EXCLUSIVE

COLT’S

COBRA

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DON’T FORGET THE FNX-45!
In the article on the Remington RP9, when discussing the RP45, Eric Poole states that no other gun chambered in .45 ACP holds 15+1 rounds. A cursory search would reveal that the FNX-45 has had this capacity for some time now.

Brian Kerecz
Allentown, Pennsylvania

You are certainly correct! Shortly after sending that issue to press, I, too, recalled the FN FNP-45 and FNX-45 as having the ability to carry 15+1 rounds of .45, and I’ve been suffering the wrath of others for my mistake ever since. Still, I find it to be a worthy and interesting point to say that I can find no other .45-caliber striker-fired pistol that carries as many rounds as Remington’s RP45. (The FNX-45 is a hammer-fired pistol.) Thank you for taking the time to share your feedback in keeping us sharp!

— E. Poole

HOW ABOUT A TOKAREV?
All gun magazines seem to report on are the latest wiz-bang full-size pistols. It is sometimes very interesting reading! However, these guns all seem to sell for steep prices, anywhere between $650 and $2,000. Neglected are those who live on social security or work in low-paying jobs. I would like to suggest an article on one of my favorites: the Tokarev TT33. Based on John Browning’s design, I feel that it has the status of the 1911. Tokarevs are found across half the world, and many are still sold in the U.S. They are surpris-
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I'd like to jump to the defense of Kyle Lamb's October column, "Training Day," and address the response from Mr. McGowan in the January issue of G&A. Mr. McGowan took exception to Kyle Lamb's description of using pistol ammo that could be had for $10 per box of 50. I recently purchased Federal FMJ .40 cal in 50-round boxes at Walmart for $9.99 and Federal FMJ 9mm for $9.49. Our Cabela's store runs a bit more expensive but routinely runs sales on popular calibers — 9mm, .40 S&W, .45 ACP and .38 Special — of MagTech, Sellers & Belloto, Federal, American Eagle, Winchester and Remington for $11.99 to $14.99 per box of 50. I usually wait for the seasonal $20-off coupons (for $100 purchase) that I get from Cabela's in the mail and go buy 10 boxes during a sale day, which gets me down near $10 per box. On top of that, we see slugs of indifferent quality imported: Wolf, PPU and Herters sell for $8.99 to $10.99 per box of 50. I can only surmise that Mr. McGowan's problem is due to the fact that he lives in a relatively unfriendly firearm state with high ammunition taxes!

Darrell Smith
St. Louis, Missouri

The election excitement is ebbing, so let's return to our default controversy: rifle calibers. We have .17s, .20s, .24s, .25s, .26s, .27s, .28s, .30s, .311s, .32s, .33s ad nauseum. What's missing here, folks? What this country needs is a hot new .29 caliber. Come on Remington, Federal, Winchester and Hornady ... get on this! Don't make the wildcatters shame you into it! I don't know whether it would be better to neck up a .219 Zipper or neck down a .416 Rigby and then screw with the neck length and shoulder angle. Like parked cars in lover's lane, there should be some necking and screwing going on here. Having proposed this project, I'm claiming naming rights. Call it the 'Two-Ninety JB' (Just Because). Sure, no sooner than this worthy proposal hits the press then some other
crackpot will write in and complain, “We already have one: the 7.366x52½ Puerto Rican Mauser.” As always, until they find a cure, I’ll be bored since the election or “BSTE.”

Andy Butcher
Brownstown Twp., Michigan

DEAD BIRDS

I would like to respond to the letter to the editor posted by Ben Parris of Cumming, Georgia, in the Jan. 2017 edition. Ben is correct in his observation that dove harvesting as practiced in South America is just shooting. It is all about shooting. Harvesting an agricultural pest that turns the pest from a liability to an asset is a win-win to the land owners and locals, in terms of income for hosting the shooters at their farms and ranches. Shooting negates the widespread use of avicides, which are indiscriminate killers of many bird species. The practice is more correctly called wing shooting rather than dove hunting because it is only about making a shot, no stealth involved.

The commonly held myth that buffalo (American bison) were decimated by market hunting is just that — a myth. The great buffalo numbers were destroyed by cattle fever (brucellosis) spread by a fly and carried by infected domestic cattle that came in through Texas and spread north through the great cattle drives that began in the mid-1850s. The unfortunate demise of the passenger pigeon (carrier pigeon is a different domesticated breed) was far more complex. Shooting pressure, egg collecting and indiscriminate harvest in all forms contributed to creating an imbalance in the reproductive biology of the bird that was not widely understood at the time. Passenger pigeons’ nests were barely
more than crossed twigs and suffered a high degree of mortality naturally, and, unfortunately, the species could not handle the additional pressure of unregulated harvest and the deforestation that followed the move westward.

David Broberg
Cut Bank, Montana

REPRINT MEL TAPPAN!

I wish you would consider reprinting the Survival Notes column from the ’70s to ’80s, say one column reprinted per issue. Mel Tappan was smart and wrote well, and most of his advice is sound today. There is a lot of interest in those old columns.

Alan McMichael
Email

APPENDIX CARRY? REALLY?

I just wanted to comment about the new fad of appendix carry. Are people really falling for this nonsense? Somebody should mention that if you’re carrying appendix, you’re pointing the muzzle at two femoral arteries and the crown jewels (if you’re a man) during the most high-stress situation a person could find oneself in. I say, “No thanks.” Appendix carry is not for me. I will accept the milliseconds it takes to draw from the side of my ankle or from a shoulder holster for the added safety of not shooting myself. I have a suspicion most readers feel as I do. Still, I love Guns & Ammo magazine.

Michael Noel
Everett, Washington

OUR FUTURE LEGACY

I wanted to write in with my appreciation for what all of you at the offices of Guns & Ammo are doing. Some of us read your magazine because it represents the life we live and respect and hope to pass on to our children. An appreciation for the outdoors, a respect for the game we pursue, and interest in the tools we use and have used to protect ourselves and those values. Keep up the good work so I can pass on those values and your magazine to my son.

Kevin Kunkle
Greer, South Carolina

AFTER ALL THESE YEARS …

It was 1978, and my high school English teacher was trying unsuccessfully to get a weekly reading report from me when she finally hit pay dirt. While watching (refereeing) some of us jocks in study hall, she noticed I always had one of “Pete’s” magazines in hand. Be it Hot Rod or Guns & Ammo, she decided to let me write about the magazines instead of boring required books. Looking back now, it seems as if I grew up with Craig Boddington and Garry James. These two guy’s writing can’t be beat. I love the way Boddington can make a hunt seem like an adventure I was on. James’ gun stories are the best history lesson I ever had. When I purchase a new firearm, I can always recognize a little history of old.

CONGRATULATIONS SIG SAUER

Jan. 19, 2017: The U.S. Army declared a Mil-Spec variant of the P320 winner of its Modular Handgun System (MHS) contract worth more than $580 million through 2027. Labeled the XM17, the pistol will likely be redesignated the M17 when it is issued to soldiers. It replaces the Beretta M9, which was adopted in 1985.
firearms and where we have come because of James. While going to new places for new adventures while attempting to call it a hunting trip, Boddington’s musings always make me feel at home away from home. The only request I have to improve a long enduring friendship is when comparing similar guns, which I really do like, to let Patrick Sweeney hold my pistols just once. I’m certain that I could be a better shot, too. Kyle Lamb is also superb on G&A TV. I’m sure that he could even teach a hard-headed guy like me. How could a person not be better prepared for a hunt, self-defense, shooting match or that everlasting gun show with this cast? Many thanks.

Rick Schwertner Snyder, Texas

BECKSTRAND’S .22 “MATCH” ARTICLE

I wanted to offer my thanks and kudos to Tom Beckstrand for his exceptional piece, “What’s really ‘match’?” published in G&A’s January 2017 issue. The lowly .22 Long Rifle cartridge isn’t often covered in detail in the shooting press, taking a backseat to more glamorous and exotic rounds. Yet the .22 trains and entertains every generation of shooters like no other cartridge can. While the well-regimented testing and comparison of such a diverse sampling of cartridges is instructive, I particularly enjoyed the commentary on each round and how it might behave in the real world. Speaking as an unreformed .22 nut, this is news we can use. Many thanks again.

Hamilton S. Bowen Bowen Classic Arms Corp., Classic Arms Journal, Louisville, Tennessee

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BODDINGTON’S TOME

FOLLOWING THE IRAQ INVASION, I was part of a recovery mission for a damaged light armored vehicle (LAV) that my unit had sent south to Camp Doha, Kuwait. It was May 2003, and I had caught a glimpse of a star on the collar of an officer before giving him a double take in a mess hall. I thought to myself, Was that Col. Craig Boddington? It was!

Boddington was commissioned in 1974 and, after five years on active duty, became a drilling U.S. Marine Corps reservist in 1979 until the Persian Gulf War. After serving active duty for three months, he returned to the reserves with the intent to retire after 20 years. However, a good job as battalion commander was offered to him, which ultimately led to him becoming a colonel. (As an aside, he was made colonel along with retired Gen. James Mattis, who Boddington still regards as a dear friend.) In 2003, Boddington was once again mobilized and frocked a brigadier general, which had given him the star I saw him wearing that day.

It was inappropriate for me to fraternize with an officer, especially a general. I had long read his writings in the pages of Guns & Ammo before this fateful day, so I self-deliberated before mustering the gumption to walk over, interrupt his lunch and introduce myself. A senior-enlisted Marine loaded with a heavy collar of stripes and rockers sat opposite him, so I locked myself into the position of attention and requested permission to speak. I can’t recall how I stumbled through my words once he invited me to sit and join him, but after a recent visit, I learned that Boddington has a sharp memory of the incident and enjoys remembering how we first met. By his account, we discussed adventures and exchanged observations regarding various firearms and ammunition. I was star-struck and never imagined that one day I would become one of his editors.

A few months ago, Boddington sent me a copy of his latest treatise, “The Accurate Rifle … And Rifleman.” Boddington doesn’t just rehash fundamental shooting tips. I find myself stopping at the end of each chapter to seriously consider the practical application of the information he provides. While reading, I often abused the privilege of friendship to call and discuss an idea further. Boddington wrote a book on field shooting years ago, but given the changes in firearms, optics and ammunition, it was time to reconsider his first words on the subject. He has evolved his opinions, too, which isn’t a surprise if you consider that he was first published in 1973 and started working for Guns & Ammo in August 1979 with the daunting task of editing Elmer Keith’s writings. Since then, he’s proved to be one of the hardest working students of the gun and has never lost the desire to educate himself on all aspects of shooting.

Boddington started composing “The Accurate Rifle … And Rifleman” in December 2014 and finished a year later. I can confirm that it’s better illustrated than his first, with nearly half of its 374 pages being photography (which wasn’t possible for most publishers even 15 years ago). It’s a progressive read that begins with understanding the barrel’s influence on accuracy with a guided lesson covering the elements that make rifles accurate. Before reading this book, I had never considered why shorter bullets require a slower twist, and how a manufacturer’s decision on twist rate influenced the success of a cartridge like the .243 Winchester and failure of the .244 Remington.

I finished reading armed with a clearer understanding of how our equipment and climate changes relate to practical techniques, and I look forward to re-reading it.

“Too many people are trying to translate th[e] skills of [military snipers] into field shooting,” Boddington recently told me. “I have more experience than I did 25 to 30 years ago, so I thought I’d write one more book on the subject.” This first edition from Safari Press (safaripress.com) quickly sold out. The current edition is $30. Want one signed? Visit craigboddington.com. “The Accurate Rifle … And Rifleman” is a great contribution to shooting literature and has become one of my recommended reads.
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“The finely checkered grips are a bit unusual but by no means unique.”

IDENTIFICATION & VALUES

BRIT PEPPERBOX

Q: “Pop” Kovarik was a machinist at Olin from 1920 to 1960. He shot trap and had an average of 99 1/3. In his spare time, he fueled his passion for firearms and helped pay bills with his gunsmithing business. We believe this pepperbox was given to him in the 1940s by a Raleigh salesman that stopped by every few months selling home goods. Any information you can provide on its origin, year, manufacturer and value would be greatly appreciated. Thank you! J.W.K. Glen Carbon, Illinois

A: “Pop’s” pistol is a British bar-hammer pepperbox made between 1845 to 1850. Unfortunately, it has no maker’s name, but from the proofs we can see it was made in Birmingham. Birmingham was home to a large number of makers during the 19th century, and they turned out a dizzying array of firearms. Pepperboxes were particularly popular and were sold domestically and for export. This repeater looks to be a typical good-quality English arm. The finely checkered grips are a bit unusual, but by no means unique. Value on the piece would be in the $850 to $1,200 range, assuming it functions properly.

FANCY GERMAN DB SHOTGUN

Q: I have enjoyed many of the old firearms that you have researched. I have learned quite a bit from them. Enclosed are pictures of an old Heym double-barrel shotgun. The only markings on the barrels are “Heym F. W. Suhl” in gold on the top of the rib. The barrels have the color of brown rust patina, with gold inlay around the rear portion of the chambers. It is chambered for 12 gauge with 2½-inch chambers. The receiver is fully engraved with scenes of deer, fox and pheasant. It has loaded chamber indicators just behind the breach face on top of the receiver that pop up when the gun is loaded. The rear of the receiver is squared, not rounded like so many other shotguns that I have seen.

It has a very low four-digit serial number, so I assume it is an early gun.

The wood is in excellent condition for the age of the gun. The forearm is heavily checkered, as is the wrist area of the buttstock. There is also a cheek riser on the left side of the buttstock. If you could give me any history on this gun and an approximate value, it would be greatly appreciated. Thank you!

J.W.K. Glen Carbon, Illinois

A: Frederick Wilhelm Heym built guns in Suhl, Germany, from the 1920s until around the beginning of the Second World War. Quality was good and, as your shotgun exemplifies, fancy, engraved versions were available. This double has the usual heavy Germanic engraving of the period and appears...
HAVE AN HEIRLOOM? Curious about a vintage firearm? Email Garry at garry.james@outdoor.com, or send a description with detailed photos to Gun Room, Guns & Ammo, 2 News Plaza, 3rd Floor, Peoria, IL 61614. Please include your name and state of residence.

Due to the volume of requests each month, personal replies are not possible. The most interesting or unusual queries are answered in Guns & Ammo magazine.

to be a nice piece. Condition could be a bit better, though it doesn’t appear to be too grim. The 2½-inch chambering is certainly not a plus, but the piece still has some charm. If it’s tight and shootable (take it to a qualified gunsmith to find out), value would be in the $1,200 to $1,500 range.

JOHNSON RIFLE LORE

Q: I really look forward to reading your column every month in Guns & Ammo. I happen to like old guns made of wood and steel rather than aluminum and plastic. Recently, a friend asked me to clean up some old military rifles for him, one of which was a World War II Johnson rifle. I had not seen one of these for many years … not since 1950 in my hometown U.S. Army/Navy surplus store. There was a box full of surplus guns of all types for sale. The Johnsons my brother and I saw were selling for around $25. They looked strange in appearance to us, but the store owner always had time to show us how these guns worked. We were always intrigued with his knowledge, as I am with yours. The rifle I was asked to restore was not stored very well and was covered with rust and grime. But once disassembled and cleaned up, it functioned perfectly. It had a three-digit serial number. The action was a little ahead of its time, I thought, as it had a rotary bolt and a rotary 10-round magazine that could be charged with stripper clips in the side, and it seemed like it was recoil operated. I thought maybe other old military gun enthusiasts would like to read a little history about this gun that was in competition with the M1 Garand rifle for acceptance by the United States government in World War II. As I recall, most of these were sold to the Dutch after being rejected by the U.S. Army. And, as I understand, the U.S. Marine paratroop Raiders had to buy some of them back to use, as it had a unique takedown feature where the barrel could be removed and replaced quickly. Thanks again for a great column every month in Guns & Ammo.

R.E.H.
Venice, Florida

A: Thank you for the nice words. The M1941 Johnson rifle certainly is a fascinating arm, and I’ve played with a number of them over the years. It was considered something of a rival to the M1 Garand, but, while ingenious, it does have some questionable features that subordinates it to John Garand’s superb creation. Of course, unlike the M1, the Johnson’s magazine could be topped up, but if you’ve ever had the Johnson mag cover spring fail and all the unfired ammo barf out the loading port, you’ll see the tradeoff is questionable. The Johnson saw limited use by the U.S. Marines in the Pacific in World War II and, apparently, it received OK marks. As you note, the Dutch also fielded the rifle, as did a handful of other countries. Yes, the barrel could be easily removed, though as you’ve probably found out, taking the M1941 apart is still somewhat more complicated than disassembling an M1. Johnsons are a heck of a lot of fun to shoot, and decent ones are currently selling for pretty steep prices.

GERMAN LEFT-HAND FLINT RIFLE

Q: The first, and sometimes only, article I read in Guns & Ammo is your Identification & Values column. In addition to learning how much I overpaid for a C&R firearm, I am often exposed to many old guns that I have to go find and buy. That being said, when I found an antique left-hand flintlock on gunbroker.com, I had to buy it. The barrel is marked “1 + C + Gorges + A Frankfort.” I have been searching for references to gunmakers in Kentucky, New York and elsewhere for information to no avail. The dealer says the caliber is .44. Please tell me what you can about this rifle. I am especially curious as to why there are slanted indentations in

RECOMMENDED READS


The three previous editions of Standard Catalog of Smith & Wesson have firmly established this title’s reputation as the standard work in the field. Authors Supica and Nahas have endeavored to improve each edition and this, the fourth, is no exception. As well as being a superbly illustrated, full-color complete catalog (including values) of all firearms, this latest entry includes several special sections on such topics as accessories, special editions, engraving, etc. It is a list too extensive to be covered in the limited space afforded here. Let it suffice to say that this is simply a superb book, and one that is a must for anyone with even a modicum of interest in the firearms and history of this important manufacturer. It is certainly my go-to source on the subject, and I am sure I am not alone. Kudos to Messrs, Supica and Nahas.
the buttstock. Thank you very much for sharing your knowledge with the rest of us.

C.R.V.
DeFuniak Springs, Florida

A: That’s a very interesting rifle you have there. The gun is a good-quality German flintlock Jäger-style rifle manufactured circa 1780. The fact that it is left-handed makes it just that much more interesting, as lefty guns from that period are not all that common. Johann Christian Gorges was a German maker from 1752 to 1816. He worked in Frankfurt, even though the address on the barrel is clearly “Frankfort.” That being said, spellings around this time could be haphazard, so this is not as much of an anomaly as we might think. It looks like the barrel has been sleeved in the not-too-distant past, probably to improve the rifle’s shooting properties. The dual cheekpieces with the cavities are also unusual. It is entirely possible the rifle, being left-handed, was equipped with the second cheekpiece so that, in a pinch, it could also be fired by a right-handed shooter. What the divots in the cheekpieces are for, I must admit I haven’t a clue. I’m sure your rifle was of a much larger caliber originally, as .44 would be an unusually small bore size for a Jäger of the period. It appears to be a very nice gun. Congratulations on your purchase. If you plan to shoot it (I certainly would), make sure you have it checked out by a competent gunsmith for serviceability prior to touching it off.

FERLACH, NOT VERLACK

Q: I am a faithful reader of Guns & Ammo since 1973 and own many American guns. In the January issue, one of your readers wrote about an old double pistol with the name “Verlack” on it. The correct spelling is most probably “Ferlach,” and this says at least something about the gun, as Ferlach is one of the most famous gun and gunsmithing cities in Europe. It is a small place (about 6,000 people) in the south of Austria, near the Slovenian border. Ferlach is still very busy in the making of fine double shotguns and rifles, and in luxus engraving. Fine engraving but, between you and me, quite heavy. I am more fond of the English, French or Italian style! My best wishes to Guns & Ammo and your own work, of course.

E.R.
Brussels, Belgium

A: I’m sure you’re correct. “Verlack” sounded vaguely Transylvanian to me at the time, and I was distracted enough not to make the Ferlach connection. Thanks for taking the time to write and for your good wishes.

“MYSTERY TOOL” REVEALED

Q: The “Mystery Tool” in the January 2017 issue is an old shotshell reloading tool, which I believe is an old shotshell reloading tool. It is a very useful tool for anyone who reloads shotshells. It is also very affordable, making it a great addition to any shooter’s collection.

Lasers come in vivid red or daytime green
Will adjust to fit any full size or compact frame
Illuminate your target with a 120 lumen mint green beam
The simplicity and value of AAA battery power makes replacement a snap
gauge. In the early days of reloading shotshells, we did not have the one-piece wads that we have today. We had individual “over-powder” wads, and then different thicknesses of “filler” wads made from either cardboard or cork. This tool helped you determine what thickness of filler wad to use according to your shot load. You adjusted the tool to your shot load, say 1½ ounce, inserted it in the hull after your powder and “over-powder” wad, and the top line told you how much “filler” wad you would need, ¼ to 1 inch. You had to allow some at first for the “over-shot” card and roll crimp. Later on, you had to allow more for the star crimp.

What a great day it was for reloaders when they began making plastic hulls and then one-piece wads. You can tell I’m an “old-timer” because we are talking about the 1950s. J.E.S. D’Lo, Mississippi

A: Well, there you are. A number of readers were kind enough to write and tell me the purpose of the “Mystery Tool.” Thank you all for your interest.

**CODE “42” LUGER**

Q: I am writing to you for some help in identifying a Luger. I have six photos but will have to send them one at a time. I do not see any manufacturer’s name on the pistol, and all the bluing seems to be missing. The grips seem to be stained. V.S.M. Email

A: That’s an easy one. From the photos you sent (including the top of the action), I can tell you have a Code 42 P08 Luger made by Mauser Werke in 1940. “42” was one of Mauser's manufacturing codes. This is one of the more common P08s, but it still looks to be in pretty good shape and at least is all matching. It's worth between $1,200 and $1,350, with an extra $250 to $350 should you have the holster and spare magazine, and depending on the holster's markings and condition.

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YOU’VE HEARD THE ADAGE, “You must suffer for your art,” right? Well, sometimes you must suffer for knowledge. This column began when G&A editor Eric R. Poole read a long-ago Guns & Ammo column by Col. Jeff Cooper. My predecessor commented on the marking on some new revolvers. “Not for use with bullets less than 120 grains,” he wrote. The reason? Bullet pull. Lightweight revolvers can have the last bullet in a cylinder “grow” in length, as the bullet is pulled more and more out of the case for each preceding shot.

The cause is simple: inertia. Newton’s Third Law states: “For every action, there will be an opposite and equal reaction.” When we fire a handgun, that reaction is felt recoil. When the bullet moves forward, from the moment it starts moving, it generates recoil.

If that’s the case, then why doesn’t a heavy handgun cause bullet pull the same as a light one? Velocity of the recoil. With a heavy firearm, we feel recoil as momentum. That is, mass times speed. That happens because we are much heavier than the object slamming into us, and we’re flexible. The object being accelerated is heavier than a bullet and still much lighter than we are. Our bodies give against the recoil, but our hand takes the brunt of it. Hand gets hit, arm flexes, shoulder moves a bit and the brain goes, That wasn’t too bad. A 2-pound handgun weighs 1 percent of me. However, recoil is generated as force. That’s a more complex calculation. Force, in the world of physics, is one-half the mass of the object times the square of its velocity.

In order for the force involved — bullet one way, handgun the other — to equal out, as the mass of the handgun decreases, the handgun recoil velocity must increase. But, as force, that means the increased velocity is necessarily magnified. No matter how good your lawyer is, the Law of Conservation of Energy must be obeyed.

Let’s get down with a calculator and crunch some numbers. We’ll compare like to like. The standard Smith & Wesson Model 640 J-frame revolver is made of steel and weighs 22.1 ounces. The ultra-lightweight S&W 340 PD weighs 13.8 ounces. If we fire a 125-grain bullet .357 Magnum out of them, at a velocity of 1,100 feet per second (fps), the bullet generates 2.715 Newtons (N) of force. (There is a long list of units we could use, but this will do for our purposes.)

If we work the equation backward, that is, generating 2.715 N of force with either our 22.1-ounce revolver or our 13.8-ounce revolver, what do we get as the velocity for each?

The 22.1-ounce revolver comes back at us at 14.217 fps or roughly 4 ft.-lbs. The 13.8-ounce airweight? It slams back at 22.76 fps or around 7 ft.-lbs. (Ouch!) To put things in full perspective, a classic carry gun of the Mesozoic era, a 2½-inch all-steel M-19 weighing 32 ounces would have a recoil velocity of only 9.8 fps (about 3 ft.-lbs.), which is positively sedate by comparison.

The problem is not just ours. The bullets waiting their turn are also subjected to this acceleration. The revolver jolts back, and the waiting bullets — due to their inertia — attempt to remain in place. In fact, the last one up gets this jolt four times in the 340 PD before it has a chance to do its duty. It takes a lot of neck tension and crimp to keep the bullets in place when they are hammered this hard.

That is why you can see “not for use with bullets less than X grains” marked on some barrels. When the ultra-lightweights started to appear, ammunition was still made for use in revolvers like that M19 and its 9.8 fps recoil velocity.

But why is the problem just with lightweight bullets? It’s due to a combination of the recoil velocity
Could recoil in a lightweight revolver eventually pull a bullet from an unfired cartridge in a cylinder?

and the short bullet length. Yes, a 158-grain bullet generates more recoil, but it also has a lot more bearing surface for the case neck tension to hold onto the bullet.

Here in the 21st century, there are a lot of wispy wheelguns, and many of us carry daily. When we carry, we want something light. So, have the ammunition manufacturers kept up with the times? Or have they spent all their time and effort satisfying the needs and desires of the 9mm pistol crowd? To that end, I borrowed a S&W 340 PD and shot a cross-section of ammunition through it.

I won’t say that I tried everything. (Cut me some slack, please. Trying everything in the 340 PD would have meant pain, suffering and multiple trips to the doctor.)

When it came to test-firing, I knew this would be work, but I wasn’t prepared for just how much. One cylinder, with the last round saved for measuring, told me I needed gloves. Alas, padded recoil gloves don’t seem to exist anymore. I ended up wearing regular gloves and adding a folded strip of an old terrycloth towel between the backstrap and the palm of my hand.

I also shot both right- and left-handed, and I did my testing over a number of range sessions. I used the chronograph to determine the velocity of each load and then simply fired into the backstop, saving the last round in the cylinder as the test subject. I regularly took a break and held my shooting hand against the crusty snow on the range to ease the pain and bring down the swelling.

The ammo selected was simple: I had a cross-section of 125-grain .357 Magnum ammunition. I wanted to see if the 120-grain weight on the barrel was really the threshold.

The process was simple, if brutal. I picked one round and measured it, I loaded the cylinder, shot four rounds, dumped and reloaded, and kept the old one as the last, unfired round. I subjected it to 12 rounds of its own recoil and measured its length after each of the four rounds. If there was going to be a problem, 12 rounds should show it. And if it took more than a dozen shots to create bullet pull, my hands didn’t want to know about it.

The quick and brutal answer is that you won’t have a problem for four rounds — at least not for bullet pull. There was some minimal pull, but it took eight or 12 rounds before it became a problem. Just as a cross-check, I tried the new Super Vel Super Snub .38 Special +P load in the 340 PD. For eight rounds, it held up fine. But the third cylinder pulled the bullet to a significant degree.

Even if you can stand to shoot the 340 PD with full-house .357 Magnum ammunition, the ammo will hold up better than you. You won’t have a problem with the fifth shot having lengthened too much, at least with the rounds I tested. But don’t save any unfired rounds; shoot the whole cylinder.

As for me, the S&W 340 PD loaded with +P magazines is the very meaning of the phrase “too much of a good thing.” If I’m carrying a snubbie as light as the 340 PD, it will be my backup (or third gun), and I’ll be plenty happy with the performance of a good .38 Special +P load. I had more than enough recoil in this testing. (It took a couple of days after each range trip before I could type well.) Then there’s the ferocious muzzle blast and flash that one has to contend with during each shot.

No, if you use this combo as your EDC, bullet pull is the least of your worries.
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I’VE CARRIED a concealed handgun daily for 20 years. As a gun writer and firearms instructor, I’ve toted dozens of guns in a closetful of holsters, worn everywhere from on my ankle to under my arm. Excuse me for being a little cynical when one holster company claims to be markedly different than the others. After all, there are only so many materials from which holsters are constructed and only so many ways to approach a rig’s design.

The Alien Gear Cloak Tuck 3.0 is unique. It’s constructed of a patented spring-steel core that’s wrapped in ballistic nylon with an engineered thermo-elastomer texture dubbed by the company as “alien skin.” The holster’s skin offers comfort, and the spring-steel core gives it just the right combination of rigidity and pliability. The holster is touted as having “zero break-in period,” a claim that has been overused in this industry but actually applies here.

A gun-model-specific shell is attached to the Cloak Tuck 3.0’s base, affording us the option of using a single holster to accommodate an array of handgun models. The holster is also adjustable for ride height and cant, which gives the user the ability to customize it to one’s individual preference. While there are no security mechanisms on the holster, the retention can be adjusted by tightening or loosening the screws that secure the outer shell to the base layer.

Some assembly is required. However, everything needed to set the holster up the way we want is included. All that’s required of us is turning a few screws and dabbing a bit of threadlocker. Within five minutes, I had my rig assembled for a Springfield XD Compact featuring a 4-inch barrel.

30-Day Carry During the evaluation period, I found the Cloak Tuck 3.0 to be one of the most comfortable holsters I’ve ever worn. It’s designed to be positioned behind the hip, in what’s commonly considered the 5-o’clock position. This is a popular location to wear a holster because the body’s profile helps hide the gun — as opposed to the 3-o’clock position, which tends to cause a holstered gun to stand out by widening the waistline and potentially expos-
Comfort and concealability are important, but performance matters. I tested the Cloak Tuck 3.0 under stress during Dave Spaulding’s Advanced Combative Pistol Course (handgun-combatives.com), which emphasized dynamic movement to facilitate the draw stroke. This was sure to be challenging with a holster that I had only carried for a short time. Further, I predominantly use appendix carry and have for the last several years. With the Cloak Tuck 3.0, I’d be drawing from behind my hip rather than in front of it.

With appendix carry, a closed garment, such as a T-shirt, hoodie or zipped jacket, is generally required. After all, an open garment, such as an unbuttoned shirt or unzipped jacket, could reveal the gun worn along the front of the waist. Favoring appendix carry, I am accustomed to a closed garment for concealed carry, and a closed garment is what I used for Spaulding’s course. However, a closed garment can be cumbersome when reaching for a gun worn behind the hip, where Alien Gear’s Cloak Tuck 3.0 is designed to be worn.

Despite the vigorous nature of the training, I did not experience a single fouled draw stroke. Admittedly, I was impressed with how comfortable the holster was to wear and how it situated the grip of my Springfield XD Compact for easy access when drawing. Equally as important, the Cloak Tuck 3.0 stayed put on my belt, allowing for safe and positive holstering. And speaking of belts, I paired the holster with Alien Gear’s Gun Belt.

The Gun Belt There’s nothing worse than attaching a quality holster to a flimsy belt. A belt not specifically designed for carrying a gun can allow the gun to sag, which is uncomfortable and could tip off an assailant or passerby that you’re armed. Furthermore, such a belt can be ripped from the waist, affording an adversary access to your gun. A holster that slides on the belt can also complicate drawing and holstering, so get a good belt.

I found that Alien Gear’s Gun Belt was both fashionable and practical. The 1½-inch wide belt is available in either brown or black. Like the Cloak Tuck 3.0, the belt features a spring-steel core. The core is sandwiched between two layers of 7-ounce English Bridle leather. The sturdy, handsomely constructed belt proved to be the perfect companion to the Cloak Tuck 3.0 and other holster models. And, when circumstances call for it, the Alien Gear Gun Belt could easily pass for a dress belt. With a dress shirt worn over the holster and tucked into the pants, the two belt
clips would be the only telltale that you’re armed. Black clips on a black belt would be a rather innocuous combination. The belt retails for $59.88, but there is a $15 discount when the belt and a holster are purchased together.

Alien Gear stands behind its products with an so-called “Triple Guarantee.” There is a 30-day test drive with the holsters and a seven-day period to return a belt. There is a “forever warranty” against breakage, and they offer free replacement shells for life, should you decide to trade in the shell for one compatible with a different handgun. All said, Alien Gear offers a highly engineered, well-constructed product at a competitive price. You may doubt the existence of little green men, but I’m now a firm believer in the gear that bears their image.

— Richard Nance

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A SINGLE PARTNERSHIP between SIG Sauer and SB Tactical revolutionized the AR pistol market in 2013. These two brands faced off with the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF), and the result was AR/AK/PDW pistol owners winning — big time. An ATF opinion letter clarified that adding a stabilizing brace to one of these pistol platforms does not change the classification of the host pistol to a short-barreled rifle (SBR), even if said firearm features a barrel shorter than 16 inches.

SBRs provide users with a quick-handling platform that is easily maneuvered within confined spaces, making them ideal as truck guns or for home defense. Those same platforms equipped with folding or collapsible stocks become more versatile, as they can be stored easily in a vehicle, whether beneath the seats, in day-packs or in small lockboxes. Unfortunately, this capability comes with a stack of paperwork, long initial wait times, and some are.

SB Tactical, inventor of the original stabilizing brace for AR buffer tubes and AKs, now offers integral, side-folding or collapsible products for specialty pistols such as the B&T APC, CZ Scorpion, HK SP5K, IWI UZI and SIG Sauer MCX/MPX. Starting at $150.

SB Tactical braces integrate into the pistol receiver with common hand tools and require no modification to the host. Once installed, they work and look as though installed from the factory — and some are.
The SB Tactical's latest generation of pistol braces are now capable of equipping your short-barreled AR/AK/PDW pistols with a folding or telescoping/collapsible stabilizing brace, maximizing utility and the ability to be stored or transported. These braces also provide increased comfort for single-handed shooting thanks to an advancement in ergonomics and materials that adapt to a wide range of forearm lengths. Plus, they look cool.

The fine print is this: ATF has opined that the SB Tactical stabilizing brace is legal to own, legal to purchase and legal to install on a pistol, and they have consistently stated that a pistol with a stabilizing brace attached remains a pistol as described by the National Firearms Act (NFA) when used as designed. Any person who intends to use a handgun stabilizing brace as a shoulder stock on a pistol must first file an ATF Form 1 and pay the applicable tax.

Factory-installed SB Tactical braces are becoming available from many manufacturers, including B&T, Century Arms, CZ, IWI, KRISS, SIG Sauer and others.

The SBT5K is a new side-folding brace designed for HK MP5 and clones. $250

The MPX PSB is a three-position collapsible stabilizing brace designed for SIG Sauer's MCX and MPX pistols. This brace is almost identical to the factory SIG Sauer collapsible/telescoping unit, with the exception being an arm brace in place of the buttstock. $250

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Designed with the latest U.S. Military standards in mind, the Ruger American Pistol® is built to perform in the harshest conditions. A true American innovation, this pistol was developed through a rigorous “Voice of the Customer” process—where numerous law enforcement and military trainers, firearms experts, distributors and retailers provided input, feedback and testing in the determination of the form, function and features of this firearm. The resultant new pistol is a revolutionary platform for Ruger, one that utilizes the combination of a recoil-reducing barrel cam (which is designed to better spread recoil energy over time) with a low mass slide, low center of gravity and a low bore axis to provide an unparalleled shooting experience.
The new DDM4V7 is making a big return with one of the most innovative and sought-after attachment methods on the market: M-LOK®. The Daniel Defense V7 adorns the newly-designed MFR XS 15.0 rail system, which attaches to the upper receiver with our patented Bolt-up System; making it more durable than its predecessor while allowing the barrel to remain free-floating. Built around a Cold Hammer Forged 16" barrel and a mid-length gas system that reduces recoil and wear on moving parts, the V7 is deadly accurate and provides smooth operation under any condition. Built for long-lasting reliability, and backed by our 100% Satisfaction Guarantee, the V7 by Daniel Defense is built to perform.
POKING AROUND the rifle-shooting world these days looks a lot different than it did 10 years ago. Back around the turn of the century, there were still a handful of wood-stocked rifles on shelves, but injection molded polymer stocks were on the rise, and sturdy fiberglass stocks were available for serious business.

These days, we see a lot more rifle chassis. A chassis is (usually) a polymer and aluminum creation that replaces a rifle stock. Most rifle shooters aren’t huge fans of the chassis aesthetic the first time they see one. I wasn’t. My opinion of the chassis changed the more I became familiar with what it offered, a shift that occurred when education replaced opinion.

A properly built chassis will make most rifles more accurate. This happens because the chassis’ aluminum frame provides a stable and supportive foundation for the action. The receiver has full support along its entire length, especially at the action screws. This makes group sizes a lot less dependent on the action screw torque values.

Traditionalists will argue that a fiberglass stock with a good bedding job does the same thing. However, a barreled action can be bolted into a chassis in about five minutes (counting the smoke break). The same cannot be said for a good bedding job in a fiberglass stock. That stock and barreled action require the services of a gunsmith and will be more difficult to sell separately should the need or desire arise.

A chassis also allows a rifle to use detachable box magazines, probably with an Accuracy International AICS pattern. This is a vast improvement over any factory internal box magazine and over any of the big manufacturers’ proprietary magazines. AICS-pattern magazines have been around for a long time, and any gremlins have long since been worked out of the design. Reputable manufacturers of these magazines include Accuracy International, Magpul and Accurate-Mag.

More important than the ability to quickly reload the rifle (which can be pretty darn important) is the detachable box magazine’s improved feeding reliability over internal systems. Detachable AICS magazines put the incoming round directly below the action at the 6-o’clock position, meaning it has a straight run into the chamber. There are no bank shots off the action’s bottom to enter the chamber — the location where most feeding issues occur.

A chassis’ contributions don’t stop at the action’s firm foundation and the gift of detachable box magazines, but also commonly include an adjustable length of pull and an adjustable comb. These features aren’t necessary on casually used rifles where most targets will be inside 400 yards but quickly become necessary when the rifle must shoot as small a group as possible or when target distances increase. It is much more difficult to be consistent behind a rifle that doesn’t fit, but a good chassis can be adjusted to fit almost any shooter.

The final gift that a good chassis offers is positional shooting flexibility, mostly in the form of multiple attachment points for slings and bipods. As an example, a forend that allows the bipod to be mounted just forward of the magazine well means the shooter can set the bipod on a tree stump and stuff their jacket under
The pistol grip (all on one 12-inch stump). This is one of the quickest and most stable positions found in the field.

One of my favorite lower-cost chassis (pictured here) is the X-Ray from Kinetic Research Group. KRG is a small company that was founded by, and is run by, former non-commissioned officers from 5th Special Forces Group. The X-Ray is one of their least-expensive chassis and has inlets for Remington and Tikka rifles. Other chassis systems are available for Savage, Howa and Weatherby rifles.

The heart of the new Grand Slam is the turret system. The turret has a zero stop that allows the shooter to always know where the rifle is zeroed. Setting it will require opening the owner's manual, but once done, turning the turret clockwise until it stops returns the rifle to its zero.

The "MultiStop" refers to the opportunity the elevation turret gives the shooter to emplace colored bands at preferred settings, such as known distances. There are about 18 minutes of elevation per revolution of the turret with the

WEAVER MULTISTOP

OPTICS HAVE BECOME incredibly complex, especially considering the popularity of precision and long-range shooting. A lot of shooters enjoy working through the complexities to get to the exact shooting solution. Many don't. Some (myself included) like to keep work behind the rifle simple and fast.

Shooting should be simple enough to be fun, and anything that streamlines the tasks required to get a bullet where it needs to go is always appreciated. Weaver's new multi-stop Grand Slam scope is an optic that makes life for the shooter so easy a caveman could do it.

The heart of the new Grand Slam is the turret system. The turret has a zero stop that allows the shooter to always know where the rifle is zeroed. Setting it will require opening the owner's manual, but once done, turning the turret clockwise until it stops returns the rifle to its zero.

The “MultiStop” refers to the opportunity the elevation turret gives the shooter to emplace colored bands at preferred settings, such as known distances. There are about 18 minutes of elevation per revolution of the turret with the

zero stop set. As an example, the shooter could emplace the white band at zero and then use the remaining seven colors at every 100-yard increment out to about 800 yards, depending on the rifle cartridge sitting under the scope.

There are multiple stops in each color, so the shooter can place as many or as few as they want. My preferred setup is a stop at my 100-yard zero, at 200 yards, 300 yards, and then every 50 yards after that. In order to know where to place the stops, a shooter can either use a ballistics program or shoot their rifle at the desired distances. Weaver has a ballistic program on their website that works well with this scope. It requires the shooter to know some specific data, such as ballistic coefficients and muzzle velocity, if not using Federal ammunition.

The turret is marked in minutes, and those markings are visible after removing the elevation turret cap. Placing pins at known subtension points isn’t difficult. The spots to place pins are every half-minute even though the scope dials in quarter minutes. Worst case, the pin is a quarter-minute

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**Weaver Grand Slam MultiStop 4-16x44mm**

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**Manufacturer:** Weaver Optics, 800-379-1732 weaveroptics.com

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otistec.com
away from where it should be. At 800 yards, that’s 2 inches, which isn’t a big deal.

The Weaver ballistics program even has the option of printing off a round range card that sits inside the objective lens cap (the one at the far end of the scope). I wish more folks would follow Weaver’s lead on this. The print on such a range card is small but so much easier to see if it’s 15 inches in front of our face instead of 3¼ inches.

The objective lens cap has a clear plastic lens that screws down on top of the actual cap, which is held closed with a small magnet. Once open, the clear lens faces the shooter, so the range card beneath is visible. All the range card has is a color with the distance next to it, so the shooter simply turns the turret to the correct color and fires.

Weaver’s scope gives the shooter a simple solution for accurately engaging targets past a couple hundred yards. The scope offers all the excellent performance associated with the Grand Slam line while simultaneously introducing a turret system that allows for simple and uncluttered use out to several hundred yards.

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“So cutting to the chase, 
I love the vertical grip on a tactical rifle. 
The benefits quickly outrun the negatives.”

AR: VERTICAL GRIPS OR NOT?

IN SOME CIRCLES, tactical gurus speak of the ill effects of using a vertical grip on your AR. As a former operator, I find this radically amusing. Defining why and why not isn’t an easy task; actually, defining why not is almost impossible for me. So cutting to the chase, I love the vertical grip on a tactical rifle. For that matter, if I were to step back into the tactical 3-Gun world, I would more than likely attach a short vertical grip to that blaster as well.

The benefits quickly outrun the negatives.

Driving the Gun When trying to drive your AR from target to target, the vertical grip works well as a reference point to position your hand in precisely the same location each time. That being said, I use a nonstandard grip on the front end of my rifle, starting with the hand wrapped around the vertical grip and the thumb either over the top or along the side of the Picatiny-railed, free-floating handguard. I prefer to run the thumb down the side as it helps point the carbine more naturally; more importantly, it allows for the activation of the infrared (IR) laser tape switch attached at the 10:30- to 11-o’clock position on the carbine. This position offers more control for starting and stopping the gun effectively. This technique is similar to that used by top 3-Gun shooters, with the only change being the addition of the vertical grip as a reference point. If you had nothing else to worry about other than driving the gun from target to target, a simple hand stop would accomplish the same task with a much smaller piece of plastic or aluminum rather than an entire vertical grip. As the carnys says on late-night TV, “But wait, there's more!”

Lights, Lasers & Curb Feelers Remember the days of the curb feeler on the old Cadillacs? Other than those who roll in low riders, it seems that the curb feeler has lost its appeal. As tactical shooters, we sometimes have additional accessories added to the front of our carbines. At the very least, you should have a light that can be used for room entries and searching. For almost the entire ground-pounding sector of the U.S. Army, there are also other accouterments that come in handy during combat operations. An IR laser is a must if you want to effectively engage threats at night; thermal is an option but not widely used at the infantryman’s level and would not necessitate the use of a vertical grip. The laser, on the other hand, is generally mounted forward of the receiver and attached to the handguard. Can you manipulate an IR-laser-mounted carbine without a vertical grip? Of course, but having a vertical grip allows easier manipulation and a better hold.

Firearm Retention If shooting wasn’t enough, we in the tactical world must also be concerned with firearm retention, or the ability to hang on to our carbine if we find ourselves in a wrestling match. The plan isn’t to roll around on the ground with another man entangled in our rifle system, but that can sometimes become reality. I like the forward vertical grip for additional leverage as we attempt to jerk the carbine from the aggressor’s hands; if this is not successful, the bad guy may use the vertical grip to our disadvantage. Staying switched-on with our head on a swivel should help eliminate some of this, but always be ready to fight until you can shoot the bad guy off your carbine.

Nonstandard Shooting Positions This is where the forward vertical grip shines. The distance from the front of the receiver is not an arbitrary measurement. This distance allows for a lethal grip when driving the gun from target to target while allowing us to bend our support arm slightly, which in turn increases strength. Straight arms are not the style when you want to shoot fast. In addition to the slightly bent elbow, I like to have enough room between the front of the receiver and the vertical grip to build a very tight prone position. If the grip is too far back, I won’t be able to build this position. If I am trying to get up and down quickly to shoot under a car, the vertical grip also comes into play. Using the vertical grip to hold the front of the carbine steady works like a champ. I hook the vertical grip on my forearm as I build my position, once in position, I use the vertical grip to adjust the height of the front of the gun, as well as to control recoil.
I don’t care if the buttstock is touching my shoulder at this point because the grip controls recoil and the shooting arm controls elevation. Hooking the vertical grip on your forearm works well and is a great reason to add a vertical grip, but there are many other ways to make use of this extra carbine appendage. When shooting over the hood of a vehicle, we use a position I call Junkyard Prone, or JYP. This position allows you to attain a lower silhouette while being able to quickly engage. The vertical grip can be used here if you want to snake your support arm under, in front of the magazine well and over the edge of the hood, grabbing the vertical grip. When making longer shots, this version of JYP is extremely stable and helps control recoil more than some of the other JYP positions.

When shooting the stacked feet position or down a steep grade, I also use the vertical grip to hook my thumb as I grab the bottom of my boot with my fingers. This position is fast and stable if the terrain forces you to build a whacky position; this same position also works from a rooftop.

The vertical grip allows shooters to have a repeatable point reference and effectively control recoil. When shooting under a low obstacle, the vertical grip can be used to control recoil as well as quickly build a position.

Junkyard Prone: Shooting over a car hood can be enhanced by grabbing the vertical grip to maintain a solid position. This grip improves accuracy and recoil control.

The vertical grip is a valuable tool for shooters.
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In a Street Fight The vertical grip is a blessing if you have a bad day in the fight. If for some reason you need to shoot the carbine with one hand, the vertical grip can help to stabilize your position or be used during a malfunction clearance drill. Hooking the vertical grip over your knee or shin can provide the stability and control to continue the fight with rapid fire, or you can have leverage to clear malfunctions by hooking the vertical grip with your foot. Using a vertical grip with these positions will also give you confidence that the barrel is extended past your toes, feet or leg when engaging with one hand.

Conclusion The vertical grip is a tactical add-on that I always want on my carbine. As long as the vertical grip is short enough to allow building a good prone position yet long enough to be used for all the crazy positions I want to shoot, it works for me. If you don’t have a free-floated barrel on your rifle, that is another story. Tune in later and we will talk free-float tubes; but for now, secure a vertical grip and try the tricks we discussed. You might warm up to the idea.

This isn’t Lamb Yoga; this is the use of the vertical grip to shoot with one hand if the support hand is out of commission.

Use the vertical grip to hook the thumb and bottom of the foot to shoot the Stacked Foot position. This position is excellent when shooting down hill or from the rooftop.

If shooting from a seated position with one hand, the vertical grip can be used to control recoil. This will also aid in clearing a malfunction one handed.
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Chrome Lined Carrier
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Flip Up Rear Sight
30 Round PMag
6.61bs Empty
SNAKEBIT

WORDS BY PATRICK SWEENEY | PHOTOS BY MARK FINGAR

COLT REVIVES THE COBRA, A SIX-SHOT .38 THAT’S COILED AND READY TO STRIKE.
IF YOU’VE BEEN following the auction scene, you know that Colt snake guns have reached absurd prices. An unfired, new-in-the-box Python in a rare variation could go for an easy down payment on a house. And yet Colt hasn’t unveiled a double-action (DA) revolver for nearly two decades. Why? To greatly oversimplify, the designs we loved then, and which command such eye-popping prices today, were designed when steel, machine tools and labor were relatively inexpensive.

That was the first thought that came to mind when I opened my editor’s mysterious box and found the new Colt Cobra inside. The original Cobra, made from 1950 to 1972 with exposed ejector rod, can be quickly likened to a Detective Special with shrouded ejector rod. The First Issue Cobra was an aluminum-framed, six-shot snub-nosed revolver that was chambered in .22 LR, .32 Colt New Police, .38 New Police and .38 Special. Back when snubbies ruled as carry guns, the Cobra and the later, less-polished Colt Agent were much sought after pieces. They were more compact than a six-shot Smith & Wesson. Indeed, at six shots, the Cobra was still a six shooter, but it is now capable of handling +P loads. With modern internals, Colt doesn’t need gray-haired bench smiths to build them either.

Paul Spitale, senior vice president of Colt, and Mark Redl, product manager, sat down with G&A to answer a few questions. The now is simple: It has been nearly two decades since Colt offered a DA revolver, and it’s about time for Colt to start taking back that segment.

The impetus for the Cobra came while attending all too many concealed carry permit classes. “New students arrived with airweight carry handguns and full-power ammo,” said Spitale, “and could not pass a shooting test. The new Cobra would have be up to the work of +P and would not pound a shooter with recoil.”

How did they do? And how does it perform? Let’s take a look.

**The Barrel** The new Cobra has a shroud protecting the ejector rod — unlike the First Issue. (The Colt Cobra Second Issue made between 1973 and 1981 and had an ejector shroud.) The shroud on the new Cobra does not have an ejector rod lock, but that was never a problem in decades past, so it’s unlikely to become a problem now.

The barrel markings make it clear: “Cobra, .38 SPL +P,” and on the other side, “COLT’S MFG, HARTFORD, CT USA.” This is a revolver intended for serious carry and use.
The barrel features an interesting contour: The cylindrical portion, where it meets the frame, has more girth than the rest of the tube. Colt’s intent here was to make the tapered barrel the lead element in easy reholstering. It also has the benefit of increasing the bearing surface between it and the frame. Installing the barrel on the new Cobra requires less torque to secure it, which avoids pinching the bore at that point.

The muzzle is recessed, so even if your daily carry habits put a lot of wear and tear on the muzzle, the crown is protected. With a matte stainless finish, you won’t have to worry about wearing off the finish either.

Unlike the original, the sight above the barrel is a removable fiber optic design, with steel supports to protect the light rod while in use. A small, hex-head set screw secures it to the barrel from the front of the muzzle. You can remove, replace or otherwise service the Cobra’s front sight with a standard Allen wrench. Colt indicated to G&A that it already has a night sight in the works for the new Cobra. If you desire some other type of sight, you’ll be able to swap out the fiber optic front. If the Cobra sells like we anticipate, it’s safe to expect that sight manufacturers will soon be standing in line with their offerings.

The sight system is pure snub-nosed revolver. The frame has an Allen wrench is all that’s required to remove or change the front sight.
a groove down the top and a notch at the rear, and that is your rear sight — a system that has been with us for more than a century. With the swappable front blade, we can readily adjust the sights to the point of impact (POI). Well, a gunsmith can, but it is easy work. Bullets hitting too high or low? A taller or shorter front sight can be installed. Left or right? A slight adjustment to the barrel torque in the frame can get our shot placement perfect. However, as Colt has been making revolvers with barrels screwed into the frame for 150 years, windage shouldn’t be an issue.

When considering the Cobra’s cylinder and action work, you’ll have to make some adjustments to recognize the differences. There are things that everyone knew back in the old days that are not necessarily common knowledge in 2017. First, Colt cylinders revolve clockwise, while cylinders on Smith & Wessons (and others) rotate counterclockwise. The hand, the lever that advances the cylinder, is on the left side of the cylinder axle in a Colt. When the hammer is cocked or the trigger stroked, the hand rotates the cylinder clockwise. This matters if a person wants to “short load.” This was a tactical skill learned back in the early metallic cartridge era, when one may only have enough time to hand-stuff a few rounds into the cylinder. If that be the case, you’d better know which way the cylinder turns.

Also, by placing the hand on the outside of the cylinder when you have the trigger held back (as you would when you have fired), the hand works to securely close the cylinder — and keep it closed. Your finger is holding the cylinder tight, unlike designs that have the hand on the other side of the cylinder axis.

Further, the cylinder latch on a Colt moves back to unlock it. On a Smith & Wesson, for example, it has to be pressed forward. On a Ruger, the button is pressed directly into the frame. If you carry more than one brand of revolver, you have to know these things. Or, should you have to pick up your partner’s gun in a fight, you had better know how it works.

Another detail that Colt chose not to change is the location of the locking slots on the cylinder. If the slots (and the locking bolt) are directly on the centerline of the frame, then they are directly next to the chambers. If you design a revolver that way, you have to make the cylinder larger to make the chamber wall thickness strong enough. At some point during the 19th century, Colt placed the locking bolt as far to the side of the frame as they could while still maintaining enough “bite” to securely hold the cylinder. The locking slots are offset from the chambers, and this gives them a greater wall thickness.

The action itself is a big change, and yet it isn’t. The old Cobra action, with its V-shaped leaf spring, was prone to stacking. That’s where a trigger pull gets heavier right near the end of its travel, and stacking is

<table>
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<tr>
<th>Colt Cobra</th>
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<tbody>
<tr>
<td>Type: Revolver, double action</td>
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<tr>
<td>Cartridge: .38 Special, +P rated</td>
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<td>Capacity: 6 rds.</td>
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<td>Barrel: 2.125 in.</td>
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<td>Overall Length: 7.2 in.</td>
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<td>Height: 4.9 in.</td>
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<td>Width: 1.4 in.</td>
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<td>Weight: 1 lb., 8.6 oz.</td>
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<td>Grips: Hogue overmold</td>
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<td>Finish: Matte stainless</td>
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<tr>
<td>Sights: Fixed blade (front); notch (rear)</td>
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<tr>
<td>Trigger: 2 lbs., 8 oz. (SA); 9 lbs. (DA) (tested)</td>
</tr>
<tr>
<td>Price: $700</td>
</tr>
<tr>
<td>Manufacturer: Colt Manufacturing Co., 800-962-2658, colt.com</td>
</tr>
</tbody>
</table>
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bad for shooting. One would solve the problem by finding a wizard like Jerry Moran, who could tune it to perfection. But the waiting list was long, and Moran stopped in the 1980s.

Not to fear, Colt had an answer. When they determined to start making revolvers again, Spitale went to the company vaults and came out with a new-and-improved leaf-spring design that they had been making before they ceased making them. With testing and computer modeling, Colt’s engineers developed the Linear Leaf 2 action design. The result is a leaf-spring system that does not stack. I noticed the non-stacking while dry-firing the Cobra, and I fully expected to see a profusion of coil springs inside the action when I inspected what was beneath the sideplate. Nope. This Cobra, right out of the box, is better than a lot of ‘smiths could have made back when I was still shooting PPC.

The cylinder is the same size as the Detective Special and Cobra of old, so if you happen to have speedloaders on hand (I do, of course), then the old ones will work just fine, and speedloader manufacturers won’t have to tool up for a new set of dimensions.

The old grips will work, too! However, Spitale and Redl were both quick to bring up the new grip location. “We’ve moved the grip fractionally to the rear, changed the trigger curve and opened the triggerguard,” they said. Moving the grip back a smidge changes the angle of our trigger finger to the trigger in a good way.

Colt also adjusted the shape of the hammer for easier thumb-cocking, as well as making the trigger more desirable for DA shooting. The flatter trigger is more comfortable and provides more leverage. Finally, the larger triggerguard means gloves are not a problem, and people with big hands aren’t so cramped.

I noticed it felt different, but I hadn’t gotten out my old Agent and started measuring with calipers, so I was pleased to know that it was the Cobra, and not my hands, making the difference.

### PERFORMANCE

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<tr>
<th>LOAD</th>
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<th>SD</th>
<th>BEST GROUP (IN.)</th>
<th>AVG. GROUP (IN.)</th>
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<tr>
<td>Blazer +P 125-gr. JHP</td>
<td>875</td>
<td>82</td>
<td>33</td>
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<td>Super Vel 90-gr. JHP</td>
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<td>Black Hills 125-gr. JHP</td>
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<td>61</td>
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<td>Hornady Crt. Def. 110-gr. FTX</td>
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<td>50</td>
<td>20</td>
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<td>Polycase 77-gr. ARX</td>
<td>1,046</td>
<td>27</td>
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<tr>
<td>Speer Gold Dot +P 135-gr. JHP</td>
<td>812</td>
<td>97</td>
<td>39</td>
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<tr>
<td>Black Hills 158-gr. CNL</td>
<td>656</td>
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<td>Speer Lawman 135-gr. TMJ</td>
<td>776</td>
<td>41</td>
<td>17</td>
<td>2.8</td>
<td>3.1</td>
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</table>

Notes: Accuracy is the average of five, five-shot groups at 15 yards using a Sinclair shooting rest. Velocity is the average of five shots measured by a LabRadar chronograph set to record velocity at 15 feet from the muzzle. JHP is jacketed hollow point. FTX is a controlled-expansion polymer-filled tip. CNL is cone-nose lead. TMJ is total metal jacket.
The Cobra comes with a Hogue one-piece rubber grip, but since the old grips will fit the new one, grip makers can dust off the old patterns and start making new Cobra grips once again. Spitale and Redl indicated that they have grip makers working on providing replacement options for those of us who still feel wood is the best choice.

Redl is not just a product manager for Colt, he is also a competition shooter. Naturally, he was the one designated by Colt to endurance test the Cobra. Thousands of rounds later, he’s happy.

“How all-steel frame makes it soft in recoil,” Redl said, “while not being heavy enough that it’s a chore to carry.”

After my own range testing, I agree.

At The Range The rubber grips and enlarged triggerguard came in handy during testing, as I had to range-test the Cobra during bitterly cold days. The heft of the Cobra made the +P loads easy to shoot in volume with one exception: the new Super Vel ammo, which was right brisk. However, the trigger pull made shooting the Cobra fun.

Single-action pulls were clean, crisp and averaged 2½ pounds. The double action required 9 pounds by our measurement. Seven pounds of that was necessary to rotate the cylinder and lock it up. Used for accurate, deliberate DA shooting, some of us still call this “staging” the action, and the Cobra made it easy. The extra 2 pounds to drop the hammer was not that noticeable in use.

The prototype Cobra worked like a champ. Yes, prototype. Our studio photographer received a single-digit sample, and I had a two-digit serial number Cobra to play with. We were brought in so early that our guns didn’t even come to us from the marketing department; they were shipped to us from engineering.

I asked Spitale, “Will there be an airweight Cobra?”

“Well,” he replied, “Cobra will be the name of the new line, and we have plans for variations in finish and other features. Right now, we’re focused on meeting expected demand for the Cobra. We don’t want anyone to have to wait to get one.”

The cylinder is not the hardest part to conceal, but it can be the most uncomfortable. The wider the cylinder, the greater the problem. Colt’s use of an offset locking bolt location allowed them to make the Cobra cylinder as small as a six-shot cylinder can be.

The cylinder of the Cobra measures 1.397 inches in diameter. For comparison, a six-shot S&W K-frame has a cylinder that is 1.447 inches in diameter. A five-shot J-frame’s cylinder is 1.305 inches in diameter, so the Cobra splits the difference without giving up the shot that a J-frame does.

The Cobra doesn’t suffer much in the way of capacity when compared to other single-stack 9mm pistols. A six-shot Glock 43, for example, has a width of 1.02 inches.
THE SAVAGE ARs
WHY THEY MATTER.

WORDS BY TOM BECKSTRAND | PHOTOS BY MARK FINGAR
### Savage MSR15 Recon

<table>
<thead>
<tr>
<th>Specification</th>
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<td><strong>Type</strong></td>
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<td><strong>Cartridge</strong></td>
<td>.223 Wylde</td>
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<td><strong>Capacity</strong></td>
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<td><strong>Barrel</strong></td>
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<td><strong>Overall Length</strong></td>
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<td><strong>Grip</strong></td>
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<td><strong>Length of Pull</strong></td>
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<td><strong>Sights</strong></td>
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<td><strong>Trigger</strong></td>
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<td><strong>Manufacturer</strong></td>
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<tr>
<td><strong>Phone</strong></td>
<td>800-370-0708</td>
</tr>
<tr>
<td><strong>Website</strong></td>
<td>savagearms.com</td>
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### Savage MSR15 Patrol

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<td><strong>Cartridge</strong></td>
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<td><strong>Capacity</strong></td>
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<td><strong>Grip</strong></td>
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<td><strong>Length of Pull</strong></td>
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<td><strong>Finish</strong></td>
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<td>savagearms.com</td>
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WHEN BILL DERMODY, Savage’s director of marketing, told me that Savage Arms getting into the AR-15 game, my first thought was, Why? The nation is already awash in AR-pattern rifles. Do we really need more? Don’t get me wrong, I love the AR-15. It’s simple and reliable. We’ve been in some tight scrapes together, and it has always been a good friend to me. But enough is enough.

After spending some range time with Savage’s new-for-2017 Patrol and Recon models, I’m glad they went down the AR road because Savage customers can win big with either model. These rifles stay true to the 60-plus-year-old Eugene Stoner design, but Savage gives the AR-pattern rifle the most accuracy for the least amount of cash.

Don’t disregard an AR’s barrel. The single most comprehensive reason why one AR-pattern rifle will perform well and another will not is the barrel. This is the case with any rifle. Barrels are complicated critters, and there are a lot of ways to screw one up.

Thanks to modern manufacturing procedures, most AR barrels are consistently mediocre performers.

The typical barrel found on the AR-15 at your local gun shop is probably a cost-conscious button-rifled creation. The cheapest will have no finish in the bore and a carbine-length gas system because the military uses a carbine-length gas system, and by skipping the chrome lining or Meloniting phase of manufacture saves a few pennies on every barrel. Accuracy will be similar to the more expensive barrels, but service life will not.

There are only a handful of barrel makers cranking out large quantities of AR barrels these days, and these mass-produced models are recognizable by the M4 contour (with recess just forward of the gas block/front sight post) and 5.56x45mm chambering.

More expensive and higher quality barrels might be hammer-forged and will certainly have bores lined with either chrome or Melonite. These barrels will not be any more accurate, but, when treated like a bullet hose, they will offer longer life.
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(Images shown are for marketing purposes only and are not intended as safe firearm handling examples.)

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The best samples of these mass-produced barrels will average 1.2 to 1.3 MOA when free-floated (for optimal accuracy) and using factory ammunition that they like. I’ve read and heard all kinds of aggressive accuracy claims that are much better than that from manufacturers and shooters alike. The older I get, the more skeptical I become.

AR accuracy testing over the course of the last 10 years leads me to the 1.2 to 1.3 MOA figure listed above (that’s for five shots at 100 yards). That is good accuracy for any AR-15. Of course, some do worse, but solidly constructed rifles with free-floating barrels that retail for $1,000 to $1,500 should offer that kind of performance.

AR barrels gone Wylde. Savage has long demonstrated a capacity to make barrels that perform on a level far above their weight class. It’s not uncommon for a factory Savage barrel to perform just as well as an expensive custom barrel from one of the small specialty companies. Savage’s tribal knowledge acquired over the past couple of decades paid off in spades with their new AR offerings.

Savage puts the same barrel on both the Recon and Patrol. It is 16-inches long with a mid-length gas system, has a 1:8-inch twist rate and comes with a .223 Wylde chamber. That list of specifications, along with the rifle’s MSRP, tells me that Savage is building these barrels themselves. (I also asked, and they confirmed.)

There is no other way to get that list of specs out the door for the price they’re asking.

The gas system, twist rate and chamber, when combined with the low price, are all key reasons why this rifle offers a level of performance that has no competition. Quality barrel manufacture is certainly a key contribution, but the .223 Wylde chambering plays a pivotal role.

The .223 Wylde chambering means the Savage ARs can safely and accurately shoot .223 Remington and 5.56 NATO ammunition. The Wylde chamber combines the tighter .223 Remington diameter freebore with the longer 5.56 NATO freebore. The combination of tight and longer freebore is the magic recipe to premium accuracy, especially with longer, heavier bullets.

Stepping back, freebore is the portion of the bore forward of the cartridge case neck, prior to the rifling. Both the length and diameter of this crucial section of barrel must be understood to explain why the Savage rifles are so accurate.

The .223 Remington freebore diameter measures .224 inch. That means the .224-caliber bullet loaded in the .223 Remington case has no clearance once chambered. It’s not an interference fit, but that is a really tight freebore dimension. The freebore distance
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between the case mouth and the lead (where the rifling starts) is .04 inch. The upside to those specifications is that the bullet cannot yaw or get crooked in the chamber prior to entering the rifling. The bullet also doesn’t travel very far before engaging the rifling, so pressures must be kept mild to avoid an unsafe spike.

The .223 Wylde chamber combines a tight .2242-inch freebore diameter with a long .078 inch of smooth surface prior to the lead. This means bullets have very little room to get crooked prior to entering the rifling but enough runway to allow even long 77-grain bullets breathing room to avoid unsafe pressure spikes associated with short freebore dimensions of the traditional .223 Remington. The Wylde chamber really is the best of both worlds. Further, these barrels usually are found on rifles costing close to $2,000.

**Under the Scope** After testing both rifles, I wanted to know why they shot so well. Savage prudently chose the chamber dimensions, but a closer look seemed in order. Dusting off my trusty borescope, I gave both rifles a colonoscopy:

Sloppy chamber work is pretty easy to spot with a borescope. Dull reamers can leave chatter marks all the way from the case body to the bore’s lead and can smear the rifling more than cut it.

Accuracy will likely be poor, and such a barrel will inexplicably throw shots all over the paper.

Pushing the scope farther down the bore also allows visual inspection of the lands and grooves. Bores cut with a dull button or cut too fast will have chatter marks inside the bore. These chatter marks cause the bore to foul prematurely, and accuracy will rapidly decline. The Savage barrels on the Recon and Patrol showed smooth and sharp rifling, indicating that both tooling and rifling machine operator were more than proficient.

The barrel on each rifle looked identical. Chamber walls were smooth, and the lead had a nice sharp line that delineated the end of the cartridge case and the beginning of the freebore. The lead also had a sharp debarkation line with no smeared rifling, even at its most shallow points. The chamber work looked identical to that found on a high-end AR given a stainless steel barrel. It is extremely rare to see such good chamber work on factory rifles.

**Burning Powder** Savage made the prudent decision to use a mid-length gas system on these rifles. The mid-length system
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#1224 FN-FAL Rifles
#1584 M1A Rifles
#1184 M1 Garand Rifles
#1194 Mossberg 500 Series Shotguns
#1122 Remington 700 Rifles
#1114 Remington 870 Shotguns
#1094 Ruger® 10/22® Rifles
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#1354 Ruger® Mini-14® & Mini-30
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Pushes the gas port in the top of the barrel an extra 2 inches down the bore. Since the action doesn’t cycle until the bullet passes the gas port and pressurizes the system, the entire operating pressure of a mid-length rifle is much less than the more common and shorter carbine-length system. The extra 2 inches of bore gives the gas behind the bullet that much more room to expand, and pressures drop accordingly (Boyle’s Law).

The lower operating pressure means the bolt and extractor don’t have to work as hard to pull the fired case out of the chamber. The closer the port is to the chamber, the more pressure there will be in the chamber when the extractor tries to yank out the fired case. Longer gas systems, such as the one found on these Savage rifles, will have longer extractor and bolt life.

Savage didn’t stop with putting a long gas system on the rifle; they also spent a lot of time getting the gas port sized correctly. Most AR-pattern rifles will have an H or H2 buffer that rides behind the bolt carrier group. The heavier buffers came into existence because the military was trying to slow the cyclic rate of the M4. More weight behind the bolt carrier group accomplishes this. Heavy buffers are also a Band-Aid for an incorrectly gassed rifle.

These heavy buffers continue to see extensive use in the commercial market because the guns that require them are overgassed, meaning the gas ports are too big and the bolts try to extract too fast. A heavy buffer slows that process down. It’s not a big deal until parts begin to prematurely fail. The right answer is to use a smaller gas port and gas the rifle correctly. Savage has done this.

Rounds Downrange The smallest group fired came from the

---

### PERFORMANCE: SAVAGE ARMS MSR 15 RECON

<table>
<thead>
<tr>
<th>LOAD</th>
<th>VELOCITY (FPS)</th>
<th>ES</th>
<th>SD</th>
<th>BEST GROUP (IN)</th>
<th>AVERAGE GROUP (IN)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal GMM 69-gr. BTHP</td>
<td>2,659</td>
<td>31</td>
<td>13</td>
<td>.57</td>
<td>.74</td>
</tr>
<tr>
<td>Hornady TAP 55-gr. PT</td>
<td>2,831</td>
<td>56</td>
<td>21</td>
<td>.74</td>
<td>.94</td>
</tr>
<tr>
<td>SIG Sauer Match 77-gr. OTM</td>
<td>2,480</td>
<td>48</td>
<td>20</td>
<td>.82</td>
<td>1.12</td>
</tr>
</tbody>
</table>

**Notes:** Accuracy is the average of five, five-shot groups at 100 yards. Velocity is the average of five shots across a LabRadar chronograph positioned at 15 feet. GMM is Gold Medal Match; PT is polymer tip; OTM is open tip match. BTHP is boattail hollowpoint.
The new EMP® with Black Armory Kote™ finish features a grip radius which is 1/8” shorter than the original 1911. The smaller dimensions produce a shockingly comfortable shooting experience while improving the reliability of smaller cartridges in the 1911 platform. Updated features and finish make the latest EMP® more accessible by enabling us to offer it at a lower price than the original. If you’re looking for a compact 1911 to carry every day, look no further than the Springfield Armory® EMP®.

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MSR 15 Recon while shooting Federal Gold Medal Match. It put five shots into a .57-inch group at 100 yards. I can count on one hand the number of ARs I’ve tested that posted a group better than that, and all of them cost more than twice the Recon. (The other rifles also had expensive aftermarket triggers.)

The Recon’s AR Blaze single-stage duty (SSD) trigger costs $99 on the aftermarket from Blackhawk, but I couldn’t tell the difference between it and the standard two-stage trigger in the Patrol. I even removed the triggers from both rifles to see if I could spot differences between the two, and, other than the lighter trigger spring in the Recon’s, I couldn’t. Hammer shapes were identical, as was the sear’s appearance. In fact, I had to be extra careful where I put what on the bench so as not to mix them up.

Getting a .5-anything group with a standard hammer shape out of an AR-pattern rifle is highly unusual and indicates the Savage is truly able to stand toe-to-toe with the best ARs out there. I’m betting with a $200 trigger, which is what those other guns had, the Savage could shoot right alongside them.

The Patrol had no free-floated barrel and posted a best group of .7 inch with SIG Sauer’s 77-grain Match load. It averaged just under 1.1 MOA, which is better than the overwhelming majority of quality ARs sporting free-floated barrels. Of course, the heavier contour on the Patrol helps and is why the rifle tips the scales at 6½ pounds.

I am fortunate to have stumbled around the AR industry for the better part of 10 years and have seen and touched nearly all the best stuff. No one is offering more accuracy from an AR for less cash than Savage Arms.

<table>
<thead>
<tr>
<th>LOAD</th>
<th>VELOCITY (FPS)</th>
<th>ES</th>
<th>SD</th>
<th>BEST GROUP (IN.)</th>
<th>AVERAGE GROUP (IN.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIG Sauer Match 77-gr. OTM</td>
<td>2,493</td>
<td>43</td>
<td>19</td>
<td>.7</td>
<td>.89</td>
</tr>
<tr>
<td>Federal GMM 69-gr. BTHP</td>
<td>2,633</td>
<td>53</td>
<td>21</td>
<td>.72</td>
<td>1.06</td>
</tr>
<tr>
<td>Hornady TAP 55-gr. PT</td>
<td>2,848</td>
<td>61</td>
<td>23</td>
<td>1.03</td>
<td>1.21</td>
</tr>
</tbody>
</table>

Notes: Accuracy is the average of five, five-shot groups at 100 yards. Velocity is the average of five shots across a LabRadar chronograph positioned at 15 feet. GMM is Gold Medal Match, PT is polymer tip, OTM is open tip match, BTHP is boattail hollow point.
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RELIVING SINGLE-ACTION HISTORY.

WORDS BY PATRICK Sweeney | PHOTOS BY MICHAEL ANSCHUETZ
OK, TIME TO FESS UP. Well, I first learned to shoot handguns with single-action revolvers. My introduction to pressure, competition and accuracy was competing with my brother. On summer vacations, Mike and I would take the family single-action wheelgun to the range at our local hunt club and compete.

The “match” was simple: Hit a big tin can downrange. The rules? Shoot until a miss, and then the other guy gets a turn. When the ammunition or daylight ran out, we headed back to the cabin. In pretty short order, we were using a No. 10 tin can — not quite a gallon in volume — and shooting at 100 yards. It got to the point where we’d go a couple of cylinders before a miss, and Dad insisted we knock it off if any of the club’s members arrived to sight-in their deer rifles.

What does all this have to do with Cimarron? Well, if I’d had one of the Cimarron single actions I just tested, Mike never would have had a chance to shoot. That’s how accurate they are.

The Sport Cimarron is a Texas-based company that imports Italian-made single-action revolvers, repeating rifles and side-by-side shotguns made by the Pietta firm. While the cowboy revolver market got jump-started back in the 1950s when Colt decided they no longer needed to be making the Single Action Army (SAA), it took off when Cowboy Action Shooting (CAS) began in Southern California during the early 1980s. CAS? Think multi-gun IPSC but with period firearms and clothing.

Competition shooters shoot a lot if they expect to get good. Putting a lot of ammo through an SAA — original, Colt or Italian — can be hard on the gun. But guns can be rebuilt or tuned to stand up to the workload. What matters to a competition shooter (and a teenage kid trying to plink at 100 yards) is accuracy. So, how accurate are they?

Recently, I ordered four sample guns from Cimarron. These were a cross-section of revolvers to see what a CAS shooter, and an interested buyer, might expect. The four pistols — for that is was what they would have been called in the 19th century — included Cimarron’s 7th Cavalry model, two Eliminator C pistols and a nickel-finished Frontier with engraving. Three of the four chambered .45 Colt, which is expected and customary, and the fourth fired .38 Special/.357 Magnum.

The 7th Cavalry version is as correct as Pietta can make it without being accused of offering forgeries. That includes the full-power action spring and the narrow front sight blade.

Cimarron US 7th Cavalry

| Type: Revolver, single action |
| Cartridge: .45 Colt |
| Capacity: 6 rds. |
| Barrel: 7.5 in. |
| Overall Length: 15.5 in. |
| Weight: 2 lbs., 7 oz. (tested) |
| Finish: Blued, color case hardened (tested) |
| Grips: Walnut w/ cartouche |
| Sights: Fixed, blade (front); fixed notch (rear) |
| Trigger: 1 lbs., 11.6 oz. (tested) |
| MSRP: $618 |
| Importer: Cimarron Firearms 877-749-4861 cimarron-firearms.com |

The 7th Cavalry version even includes the inspector’s cartouche, the initials of Orville W. Ainsworth.
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The 7th Cavalry Tribute

In 1873, when the SAA was still new, the U.S. Army sent early production guns off to the West where they would be of most use. The 7th Cavalry, under the command of Gen. George Armstrong Custer, and their new pistols had a fateful day in June 1876 at Little Big Horn in Montana, and the pistols that went with them subsequently disappeared. Now, 7th Cav identifiable Colt SAAs are fabulously expensive and are eagerly sought by collectors. Cimarron offers faithful reproduction of those pistols made by Pietta in Italy, which even includes the markings. They are offered as 7½-inch blued and color-case-hardened revolvers in .45 Colt. They have the two-line patent markings, " .45 CAL" on the triggerguard, a "U.S." marking, the last four digits of the serial number on major parts and the inspector Orville W. Ainsworth’s cartouche on the grip panels — just like the original. You can have it charcoal blue or Cimarron’s original finish, which is what a revolver would look like if had been subjected to 150 years of use. The 7th Cavalry models are marked according the Army requirements of the time, and only 2,000 units each of the five companies of Custer’s command are to be produced. These are for people who must have a pistol as close to the original as possible, without the $50,000 you’d need to be in the running at an auction of an actual 7th Cavalry pistol. However, verisimilitude sometimes comes at a price. To be as period-correct as possible, the Cimarron 7th Cavalry wears the sights that were in use in 1873, which means that the front blade is a skinny knife-edge of a sight and the rear is a shallow and narrow notch. Together, they can be tough to aim with. Also, the spring and action fit are military standard, which means the action spring is stout and the trigger pull averages 5 pounds.

---

The .45 and .38/.357 are made on the same-sized frames and cylinders. That means the .38’s will weigh a few ounces more and is very pleasant to shoot with Cowboy loads.

---

### Cimarron Eliminator C

<table>
<thead>
<tr>
<th>Type: Revolver, single action</th>
<th>Cartridge: .38 Special /.357 Mag., .45 Colt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity: 6 rds. Barrels: 4.75 in. (tested); 3.5 in. - 10 in. avail.</td>
<td></td>
</tr>
<tr>
<td>Overall Length: 10.5 in.-13 in.</td>
<td></td>
</tr>
<tr>
<td>Weight: 2 lbs., 3.2 oz.</td>
<td></td>
</tr>
<tr>
<td>Finish: Blued, color case hardened (tested), stainless or nickel</td>
<td></td>
</tr>
<tr>
<td>Grips: Walnut, laser checkered</td>
<td></td>
</tr>
<tr>
<td>Sights: Fixed, blade (front); fixed notch (rear)</td>
<td></td>
</tr>
<tr>
<td>Trigger: 12.3 oz. (tested)</td>
<td></td>
</tr>
<tr>
<td>Price: $715</td>
<td></td>
</tr>
<tr>
<td>Importer: Cimarron Firearms 877-749-4861 cimarron-firearms.com</td>
<td></td>
</tr>
</tbody>
</table>

Removing the cylinder for cleaning is easy, and unless you’ve been shooting in the rain, this is as far as it needs to be disassembled.
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Performance

The two Eliminator C pistols are a different subject entirely. I requested the Eliminators to get a feel for Cimarron's competition-built revolvers. They come in either .45 Colt or .38 Special/.357 Magnum, and only with 4¾-inch barrels. The action has been tuned, and that entails extra work on the sear engagement and a less-stout action spring. The result is a 1-pound trigger pull. That may seem light, but remember, you don't cock the hammer until it's time to fire, and you have to cock it with every shot.

The grips are one piece (as all were in the earliest production SAAs), and the Eliminator models come with checkered grips given a rider logo cut into the upper corner on each side. The two calibers are offered for competition shooting, and there are many categories of competition in CAS. One requires full-power ammunition, while others do not. Those who are looking for the cowboy equivalent of warp-speed shooting opt for the .38/.357 and feed it light .38 Special loads to post the quickest times.

Rolling Fancy The fourth pistol was based on Cimarron's Frontier, complete with optional nickel finish, laser engraving and simulated Ivory grips. This is not just a barbecue gun, but you would not be embarrassed to wear one at such a soiree. The pistol's parts are nickel plated, polished, assembled and tested. This one also wears laser engraving. It's not the same as an SAA with cut engraving, but it is more affordable and possesses several advantages. With laser engraving, Cimarron can engrave pistols much faster and in greater volume, which explains the lower cost than if it were hand-cut. Lasers take only a few minutes, while an engraver may require weeks or months. The cost? A Frontier in this configuration comes a little more than $100 over the price of similar models.

The Frontier revolvers are available in several different finishes, including blue, nickel, a polished stainless or an antiqued finish that's hard to beat.
VERSATILE PLATFORM

NSP

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1:9 Twist Barrel

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PERFORMANCE TUNED.
same weight handgun in the form of a semiautomatic 9mm.

The range work followed G&A’s usual test pattern: Haul everything to the range, set up and do the chronograph work first. I found the recoil reassuringly familiar even with heavy loads. The grip slides down in your hand when a round goes off, and the barrel and frame roll up as they assist in soaking up recoil. Even the stoutest .45 Colt load was not a problem in these revolvers, but a newer shooter might be taken by surprise.

As far as recoil is concerned, if you are looking to introduce someone new to shooting, the way to go is simple: a Cimarron SAA in .38/.357 and red regular or “cowboy” .38 Special loads. The weight of the SAA is already comforting. A .45 Colt tips the scales from 40 to 43 ounces. For any given barrel length, a .38 Special is going to be heavier than a .45 Colt. (Smaller holes through the same-sized steel parts makes a difference of a few ounces, bringing a .38 up to 43 ounces — or more.)

The Eliminator in .38/.357 was almost giggle-worthy with .38 Specials. This one easily pegs the fun meter. The soft recoil, tack-driving accuracy and the historic connection with the 19th century means that if a new shooter isn’t having fun, check them for a pulse.

Having to accuracy test these revolvers was fun with the Eliminators and work with the 7th Cavalry. As mentioned, the front sight on the 7th Cavalry is narrow, and that meant a difficult sight picture, even in broad daylight. But the 7th Cavalry pistol wanted to shoot well, as did the two Eliminator models. Out of deference to G&A’s photographer I refrained from shooting the Frontier. I didn’t want to hear grumblings about having to scrub off powder residue ahead of his shoot.

And that is, perhaps, the one downside of a pistol as elegant and bright as a nickel-finished Frontier. It’s going to show all the powder from your practice, so you’ll have to do a lot of cleaning before you can wear it to the next barbecue. It will scrub up more easily than the blued pistols, but any traces you miss won’t hide.

When discussing defensive use, I suggest a brace of pistols. That’s a pair, and if you are going to compete in Cowboy Action Shooting, you’ll want a matched pair and holsters to hold them. If you are using them for personal protection, they obviously don’t have to be matched, but at least make sure they are chambered in the same caliber. Cimarron makes this easy; across the board, the choices are .45 Colt or .38/.357.

Before we get distracted and start eyeing the esoteric models, like the cap-and-ball conversion models and the Wild Bunch 1911, you’ll have to consider barrel length, finish, grip shape, material and your level of desire for historical accuracy. For a traditionalist like me, the task is easy: blue and color case hardening, .45 Colt, 4¾-inch barrels and walnut grips. But that nickeled Frontier is mighty alluring.
AMAZINGLY POWERFUL. SURPRISINGLY SMOOTH.
The Rock Island TCM line is more than just powerful and smooth. It’s also a great value with a 9mm conversion barrel for versatility and a lifetime warranty for peace of mind.

Purchase any TCM firearm in 2017 and receive a box of 22 TCM ammo at no additional cost. Redeem at armscor.com/promotions.
SUNSET CAME AND WENT in a cloudy Nebraska sky. Then, at the end of a slow day, a deer ambled by at 60 yards. My blind looked down into a thick field, and all I could see was the head and the top quarter of its body. The deer appeared to be a lone doe, and I had an antlerless tag burning a hole in my pocket. However, lone does are dangerous. With the rut on, a lone doe could be button buck, and I didn’t want the tragedy — or embarrassment — of such a mistake. So I looked carefully with my binoculars and saw a clean forehead and convex skull. It was definitely a female.

I reached for the rifle, and when a bit more of the body was clear, I took the shot. The deer appeared to drop straight down, and then I had a momentary panic. The light was fading and that grassy, weedy stuff is trackless. Gathering my bearings, I walked right to her (almost) and dragged her into clear ground.

With 35 million whitetails pursued by 10 million deer hunters, similar dramas occurred all over the country this past fall. But I wonder, in the autumn of 2016, how many other hunters enacted theirs with a 110-year-old Winchester ‘94 in .25-35?

The Rifle[s] Hornady’s new “Lever Evolution” .25-35 load features their 110-grain FTX bullet. It was unveiled at the Outdoor Sportsman Group (OSG) editorial roundtable held at Brownells’ Iowa headquarters in August 2016. RifleShooter editor Scott Rupp and I happened to be at the Hornady station together, and we both shot a vintage M94 with tang sight and a 2007-manufacture M94. Both chambered the .25-35. Except for a small 2007 run of these rifles, there hasn’t been a new .25-35 made since 1942. They aren’t exactly rare, but they are less common than .30-30s.

I’d never squeezed the trigger on a .25-35, and I don’t think Rupp had, either. Both rifles were a lot of fun to shoot, with extremely mild recoil — and the older rifle with the aperture was really accurate. I decided I needed one, so I started shopping around. Honestly, my days of shooting well with the traditional buckhorn open sights are over, so I wanted one with the factory-installed tang aperture sight. These proved a bit pricey, but I found what appeared to be a clean Saddle Ring Carbine on gunbroker.com. It had a 20-inch barrel, full magazine and a vintage Lyman receiver sight. The buttstock is the old style: flattopped at the heel with a steel buttplate.

I took a chance and won the bid. The rifle was exactly as described and pictured, featuring plenty of bluing worn silver and brown, a few honest dings
and nicks and a bright, clean, good-looking bore. The actual saddle ring is missing, no doubt gone for decades because it would have interfered with the receiver's sight. The front sight is not original either and was probably replaced to properly match the height of the Lyman sight. Mechanically, it’s perfect, worn slick and smooth. The five-digit serial number (low for a ’94) suggests that it was made in 1906, the sixth year of Theodore Roosevelt’s presidency.

In 1942, most firearms manufacturers ceased civilian production as we geared up for the war effort. Winchester certainly did, and the .25-35 version was not resumed after the war ended. That’s a long time since rifles have been made, but in its day, the .25-35 was fairly popular, a standard chambering for the Model ’94 and a common chambering for the Model 1885 single shot. Marlin chambered their lever action to it, as did a few other firms. So, there are a lot of older rifles out there; enough that, although runs are infrequent, Winchester ammunition never totally dropped the cartridge, and, in 2007, Winchester made that limited run of .25-35 M94s.

The Cartridge Introduced in the Model 1894 in 1895, the .25-35 is simply the .30-30 cartridge case necked down to take a .257-inch bullet. It appeared just after the parent .30-30 and is probably America’s second sporting cartridge designed for smokeless powder. History buffs will want to remember that the John Browning-designed Winchester 1894 was intended for the higher pressures of smokeless powder, but the cartridges weren’t quite ready. So, the ’94 was introduced in 1894 in .32-40 and .38-55, with the .30-30 and .25-35 added the following year. The .32 Winchester Special, added in 1906, actually outlasted the .25-35.

The .25-35 was originally loaded with a 117-grain bullet at 2,230 feet per second (fps), faster and flatter-shooting than the .30-30, originally loaded with a 160-grain bullet at 1,970 fps (much slower than current loadings). Muzzle velocity was probably a moot point since round-nosed bullets ate up the trajectory very quickly. Also, it probably didn’t matter too much with iron sights. However, the .25-35 had less recoil than the .30-30. It was not as popular, and certainly not as powerful, but it was a well-liked cartridge. The designation “.25-35” stems from black-powder usage, which meant a .25-caliber bullet propelled by 35 grains of powder (as the second “30” in .30-30 meant 30 grains). This suggests that the .25-35 used a heavier load of smokeless powder than its parent case. Adding a bit of hype to a cartridge name wasn’t uncommon, so whether this is true or not is open to question. Case capacity is actually a bit less than the .30-30. With modern propellants (much different from 1895 powders), current loading...
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manuals suggest average “max loads” (depending on propellant and bullet) of about 25 to 27 grains for the .25-35. Current published max loads for the .30-30 average several grains higher.

The .25-35 was not the first .25-caliber sporting cartridge and certainly not the last. It was clearly more powerful than the .25-20, chambered in the 1892 Winchester, but the .25-20 was just one of several short .25-caliber cartridges. Much more similar (virtually identical, but not quite interchangeable) was the .25-36 Marlin. Although, the Marlin eventually gave in and chambered to the more popular .25-35. The .25 Remington, introduced in 1906, was essentially a rimless version for Remington’s newfangled semiautomatics and was ballistically almost identical. Among the quarter-bore, the .25-35 was the top dog until 1915, when it was seriously eclipsed by the .250 Savage, designed by Charles Newton for Arthur Savage.

The .250 Savage, or .250-3000, made a huge splash by being the first commercial cartridge to break the 3,000-fps barrier. However, it did so only with a light, eventually controversial and no longer loaded 87-grain bullet. The only current .250 Savage loading is a 100-grain bullet at a much more sedate 2,820 fps. This is much faster than the .25-35. The Savage 99 action is stronger than the Winchester ’94 and, with its rotary magazine, could handle spitzer bullets. So the .250 Savage ended the .25-35’s 20-year near monopoly on .25-caliber hunting cartridges, but wildcatters were already busy with larger cases. The .25-06 Remington goes back to the 1920s, although it didn’t become a commercial cartridge until 1965. Ned Roberts’ .257 Roberts, legitimized by Remington in 1934, is based on the necked-down 7x57mm Mauser case. Though not as fast as the .25-06, it beat the .250 Savage and left the .25-35 far behind.

So, here’s how I see it: At least through World War II, the Winchester Model ’94 was America’s most popular sporting rifle. Except it was seen primarily as a close-to-medium-cover deer rifle and inextricably linked to the wildly popular .30-30 cartridge. The .25-35, though esteemed for accuracy, was viewed sort of as the .243 Winchester was in the 1950s and as the .223 Remington (with heavy bullets) is viewed today: a crossover varmint/small-game/big-game cartridge.

Except the .25-35 in tubular magazine/roundnose bullet form had to compete with the Savage 99 in .250 Savage — also a lever action — and with the .257 Roberts in bolt actions. During the Great Depression, a lot of fine rifles and cartridges bit the dust. The .25-35 was popular enough to persevere until the attack on Pearl Harbor, but it didn’t survive into the post-war era.

The New Load Hornady’s Lever Evolution series of ammunition combined two technologies: bullet and propellant. The FTX (Flex-Tip eXpanding) bullet uses a squishable polymer tip that is safe to use in tubular magazine rifles. Thus, for the first time since the earliest tubular-magazine repeaters made history on Civil War battlefields, it is possible, practical and safe to use an aerodynamic spitzer bullet in rifles with tubular magazines. The departure from blunt round-nose and flat-point bullets makes a significant downrange difference not only in flatter trajectory but also in energy retention.

Using proprietary blended propellants that increase energy yield without raising pressure, Lever Evolution ammo can increase velocity, quite a difficult trick in weak traditional lever actions. The first Lever Evolution load was, naturally, .30-30 Winchester. Hornady’s load returned to the original 1895 160-grain bullet weight, propelling it at a sizzling (for the .30-30) 2,400 fps. Since then, the Lever Evolution line has continued to expand and not just in cartridges. Recognizing the growing number of “lead-free” zones, the MonoFlex bullet has been added in certain diameters (not yet all, and not yet in .257). The MonoFlex is a homogenous alloy expanding bullet with the squishable tip, safe in tubular magazines and usable in areas where...
HIT FAST
HIT HARD

STAG-10 7.62x51 from Stag Arms
lead-free bullets are required. By the way, this propellant technology isn’t just for lever guns; a few years later, it enabled Hornady’s Superformance line of enhanced velocity ammunition. Regrettably, folks, you can’t yet do this at home. The FTX and MonoFlex bullets are offered as components, and there is a Lever Evolution powder now available, but not all the specific propellants that enable Lever Evolution and Superformance velocities are available to handloaders.

Now, to the new .25-35 load. As with quite a few things that have come out of Hornady’s factory in Grand Island, Nebraska, in recent years, the .25-35 Lever Evolution load is the brainchild of Hornady’s chief ballistician and mad scientist, Dave Emary. Consider the body of work in new products Hornady has released in just the last decade. Emary must never sleep! Although a lot of new developments have been cutting-edge stuff, Emary has a nostalgic side. Despite a current shortage of new platforms, the Lever Evolution line needed a .25-35 load.

The .257-inch FTX bullet is 110 grains. Though lighter than the traditional 117-grain bullet, this is still a respectable weight in .25 caliber. The weight reduction enables a slightly higher velocity, but, from an engineering perspective, it was essential because spitzer bullets are longer than roundnoses and flatpoints. To ensure feeding in all known platforms, Cartridge Overall Length (COAL) could not be increased. Velocity of the new load is 2,425 fps, almost 200 fps faster than the old .25-35.

This is significant. However, because of the better aerodynamics of the spitzer design, the flattening of the trajectory and energy retention are perhaps equally significant. The Lever Evolution
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load develops 1,436 foot-pounds (ft.-lbs.) of energy at the muzzle, which is not huge but carries 1,000 ft.-lbs. to nearly 200 yards. So, if you adhere to Townsend Whelen’s theory that 1,000 ft.-lbs. at impact is minimal for deer-sized game, then the .25-35 just became a 200-yard deer rifle. Sighted 3.3 inches high at 100 yards, the load is dead-on at 200 yards and drops 12½ inches at 300 yards. This is not flashy, but it’s a credible trajectory for this old cartridge.

Purpose and Future In its heyday, the .25-35 was somewhat controversial: adequate for big game or best suited for varmints up to coyotes? In the ‘20s, the same questions would surround the .250 Savage; in the ‘50s, the .243 Winchester and .244 Remington; and today, the .223. Across the board, the answer has been much the same: Some love ‘em and trust ‘em for deer-sized game, and others don’t.

The .25-35 had its fans. In “Sheep and Sheep Hunting,” Jack O’Connor wrote that his desert sheep guide in 1930s Mexico, well-known desert rat Charlie Ren, insisted that a .25-35 was “all that was needed for desert sheep.” This is an interesting quote because the only photographs I’ve seen of Ren with a rifle show him carrying a Savage 99 — which is not known to have been chambered in .25-35. I checked with Bob Anderson, chief chronicler of mountain hunting culture, and he confirmed. Anderson has perhaps the largest collection of old mountain hunting photos, including several of Ren — but none with a rifle that could be a .25-35. Professor O’Connor doesn’t exactly say that Ren used a .25-35, only that he said it was adequate. Anderson and I both conclude that Ren probably said it. In those wild days, Ren probably shot and witnessed the shooting of more desert sheep than anyone before or since, so he had a right to his opinion.

Today, I doubt many people would bet a desert sheep tag on a .25-35. However, in terms of everything we think we know about bullet weight, velocity and bullet energy, the .25-35 was adequate for all deer-sized game (which includes deer, sheep, goat and pronghorn) out to 150 yards, which is a long poke with the classic buckhorn sights. With the Lever Evolution load, it’s more adequate and offers a bit more range. Two hundred yards is too far for most of us with open sights. With practice, it’s possible with an aperture sight, and it’s certainly no problem with a scope.

The FTX bullet is an extremely effective deer bullet. Like all
polymer-tipped bullets, the polymer tip is driven into the hollow cavity underneath, initiating fairly rapid expansion upon impact. This means the FTX gives up little of the initial blow (energy transfer) dealt by traditional flat-point and round-nose lever-action bullets, yet it holds together and offers good penetration.

Since it was his brainchild (and also because he enjoys hunting with classic platforms), Emary debuted the new .25-35 bullet on a pronghorn hunt. No problem. It was a year later that I shot the first whitetails with a still-prototype run of factory ammo. That doe in Nebraska was first, and we used it on antlerless tags in Kansas. Again, no problem. That said, we limited its use to timber stands where ranges would be close. This was not a matter of power. The .25-35 was considered very accurate, but that depends on the rifle. Emary's old '94, with longer barrel and tang sight, seemed to be a tackdriver when Rupp and I shot it. Mine is a bit closer to what might be expected from a century-old lever action, about 3- or 4-inch groups at 100 yards. You could theoretically make a lung shot at 200 yards with my rifle, but I'd just as soon not try! Instead, I've got timber stands where even 100-yard shots are impossible. There, I was extremely comfortable and quite happy carrying it. It is a deer cartridge, with the happy crossover to taking coyotes in close to medium cover.

I have no idea what Hornady's expectations are for the load, and I doubt if anyone expects a huge resurgence. It doesn't matter; it's still cool. With a new load, there could be (and should be!) new tubular magazine .25-35 lever actions from Marlin, Mossberg and Winchester. Low in recoil, effective, long regarded for accuracy and with a rimmed case; it would also be an awesome cartridge in single shots. Too bad Ruger doesn't still make the No. 3, but I suspect Dakota could build a Model 10 in .25-35, and if Browning/Winchester would chamber their 1885 Low-Wall to .25-35, I'd buy one.

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The X95's compact bullpup configuration makes it a standout for mission requirements in confined spaces such as vehicle operations.
I sank into the couch with the remote control and scrolled through the cable menu to find worthy accompaniment for the jumbo-sized bag of poor decisions from a Mexican fast food menu that was my dinner. Rachel Maddow? No. Anything Kardashian? No. Golf Channel? Not napping yet. “Point Break”? Jackpot! I hit enter and prepared to bask in less crazy ’90s Gary Busey and less deadly, pre-“John Wick” Keanu Reeves only to have euphoria replaced by derision and contempt when I discovered it was the 2015 reboot of the 1991 cinematic classic.

I’ll admit similar feelings when the Israel Weapon Industries (IWI) X95 debuted at the 2016 Shooting, Hunting, Outdoor Trade (SHOT) Show in Las Vegas. I’d previously embraced the IWI Tavor SAR (Semi Automatic Rifle) and recognized the benefits of a bullpup rifle, merging SBR compactness with a carbine-length barrel in a platform most commonly chambered for a rifle cartridge. I own a Tavor, I’ve extolled the virtues of the Tavor, and seeing the X95 spotlighted at the IWI booth evoked feelings similar to buying an iPhone right before Apple announces the release of a newer model.

The IWI Tavor SAR that originally lured me into bullpup ownership came to America in 2013 as a U.S.-legal version of the Tavor TAR (Tavor Automatic Rifle) that was adopted as standard issue by Israel Defense Forces (IDF) in 2003. Domestic sales of the Tavor SAR have eclipsed 50,000 rifles (so far), surpassing even IWI’s expectations for the Israeli bullpup that’s carved a significant niche into the U.S. market. But, with all the acclaim the Tavor garnered, there are shooters who’ve lamented over features and controls of the bullpup that were perceived to need improvement. It just so happens that the IDF brought to bear similar input to IWI in the pursuit of refining their battle rifle to meet a wider spectrum of mission requirements, a collaboration resulting in the X95, or Micro Tavor. Spoiler alert: Calling the U.S. version of the X95 a “Micro” Tavor is a misnomer. The Israeli version of the rifle earns that moniker with a 13-inch barrel, which contributes to a more compact platform when contrasted with the Tavor TAR, but National Firearms Act (NFA) compliance requires the U.S. X95 to meet or exceed a minimum length of 26 inches to avoid classification of refining their battle rifle to meet a wider spectrum of mission requirements, a collaboration resulting in the X95, or Micro Tavor. Spoiler alert: Calling the U.S. version of the X95 a “Micro” Tavor is a misnomer. The Israeli version of the rifle earns that moniker with a 13-inch barrel, which contributes to a more compact platform when contrasted with the Tavor TAR, but National Firearms Act (NFA) compliance requires the U.S. X95 to meet or exceed a minimum length of 26 inches to avoid classification

“I’d recognized the benefits of a bullpup rifle, merging SBR compactness with a carbine length barrel in a platform most commonly chambered for a rifle cartridge.”
as a restricted short-barreled rifle (SBR). The U.S. X95 employs a non-restricted 16½ inch barrel and a substantially thicker buttstock than its Israeli battle rifle counterpart to exceed the NFA minimum length and avoid classification as an SBR (barely) with a total length of 26½ inches, giving the X95 a dimensionally similar footprint when compared to the Tavor.

If the aforementioned criticisms of the Tavor were tallied, the rifle’s lackluster trigger would easily reign as the most commonly censured component. The OEM Tavor’s two-stage trigger pull is long, spongy and unsatisfying — potentially registering an 11½-pound trigger break before prospectively settling in at 8½ to 9 pounds after a break-in period. Fortunately, the Tavor’s commercial popularity has translated into a burgeoning market for aftermarket components and accessories, driving manufacturers such as Geissele to develop drop-in trigger packs that negated the
OEM trigger pack’s shortcomings for shooters willing to pay the price of admission. Those who’ve experienced the Tavor’s OEM trigger pack will immediately notice that the trigger break on the X95 is a different experience, and with a 5- to 6-pound break, may opt to forgo an aftermarket trigger pack upgrade altogether.

Not far behind the Tavor’s bland OEM trigger were criticisms of the deviation from the manual of arms of operation from a megalithic demographic of shooters accustomed to an AR rifle
platform’s magazine release location and function. The Tavor SAR boasts an ambidextrous magazine release, but it’s a lever type that’s located forward of the magazine well, putting it rearward of the fire controls given the Tavor’s bullpup configuration.

Some shooters opined for a push-button-type mag release that was located in the same zip code as the rifle’s fire control group (FCG), a condition for which there is no aftermarket alternative. The cries from the coalition to move the magazine release did not go unheeded; the X95 employs an ambidextrous push-button-style magazine release located near the FCG in what IWI describes as “an AR-15 location.” I appreciate the integration of the X95’s push-button mag release, more reminiscent of the AR-15 manual of arms of operation that many shooters find familiar, but I did note inconsistency for popular AR-type magazines to drop freely from the magazine well when the mag release was depressed — a condition from which neither polymer nor steel mags were immune.

Picatinny rail space and location on the Tavor were found to be wanting by some shooters accustomed to the modularity afforded by AR platform forends utilizing interface systems such as KeyMod or M-Lok, but the Tavor’s popularity bred aftermarket replacement forends to resolve the issue for shooters who felt a resolution was required. The X95 is designed with a Tri-Rail foregrip, employing rails at the 3-, 6- and 9-o’clock positions, complete with removable rail covers that slide off after depressing the cover button located rearward on each respective cover. The X95 is equipped with a full-length flattop rail of the same configuration as the Tavor, platform’s magazine release location and function. The Tavor SAR boasts an ambidextrous magazine release, but it’s a lever type that’s located forward of the magazine well, putting it rearward of the fire controls given the Tavor’s bullpup configuration.

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including foldaway backup iron sights (BUIS) with windage and elevation adjustment on the front post that’ll be familiar to users of the precursor IWI bullpup.

Both IWI platforms utilize non-reciprocating charging handles. The antecedent rifle’s charging handle is located on the far end of the foregrip, while the X95’s is located rearward toward the fire control group. I had no beef with the location of the Tavor’s charging handle, conceivably due to my copious wingspan, but relocation of the charging handle on the X95 facilitated employment of the Tri-Rail foregrip redesign, and that benefit is palpable.

One of the Tavor’s more visually distinctive characteristics is a handgrip assembly incorporating a full-length handguard as opposed to a traditional triggerguard. From the box, the X95 is equipped with a similar handgrip assembly, but the descendent rifle’s handgrip assembly is a modular component that is easily replaceable with an elective X95 pistol grip from IWI that incorporates a traditional triggerguard for the demographic who’d prefer it, along with an option to replace modular pistol grip panels with a pair identical to those currently in service with the IDF.

Rounding out noteworthy changes between the IWI bullpups is a redesigned lower profile bolt release button for the X95. (I personally prefer the more prominent bolt release on the Tavor.)

Aside from that, the IWI bullpup brethren share the touchstone components that have contributed to the Tavor’s success, such as the reliability of a long-stroke gas piston operating system, a cold-hammer-forged and chrome-lined 1:7-inch twist barrel, and the compact stature and maneuverability commonly associated with an NFA-restricted SBR platform.

Sometimes sequels work. “The Godfather” spawned “The Godfather: Part II” and decades of inspired discourse over which film is superior — but no one takes the position that both films aren’t worthy of your time. A similar argument can be made for IWI’s brace of bullpup rifles. The X95 hasn’t diminished my enthusiasm for the Tavor; the rifle will maintain a position of prominence in my collection. What the X95 has done is broaden the scope of choices in IWI’s bullpup inventory, and it is likely to generate appeal for a growing number of bullpup converts who can debate each platform’s respective supremacy, while likely agreeing that both are also worthy of your time.

The 26⅛ inch total length X95 doesn’t suffer from a reduction of projectile velocity that can be associated with a traditional SBR platform due to its 16½-inch barrel.
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Magnum Research Barracuda .22 WMR

**OOOO, BARRACUDA**

*No other semiautomatic rimfire* rifle is more recognizable than the 10/22. It has been around long enough (since 1964) that the patents have expired, so other manufacturers are free to make 10/22-based rifles.

One such company making very high quality rifles patterned on the Ruger 10/22 is Magnum Research. Enter the Barracuda model chambered in .22 WMR.

Magnum Research approaches its design with a 6061-T6 aluminum forging as the foundation for the rifle. Unlike its predecessor, the Barracuda's receiver has an integral and elevated Weaver rail that runs its length. The integral rail is a significant improvement.

The integral rail eliminates one of the most common causes of a sudden loss in rifle accuracy: scope bases that work loose. The small screws attaching a scope base to the receiver can easily loosen unless cleaned and epoxied with a compound like LocTite. Rifles that once shot great and then suddenly start to pattern instead of group often have a loose base.

Another issue associated with non-integral scope bases is the lack of complete contact between base and receiver unless the base is bedded in place. This allows the base to bend or twist, which can throw the scope rings out of alignment. If the problem is bad enough, the crooked rings can cause the scope’s erector assembly to bind, freezing the power adjustment ring in place. Even if the lack of contact between non-integral base and receiver is minimal, the gap(s) can allow the base to move and destroy small group sizes.

All of those potential issues go away when a receiver has an integral scope base like that on the Barracuda. The base is part of the same receiver 6061 aluminum forging, so there are no screws to work loose or gaps between base and receiver. It’s all one piece.

Magnum Research also thought to elevate the base to work in tandem with the Black Walnut stock’s high comb to put the scope at the correct height for most shooters. Raising the scope base also allows the shooter to mount a scope with a large objective lens of 50 to 56 millimeters. If the base were any lower, a large objective scope would contact the bull barrel or require tall rings to allow the objective housing to clear the barrel. Using tall rings would then make the stock’s comb too low to work effectively with that scope. The Barracuda allows a large objective scope to work with standard rings thanks to the elevated base.
The bolt of the Barracuda is identical to a 10/22 bolt.

The receiver is an improved version of the classic 10/22. It has an integral rail scope base and a small hole in the back that allows cleaning from the breech instead of from the muzzle.

The wooden thumbhole stock is both beautiful and comfortable.

---

**Magnum Research Barracuda**

Type: Gas regulated, blowback operated, semiautomatic

Cartridge: .22 WMR

Capacity: 9 rds.

Barrel: 19 in.; 1:16-in. twist

Overall Length: 37.5 in.

Weight: 4 lbs., 8 oz.

Stock: American Black Walnut

Grip: Thumbhole stock

Length of Pull: 13.5 in.

Finish: Type III hardcoat anodized

Sights: None

Safety: Cross-bolt button

MSRP: $940

Manufacturer: Magnum Research

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magnumresearch.com
One of the most easily overlooked yet valuable features of the Magnum Research receiver is the small hole at the back that allows the rifle to be cleaned from the breech to muzzle. Most are well aware of the dangers associated with running a cleaning rod down the barrel from the muzzle. It’s easy to damage the crown and ruin accuracy cleaning a rifle this way.

The typical 10/22 receiver leaves shooters no option but to clean from the muzzle and risk damaging the crown. The only way to get around the problem is to completely disassemble the rifle and remove the barrel from the receiver, which is a time-consuming affair. The Magnum Research receiver has the appropriately placed hole, and it makes a huge difference when maintaining the rifle. It’s a wonder this feature didn’t gain popularity among manufacturers years ago. The small hole at the receiver’s rear is only visible when the barreled action is separated from the stock.

The graphite barrel is Magnum Research’s own, and it is one of the rifle’s most notable features. Graphite barrels have been with us for a while, and the strengths and weaknesses are well-known. The biggest drawback of a graphite barrel is the additional expense incurred over a stainless steel barrel. The advantages are much more numerous.

In graphite barrels, the fiber is wrapped around a small-diameter steel liner (not much bigger than the bore), and they are much lighter than steel barrels of equal diameter and length.
Any magazine that fits the magnum 10/22 will fit the Barracuda. This one holds nine rounds.

Depending on the type of fiber and rosin used and how the fibers are wrapped around the barrel, the manufacturer can get phenomenal heat conductivity or rigidity. Saying a barrel is made from graphite is akin to saying it's made from metal. There are many different types of fibers, all with specific properties. Likewise, the rosins used with those fibers bring specific properties to the barrel.

The graphite used on the Barracuda's barrel favors rigidity over thermal conduction because there's not a lot of heat generated from a rimfire cartridge, even at magnum velocities. The rigid fibers run parallel to the bore, making the barrel one of the most rigid graphite-wrapped barrels available.

The .22 WMR Barracuda's graphite-wrapped barrel has a longer stainless steel shank where the barrel attaches to the receiver. This portion of the barrel is not free-floating because of the gas “system” that lies underneath. The way that Magnum Research mitigates the wide pressure ranges of .22 WMR is to include a small gas port just forward of the chamber in the barrel's bore. This “gas assist” helps to bleed off excessive pressure from the hotter .22 WMR loads. Other than that small port in the barrel, the .22 WMR Barracuda is blowback operated.

The end result of barrel and action is an incredibly accurate and lightweight rifle. The rifle has a 19-inch barrel, averages sub-MOA for five-shot groups at 100 yards and weighs 4 pounds, 8 ounces. That’s a pretty compelling argument to
perfomance

<table>
<thead>
<tr>
<th>LOAD</th>
<th>VELOCITY (FPS)</th>
<th>ES</th>
<th>SD</th>
<th>BEST GROUP (IN.)</th>
<th>AVERAGE GROUP (IN.)</th>
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<tbody>
<tr>
<td>FIOCCHI 40-gr. TMJ</td>
<td>1,833</td>
<td>31</td>
<td>12</td>
<td>.58</td>
<td>.79</td>
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<tr>
<td>CCI MAXI MAG 40-gr. JHP</td>
<td>1,783</td>
<td>122</td>
<td>49</td>
<td>.64</td>
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<tr>
<td>Federal Game-Shok 50-gr. JHP</td>
<td>1,547</td>
<td>60</td>
<td>25</td>
<td>.7</td>
<td>.98</td>
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</table>

Notes: Accuracy is the average of five, five-shot groups at 100 yards. Velocity is the average of five shots across a LabRadar chronograph adjacent to the muzzle.

justifies the additional expense.

Accuracy testing was conducted with a Leupold Mark 4 6.5-20x50mm mounted atop the rifle’s receiver. All groups were from the shooting bench using sandbags under the forend and toe. Magnum Research clearly specifies that the rifle should only be fired with 40-grain bullets and heavier. Keep that in mind when shopping for ammunition, as a fair number of .22 WMR come with 36-grain bullets.

There is no “Match” .22 WMR, so the tiny groups are truly impressive. Fiochetti’s 40-grain TMJ had the smallest five-shot group measuring .58 inch at 100 yards. Federal’s 50-grain Game-Shok load features a hunting bullet and still held on for a sub-MOA average with a best group of .7 inch.

The Barracuda also features a unique thumbhole stock that has a lot of drop at the heel and a high comb. The substantial drop brings the entire rifle higher into the shooter’s field of view, making it possible to get very comfortable behind the rifle (thanks to the high comb) as long as the torso is perpendicular to the rifle. However, this is not a stock that is comfortable from the prone position for those very same reasons.

It is extremely comfortable from the bench, standing, kneeling and sitting. The thumbhole supports the firing hand in a natural position. The short forend is ideally shaped to fill the support hand and makes this rifle comfortable for traditional rifle shooting. The short forend has limited real estate for the support hand, which makes it a poor candidate for positional shooting. There isn't enough of it to place on field rests for support.

The magazine and trigger are both OEM Ruger, so any of their aftermarket parts will also work in the Barracuda. While more expensive than a basic 10/22, the Magnum Research version offers significant performance gains.
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MY FAVORITE ACES

MY DAD, Edward M. Boddington Jr., was “Bud” to all who knew him. Never comfortable with a rifle, he excelled with a shotgun. He was fast and deadly. After I was old enough to hunt, Pop usually hung back, but there was a time when I needed a lesson. We were hunting pheasants, and every bird that got up was down before I could shoulder my gun. He dropped them all, coolly and efficiently but never claimed a bird and never said a word.

Pop had gifted eyesight, handy for a shotgunninger and great for a fighter pilot. He flew an F6F Hellcat over the Pacific during World War II. As a boy, I was disappointed that he had just three Japanese planes to his credit — two short of being an ace. Even so, Pop must have been a good officer.

His wartime skipper, then-Capt. William E. Lamb, often came to visit. Shot down over the Philippines, Lamb was scooped up by guerillas and picked up by a submarine. Lt. Cdr. Lamb was an ace in both World War II and Korea, and was awarded a Navy Cross in both wars.

As a tyke, I was mesmerized by the gold braid called “scrambled eggs” atop Lamb’s hat. Later in life, Pop maintained that I stayed in the Marines just so I could earn them. After retirement, Lamb taught at the U.S. Naval Academy at Annapolis, Maryland. There, I visited him when I was stationed at Quantico, Virginia, and heard some new stories.

Pop got to the war after the Battle of the Philippine Seas, where Japanese air power was broken. But there were other risks, like finding the carrier and getting hit by ground fire.

On Sept. 2, 1944, Pop was flying cover behind shipmate former-President George H. W. Bush’s torpedo bomber when Bush’s plane was hit and caught fire. Pop watched the pilot eject. Per protocol, Pop circled until Bush was rescued by a submarine. This is a matter of record.

Lamb also indicated that with Japanese planes scarce, Pop got lucky (or good) and scratched three. Every pilot wanted a victory, so, just like he never claimed a pheasant or quail, Pop gave his next credits for downing Japanese aircraft to wingmen who didn’t have any, forsaking fame and a Navy Cross as he did so. Unverifiable, Lamb told me Pop deserved credit as an ace, but gave it away. Perhaps that’s why they remained friends to the end of their lives.

For certain, that’s exactly the way Pop was, in the field as well as in the war. — C. Boddington
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