

ABOVE: ALFREDO RICO, COVER PHOTOS: SEAN UTLEY

34 THE DOCTOR IS IN

The DoubleStar PhD 1911 is insurance you can afford.

BY PATRICK SWEENEY

THE PATH TO ENLIGHTENMENT

TriStar guns head to Canada to prove that we don't need to spend a lot to get a lot.

BY SKIP KNOWLES

58
"MAN THE RAMPARTS!"

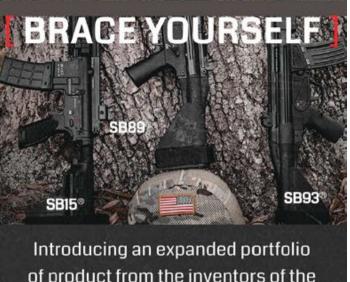
This 20mm French behemoth rifle was intended to fill the gap somewhere between a common musket and artillery.

BY GARRY JAMES

Reader Blowback	Proofhouse LWRCI IC-DI	' O
Editorial by Eric R. Poole		
Gun Room by Garry James	Proofhouse Savage Lightweight Hunter	2
Brass & Bullets by Dana Loesch	Proofhouse Rock Island Armory M1911A380	8
Handgunning by Patrick Sweeney23	G&A Almanac	4
The Carry Rig CrossBreed Freedom Carry27	Spent Cases NYPD Officer Jim Cirillo	6
Gun Tech by Chris Mudgett33		

GUNS & AMMO Magazine, Copyright 2016 by Outdoor Sportsman Group. All rights reserved. **CAUTION:** Some advertisements may concern products that are not legally for sale to California residents or residents in other jurisdictions.



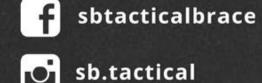


of product from the inventors of the Pistol Stabilizing Brace™.

- ATF COMPLIANT
- VETERAN DESIGNED
- MANUFACTURED IN THE U.S.A.
- DRAMATICALLY **IMPROVES** SINGLE-HANDED PERFORMANCE
- REDUCES FELT RECOIL AND IMPROVES **ACCURACY**



Visit www.sb-tactical.com and follow us on Facebook and Instagram!





UNS&AMMU

An Outdoor Sportsman Group publication PUBLISHER Chris Agnes

EDITORIAL

EDITOR Eric R. Poole MANAGING EDITOR Chris Mudgett ASSOCIATE EDITOR Laura Kovarik ASSOCIATE EDITOR Katie McCarthy ART DIRECTOR Michael Ulrich STAFF PHOTOGRAPHER Michael Anschuetz GROUP ART DIRECTOR David Kleckner SENIOR EDITOR Garry James SENIOR FIELD EDITOR Craig Boddington HANDGUNS EDITOR Patrick Sweeney

CONTRIBUTORS

Tom Beckstrand, Jeremy Cantrell, Mark Fingar, Brad Fitzpatrick, Richard King, Skip Knowles, Kyle Lamb, Lukas Lamb, Richard Nance, Alfredo Rico, Jeremy Stafford, Sean Utley, Len Waldron

PRODUCTION COORDINATOR Al Ziegler

ENDEMIC AD SALES

NATIONAL ENDEMIC SALES MANAGER Jim McConville (440) 791-7017 WESTERN REGION Hutch Looney (818) 990-9000 SOUTHWEST REGION Michael Garrison (309) 679-5054 MIDWEST REGION Rob Walker (309) 679-5069 EAST REGION Pat Bentzel (717) 695-8095 WHERE-TO-GO/MARKETPLACE Mark Thiffault (800) 200-7885

CORPORATE AD SALES

EAST COAST ACCOUNT EXECUTIVE Kathy Hughett (646) 225-6559 MIDWEST ACCOUNT DIRECTOR Kevin Donley (248) 798-4458

MIDWEST & MOUNTAIN ACCOUNT EXECUTIVE Carl Benson (312) 955-0496

> WEST COAST ACCOUNT EXECUTIVE Viga Hall (714) 222-1692

DIRECT RESPONSE ADVERTISING/NON-ENDEMIC Anthony Smyth (914) 693-8700

OUTDOOR PORTSMAN GROUP

CHIEF EXECUTIVE OFFICER Jeff Paro

CORPORATE

EVP, GROUP PUBLISHER, HUNTING AND SHOOTING Mike Carney SENIOR VP, TV OPERATIONS, GROUP PUBLISHER, FISHING Steve Hoffman VP, FINANCE & OPERATIONS Derek Sevcik VP. CONSUMER MARKETING Peter Watt VP. MANUFACTURING Deb Daniels VP, CONTENT DEVELOPMENT Todd Smith VP, DIGITAL SALES David Plante SENIOR DIRECTOR, PRODUCTION Connie Mendoza DIRECTOR, PUBLISHING TECHNOLOGY Kyle Morgan

OUTDOOR SPORTSMAN GROUP, DIGITAL

DIRECTOR, DIGITAL DEVELOPMENT, Berry Blanton DIRECTOR, DIGITAL OPS Reggie Hudson MANAGER, DIGITAL DEVELOPMENT Brock Norman EDITORIAL DIRECTOR, FISHING Jeff Simpson EDITORIAL DIRECTOR, HUNTING/SHOOTING Randy Hynes

For questions regarding digital editions, please contact digitalsupport@outdoorsg.com.

MEDIA

outdoorsg.com

TELEVISION

outdoorchannel.com thesportsmanchannel.com worldfishingnetwork.com

FISHING

bassfan.com floridasportsman.com flyfisherman.com gameandfishmag.com in-fisherman.com

HUNTING

bowhunter.com bowhuntingmag.com gundogmag.com petersenshunting.com northamerican whitetail.com wildfowlmag.com

SHOOTING

gunsandammo.com handguns.com rifleshootermag.com shootingtimes.com shotgunnews.com

SUBSCRIPTIONS INQUIRIES: Should you wish to change your address, order new subscriptions, or report a problem with your current subscription, you can do so by writing Guns & Ammo, P.O. Box 37539, Boone, IA 50037-0539, or e-mail us at gunsandammo@emailcustomerservice.com, or call TOLL FREE 1-800-800-2666. BE AWARE THAT GUNS & AMMO ONLY ACCEPTS SUBSCRIPTION REQUESTS FROM AUTHORIZED AGENTS! WE MAY NOT HONOR REQUESTS FROM UNAUTHORIZED AGENTS, AND YOU THEREFORE MAY LOSE YOUR MONEY IF YOU BUY FROM AN UNAUTHORIZED AGENT. If you are offered a subscription to Guns & Ammo, please call 1-800-800-2666 to determine if the agent is authorized. For more information on subscription scams, please visit www.ftc.gov.

SUBSCRIPTION RATE for one year is \$19.94 (U.S., APO, FPO, and U.S. possessions). Canada add \$13.00 (U.S. funds) per year, includes sales tax and GST. Foreign add \$15.00 (U.S. funds) per year.

OCCASIONALLY, our subscriber list is made available to reputable firms offering goods and services that we believe would be of interest to our readers. If you prefer to be excluded, please send your current address label and a note requesting to be excluded from these pro-

CONTRIBUTIONS: Manuscripts, photographs and artwork must be submitted to the editorial department with a SASE. The Publisher assumes no responsibility for loss or damage to unsolicited material. Please send to: **Guns & Ammo,** 2 News Plaza, Peoria, IL 61614, Attn: Editor

FOR REPRINTS: For Reprints/Eprints or Licensing/Permissions, please contact: Wright's Media — TOLL FREE 1 (877) 652-5295.

BOOKS, DVD'S & BACK ISSUES: TOLL FREE 1 (800) 260-6397 or visit

The Publisher and authors make no representations or warranties re garding the accuracy, completeness, and timeliness of the information ontained in this publication. Any reliance or use of the information is olely at your own risk, and the authors and Publisher disclaim any and all liability relating thereto. Any prices given in this issue were suggested prices at the press time and are subject to change.

ome advertisements in this magazine may concern products that are not legally for sale to California residents or residents in other jurisdictions

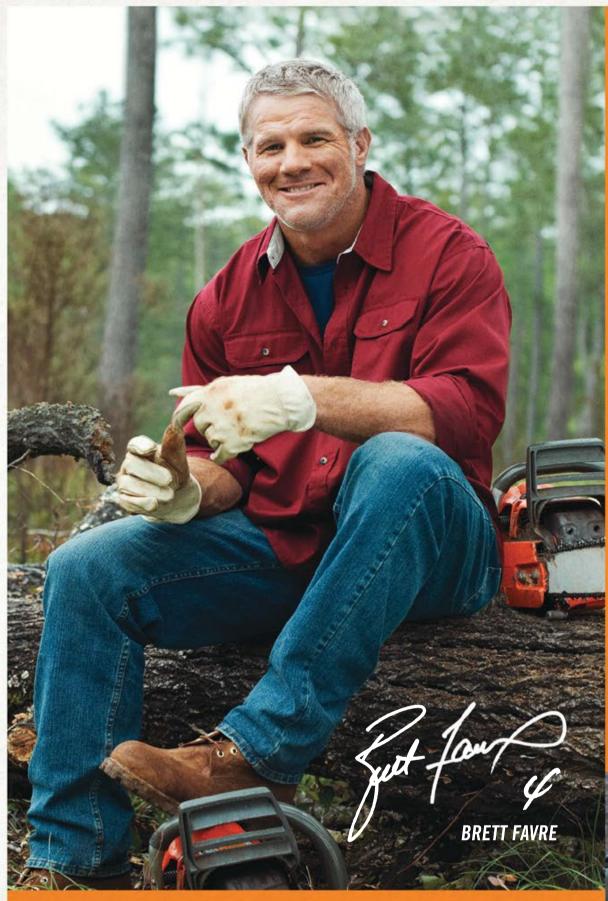
Guns&Ammo® is a registered trademark of Outdoor Sportsman Group in

Outdoor Sportsman Group, 1040 6th Ave., 12th Floor, New York, NY 10018-3703, Attn: Privacy Co

Copyright 2016 by Outdoor Sportsman Group

All Rights Reserved. No part of this book may be reproduced without written permission.





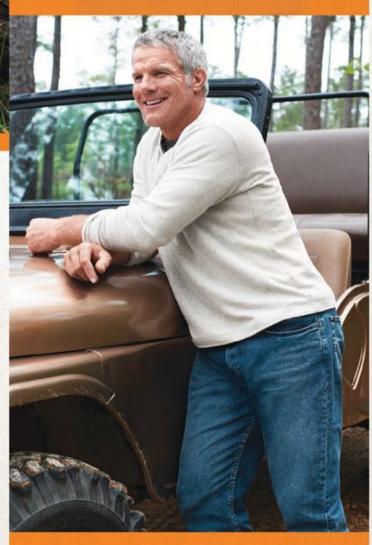
ADVANCED CONFORT JEANS







Wrangler.com Real. Comfortable. Jeans.



READER BLOWBACK

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



CORRECTION ON SIG LEGIONS

There is a slight misprint in your February issue of Guns & Ammo. On page 43 and 44, it is written that the new SIG Sauer Legion pistols have actions that "were hand-tuned, polished ... with action work." There is no action work performed on the Legion series from the factory. It features the exact same hammer, sear, safety lever, trigger bar and mainspring strut as the rest of the classic line with absolutely no handwork at all. The only "custom" part on the gun's action is the nice Grayguns trigger [on the P226 SAO]. The Legion is indeed a great product but it certainly isn't a custom

factory pistol with a perfect action. I don't want my name publicly tied to any criticisms of the SIG Sauer Legion pistols or the rest of their fantastic line. Thanks in advance, and a fine publication you have.

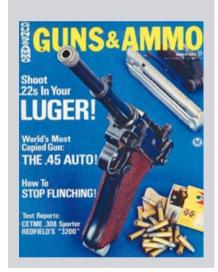
Anonymous Email

LEGION MISQUOTE

The feature article on the new SIG Sauer Legion series begins with a reference to what Roman mothers said to their sons going off to battle. This is a misattribution. It was what Spartan mothers said to their sons. While it was Plutarch (Moralia 241) — a Roman — who wrote about it. He was referring

MARCH '69

Converting firearms to shoot .22s goes back to the early 1920s as a cost-effective method to increase the quality of training. And conversion kits were not limited to the M1911 platform. In the cover story, "Living Room Luger Shootin'," gunwriter Mike Reese shed light on the subject of .22 conversion units for the toggle-top Luger. Conversion kits from Erma consisted of a barrel insert, toggle-block assembly and a special .22 LR magazine made for Lugers.



to Spartan (not Roman) warriors.

Dennis Vanson Bedford, New York

AMERICAN MARKSMANSHIP

Eight to 10 years ago, G&A had a sidebar column of short statements by Jeff

Cooper called "Cooperisms." One of those was about a dinner where he was with a bunch of folks who served in World War II. Cooper was talking and asking him why, after Pearl [Harbor], didn't the Japanese go and invade California such as they caught us with our pants down. The Japanese officer remembered that they had thought of that, but he commented on the fact that most American homes had some sort of firearm and they held competitions of shooting skills. He also said that they were not such fools to step in that kind of quicksand. Mr. Cooper always had a way of getting a point across.

Tim D. Brewer Owings, Maryland



CYBER WAR ON GUNS

I am writing in praise of Eric Poole's editorial on "The Cyber War on Guns."

INSTAGRAM: @GunsAndAmmoMag 3.9K followers

New K6s .357 Magnum revolver from @kimberamerica

The best-kept secret became the biggest introduction at the 2016 SHOT Show in Las Vegas. Meet the new K6s, Kimber's first revolver. Look for a complete test and review in the next issue of Guns & Ammo.

G&A is now on Instagram! Follow us and see the latest products.



ULT IN ATE CONCEALMENT

FOR THE PREPARED PROFESSIONAL™



Product featured: EDC Principal Briefcase



TWITTER: @GunsAndAmmoMag 105.9K followers

COMING SOON FROM SPRINGFIELD ARMORY!

By mid-2016, we will see a 1 of 1000 #LimitedEdition TRP Operator commemorating the memory of U.S. Navy SEAL sniper Chris Kyle @ChrisKyleFrog

Tweet your responses @GunsAndAmmoMag

I am 75 years old and still shoot my guns at a local range. I don't go on the Internet and wasn't made aware of the anti-qun crowd trying to misuse the Internet to take away our freedom to own and use firearms. I read a lot of gun magazines each month and Guns & Ammo is one of the best. Thank you for letting us know about this misuse. We will have to keep a close watch on this and not let it get out of hand.

Robert W. Gebhardt Ft. Lauderdale, Florida

THOUGHTS ON G&A

Just a jot to let you know I really enjoy reading your magazine. I liked SGM Kyle Lamb's "Combat Mindset" series. Though I work in a victim zone, I will have to cry and die like everyone else, but carrying on the weekends gives me something to ponder. I

also like Patrick Sweeney's articles as well, however, I probably won't sell my .40, but he brings up valid points. During the last ammo drought, .40 was the easiest ammo to acquire. Thanks again for a great publication.

Doug Hass Springfield, Ohio

FEDERAL SYNTECH BULLETS

In the first column about Federal Syntech bullets, Patrick Sweeney refers to IPSC shooters using a spray polymer coating. How might I find more info on this process? I'm looking for ways to reduce lead in my club's range, and this article presents a very timely presentation of solutions. David McFadden Medford, Oregon

The crux of the matter, as the early experimenters

f FACEBOOK: 732,000+ likes

Federal introduced new Syntech ammunition in the American Eagle line. Is a polymer-coated bullet a revolution for ranges?

Justin Merrell It's cool, I guess. I just can't stop thinking this cartridge looks like lipstick.



Like us at GunsAndAmmoMag to join trending discussions and weigh in on current debates.



Sign up now Item #080-001-199



800-741-0015 • BROWNELLS COM/EDGE

discovered, was volume of production. There just isn't any aerosol can (or equivalent) process that lets you economically coat a small batch of bullets. As soon as those first experimenters proved the idea had some promise, they set about making it a high-volume process. Unless you can find a way to coat 10,000 bullets for a penny each or less in an afternoon, there is just no monetary advantage to it. Doing it for yourself is just too much extra work.

— P. Sweeney

OOPS, OUR BAD

I noticed in "Taking Down Terror" (page 88, Feb. 2016 issue) a reference to "an EOTech 551 hollowsight" While I am familiar with the EOTech Holographic Weapon Sights, you guys are murdering the "Holosight" nickname! I am an experienced legal and technical writer and editor who will in all likelihood be searching for a new job soon. Where do I apply?

David Penn Beavercreek, Ohio

Thank you for taking the time to write. G&A managing editor Chris Mudgett recently said it best: "It's the simple mistakes that get us." I must have looked over that a hundred times. I'll own that one.

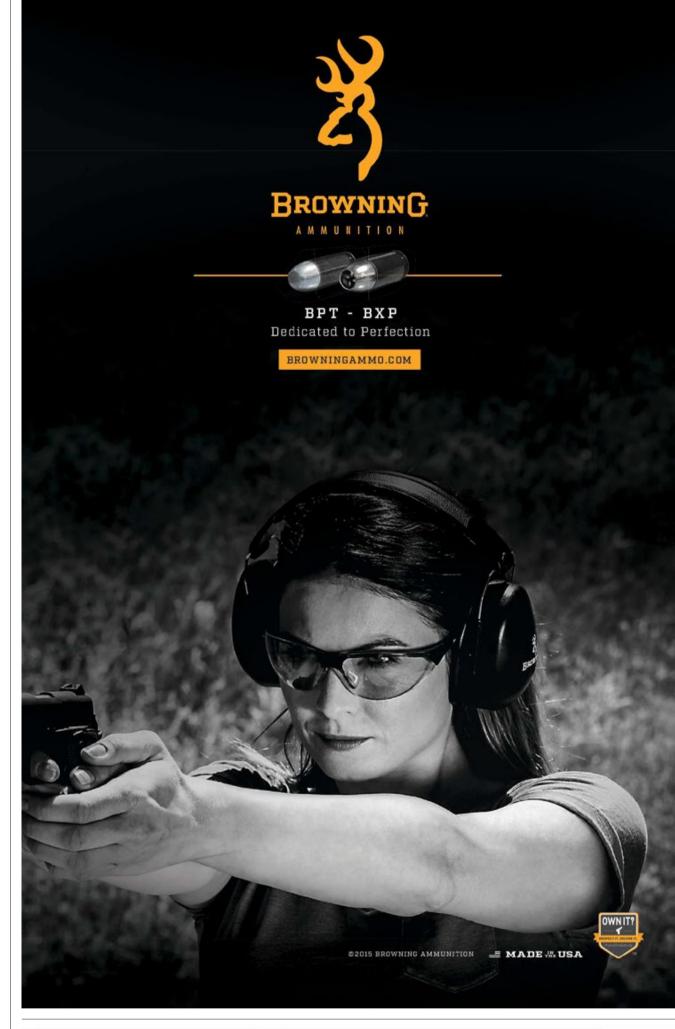
— E. Poole

PUNY PRINT

Why can't Guns & Ammo magazine do something about the anemic, hard-to-see print? Most other magazines have addressed this with bolder, darker print. Remember the Pica vs. Elite typewriters? Unless G&A corrects this problem in 2016, I will not renew my subscription. My 68-year-old eyes are just tired of straining to read this magazine.

Raymond Urton Terre Haute, Indiana

I have 57-year-old eyes, so I know the frustration. This past year I have worked on the type with extensive type showings and studies in an effort to find and purchase the best





BOYDS, the largest aftermarket gunstock maker in the world!



1. Largest selection on the planet

Over 255 makes – over 1,200 models. If we don't make it, you probably won't find it elsewhere.

2. Hardwood only

Only top-grade hardwoods are used. Every stock is dried to exacting specifications to ensure rigidity and stability, then sealed with chemicalresistant finishes for long-lasting durability and performance in all weather conditions.

3. More accurate

Boyds stocks are engineered to fit the gun. They're tight where they need to be tight, loose where they need to be loose for superior performance and improved accuracy you can measure.

4. A better fit

62% of guns do not properly fit the shooter. A Boyds gunstock is ergonomically designed and can be customized to fit.

5. Custom look

With 20 different stock shapes and 25 different colors and a huge selection of custom laser engraving options, now you can build your gun YOUR way.

6. Since 1981

Our engineers have continued to perfect manufacturing methods since 1981. That's why you get far more gunstock for the money.

To learn more visit

boydsgunstocks.com



and most readable fonts for use in G&A. We are working on a plan to update the design in 2016. That said, "bolder, darker print" does not increase legibility. Bigger, well-designed type does. On the downside, bigger type means fewer words and pictures, which would subtract information given the package size each month. I realize these concerns may not be visible to the reader, but G&A editors certainly care about fitting as much content in this magazine as possible for added value. So, it isn't simply a matter of selecting a larger type size, because changing type size affects everything. I read all letters that concern design, and I appreciate your continued support and patience as we work to address your complaint. By the way, I'm one of the few around here who knows what "Pica vs. Elite typewriter" means.

— Michael Ulrich, G&A art director



UNREPENTANT SINNER

a burrier, it wilder and a granter brem in Nebreaks. No cided Nick Grow the Got It was a scalar and even believed that he might be a sociogent. When asked how many men he had liked, he implied, "Berry beam, not counting Mericans and Spacks!)" Always the many brooks he wasse, he titled his authority "Unseperated Server" in 1955.

His larger-day storp-titling was a true he lawred from his states, May Dischair Always, a version of Windel Wai. May, Albins was also a noted growther, and was considered one of the best should push whether and the hadron find here. Always whether had not considered one of the best should push whether and little hadron find as an other of the hadron of the house of the hadron of the law of the purifying herbories and little hadron of the law of the purifying herbories and the hadron of the law of the purifying herbories and the hadron of the law of the law of the purifying herbories and the hadron of the law of the law of the purifying herbories and the hadron of the law of the law of the purifying herbories and the hadron of the law of the law of the purifying herbories and the hadron of the law of the law of the purifying herbories and the hadron of the law of

As the U.S. entrained World Wive II, Alkine given dit he Amy and work late II a Affairs, hely want if a Normandy on D-Olygo and worked level in Affairs, hely want if a Normandy on D-Olygo rise rease to the rank of colored and in the late 1950, he left undermost deriver for Verteams to work as a milliang walkine, the brought with him the then new Senth 6 Wessen Model? 22 hamberine in A Affaignam induction in his within the to be used electromized to left the first sean with that centrifies which are not method in reasons with booth Versamenes unified, which are not method in reasons with booth Versamenes unified, helders on amendment in reason with booth Versamenes unified, helders on amendment of the season had been seen and the season of the seaso

SINNER INDEED!

Thank you for making it absolutely clear what an arrogant, cocky, racist, bloodthirsty killer Col. Charles Askins was. I will never buy any of his books. I have no desire to support him, even thought he is dead.

Emery K.
Manti, Utah 🖼



DDMV11slw

V11SLW

ONE OF THE LIGHTEST, FASTEST-HANDLING RIFLES IN THE DANIEL DEFENSE LINEUP.

Cutting weight, not corners, the DDM4V11 SLW tips the scales at just over six pounds without any compromise in materials, construction, or features. Built around a Cold Hammer Forged, 14.5", Lightweight profile barrel, the V11 SLW has an extended flash suppressor, which is pinned and welded to reach the NFA-required, 16" minimum barrel length. The mid-length gas system provides smooth and reliable cycling under any conditions and reduces both perceived recoil and wear on moving parts.

A free-floating SLiM Rail 12.0 handguard offers incredible weight savings as well as superior cooling, ergonomics, and modularity while maintaining the strength and durability expected from Daniel Defense.

Visit DanielDefense.com for more information, and see the new DDM4V11...SLW at your local Daniel Defense dealer.

> ALSO AVAILABLE IN MIL SPEC + TM



»LIGHTER. STRONGER. BETTER....®



EDITORIAL APRIL 2016 G&A 13

The Second Amendment should be our **first priority**.



ERIC R. POOLE

@GUNSANDAMMOMAG

PRESIDENTIAL HOPEFULS

VOCABULARY IS KEY when reporting on the gun issue. Hearing certain words and phrases can guide listeners and readers to a particular conclusion. Those who generally favor firearms and their use by citizens for lawful purposes say "gun rights." Those who would prefer guns being heavily restricted say "gun control." Similarly, when guns are used as tools in effecting crime, people who are against guns make a point of referring to these deplorable acts as "gun violence" and describe the tool(s) as a "weapon(s)," a word that inherently possesses a negative connotation.

When a politician is uncomfortable talking about gun issues, the answers to these questions are usually rehearsed and vague. So, how do we get to the core of where candidates stand on gun rights versus gun control? It starts by asking the right questions. If granted face time with 2016 presidential candidates, here are the questions I consider fundamental and timely to ask:

Do you feel that law-abiding citizens have a right to own and train with firearms that equate to or exceed the capabilities of the U.S. military's? This question addresses the belief that the Founding Fathers never intended for the government to be stronger than its people, capable of suppressing its citizens by force, and that the armed populace retain the last resort in preventing tyrannical leadership from consuming all power.

In accordance with the U.S. Constitution, should law-abiding citizens be allowed to buy, sell and trade firearms and ammunition between Americans without the oversight, data registry and regulation imposed by the federal government or its agencies? If a government is aware of who has what guns and where, leadership opposed to civilians owning guns could target and criminalize gun owners with precision and efficiency, which minimizes any real threat of resistance to unconstitutional executive actions, or opposition to the creation of a police state. History has already shown this in several less-free nations.

On Jan. 1, Texas authorized its constituents open carry of handguns. As president and chief law-enforcement executor, would you direct policing agencies to support citizens choosing to exercise this right in states that have laws to allow it? At the time of this writing, only six states ban the open carry of handguns, while 13 of the 44 open-carry states require special permits or licenses to allow it. This question is interesting because it could reveal a candidate's feelings toward states' rights and the devel-

opment of a "same-team" attitude between law enforcements and law-abiding citizens in dissuading crime.

Before I can offer my vote, certain candidates have some explaining to do regarding their former positions on gun issues and questionable statements they have made.

If I were talking with Donald Trump, I would ask this: Years ago, you had different feelings about guns in America. In your book, "The America We Deserve" (2000), it was written that you "support a ban on assault weapons and slightly longer waiting periods to buy guns." When and what event in your life caused you to change your position to a pro-gun stance?

Dr. Ben Carson discussed his views on guns with Glenn Beck on a radio show in 2013. "There's a reason for the Second Amendment; people do have the right to have weapons," he said, adding: "People should be allowed to have semiautomatic weapons in some cases. It depends on where you live. I think if you live i<mark>n t</mark>he midst of a lot of people, and I'm afraid that that semiautomatic weapon is going to fall into the hands of a crazy person, I would rather you not have it, but if you reside out in the country somewhere by yourself ... I've no problem with that." (Note the repeated use of the word "weapon.") Although I do not fear that he would come after guns as President Barack Obama recently has, such passive attitudes toward the Second Amendment and suggestions that our rights apply to some in certain parts of the country while restricted in other parts is ridiculous. The Founding Fathers created the Constitution and Bill of Rights on universal truths. Carson later tried to explain that he was trying to talk about how to keep guns out of the hands of dangerous people, not through gun registries but through "smart-gun" technology. (There's another dangerous term.)

How do you retroactively make all guns "smart" and control that all guns are given the "technology" without some kind of registration? You don't. Regardless of its dubious ability to function and not hinder personal defense, this idea sets up further restrictions and criminalizes law-abiding gun owners that do not wish to declare for government record what guns they have in order to comply with a compulsory "smart-gun" conversion.

The Second Amendment protects the First Amendment and all of our other rights. It's time we get the truth from candidates and be sure we elect a person who possesses these constitutional priorities. The next president will be the one we deserve.



HOME OF THE WORLD'S TINEST 1/11 1131OLS

TOLL FREE: 877-268-4867 WWW.NIGHTHAWKCUSTOM.COM



GUN ROOM APRIL 2016 G&A 15

"Anyone who would offer me the **embarrassingly low sum** \$800 for a [gun] such as yours, would be stricken off my circle of acquaintances."

IDENTIFICATION & VALUES



COLT BOA VALUE

Q: I'm really hoping you can help me with this. My father recently passed, and I was cleaning out his desk and found this revolver. It was buried under a ton of things and sitting vertical at the back of a drawer. My dad had a small collection of guns, and they were all handed out to friends and family in accordance of his will. This gun was never mentioned. I believe he may have forgotten about it. I've done some research, and I'm not sure what the gun

is worth. I've tried to have the gun evaluated a few times, but I've received such a wide range of values that I'm not sure what to believe. I've been offered as little as \$800 for it, and I've also been told not to accept anything less than \$6,000. The gun itself is in amazing condition. I don't think it's ever been fired. I keep a Glock 19 for my own personal protection and practice with it, so I know a little bit about guns. E-J. A. **Email**

A: The current surge in interest for Colt "Snake" guns has added luster and value to an already inter-

THE AUCTION BLOCK

A scarce Japanese Baby Nambu auto pistol sold for a very reasonable \$2,875, including premiums, at the Oct. 5, 2015, James D. Julia Firearms Auction. This desirable little 7mm is in excellent condition, exhibiting over 80-percent original blue finish and excellent-condition checkered grips. Only the magazine is a replacement. Some 40 percent of the original straw coloring is present on the trigger. For more information about this and future auctions, contact James D. Julia, 207-453-7125, jamesdjulia.com.

1985, the entire run was

Horton. Some 600 each

were made with 4- and

6-inch barrels. Originally

selling for \$525, according

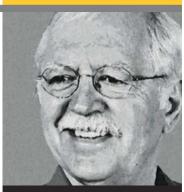
to the "Thirty-Fifth Edition

Blue Book of Gun Values," a

Boa in 95-percent condition

purchased by retailer Lew





GARRY JAMES

GARRY.JAMES@ OUTDOORSG.COM

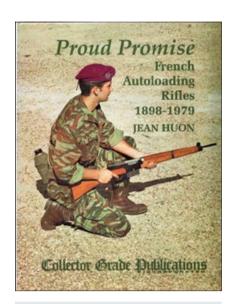
esting piece. Recently the is worth \$8,500. A small Cobras, Vipers, Diamondnumber of two-gun boxed backs, Anacondas and sets (with 4- and 6-inch barthe like have really soared rels) were also offered and in value. There's even a bring big bucks nowadays. new book out covering Anyone who would offer them, "Seven Serpents," me the embarrassingly low by Gurney Brown, which sum \$800 for a Boa such as we will be reviewing next yours, would be stricken off month. Of the batch, the my circle of acquaintances. Boas are right in the top

NICKEL S&W 586 ANOMALY

Q: I have a Smith & Wesson Model 586, serial number AAL6XX in nickel with a 4-inch barrel. It is in very good shape and a good shooter. It is an N-frame, which I haven't found much information about. Can you tell me if it is a rare gun or worth any more than normal example? I do know that it was not included in the recall for the cylinder-binding problem even though it has bound up on me twice. Can you help? T.C. **Email**

A: Well, I'm not sure what to tell you on this one. The .357 Magnum S&W Model 586 Distinguished Combat Magnum, which was introduced in 1980 and produced for 19 years, is an L-frame. Now the .38 Special Model 586 Classic Distinguished Combat Magnum, which came out in 2012, is an N-frame;

however, your serial



RECOMMENDED READS

"Proud Promise French Autoloading Rifles 1898-1979" By Jean Huon, Collector Grade Publications, 1995, 199 pages.

To those extolling German and American firearms development, it might come as a surprise the number of advances in arms and ammunition provided by the French over the centuries. Such things as perfecting the flintlock, invention of the Minié bullet and the first smokeless powder military rifle are just a few examples of their contributions to firearms technology. It is often forgotten that French developments in self-loading rifles were also cutting edge — from the premier semiautomatic rifle to be issued in World War I, the RSC M1917, to the underrated MAS 44, there were a large number of innovations that affected not only French designs, but those of many other nations. All are amply and competently covered by author Jean Huon in "Proud Promise." Arms are dealt with chronologically, chapter-by-chapter. The text is detailed and complete, and illustrations are excellent. There are extras such as the evolution of ammunition, rifle grenades and the like. This book is a real eyeopener and one that belongs in every serious firearms student's library. \$40

number makes it sound like you have the earlier model. Are you sure you have an N-frame? Please double check. As far as the mechanics of the thing goes, you have two options – send it back to S&W for a going-over or take it to a gunsmith and see what he can do. As far as value goes, a standard 4-inch in 80- to 85-percent shape is valued in the \$300 to \$350 range.

COLT .22 OFFICERS MODEL CLEANUP

Q: I inherited an old house

and discovered a pistol loose in a cardboard box under the cellar stairs. The pistol is marked "Colt Officers Model .22 Long Rifle" on the top of the 6-inch barrel. The latest patent date on the side of the barrel is Oct. 5, 1926. The serial number is 6XXX. Despite the evident surface rust and holster wear, which I did not try to hide, the barrel is clean with sharp lands and grooves. It does not appear to have been shot much, but an examination with a bore scope would be needed to determine that. The action is very tight, and the trigger pull is so smooth that I would guess it has undergone the attentions of a gunsmith at some point. The adjustable target sights seem oiled and untouched. The grips appear to be walnut. No serial number is evident on the exterior of the pistol, and I do not have the proper tools to open it up. I have sprayed the pistol with Rem Oil, but made no other effort to clean it for fear of causing damage.

My question is: What do I have here? N.A. **Email**

A: Your Colt .22 Officers Model Target (it was also offered in .38) was manufactured in 1932. This line was produced from 1930 to 1949. The revolver could be in better shape, but appears to be salvageable. It's never going to be a museum piece, but assuming the mechanics are OK, should be a good shooter. The Official Police was a superb revolver. As far as cleaning it up goes, judicious use of 0000 steel wool and a good gun oil such as Hoppe's No. 9 or Break Free should get things going. However, if you've never done this sort of thing before, it might be worth a trip to your local gunsmith to see what he can do with it. In any event, I wouldn't spend a lot of money on the gun as its collector value is considerably diminished by its mediocre condition.

PRE-WAR MAUSER **SPORTER**

Q: When I was a teenager, a family friend had a 1936 8mm Oberndorf sporter rifle. It was beautifully engraved with set triggers. I have been looking for such a firearm for years. Recently, I came across an 8mm Mauser with set triggers. At first I thought I had found the same rifle. The seller indicated it was built in the '50s. The barrel has "H & H Zehner, Frankfurt/M" on it, and it has a four-digit serial number. I checked in Ludwig Olsen's "Mauser Bolt Rifles," but there is no mention of

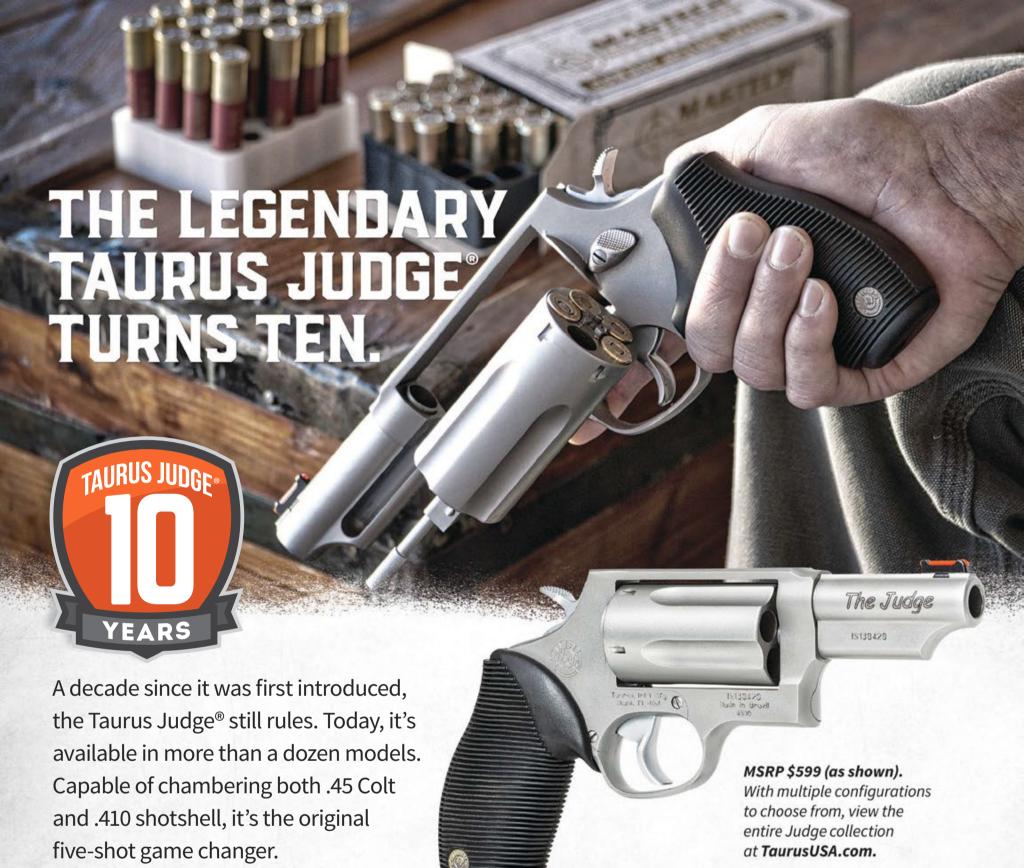
any Mauser production in Frankfurt. It is very similar to the Oberndorf sporter rifle. Could you possibly shed some light on its pedigree? I have attached a few pictures of it. If I may provide any further information, please do not hesitate to contact me. Thank you for your consideration.

R.I. Marietta, Georgia

A: H.H. Zehner of Frankfurt. Germany, has built a number of fine sporting rifles over the years on different platforms. The rifle you are looking at is obviously on a Mauser action, probably originally made in Oberndorf. The family goes back to around the turn of the 20th century, and the relatively recent guns I have seen customized by Zehner look quite nice. Prices vary all over the place depending upon features and embellishment.

G-SERIES FN FAL

Q: I am writing on behalf of my dad who always wanted to write to G&A about the FN he purchased around 1961. There were 1,848 FALs imported by Browning Arms and a portion of them were offered to the public. It was purchased with the metal forearm with a bipod along with a wooden one. It has been fired throughout the last 50-plus years by my dad, including a whitetail season when I was younger. The gun functions flawlessly and shows minimal wear considering its use. It has all original paperwork and documents to include a few extra magazines, along with the



Fiber optic front sights

Taurus Unlimited Lifetime Repair Policy™

Decisive stopping power

Superior choice for home and personal defense

Free One-Year NRA Membership with purchase of Taurus firearm



HAVE AN HEIRLOOM? Curious about a vintage firearm? Email Garry at garry.james@outdoor sg.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.

sling. The gun has always been a great topic of conversation over the years (even when the Bureau of Alcohol, Tobacco, Firearms and Explosives would stop by to look at it). Many offers have been made to purchase it, but my dad has stood fast, choosing not to part with it. I believe the original cost for the rifle and its accessories was around \$200. I've seen some go for pretty astronomical prices over the years. And I can't really see it going down in value. Information on the value of this fine rifle would be greatly appreciated. J.L.

Gladstone, Michigan

A: G-Series FN FALs were

imported by Browning Arms between 1959 and 1962. Apparently they were declared illegal by the Gun Control Act of 1968, but this ruling was later rescinded. According to the "Thirty-Sixth Edition Blue Book of Gun Values," some 1,822 guns had standard barrels, 21 sported heavy barrels and five paratrooper models with shorter barrels and folding stocks were brought in. The Blue Book values a standard model in 90-percent condition at \$4,000, a heavy barrel at \$6,250 and a paratrooper at \$4,400.

8-GAUGE SHATTUCK SHOTGUN

Q: My son is an NRA member and I am retired U.S. Navy; both of us are

hunters and gun enthusiasts. Chesapeake Bay-area waterfowlers used various big-bore shotguns or punt guns during the Market Gunning Era of the late 1800s to early 1900s to increase their bag numbers. This decimated the waterfowl population in the area and led to illegal hunting after regulations were implemented. As a collector of some of these old guns, I was given a C.S. Shattuck, Hatfield, Massachusetts, 8-gauge, break-barrel single (for my birthday by my brother, a retired deputy sheriff in Florida). It is in excellent condition and just screams to be shot. It is only outlawed for hunting, which does not prevent me from



shooting it for demonstration. The gun's history and serial number (1XX) point to a fabrication date between 1883 and 1890; blackpowder was predominately used during that period, however, smokeless powder shot shells were becoming popular with waterfowlers and outlaw gunners desiring rapid reloading and follow-up shots. This gun being an original, all matching, later model does not have the "London Twist" stamped on the barrel and the receiver simply has been stamped "American" on the top, although it may still be a damascus barrel and its desirable patina makes it difficult to make a final conclusion. It weighs

about 14 pounds, is well made, locks up well, has a 31½-inch barrel to the receiver, and 361/4-inches to the hammer. The forend has a little character notch that detracts nothing from its function or safety.

I doubt that it has any collector value, and is only valuable to me as a gift from my older brother. Please give any additional gun information and a possible source of bia bore shot shells still in production.

Do you know of anyone who may still offer: 8-gauge shotgun shells of standard size for hunting inland game birds in the U.S.? Or 8-gauge powder charged blanks, or lightcharged smokeless powder

shot shells so as not to exceed these early gun pressures? Blackpowder loaded shot shells? How about metallic, paper or plastic hulls?

Without shells it is no more than a wall hanger and conversation piece ... and that would be a shame. D.

Email

A: The C.S. Shattuck Arms Company was in business from 1880 to 1908 and made a variety of arms, including revolvers, a four-barreled derringer and a number of shotguns. Quality of the firm's wares was good, if somewhat commonplace. The photos you sent of your 8-gauge are pretty interesting —

it's quite a hunk o'gun. Even though a working piece, it's certainly an eye-catcher. Other than industrial 8-gauge shells used for cleaning out kilns and the like (which are absolutely not safe to be used in firearms) I can find no listings anywhere for commercial 8-gauge shells or ammo. Occasionally it turns up, used on some of the auction and collector sites on the Internet. and that is where I would focus my attention. By the bye, before you attempt to shoot your Shattuck as substantial as it looks, I'd still take it to a gunsmith and have him go over it to make sure it was sound. Good luck on this one. It's an interesting project. 🖎







"... we were not about to have our kids running around **tea-cupping** play pistols ... "



DANA LOESCH

©DLOESCH

FLYOVER NATION

WHERE I COME FROM, people don't hide their firearms away in safes. They display them in gun cabinets. The gun cabinet with etched glass panels in my grandfather's home was handmade by an uncle. It's the china cabinet of the flyover nation. It wasn't locked because my cousins

and I were raised to respect life and private property, and we were taught that there was no undoing a pulled trigger. There was a real deterrent for bad or disrespectful behavior in my family for even the most minor examples of disobedience. We never thought about crossing an empty country road without looking both ways. Flash forward to present.

I'm often asked how I raise two boys alongside firearms in my home. We're always glad to offer instruction or give answers when asked. It's simple: Don't raise idiots. When your kid is old enough to understand that touching a hot stove will burn them and running into the road might get them squished, they are old enough to learn how not to handle firearms without supervised instruction or until they are deemed mature.

My husband and I started by making our kids practice good gun manners on their play guns. Children learn through play, and we were not about to have our kids running around the house tea-cupping play pistols and showcasing bad trigger discipline. (Look legit at least, for crying out loud.) As our boys grew, we started them out slow. My oldest began when he was 9 years old with BB and pellet guns; he graduated to a .22 and onward. A year ago, he impressed Ted Nugent on his SpiritWild Ranch by pinging targets with an AR-15 from 25 yards. A couple of weeks ago while testing product in Waxahachie, Texas, my oldest operated a select-fire rifle. It was his third time, and I was proud to see him properly bear down and control the

muzzle. He has excellent hand-eye coordination. Barely a teenager, he has his own .22 and AR-15 and can load, reload, clean and service them himself. To add, he began practicing with pistols a couple of years ago. He's basically Carl Grimes from "The Walking Dead."

My youngest practiced with his BB and pellet guns and worked

his way up to a .22, while still attempting to master his groupings. Both of my boys are reflexive when it comes to gun safety. They know they are to be around their grandfather, their father or myself and practice proper

range protocol. Thankfully we have great programs like the NRA's Eddie Eagle and NSSF's Project Child-Safe to supplement what they are taught at

what they are taught at home.
In terms of storage, I'm always armed. My firearm is securely kept on my person unless I'm in the shower or in bed. I don't give out storage information just like I don't give out my home's security code, but we do enjoy

several options. We use nightstand safes for pistols; larger safes and other forms of storage hold the rest of our arsenal. What we don't do is leave firearms about the house. My kids know better than to impress any visiting friends by showing them a gun. Their curiosity has been fed by experience and education, the antidote to ignorance. Most importantly, just as I was, our boys have been raised with an unwavering respect for innocent life, private property and the knowledge that you don't point your gun at anything you're not ready to shoot. Their friends are good kids, but I never risk trusting that all of their friends have been similarly educated on the matter. Therefore, our firearms are secured whenever other people's kids are running through our house. Unloaded firearms behind lock and key are useless, but raising children without compassion or a respect for life is dangerous.



RESPECT IT. SECURE IT.®

ProjectChildSafe.org

Brought to you by the Firearms Industry



SERIOUS USERS DEMAND SERIOUS TOOLS.

Welcome to the Legion. Bound together by the greatest demands and the highest expectations. Our most popular platforms with the most requested enhancements. Purpose built. Performance tested. Only for the elite few.

LEGIONSERIES.COM

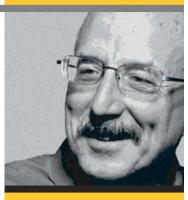




f 🕨 🧭 #JoinSigLegion

HANDGUNNING APRIL 2016 G&A 23

Grip adapters in the 21st century.



PATRICK SWEENEY

DOES ONE SIZE FIT ALL?

FOR THE LAST FEW YEARS user-replaceable grip adapters have become commonplace with polymer-framed pistols. Let me remind you, this is not the first time a pistol's grip shape has been altered by the maker. Back in 1926, the U.S. Army changed the M1911 to the M1911A1, and

the shape of the mainspring housing was part of that upgrade. Among other changes, the mainspring housing went from flat to arched. Why? Back then, soldiers and Marines were trained to shoot a handgun with one hand. The arched mainspring housing was intended to make the pistol point better, more naturally. This improved the qualifiction scores and overall hit ratios. (I'll forego discussion on the changes Bullseye and Olympic shooters made to grips to make them fit uniquely better.)

In the early days of IPSC, we fussed endlessly over

all the details that might matter, and the 1911 mainspring housing was one of them. We also agonized over details that ended up having no influence on performance. Back then, I tried all the mainspring housing variants I could think of: flat, arched, flattened arch, raised flat, wedge and reversed arch. Some of the other competitors went even further, welding or soldering extra pieces of steel to alter the contour. What I found was simple: It didn't make much difference. I could shoot a 1911 quickly and accurately regardless of which mainspring housing I had on a pistol.

The real variable for me was how much I practiced.

One modification that did make a difference was the thickness of the grips. Grip panels that were too thick, or too round, made the 1911 less "indexable" for me. The flatness of the grips provided the alignment my hands needed, at



warp speed, to be on-target. The flatter the grips, the more my 1911 muzzle consistently pointed. Grips that were too fat left me with an inconsistent index, and I lost time getting the sights centered. Curiously, that wasn't a problem with revolvers. I tried grips on my wheelquns that were more

1911-shaped, and my times and scores were unaffected.

Trending today, the polymer-framed pistol industry offers replacement backstraps and palm swell sections, giving us the option of altering the size, and even contour, of our pistols. Usually, we can change them with no, or minimal, tools and quickly enough that you can do real-time comparisons using drills to test performance results. I still remember my first experience with polymer grips that were more-than-minimal changes when swapped. I tried each size for fit and feel and dis-

covered that the smallest one felt the best by a noticeable margin. It felt so natural I considered going without test-firing the others. I did my due diligence and ran drills with all the sizes, fully expecting to find the smallest one would produce the best scores. What I found was eye opening: My times and scores were the same! It didn't matter which grip adapter size I installed.

I was puzzled. The smallest one was noticeably more comfortable in my hands, but the targets and timer didn't care. I even tried shooting the pistol with no inserts at all,

just the bare frame. While unpleasant, there was still no quantifiable difference in my times or scores. I narrowed the phenomenon down to my subconscious mind. I've been shooting a variety of pistols for a very long time, like it's my job. (See what I did there?) My brain simply adapted to differing grip angles and

COOPER ON HANDGUNS

"Fitted grips aid in quick, uniform holding, an essential to correct pointer fire."

— Jeff Cooper, 1958







Above left: Glock Gen4 backstraps and beavertails offer variety to a proven design.

Above right: The new Ruger American Pistol is shown with its supplied single-piece palm swell and backstrap units. Only a torx wrench key (supplied) is needed to interchange them.

Left: The Heckler & Koch P30 and VP9/ VP40 series offers users the largest number configurations available.

or stick a 2½-inch circle on it and get your shot timer ready. At 7 yards, starting from the low ready, come up properly and put a shot on the circle. Note your time. Do this for a few magazines, until you have a feel for things and a good group going. You're not looking for blinding speed but control and hits. Tape over any errant shots and replace the circle. Now, do doubles. You are attempting what is called a controlled pair. Not "warp-speed poke the pistol at the target and slap the trigger twice." No, you aim as quickly as possible,

get a hit, control recoil, aim and get another hit.

This isn't complicated, but doing it right takes focus and will pay dividends. Pay attention to where the front sight goes in recoil, what you have to do to haul it back into the circle and how long all that takes. Write the times down.

Next, swap whatever grip inserts you have installed on the frame. If you have been shooting with the smallest, try the largest. You want as much of a change as possible. Run a magazine or two through the pistol on this same drill, then tape up and start timing again. If the times increase, you have the wrong size on. If they are the same, or marginally faster, you might find the new size is more appropriate, or it might just be because you've had more practice. Keep all this data, and the next time you go to the range do it again, but reverse the order you test grip sizes.

If you're like many shooters, you'll find that while the differences in your times can be measured, the relative differences are quite small. In that case, your choice is simple: What is comfortable for you? If there's a marginal difference in performance, go with comfort, and in time, your performance will increase and the difference won't matter. For a very few, the difference will be marked, and then you should go with the one that gives you the best times and hits.

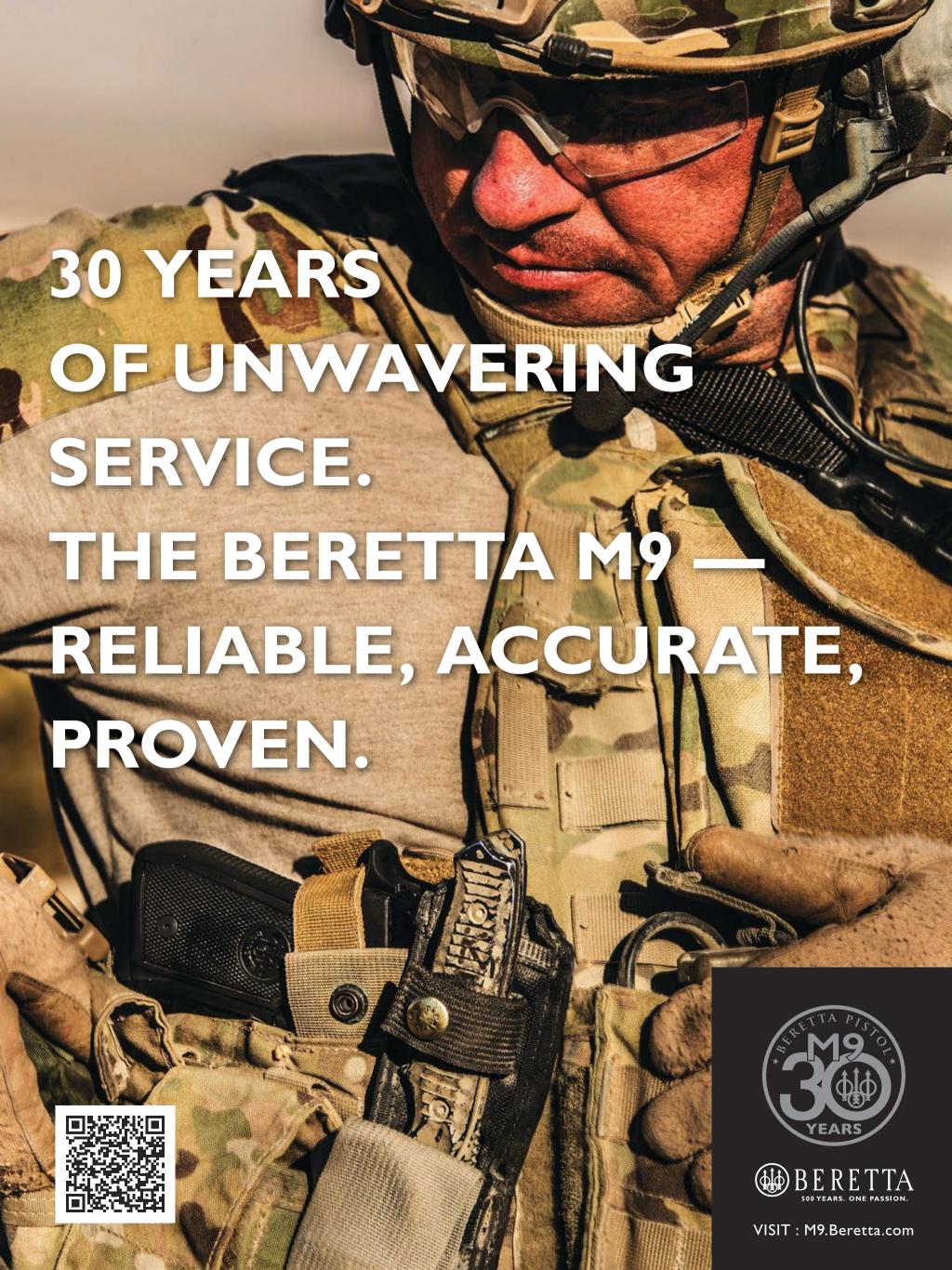
grip widths, naturally aligning the sights of the pistol I happened to be holding at the time. My brain cycled through a Rolodex of experience, so to say, and then it adapted.

What does this mean to a newer shooter? And why care if a pistol has grip panels of different sizes? Simple: The grip shapes can (and probably do) make a difference. Regardless of how much you think you prefer a particular size or shape, you should try the others and see if there is an actual difference in performance. Only drills on the range — with a timer — and scoring your hits, will tell you for sure.

My hands are extra-large but slender. Even large grip panels are manageable for me, but we are all different. Most new shooters have yet to put in the hundreds of hours of practice needed to build stable reflex responses, so it might not matter which grip-panel shape is installed.

How do you find out? Get to the range on a regular basis. Instead of simply plinking or hosing down a B-27, lay your hands on some stiff cardboard as a backer. Draw





THE CARRY RIG



Distinguished by its single belt clip, the Freedom Carry holster can be worn in many positions including appendix (AIWB), cross draw and strong side at 3 to 5 o'clock. Prices start at \$64.50

CROSSBREED FREEDOM CARRY

THOSE OF US who have collected a box of holsters often end up wearing a CrossBreed design. Everyone from John Q. Public to the undercover police officer to many of those working in the intelligence community rely on CrossBreed holsters since passionate shooter Mark Craighead established the company in 2005.

By the end of 2007, CrossBreed was selling hybrid models constructed of both leather and Kydex. The offerings make for a short list when compared to other popular brands, but CrossBreed's inside-the-waistband (IWB), outside-the-waistband (OWB), ankle carry and pocket holsters have stood the test of time and are proving to be some of the most comfortable and functional holsters ever created.

Each holster wears the intials of the company's namesake and logo that references the crucifiction of Jesus Christ. Asked about the name often, Craighead was never ashamed to discuss its meaning and how he and his family applied Christian principles to company operations. After touching many lives, Craighead passed away on Aug. 24, 2012, at the young age of 43. The Craighead family continues his vision while promoting shooting, daily carry and the development of high-quality concealment rigs.



CrossBreed's Gun Belt is one of the best belt designs available. It starts out rigid and takes about a week to conform to one's waist. The roller buckle is a nice touch. \$59.50





The Freedom Carry holster line is CrossBreed's most versatile model. It can be ordered with either a crossembossed spring-steel locking belt clip, optional J-Hook or deep-concealment V-Clip. All three clip-types afford adjustment of this holster for cant. It can be worn in several IWB positions including appendix — an option not common to most IWB holsters on the market — cross draw and strong side placed anywhere between 3- and 5 o'clock.

This holster is slim and as flexible as it can be. The leather side of this hybrid is just .13-inch thick with a molded Kydex sheet that's no thicker than .07 inch. On the scale, the combination of materials and single-clip assemblage weighs less than 1/4 pound.

The leather can be ordered in a hand-dyed black color configuration, a natural-color premium cowhide for a \$5 upcharge, or natural horsehide for an extra \$10 (when available). Horsehide is revered by many, though not as readily available as cowhide. Wearing them both in different configurations for years, I am of the opinion that cowhide is just as good as horsehide for the purpose of carrying a gun. I can't justify recommending that you spend the extra money. These days the quality of leather has as much to do with the method of tanning and from what segment of the animal hide the leather was sourced.

The Freedom Carry model can be ordered for more than 300 different firearms including some set up with lights, lasers or the trending addition of micro red dot sights atop the slide.

60-Day Carry For this evaluation, the Freedom Carry was ordered in natural-colored cowhide with a single V-clip and a sheath molded for the new Springfield Armory 1911 Lightweight Champion Range Officer chambered for .45 ACP.

Additionally, CrossBreed's 1½-inch-wide Gun Belt with natural tan liner cleanly stitched to its black outer strip and complete with nickel buckle made for an understated yet classy design. The buckle features a unique roller that assisted in overcoming the rigid nature of the thick leather

The CrossBreed IWB singlemagazine carrier used during this evaluation presents less bulk to hide than the dual-mag option. It's also tuckable under a shirt. \$45.50



when putting it on. At \$60, this belt is worth owning on its own or wearing with other holsters.

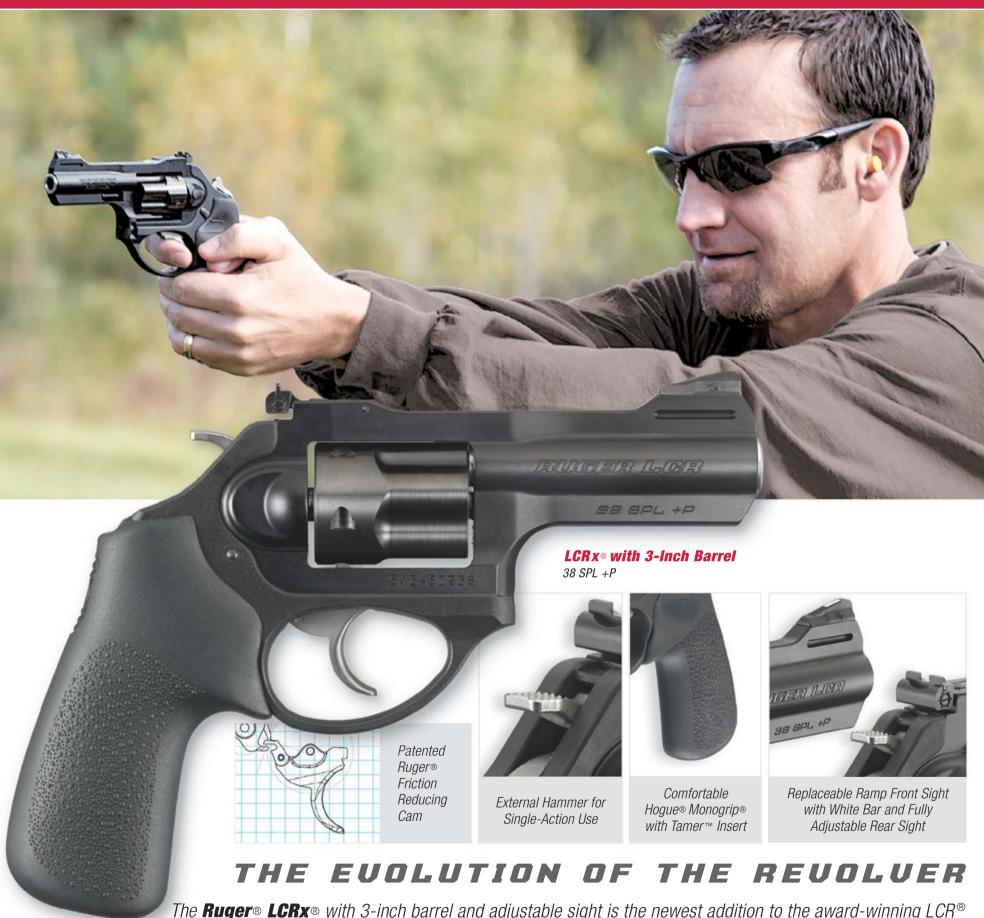
To go along with the IWB configuration of the holster, I also ordered a single IWB magazine carrier. Like the holster, this mag carrier was a hybrid design only differing in its standard cross-embossed metal belt clip. It, too, allows for adjusting cant and ride height.

On arrival, the carry rig was rigid in every respect. It took 6 to 7 days before I began to notice each component begin to take on a permanent shape to my body. You'll note that the large top flap more than covers the back of the pistol's beavertail as well as the magazine floorplate for complete comfort against skin. The holster tested has the optional combat cut to allow the user to obtain a complete high grip while the pistol is holstered, which improves the likelihood for a clean drawstroke. As the rig shapes to our body, the leather material above the pistol and the magazine protects us from sharp edges and acts like a natural level of retention requiring us to overcome this resistance.

As with other hybrid designs, the leather inside the Kydex housing that comes in contact with the pistol is eventually scraped and shaped to the support side of the gun. After 60 days, I noticed holsterwear developing on the slide towards the muzzle and at the front of the

THERUGER LEGY.

WITH 3-INCH BARREL AND ADJUSTABLE SIGHT



The **Ruger**® **LCRx**® with 3-inch barrel and adjustable sight is the newest addition to the award-winning LCR® Family. Chambered in .38 Special +P, the 3-inch barrel, adjustable rear sight and modest weight make this a great all-around revolver – perfect for backpacking, concealed carry, home defense or just plinking!

Join Ruger and help us raise \$4,000,000 for the NRA.

RUGER.COM/2MILLION



© 2016 Sturm, Ruger & Co., Inc.

CrossBreed	Freedom Carry (Right)
Materials	Tan or black-dyed cowhide leather / Horsehide natural leather (tested)
Carry Type	IWB
Retention Type	Level 1, friction
Adjustability	Cant
MSRP	\$69.50 (as tested)
Handgun Fit	Springfield Armory 1911 Lightweight Champion RO (tested)
Accessory Rail Accommodations	None (optional)
Positions to Carry	Appendix, cross draw and strong side between 3 and 5 o'clock
Average Time to Attach	18 seconds
Comfort Rating	4/5
Concealment Clothing	Untucked, loose-fit shirt or jacket
Average Draw-to-Fire Time	1.63 seconds

Draw-to-fire time is the average of five clean draws from under a concealed garment producing an A-zone hit on a stationary target positioned at 21 feet.

Manufacturer CrossBreed Holsters, 888-732-5011, crossbreedholsters.com

triggerguard where it stops inside the Kydex. There is a little play above the front sight that acts like a funnel to ease reholstering. When being worn and cinched by a belt, this movement disappears.

Being that we can establish a full grip and confidently draw our pistol from under a concealing garment, the Freedom Carry design allows for as fast of a draw as you and I can manage. I wore it at 4 o'clock and loved it. —Eric R. Poole

During this evaluation, G&A's managing editor Chris Mudgett opted to wear CrossBreed's flagship: the top-selling SuperTuck Deluxe IWB holster, which features two belt clips. Go to gunsandammo.com to read what it was like to conceal the new SIG Sauer P320 Carry model for 60 days.







SAVAGE DELIVERS THE SELECTION, ACCURACY AND THE POWER TO GET IN THE CLUB.

power to reach out to 1,000+ yards... and yes, even a mile.

Want to hit a target from a mile away? Here are four great options from Savage to make it happen. Available in tactical, hunting and target configurations, you're sure to find your match. Each rifle delivers our legendary out-of-the-box accuracy at extreme range, thanks to our hand-straightened button rifled barrels; zero-tolerance headspace control and crisp, adjustable AccuTrigger. Utilizing the 338 Lapua Magnum, the most popular ultra-long-range cartridge of Snipers and target shooters alike, you have the



SAVAGEARMS.COM



IN THE RIGHT HANDS!

After a lull of almost 25 years, the iconic Galil® rifle form Israel Weapon Industries returns to the U.S. in the form of the modernized Galil ACE®.

Offered in pistol, pistol with Stabilizing Brace and rifle configurations, this legendary battle proven platform will first be available in 7.62x39mm, then 7.62 NATO (.308 Win) and finally in 5.56 NATO.

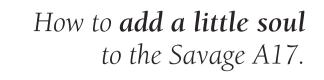
Own a firearm with a proven pedigree.

Innovate. Optimize. Perform.



IWIUS, Inc. | info@iwi.us | www.iwi.us

GUN TECH APRIL 2016 G&A 33





CHRIS MUDGETT
GAEDITOR@
OUTDOORSG.COM

The Savage Arms A17 is a tremendous value and great performer. Switching out the polymer factory stock for a hardwood or laminate gunstock from Boyds makes it even better. \$129

BOYDS LAMINATED SAVAGE A17 STOCK

HERE AT GUNS & AMMO, we think highly of Savage Arms' new A17 smallbore in .17 HMR. Our staff of editors and writers spent significant time with this affordable plinker, ultimately declaring it to be the 2015 Guns & Ammo Rifle of the Year in the December 2015 issue.

The A17s evaluated last year all featured Savage's standard black synthetic stock. It worked great for a rimfire designed to be hauled through any type of environment, ranging from dusty brush to a moist field. That black factory stock is certainly lightweight and it doesn't pull on our heart strings to see nicks and scratches abrade the polymer. What it was missing, however, was soul.

It's hard to develop affection for a gun that wears black molded plastic. Such guns are often regarded as tools, lacking the personality, comfort and distinction of wood.

This is a rifle I plan on taking out hunting squirrels and teaching my son with. These types of memorable experiences make one fond of a particular gun, but with its black stock, I don't think I could bring myself to cherish it as much as it deserves. That sentiment changed late one

night when an Internet search led me to Boyds Gunstocks (boydsgunstocks.com). Remembering that I had seen their advertisments for years in the pages of Guns & Ammo, I lost hours perusing their many shapes, finishes and colors until I discovered that they already had a stock available for the new A17.

Boyds Gunstocks is a leading manufacturer of firearm stocks, providing commercial and its OEM customers with more than 100,000 different ideas. (On the slim chance one of their products doesn't check each box on your features list, they can build a custom stock to your specs.) Boyds' stocks are shaped from laminate or American Walnut, machine cut to the desired profile and hand finished in virtually any color combination you can conjure for roughly \$130. I picked the Prairie Hunter in Forest Camo for its fir tree-colored good looks and classic ergonomics. Installation was a snap.

My A17 will always carry a scope, so I like that the Monte Carlo comb aids in correct cheek alignment and consistent head placement behind the optic. The design also discourages my kids from climbing onto the scope. For these reasons, I can't recommend it enough.







PERSONAL HOME DEFENSE

WORDS BY PATRICK SWEENEY | PHOTOS BY SEAN UTLEY

THE **DOUBLESTAR PhD 1911** IS INSURANCE YOU CAN AFFORD.



WHEN THE SUBJECT OF 1911s ARISES, DoubleStar does not necessarily come to mind. Going forward, I feel they should. They have been making 1911s for almost 15 years now, and the fully-forged "C" series are good examples of a high-end 1911. In a world where incomes have not progressed nearly as much as the powers-that-be assert they have, a 1911 that starts at \$2,500 is a tough sell. Aware of this, DoubleStar decided to see how much they could ease the cost of their pistols, while still offering the features that every self-respecting 1911 owner requires. The end result is the DoubleStar PhD.

As collegiate or philosophical as those letters may sound, in this case the acronym stands for "Personal Home Defense." Base model 1911 came to my mind, and I can live with that. Then I started noticing the details in the build sheet. As a 1911 aficionado, one of the first things I check is the fit of the slide to the frame. It took a moment to realize that I felt no movement. That's right, no wobble. If I really grip the slide and see how hard I can torque it, I can feel a slight hint of movement, but that's it. This gun is tight.

DoubleStar uses a cast frame for its PhD. Casting has had a bad rep for a long time, usually because of a poor choice of price-cutting details. I spoke with Chris Hatton, the head 1911 pistolsmith at DoubleStar about that.

"We get the casting in as an 80-percent part," he said, "and then [we] machine all the critical dimensions." The mag catch, rails, feedramp, safety, hammer and sear holes, and the grip safety radius get machined and worked over in-house. The slides arrive as forgings — both the slide and frame are 4140 alloy steel — and are then machined by DoubleStar. Final hand-fitting is accomplished before any other parts are installed. Once fitted, the slide and frame remain paired throughout the remainder of the assembly process.

Thanks to the focus on delivering a semi-custom gun at production prices, the slide receives some interesting features. The top has a flat milled on it with three grooves stretching the length of the slide. Perched on top are a set of Big Dot XS Sights. Hatton explained, "We wanted sights that were more in keeping with

The front sight features a tritium insert surrounded by a large, attention-grabbing dot.









Upper left: Rear serrations are cut wide and deep, almost sticking to the shooter's support hand.

Lower left: The nose of the slide features "Hi-Power"cuts instead of trendy forward slide serrations.

a home defense pistol. [They had to be] large, fast and easy to acquire, even in reduced light."

The XS Sight systems are the same as the express sights often found on dangerous game rifles. The front sight is a big, roundtopped blade, with a tritium element, ringed by a big white donut. The rear is a shallow "V" with a white line coming up to the bottom center of the V. The process is simple: Put the dot in the V on the target and get to work. For ease of installation, the front and

rear are standard Novak-dimension slots.

The nose of the slide features what are referred to as "Hi-Power" cuts. Instead of the trendy front serrations, the single ledge of the venerable Browning Hi-Power provides a gripping surface that does not shred holsters. The front angle matches that of the rear cocking serrations and pulls your hand down away from the muzzle when doing a press-check.

As we'd expect from a modern 1911, the ejection port on the PhD is lowered and flared, and the ejector is extended. Empties are briskly removed and tossed aside.

The barrel is from StormLake. I consider these barrels one of the insider secrets of the 1911 industry. They make very good barrels, and DoubleStar has properly fitted them. It is possible to

perform heinous trickery in "fitting" a 1911, trickery that makes it appear that the slide-to-frame fit is tight. A timing check usually reveals them. But no trickery here. DoubleStar does it right. They also mate the barrel with a National Match-heft bushing of its own manufacture. Bushings are an easy way to go cheap on less-robust 1911 builds, but again DoubleStar makes their own, and it is a solid example.

The internals are also up to par; DoubleStar was not interested in re-inventing the wheel. They do not use MIM parts; the hammer, sear and disconnector are tool steel. While those arrive at DoubleStar from Cylinder & Slide, the grip safety is a Wilson Combat High Ride, complete with a speed bump at the bottom to ensure we get the grip safety fully depressed.

The trigger has an aluminum bow with three lightening holes in it, the thumb safety and slide atop are low profile enough not be in the way but large enough to be used. The slide stop — like the hammer, sear and disconnector — also come from Cylinder & Slide, while the single-side extended thumb safety is a part from Ed Brown.

In all, DoubleStar has done an excellent job of crafting parts



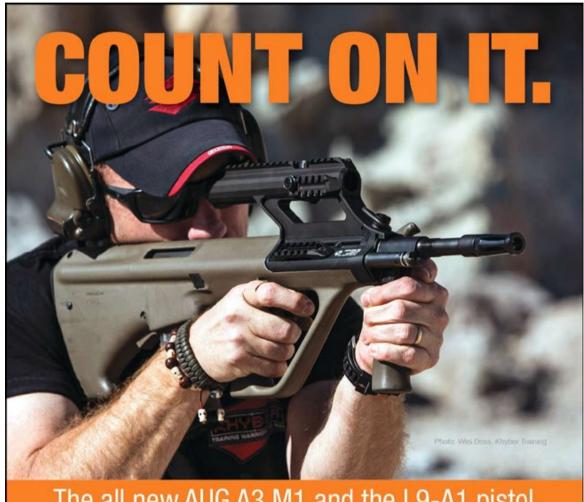
in-house, while sourcing critical parts from known entities. As an example, machining a slide in a multi-axis CNC center is relatively easy. Machining a sear is not.

Averaging just over 4½ pounds, the trigger pull is clean and crisp and, in my opinion, an ideal weight for a defensive pistol. Before the cries of outrage that it should be a pound lighter, keep this in mind: The top shooters, the ones who use much lighter trigger pulls in matches, started with a trigger this heavy. And "heavy" is a relative term.

I didn't look inside the PhD until after I had done all my chrono, accuracy and plate-rack work, so I was surprised to find that the PhD has a Series 80-type firing pin safety. When that design was new, we all complained. It has been a long time since then, and 'smiths have worked the bugs out of the system. In all the testing, it never crossed my mind that it was anything other than a traditional trigger system.

The frame of the PhD has a lifted frontstrap, but no checkering, grooves or other add-ons. DoubleStar considered that checkering costs additional time and money, and shooters can't agree what's best. If you want frontstrap treatment, here is a clean slate.

The mainspring housing is a bit different. There are three groves in it and it is machined flat to match the frame, while



The all new AUG A3 M1 and the L9-A1 pistol, the perfect combination for sports shooters and law enforcement professionals, alike.



AUG A3 M1 Rifle

The new multi-configurable AUG A3 M1 variant of the Steyr's venerable bullpup platform marks the introduction of MUD and the return of OD Green to its stock color options and adds new features like a front Quick-Disconnect Sling Swivel to classic characteristics like the quick-detach 16-inch barrel and battle-proven short-stroke gas-piston operation. It is available in Short-Rail, High-Rail and Integrated Optic versions with either a 1.5X or 3X scope. At 28.15 inches, Y SBR?

For more information visit www.steyrarms.com

Phone: [205] 417.8644



L-A1 Pistol

Featuring a full-length slide, 4.5-inch cold-hammer-forged barrel and 17-round magazine capacity for its 9x19mm Luger chambering and 12 rounds for .40 S&W, the new L-A1 service pistol was designed for the serious shooter to serve the dual role of a duty and sporting handgun. With its comfortable ergonomics, a remarkably low bore axis, a crisp short-reset trigger, extreme reliability and amazing accuracy, the L-A1 is the perfect partner on the range and off.





The frontstrap of the PhD leaves the factory as a blank canvas. The triggerguard undercut is a welcome treatment.



The PhD comes sans magazine funnel. However, the magwell is nicely beveled, guiding the magazine home.



The mainspring housing is machined flat to match the frame, while the corner is rounded to help reduce printing.

Performance Center by Smith&Wesson®

PERFORMANCE WHEN IT MATTERS MOST

PERFORMANCE CENTER® PORTED M&P® SHIELD™

- HI-VIZ® FIBER OPTIC SIGHTS FOR FAST TARGET ACQUISITION
- LIGHTENING CUTS ON THE SLIDE TO REDUCE MASS
- PORTED BARREL TO REDUCE FELT RECOIL & MUZZLE FLIP
- PERFORMANCE CENTER ENHANCED TRIGGER FOR SMOOTH TRIGGER PULL

40 S&W



the bottom corner is rounded. That corner is always problematic, requiring a certain amount of handwork to properly fit. If left angled, it makes carrying concealed more difficult. By gently radiusing the corner, both of those problems are solved at little cost.

The magwell opening is gently beveled, but does not have a magazine funnel. The mag well needs to at least be de-horned, if only to keep customers from bleeding on their pistol. Since DoubleStar is dehorning it, they might as well (and do) put a small bevel on the edge, and since the choice of the "best" magazine funnel is subjective, DoubleStar saved you more money.

PERFORMANCE

LOAD	VELOCITY (FPS)	ES	SD	BEST GROUP (IN.)	AVERAGE GROUP (IN.)
HPR 230-gr. JHP	782	62	26	1.35	2.32
Hornady CD 185-gr. FTX	949	49	25	1.65	2.43
Winchester Train 230-gr. FMJ	767	52	9	1.65	2.47
Hornady XTP +P 230 gr.	911	31	12	1.75	2.21
ASYM Match 230-gr. FMJ	696	52	20	1.8	2.42
Federal HST 230-gr. JHP	832	55	25	1.85	2.55
SIG Sauer V-Crown 230-gr. JHP	811	27	10	1.95	2.97
Federal Am. Eagle 230-gr. FMJ	824	51	19	2.1	2.6
Hornady Flexlock +P 220 gr.	962	67	29	2.2	2.46
Federal Guard Dog 165-gr. EFMJ	1,078	23	9	2.35	2.6
Remington 230-gr. HTP	797	21	10	2.4	2.93

Notes: Accuracy results are averages of five, five-shot groups at 25 yards using a Champion shooting rest. Velocities are averages of 10 shots measured on a Labradar chronograph set to record at 15 feet from the muzzle. "CD" is "Critical Defense."

The grips are from AR accessory powerhouse Magpul, who may not be your first choice in 1911 grips, but they are low-cost (\$20 at retail) and get the job done well. DoubleStar has yet again saved us coin.

I was surprised by one detail of the assembly process. While talking with Hatton, he informed me that once the frame and slide are mated, they remained in the white during the assembly process, and were testfired in the white before being sent out to be Parkerized. I grabbed the PhD out of its hard case to give it



another look. What I had thought, in the gloomy winter light, to be a brushed blue finish was actually a fine-matte Parkerized finish dyed black after the treatment. Wow, more money saved and you get a good-looking, durable finish.

The PhD comes in a hard case with two eight-round, blued magazines from Act-Mag, and a trigger lock.

While at the range, it didn't take long to determine that the PhD was going to feed everything I had to give it and the barrel was right in the middle of the velocity range. We like to think that a 5-inch Government Model will deliver a certain velocity but they all don't. As with any manufactured product, some

will be fast, and some will be slow. This one was right in the middle. I had no problems whacking whatever was on the 100-yard berm as my aiming point while I did the chronograph preliminaries.

Early on, the PhD had one abnormal partial failure to feed. The round stalled on the feed ramp, and then, as I stood there looking at it, closed up and completed the feed cycle. It didn't hesitate for the rest of the day.

I have always struggled with Big Dot XS Sights. It was with a certain amount of reluctance that I started the accuracy work. The Big Dot is bigger than my aiming point at 25 yards, so I had to make some slight adjustments. I held the dot up on top of the vertical line of the rear sight, and then held the dot on the target so I could just see a rim of white on top of the dot. While fast, the Big Dot has less feedback on lateral alignment in your aiming and on the height of the dot over the line. As evidenced by the smallest groups shot, the PhD really wants to shoot. Also evidenced by the largest groups, the emphasis on speed takes its toll when trying to shoot small groups. The performance chart is clear: With a Big Dot sight, I hit my group-size limit at just under 21/2 inches on average. The PhD is capable of much better. At 25 yards, the groups were small enough to have been contained within a circle of half the diameter of the "zero down" ring of an IDPA target. Being grumpy about a pistol that is wicked-fast, and "only" shooting groups that aren't Bullseye-good, is clearly missing the point.

And just so I would not miss the point, I went off to the rack range to have some fun. That's where the Big Dot XS Sight shines. At 10 yards on falling plates, it was like I was shooting a laser beam. Is the dot on the plate? Then trip the trigger and get to the next one, because that plate is toast. The rest of the ammo disappeared at an amazing pace.

The price? Given Colts, Kimbers, SIGs and Springfields all tend to average \$1,200 to \$1,700 for a 1911 with these features, the PhD is a stunningly reasonable \$1,375. You'll probably find it in the gun shop counter for well under \$1,300. My first custom 1911 — adjusted for inflation — cost me a lot more than that. It didn't perform nearly as well as the PhD does. If you want a basic 1911 that punches above its weight, here you go. If you want a base gun with a solid build to start your own custom project, this should be high on the list. If you want a 1911 for personal and/or home defense, your search has ended.





TURBO CHARGED!



ROCK ISLAND ARMORY'S 22 TCM 9R CONVERSION KIT FOR YOUR GLOCK.

WORDS BY RICHARD NANCE | PHOTOS BY ALFREDO RICO

A FEW YEARS AGO, Rock Island Armory turned heads and dropped jaws with the introduction of its wicked-fast .22 TCM cartridge. The .22 TCM takes its name from the two men responsible for its development, Armscor and Rock Island Armory CEO Martin Tuason and gun-maker Fred Craig (i.e., .22 Tuason Craig Micromagnum). Weighing just 40 grains, this strange-looking, dramatically bottle-necked down 5.56x45mm cartridge achieves velocities upwards of 2,000 feet per second (fps) when fired from the company's 5-inch-barreled 1911 pistols.

Not only does the .22 TCM travel at breakneck speed, it does so with shockingly little recoil despite an extremely loud report and a flamethrower-like muzzle flash. Its unique attributes garnered the .22 TCM cartridge considerable fanfare since its inception.

I shot the .22 TCM at various events and while filming segments for Sportsman Channel's "Handguns & Defensive Weapons," and I observed the .22 TCM as both reliable and accurate. Notwithstanding functionality, the .22 TCM was just fun. What sounds like a cannon being fired felt more like shooting a pellet gun. Of course, the .22 TCM could only be fired from specifically chambered rifles and 1911-style pistols — until now.

A .22 TCM chambered Glock? Rock Island Armory (RIA) has introduced the .22 TCM 9R, a re-engineered version of the



as many 9mm

loads.

original .22 TCM cartridge that's abbreviated to fill 9mm pistol magazines. It is being offered for RIA's new conversion kit for Glock pistols. Actually there are two kits — one for Glock 19/23/32 compact frames and one for the Glock 17/22/31 full-size frames. (Gen4 and other models are also in the works.) This kit will transform our respective Gen1, Gen2 or Gen3 Glocks into a supercharged, flat-shooting pistol that will ping steel at 100 yards.

"While theoretically a slide swap completes the conversion to the re-engineered .22 TCM 9R, it's best to have a gunsmith perform the procedure

to ensure optimal performance," Tuason recommended.

Why the .22 TCM 9R? The original .22 TCM round is too long to fit into the chamber of a Glock pistol as it was originally intended as a rifle round. The latter was designed as a pistol round using the 9x19mm cartridge as the parent case. "Although we could fire the .22 TCM 9R through a .22 TCM-chambered rifle or pistol, the gun may need fine-tuning and accuracy would likely suffer," Tuason added.

So, what's the "9R" designation stand for? "The 9R stands for 9mm Revolution because this round will revolutionize 9mm pistols," Tuason said. That's a bold statement, but there's no denying the .22 TCM 9R is radically different.

For starters, the overall weight of the .22 TCM 9R cartridge is about 25 percent less than that of the 115-grain Hornady Critical

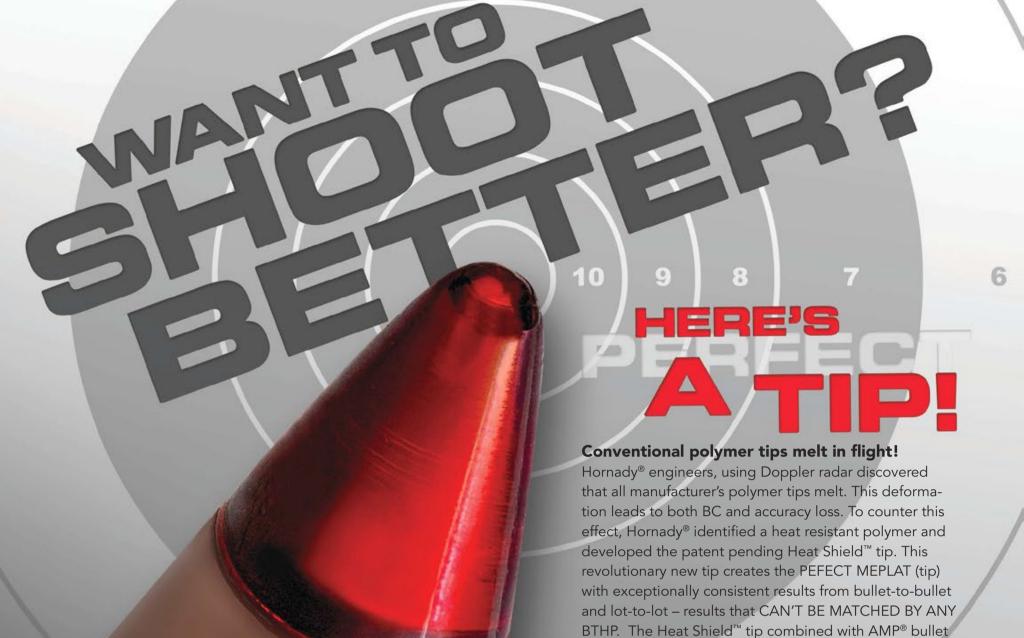
Defense round for 9mm pistols. That may not seem like much, but when compared to a Glock 17 loaded with 18 rounds, the difference in bullet weight adds up. The .22 TCM 9R bullet weighs about one-third of a 115-grain projectile. Of course, the weight savings is even greater when compared to a 147-grain 9mm bullet.

With a lighter round comes increased velocity. In the case of the .22 TCM 9R, the effect is dramatic. At speeds approaching 1,900 fps, the .22 TCM 9R travels almost twice as fast as many 9mm loads.

In fact, the .22 TCM 9R may be of sufficient velocity to produce "hydrostatic shock," which occurs when a projectile penetrates human tissue with such velocity that body fluid is propelled away from the entrance wound, possibly resulting in peripheral damage to other body parts.

While the terminal ballistic benefit of having a lighter and faster bullet versus a heavier, slower bullet is debatable, there is something to be said for a pistol capable of firing bullets at rifle velocities. This may explain the interest in the FN 5.7x28mm cartridge, to which the .22 TCM is often compared.

When it comes to terminal ballistics, the construction of the bullet is critical. The .22 TCM 9R features a hollowpoint (HP) bullet, designed for maximum expansion, as opposed to a fullmetal-jacket (FMJ) bullet, which is more apt to produce a less critical, through-and-through type wound. With a round traveling as fast as the .22 TCM 9R, the bullet mushrooming upon impact



ELD"MATCH

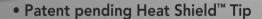
EXTREMELY LOW DRAG MATCH BULLETS

THE PERFECT TIP

The new Heat Shield™ tip creates the perfect meplat and outperforms BTHP bullets.

Available as component bullets or in factory-loaded Match™ ammunition.

For the full story on the Heat Shield™ tip and ELD™ Match bullet, go to hornady.com/heat-shield



on the market today – **ELD™ Match.**

- Highest-in-class BCs (over entire trajectory)
- Accurate, Doppler radar verified BCs (corrected back to standard atmosphere)

jacket technology, streamlined secant ogive and optimum boattail design creates the most consistent match bullet

- Highest degrees of accuracy and consistency (bullet-to-bullet/lot-to-lot)
- Streamlined secant ogive and optimum boattail design
- AMP® Bullet Jackets



Hormady

800.338.3220 | HORNADY.COM



is important for its effect on target and to mitigate overpenetration. In short, we understand how the .22 TCM 9R cartridge has been designed for self-defense.

Armscor is the exclusive manufacturer of .22 TCM 9R ammo, which is RIA's parent company. The MSRP for a box of 50 rounds is \$25. The "street price" is between \$20 and \$22.

The Conversion Guns & Ammo adapted the Rock Island Armory conversion kit to a Gen3 Glock 17. The .22 TCM 9R slide is immediately distinguishable from a factory Glock slide thanks to relief cuts atop at

both front and rear. The cuts aren't merely cosmetic. They reduce the weight of the slide by 12 ounces, which along with the lighter 12-pound recoil spring helps the pistol reliably cycle the lightweight .22 TCM 9R rounds. (By comparison, the Glock-factory recoil spring is 17 pounds.) The lighter recoil spring also makes the slide easier to manually cycle. Therefore, the .22 TCM 9R chambered in a Glock makes it ideal for a shooter who, due to reduced hand strength, may have difficulty racking a standard 9mm pistol slide.

The RIA logo on the left side of the slide and the .22 TCM marking on the barrel further differentiate the .22 TCM 9R conversion from a stock Glock. The "blacked out" notch and post style sights aren't fancy, but they are a definite improvement over the plastic Glock-factory sights. Cocking serrations on the rear of the slide are angled slightly forward rather than the vertical orientation we've come to know on traditional Glock slides.

Trigger Time For accuracy testing, I fired from a metal bench



using a sandbag rest at a distance of 25 yards. The average of five, five-shot groups was just over 3½-inches, mimicking the level of accuracy we would expect from a box-stock Glock 17. The groups were all similar in size, which speaks to the consistency of this conversion kit and the inherent accuracy potential of the .22 TCM 9R cartridge. However, since mere accuracy testing doesn't paint a complete picture of a pistol intended for personal defense, I shortened the distance and picked up the pace.

At distances ranging from 7 to 15 yards, I put about 150 rounds through the converted pistol. At this stage, the gun failed to feed a few times. In fairness, as Tuason later explained, the prototype I shot was comparable to an "iPhone 1" and his company had already made several minor improvements to the design to work out the kinks. A production sample I recently received ran reliably throughout G&A's accuracy testing process.

Hiccups aside, the conversion was impressive. With little recoil to contend with, I could fire combat-effective groups as fast as I could press the trigger — even while shooting one-handed.



From a personal-defense standpoint, the ability to deliver rapid and accurate follow-up shots cannot be overemphasized. It may be that multiple hits are required to stop a lone assailant or that we are faced with multiple threats. Like wolves, criminal predators tend to travel in packs.

The obvious draw-

back to using a .22 TCM 9R-chambered pistol for defense is the muzzle flash. Not only can the fireball emitted from the muzzle compromise our position (particularly in darkened environments), it has the potential to disrupt our vision, making it harder for us to see our sights. Similarly, the loud concussion of the .22 TCM 9R would be punishing in a confined interior space.

While these are valid concerns, I must point out that they are not exclusive to the .22 TCM 9R. In fact, the venerable .357 Magnum cartridge produces considerably more muzzle flash, yet few question



its effectiveness for personal defense.

The Takeaway Is the .22 TCM 9R going to render the 9mm obsolete? No. But, it's important to note that Tuason and his team are pushing the envelope and providing cutting-edge products that are refreshingly affordable. Tuason added, "We

are always trying to tweak things to make them a little better and provide added value to the customer."

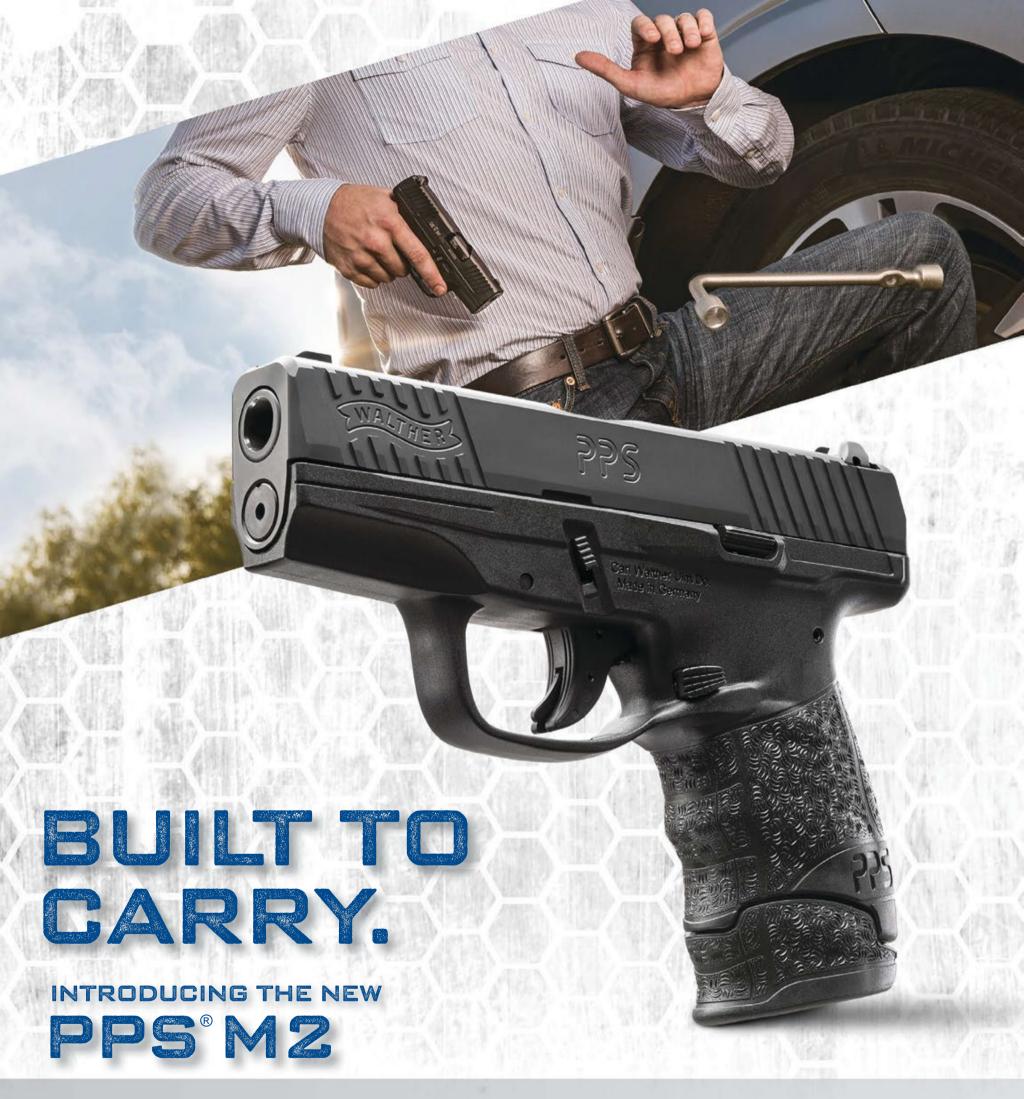
With Rock Island Armory's 22 TCM 9R conversion kit, one can enjoy the simplistic functionality of a Glock with the tame recoil and blistering performance. The .22 TCM 9R cartridge isn't a charlatan. Whether you're interested in personal or home

> defense or just want to shoot a virtual recoil-free flamethrower recreationally, you need to get your hands on one of these conversion kits. Get ready to buy .22 TCM 9R ammo in bulk. 🖎

PERFORMANCE

LOAD	VELOCITY (FPS)	SD	AVERAGE GROUP (IN.)
Armscor 40-gr. JHP	1,895	13	3.59





The new PPS M2 from Walther is everything you're looking for in a compact handgun. The slim profile, push button magazine release, smooth trigger pull and Carl Walther Signature ergonomics deliver the features that you want from Walther and are housed in a frame that fits just about anyone. The PPS M2 is Built to Carry and Built for Life.



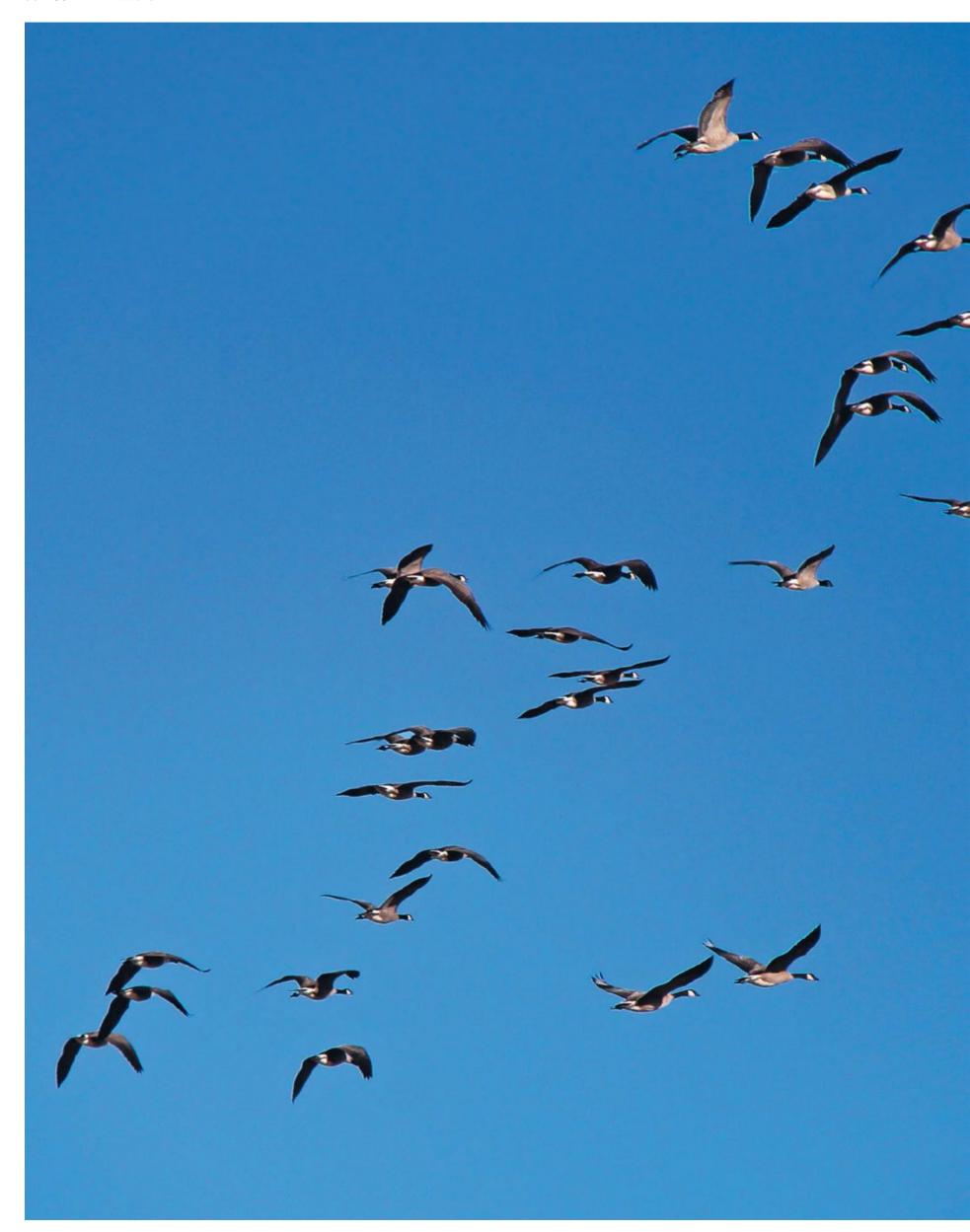












THE PATH TO ENLIGHTENTENT

TriStar guns head to Canada to prove that we don't need to spend a lot to get a lot.

WORDS BY SKIP KNOWLES | PHOTOS BT MICHAEL ANSCHUETZ AND SKIP KNOWLES

of gunsmoke hanging in crisp morning air, a few feathers gently falling and the warmth of a smooth-shooting shotgun during a Saskatchewan sunrise can change your mindset. That, and making the acquaintance of a single dynamic individual such as Gus Bader — a Lebanon-born mechanical engineer and avid wingshooter — can deeply change a person.

Bader worked for a refrigeration giant years before launching American Arms (AA) in the 1980s. When someone made him an offer he could not refuse, he sold AA in '96 "because I got a little greedy," he told me. During the era of Clinton gun bans and states suing firearm companies, he thought it was a smart time to exit the firearms business. But the passionate shotgunner quickly realized he'd underestimated his love for it.

"I was bored," he chuckled, sitting up in his layout blind. "I love the industry, and having been born in Lebanon where individual rights are not well respected, I've always been a big believer in carrying the torch for individual liberties and individual freedoms, and nowhere is it more illustrated than the right to bear arms."

He jumped at the chance to get back in the gun business when two of his top former-AA employees started TriStar. They asked for his help running the company when Bader's



Gus Bader, president of TriStar Arms, is proud of his company's second-generation Viper shotgun.

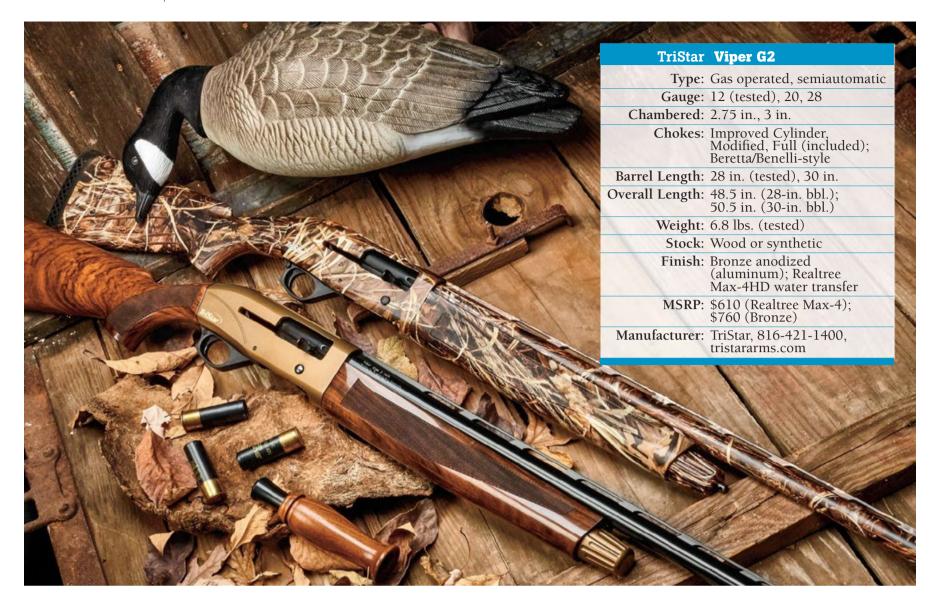
non-compete clause ran out in 2003. Through a third-party agreement and a transitional ownership plan, Bader took over in May 2005 as part owner and set out to concentrate the company's vision. Immediately, he began to surround himself with people he could trust.

TriStar had some success since launching when AA sold, but it was a company "with too

many products at too many stages that was trying to be all things to all people and lacked focus. The quality was not there," he said.

His mantra is simply "build it and they will come." The agenda was to create quality, affordable firearms that would draw a following. By 2007, Bader launched the all-new Viper G2, and the TriStar brand has soared since.

"Photocopy Gus" is his nickname, which comes from the fact that he insists each gun off the assembly line be a stone-cold duplicate of the one made before it. The website touts "The Value Experts," which isn't exactly attractive. But TriStar guns have become a pleasant surprise for dedicated shooters. I handled a few before my trip last October in Canada, but I had never used one on a hunt — the moment of truth when you play for keeps, when the birds are feet down in the decoy spread. Part of me was excited at the possibility of an affordable semiautomatic shotgun that works, but the Italian-shotgun-loving cynic in me was



rolling his eyes, believing that it would not really go bang every time with a retail price between \$600 and \$800; I expected that the workmanship would be rough.

Bader explained how he ensures his guns will run from a production facility during the development process, and it's pure old-school savvy. He visits the manufacturer in Turkey, politely admires the gun handed to him to inspect and shoot, knowing that any manufacturer in his right mind would give him a prototype that had been worked on to perform. During these inspections, he takes a half-dozen other guns of the same model from different production schedules. He disassembles them and swaps all the interchangeable parts back and forth. Then he shoots and shoots and shoots them some more.

"If you can do that and the gun will run, then you know you have your tolerances right," Bader said. "The only thing that test doesn't tell you is endurance — how long the gun will last — and you have to do your endurance test, your 10,000-shot runs, with different kinds of shells and lengths mixed, and you track them. With the semiauto, the timing has to be right for the gun to work."

This is no simple task, especially to build guns that will function on both sides of the Atlantic.

"Europeans use single-powder loads, which are dirtier but have higher pressures, and you have to translate the pressure standards and technical details because a 1-ounce load there might not work with a 1-ounce load here in the United States," he stated.

The most entertaining way to test endurance is to hit the field, and get it dirty in the grit, chaff, mud and blood over a few days of fast-action waterfowling.

My Endurance Test Saskatoon is south central in this vast agricultural province of Saskatchewan, and it is ground zero for the great North American waterfowl factory. Endless prairie potholes mix with grain fields to draw breeding and migrating waterfowl from all over, and outfitters like the one I enlisted — Saskatoon Waterfowl Outfitters (saskatoonwaterfowl.com) — can cherry pick hot spots. It is hunting, and there are no guarantees.

An experienced waterfowler, Bader would call our shots as birds finished to the decoys. That turned out to be one smart move, because he did a superb job, shouting "Take 'em!" at the clutch second when the geese are as close as they are ever going to get. Making Bader our pit boss was the only thing I proved to be right about. Wary adult snow geese that should have flared from a quarter mile centered on that spread and finished one after the other, and we sagged whole flocks to the ground, burned them up in a memorable, lights-out, fair-weather hunt. We clobbered eight-man limits of ducks and a total of 63 snows in just a few hours. And I started to really notice the guns.

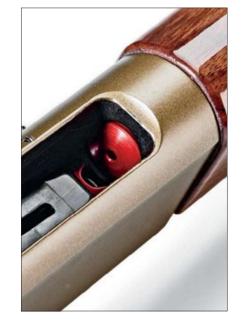
We had Viper G2 semiautomatic shotguns in the field, one new "Bronze" model complete with wood stock, and another Realtree Max-4HD waterfowl camo. They were noticeably light, which is awfully nice when sitting up for the shot from a layout blind without your feet under you. Nobody had trouble adjusting to the cast or stock length.

And the guns ran, which is the biggest thing. Jam-free operation for boxes and boxes of shells is unusual for any brand in field hunting because they fill with dirt, residue and debris.

Aptly named, the magazines under our barrels were filled with



Winchester Blind Side. Loads of BBs and #2s chewed through the flocks and clobbered birds that were way too high for comfort, but snows don't ever get a pass and we wrecked even those tall birds.



Enlightenment I

was delighted to

be wrong about my preconceived notions about TriStar shotguns and the kind of day we would have.

We received a classic greeting the next morning, with ducks landing at our feet, followed by naïve flocks of Canada geese. The evening witnessed a crazy snow goose shoot over what should have been a real dud. Still, windless hot weather the very worst for waterfowl — yet we scratched down 54 snows and 12 more ducks.

We kept the barrels hot most of the time, never cleaned the guns, and nobody had a jam. So the Vipers, they have endurance. Bader knows a thing or two about this. Earlier TriStar guns were inconsistent.

"We were not getting the same gun from every production run. Today, I don't care what year, week or month it is, they are consistent. That's what I want from gun one to two to gun 500 in a [production] run this week, next month or next year."

When he took over TriStar, the warranty rate of return was nearly 5 percent. Today, it's less than 2 percent, and even lower in several Viper series.

"That's what you work for," Bader said. "That's when you can say 'if you will build it, they will come.' The [gun] has to work."

A well-balanced, gas-powered semiautomatic, the Viper G2 has a ventilated rib, fiber-optic front sight and matted receiver for most models. It comes in over 20 varieties, from hunting and home defense to competition and upland. A real looker premiered last year with a new bronze anodized receiver and two pieces of high-grade glossy walnut.

The guns lack a traditional magazine cutoff, but you can lift slightly on the carrier while manually cycling the bolt handle to prevent a new shell from coming in from the mag. This is a handy feature that becomes easy with little practice. Removing the plug is as good as it gets. It's a soft-kicking gun for its light weight under 7 pounds as tested — and is as pointy as a Franchi. The wood on the Bronze model I fielded

Above left: A brightly colored red follower lets users know when the tubular magazine has run empty.

Above: Fiber-optic sights are standard, and shooters can opt for red or green tubes.

Far left: Injection

molded stocks are

highly weather resistant and durable in the field. TriStar finishes its camo models with a Soft Touch treatment in

> Near left: The Bronze model wears an anodized finish on the aluminum receiver complete with an excellent choice of walnut and a blued barrel.





Introducing the **NEW** SOCOM 16 CQB from Springfield Armory®. The first M1A™ featuring a Five Position CQB Stock, M-Lok Rail System: 1 Seven Slot Rail & 2 Three Slot Rails, Springfield Armory® Optics Mount, & Vortex Venom Optic (Optional). The CQB brings the action of an M1A™ with the modern technology needed to give you the speed and versatility for close quarters battle.

BRING ENOUGH GUN"

SPRINGFIELD ARMORY



is such that you would have to pay for the upgrade to get the level of quality with other brands. Hunters obsess over camo, but we shot the glossy Bronze gun the whole trip from open, stark layouts only partially covered, and we never flared birds. Bader ended up using the Viper G2 Bronze and I mostly shot the camo model, but everyone's TriStar shotguns ran the Winchester Blind Side flawlessly.

A chrome-lined chamber and barrel create the slickness inside that allows the guns to be reliable, and they each come with three standard chokes. A rubber recoil pad and shim kits to tweak for cast are also standard. It's a formidable package, especially at this price point. You used to have to pay a heck of a lot to get a lightweight and reliable semiauto 12 bore of any type.

The true test of a semiautomatic is whether it will run in extreme cold, and we ran into none of that. The safety, like any non-premium gun, is a bit small and stiff, and I found myself wanting to click it off early when the birds were closing to assure no fumbling when it was go-time.

Value and reliability make sense. But I had to ask Bader, why the Viper G2 Bronze? Why are you trying to make pretty budget guns? Blame Bader's experience with Franchi. American Arms imported Franchi prior to Beretta buying them.

"You see, the Italians are very good at what they do, and they make beautiful guns. So when we went to factories in Turkey, we said we have to make a functioning shotgun, but we have to make it look good. I am a little old-fashioned, but I look at them that way," he said. "I fought a battle, but we curved the forearm and did a few things emulating the Italians' style. Function is number one, but if it looks nice — that's an added feature. When Beretta bought Stoeger, that upped the level for everyone ... they forced everyone to raise their game. They came in and said, 'You can produce a good gun here, and we are going to show you how."

I now know Bader is a savvy, intuitive businessman, a fellow fluent in five languages (French, English, Spanish, Arabic and Lebanese) with an engineer's smarts for detail. But that's not the guy I will remember. The man I look forward to hunting with again has a mild, amusing accent and the mischievous smile of that uncle who pinches your ear before he stuffs a dollar in your pocket; he's a guy who loves to hunt and is a heck of a good shot. I watched him repeatedly stroke birds escaping wide and



Chokes are patterned after Beretta/Benelli threads. Three (IC, M, F) are included.

The gas-operated system is easy to maintain and allows shotgunners to shoot everything from light target loads to the heaviest waterfowl loads.



Removable Threaded

Recoil Stop-pin

(Dovetail Models)

Square-shaped

Integral Recoil Stop

(Picatinny Models)



Leapers, Inc. | 32700 Capitol Street, Livonia, MI 48150 U.S.A Tel: (734)542-1500 | Fax: (734)542-7095 | Email: office@leapers.com



In addition to snow and Canada geese, a few mallard ducks fell to Winchester's Blind Side delivered through the Viper's chromelined barrel. to the far right, a tough shot to make for right-handed shooters sitting on the ground.

On our last hunt, Bader didn't shoot much at all. He mostly sat and smiled, content batting clean up if we gave any birds a pass.

A few flocks did it right away,

but then group after group started flaring. Snows spun above us in huge spiraling flocks, but would never quite finish, breaking hearts as they turned away.

We were on the "Y," perhaps, or the "Z," but we did not seem to be on the "X." Then the sands simply shifted, as they so often do in hunting.

"Are those geese?" I asked guide Mike Holman. Black specks on the horizon were so far away you could not tell. Sure enough, they pumped our way, he hit the call and lit 'em up. Huge greater Canadians in small groups bit the dirt one after the other, closing to 20 yards as we breathlessly snicked off safeties and bolted upright from the blinds to let the guns roar.

Bader, whose wife is from Alberta, has hunted Canada for years and now calls Kansas City his base camp, with an office on the Missouri side. He seems to be striking gold with the G2 Vipers (Generation 2 is the reference), and freely admits the preceding guns (pre-2007) were "nowhere near the quality for longevity and ammo sensitivity." The G2 is vastly different. I have one from 2007 that I have put 8,000 rounds through. There have been few changes since then.

"If you build a good product at a competitive price, people will find it. People are at the point now where they will pay a little more for a TriStar gun," he said, speaking of the Bronze edition, with it's finer finishes and wood. "Five years ago they were not."

The Turkish factories and partners have bought into the quality philosophy.

"The U.S. market being the largest market, they were very cautious and conscientious about anything they do that might affect [our needs and desires]. It's a trust factor, to share technical ideas, like the easy loading feature for the guns. Always an interaction of ideas, what can we do to be better," he said. "And we keep an independent inspection agency in Turkey to keep honest people honest."

The red sporting version of the Viper has done phenomenally well, since premiering in 2014 with 30-inch sporting barrel extended chokes. A fun, red-colored youth model came out in 2015. After coming out of retirement, it seems Bader is backing another winner in TriStar.

"The guy who buys a TriStar gun, that may be his only shot-gun," he said. "He can't be out of a gun in season. It is *because* it's less expensive that it has to work."







Though obviously more substantial than the 17mm Model 1840 Thierry carbine (bottom), the Model 1840 Rampart rifle (top) is still surprisingly compact for an arm with its intended mission of defending fortifications.

FORTIFICATIONS HAVE EXISTED since the earliest times — from simple barricades to elaborate castles and citadels. As they became more and more sophisticated, so did their defenses. Elaborate crenellations, bastions, moats and the like became one with design. Accordingly, weaponry with which to further protect these fortresses developed over the years, with advance replacing advance — especially in the gunpowder era.

Artillery was originally used externally as siege engines to batter down fortress walls, but when it became more mobile it was moved inside. Gunpowder-fueled arms ranged in size from quite large to "handgonnes" and "hackbutts" of relatively modest size, which had integral hooks that could be secured over a parapet.

It was not long before specialized "rampart guns," which were larger than normal muskets but smaller than one of the more modest artillery pieces, evolved. They had the advantage of mobility and the ability to be managed by one or two shooters, but also had longer range and were of larger caliber than the standard soldier's shoulder arm.

At first, they were little more than supersized versions of the standard matchlock or flintlock musket. Seen in Europe and the East, these behemoths normally had calibers in excess of an inch — oftentimes, considerably greater. Some were mounted on swivels, some not. The concept was long-lived, and a case could be made for some of the specialized, large-bore automatic weapons of today being their natural ancestors. To my mind, the short list of the last real vestige of the rampart-style gun were the metallic cartridge Kummer wall-gun of 1874; a later huge, two-man, 61/2-foot-long bolt-action Chinese Jingal cartridge; the massive 41-pound, 13.5mm Mauser-style German Tankgewehr Model 1918 of World War I; and the World War II British .55 Boys Anti-tank Rifle — the latter two's roles adjusted for changing conditions in warfare.

The French especially were enamored of fortifications. Along with some spectacular castles, a large number of cities were also fortified. As well as upgrading many earlier defenses, French Marshal Sébastien Le Prestre, seigneur de Vauban, one of the foremost military engineers of his age (late 17th, early 18th centuries), designed from scratch some sophisticated fortresses and harbor defenses, which were the wonders of the time.

French authorities continued to rely on battlements to greater or lesser degrees for a number of years — the most ambitious being the famed (and ill-fated) Maginot Line built in the 1930s, which unfortunately did not stop the Germans in 1940, who simply went around it (it did not extend to the English Channel because the French did not want to compromise Belgian neutrality) or flew over it.

In the early years, as far as small arms went, French authorities were generally content to man fortresses with common

for long-range work, this one is styled more in the manner of a short rifle.





The date on the breech of this particular arm indicates it was manufactured soon after the rifle's acceptance in 1840.

infantry arms. This changed in the second decade of the 19th century with the introduction of the Fusile de Rempart modèle 1828. This purpose-built flintlock behemoth had a number of interesting features — most notably its unique breech-loading system that featured a tip-up breechblock. The 511/4-inch barrel was rifled and the caliber was 21.8mm. The overall length was some 66½-inches and the weight was 22 pounds. Attached to the front portion of the severely abbreviated stock was a folding pintle, which could be inserted into an embrasure socket. Sights were graduated to 400 meters. It gave new meaning to the word formidable.

With the introduction of the percussion system, the Model 1828 was upgraded to a caplock some three years later and the breechblock lock slightly improved. Other than that it was almost identical to its predecessor. The rifle proved to be effective enough that the Belgians and the Russians, who produced their own versions, pretty much ringers for the original, copied it.

Despite a rather slow beginning, as the 19th century progressed, Gallic inventors began coming up with some innovative rifling designs. Just about everyone into gun and/or Civil War lore is familiar with the hollow-based bullet designed by Capitaine Claude Etienne Minié that revolutionized warfare, but prior to his development there were other Frenchmen who also came along with some clever ideas.

Up until Minié's design, only specialized units were armed with rifles, as loading them with a patched ball, or hammering a bullet down a barrel with a mallet, took time and care. Too, rifles were more expensive than smoothbores and because they required about three times longer to load than a musket, riflemen



The series of carbine-style French Rampart guns have distinctive shutzen-style hooked buttplates.



Markings on the 1840 back-action lock indicate it was manufactured at Châtelleraut. The spurred triggerguard is another of this arm's distinctive features.

were employed particularly and sparingly.

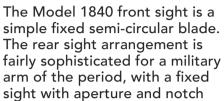
The philosopher's stone of military arms designers was to come up with a bullet/rifle that would be easy to use, could be loaded as rapidly as a musket and was relatively cheap to build. Many aspirants tried, and many failed.

In the late 1820s, Capitaine Henri-Gustave Delvigne of the 2nd Regiment of the Royal Guard came up with a clever idea. His plan involved a muzzle-loaded rifled barrel with a recessed powder chamber. After a charge of powder was poured down the barrel, it was followed with a slightly-sub-caliber ball which was then struck three or four times by a ramrod with a heavy tip, mashing the bullet against the shoulder of the chamber to fit the rifling. In 1833, a refinement of the arrangement, devised by Lieutenant-Colonel Poncharra of the artillery, called for a recessed, patched wooden sabot, which was loaded on top of the powder chamber; the ball then expanded against the sabot to reduce deformation and thus improved accuracy.

The system was tested by the French military and results were good enough for them to authorize, in 1837, the adoption of a carbine for Tiralleurs (light infantry/skirmishers). A year later, this 16.5mm-caliber short rifle was followed by a big brother, the 20.5 mm Fusile de Rempart modèle 1838.

While undeniably hefty, weighing in at 13.13 pounds, the Model 1838, unlike earlier rampart guns, was of short rifle











graduated to 150 and 250 meters, respectively, and a folding "ladder" with apertures and a top notch graduated in several increments to 800 meters.

length and configuration, and was nicknamed gross carabine (big carbine). Finished bright, it was a handsome two-bander with a 32-inch barrel and heavy butt fitted with a hooked buttplate for better purchase while supporting and shooting the rifle. Interestingly enough, it was equipped with a unique socket bayonet, which could be fitted with a wooden handle for hand-to-hand fighting. Rifling consisted of six small-rounded grooves with a very slow twist of one turn in 6½ feet. It was also mounted with sling swivels, meaning it was intended to be routinely carried about. The rear sight consisted of a fixed aperture/notch combo, graduated to 150 and 250 meters and a folding leaf marked to 400, 500 and 600 meters.

Why, you may ask, when traditional rampart guns were long and heavy, was the '38 made to short-rifle dimensions? One reason, I think, was authorities were confident enough in the Delvigne/Poncharra arrangement that they felt extended range and increased accuracy previously afforded by longer-barrel guns could be handled by this attenuated arm. I believe another primary reason was unless the soldat was about 7 feet tall, it was nigh on to impossible to get enough purchase and leverage on the rod to bang it hard enough if one were using even a 42-inch musket-length barrel.

Two years later another variant of the Rampart rifle appeared. In essence, it had specifications similar to the first, though it was about 1½ pounds lighter. The lock was reconfigured to be more robust, the ramrod head slightly changed, as was the triggerguard and front barrel band; a tear-shaped single washer substituted for the '38s more elaborate double-screw sideplate, and the bayonet was dropped.

Another follow-on Fusile de Rempart modèle 1842 soon emerged, again looking much like its predecessor, though the ramrod head was remodeled, a spur on the rear of the triggerguard eliminated and the barrel fitted with a bar for a wavybladed yataghan-style bayonet.

The rifle powder chamber held some 96½ grains of coarse powder, the 20mm bullet came in at 687 grains and the 18.5mm wooden sabot, of negligible weight, was fitted with a circular patch, which was nailed onto its base. I have been unable to ascertain how these components were carried by a soldier, but



A massive ramrod head was designed to help deform the 20mm round ball into the rifling.



The muzzle's gaping maw measures a substantial .81-inch diameter.

based on other types of rifles of the period, I would assume the powder was held in a paper cartridge (sans projectile) and the bullet and sabot, loose in some sort of ball bag.

Along with the Rampart guns, three smaller carbines employing Delvigne/Poncharra balle a sabot system were also built. They were issued in some quantity and found to be entirely sufficient to their purpose. However, when the Minié system appeared they were sidelined in favor of arming all infantrymen with rifles. This did take some time, however, and for a period muskets, rifled carbines and Minié rifles cohabited in the system.

As an aside, many of the carbines (and rifle-muskets and rifled-muskets) were converted to self-contained cartridge breechloaders in the style of the Tabatier system and used in the Franco-Prussian War of 1870 to 1871.

For this story we were able to rustle up an excellent-condition Model 1840 Fusile de Rempart. I've always wanted to try one out, so I talked a friend into turning some proper configuration sabots out of walnut (a hard wood is necessary to keep the sabot from splitting during the ramming process) and had a 20mm round ball mold made by Jeff Tanner (www.jt-bullet-moulds.co.uk). The charge was 96½ grains of Goex FFg blackpowder.

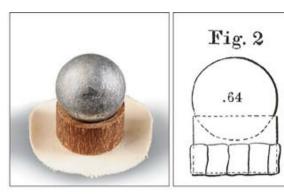
I have to admit, even given the heftiness of the rifle, the 961/2grain load — not prohibitive but still not unsubstantial — coupled with a thick, patched sabot and an almost 700-grain ball pounded hard enough to mash into the rifling gave me a bit of pause. I expected recoil would be unpleasant if not downright prohibitive. Still, I'd never tried one of these things before and was excited to see just how well it would work. (I'm always



The 20mm Rampart bullet (left) compared to the 16.5mm Carbine ball.

Components of the Delvigne/ Poncharra system: (left to right) 20mm round ball, wooden sabot with attached patch, base of sabot showing patch attached with a metal tack.



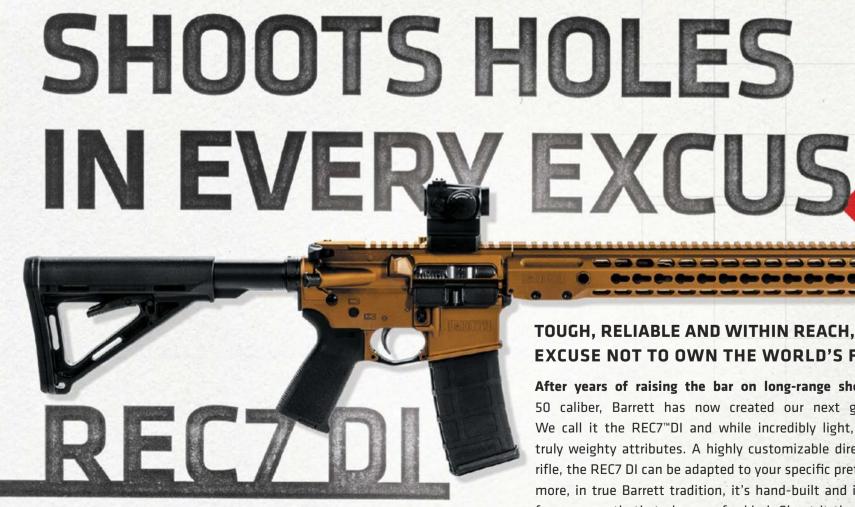


A round ball is resting on top of the sabot. The engraving shows how it was used in the Thierry carbine, the configuration of which is virtually identical to the Rampart rifle with exception of caliber.

The Model 1842 Rampart rifle's sword bayonet was the second yataghan-style adopted by the French and, like the earlier Model 1840 devised for the Thierry carbine, would provide the inspiration for millions of others of its type used worldwide.

willing to sacrifice my well-being for readers.)

The test was carried out in the latter days of autumn in northwest Montana, so things were a bit chilly and blustery. As the shooting bench itself was not particularly inviting because of these conditions, I essayed my 50-yard groups from the kneeling position. Because the lowest sight aperture was 150 meters, it



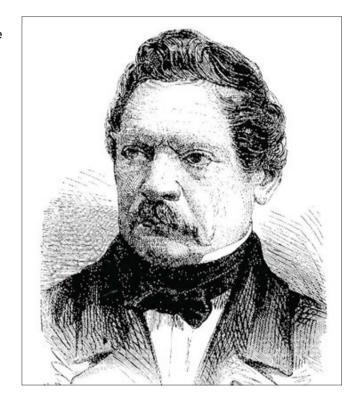
TOUGH, RELIABLE AND WITHIN REACH, THERE'S NO **EXCUSE NOT TO OWN THE WORLD'S FINEST AR15.**

After years of raising the bar on long-range shooting with the 50 caliber, Barrett has now created our next generation AR15. We call it the REC7™DI and while incredibly light, it carries some truly weighty attributes. A highly customizable direct impingement rifle, the REC7 DI can be adapted to your specific preferences. What's more, in true Barrett tradition, it's hand-built and intensely precise for accuracy that's truly one of a kind. Shoot it thousands of times, drag it through the mud, submerge it in the water; whatever the case, it's built to be reliable for years.

The REC7 DI. Shoots holes in every excuse.

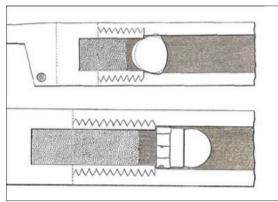
BARRETT.NET/REC7DI #NOEXCUSES #REC7

Henri-Gustave Delvigne was the designer of the unique rifle system that bears his name.



was expected that at our chosen range of 50 yards the rifle would shoot high. Too, not being sure exactly how accurate the thing was going to be, I felt it was prudent to butt two targets next to one another and aim low, center between them to give me as much surface as possible to work with.

The rifle was duly loaded — it took about four good strokes to secure the ball in the rifling — aimed and fired. Recoil was sur-



An inside look at the Delvigne system (left) and the Delvigne/Poncharra improvement. Powder was contained in a chamber and the ball flattened somewhat into the rifling by repeated heavy strokes of the ramrod.



The precursor to the Delvigne series of Rampart rifles was a massive 22mm breechloader adopted by the French in 1831. The Belgians and Russians also used variants of this behemoth.

prisingly light, the bulk of the piece obviously soaking up much of the shock. I had aimed at the bottom of the targets, which were 17 inches high. From the first shot it appeared Delvigne and Poncharra had been onto something, as the bullet struck right at the joint of the targets, 4 inches from the top. So far, so good. The second shot hit 134 inches from the first, and subsequent rounds dotted around the first two giving me a respectable



YOUR FUTURE YOU NEED TO BECOME A PROFESSIONAL GUNSMITH WITH PENN FOSTER CAREER SCHOOL—ON YOUR OWN TIME, AT THE RIGHT PACE. YOUR CAREER.

Gunsmith

plus other related programs like:

Wildlife/Forestry Conservation **Auto Repair Technician HVACR** Technician Small Engine Repair

Why professional Gunsmiths recommend Penn Foster Career School:

- Learn online, at a pace that's right for you
- Affordable tuition...0% interest, low monthly payments.
- **Built-in Career Services**
- **Expert instructor support**
- **Online Community**

Call Today: 1.800.587.4532 ext. 1510 or visit us at pennfoster.edu/G-A

Enter ID# AEYS36V to enroll online





Loading a rifle of the Delvigne/Poncharra system is unique. One first pours a measured charge of powder [1, 2] (96.4 grains, FFg) followed by the patched sabot and ball [3, 4, 5]. They are rammed down [6] until seated on top of chamber ledge and then the ball [7] is deformed into the rifling by several hard strokes of the heavy ramrod [8].

5-inch, five-shot group.

When loading the fifth shot, fouling was causing the sabot to get a trifle testy, so we cleaned the barrel and ran another group, which easily matched the first. Weather was setting in, so it was decided to halt the session and reconvene in spring and give the gun a try at 100 yards. Based upon the results garnered at this

premier outing, I have every suspicion that it will probably acquit itself pretty well.

I'll have to give the inventors credit. This is an ingenious system. Unquestionably, deforming the bullet was going to limit accuracy to some degree, but the surprise was it worked as well as it did. For the military purposes of the period, it would have



ALL NEW. ALL LWRCI".

BACK TO BASICS WITH NOTHING BASIC ABOUT IT.



You know the commitment to craftsmanship and design excellence that comes with every LWRCI rifle. And the new Di is no exception. Built from the ground up to be more than just another Direct Impingement rifle, the new Di delivers the quality the discerning shooter demands, and innovation you expect from LWRCI. All with an operating system that's been around the world and back. Di Elevated. Improved. Enhanced.



To learn more and locate a dealer near you, visit www.lwrci.com/DI



LWRCI RAIL PANELS

LWRCI AMBI CHARGING HANDLE





The Rampart rifle's heavy, 686grain 20mm ball and substantial powder charge of 96½ grains is stout. Still, felt recoil was quite manageable, due no doubt to the gun's weight and pleasing, ergonomic configuration.

Despite the deformation of the ball caused by repeatedly bashing it with the rammer to make it fit the rifling, the arm was surprisingly accurate and reliable as attested by this 50-yard, 5-inch group fired from a kneeling position.

been OK. It was certainly more accurate than a common smoothbore musket. The main drawback I can see is that under the original Delvigne arrangement, the rifle could have been loaded as fast as a musket, but when the sabot was introduced, loading was no faster than with a patched ball, thus one wonders what the ultimate advantage might have been.

If nothing else, the Delvigne and Poncharra system provided

a pathway for other rifling experiments, so it really wasn't all that much of a dead end. Obviously, the French military felt it had enough virtue to build several types of rifles around it and to keep them in service for a number of years. I have never been able to come up with a period account of the Fusile de Rempart in action, but I'll bet it got respect from those on the receiving end. It certainly has mine.



- ➤ Low-profile length for increased mobility and decreased "snag" factor.
- The forward angle increases the rigidity of the forearm, while providing a more natural wrist angle.
- Can be mounted in reverse angle to increase control when grabbing handguard and grip.
- Flat sides with aggressive texture give better yaw control to the shooter during firing and non-firing manipulations.
- Anchor and bolt system offers a simple robust design, while maintaining a light-weight 1.9 ounces.
- Made in the U.S.A. from high quality, impact resistant polymers.
- Available in Black, Flat Dark Earth, Foliage Green and Wolf Gray.

BCMGUNFIGHTER VG-KM-MOD-3 - KeyMod Version. \$18.95 BCMGUNFIGHTER VG-1913-MOD-3 - Picatinny Rail Version \$19.95

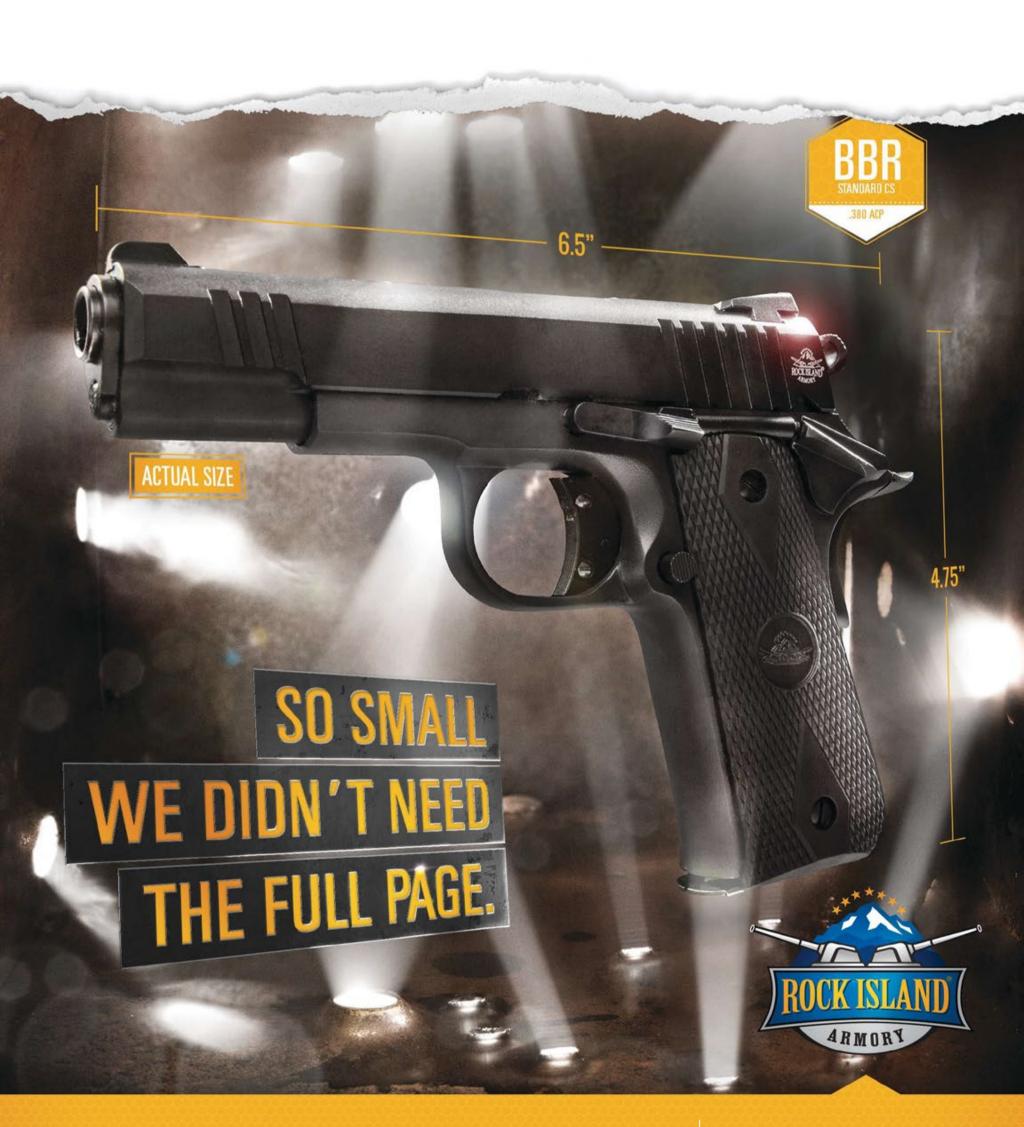
Kinesthetic Angled Grip

- Forward rake gives positive retention when using "C-clamp" method of handguard support. Works as a rest for supported firing positions.
- Slight angle without bulk adds just the right amount of strain relief to the wrist without substantially increasing the girth of the handguard.
- Small profile is just enough to get repeatable hand position on weapon, textured front and back for positive engagement.
- Innovative patent pending attachment method allows for robust clamping and alignment with minimal hardware and accessory size.
- ➤ Made in the U.S.A. from high quality, impact resistant polymers.
- Available in Black, Flat Dark Earth, Foliage Green and Wolf Gray.

BCMGUNFIGHTER KAG-KM - KeyMod Version \$18.95 BCMGUNFIGHTER KAG-1913 - Picatinny Rail Version \$19.95

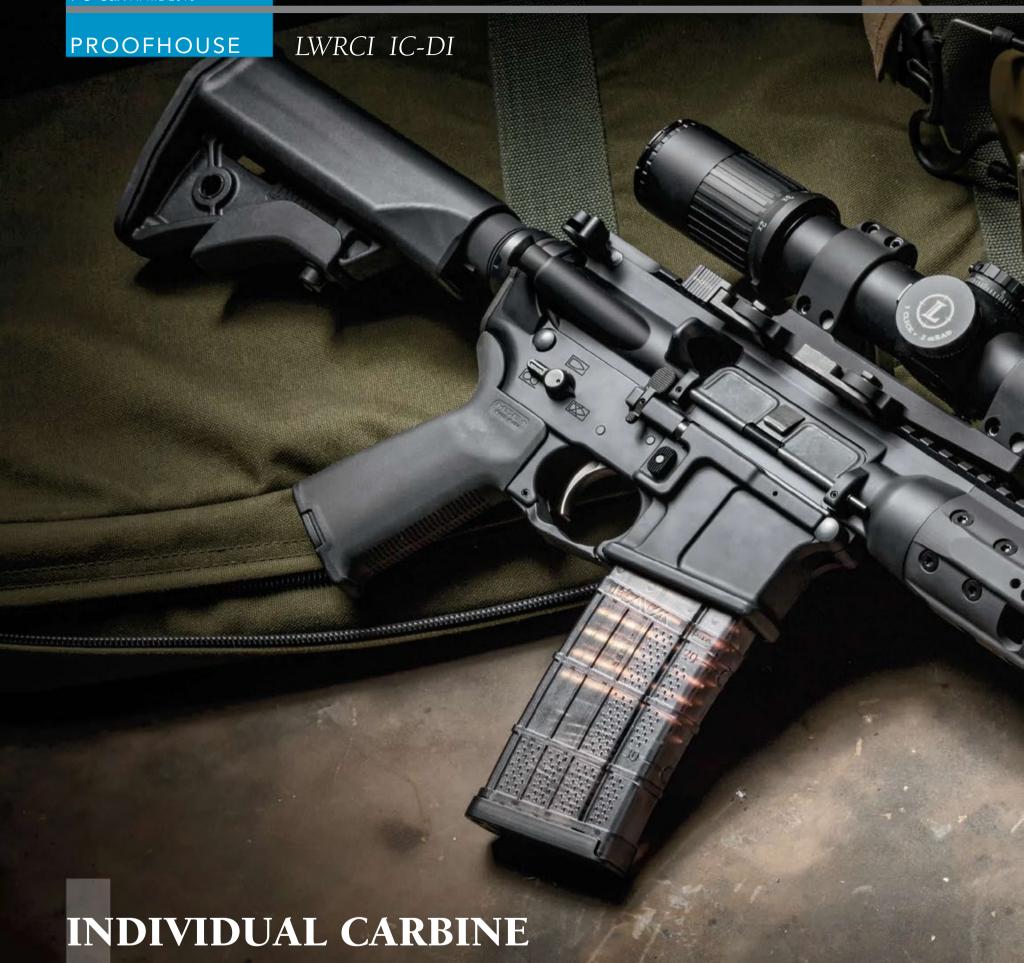


Hartland, WI U.S.A. / Toll Free: 1-877-BRAVO CO (1-877-272-8626) / Fax: 262-367-0989 / BravoCompanyMFG.com



INTRODUCING THE BABY ROCK.

We took everything you love about a 1911 and made it smaller and more convenient to carry. It's all steel, but surprisingly lightweight and durable. And we didn't forget the little things — like multiple safeties and low profile snag-free sights. This is gonna be big. Relatively speaking.



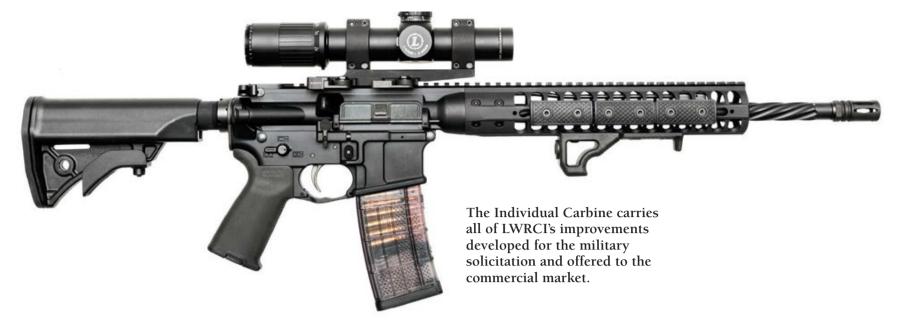
IN 2010, THE U.S. ARMY began the Individual Carbine (IC) solicitation looking for a rifle to replace the M4. They thought the M4 had been around long enough that it was time to see what improvements the firearms industry could produce. Like any government program, this one generated positive and negative outcomes.

The requirements for the new IC were the rifle had to be completely ambidextrous, capable of automatic and semiautomatic fire, and have integrated rails that accepted accessories already in inventory (lights, lasers, etc.). The requirements were remarkably unrestrictive

in an attempt to give the industry as many options as possible on the rifles proposed.

While well intentioned, the program didn't last long. Several manufacturers updated rifles they already offered to comply with the solicitation requirements and submitted samples. After a couple of years of fits and starts, the Army canceled the IC program in 2013. The more proactive manufacturers took the design work they did for the IC program and applied it across their product line. In many cases this transformation made good rifles great.







The gas key has a replaceable insert, making it much easier to repair should it become worn out.



The spiral-fluted barrel is aesthetically pleasing as well as a clever way to cut weight. No, it doesn't shed heat faster than other barrels.

LWRCI is one of the companies that applied the IC specifications to their commercial line. The latest addition is a direct-impingement (DI) version, a first for the historically piston-operated company.

The most obvious upgrade over any standard M4 is the ambidextrous lower receiver. LWRCI placed bolt catches/releases and magazine releases on both sides of the lower. Finding an AR that has an ambidextrous magazine release isn't groundbreaking, but the bolt release is one of those features that is a pain to

design into the standard-pattern lower receiver.

The ambidextrous bolt release is incorporated onto the right side of this rifle, making traditional AR manual of arms easy for left-handed shooters. However, the location also makes it possible for right-handed shooters to lock the bolt to the rear to unload the rifle or clear a malfunction without removing the firing hand from the grip.

LWRCI IC-DI

Type: Direct impingement, semiautomatic

Cartridge: 5.56 NATO Capacity: 20, 30 rds.

Barrel: 16.1 in.; 1:7-in. twist Overal Length: 32 in. (collapsed),

35.25 in. (extended)

Weight: 6 lbs., 10 oz.

Stock: LWRCI Compact Grip: Magpul MOE+

Length of Pull: 11 in. (collapsed), 14.25 in. (extended)

Finish: Type III, hardcoat anodized

Sights: None

Safety: Two-position selector

MSRP: \$1,599

Manufacturer: LWRCI, 410-901-1348,

lwrci.com

Reducing the gun juggling required to clear malfunctions greatly speeds up the process.

The bolt release paddle on the right side of the lower receiver is almost a mirror image of the bolt release found in the traditional location. There is the large paddle-shaped head up top that releases the bolt with a small, serrated extension below the pivot point that works as the bolt catch. Both of these operations can be done quickly and easily with our trigger finger the way LWRCI has laid out the controls.

Part of the winning criteria for

the IC was the rifle had to demonstrate a "measurable improvement" over the traditional M4. While vague, this stipulation encouraged manufacturers to try and find ways to build a better rifle than the one currently issued.

One of the ideas that LWRCI put forward was their Monoforge upper receiver. This idea is unique to LWRCI and it does away with the traditional seam between the

Ed Brown Products_®

A Timeless Classic

Engineered for performance.

Precision machined in America.

Hand-crafted to perfection.

573.565.3261 www.edbrown.com

50

Ed Brow

Signature Edition

The ultimate in quality firearm

craftsmanship at its finest

upper receiver and handguard, while simplifying and strengthening the way the barrel attaches to the upper.

Gone is the traditional tenon into which the barrel was inserted, and gone is the barrel extension. The original Stoner design had one small barrel nut that contacted only a small portion of the barrel extension. The thin nut also needed to be timed to allow the gas tube to pass unimpeded into the upper receiver. This basically mandates having a very tight barrel nut that can't have much torque applied. It's a relatively inefficient design.

The Monoforge upper receiver has a large opening where the entire barrel and barrel extension sit prior to tightening the barrel nut down. The system has the advantage of more stability and strength because the nut is sandwiched



PERFORMANCE

LOAD	VELOCITY (FPS)	ES	SD	BEST GROUP (IN.)	AVERAGE GROUP (IN.)
Barnes Match 69 gr.	2,827	20	8	.74	.91
Federal Match 69 gr.	2,585	56	22	.97	1.26
Black Hills Match 52 gr.	2,893	112	47	1.04	1.36

between the barrel extension and the upper receiver's outer wall. Any time a nut is used as a wedge instead of only a fastener, we get a more stable connection — especially as the upper heats up. Heat causes the tenon, barrel extension and nut to expand against the upper receiver, further stabilizing the barrel/upper receiver connection. The exact opposite is true with a traditional AR. As the extension and nut heat up, everything loosens.

Another significant leap forward in reliability is the carrier key found on their

bolt carrier. The traditional design has a gas key held in place by two screws on top of the bolt carrier. These two screws must be staked to prevent them from loosening, which they will do if left unattended and the rifle sees a lot of rounds.

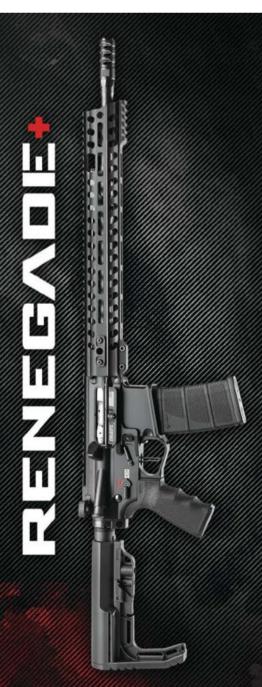
The LWRCI carrier key is integral to the bolt carrier, so

WE KNOW WHAT YOU'RE THINKING...

"Another AR?" We're just as tired of the "MILSPEC Me-to's" as you are. That's why on our first ever direct impingement 5.56 rifle - the Renegade Plus™ - we broke all the rules. When it comes to features, build quality, and out-of-the-box readiness it simply can't be beat.

Every feature was carefully thought out to deliver you the last 5.56 rifle you will ever need. Fully ambidextrous controls, match grade flat trigger, POF's Ultimate Bolt Carrier Group, E² chamber, 9-position Dictator adjustable gas block, Roller Cam Pin, M-LOK compatible Renegade rail, and more.

This type of reliability and craftsmanship cannot be found anywhere else, especially with a MSRP of just \$1899. Learn more or find a dealer at: POF-USA.com/RenegadePlus





there is nothing to work loose. Since the historically two separate pieces are carved from the same stock, it's impossible for the key to work loose or for gas to leak, creating an undergassed and malfunctioning rifle.

In addition to the foolproof reliability that comes with the integral gas key, LWRCI also made theirs

easy to replace should it become worn. Gas keys can wear at the mouth where they meet the gas tube. Since the gas tube enters the upper receiver and directs the gas into the gas key, it's imperative that the two components maintain a tight seal. However, they separate and merge each time the rifle fires, so it's not uncommon for the key and tube to wear on one another. Over time the relatively thick material erodes away until the mouth of the gas key develops a knife-edge and gas leaks out each time we fire. If the loss is substantial enough, our rifle will malfunction.

LWRCI's solution is a gas key insert that contacts the gas tube. The gas key insert threads into the integral gas

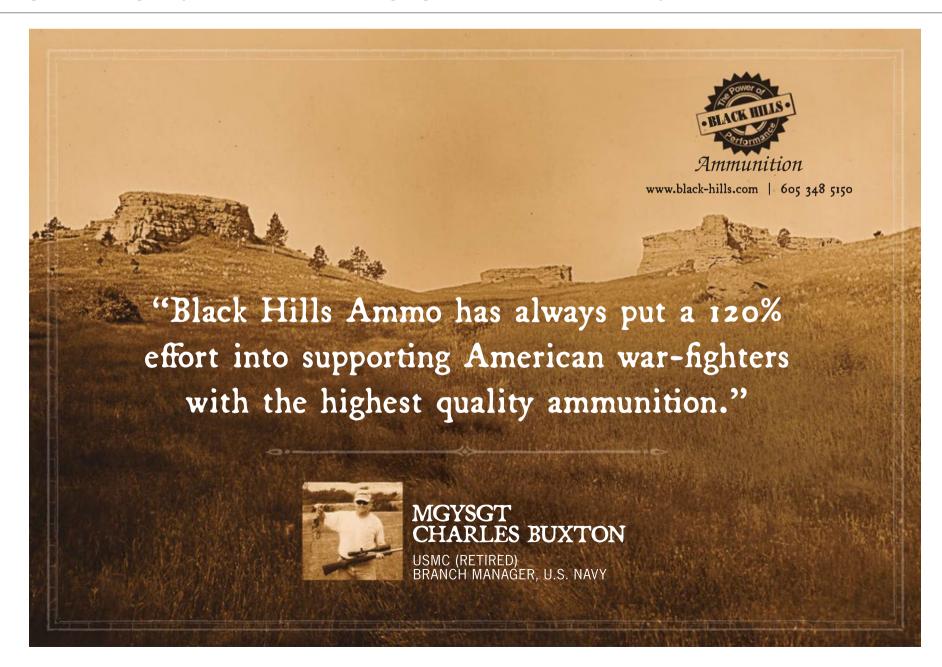


key and then gets pinned in place. Should it become worn after thousands of rounds, punch out the pin and thread a new insert into the key. It's much easier and faster than replacing the entire gas key on a traditional AR.

Range time with the new LWRCI DI rifle revealed the good accuracy we've come to expect from these rifles.

Groups hovered in the .74- to 1.36-inch range for five shots at 100 yards. Guns & Ammo felt the groups would improve with a trigger designed for precision work, but that the single-stage GI trigger was a good choice for duty use.

We also appreciated the spiral-fluted barrel. The aesthetics are nice, but LWRCI's use of such a heavy barrel helps keep accuracy consistent even after we put more than a few rounds down the tube. The mass helps mitigate the effects of heat and the flutes shave off enough weight that the rifle shoulders and points well. Normally, heavy-barreled ARs feel like swinging a truck axle, but LWRCI avoided that problem with their attractive yet functional flutes.



PROOFHOUSE

Remington RM380



BIG GREEN'S ROHRBAUGH

2016 MARKS REMINGTON'S BICENTENNIAL, and over the course of its 200-year history the company has given American shooters a wide variety of firearms, from muskets to sniper rifles. The company's newest offering is a somewhat familiar semiautomatic single stack: Rohrbaugh. In 2014, Remington Outdoor Company purchased Rohrbaugh Firearms Corp. and went to work in updating the highly regarded pistol before targeting the growing number of Americans having recently obtained a concealed carry permit.

The RM380 is a hammer-fired, double-action-only (DAO) pistol that shares some similarities to the Rohrbaugh pistols, but has many changes also. The former basic Rohrbaugh R9 and R380 had no sights until sighted "R9s" and "R380s" models were added. It is clear that these guns were built for a specific task: stopping an assailant at close range. From muzzle to magazine baseplate, the RM380 has been re-engineered to do exactly that.

"All features of the RM380 were intended and designed to offer a micro compact pistol for the average person to

The RM380 already has a variety of holsters and accessories available. **CrossBreed Holsters** is currently offering four models including its SuperTuck. Also check out DeSantis, Galco and Recluse, a new pocket holster brand.



Crimson Trace worked in conjunction with Remington, allowing the pistol to be immediately available with a red Laserguard unit (LG-479). Mounting to the triggerguard, the laser is activated by the middle finger when gripping the gun. \$229



Remington RM380

Type: Locked breech, semiautomatic

Cartridge: .380 ACP

Capacity: 6 rds.

Barrel: 2.9 in.

Overall Length: 5.27 in.

Weight: 12.2 oz.

Grips: Plastic, black

Finish: Matte blue

Trigger: 8.8 lbs. (tested), DAO

Sights: Fixed notch rear and post

front; Crimson Trace Laserguard (optional)

MSRP: \$436

Bandana

use for personal protection, while not making them accept the normal 'tradeoffs' you have to typically contend with in most guns of this size," says Remington. "We focused on reliability, shooting comfort, accuracy, trigger pull, simplicity, slide racking force and durability. These are features that are often not all found in a single micro compact concealed carry pistol." For starters, there aren't a lot of controls to mess with on this gun. There is no decocker, no manual safety and no takedown

Controls are minimal, which makes the RM380 easy to carry without fear of snagging on clothing. There's no takedown lever or manual safety, only a small slide stop that locks open when the gun is empty.

lever. Though the original Rohrbaugh pistols didn't have them, a slide stop on the RM380 is present and dimunitive. (Recessed to be sub-flush beneath the surface of the frame and slide, some of G&A's staff found it tedious to manipu-

The hammer fits flush with the back of the billet 410 stainless steel slide, and there's a slight beavertail to protect the

late.) That said, it is unlikely to hang up on clothing.

web of the shooter's hand. All edges of the slide have been sculpted to provide a more comfortable carry and to reduce weight. There are no sharp edges.

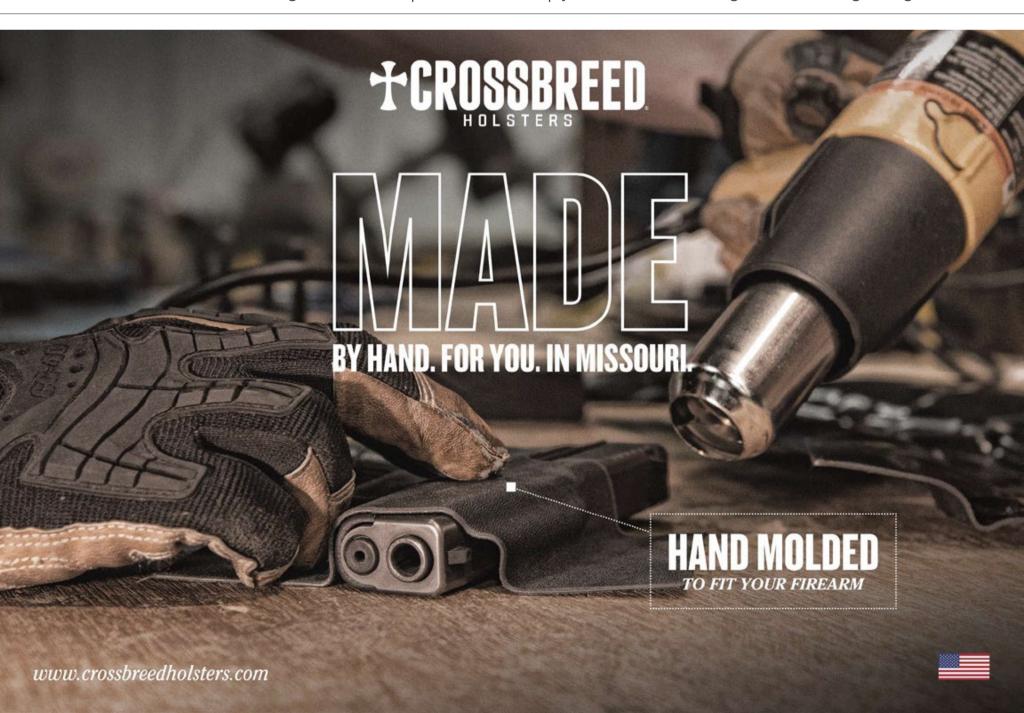
Basic, low-profile iron sights (post front, notch rear) are contoured and machined into the slide, so there are no adjustments.

The backstrap is smooth aluminum sans texturing, while the frontstrap has 20 lines-per-inch (LPI) machined checkering. A set of flatsided grip panels feature shallow diamond texturing and Remington's script "R"

logo in the center. The combination is adequate in maintaining purchase on the pistol grip during rapid-fire strings, but more aggressive texturing on the grips would be welcome.

The frame is anodized billet 7075 aluminum and all internal parts are of the metal injected molded (MIM) variety.

When you compare the details, you'll find that this isn't simply a rebranded Rohrbaugh. The Rohrbaugh's original





The rear sight of the RM380 is machined into the slide. Underneath, is the hammer that rests nearly flush when not in use.



The ambidextrous magazine release is tucked out of the way, but it is easy to access for quick mag swaps.



For those with large hands, you'll find that there isn't a lot of real estate to hold on to. Still, the RM380 isn't uncomfortable to shoot. It comes with one standard flat-bottom magazine, which minimizes the chances of printing, and a second mag with a finger extension.

design was too labor-intensive for mass production, which Remington modified because it plans to sell thousands of these guns. The machining and assembly process was therefore streamlined.

The RM380 is currently being produced in Remington's new Huntsville, Alabama, facility.

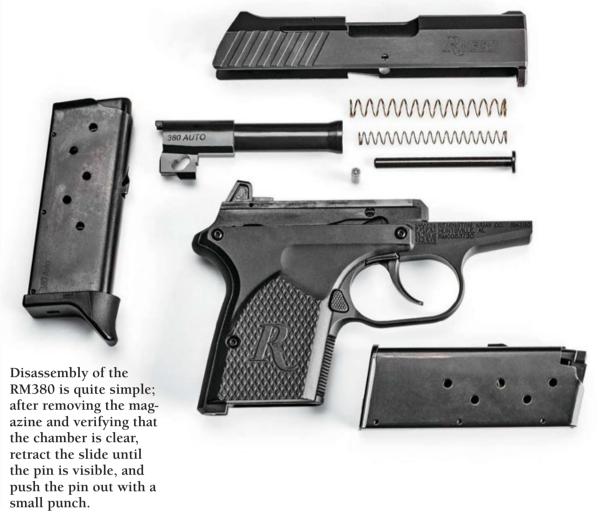
Another departure from the Rohrbaugh pistols is Remington's ambidextrous magazine release, which is situated

just aft of the triggerguard. The Rohrbaugh models had a "European-style" mag release at the base of the grip. Magazine release size and positioning seems like a minor detail in the overall engineering of a firearm, but this one is a significant improvement over the Rohrbaugh. G&A staff found it easy to reach with either hand.

One inch seems to be the magic number to reach in terms of width for subcompact pistols, and the Reming-







ton slips just under that measurement. The widest point at the bottom of the grip measures .96-inch wide. At .83-inch, the slide is even thinner. This gun rides well against the body with a flat profile, making concealment easy, even

under light clothes. With a 2.9-inch barrel, the RM380 has an overall length of less than 5.3 inches and an unloaded

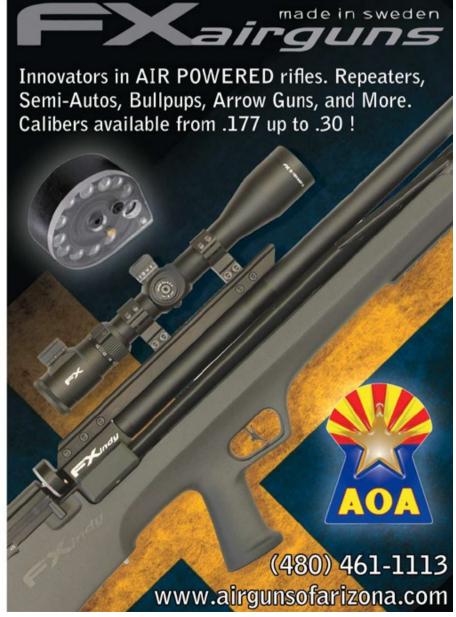
PERFORMANCE

LOAD	VELOCITY (FPS)	SD	BEST GROUP (IN.)	AVERAGE GROUP (IN.)
Federal Hydra-Shok 90-gr. JHP	926	20	1.9	2.2
Black Hills 90-gr. JHP	878	16	2	2.4
Remington GS 102-gr. BJHP	812	22	2.2	3.4
Hornady CD 90-gr. FTX	867	17	2.7	2.9
Cor-Bon 90-gr. JHP	1,002	20	2.7	3.6

Notes: Accuracy results are average of five, five-shot groups at 15 yards from a fixed sandbag rest. Velocity figures are 5-shot averages recorded over a digital chronograph placed 10 feet from the muzzle. "CD" is Critical Defense. "GS" is Golden Saber.



The ammo used in this test included (left to right) Black Hills, Cor-Bon, Federal's Hydra-Shok, and Hornady's Critical Defense. All loads shown were 90 grain weights. Remington's brass-jacket Golden Saber (not shown) offers the most weight for a .380 at 102 grains.



weight of 12.2 ounces. Dimensionally, it certainly fits the profile of a solid CCW contender or backup gun.

The RM380 internals are quite different than the average subcompact semiautomatic. Most .380s utilize a blowback design, where the rearward force of the spent cartridge, propelled by gases escaping the barrel, pushes the slide rearward and ejects the spent case. The RM380, on the other hand, utilizes a locked-breech design, utilizing lugs similar to the Colt Mustang .380 and the M1911. Because the system doesn't transmit

all of the recoil energy through the spring, this provides several advantages. First, the springs required to operate the system don't need to be as heavy, making the slide easier to retract. The Remington approach has dual springs that are actually lighter and require less hand strength to manipulate than blowback-operated guns. Additionally, locked-breech designs transfer less recoil to the shooter's hand, so there's less muzzle rise.

Performance Testing G&A used loads from Black Hills, Cor-Bon, Federal, Hornady and Remington. We make an effort to vary the grain weight of loads tested. However, 90 grains has become the standard for personal defense .380 ammunition, except in the case of Remington's 102-grain Golden Saber.

Handling & Trigger Pull With space at a premium on subcompact .380s, there isn't a lot of room for big hands, and some pinkies will be left without a home. Similarly, if your fingers are long, you'll probably find the length of pull too short and the trigger pull



On two occassions while charging the slide, the hidden takedown pin walked out and locked-up the action. G&A would suggest that Remington re-examine this design.

too long. The weight of the trigger is heavy at 8.8 pounds, per our Lyman digital trigger gauge. Many of us found we had to adjust our finger placement to the right of the trigger shoe to bring the trigger far enough to the rear to fire, and trigger reset is quite long. Still, the gun was easy to control.

With a singular engineering objective at hand, Remington has effectively updated the Rohrbaugh. It's a functional, lightweight, reliable handgun. With a suggested retail price of \$436, the RM380 is competitively priced.



82 G&A APRIL 2016 Savage Arms Model 11 Lightweight Hunter PROOFHOUSE The stock's barrel channel does a good job of ensuring the barrel remains free-floating. The new polymer stock is thicker than similar rifle stocks offered by other manufacturers. It is more rigid, too. Lightening cuts on the receiver don't remove much weight, but they do look good. Savage Arms Lightweight Hunter Type: Bolt action Caliber: .243 Winchester (tested) Capacity: 4+1 rds. Barrel: 20 in., 1:9.25-in. twist Overall Length: 40.25 in. Weight: 5 lbs., 8 oz. Stock: Injection-molded polymer with pillar bedding system Grip: Molded checkering Length of Pull: 13.75 in. Finish: Stainless, matte Trigger: 3 lbs., adjustable AccuTrigger Sights: None MSRP: \$991 Manufacturer: Savage Arms 413-568-7001 savagearms.com



GRAVITY- AND WEATHER-RESISTANT

SAVAGE ARMS REFRESHED their Lightweight Hunter line by offering rifles in stainless steel with polymer stocks. This change gives prospective buyer's the opportunity to purchase a light rifle that is more weather-resistant than their previously blued/wood-stocked models.

The most surprising change to the Lightweight Hunter is its new polymer stock. Polymer stocks have been working their way into rifle lines for years now, but few suspected there would ever be a polymer-stocked Lightweight Hunter from Savage.

Savage's theme for the rifle has always been to offer all the benefits of a premium lightweight rifle at a price most working folks could afford. It was one of the big reasons they put wood on their first model.

Wood is inexpensive and all it takes is a computer program to carve out and shape a stock. Savage could design and produce a wooden stock that made sense for

the Lightweight Hunter.

Polymer is a whole different animal. Sure, a few squirts doesn't cost hardly anything at all. It is the mold to squirt the plastic into that's big money. On a high-volume product like a classic hunting rifle, the cost of the mold is easy to recoup because it will produce thousands of units. On a rifle like the Lightweight Hunter (which is a niche product), it's much riskier to purchase a mold for a lightweight stock and expect to sell enough rifles for it to make sense financially.

Regardless of the financial justification, Savage designed and built the mold and now puts polymer stocks on their Lightweight Hunter rifles. We tend to be critical of polymer stocks due to their lack of rigidity, and we often see them as having limited application on anything but the most economical rifles. Rifles that see a box of ammo or less a year are generally good candidates for injection-molded polymer stocks.



The lightweight barrel has a very slender contour that gets hot fast. However, the weight savings makes it a joy to carry.



The barreled action is very similar to the rest of Savage Arms' rifle line, making good use of their barrel nut system.



The fluted bolt has a floating bolt head like most Savage rifles. It can be changed to any short-action cartridge.

This Lightweight Hunter isn't an economy rifle (although it is easily one of the least expensive lightweight rifles available). The expectation is that customers would be critical of the arrangement. Not so. This rifle is the exception to the rule. The stock is ideal for the Lightweight Hunter and has much more rigidity than we have seen in the past or that we expected.

The forend around the barrel channel is over twice as thick as other polymer stocks we've seen and has a series of internal reinforcing ribs that restrict the forend from touching the barrel. The sling studs have metal inserts that prevent them from slipping out when tightened. There are



PERFORMANCE

LOAD	VELOCITY (FPS)	ES	SD	BEST GROUP (IN.)	AVERAGE GROUP (IN.)
Winchester 80-gr. JSP	3,054	58	22	.77	.94
Sako 100-gr. Gamehead	2,791	48	21	.81	1.06
Hornady 58-gr. V-MAX	3,598	53	29	.98	1.21

aluminum pillars at both action screws that the receiver sits on and which hold the action firmly in place.

While this is a lightweight rifle, the stock is full-size. The length of pull is 13¾ inches and the forend has traditional length and width. The forend measures just under 2-inches wide forward of the front action screw and tapers down to 1¼-inches at the tip. The stock has aggressive, yet comfortable, checkered panels molded into the forend and grip. There is approximately a ¾-inch drop in the comb as we move from nose to heel, but this makes sense in a hunting rifle. It won't offer a rock-solid cheekrest, but it will allow for effective snap-shooting. A stock on this type of rifle should favor speed over precision, so two thumbs up for Savage.

The action in the Lightweight Hunter is the classic Model 11 with some additional machining to dress it up a bit. The receiver's bridge and left side have openings milled into them to remove weight but mostly for aesthetic reason. Likewise, the bolt saw some additional machine time in the form of spiral flutes around the bolt body. Between the two modifications of the Model 11 action, the cuts remove about 2 ounces of weight. While the weight loss is negligible, we like them and think they are in keeping with the rifle's theme.

Bolt removal entails holding the trigger to the rear while depressing the bolt release plunger located at the front of the triggerguard. The bolt head is Savage's floating bolt head that obviates the need to lap the bolt lugs to the receiver recess. The bolt head can move enough to firmly seat against both lug surfaces evenly without requiring any manual mating procedures like lapping. This simple design feature ensures the cartridge remains free of off-axis pressure and run-out when we close the action.

The bolt has a blade extractor that worked well during testing and is easy to maintain. The plunger-style ejector is

The stock, though light, is full-size with standard lengths, widths and contours.

robust and works best when we cycle the bolt quickly. Working the bolt slowly allows the spent case to bounce off the receiver wall and land on top of the rounds waiting to be chambered.

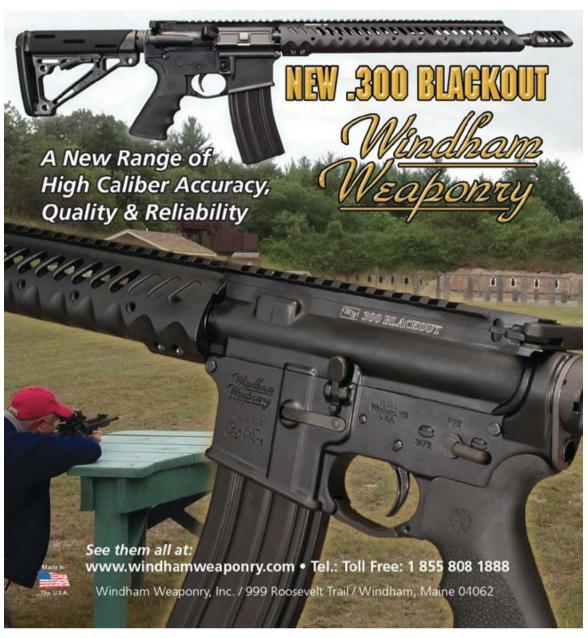
The rifle ships with a two-piece scope base already attached to the receiver. The Weaver-style mounts accept a wide assortment of rings and make mounting a scope a snap.

The 20-inch stainless steel barrel is button-rifled and very slender. The svelte barrel contour is a key component to the rifle's diminutive 5½ pounds. The rifle we tested was chambered in .243 Winchester, a good fit for the Lightweight Hunter. Any rifle this light is going to move around when fired and, even when chambered in .243, the Lightweight Hunter exhibited some muzzle rise. However, recoil is surprisingly sparse and far from uncomfortable.

Accuracy during testing was excellent with most loads averaging under an inch at 100 yards. We used threeshot groups due to the light barrel contour and its intended purpose (hunting). We fired one or two groups and then allowed the rifle to cool before continuing.

A noteworthy contributor to the light rifle's accuracy was the Savage AccuTrigger. The AccuTrigger is one of Guns & Ammo's favorite factory triggers because of the pull weight adjustment range. It can be safely adjusted to under 2 pounds, which is valuable on a light rifle.

It's harder to squeeze every ounce of accuracy out of a light rifle than a heavy one because every input we





Call for FREE DVD and Catalog!

TOLL 800-790-5917

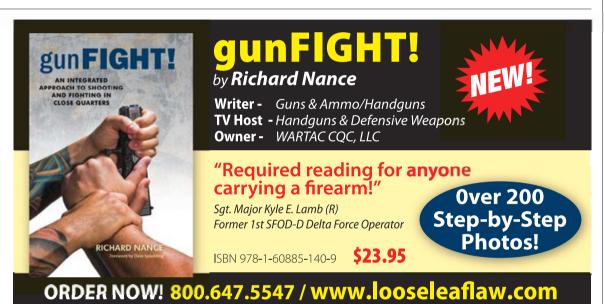
FREE SHIPPING

6 MONTH TRIAL

SOME LIMITATIONS APPLY

Call or go online for details.









The Savage AccuTrigger is adjustable and has a fantastic pull.



The removable magazine comes from Savage's Axis line, making it easy to locate multiples or replacements.

make on a light rifle (even incidental contact) influences the rifle's point of aim. If the trigger pull feels like tugging a dogsled down a gravel driveway, we can kiss any accuracy aspirations goodbye. By the time we pulled hard enough for the trigger to let off, we've likely jerked the crosshairs way off target. The AccuTrigger is the ideal trigger for this light rifle because of its clean and light let off.

The other feature we appreciated was the detachable-box magazine Savage poached from their Axis line. The magazine held four rounds and made loading and unloading a snap. We're happy to see the detachable box magazine become more common on rifles.

While the Lightweight Hunter isn't the cheapest rifle available, it offers an excellent value. Fewer rifles offer as many relevant features for the same amount of cash, most demand quite a bit more. Hunters that cover a lot of ground or like to move quickly should consider this new model.

HEALTH Advertisement

Outraged Seniors DEMAND The Coast Guard Release New "Fountain Of Youth" Drink

by Jeff Reagan

an Diego, CA - In most units of the military, the younger guys usually dominate the older guys in physical fitness tests.

But for one Coast Guard unit in San Diego, the exact opposite is happening.

Coast Guard Stunned!

Older Coast Guardsman that once struggled to keep up with the younger guys in their unit, are now making mincemeat out of the "young bucks" in head-to-head physical fitness tests.

How is this possible?

The "old guys" in this Coast Guard unit have been part of a special test group for a new, doctor formulated "fountain of youth" drink that can help restore your youthful energy.

This "fountain of youth" drink, called Patriot Power Greens, has been so effective for many of the older soldiers that it's made their achy joints, stiff muscles and lack of energy a thing of the past.

Joint Pain And Swelling Reduced To Almost Zero!

Tony Whelan, a 58 year old who's been using the drink said, "Within 2 weeks of taking it, the amount of joint pain, swelling and subsequent stiffness was reduced to almost zero! I'm experiencing less fatigue, with a noticeable sense of well being that I enjoyed in my 30's."

So what exactly is in this superdrink they're consuming?

It's a delicious "green drink" loaded with 38 different fruits & vegetables, probiotics and enzymes.

Doctor on Fox News Reveals The Secret Behind Patriot Power Greens

Patriot Power Greens was created by a world renowned medical doctor from Texas, Dr. Lane Sebring. You may have seen Dr. Sebring's anti-aging treatments on Fox News or read about him on NPR.

As a veteran himself, Dr. Sebring told me that he "wanted to create an easy to use product that could give our troops more energy, more stamina and better focus while they fight for our country".

Previously, this super-drink was only available to elite military units in the United States, and could not be purchased by the general public.

However, Dr. Sebring told me that "after seeing the incredible results that the military was getting with the drink, I realized that in good conscience I could no longer keep this drink from the public."

Due to the increased demand from the U.S. military, it's still nearly impossible for the general public to purchase Patriot Power Greens.

But I convinced Dr. Sebring to make a special exception for our readers...

Dr. Sebring has set aside a limited number of free samples of



Patriot Power Greens exclusively for our readers.

How To Claim Your FREE Sample of Patriot Power Greens

With nearly 3 million members reading this magazine, the free samples are bound to go fast!

Simply log onto your computer and go to FREEGreens15.com to claim your free samples of Patriot Power Greens.

The samples are completely free. All we ask is that you pitch in a few bucks to cover the shipping.

Older guys in the Coast Guard and the ARMY Reserves swear by this drink to help them keep up with the "young bucks" in their unit.

If you'd like to feel younger, move a little better and have more energy then this is for you.

Simply go to FREEGreens15. com to claim your free samples of Patriot Power Greens.

Go To FREEGreens15.com

PROOFHOUSE

Rock Island Armory M1911A380



ROCKIN' A BABY ROCK

THEN THERE WERE TWO. Miniaturized 1911s chambering .380 ACP, that is. Sure, you'll find small, 1911-styled .380s on dealers' shelves (i.e., Colt Mustang, Kimber Micro, SIG Sauer P238, etc.), but we know of only two 1911s that are scaled-down versions of the 1911-A1 and are true to form: the Browning 1911-380 and the new Baby Rock from Rock Island Armory. Browning indicates that its 1911-380 is 85 percent in size of the standard .45-caliber 1911-A1. The Baby Rock is smaller.

Dimensionally, we found the Browning 1911-380 to have an overall length of 7.39 inches. The Baby Rock measures 6.62 inches. Height-wise, the Browning is taller at 4.82 inches, while the Baby Rock stands at 4.62 inches. Concealed carry practitioners might find it most important that the Baby Rock measures 1.12 inches at its widest point, a negligible difference when compared to the Browning's 1.13-inch width. These are G&A's measurements, not the manufacturers' suggested specs.





The Baby Rock is a Series 70 design, which lacks the additional internal safety plunger system of the Colt Series 80 1911s. Many 1911 purists deplore the Series 80 safety system because it is usually associated with crummy trigger pulls that are difficult for pistolsmiths to improve. Therefore, members of the Series 70-only fan club will welcome the Baby Rock.

The Browning 1911-380 was based on the brand's popular 1911-22 rimfire pistol. Engineers discovered that there wasn't a lot of extra stress on the rimfire's polymer frame by reworking the slide assembly and chambering the barrel for .380. Though light as it may be, many of the same 1911 purists dislike this about Browning's offering. If you fall into this crowd, then Rock Island's Baby Rock is for you. This one is built on a 4140 ordnance steel frame.

Disassembled, we find the Baby Rock stays true to the 1911-A1. There's a conventional guide rod and spring assembly, which means there is no fuss with attempting to fieldstrip a 1911 carrying a full-length guide rod. The barrel hood is polished and slippery, while the barrel tube is Parkerized. The chamber is given a broad ramp, which we found reliably gobbled up every type of .380 bullet nose configuration currently on store shelves.

Controls are in step with conventional 1911 wisdom. They are oriented for right-hand shooting. (We noted that the Browning 1911-380 does feature an ambidextrous thumb safety.) Contact points on the slide, hammer, thumb safety, slide-lock lever and magazine release are all serrated. The thumb safety is a scaled-down version of the Series 70 type, which is snag free and sticks out just far enough to sweep and deactivate. The nice thing about shooting a scaled-down version of the 1911, is that all controls — including the serrated pad for the slide lock lever — are within thumb's reach for most shooters without the need to break our firing grip.

The mainspring housing on the Baby Rock is aluminum





Lacking dots, these Novak-inspired combat sights are snag-free. The rear is dovetailed for making windage adjustments.

and deeply serrated. Not only do we find positive control of the reduced grip circumference, there is a bobtail radius given to the bottom part of the grip, which reduces the chance of printing while carrying this pistol. In most of our hands, this rounded corner takes shape underneath the meaty part of our palm. Combined with the rubber diamond-checkered grip panels, this grip is actually more comfortable to hold than the traditional approach found on Browning's 1911-380.

The controls work positively, and we especially like the beavertail grip safety, which is more than enough to protect the web of our firing hand from getting bitten by the slide or hammer during operation.

The slide isn't exactly 1911-A1. You'll find the usual 1911 enhancements. There are front and rear slide serrations, a lowered and (slightly) flared ejection port, Novak-style combat sights (without alignment marks), and an external extractor. Although 1911s usually incorporate an internal extractor, we're not surprised that

Government Melts Over 270 Million Silver Dollars

But collectors get an unexpected second chance

It's a crime.

Most Americans living today have never held a hefty, gleaming U.S. silver dollar in their hands.

Where did they go? Well, in
1918, to provide aid to the
British during WWI, the U.S.
government melted down nearly
half of the entire mintage—over
270 million silver dollars. If all
those missing silver dollars could
be stacked, they would tower over 400
miles into the sky! If laid in a chain, they
would span 6,400 miles—enough to stretch from
New York to Los Angeles more than 2½ times!

These vanished coins were not just any silver dollar-they were America's largest circulated coin, the beloved Morgan Silver Dollar. Each Morgan Dollar is struck from nearly an ounce of 90% fine silver and measures a massive 38.1mm in diameter. Morgan Silver Dollars were the engine of the American dream for decades. Created by famed American coin designer, George T. Morgan, they feature Lady Liberty's radiant profile and a majestic eagle, symbols of American strength and prosperity. Since their inception in 1878, they jingled in the pockets of famous and infamous Americans like John D. Rockefeller and Teddy Roosevelt, and desperados Jesse James and Al Capone. Today, Morgan Silver Dollars are the most collected coin in America.

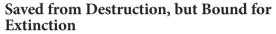
Lady Liberty takes a Final Bow

Just three years after the massive meltdown, the government gave the Morgan Silver Dollar a final chance to shine. In 1921, facing a serious shortage, the mint struck Morgan Silver Dollars for one more brief, historic year. Today, the last-ever 1921 Morgan Silver Dollar belongs in the hands of collectors, history buffs, or anyone who values the artistry and legacy of this American classic.

A Private Vault Gives Up its Secrets

Millions *more* silver dollars were melted over the past ninety years and today, private hoards account for virtually all the surviving Morgan Silver Dollars. We should know—we hunt for them every week. In fact, on one buying trip into America's heartland, as we were guided into a wealthy owner's massive private vault, we were thrilled to discover a hoard of nearly two thousand 1921 Morgan Silver Dollars, all in lustrous near uncirculated condition. We wasted

no time in securing the entire treasure trove of silver dollars into our own vault.



It's been estimated that less than 15% of all the Morgan Dollars ever minted have survived to the present day. And the number grows smaller with each passing year. The 1921 Morgan Silver Dollar is the last of its kind. But you can get one now before they're only a memory. Your chance to own this legend won't last long, so get yours today—and at a fantastic value!

SAVE \$35 or More!

Actual size

This same coin in About Uncirculated condition is offered elsewhere for \$95. But today, you can secure your own 1921 Morgan Silver Dollar—the last Morgan Silver Dollar ever—for as little as \$57.95 each. Buy with complete confidence. If you aren't satisfied, return your coins within 30-days for a full refund (less s/h).

Buy More and Save

1921 Last Morgan Silver Dollar

1-2 for \$59.95 ea. + s/h

3-4 for \$59.95 ea. + **FREE SHIPPING** 5-9 for \$58.95 ea. + **FREE SHIPPING**

10+ for \$57.95 ea. + **FREE SHIPPING**

FREE SHIPPING: Limited time only. Product total over \$150 before taxes (if any). Standard domestic shipping only. Not valid on previous purchases.

Call today toll-free for fastest service 1-888-870-8531

Offer Code MDS104-09

Please mention this code when you call



GovMint.com • 14101 Southcross Dr. W. Dept. MDS104-09 • Burnsville, Minnesota 55337

Prices and availability subject to change without notice. Facts and figures deemed accurate as of December 2015. NOTE: GovMint.com® is a private distributor of worldwide government coin and currency issues and privately issued and licensed collectibles, and is not affiliated with the United States government. GovMint.com is not an investment company and does not offer financial advice or sell items as an investment. The collectible coin market is speculative, and coin values may rise or fall over time. All rights reserved. © 2016 GovMint.com.

GA SPORTSMAN'S DIRECTORY







BurnCage.com



Shooting slightly left out of the box at 15 yards, the Baby Rock produced consistent groupings. Results were better than most .380-chambered pistols G&A has evaluated.

PERFORMANCE

LOAD	VELOCITY (FPS)	ES	SD	BEST GROUP (IN.)	AVERAGE GROUP (IN.)
Horn. CD 90-gr. FTX	937	65	24	1.75	2.24
SIG Sauer 90-gr. JHP	924	41	16	1.96	2.77
CCI Blazer 95-gr. TMJ	898	97	37	1.97	3.2
Rem. GS 102-gr. BJHP	940	47	19	2.12	2.83

Notes: Accuracy is the result of five, five-shot groups fired from a sandbag benchrest at 15 yards. Velocity is the average of five shots measured by an Oehler 35P chronograph 7 feet from the muzzle. "Horn." is "Hornady," "CD" is "Critical Defense," "Rem." is "Remington" and "GS" is "Golden Saber."

Rock Island went with an external extractor given the reduced mass of metal that had to occur in scaling this pistol down. This isn't a feature that gives us pause, as many manufacturers, G&A contributors and shooters feel that external extractors are more easily serviced and reliable.

At the range, the Rock Island Baby Rock was flawlessly reliable and quite accurate when compared to other .380s we're in the process of evaluating. The 1911 lends itself to accurizing, and it is apparent to us that the pistolsmiths working at Rock Island are hand-tuning these guns before they leave the factory in the Phillipines. With the low-felt recoil of the .380 ACP and the incredible amount of surface area your hands can wrap around the grip frame, it should be little surpise how steady the Baby Rock is to shoot and how fast you can follow up each shot with precision.

Being that the two pistols are so similar in size, it's fair to compare the new Baby Rock to the Browning 1911-380. Considering all of the attributes they have in common, there is one important difference: price. The MSRP for the Browning is \$670, while Rock Island is offering its Baby Rock for just \$460 at retail. Yes, real-world prices are often less at the gun counter, but there is no way you're going to find a better value in a miniaturized 1911 chambered for .380 ACP than this. Especially one that runs this well.

OUALITY TOOLS AT



600+ Stores **Nationwide**





SUPER COUPON



How Does Harbor Freight

Sell Great Quality Tools



urchase. Coupon good at our stores, Harbor/Feight.co alling 800-423-2567. Offer good while supplies last. Handling charges may apply if not picked up in-sto ansferable. Original coupon must be presented. Valid 3/16. Limit one FREE GIFT coupon per customer

Supplied the supplied of the supplied the su



<u>Haul</u>Master

LOT 60497/93888 shown 61899/62399/63095/63096 63098/63097





LOT 62774/94555 shown

\$109.99

SPOTTING SCOPE



comp at \$14.99



Customer Rating

 \star \star \star \star





, 4 DRAWER TOOL CART US*GENERAL. LOT 95659 shown 61634/61952 \$349.99

- Over 30 Million Satisfied Customers
- No Hassle Return Policy
- Lifetime Warranty On All Hand Tools
- HarborFreight.com
- 800-423-2567





A SECOND OPINION

While G&A editor Eric R. Poole evaluated the new CrossBreed Freedom Carry holster for this issue's "Carry Rig" column, managing editor Chris Mudgett worked out the brand's popular Super-Tuck Deluxe holster using a SIG Sauer P320 Carry.

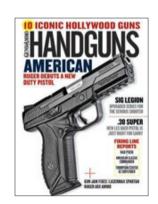
Check out his results exclusively at gunsandammo.com.

FIND THE CURRENT ISSUES OF OUR OTHER FAVORITE MAGAZINES ON NEWSSTANDS:



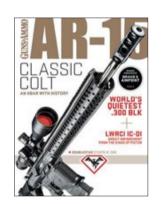
SHOOTING TIMES

- Suppressor-Ready Dan Wesson
- New Elk Bullet
- Trijicon's New AccuPower Line \$4.99 (U.S.)



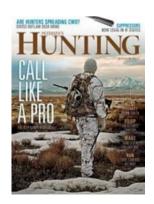
HANDGUNS

- Ruger's New American Pistol
- SIG Sauer's Stealthy New Legion
- Les Baer's .38 Super 1911 \$4.99 (U.S.)



THE BOOK OF THE AR-15

- The Quietest .300 Blackout
- LWRCI's Direct Impingement AR
- DoubleStar's Big Bore \$8.99 (U.S.)



PETERSEN'S HUNTING

- Suppressors Now Legal in 41 States
- Trail Cameras Out West \$4.99 (U.S.)



GUN DOG

- Puppy Selection Guide
- Testing Natural Ability
- Mossberg's Youth .410 \$4.99 (U.S.)

CALL 800-260-6397 OR VISIT

outdoorsg.com

TO ORDER NOW!

SPORTSMAN RED WILD CHANNEL FRLUE

AIRING THE WEEK OF

GUNS&AMMO television

2016 **29 FEBRUARY**



G&A tests suppressor-ready Walther rimfires and sends rounds downrange with YHM pistol-caliber carbines.

2016 7 March



G&A TV Exclusive: Hornady teams up with Doppler Radar to introduce a totally new centerfire rifle bullet.

2016
14
MARCH



We review a couple of new and exciting semiautomatic pistols to include the unique Taurus Curve.

2016 **21** MARCH



The .300 Blackout gets a fair share of attention, so G&A writers shoot it through SIG Sauer's new MCX.

2016 **28** March



Time to review new carbines including the Stag Arms Model 9 and 9L during the "At The Range" segment.

AIR TIMES ARE EASTERN Monday 6:00 p.m. Monday 9:00 p.m. Tuesday 12:00 a.m. Thursday 2:00 p.m.

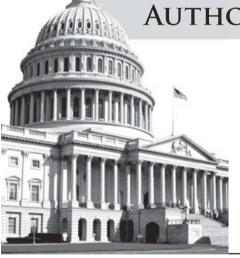
U.S. GOV'T GOLD

AT-COST U.S. GOLD COINS FOR PUBLIC RELEASE

The U.S. Money Reserve Vault Facility today announces our latest release of U.S. government-issued gold coins previously held in The West Point Depository/U.S. Mint. For a limited time, U.S. citizens will have the opportunity to purchase these \$5 government-issued gold coins for the incredible at-cost price of only \$116.00 per coin—an amazing price because these U.S. government-issued gold coins are completely free of dealer markup. That's correct our cost. This may be your final opportunity to buy U.S. government-issued gold coins at this price. Gold is currently around \$1,085 per ounce—an incredible deal considering gold's record price of \$1,923 per ounce last seen only a few years ago. In fact, 10 years before gold's record high, it was trading at just \$272 per ounce! This means that specific 10-year period saw a whopping increase of over 600% in the price of gold!* Please be advised: Our U.S. government gold inventory will be priced at \$116.00 per coin while supplies last or for up to 30 days. These coins may sell out. Call today! U.S. Money Reserve will release these U.S. government-issued gold coins on a first-come, first-served basis. Orders that are not immediately received or reserved with the order center could be subject to cancellation and your checks returned uncashed. Order immediately before our allotted inventory sells out completely! Special arrangements can be made for gold purchases over \$50,000.







By Executive Order and Congress Public Law 99-185, Americans can buy government-issued gold coins. Congressionally authorized United States gold coins provide American citizens with a way to add physical gold to their assets. Gold American Eagles are made from solid gold mined here in America, struck at the U.S. Mint at West Point, and produced with a U.S. dollar denomination, making them legal tender United States gold coins. They are highly liquid, easily transportable, and, unlike paper assets,

Gold American Eagles have a tangible value you can feel each time you hold your own gold. With gold currently at one of its best buying opportunities in years, now is the time to consider converting part of your paper assets into gold coins. U.S. Money Reserve has a limited supply and urges you to make your vault reservations immediately. Call 1-877-334-2268 to start your portfolio with gold coins and begin protecting your wealth today. If you've been waiting to move your money into gold, the time is now.

DO NOT DELAY - LIMITED SUPPLIES AVAILABLE!

GOVERNMENT-ISSUED GOLD COIN

Special offer is strictly limited to only one lifetime purchase of ten coins (regardless of price paid) per household, plus shipping and insurance (\$15-\$35). Prices may be more or less based on current market conditions. The markets for coins are unregulated. Prices can rise or fall and carry some risks. The company is not affiliated with the U.S. Government and the U.S. Mint. Past performance of the coin or the market cannot predict future performance. Price not valid for precious metals dealers. All calls recorded for quality assurance. Offer void where prohibited. Coin dates our choice.

PURE COST - NO DEALER MARKUP!

 $$116\frac{00}{EACH}$

PLUS SHIPPING & INSURANCE (\$15 - \$35)

Call Toll-Free 7 Days a Week:

1-877-334-2268

MASTERCARD • VISA • AMEX • DISCOVER • CHECK • BANK WIRE



VAULT CODE: GA10-116

© 2016 U.S. Money Reserve

*Based on the change in gold's price from September 6, 2001 (\$272/oz.) to September 6, 2011 (\$1,923.70/oz.)



A NEW YORK RELOAD

JIM CIRILLO IS BEST KNOWN for his time with the New York City Police Department's Stakeout Unit (SOU), where he participated in more than 20 officer-involved shootings during the unit's surveillance of city businesses with the highest likelihood of robbery between 1968 and 1973.

Cirillo was famous for carrying two .38 Special service revolvers with five reloads, a personally owned 2-inch-barreled Colt Cobra in .38 and a Walther PPK in .32 ACP. If one gun ran dry, he drew and fired another. It is said that Cirillo and his unit's procedure of grabbing a backup gun when one runs out of ammunition was the source of the term "New York Reload." The above photograph illustrates Cirillo after winning his first of two New Jersey State Championships standing with his shrouded-hammer .38 Colt Cobra. This winning target was fired from the hip at 7 and 15 yards with both duty and off-duty guns as a member of the NYPD four-man shooting team. Setting a world record, all members of this team shot a perfect score of 300 and beat the FBI pistol team. FBI Director J. Edgar Hoover subsequently disbanded the squad. To this day, the FBI does not participate in open competition.

Within two hours of Cirillo's first stakeout after being assigned to the SOU, three armed men held up a crowded

dairy store. Terrified, Cirillo stood up to confront the robbers as a piece of his armor detached from his vest and struck the floor with a thud. The three armed suspects then turned and pointed their handguns at him. Cirillo later described that his subconscious went into survival mode while firing his Smith & Wesson Model 10 revolver. Three seconds later, one robber was dead and the two other wounded accomplices hobbled off. They were later captured by police. Cirillo stated, "One robber only gave me a 6-inch circle of his moving head to shoot at, while the other two jumped behind the clerk [using her as a human shield], exposing only about 9-inches of their bodies on each side of her." The reconstructed shooting showed Cirillo was 60 and 75 feet from the assailants, striking all three suspects. Many of Cirillo's lessons learned are found in the book "Guns, Bullets, and Gunfights" (1996).

After leaving active service with NYPD, Cirillo became a firearms instructor with U.S. Customs, then at the Federal Law Enforcement Training Center (FLETC) until retirement in 1991. Those that met Cirillo were often surprised that he wasn't a steely-eyed killer. Instead, they found a man dedicated to his family who enjoyed the outdoors. He was killed in an automobile accident on July 12, 2007.



KIMBER TWO-TONE II AND STAINLESS II THE NEW LOOK FOR AN ICONIC FOUNDATION.







WHAT ALL GUNS SHOULD BETM

(888) 243-4522 KIMBERAMERICA.COM