

GUN TESTS

NIGHTHAWK CUSTOM

MOSSBERG

JACOB GREY

SPRINGFIELD ARMORY

CA-Legal Hellcat OSP 9mm

BROWNING X-BOLT 2 SPEED PRECISION HUNTER

HALF-MOA ACCURACY OUT OF AN OVIX-CAMO'D MOUNTAIN RIFLE. P. 56



EMARY



KURTENBACH



POOLE



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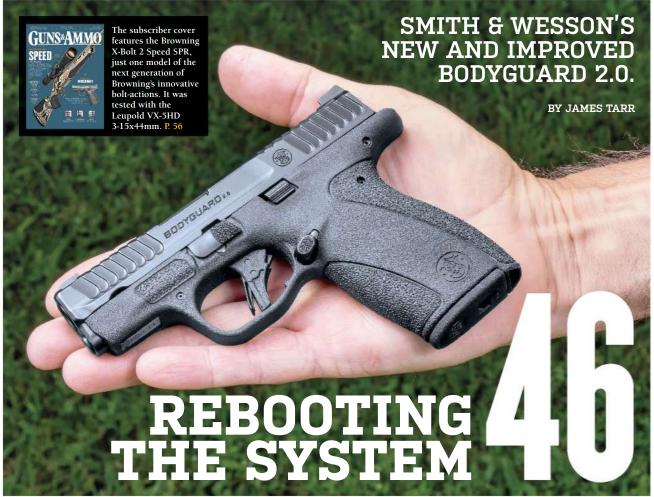
CALIBER
45 ACP

BARREL LENTH

SLIDE FINISH
NITRON



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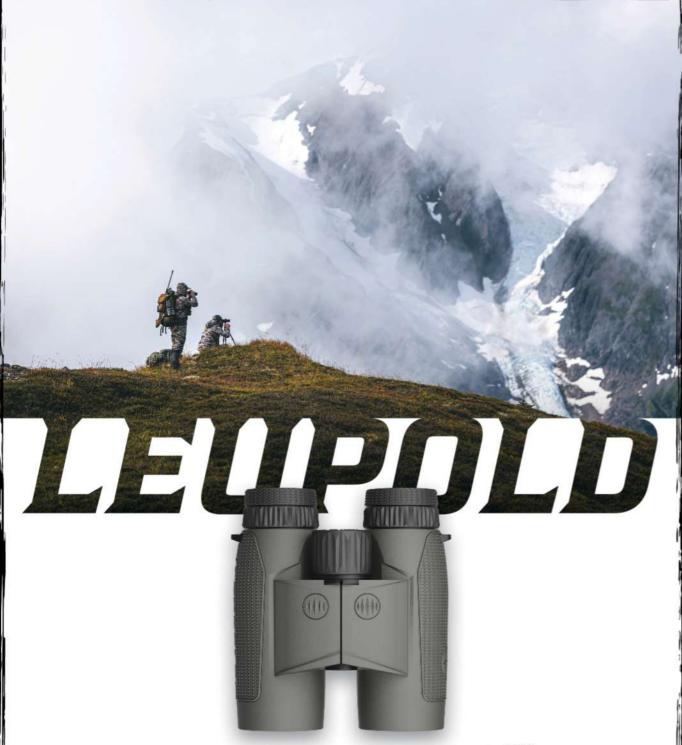
MAKING THING: RIGHT

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BX-4 RANGE HD

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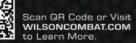


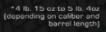














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READER BLOWBACK

WRITE US! "Letters," Guns & Ammo, 2 News Plaza, 3rd Floor, Peoria, IL 61614, or email us at gaeditor@outdoorsg.com. Please include your city and state of residence. Letters may be edited for brevity and clarity.



PHOTO: MICHAEL ANSCHUETZ

ARISAKA JAM

I have a sporterized Arisaka that only feeds ammo properly if I load two rounds or less. With three or more, the rounds jam on the feed ramp. I bought Norma round-nose 7.7x58mm ammunition. The rifle is missing the magazine box, so I bought one online from a reputable source. The follower spring does not appear to have any defects. The bolt is a tad loose unless cocked, but test firing was normal. There are no other issues with the rifle. Any thoughts? Bill Adkins Email

The first thing that comes to mind is that the follower spring might be installed backward. I have seen this issue before. If the spring is in backward, the nose of the follower can drop too low and it will misfeed.

— D. Emary

GUNPOWDER SHORTAGE

Since the days of Jeff Cooper, I've been reading the last page first. It's always been a quick and informative read. Keith Wood's "Spent Cases" column is no

exception. I usually don't have anything to add, but "Hang Fire" (August 2024) was different. Mr. Wood identified the problem of the gunpowder shortage, but the solution requires a change of worldview. If we stop pretending to be the arsenal of the free world, cut off Ukraine, Israel, and the rest, we will not only have plenty of gunpowder, but we will stop adding to our \$34 trillion in national debt. Americans would be a lot safer if we started minding our own business. Patrick H. Sellers Glenmoore, Pennsylvania

Reasonable people can disagree as to whether we should be providing arms for these conflicts. Since we produce almost no nitrocellulose domestically, the shortages hit us regardless.

— K. Wood

NO HOARDING!

I read Keith Wood's article about a powder shortage in the August 2024 issue. To do so in a popular national gun magazine is sure to cause more hoarding and price increases. We saw this with primers not long ago. In 1929, Herbert Hoover told the country to hold on.

Instead, panic caused the Great Depression to worsen and last longer. My advice is to buy no more than you normally use and wait for domestic production to increase and new facilities to get online, just like was done to make primers.

Joseph Solimando

Hamburg, Pennsylvania

BLANK CHECKLIST

I enjoyed Keith Wood's column, "10 Guns I'd Love to Own" (May 2024). Of course, Elmer Keith's revolver would be on my list, but what I agreed with most was the Rigby Mauser given to Jim Corbett. I was captivated while reading about his adventures as a Professional Hunter in the high school library. Thankfully, G&A is still home to good writing, and I enjoy finding it in the mailbox each month. My blank checklist? Any .44-caliber from Skeeter Skelton would be at the top. I seem to remember almost all of his work mentioned something in .44, but that could just be the clouds of time. A Winchester Model 70 in .270 Winchester from Jack O'Connor would be high on my list, as well. Finally, I would want a nice Parker double in 16 gauge. Richard Jarvis Elberton, Georgia

THE WANT LIST

I really enjoyed Keith Wood's column, "10 Guns I'd Love To Own" (May 2024). I'm just not sure about his choice of Jim Corbett's .275 Rigby. Given the option to only

MAY '85

Handgun Editor Jan Libourel introduced the double-action SIG Sauer P226, describing it as a "superbly accurate, rugged, reliable service auto that may just be the best thing of its kind in the world today." The P226 offered a double-column magazine with a 15-round capacity of 9mm, a push-button magazine release positioned under the thumb rather than the heel of the grip, and a distinctive "swipedown" decocking lever.



have one .275, I'd be hard pressed to bypass Walter "Karamojo" Bell's .275. Knowing the stories of how he employed his against dangerous game inspires awe. Alas, I must settle for my Winchester Model 70 in 7x57mm, which has been my go-to deer rifle for the last 45 years.

Doug Felton

30-RD. CARBINE MAGS

Lithia, Florida

My father was an ordnance welder during World War II. He related this story to me in my teens: He and his fellow techs put two M1 Carbine magazines together and created mags that held 28 rounds. He landed 20 days after D-Day, so these mods were made after that date. When



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were 30-round magazines created for the M1 Carbine, and did my father and his fellow techs create the first high-capacity magazines for the M1 Carbine? Paul Lericos Granbury, Texas

The M1 Carbine entered service with straight, 15round magazines. Contracts for the 30-round magazine appeared in April 1945, paralleling the development of the M2 Carbine. It is believed the 30-round magazines were designed in late 1944 for the October introduction of the selectfire M2. You could be right. Your father and his fellow soldiers may have been the first to create such magazines for the Carbine. — D. Emary

LEVER PERFECTION

Smith & Wesson's Model 1854 is a beautiful firearm (April 2024). If S&W wanted to compete with — and even outsell — Marlin and Winchester, they need only

to do one thing: Leave off that damn crossbolt safety! Get rid of that and I'd buy one tomorrow. I'd stick it in the gun safe right next to my Henry, which has no crossbolt safety. See? It can be done!

Bruce Sprain Glenwood, Iowa

RISING PRICES

I agree with Mr. Van Baxter's letter, "Guns for Elite," in the August 2024 issue. Something to further ponder: How complicit are some gunwriters in the rising prices? (I'm thinking of Joseph von Benedict and Tom Beckstrand.) Dave Thompson Golden, Colorado

ORIGIN MATTERS

In the July 2024 issue, Joe Kurtenbach wrote "Triggered," featuring the Canik TTI Combat. I firmly believe in supporting our home country first, when possible. The economic imported options can be quite compelling, but

numerous firearms are imported from Turkey, whose interests can be questioned. What are American dollars supporting when purchasing firearms manufactured in Turkey? I would like to see the country of origin included on products reviewed by Guns & Ammo. Some companies do a great job ensuring that the information remains undisclosed unless you buy it. Brian Fahlberg

Beresford, South Dakota

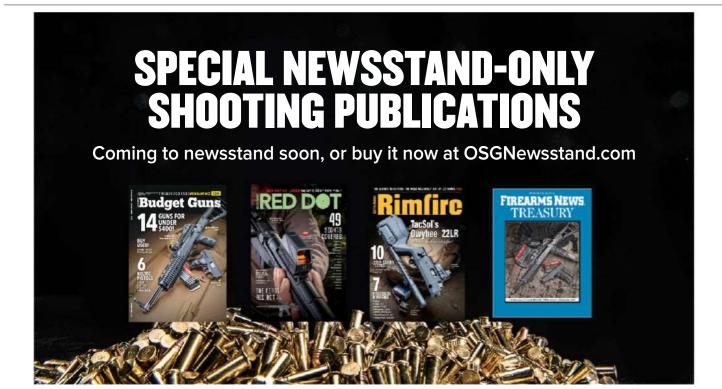
Your letter is not the first we've received requesting a country of manufacture description in the specification charts. As some readers have noticed, we have occasionally added an "Importer" line to many reviews since my editorship began in late 2013. However, the effort has been inconsistent. As you mentioned, some manufacturers are not forthcoming about the source of products they import. In

many situations, a manufacturer acquires several components from separate suppliers and countries, sometimes assembling them at a facility in the U.S. with a selection of in-house or domestic-made assemblies. This topic also applies to many optic products that feature computer chips, electronics, or glass from Asia and Europe. Unfortunately, the sources of manufacturing are not always clearly identifiable or simple to describe with verifiable information. We will continue to work on sourcing and streamlining this information.

— F Poole

9MM VS. .38

I don't often take exception to someone's opinion, but Mr. Prather's comments on "Pistol vs. Rifle" (August 2024), reminded me of the phrase, "He knows not of what he speaks." The 1986 FBI Shootout in Miami presented many errors that are still relevant to learn



from. Readers can find the FBI report at http://vault.fbi.gov/, then search "Miami 1986." There are 11 parts, and you can draw your own conclusions regarding tactics and bullet design. If the .38 is such a great police round, as Mr. Prather suggested, why aren't there any police agencies still issuing it? The .38 Spl. was the control round for the FBI Protocol Tests, and it did poorly. As far as the 9mm not having "stopping power," the fact that criminals and the innocent have been shot with every caliber and gauge is ignored. There is no "magic bullet." The reader was correct about one thing: A rifle is better than a pistol in a gunfight. Then again, the pistol you have with you is better than a rock and harsh language.

Ted Barbour Charlotte, North Carolina

SPINNING BULLETS

Regarding Mr. Schmidt's comments regarding Lehigh Bullets (August 2024), this is a gentle reminder that there is no "Dremel effect" of bullets going through flesh — no matter how fast they are going. You can do a bit of moderately involved math, but the simple answer is if the bullet is only rotating 1 turn in 10 inches in the pistol barrel, it can only turn once in 10 inches of flesh. Tissue damage is related to linear velocity, not the bullet's rotational velocity (i.e., "spin rate").

Jack Thorne Email

Linear velocity is a prime contributor to the amount and rate of expansion of an expanding-bullet design. On the subject of Lehigh bullets, the flutes on the nose of the bullet are what cause the temporary cavity. The spin of the bullet does help to displace material radially, much like the impeller blades on a pump impeller. The shape of the flutes plays heavily into the displacement of tissue with these bullets. The outward curvature of these flutes at the rear helps displace material radially. The terminal performance of these bullets is both a function of linear velocity and spin of the bullet.

— D. Emary 🔝









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EDITORIAL OCTOBER 2024 G&A 1/

It's a right to protect yourself.



ERIC R. POOLE

@GUNSANDAMMOMAG

GAMBIT

THE LEGALITY OF BODY ARMOR is confusing to many. Federal law regulates body armor under 18 USC Section 931. Felons are prohibited from purchasing or possessing body armor, but body armor is legal in most states. Despite questions of constitutionality, New York is the only state that restricts its citizens from purchasing body armor. Federally, using armor in the commission of a crime is illegal, but many states have also

passed laws that make it illegal to wear while committing a crime. Still in committees, California and Illinois have proposed bills

to ban body armor: California AB92/Illinois HB3238.

I'm dumbfounded when I hear Americans willing to forfeit or compromise their Constitutional right to protect themselves and their loved ones. My father wore soft armor like a second skin as a police officer. I wore it in combat as a U.S. Marine in Iraq. There's nothing that makes you a believer in body armor faster than an enemy pointing a gun in your direction. I witnessed a rapid evolution of body armor that included

the development of SAPI plates and carriers while working for Blackwater USA from 2006 to '09. I performed ballistic testing on swimmer-cut designs, flexible minimalist armor made of composite materials, and slick carriers for plain-clothes protection personnel. That technology has shifted to benefit private citizens. We may eventually see wearable armor that's as easy to live with as a button-down shirt. If you can imagine a need to own ballistic protection, don't allow your representatives to ban armor out of fear that bad guys are going to commit crimes while using it.

Rook Armor CEO Dr. Anire Okpaku, MD, has completed third-party testing of a proprietary ceramic that has revolutionized a body armor's strength-to-weight ratio. Rook Armor offers its "B" plate, which is an ultra-lightweight Level 4 plate featuring a ceramic composite plate that's

threat-level rated against armor-piercing 7.62x39 and 7.62x54R. It weighs 4 pounds as a medium-cut and 3½ pounds as a small cut. The "C" plate is a medium-duty Level 4 plate rated against more shots of the 7.62x39 BZ API round. The "D" plate, also called the "MAKO," is a heavy-duty Level 4++ plate weighing between 4½ and 5 pounds that's rated against those rounds as well as the M995 Tungsten 5.56 NATO round, which typically destroys a Level 4 plate. Then there's the "Megladon," or "E"

> plate. It's a Level 4++ that's rated against rounds under .50 BMG. These plates weigh between 6 and 7 pounds, depending on size. Of course, these would more likely interest

uniformed law enforcement and military personnel.

Why would a civilian want riflerated armor? If you've ever been hit with shrapnel from pitted steel targets, or you don't trust the skills of other shooters on a public range,

> you already understand. Still, there is a greater demand for plates that are stronger than soft armor but lightweight to wear. Enter "Bass Reeves."

Rook Armor's Bass Reeves is a Level 3++ plate that is rated for the M855 and M193 (5.56 NATO), M80 (7.62 NATO), mild steel core 7.62x39 rounds, as well as the

M855A1. It was developed for a federal agency solicitation. It's only a half-inch thick and weighs

just 3 to 3½ pounds. The current-issue government plate is twice as thick and isn't rated to stop the M855A1. It's the lightest and thinnest Level 3++ that stops M855A1. For those of us interested in possessing a quality layer of personal protection, one that could be concealed and capable of reinforcing a plate carrier, the Bass Reeves is it. Use it to complement a bedside battle belt or create an emergency ballistic protection plan for the family. For reference to scale, the small SAPI plate measures just 8.5-by-11.5 inches, which is the size of a piece of printer paper. Learn more at rookarmor.com.



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"I have heard similar stories about other names being found on the rifles' receivers and various parts, including that of toymaker Mattel ..."

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VENEZUELAN MAUSER SPORTER

Q: Hello, I have attached pictures of a rifle that was given to my son. Is there any chance you could tell me what it is? S. K.

Email

A: From the photos, I can tell your son's gift is a sporterized Model 1930 Venezuelan Short Rifle. This was a Model 1898 Mauser variant manufactured for Venezuela's army by Fabrique Nationale in Liege, Belgium. The chamber is likely 7x57mm, however, before your son shoots the piece it is essential he takes it to a gunsmith to determine whether the gun has been rechambered to some other round. I'm afraid the modification of the rifle is rather amateurish. I don't believe I've seen a pistol grip configuration quite like that one! Value on the gun is rather low, \$150 to \$200, assuming it shoots decently.

FRIGIDAIRE AR-15?

Q: In June 1978, as a young corporal, I was deployed to MCAS Iwakuni, Japan, for my first year-long WestPac. I was an engine mechanic in VMFA-122, an F-4J Phantom squadron attached to MAG-15. Soon after arriving, I went to the armory to check out my rifle and give it a good inspection and cleaning. There was something different

about it, though. It was stamped "XAR-15" and "Frigidaire Corp." It had a three-prong, open-type flash hider. I had never seen one like it, especially an "X" model. I felt it was unique, so I returned to the armory days later with my camera. I took pictures of the markings, figuring no one would believe me unless they saw it. Other Marines in the squadron were issued

M16A1s. I know Frigidaire was a subsidiary of General Motors, and GM was a sub-contractor for Colt in the manufacturing of M16s around that time. Being a part of an aviation unit, I'm sure our rifles were not the most up-to-date equipment, so perhaps mine was a near-obsolete example. On leaving Iwakuni, I kept my rifle card as a souvenir. When I returned for other deployments, I was issued an M16. Unfortunately, I cannot locate those pictures or my rifle card. Are you aware of this AR-15 or "XAR-15" model in Marine Corps inventory? Would it have been unusual for the Corp to have kept such a rifle for issue as late as '78? For being an "X" model, was it a prototype or experimental model? I appreciate any information. Semper Fi!
E. H.
Marion, Virginia

A: An interesting tale, and one on which I devoted a considerable amount of research — to no avail. Not being the world's greatest authority on AR-15s/M16s, I also checked with a couple of collectors who knew more about the subject than myself, and they also agreed: It sounds unusual. I have heard similar stories about other names being found on the rifles' receivers and various parts, including that of the toymaker Mattel being a particular favorite. All turned out to be apocryphal. Still, I am not going to put myself up as the last word on this subject. If any of Guns & Ammo's readers can enlighten us on a

AUCTION BLOCK

A scarce, early Johnson Model 1941 semiautomatic rifle, serial number "S-10" brought an impressive \$19,000 at a February 7, 2024, Bruneau & Co. sale. Considerably surpassing its \$3,000 to \$5,000 estimate, the .30-'06 parkerized rifle, in very good condition and exhibiting only a few stock nicks, dings and light finish wear, is marked on the right-rear of the receiver, "CRANSTON/ARMS/CO", and marked on the top of the receiver with patent information and "CAL. .30-06 SEMI-AUTOMATIC/JOHNSON AUTOMATICS/MODEL 0F 1941/MADE IN PROVIDENCE R.I. U.S.A./S-10". For more information about this and future sales, visit Bruneau & Co. at bruneauandco.com.















possible AR-15-Frigidaire connection, I will be glad to entertain their comments.

"UNDERLEVER" **SHOTGUN ID**

Q: I'd like some help with finding out some specifics about a shotgun I've recently added to my assortment of 16 gauges. "Boehler Blitz" and "Armeira Sangiorgio" are stamped on the barrel. I've tried researching these on the internet, but couldn't find any particulars. I'd like to know the origin, approximate date of manufacture, purpose for this model, and any other color you can add. I hope the photos

I've attached can help with the details. I'd estimate that it rates 75 percent condition-wise.

K.C. K. Cumberland, Maryland

A: You have an Italianmade single-shot 16-gauge with simple under-barrel catch. This style of gun was popular in Europe and has been available in varying quality from around the turn of the 20th century. "Boehler Blitz" is a high-grade Austrian steel. The maker is likely Armeria San Giorgio, a small shop of Gardone, Italy. I'd date it from the 1950s. Quality looks decent, though this style of shotgun

is not high on the popularity list. I'd say \$750 to \$1,000 would be plenty for it, assuming it is as nicely made as it appears in your photos.

MORE ON MOVIE GUNS

Q: Thank you for the movie reviews and hardware in them. How about writing on "Vera Cruz" (1954), which played fast and loose with its guns but was a great film? Perhaps review "The Last Hunt" (1956), where period ammunition was loaded and the audience sees actual bison being culled. Both are great entertainment. B. T. W.

Creswell, North Carolina

A: I'm so glad you enjoy "Hollywood Hardware." Having been born in Hollywood to actor parents, I was imbued with Tinseltown and became an avid movie buff. I agree with your assessment of the two movies. They are a couple of my favorite westerns. "Vera Cruz," centering around a couple of soldiers of fortune — Gary Cooper and Burt Lancaster — trying to make a score in Emperor Maximilian's Mexico, is a lot of fun with Lancaster giving one of his most over-thetop performances. There is a scene where Cooper and Lancaster demonstrate "Henry" rifles — which were modified Model 1892 Winchesters — to Maximilian (George Macready) that's a standout. "The Last Hunt" is a superb film, now sadly somewhat forgotten. The two stars, Stewart Grainger and Robert Taylor — the latter giving a superb, chilling bad-guy performance — both being hunters, actually did some of the bison culling shown in the film.

NICKELED LUGER RESTORATION

Q: My father-in-law picked this Luger up as a 19-year-old infantryman in the Battle of the Bulge. He had it nickeled when he got to Berlin. Is there any value to it, and can it be restored? J. H.

Email

A: Your photos indicate your father-in-law brought back a World War I-vintage P.08 "Luger" manufactured by Erfurt. This gun would have originally been blued. Fortunately, the markings seem to be fairly decent. With some effort and not a little expense, the piece could be restored to something approximating its factory look. However, its value would not be all that much affected as it would still be a refinished gun. I can't see this piece, in either configuration, being worth more than a few hundred dollars. It would mainly be considered a "shooter."

HOLLYWOOD HARDWARE

Like the "Trapdoor" Springfield rifle, the Model 1892 Winchester has been modified from its original configuration and re-cast in many films. It's hard to see how half of Hollywood's Westerns could have been made without them. This prime example, a heavily decorated '92, was altered to look like a Henry rifle by the removal of its fore-stock and its receiver having been given a golden hue. If a Henry rifle was needed in filmdom's early days, this was necessary as original Henrys were scarce and no .44 rimfire blanks were available. Winchester Model '92s chambered for .44-40 could easily handle the five-in-one blanks that were a Hollywood staple. (Courtesy of the National Firearms, Fairfax, VA and Hollywood Guns and Props, Santa Clarita, CA.)



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BUFFALO BILL COMMEMORATIVE WINCHESTER

Q: During the 1960's, Winchester introduced a "Commemorative" .30-30 rifle that was an exact duplicate of the one Winchester made for William F. Cody, aka "Buffalo Bill." A message from Winchester stated the rifle was duplicated exactly as the original, all the way down to the octagon barrel. I made a purchase of one of these rifles and have had it in my possession ever since. The rifle is in the original package and has never been shot since leaving the factory. I recently visited the famous Cody Firearm Museum in Cody, Wyoming, where I met with the curator. After telling him about the purchase, he informed



me that Winchester made two Buffalo Bill Commemorative firearms, a rifle and a shorter carbine version. He said Winchester made 25,000 rifles and less carbines. The serial number on mine is 11636. Lasked if there would be a high value placed on my rifle being in its original packaging and never fired by me. He said the value could only be to a collector, and he declined to place a value on it. I plan

to gift it to my son later this year. He has quite a collection of firearms. He will covet the rifle I'm sure. With the information provided. I would solicit your opinion on the subject. H. L.

Morrison, Colorado

A: The Buffalo Bill Commemorative Model 94 Winchester was made in 1968 in two versions, a rifle and carbine. I believe they were produced in equal quantities totalling 112,923. There was also a Buffalo Bill "1 of 300" presentation-grade model, of which, not surprisingly, some 300 were manufactured. Like the large majority of items marketed from the outset as "collectibles." including plates, artwork, stuffed animals, etc., once the initial feeding frenzy for them settles, they eventually find their true level in the marketplace, which is





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generally much less than the buyer originally hoped they would eventually bring. This is the case with many of the Winchester 94 commemoratives, the Buffalo Bill version being a prime example. Originally sold in 1968 for \$129.95 — with \$5 going to the Buffalo Bill Museum the rifle and carbine today, in unused shape with box and all the paperwork — a condition required for these guns to bring any kind of money at all — both the carbine and rifle sell in the \$850 to \$900 range, which is a modest increase in value, even with "\$129.95" adjusted for inflation. They are, however, something of a hard-sell. More often, they are sought after by Buffalo Bill enthusiasts rather than hardcore gun collectors.



SPORTERIZED WWII MAUSER

Q: Attached are the photos of my father's 1944 Mauser carbine with a 19.25-inch barrel length. I tried to capture the smaller details for your reference. You can see the "44" stamp, as well as other stamps and markings. Based on these photos and descriptions, are you able to provide a value for this? G. L.

Email





A: This is an easy one! Your dad has a Mauser-made ("byf" marked) German K98k 8mm military rifle manufactured in 1944. Unfortunately, someone sporterized it, thus removing any collector value or interest it might have had. Worth on the piece is in the \$250 to \$350 range, primarily as a shooter. Fortunately, most

of the alteration has been done to the stock, so if someone could come up with the proper wood, metal buttplate and barrel bands, it could be somewhat restored to its World War II-era military configuration. However, the fact that the replacement parts would not be original to the gun would still go against it value-wise. 🖾



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Musings from the bunker.



GREATER THAN ZERO

PEOPLE STILL TRASHING THE 9MM in favor of the .45 are worshippers at the feet of a floundering religion. I've found that no amount of empirical data can sway their faith. Even the most otherwise grounded, sane, and intelligent gun owners completely lose the ability to think rationally when talking about sex, politics, or religion. A handgun's "stopping power" is some weird mix of at least two of those.

•••

Glock has had a pistol-caliber carbine (PCC) for decades. They built an AR to go after a military contract. With Gaston Glock dead, and gun sales as sedate as they have been, I wonder if we'll see Glock branch out from the single pistol-type design. Perhaps, it will simply continue to ignore the desires of the American commercial market.

•••

"There are no such thing as blue states," someone recently

wrote, "only blue counties." That's almost correct, and certainly the political boundaries have shifted significantly. For example, Democrat-icon President John F. Kennedy was a Catholic, pro-life, arguably pro-gun, and pro-military combat veteran. He started the U.S. Army Special Forces, was a member of the NRA, and hated communists. By modern standards, wouldn't he be a right-wing Republican?

•••

Simply needing permission from authorities before you can legally buy a firearm is a violation of — and infringement — on the Second Amendment. The Bill of Rights is a restraining order on the federal government.

•••

Yes, a red-dot sight will assist a person in shooting a handgun more accurately, especially at a distance. So will a quality trigger pull! When I see people mounting red dots atop pistols with horrible triggers, I just shake my head.

•••

What is a "good trigger pull" for a carry gun? Guns & Ammo's Lt. Col. Jeff Cooper once wrote regarding a Model 1911, "Three pounds, crisp, is the word." A 1911 has both a grip safety and a thumb-safety lever. For a striker-fired

pistol with no external safety, besides the small lever on the trigger, 3 pounds is likely too light for most. A lot of truly accidental discharges have occurred with striker-fired guns, usually when something gets wedged inside the trigger-guard while reholstering. Carry whatever you are comfortable with and can use safely and effectively. Once a pistol's trigger-pull weight creeps above 5 pounds — regardless of skill level — it will affect your speed and accuracy.

•••

I've learned that the New York Police Department's (NYPD) current-issue Glock pistols have standard trigger systems in them. NYPD abandoned the N.Y.1 and N.Y.2 trigger systems that Glock specifically designed for officers to assist in transitioning from revolvers to pistols. Even if you know what you're doing with a handgun, it's almost impossible to shoot a Glock having a 10- to 12-pound trigger spring fast

and/or accurately. It is estimated that more than 80 percent of all law enforcement officers only practice or shoot when they are required to qualify by their organization, usually once or twice a year. How good are you at something you only do every 6 months? The NYPD leadership decided that a triggerpull so heavy that it couldn't get pulled by mistake was more cost-effective than investing in additional training hours to reduce negligent discharges among its 35,000 officers. What changed? The heavier triggers were cheaper on the front end but turned out to be more expensive on the back end. Innocent bystanders shot during conflicts with police sued the department. On August 24, 2012, for example, outside of the Empire State Building, two officers engaged a gunman and fired 16 rounds. They killed the gunman but also injured nine bystanders. Three were directly hit by police gunfire. The shooting lasted 15 seconds.

•••

As of April 2023, the NYPD's duty load for 9mm is the Speer 124-grain +P Gold Dot. The hollowpoint design was introduced in 1991 and is a street-proven product. An executive from Speer told me, "I keep trying to get [police] to change to a newer bullet, but it's hard to argue against this



one. Every bad guy they shoot with it stops doing bad." $\,$

Whether it's guns, cars, or movies, most people don't make good reviewers because they are unable to separate whether they subjectively liked it from whether it was objectively good. Something isn't bad just because you don't like it. Personally, I don't much care for revolvers or musicals, but I know a good one when I see it.

•••

I have spent a lot of time tracking down pithy, interesting quotes for chapter headings in my various novels. The quote that sticks with me the most — because of how true it is and the unlikely source — came from Tommy Lee Jones' character "K" in the original "Men in Black" (1997) movie: "A person is smart. People are dumb, panicky, dangerous animals, and you know it."

•••

Watching the younger generation, I'm seeing an interesting trend: Twenty- and 30-something shooters raised on Glocks and other polymer pistols are discovering the older designs, including the Beretta 92, CZ 75, 2nd- and 3rd-generation Smith & Wesson autos, and classic revolvers. That's the exact opposite progression of how people my age got into guns.

• • •

As expensive as ammunition has gotten, it will never be

as cheap in the future as it is now. You should be stocking up. Magazines, too.

•••

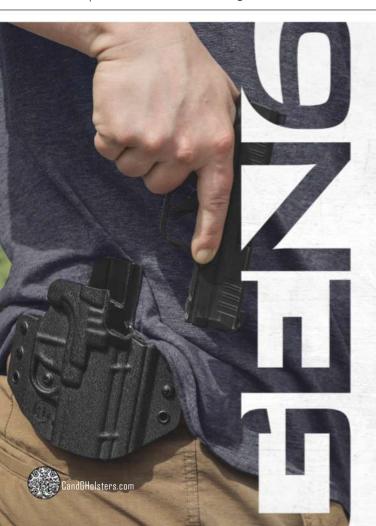
I am seeing 3D-printed guns doing an end-run around bad gun laws, and they will only grow more common. You can't stop the signal.

•••

SIG Sauer has conducted its Everyday Carry (EDC) Championship. For a second, I was really excited to attend. Competitors are put in one of two divisions, depending on the size of their daily carry gun. The largest calibration box will accept anything the size of SIG Sauer P229 or smaller. So, I didn't go. I haven't carried a gun that tiny for my primary EDC since President Ronald Reagan was in office. Currently, I EDC a lightly customized Gen5 G17, loaded with Federal 147-grain HSTs in a Safariland Model 5198 OWB holster. I conceal it by wearing a very stylish Hawaiian shirt.

•••

It was former SWAT cop and gunwriter Gary Paul Johnston who — at least 30 years ago — came up with the 1* symbol that a lot of cops embrace. It means they've got "one [butt] to risk" — their own. As a private citizen carrying a gun, I think >0 would be a better representative of my own concealed-carry philosophy, explaining why I carry a gun: What are the chances something bad is going to happen to me today? Greater than zero.

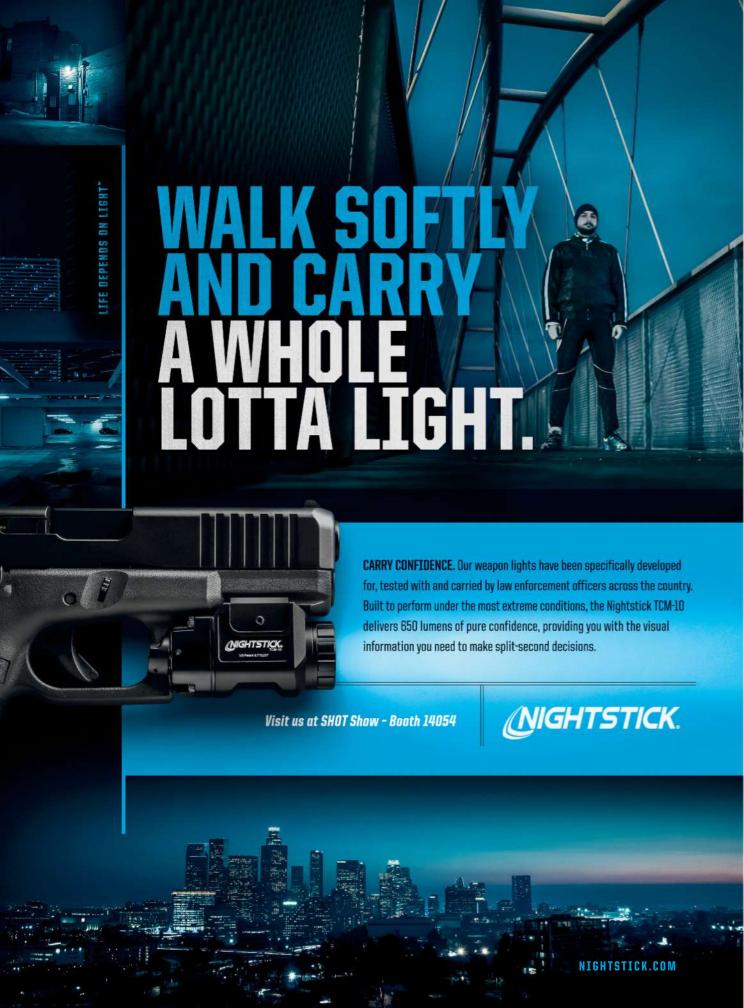


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GUN TECH OCTOBER 2024 G&A 31

SecureIt Agile Stack



RICHARD NANCE

BUILD AN ARMORY

KEYPAD AND BIOMETRIC TECHNOLOGY provide fast access to modern safes, faster than a key or dial. The aim is to keep firearms out of the wrong hands. Traditionally, firearm safes are large, heavy, expensive to ship, and cumbersome to move. Securelt offers the lightweight, modular

SecureIt CEO Tom Kubiniec has more than 20 years of design and manufacturing experience making storage solutions for military armories. With some 2,200 military, law enforcement and government clients, SecureIt is the largest small-arms storage supplier to the U.S. military.

Agile Stack to change that.

In conjunction with U.S. Army Special Forces, Kubiniec developed what became the brand's patented CradleGrid

Technology, which serves as the foundation of the company's unique safe designs. CradleGrid consists of a louvered grid panel that accommodates accessories.

The Agile Stack combines the Model 52 and the Model 40 fast-access safes. Its modularity means that it can be shipped flat through UPS or FedEx, which is cheaper than having a traditional safe delivered. You can also put the Agile Stack together in the room you want it in, as opposed to having to move a completely assembled safe.

Weighing just 195 pounds, the Agile Stack is significantly lighter than traditional safes, but "light" does not mean "weak." According to SecureIt Marketing Director Josh Kinser, the Agile Stack is constructed of cold-rolled steel.

"This type of steel is common in the aerospace industry and in automobile racing because of its high strength-to-weight ratio," Kinser said. "The Agile Stack's 14-gauge steel construction is comparable to 11-gauge steel on a traditional safe."

There may be some worry that a lightweight safe is susceptible to being carried away by burglars. While a legitimate concern, no safe

is 100-percent burglar-proof. Even a heavy safe can be carried off with enough people, unless it's bolted to a wall or floor. Since a safe should be secured with bolts anyway, why not get a safe that's lightweight and easy to position? Patented Slide-Lock Technology consists of eight

> V-shaped locking rails that slide over corresponding tabs on all four corners inside each safe. The rails are then bolted in place for stability. The shorter Model 40 safe bolts atop the Model 52 using supplied hardware. When stacked, external dimensions are 92 inches in height, 2014-inches in width, by 151/4-inches in depth. It's imperative to bolt the safes to wall studs to prevent tipping. You could also bolt the Model

52 to the floor to increase stability and security.

The Agile Stack can store up to 12 long guns. The CradleGrid back wall enables users to customize the safe without tools. Its upward oriented louvers support CradleGrid accessories, which slide down into place. It couldn't be simpler to arrange or rearrange. Unlike a traditional safe with drywall lining, the CradleGrid back wall provides natural ventilation. This helps prevent trapped moisture from potentially damaging firearms or other valuables the way moisture in a completely enclosed safe can. Included with the Agile Stack are 12 cradles and six dual stock bases for long-gun storage. Two bins with dividers and a shelf provide a convenient method of storing smaller items.

A rechargeable magnetic light bar is included grammed to illuminate when the door to the

with each safe. The light bars can be pro-The Agile Stack is an assembly of two SecureIt safes: the Model 52 and Model 40. Both safes are capable of storing long guns, and offer the same code or biometric security system. In total, it is lightweight — 195 pounds — making it easy to deliver and assemble. It can be bolted to the floor or wall studs, also.







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Barrel cradles can be adjusted to set the ideal height for each long gun. They can be purchased individually as part of a safe kit.



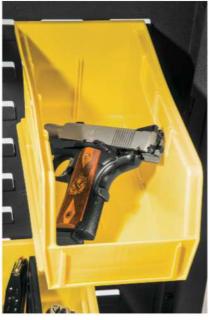
Up to three, three-to-12-digit codes can be entered on the keypad. An LED light assists with typing during low-light visibility.

safe is open, or they can be turned on and off with the push of a button. White lights or red lights are available, the latter being better for preserving night vision.

The keypad is powered by a 9-volt battery, which is not included. A USB-C power port allows the keypad to function when the battery is weak or dead. A touch-activated light illuminates the six-button keypad. The illuminated keypad feature can be disabled for stealthy access considerations.

The keypad will accept codes ranging between three and 12 digits. Additionally, the biometric scanner allows the safe to be opened with your fingerprint. With the correct code entered, or authorized fingerprint supplied, a turn of the handle enables the door to be opened.

The SecureIt secret is out. There has been a lot of demand for these safes. Not only can you



Deep storage bins can hold handguns, ammunition, magazines, parts or accessories They are sloted at the front to accept labels.



Door bolts secure the safe. Digital access can be overriden with a physical key unique to each safe should the keypad ever fail.

customize the interior safe configuration, but you could even combine two Agile Stacks to form a "quad stack," with double the capacity.

Although a two-person assembly is recommended, I put Guns & Ammo's safe samples together myself. I did need help lifting the Model 40 atop the Model 52, but the only tools required to complete the assembly of the safes — not including secure bolts to the floor and wall — were a 10mm wrench and a Phillips screwdriver.

Modular, secure, and easily accessible, the SecureIt Agile Stack is a convenient and practical firearms storage solution that can morph and grow to

> fit your needs. Accessories can be purchased on the SecureIt website. See more at secureitgunstorage.com.MI

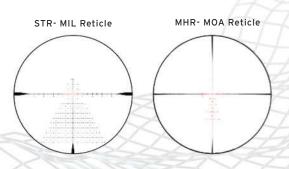




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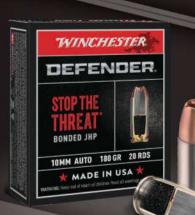
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Leupold BX-4 Range HD TBR/W 10x42mm



TOM BECKSTRAND

HUNTER'S DELIGHT

RANGE-FINDING BINOCULARS are hot among firearms and hunting enthusiasts. The initial explosion of interest occurred about 3 years ago, and it continues apace. Just about every optic manufacturer has at least one line with a

few models. Given the complexity of making a range-finding binocular and the absence of available optical engineers at most optic companies for being cost-prohibitive, I wondered how this was happening. The reality is that most range-finding binoculars are built using the same optical DNA by one large Asian manufacturer. The individual American manufacturers choose specs, software, and performance goals, so each product is unique and distinct from its competitors. However, optically, there is strong commonality across most range-finding binoculars costing less than \$3,000 — except for

I spoke to Eric Overstreet, Leupold's product manager for technology products. He said, "I've been with Leupold for 17 years, and I've worked on a dozen range-finding binocular projects. This is the first one to see production."

Leupold.

Leupold didn't want to create a "me, too" product. The heart of any binocular is the prism. While almost every sub-\$3,000 range-finding binocular contains the same prism — confirm by looking for bulbous protrusions on the bino's underside — Leupold's is unique. The basic prism is the BAK-4 Porro prism, and it comes from a different Asian manu-

facturer. Second, Leupold has more optical engineers on staff than any U.S.-based manufacturer, and those engineers improved the BAK-4 until it met Leupold's optical standards. The BX-4 Range HD has a unique prism. It was apparent to me that the effort was worth it as I looked through these range-finding binoculars.

What makes range-finding binoculars hard to manu-

facture? The need for an internal display. This is accomplished by placing a transparent screen inside the optical system and then using a light-emitting diode (LED) to shine against that screen, which reflects the light back to

the observer's eye. The screen is problematic, though. It blocks light by adding a layer to the optical system that reduces the light passing through. The better the screen

is made for viewing information, the more light that is blocked. A fast way to judge the screen attributes is by looking for blue tint, which has been the subject of debate among optic gurus. Blue tint seems to always generate complaints, but no one asks why it's necessary.

When everyone uses the same basic prism, the amount of blue tint determines how efficient the screen is at reflecting the displayed information.

An efficient and very blue screen yields great battery life and makes the display easy to read. Reduce the blue tint and more battery power is required to display the information, or the information has to

be simplified. There's no way to cheat the system. However, Leupold engineered the BX-4 Range HD so that the screen can be almost colorless while still appearing highly visible with great battery life. This is what's possible when a company staffs a large group of engineers, some with at least 17 years of patience.

When assessing the BX-4 Range HD for blue tint, the only way I could detect it was to point the binoculars at a white sign,

and then close my left eye, and then right. Bouncing back and forth between viewing the sign through the individual barrels showed the slightest blue tint on the right barrel, far less than what's found with binos using another domestically popular prism. Anyone wanting to spend less than \$3,000 and use range-finding binoculars for extended observation sessions, or a person that requires optimal optical perfor-







Eye relief measured 17mm. Both ocular lenses feature oversized eyepieces with finger-adjustable textured rubber eyecups. Counter-clockwise to extend, clockwise to collapse the distance, they are intuitive to rotate into position.



Remove the cap to change the CR2 battery. One battery powers approximately 3,000 uses of the rangefinder.



The 42mm objective lenses wear Leupold's Guard-ion lens coating. Light transmission tests at 80 to 81 percent.

mance, look to another brand.

Leupold excels at observationheavy tasks such as hunting. Leupold's rangefinders provide fast and accurate ranges with simple and effective ballistic solutions. Leupold took its range-finding technology and put it into its BX-4 HD binoculars. The beam divergence on the BX-4 Range HD is 1.2 mils by .4 mils, tighter than

many of the more expensive European options. Tight beam divergence is important because more than half of the beam has to be on the target to obtain an effective measurement. Reflectivity matters, too, of course, but beam divergence is the other critical component. So, you can expect better performance on smaller targets when using Leupold binoculars. Leupold also states that we should be able to range as far as 2,600 yards on reflective targets and 1,600 yards on treelines with the range-finding technology built in.

Other range-finding binoculars offer more complex ballistic solutions and greater control of data

but often an overwhelming choice for hunters. Hunters	
want to hunt; they don't usually like fussing with gear and	ł
menu functions.	
There is a learning curve associated with using new	
aguisment Lounald's solution is both simple and als	

input. This makes them great for competitive rifleshooters,

equipment. Leupold's solution is both simple and elegant. The TBR-W system was incorporated from Leupold's rangefinders, which segregates ballistics solutions into groups. There is no need to know the sight height, ballistic coefficient (BC), and muzzle velocity, and then true the solver. That's not an overly difficult problem to solve, but it does require familiarity with those terms and some time to learn how to access it all. Leupold only requires the shooter to zero at 200 or 300 yards, and then record how

> far the bullet drops from the zero at 600 yards. I just zero at 200 yards, range a small target at 600 yards, and spin the turret until rounds impact the target. Converting how many MOA or mils are dialed to inches is easy. Take that measurement of drop in inches at 600 yards and look at Leupold's provided table to see what ballistic group to assign to the binoculars. Once complete, the binos will accurately tell you what to dial on the scope out to 800 yards when used within plusor-minus 25 degrees Fahrenheit and plus-or-minus 2,000 feet of elevation,

The BX-4 Range HD also accounts

for angles when computing the firing solution. It will also compute wind holds at the selected range, assuming a 10 mile-per-hour wind at full value. Estimating wind holds with that information is simple and spelled out in Leupold's supplied user manual.

There are several rangefinding binoculars available, but Leupold waited until it could offer something unique. They succeeded. The BX-4 Range HD binoculars offer



exceptional optical performance without causing eye fatigue. Using them provides you with simple and effective range information — as well as ballistic solutions — at a competitive price. 🖾

mance at first and last light should examine the BX-4 Range HD. If you simply want robust ballistic control and information, or extended range-finding capabilities in lieu of optical perfor-

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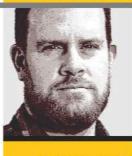
Other radar chronographs can be misleading by just providing muzzle velocity, which only tells the story's beginning. **Caldwell's VelociRadar** is the **first chronograph to use "chirp radar"** to continuously measure velocity from muzzle to target, allowing the true ballistic coefficient to be calculated. Relying on the bullet manufacturer's estimated ballistic coefficient will only get you close, resulting in missed shots.

Get the full story with the Caldwell VelociRadar.

GUN NOTES OCTOBER 2024 G&A 39

Testing **Ballistic Advantage** pistol barrels and **D&L Sports** .45 ACP ammunition.

BARRELS & BULLETS



JOE KURTENBACH

GLOCK MAKES AN EXCELLENT FIGHTING PISTOL.

Lightweight, durable and reliable, in terms of a mass-production and a duty-proven sidearm, there may be none better. They are not, however, "perfect." The most obvious shortcomings are its sub-par standard sights and a trigger system I'd derisively describe as "mil-spec." Those who have enjoyed Uncle Sam's largesse in the form of mil-spec coffee and toilet paper will understand my meaning.

The gun's longevity and popularity have given rise to an

aftermarket unrivaled in the firearms world. Motivated do-it-yourselfers can even assemble "Glock" facsimiles without using a single factory part.

One component that has received particular attention of late is the barrel, especially in earlygeneration (Gen1 to 4) pistols. Typical accuracy was notably "service-grade," say, 3- to 5-inch groups at 25 yards. Acceptable for a defensive sidearm, factory Glocks are not likely to win a bullseye match. The company responded with the Marksman barrel as part of its Gen5 suite of upgrades. The new barrels were purported to feature an enhanced rifling pattern for improved accuracy.

I've wondered about the efficacy of aftermarket barrels in guns like the G19. The G19, a compact, 9mm pistol, has long been the brand's most popular offering. It's widely regarded as the pistol to have, if you can only have one. How much improvement is possible through a barrel swap? After all, we're talking about 4 inches of metal pipe.

To test barrel performance, I sourced two new G19s, a Gen4 and a Gen5. The Gen5 was an MOS optic-ready pistol that came from the factory with high-visibility night sights made by Ameriglo, likely a leftover from a contract

build. I installed matching iron sights on the Gen4 to keep the guns on even footing. No optics were used and no other modifications were made.

I also requested two aftermarket test barrels from Ballistic Advantage (ballisticadvantage.com). The barrel maker catalogs a wide selection of 9mm barrels for G17, G19, G26, and G34 pistols. Ballistic Advantage offers barrels compatible with Gen3 to 5 pistols. Options include a variety of fluting patterns, threaded muzzles, and metal

finishes ranging from black to iridescent. I kept things simple for this test, selecting non-fluted, non-threaded barrels in PVD light gray (\$175) and QPQ black (\$175).

I tested the guns with three types of 9mm ammunition: Armscor 124-grain FMJ; Federal Premium Gold Medal Action Pistol 147-grain FMJ; and Hornady Critical Defense 115-grain FTX. Five, fiveshot groups were fired with each ammo type at 25 yards to record group sizes and muzzle velocities. The process was replicated for both guns, each with its OEM barrel and a Ballistic Advantage barrel, totalling 60 five-shot groups.



Evaluation guns included factory-stock Glock 19s. Shown here is the Gen5 MOS slide with OEM barrel, and the Ballistic Advantage Glock 19 Gen 3-5 premium barrel with light gray PVD finish.

First comparing the Gen4 and Gen5 G19s with OEM barrels, the Gen5 had the edge. Group sizes were .38-inch smaller, on average, although velocities were 10 to 25 feetper-second (fps) slower, across the board. Given that the Gen5 upgrade represented a full-pistol overhaul, it's tough to isolate the effect of the Marksman barrel, but I'm willing to accept that Gen5 guns do offer enhanced accuracy.

Testing the Gen4 OEM barrel against the Ballistic Advantage barrel, results were more apparent. With the aftermarket barrel installed, group sizes shrank by an average of .53 inch at a cost of about 25 fps. That

represented a difference between sub-3½-inch groups with the Ballistic Advantage barrel, typically, and approximately 4-inch groups with the stock component. In practice, it could mean reliably hitting a USPSA headbox at 25 yards or not. That's something to think about.

The results weren't so lopsided with the Gen5 gun, lending more laurels to the Marksman barrel. Ballistic Advantage edged out the stock barrel, but only by .09 inch, and the two ran

neck-and-neck for velocity. From a practical standpoint, there was no discernable difference.

Testing proved aftermarket barrels can enhance accuracy potential, particularly for the older-generation models. As Ballistic Advantage's catalog illustrates, they are also appealing for allowing shooters to adapt their gun's appearance to reflect a personal style.

Ultimately, there are a lot of factors that impact pistol shooting performance. To achieve the most bang for your buck, prioritize training and range time. Then, with sound fundamentals, consider swapping the sights and tuning the trigger to enhance those areas of interface. Becoming a better shooter is the surest path to greater accuracy.



D&L SPORTS .45 ACP GSP 200-GRAIN RNSWC

THE .45-IEST?

Guns & Ammo reported the resurgence of .45 ACP this year, and I made note of D&L Sports General Service Pistol (GSP) ammunition (Gun Notes, April 2024), featuring a 200grain round-nose semi-wadcutter bullet (RNSWC). The three fathers of the final recipe include Elmer Keith, Jeff Cooper, and custom gunsmith Dave Lauk: Keith for his semi-wadcutter designs; Cooper for his extensive knowledge of the .45, and practical

experience in defense and hunting; and Lauk for making the concept a reality through bullet engineering, thorough testing and load refinement.

The original idea stemmed from the penetration and wounding potential of a solid projectile with a sharp wadcutter-style shoulder. Forgoing mechanical expansion entirely, such a bullet, in .45 caliber, reliably drives a near-half-inch channel through the target. For four-legged quarry or two-legged threats, it's likely to cause critical damage and provide entry and exit wounds, even considering standard pistol velocities.

Improving upon the standard flat-nose semi-wadcutter, D&L's GSP bullet was designed with a rounded nose for



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D&L Sports GSP 200-grain RNSWC bullets after barrier testing. From above, left: Bare gel; heavy clothing; steel; wallboard; plywood; and automobile safety glass. Note: Only the steel and glass barriers had any noticeable impact on the coated-lead projectiles.



the Hornady® SST® (Super Shock Tip) bullet. Designed to deliver tremendous shock on impact while expanding quickly and reliably, particularly at higher velocities. Flat shooting and deadly accurate, it's an ideal bullet for whitetails, as well as most North American game animals. The SST® creates a devastatingly large wound channel.

the following calibers:

Caliber	Bullet Wgt.	Туре	FPS	
.243 Winchester	95 gr.	SST	3170	
6.5mm Creedmoor	140 gr.	SST	2714	
.270 Winchester	150 gr.	SST	2813	
7mm-08 Remington	162 gr.	SST	2512	
.308 Winchester	165 gr.	SST	2645	
.30-06 Springfield	165 gr.	SST	2749	



sure feeding in semiautomatic pistols, particularly the 1911. Its an all-lead bullet that is finished with a heat-set laver of Hi-Tek Supercoat. This metal finish is meant to reduce smoke and lead fouling for a clean shooting experience and less wear on the barrel. Its final 200-grain weight gives the load a nominal velocity of 900 fps and 360 foot-pounds of energy — on par with traditional .45 ACP loads.

To thoroughly test the new ammunition, I fired 1,500 rounds through a variety of .45 ACP-chambered firearms; mostly 1911s, but also strikerfired guns. Guns & Ammo's standard evaluation of five, five-shot groups at 25 yards was also conducted using five 1911s from different makers. Throughout testing, there were no issues. I found the ammunition's performance to be exceptionally consistent. Note, though, velocity drops considerably with shorter barrel lengths.

Although the load has an oldschool mentality, I was also curious about its performance based on modern standards. To that end, I sent some ammunition to friends at Hornady to be shot through barriers according to the FBI's Test Protocol. Hornady holds the FBI service ammunition contract, and regularly qualifies its loads using the Bureau's prescribed evaluation.

The results show the GSP bullet to be an impressive penetrator, and relatively barrier blind. In no instance did D&L's load fail to penetrate deeply enough. Too, it did a good job of retaining its mass and only suffered substantial deformation against steel and auto glass, which I expected.



When you're putting distance between camp and your destination, carry the 110 Ultralite Elite. The realities of the hunt are heavy enough. Let Savage lighten the load.



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PERFORMANCE: D&L GSP 200-GR. RNSWC

FIREARM (BARREL LENGTH)	VEL. (FPS)	ES	SD	BEST GROUP (IN.)	AVG. GROUP (IN.)
Nighthawk Falcon Commander (4.25 in.)	846	25.9	8.1	1.37	2.62
Springfield Armory Emissary (5 in.)	891	29.9	8.1	1.65	2.17
Gunsite Service Pistol (5 in.)	883	18.7	4.6	2.28	2.81
MAC 1911 JSOC 45 (5 in.)	899	31.5	10.1	2.4	2.97
Kimber Super Carry Pro (4 in.)	826	27.3	8.6	2.43	3.2

On the other side of the penetration coin, however, the bullets almost always passed through the 22-inch gelatin block. Overpenetration is considered a "failure," according to FBI standards.

Overall, I submit that this do-it-all load is a resounding success given its design intent. When considering .45 ACP ammunition that feeds and functions reliably, puts clean holes in targets, and can be used for pistol-range gamegetting, the D&L GSP 200-grain RNSWC meets the mark. Priced at \$120 for a box of 200, 60 cents per round, it's also an exceptional value. Just be mindful of your target, and what is beyond, especially if you consider carrying it for personal defense.

BARRIER TEST: D&L GSP 200-GR. RNSWC

BARRIER	DESCRIPTION	DEPTH (IN.)	NOTES
Bare Gel	Calibrated 10-percent ordnance gelatin.	22+	Traversed entire length of the gel block (22 in.) and exited the rear.
Heavy Clothing	Four layers: Cotton t-shirt, cotton shirt, fleece, denim.	22+	Traversed entire length of the gel block (22 in.) and exited the rear.
Steel	Two pieces of 20-gauge steel, 3 in. apart. Gel set 18 in. behind steel.	20.25	Ogive pressed into a "cone."
Wallboard	Two pieces of half-inch gypsum board, 3.5 in. apart. Gel set 18 in. behind wallboard.	22+	Traversed entire length of the gel block (22 in.) and exited the rear.
Plywood	One piece three-quarter- inch AA fir. Gel set 18 in. behind plywood.	22+	Traversed entire length of the gel block (22 in.) and exited the rear.
Automobile Glass	One piece of quarter- inch laminated auto safety glass, angled. Gel set 18 in. behind glass.	13.25	Sheared off ogive and deformed slightly.

For more information about the history and design of D&L Sports GSP ammunition, visit dlsports.com. To order, go to shootcoloradowest.com. For additional information about Hornady ammunition, go to hornady.com, and visit hornadyle.com/resources/fbi-test-protocol to learn more about the FBI barrier-test standards.



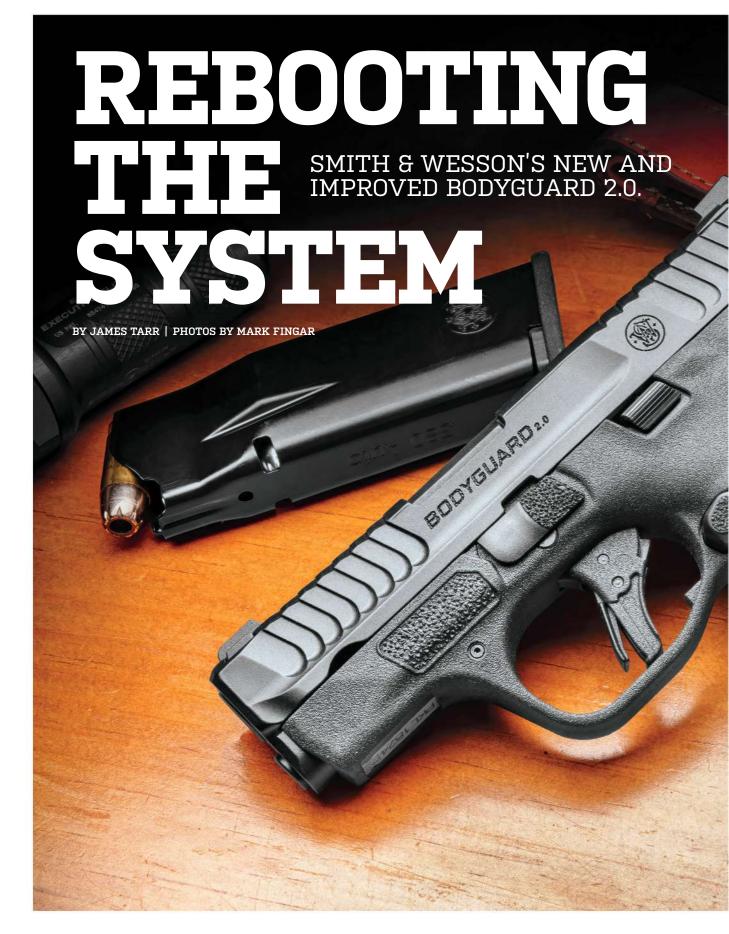
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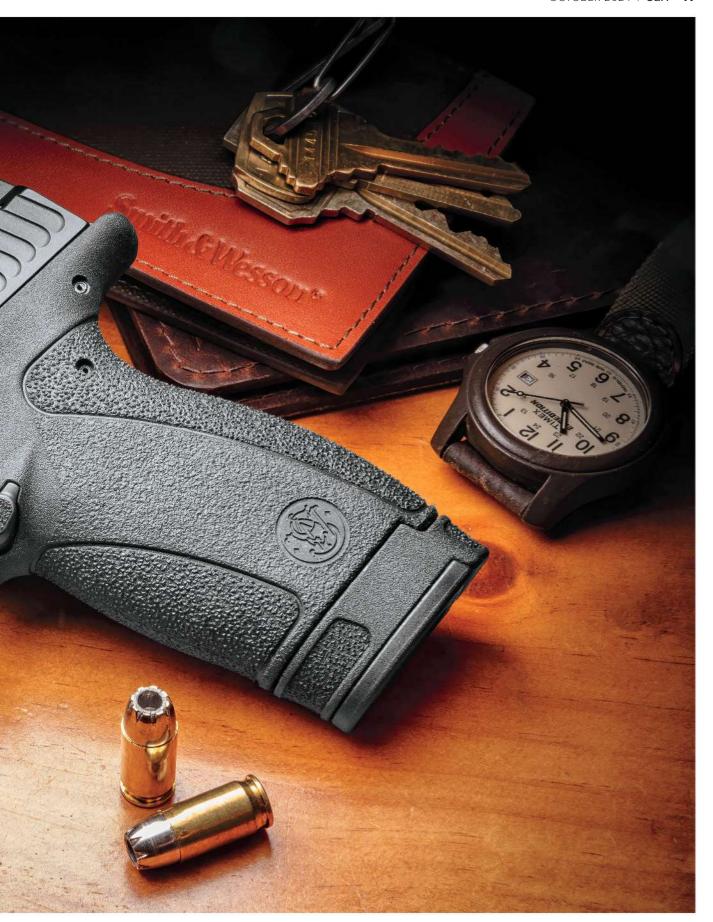
Trusted in the line of duty - Trusted in your home. Built beyond tough for professional use and for the the moments of no second chances. Don't settle for anything less.















IF YOU'D FORGOTTEN that Smith & Wesson made a .380 ACP Bodyguard pistol, you're not alone. When it introduced the original single-stack version in 2010, interest

seemed to die off after the initial push. Personally, I thought the pistols were a little busy, and I had no use for the models equipped from the factory with lasers. There was nothing wrong with the guns, but they didn't get lasting traction with the public. However, the new-for-2024 Bodyguard 2.0 — still a .380 ACP — S&W appears to have addressed everything less than perfect with the previous generation, real or imagined. When I saw the announcement of the pistol and the pictures, I was unenthusiastic. As soon as I got one in my hand — hoo, buddy. S&W is going to have trouble keeping up with the orders on this one!

Before I dive into the details of this pistol, I want to say this: It's smaller than it looks in photos. It is surprisingly small! In photos, it looks like a Shield, or even a full-size M&P, simply because of its proportions, which is why I was unenthusiastic. In truth,

a Shield is significantly larger than the Bodyguard 2.0. As for what I feel will be the Bodyguard's main competition — the Glock 42 (\$479) — the Bodyguard 2.0 is smaller in every dimension, and lighter while holding 40 percent more ammo. As far as I'm concerned, that's a good thing. Backup .380 pistols should be small. If you're the least bit interested in it, I urge you to head down to the local gun store and get one in your hand. Decide for yourself.

Smith & Wesson's new Bodyguard 2.0 is a polymer-

BODYGUARD 2.0				
ТҮРЕ	Recoil operated, striker fired, semiautomatic			
CARTRIDGE	.380 ACP			
CAPACITY	10+1 rds., 12+1 rds.			
BARREL	2.75 in., stainless steel			
LENGTH	5.6 in.			
HEIGHT	4.1 in. (w/ magazine)			
WIDTH	.75 in.			
WEIGHT	11.4 oz. (tested w/ empty magazine)			
FRAME	Polymer, textured			
FINISH	Armornite (stainless steel)			
SIGHTS	TruGlo Day/Night (front), serrated notch (rear)			
TRIGGER	4 lbs, 4 oz. (tested)			
SAFETY	Trigger safety lever, firing pin block; thumb safety (optional)			
MSRP	\$449			
MANUFACTURER	Smith & Wesson, 800-331-0852, smith-wesson.com			

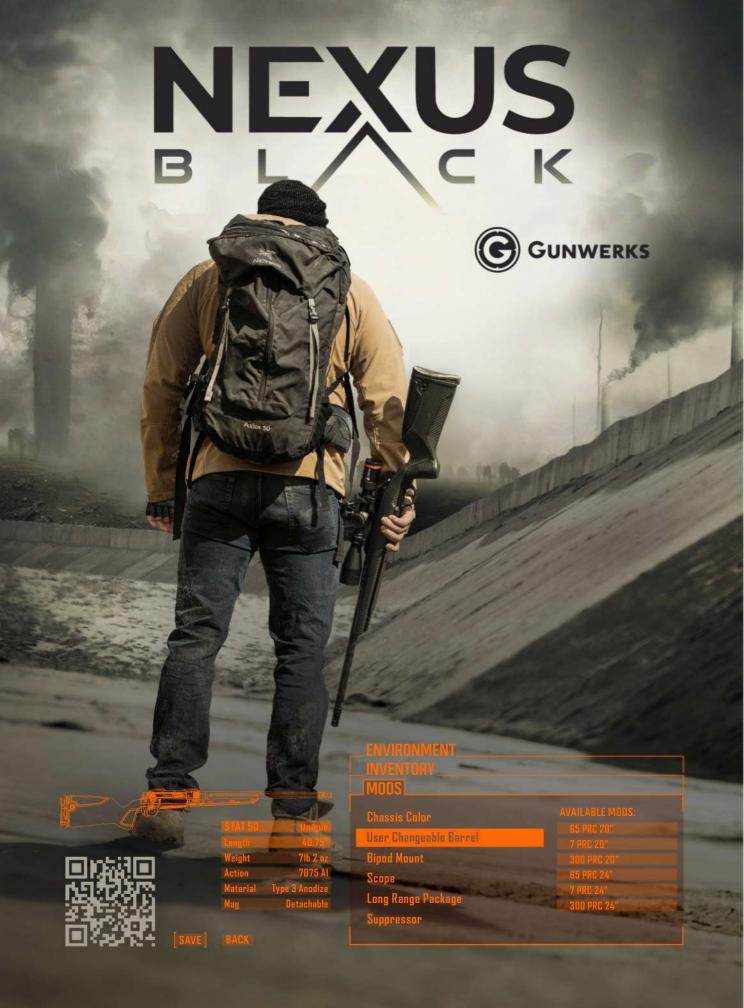
SMITH & WESSON

framed striker-fired pistol, which comes with one flush 10- and one longer 12-round magazine with a grip extension. With the flush magazine in place, it weighed 11.4-ounces according to my digital scale. It is 4.1 inches tall and 5.6 inches long with a 23/4-inch barrel. This pistol is very thin, too. At its thickest point — the magazine release — it measures 1-inch thick, exactly. The grip is only .89-inches thick, the slide is .75 inches.

Currently, there are two models of the Bodyguard 2.0, the only difference in SKUs is whether or not you prefer

one with a manual thumb safety (TS). I am opposed to manual safeties that you can't flick off with your shooting hand naturally as part of the draw, which means I've never liked the flat/stiff safeties on S&W's Shield. You get that same safety with the Bodyguard 2.0 TS model. What was sent to Guns & Ammo for evaluation was the No Thumb Safety (NTS) model. Both are priced the same.

The Bodyguard 2.0 almost has the same proportions as a full-size M&P, and you'll find it has the same duty-grade







Tru-Glo day/night sights are standard on the Bodyguard 2.0, having a bright orange ring around a tritium insert in the front sight. The rear presents a wide U-notch and is serrated.



Front and rear slide serrations are machined with a forward angle pattern. The top of the slide between the sights is flat.

features and controls, even though it no longer has an "M&P" in the name.

The front sight is a wide day/night from TruGlo. There is a high-visibility orange ring around a tritium insert. I was able to see it regardless of the lighting conditions.

The rear sight is plain black, but serrated at the rear with a healthy U-shaped notch. The notch puts a lot of daylight around that big front sight

when aiming. Interestingly, the front of the rear sight has a vertical segment, so you can rack the slide one-handed on a hard surface using that if needed.

No, the Bodyguard 2.0 isn't optics ready, at least not these initial models. Due to the thin nature of the slide, I don't see it happening until someone comes out with an even smaller optic. I'm not a fan of red-dot optics on carry guns, but on a deep concealment micro-compact meant for use at conversational distances, it seems to be an especially dumb idea; it's a perfect example of "redoubling one's efforts after losing sight of your goals." Just stop it! That big orange dot on the front sight is your dot. Use it.



its marketing materials, they are "aggressive without being sharp." Not to be overlooked, a sizable cutout at the rear of the barrel hood serves as a loaded chamber indicator.

There are a few things about this pistol that fascinate me, but one is that is uses a standard tilt-barrel design, just like the M&P big brothers. Many .380 ACPs use a straightblowback operating system. Blowback guns are simpler and all you need for the .380, which is a less powerful cartridge. In a straight blowback pistol, those recoil forces are counteracted almost entirely by a (stronger) recoil spring.

S&W obviously wanted potential Bodyguard 2.0 buyers to be able to cycle the slide. A significant portion of them will be women or people with weak grips. In fact, one of the first questions I got about this pistol was how hard was

> the slide was to rack. The recoil spring on the Bodyguard isn't feather light, but my wife was able to cycle it easily the first time.

Both the slide and barrel are stainless steel given S&W's Armornite finish; "Armornite" is S&W's version of black nitride. The slide has quite a matte finish, which helps make it grippy. Also helping with that are the generous directionally-angled slide serrations. They cover the front and back of the slide, and

wrap up over the corners on

the top. As S&W described in

Here's a pro tip: If you're having a bit of an issue working the slide, don't push-pull, push-push, as it's easier. Position the pistol in front of you, parallel to your chest, but pointed in a safe direction. With one hand on the grip naturally, and the other gripping the slide, push your hands toward each other to rack.



The trigger features a flat face that fires the pistol after the safety has been compressed and 4½ pounds of pressure applied.

It's twice as easy as any other technique.

Let's address the trigger and triggerpull. The Bodyguard 2.0 has the standard safety lever on the trigger to keep it drop-safe, but the flat lever atop the flat trigger does look different. When pressed, it fires at 90 degrees.

The old-school way of thinking was that a long/heavy trigger pull on a "pocket" gun functioned as a safety. The folks at S&W did not take that approach, and I'm grateful. The triggerpull on the Bodyguard 2.0 was excellent. It's as crisp as a striker-fired triggerpull gets, with a total weight of 41/4-pounds on G&As sample. That may make some of your heads explode, and I get that, because even

DEAD WEIGHT.





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The Bodyguard 2.0 features a high-grip undercut at the rear of the triggerguard, positioning the pistol low in the hand.

though we tell people over and over that pocket guns even when in pockets — should be in holsters that cover the triggerguards, some people will just drop them into pocket, sometimes filled with keys and coins, or purses filled with, well, everything. Don't do that; don't be that guy (or gal) who puts a hole in the top of their thigh or the bottom of their purse because something got wedged into the triggerguard of your gun.

From an ergonomics standpoint, the Bodyguard 2.0 is a home run. First, it looks great, with proper proportions. It looks like a larger gun, which is why photos just

don't seem to do its small size justice. Yet, while very small, the grip is big enough that most people will be able to get all their fingers around the gun even using the flush magazine, and everyone else will be able to if they use the extended magazine, which, for its size, is amazing.

The distance between the bottom of the triggerguard of the Bodyguard 2.0 and the bottom of the flush magazine is just more than 2.1 inches. I wear size

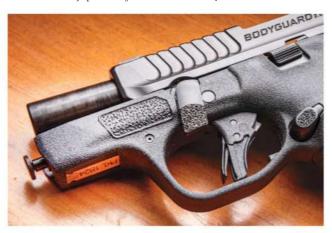
Medium gloves and can get three-quarters of my pinkie on the gun with the flush magazine in place. This is possible, in part, because the triggerguard of the Bodyguard is a bit smaller, and is undercut at the back. My older son has massive meat paws, and with the flush magazine his pinkie was left hanging, but he could still get all of his fingers around the gun with the extended magazine in place.

The rear of the frame is shaped very high with a bit of a beavertail, allowing your hand to sit as high as possible. In fact, this gun might have the lowest bore of any semiauto I've ever tested. The top of the slide is less than a finger's width from the top of my trigger finger when laid straight along the frame.





The grip is molded with M2.0-like texture at the frontstrap and backstrap sections, as well as on the extended magazine spacer.



Texturing appears on grip surfaces and on controls, including the magazine-release button, finger index and takedown lever.

In addition to the frame being molded so you can choke way the heck up on it, it was smartly textured. The front and back of the frame have aggressively textured areas, whereas the sides of the frame likely to be pressed against your body — are nearly smooth. There are textured areas on either side of the frame above the front of the triggerguard, for your support-hand thumb.

Another nice touch is

the steel takedown lever; it sports aggressive texturing that matches that on the frame. If you look closely, you'll see the front of the grip has a gentle outward bulge to fill your hand just a little more, but it is still skinny and small.

The steel magazine release is textured and sticks out from the frame, but not any further than the slide stop. The magazine release is reversible, for you lefties. The Bodyguard 2.0 has a single-sided slide stop, though. It is possible to drop the slide using this lever as a "slide release," but it is admittedly small. You might be better served just working the slide.

When you disassemble the Bodyguard 2.0, you'll see that it has a dual-spring recoil system. The .380 ACP is no

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Disassembly and reassembly of the Bodyguard 2.0 is a familiar affair. With the magazine removed and slide locked back, the takedown lever rotates down for fieldstripping.

PERFORMANCE



powerhouse, but this is a 9.8-ounce pistol without a magazine in it. Markings on the inside of the gun showed the polymer frame was made at the facility in Springfield, Massachusetts, but other parts of the pistol was manufactured and assembled at S&W's new Maryville, Tennessee plant.

The magazines are black and steel, containing bright orange polymer followers. There are numbered index holes on the right side of the magazines at "6", "8", "10" and "12". The grip extension on the 12-round magazine was textured to match the frame texturing.

I headed to the range the day after I picked up the Bodyguard 2.0, both excited and curious. Simply based on its size and weight, I assumed recoil with the Bodyguard 2.0 would be snappy. I was curious as to how the unusually low bore and tilting barrel would affect handling.

Recoil was not bad. During my first range session I put 150 rounds through the Bodyguard 2.0 in 20 minutes, which got the front of the slide too hot to touch. Besides the heat, my hands did not feel sore or abused. For a gun of this size and weight, this is a huge win. With a gun this light, you will notice the difference in recoil between various loads.

The pistol points very naturally, and I love the big front sight. The great trigger helps, too, but I discovered that if you're not on the gun, paying attention to the ever-important sight alignment and trigger control, the fact that it's light and small means that a little error will produce a large group. There's a reason why some

perform accuracy testing with guns this size at 15 yards. (G&A's protocol for almost all pistol tests is 25 yards.) At 7 yards, between the low bore and good trigger pull, I could do mag dumps and keep all my hits in the center zone of an IDPA target.

I experienced a few issues while shooting, but no real problems. Let me explain:

- 1. With some types of ammunition, I wasn't able to load the magazines to capacity; the magazine springs were very strong. This will probably sort itself out in time.
- 2. The pistol was reliable with every type of full-metal-jacket (FMJ) and jacketed hollowpoints (JHP) tested except the Barnes TAC-FPD. It's interesting, as Barnes'

hollowpoint has a rounded, nearly FMJ profile. At least one round out of every magazine would hang up on the feed ramp. That's not a gun problem, that's an ammo incompatibility problem. The cavity of Federal's Hydra-Shok Deep looks like the jagged mouth of a piranha, and yet the Bodyguard ate those up.

3. At least half the time, the

slide didn't lock back on empty magazines; there's only so much room on a little gun. My thumb pressed down on the slide stop. The magazine followers were not defective.

In summary, I love this pistol. I think Smith & Wesson has a huge win on their hands. I will be buying my sample. It's got great features, and that includes maximum capacity for minimal size. My personal opinion: I wouldn't recommend it as a primary, simply because it's a .380. As a backup gun or a concealed-carry pistol — when you can't carry anything bigger — it's a winner.

VEL. LOAD 2.9 Hornady Am. Gunner 90-gr. XTP 823 30 20 23 Federal Hydra-Shok Deep 99-gr. 873 25 16 2.5 3.2 Fiocchi 95-gr. FMJ 28 20 2.6 3.8 Barnes 80-gr. TAC-XPD 921 25 3.2 3.7 34 SIG Sauer Elite 100-gr. FMJ 887 41 24 3 4 42



SBE3 20-GAUGE

Legendary in quality and performance, three generations of the Benelli Super Black Eagle have carved their name in history. This historic line continues to expand in 2024 with the addition of the SBE 3 Compact model in 28-gauge, 20-gauge and 12-gauge. See one today at your local dealer or visit **BenelliUSA.com**.





OF THE LAND

THE **BROWNING X-BOLT 2 SPEED SPR** IS A SEQUEL THAT BESTS THE ORIGINAL ON THE RANGE AND IN THE FIELD.

BY ERIC R. POOLE | PHOTOS MICHAEL ANSCHUETZ

ALBERTA HAS BEEN GOOD to me. In 2017, I used the then-new Winchester XPR in .300 Winchester Magnum to take a monster mule deer from across a wheat field (Guns & Ammo, December 2017). That dark, heavy-antlered and thick-bodied buck weighed almost 300 pounds, attracting a lot of interest among the area's outfitters. I've since returned to hunt elk and wolves, as well, with great success. Despite the preparation required to navigate Canada's restrictive gun laws, Alberta is an attractive destination for hunters interested in experiencing the northern wilderness.

I drove through Montana to Alberta in November 2023 to field test the Browning X-Bolt 2 Speed. (It was later introduced at the 2024 SHOT Show.) Besides acquiring a Wildlife Identification Number (WIN) and paying the \$8 Canadian one-time fee — a prerequisite to purchase hunting licenses in Alberta — a hunter must also fill out a one-page form to enter Canada with a firearm. (Pistols are not allowed.) The cost is \$25, as of this writing, in Canadian funds, which is payable when entering the country. Form RCMP 5589/CAFC909 can be downloaded and printed from the RCMP website. Making this hunt unique was the invitation to stalk mule deer with the Blood Tribe in the Kainai Nation, where I was guided by Waylon Weaselhead. During our hunt

for mule deer, he educated me about tribal laws and the history of the land and his people.



The X-Lock riflescope mounting system features four screws per base for accurate placement and more security.



Carried over from the original X-Bolt design, the flush-fit rotary four-round magazine holds cartridges by the shoulder, protecting bullets from deformation during recoil.



The radial ported muzzlebrake mitigates felt recoil. The barrel can be suppressed.





The bolt-unlock button rises when the tang safety is engaged (above, left). It's used to unload or inspect the chamber. Under the bolt shroud is the striker tab status.

Browning for \$80, and in various Cerakote colors including Smoke Bronze. X-Bolt Target models include a factory-installed optic rail on a linear four-screw pattern with a torque setting of 25-inch-pounds.

The X-Bolt introduced several innovations for a centerfire bolt-action rifle, including its polymer rotary magazine that holds each cartridge by the case's shoulder. This protects bullet tips against deformation from contacting the front wall of the magazine during recoil. Another innovation was to the safety system, resulting in a bolt-override button connected to the trigger. Pressing the button allows the bolt to open, even if the safety is engaged. The X-Bolt series also offered a threaded radial muzzlebrake to minimize felt recoil. These features were carried over into the X-Bolt 2

FOUNDATIONAL

The X-Bolt was introduced in 2008, a design of Browning Arms Company manufactured by Miroku Corp. in Japan. Barrel lengths ranged from 20 to 26 inches. Browning annually introduced variations of the X-Bolt that managed to hold the interest of those who wear branded merchandise and drive a truck with the Buckmark displayed on the rear window.

The "X" moniker refers to the scope-ring-base mounting system that utilizes four drilled-and-tapped holes for each ring atop a flat-top receiver instead of two holes per ring centered on a round receiver. X-shaped thread protectors inspired the name for the platform, as well as the X-pattern tightening of the base

screws when torquing to 18-inch-pounds. The mounting pattern provides additional security for a scope, protection against bases loosening due to recoil, or stripped threads, inadequate torque, and human error. Aluminum rings with integrated X-Bolt pattern holes are available from

Bolt action CARTRIDGE 6.5 Creedmoor (tested) CAPACITY 4+1 rds. 22 in., steel alloy, fluted, BARREL 1-in-8-in. twist, threaded **OVERALL** 42 in. LENGTH WEIGHT 6 lbs., 7 oz. Composite; adjustable **STOCK** comb height, LOP, grip; OVIX pattern LENGTH OF PULL 13% in. Cerakote, **FINISH** Smoked Bronze (steel) Gold plated, adjustable; TRIGGER 3 lbs., 15.3 oz. (tested) SIGHTS **MSRP** \$1,470 Browning, 800-333-3288, **IMPORTER** browning.com

BROWNING X-BOLT 2 SPEED

NEXT IN LINE

At the 2024 SHOT Show, Browning revealed the X-Bolt 2. It was teased on the cover of "Backcountry Hunter" (Spring 2024), and quickly featured in "Petersen's Hunting" (April-May 2024) and "Shooting Times" (July 2024). The X-Bolt 2 continued the X-Bolt's innovations. As of this report, there are 13 hunting and two longrange versions supporting 14 car-

tridges: .243 Winchester, .270 Win., .28 Nosler, .30-'06 Springfield, .300 PRC, .300 Win. Mag., .300 WSM, .308 Win., 6mm Creedmoor, 6.5 Creedmoor, 6.5 PRC, 6.8 Western, 7mm PRC, and 7mm Remington Mag. Stock types include five camo models, four carbon fiber, three





Envoking the design of legacy Browning rifles, the gold-plated metal-alloy DLX trigger is a multiple-lever design adjustable down to 3 pounds.

composites, one made of walnut, and one from McMillan. Finish options are blued and Cerakote. Prices span \$1,100 to \$4,070; the most expensive spec is the X-Bolt 2 Pro McMillan with carbon-fiber stock, carbonfiber barrel and Browning's Recoil Hawg muzzlebrake. The most affordable is the X-Bolt 2 Micro with a 20-inch barrel in .243 Win., 6.5 Creedmoor, or .308 Win., which has a matte blued finish and black Vari-Tech stock.

The X-Bolt 2 continues to feed from a four-round capacity detachable rotary magazine, which is flush with the bottom metal underneath when inserted. Spare magazines are available (\$63 to \$73, shop.browning. com). The X-Bolt 2 will also be offered with an extended Browning "Plus" detachable-box magazine, holding six rounds for standard cartridges and five for magnums and WSM, and an aftermarket Xtra Capacity MDT AICS magazine. Magnum- and WSM-chambered rifles have rotary magazines that only accept three rounds. Rifles in other cartridges, including 6.5 Creedmoor, will have rotary magazines that accept four rounds. The polymer MDT AICS magazines hold 10 rounds (\$70, mdttac.com).

Guns & Ammo was sent the X-Bolt 2 Speed SPR in 6.5 Creedmoor for evaluation.

Opting for the fluted sporter-weight barrel, it features the Vari-Tech composite stock with Browning's OVIX camo finish and a Smoked Bronze Cerakote finish. Spec'd with an 18-inch .308 Win. or 6.5 Creedmoor barrel, it has a manufacturer-suggested retail price (MSRP) one cent shy of \$1,500. The X-Bolt 2 Speed doesn't have many direct competitors point-for-point, but in terms of price versus features, its rivals are the Savage 110 High Country (\$1,279, savagearms.com) and the Springfield Armory Model 2020 (\$2,173, springfield-armory.com).

The X-Bolt 2 configuration retains components such as the fluted Sporter-contoured barrel with a polished cham-



The action is bedding at the recoil lug and action screws. The Vari-Tech stock forend is reinforced with X-pattern ribs.



The Vari-Tech stock is adjustable for length of pull and comb height, complete with Inflex recoil pad.



Sling swivels are standard at the forend and near the toe, but holes can be drilled for attaching rails.

ber. The flutes don't alleviate barrel heat as some surmise, but they do complement the lightweight profile. Measuring 18 inches, the barrel is long enough to stabilize the bullet and harness most of the velocity potential across the broad spectrum of .308 Win. and 6.5 Creedmoor loads. A longer barrel could provide faster velocities, but the trade-off is increased weight and overall length. Out of the box, the X-Bolt 2 Speed with fluted Sporter barrel weighed 6 pounds, 7 ounces. It's easy to carry, quick to mount on the shoulder, and maneuverable in the field.

The muzzle is threaded M13x0.75 and equipped with the familiar radial muzzlebrake. With the muzzlebrake removed, it could be adapted to accept a suppressor or

given a thread-protector cap. It also accepts the Browning Recoil Hawg Sporter muzzlebrake (\$136, browning.com). Muzzlebrakes are effective at all but eliminating felt recoil, but they can generate noise and redirect the concussive blast to the sides of the muzzle.

The X-Bolt 2 benefits from an updated short-action receiver and bolt. The bolt continues the quick-to-cycle three-lug configuration resulting in a 60-degree lift. A benefit is that it provides clearance between a low-mounted scope and a shooter's fingers. When the bolt is cocked, a red-painted cocking indicator is revealed to the shooter's peripheral attention beneath the scope. The cocking indi-

RUGER MAX-9



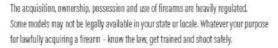
The MAX-9° is Your Next Handgun™ - and the added Ruger® ReadyDot™ Optic, which never needs a battery, is always ready. Slim, lightweight and compact for personal protection, the MAX-9° pistol provides a capacity of up to 12+1 rounds of 9mm Luger ammunition, and the fixed, non-adjustable ReadyDot™ Optic with large 15 MOA dot utilizes the light-gathering properties of fiber optics so it is self-adjusting for brightness.

















The bolt was updated for the Browning X-Bolt 2, which features spiral fluting and a three-lug design. The bolt handle is ergonomic and includes the bolt-unlock button for additional safety.



With three lugs, the bolt lift is short at 60 degrees, easily clearing most scopes. The knob is new for the X-Bolt 2, and the receiver was reconfigured to smooth bolt operation with no bind.

cator retreats when fired, hidden under the bolt shroud.

The thumb safety switch on the tang is still here, as well as the bolt-release lever at the left-rear of the receiver. The tang-safety works in conjunction with the bolt-unlock button. Again, the bolt-unlock button allows the user to unlock the bolt for loading or unloading the action with the safety engaged.

Within the alloy triggerguard is a gold-plated trigger that tickles the heartstrings of those who grew up shooting Brownings. G&A's sample featured the Browning DLX version, producing an average pull weight of 3 pounds, 15 ounces. The DLX Trigger uses an internal three-lever system to manipulate the sear, which allows the user to adjust the trigger's characteristics to eliminate creep, take-up and overtravel. There are variances, though; it can be adjusted to about 3 pounds, but the triggers are usually preset to 3½ pounds. Target model triggers are factory set to 2½ pounds and can be adjusted between 2 and 3.3 pounds. Adjusting the trigger requires a 5/64-inch (2mm) hex wrench. To remove the two screws that hold the bottom metal to the stock and action, use a 5/32 (4mm) hex wrench.

ART OF THE STOCK

The action is bedded to the composite stock, barrel freefloated. With the stock removed, the bedding is impressive — almost old school. We rarely see composite stocks with bedding compound and fitment such as on the X-Bolt 2. Called the "Vari-Tech Composite Stock," it wears Browning OVIX camo. The Vari-Tech is adjustable for length of pull, comb height and grip angle. The stock on the X-Bolt 2 features a new and thicker Inflex recoil pad. The textured, rubber-overmolded grip is interchangeable, and two grip profiles are offered: Sporter and Vertical. To change the grips, remove the barreled action for access to a No. 1 Phillips-head screw inside the rear of the stock.

At the front and rear of the X-Bolt 2 Speed are conventional sling-swivel studs, but unique to the Vari-Tech stock's forend are X-pattern reinforcement ribs that provide the composite material with rigidity. At the crosspoints, there are holes that can be drilled through using a 13/64 drill bit to create pass-through holes for attaching a piece of rail or M-Lok, for example. The hole will accept a 10-32 threaded nut insert, Grovetech part number

AFIER YOU SIGNATURE PROCESSENSE



Using a Browning X-Bolt 2 Pro McMillan SPR Carbon Fiber in 6.5 CM, Campbell tagged an epic mule deer buck.

490221 or similar. Insert the appropriate bolt or fastener to secure the piece of rail and tighten it to draw in the nut. (Be sure the fastener is not too long so that it doesn't contact the barrel!)

The stock is relatively easy to adjust. Using

the provided hex wrench, comb height can be increased to better position your eye behind the center of the scope's ocular lens. To access the small screw between the stock and the recoil pad, wiggle the hex wrench in the small hole above the top recoil-pad Phillips-head screw. With it loosened, there are six positions available for approximately 1 inch of total adjustment available. Know this: When you raise the comb, you eliminate your ability to readily boresight the scope to the barrel or clean the barrel

from breech to muzzle. If you want to boresight the scope, I suggest doing it before fitting the stock.

I did find it easy to remove the recoil pad with a No. 2 Phillips-head screwdriver first. With the recoil pad removed, use a No. 1 Phillips screwdriver to loosen the smaller screws to remove the rear sliding stock "end section," as Browning calls it. You can access the comb adjustment or increase/decrease the length of pull by adding or removing black plastic spacers between the end section and the stock. (Four spacers are provided.) Reassembled properly, the stock is rattle-free.

RANGE & FIELD

The X-Bolt 2 Speed held sub-MOA

PERFORMANCE

LOAD	VEL. (FPS)	ES	SD	BEST GROUP (IN.)	AVG. GROUP (IN.)
Browning BXS 120-gr. BT Solid	2,762	30	13	.2	.44
Black Hills Ammunition Gold 147-gr. ELD-M	2,647	71	27.4	.48	.72
Norma Whitetail 140-gr. BTSP	2,686	25	10.6	.68	.86
Hornady Precision Hunter 143-gr. ELD-X	2,583	28	12.2	.56	.73
Federal Fusion 140-gr. BTSP*	2,774	35	15.4	.79	1.13
ALL WELLOW IN THE COLUMN			0.0		

accuracy for three, three-shot groups fired in succession. Afterward, the barrel became too hot to touch. If I attempted to shoot after a three-shot groups, accuracy loosened to about 11/4-inches at 100 yards. This rifle was designed for hunting, so I wasn't surprised or disappointed. Ten minutes of patience at ambient room temperature was enough of a cool-down to resume group

I expect this level of accuracy out of custom rifles, but I didn't expect it out of an X-Bolt! In my opinion, the X-Bolt 2 Speed is more refined than lower-cost alternatives — but the price reflects this. With the X-Bolt 2 Speed, you are getting no more accuracy than what you should be getting for the money. It's not the blued, wood-stocked rifle for the nostalgic type of gun guy, and it

wouldn't impress your dad or grandfather until you sat them behind it on a shooting bench. (There was no felt recoil with the radial muzzlebrake, so you could.) It's not a rifle with a "soul," but it is stylish and a functional tool for the modern hunter. It's about as good of a rifle

as a production rifle can be. You can complete the look of the X-Bolt 2 Speed by wearing OVIX concealment-pattern clothing from Browning, or pairing it with OVIX accessories such as a sling \$30 and scope-rifle soft case (\$80).

RETURNING TO ALBERTA

Weaselhead and I glassed and hunted the land of the Kainai Nation for a trophy mule deer. Our expectations were skewed by the early success of another hunter in

> camp, Browning's Shaundi Campbell. She used an X-Bolt 2 Pro McMillan SPR to take an incredible buck at more than 300 yards. Stalking northern prairie for five days, we only saw younger mulies — hundreds of them — and some mature whitetails. Flusive and hidden, we uncovered the carcass of a shooter buck at the bottom of a river's canyon; it was a reminder that every living thing dies, but the land remains. On this trip, I learned that the Blood Tribe does not view land as property that can be owned. Land is shared, cultivated and protected for all of its inhabitants. Though I did not harvest a mule deer, I was ready to make a shot with this broadened perspective.



"Here's the buck we're after," said Weaselhead of the Blood Tribe. He proudly wore and displayed the Buckmark.







The growing family of Stoeger striker-fired, semi-auto pistols include micro-compact, mid-size and full-size models to fit any application. Optic-ready versions available. Standard features include:

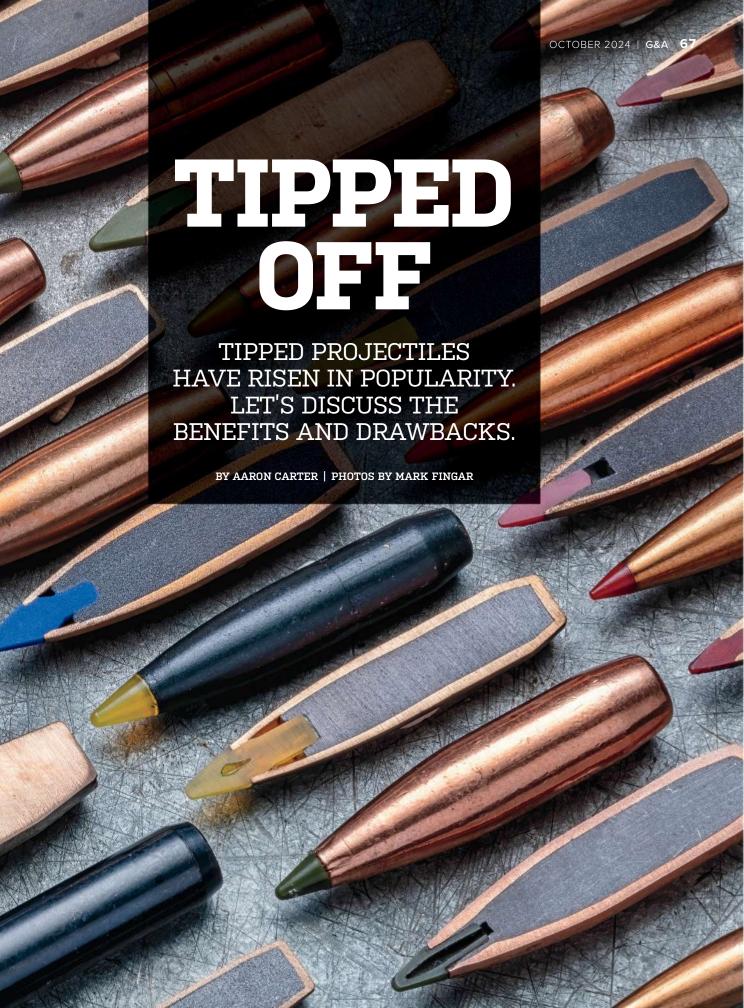
Integrated rail for accessories | Internal safety
Front and back slide serrations | Three-dot sight system
Enhanced ergonomics | Smooth-draw rounded edges
Interchangeable backstraps | Included cable lock





StoegerIndustries.com







Terminal Ascent features Federal's Slipstream Tip with a hollow-core and AccuChannel Groove. The tip initiates expansion of the bonded, nickeled jacket and core.

WHEN IT COMES to stretching the distance, all prospective pluses are worth pursuing. Be it the rifle, optic, rest, bipod, or ammunition, subtle changes can have a major impact on the outcome of a match, or even striking steel at extra-long ranges for amusement. As businessman and motivational speaker Tim Grover once remarked, "If you think the price of winning is too high, wait 'til you get the bill from regret." In other words, chase every opportunity to increase success or risk failure.

The rifleman's only physical connection with the target is the bullet. So, why wouldn't they want the best? But, what is "the best?" The popular trend for match-type projectiles is the addition of a separate tip, be it made from a lightweight metal or polymer. As you'll see, this is hardly new technology. It's not a universal practice, either.

In the subsequent sections, I provide a synopsis of the history of tipped bullets as well as detail the advantages and drawbacks. The latter is based upon correspondence with engineers and ballisticians at established bullet makers, company literature, and using ballistic calculators. Concerning communications, not all companies I reached out to

responded. Nonetheless, after reading the information that follows, you'll know what bullet is right for you.

IDENTITY & HISTORY

"The real voyage of discovery consists not in seeking new landscapes but in having new eyes," noticed French novelist and literary critic Valentin Louis Georges Eugène Marcel Proust. Imagine, then, the "new eyes" necessary to "see" a spitzer-shaped (i.e, spire-point) bullet, which debuted in the closing years of the 19th century, or a tipped projectile. The term "tipped" encompasses much. Some authorities include pointed soft-point, exposed-core bullets, though most firearms enthusiasts would argue it refers to projectiles with a separate tip made from a material different from that which the bullet is constructed. For the purpose of this article, we'll use the latter.

According to the "NRA Firearms Sourcebook" (2006), there are two types of tipped bullets, but only one has said name. The authoritative source reports, "Capped bullets are three-piece designs with a separate metal nose cap on the ogive. During handling and feeding, the cap protects the lead core; on impact, the cap collapses, allowing the core to expand." An example of this design was Winchester's Silvertip, which featured a shiny aluminum cap.

Conversely, the aforementioned book notes, "a tipped bullet is normally of three-piece construction with a sharp, pointed, metal, or polymer tip crimped in a hole in the jacket nose. Some recent designs have a cavity beneath the tip, while others do



SIG Sauer offers its Elite Hunter Tipped projectile, featuring a controlled expansion tip and tapered ogive. Sierra makes the black copper jacketed bullets to SIG Sauer's specs.





The aluminum tip of Hornady's A-Tip Match projectile is precision machined for reduced drag. The shaft is longer than polymer tips, shifting weight and stabilizing the bullet.

not." Its benefits are many and will be covered in detail shortly. The origins of tipped bullets are chock full of conjecture. However, there is consensus that, at least in the United States, Remington's Bronze Pointed Expanding Bullet, or "Bronze Point," came first. Its advertisements date back to the 1920s

Although the Bronze Point was admired by most hunters, it certainly had its detractors, too. Whether or not it was pleasing to all doesn't matter. More importantly, the projectile cleared a path for others to follow.

"In the early '80s, Nosler set out to design a bullet that would combine the accuracy of a match bullet, the reliable expansion and penetration of the Solid Base [streamlined, thickbased hunting bullet], and the ability to resist recoil-induced deformation in the magazine," explained Nosler's



Hornady's Heat Shield tip has a flat meplat and resists deformation in flight caused by aerodynamic friction.

website. In 1984, the Nosler Ballistic Tip (Hunting) was introduced with a hallmark, sharp, color-coded polymer tip that's been replicated ceaselessly.

Since the debut of the Nosler Ballistic Tip, nigh all large-scale bullet manufacturers, have added tipped projectiles to their lineups. For instance, amongst American makers alone, they're offered by Nosler, obviously, Hornady, Sierra, Speer, Swift, Federal,

and Barnes to name but a few. Why? The advantages they offer. But all isn't as it seems.

THE TRADEOFFS

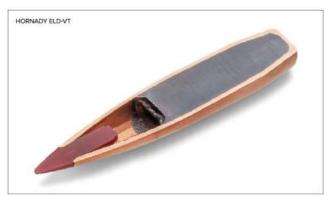
A metal or polymer/plastic point added to a projectile provides numerous benefits, including resisting tip deformation (as opposed to exposed lead-alloy), aiding the initiation of expansion upon impact, and improved aerodynamic shape and qualities to name a few. The latter is chiefly cited as the key reward reaped. In fact, Sierra's website states, "The major advantage of adding a tip to the bullet is the reduction of drag, [thereby] producing a more favorable ballistic coefficient (BC)." For a stalwart company that only recently started making tipped projectiles, that's insightful. Let's crunch some numbers to illustrate the gains.

Sierra Bullets offers both acetal resin tipped and non-tipped versions of many of their bullets, including the .30-caliber, 168-grain projectile. The vaunted 168-grain hollowpoint boattail (HPBT) MatchKing has a BC of .462 at 2,600 feet per second (fps), and above, and .447 from 2,100 fps to 2,600. Meanwhile, the newer Tipped MatchKing of the same caliber and weight has a BC of .535 at 2,050 fps and above. Marked differences numerically, but let's see what that translates to downrange.

Using the established velocity of 2,650 fps from a .308 Winchester as the standard, when zeroed at 200 yards, the original MatchKing will



"CX" stands for "Copper alloy eXpanding," the name chosen by Hornady for its monolithic hunting bullet. With a machined cavity, the solid copper offers weight retention and deep penetration.



Announced in 2024, ELD-VT is a low-drag, varmint bullet. High velocity was paired with reduced weight. Though the tip initiates expansion, the cavity produces rapid fragmentation on impact.

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Gold Medal Berger is known for its high BC, and long-drawn copper jacket surrounding lead antimony. On impact, the open-tip design is crushed to initiate expansion.

drop 51.6, 204.4, and 395 inches at 500, 800, and 1,000 yards, respectively. At the same distances, the Tipped MatchKing drops 48.7, 187, and 352.8 inches — striking dissimilarities. Whereas variances in trajectory can be counted for (i.e., dialed in) easily, reading the wind and correctly adjusting for it can be perplexing for all but the most experienced long-range marksmen. Therefore, less deflection is desirable.

The traditional MatchKing deflects 22.1, 64.1, and 108.1 inches at 500, 800, and 1,000 yards, while the Tipped MatchKing drifts 18.6, 52.9, and 88.7 at the same distances. Moreover, the former approaches the speed of sound — about 1,100 fps at sea level — at 1,100 yards, while the latter reaches it at 1,250 yards. This is one example of a tipped projectile outperforming a non-tipped version within the same company's offerings.

For comparison sake, the BCs of several competing non-tipped, .30-caliber, 168-grain bullets are: .507 (Berger VLD Target); .515 (Berger Hybrid Target); and .450 (Hornady HPBT Match). Hornady's tipped, .308-inch, 168-grain A-Max and ELD Match bullets have BCs of .475 and .523. Heed the especially high BCs of the Bergers. Keep in mind, too, that tipped bullets are generally lengthier

than their non-tipped counterparts.

Given the advantages, one would think all makers of open tip match (OTM) or HPBT bullets would replace them with tipped variants. They're not, and there are solid reasons behind their decisions.

"So long as a manufacturer can very precisely control the ogive shape, meplat diameter and shape, and the bullet overall length (which we can), adding a tip to a match bullet adds complexity, cost, and the possibility of additional accuracy-damaging variables to a bullet." commended Nosler's Director. Innovation Division. Mike Lake. "The tip is an additional

component that costs money to produce or purchase and adds assembly complexity [cost] to the jacketed bullet; plus, it requires very precise (but never perfect) alignment within the jacket and lead core. In the case of match bullets, performance simply means accuracy, consistency, and repeatability."

Bryan Litz, chief ballistician for Berger Bullets, shared similar opinions as Lake. "Among the drawback of plastic tips is dispersion," shared Litz. "Bullets spin at around 250,000-plus rpm, so in order to shoot sub-MOA groups, the balance has to be impeccable. Adding the tip component introduces imbalance, which can harm precision. Also, when used in gas guns, the tips can break off when rounds feed through the magazine and fly completely different, not to mention the broken tip jamming the gun." Compelling arguments, right? Well, here is a counter:

As reported on Hornady's website, "With a polymer tip, the meplat (diameter of the tip of a bullet) is the same from bullet to bullet and lot to lot. A molded polymer tip shape is the same every time. The meplat of an HPBT [or OTM], however, is inconsistent. Drawing the jacket material up to a perfect and consistently shaped tip every time is virtually impossible. Some match shooters use a meplat trimmer to even out the rim of HPBT meplats for consistency. This trim-



Sierra MatchKings are an open-tip-match (OTM) design that enjoys a legendary reputation for accuracy. These bullets have a heavy copper jacket design and lead core.

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15 YARDS

85% Weight Retention 300 Win. Magnum Moose



96% Weight Retention 6.5 PRC Whitetail Deer



91% Weight Retention 7mm Rem. Magnum Elk

997 YARDS

99% Weight Retention 300 Win. Magnum Oryx







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ming perfects the shape of the tip but removes mass from the bullet."

As Hornady would fortuitously discover, polymers vary. Back in 2012, Hornady's engineers were designing an all-practicalrange hunting bullet. As they were concluding testing, the Doppler radar revealed that, shortly after exiting the muzzle, the bullet was developing drag, which negatively affected the bullet along the rest of its flight path. Such wasn't the case with the company's HPBT Match bullets

but was replicated on the tipped A-Max projectiles. The culprit was the polymer tips, but it wasn't across the board. Hornady observed that the tipped varmint bullets and variants with sub-.550 BCs shed velocity too quickly for the bullet to be adversely



Introduced in 1940, the Winchester Silvertip was a controlled-expansion bullet with a soft nose covered by aluminum. The current Ballistic Silvertip is a Nosler-Wincheser collaboration.

affected. To thwart this, Hornady changed polymers to a tip with greater heat capacity and a melting point about 21/2-times greater than that of the previous material. Enter Heat Shield Technology. However, Hornady wasn't done.

The company recently announced Drag Variability Reduction Technology (DVRT), which is "a patented bullet tip design that increases the uniformity of bullet drag from shot to shot." How? According to a recent press release, "Specifically, the meplat must be flat — not pointed — and the diameter of the flat meplat is a specific ratio to the bullet diameter." Again, uniformity is paramount to top performance at long range. Hornady reported that the technology had been implemented into

the Heat Shield tip design and A-Tip match bullet while awaiting patent approval. It is now found in the company's A-Tip Match, ELD-X, ELD Match, ELD-VT, and CX bullets.

How much more do tipped bullets cost? On its website, Sierra Bullets



lists 100 .30-caliber, 168-grain Match-Kings for \$54. The same quantity of Tipped MatchKings runs \$59. What about on sale? Checking online, retailer MidwayUSA, at the time of this writing, listed 100 of Hornady's tipped, 168-grain ELD-Match and elder A-Max bullets for \$42 and \$56, respectively, while the non-tipped Match HPBT sell for \$40 for the same quantity. Suffice it to say, expect to pay more for tipped, match-type projectiles.

Whereas Nosler, who ushered in the widespread use of polymer tips, has no tipped options in its Custom Competition line, they also don't appear to be interested in adding them for the aforementioned reasons. Berger Bullets isn't, either.

"Berger is dedicated to precision above all else," explained Litz. "We've mastered the process of forming match bullets with closed tips; reference our line of Long Range Hybrid Target (LRHT) bullets. These designs achieve the same drag reduction as plastic tips without introducing a third component and associated imbalance. Also, we know plastic tips break off in gas guns and consider that an unacceptable result of using Berger Bullets." That's certainly much food for thought.

Litz concluded with, "If we can find a genuine need that's not being met with the construction of our current bullets, and if we can offer a tipped bullet that doesn't have the known problems of existing tipped bullets, we'll certainly consider it."

HUNTING:

WHERE TIPPED BULLETS EXCEL

This article primarily focuses on match-style projectiles, but it's worthy of note that tipped bullets shine for hunting, and companies share in this belief. According to Litz, "One advantage is terminal performance. By using a plastic tip, the opening in the metal jacket can be larger, which initiates expansion more reliably and at lower velocities." Remember, projectiles meant for hunting have a lower velocity limit at which they'll reliably

expand, so retaining speed is critical. A higher BC helps. "Also, when used on varmint bullets, the plastic tips can increase the BC compared to just having a wide open metal tip," said Litz.

Lake concurred, reporting, "In hunting bullets, we feel the tip is extremely important. With a tip, hunting bullets can present a very aerodynamic profile all the way to

the target and then deliver controlled terminal performance in a manner so as to deliver an ethical game harvest in a variety of variables, such as shot placement, angle of impact, animal physiology, or foreign materials on the animal at the point of impact, etc."

Hornady's website noted, "Without a polymer tip (or an exposed lead tip, which is not as aerodynamically







Remington loads the bonded Swift Scirocco bullet. The pure copper jacket is progressively thickening towards the boattail base, resulting in high weight retention.

efficient), there is no mechanism for expansion. Upon impact, the tip is slammed back into the frontal cavity and forces expansion. Without a mechanism for expansion (tip), the target dictates what the bullet does. We can control exactly how fast or slow a bullet expands with the tip size, cavity size and shape below the tip stem, and the relationship of the transition from jacket material to the outside edge of the tip. An HPBT offers no 'fine-tuning' for expansion. It is totally dependent on what the target media makes it do."

"Life is filled with difficult decisions, and winners are those who make them," wrote American author Dan Brown. Indeed, selecting between tipped and non-tipped bullets once seemed so simple, didn't it? It's not. So, choose wisely.

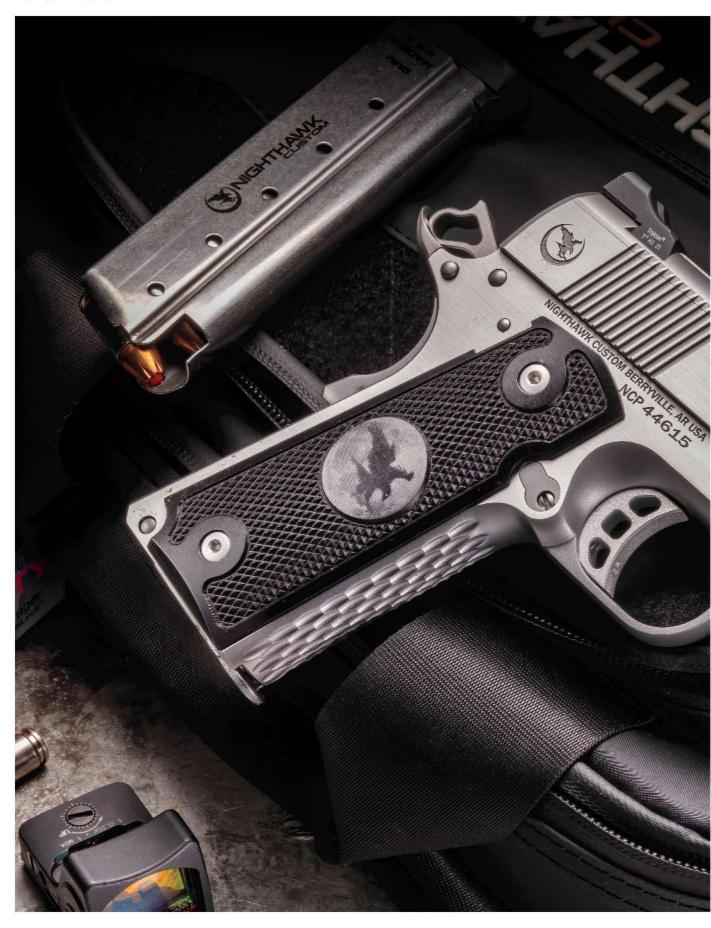


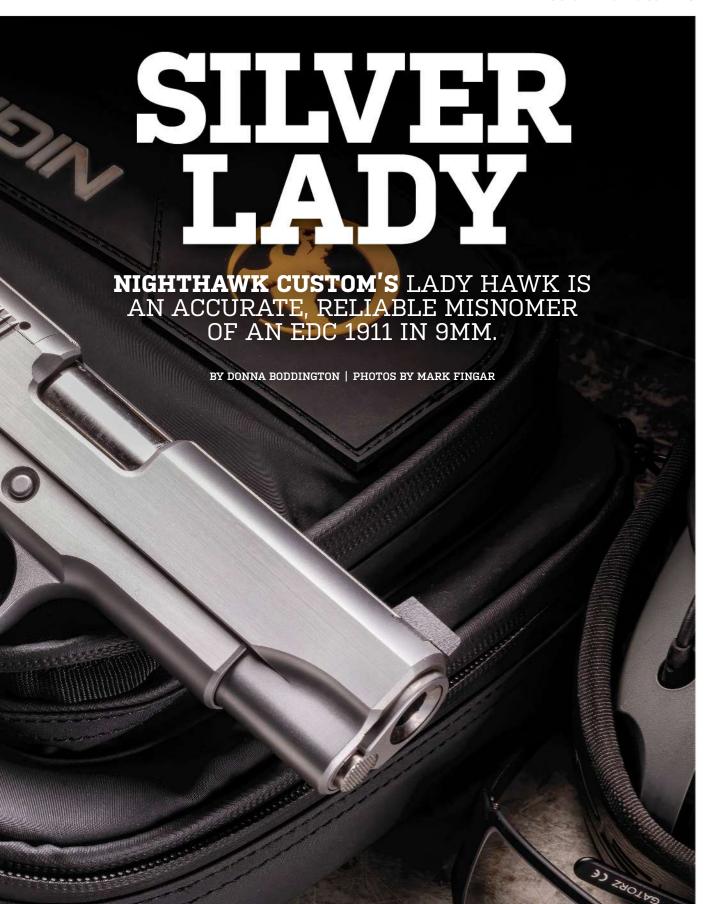
Speer's Impact bullet features a green Slipstream Polymer Tip and bonded construction. Bonding is achieved chemically, rather than mechanically to maintain weight and energy.



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handguns, and this time it's on another handgun that was designed with women in mind. I sometimes my experiences with handguns, but I sure do enjoy shooting guns, as well as the arduous — and sometimes difficult — process of recording my thoughts. There's a learning curve, for sure, but I am certainly up for the challenge. Besides, it's not bad to get a point of view from a person who is not as advanced, nor quite as technical, as more seasoned gunwriters. To be fair, I am married to a respectable and ridiculously prolific gunwriter, so I should have picked up some knowledge, guidance and coaching

along the way! Clearly, I am not saying I'm a gunwriter yet, but you never know.

I have been having a great time going to the range these days. I really appreciate the differences in shooting vari-

ous models and types of pistols. The Lady Hawk, by Nighthawk Custom (nighthawkcustom.com), is the latest gun that I've been fortunate enough to get my hands on. A Lady Hawk 2.0 with an optional DLC finish and rose-gold accents was released in 2024 (\$5,399), but I had already ordered the original Lady Hawk, which starts at \$4,399. These models are built on a 1911 Commander frame that was slimmed down

WEIGHT 2 lbs., 4 oz. AlumaGrip Thin, **GRIP** Moon Hawk Heinie Straight Eight **SIGHTS** Slant Pro, tritium 3 lbs., 1 oz. (tested), TRIGGER Nighthawk Custom tri-cavity, aluminum SAFETY Thumb lever, grip lever **MSRP** Nighthawk Custom, **MANUFACTURER** nighthawkcustom.com, 870-423-4867

"Moon Hawk"

laser-engraved grips are the Ultra Thin panels from AlumaGrips, which are much easier for my smaller hands to control. Introduced in 2008, the Lady Hawk is not new to the market but it's the only 1911 pistol said to have been designed with female shooters. The Lady Hawk and Lady Hawk 2.0 are both available in 9mm and .45 ACP. For the last several months, I have been testing the 9mm version, and it has been a dream to shoot. Announced

at the 2018 SHOT Show, the Lady Hawk 2.0 adds cosmetic features that appeal to a female audience. Though the Lady Hawk I'm shooting lacks the opal grips of the 2.0, I like the clean, simple look of this handgun just fine.

> The pistol came in a simple soft case. The main pocket was fitted for the pistol and two magazines, while a roomy outer pocket stores accessories and ammo. Two magazines were supplied; one 10-round mag with finger extension, and one flush-fitting nineround magazine.

The magazine with finger extension was neutral for me; my hands are not big enough to find it useful, so my grip and hand position



Nighthawk Custom has always delivered its pistols in a convenient carry case. The new case features a fitted foam insert.





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The beavertail safety supports a high grip while protecting the hand from hammer bite. These parts are hand blended to perfection by single gunsmith. Note the lack of a bilateral thumb safety.



The serrated and curved aluminum trigger shoe is standard length. The trigger pull was tested at 3 pounds, 9 ounces. Within reach is the mag-release button and slide-lock/-release lever.



The frontstrap and mainspring housing are thinned for the Lady Hawk, and Nighthawk's Ultra-Thin Alumagrips combine for a small-hand circumference. Texture is accomplished with scallops.



Rear serrations are confidence-inspiring while the single-side, extended thumb safety lever is easy to operate. When down, the safety contour is a perfect overlay to the frame's backstrap arch.

were the same when shooting with either magazine.

Nighthawk Custom's slogan is "One Gunsmith, One Gun." From the first part machined to dehorning and test firing, after a gun is completed, the gunsmith marks his initials under the left grip panel. Every pistol is guaranteed for the

lifetime of the gun, regardless of who owns it. These are heirloom quality guns that could be passed down to kids and grandkids.

MANIPULATION

The average lady — including me — often has issues producing enough hand strength to easily rack a 1911's slide. Not so with the Lady Hawk! The first quality I noticed about it was how smooth and effortless it was to rack the slide. I had no problem working

this one from the start. Even my skilled husband, Craig, commented, "I've never touched a 1911 with a slide so easy to put into battery."

As I am still getting comfortable working the slide on most pistols, more female-centric and "easy-to-rack"

> pistols are being brought to market. Finding handguns to shoot is becoming less of an issue for me. It's good to see manufacturers taking note of female customers. Whether we like to admit it or not, we often have smaller hands and less hand strength than our male counterparts.

> The Lady Hawk is a sleek and attractive pistol, but it also offers more in terms of handling, accuracy, and comfort. Due to it being made from steel, it's heavier



Female-marketed firearms sometimes feature an easy-to-rack slide. The name is a misnomer, though; anyone with small hands or a weak grip can appreciate the Lady Hawk's handling.









The 9mm magazines are distinguished by a groove that helps to align the single-stack arrangement. Two mags are included, one standard and one extended. Both protrude beneath the frame.

than most polymer-framed pistols I've been shooting. Even so, I was comfortable with it from the start. Weight obviously assists with muzzle control, which in turn helped me stay on target for quicker follow-up shots.

THE EASY BUTTONS

The Lady Hawk is in the Commander configuration, meaning that it has a 41/4-inch barrel in a shortened slide assembly, and a full-size frame (at least top to bottom). A smaller Officer-size frame is also available. The pistol maintains the familiar skeletonized hammer and trigger, as well as a flat mainspring housing and extended grip safety. The front- and backstrap are well-scalloped, offering the Lady a secure grip despite it being thin.

Fieldstripping the Lady Hawk for maintenance reveals tight handfitting between the slide and frame, as well as with the barrel, slide and bushing. The provided bushing wrench was useful.

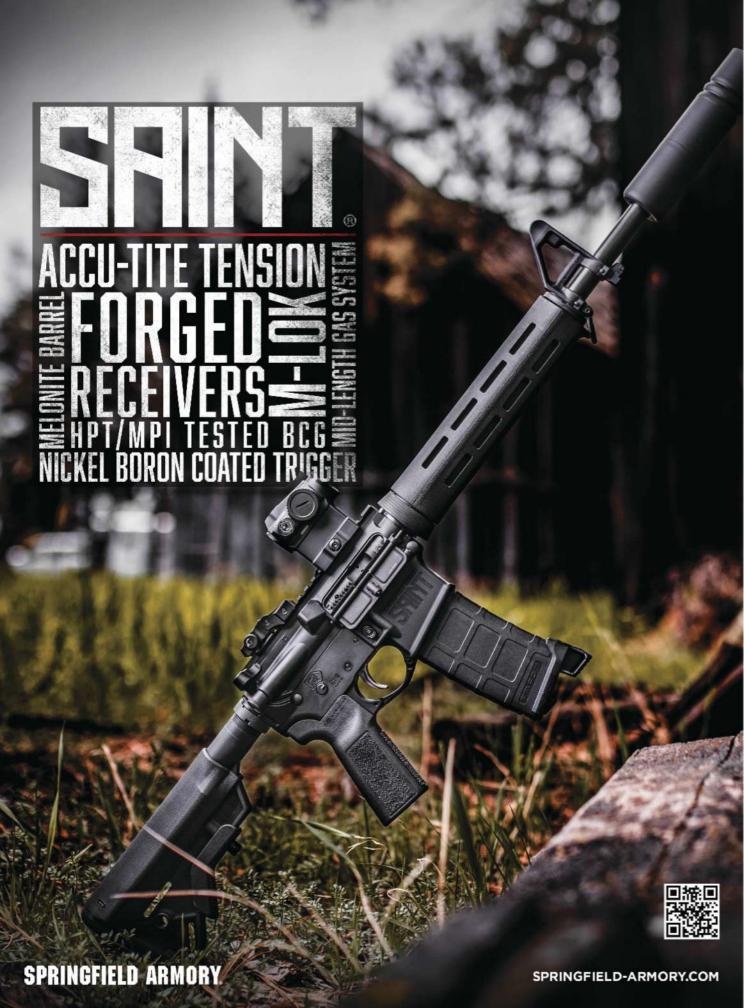
Nighthawk offers ambidextrous safety levers, but I didn't order an ambi for this gun and really I don't want one. Though I am left-handed, it was easy to access and operate the thumb safety. At least part of my household was Marine Corps-trained, and there are no other 1911s in the house with left-hand safeties: it seems more sensible to have them all set up the same.

The controls were easy to access, too, even though the Lady Hawk has a larger frame than I usually shoot with. The beavertail grip safety lever was one of my favorite aspects of this gun. It's slick and fits the web between thumb and index finger extremely well, which helped me obtain a secure and comfortable grip. It also supported better recoil control.

The trigger pull was crisp and light, greatly aiding shootability. The lightweight, skeletonized aluminum trigger seemed slightly extended. With the slim grip, my finger placement on the trigger was perfect, just into the first pad. On a Lyman Digital Trigger Gauge, it tested at 3.04 pounds for an average of 10 pulls. There was little variance.

9MM VS. .45

Obviously, the standard 1911 chambering is .45 ACP. In my humble opinion, it takes more practice and discipline to master the .45. From what I gather, one of the reasons the U.S. military switched from the .45 ACP to the 9mm





Heinie Slant Pro Straight Eight tritium night sights are standard on Lady Hawk models. Nighthawk also offers its Interchangeable Optic System (IOS) that features sights on a dovetailed-and-pinned coverplate or a mounting plate with an integral rear plus optic.



The deep crown on the barrel guards the rifling inside the muzzle to protect its accuracy. Aesthetically, it looks good too.

in 1985 was in search of less recoil, to improve shootability among a greater number of troops. Craig was a Marine during the switch from .45 to 9mm and experienced that entire transition period. Although he bitterly opposed the change to the M9, he admits with amusement, "Pistol qualification scores went up dramatically with the 9mm."

However, 1911s in 9mm are not new or uncommon. The first 9mm 1911 was likely debuted by Colt in 1950, but Nighthawk made it better. For the Lady Hawk models, Nighthawk trimmed the frame circumfer-

ence and installed thin AlumaGrips. The Commander frame was not reduced, but the grips, frontstrap, and mainspring housing are thinner, a reduction of about .02inch per side. The grip and frame overall width measures

about 1.18 inches, while most Commanders measure about 1.3 inches. The difference is readily felt. Though the Lady Hawk fit my hands perfectly, Craig commented that, for his larger hands, he could "use a bit more pistol to hang onto." For me, I was also happy that Guns & Ammo's test pistol was lighter kicking than one of his .45s.









ENLIGHTENED

Lately, I have been shooting a lot of double-action 9mms, mostly the Glock-types, pistols made by SIG Sauer, and others. I've been embarrassed and frustrated by the difficulty I have in racking the slides of other 1911s. So far, exercise hasn't helped. The easy slide operation of the Lady Hawk has opened my eyes to the wonderful world of shooting a 1911. I was immediately impressed by the easier and more accurate single-action trigger versus one of the striker-fired types. However, the exposed "cocked-andlocked" hammer was a learned experi-

ence. With the thumb safety down, the trigger only required a 3-pound pull. (Nighthawk advertises that the trigger job is set between 3½ and 3¾ pounds.) The grip safety was and is John Browning's safety hedge, but it's a pistol design that

> suggests one should have training and practice if one intends to choose it as an everyday carry gun. It's not a pistol that I would consider carrying yet.

On the range, the Lady Hawk was just fun to shoot. There was little recoil, it produced wonderful accuracy, and was comfortable from the start. The iron sights are Heinie Slant Pro Straight Eight tritium night



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PERFORMANCE

Blazer 115-gr. FMJ

Hornady Cricitcal Defense 115-gr. FTX

Federal American Eagle 115-gr. FMJ

sights. These have a bold, white bead forward, and a small bead centered below the rear notch. I found it straightforward to stack the beads to align the sights. I did all of my shooting using the iron sights, but G&A's sample

featured the upgraded Interchangeable Optic System (IOS) slide, which includes the Nighthawk iron-sight plate and sight cut. It's ready to accept a red dot if I ever decide to use one.

LOAD

Craig and I put more than 500 rounds through the Lady Hawk, requiring several trips to the gunshop for a resupply of quality ammo. Fortunately, there were no 9mm ammo shortages, and there was not one stoppage at the range. We were also impressed that there were no malfunctions despite the fact that the ammunition types varied widely. Some of it was bought for practice because it was the cheapest, other loads because it was available. Bullet weights varied from 90 to 124 grains, velocities were standard to +P, and bullets ranged hardball to hollowpoint. The Lady Hawk digested all.

ACCURACY & AMMO

Out of the box, the sights were (and are) dead-on at 15 yards using standard 9mm 115-grain loads. The point of impact shifted considerably when switching to 124-grainers and +P loads, and recoil increased noticeably. Most of my shooting was conducted on metal plates, and nothing's been more satisfying than hearing steel ring. I didn't manage ammo well and ran out of a couple of brands before chronograph testing and shooting for groups. Though I had tested it for reliability, note that Blaser's and Federal's American Eagle 115-grain FMJ loads, as well as Hornady's Critical Defense 115-grain FTX were exhausted. Additionally, due to my experience and skill level, I had to depart from G&A's test protocol. Rather than try and shoot groups from 25 yards on a sandbagged benchrest, I shot groups at 15 yards over a padded Caldwell pistol rest. The day was

nice, though; nearly 70 degrees with almost no wind.

Interesting, I noted the sun was dropping to my left. Side light is never the best for using iron sights, but the clouds kept coming and going, often between groups. It was interesting to notice how the point of impact shifted between shots under sunshine and those fired under a shadow. It may be the nature of shooting with metallic sights; if you can't see them the same way every time, you won't shoot the same.

The Hornady Critical Defense load

racy for me, averaging 2.19 inches for five, five-shot groups. I considered the price variation between the loads as I shot them. The Blazer and American Eagle loads were inexpensive — .37 cents per round for the Blaser, and \$23 per box of

produced the best accuabout \$19 per box of 50, or

50, or .42 cents per round for the American Eagle, both featuring full-metal-jacket (FMJ) hardball bullets. The Critical Defense round should be regarded as a premium handgun load; a box of 25 rounds retails for \$30, about \$1.20 per round. I expected it to produce the best groups, and it did.

SD

1.55

1.56

2.16

2.19

2.41

3.01

18 6.53

22 8.44

16 5.53

1,171

1,195

1,092

from each load recorded by a Labradar chronograph placed adjace

It's worth mentioning that, although accuracy was significantly poorer in this pistol when shooting Blazer 115-grain rounds — don't judge the Lady Hawk on the accuracy potential of shooting Blaser ammunition — the consistency of it was noteworthy; extreme spread (ES) of just 16 feet-per-second (fps). It also offered the lowest standard deviation (SD) of just 5.53. Also worth mentioning, three of the loads had single-digit SDs, which isn't something we see often. Critical Defense was almost as consistent, having an ES of just 18 fps and an SD of 6.53. As far as accuracy, any rifled barrel likes what it likes; another pistol might produce reversed results.

The Nighthawk Lady Hawk doesn't have to be styled with rose gold accents and opal grips — as the Lady Hawk 2.0 is — to be a pistol suited for a woman. The all-stainless original doesn't even have the moniker "Lady Hawk" label marked on it. If you are a man with small hands, and you're interested in shooting comfortable, easy-to-rack, and accurate 1911s, no one would be the wiser. The stainless-steel version is still a beauty as far as I'm concerned. It shoots well out of the box and feels like grasping the hand of an old friend.

Night Hawks are priced higher than most 9mm autos, but I think it's worth it. Will I end up buying it? I've thought about the answer to that question quite a bit. I'll have to see what the boss says.



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.270 WSM .300 WSM .264 WIN, MAG

▶ Based on the .300 H&H Magnum case, the .300 Weatherby Magnum was designed for big game by Roy Weatherby in 1944. It is the most popular of all Weatherby cartridges.

NOT TOO MANY, NOT TOO FAST

PART 2: CARTRIDGES DESIGNED FOR SPEED AND ACCURACY.

BY CRAIG BODDINGTON

A PROPRIETARY SYSTEM was widely respected by the British gun trade, whereby the company that introduced a cartridge became the sole source for both firearms and ammunition of that caliber. It made ammunition more expensive and proved disastrous as firms went out of business. For several years, Kynoch stopped making sporting cartridges when discontinued by Imperial Metal Industries (IMI) in 1970. In the U.S., smaller gunmakers developed proprietary cartridges or wildcats — Lazzeroni, for example. Norma Precision, a Swedish manufacturer, has long been loading Weatherby-branded ammunition. During Roy Weatherby's lifetime, the majors respected his propriety. Today, various firms load the most popular Weatherby Magnums. Federal's Custom Shop (federalpremium.com), for example, offers loads for the .257 Weatherby Magnum and 6.5-300 Weatherby Magnum, and Barnes offers the .300 Weatherby Magnum. Hornady supports the .257, .300 and .30-378 Weatherby Magnums, while Remington (remington.com) loads

a 180-grain Core-Lokt bullet for the

.300 Wby Mag. Others, including the .224, .240, 6.5 Weatherby RPM, .270, 7mm, .338, Wby RPM, .340, .378, .338-378, .375, .416 and .460 Weatherby Magnums, remain single source from Weatherby only.

When a cartridge is standardized by the Sporting Arms & Ammunition Manufacturers' Institute (SAAMI, saami.org), it becomes fair game to be produced by all manufacturers. Despite dilution of sales potential, an introducing firm is ambivalently pleased when a competitor loads its cartridge. It's more than a compliment; it's a tacit "stamp of approval" and acceptance.

> Handloaders can solve most problems, and there are many smaller loading businesses. However, in times of shortages — such as we are experiencing now — single-source cartridges are worrisome. Of some 20 cartridges that appeared during the Second Magnum Craze (2000-2020), few have gone beyond single-source production, even most of those that I consider most popular: 6.5x284 Norma, .270 Winchester Short Magnum (WSM), .300 WSM, .300 Remington Ultra Magnum (RUM) and



With the .375 H&H as the benchmark, the .375 Ruger was designed in 2007 to produce similar performance but in a standard-length action.

.375 Ruger. This is another byproduct of what I titled "Too Many, Too Fast" (Guns & Ammo, September 2024). A competing ammunition company wants to sell ammo, but with so many new cartridges to pick from, which ones?

POPULARITY CONTEST

The .300 WSM is the most widely available on my "most popular magnum" list, probably followed by .270 WSM. The .375 Ruger has been wonderfully successful, but above .30 caliber, sales drop like a rock according to each brand's annual reports. Besides Hornady, only Buffalo Bore (buffalobore.com), DoubleTap Ammunition (doubletapammo.com), and Swift (swiftbullets.com) load the .375 Ruger. The 6.5-284 Norma is loaded by Double-Tap, the Federal Custom Shop, Gunwerks (gunwerks. com), HSM (hsmammunition.com), Norma (normaammunition.com) and Nosler (nosler.com). The .370 SAKO Magnum is primarily sourced from Federal and various retailers that import SAKO-manufactured ammunition (sako.global), also loaded in Europe as the "9.3x66mm."

Let's look at more recent cartridges. Nosler makes cartridges, bullets, cases, and rifles. It developed the .26 Nosler first, announcing it in November 2013. It was followed by the .28 Nosler (2015), .30 Nosler and .33 Nosler (2016), .22 Nosler (2017) and .27 Nosler (2020). Nosler may not care if some rounds remain single-source, and most still are. The .27 Nosler was captured by COVID, so the jury is still out on that cartridge. The .28 Nosler struck a chord, though. So far, it is the most popular of the line, also loaded by Browning, Federal, Gunwerks and Hornady.

Some new cartridges are changing the concept of ideal rifling twists. Twists are getting faster to accommodate the trend toward longer, heavier very low drag (VLD) bullets. The .28 Nosler was SAAMI-specified with a 1-in-9-inch twist rate, a versatile twist for 7mm cartridges. As bullets get



Browning's Scott Grange and Boddington pose with the first game animal taken with the .270 WSM. It was a Utah mule deer harvested on September 11, 2001.

longer, though, a lot of creative builders and shooters are looking for a faster 1-in-8-inch twist.

Winchester's 6.8 Western is largely about a barrel's rifling twists and heavier bullets. It was based on the .270 WSM case, shortened to fit into short actions with long bullets. Previous .277 cartridges, including the .270 Winchester, .270 WSM and .270 Wby Mag., specify a 1-in-10-inch twist, with 150-grain bullets being the max. The 6.8 Western calls for a 1-in-8-inch twist. It came out of the starting gate with bullets from 162 to 175 grains, weights that never existed in .277-caliber rounds because the existing rifling twists couldn't stabilize them. The new .27 Nosler calls for 1-in-8.5-inch twist.

Early 6.5mm cartridges used heavy 156-grain military bullets, so twists were traditionally fast. The 6.5x55mm Swede, for example, was originally barreled with a 1-in-7.5-inch twist rate. The old .264 Winchester Magnum was usually barreled 1-in-9, while the 6.5 PRC calls for a very fast 1-in-7-inch twist, easily stabilizing the longest, heaviest 6.5mm bullets. Most .30-caliber cartridges call for a 1-in-10 twist, stabilizing bullets up to 220 grains. As we know, long-range and match .30-caliber bullets are now much heavier. The .300 PRC was SAAMI specified at 1-in-8-inch twist, specifically to accommodate the new longer bullets.

WILL THE PRCS LAST?

Named from the competitive Precision Rifle discipline, "PRC" is an acronym for "Precision Rifle Cartridge." Whether short or long, fat unbelted cases are "in" because of the burning efficiency from a wider propellant column. Due to the research and

development costs, most cartridges are based on an existing case, witness the cartridge families based on the .375 H&H and .30-'06 Springfield cases. For fat cartridges, the .404 Jeffery case is the most common foundation





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for development. The WSM case is off a few thou, but similar. The PRC cartridges are based on the .375 Ruger case. A Hornady-Ruger engineering collaboration, the .375 Ruger case is pure brilliance. The .532-inch rim and base diameter are the same as belted magnums — but with no belt. It offers more powder capacity, is compatible with belted magnum bolt faces, and feeds well from belted-magnum boxes.

Introduced in 2007, the .375 Ruger case spawned three progenies in 2008: .416 Ruger, full-length; shortened; .300 Ruger Compact Magnum (RCM); and .338 RCM. Designed in 1891, the The .416 Ruger is amaz-6.5x55 Swede has a spacious case design ing, too, approximating capable of accept-.416 Rigby ballistics in a ing long and heavy standard-length action. The .300 and .338 RCMs are effective little cartridges, designed

are effective little cartridges, designed for short actions. None of the three are especially popular, but the parent case remains useful. Introduced in 2017, the 6.5 PRC was based on the .375 Ruger case shortened to 2.030 inches.

The 6.5 PRC has been called the "big brother" to the 6.5 Creedmoor, but I describe it as "everything the Creedmoor isn't." The popular 6.5

Creedmoor is a fine cartridge, but its greater gift is that it got us past the old "curse of the 6.5mm." It allowed more of us to appreciate the downrange advantage of the 6.5mm bullet. With a 140-grain bullet at roundabout 3,000 feet per second (fps), the 6.5 PRC does pretty much what the .264 Win. Mag. did in 1958. However, the .264 is nearly obsolete. The 6.5 PRC has a modern fat, unbelted case design, and can be housed in a short action. However, long-range shooters wishing to use the longest, heaviest bullets may prefer to put it in a standard-length action. Either

> way, it is absolutely an elkcapable round producing mild recoil. Designed for accuracy, it quickly gained a fine reputation, and it is chambered in many platforms.

Initially, a Hornady-only cartridge, the 6.5 PRC is also loaded by Barnes, Berger, Browning, Federal, Gunwerks, Norma, Nosler, Remington, Sierra, Weatherby, and Winchester. I'm sure more loads will continue to appear from other makers. My spin: The 6.5 PRC is the best and most versatile of our 6.5mm cartridges, and I think it's here to stay.



Boddington and PH Cliff Walker with a nice Selous Reserve buffalo. It was taken with an experimental version of the Remington Model 700 chambered to .375 RUM. The 7mm, .338, and .375 RUMs debuted in Tanzania's Selous Reserve in 2000.

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FOR MORE INFORMATION



The 6.5 PRC (above, left) and .300 PRC (above, right) share the .375 Ruger case as the basis for each design.

Much of my assessment is based on field experience. In 6.5mm factory cartridges, the 6.5 PRC has little competition. Slower cartridges have energy levels questionable for game larger than deer. Faster 6.5mms are wonderful but can produce over-bore capacity, with reduced barrel life and limited propellant selection. The 6.5 PRC is a winner.

The .300 PRC is in a different position. Using the full-length .375 Ruger case at 2.580 inches, it can be housed in a standard-length action but long-range shooters using the heaviest .30-caliber bullets may prefer a fulllength (.375 H&H) action. It is a big brother to the 6.5 PRC, but it comes into a crowded field. There are lots of excellent, long-established .30-caliber magnums. Designed for today's heavier, high-ballistic-coefficient (BC) bullets, velocity is credible, about 2,800 fps with a 225-grain bullet. It is faster than the .300 Win. Mag. and the short magnums, but not as fast as the longer cartridges. Mind you, it's fast enough, and it brings full-up magnum .30 recoil, which not everybody needs or wants. The .300 PRC's timing was









A fine Newfoundland moose was taken with the .338 RUM when it was new in 2000. RUMs are excellent, but from .300 up they produce more recoil than many shooters are comfortable with.

awful. Commercially introduced in 2019, Hornady was its single source until recently due to the pandemic. As of 2024, it is being offered by Barnes, Berger, Federal, Gunwerks, Hornady, Norma, Remington and Weatherby.

MORE CARTRIDGES TO COME?

If I had a crystal ball, the 6.5 PRC is here to stay and will become more popular. The .300 PRC, with its .30-caliber recoil and competitive cartridge alternatives, is also here to stay, but the .300 PRC is unlikely to overtake the most



Boddington and frequent hunting partner John Lazzeroni kneel with two big hogs taken with Lazzeroni cartridges. In the 1990s, Lazzeroni's fast cartridges spurred the larger manufacturers.

popular fast .30s. Between .264 and .308, that marvelous .375 Ruger case still has potential. I don't think the PRC family is done growing. The 7mm PRC was introduced in 2023, earning G&A's Ammo of the Year honors. Nearly 30 rifle makers have committed to supporting the 7mm PRC, including custom shops such as Best of the West, Horizon Firearms and Seekins Precision, and major brands such as Mossberg, Ruger, Savage, and Springfield Armory. Americans love .30s, and we have a current passion for the 6.5mm, but we also love our .270s and 7mms.







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The stock is the most noticeable enhancement versus the standard Patriot model. While it may look like a standard injection-molded stock, it actually has a Monte Carlo

wood core that's been polymer-coated and finished with a spray-on web-like pattern. The grip is not quite standard, either. The angle and frontstrap is a bit steeper and more pronounced, though not quite to the extent of a standalone grip. The forend must have been designed with a benchrest in mind. Not only does it bag well, it sits on stabilizing field supports such as rocks or a fence post quite easily. Dual swivel studs accommodate both bipods and slings without issue. A thick recoil pad covers the butt of the rifle, which was appreciated. The stock's profile is rather linear, transferring recoil straight back and into the shoulder to significantly reduce muzzle rise. Aluminum bedding pillars interface the action and the stock.

Weight-wise, the LR Hunter is similar to other contemporary hunting rifles. The longer barreled versions

weigh 7½ pounds, and 6½ pounds for the shorter models. My setup for an exotic Texas hunt was chambered in .300 Winchester Magnum and featured a Leupold VX-5HD 3-15x44 (\$1,300, leupold.com). The thread cap was removed to attach a Silencer Central Banish Backcountry suppressor (\$1,099, silencercentral.com). Total weight measured 10 pounds, 4 ounces. While those numbers appear typical for a deer rifle, Mossberg expressly made the Patriot LR Hunter a rifle for longer-range capability.

MOSSBERG PATRIOT LR HUNTER						
TYPE	Bolt action					
CARTRIDGE	.308 Win., 6.5 Creedmoor 6.5 PRC, .300 Win. Mag. (tested)					
CAPACITY	3+1 rds. (.300 Win. Mag.)					
BARREL	24 in., fluted, 1:10-in. twist rate, 5/8x24 threaded with cap					
OVERALL LENGTH	44.75 in.					
WEIGHT	7 lbs., 8 oz.					
STOCK	Monte Carlo-type, poly- mer coated, matte grey, black web texture					
LENGTH OF PULL	13.75 in.					
FINISH	Matte blue (steel)					
TRIGGER	LBA, adj., 2 lbs. to 7 lbs.					
SIGHTS	None					
MSRP	\$847					
MANUFACTURER	Mossberg, 203-230-5300, mossberg.com					

For comparison, a dedicated precision rifle without any attachments usually averages 11 to 14 pounds. This makes the Patriot LR Hunter a sort of hybrid between a long-range performer and an ergonomic hunting rifle.

An already proven component, the push-feed action is a simple Mossberg design extant since 2015. The fluted bolt uses dual vertical locking lugs and has a 90-degree throw. It's easy, if a bit long to lift, and somewhat slower to cycle than a three-lug 60-degree bolt design. Some scope-height mounting considerations may be required. The oversized bolt handle provides a solid grip, and is curved enough to not interfere with most scope set-ups. A one-piece rail above the action is included to accept Picatinny-type scope rings or mounts.

For the .300 Win. Mag. model,

the fluted, carbon-steel barrel measures 24 inches and contains a 1-in-10-inch twist rate. When chambered in 6.5 PRC, the barrel keeps this length but sports a 1-in-8-inch twist. The .308 Win and 6.5 Creedmoor versions have a 22-inch barrel, which shaves off roughly a pound from the total weight figures. Aside from changes in length, there is not much difference between models, which highlights the "hunter" aspect of the rifle's design philosophy. A heavier match barrel, which would provide greater stability and

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The stock is not adjustable, but a fixed Monte Carlo-type comb better aligns the shooter's eye behind the scope. A thick recoil pad assists in absorbing the recoil impulse.

heat management for continuous shooting, would also add more weight. Such a rifle would have more in common with a Precision Rifle Series gun rather than something that could be tolerated afield. The end of the barrel is threaded 5/8x24 to accept a muzzlebrake or suppressor. It arrives with a knurled thread cap tightened against a generous shoulder for use with direct-thread muzzle devices.

Mossberg included its Lightning Bolt-Action (LBA)

trigger with the Patriot LR Hunter. The LBA trigger was introduced in 2008 and can be adjusted from 2 to 7 pounds, though the process involves removing the stock. A blade safety featuring a lightning bolt icon runs through the middle of the trigger to help prevent unintended discharges. My rifle's trigger pull measured 2 pounds, 4 ounces. I kept the trigger as-is for range testing and the field test.

The flush-fit polymer magazine holds three rounds of .300 Win. Mag., and was long enough to provide some space between the nose of factory ammunition and the front of the magazine.

TEXAS' SCIMITAR ORYX

I evaluated the Patriot Hunter LR on a scimitar oryx hunt in West Texas. This species of oryx was declared extinct in their native home of North Africa in 2000. Luckily, a breeding stock owned by ranchers in Texas exploded in population, owing to the income generated from chartered hunts such as mine. As of 2024, well over 14,000 scimitar oryx can be found in the state, and they've been successfully reintroduced to their original habitat in Africa.

The ranch had a population of some 200 oryx on roughly 80,000 acres. This rifle drove home the message that a shooter doesn't need an expensive rifle to successfully hunt exotic game in the U.S. Going after this





Spiral fluting is an appealing aesthetic treatment to the Patriot bolt. Two opposing locking lugs means that the bolt offers a 90-degree lift. The target knob will reasonably clear most optics in medium rings.

species of large game influenced my choice for a rifle in .300 Win. Mag.; I'd rather go with "overkill" than be underpowered for big game and a unique opportunity. Federal Premium was sourced for its 200-grain Terminal Ascent load, which I both tested at the range and used on the hunt.

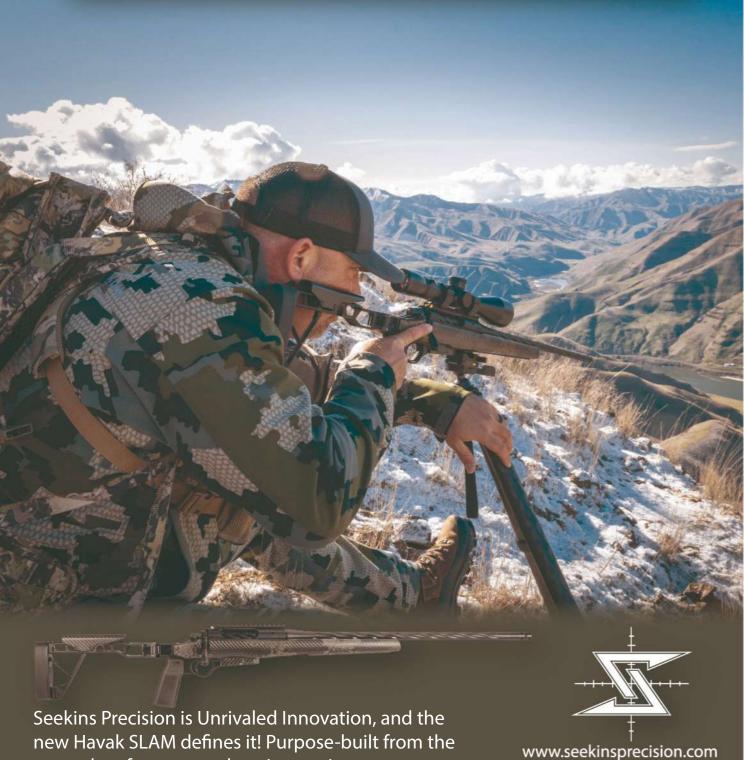
I replaced the thread protector with a Silencer Central Banish Backcountry

because, well, why make so much noise? Silencer Central's direct-thread cans allowed them to be removed or attached at will with little impact shift. This was my first suppressed hunt, and I was blown away by how much difference a can improves the experience. Not only was the bark of the .300 Win. Mag. reduced, but felt recoil was lowered. The Backcountry is also lightweight at 7.8 ounces.

Spotting the white hides of oryx at long distance is simple enough. Getting close is a different matter, usually requiring a lengthy stalk through patches of shrubs. The oryx has excellent eyesight that lets them spot a predator from hundreds of yards. More than once I observed oryx through my binoculars only to see them staring right back at me.

Terrain in West Texas can be deceptively flat. While





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ground up for extreme hunting environments.



The Patriot LR Hunter features a rail that extends to the barrel nut to accept scope rings or mount. A crossbolt and recoil lug secures the action to the stock.



The threaded barrel features an enlarged shoulder to support muzzle devices such as a direct-thread suppressor or brake. When not in use, reinstall the knurled thread protector.



The Lighting Bolt Action (LBA) trigger is adjustable from 2 to 7 pounds. The safety blade with lightning bolt logo prevents the trigger from being manipulated unless the safety is pressed flush.



Detachable flush-fit long-action magazines for the Patriot hold three rounds of .300 Win. Mag. One magazine ships with each rifle. Spare magazines are available at mossberg.com. \$41

at a distance it appears as smooth as a desert, it's really a series of small hills packed closely together. This hunt was the perfect test of how well the Patriot LR Hunter carries. Using a sling, the weight did not impede progress during any of the stalks. On the hunt's

second day, I found success. A bull was ranged at about 220 yards, uphill. Thanks to a nearby cow he was trying to court, his attention was diverted away from my guide and me. However, a lack of cover prevented us from getting closer. My choice of cartridge paid off. The hefty bullet put him down quickly. The Backcountry proved its worth as well, as the surrounding oryx did not even notice as the bull went down. They only decided to clear out after we moved out of cover to inspect the harvest.

In all, six hunters in camp successfully took an oryx. I noted that at least one oryx had been taken with every possible cartridge available for the Patriot LR Hunter.

PERFORMANCE

LOAD	VEL. (FPS)	ES	SD	BEST GROUP (IN.)	AVG. GROUP (IN.)
Federal Terminal Ascent 200-gr. TBT	2,868	45	20	.81	1.66
Barnes VOR-TX 190-gr. LRX-BT	2,961	37	19	.91	1.42
Fiocchi Sirocco II 180-gr. TBT	2,964	18	8	1.31	2.11

AT THE RANGE

While early sight-in tests and the shot taken during the hunt gave some credibility to the "Long Range" moniker I confirmed it when I returned home with more extensive testing. Apparent when rounds went downrange was that

the fluted barrel heats up quickly. After five rounds, the barrel could not be touched. Shooting five more made it hot enough to melt an ice cube in a second. Consulting some colleagues, I learned that the short-action versions of the LR Hunter in .308 Win. and 6.5 Creedmoor don't really share this trait. Manage your patience when shooting a .300 Win. Mag. through the thin barrel. The oscillation of a magnum load in a thin barrel is more pronounced with the Patriot LR Hunter. Realistically, I don't expect any hunter to fire more than two or three shots in quick succession in the field. However, when sighting this rifle in, you'll want to allow time to let the barrel cool between groups.



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FURTHER TESTING

I continued to use the Banish Back-country during subsequent tests. On average, I noted a 3-inch downward shift in the point of impact when using a suppressor versus unsuppressed, given the same type of ammo. Regarding felt recoil, the Back-country noticeably lessened the kick of the magnum and made for smaller groups when shooting without a stabilizer such as a lead sled. Admittedly, I was not expecting such a lightweight suppressor to mitigate the sound of a magnum cartridge, but the report of each shot was cut significantly.

The LBA triggerpull remained excellent. It was a standout feature when testing the Patriot LR Hunter. The trigger possessed no creep and let off cleanly. There were no feed-

ing issues with the Patriot action, and the bolt extracted rounds consistently. It was also easy to load the magazine while it was still seated in the rifle, allowing me to shoot five-shot groups without having to re-settle on the target. The sweltering heat helped me test the stock's web texture



A scimitar oryx bull was taken in West Texas using the Mossberg Patriot LR Hunter in .300 Win. Mag. Range was 220 yards. Even when suppressed, the rifle was not burdensome to ruck with.

and it remained controlled in my hands, despite my sweaty palms.

The first group of shots was consistently the best for every ammo type tested. Even with time given to cool the barrel between groups, it never seemed to reach the same tightness as the initial spread. While the test rifle was able to achieve some sub-1-MOA groups, it widened to around 2 MOA by the end of each ammo box.

LONG-RANGE STARTER KIT

The Patriot Hunter LR makes for a great big-game rifle with the added benefit of being capable of reaching the same large game out to 250 yards and beyond. I don't know if some will qualify 250 yards as "long range," but that's what the name suggests. I speculate that the 6.5 Creedmoor ver-

sion would be a fantastic "first gun" if you haven't hunted much yet. Given the reasonable price, ease-of-use, and predictable performance, the Patriot Hunter LR is a solid option for prospective big-game hunters. (And consider suppressing it.)







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MANY FORMS OF THE K98K RIFLES EXIST.

Most examples in the U.S. were imported during the 1950s and '60s, and many arrived in asproduced condition with all matching numbers. The best of these ended up in collectors' hands, which command a premium at auction today, some fetching between \$3,000 and \$5,000.

Another source of the K98k is the "Bring Back," rifles imported by soldiers as war trophies. These non-import-marked rifles seemed scarce for decades, but as our remaining World War II veterans pass away families are dissolving their collections. Many Bring-Back rifles feature all-matching numbers except for a mis-matched bolt assembly. Numbered bolt parts often became mismatched during German soldier cleaning parties, where bolt parts were mixed. Bolts were also mismatched when U.S. soldiers boarded a ship to return home after the war. Soldiers were required to drop the bolt from their captured souvenirs into a bucket to prevent an accident. When disembarking, soldiers selected a bolt from the bucket. Serious K98k collectors tend to look down on Bring-Backs with a mis-matched

bolt, but I view them as essentially an as-issued rifle possessing evidence of its imported history. All-matching Bring-Back K98k rifles — without import markings — are commanding increasingly high prices — between \$2,200 and \$3,000 — depending on condition, manufacturer, date codes, markings and features.

The most readily available K98k rifles today are the Russian-capture examples, which range between \$700 and \$2,000. From 2000 to 2008, tens of thousands of Russian-capture K98k rifles were imported. These are rifles that were captured by the Russians during and after World War II. After the war, they were disassembled, inspected, reblued, and stocks often received a heavy coat of varnish before parts were reassembled. Most were stored in war reserves or supplied to Soviet-satellite countries. There was no effort to reassemble these rifles with the matching serial-number parts. Parts were simply selected from a bin to reassemble a complete K98k. These rifles were inexpensive and generally in very good condition. Many have great bores and make excellent shooters.



TAKING A MITCHELL'S MAUSER K98K AND CORRECTING ITS INACCURACIES.

BY DAVE EMARY | PHOTOS BY MARK FINGAR



MAUSER K98K Bolt action

CARTRIDGE 7.92x57mm JS

A great variety of interesting Mauser K98k are available, including those with early "K" and "G" date codes and some marked "SS". Unusual variations are considerably more expensive than the \$250 they sold for 15 years ago through Century Arms. Researching and restoring a K98k to an asproduced configuration is a doable, educational, and enjoyable activity. Russian-capture examples are a great starting point for a person wanting to get into the hobby of collecting K98k rifles, and project guns can occasionally be found through J&G Sales (jgsales.com) for as little as \$400. SARCO (sarcoinc.com) still offers parts and

By "restoring," I am referring to dating the production period of a rifle and determining the correct type of hardware. You can remove the heavy varnish on a stock, which often exposes the original markings. A point of caution: Don't attempt to polish out the serial numbers or re-number parts. This is fraudulent, destroys markings and its history. The effort is easily detectable by a collector who has an idea of what they're looking at.

accessories.

THE MITCHELL'S MAUSERS PROJECT

The Mitchell's Mauser K98k is infamous. Based in California from 1997 to 2016, the firm acquired large quantities of Mausers at wholesale, and refurbished them to look like

new. Collectors frowned on these rifles because there was little preservation of historical markings, they were priced as high as some collector rifles, and advertisements could be interpreted as misleading. With Mitchell's Mausers out of business, and afford-



CARTICIDAL	7.7283711111133				
CAPACITY	5 rds.				
BARREL	23.62 in., 1:9.39-in. twist rate				
OVERALL LENGTH	43.7 in.				
WEIGHT	8 lbs., 7 oz.				
sтоск	Walnut, beech, elm; solid or laminate				
FINISH	Blued (steel)				
TRIGGER	6 lbs. (tested)				
SIGHTS	Post, hooded (front), V-notch, tangent leaf (rear				
SAFETY	Three-position switch				
IMPORTER	Mitchell's Mausers (Disc.)				
MANUFACTURER	Gustloff-Werke (tested)				

Mauser 98 Karbine Rifle The Last Anywhere in the w Made in Serbia after the NAZI's Grade A be **GUN-TESTS** 800-274-4124 Mitchells Mansers able K98k Bring Backs increasingly rare, opinions have softened, and prices have increased.

I came across a Mitchell's Mausers K98k at a reasonable price and decided to take it on as a project. I don't want to offend owners of these rifles, but if you own a Mitchell's Mauser you probably have an excellent candidate for a restoration project. Mitchell's Mausers deceptively suggested that its rifles were "Collector grades in Original Military-New Condition with Original Accessories."

This was not true. Mitchell's Mausers used Russian-captured rifles and sanded the stocks to a smooth finish, removing every marking. Markings on the metal parts were often polished off, and serial numbers were re-stamped to match the receiver, fraudulently suggesting they were originally built this way. Bolts and bolt shrouds were polished to a bright steel finish. I am not the foremost expert on the K98k, but I have owned and handled a number of original-condition rifles: the bolts were all blued Mitchell's Mausers seemed to blue

these guns and describe them as "new" with no deference to historical accuracy.

The K98k I started with has the following receiver markings: "bcd 4" and serial number "9773e" on the left side of the receiver. It is a Gustloff Werke rifle made in 1944. Decoding the serial number suggests it was num-



Mitchell's Mauser bolts were often polished (above, left), removing mismatched part numbers. The project's bolt was bead blasted and reblued, simulating late-war production quality.

ber 59,768 produced at Gustloff in 1944. Gustloff made 348.081 rifles in 1944. With reference to Richard Law's "Backbone of the Wehrmacht" (1993), the numbers were determined from original documentation captured after World War II. as well



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The Mitchell's Mausers receiver dates the K98k to 1944. The rear and "H"-type front bands (above, left) were incorrect. Due to wartime production issues, milled parts were depleted. The front and rear bands became stamped-and-welded parts (above, right).

as an extensive compilation of manufacturer and serial numbers from collectors. Gustloff was not using five-digit serial numbers for most of 1944. If they had been the "e" block of serial number, it would have been made in the 500,000-to-600,000-gun range; Gustloff only produced 348,081.

The highest number observed from Gustloff in 1944 was "99899" This suggests that Gustloff started using fivedigit serial numbers after approximately the 250,000th gun in 1944; no letter is mentioned in the five-digit serial-number gun block. It would correspond to the four-digit serial number "y" block as the last four-digit serial-number

block of 1944 for Gustloff. I go through this to give you insight as to how the serial numbering worked on the K98k. Germans did not use "j" in serial-number blocks, which leads to the subject rifle's serial number of "9773", block "e", placing its manufacture at the end of the 50,000



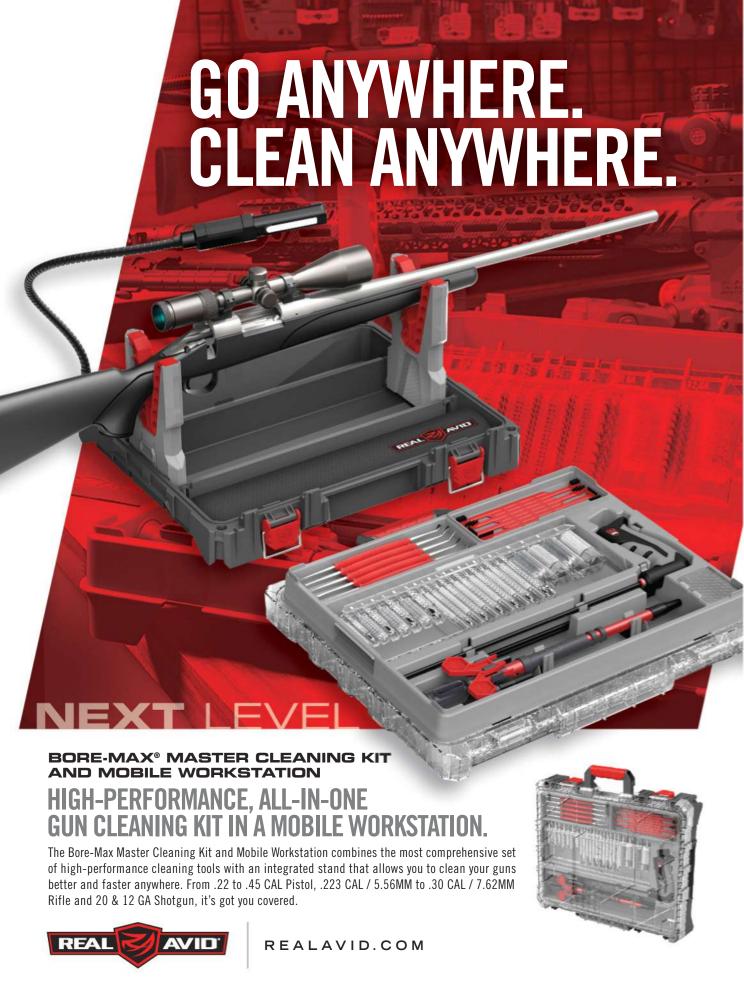


The Mitchell's Mausers import marks on the barrel were left intact to maintain this project's true history. However, in addition to correcting the front band, a steel sight hood was installed.

block, the 59,768th rifle produced by Gustloff in '44. It is worth noting that there were parts and production interruptions due to American daylight bombing in 1944. Dividing 348,081 guns by 12 months results in roughly 29,000 guns produced per month. This gun was likely built in March 1944.

As it was put together by Mitchell's Mausers, the receiver, bolt, shroud, triggerguard, floorplate and follower were polished and renumbered. The triggerguard and floorplate were milled and had all markings polished off and re-stamped to the receiver's serial number. The upper and lower bands and band spring were milled but not renumbered. The rear sight was

marked on both sides for range settings. The stock was sanded smooth, and all external markings were removed. It was re-stamped with the receiver serial number on the left side of the buttstock and in the barrel channel. No external part on the gun is correct for the time frame it was







Mitchell's Mausers sanded and removed markings from components, including the rifle's bottom metal. They were remarked to match the last four digits of the receiver's serial number. The project rifle was corrected with a stamped "byf"-marked floorplate.





The "bcd" marking indicates that the receiver was manufactured by Gustloff-Werke. Above "bcd" is a Waffenamt stamp, a German inspection proofmark that also appears on the left-side of the receiver and barrel. The "4" denotes "1944" production.

produced. This gun was not in its original condition or configuration.

With the production date circa March 1944, the project gun would have likely been produced with stamped parts, including the triggerguard with lock screws — remember the elimination of lock screws was adopted in late 1944 — floorplate, follower, front and rear bands, and band spring. It is a little early for this rifle to have received Kriegsmarine features.

I visited several part suppliers to find the correct stamped parts for this project. I had to purchase a stamped triggerguard with lock screws, floorplate and follower. Of note, the floorplate was phosphate coated. The triggerguard and floorplate were stamped with Waffenampt "135", meaning it was manufactured by Mauser Oberndorf. Mauser Oberndorf supplied a large

number of stamped parts to other makers, so this detail was a bit of luck in the parts I received. There are several online sources that list the manufacturer assigned to each Waffenampt. (The website eaglerelics.com has an extensive list of waffenampt codes.)





The rear sight was corrected with an replacement that lacked marks on the back side.

I also purchased a stamped and welded upper and lower band, along with a stamped band spring. I replaced the rear sight with a sight that was unmarked on the back side. I got the bolt blued and had it lightly bead blasted to remove the high polish. At this point in the war, German manufacturers were not interested

in producing a quality finish, and the bolt and shroud were increasingly rough. The stock was stained a light tan color, and it looked OK when compared to other original stocks, so I left it alone. As the war neared its end, stocks were rough and left the factories unstained



Challenge Accepted.





CONCLUSION

Though the Mitchell's Mauser project will never be original, the experience was fun and educational. The result is a nice example of a late-war rifle featuring correct, all-stamped parts. It has the action of a Mauser K98k, and with these issues corrected I'm proud to shoot it at the range and use it as a conversation piece to share its history. A project such as this would also make an excellent rifle for a reenactor.

The K98k was a very important battle rifle with a sto-

ried history. They will continue to become more expensive as more of us become interested in World War II history and the remaining supply dries up. Anyone interested in World

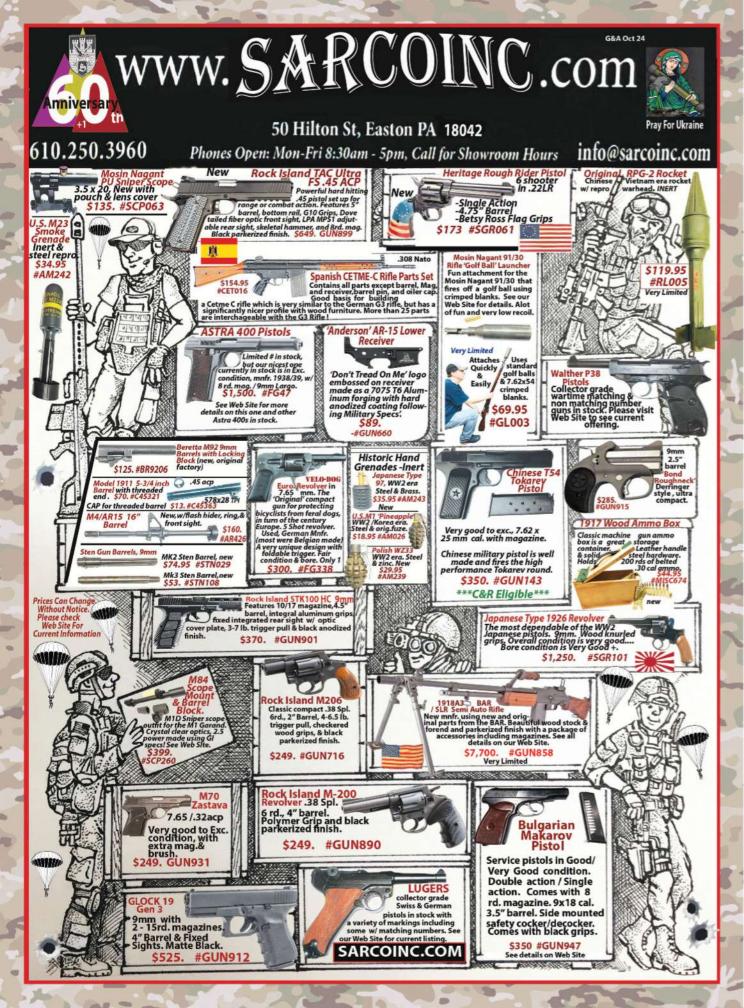
MAUSER K98K PARTS

Sources for Mauser 98 or K98k are available online.
Parts for Guns & Ammo's "Project Mauser" were purchased from:
APEX Gun Parts, apexgunparts.com, 719-481-2050
Liberty Tree Collectors, libertytreecollectors.com, 207-285-3111
Numrich Gun Parts, gunpartscorp.com, 866-686-7424
SARCO, Inc., sarcoinc.com, 610-250-3960

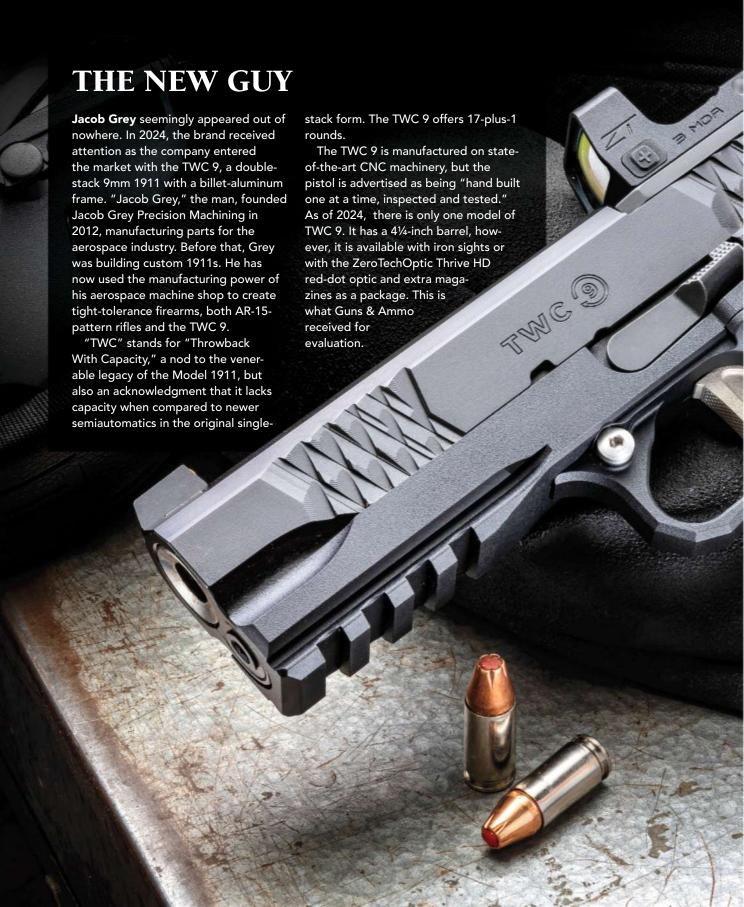
War II history should have a K98k in their collection. Researching the history reveals the changes made during the Third Reich's demise. Pursuing an understanding of these rifle's production history provides a unique perspective concerning the progression of the war and its effect on Germany. Researching and restoring a K98k to its correct configuration for the production era restores some of the history to these rifles. No, these projects will never be whole,

or have the value of an all-matching Bring Back or quality import, but these can become an accurate representation that describes these rifles the way they were.





Jacob Grey TWC 9 9mm









A three-line serrated topstrap leads to the dovetailed XS Sight, featuring an orange ring surrounding a tritium insert. The sight is suppressor compatible and will co-witness with most red-dot sights.

This contemporary-styled 1911 has a two-piece lower half, unlike John Browning's original design. Classic 1911s have a solid metal frame, and then proprietary grip panels are secured to the outside of that framework, adding thickness and contour. The grip section of the TWC 9 is aluminum and it is attached to the actual serialized "frame" at the top of the grip, upon which the slide rides. Stainless steel screws lend a quality-looking contrast.

The modular construction allows the grip modules to interchange, making it feel like a new gun. Various competing designs have polymer grip modules and/or steel frames, but both the grip module and the frame of the TWC 9 are aluminum. Jacob Grey Firearms made its bones machining aluminum for the aerospace industry, so unique to this pistol is that all of the major components on these pistols were machined from billet. The total weight of Guns & Ammo's test sample — with the red dot mounted and an empty magazine inserted — was 34.6 ounces, which is similar to other aluminum-framed pistols this size.

Another company, Staccato, currently holds the trademark for the name "2011", but Jacob Grey's "double-stack

1911" TWC 9 is built to 2011 specs, including using a 2011-pattern magazine, in this case a 17-round, Staccato 2011-style magazine made by Check-Mate Magazines. When Strayer-Tripp International (STI) and Strayer-Voigt (SV) battled for 2011 supremacy, magazines were interchangeable but had slightly different styles. The current Staccato/Check-Mate magazines follow the SV style, which is ironic given that Staccato was created from



The lower grip, frame, trigger assembly, and grip safety are CNC machined from 7075 aluminum. The choice of alloy originated from Grey's prior experience manufacturing for the aerospace industry.





The stainless-steel bull barrel features an integral ramp for supporting the feeding of 9mm ammunition. The muzzle features a blended crown, protecting the 1-in-10-inch-twist rifled bore.

the remains of STI. This magazine has a stainlesssteel body and numbered index holes at the rear for five, 10 and 17 rounds.

Two magazines are supplied with each ironsighted pistol, however, the

factory red-dot-sighted pistol comes as a package. For an additional \$400, the pistol receives a red-dot optic and five 17-round magazines. With either model you get a nylon

The slide is 416 stainless steel finished with a corrosionresistant black nitride. Installed onto the black-anodized finished frame, the TWC 9 has a businesslike appearance. The slide has a flat top with subdued serrations and angled cuts running the length of the slide. There are crosshatched slide serrations at the front and rear, which add style and aggressive texture. That said, as the TWC 9

> is a 9mm, the recoil spring is not exactly stout. With the hammer back, the slide is quite easy to rack. That's a reminder: As a 1911, the TWC 9 is a single-actiononly (SAO) operating system. If the hammer isn't cocked, the pistol will not fire. Many people consider "cocked-and-locked" the only way to carry a 1911: Hammer back and the thumb safety engaged. You can draw and fire the TWC 9 with one hand, in one smooth motion.

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Multiple steel plate options are available to mount most pistol optics to the TWC 9. When an optic is not preferred, a coverplate features the same suppressor-height, serrated black rear sight.

The TWC 9 has a 41/4-inch stainless-steel bull barrel that's flush with the muzzle of the slide. It has a pronounced crown, providing additional aesthetic contrast. The barrel has an integral ramp and a notch in the barrel hood, functioning as a loaded chamber indicator. Barrel lockup is perfect. There was no movement when the barrel hood was pressed down, and the action locked up tightly as the slide moved into battery. There was just the tiniest bit of play between the slide and the frame, which is what you want on a handgun that was designed to be carried; that tolerance allows the gun to run longer when dirty.

The steel recoil-spring guiderod is a two-piece type that is disassembled from the front using a provided hex wrench. This is necessary to disassemble the top end for cleaning. Jacob Grey also provides a wrench to fit the

screws holding the grip module to the frame, although you shouldn't need to separate the two for normal maintenance.

Every TWC 9 is sold optic-ready. Guns & Ammo was told that most of the guns sold are the standard opticready models. This package, featuring the ZeroTech optic installed, was a website exclusive.

The TWC 9 ships with a coverplate and two optic plates, one meant for RMR-pattern optics and one for RMSc-pattern sights. Plates are steel and have integrally-machined rear sights. The rears are tall, suppressorheight sights, narrow, plain black, and serrated.

The front sight is a tall day/night sight made by XS Sights. It pairs a high-visibility orange ring with a tritium insert that glows in low/no light.



In addition to the frame and grip, the checker-textured flat trigger is also machined from billet aluminum. The single-action trigger sported a clean press. G&A's test sample measured 41/4 pounds.

With the ZeroTechOptic Thrive HD optic mounted, the sights reach nearly to the center of the window.

If you've never heard of ZeroTech Optics, it is an Australian optic company. The Thrive HD (\$250, zerotechoptics. com) has an aluminum frame, a glass lens and 3-MOA dot. It uses a Shield RMSc footprint, Shake Awake technology to extend battery life (listed as up to "150,000 hours"), with 10 brightness settings. When looking through the lens, there is minimal tint, magnification or distortion. It weighs just .7 ounces with the CR2032 battery installed.

The front of the frame has a cutout designed to match, in appearance, the relief cut in the bottom of the slide. The TWC 9 has a full-length frame, with a four-slot Picatinny rail on the bottom for mounting lights and accessories.

The trigger is an aluminum design with a flat, finely

checkered face. Jacob Grey's specs call for the TWC 9 to have a 31/2pound triggerpull. Our sample had the tiniest amount of takeup in the triggerpull ahead of the shot. The total triggerpull weight on G&A's sample was tested at a heavier 41/4 pounds.

The grip safety is a machined aluminum part, but the other controls, including the slide stop, magazine release, and thumb safety, are made of steel. The thumb safety has extended bilateral levers that are no wider than the screws at the top of the grip. The same is true of the serrated magazine release. The thumb safety demonstrated positive clicks up and down, which is what you want.

The aluminum grip module is not as aggressively textured as some of the double-stack 1911s on the



The XS Sights night sight and rear suppressor-height sight co-witness with most red-dot optics. The TWC 9 package includes a ZeroTech Optic Thrive HD. \$250

THE UNHOLY UNION OF RACE GUN AND DUTY GUN.



STEEL FRAME





The grip panels secured directly to the serialized frame, and feature a diamond-shaped texture pattern. Backstrap checkering extends from the grip safety bump down the mainspring housing.

market, but it is suited for those willing to carry this size of pistol as a concealed-carry piece. The TWC 9 features diamond-shaped texture applied to the frontstrap and to the rear of the grip module. The steel mainspring housing is checkered 30 lines per inch (LPI), as is the bump at the bottom of the grip safety lever. Not surprisingly, due to the texture, full-length grip, weight, and the fact that this pistol is chambered in 9mm, G&A's staff found that the TWC 9 stayed securely in our hands while shooting. The smooth

PERFORMANCE

LOAD	VEL. (FPS)	ES	SD	BEST GROUP (IN.)	AVG. GROUP (IN.)
Hornady Amer. Gunner 124-gr. XTP	1,060	28	14	1.6	2
Black Hills EXP 115-gr. JHP	1,176	25	11	1.7	2.6
Magtech Steel Case 115-gr. FMJ	1,112	30	18	2.4	3.4
Federal Syntech Action Pistol 150-gr.	864	33	17	2.7	3.7

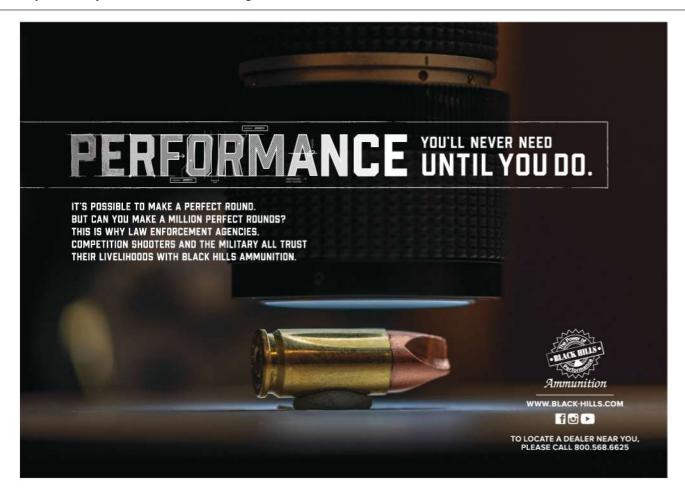
Notes: Accuracy is the average of four five-shot groups at 25 yards from a sandbag rest. Velocity is the average of 10 shots measured with an Oehler Model 35P chronograph set at 12 feet in front of the muzzle.

matte sides of the grip module created no issues at all.

At the bottom of the grip module is an integral magazine well for additional support and quick magazine changes. It adds a minimal amount of width, perhaps an eighth of an inch. Inside, there is a generous bevel that makes speedy reloads easy.

At the range, the TWC 9 most notable takeaways were its soft-recoiling behavior and accuracy. Several additional volunteers made quick work while shooting through an impressive volume of test ammo. The TWC consumed all of it without a problem.

The TWC 9 is not priced like a full custom gun. It is in the upscale, mid-range price point for a double-stack 1911, but it offers near-custom features, looks and performance. Jacob Grey is a name that seems destined for success.







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ON THE ROSTER

UNTIL MAY 7, 2024, the selection of semiautomatic handguns in The Golden State was frozen in time. The 2013 "microstamping" amendment to the California Unsafe Handguns Act (UHA) was the cause. It required the firing pin on semiautomatic handguns to imprint the make, model, and serial number of the handgun on the cartridge case. The technology required to impart this information on the firing pin was not tenable. In 2023, the amendment was temporarily suspended, opening the door for new models to be added to the DOJ Handgun Roster. Two of the models making the list were the Springfield Armory Hellcat with 3-inch barrel and Hellcat Pro with 3.7-inch barrel. Both are 9mm, optic-ready, micro-compacts.

THEN & NOW

Guns & Ammo editors Eric Poole and David Faubion debuted the Hellcat in September 2019. It popularized the "micro" segment and one-up'd the SIG Sauer original P365 by offering an increased magazine capacity with 11and 13-plus-one magazines, as well as a 15-rounder soon after. The P365 fed from either a 10-

BELISIC

or 12-round magazine initially. The rivalry continues as other brands introduce similar size and capacity striker-fired options, while the Hellcat Pro can feed from a 17-round magazine; the P365-FUSE can be configured with a 21-round magazine. The latter versions are slim, but no longer a micro.

As of 2024, there are three Hellcat types: Hellcat (\$599 to \$843), Hellcat RDP (\$778 to \$983), and Hellcat Pro (\$649 to \$1,050). Base models feature a 3-inch barrel, and are offered with or without the Optics Sight Pistol (OSP) optic cut. The RDP models feature a 3.8-inch threaded barrel with compensator. The Pro models offer a 3.7-inch barrel.

CA-DOJ HURDLES

Before Hellcats could be approved for sale to California residents, Hellcat models had to meet state requirements. The Hellcat passed a California safety test, which requires a prominent loaded-chamber indicator and a magazine disconnect. Of the three, only the Hellcat OSP and Hellcat Pro OSP were approved for sale in California. Threaded handgun barrels are illegal in California, so the RDP did not make the cut.

SPRINGFIELD ARMORY HELLCAT OSP (CA COMPLIANT)

ТҮРЕ	Recoil operated, striker fired, semiautomatic		
CARTRIDGE	9mm		
CAPACITY	10+1 rds.		
BARREL	3 in., CHF		
LENGTH	6 in.		
HEIGHT	4.2 in.		
WIDTH	1 in.		
WEIGHT	1 lb., 1.2 oz.		
GRIP	Polymer, Adaptive Grip Texture		
FINISH	Melonite (steel)		
SIGHTS	Tritium/luminescent (front), white-outline U-notch (rear); RMSc/SMSc footprint		
TRIGGER	Gen2; 7 lbs., 3 oz. (tested)		
SAFETY	Trigger lever, striker block, loaded chamber indicator, magazine disconnect		
MSRP	\$633		
IMPORTER	Springfield Armory, 800-680-6866, springfield-armory.com		



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Unique to the California-compliant models is a visual and tactile loaded chamber indicator with red on both sides and "LOADED WHEN UP" along the topstrap and barrel.

Passing a safety test infers an objective process, but California scrutinizes firearms to the extreme. In order for a test lab to qualify for certification, the California DOJ requires that the lab's employees must not have a financial involvement with any manufacturer, importer, wholesaler, distributor, or dealer of handguns. "Financial involvement" is a nebulous term.

The UHA is extremely specific about features such as the loaded chamber indicator; the standard Hellcat peep hole atop the barrel/slide does not meet state requirements, so this feature was subject to a design change. California-model Hellcats have a small lever with the sides painted "danger red" when protruding above the slide. The lever provides tactile and visual



California-compliant magazines are limited to a 10-round capacity. Two are provided, one with a flat basepad for optimal concealment and another with a grip extender.



The slide has subtle serrations, both front and rear, that resemble claw marks. The Adaptive Grip Texture also fills the scallop for the finger index and face of the guiderod.

status that a case is in the chamber. Also, the words "Loaded When Up" are printed atop the barrel and slide.

Both models include 10-round magazines, California's legal capacity limit. One is a flush fit, and the other features the extended-grip basepad. A magazine disconnect prevents the pistol from firing if the magazine is removed.

CALIFORNIA KITTY

Guns & Ammo received a sample of the California-compliant Hellcat OSP for review. What makes the Hellcat OSP an ideal concealed-carry pistol is the 6-by-4¼-by-1-inch dimensions and 23-ounce weight when fully loaded. Its height and length are the size of a small postcard, and its



The grip is slim and contoured to instinctively locate the thumb above the magazine release and two fingers below the triggerguard. Texture completely covers the grip.



Few optic-ready firearms exist on the California DOJ-approved handgun roster. The Hellcat OSP models include a coverplate that can be removed to accept RMSc/SMSc mounting standard.

loaded weight is lighter than a 2-month-old kitten. Unlike a kitten, the Hellcat can be carried comfortably in any o'clock position without printing in a quality inside-the-waistband holster. If you off body carry, it fits in a small purse or fanny pack.

It's size and weight complement the great frame design, which is contoured at the touchpoints giving the hand and fingers index points to nestle into. The web of the hand rides deep in the extended beavertail, facilitating a firm grip and helping to mitigate recoil. The backstrap's arc fills the palm well for retention. Two subtle grooves on the frontstrap supports the fingers in place. The firing hand's contact inspires confidence, enhanced by the brand's Adaptive Grip Texture.

Perhaps an overlooked detail that notably supports control is the concave contour above the magazine release. Additional contouring rear of the dust cover on both sides of the frame. Theses shallow divots serve as indexing points for the thumb and index fingers, and aid in attaining a consistent grip each time the pistol is drawn.

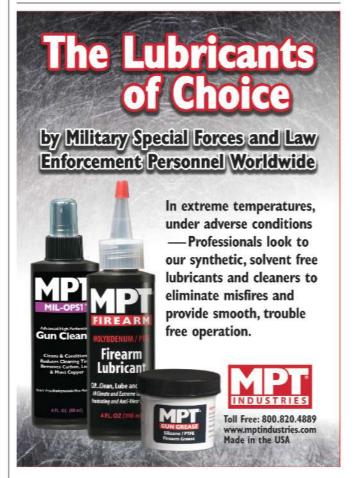
Enhancing its grip-ability is Springfield Armory's proprietary Adaptive Grip Texturing. Found throughout the frame, the texture looks like a medium-grit sandpaper, but the surface feels smooth. When the hand presses firmly into the grip, the subsurface texture featuring staggered pyramids provides traction.

The steel slide is a billet-machined component finished in Melonite. The slide incorporates double serrations on the front and rear. The serrations are shallow but effective at locking the finger's pads in the raised and recessed areas. You will not lose traction when aggressively racking the slide. The slide's edges have been contoured to prevent snagging on a holster.

Inside the slide is a 9mm, 1-in-10-inch twist, hammerforged barrel supported by a captive double recoil spring with full-length guiderod.

Under the frame, the dustcover features a short,





single-slot accessory rail. Though this is not a proprietary rail, it is limited to mounting subcompact lights such as the Night-stick TCM-5B (\$210.90, nightstick.com), Streamlight TLR-7 Sub (\$225.75, streamlight.com) and Sure-Fire XSC (\$359, surefire.com).

The magazine release is also reversible for those who are left-handed, and the gun's center of balance is the triggerguard cut.



The hammer-forged 9mm barrel measures 3 inches and is Melonite finished, sporting a 1-in-10-inch twist. Like European-made firearms, the serial number appears on the frame, the slide and the barrel.

Although having the capability to run an optic is a selling point, good iron sights on a defensive pistol are a necessary default. Electronics can fail; the last thing you want to be doing is searching for a dot that's not there. The Hellcat uses the company's own Tactical Rack U-Dot sights, showing us that Springfield Armory understands this. The sights are visible in daylight or night, and are easy to align. The rear sight is a U-notch with a distinctive white.

half-circle. The front sight is a luminescent yellow circle with tritium center. Setting the ball in the semi-circle is as easy as putting a round peg in a round hole.

A good sight system gets you on target quickly, but the trigger plays an important role in placing shots accurately. The Hellcat's OSP trigger has a flat-face profile, dispersing the pressure of the trigger across the finger's pad evenly. Bisecting the shoe is a safety lever which is flush when pressed. This detail eliminates a pressure point that

SIGHTING IN

Since California's handgun market has been in a time warp, red-dot-ready pistols are rare. Springfield Armory was smart to send the OSP model to California for evaluation. California residents who are gun owners are clamoring for them. OSP models use the Shield SMSc footprint, but the optic is not included. The optics cut is deep enough to allow the stock sights to co-witness if the red dot is notched for them, which most are.



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becomes annoying after a day's shoot.

The triggerpull weight is the only kink — due to the magazine disconnect — in an otherwise great pistol. G&A's sample produced a 7 pound, 3 ounce pull. This is heavy. It's not spongy feeling, just heavy. With the slack taken out, the trigger wall felt firm and consistent.

PERFORMANCE

LOAD	VEL. (FPS)	ES	SD	BEST GROUP (IN.)	AVG. GROUP (IN.)
Federal Punch 124-gr. JHP	1,089	24	7	1.3	3.1
Hornady Critical Defense 115-gr. FTX	1,071	22	6	1.75	2.4
Hornady American Gunner 115-gr. XTP	1,062	23	6	2.1	2.6
SIG Sauer V-Crown 115-gr. JHP	1,210	28	10	2.5	3.4
Marshall Personal Defense 115-gr. JHP	1,127	9	3	2.6	3.2

Notes: Accuracy is the average of five, five-shot groups fired at 20 yards from a bagged benchrest. Velocity is the average of 10 shots recorded by a Garmin Xero C1 Pro chrono graph placed adjacent to the muzzle.

lever, thereby preventing the slide from locking back as the last spent case is ejected. This was the issue with the Hellcat OSP.

When performing reloads, we also found the location of the magazine release was well placed. There was no need to rotate the pistol inward for the thumb to depress the magazine release. This made for smoother reloads and a quick return to the target.

Shooting the Hellcat OSP within 10 yards was fun and accurate. The red dot and stock sights will get you on target quickly. The pistol recovered quickly. When it was time to perform G&A's accuracy protocol for handguns at 25 yards, there was a bit of a struggle due to working the

> 7-pound, 3-ounce, trigger pull. The magazine disconnect required by California can affect triggerpull weight. Although the trigger was consistent, pressing it smoothly required effort. In our evaluators' opinions, the groups at 25 yards were too large for defensive purposes. The

accuracy test was therefore shot at 20 yards. This proved to be the ideal distance for grouping G&A's sample. Most varied from 2 to 4 inches, although Federal's 124-grain Punch did produce an impressive 1.3-inch group.

No defensive pistol test is complete without carrying it concealed. For the Hellcat OSP, an N8 Tactical Xecutive IWB holster (\$30, n8.crossbreedholsters.com) with the Xecutive Mod Wing (\$7). The Mod Wing rotates the grip towards the body. With a slightly over-sized t-shirt, the Hellcat was easily concealable. It was carried in the 3 o'clock position for 30 days. The pistol was so light and small that it was comfortable to carry while doing chores such as mowing the yard. The Mod Wing did its job at keeping the grip tight against the body. It did not dig into a vehicle's driver's seat or office chair when seated.

TESTING

G&A's first trip to the range was to get familiar with the Hellcat OSP. A Shield Sights' Advanced Mini Sight Compact (AMSc) was mounted (shieldsights.com). The AMSc is an enclosed mini red dot that co-witnessed to the factory sights. One of the unique features to the AMSc is that it accepts any of three battery sizes: CR2025, CR2032, or CR2050.

With the optic zeroed. the first shots at the 10-yard target formed a small group. The pistol has a little more recoil than a 4-inch-barreled 9mm, but it is not too snappy. The muzzle pops straight up making it easy to drive back down to the target for a follow-up shot.

Two key components that make the Hellcat so shootable are the frames' ergonomics and texture design. The grip is not too thin or thick, and it is contoured enough to provide excellent purchase with your hand. The gun feels just right in the hand and requires no additional fidgeting to maintain a grip.

With micro-compact pistols, it is not unusual for the shooting hand's thumb to lay against the slide lock



A short length of rail accepts aftermarket accessories. A rechargeable Viridian C5L Micro featuring instant-on activation, a 650-lumen LED, and green laser, was used during the evaluation. \$229

SUMMARY

The perfect concealed carry pistol is a reliable gun that is easy to shoot. It is also light and small enough that it won't hinder a person from carrying it anywhere, anytime. The Hellcat OSP is almost perfect. If the sample you evaluate across a gun counter has a decent trigger, we have no reservation in recommending it to our friends in California.



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Digging up the past.

LOOKING BACK

WHILE DISCUSSING which legacy cover would be featured in this month's "Reader Blowback," Editor Eric Poole and I discovered an interesting coincidence: The May 1985 issue of Guns & Ammo featured the then-new SIG Sauer P226 on the cover, and in the same issue contained an interview with the also-thennew NRA Executive Vice President G. Ray Arnett. Thirty-nine years later, here we are again. The September '24 issue featured an interview with NRA EVP and CEO Doug Hamlin, while SIG Sauer's P365 FUSE graced the cover. As Mark Twain's saying goes, "History doesn't repeat itself, but it certainly rhymes."

The similarities in these topics inspired me to think about some of the historical trends, guns, and authors Guns & Ammo has included in its 66-year history. Craig Boddington penned a piece for gunsandammo.com, describing several great contributors to the magazine through the years and their preferred firearms. Gunwriters Elmer Keith and Jeff Cooper were essential to establishing the early reputation of this publication,



RETIRED .45sBuilt by Precision Weapons Section armorers, the M45 MEUSOC pistol served the U.S. Marine Corps from 1985 to 2012.



GUNS OF THE GREATS
Mid-20th-century gunwriters and their firearms were heroes and legends to generations
of American outdoorsmen.

and it can be educational — sometimes with colorful language — to revisit their preferred subjects.

Certain firearm types simply refuse to leave the public and military spheres, as well, no matter the age. The iconic Model 1911 is the foremost example of this, now 113 years. John M. Browning's fundamental designs are not only alive, but they continue to be of interest to readers. Lt. Col. Justin Dyal recently penned a well-received article featuring the U.S. Marine MEUSOC 1911, reflecting on his personal experience and the pistol's development during service.

Reviewing G&A's history also helped us identify the blind spots we may have had. The Diamondback DB9 is a subcompact pistol that imparted a great impression on many readers, but coverage was minimal



DIAMONDBACK DB9

The DB9 is a 9mm handgun that Guns & Ammo readers directed us to circle back on. We now have a full review.



ANTONIO ACITELLI

among reviews of micro-compacts at the time of its release. After many readers pointed this out, we spun back around and redirected our attention to reviewing it. I'm sure there are other examples of guns, ammo, and accessories we have missed. More products are introduced today than during the 1950s. Are there any subjects we need to revisit or review? Have a favorite writer whose work was inspirational? Email us at gaeditor@ outdoorsg.com with your thoughts.

TOP COMMENTS

In response to the online article, "Guns of the Greats":

"The only other writer I feel should have been included was Skeeter Skelton. I believe his writings, as much as Bill Jordan's, contributed a vast amount of gun knowledge that heavily influenced my interests and improved my skills as a handgun practitioner. And his columns of humor (I seem to remember them as 'Me and Joe') revealed the true scope of his great skills as a writer. These men were so important to me that I actually cried when I learned of their passing." — David W., Email

"Regarding the article by Craig Boddington in my latest Guns & Ammo email, I guess I must be a 'geezer' because I knew all the guys mentioned except the last one. If I had a 'hero' among writers, it had to be Elmer Keith. I read and re-read every article and book he wrote. I was just a young teenager when I discovered Elmer in the G&A magazines my brother-in-law would bring to me after he finished them. I love all things guns and hunting, but handguns — especially single action revolvers — have always been my thing. Elmer's take-or-leave-it style just struck a chord with me, making me anticipate the next 'Gun Notes' column even more."

- Don W., Email



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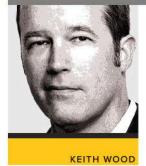








136 G&A OCTOBER 2024 SPENT CASES



Everyone has a first gun.

STARTING LINE

THEY SAY, "You never forget your first." The first time that I pulled the trigger on a live round was with Dad's Browning semiautomatic .22 rifle. It was a beautiful Belgian-made takedown, and it still resides in its factory box with papers. Hopefully, when the time comes for it to be passed down,

I won't have to fight my brother for it.

The first gun I could call my own was a Smith & Wesson Model 422, a simple blowback-operated .22 pistol. I think I bought it new for \$187.50 at a gun show in Fort Pierce, Florida. Though it wasn't particularly accurate or otherwise special, I prized it as if it were a Purdey. I used it plenty, but I probably put more wear

on the bore from cleaning than I ever did shooting it. I sold that gun a few years later, one of the very few that I've ever let get away.

My first Model 1911 was a Series 80 Gold Cup, a gun I still own. As a teenager, I had dreams of shooting USPSA competitions with it but I never got the courage to enter a match until years later. I shot my first match somewhere in Kansas using a borrowed Beretta 92 that Ernest Langdon (langdontactical.com) had worked over. I didn't embarrass myself, thankfully, and I went on to shoot local matches pretty regularly until the kids came along. My go-to gun for Production class was a boring-but-practical G34 Gen 3.

My first hunting rifle was a Remington 700 BDL that I bought at Walmart in the 1990s. It was chambered in 30-'06. A local gunsmith taught me to handload for it, and I used one of those 150-grain Sierra GameKings and a charge of Hodgdon's IMR 4064 to take my first deer.

Later, I had it rechambered to .280 Ackley Improved, and it became my first custom rifle. I've used it to take a number of game animals, including my first pronghorn antelope and first black bear. It has been through three barrels as of this writing, and I have a new .264 blank

sitting in the chuck of my lathe. The plan is to rechamber it to a 6.5-06 wildcat cartridge called the 6.5 ASP in honor of my friend and gunmaking mentor D'Arcy Echols (echolsrifles. com), who designed that cartridge.

My first dangerous

My first dangerous game rifle was a G-series Winchester Model 70 chambered in .375 H&H, which was manufactured in New Haven, Connecticut. I spent

hours making a stock for it out of a semi-inlet, farming out the checkering to a professional. It actually turned out well for a first effort, and I used it to take my first Cape buffalo in 2011.

As a kid who read too many books about hunting Africa, I dreamed of owning a double rifle, but there is no such thing as a cheap double that's worth its salt. Finally, at an auction, I was able to purchase a Damascusbarreled Westley Richards chambered in .577 Express. It is a cordite-era gun made during the transition between blackpowder and Nitro Express cartridges. Its Metford-rifled bores require paper-patched cast-lead bullets, so feeding it taught me another time-honored skill. Westley's records indicate that the gun was part of a pair that shipped to India back in 1891. If only it could speak.

When it comes to guns, we all have our firsts. I'd love to hear about yours. Email us gaeditor@outdoorsg.com.





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