3-D printer.

Also in the U.K., Shadow Police Minister Jack Dromney worries a "plastic machine gun" would put "the traveling public at risk of terrorist attack."

Terrorists in Europe have not experienced much difficulty obtaining fully automatic firearms without Wilson's help, but that is apparently not the point. What much more plausibly is the point is that those who wish for the government to have the power to disarm the citizenry are now seeing that sick fantasy fall apart. Be afraid, gun-ban zealots. Be very afraid.

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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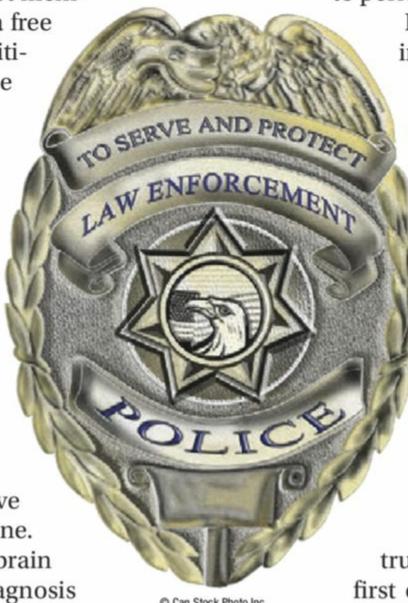
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Law Enforcement on the Line 24/7

THIS is for those of you who are not members of law enforcement. In a free democratic society, we are allowed to criticize and question those whom we place our trust in. This is how it should be. When an Officer Involved Shooting (OIS) is of a controversial nature and saturates the media all hours of the day, it brings into question the decision-making skills of the involved parties.

A highly negative incident places even greater burdens and stressors on those currently in the field in uniform who were not involved in the incident in an already demanding and exacting profession. Perhaps we should consider the following.

Imagine a doctor who is expected to have mastered each and every aspect of medicine. This hypothetical would mean that from brain surgery to pediatrics to podiatry, any diagnosis or medical procedure would have to be carried out



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to perfection every single time.

Imagine further that our doctor is called into the O.R. with little background information on the case itself. He may or may not have qualified personnel to assist him. He may or may not have the requisite tools to perform the procedure. He may or may not have sufficient background information on the patient's history and precisely how it was that the medical condition was incurred. He will have to make split-second decisions involving the life of the patient.

If something goes awry, he will be questioned before medical panels and called upon to explain his actions. He may find himself in court on a medical malpractice lawsuit.

This is the nature of field police work. The true field police officer is the one who is always first on-scene. He is the one who is driving the squad car while you sleep. He is the first one by your

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side, sometimes alone and unassisted, in tense and uncertain times, and is often your only blue line of defense at that precise critical moment.

He is the one who, unquestioning, will lay down his life and hazard his safety for you, even though he has never met you before. He does not have to do this. He does not need to respond rapidly on limited information. He chooses to do this as it is the moral obligation he has sworn to abide by. It is his chosen profession and his intent to be there for you when it matters most.

The badge does not automatically instill superhuman powers or supernatural perceptive abilities. The field police officer is every bit as human as you and I. He has the same fears, trepidations, and human emotions as we all do. He has family and friends and problems in life. He may work long, tedious hours, day in and day out, and yet is called upon to make life-and-death decisions in the blink of an eye.

He does not know who or when or where someone might attempt to harm him. If it happens, it may be at the most unexpected time and under the most adverse conditions, and these may be

the last moments of his life. When he ventures out to protect us, he is stepping into the unknown, every day.

There are those who have tarnished and abused the badge, and they should be held accountable to the highest degree possible. But they are few and far between. The majority will be there for you, attempting to do the right thing for the right reasons with little reward expected save for the satisfaction that they were there for you.

An officer's actions will be microscopically scrutinized over an event that is oftentimes measured in mere seconds. He will have to account for every action, word, tactic, thought process, and perception that was set upon him from out of nowhere. He knows this every time he pushes out into the night, into the unforgiving unpredictability of the field. And yet he still chooses to go.

I was once among the ranks of those who swore to serve and protect you. I have lost friends, and others have been injured while doing just that. We knew the risks of our profession and yet we undertook them every day and hour when we were expected to.

Ours was a moral obligation, which

we all embraced not for the pay or the prestige or the reward, but rather because this was our chosen profession, and it was the right thing to do. We took pride in a job well done. We took great satisfaction that some among you are still alive due to our actions.

We look back on careers that were uncertain, demanding, and hazardous, yet imminently satisfying. We know full well that some who follow us will perish, and yet others will still remarkably follow behind us.

The next time you encounter one who wears the badge, consider the obligation he or she has undertaken. If they are anything like the partners I worked with, they are there for you at all times, under all conditions, and will risk it all because morally it is the right thing to do. ☺

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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Century Arms Red Army Standard Ammunition

MY first AK-47 was a Polytech Legend, and it's still the one I shoot most often. I acquired it in the days when to shoot a 7.62x39mm rifle, you almost had to shoot corrosive ammunition. I say "almost" because there were a few options loaded by U.S. or European ammunition manufacturers that were non-corrosive, but they were hard to find and expensive.

It wasn't really a major issue. I knew how to clean the rifle using boiling water followed by World War II GI bore solvent.

One thing that the corrosive ammo did provide was a lot of shooting. It was inexpensive, and I was lazy enough that if I had to perform the cleaning procedure, I normally shot the rifle quite a bit when I took it out. Of course, the Leg-

end has a chromed bore—almost a necessity when shooting corrosive ammo.

As 7.62x39mm rifles become much more common in the U.S., "non-corrosive" ammunition was imported from former Warsaw Pact and other countries. Note my quotation marks, as some of that ammo was not as "non-corrosive" as claimed. When I started using some of the imports, I still cleaned with GI bore cleaner and usually boiling water.

From talking with others, perusing the Internet, and practical experience, I learned which of the import ammo really was non-corrosive and bought it in bulk to keep cost per round in the 10- to 15-cent range.

The ammo was steel cased, which was not an issue with guns chambered

The ammo is nice and clean and looks as if it underwent good quality control.



Thompson's Norinco underfolder with Red Army Standard Range Pack.

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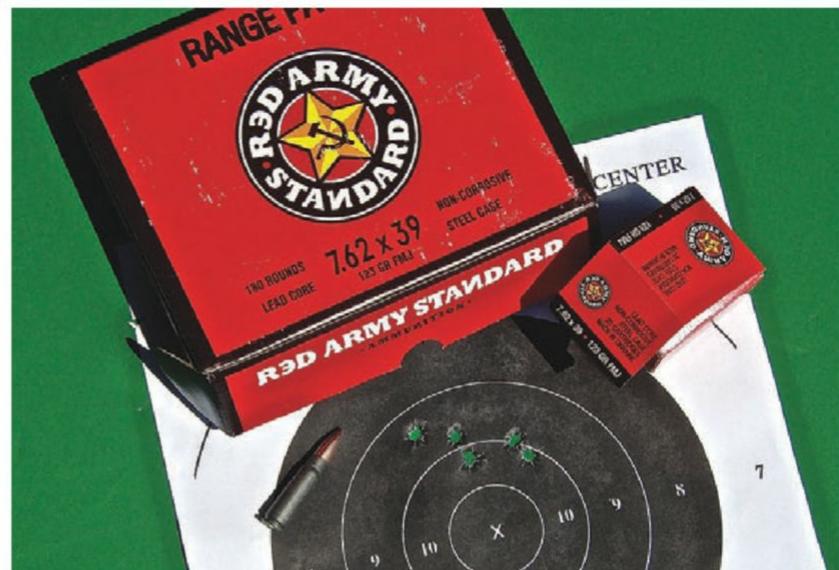


for the 7.62x39mm ammo, as the extractors were normally designed for steel-case ammo and firing pins were designed for heavy primers.

When some of the same companies started loading .223/5.56x45mm ammo in steel cases, I normally did not use it, as most AR extractors were not designed for steel-cased ammo. I had friends who used a lot of this ammo—which was definitely cheaper—and had little trouble with it, but they usually carried a spare extractor in their kit.

Accuracy was not always great with a lot of the imported military-grade 7.62x39mm either. If I shot a five-shot 100-yard group of four inches, I was normally happy.

That's how my 7.62x39mm shooting stood at the point when I acquired a SIG556R chambered for the 7.62x39mm cartridge. I put a Leupold Mark AR 3-9X40mm scope on the Picatinny rail



Five-shot group at 100 yards Red Army Standard fired through a SIG556R.

The polymer-coated cases have extracted well with the 500-600 rounds I've fired.



4.75-inch 200-yard five-shot group with Red Army Standard using a SIG556R.

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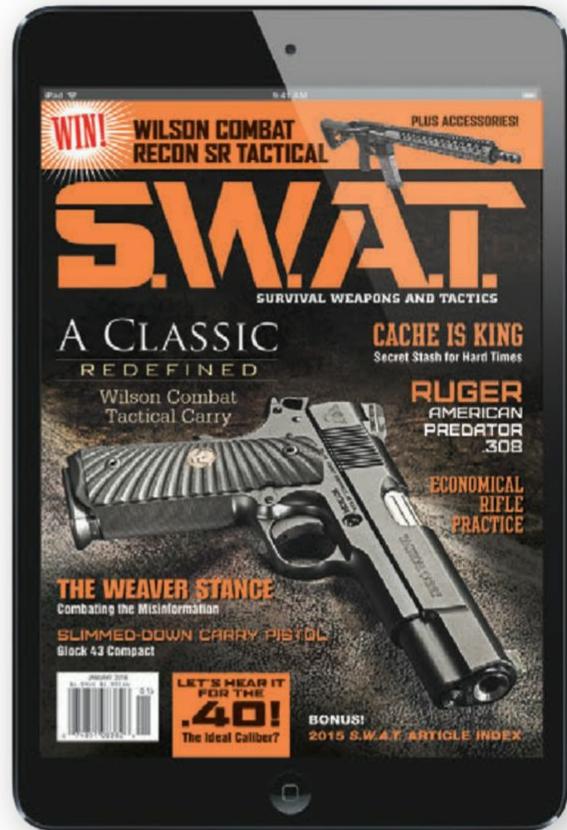
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and was ready to see how well I could do with a 7.62x39mm SIG rifle—experience has shown me that SIG rifles normally shoot well.

About the same time, I had gotten in some Century International Arms Red Army Standard 7.62x39mm ammo to try, so I tested it along with the 556R.

I liked the Red Army Standard Ammo's appearance from the beginning. It comes in nicely marked red boxes packed in 180-round Range Packs. I've found the 180-round Range Packs just right for a day of shooting. One suffices for six 30-round magazines.

The ammo is nice and clean and looks as if it underwent good quality control. Red Army Standard 7.62x39mm ammo is being manufactured in both Russia and Bosnia.

Ammo produced in Russia is packed in 20-round boxes, nine boxes (180 rounds) to a Range Pack and 900 rounds to a case. Bosnian ammo is packed in 30-round boxes, six boxes to a Range Pack (180 rounds) and 1,080 rounds to a case. Also available for the Russian-made Red Army Standard is a 640-round sealed tin.

Russian Red Army Standard 7.62x39mm uses a 122-grain FMJ bullet with lead core in a polymer-coated steel case, while Bosnian uses a 123-grain FMJ bullet. The primer is non-corrosive Berdan. The polymer-coated cases have extracted well with the 500-600 rounds I've fired.

As I mentioned, I wanted to try the Red Army Standard Ammo in my SIG556R, as I believed it would be the most accurate 7.62x39mm rifle I own. My better five-shot groups with the Red Army Standard 122-grain FMJ load at 100 yards have been around or a bit over two inches. At 200 yards, the two MOA groups have held consistent, running about four to five inches.

I have also shot the ammo in my Polytech Legend and a Norinco underfolder. I don't do all that well with AK sights, but I did as well with the Red Army as with any other ammo I've fired through my AKs.

My use of the Red Army ammo has been spread over a couple of months, but I don't remember any feeding or extraction problems. And when I've cleaned the rifles, the Red Army Stan-

dard ammo shoots cleanly.

I only have a couple of Range Packs left, so I need to get off an order for more of the 7.62x39mm loads.

Ammo is expensive these days, but the Red Army Standard is less expensive than some other brands. I did a quick Internet check, and a 180-round Range Pack sells for about 36 cents a round. That's a long way from the days when we could buy 7.62x39mm for 10 cents a round or less, but as prices go today, it's not bad. Plus I'm quite satisfied with the ammo.

Century also offers Red Army Standard in other calibers, including 7.62x25mm Tokarev, 7.62x54R, 9x18mm Makarov, and 5.45x39mm. All are Berdan-primed with steel cases, except the 9x18mm Makarov ammo, which is made in Poland and has a Boxer-primed brass case. ◎

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American Genius

Nighthawk
Custom Hi-Power



When it comes to firearms designers, one stands out above all others—John Moses Browning. Born in Ogden, Utah in 1855, he made his first firearm at the tender age of 13 and received his first patent at age 24. During his life, he designed or made improvements to lever-action rifles, including the ubiquitous Winchester Model 94, and slide-action (pump) shotguns.

But he is probably best known for his semi and fully automatic firearms that include the 1911 pistol, water- and air-cooled machineguns, the Browning Automatic Rifle (BAR), Browning A-5 shotgun (Remington Model 11), and the M2 .50-caliber machinegun. Many of these designs are still in use today. Browning guns have been putting America's enemies in the dirt while keeping GIs above ground for over a century.

Browning was working on a new pistol design for *Fabrique Nationale* (FN) when he died in 1926. The pistol was completed by FN designer Dieudonné Saive in 1935 and became the P-35. We know it better as the Hi-Power.

BY DENNY HANSEN

PHOTOS BY STRAIGHT 8 PHOTOGRAPHY



American Genius

Barrel is crowned to protect rifling at the muzzle.



Magazines furnished with pistol have a spring at the base to assist ejection.



Custom extended beavertail prevents hammer bite and affords a high grip on the pistol.

BROWNING HI-POWER

The Hi-Power is a semiautomatic single-action pistol chambered for the 9mm Luger cartridge. It is fed from a 13-round staggered-column magazine.

Many people believe the name Hi-Power refers to the cartridge, but that is not the case (no pun intended). The Browning/FN collaboration was undertaken for trials for a new French service pistol, the *Grand Rendement* (French for "High Yield"), or alternatively *Grande Puissance* ("High Power").

One French requirement was that the pistol have a capacity of at least ten rounds (hence the name). So the name is derived from the magazine capacity, not the cartridge. It is somewhat ironic that "high-capacity" pistols are currently all the rage, considering Browning figured it out more than eight decades ago.

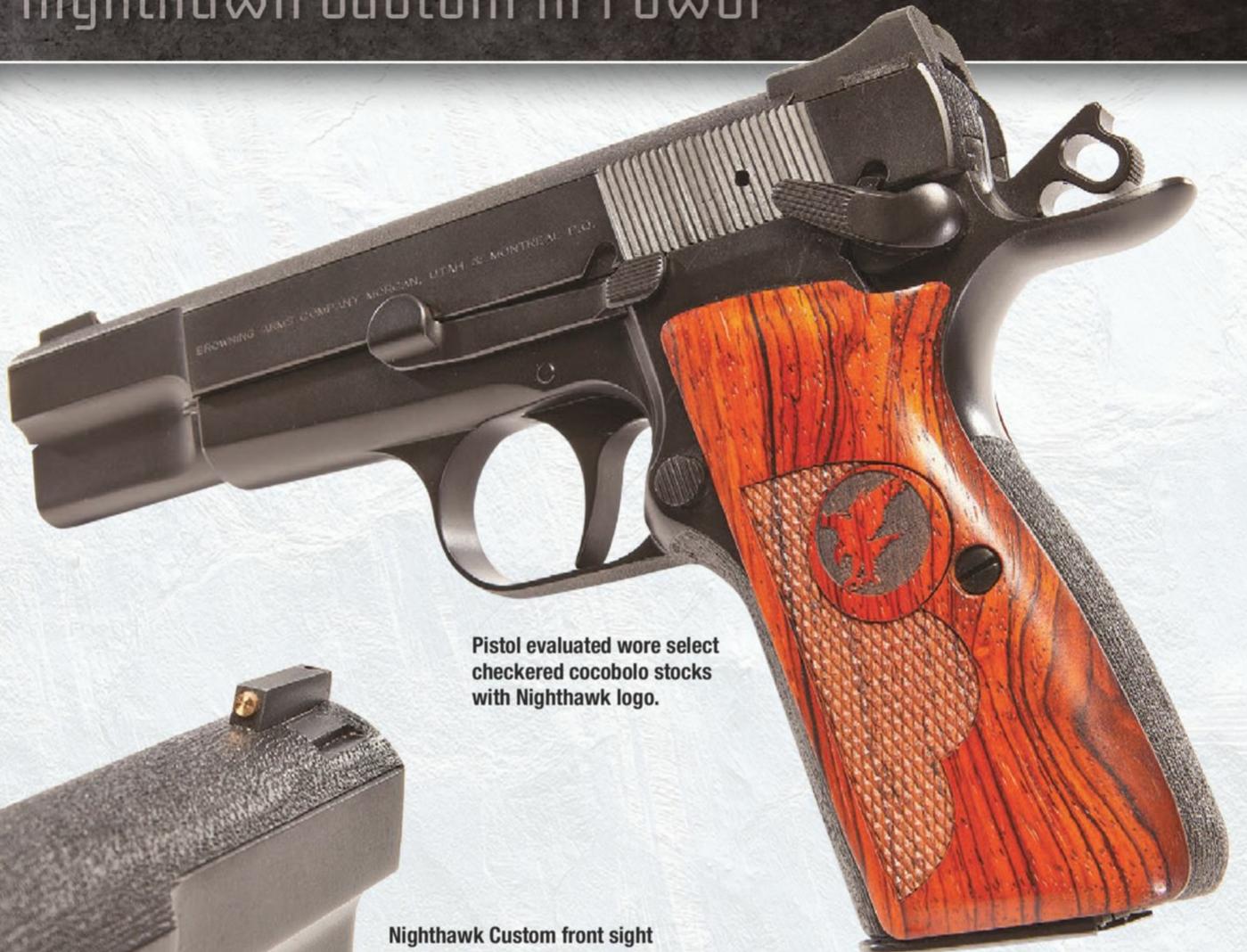
Although France did not ultimately adopt it, the Hi-Power became the official sidearm of over 50 nations and runs the gamut, literally, from A to Z.

While popular with many private citizens, the Hi-Power has also seen limited service with some U.S. SWAT teams. It was the choice of the FBI HRT until that unit replaced it with the Browning-designed 1911.

CUSTOMIZING A CLASSIC

In 2015, Nighthawk Custom undertook the task of seeing what they could do to improve the already excellent Hi-Power. I first saw it at the 2016 SHOT Show and was very taken with it. I placed an order shortly after the show.

Nighthawk Custom Hi-Power



Pistol evaluated wore select checkered cocobolo stocks with Nighthawk logo.

Nighthawk Custom front sight has a 14k gold bead. French border is milled into slide.

» SPECIFICATIONS

NIGHTHAWK CUSTOM BROWNING HI-POWER

MODEL	Browning Hi-Power
TYPE	Single action
CALIBER	9mm Luger
CAPACITY	13+1
BARREL LENGTH	4.7 inches, crowned muzzle
OVERALL LENGTH	7.8 inches
WIDTH	.88 inch
WEIGHT (unloaded)	2.2 pounds
SIGHTS	Rear: Heine Slant Pro Front: Nighthawk 14K gold bead
FINISH	Satin black Cerakote
STOCKS	Checkered cocobolo
SUGGESTED RETAIL	\$2,995.00



Nighthawk

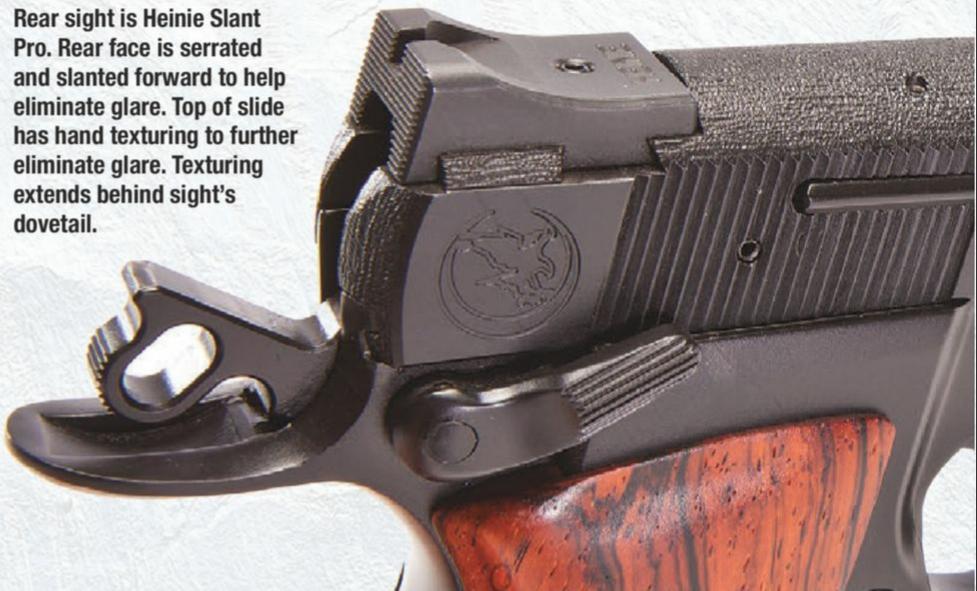
American Genius Nighthawk Custom Hi-Power

Nighthawk Custom offers several finish options, including a two-tone version. The finish on the test pistol is a satin black Cerakote™. A French border is milled into the slide at the junction of the flats and top of the slide. While it doesn't increase performance, it is a nice touch and looks great.

The top and rear of the slide have hand texturing that resembles very fine skateboard tape and eliminates any glare. The Nighthawk logo is on the right side of the slide behind the grasping serrations. This same texturing is applied to the front and back straps of the frame and the bottom of the trigger guard. Although it gives a very good grip, it is not abrasive to the touch.

An extended beavertail prevents hammer bite and affords a high grip

Rear sight is Heinie Slant Pro. Rear face is serrated and slanted forward to help eliminate glare. Top of slide has hand texturing to further eliminate glare. Texturing extends behind sight's dovetail.



The Hi-Power had a high-capacity magazine long before high capacity was cool.

Safety, slide lock/release, and magazine release are all serrated for positive manipulation.



on the pistol to help control recoil. The mag well is contoured for fast and easy magazine changes.

The Nighthawk Custom front sight has a 14k gold bead. The rear sight is a black Heinie Slant Pro. The rear face of the sight is serrated and slightly slanted forward to help eliminate glare. Both sights are set in dovetails and therefore drift adjustable for windage.

The thumb safety is ambidextrous and serrated for positive manipulation, as are the slide release and magazine release button. An oval-shaped hole is in the hammer.

Internally, the Nighthawk Custom Hi-Power has a competition steel ham-

mer, improved sear lever and trigger. The trigger has a flat face and crisp four-pound trigger pull. The barrel is crowned to protect the muzzle. Crown-ing can also increase accuracy as the exiting gas is distributed evenly.

Nighthawk offers different stock (grip) options. The test pistol wears custom select checkered cocobolo stocks with the Nighthawk logo.

As mentioned, the Hi-Power uses 13-round magazines. The magazines shipped with the pistol have an external spring at the bottom to assist ejection. I found that the mags would actually eject with the pistol inverted. The magazines have what appears to be a dull gray Parkerized finish.

The pistol ships in a padded nylon case with manual, trigger lock, and two magazines.

SUPPORT GEAR

A great pistol deserves a great holster. I received a custom Cuda holster and CID double mag pouch from Simply Rugged Holsters. Both have a rich Ox-blood finish and Celtic knot carving. The Cuda is a high-ride pancake design that carries the pistol close to the body. The three belt slots allow it to be carried either strong side or crossdraw. A sweat shield protects both the rear portion of the slide and the wearer's skin from being abraded.

Being a big believer in having white light available to search and positively ID a target, I specified the CID double mag pouch with a spare magazine up front, and the rear pouch for a one-inch diameter flashlight.

To enable me to shoot more without constantly jamming mags, Mec-Gar USA provided six Hi-Power magazines. Prior experience has shown that Mec-Gar mags are of the highest quality. They are OEM for numerous manufacturers. Finish was bright blue.

ON THE RANGE

I arrived at the range with 22 assorted loads from ten manufacturers and one handload. I established the velocity of each load with a PACT Professional model chronograph.

Handling the Hi-Power was like shaking hands with an old friend. Like the 1911, it just feels "right" in

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my hand. The trigger on the test pistol, as measured with a Lyman Electronic Trigger Pull Gauge, broke cleanly and consistently at 4.3 pounds with a positive reset. The flat face of the trigger helped facilitate a press straight to the rear, promoting accuracy.

Speaking of which, the Hi-Power was everything you'd expect from a custom pistol in the accuracy department. Shooting from 20 yards, I fired a full magazine of each load. Halfway through, I had to put up a second target because the original target was one ragged hole.

Working from the holster, when coming up on target, the pistol points naturally and the sights seem almost to align themselves. Shooting dedicated pairs and getting good hits at 20 yards

was not a chore.

While I believe it's wise to always fire twice, I don't think it's smart to get in the habit of shooting twice *every* time. In self-defense shootings, the bad guy is the one who gets the final vote on how many shots are fired, so I mix it up by firing two, three, and four shots (sometimes more).

On a side note, scanning and assessing to break tunnel vision are likewise good things, but don't get carried away. Habitually doing what I call the "Firing Range Macarena," where someone turns a full 360 degrees—and in doing so faces away from the target they have just shot—is not a good idea, as in real life you may get shot in the back.

I fired just under 600 rounds through the Nighthawk Custom Hi-Power and

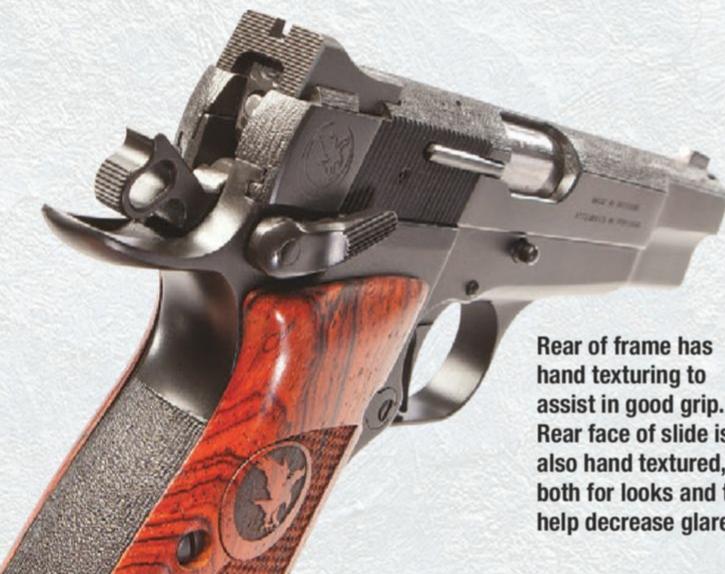
experienced a grand total of one malfunction when the last round from one of the Mec-Gar magazines failed to feed.

SUMMARY

The Hi-Power had a high-capacity magazine long before high capacity was cool. One of the most revered pistols in history, it is rivaled in service length only by the 1911. Its latest incarnation is accurate, reliable, and has seriously good looks.

Nighthawk Custom has transformed a great gun into a serious work of art. Like other works of art, and considering its suggested starting price of \$2,995, some may be tempted to turn this Hi-Power into a safe queen.

Mine is going to be carried and shot—a lot. ☺



Rear of frame has hand texturing to assist in good grip. Rear face of slide is also hand textured, both for looks and to help decrease glare.

Nighthawk Customization and Improvements

- Hand-textured (stippled) frame and trigger guard
- Hand-textured slide top and rear of slide
- Custom extended beavertail
- Contoured magwell
- French border
- Heinie Slant Pro black rear sight
- Nighthawk 14K gold bead front sight
- Crowned barrel
- 25 LPI serrated mag release
- Competition steel hammer, improved sear lever, and trigger
- Crisp custom four-pound trigger
- Cerakote™ satin rust-resistant finish
- Custom select cocobolo checkered stocks with Nighthawk logo

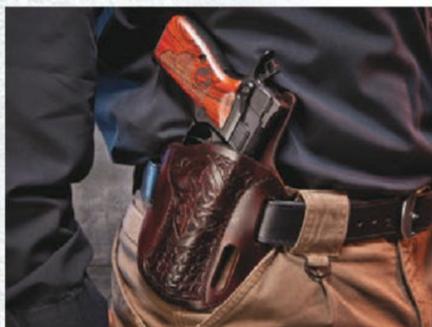
» AMMUNITION PERFORMANCE

BRAND	LOAD	VELOCITY (fps)
Aguila	124-gr. FMJ	1,066.8
Black Hills	115-gr. FMJ	1,150.7
Black Hills	115-gr. JHP-EXP	1,274.7
Black Hills	115-gr. TAC-XP +P	1,176.5
Black Hills	147-gr. FMJ (subsonic)	1,001.3
Colt	115-gr. SCHP	1,072.4
Double Tap	115-gr. FMJ (Training)	1,182.2
Double Tap	115-gr. Bonded Defense JHP	1,353.3
Double Tap	124-gr. Bonded Defense JHP	1,289.1
Hornady	147-gr. XTP JHP	1,141.6
Hornady	147-gr. TAP FPD JHP	1,158.5
HPR	85-gr. OTF Black Ops	1,216.5
HPR	115-gr. JHP	1,492.4
HPR	115-gr. TMJ	1,044.9
HPR	124-gr. JHP	972.1
Liberty	50-gr. JHP	1,514.7
Ruger	80-gr. ARX +P	1,461.0
SIG Sauer	115-gr. FMJ	1,276.8
SIG Sauer	115-gr. V-Crown JHP	1,239.8
Winchester	115-gr. JHP	1,143.2
Winchester	115-gr. JHP HE	1,211.1
Winchester	147-gr. Defense JHP	951.3
Handload	125-gr. LRN	1,070.9

Velocity obtained with PACT Professional chronograph, 13-round strings with first screen ten feet from muzzle. Elevation 4,843 feet, 78 degrees, 12% humidity.



Nighthawk Custom Hi-Power was evaluated with custom Cuda holster and CID double mag pouch from Simply Rugged Holsters. Both have a rich Oxblood finish and Celtic knot carving.



SOURCES

NIGHTHAWK CUSTOM

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SPECIAL

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Recent years have seen a huge resurgence in reloading, due to the cost of factory ammunition and some people's desire to "roll their own." This Sweepstakes gives the novice reloader a chance to get started on the right foot and offers the experienced loader an opportunity to upgrade to some of the finest products available from a name that is synonymous with quality—Hornady.

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CHOICE OF THE FBI HRT

Springfield Armory Professional Model

BY LEROY THOMPSON

Afew years ago, some friends and I ordered a group of Operator pistols from the Springfield Armory (SA) Custom Shop. Although we placed it as a group order, some of us wanted special touches on our pistols. At least one got adjustable sights instead of the low-profile fixed sights. Some of us ordered two pistols. I ordered one in green and one in black. I also ordered mine with slim grips. They have proven to be great pistols; superbly accurate and highly reliable.

One of my friends also ordered two and has well over 100,000 rounds combined through them. He shoots one or the other weekly at a local indoor range. In fact, he likes the guns so much he had the



Springfield Pro Model with SureFire light mounted and HRT insignia. Motto translates as "To Save Lives."

SA Custom Shop build a pair of lightweight models just like them that he uses for carry.

I haven't shot mine as much—maybe 7,000 rounds through the black one and 4,000 through the green one. Still, I put 100 rounds through one or the other every month or two. I also bought a lightweight model but did not have it worked over by the Custom Shop. Still, I sometimes carry it when I don't want the weight of one of the steel pistols.

FBI MODEL

Springfield's Custom Shop is known for excellent service on its products, so I expect them to last as long as I do—probably a lot longer. However, for some years I have had a nagging urge to purchase one more pistol from the SA Custom Shop. I had a chance to shoot one of the SA pistols used by the FBI HRT, FBI Super SWAT, and FBI SWAT. I was quite impressed with it. I wouldn't say it shot better than my Custom Operators, but it certainly shot as well, which means 1½- to 2-inch five-shot groups at 25 yards.

But the HRT model does have the cachet of being used by one of the world's most elite antiterrorist units. Awhile back I heard from some of my contacts that a lot of HRT members had been carrying and using Glocks rather than their SA 1911A1s. That made some sense because a lot of them had been deployed to Afghanistan or Iraq.

Still, the HRT SA .45 has gained almost legendary status. I finally decided to order an SA Professional Model, the same pistol as the HRT gun except for the serial number prefix and designed for other LE agencies or special military units. Private citizens may also order it if they are willing to wait one to two years and pay a substantial amount.

PREVIOUS HRT PISTOLS

I did order one, and it finally came in a short time back. I'll tell you about how it has performed, but first let me digress with a bit of history. The HRT became operational in October 1983, with the mission of carrying out hostage rescue/CT operations in the U.S. and its territories, as well as certain special operations overseas. The first custom automatic pistols used by the HRT were Browning Hi-Powers built by Wayne Novak.

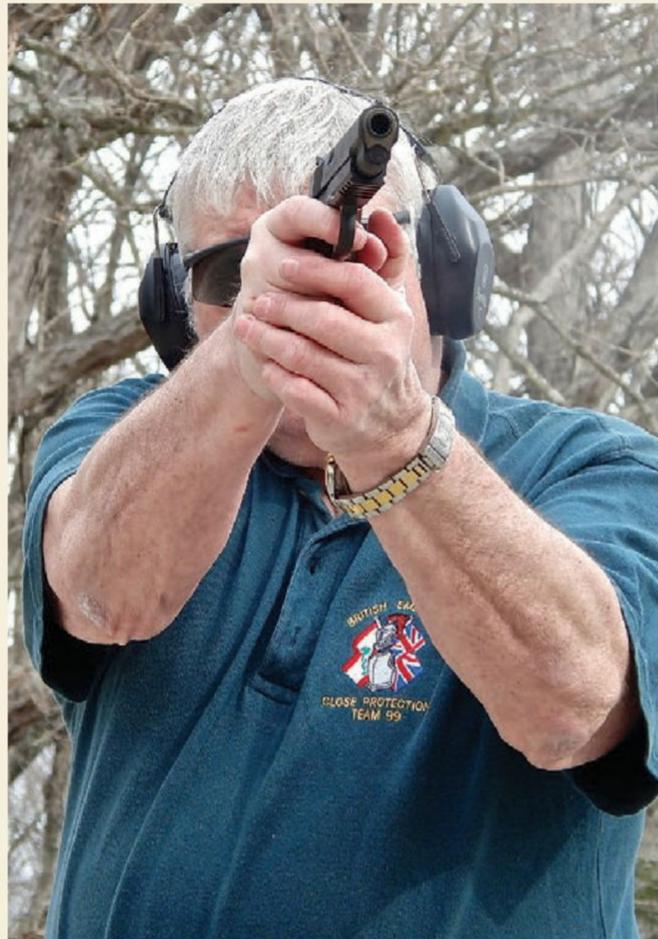
In 1994 the FBI asked for prototypes and bids to supply a high-capacity single-action 1911A1-type auto. Custom makers Cylinder & Slide Shop, Wilson Combat, and Les Baer submitted cus-



HRT member fires SA pistol used by the unit. Photo: Bob Pilgrim



Group of five shots at 100 yards with Black Hills 230-grain JHP shows just how accurate Pro Model is.



Thompson fires SA Pro Model. Steel frame makes recoil feel light.



Checkering on Pro Model's front strap, mag well extension, and magazine with slam pad.



Ten-yard rapid engagement drill fired with SA Professional Model.



HRT member with his SA 1911A1 in the Safariland drop holster used to carry it with light mounted. Photo: Bob Pilgrim

tom pistols built on the Para-Ordnance P-14 frame, with the Les Baer eventually chosen and given a contract to build pistols for the HRT.

There were various problems with the Baer/Para P-14, including unreliability of the magazines. The contract was cancelled before all the pistols were supplied. I've fired one of the small number of commercial versions of the HRT P-14 that Baer made. Designated the SRP (Swift Response Pistol), it is exceedingly accurate but also heavy and, for me, too fat in the grip.

The HRT then chose to acquire a single-stack 1911A1 built to their exacting specifications. This was the genesis of the Springfield HRT/Professional Model. Springfield Armory was selected to build the pistols because of the quality of those they supplied for T&E and because the SA Custom Shop had the capability of meeting the requirement of supplying 500 pistols per year as per the initial 1998 contract.

SA PROFESSIONAL MODEL

The pistol available from Springfield Armory today as the Professional Model retains virtually the same features as ordered on the original 500 HRT guns:

- Custom fit slide to national match frame
- Custom fit match barrel and bushing
- Polished feed ramp and fully throated barrel
- Springfield Custom™ tool steel match hammer and sear
- Fitted speed trigger with custom-tuned 4½-pound trigger pull
- Tuned for total reliability
- Lowered and flared ejection port
- Tuned and polished extractor
- Standard 1911A1 recoil spring guide
- Custom fit beavertail grip safety
- Custom fit ambidextrous thumb safety
- Low mount rear sight with matching dovetail front sight
- 3-dot tritium inserts in sights
- Custom fit S&A magazine well, matched to bevel on frame
- Hand checkered 20 LPI front strap checkering
- Checkered Cocobolo grips
- "Carry Bevel"
- "Black T" finish
- 6 seven-round magazines with slam pads

Some of these features are worthy of comment. The fit of the slide to the frame is very tight. This is an aid to ac-

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curacy but makes the slide very hard to pull back. Even the standard trick of grasping the slide with one hand while thrusting forward with the hand grasping the grip does not work well.

I found I had to use various tricks to get the slide started, either pulling with a front grasp on it or using my shooting hand to grasp the receiver while using the front of the rear sight against the edge of my hand to start it.

Normally, once the pistol is loaded initially, any reloads will occur after the slide locks open or while a round is in the chamber during a tactical reload, but users need to find a way to get the slide started back that works for them.

The recoil spring guide is standard length rather than extended, a feature I prefer to ease disassembly in the field. The front strap checkering is deep enough that it gives an excellent gripping surface, but shooting without tactical gloves I did not find it uncomfortable even when firing 100 to 150 rounds in a relatively short time period.

The Smith & Alexander magazine well extension makes use of the 6 seven-round magazines supplied with the pistol desirable for fast reloads, though magazines without the slam pads can be inserted, just not as quickly. Specs are for the included seven-round rather than eight-round magazines as they were felt to be more reliable. Springs for



Pro Model is supplied with six magazines, all with slam pads. As of Thompson's last info, HRT was using Winchester Ranger 230-grain T-series ammo in their pistols.

the magazines are heavy enough for reliable feeding.

For many years after adopting the SA HRT pistol, the DeSantis HRT Special holster was used for concealment wear without the light mounted. When the light was mounted, the HRT used a Safariland drop holster. The standard light was a SureFire. Based on the most current information I have, the HRT

uses the Winchester Ranger 230-grain T-series JHP load.

When my Pro Model arrived, I spent quite a bit of time examining it and was impressed with the quality of the work—not fancy but very functional in appearance and operation.

RANGE TESTING

I wanted to give the Pro Model a fairly extensive test, and, to be honest, just wanted to shoot it a lot. As a result, a friend and I have put about 500 rounds through it in three shooting sessions.

Accuracy has been excellent, as was to be expected, and so has reliability. Using Black Hills 230-grain JHP loads, my best group for five shots at 25 yards was 2 5/8 inches, and his was 2 1/2 inches. However, he shot a 1 1/8-inch group with Fiocchi 230-grain FMJ. We also shot a box of Black Hills 185-grain JHP and about 50 rounds of 200-grain lead semiwadcutters.

I obtained a box of the Ranger 230-grain T-series loads and fired those as well. All functioned flawlessly and all shot good groups.

My friend likes to shoot at long range and normally does it well. As a result, he shot a couple of groups at 100 yards. The results were impressive. One group was seven inches for five shots, but three of those shots went into three inches. Another group was fired into the center section of a hu-



To test the Pro Model with and without a light, left group was shot with light mounted and right without. Although this group shows two shots were "thrown" a bit, other groups with light mounted were as tight as without.



Left-side view of SA Professional Model shows clean lines.

Inset: Pro Model in DeSantis HRT Special holster originally supplied to the FBI. Holster is no longer being made.

manoid target and placed well too.

The value of the 100-yard groups is that they illustrate the true ability of the pistol to keep its shots tight, as any tendency to spread is magnified by distance. A pistol that will shoot into six inches at 100 yards should shoot into 1½ inches at 25 yards.

I also wanted to test the Pro Model both with and without the SureFire mounted. We both found the same thing when we shot with and without the light.

At 25 yards with the Black Hills 230-grain load, on some groups with the light mounted, there was a tendency for a couple of rounds out of five to spread, while on others the groups with the light were as tight as without. I'll have to shoot more with the light to decide if it really tends to spread the shots more or not.

I fired about 100 rounds over two sessions at hanging plates between 15

and 35 yards to see how the pistol performed in relatively fast firing. I found the wide notch on the rear sight allowed me to re-acquire the sights quickly.

I also found that the pistol's weight with the steel frame helped modify recoil, thus speeding repeat shots. Firing with my left (support) hand only, I could readily operate the ambidextrous safety and acquire the sights by canting the pistol slightly. There were no malfunctions firing with the left hand.

I also tried fast double taps followed by a head shot on a silhouette target at ten yards. The round impacted in the desired areas, but I did notice I had to work on getting the front sight positioned at exactly the right height within the rear notch to put the head shots in the correct place.

IS IT FOR YOU?

Overall the performance of the Pro Model was excellent. It was accurate,

reliable, and fast handling. It is an elite pistol designed for an elite law enforcement unit.

For anyone who might consider purchasing a Professional Model, it is important to do a cost benefit analysis. Do you have the need or strong desire for a pistol that will cost \$2,500 to \$3,000 and require a wait of at least a year? An equivalent pistol from another custom manufacturer will likely require a similar outlay and wait time.

I am happy that I got my Professional Model. The pistol is warrantied for 50,000 rounds. I plan to shoot it quite a bit, but doubt I will exceed the warranty. ☺

SOURCE

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On



Rappel!!

How To Establish A Tactical Rappelling Program

BY CHRISTOPHER FEDER

"On rappel and on belay"

are words I remember from my Boy Scout days in the late 1980s. Over the next 25 years, I would find myself tying knots, climbing, and hanging on rope for recreational, fire and rescue, tactical, and, of course, military purposes.

Rappelling requires dedication, diligence, but most of all, commitment. Many teams may question if starting a tactical rappelling program will enhance their teams' capabilities. Is tactical rappelling any less dangerous than drilling on live-fire building entries? No. But through discipline, training, diligence, and education, the hazards can be reduced and minimized. The big difference between those two examples is that chances are, the "bread and butter" operations of your team are in fact building entries.

If you are able to justify moving toward this mission, someone will most likely ask how rappelling can enhance the team's mission and capabilities.

Let's begin with the tactical component of rappelling. Teams can utilize rappelling to conduct reconnaissance or gain intelligence. If you

can gain intelligence by scaling a building to look into a window or utilize a search camera, then that activity is worth its weight in gold.

Teams may also be able to introduce distraction and/or less-than-lethal devices at an incident through a window or other elevated platform. You may be able to insert your sniper/observer teams or gain access to an austere environment.

The non-tactical aspect of rappelling is where team building comes into play. This type of training can enhance the tactical and technical proficiency of your operators, motivating and inspiring others to succeed because it fosters teamwork and furthers the team mission. It provides a different platform for your operators to excel and master.



Operator draws weapon for cover in full tactical gear. Left hand is on rope above Petzl I'D simply for buoyancy due to weight of tactical vest. Body armor needs to be considered when rappelling for ease of mobility and protection.



Operators stack up to simulate an entry while wearing full body harness. Front "D" ring is exposed on harness to allow them to hook into a rope system if necessary.



Operator on left is wearing Yates Gear 384 Full Body Class III harness. Operator on right is wearing PMI Avatar Full Body Class III harness with thigh holster.

NOTABLE LAW ENFORCEMENT RAPPELLING OPS

A number of operations in law enforcement have utilized rappelling as a means for resolution. Two recent incidents come to mind: one occurred in January 2014, when a unit of the Israel Border Police conducted a successful rappel to rescue a child. On that day, a 25-year-old man allegedly kidnapped his niece. After negotiations failed, a decision was made to execute a hostage rescue by rappelling from the rooftop.

While the suspect was on the balcony, a team of highly skilled operators simultaneously rappelled to the apartment and introduced flash bangs, executed a "brake and rake" at one of the windows, secured the suspect and rescued the hostage.

The second recent incident took place in London, Ontario, Canada in April 2014 and involved an emotionally disturbed female who barricaded herself inside an apartment. She refused to come out, and a decision was made to rappel down from the roof to the apartment balcony and gain entry through the balcony door.

Ultimately, the incident was resolved peacefully, and the London Police Service credits this successful resolution to the rappel mission. When I was researching the London rappelling incident, I spoke with Sgt. Guilford, a supervisor with their Emergency Response Unit. He informed me that in the last 15 years, they have rappelled about 30 times for real-world tactical incidents. Many of their rappel missions are to retrieve or subdue mentally unstable persons.

Of course, none of this would have occurred successfully if they were not highly trained, motivated, and proficient in their tasks and drills.

Before you decide to start a rappel mission, look at the following steps so you can properly assess your team and response area.

EVALUATE YOUR TACTICAL TEAM

One of the issues to examine is whether your response district has locations where having a rappelling program would be most beneficial. Examine the potential hazards in your response district (schools, high-rise buildings, commercial and corporate sites, bridges). Look at neighboring departments and see if they already provide this level of service.

At some point, you need to talk to the command staff and team members. You may want to do this first. If there is no "buy in" from either above or below, this mission will not be successful.

Last, reach out to teams that have this mission or contact subject-matter experts in rappelling and pick their brains.

Once you have determined there may be a need for the service, establish an official committee to oversee the project. The committee should consult all applicable standards, regulations, policies and procedures. At some point in your research process, discuss this with the risk management people. This communication should be clear and early on.

Your risk management people (if applicable) may say yes or no. If they say no, find out why and go from there. They may say no simply because they're not informed on rappelling and don't understand it. This is where your research and education come into play, to make them aware of the purpose and capabilities of a tactical rappelling program. It's incumbent upon you to educate and sell them on this idea.

EVALUATE THE POTENTIAL FOR FINANCIAL SUPPORT

In these tough economic times, purchasing tactical rappelling equipment may not be your department's top priority. Financial support can come from many sources. Begin at the organizational level. Can this expense be budgeted for next year? If not, look at other options such as donations from charitable organizations, a prominent member of the community or philanthropist, or maybe a local company or manufacturer.

Perhaps the best way to finance a new program is through a grant, many of which are available in the U.S. Become knowledgeable about the grants and their specific applications. Your department may qualify for some of this money through a terrorism task force or other applicable Homeland Security grants.

Whichever way you are able to secure funding, you want to purchase an entire cache of equipment, not just rope or harnesses. This will ensure uniformity and standardization.

EQUIPMENT CACHE AND PURCHASING

At this stage, you must determine which equipment is essential and which would be "nice" to have. Involve individuals who have a background in this field.

I recommend purchasing steel over aluminum hardware whenever possible. Steel is generally stronger than aluminum. Aluminum equipment that's just as strong as steel does exist, but may be out of your budget.

Descent control devices (DCD) allow you to descend the rope safely, and there are various types. DCDs can be any-

Yates 386 Full Body Class III harness in black with contrasting threads is a safe and reliable harness that will not interfere with tactical gear.



Yates 308 Padded Class II harness is another quality product, but without the added safety and security of having your entire body secure.



Many gloves for rappelling are on the market. You want gloves that offer padding and protection from the moving rope, but give you the dexterity to manipulate weapons and reload.

Petzl RIG is a quality descent control device designed for expert users.



Small Petzl I'D in gold, designed for 7/16-inch rescue rope, is another quality descent control device but with built-in safety features that Petzl RIG does not have.



Large Petzl I'D in red is designed for 1/2-inch rescue rope. This descent control device offers the highest level of safety and security because it can use larger rope.

thing from a simple one, like a figure-eight plate with ears, to a mechanical one, like a Petzl I'D. A figure-eight plate requires the user to constantly mind the rope and maintain contact at all times with at least one hand. Some mechanical DCDs, such as the Petzl I'D, can enhance safety in that if you let go of the device, you will stop moving.

The Petzl I'D is a self-braking descender with anti-panic function and multi-function handle that allows descent control, horizontal movement, and positioning without the need to tie off the device. The integrated anti-error catch limits the risk of an accident due to user error.

Petzl makes two versions of the I'D: a large version in red/black that's designed for 11.5 to 13mm (1/2 inch) rope, and a small version in gold/black, designed for 10 to 11.5mm (7/16 inch) rope.

Other Petzl devices include the EXO EASHOOK and RIG. The former is a self-braking system for quickly giving slack and controlling and stopping a descent, with rope that resists abrasion and high temperatures. The EXO is designed for 7.5mm (slightly larger than 1/4 inch) rope.

The RIG is a compact self-braking descender primarily designed for experienced rope access workers. Its multi-function handle allows control of the descent and positioning without the need to tie off the device. The RIG does not have some of the anti-error and panic features that the Petzl I'D has. Smaller ropes mean more compact, but keep in mind that you are now sacrificing safety.

The Petzl RIG and I'D look very similar and can be easily mistaken if someone is not educated and trained. Quickly looking at the small Petzl I'D and the RIG, someone may only know the difference between them by reading the device name or looking at the handle. The Petzl I'D has a button at the top of the handle, whereas the RIG does not. Some versions of these devices can be quickly deployed, rigged in, and taken off of rope without opening



Steel version of Rappel 8 from CMC Rescue. It also comes in aluminum.

and disconnecting a carabiner, giving you added tactical advantage.

Auto versus manual-locking carabiners are another piece of hardware to consider and properly evaluate. Auto-locking carabiners can enhance safety because of their auto-locking capability. Get samples of each so you can properly evaluate them for your purposes.

When looking at harnesses, you may want to consider a Class III harness. There are different classes of harness that fire/rescue services use. For example, Class II harnesses encompass the thighs, waist, and buttocks. Class III harnesses encompass the thighs, waist, buttocks, and shoulders. A Class III harness ensures the operator will not fall out of the harness when inverting because of the shoulder straps. If you're going to purchase a harness in a subdued color, look into getting one with contrasting colored thread, so inspecting the harness is easier.

Last, look at purchasing static kernmantle rescue rope, not dynamic kernmantle rope. Dynamic rope is used for rock climbing. Many tactical teams use 10 to 11.5mm (7/16 inch) static kernmantle rope. In many cases, if you're using a mechanical DCD, it may only be rated for 10 to 11.5mm rope. This is where doing your homework pays off, because 10 to 11.5mm static kernmantle rescue rope could have a minimum breaking strength (MBS) of 6,000 pounds, whereas 11.5 to 13mm (1/2 inch) static kernmantle rescue rope could have an MBS of over 9,000 pounds.

You may want the added safety of a larger rope, but make sure the equipment you're purchasing is rated and can be used with that size rope. If you purchase multiple ropes, get different colors.

Manufacturers such as Pigeon Mountain Industries (PMI) and California Mountain Company (CMC Rescue) make rope in various dark colors, so you can get different subdued colors. Keeping different colors in your stockpile can ensure you don't mix up black rope #1 with black rope #2.

In short, make sure your descent control device works with the size rope you are purchasing. Get the best equipment possible with the highest safety factor, so your risk is minimized.

ESTABLISH TRAINING GUIDELINES

Ask yourself the following: Who is going to be trained? What are the minimum training requirements? Will the training be conducted in-house or outside the department? Will there be departmental requirements for training? Consider and budget for all these features. Having a competent trainer in your department will make life much easier. If not, where are you going to find someone who can train your people?

You can start by contacting your fire training center, community college, or specialty training services. If you contract a specialty service for this training, research these companies and their instructors' levels of training. Ask for a list of organizations they recently trained. Check with those organizations and get feedback regarding the content of the training and the professionalism of the company. You can use the Internet to find respected training organizations, but do your homework.

Although it is ideal to train every person in your organization, funding and other factors may make this unlikely. Therefore, you may want to designate a group of people to go through the more rigorous training. Another option is to send a small group of people who are good with rigging and knots to a Rappel Master Program, or send them to specialized train-the-trainer programs. Keep in mind that just because someone is good at doing something does not mean they will be good at teaching it.

Train all members to the level that, at the very least, they can assist with and support the operation. Also contact other agencies and get copies of their policies and procedures. You want to have some type of policy in writing that addresses topics such as minimum training requirements, equipment maintenance, safety, and deployment.

TRAINING AND EXECUTION

As a seasoned trainer, rappel master and rope rescue instructor, I cannot stress enough the need to constantly practice these skills to maintain a high level of proficiency. If you

were successful in all the above steps, you may be in a position to move forward with this program.

Start at the ground level and work your way up. Conduct this training in crawl, walk, and run phases. Chances are you can train at the local fire training tower. If not, you may be able to get permission from a local business, building, parking garage, etc (hopefully a training location is something you considered prior to moving forward).

Train on basic rappelling, anchoring, problem solving on ropes, weapons management, communications, and introduction of distraction devices. Like any other training, this takes time. Be patient. This capability can improve your team both tactically and technically. It's also a good idea to have a safety-briefing checklist you can use prior to any rappelling training. This will greatly enhance your margin of safety.

Public demonstrations and "dog and pony shows" also offer significant opportunities for public-relations support. What you gain out of these demonstrations is invaluable, and they are also a chance to train.

CONCLUSION

At the end of the day, you need to decide if this mission is right for you. Weigh all the facts and do the research and homework. Don't just jump into it. Look at the pros and cons and consider the future.

Technology is ever-evolving, and having this capability may help you move forward and stay up to date on tactics, techniques and procedures. Whatever your rationalization for starting a tactical rappelling program, it should be based on the needs of the team.

This training will enhance your team's capabilities. Rappelling is nothing to take lightly. Train hard and train safe, so everyone goes home. ◎

An Army combat veteran of Afghanistan, Chris Feder also has over 20 years in emergency services, including eight years with the Federal Bureau of Prisons (BOP). While with the BOP, Chris served on a regional SORT Team for five years and was an agency instructor for six years. He is a rappel master and technical rope rescue instructor, and has written numerous articles relating to rope rescue and rappelling. He is the full-time Rescue Training Coordinator at the Montgomery County, Pennsylvania, Public Safety Training Campus. He can be reached at cfeder@montcopa.org.

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www.cmcrescue.com

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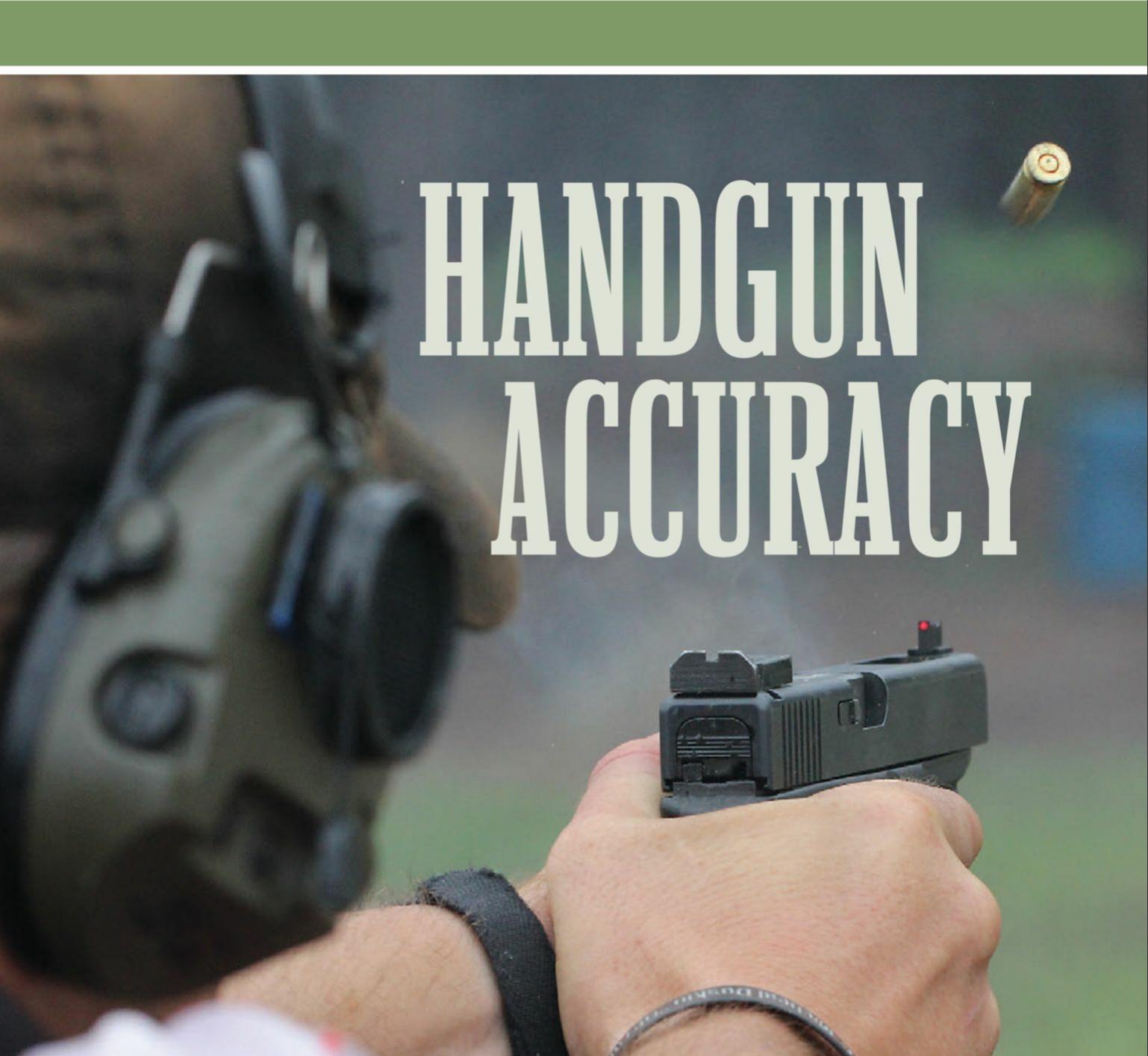
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HANDGUN ACCURACY

Seven Pillars of Wisdom

BY ETHAN JOHNS

There is more to hitting than just having an "accurate" handgun.

WE tend to get tunnel vision on the mechanical precision of a handgun and a given load, as if the group size at 25 yards is the singular ingredient in "accuracy."

Accuracy isn't like a high-end steak dinner, where the only real ingredient is cow. It is much more a stew of a number of ingredients, each ideally supporting the rest for a satisfactory result.

There are seven consistent factors in practical handgun accuracy, although some situations may introduce others. These are, in no particular order:

- Mechanical precision of the handgun and given ammo
- Visibility of the sights
- Quality of the trigger break
- Fit of the weapon to the shooter
- Range and visibility of the target
- Regulation of the sights
- Available time to make the shot

A good shooter can absolutely make a long shot with a pocket .380—it just may not happen in the time interval required.

CLOVERLEAFS

We all want a handgun that will cut a five-shot cloverleaf every time it is directed downrange. But what do we truly need and how hard is that to get? As a spitball figure, I estimate that most of the service and defensive handguns on the market average between 2.75 and 3.50 inches at 25 yards.

Most of those are capable of better with the right shooter on a rest and enough loads to choose from. This is where quality counts. The better defensive hollow points often shoot very well. Chances are fair that the gun will cut two inches with at least one of the good JHPs. In fact, it is not unusual for a service auto to get down closer to 1.5 inches with the good stuff.

The generic ball ammo that most shooters rely on for 99% of their practice sometimes group into as little as two inches with an occasional wonder-group. However, even in my most accurate pistols, I find the average across makers to settle around 2.5 inches for bulk ammo. That meets most training needs rather well.

I find that most production pistols fall into the 80/20 bracket: they group 80% of common loads one way (either well or poorly) and the remaining 20% the other. It is admittedly disappointing when the 80 is on the pattern-flinging side of things, but even then there are often several loads that will cluster acceptably.

Going the custom route can push the percentages in your favor, but even high-end match pistols may have a load or two that is poor by comparison. If you are shopping in the junk pile, results may be different, but among reputable makers probably 20% of loads shoot well enough, even if most are disappointing.

Standing head shots at 44 yards with BCM Gunfighter 1911 and Hornady Training loads. Dental shot is a called flyer from 2.5-inch group. Fit, sight and trigger quality, regulation, and precision all came together to allow on-demand hits beyond what is normally expected.



The occasional gun shoots everything with mediocrity, but most I see are 80/20s. This is important to understand. Recently I shot with someone in the industry who was discouraged because a match barrel from a reputable maker was not shooting up to his expectations. When I asked how many loads he had tried, it was a grand total of one. And that was remanufactured bulk ammo!

The tried-and-true approach is to try another bullet weight, another maker, or another projectile style before condemning a possible 80% tack-driver as a 100% lemon. If you are sitting on a shipping container full of a specific load, the situation and your needs may be different.

Telling on myself here, I recently discovered that a 1911 I've had for years and condemned as hopelessly indifferent to where it poked its rounds was actually capable of shooting. For most of the time I've owned it, the .45 was fed a couple of distinct loads, which it flung into 4.5 to 6 inches at 25 yards.

I considered putting a new barrel in it, so went and shot some baseline groups to do the whole "before and after" thing. Lo and behold, it shot Wilson Combat 230-grain HAP loads and Winchester Ranger 230s into 2.25 inches. 80/20 at work. Who knew?

The 80/20 applies to a certain degree to ammunition as well. I've shot identical pistols that were polar opposites in

which loads they preferred. One neared an inch with Black Hills FMJ, while its twin rejected it outright. The twin stacked Hornady Critical Defense 135-grain 9mms into a bottle cap, while the first poked DVD-sized groups with it. It is easy to fall into a pattern where you expect a certain load to deliver across all platforms, but it is counterproductive to judge a gun by a single load.

I still have loads that I reach for first, expecting great results, but I've accepted that a given pistol may not love the load as much as I and most of its peers do.

Groups you can cover with a thumb are obviously preferable to those you need a dinner plate to cover, but how precise is good enough? Some people relate the requirement to the skill of the user, others to the desired maximum range. Both are relevant.

In those respects, 2.5 to 3 inches at 25 yards is very useful, allowing most shooters to run out of skill before precision is the deciding factor in the hit. The typical front sight covers about three inches at 25 yards. It is very helpful to have the group fit tightly within that square so that when you place the sight, the round falls on what you cover.

As you stretch the distance or the difficulty of the shot, more precision is required to ensure hits. A 1.5-inch grouper will take almost any shooter where they need to be.



Mouse guns can shoot too, as this Ruger LCP shows, but it usually takes a lot more time and effort (and sometimes good fortune) to make it happen.



With the above laid out on the one hand, the overwhelming majority of pistols are used "for real" at distances that a cheap squirt gun is in range. Several of my more often used handguns over the years are conspicuously "imprecise." They are quite frankly a pain when doing skills training at distance or in competition.

But it is a useful mental tether to take a short gun that curveballs a six-inch group at 25 yards and shoot it at seven yards. Generally the shot holes easily cut within a typical business card.

HITTING VS GROUPING

Sights and trigger are the "tough shot" chant for a reason. Regardless of what a handgun does over a rest, at some point the shooter has to pick it up and hit on demand. In this arena, how well our hero is able to see the sights and cleanly break the trigger determines the hit.

A pistol I shot for some time had great Warren Tactical sights and a smith'ed trigger that broke exceptionally well. It took me a while to fully realize that the pistol didn't group most of my ammo well. The quality of the sights and trigger allowed me to hit right up to what it could deliver, effectively masking its mediocre precision. Great sights and triggers outperform a more precise gun with lesser sights and a sub-optimal release nearly every time.

LIKE A GLOVE

Fit of the handgun to the shooter matters. If I grip the iron differently every time, then the gun is recoiling against its "base" differently with each shot, which will result in a slightly differ-

Above: GI Surplus Colt with one of its better 25-yard groups using Black Hills semi-wadcutters (six-inch, chest). This still allows hits within a business card at seven yards.

Below: Checking loads can yield match-level combinations, as with this Glock 17 and Black Hills 124-grain FMJ.



ent point of impact. That matters most for maximum precision at distance.

Up close, there is a solid chance that if the fit and resulting grip are poor, the shooter has sacrificed stability and best leverage against the trigger. This is an express ticket to snatchy-ville. Worse, if the fit and grasp are poor, the handgun gets running room to take short jabs into the meat of the mitt and quickly leads to flinching along with snatching.

If you have ever shot a J-Frame with the old skimpy wood panels, you have an idea of this phenomenon. The challenging fit, small sights, and heavy DA trigger make a proportionally greater impact on hit potential than whatever the little snub is mechanically capable of grouping.

On the other end of the spectrum lies the 1911. The Government Model fits many hands well and, if appointed with good sights and the kind of trigger it is known for, it can allow the shooter to perform at near max capability.

REGULATE!

Trailing just behind poor technique, the next leading cause of misses is poor sight regulation. In any crowd of 100 shooters, if you asked how many knew exactly where their sidearms are set to impact at 15, 25, and 40 yards, you would probably net enough to fill up the saddle of a moped.

Even experienced shooters have a hard time keeping track of the zeros on their assorted pistols and with different loads. Many service pistols are sighted to impact two to four inches high at 25 yards. Some are dead on at 25. Both of those arrangements assume a certain standard-type load for caliber. In general, heavier bullets impact higher than



As distance to target increases, sight regulation becomes increasingly important. It took a few adjustments and the right load to get this G34 to ping steel at 120 yards.

normal and lighter impact lower, but that is a generality, not a guarantee.

Some handguns throw each load to a slightly different point of impact, while others pile them all into a single group. In the illustration below, Figure A shows an S&W M&P9c as an example that throws three of its best defensive loads, 124-grain +P Black Hills, 124-grain +P and 147-grain Winchester Rangers into a single overlapping group at 25 yards. This is the same general point of impact as the 115-grain Hornady HAP reloads illustrated in Figure B, showing all three common 9mm weights in one group.

That is not necessarily typical. Figure B shows a vertical as well as lateral shift between the 115-grain Hornady Action Pistol bullets and 124-grain XTP reloads. With either of those loads, assuming you could cover a standard 25-

yard bull (or tight real-world shot) with the front sight would yield a miss. The shift between loads of the same weight is usually no more than three inches at 25 yards, while bullet weights at opposite ends of the scale sometimes shift up to five inches. Either is enough to account for misses on difficult shots.

Figure C illustrates the 80/20 principle. The same 147-grain XTP reload that shot 1.3 inches out of a Glock 34 shot quite high and wide from the same M&P9c that shot the impressive groups in Figure A.

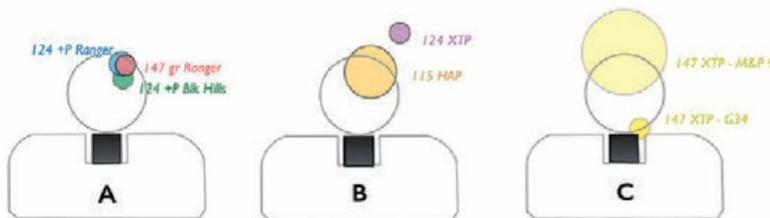
Interesting and atypical, the Glock printed the 147s two inches *lower* than point of impact with standard loads. That's not supposed to happen, but goes to show how each load and weapon combo can chart its own path.

TIME

The available time for the shot is where the other factors converge. A good shooter can do solid work with dinky sights that are slightly "off" and a creepy trigger, but it takes extra time—usually a lot of it.

This is where we get off track from relying overly on slow fire shooting-around or rested groups to determine a carry gun's accuracy potential. Slow fire doesn't really exist except in the most casual of settings. Employment of the hand cannon is inevitably in a time-pressured environment.

Under even mild pressure be-



Sight picture with relative sizes of 25-yard bull (open circle above front sight) and groups (colored circles).

tween two pistols with identical rested groups, "on demand" accuracy can be radically different. Here fit, sight picture, and trigger quality meld to let a shooter get to center hits at reaction time intervals when all is well, or serve as a drag anchor when those factors lag behind acceptable.

A good shooter can absolutely make a long shot with a pocket .380—it just may not happen in the time interval required. As a gross rule of thumb, the mission-type shooter needs up to an extra .75 second to hit an eight-inch target for each additional five yards of distance.

TARGET

Often overlooked is the quality of the target itself. Good accuracy requires a good target. A custom masterpiece shooting one-inch groups may not get it done when the target is indistinct, poorly lit, and fades out when you lock onto the front sight.

I find that for rested precision, a

square target just a little smaller than the front sight produces the best results. For timed accuracy drills from standing, most shooters benefit from a classic bullseye that is large enough to give a distinct aiming point as well as allow some of the natural wobble and drift that is visible in the sights at distance without scaring the shooter into jerking the trigger.

Visual acuity and skill level determine if the classic 5.5-inch B8 center or an eight-inch bull gives the better standing sight picture for practice at distance.

BOTTOM LINE

The takeaway is that there is more to hitting than simply having a precise tool, despite the focus of most reviews. Across the spectrum of accuracy factors, the shot dictates which are the most important at that time. But you can get a solid leg up by determining which load shoots acceptably and drifting the sights to that.

Next, dry fire the snot out of the pistol to learn the trigger. Then the hard part is the discipline to break the shot. ☺

Ethan Johns is a military professional with worldwide experience in specialized units. He has taught and been responsible for numerous advanced skills and weapons courses within multiple organizations.

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www.black-hills.com

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DEATH From ABOVE

Battle Rifle Company BR4 Paratrooper

BY WILL DABBS, M.D. | PHOTOS BY SARAH DABBS



Where is the prince who can afford so to cover his country with troops for its defense, so that ten thousand men descending from the clouds might not, in many places, do an infinite deal of mischief before a force could be brought together to repel them?

—Benjamin Franklin, 1784

The

militaries across the globe experimented with the technology required to accomplish just such a feat.

The Allies planned a major airborne operation for February 1919, but World War I ended before it could be executed. It was the Italians who initially did it for real, their first large-scale parachute operation taking place in November 1927. The Italians subsequently raised two full divisions of elite paratroops.

The Russians are rumored to have somehow motivated some poor dogfaces to dangle from the landing gear of early transport aircraft and drop onto snow-covered lakes in the vain hope of being combat effective once they arrived. One can only imagine what sort of colorful language was required of the Soviet NCOs to get those unfortunate grunts



M1A1 Paratrooper Carbine (top) was a dedicated Airborne weapon during WWII. **Information-age Battle Rifle Company BR4 Paratrooper** brings the same tactical features up to modern standards.



Combination of a 14.5-inch free-floated heavy barrel and a lightweight KeyMod forearm yields a package that is accurate while remaining both maneuverable and easy to hump.

to let go of the landing gear. But by the beginning of World War II, the world was refining the art.

The Germans dropped their *Fallschirmjäger* in support of the invasions of Norway and Denmark and committed an entire Airborne Assault Army Corps to the operation to seize the Netherlands. The airborne assault on the island of Crete represented arguably both their greatest victory and their worst defeat.

Alerted via highly classified Ultra intercepts, the Allied defenders of Crete put up a spirited defense, and casualties among the German paratroop force were astronomical. The Germans lost 284 aircraft and more than 6,600 troops in ten days of vicious fighting. The Allies took the lessons learned from the Crete operation to heart and built upon them to refine their own tactics of vertical envelopment.

The Allied airborne component of the D-Day invasion was designated Operation Neptune and has been exhaustively documented. This indeed likely represents the pinnacle of airborne operations throughout military history, though the subsequent Operation Market Garden did involve some 35,000 troops.

Later, Operation Varsity was a daylight assault across the Rhine by two Allied airborne divisions. Airborne forces undertook combat drops during the wars in Korea and Vietnam, as well as the invasions of Grenada, Panama, and Iraq, though the widespread use of helicopters has minimized the need for paratroop operations in recent years.

SKY SOLDIERS AND THEIR GEAR

The typical paratrooper is expected to be in exquisite physical condition to support potentially extended periods

of combat away from logistical support.

His weapons must be lightweight and compact to facilitate safe management within the confines of aircraft as well as during the rigors of the jump itself. At the same time they must provide a high volume of overwhelming fire while remaining utterly reliable. A great deal of effort is invested in getting the sky soldiers to the fight. Their weapons and equipment must be up to the task.

During the invasion of Crete, fully one quarter of the German *Fallschirmjäger* carried MP38 or MP40 submachine guns for their reliably high volume of automatic fire.

U.S. paratroops of the era carried standard M1 Garand rifles and Thompson and Grease Gun submachine guns as well as a specially modified version of the Carbine designated the M1A1 and equipped with a side-folding wire stock. Current members of the U.S. Air-

borne forces are armed with standard M4 carbines.

The Battle Rifle Company of Houston, Texas, recently introduced its BR4 Paratrooper rifle. Combining features that keep the rifle lightweight and remarkably compact, and with unparalleled attention to reliability, the BR4 Paratrooper is indeed an optimized firearm for tight spaces and hard use.

A DIFFERENT SORT OF COMPANY

Chris Kurzadkowski is the Commander at Battle Rifle Company (BRC), and he is passionate about his guns. Chris is himself an Airborne-qualified former Infantry officer who has seen first-hand what works and what doesn't when it comes to combat weapons.

Chris uses only the highest quality parts built to his personal specifications to produce weapons whose durability and reliability were only dreamt of in generations past. Now, all that is easy to say. How might one establish such a claim as fact?

Right: Battle Rifle Company BR4 Paratrooper is an optimized compact, lightweight carbine suitable for applications demanding portability, stealth, and unflinching reliability.

Below: BRC BR4 Paratrooper is a powerful small arms solution for any operation that involves maneuvering in tight spaces or within vehicles or aircraft.



A group of friends and I spent a sunny Saturday at a range facility outside Houston, Texas, putting Chris' claims to the test. We ran 10,200 rounds of M193 ball ammo through a single rack-grade Battle Rifle Company BR4 Spartan rifle in less than eight hours.

The regimen was to fire 300 rounds as fast as was practical, pour cold water over the gun to cool it down, and repeat the process until we had turned ten cases of Federal 5.56mm ammo into a lot of noise and a simply ridiculous pile of empty brass.

We took an hour off for lunch and replaced the gas rings at 5,000 rounds. The rifle was lightly lubed at 2,500, 5,000, and 7,500 rounds, but was otherwise run constantly. One of our shooters hit a quarter at 40 meters with the last magazine.

Throughout the entire day, there

were four stovepipe stoppages that were cleared in moments at the operator level. Even the vaunted AK would be hard-pressed to run so well.

WHAT'S THE SECRET?

Proper parts make proper rifles. Chris uses chrome-lined bores and chambers in cryogenically treated barrels for wear and corrosion resistance. Internal parts are surface treated with autocatalytic coatings for maximum lubricity and wear resistance. They lap their upper receivers and hand-finish the interiors of the receivers for optimized smoothness.

Treated buffer springs are rated for 50,000 cycles before appreciable wear. Each firearm from this boutique rifle company is hand-built by craftsmen. The result represents the state of the art.

The new BR4 Paratrooper takes that

baseline BRC compulsion with quality and shrinks it down to size. The buttstock slides to retract around an abbreviated buffer tube to provide an eminently compact package. The length of the stock is determined by how far forward the struts can slide when retracted, so it may initially seem a bit short when extended. But I felt that the resulting package strikes the perfect balance between portability and tactical effectiveness.

The minimalist KeyMod forearm offers more mounting options for accessories than Paris Hilton's closet. The proprietary muzzle brake is permanently attached to a 14.5-inch barrel that keeps the overall length of the gun as short as is legally possible. Robust flip-up iron sights and a variety of finish and caliber options round out the package.

IMPRESSIONS

The first thing you notice after slipping the BR4 Paratrooper out of its case is that this is one seriously lightweight rifle. After you run a modern tricked-out M4 for a while, it's easy to forget how lithe this little gun was before we started hanging so many accessories on it. The collapsible stock and abbreviated barrel combine to yield a package that would legitimately ride comfortably in a jump case.

The sliding stock is just cool. A quick snatch on the buttplate deploys it rapidly. A discrete push button, not unlike the standard magazine release, collaps-



Battle Rifle Company BR4 Paratrooper embodies the fast, agile, can-do ethos of the Airborne.

Right: Airborne soldiers are elite warriors—the tip of the spear. During World War II, American paratroopers took the fight to the Nazis and in doing so helped free a continent.





Lucid HD7 combat optic offers four different illuminated reticles and an automatic brightness adjustment that dims or brightens as necessary for ambient conditions.

es it back in place. The ribbed buttplate is just big enough to provide adequate bite into the shoulder pocket without being bulky.

As the intent was to build an airborne-capable lightweight carbine, I resisted the urge to bedeck the rails with undue bling. A SureFire X400 combines a 500-lumen white light with a 5mW green laser in a single robust military-grade package about half the size of a cell phone. I added a Lucid HD7 optic, but otherwise left the rifle in its stock configuration.

I became aware of Lucid glass awhile back and have been quite taken with it. The optical quality is superb and their sights offer the bells and whistles you want while dispensing with what you don't, all at a price that is a fraction of their competition.

The sight is built around a rubber armored aluminum chassis and powered by a standard AAA battery. It has four user-selectable reticles and a push-button brightness control.

The neatest piece of their sighting solution is a discrete light sensor on the top of the rig that automatically adjusts the brightness for ambient conditions. You can't call a timeout to adjust your sight when running into bright sunlight from a dark house, and the Lucid optical gun sight takes care of that chore for you.

CONTRIBUTING TO THE SCOURGE OF NOISE POLLUTION

The BR4 Paratrooper really is remarkably lightweight. Recoil might be an

issue in a heavier caliber, but the beating heart of the gun is Eugene Stoner's direct gas impingement system, which renders superlative accuracy with minimal mass.

The trigger is crisp and pleasant, and the gun had no latent personality defects that I could divine. There were no mechanical failures, but given its pedigree, this was not surprising.

Back on my home range, I ran ammo ranging from top-end Winchester 62-grain cop ammo through steel-cased Tulammo 55-grain blaster bullets through the gun, and the rifle ate them all without complaint.

The rifle stays on target readily, and double taps flow forth like a symphony thanks to BRC's polished single-stage trigger. I made instant hits out to 100 meters until I got tired of doing it. The ergonomics of Mr. Stoner's rifle set the standard for everyone else's, and the BR4 Paratrooper is light enough to hump long distances with ease.

Standard push-button sling swivels snap into the KeyMod rail. A standard swivel-mounting hole is in the buttstock assembly as well. The rifle hangs comfortably across the chest or under the arm and maneuvers indoors like an MP5 on steroids.

MUSINGS

I have jumped out of airplanes myself in pitch darkness and felt that unique snap as the static line comes tight. I always dreaded the inevitable fearsome shock to the soles of my boots and thanked the Good Lord Above each

time that I didn't streamer in or twist my leg around behind my head.

My wife says that my final word with my final breath will be "Hooah," and I can think of no more derogatory epithet to hurl at some mindless moron I encounter in traffic than "Leg." That airborne stuff kind of burrows into your mind, as well as your bones.

These days everybody and their aunt seem to be bodging together AR rifles in their basement and hawking them as God's gift to grunts. However, Battle Rifle Company products are genuinely top-flight and built for hard use in the real world. Their new BR4 Paratrooper does all that while remaining compact enough to tuck into small places and look sharp doing it.

If you're in the market for something black and shiny and you're not afraid of being the coolest guy on the range, zip over to the Battle Rifle Company website and check out their wares. The new BR4 Paratrooper perfectly embodies the elite warrior ethos that is the Airborne.

Special thanks to www.worldwarsupply.com for the gear used to outfit our Allied paratrooper. ◎

Will Dabbs grew up in the Mississippi Delta and has a degree in Mechanical Engineering from the University of Mississippi. He is Airborne qualified and accumulated 1,100 hours flying UH-1H, OH-58A/C, CH-47D, and AH-1S helicopters. He currently works in his own medical clinic and maintains a licensed 07/02 firearms manufacturing business building sound suppressors. He has written commercially on the subjects of firearms, medicine, and survival for more than 20 years.

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Selecting a precision rifle depends on the user's wants and requirements. If the rifle is to be used in a law enforcement capacity, you can add the agency's general orders and/or permission. Choosing the operating system, cartridge, and sights comprises the other considerations. Operating systems are limited mainly to self-loading and bolt-action, but optical sights and calibers offer many choices.

While the 7.62x51mm NATO (.308 Winchester) and 5.56x45mm NATO (.223 Remington) cartridges are the most prolific, both for logistics and use

out to 500 to 1000 meters, others, such as the 8.6x70mm (.338 Lapua) extend useable distance to 1,500 meters. And there are many useful cartridges in between.

With the bolt-action precision rifle more than holding its own among the myriad self-loaders on today's market, most of the current ilk are based on designs emanating near the beginning of the 20th century.

Sure, classic bolt-actions are great and I love 'em all. I love mid-20th century muscle cars too, but I don't drive one every day. Like automobiles, the bolt-action rifle has changed,

and in the fall of 2015 it took a quantum leap in design if not in its name, which was simply the Ruger Precision Rifle (RPR).

In a nutshell, instead of using a conventional bolt-action rifle in new clothing, the new Ruger has combined features of the AR-10 self-loading rifle with a state-of-the-art three-lug bolt-action that is super fast to operate.

With match-grade cold-hammer-forged barrels in 4140 chrome-moly steel, these barrels come in three

BY GARY PAUL JOHNSTON



Finished Custom RPR equipped with some of the many aftermarket accessories listed, some of which are internal.





Leupold Mark 6, 3-18x44mm Sniper Scope is mounted on NVD-compatible Leupold Integral RH Mounting System. Manta TAC-Wrap provides a comfortable, sure grip to BCM KMR handguard.

lengths and as many calibers, including .308, 6.5mm Creedmoor and .243, all using six-groove 5R-type rifling. Also standard is a free-float KeyMod alloy handguard by Samson Mfg.

Made in two halves, the RPR lower receiver's left side is removable using a hex wrench to access and clean the modular trigger group when necessary, leaving the universal magazine release undisturbed.

Manufacturing the frame in two halves also allows machining that could never be accomplished with a one-piece billet. Using the trigger system perfected in Savage's Accu-Trigger, this one can be adjusted from 2.2 to

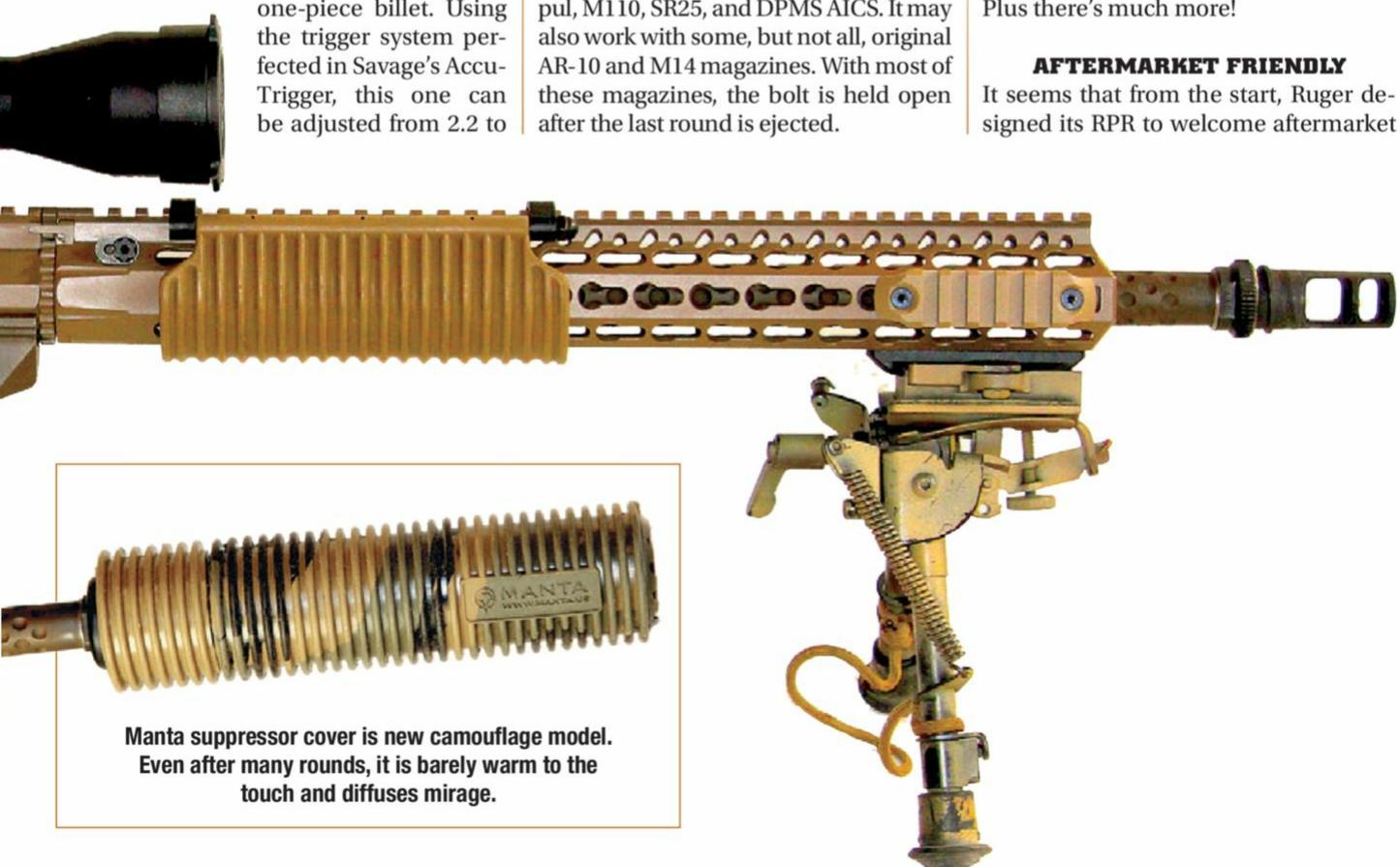
4.8 pounds using another hex wrench stored in the back polymer extension of the bolt. Our sample rifle's trigger had a let-off of just under 2.9 pounds.

The RPR accepts a variety of dual-position-feed magazines, including Magpul, M110, SR25, and DPMS AICS. It may also work with some, but not all, original AR-10 and M14 magazines. With most of these magazines, the bolt is held open after the last round is ejected.

But if you read any firearms magazine, you know all this already. The point is, where can you find another bolt rifle with such features and accuracy, and at the price of the Ruger Precision Rifle? In my opinion, you can't. Plus there's much more!

AFTERMARKET FRIENDLY

It seems that from the start, Ruger designed its RPR to welcome aftermarket



Manta suppressor cover is new camouflage model. Even after many rounds, it is barely warm to the touch and diffuses mirage.



Two-tone FDE finish is not only functional but also attractive. Leupold Mark 6 Sniper Scope and mount were left black. LaRue M110 alloy magazine holds 20 rounds of .308 ammunition.

components at the preference of the user. While the rifle's lower receiver comes with its own separate pistol grip and folding/adjustable buttstock, most any AR-15/AR-10-type pistol grip and stock will interface and replace them.

It is likewise with the barrel, bolted-on receiver top rail, removable bolt knob and Samson handguard, as well as a parade of other small components that have arrived on the market seemingly overnight. Such accessories can make over the RPR to suit your needs and desires. Yes, if you decide you don't quite like the Ruger Precision Rifle Ru-

ger's way, you can have it your way!

This is what happened with the Ruger Precision Rifle I received in August 2015. Chambered in .308 Winchester, this RPR was selected to be used in an NRA Police Precision Rifle Course in Montrose, Colorado. Attended by officers from several police and sheriff agencies on Colorado's Western Slope,

» SPECIFICATIONS

RUGER PRECISION RIFLE

MANUFACTURER	Sturm, Ruger & Co.
CHIEF DESIGNER	Jon Mather
MODEL	Ruger Precision Rifle
TYPE	Bolt-action
CALIBERS	.308, .243, 6.5 Creedmoor
BARREL	20-inch, 1:10 twist
OVERALL LENGTH	Stock fixed: 38.25 inches. Stock folded: 30.6 inches
WEIGHT	9.7 pounds
FEED DEVICES	5-, 10- or 20-round box magazines
SAFETY	Positive thumb safety
STOCK FURNITURE	Black anodized alloy and black polymer
FINISH	MIL-STD and hard-anodized matte black
PRICE	\$1,399.00

AAC muzzle brake/suppressor mount tops off now-dimpled RPR match barrel.



bolt-action precision rifles dominated the class, but the officer who used the RPR was unbeatable.

The NRA course instructor told me this man operated the RPR faster than any other bolt-rifle shooter and seemed to be as fast as those with self-loading rifles. But after putting over 700 rounds through the RPR, the officer decided to see just how friendly the rifle was to aftermarket products, many of which were designed for the AR platform.

After disassembling the rifle, he shipped the barrel to Marvin Pitts of Nefarious Arms in Arkansas to have it dimpled. This lightens the barrel while retaining strength, and also has great cooling properties. Many years ago, Pitts designed dimpling for C. Reed Knight, Jr. of Knight's Armament Company in Titusville, Florida. Knight patented the process, and Pitts is authorized to dimple barrels for his own customers. Pitts also cut the RPR's barrel to 18 inches and rethreaded the muzzle. Accessories added were as follows:

- Leupold Mark 6 3-18x44mm M5B2 with Tremor 2 reticle
- Leupold Integral RH Mounting System (NVD compatible)
- BCM KMR ALPHA 15-inch KeyMod free-float handguard
- BCM GUNFIGHTER Grip Mod 1 in Flat Dark Earth (FDE)
- BCM KeyMod Rail Cover Kit in FDE
- BCM GUNFIGHTER Vertical Grip Short KeyMod in FDE
- Magpul PRS Gen2 Stock in FDE
- LaRue M110/SR-25 20-round magazine
- LaRue Tactical Harris Bipod Adapter, LT130
- Delta Team Tactical aluminum bolt shroud
- Surgeon Rifles round bolt knob
- Manta TAC-Wrap handguard cover
- Manta suppressor cover
- Advanced Armament Corp 762-SD suppressor
- DSG Arms ambi semi-auto safety/selector
- DSG Arms Micro Lever for Harris bipod with spacer
- Harris Swiveling Bipod, 6- to 9-inch bench rest with leg notches

Being quite adept with design and manufacture of small components himself, the officer made a BCM-type spacer to fill the tiny gap between the receiver top rail and the KMR handguard.

When all components were in hand, most of those that were not factory finished in FDE were finished in FDE Cerakote, with others in FDE with 5% Black, and all such metal parts were baked at 250 degrees F for four hours. The contrasting components created a beautiful and long-lasting finish to this "full-house" custom Ruger Precision Rifle.

DOWNRANGE

With an AAC combo flash hider/suppressor mount attached to the RPR's threaded muzzle, the 7.62-SD Sup-

pressor with Manta's new camouflaged suppressor cover was attached to the muzzle. The Leupold Mark 6 Scope and mount were secured to the rifle's top rail, and the makeover RPR was ready for the range.

Since the Ruger Precision Rifle had previously produced consistent 1/2 MOA accuracy throughout almost 1,000 rounds of Federal 168-grain .308 Match

» *Continued on page 89*



Above: Magpul PRS Stock folds flat against left side of RPR for storage. Ten-round Magpul .308 PMAG holds bolt back after last shot.

Right: With stock folded, bolt is retracted to reveal Delta Team Tactical alloy bolt shroud, Surgeon Rifles round bolt knob, BCM GUNFIGHTER Grip, and DSG Arms Ambidextrous Safety/Selector.



Ruger Precision Rifle completely disassembled and ready to be finished in two shades of Flat Dark Earth Cerakote.

SURVIVAL Savvy

Gearing Up for the Next Level

BY RICHARD DUARTE

People who prepare usually tend to focus on the survival basics: security/self-defense, water, food, first aid, sanitation/hygiene, knowing when to get out and when to stay put. This represents a great start, and if that's all you do, you'll still be far better off than the majority of the population.

But if you stopped there, you could be putting yourself at a disadvantage and not know it until it's too late. Preparedness is about giving yourself every possible advantage. If there were a way to improve your chances for survival, why wouldn't you grab that opportunity with both hands? To achieve these higher levels, you and your plans, skills, and preparations need to constantly improve and evolve.

In this article, we go beyond the basics and explore survival gear options to help take your preparations up a notch in two very different areas of high-

er-level survival planning: security/self-defense and disaster recovery. Some of these recommendations may seem obvious, but others address hazards and situations you might not have previously considered.

SELF-DEFENSE AND SECURITY

With very few exceptions, security and self-defense will *always* be the first priorities in any survival situation. People sometimes have difficulty with this concept, especially those who have never been in a real life-or-death struggle.

Many of these folks adamantly insist that shelter, water, or some other aspect of survival must somehow be addressed before all else. But consider the following: if you're dead or seriously injured, will anything else really matter? The answer to this question should be painfully obvious. It should also be obvious that once you have avoided, dealt with, or neutralized whatever immediate threat confronted you, then you absolutely need to focus on the other survival essentials such as water, shelter, and food.

While there's no substitute for having a realistic, well-thought-out security/self-defense plan, you can still take your efforts further. When lives are at risk, it makes sense to do everything you can to stack the odds in your favor.

During times of turmoil and crisis, you need practical, *real-world* solutions—enter body armor. Although not a miracle solution, when used properly, body armor can help save lives. Consider it an added layer of protection to be employed in addition to your other security preparations.

I have often run a mental scenario of what it might be like to come face to face with armed intruders in my home, and how best to respond. As much as I would prefer to lock my family inside a secure room and call the cavalry, deep-down inside I know this amounts to nothing more than wishful



U.S. PALM Defender AR-15 with front and rear Level IIIA soft armor protection set up with two AR magazines, pistol, and spare pistol magazine.

The choices you make today may affect the outcome of your tomorrow. Now is the time to consider your options and plan accordingly.



thinking. Even though the best fight is the one that never happens, to survive you need to be well prepared for the very thing you hope to avoid.

When the fight comes, you want the necessary gear easily at your disposal—at minimum your rifle, pistol, extra loaded magazines, and a flashlight. I've been looking for a rig that provides not only ballistic protection but also all the pockets and pouches needed to hold my SHTF gear.

Oh, did I mention the rig also has to be lightweight and not restrict movement? My idea was to strategically stage this rig for immediate deployment, any time, day or night. Let's face it, when you need to confront a threat

SafeGuard ARMOR TacPro offers Level II and IIIA soft panels and Level 1 and 2 edged blade and spike protection. Vest has plenty of MOLLE webbing, so user can configure it to his needs.

in a hurry, you don't have time to be stumbling around looking for your gear. It has to be grab-n-go.

Here are two different options for two different situations. Although quality armor is not cheap, I sought out products that provide a balance of protection, comfort, and affordability.

U.S. PALM Defender

The U.S. PALM Defender AR-15 provides Level IIIA soft armor protection (front and rear) and an excellent platform for your gear. The Defender is compact, lightweight, and can be configured to accommodate your personal needs and preferences. It holds three AR-15/M4 magazines and one pistol magazine. You can also use one of the AR magazine slots to hold a pistol.

Made of 500d Cordura Nylon, it comes in two sizes, large and extra large, and is available in Black, Coyote, Multicam, and Ranger Green.

The Defender AR-15 is extremely comfortable and allows an extraordinary range of movement. These factors offer huge advantages to the wearer: extended wear and the ability to train and use your gear in realistic scenarios.

The value of a comfortable rig becomes apparent after a few difficult hours of hard training in tough conditions. The Defender is affordable and also functions as a plate carrier for times when you may want extra protection. All in all, it's an attractive and highly adaptable product to incorporate into your self-defense and security plan.

SafeGuard ARMOR Tac Pro

An important part of that plan is conducting a candid assessment of the threats you will potentially face. If there's a likelihood of encountering multi-threat situations, you need to consider options beyond ballistic protection.

Though there are some excellent options, higher levels of protection almost always increase weight and cost, and you

will give up some level of comfort. But if you anticipate needing the extra protection, it's a small price to pay for increasing your chances of surviving a violent encounter.

For a full range of upgraded protection, one outstanding choice is the SafeGuard ARMOR TacPro, which offers Level II or IIIA soft-panel ballistic protection, along with options for Level 1 and 2 edged blade and spike protection. It also has neck, groin and upper arm protection, giving it comprehensive protection.

The TacPro features MOLLE webbing so you can customize your vest to your particular needs. This is not a vest for the faint hearted and is definitely meant to be worn over your clothes.

The advantages of wearing a full-size vest are obvious the moment you put it on. Knowing you're wearing a higher level of multi-threat protection is reassuring and more than makes up for the added weight and cost.

DISASTER RECOVERY

After a disaster, you often find yourself completely without power or other utilities. There's not much you can do to prevent this, but you can certainly be prepared. Planning at this level requires a thorough analysis and understanding of the potential difficulties and how best to address those challenges. The next two products act as force multipliers to provide viable solutions to problems you may not have considered.

Gasoline

Whether it's for your get-out-of-Dodge vehicle, your generator, or a chainsaw to help clear your path after a storm, you need gasoline. The problems are (1) having enough fuel during a crisis and (2) being able to safely move it to where you need it.

If the power is out, chances are your local gas station will not be open for business, and storing, transporting and transferring gasoline can be problematic and potentially dangerous. Finally, and most troublesome of all, is having a vehicle



GasTapper Pro transfers up to 30 gallons per hour of gas or diesel. Multiple fuel-line attachments provide options for accessing modern fuel tanks.



Heavy-duty box with gasket and tight latches contains fumes and secures all GasTapper components when not in use.

with a full tank of gas but not being able to access that gas for your other fuel needs.

Most modern vehicles are equipped with a one-way spill prevention system as a safety measure to prevent fuel spillage during a rollover event. Try using a standard siphon on one of these vehicles and the only thing you'll get is frustrated. This is a problem that many of us never even consider until we find ourselves in the middle of a crisis.

But with the right gear, all these issues can be quickly resolved. Enter the GasTapper, a device that allows you to easily and safely transfer gas or diesel (up to 30 gallons per hour for the GasTapper Pro) using the multiple fuel-line attachments included in the kit to provide options for accessing modern fuel tanks. Forget the old "suck on the line until you get a mouthful of gas" technique.

The 12V model uses a fused auto adapter power plug, while the Gravity model uses a high-efficiency squeeze bulb. Either way, you can move a considerable amount of fuel without all the usual headaches and complications. The GasTapper comes in an air-tight, fume-proof carrying case and is reasonably priced.

Emergency Cold Storage

When the power goes out, all bets are off. A refrigerator can maintain its internal temperature for many hours if it's kept closed. But keeping a refrigerator door closed is no easy feat. The alternative is to run a generator, which brings further complications. If you want to maintain your perishables, you need other options.

Having a cooler to keep your food, medicine, and other essentials from spoiling is a big plus. It's a lot less costly than running a generator around the clock to keep the refrigerator going. And during an emergency, a cooler allows you to consolidate all your perishables into a smaller, more efficient space. The problem with coolers is they require ice—lots of ice. And when the ice starts to melt, your perishables are

floating in an unsafe, watery mixture of bacteria.

Keeping that cooler fed with ice is a whole other story, especially in hot weather. Cooler Shock is an ice replacement cooler pack that uses Phase Change Technology to cause intense cooling at 18 degrees Fahrenheit for extended periods of time. That's 12 degrees cooler than regular ice.

Cooler Shock is a gel when warm and hard when frozen. According to the manufacturer, one Cooler Shock pack represents the equivalent of six pounds of ice in a 16-quart cooler. These packs not only stay colder longer than ice, but they also keep the contents of your cooler dry—a big plus.

Cooler Shock packs arrive and store dry. When you're ready to use a pack, fill it with water to activate the gel, seal and freeze it, and it will be ready to use in 24 hours. It's that simple. Each pack is approximately 14x10x1 inches and fits nicely in most coolers.

Cooler Shock is intended to be used by itself, but can also function as an ice extender or be employed to consume substantially less ice over the same period of time. Having a number of these packs frozen and ready to go provides a substantial advantage over traditional cooling options.

WRAP-UP

Survival preparations are about careful planning and even more careful selection of gear to give you every possible advantage. The choices you make today may affect the outcome of your tomorrow. Now is the time to consider your options and plan accordingly. In survival planning and preparation, never leave any advantage on the table. 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.*



Cooler Shock packs store dry. Fill with water to activate the gel, seal and freeze it, and it will be ready to use in 24 hours. Pack measures 14x10x1 inches and fits easily in most coolers.

SOURCES

COOLER SHOCK

(951) 708-1060
www.coolershock.com

GASTAPPER

(951) 708-1060
www.gastapper.com

SAFEGUARD ARMOR

(970) 626-6038
www.safeguardarmor.com

U.S. PALM

(602) 281-2940
www.uspalm.com



IWI US Uzi Pro with Leupold LCO mounted on railed top cover.

ICONIC IRON

IWI US Uzi Pro Pistol

BY TODD BURGREEN

IT is a safe bet that some inexorable force has drawn everyone reading this magazine into considering buying a weapon that made no sense when one's "needs" were analyzed empirically. A much-anticipated entry along these lines is from IWI US in the form of the Uzi Pro Pistol. The Uzi Pro is patterned after the iconic Uzi originally designed by Uziel Gal in the late 1940s.

IWI US is leading the resurgence of Israeli weaponry in the U.S., with the Tavor and Galil platforms also in their product stable.

Unfortunately, there are some weapons that most of us will not be able to experience or handle in their original form. This is especially true of select-fire rifles and submachine guns.

Without getting into the reasons right or wrong, this is just the way it is due to different laws and regulations.

As with most members of the gun culture, I have always been interested in weaponry. I remember being fascinated by images of various entities—both "good" and "bad"—carrying a small, yet lethal, submachine gun that is instantly identifiable even by firearm novices—the Uzi.

Uziel Gal started designing the Uzi in 1948, and the prototype was finished in 1950. Elite Israeli units began using the Uzi in 1954, with general issue to other IDF units in 1956, including officers, rear echelon troops, artillery, tank, and elite light infantry assault units.

Gal designed the Uzi around a telescopic

bolt. The bolt travels over and around the barrel during operation. This allows for a more compact weapon via the barrel being moved back into the receiver and the magazine well typically placed in the handgrip. The concept was first seen on early Czech designs such as the ZK 476 and vz23.

SIMPLE TO MANUFACTURE, OPERATE AND MAINTAIN

The Uzi is simple and economical to manufacture, taking full advantage of stampings and plastics to create receiver, cover, trigger housing, and folding metal stock. Only the bolt and barrel require machining. This was an important aspect for the fledgling Israeli nation fighting for its existence.

A centrally located handle on top of the receiver, making it ambidextrous, operates the bolt. The square-shaped bolt reciprocates in the sheet-metal trough formed within the receiver. The top cover seals off the bolt pathway to minimize exposure to the elements.

Tolerances are relatively loose for better reliability, with grooves incorporated on both sides of the receiver to increase reliability in dirty environments. Any accumulated debris is given a path out of the way of the bolt.

Two of the Uzi's greatest qualities are its simple operation and maintenance. User friendliness was a high priority for a citizen army like the IDF. Field-stripping procedures typify this simplic-

Uzi Pro's compact size is an advantage for working around vehicles or in other tight confines.

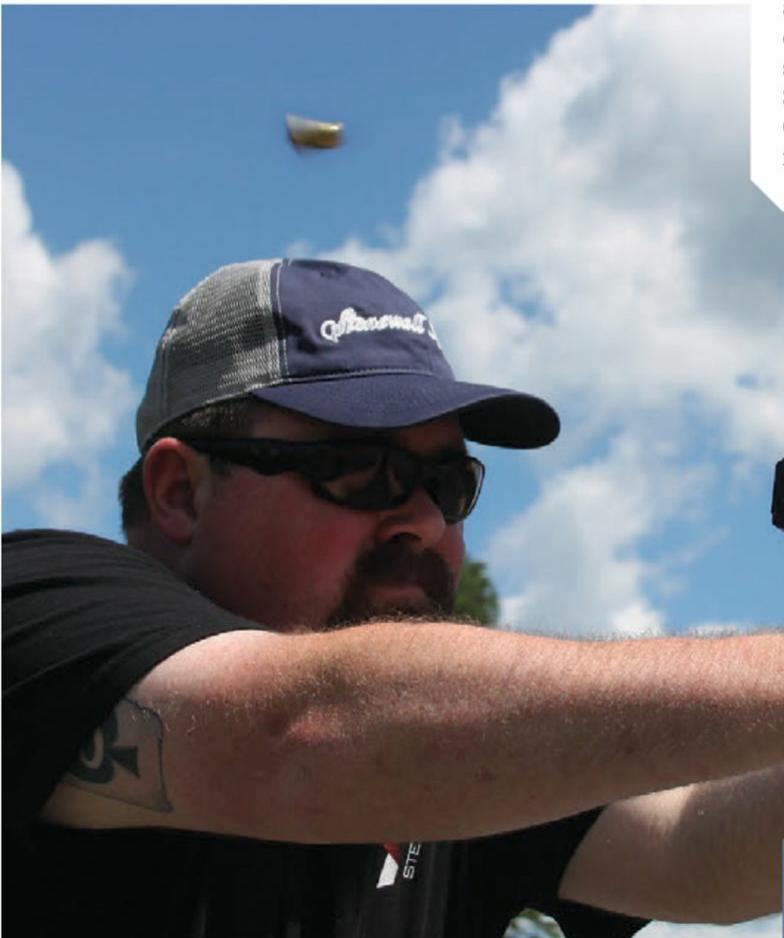


ity, with no tools required. After double-checking the weapon is empty, unscrew the barrel nut and remove the barrel, then remove the top cover to let the bolt and striker assembly lift out of the receiver. That's it. The Uzi is now field stripped for easy cleaning.

With a 9mm stemming from an SMG design, many initially want a short-barreled rifle (SBR). But they might not like the paperwork and cost for an SBR or may live in jurisdictions that disallow such weapons. The Uzi Pro takes a different path by arriving in pistol form.

UZI PRO PISTOL

IWI US has modified the Uzi Pro pistol to fire from a closed bolt versus the open-bolt design of the original select-fire model. The original Uzi is considered a premier example of a 3rd Generation SMG utilizing the blowback method of operation. Cartridge pressure is used to overcome the bolt's mass, pushing it to the rear, and action springs re-



Uzi's reliability is due in large part to its simplicity. Large bolt mass and springs are the only moving parts in the action.

turn it into battery, stripping a fresh round from the magazine to operate the weapon.

The IWI US Uzi Pro uses a floating firing pin as opposed to the fixed firing pin found in the select-fire version. Other changes to the semi-automatic Uzi Pro include the receiver not allowing for the drop-in installation of an SMG fixed firing pin. In conjunction with this, the firing pin of the semi-auto-only Uzi Pro is incorporated into the bolt group. The semi-auto bolt group features a different extractor design versus the SMG version.

The fire-control assembly is modified with the semi-auto version as well, since three positions are not necessary as with a select-fire version. The sear on the semi-auto Uzi Pro is smaller, because it is not under the same stress as the SMG version. Top covers are different between the semi-auto Uzi Pro and SMG version.

Lastly, barrel installation methods are different between the semi-auto Uzi Pro and the select-fire versions. Typically, original Uzi barrels will not work with semi-auto weapons due to differences in welding patterns associated with the front trunnion.

The Uzi Pro is similar in size to the Micro Uzi, minus wire stock and select-fire capability. The telescopic bolt design aids in minimizing the effect of length. Overall length of the Uzi Pro is 9.5 inches, with a 4.5-inch barrel featuring a 1:10 twist. This twist rate allows the user to utilize the full range of 9mm loads, including 147-grain bullets.

IWI US incorporates advanced polymers in the lower section of the Uzi Pro's receiver, resulting in lighter weight and relocation of the magazine release to a more practical and traditional pistol-based location. The Uzi Pro features a manual

thumb safety along with the typical Uzi grip safety that must be fully depressed before cocking or firing the pistol.

The Uzi Pro weighs in at 3.6 pounds empty. Unlike the original Uzi models, the Uzi Pro has the charging handle moved from the top of the pistol to the left side of the receiver. This permits the addition of a full-length Picatinny rail to the top of the pistol, and the use of any optical device that utilizes a Picatinny rail clamp mount.

OPTICS

The original Uzi was designed before red dot optics were commonly used. A red dot offers a definite advantage over the adjustable iron sights that arrive on the Uzi Pro. An additional Picatinny rail is incorporated in the polymer lower. Lights and/or lasers can be mounted directly under the barrel.

Each Uzi Pro pistol is supplied with two steel magazines: one 20 round and one 25 round. IWI US plans on offering a 32-round version as well. While resembling a typical Uzi magazine, the release notch on the Uzi Pro magazine is different and prevents use of the older magazines. Magazines drop free when the magazine release is depressed.

One aspect of the Uzi Pro I was looking forward to was the chance to utilize the new Leupold Carbine Optic (LCO) red dot. The LCO's one-MOA Dot reticle has 16 brightness settings to let you find the exact intensity you need in any conditions. At its highest setting, the dot will shine bright in the middle of the day. It is night-vision compatible on lower settings. The manual push-button on/off switch with integrated brightness control puts all



LCO is a recent introduction from Leupold that is becoming available as production catches up with demand.



Above: Uzi's fire controls are ergonomic and simple to operate with shooting hand. Grip safety requires only a normal grip to depress, but is a key ingredient to Uzi's safe handling. Cocking handle is on left side of Uzi Pro, whereas original Uzi had it on top of the receiver.

Right: While iron sights are present and well protected, railed top cover will most likely be used to mount an optic.



the power at your fingertips.

The LCO has a battery life of up to five years using a common CR123 lithium battery, and it weighs 9.5 ounces. The LCO view makes it ideal for use not only on a rifle, but also on a pistol such as the Uzi Pro. The LCO's housing disappears and the dot just "floats" superimposed over the target.

MANIPULATION

The Uzi Pro's non-discriminatory handling of several types of 9mm ammunition was a pleasant surprise. I purchased Winchester 9mm NATO loads based on experience with other 9mm SMG designs requiring the higher-pressure NATO loads to operate reliably.

The Uzi's blowback operating method translates into a stiff action spring. Magazine removal, replacement, and bolt manipulation must be done in a firm manner. I found it best not to rush manipulating the Uzi during reloads, to ensure that my hand did not slip off the cocking handle or not bring the action back far enough to strip a fresh round from the magazine.

The magazine well in the pistol grip means you can reload without looking. Range experience indicated that the "hand-finds-hand" method works efficiently in getting a fresh magazine inserted into the weapon's pistol grip, especially under time pressure and wanting to keep eyes down-range during the reload. The Uzi Pro's redesigned magazine release is more "handgun" like, making it more familiar to U.S. citizen shooters.

The Uzi Pro has placed the selector on the frame versus high on the pistol grip as with the original Uzi design. The safety selector can be operated with the dominant hand's thumb with

minimal effort. The selector switch can be left on fire, yet removing the hand from the grip provides for a safe weapon if having to sling the weapon and perform other tasks in a hurry—an important safety feature.

RANGE TIME

The Uzi Pro functioned flawlessly with Winchester 124-grain NATO FMJ loads, Black Hills 124-grain JHP, Winchester 147-grain JHP, Century HotShot Elite 115-grain FMJ, and On Target 115-grain FMJ. The ability to feed the JHPs was a totally unexpected bonus and a credit to the Uzi design.

While I cannot report sub-MOA groups at 100 yards with the Uzi Pro, especially considering nothing like this was attempted, accuracy was a pleasant surprise, with the six-inch plate racks struck consistently from 35 yards out, if a stable position was acquired.

As is typical of many weapon design reworks from open-bolt select-fire to closed-bolt semiautomatic, the trigger left a lot to be desired. One



Above: Variety of ammunition types was used with Uzi Pro, including newcomers to the author's routine in the form of Century International HotShot Elite and On Target ammunition.

Left: Simplicity of Uzi's blowback action is evident upon fieldstripping—a heavy bolt combined with springs is the epitome of simple. Nearly two-thirds of Uzi Pro's barrel fits back into the receiver, with telescopic bolt fitting over it.

Pimp My Rifle

+ *Continued from page 79*

drill involved engaging multiple targets from different positions with mandatory magazine changes between firing positions. This serves to get a weapon heated up, and gives the shooter a sense of handling and best practice manipulation techniques.

The Uzi Pro experienced no reliability issues with hundreds of rounds fired during T&E at Echo Valley Training Center in West Virginia. The Uzi design would not have been used by agencies such as the Secret Service and over 90 countries if it did not perform better than most other available weapons.

However, I cannot make a case for the Uzi Pro pistol being a viable personal defense weapon for citizen use today. Along these same lines, I do not have to stretch the truth in saying it's a fun pistol to shoot and handle at the range.

The Uzi Pro lineage goes back to the original select-fire Uzi SMG and conjures up a connection to the past. With a devoted group of followers, the Uzi can be considered a niche weapon here in the U.S.

Even without the automatic fire capability and wire shoulder stock, it's easy to appreciate the handling, light recoil, accuracy, and reliability the Uzi offers to its users. The Uzi Pro pistol is an interesting piece of firearm history that IWI US is making available to American shooters. ◎

Todd Burgreen has been a freelance writer for 20 years, with articles appearing in numerous publications. He has attended many personal defense, team tactics, firearms, and driving courses from some of the most influential training personalities and schools in the country.

SOURCES

IWI US, INC.

(717) 695-2081
www.iwi.us

BLACK HILLS AMMUNITION

(605) 348-5150
www.black-hills.com

FEDERAL PREMIUM AMMUNITION

(800) 379-1732
www.federalpremium.com

LEUPOLD & STEVENS, INC.

(503) 526-1400
www.leupold.com

WINCHESTER AMMUNITION

(615) 258-3340
www.winchester.com

ammunition, we expected nothing different from its slightly shorter barrel.

And we weren't disappointed, as the same ammunition again went into three holes with no light between them at 100 yards and produced a clean inch center-to-center at twice that distance. Walking to and fro in snow to the 400-yard target was worth the trip to see silver-dollar-sized clusters on targets there, and all functions of the RPR were even smoother than before with no lubrication necessary on the Cerakote.

As I write this, it is January in Colorado. When the snow disappears, we plan to put Federal 168s and Black Hills 175-grain Match projectiles on paper at 1,000 yards and see what it will do at 1,500 yards. Using the Leupold Mark 6 Scope will help make getting hits at all such distances a cinch.

Whether you're a hunter, competitive long-range shooter, law enforcement officer, or just love precision, there's a lot you can do with your Ruger Precision Rifle. ◎

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www.ruger.com

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(678) 442-8180
www.advanced-armament.com

BRAVO COMPANY MFG.

(877) 272-8626
www.bravocompanymfg.com

DELTA TEAM TACTICAL

(801) 864-2402
www.deltateamtactical.com

DSG ARMS

(800) 382-7571
www.dsarms.com

HARRIS BIPOD

www.harrisbipods.com

LARUE TACTICAL

(512) 259-1585
www.laruetactical.com

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Training and Tactics

+ *Continued from page 98*

pistolero's drawstroke by centuries.

Another option is less mind-numbing and confusing than trying to acquire either weapon when under instantaneous duress: removing your assailant's weapon from his possession (colloquially called a "take-away").

However, if you go for the take-away option, gun or knife, you'd better be good at it. It has to be done right, first time out. If you fail, somebody gets hurt from numerous puncture wounds by bullet or blade—and it won't be the bad guy. And even though there is a trio of basic knife-wielding techniques and a myriad of angles that your enemy can use to his benefit—and your demise—as stated above, guns are inherently more dangerous than knives.

While you can pretty much bet on sustaining one or two wounds from a knife before you gain possession of the weapon, the edge or point of the blade has to contact or penetrate to cause damage. But as long as a gun muzzle is aligned with anything—and it obviously always is at any given time—that object is struck by a bullet when the trigger is pressed. Not only can you be shot if you screw up the take-away, but so can anyone else who is within a mile-plus distance of the weapon. Like everything else your parents told you, do it right or don't do it at all.

Overall, in this author's opinion, take-aways—once practiced and perfected—are a simple, effective, and devastating alternative to attempting to reach one's own weapon(s) when reacting to close-quarters assaults.

One can become reasonably competent with close-quarters defensive pistolcraft in a couple of weeks, but you can't always carry a gun. It takes decades to become a blademaster, but you can't always carry a knife. (Yes, both in the United States and traveling overseas, one can encounter surprisingly restrictive "weapons"-carry legislation.) Simple and efficient weapon take-away techniques can be learned in several months of hard training, and you don't need equipment in the street.

Toss a coin, make a decision—and remember that those who live by the sword get shot by those who don't. ◎

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

The Golok: Choice of the Special Air Service

Many of you will recognize the name "Lofty Wiseman" as the author of *Survive Anywhere Safely*, although for some reason when the book was first published in the U.S., the title was changed to *Survive Safely Anywhere* by some moronic editor who appears not to have recognized that the initials "SAS" refer to the Special Air Service.

Anyway, Lofty had been here in the States working with me on a hostage rescue training course for U.S. military personnel and stopped off at my house for a few hours while waiting for his flight back to the U.K.

As I was proudly showing him some of my custom-made combat survival knives, he frankly told me he didn't think any of them measured up to the Golok that was widely used by the SAS.

I had handled a Golok but never

really used one, and vowed to do so. The Golok is similar to a machete but more versatile and originates from the area of Malaya, Indonesia, and the Philippines, though each region may use slightly different versions.

In general, the Golok is shorter and heavier than the typical machete. Its edge is usually convex, which makes the blade less likely to get caught in green wood. Though still used to cut bush or branches, the Golok also functions well for other general outdoor tasks.

As far as I know, the SAS began using the Golok in Malaya and Borneo and has continued through today. I should note that the SAS has also been issued a pure fighting knife—the UKSF—for the War on Terror.

In addition to the British SAS, the Australian and New Zealand SAS, both

of which have a jungle mission, also favor the Golok.

MARTINDALE GOLOK

One Golok used by the British SAS is the Martindale Crocodile model, which has a 13-inch blade that makes it easy to carry and makes it very lively in the hand. Though not intended as a combat knife, the Martindale in skilled hands can be useful in close combat.

A hardwood handle is well designed to allow a solid grip, though I would prefer if it were more textured to avoid slippage. It is pinned securely to the tang and incorporates a hole for a lanyard or wrist thong. The blade is carbon steel and takes an edge well. A thick spine on the blade makes the Martindale durable and also allows it to be used for light hammering. Weight is 20 ounces.



Top: Svord Golok. Bottom: Martindale Golok. Even though both are Goloks, they have notable blade differences.

My Martindale came with a sheath that incorporates a pocket for a file to keep the blade sharp. In my experience, the Martindale will take a fairly good edge, but you have to work at it. Also my sheath did not come with a retention strap, so the Golok is likely to fall out if climbing at a steep angle.

Another advantage of the Martindale Golok is that it is reasonably priced—under \$50 in the U.S.

SVORD GOLOK

I own another Golok from Svord Knives in New Zealand. I am not certain whether the Australian and New Zealand SAS issue this Golok, but it was recommended to me by a friend who was a veteran of the SASR (Australian Special Air Service Regiment). Since the Svord Golok is relatively expensive (three to four times the price of the Martindale), the Martindale may be more widely used by Aussie and NZ troops.

The “British Army Pattern Golok” as produced by Svord has a very thick, sturdy blade that should stand up to hard use. At 11 inches, the blade is shorter than that of the Martindale but thicker.

Constructed of Swedish high-carbon steel, the Svord Golok’s blade is individually hardened and tempered,



Svord Golok's handle is more comfortable and non-slip than that of the Martindale at bottom.

then ground with a water-cooled stone to produce a convex razor edge. As with the Martindale, the top of the Svord’s blade is thick enough to allow light hammering. The Svord’s Micarta handle is non-slip and comfortable.

It incorporates two holes for a lanyard and/or wrist strap. Special ops troops will often lash their utility blade to their web gear or belt to prevent loss when climbing, parachuting, or carrying out water ops.

As with the Martindale Golok, the Svord Golok is not intended as a combat knife, though it can perform that function if necessary. It is certainly heavy enough to deliver an incapacitating strike to an enemy. However, I actually find that the slimmer Martindale blade is faster in the hand should it be used for close combat.

Surprisingly, when I compared weight, the Martindale is a couple of ounces heavier than the 17-ounce Svord. The longer Martindale blade distributes weight better.

The sheath that comes with the Svord Golok is of heavy leather construction and comes with a retention strap around the handle. I would definitely rate this as a plus over the Martindale. Three holes at the bottom of the sheath allow it to be lashed to the user’s gear in a variety of ways.

One U.S. distributor for the Svord is



Martindale sheath (left) is very basic and does not incorporate a strap to secure the blade. It does include a sharpening file and pocket for it. Svord sheath (right) has a retention strap and three holes at the bottom of the sheath to allow lashing to one's web gear.

the KnifeCenter.

I mostly keep my two Goloks in my reference collection of knives, but I have carried the Martindale in my truck at various times in case I wanted to clear light brush or limbs. The few tasks I asked it to perform, it performed satisfactorily.

One reason I chose it to carry in my truck was that if it got lost or stolen, I could replace it relatively inexpensively. I think for any of you thinking of purchasing a Golok, the price difference between the Martindale and the Svord will be a consideration.

The Svord seems to be a very durable blade, though I’ll admit I have not abused it in use to test that. Honestly, I’ve only mildly abused the Martindale, but I have seen Martindales that have stood up to hard usage.

I think for many, including me, part of the appeal of the Golok is that it has been the choice of some of the world’s finest special operations soldiers. That’s a good recommendation. ☺

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Hot Lead and Human Health

Elemental lead is an integral part of modern life. There are untold tons of lead in our car batteries. Lead was in the paint used in most American houses up until 1978, and it remains in contaminated soil pretty much forever. The CDC estimates that about half a million American kids between the ages of one and five already have dangerously high blood lead levels.

Basic lead is physiologically harmless. It is the spontaneous byproduct lead oxide that causes problems. Lead intoxication can damage the heart, bones, kidneys, and reproductive or-

gans as well as the central nervous system. The effect of lead on the developing brains of children is of the most concern.

Lead is particularly prevalent in ammunition. With few exceptions, most bullets contain lead in one form or another, but it is the lead in primer compounds that can be most readily absorbed. Reloading, bullet casting, exposure on enclosed shooting ranges, ammunition storage and handling, and weapons firing all cause potential lead contamination.

How's this for scary? Every time you squeeze the trigger, you ingest roughly

1,100 micrograms of lead. This is about the same amount of lead exposure a lead miner receives in a week on the job. Given that some of us run through multiple thousands of rounds per year, this can indeed be enough to keep a guy up at night.

A BIT OF SCIENCE

Lead oxide is a cationic metal, meaning it has a natural positive charge. Human skin is anionic—it is negatively charged and therefore electrostatically attracts lead dust. The unfortunate reality is that soap operates via an unre-



LeadOff comes in a variety of formats. Foaming hand soap sits next to the sink, while tubes of disposable wipes can ride in a range bag. Ionic cleansers formulated to electrostatically remove heavy metals do a much better job of removing lead contamination from skin than do typical soaps.

Every time you squeeze the trigger, you ingest roughly 1,100 micrograms of lead.

lated mechanism and as a result does a poor job of removing charged lead from exposed skin.

The first step toward controlling lead exposure in occupational environments is to wear a dust mask, which does little if anything to prevent our breathing airborne lead particles. It just keeps folks from touching their mouths. As most lead is ingested through the mouth when we scratch our faces or eat with contaminated hands, removing lead from our skin becomes the priority.

To be effective, a lead removal system must be both scientifically sound and easy to use. An effective lead removal device that weighs three tons and requires a nuclear reactor for power is great, but if we cannot use it conveniently at the range, it is just expensive ballast.

Fortunately, the good folks at Hygenall have a nifty product that is easy to use, inexpensive, and effective.

LEADOFF

LeadOff is a proprietary non-toxic product that removes more than 99% of heavy metals like lead, cadmium, chromium, arsenic, mercury, silver, zinc, and nickel from contaminated skin.

LeadOff is recommended by the Centers for Disease Control and is used by the U.S. Military. The same product is made under license for the U.S. Department of Health. Unlike most things purchased and used by the government, LeadOff is also very reasonably priced.

LeadOff is available for applications both large and small. Hygenall produces an institutional Range Station that includes a big bucket of 500 single-use wipes along with a robust dedicated stand and trash bucket. Refillable buckets can be either floor or wall mounted and carry 500 wipes.

Personal-use wipes come in a tube that looks like those things you used to clean your kids' butts when they were infants. These tubular flip-top containers carry 45 wipes and are small enough to carry in a range bag. Smaller disposable five-wipe packs will drop into a pocket.

Hygenall also sells by the gallon a



Look at your hands after a day at the range. Thumbing rounds with exposed lead bullets into magazines will rub the stuff into your skin, and powder residue contains dangerous lead left over from primer compounds. LeadOff from Hygenall removes heavy metal contamination safely and scientifically.

foaming hand soap that includes the same ionic cleanser and is suitable for wall mounting near a sink at a firing range. Smaller bottles travel along with your gear. Miniature range bottles of the stuff are sold two to a package and fit into a magazine pouch.

Hygenall's combination surface cleaner and lead decontamination product comes in a squirt bottle and is designed to clean exposed surfaces that might have particulate lead contamination.

While a bucket of 500 disposable wipes for your local range will set you back around \$56, personal containers of wipes or household foaming hand soap run about \$10. Considering what I spend on ammunition every year, this is a minor expense. Since unwitting grownups contaminate most children, that's not a bad price for safety and peace of mind.

GRAND SCHEME

For a great many Americans, firearms are an integral and indispensable part

of life. Given that shooting is an innately hazardous sport on scales both large and small, it behooves us to invest a little effort into managing the risks.

We think nothing of donning eye and ear protection before touching off a round. Now we also have the means to leave the microscopically dangerous stuff behind at the range when we empty out that last magazine and pack up for home.

As many of us are blessed with little ones in our lives, it is the responsible course to think about our toxic exposures both for our own health and theirs. Now thanks to Hygenall, getting rid of toxic lead is easy and inexpensive. Given the potentially catastrophic effects of lead on our physiology, managing lead exposure is an integral part of responsible shooting. ☺

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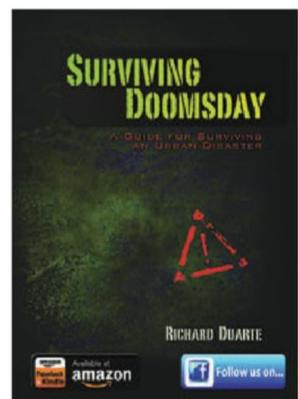
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nal, it loads and ejects through the bottom of the receiver.

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Dinnertime Disturbance

It was past midnight in the parking lot of a Dallas, Texas Whataburger restaurant when a man enjoying a quick bite to eat in his car found himself confronted by a pair of armed robbers. But the crooks had made what turned out to be a fatal error in the victim selection process, as their intended prey turned out to be armed himself.

Turning the tables, the man in the car drew his own pistol and opened fire, killing one robber and putting the other to flight. The second suspect was apprehended by police, who also recovered the pistol dropped by the deceased attacker.

SOURCE: *The Dallas Morning News*, Dallas, Texas, 3/17/16

Going It Alone

A woman got on an elevator from the food court of a busy dining and entertainment complex in downtown Louisville, Kentucky. It was just past six on a January evening in what is generally considered a safe neighborhood, and the man who got on the elevator with her seemed nonthreatening when he indicated that he, too, was going to the sixth floor of the parking garage.

As the woman was trying to enter her car, the man assaulted her from behind, banging her head off the car and shoving her across the car's center console. He climbed in behind her with a rusty kitchen knife and demanded money. Fearing for her safety, she pulled a pistol from her purse and pulled the trigger, but nothing happened, and he continued the assault. After a few more trigger pulls, the gun fired, hitting her assailant in the neck and forcing him to retreat to seek medical help. He is currently being held on charges of attempted murder, robbery, and kidnapping.

SOURCE: WHAS-TV, Louisville, Kentucky, 3/4/16

Hatchet Job

A masked man strode into a Burien, Washington convenience store in the predawn dark of a March morning and, in eerie silence, swung a hatchet at a customer. He then charged behind the counter and took a swing with it at the 58-year-old clerk, still without uttering a word.

At that point, one of the store's regular customers, a 60-year-old gentleman who had stopped in for his usual morning coffee, drew a lawfully carried handgun and fired at the hatchet-swinging invader. The customer's shots took near-immediate effect, dropping the masked intruder, who was pronounced dead at the scene. The clerk was treated for a wound to her stomach, and credits the customer with saving her life.

SOURCE: *The Seattle Times*, Seattle, Washington, 3/16/16

A Gem of an Outcome

A jewelry store owner in Torrance, California had taken most of the typical precautions employed for protecting a high-risk place of business. In order to be admitted to his showroom, itself festooned with security cameras, visitors had to be "buzzed" in past the locked front door.

Unfortunately, those passive security measures weren't enough one day when, around noon, an apparent customer was buzzed in only to produce a pistol and announce a robbery. At that point, the owner fell back on an older and more active form of security by pulling a handgun and shooting. The robber was hit, fatally as it turns out, and police said the deceased had a long criminal record and was a "person of interest" in a recent double homicide.

SOURCE: KTLA-TV, Los Angeles, California, 3/8/16 ◎



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AUGUST ISSUE ON SALE JULY 5th

Living by the Sword

Like the Sword of Damocles, miscalculating the moves of a blade-wielding assailant can leave your life hanging by a thread.

And like everything else, there are two sides to every argument. As with the decades-long abstruse firearms babbles about "my way is better than your way," along comes the recent Everybody-Wants-To-Be-Musashi syndrome.

First and foremost, let it be clearly stated that this author has been cut, slashed, and stabbed many times—but only once by someone other than my own fool self. So obviously I'm not claiming to have the slightest knowledge of the manly art of butchering people with a knife.

This having been said, however, I'm still around after seeing the burials of self-proclaimed experts who died by the bullet or the blade. And most of them wrote a check with their mouth that their butt couldn't cover. So since we're never going to live long enough to make all the mistakes ourselves, it might be advisable to learn from the misfortune of others.

All of this leads up to the two Golden Rules of fighting—if, indeed, there are such things:

- (1) Never, ever underestimate your enemy.
- (2) Understand how he thinks and operates, or you will never beat him.

The question of the day becomes: At close quarters, would you rather go up against someone who is armed with a knife or the same individual armed with a gun? Obviously, this is not a multiple-choice IQ test, as your first decision should be to vacate the area with alacrity. This option having been denied, which of the two weapons is more of a threat to your longevity plans?

The flat-out answer is, in the hands of an assailant, the gun is more dangerous, but more on that later. The sorry situation is that most people who have some modicum of training in the defensive use of the pistol invariably revert to the oft-quoted adage of "Don't take a knife to a gunfight." The armchair Musashi, on the other hand, says he can "cut you to ribbons in short order." While both may be correct (or not), the primary point is that you're trying to *defend* yourself from a Close Encounter of the Worst Kind, which means you're operating from a reactionary perspective, with the inevitable behind-the-power-curve time-lag problem ever present.

Aha, you say. "I've trained with blades and I'm good at counter-attacking." The only problem with that argument is, you don't have to be good with a blade; all you have to be is close. But you do have to be good with a gun, because if you aren't, you lose—or unintentionally massacre three nuns and a busload of schoolkids with errant rounds. And it might be as well to remem-



ber that the crook doesn't have to be good with either. He doesn't care about innocent bystanders hit by loose rounds, and you *will* be cut by a blade-wielder, irrespective of whether he's a blademaster wielding a special-purpose fighting knife or a 12-year-old street urchin armed with a hacksaw blade.

Yes, there are one-and-a-half people who actually are proficient at deploying a blade, and yes, in a few cases people have defended themselves with a blade when under attack—a few. The point is, when would you intentionally go one-on-one with a blade, unless in an orchestrated sport such as a fencing contest? This type of action occurs, for the most part, in the movie *West Side Story* and in geographic/residential areas where the participants have no other option. Why be a "man" (for "man," read "fool") when you can be a "mouse" and shoot somebody from distance and not have your epidermis ventilated?

Because there are legal ramifications and/or you may not be armed, that's why. You can warble cutesy phrases like, "I'd rather be judged by 12 than carried by six" all day long, but if you shoot a blade artist at 50 feet, your next domicile will be one provided by the state—complete with your new domestic partner, name of Bubba.

Again, the salient point is that this article is intended to promote thinking about the options of defense against a close-up gun or knife assault—no more, no less.

If it's your choice to pull your own retaliatory gun or knife, so be it—but the drawstroke had better work, and you'd better be fleet of foot as well. And while most people carry some form of work knife, the majority of the population doesn't practice quick acquisition of the weapon nearly as much as pistol-toters do—even though the quick drawstroke of the blade preceded the

» *Continued on page 89*

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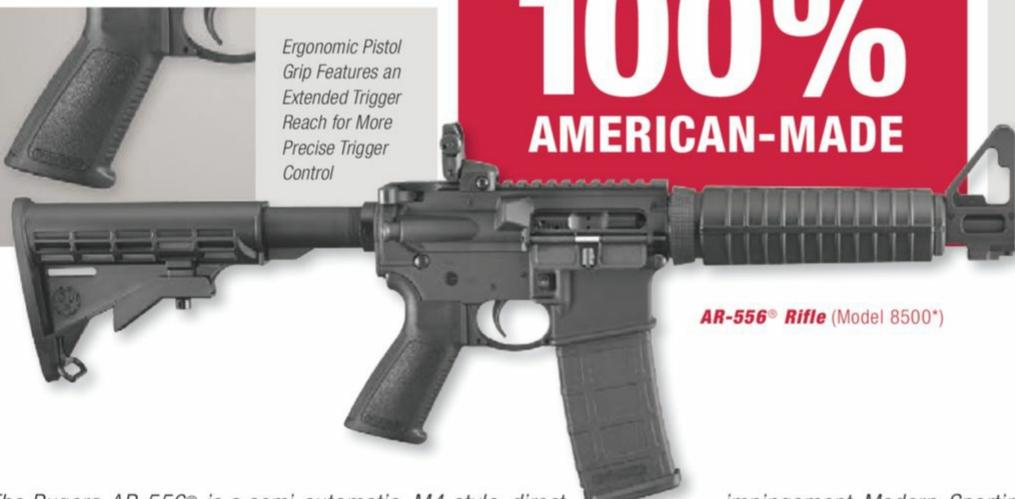


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