MARCH • APRIL 2022

Modern Firearms™ Presents ●

LIFE • ATHLON PUBLICATIONS

HOT NEW CARTRIDGE: 30 SUPER CARRY

SPRINGFIELD UNLEASHES ITS FIRST BULLPUP

BULLET PROOF VEST TORTURE TEST

HORNADY SMM ARC DEEP DIVE 10-Page Special!

Springfield Armory Hellion 5.56mm with Nightforce NX8 1-8x24 10

6

SELF-DEFENSE AMMO BATTLE LDADS TESTED

()

MEET THE Fal, AK & Ar Love Child

H

=

SIG SAUER MCX BROWNELLS 1805 MAGPUL D-60

PLUS:

말랐다는

BEWARE SILENCER KNOCKOFFS > 20 GA HOME DEFENDER ITALIAN AIR FLAIR > U.S. FORTS ROAD TRIP > INSIDE FALKOR



2.

PROFESSIONAL GRADE WEAPONRY®

BRAVOCOMPANYMFG.COM

BRIEFING ROOM

HOT STUFF



Welcome to the latest issue of Tactical Life, where we strive to bring you 132 pages of the hottest new guns, ammo and gear for those who make such items an integral part of their everyday lives.

As we wait for the U.S. Supreme Court to rule whether we have a right to carry a firearm outside the home (duh), there are some things we don't need nine justices to figure out. One of those things is that a cool new round from Federal Cartridge might just change the world of concealed carry.

The 30 Super Carry (page 38) is a brand new caliber between the .380 Auto and the ultra-popular 9mm. The most interesting thing about the new cartridge is that most single-stack mags can carry two more rounds of 30 Super Carry than they can 9mm-with equal or even better ballistics! The potential for the new caliber to revolutionize concealed carry guns is great, and both Nighthawk Custom and Smith & Wesson have already built pistols to handle the new round.

Speaking of new cartridges, now that a year has passed since its introduction we decided it was time to revisit Hornady's 6mm ARC. If you like rifles, you won't want to miss Frank Melloni's report on running three different Hornady



TACTIC

6 ARC loads through his self-built AR. Then, Fred Mastison doubles down on our 6 coverage by reporting on easy 1,200-yard hits from an ATI Omni Hybrid Maxx in the same chambering.

If you're like us, you've probably been called a hellion at some time in your life. But most of us don't hold a candle to the new Springfield Hellion featured on page 30. At just slightly over 28 inches, this kickass little bullpup rifle is a bundle of fun, and it totes 30 rounds of 5.56mm!

All that's just for starters. Don't miss out on a new Springfield 1911 that bridges the gap between factory and custom, a "Tactical Rides" column focusing on DIY airplane kits, a revealing BulletSafe vest torture test, a "Stockpile" column chock full of brand new items just introduced at SHOT Show 2022, plus reports on home- and self-defense gear for handgunners and shotgunners alike!

As far as covers go, newsstand readers were likely drawn to the magazine by dynamic photography of the new 30 Super Carry round and the stunning Nighthawk Custom's GRP chambered in that cartridge. Subscribers got a closer look at that super-cool new Springfield Hellion we love so much.

To that, we can only say, "Hell-ion Yeah!" Enjoy.

-The Editors

FDITOR-IN-CHIFF SENIOR EDITORS ART DIRECTOR/COVER DESIGN PREMEDIA SENIOR DIGITAL EDITOR EDITORIAL ASSISTANT **CIRCULATION CONSULTANT COVER PHOTOS**

EDITORIAL DIRECTOR Nino Bosaz Linas Cernauskas Greg Duncan, Mark Chesnut* Rory Slifkin Mike Gregory Chad Adams **Richard Ortega** Scott Hill/ProCirc Sean Utley* (NHC GRP); Michael Bordon* (SA Hellion) EDITORIAL INQUIRIES editdesk@athlonoutdoors.com

SUBSCRIPTIONS/SINGLE COPY INQUIRIES

800-284-5668; subscriptions@athlonmediagroup.com

personaldefenseworld.com • tactical-life.com skillsetmag.com • ballisticmag.com

ATHLONOUTDOORS

athlonoutdoors.com

SVP/GENERAL MANAGER Nick Seifert

ADVERTISING SALES National Office

212-478-1910; sales@athlonoutdoors.com

Independent Account Representatives

SOUTHEAST & UPPER MIDWEST WESTERN REGION MIDWEST/CENTRAL SOUTH

NORTHEAST REGION Scott Buchmayr • 978-462-6335 Amos Crowley • 216-378-9811 Scott J. Cherek • 307-635-8899 Dan Flavin • 248-515-8654 SPECIALTY/AT LARGE Mark Pack • 949-683-0083

DIRECT RESPONSE ADVERTISING Jim Coen • 718-825-7533 VP. OPERATIONS AND STRATEGY Carrie Roeder MARKETING & **PROGRAM MANAGER** MARKETING COORDINATOR/ ADMINISTRATOR

Niki Morrison

Maureen Pichner

ATHLON MEDIA GROUP

Corporate Officers PRESIDENT, CEO **CFO/TREASURER** CORPORATE ADDRESSES

Chuck Allen Mary Lee Vanderkooi **New York:** 60 E. 42nd St., Suite 820, NY, NY 10165 Nashville: 2451 Atrium Way, Suite 320 Nashville, TN 37214

* Consultant

TO THE READERS: Be advised that there may be products represented in this magazine as to which the sale, possession or interstate transportation thereof may be restricted, prohibited or subject to special licensing requirements. Prospective purchasers should consult the local law enforcement authorities in their area. All of the information in this magazine is based upon the personal experience of individuals who may be using specific tools, products, equipment and components under particular conditions and circumstances, some or all of which may not be reported in the particular article and which this magazine has not otherwise verified. Nothing herein is intended to constitute a manual for the use of any product or the carrying out of any procedure or process. This magazine and its officers and employees accept no responsibility for any liability, injuries or damages arising out of any person's attempt to rely upon any information contained herein.

TACTICAL LIFE (ISSN 2691-6673) is published bi-monthly, with a special issue in June titled Tactical Life Gun Annual by Athlon Sports Communications, Inc., 2451 Atrium Way, Suite 320, Nashville, TN 37214. Single Copy price is \$9.95 US and \$10.95 in Canada. Subscriptions are 7 issues for \$35.97 for one year in U.S. Periodicals Postage is paid at Nashville, TN and Additional Entry Offices. POSTMASTER: send address changes to Tactical Life, PO Box 292167, Kettering OH 45429. POSTMASTER: send subscription requests to: Athlon Media Group, PO Box 292. Submissions of manuscripts, illustrations and/or photographs must be accompanied by a stamped, selfaddressed envelope. The publisher assumes no responsibility for unsolicited material. Copyright © 2022 by Athlon Sports Communications, Inc. All rights reserved under international and Pan American Copyright Conventions. Reproduction in whole or in part, via electronic or any other means, without written permission of the publisher is strictly prohibited. Printed in the U.S.A. Volume 5 Issue 2.

Tactical Life Magazine adheres to the California Consumer Privacy Act of 2018. For more information about your rights as a California consumer or to opt out of the sale of your personal information, please visit Tactical-Life.com/ccpa.

GERMAN ENGINEERING. AMERICAN VALUE

1

-• AP5-P



A 1980'S ICON DESERVES A 1980'S PRICE (DON'T BELIEVE US? LOOK IT UP...)

CENTURYARMS.COM

FOLLOW @CENTURYARMS : f 🖻 🖻

MARCH • APRIL 2022 VOLUME 5 • ISSUE 2

TACTICAL





86

116





FEATURES

Springfield's first bullpup gives Americans a super-hot taste of Southeast Europe BY FRED MASTISON

38 30 SUPER CARRY)

Meet the game changer that lets you carry like a .380 and hit like a 9mm BY MIKE DETTY

48 A SHINING SAR

Look here at the K12 Sport–SAR USA's crown jewel that's priced for everyone BY ANDY GROSSMAN

54 BUILT TO OPERATE Springfield's latest 1911

steel defender fills the gap between standard and custom **BY FRANK MELLONI**

68 FALKOR RISING From aerospace to firearms, Falkor continues to soar with ballistic breakthroughs

BY SEAN UTLEY

76 BULLET PROOF? Putting the BulletSafe VP3 vest under the gun–a full-auto submachine gun BY WILL DABBS, MD

6 GMM ARC SPECTRUM

It's feeding time to find out if Hornady's newest rounds really have you covered BY FRANK MELLONI

91 MAXXED SIX ARC

Going long and light with ATI's polymer Omni Hybrid Maxx **BY FRED MASTISON**

104 MEET M+M'S BUNDLE OF JOY

The M10X–what you get if an FAL, an AK and an AR-15 have a love child **BY FRANK JARDIM**

108 CHAOS CONTROL

EAA's new Churchill 220 Optics Tactical reports for home-defense duty BY WILL DABBS

116 ROCKING OUT

The Rock River Arms RBG-1S goes to long-range class BY FRED MASTISON

WHERE EXCEPTIONAL QUALITY MEETS SUPERIOR PERFORMANCE!

EXPERIOR

Experior Double stack 4.25"

Experior Double stack 4"



QUALITY YOU CAN TRUST

SERVICE YOU DESERVE

Learn more about the new Experior models at www.wilsoncombat.com

TACTOR 2022 VIDUMEDE 4 ISSUE 2











28





DEPARTMENTS

08 **STOCKPILE** New guns and gear for shooting, hunting and personal-defense

CAN CORNER U.S. authorities battle illegal Chinese-made silencer sales **BY SEAN CHAFFIN**

AMMO MATCH 22 Eight of the best 9mm self-defense rounds in a

battle royale **BY FRANK MELLONI**

OPTICS 28 Spotters and other

16

Leupold gear used at Athlon Outdoors' 2021 Rendezvous **BY ALEX LANDEEN**

60 **PROJECT AR** Old-style BRN-180S

meets new Sig MCX to make one slick ARplatform defender **BY TODD BURGREEN**

WARRIOR WEAR 82 Adept Armor is poised to bring steel combat helmets back to the front lines **BY PETER SUCIU**

98 **TACTICAL RIDES** We're taking it to new heights to show you the joys of kitplane

ownership **BY WILL DABBS, MD**

- **AIR SUPPORT** 113 Stoeger's latest PCP is all about budget air with Italian flair **BY GORDON D. SMITH**
- 121 **FLASHBACK** Browning M1919

still pounding out the hits after 100-plus years in service **BY PETER SUCIU**

- **MILITARY HISTORY** 125 Take a road trip to 11 of America's historical forts **BY SEAN CHAFFIN**
- 128 **FAKE-TICAL NEWS** Satire for operators who are nuts about guns



9MM STRIKER-FIRED 10+1 CAPACITY 5.5LB TRIGGER \$329.99





Hidden Gem: The ultra-concealable DVG-1 from SCCY Firearms makes for a perfect choice when it comes to self-defense. It's made in the USA with premium components. Priced at \$329.99, you won't find a better pistol in its class. That's what we call a real diamond in the rough.

Learn more at sccy.com/dvg

Russilar





REMINGTON CUTLERY COLLECTION

Sportsmen and collectors can once again find a variety of Remington cutlery showcasing familiar Big Green branding and quality. Remington is introducing four main series of knives–Woodland, Backwoods, Hunter and Guide Series–with each including pocket, folding and fixed-blade variations. The initial line will also include the hand-crafted in the USA Bullet Knife, an EDC line, a Sportsmen's Series and Collectable Tin Gift Sets featuring art from the Remington collection and wild game scenes. (**remington.com**)



Savage Arms has announced the addition of the 110 Carbon Tactical to its line of 110 bolt-action rifles. The new rifle builds upon the success of the 110 Tactical, but cuts weight with an exclusive PROOF Research carbon fiber-wrapped stainless steel barrel securely housed in Savage's rigid AccuStock. Of

course, the rifle features Savage's famous AccuTrigger, adjustable from 1.5 to 4 pounds, and is available in three calibers and two colors. (savagearms.com)

EDITORS' PICKS

FOR NEW AND

NOTEWORTHY

GUNS AND GEAR



CROSSBREED HOLSTERS HOLSTERS FOR SAVAGE STANCE

Springfield, Missouri, based Crossbreed Holsters, a top-quality maker of concealed carry holsters, is now offering a number of their popular models with the Kydex pockets molded to fit the new Savage Stance pistol. Models offered to fit the new sub-compact include the best-selling SuperTuck and the MiniTuck IWB holsters, designed for deep concealment and maximum comfort and stability while allowing the user to wear their shirt outside or tucked in. (crossbreedholsters.com)



5.11 FOOTWEAR, CLOTHING AND GEAR

5.11 has announced the release of several new products that expand the brand's offering for outdoor adventurers and others. The company's well-known line of Norris Sneakers has expanded with the brand new Low-Top Norris Sneaker. Additionally, the new A/T Arid offers the full benefits of A.T.L.A.S. technology along with a locking ankle eyelet. Other new 5.11 products include the TacTec Trainer Weight Vest, the WTS 3L Hydration System,

the WTS 3L Hydration System, the Flex TacMed Pouch and CFA Peacemaker Tomahawk. (511tactical.com)



F.A.B. DEFENSE RAPS-C STOCK

F.A.B. has added the new Rapid Adjustment Precision Stock to its lineup of AR-15-style rifle stocks. The RAPS-C features a one-latch system that locks both LOP and cheek rest height with one lever that can be configured for right- or left-handed shooters. Plus, the stock features a concealed Picatinny rail at the bottom for use with a monopod, a heavy-duty rubber butt pad with height adjustability and a retention bolt for determining optimal fit on carbine buffer tubes. **(fab-defense.com)**

RIFLESPEED

GAS CONTROL ASSEMBLIES

Riflespeed's extensive line of gas control assemblies for AR-15s and AR-10s make controlling your rifle's gas flow reliable, repeatable and foolproof. With the easy-to-grasp control knob, it's simple to adjust without any tools. Plus, the highly visible numbering on the control knob ensures that you'll always know your setting. Designed for the most rigorous military or law enforcement duty use, Riflespeed gas controls are also ideal for defensive use, competition, recreational shooting or hunting. (riflespeed.com)





BUSHNELL ELITE 4500 4X RIFLESCOPES

Bushnell is bringing back its Elite 4500 line of riflescopes with three new and improved models. The new Elite riflescopes offer a 4X magnification range with each model, along with improved contrast and clarity, and a generous eye box that makes it easier to get on target quickly in any situation. The three models include a 1-4x24, 2.5-10x40 and 4-16x50, all with fast-focus eyepiece, extended eye relief, capped windage and elevation turrets, and a Multi-X reticle. (**bushnell.com**)

TAYLOR'S & CO.

GUNFIGHTER DEFENDER

The world's leading marketers and importers of state-of-the-art historical firearms, Taylor's and Company has added the Gunfighter Defender revolver to their

Performance Series for 2022. The Gunfighter Defender is a perfect combination of the original Gunfighter features and the favorite lowered Runnin' Iron hammer. Taylor's installed the favorite 1860 Army grip onto the new model frame cattleman to accommodate the larger handed shooter. The revolver is available in .357 Mag. and .45 LC, with 4.75- or 5.5-inch barrel. (taylorsfirearms.com)



FN AMERICA FN M249S

FN America is now offering its M249S semi-automatic, belt-fed rifle in both paratrooper and standard configurations. The FN M249S is part of the FN Military Collector Series, introduced in 2015 to bring to market classic interpretations of the firearms that FN designed and sold to the U.S. military. The standard model features an 18.5-inch cold hammer-forged, chromelined barrel, while the paratrooper uses the same barrel at 16.5 inches and a telescoping and collapsing buttstock. (fnamerica.com)

SAVAGE Stance

Known for their quality rifles, Savage is breaking new ground with the Stance pistol. This thin, striker-fired, semi-automatic micro-9 sports a 3.2-inch barrel, and Savage says

it will be the first in an extensive line of handguns. The polymer-framed pistol is available with standard sights, night sights or a Viridian E-series red laser, and with a black, gray or FDE grip frame. Interestingly, the Stance uses a detachable metal chassis as the serialized component of the pistol.

(savagearms.com)

MOSSBERG

940 PRO WATERFOWL SERIES

Mossberg's 940 Pro line has expanded with the addition of two 12-gauge waterfowl shotguns—Pro Waterfowl and the Pro Snow Goose. Both feature Cerakote metal surfaces, chrome-lined barrels, HIVIZ TriComp sights and camo-finished stocks and forends. Both models also feature a new gas system that will run up to 1,500 shots before cleaning. The Pro waterfowl has a 5+1 shotshell capacity, while the Pro Snow Goose has an extended magazine tube giving it a 13+1 capacity. (mossberg.com)

A R K[®] IGHT M S

10







USES 2x CR123A BATTERIES



FULL COLOR DAYTIME MODE





WATER RESISTANT



4K ULTRA HD DIGITAL IMAGING



INCLUDED IR

ALUMINUM HOUSING

f 🖻 🛅 WWW.SIGHTMARK.COM | CONTACT SALES: 817.225.0310 | SALES@SIGHTMARK.COM



(TOT ELIVE

SPRINGFIELD

XD-M ELITE COMPACT OSP WITH HEX

The new XD-M Elite Compact OSP from Springfield is a .45 ACP, striker-fired semi-auto that comes complete with

a HEX Dragonfly sight installed on the slide. The compact handgun features a 3.8-inch steel barrel with Melonite finish, a forged steel slide that is optics ready and two 10-round mags. The frame is black polymer, overall length is 6.75 inches, and the

.45-caliber powerhouse weighs in at only 26.5 ounces.

(springfield-armory.com)



SILENCER CENTRAL Banish 46 and 338

America's largest silencer dealer is now offering its exceptional Banish silencer in two new models made for big-bore rifles. The Banish 46 is a modular silencer designed for use with a wide variety of calibers including .338 Lapua, .45-70 Government, and 10mm and .45 ACP. The Banish 338 is a direct-thread suppressor with a ported Inconel blast baffle that has an increased chamber size and eight other baffles of increased thickness for better durability with larger calibers. **(silencercentral.com)**



ROCK RIVER ARMS

RRA's new Assurance Carbine is a missionspecific rifle with the precision and dependability home defenders and defense professionals demand in today's

12

AR-platform market. The rifle, originally designed for multiple government agencies and law enforcement groups, is chambered in 5.56mm and features forged upper and lower receivers, a 16-inch chrome moly barrel, RRA's popular two-stage trigger, a freefloat quad rail handguard with Picatinny rails on three sides, a CAR-length gas system and RRA's six-position buttstock with sling mount. (rockriverarms.com)



STOEGER STR-9 FULL-SIZE PISTOL

Stoeger has expanded its popular STR-9 series of 9mm pistols with the introduction of the STR-9F, the first full-size 9mm semi-auto in the line. The new striker-fired STR-9F boasts an overall length of 7.95 inches and a 4.68-inch barrel length. The extended sight radius combines with the STR-9F's precision barrel and Nitride-treated machined slide assembly to deliver the kind of accuracy shooters would expect from handguns at twice the price. Empty weight is an easily managed 26.4 ounces. **(stoegerindustries.com)**

UMAREX GLOCK PAINTBALL MARKER

Paintball fans who like the Glock design will likely love the new GLOCK 17 Gen5 T4E marker from Umarex. The new Glock 17 marker is a CO2-powered pistol made for paintball sports and training scenarios. The eight-round magazine, which can hold either .43-caliber paintballs or powder balls, also accommodates a 12-gram CO2 cartridge that can be swapped in seconds without needing tools. The marker is compatible with a wide range of Glock accessories on the market. (umarexusa.com)



TACTICAL LIFE | 03 • 04 | 2022

TACTICAL-LIFE.COM



ENHANCING THE AR15 STANDARD

M4E1 LOWER RECEIVER



AEROPRECISIONUSA.COM

XS NIGHT

(xssights.com)

SIGHTS FOR TAURUS GX4

XS Sights is offering a wide variety of its popular night sights for the new Taurus GX4 9mm micro-compact pistol. The DXT2 Big Dot has a self-illuminating tritium center surrounded by XS's photoluminescent Glow Dot technology that drives focus to the front sight, while the R3D has a traditional three-dot tritium, notch and post sight picture with a blacked out rear. Other models available for the GX4 are the Minimalist and the DXW2.

ALPS

COLD-WEATHER APPAREL

A premier maker of quality hunting packs and other outdoor gear, ALPS has introduced a new line of cold-weather gear that includes the Element Hoodie and Shield Jacket. The Element Hoodie, available as a pullover or a full-zip hoodie, features a cotton/polyester blend and plush fleece interior lining making it suitable for all-day comfort. Constructed of a polyester shell with a thick Sherpa fleece interior, the Shield Jacket is a more technical garment suitable for hunting or everyday wear. (alpsoutdoorz.com)



WARNE

EVERY DAY CARRY HOLSTERS

The industry leader in scope mounting solutions, Warne has launched its Every Day Carry line of U.S.-made holsters, belts and belt-mounted accessories. The new line features uniquely designed inside-the-waistband, outside-the-waistband and chest holsters, as well as belts and magazine carriers for concealed carry, range/competition and hunting applications. The flagship models of the line are the Hybrid IWB holster, which features unique retention, and Chest Rig holster for when a traditional belt holster isn't ideal. (warnescopemounts.com)





TAURUS

G3X HYBRID COMPACT PISTOL

Taurus's G3X represents a design blend of two of Taurus' more recent semi-auto pistols—the G3 full-size and the G3C compact. The Taurus G3X 9mm is built on a similar fullsize frame as the G3, with a grip width of 1.1 inches and a height of 5.2 inches with the 15-round magazine. However, at 6.5 inches, the Taurus G3X is more than three-quarters of an inch shorter than the G3, putting it on par with the compact G3C model. (taurususa.com)







fImage: Second stateWWW.PULSARNV.COM | CONTACT SALES: 817.225.0310 | SALES@PULSARNV.COM

FEDUPWITH FLOPTH U.S. AUTHORITIES BATTLE

CHINESE-MADE KNOCKOFF SILENCERS

BY SEAN CHAFFIN

The ads appear on social media sites advertising firearms silencers and, for many, the price seems just too good to pass up. The company uses Facebook or other online platforms, promising buyers a new silencer at just \$99 or so. That seems like a nice deal as suppressors usually run in the \$500 to \$1,500 range. A couple clicks later and an order is placed with shipment coming soon.

As with many things, however, if something doesn't seem right, it's probably



"... 2017 FIREARMS COMMERCE REPORT NOTED THAT THERE WERE ALMOST 1.4 MILLION SILENCERS IN THE U.S. NO DOUBT THAT HAS INCREASED SIGNIFICANTLY OVER THE LAST FEW YEARS." not. A few weeks later, the suppressor arrives labeled as a "fuel filter" or "solvent trap." This isn't a fuel filter however, and these Chinese-made cans skirt the law with creative mislabeling.

The devices also put Americans in danger with possible shoddy manufacturing and in jeopardy of violating U.S. federal law regarding silencers. Officials with the Department of Homeland Security (DHS) recently spoke with *Tactical Life* about the growing numbers of knockoff cans being purchased online and the department's efforts at combatting their purchase and import.

A GROWING PROBLEM

Why would a gun owner need a silencer? While Hollywood may depict cans as tools of the trade for assassins and spies, suppressors have other more utilitarian uses. Silencers can reduce recoil and muzzle flinch, and, in turn, improve a shooter's accuracy. Not only that but suppressors obviously also greatly reduce the noise from firing a gun, as much as 20 to 35 decibels, which can limit damage to a shooter's hearing. This

Photo

Nex

S. S. S. S. S.

燃油濾清器

fuel filters

additionally mitigates noise for those nearby.

Americans purchase about 150,000 silencers a year and, while the industry is still fairly new, more and more continue to get in on the can craze. The Department of Alcohol, Tobacco, Firearms and Explosives' (ATF) 2017 Firearms Commerce Report noted that there were almost 1.4 million silencers in the U.S. No doubt that has increased significantly over the last few years.

According to Homeland Security, silencers are defined as firearms in the federal Gun Control Act (GCA) and subject to the licensing and registration provisions of the National Firearms Act. The GCA defines the terms "firearm silencer" and "firearm muffler" as "... any device for silencing, muffling, or diminishing the report of a portable firearm, including any combination of parts, designed or redesigned, and intended for use in assembling or fabricating a firearm silencer or firearm muffler, and any part intended only for use in such assembly or fabrication."

> The illegal Chinese devices often resemble and contain multiple design characteristics

of firearm silencers and marketed as solvent traps, which are legal and attach to the barrel of a gun during cleaning to catch excess cleaning fluids. However, the illegal cans function in the same method as firearm silencers.

"Some devices called solvent traps may have a legitimate purpose as a firearm accessory," an ATF official notes. "However, while the manufacturer's stated intent for the item may be useful in classifying that item, the objective design characteristics must support this use. ATF's position is that if an article is designed or redesigned

And and and and

to silence, muffle or diminish the report of a firearm, they would be considered firearms under federal law.

"Every case is unique and requires a full and thorough investigation to determine whether the parts and components are designed or redesigned as silencer parts intended for the use in assembling or fabricating a firearm silencer or firearm muffler."

DANGER ALWAYS POSSIBLE

Josh Albrecht, owner of Truck Master Diesel in Perry, Michigan, didn't expect law enforcement at his home last

> summer. He hosts a popular YouTube channel called "Truck Master"

WHAT IS AVAXHOME?

the biggest Internet portal, providing you various content: brand new books, trending movies, fresh magazines, hot games, recent software, latest music releases.

Unlimited satisfaction one low price Cheap constant access to piping hot media Protect your downloadings from Big brother Safer, than torrent-trackers

18 years of seamless operation and our users' satisfaction

All languages Brand new content One site



We have everything for all of your needs. Just open https://avxlive.icu



You get what you pay for. Be warned, a fake can certainly can land you in hot and highly dangerous water.

with 156,000 subscribers. Local police and a Homeland Security agent knocked on his door to inquire about some "suppressors" they apparently believed he'd purchased.

Authorities discovered he'd bought several legitimate fuel filters from a company that had been red-flagged for engaging in illegal importation of illegal silencers. Only Albrecht's purchases were legit. He purchased several fuel filters to spotlight on his YouTube channel and had never even heard of illegal Chinese silencers. After the ordeal, he later made a video about the entire fiasco complete with security video showing the agents at his front door. He spoke about his own research into the subject after the experience, echoing the concerns of law enforcement and firearms experts.

"It's probably a huge safety issue, buying something cheap for your weapon and it explodes on the end of the barrel," Albrecht said.

That's one of the key dangers of using something that may have questionable manufacturing standards, according to Charles Stephenson. As a former police officer and FBI agent, he has more than 30 years of experience in law enforcement including as a SWAT firearms and defensive tactics instructor. A silencer breaks down sound waves so that they are below the speed of sound, says Stephenson, who's also worked as an FBI National Academy instructor. Any suppressor that isn't built well could be a major problem for the person behind the gun.

"If any material inside that silencer or any mechanical

defect can't handle that PSI [pounds per square inch], it could be dangerous, causing anything from the silencer itself to explode, causing the barrel of the weapon to malfunction or the gun to explode," Stephenson said.

When it comes to a firearm, Stephenson says a user wouldn't want to have any questions about the mechanical reliability of one of the components. That could be a recipe for disaster. He recommends using more reputable U.S. dealers and manufacturers instead of taking a chance on a low-quality item with questionable origins. Some of these Chinese suppressors also may not be able to handle high-velocity rounds as well. Stephenson says there are just too many unknowns with these types of devices. Beyond the legality of these suppressors, many users have had mixed reviews even about their effectiveness at reducing sound.

"If I didn't know the specifics of the manufacturer and the specifics on a silencer



"LOCAL POLICE AND A HOMELAND SECURITY AGENT KNOCKED ON HIS DOOR TO INQUIRE About some 'suppressors' they apparently believed he'd purchased."



<text>



UNLIMITED. UNCONDITIONAL. LIFETIME WARRANTY.

We will repair or replace the product. Absolutely free—no matter the cause.

VORTEXOPTICS.COM

© 2022 Vortex Optics.
© Registered Trademark and TM Trademark of Vortex Optics

with a particular weapon, I'd be very concerned about it," said Stephenson. "If any of those specifications were off, be it the ammunition or the weapon itself, you could have a real problem. The suppressor could possibly block the explosive discharge coming out of the weapon, which results in an explosion. The silencer explodes, the handgun explodes, you can have shrapnel coming out. It can be a very, very dangerous situation.



"When you have a firearm, a semi-automatic or a revolver, either one, there are immense pressures generated when that bullet is inside that firing chamber and that bullet is forced into that barrel. If you obstruct that pressure in any way other than letting it be directed out the end of the barrel, that pressure has got to go somewhere or it's going to explode. If there's an inhibitor in any way, the damn thing will blow up in your face."

BATTLING THE PROBLEM

Over the last two years, federal law enforcement officials have been working at limiting the illegal import of Chinese-made firearms that are mislabeled. DHS officials note



that many buyers may not understand the laws regarding silencers or the dangers associated with a cheaply manufactured device. These silencers are imported into the country after being ordered online and often make it through American ports of entry.

"Our efforts at HSI Dallas revolve around the illegal importation of these devices as customs fraud, falsely declared by consumers," says Matt Wright, assistant special agent in charge of cybercrimes investigations and the victim services division for Homeland Security in Dallas. "Individuals who knowingly purchase illegal silencers from China blatantly disregarded our customs laws, thereby putting American citizens at risk."

Homeland Security isn't the only law enforcement agency working to shut down the illegal importation of these devices. In July 2020, Immigration and Customs Enforcement (ICE) officials in Detroit announced the results of a major investigation that also involved the U.S. Attorney's Office for the Eastern District of Michigan, Customs and Border Protection, and the Bureau of Alcohol, Tobacco, Firearms



and Explosives.

Federal officials seized the URL of a website peddling the suppressors, and visitors now will only find a notice about the seizure and the shields of the law enforcement groups involved in the investigation. In recent years, federal authorities have embraced seizing websites involved in illegal activity to suppress illicit commerce.

Homeland Security determined more than 350 suppressors seized by law enforcement across the county were purchased from the website and smuggled into the country from China as automotive parts. The website advertised the suppressors as automotive components, but images on the site clearly resembled firearms components. Despite the closure of the site, purchasing the knockoff cans remains just a few clicks away, and law enforcement continues to work to educate the public about their dangers.

"Investigating international arms trafficking is among HSI's highest priorities," said Homeland Security special agent in charge for Michigan and Ohio Vance Callender after the website closure in 2020. "This

> website, operated from China, blatantly disregarded our customs laws, smuggled illegal silencers into our country and placed the American public at risk. By shutting this website down, we keep illegal silencers off the street and protect our communities from harm."

iStock Photo



While some products are indeed fuel filters, federal agents say articles designed or redesigned to silence, muffle or diminish the report of a firearm are considered firearms under federal law.

SARGC FA

SAR 90

AND SHOOTABILITY

90

ECT BLEND OF CONCEALABILITY

SPRSILINA

Made in Turkey Imported by SAR USA SARUSA.COM



EIGHT OF THE BEST 9MM SELF-DEFENSE ROUNDS IN A BATTLE ROYALE

BY FRANK MELLONI

Versatile by nature, the 9mm Luger has grown to become the most popular handgun cartridge in the world. It strikes the balance between stopping power and recoil that defenders have been seeking since long before its creation. As it is also a NATO round, inexpensive (usually) practice fodder can be found on just about

any gun store shelf, making it realistic to practice with the very gun that you carry. While practice ammunition can be purchased with very little thought, defensive ammo takes more consideration. As there is a chance that you could be staking your life on it one day, we decided to make it one of this year's "Ammo Match" features and bring you eight

<complex-block>

of our favorite 9mm self-defense loads.

THE RIG

Being that I had to trade a kidney for my test samples, I needed to keep testing confined to just one pistol. But which one? 9mm barrels typically range from 3 to 5 inches so I decided to go with something that landed in the middle with Canik's new METE SFT with its 4.46-inch barrel. Because iron sights are so 2015, I mounted a Riton 3 Tactix MPRD red-dot and quickly cowitnessed it with the iron sights. Other than packing the car with a Caldwell G2 Chronograph and some Clear Ballistics



uel Weitzn

10-percent FBI gel, there was nothing more to do before hitting the range.

1. UNDERWOOD XTREME DEFENDER

First up was the Underwood Xtreme Defender. Can you imagine what it would be like getting hit with a Phillips-head driver bit flying faster than the speed of sound? If I didn't know better, I would think that was the very inspiration for Underwood's Xtreme Defender projectile. This solid-copper bullet is built to





stay together through even the hardest barriers and push fluid outward when it makes contact with something living. It's a unique principle because it dismisses velocity as the primary component in the stopping power equation. Although they looked strange to the user, the magazine and chamber didn't seem to think anything of them as we popped more than 100 of these downrange without a hiccup. Accuracy was among the top of the rounds that we tested that day, and ironically enough they were the fastest all-metal projectile that our chronograph recorded with a 10-shot average of 1,447 fps.

2. WILSON COMBAT HIGH-PERFORMANCE TACTICAL

Wilson Combat ammunition is built on the premise that good guns need good ammo. As Mr. Wilson and his team of perfectionists constantly pay attention to the specifics, most of their ammo is made for a specific barrel length. This particular round was built to deliver its best performance in a 5-inch barrel. However, with the market being what it is I am sure that it will see service in a variety of guns so I was more interested in its "off label" use. Out of our

4.46-inch barrel, we were able to hit the advertised velocity and produce fiveshot groups as small as 1.69 inches. I was also fond of the fact that these rounds were built with a 124-grain





XTP bullet. Our 100-round test showed us that Wilson puts the same attention to detail into its ammunition that it does in its prized firearms, alleviating any apprehension that one might ever have with keeping these on your hip.

3. NOVX ENGAGEMENT: EXTREME

Novx was the most unconventional ammunition of the batch with its poly/ copper projectile and its stainless steel cases. These rounds are the epitome of

PERFORMANCE CHARTING 9MM PERFORMANCE

LOAD	VELOCITY	ENERGY	ACCURACY
Barnes TAC-XPD 115	1,115	311.8	1.44
Browning X-Point 147 JHP	1,011	333.6	0.76
Federal Hydra-SHOK Deep 135 JHP	1,092	364.1	1.12
Fiocchi Defense Dynamics 147 JHP	954	297.0	1.63
Koenig Defense 110 JHP	1,324	429.5	1.88
NOVX Engagement Ext. 65 poly/copper	1,665	405.0	0.77
Underwood Xtreme Defense 90 FTM	1,447	410.4	1.03
Wilson Combat HTP 124 XTP	1,201	371.5	1.69

Bullet weight measured in grains, velocity (10-shot average) in feet per second (fps) at muzzle, energy in footpounds (fpe) and accuracy in inches for best five-shot group at 15 yards.



the "speed over weight" argument and launch their 65-grain pills as fast as 1,665 fps out of our midsized Canik. One of the other things that it has going for it is that between the projectiles and the cases you'll notice a significant weight reduction in a full magazine. When shooting them, we noticed negligible recoil with uninterrupted cycling, even to lock the slide back after the last shot. NOVX boasts that this round generates more energy than .45 ACP and after comparing it to the last three .45 ACP loads that I fired, I found that to be completely true. I didn't need the numbers to know that though, the watermelon that we shot in the past proved that point just fine.

4. KOENIG DEFENSE

Legendary competitive shooter and hunter Doug Koenig came out with his own line of ammunition a few years ago and as a Pennsylvania resident, he is no stranger to concealed carry. Therefore, it would behoove him not to make a line of defensive ammunition, and that is precisely what we have here. Using a lightweight 110-grain JHP bullet, Doug and the boys were able to hop velocity up to 1,324 fps, making this the hardest-hitting round that we tested. Doug used this round in the USPSA nationals and with its power factor of 145-plus, it made minor with juice to spare. That day it also had zero issues knocking down the heavy



A LEGACY TO



FOUR DECADES OF ICONIC FIREARMS. The M107A1[®] is more than a simple evolution of its predecessor. Critical components re-engineered to be lighter, stronger, and more accurate. The result? A high-performance rifle that has successfully engaged targets at distances exceeding 1760 yards.

barrett.net

AMMO MATCH



steel pepper poppers, which usually leave those running mouse fart loads screaming for a calibration. We found them to have a little bit of snap when we touched them off, but the recoil pulse was rather short, and the overall lift was particularly mild. That's good stuff when

6

you need to send a rapid follow-up shot.

5. FIOCCHI DEFENSE DYNAMICS

Fiocchi Defense Dynamics were the only rounds this day that came packaged in boxes of 50. With their affordable price, this allows you to shoot half of the box at the range and save the other half for an emergency. This also eliminates any reason that

you may have not to cycle out your carry ammo every few months. Advertised as flying at 975 feet per second, we reached that speed on most occasions and wound up with an average velocity of 954 fps-not too shabby for a mid-sized pistol on a cold day. As this is below the speed of sound, these rounds were a few dB quieter than the other ammo that we tested that day. The slow-moving 147-grain JHP projectile generated a long push of recoil that was present on the wrists and barely caused the gun to come off target in between shots. Overall, these make a



great choice for the highvolume shooter that wants to practice and defend with the same round.

6. FEDERAL HYDRA-SHOK DEEP

When something works, leave it alone, right? Wrong. Although in 1989 Hydra-Shok was revolutionary, more than 30 years later it found itself missing out on all of the advances made in modern bullet construction. Federal doesn't shy away from fiddling, and the Hydra-Shok Deep illustrates this vividly. Using a 135-grain projectile, it felt like they struck the balance between speed and weight and left us with a round that was no slouch in the energy department while at the same time manageable. The elongated, rounded bullet profile had no trouble feeding, and we gobbled up 100 rounds like it was 2018 again. It landed in the top half of the accuracy chart and came in first in the standard deviation category, showing that these are built to exacting standards. Best of all, if you run out of ammo you can strike your threat with the box that seems to be made out of some sort of clear AR-500.

7. BROWNING **X-POINT DEFENSE**

The Browning X-Point Defense ammunition was one of the sexiest looking rounds that I fired that day. They look like something designed to kill werewolves or at the very least hang from a stripper's earlobe. The projectile design is unique yet simple, a classic

hollow point with a cross partition helps them to hold their form when crashing through barriers. As these were another slow-moving 147-grain load, the recoil was again very light and let us send lightning-fast double-taps downrange. To top it off, these rounds produced silly tight groups on our 15-yard target with nearly every one measuring less than 1 inch. Surprisingly to most, (but I see it quite often) these produced the most consistent groups although they had one of the largest standard deviations. This again shows the futility in picking ammo "by the numbers."

8. BARNES TAC-XPD

This defensive load from Barnes gets the job done without lead, just like in its signature hunting ammunition. I have used said hunting loads to devastating effect, which is why I was interested in seeing how the same technology performed in this loading. The XPD bullet is built from monolithic construction, which again helps it break through common barriers with minimal deflection. This ensures that the remain lethal when they get to the other side. I can't stress the importance of that aspect

enough in carry ammunition. The lightweight 115-grain projectile was among the softest shooting we had that day, which is typically uncharacteristic of rounds built with bullets within this weight range. Accuracy was suitable for its intended use, and we found that the velocity generated was balanced just right to yield fast shot-to-shot recovery.

J-E-L-L-OHHHHH!

For my gel test, I decided to go with the Barnes TAC-XPD and the Browning X-Point as these two designs were the newest I've encountered. Furthermore, the NOVX nor the Underwood ammo is meant to expand, so I forewent gel testing on these simply because it's not that exciting to look at. Besides, I've already tested this design in the past and have confirmed their energy transfer by making fruit salad the easiest way possible.

The Barnes penetrated both a layer of leather and a layer of denim before passing through 12.5 inches of the Clear Ballistics gel. It started

8



expansion within the first 1.25 inches, working exactly as advertised and earning a spot in the magazine of my nightstand gun. Browning's entry passed through the same material and a full 16-inch block before landing more than an inch deep into a second block (that's why I always use two). The expansion started at 1.5 inches and happened over a longer period, making them equally suited for defense against larger, four-legged threats.

THE CORONER'S REPORT

When looking over all of the data and all of the results,

CENTE

it's important to understand that this column is not intended to crown a winner. I purposely selected rounds of equal quality to show our readers a handful of possible options for the article's given application. Yes, some of these rounds grouped better than others and some generated more energy, but before picking one it's important to consider other factors like recoil and cost per round. Lastly, this chart gives you eight different options that are all more than adequate for defensive purposes so with that being said perhaps your selection might only come down to one factor, availability. The second se



TACTICAL LIFE | 03 · 04 | 2022 7 27

I

9MM LUGER 115 GR TAC-XPD

÷

Whether it be eyewear or optics, you can always count on Leupold to help you see what's out there.

Gear that'll help you get the most from your next day on the range or in the field

8

[BY ALEX LANDEEN]

A few months ago we had the pleasure to once again gather in the shadow of the great Teton Mountains, bringing together our top content creators with over two dozen manufacturers for our annual Athlon Outdoors Rendezvous in Victor, Idaho. Our 10-bay range built atop golden rolling farmland was our pew-playground for three days of shooting and experiencing the newest products. One of the many companies that helped us out this year was Leupold, which brought some great new gear to assist in the range days. In appreciation of their support, here are some of the new products featured and why you should make them a part of your outdoor inventory.



LEUPOLD SX-2 ALPINE HD20-60X60MM

On the range this year, we used SX-2 Alpine scopes, and they performed fantastically. Our range featured steel out to a mile, so it was imperative to have quality spotting scopes. Fogproof, waterproof and guaranteed for life, the SX-2 Alpine HD is built for harsh conditions. Weighing in at only 3.75 pounds, the 60mm objective shaves off some weight versus larger objectives. The 20-60 magnification, paired with high-definition, calcium-fluoride lenses, provide great clarity across all magnification levels. Leupold's Guard-iON hydrophobic lens coating repels water, dirt and fingerprints to help keep your glass clear in the field. The oversized twist-up eyecup provides generous relief for extended viewing. We spent three days looking through these scopes in Idaho, and I was definitely impressed with the clarity and ease of focusing and adjustment. The weatherproofing was important, because as we all know, if you have three range days scheduled, it's probably going to rain at least once. MSRP: \$400





LEUPOLD PRO GUIDE TRIPOD KIT

For success, your spotting scope needs a stable base. A solid platform gives a spotter the ability to make accurate hit calls, see bullet trace and understand what's happening downrange.

The new Pro Guide Tripod Kit from Leupold is packed with high-end features with a price that won't scare you into leaving it in the truck. Carbon-fiber and aluminum components weigh in at only 4 pounds, and with the

addition of the center column, its max height is 67 inches. Without the column, the Pro Guide stands a little over 54 inches, which is just about where your average height individual would want it when paired with an angled scope. The aluminum ball head is smooth, strong and comes with an Acra-Swiss mounting plate. This plate system is very common in the optics and accessories world, so it was an easy choice for maximum cross-platform compatibility.

The Pro Guide has a max load capacity of 40 pounds, so the addition of the included counterweight hook lets the user add weights for stability. The pivot locks have three settings, allowing the legs to extend wider and lower. MSRP: \$600

LEUPOLD PACKOUT PERFORMANCE EYEWEAR

The ANSI Z87.1+ ballistic rating lenses on Leupold's Packout Eyewear are shatterproof, lightweight and flexible. They are also optically decentered, meaning that the lenses are machined so that the clearest part of the lens sits directly in front of your eye, which eliminates distortion for maximum clarity. The lenses are also treated with Guard-Ion hydrophobic coating and Diamond-Coat, helping to keep them free of dirt, fingerprints and scratches. The frames are made from TR90-NZZ, which has a very high flexural fatigue strength, giving it great strength at low temperatures and provides great impact, chemical and UV resistance. The IN-Fused polarization technology features polarizing film layered in between the lens layers and won't scratch or deteriorate over time. What does all this mean? It means

that the models in the Packout Performance Eyewear series are badass sunglasses that look great on my face and keep it protected from whatever life or the range throws my way. MSRP: \$190.

For more information on these great products and more, visit leupold.com.



COMPACT THUNDER

WE

(0)

0

X

R

0

6

6

4

Springfield's Hellion features a full-size rifle barrel in a compact package. What's not to like about that!

SPRINGFIELD'S NEW BULLPUP GIVES AMERICANS A SUPER-HOT TASTE OF SOUTHEAST EUROPE

Ċ

BY FRED MASTISON • MICHAEL BORDON PHOTOS

HELLO HELLION

÷

The Hellion is based on the proven VHS-2 bullpup—a multifunctional Croation machine gun.

There are certain constants in the universe. The Earth rotates around the sun, politicians waste money and gun owners always want something new. The last of these truths is played out every day on the internet. While some companies pay lip service to this cry from the wilderness, Springfield has taken their response to an all-new level. Starting in 2022, Springfield will be offering their first bullpup rifle to the market—the Springfield Hellion.

(COS)
Like many of you, I did a double take when I saw the first images of the Hellion. The new rifle is refreshing as it represents a unique and innovative approach to firearms design. For my fellow gun nerds out there, you will see that the gun has a very familiar French FAMAS rifle vibe to it. A quick look at the gun and we see the rifle features a bullpup configuration where the action is located behind the trigger. The bullpup modular platform allows us to maintain all the ballistic benefits of a longer barrel in a shorter package without sacrificing overall length, accuracy and muzzle velocity. The rifle features an overall length of just 28.25 inches while still possessing a 16-inch barrel. The Hellion sports ambidextrous controls that work in concert with a reversible case ejection system, allowing it to be easily fired from

either shoulder. A design feature that Springfield does not say much about is the cheek riser on the buttstock. The front of this riser is raised to act as a spent casing deflector. The result of this design is that you can shoot the gun right or left-handed and not get brass in your face regardless of which ejection port you have open.

WELCOME TO HELLION

Like so many interesting and desirable guns, the Hellion has a military pedigree. The rifle is based off the internationally proven VHS-2 bullpup (Višenamjenska Hrvatska Strojnica—"multifunctional Croatian machine gun"). This gun has been employed by the Croatian armed forces in demanding environments ranging from Iraq to Africa and beyond. The SA Hellion offers American shooters a civilian-legal, semi-automatic 5.56mm version of this unique firearm. While in service with the Croatian military, the rifle was also submitted for review to the French military as well as law enforcement. It was submitted as part of the trials to replace their FAMAS rifles. The U.S. Department of Defense also has procured a number of the VHS-2 rifles.

A more detailed walk through of the Hellion shows some well-thoughtout features. We start at the 16-inch barrel. Springfield has included a hammer-forged, high-performance precision barrel to give us solid accuracy. It has a 1-in-7 twist rate and has a durable Melonite coating. Above the barrel we have an adjustable gas system. The Hellion uses a short-stroke gas piston design, which is clean and reliable. The gun features a two-position adjustable



THE BULLPUP MODULAR PLATFORM ALLOWS US TO MAINTAIN ALL THE BALLISTIC BENEFITS OF A LONGER BARREL IN A SHORTER PACKAGE WITHOUT SACRIFICING OVERALL LENGTH, ACCURACY AND MUZZLE VELOCITY."



gas block with "S" suppressed and "N" normal modes. The result is a firearm that can be easily and quickly adjusted to fit conditions and ammo availability. I am a huge fan of this feature because it makes adding a suppressor to the rifle a breeze.

Springfield also knows that gun owners will want to add lights and other accessories to their new rifle. With that in mind, the polymer handguard of the Hellion features nine M-Lok slots for mounting accessories, three each at the 3, 6 and 9 o'clock positions. This gives us plenty of real estate to add pretty much whatever we want. The rifle also has a G36-esque uninterrupted, full-size Picatinny rail, ensuring you can mount the optics of your choice. This extra-long rail will allow the inclusion of thermal or night-vision devices, as well. Included on the rail are integrated flip-up sights. They are a sturdy spring-loaded metal design with a diopter rear and fully enclosed blade front sight.

The gun has a five-position adjustable stock for a more customized length-ofpull and uses the BCM Gunfighter Mod 3 grip. As I mentioned, the gun is fully ambidextrous. The Hellion features a reversible ejection system for fired cases that requires no additional parts or tools. The other three primary controls, safety, charging handle, and the magazine and bolt releases are also easily accessed on both sides of the gun. Another unique feature that Springfield does not mention is the magazine well. When you look closely, there appears to be a sleeve of some sort in the main magazine well. This is a design feature of the original VHS-2 rifle. This feature allowed the gun to be modified to accept a variety of magazines. While the version we have here in the U.S. will take standard STANAG or AR-style magazines, the VHS-2 could also take FAMAS and G36 magazines.

NEW TRICKS FOR OLD DOGS

Springfield was kind enough to send a Hellion out for some additional testing. The rifle I received came complete with a Nightforce NX8 1-8x24 optic. This





See all of our Canted Mounts



mccloyimplement.com

HELLO HELLION

SPEC BOX

SPRINGFIELD ARMORY HELLION

CALIBER:	5.56x45mm (.223 Rem.)
BARREL:	16 inches
OA LENGTH:	28.25-29.75 inches
WEIGHT:	8 pounds (empty)
STOCK:	Five-position adjustable w/cheek riser
SIGHTS:	Integrated and adjustable (both) flip-up w/five-position aperture rear; flip-up front
ACTION:	Two-position adjustable, short stroke piston, semi-auto
FINISH:	Black
CAPACITY:	30+1
MSRP:	\$1,999

nice piece of glass would serve me well during testing. First impressions of the rifle were very positive. While in some people's minds Croatia is not a hot bed of weapon manufacturing, they produce some solid guns. The Hellion is well made, free of rattle and play, and comfortable to run. The manual of arms for a bullpup will undoubtedly present a few hiccups to the uninitiated, but they are soon overcome. I will be honest and say that indexing the safety selector was a bit of a reach for my less-than-giant hands. I found myself using my thumb to move it into "fire" position on the left side of the gun, and my trigger finger to move it back to safe on the right side

of the gun. Your experience may vary as people with bigger hands won't face this challenge. The bolt release is set back behind the magazine well and is operated by a pinching movement. The charging handle is reminiscent of the H&K G36 and is spring loaded. It is non reciprocating, sits parallel to the barrel



and can be pulled to the left or right as needed. I found it to work well.

The trigger on a bullpup is a bit of an experience. By necessity, it has a much longer travel than what we are accustomed to on our AR rifles. The trigger on the Hellion is not exempt from this phenomenon. What I can say, however, is that the press is smooth and consis-

tent. Some guns in this category have simply abandoned any hope for a decent trigger, but Springfield has put some work into it. It will never be a 1-pound precision trigger, but that is not what the gun is meant for anyway.

HOT RESULTS

Accuracy wise, the gun shot well. Off hand at 25 yards saw five rounds almost all touching. At 100 yards, I was able to get a nice 1.125-inch group with good ammo. The Springfield Hellion comes with a Magpul Pmag, which worked well. I also ran a variety of other mags including old-school metal mags, polymer ETS mags and Lancer mags with equal success. One thing I noticed regarding magazines was that they did not immediately drop free like we see in most ARs. This is once again a slight change in our manual of arms and operating procedures. During mag changes, I had to press the mag release then pull the empty magazine out before replacing it. With practice this became easy and fast. I cannot say for certain, but I believe that as rifles get broken in, that magazines will begin to fall free when released.

The nature of the bullpup is to give us an SBR-sized gun with a full-length barrel. The Hellion serves that role well. I found it very easy to maneuver and fast to run. The ambidextrous nature of the gun made barricade work a breeze. As I mentioned earlier, the raised end of

the cheek plate worked well to deflect brass. I ran the gun with the right-side ejection port open but ran the gun left-handed multiple times. I did not experience any brass in my face at all. I quickly adjusted to the trigger and was able to put the pedal to the metal on all my drills. While the trigger is not as fast as my standard ARs, I did not find it to be any real impediment to the gun's performance. In short, I would offer the same suggestion I make on all guns. Learn the trigger of your gun and master it. Disassembly of the gun for cleaning and maintenance requires no special tools and is easily accomplished.

At the end of the day as I picked up brass, I found myself liking the Hellion more and more. It is a very soft-shooting rifle that works well in both close-quarter applications as well as distance shooting. Springfield has indeed brought us something new, and



Through his testing and evaluation, the author found the new little Hellion to be an accurate and reliable bullpup rifle built on proven Springfield Armory DNA.

I believe it is a winner. If you are tired of the same old AR-patterned guns hitting the shelves, you would be well served to take a long, hard look at the Springfield Hellion. For more information, visit springfield-armory.com.



LIOT NEW CALIBER

It was the marketing team at Federal who first noticed there was a large and exploitable gap between the .380 ACP cartridge and the 9mm cartridge. And, while the 9mm continues to enjoy the popularity of being the most popular cartridge for concealed carry handguns, Federal's team knew that if they split the difference-ballistics-wise-between the two cartridges they'd have something to entice the concealed carry crowd.

This was the beginning of what would become Federal's brand new 30 Super Carry cartridge. I first learned of Federal's secret project in early October at the fifth annual Athlon Outdoors Rendezvous. This get-together brings in more than 30 different firearms, optics and ammunition manufacturers for some uninhibited face time with Athlon's top content creators. One of my editors took me by the elbow during the morning's safety brief the second day of our three-day event. "We're meeting with Federal and Nighthawk after our range session is over, before dinner. Don't say anything to anyone! You understand? This is top secret!"

Meet the game changer that lets you carry like a .380 and hit like a 9mm

R

Ą



30 SUPER CARRY

With my curiosity piqued I wondered for the rest of the day what the secrecy was all about. At the meeting only one other writer was present, and the rest of the room was filled with my editors, the group publisher and the owner of Athlon. Mark and Landon Stone from Nighthawk Custom were there, as was their CEO, Nelson Davis. But the star of this gathering was J.J. Reich from Vista Outdoor-a conglomerate that owns Federal, CCI, Speer and Remington Ammunition companies-and he was able to give us an enthusiastic, quick and dirty introduction to the 30 Super Carry.

"Federal ballisticians, as well as the marketing team, thought if they could create a cartridge with performance halfway between the .380 ACP and the 9mm it would make a very sellable round. Once they started development of the cartridge, they found that they weren't just able to hit the midway mark-they were able to equal and, in some cases, surpass the 9mm's performance. It's not just a matter of reinventing the wheel because the 30 Super Carry has additional benefits. Among them is that its case diameter will allow an additional one to two rounds to fit into a

Canv

gineering

Samples

115GR GDHP

R #4984

single-stack magazine and two or more additional rounds to be added to tapered double-column magazines used by the new generation of micro-compact 9mms, like the Sig P365 and the Springfield Armory Hellcat."

Reich had brought along some spec sheets, which he would let us look at but not photograph, that allowed us to make some quick comparisons between the 9mm and 30 Super Carry. I searched the tables for energy listed in foot-pounds of energy between the two rounds and found them nearly identical. Penetration was also nearly identical. I was intrigued!

While I studied the spec sheets, Reich asked me if I could be in Arkansas 10 days later for a plant tour of Nighthawk Custom and a chance to shoot the new 30 Super Carry.

A REAL SNEAK PEEK

The third week of October found me in Arkansas along with about 10 other writers from a number of different publishers. Sean Utley, one of Athlon Outdoors' top content creators, was also there. Utley is not only a first-rate photographer, writer and videographer but is also a tremendous shooter with any gun you put in his hands, from a micro-compact pistol to a long-range sniping rifle. He's a great guy, and this trip gave me the opportunity to get to know him a little better.

Mark Stone, the owner of Nighthawk Custom, was a wonderful host and in addition to preparing our dinners, with Nighthawk's Nelson Davis acting as the official unofficial BBQ master, put us



Federal, CCI, Speer and Remington will offer range and defense loads for the 30 Super Carry.



NEW

It's our duty to build the best performing firearm...

IT'S YOUR DUTY TO BE READY



Red Dot Ergonomics



Performance Duty Grip Texture



SuperTerrain Serrations





Modularity

Red Dot Ready



Performance Duty Trigger



What does it mean to be ready? waltherarms.com © 2020 Walther Arms Inc. | All Rights Reserved



Z 30 SUPER CARRY

up at a beautiful lakeside home with his son Landon acting as a shuttle driver.

We started with a tour of the expansive Nighthawk Custom facility where we saw every aspect of their manufacturing. I saw firsthand the one gun-one gunsmith motto in action with dozens of smiths working feverishly at their benches. Before long, we were seated in a conference room where we'd learn the details of the new 30 Super Carry cartridge.

First up was Mike Holmes, Federal global product director for centerfire rifle and handgun ammunition. He explained that Federal had recently finished working on the .380 cartridge and upgrading its performance. "Pretty good penetration is usually about 12 inches in gel, but we developed the Hydra-Shok Deep that consistently penetrates to 14 inches, and that's really good considering the short barrel lengths. That made us think if we could come up with a round that would perform halfway between the .380 ACP and 9mm cartridges it would

be a great concealed carry cartridge. What we found out was that we

"New shooters, who have no caliber loyalty, will find more rounds in a smaller platform, along with the 9mm-like performance of the 30 Super Carry very appealing." The Nighthawk Custom GRP, the first production gun to be chambered for the 30 Super Carry, is a top-quality 1911 pistol and is extremely accurate.

> The 30 Super Carry uses a .312-inch diameter projectile weighing either 100 grains or 115 grains. Its casing is actually longer than a 9mm casing by about .07 inches, and this allows for a more 9mm-like overall length, even with the shorter and lighter bullets. The longer length makes it easier to convert an existing 9mm design to the new cartridge. I used my micrometer to measure a 30 Super Carry's case head and found it to be .340 inches, which is smaller than the .30 Carbine, 9mm and .32 ACP, and this confirmed to me that this is a brand-new proprietary cartridge developed by Federal's engineers and ballisticians. RCBS, another of Vista's companies,

Alex Landeen Photos



Mark Stone, Nighthawk Custom's owner, thought the 30 Super Carry was a great opportunity to get on the front end of something big!

BECOMING PARTNERS

Nighthawk Custom was the first company to come on board with the 30 Super Carry project. "When Federal first approached us, we thought it would be a great opportunity to get on the front end of something big," said NHC's owner Mark Stone. "It seems like we've been working on this quite a while. Federal approached us at SHOT Show in January of 2020 and asked us if we could have a working prototype by the following August. Then Covid happened

SPEC BOX

NIGHTHAWK CUSTOM 30 SUPER CARRY GRP

CALIBER:	30 Super Carry
BARREL:	5.4 inches
OA LENGTH:	8.65 inches
WEIGHT:	36.9 ounces (empty)
GRIPS:	G10
SIGHTS:	Tritium night site, Heinie Straight 8 Ledge
ACTION:	Semi-auto
CAPACITY:	12+1
FINISH:	Black Nitride
MSRP:	\$3,499



and SHOT 2021 was cancelled. But we were the very first company to have a 30 Super Carry prototype built. We now have over 10,000 rounds through that first gun, and it's never had a stoppage. That doesn't really surprise me–I have great faith in my engineering department and my machine shop guys. We're a single-stack manufacturer and the idea of adding more capacity to our magazines is appealing to our customers."

Indeed, the 1911 actually lends itself well to conversion of the new cartridge. The breech face, extractor, ejector and magazine tube and follower all g required some degree of modification but nothing that taxed the abilities of Nighthawk's engineering department. And, while no one at Nighthawk mentioned it, and this is purely speculation on my part, it would be neat if they modified one of their double-stack frames by reducing its length and put a 3-inch top end on the gun! One of the intriguing things about the 30 Super Carry is that nearly any 9mm design can be adapted to the new round. But, given the petite dimensions of the Super Carry, someone is bound to design a brand-new gun around the cartridge. In that regard, the next few years will be telling as to whether or not shooters embrace the Super Carry!

SLINGING LEAD

After several more presentations by Federal's marketing team, we adjourned to Mark Stone's ranch where we had some trigger time with Nighthawk Custom 1911s chambered for 30 Super Carry. One compelling exercise Stone had me perform was to engage a steel target with a 1911 chambered in 9mm. Then he handed me a 30 Super Carry pistol, identical to the 9mm in every way but the chambering and engage the target

> again. My double-taps were significantly better, and recoil and muzzle lift were noticeably

The 30 Super Carry GRP offers two more rounds in a singlestack magazine than the 9mm, with a 12+1 capacity.

Z30 SUPER CARRY



PERFORMANCE

NIGHTHAWK CUSTOM GRP 30 SUPER CARRY

LOAD	VELOCITY	ENERGY	ACCURACY
CCI Blazer 115 TMJ Brass Case	1,199	367	0.66
Federal 100 FMJ	1,415	445	0.71
Federal 100 HST JHP	1,278	362	0.82
Speer Gold Dot 115 GDHP	1,198	366	0.65

Bullet weight measured in grains, velocity in feet per second (fps) by chronograph, energy in foot-pounds (fpe) and accuracy in inches for best five-shot groups at 25 yards.

AØ VIDEO DROP: For livefire shooting action, check out tactical-life.com and ballisticmag.com.

less. We also had a chance to shoot the 30 Super Carry from a rest. At approximately 15 yards, I was able to produce a five-shot, one-hole group! Among the group of writers was Roy Huntington, formerly the editor of American Handgunner and now a special projects editor for FMG publications. Huntington was interested in seeing how the cartridge performed at distance, and eventually we found ourselves at about 100 yards shooting at pie plates. Huntington, Athlon's Utley and I all connected with the 8-inch diameter plates from this distance-not with every shot, but often enough to keep us intrigued.

HOME RANGE REPORT

A couple months later, just after Christmas I received a Nighthawk Custom GRP outfitted with the IOS and Trijicon RMR and a small selection of Federal, CCI and Speer pre-production ammunition. Nighthawk Custom's Global Response Pistol (GRP) might be one of their entry-level guns, but there are no shortcuts taken. Like all Nighthawk guns every part of this pistol is hand fit and tuned. It possesses cocking serrations, fore and aft as well as 25 LPI handcut checkering on the frontstrap. It has a tritium front sight and a Heinie Straight 8 Ledge rear sight for low-light shooting. The frame is undercut where it meets

the triggerguard, and Nighthawk outfits the GRP with a high sweep beavertail to allow the shooter to get the highest grip possible on the gun.

RANGE RESULTS

Now was the time to put the new round through the paces. I fired all of my groups from a seated rest, utilizing my DOA Tactical portable shooting bench and I rested the GRP's dust cover on a Millett BenchMaster for support. I used 2-inch diameter Shoot-N-C targets as my aiming point and centered the RMR's red dot inside it with the target set out at 25 yards. I fired three groups with each of the ammunitions and the very best groups are reflected in the accuracy chart.

It's important to remember that the ammunition I used was pre-production and final production ammunition may vary in bullet style and velocity. You'll also note that every ammunition tried produced sub-1-inch groups at 25 yards. In fact, the aggregate group size was under three-quarters of an inch! Happily, this is exactly the type of accuracy I have come to expect from NHC pistols, and now I know the GRP is capable of wringing every bit of accuracy out of the 30 Super Carry cartridge. Mark Stone told me while I was at his factory in Berryville, Arkansas, that Nighthawk Custom will initially offer the new chambering in the Global

Response Pistol (GRP) and his Board Room Series President model, and this will offer shooters a great deal of options.

BRIGHT FUTURE

Nighthawk Custom isn't the only company working with Federal. Smith & Wesson came on board early and has just announced that they will be offering their Shield Plus chambered in 30 Super Carry. It will be offered with a 12+1 flush-fit magazine and a 15+1 extended magazine. That's two rounds more in each magazine than the 9mm version. Smith & Wesson will also be offering the popular Shield EZ with its easy-to-rack slide designed for those with weak hand strength, and its magazine will have a 10+1 capacity-also an addition of two more rounds over the 9mm. S&W Shield pistols and all of their variants are economically priced and possess all of the accuracy and reliability needed for concealed carry. They represent a tremendous value for those looking for a good CCW gun.

So, you're probably wondering if the 30 Super Carry will eventually overtake the 9mm cartridge in popularity? The answer is definitely no! The 9mm cartridge is just too firmly entrenched for this to happen, and Federal's goal is not to replace the 9mm cartridge, which they sell billions of anyway, but to design and market a new round that will offer the user more capacity for their carry guns with the hopes that new pistol designs will shrink the concealed carry gun footprint.

For more info, visit federalpremium. com and nighthawkcustom.com. **T**

THE FASTEST-GROWING TRIGGER BRAND

RA-535 Advanced-Performance Trigger

(for a number of reasons)

PERFORMANCE

"More hits on the first shot in 3-Gun than with the factory trigger."

"No more trigger freeze when I fire 4 or more rounds on a single target."

"The feel of the trigger resetting after a shot is a really great feature."

"No creep, I mean zero creep."

EASY

"A really simple trigger cassette. I just blow it out every few thousand rounds and put grease back on the friction surfaces."

"Easy to access maintenance points."



DURABILITY

"Well designed and solidly built."

"MPX rifles are hard on hammers. After about 2,000 rounds your hammers are holding up well."



EASY INSTALLATION

"Very quick and simple install."

"It installed just as easily as your videos said it would."

"Just bought and installed two RISE triggers. I was blown away."



ACCURACY

"Reduced my 100 yard groups by 25%."

"No take up, great reset. Extremely accurate, much more than I am."

"The trigger breaks right where I like it (not too light, just hard enough to keep me honest)."

"A high quality, precision part that will make me a much better shooter."

MORE TRIGGER FOR THE MONEY

"I've amazed several trigger snobs with the candy cane break and lightning fast reset. They're crushed when I tell them the cost."

"By far the best triggers and at an amazing price. I have 4 of them!"

"Hands-down the best triggers on the market at the best price."

"My only problem is deciding how many more I need!"



NO GRAVEL. LESS TRAVEL.

RISETRIGGERS.com



NIGHTHAWK GRP—READY TO RESPOND



l've been shooting 1911s now for more than 45 years and I have been privileged to shoot some really good factory production guns. Guns

that could win any match or deadly encounter in the right hands. I have also been able to fire and examine some truly exquisite 1911s that have been tuned and rebuilt by some of the finest pistolsmiths in the business. These work-of-art guns have often left me lusting after them, convinced that if I owned them, I would reach the highest echelons of competition. Pure fantasy on my part but a harmless fascination anyway as I could never afford one anyway. But in the past two years I have had the tremendous luck to review some of Nighthawk Custom's production 1911s.

MAKING OF A LEGEND: Production models may not really be the best way to describe these guns as they are completely hand built. Nighthawk manufactures all of their components

oversized and then hand the parts off to one of their many custom pistolsmiths. Every single part of the gun is hand fit to maintain the tightest tolerances. Every Nighthawk Custom 1911 I have examined possesses a tight, wobble-free frame-to-slide fit. Barrels are also fit with the same precision, and triggers are crisp and safe and never follow the slide. Parts like the slide stop, magazine release and thumb safety, all of which are manufactured in the Nighthawk Custom factory, are tuned to perfection. I had the opportunity to watch these talented smiths at work. Most of their time spent with abrasive cloth and fine needle files meticulously removing metal until the fit was just right. Nighthawk's motto, "One Gun, One Gunsmith" articulately describes their manufacturing process. From a box of raw oversized components one Nighthawk Custom gunsmith builds the gun and preps it for final finish. After the gun receives its finish and is test fired

without issue, the smith will stamp their initials on the frame under the grip. It is always with a degree of pride that this final step is completed.

GRP DETAILS: Nighthawk Custom's Global Response Pistol (GRP) might be one of their entry level guns, but there are no shortcuts taken. Like all Nighthawk guns, every part of this pistol is hand fit and tuned. It possesses cocking serrations, fore and aft, as well as 25 LPI hand cut checkering on the frontstrap. It has a tritium front sight and a Heinie Straight Eight Ledge rear sight for low light shooting. The frame is undercut where it meets the trigger guard and Nighthawk outfits the GRP with a highsweep beavertail to allow the shooter to get the highest grip possible on the gun.

My test gun was fitted with a single, strong-side-only extended thumb safety that breaks as crisply as the 3.25-pound trigger! This particular gun possesses the Interchangeable Optics System, which features a tapered dovetailed plate that slides into the slide cut from the rear. One plate holds the Heinie rear sight while another has a Trijicon RMR red dot attached. Once sighted, shooters can switch between iron sights and the red dot without fear of losing their zero. I fired all of my test groups with the RMR in place though I did shoot several groups with the iron sight plate in place and, when I did my part, produced similar size groups. Nighthawk craftsmen had fit both plates to the slide and the seam between the plate and slide is nearly imperceptible!

Prices for the GRP start at \$3,500. If you've ever had a custom 1911 built, you know this is not an unreasonable price for a gun hand built from the finest components and capable of producing sub-1-inch groups at 25 yards. For the 1911 aficionado or even for the gentleman or gentlewoman who simply demand the very best, Nighthawk Custom has a 1911 that will fit your needs. *—Mike Detty*

WE'RE JUST GETTING WARMED UP

Back in 1922, it was just a fireproof building on the outskirts of Anoka, Minnesota, that 30 paces would get you across. But our founders had the vision to see something more. They knew that, when driven by a constant flow of new ideas and staffed by hardworking American employees, the plant would become a cornerstone of manufacturing might. It was that spirit of innovation, constant push for advancement and tireless dedication to our customers that brought Federal[®] Ammunition into being, sustained us through the years, and keeps us going strong today-and for our next 100 years.

CELEBRATE 100 YEARS OF FEDERAL FEDERALPREMIUM.COM/100TH



NGENTURY OF AUTHORITY

FEDERAL).

1922

FEDERAL CARTRIDGE CORP

TACE GUN REVIEW





I am a sucker for budgetfriendly workhorse firearms. The ones you would expect to run no matter what you throw at it, how dirty it gets, or how inexpensive it is. The underdogs, if you will. When I first discovered SAR USA, I was immediately intrigued by there full line of pretty attractive looking pistols, something a bit different. Then I saw the pricing and my jaw about hit the floor at SHOT Show a few years ago. Sarsilmaz is a company that is based in Turkey but is quickly making a big name for themselves in the U.S. under the name of SAR USA.

Sarsilmaz is not just some new gun manufacturer. They have been in the gun manufacturing business since 1880 and are the supplier of the majority of arms for the Turkish Army. If you are unfamiliar with the Turkish Army, this claim to fame of supplying most of the army's firearms may not be that impressive. However, the Turks are not some third-rate army running around with old hand-me-down firearms and outdated training tactics. The Turks are hardened, badass, welltrained allies of the U.S. known for their not-messing-around attitude. Never afraid to mix it up, they have acted as a wall between Europe and the Middle East and have had no shortage of practice getting into conflicts and shooting their way out. So as a nation, they don't really screw around with weaponry.

BATTLE-GRADE RACER

SAR USA makes guns like lives depend on it because they do. The SAR K12 Sport shows this manufacturing mentality perfectly. A purpose-built race gun



RACE GUN REVIEW

on the market. Well, prepare

The K12 is essentially a

CZ-75 configured for single

action only. SAR's take on it

was why have a DA/SA trig-

ger when the sole purpose

of this gun is to shoot steel

quickly, accurately and in the

most efficient way possible.

to have your mind blown.

The SAR USA K12 Sport

is incredible.

for the mindboggling MSRP of \$842. That is a price low enough to be laughable when it comes to competition-ready guns-a price so low that most would immediately scoff at it in a gun case and move on to something more expensive. No way can an \$800 gun run with the more than double-priced, competition-ready race guns

SPECIFICATIONS

SAR USA K12 SPORT

CALIBER:	9mm
BARREL:	4.7 inches
OA LENGTH:	8.5 inches
WEIGHT:	46.9 ounces (empty)
GRIPS:	Aluminum panels
SIGHTS:	Adjustable rear, target front
ACTION:	Hammer-fired SA semi-auto
FINISH:	Polished stainless steel
CAPACITY:	17+1
MSRP:	\$842

The single-action trigger is smooth and consistent. It does have a bit longer reset and a bit of more creep than what I would like to see but it is very consistent and easy to learn. On the plus side, the trigger is adjustable and boasts a little heavier pull for a competition gun at around 4 pounds. This is more than likely because of the fact it

is not a custom gun, rather a production gun.

All the controls on the K12 Sport are extended for ease of use in a competition setting. Furthermore, the controls are all reversable, so southpaws have the same advantage as us righties. The gun also has a removable, flared mag well for quick reloads, plus it adds a very





200001991-50M

SARSILMAZ

The SAR USA K12 Sport is a performance-driven, budget-friendly 9mm race gun that not only functions incredibly right out of the box but looks great doing so. Testing revealed it to also be very accurate.

Antiferenting and a second

K-12 the

WE'VE GOT YOU COVERED

The EDC X9 series of 9mm handguns offer best-in-class reliability and superb, high-capacity performance. Wilson Combat accessories and Bullet Proof[™] parts are the industry standard made from the highest quality materials for a variety of firearms.

Hundreds of extreme performance, USA-made AR parts, and accessories for your next custom rifle project.



QUALITY YOU CAN TRUST

SERVICE YOU DESERVE SINCE 1977 Our custom AR Rifles are available in a host of calibers and with unmatched, guaranteed accuracy and reliability.

FINANCING EASY AND AFFORDABLE

GET STARTED AT WWW.WILSONCOMBAT.COM

RACE GUN REVIEW



With extended controls throughout the stainless steel construction, the K12 Sport will feel comfortable in any shooter's hands during any shooting conditions.



magazines with simple but attractive metal base plates that match the finish on the grip panels.

PERFORMANCE DRIVEN

I first got my hands on this 9mm pistol at the Athlon Outdoors Rendezvous media event where I put 100 rounds downrange after probably 3,000 rounds had gone through the gun that day. We were shooting in some of the craziest wind and dust I have ever been out in. With all that dust and debris flying around the K12 did end up getting a little gummed up like any handgun would. The simple breakdown of the gun made for a quick cleaning and reassembly and back to shooting. I was hitting steel out at distances upwards of 50 yards in that wind with ease. This short time at the range was enough for me to fall head over heels for this budget-friendly beast. Once I got one to my house, I took the gun out of the box, fondled it a bit and then headed to the range. I was shooting Black Hills 124-grain JHPs, which shot well. I put 350 rounds downrange in my first range session with no issues at all. It did take a little time to get used to the sights, and the rear sight did need quite a bit of adjustment right out of the box. But, once it was dialed

"SAR USA MAKES GUNS LIKE LIVES DEPEND ON IT BECAUSE THEY DO. THE SAR K12 SPORT SHOWS THIS MANUFACTURING MENTALITY PERFECTLY. A PURPOSE-BUILT RACE GUN FOR THE MINDBOGGLING MSRP OF \$842."

nice shelf for the dominant hand's pinky to rest on. This really tops off the amazingly ergonomic stainless steel frame and removable aluminum grip panels. The grips are well thought out and extremely attractively done in a dark grey up against the polished stainless frame. Front and backstrap checkering keeps your hands planted on the grip no matter what the conditions might be. The frame also has an enlarged beavertail, similar to a 1911, that cradles the hand very well and aids the shooter in staying on target for quicker

follow-up shots. SAR utilized the same rail inside frame design similar to some CZ models. The design has been known for producing incredible accuracy. Trust me, this offering from SAR USA proves that. These rails are polished and fit perfectly to the slide. Just simply racking the slide feels like a warm knife cutting through buttersuper smooth and effortless. The frame and slide are both stainless, which gives the gun it's 46.9-ounce weight that handles any recoil with ease.

On the extremely low-profile slide you will find a set of pretty basic cocking serrations on the front and back. They're not fancy, but functional. The top of the slide has some nice beveled edges as well. The K12 also comes with extremely nice sights. The rear sight is adjustable. In fact, the rear sight has more adjustment than I have ever seen on a set of sights, really making this system adjustable to each shooter's specific needs and shooting style. Inside the slide you will find a high polished stainless, one-piece heavy guide rod and 4.7-inch barrel. The gun ships with two 17-round

in, it was dialed in! I was able to consistently get sub 1-inch groupings at 10 yards in an indoor range when really trying to achieve great groups. I did a few speed drills, which is really where this pistol shines. It just shoots so flat with very little recoil, giving incredibly quick follow-up shots. I am not a competitive shooter, but the SAR K12 Sport made me immediately feel like I should try my hand at competition.

The next few range sessions I was running a variety of ammunition through the K12 Sport, including 115-grain HSM Hornady XTP, 124-grain HSM JHP, 115-grain Pinnacle TAC-XP, 125-grain Hornady Steel Match, 115-grain Aguila +P and 147-grain Federal Premium HST Tactical. Everything I fed the SAR was chewed up and spit out with zero malfunctions during approximately 600 rounds of live fire. These next 300 rounds were shot outside at my friend's range. Outdoors, I was not really worried about groupings and I wanted to ring steel as fast as I possibly could. I started off shooting at 15 yards and ended up out around 100 yards just for the hell of it. Even at 100 yards, I was able to ring steel around 50 percent of the time shooting at a 15-inch plate. I bet the gun would hit it every time, but I was having a hard time with the sight system at that longer distance. The gun is definitely better than I am.

Although the trigger had a bit longer reset than what I like, it didn't stop me from falling in love with it. This thing was just so fun to shoot I wanted to keep shooting. Although I didn't do a whole lot of real accuracy tests but rather focused on speed, I did see my best groups with 115-grain Pinnacle TAC-XP rounds. They seemed to be a bit tighter, but everything shot so well and stayed so accurate it really was tough to tell the difference. I was able to achieve extremely tight five-shot groups at 10 yards with all kinds of ammunition during testing. Out at longer distances, those groups really didn't get that crazy. Even out at 50 yards, I was able to achieve good groups with ease. Those groups were not shooting a round a minute or from support. Those groups were achieved standing, unsupported, with a minimal pause between shots.

READY FOR RUNNING?

i

SAR USA knocked it out of the park with the K12

Sport. It's a budget-friendly performance monster that eats anything you feed it in pretty much any environment. Whether it be for shooting competitions, getting into competitive shooting or if you just want to show off at the range and have some fun, the K12 Sport is definitely worth looking into. And you can't beat the price! For more information, visit sarusa.com. **T**



PERFORMANCE SAR USA K12 SPORT

LOAD	VELOCITY	ACCURACY
Aguila +P 115	1,250	1.00
Black Hills JHP 124	1,150	0.85
Federal Premium HST Tactical 147	1,000	0.80
Hornady Critical Duty FlexLock 135	1,010	0.90
Hornady Steel Match 125	1,170	0.95
HSM Hornady XTP 115	1,400	0.75
HSM JHP 124	1,000	0.90
Pinnacle TAC-XP 115	1,250	0.65
Sig Sauer V-Crown JHP 124	1,165	0.95

Bullet weight measured in grains, velocity in feet per second (fps) by manfacturers' specifications and accuracy in inches for best five-shot group at 10 yards.

Z NEW 1911 FIGHTER



With most things in life, you pay for a little more than you want to get the basic function that you desire. Those that have ever been car shopping can likely relate to this statement. "Oh, you want leather seats? Well, they only come with the deluxe dealer-upgrade package." Nobody likes that, and the right manufacturers don't like serving their customers that way either. For decades Springfield Armory has been the right manufacturer, offering a balanced array of budget-friendly options and tricked-out masterpieces. Somewhere along the line, the Geneseo-based gun company began filling in the gaps between these two extremes, particularly in its 1911 product family. Lineups like the Ronin, Garrison and

TACTICAL LIFE



OPERATE

SPRINGFIELD'S LATEST STEEL DEFENDER FILLS THE GAP BETWEEN STANDARD AND CUSTOM

BY FRANK MELLONI

NEW 1911 FIGHTER



"THEREFORE, INSTEAD OF COSTING UPWARDS OF \$1,300," THE OPERATOR IS BEING OFFERED AT AN MSRP OF **AROUND \$1,099.**"

56

4

The author utilized the latest from both Walker's Game Ear and Epoch Eyewear in his testing of the Springfield Operator.

Emissary offer packages of specific features to address the needs of a certain type of gun owner. While these lines are excellent at what they do, they don't offer much for the shooter looking to own an "operator-style" pistol without jumping into the "fully loaded" line. So, from necessity, the Operator was born.

MEET THE **NEW GUY**

As Springfield's newest lineup, the Operator offers the features that prospective tactical 1911 owners want without the price tag associated with the stuff



that they don't. Therefore, instead of costing upwards of \$1,300, the Operator is being offered at an MSRP of around \$1,159. Chief of these features is a frame, slide and barrel that are made from Springfield's signature forging process that yields tougher, stiffer components when compared to casting. The frame differs from a standard government profile in that it is built with a three-slot accessory rail that is all but standard for a modern pistol. The slide saw a little bit of modernization too, as it has been cut with forward cocking serrations to complement the ones in the rear. This helps those with a dexterity issue to use their entire hand to rack the slide while helping gloved shooters get a grip when the chips are down. Both the slide and the frame are finished in a deep-black Cerakote, setting the stage for a host of premium components.

Controlling the .45 ACP cartridge takes a little more work than say, a 9mm Luger so G10 grips were used in place of those made from traditional rosewood or plastic. This material can be cut with more aggressive angles and, although it may be subjective, looks absolutely gorgeous, too. A relatively flat mainspring housing helps to increase the shooter's purchase and is cut with a similar texture, serving both functionality and aesthetics. Just above this critical component is an enlarged beavertail grip safety to eliminate any chance of getting pinched by the lightweight, skeletonized hammer, regardless of how high you

\rightarrow

Tactical guns need tactical targets. Action Target movers pushed the new Springfield Operator to its limits.

like to keep your hand. The Operator also lets shooters of either dexterity decide if they want to shoot "thumbs over" or "thumbs under" as the ambidextrous safety allows southpaws to pick their most comfortable option, just the same as boring right-handers.

The slide of the Operator remains relatively true to the original sans aforementioned forward cocking serrations.





The combination of a black Cerakote finish, stainless barrel and trigger, and OD green G10 grips gives the Springfield Armory Operator a distinctive tactical look that is quite pleasing to the eye.

ACTION TARGET'S PORTABLE SERIES

Action Target makes some big stuff, like "deliver on a series of 18-wheelers" big. However, their portable game is just as strong, and most don't realize it. I tested the new Springfield Armory Operator on both an Action Target PT Swinger as well as a PT Turn-Swing. These portable targets (hence "PT") can be carried to the range in the trunk of even the smallest vehicles and allow the shooter to train on targets that swing and/or turn. Power is generated by springs or counterweights, eliminating the need for batteries or an AC outlet, and can be activated by hand or by using a variety of targets that fall when struck. Visit actiontarget.com for more info. *—Frank Melloni*



This was done intentionally to satisfy purists while keeping production costs down. To the untrained eye, this isn't particularly noteworthy but for someone who examines a different 1911 every month, it means something major. I always like to look for simplifications like this because it shows me how the engineers that designed it think. Finding cost savings features through simplicity tells us that quality wasn't sacrificed. Why resort to inferior materials or methods when we can just take away the things that the prospective end-user doesn't want anyway? As the slide is the largest moving part of a semi-auto pistol, its fit to the frame tells us scores about the pistol's accuracy and reliability. Whenever I examine a 1911, I check to see how much "wiggle" there is in between parts. The Operator was rock-solid in this department, meaning that the lockup would be dead-nuts repeatable. Now, sometimes the downside of tolerances this tight is a lack

of reliability, as just a speck of unburnt powder can cause a stoppage. The only way to tell if a pistol is built too tight for the working class is to shoot it and to shoot it a lot. So, that's exactly what I did.

RANGE WORKOUT

I packed my car with more .45 ACP than most people would be comfortable with as well as two target systems from Action Target that "encourage" fast pistol work. As usual, I had a windy day at the seaside shooting club that I belong to. This wouldn't affect accuracy at my 15-yard target distance, but one thing was for sure, the gun was going to take on enough sand to show us if it was built right. I started things off with the easiest of the freedom food to digest, Remington's 230-grain FMJ ammo. These came out of a 250-round Mega Pack and look comically similar to the company's famous golden bullets...scaled up of course. After putting 100 trouble-free rounds down the pipe in the



Remington is back, and so are its Mega Packs from its UMC line. That's a good thing for those who like to burn through lots of rounds at the range, whether seriously training or just shooting for enjoyment.



"I ENJOYED THE BALANCE OF OLD-WORLD STYLING WITH MODERN FEATURES LIKE TRITIUM SIGHTS AND PICATINNY RAIL AND THE UNMISTAKABLE FEEL OF A QUALITY ALL-STEEL HANDGUN."

name of "break-in," I sat down and had a little group therapy with almost another sleeve of this stuff alongside some Hornady 185-grain American Gunner and Black Hills 135grain Honey Badger. Groups were what you would expect from a gun of this lineage, and after close to 200 rounds there still wasn't a single stoppage to speak of.

Moving on to the moving targets, I lit up both as fast as I could, as the swinging and turning motions required me to hit the trigger as fast as I could to land a successful double-tap. Here is where I appreciated the soft 5-pound, 2-ounce break and snappy reset of the skeletonized trigger. Adding to the speed was the tritium front sight that took zero effort to find on the move. Recoil was about what you would expect and changed noticeably with different brands of ammo. I found the 185-grain Hornady to be the softest shooting, and surprisingly the Black Hills had a bit of punch to it, mainly because it is loaded for self-defense. Overall, I wouldn't consider any of these rounds unmanageable, which is testament to not only the balance of the gun but the result of using G10 grips and the reduced mainspring housing profile as well.

PARTING SHOTS

After close to 400 rounds, the Operator was ready to be cleaned. Although it didn't exhibit signs of needing it, I don't let my 1911's run too long between maintenance intervals. I was happy to see that very little was disturbed regarding the internal components of this pistol, as God and John Moses Browning intended (same person to some). True to the original in this respect, the Operator is a Series-70 design and does not have a firing pin block or the awful trigger press that is commonly associated with it. It is also built on the traditional bushing system and employs a solemn, simple recoil spring. Field stripping is no different than any other 1911, and thus cleaning it should be entirely familiar to most.

After putting it back together, I reflected on the day's events and was thoroughly satisfied with what Springfield has introduced to the sea of 1911s on the market. I enjoyed the balance of old-world styling with modern features like tritium sights and Picatinny rail, and the unmistakable feel of a quality all-steel handgun. Those looking to fill that operator gap in their 1911 collection should look toward, well, the Operator. For more information, visit springfield-armory.com.



PERFORMANCE SPRINGFIELD ARMORY OPERATOR .45 ACP 1911

LOAD	VELOCITY	ACCURACY
Black Hills Honey Badger 135	1,250	2.16
Hornady XTP 185	970	1.75
Remington UMC FMJ 230	835	1.89

Bullet weight measured in grains, velocity in feet per second (MFG specs) and accuracy in inches for best five-shot groups at 15 yards from a bench rest.



OLD-STYLE BRN-180S MEETS NEW SIG MCX TO MAKE ONE SLICK AR-PLATFORM DEFENDER 10999999r

1000 March and a state of the

TOTAL

80. V

sidentiat

POPOP

0

Brin 188 1

he "improving" of the direct impingement (DI) AR platform via piston-driven alternative is not a recent phenomenon. Even Eugene Stoner himself dabbled with piston-driven variants before leaving Armalite. After spawning the AR-15 and selling the rights to Colt, Armalite almost immediately turned to improving the AR-15 design, all the while being careful not to violate any conveyed patent rights. Arthur Miller, George Sullivan and Charles Dorchester were tasked to create an alternative to the AR-15 that evolved into the AR-18. This was accomplished by turning to a piston-operating rod action combined with using sheet stampings in the manufacturer of the lower and upper receivers.

The AR-18 was equipped with a now all too familiar short-stroke gas piston located above the barrel. The AR-18's bolt carrier rides two metal guide rods that double as return springs. This is different than the AR-15 design, which has the bolt carrier in contact with receiver rails and buffer/return spring located in the buffer tube found inside the buttstock. This not only allows for the AR-18/180S's stock to fold or be eliminated for a more compact form (more on this later) but also creates greater clearance and tolerance to foreign materials in the action. Other differences between the AR-18 and AR-15 are evident in the charging handle on the AR-18 being connected directly to the bolt and reciprocating with the action versus the AR-15 charging handle design. The AR-18 bolt handle allows a user more purchase when operating the weapon during loading, malfunction clearance, etc.



"MORE THAN 500 ROUNDS WERE FIRED FOR This t&e. This was not the goal considering ongoing ammunition supply issues."

↑

The SIG MCX's bolt group does not require a buffer tube to operate. This allows for use of a Sig side-folding Pivoting Contour Pistol Brace when the BRN-180S upper is mounted.

PROJECT AR



BROWNELLS BRN-180S GEN 2 UPPER

CALIBER:	.223 Wylde
BARREL:	10.5 inches
OA LENGTH:	18.7 inches
WEIGHT:	4 pounds
SIGHTS:	None
ACTION:	Gas piston, semi-automatic
FINISH:	Hardcoat anodized
CAPACITY:	30+1
MSRP:	\$879



The author found that the BRN-180S lived up to the task of being a lightweight, fast-handling weapon. Drills moving around barricades bore this out. The light and handy BRN-180S is what individuals will likely choose to work with in such environments.

THE REST IS HISTORY

The U.S. military did purchase a handful of AR-18s in 1964 for evaluation. Instinctually, gas-piston operation appeals to many by the very fact that hot gases and powder residue is not dumped into the action a la the original DI design. Current proponents of piston-driven ARs point to greater reliability in adverse conditions and less reliance on routine maintenance compared to direct impingement operating method. These same arguments were put forth in the 1960s as well, though to no avail as the direct impingement AR-15/M16 quickly became entrenched in the military supply chain and commercial market.

Armalite responded to the lack of military sales for the AR-18 by introducing a semi-auto only variant of the AR-18-the AR-180S in 1969. Looking back and analyzing the facts at hand, this seemed a sound idea with great potential due to little competition on the civilian market for "black rifles," especially one priced as competitively as the AR-180S. Furthermore, Colt had its hands full with producing M16s with little time to consider introducing the AR to the civilian market. What Armalite was trying to do with the AR-180S was to offer a reasonably priced military-style, semi-automatic rifle variant-indeed they were ahead of their time in

the 1970s. We take such models for granted today with the number of ARs/AKs/ G3s/FN-FALs we have on the market.

Ultimately, despite the AR-18's positive features, the design was not widely adopted or popular with the public. Many contend that the AR-18/180S was a superior design compared to the AR-15. Agree with this or not. Armalite designers were sure onto something considering the evolution back to piston-driven AR-15 systems witnessed today. The AR-18/180S's rocky production road at a variety of locales further hindered civilian sales.

BLAST FROM THE PAST

Brownells decided to rejuvenate the AR-18 idea with assistance from design partners PWS and FM Products in the form of the BRN-180S. Wisely, their quest was not centered on producing a pure historic recreation. Instead, Brownells focused on offering the benefits of the AR-18 short-stroke piston operating system in an optics-ready modern form, i.e., full-length upper Picatinny rail and M-Lok compatible forend. This is how we arrive at the Brownells BRN-180S upper. Further along these lines, the BRN-180S is designed to fit onto a standard AR-15 lower receiver. That's a smart business move considering it is an "AR world, we just live in it." Lastly, AR-15 mags are compatible without alteration required as was the case with original AR-18 magazines. The BRN-180S does

A CASE FOR SIG SILENCERS

Suppressor use has never been as popular for military, law enforcement and civilians. The benefits of suppressor use are hard to argue against. Sig Sauer offers rifles, pistols and suppressors. Via baffle design and unique manufacturing processes, Sig has eliminated the need for an outer tube on their rifle suppressors. Sig utilizes 100 percent circumferential welds combined with wire electronic discharge machining (EDM) the pathway of the projectile. In addition to reducing weight, this tubeless design increases volume, lowering pressure and temperature for greater durability and increased signature reduction. These benefits set apart Sig suppressors.

Sig further pushed the envelope using the best metals and coatings (physical vapor deposition-PVD-finish) combined with a superior mounting methods either direct thread or quick detach. PVD is more resistant to heat as well as scratch resistant. Inconel 718 (mixture of stainless steel and nickel alloy) is used to withstand the punishment of mounting suppressors to short-barreled rifles and high round counts. Titanium is also offered as an option for users requiring even more weight

shaving from their suppressors.

For Sig's rifle suppressors, a Taper-Lok Fast-Attach System was created enabling quick and simple installation of muzzle adapter device eliminating the need for shims. The Sig Sauer design optimizes alignment, improving accuracy and greatly reducing point-of-impact (POI) shift even after multiple install/removal cycles. The Taper-Lok system allows users to access a variety of muzzle brakes and flash hiders for their rifles, all the while enabling Sig rifle suppressors to attach when needed.

Actual sound reduction differences between most respected suppressors are

small. More important is durability, especially if high-volume firing is expected. Maintaining zero and accuracy when installed, removed and then reinstalled is paramount. Along these same lines, many will find flexibility of moving a suppressor between platforms is highly appreciated all the while maintaining the above listed characteristics. The Sig Sauer suppressors

The Sig Sauer suppressors succeed in surpassing all expectations no matter criteria used to judge—sound reduction, durability, accuracy and flexibility. *—Todd Burgreen*





÷

A Magpul PMAG D-60 drum magazine was utilized during BRN-180S testing and evaluation. The thought was that the best reload is no reload at all.





The Gen2 handguard deals with heat generated by firing better as well.

BRINGING IT ALL TOGETHER

A BRN-180S Gen2 upper chambered in .223 Wylde with a 10.5-inch barrel was chosen as our vehicle for exploring the Brownells concept. Seemed only natural to take full advantage of the compact BRN-180S upper by combining it with an AR-pattern lower that did not feature a buffer tube protruding. A Sig Sauer MCX Rattler pistol lower from a MCX Rattler Canebrake braced pistol I had in the safe was an easy decision for use.

The SIG lower combined with the BRN-180S turned out an ideal mating. Similar to the BRN-180S, the MCX's bolt carrier group is different than an ARs. This stemmed

"THE BRN-180S LIVED UP TO THE TASK OF BEING A LIGHTWEIGHT, FAST HANDLING WEAPON."

ATHLAN

away with the AR-18 spot welded stamped sheet metal construction, going with machined 7075 T6 aluminum receiver typical of current AR construction.

Brownells is offering multiple barrel lengths of 10 inches up to 18.5 inches in .300 BLK and .223 Wylde with the BRN-180S. The customer response with the BRN-180S was so positive that Brownells has already made improvements with the BRN-180S in the form of the BRN-180S Gen2 featured in this article. Gen2 models have an adjustable gas block for suppressed or unsuppressed shooting doing away with more complicated time-consuming switching out gas cup method from the

Gen1. Another major Gen2 tweak involves the handguard attachment method. The Gen2 handguard is retained by a single, large setscrew. Remove it with a hex wrench, and the whole handguard comes off. Once the guard is removed, you have access to the gas system without removing any internal components. from the initial user's request to use a folding stock in lieu of a typical AR buffer tube set up. Sig created the MCX Canebrake as the ideal choice for operators needing maximum firepower in a compact package. A Sig side-folding Pivoting Contour Brace supports this when combined with the Brownells BRN-180S upper.

Direct impingement AR-style weapons featuring barrels under 14-inches can be finicky. Plus, do not forget the AR buffer tube limits just how small ARs can be realistically shrunk to. This is not an issue with the piston-driven Brownells BRN-180S/Sig MCX combo. The ability to fold the brace shrinks the BRN-180S/ MCX combo to dimensions unobtainable for a typical AR. This is no gimmick but a real advantage in having rifle firepower in a package smaller than most SMGs.

The original Armalite-18/180S was ahead of its time with the inclusion of a scope mounting base on the rifle's receiver, allowing for the quick mounting/ dismounting of optics with a proprietary Armalite scope base. It took many years into the AR-15's development that "flattop" receivers conducive to mounting optics became the norm. The BRN-180S can accommodate red-dot or magnified optics. A Trijicon MRO was mounted to the BRN-180S upper. The

→

The Brownells' BRN-180S upper/ SIG MCX Rattler lower combination was equipped with a Trijicon MRO red-dot sight. standard three-prong flash hider was changed out with a Sig Taper-Lok Fast-Attach muzzle device. As with the folding brace pistol lower, the thought was to take advantage of the Brownells adjustable short-stroke gas system by mounting a Sig SRD556-QD suppressor during range evaluations.

TIME TO CANEBRAKE

Ammunition tested with the BRN-180S was a combination of multiple 5.56mm/.223 Rem. loads from Black Hills Ammunition, Hornady and Federal. A quick word about the BRN-180S's .223 Wylde chambering is in order. The .223 Wylde was designed as a hybrid chambering for semi-automatic rifles. It will accommodate both .223 Rem. and 5.56mm ammo. It is relieved in the case body to aid in extraction and features a shorter throat

for improved accuracy. In effect, the .223 Wylde splits the difference between the 5.56mm and .223 Rem., offering benefits in terms of accuracy and reliability.

No load tested produced greater than 1.5-inch groups at 50 yards with the Trijicon MRO. Several magazines worth of ammunition was spent engaging plate racks and man-sized steel targets. Drills quickly moved past stand-and-deliver drills to more dynamic drills involving movement, magazine reloads and firing from behind cover.

PERFORMANCE

BKN-18U5 GEN Z			
LOAD	VELOCITY	ACCURACY	
Hornady TAP 55	2,528	1.33	
Sig Sauer OTM 77	2,413	0.90	
Black Hills Match 69	2,369	1.25	
Federal M855 FMJ 62	2,511	1.50	

The BRN-180S lived

up to the task of being a

lightweight, fast-handling

weapon. Drills moving

around barricades and

training evolutions involving

vehicles clearly bore this out.

firing and evacuating from

The light and handy BRN-

180S is what individuals

will choose to work with in

such environments. More

fired for this T&E. This was

ammunition issues. However,

the BRN-180S proved too

enticing to put down. It just

not the goal considering

than 500 rounds were

Bullet weight measured in grains, velocity in feet per second (fps) by chronograph, and accuracy in inches for best five-shot groups at 50 yards.



A DISCREET BAG OF TRICKS

This is not your typical pack review because the Eberlestock Big Trick is not your typical pack. Eberlestock founder, Glen Eberle, is a multifaceted individual—Olympic-level biathlete, fighter pilot, backcountry hunter and innovator. The Big Trick provides superior tactical utility in a broad range of personaldefense situations, especially when compared to being confined to a handgun only approach.

With the Eberlestock Big Trick there is much more than meets the eye. It is not just another pack. Much thought has gone into its design and construction. Two rare-earth magnets conceal a hidden opening on each side of the bag, allowing ambidextrous quick access to a handgun concealed-carry pouch. This pouch is V-shaped so that it controls the position of the handgun. The barrel will always point down, and the gun will be right where you want it to be. The Big Trick features an expandable bottom that not only increases the pack's overall volume but lengthens the scabbard, allowing you to customize the pack for load size and weapon length. You can carry various

carbines or long guns in the aft scabbard sleeve. When not doing that, these are perfect places to stow your laptop and documents. The zip-away top allows full-frontal and top access to the main compartment; pull the zippers to quickly unveil your laptop, a carbine or folded rifle. These good-looking packs are perfect for going to the office, school or travel.

Events around the world and here in the U.S. show that terrorists are committed to attacking civilian targets. A weapon other than a handgun would be much appreciated if trapped in such a nightmarish scenario. Certain questions need to be addressed ahead of time with a basic plan formulated. A pertinent question is what do you do in terms of upgrading personaldefense items? This is a very important question that Eberlestock packs such as the Big Trick are designed to help answer. The convenience of easy adaptability of carrying multiple weapons and ancillary gear (ammo, optics, suppressors) is much appreciated. The Big Trick has evolved into one of my favorite discrete weapon transport cases. Visit eberlestock.com for

<image>

seemed there was one more drill that needed doing. The piston-driven BRN-180S proved utterly reliable with only minimal effort given to wipe down bolt carrier group and lubricate sporadically.

A Magpul PMAG D-60 drum magazine was utilized during T&E. The thought there was the best reload is no reload. The BRN-180S/ MCX combo was nestled inside an Eberlestock Big Trick pack with Sig suppressor and Magpul drum ready to go. Talk about effective response to any threat. You might be outnumbered but you won't be outgunned. One nuance noticed during **BRN-180S** manipulation during magazine changes was the lack of typical AR charging handle. The reciprocating dogleg charging handle is on the right side of the receiver. Grip it and rip it.

LAST BLASTS

The BRN-180S/Sig MCX combo is an excellent example of what to look for in terms of an effective weapon. What I mean by this is a return to basics such as light weight and great handling with potent firepower. This especially applies for civilians and even most law enforcement personnel outside of specialized tactical teams who do not require the plethora of accessories. KISS (Keep It Simple Stupid) methodology can pay dividends in terms of budget and allowing for concentration on other priorities such as training for example. For more information, visit brownells.com and sigsauer.com 🍒





BE READY WHEN YOU NEED IT MOST

USA READY[™] Defense is a select grade of personal defense ammunition offering the ideal combination of stopping power, penetration, and reliable expansion.

HEX-VENT[™] RIGID INSERT



Shields hollow point from obstruction while channeling material flow for positive bullet expansion

MATCH GRADE PRIMER Built to exacting specifications for trusted reliability

LOT CONTROLLED

Ballistics data for each lot published online at Winchester.com/usareadyinfo

AVAILABLE IN: 9MM LUGER +P, 40 S&W & 45 AUTO NEW FOR 2022: AVAILABLE IN 10MM AUTO





WINCHESTER

© 2021 Olin Winchester, LLC







e dis

 $G \cap G$
SOME WEAPONS Platforms have

an inexplicable impact on you. They catapult you to somewhere else, make you feel like you're better than you are and sometimes completely alter your shooting course. While I am a precision long-rangefocused shooter with an insatiable interest in bolt-action rifles, I only morphed into this after shooting a semi-automatic rifle chambered in .300 Win. Mag., much like the Petra that Falkor offers. It's funny how life works out because on top of producing that Win. Mag. beast as well as other top-of-the-line gas guns in other chamberings, Falkor Defense now produces one of the finest bolt-action rifles available on the market.

FROM AEROSPACE TO FIREARMS, FALKOR CONTINUES TO SOAR WITH BALLISTIC BREAKTHROUGHS

BY SEAN UTLEY

69

VEAPONS INSIDER



←

Raw beauty is strewn about the facility as Falkor ramps of production of their actions and chassis. Quality always comes first.





Falkor Defense was started by Jason and Melinda Sonju. Falkor, an offshoot of their main business at Sonju Industries, was born back in 2006 out of their love of firearms–a story not unlike many others. Originally called SI Defense, they rebranded to Falkor Defense in 2014.

AEROSPACE DYNAMIC

There are many firearms manufacturers, and many good ones at that, but some have certain advantages over others. In the case of Falkor Defense it stems from their longstanding experience in the aerospace industry, where they provide critical components for DoD. Parts for missiles and other weapons and even parts for jet fighters such as the F-22 Raptor adorn Falkor's CV. It doesn't take a rocket (or missile) scientist to figure out just how critical-if not mission critical-proper design



"FALKOR HAS TAKEN ON A NEW ENDEAVOR, AND THEY'VE DONE SO WITH Zeal, literally throwing caution to the wind in an effort to pursue a longtime passion while staking formidable claim within a space that is difficult to conquer." and engineering on such products is. Beyond that, the execution of manufacturing must be precise as well. They have done this for quite some time, and that ability to provide high-level components carries over into the Falkor brand and product line.

"When it comes to aerospace manufacturing, I think it brings a huge advantage when it comes to delivering a firearm...we're taking all of that knowledge that we've learned over the last 20-plus years and we're introducing it into Falkor, which ultimately leads to the consumer," Jason Sonju said.

Without a doubt, Falkor was put on the map with the release of their .300 Win. Mag. semi-auto called the Petra. Ironically, I reviewed the Petra back in 2019 and found it to be an amazingly accurate and manageable rifle. In fact, it's soft shooting, which is a mannerism you don't associate with .300 Win. Mag. This is no easy task because of the pressures associated with the Win. Mag. cartridge. It wants to destroy everything around it, including the firearm that it's discharged from, so some serious engineering and design comes into play. "When it came to the Petra, it really separated us from a lot of companies building ARs," Jason Sonju explained. "When it comes to big calibers, whether you believe it or not, it affects people. To be able to take a round that size and put it in an AR platform was huge for us."

Outside of the devastating Petra, Falkor also produces other, smaller AR-patterned rifles, carbines and PCC's. The high standards associated with Falkor's ARs embodies accuracy, reliability and stunning good looks. Falkor's design is just different from other companies, and it's immediately apparent. This is no easy feat. Once you go down this path, you must stick to it in order to maintain brand and product consistency. In the end, it's

Falkor's Melinda Sonju (bottom) is not afraid to mix it up, keeping their guns both good looking and very functional.





Lapons Insider



time consuming and, well, expensive. "I believe that our designs are very sexy and I think that it's geared toward what I believe most people want. They want a sexy, hot looking, different gun that they can be proud to say, 'This is mine,'" said Melinda Sonju. "When you start putting curves into things, all of a sudden, the price and the value of the product goes up...straight lines are way cheaper, typically. So, we didn't cut any corners."

NEW DIRECTIONS

It's easy for any manufacturer to stick with what it knows. A formula that has been well honed makes for easy work, comfort and predictable efficiency in the manufacturing process. This can also lead to the lack of innovation, a near death sentence in the current firearms arena. Falkor has taken on a new endeavor, and they've done so with zeal, literally throwing caution to the wind in an effort to pursue a longtime passion while staking formidable claim within a space that is difficult to conquer.

In 2020, Falkor introduced their 7even bolt-action receiver. It's an amazing action even in the company of other longstanding, deep-rooted manufacturers. It won our sister publication's Ballistic's Best award for best bolt-action rifle in 2020. While it was a complete rifle in conjunction with their CSS chassis, the action carried the load by outshining the accompanying chassis and the other



actions from competitive manufacturers.

You may wonder why Falkor would take such a risk as entering the precision space. The answer is a simple one: passion. Melinda Sonju grew up using bolt-action rifles. "When I was young, we were out in the South Carolina/Mississippi area shooting .22s. So, I grew up shooting .22s (bolt-actions). I love ARs now, but they are very intimidating. It's something I didn't grow up with.

"When I started hunting, I obviously



"THERE IS ALSO AN EVEN LARGER ENDEAVOR IN THE WORKS—ONE THAT NO ONE WILL SEE COMING AND WILL SET FALKOR UP TO COVER JUST ABOUT EVERY PRECISION BOLT-ACTION SEGMENT THAT EXISTS."

felt incredibly comfortable with bolt-actions. I have to tell you, bolt-actions are my love. I love the way they feel.... I would have a hundred different ones from other manufacturers if I could," Melinda Sonju said.

Jason Sonju is also developing a love for the platform, admitting that the undertaking was challenging, to say the least. "Bolt-guns are something we always wanted to do...It was scary... because there's so many awesome brands. We had this mentality and we still have it to this day, if you're going to come out with something, it has to come out and it has to be one of the best."

The 7even underwent two years of development. Along with that time came lots of money invested into the project along with much personal and company time investment. I, along with many of you, likely lack understanding of what is needed to develop a new product at this level. At face value, it seems like a walk in the park especially when the product isn't "new" per se. I mean the bolt-action has been around for many decades so how hard can it be? The Sonjus answered that question.

"It looks basic but, let me tell you, there is nothing basic about it when you start engineering and designing it and trying to get it to work. We did it alone. We didn't have drawings or models. We had no one telling us exactly what to do," Jason Sonju said.

"This wasn't something that just fell in our laps, there was some blood sweat and tears on this. A lot of money was put down to make something that I would love for someone's great-great grandchild to go shoot something with," Melinda Sonju said.

PRECISION PASSION

The 7even action is but only part of the precision equation. In my personal opinion and based on what I've seen inside the Falkor skunkworks lab, I believe they will be known for making some of the industry's finest precision bolt-action rifle parts, accessories and components.

They just released the ROE chassis, and it brings the type of adjustability you'd expect from a competition-type chassis. However, Falkor has taken things a step further by adding a forend that can be lengthened and shorted. The forend was the most technologically advanced for a short period because Falkor was the first to adopt the new **RRS R-LOCK** attachment interface. This is basically a series of circular cutouts in the forend that allow a bipod or tripod to lock into each slot, providing security for the attachment. The ROC chassis also features weight kits for placement all around the chassis to provide optimal balance and weight, adjustable mag release, thumb rest, top cover and even rail skins.

We had the ROC chassis available for this year's Ballistic's Best competition, and all the evaluators loved it. It scored high marks and really shined among its competitive peers. The package was enough to land it in a solid second place out of 10 rifles, being beaten out by only the Accuracy International and by fractions of a point, at that. That's a very strong showing for a newly developed platform.

SOARING FUTURE

The future looks bright for Falkor's precision pursuit. A new action, the MT 7 is

A completed Falkor rifle features a custom paint scheme. In this complete state, the rifle is ready for competition work. set to debut soon. It features the insane slickness of motion of the 7even but is defeatured a bit to reduce price for the more cost-conscious buyer. The top rail has been removed, and the user can install their own.

There is also an even larger endeavor in the works-one that no one will see coming and will set Falkor up to cover just about every precision boltaction segment that exists.

It looks like the only real challenge Falkor will have is making sure that everyone knows about the breadth of their lineup. Sometimes, when a company steps into territory that they are not typically known to be associated with, people find it hard to grasp. We are unfortunately creatures of habit– more psychological than actual. That said, part of the fun for Falkor will be re-educating not only their dedicated customer base but the precision masses as well.

Falkor truly brings a unique set of qualifications to the table. They are a major aerospace manufacturer, able

to bring that know-how to the firearms industry. Whether it's gas guns or bolt-action rifles, Falkor designs at the highest level and executes with a relentless passion. This shows in their entire product offering. For more information, visit falkordefense.com. **T**



Go even deeper behind the scenes at Falkor by checking out the video tour at tactical-life.com.







HTER'S

UP TO 50% OFF I UP TO 50% OFF TO TO 50% OFF I UP TO 50% OFF I

PERSONAL DEFENSE WORLD

UP TO 50% OFF THE NEWSSTAND RATE

- □ 1 YEAR PRINT (6 ISSUES) ONLY \$35.97
- 2 YEARS PRINT (12 ISSUES) ONLY \$59.97
- □ 1 YEAR DIGITAL (6 ISSUES) ONLY \$19.97
- □ 1YEAR PRINT + DIGITAL (6 ISSUES) ONLY \$39.97

MAIL TO: ATHLON MEDIA GROUP SUBSCRIPTIONS P.O. BOX 292167, KETTERING, OH 45429 OR ORDER ONLINE AT OUTDOORGROUPSTORE.COM

		*
ADDRESS	(BB-)	
CITY	STATE	ZIP
EMAIL		
BILL ME LATER	PAYMENT ENCLOSED	
CHARGE MY: 🛛 VISA	MASTERCARD AMEX	
CARD NO.	EXP. DATE	
SIGNATURE		

EWSS'

A

PLEASE ALLOW 6-8 WEEKS FOR DELIVERY OF YOUR FIRST ISSUE. ADD 30% FOR CANADIAN SHIPPING 100% FOR INTERNATIONAL SHIPPING.

amazonkindle

nook

ZINIO

YOU CAN ALSO

FIND US ON



→

It took nearly 30 rounds fired in bursts at essentially the same spot to finally eat through this BulletSafe Vital Protection 3 vest.



The Maria

ATHEON OUTDOORS

76 TACTICAL LIFE | 03 · 04 | 2022



PUTTING THE BULLETSAFE VP3 VEST UNDER THE GUN—A FULL-AUTO SUBMACHINE GUN

[BY WILL DABBS, MD]

Why would any normal person need soft body armor? That's actually a question many in leadership positions in government have posed of late. Modern conscientious Americans need body armor for the same reasons an aerobatic airplane pilot needs a parachute. You never actually expect to use it, but if you do it suddenly becomes a really big deal.

I met BulletSafe at the recent Athlon Rendezvous. These guys have a long history of providing quality body armor to law enforcement and civilian customers. They offer a bewildering array of products for any and all applications. BulletSafe can outfit the cop on the beat or the concerned citizen who has to traverse sketchy spaces. They offer both soft body armor and hard plates. BulletSafe even makes bulletproof backpack panels that can keep your kids company at school. I hate that we are even having that conversation, but we live in an undeniably lost and dying world.

The new BulletSafe Vital Protection 3 (VP3) vest is made in the USA and offers legit NIJ-certified Level IIIA protection in a package that is lightweight and built for comfort. The VP3 comes in eight different sizes and provides reliable protection against most handgun bullets up to and including .44 Magnum. The VP3 also includes pouches that allow the addition of rigid plates if enhanced protection is required.



OBJECT LESSON

A friend's grandfather served during World War II with the 2nd Armored Division–Hell on Wheels. He landed on Omaha Beach 10 days after D-Day and fought all the way across Europe as the driver of an M4 Sherman tank. During his nearly one year in combat, he participated in five major campaigns, including the Battle of the Bulge. He had three Shermans shot out from under him and was badly wounded in his final engagement near the end of the war.

In July of 1944, this man's M4 was maneuvering through the bocage country in France, pushing the Wehrmacht back inexorably toward Germany. Visibility in the armored vehicles of the day was suboptimal to say the least, so his tank commander had his hatch open, guiding the fight with his top half exposed outside the turret. This unfortunate man was hit center of mass by a German sniper and died on the spot.

On June 15, 2005, Sergeant Jason Glasscock of Shreveport, Louisiana, was manning an American M1A1 Abrams tank assigned to the 1st Battalion, 156th Armor operating in and around Baghdad, Iraq. This particular mission was short notice, and Glasscock had not had opportunity to get chow before hitting the line of departure. By now it was 1400 hours, and the young NCO was hungry.

Modern tanks are a lot of different things, but they are not comfortable. Sgt. Glasscock and

> his crew sweltered within the confines of their 146,000-pound war machine. There is very little extraneous space inside a tank, so the crew's MRE's were strapped to

UP ARMOR

the outside of the turret.

SGT Glasscock pulled himself out of his hatch and reached for the nearest case of MRE's. His plan was to retrieve himself a roast beef meal-his favorite-and eat it in the safety of the big, armored vehicle. As he sorted through



the case he was suddenly thrown bodily backwards. He later described the sensation as having been hit in the belly with an iron pipe. In the chaos that ensued his buddies pulled him back into the tank and checked him for wounds.

Sgt. Glasscock had been hit in the torso by an insurgent sniper. He was so sweaty that his buddies initially mistook the soaking perspiration for blood. They tore his uniform open to find a bruise the size of a grapefruit growing on his belly. Sgt. Glasscock's body armor had stopped the insurgent round and left nothing more sinister than this painful hematoma.

$\mathbf{\Psi}$

The BulletSafe Vital Protection 3 vest is designed to be comfortable, effective and affordable for most people.

So, what was the difference between this nameless tank commander in France and Sgt. Glasscock some six decades later? Sgt. Glasscock got to go home to his family, while the WW2 tank commander ended up in a French cemetery. The other difference was that Sgt. Glasscock was wearing the finest body armor mankind could produce when he got shot. When life goes pear-shaped, body armor can make the difference between going home to momma or going home in a bag.

PHILOSOPHY

There is a very real place for body armor in the loadout of the typical responsible American citizen. Modern soft body armor is surprisingly comfortable and



"THEY TORE HIS UNIFORM OPEN TO FIND A BRUISE THE SIZE OF A GRAPEFRUIT GROWING ON HIS BELLY. SGT. GLASSCOCK'S BODY ARMOR HAD STOPPED THE INSURGENT ROUND AND LEFT NOTHING MORE SINISTER THAN THIS PAINFUL HEMATOMA."

÷

The BulletSafe Vital Protection 3 vest is made in America and NIJ Level IIIA certified. That means it is proof against handgun bullets up to 9mm and .44 Magnum moving at 1,400 fps.

shockingly effective. It is quick to don and does not interfere with strenuous movement. Whether you are traversing a dangerous space or getting up to investigate why the dog won't shut up at 2 o'clock in the morning, a quality armored vest like the BulletSafe VP3 is a real combat multiplier.

It is easier to run toward the sounds of battle if you know on a visceral level that your vital organs are encased in HTSP (High Tensile Strength Polyethylene), the generic version of Spectra. Nowadays, we train to square off against our targets while shooting. Optimizing your chances of survival in an armed encounter turns on proper body armor.

TACTICAL DETAILS

The VP3 strikes that sweet spot between effectiveness, comfort and affordability. Sizes range from XS to 4XL with an average weight of around 5 pounds. There are eight different adjustment points, and the liner is formed from breathable mesh for comfortable wear all day. The wraparound design offers serious protection to the heart, lungs and associated vital spaces.

The VP3 is purpose-designed to be affordable for normal folk. At \$300, this vest offers professional quality for roughly half the cost of a decent plastic handgun. The unisex design accommodates all body types, while the wide array of sizes will allow you to fit all members of the family.

Folks like us typically take our survival preparations fairly seriously. The details of bugout vehicles, weapon selection, shelf-stable food and disaster planning are both pertinent and fun. If your situation and budget allow, being able to drop the family into body armor before you strike out amidst the next big calamity brings some proper peace of mind.

PRACTICAL TACTICAL

According to the government's Justice Technology Information Center, body armor is classified from Level IIA through Level IV based upon its ability to stop various pistol and rifle rounds. Level IIA armor will reliably stop 9mm and .40 S&W rounds fired from short-barreled handguns. Level IIIA armor like the BulletSafe VP3 will stop .357 Sig and .44 Magnum fired from longer-barreled weap-

After 21 rounds of 9mm and one .44 Magnum, the vest is challenged but remains intact. Thus far nothing has gotten through to our long-suffering Rubber Dummies target.

SPEC BOX

BULLETSAFE VITAL PROTECTION 3

SIZE TESTED:	Large
THREAT RATING:	Level IIIA
WEIGHT:	4.9 pounds
PANEL WIDTH:	19.75 inches
PANEL HEIGHT:	15 inches
PROTECTION AREA:	215 square inches
MSRP:	\$300



UP ARMOR TO CONTRACTOR OF THE OWNER OWNER

ons. Specifically, this means a 240-grain .44 Magnum round traveling at 1,400 fps or a 124-grain 9mm at the same velocity.

Level III armor will defeat 7.62mm FMJ lead core ammunition, while Level IV plates will stop .30-caliber steel core armor-piercing rounds. Like most things, selecting body armor represents a compromise between performance and weight/bulk. Level IIIA is generally considered the most effective body armor that might reasonably be worn concealed during a typical duty day. Level III and IV armor will generally be so heavy and bulky as to be impractical for daily wear. The VP3 does a simply spanking job defending against stabbing attacks as well.

I placed my BulletSafe VP3 vest on a Rubber Dummies target and shot it center of mass with a 115-grain 9mm FMJ round fired from an HK VP9L OR handgun. As expected, the front half of the vest stopped this bullet without difficulty. I then repeated the exercise with a .44 Magnum Desert Eagle with the same results. Now it was time to take it to the next level.

It is safe to assume that if somebody is actually shooting at you, the typical responsible citizen will take measures to get out of the line of fire. Well, what if you were being shot at a lot? This was the highly unlikely scenario we thought we might explore.

I loaded several magazines with 10 rounds each and proceeded to shoot my VP3 vest sequentially with a full-auto MP5 submachine gun. In between each magazine I took the vest down to verify that nothing made it through. This reflected abuse that well exceeded the design parameters of the equipment.

After 21 rounds of full metal jacket 9mm parabellum and the one .44 Magnum, the vest still retained its structural integrity. Three of the next 10 penetrated. The blunt force energy transferred into the target would clearly have sucked, but the VP3 shrugged off those 29 bullets like Superman. I left the range convinced that the BulletSafe VP3 vest would indeed offer reliable protection against



It took nearly 30 rounds fired in bursts at essentially the same spot to eat through this BulletSafe Vital Protection 3 vest.

most anything one might encounter outside a war zone.

RUMINATIONS

Anyone who feels body armor is silly clearly hasn't kept up with the news over the past year. Unprecedented social chaos transformed Minneapolis into Mogadishu. We are never more than one headline away from burning neighborhoods and rampaging mobs.

I wish body armor was not something I had to take into consideration in my planning for unpleasant eventualities. However, I wish I started each day pooping out gold nuggets as well. Lamentably, life isn't always the way we would like it to be.

The BulletSafe VP3 is guaranteed for five years and, if treated with even the slightest modicum of respect, should easily outlive you. As we have seen with a little gratuitous destructive testing,



If a picture is worth 1,000 words, what's a video worth? Check out author Will Dabbs as he shoots the snot out of a BulletSafe vest at tactical-life.com.

the BulletSafe VP3 is proof against any reasonable threats as well as most of the unreasonable sorts as well. The Vital Protection 3 vest is the combat multiplier for the common man. For more information, visit bulletsafe.com. **T**





HE JUST SHOWED UP ONE DAY AND TOLD US HE WOULD BE WORKING FOR US. SINCE THEN, WE HAVE HAD OUR BEST PEOPLE TRYING TO FIGURE OUT WHO HE IS. HE REFUSES TO PROVIDE ANY INFORMATION-INCLUDING NAME, RANK AND SERIAL NUMBER. HE INSISTS, "IT'S ABOVE YOUR PAYGRADE."

FOLLOWING A REQUEST TO THE PENTAGON, WE'VE MANAGED TO SECURE A COPY OF HIS SERVICE RECORDS. WE EXPLAINED THE SITUATION AND, ODDLY, THEY KNEW EXACTLY WHO WE WERE TALKING ABOUT.

UNFORTUNATELY, IT'S ALL USELESS. IT IS SO REDACTED IT LOOKS LIKE A RORSCHACH INK BLOT. WE ALL JOKE, IN HUSHED TONES, THAT IT SUITS HIM, BECAUSE HE IS PRETTY MUCH TOTALLY NUTS.

SO ... WE HAVE A NEW MEMBER OF THE TEAM. BUT AT LEAST HE LETS US PAY HIM IN FISH AND BEEF JERKY. TO JUSTIFY PAYING HIM, WE HAVE GIVEN HIM THE TITLE OF TEAM MASCOT. - JOSHUA SWANAGON

SOMETHING IS COMING. HE'S DARK, MYSTERIOUS, CANTANKEROUS AND MOSTLY INEPT. PREPARE YOURSELF.

Visit BALLISTICMAG.COM for more intel.

WARRIOR WEAR THILDING CONTINUED CONTINUE



BIGGER OF STEEL COMBAT HELMETS BACK TO THE FRONT LINES

BY PETER SUCIU

Anyone who has served in the U.S. military since the early 1980s was likely issued a heavy composite helmet. While there has been some evolution in the design, the basic Kevlar helmet design has been used for nearly 40 years. These helmets replaced the old steel helmets because the composite materials did a far better job at protecting the wearer from serious wounds-including those from small arms fire. Nevertheless, these ballistic helmets have their drawbacks, beginning with the way in which they are made. Today's modern combat helmets are comprised of flat sheets of ballistic material preformed into a helmet shape and then processed at a high heat. Wrinkling and folds occur as the flat



fabric conforms to the three-dimensional shape. Those seams, wrinkles, and folds in the materials can seriously degrade the ballistic performance, requiring more material and more mass to protect against a given threat.

The U.S. military last used steel helmets in combat during the Vietnam War, with the very last M1 steel helmets retiring in 1983. Yet, steel could solve some of the issues that are commonplace with composites and result in a lighter helmet that is more comfortable but also offers superior protection. Meet Adept Armor's NovaSteel helmet. It could have military forces reconsidering the advantages of the old school metal brain bucket again.

STEEL ISN'T THE PROBLEM

Helmets only work if the wearer keeps it on his or her head. Modern composite helmets are often so heavy and bulky that soldiers hate wearing them. Part of the issue with the weight is the aforementioned layers. It may do a great job at stopping enemy rounds, but it is simply too heavy for extended wear.

Adept Armor looked at how steel processing technologies have improved in the 21st century, and the result is a vastly stronger helmet—one that has the potential to withstand many of today's threats. This new steel also promises to be more comfortable while providing a more modular and more adaptable helmet.

The NovaSteel helmet is fully VPAM 3

÷

With its Ventail face protection module, the NovaSteel has an almost sci-fi look but it provides protection to the wearer's entire head.

compliant and capable of stopping a wide variety of potential special threats. This includes 7.62x25mm Tokarev ammunition traveling at 1,650 feet per second, 5.7x28mm ball rounds at over 2,000 feet per second and 9x19mm 80-grain solid copper spun (SCS) rounds at carbine velocities. In each case, during testing, the backface deformation of the helmet's steel shell was also minimal-an important consideration, as the deformations are often associated with serious injuries including skull fracture. The NovaSteel helmet has also offered good performance against fragmentation threats with performance comparable to aramid helmets such as the U.S. Army's Kevlar PASGT helmet.

Moreover, while composite helmets need to be replaced after a single impact, a steel helmet can remain in emergency battle service even after sustaining multiple impacts. Steel is also nearly or completely impervious to cold, chemical exposure, solvent exposure, UV radiation exposure and structural loading. Its heat resistance is also reported to be substantially superior to polyethylene-based helmets.

"The NovaSteel helmet offers best-inclass performance for minimal backface deformation (BFD) and impact trauma," said Jake Ganor, CEO of Adept Armor. "Unlike current polymer-based helmets, the NovaSteel is also environmentally stable, providing users' years of consistent rim-to-rim protection without material degradation that would severely compromise protection performance."

Unlike composite helmets, which tend to have short warranty periods, the NovaSteel helmets could have a significantly longer service life as steel doesn't degrade as quickly.

MODULAR SYSTEM

The NovaSteel helmet was also designed with modularity in mind. This includes a "Combat Circlet," a



"UNLIKE CURRENT POLYMER-BASED HELMETS, THE NOVASTEEL IS ALSO ENVIRONMENTALLY STABLE."

mounting platform for night vision goggles (NVGs) and other head-borne accessories. Made of glass-filled polymer, it weighs just two ounces and can be mounted to the steel shell via four retention-system holes on the helmets. M-Lock side rails accept accessories directly, but it can also be used as a platform for Picatinny adapters. The helmet features a rear "tie-down bar" for added stability.

The helmet can be integrated with the NovaSteel Ventail, a face protection module that offers protect to the face, side of the head and even a portion of the anterior neck. As with the combat shell, the face module offers protection from blunt impact, blast overpressure and debris. It is mountable to the helmet

The "modern" combat helmet began with the development of the French Model 1915 "Adrian" helmet. It was made of mild steel but was adequate at addressing low-velocity impacts from artillery and shrapnel. The one shown is from the author's collection.

Ψ

->

French soldiers in the trenches wearing the Adrian-designed skull cap.

via the same retention system holes on the shell. The Ventail is fully compatible with most ballistic glasses and provides protection while still offering unconstrained field of vision. According to Adept Armor, it is significantly lighter and tougher than current transparent ballistic visors.

The Adept Armor NovaSteel is available in both ACH (Advanced Combat Helmet) and High Cut variations. Each model is offered in black, green and tan and has an MSRP of \$195. Other colors are also available by special order.

THE HISTORY OF STEEL HELMETS

There is an often-told story of how during opening months of the First World War, a young French soldier was in hospital with horrible head wounds. He had miraculously survived a horrific artillery bombardment because he wisely placed his metal soup bowl on his head under his kepi. Hearing this story, General Louis Auguste Adrian went about to develop the first modern steel helmet.

Helmet collectors love that story and have shared it for years. It is a myth, of course. General Adrian certainly didn't need to be reminded of the fact that a helmet could save a soldier's life. While infantry had ceased wearing armor including helmets as firearms technology improved, the heavy cavalry of the French as well as German Armies still rode off into battle with steel helmets at the outset of the war.

Yet, Adrian was a forward thinker who sought to solve a very serious problem-head wounds. The popular image of World War I remains one of soldiers "going over the top" and charging machine guns across no-man's land and then engaging in horrific handto-hand combat in the enemy's trenches. Yet in truth, most causalities weren't actually from small arms, but artillery. Upwards of 77 percent of the injuries among the ordinary soldiers in the first year of the war were from bomb blasts and shrapnel and more than 80 percent of those injuries were fatal.

> Gen. Adrian initially developed a skull cap, which proved so uncomfortable that many wore it over their kepis or resorted to using it as a bowl-no doubt the source of the aforementioned myth. However, by the middle of 1915, the French Army

introduced the first modern steel combat helmet, and within a year Great Britain and Germany followed suit.

Steel was considered the best material of the day. It was heavy but still significantly lighter than the heavy iron helms worn for centuries. Moreover, it was strong yet could be pressed into shape even when cold, which is how Germany produced its infamous "coal

"UPWARDS OF 77 PERCENT THE INJURIES AMONG THE ORDINARY SOLDIERS IN THE FIRST YEAR OF THE WAR WERE FROM BOMB BLASTS AND SHRAPNEL AND MORE THAN 80 PERCENT OF THOSE INJURIES WERE FATAL."



Only a handful of Model 9 helmets were developed for testing by the U.S. military. While it certainly protected the wearer's head well enough, it was far too heavy to wear for extended periods.

scuttle" helmets.

Steel proved to be the de facto material of choice for decades for those reasons, and from 1916 to 1980 it largely remained the *de facto* material for helmets worldwide. One of the most successful steel helmets was the American M1, which entered service in 1940. It was the standard-issue helmet for the U.S. military from the Second World War through Korea and Vietnam and was only finally retired in 1983.

Steel was never considered the ideal material for brain buckets, but until the development of Kevlar, it simply remained the best option. The heart of the issue is actually the type of steel that was largely employed in 20th century helmets. When the United States entered the First World War, it was woefully unpreparedespecially compared to Great Britain and France, which had nearly three years of combat experience. Even as the American troops prepared to head "over there," the U.S. sought to adopt its own unique helmet. As a stopgap solution, however, the U.S. simply copied the British Mk1 steel helmet.

The British helmets could be best described as being somewhere in the "middle" in terms of steel quality and were made from Hadfield steel of mangalloy–an alloy which contains around 13

\uparrow

The American Model 8 was one of several "experimental" helmets developed during the First World War. The concept of a face visor on helmets is one that has been explored many times over the years.

\rightarrow

The German Model 1916 was made of high quality chromium-nickel steel, but it required a laborious manufacturing process and was considering heavier than the British or French helmets of the era.

percent manganese. This form of steel is known for its high impact strength and resistance to abrasion in its hardened state. It was superior to the mild steel used in the French helmets, yet inferior to the high quality chromium-nickel steel used in the German helmets.

The American military noted this fact and experimented with several steel formulas and initially opted to use chromenickel steel. However, it was found that the fabrication process was labor intensive and required five separate metal pressing operations, or draw, to form the eventual helmet shape. Often the bowl of the helmet would emerge from a press wrinkled or deformed. It also required a heat treatment or annealing process to eliminate brittleness.

Another steel formula known as Vanadium steel was also considered



and tested, but it resulted in problems similar to that of the chrome-nickel steel. In the end, the U.S. military stuck with the Hadfield steel-simply because the helmets could be made cheaply and rapidly with that era's methods of production. Even then it was known that Hadfield steel lacked the ballistic properties, yet the M1 helmet was still made from the same material.

It wasn't actually until the Cold War that alternative materials were considered including titanium and glass-reinforced plastic, but it was Kevlar that proved to have superior ballistic qualities to steel. Today most of the world uses very similar materials, but as steel has improved, it could certainly make a comeback. For more info, visit adeptarmor.com.

TACTICAL-LIFE.COM

It is the face, and with a little influence from the Departing the face, they kicked in the face is with the face.

out to distance aren't aware of how underpowered it is. At Renaissance Firearms Instruction we hold a course called the Two-Hour AR-15 shoot. Here students get to test a variety of AR-15s chambered in four different cartridges and about halfway through the course, most are shocked to hear that the adoption of the 5.56 cartridge cut the average infantryman's range down to about half. Because of this, several cartridges have been introduced to try to remedy the lack of downrange energy and effective range with limited success. Most would say that the 6.5 Grendel is the most prominent of the bunch, but even this cartridge runs out of steam at around 800 yards. The answer to that cartridge was the .224 Valkyrie, which cranked



PROVING GROUNDS

ATCH TACTICAL-LIFE.COM

6

IT

'S

FEE

NG TIME

NEWEST ROUNDS REALLY HAVE YOU COVER

TACTICAL LIFE | 03 · 04 | 2022 77 87

Y'S

ED

(BY FRANK MELLONI)

T PROVING GROUNDS



SILENCERCO SCO15 STRIPPED Lower Receiver

Although SilencerCo is best known for demonstrating its engineering prowess in the suppressor market, it is far from a one-trick pony. Recently, the company stepped out of the box and introduced the SC015, which boasted fully ambidextrous capabilities. As a southpaw myself, I jumped at the opportunity to base my next build on it. Having controls on both sides of the gun is handy beyond words, particularly when having to navigate through the unorthodox shooting positions that are common in today's precision shooting ventures. SilencerCo includes its proprietary bolt catch/release with the unit and allows the builder to choose the rest of the parts as they see fit. For more information, visit silencerco.com.

–Frank Melloni



BEST OF BOTH WORLDS

The 6mm Advanced Rifle Cartridge (pay attention, I'm only typing that out once) represents dozens if not hundreds of lessons learned from the Nebraskan manufacturer through the years and has its sights set on being the most versatile cartridge that you can chamber an AR-15 in. By not having to go up to the larger AR-10 platform, shooters get to enjoy the lighter rifle weight and recoil and share more interchangeable parts with other shooters on the range (or in their squad). As the 6mm bullet is the middle-ground between 5.56 and 6.5mm, it pulls a little of the best from both worlds by being able to be driven faster and retaining more energy when it arrives at the target. These qualities increase a shooter's effective range and also add the ability to defeat intermediate

barriers. These slippery little bullets are also known to be better resistant to wind displacement while still delivering a level of recoil that allows for the triggerman to spot their own impacts, at even the close ranges and/or high scope magnifications. These features set the 6mm ARC up to be a favorite for target shooters, competitors and hunters so Hornady created a load to accommodate each of these needs. I fall into every one of these categories, so I was certainly interested in taking all of these loadings to the range for a little T&E, I just needed a gun.

As I am no stranger to building an AR-15, I can put one together in short order. Using one of SilencerCo's new ambidextrous receivers and a host of parts from Brownells, I had my lower receiver together in less than an hour. For the barrel, I decided to go with a heavy 22-inch with a 1-in-7 twist from Ballistic Advantage as some previous testing more or less concluded that this is the length where velocity returns perinch-of-barrel-length start to diminish. I topped the rifle off with a Trijicon Tenmile 6-24x optic, as this rifle was destined for long-range at some point in its career. I did so with a Warne one-piece mount from its Vapor line as these keep the weight down and are easy on the wallet. Moreover, they position the scope at the perfect height for an MSR allowing me

÷

HUNTER

The 6mm ARC is suitable for hunting. The Precision Hunter loading ensures ethical kills, even at extended ranges. to use a stock that doesn't need a cheek riser. The buttstock in question was a less expensive Luth-AR MBA-2, which is also more rugged by design, perfect for animals like me who don't care to baby their gear. After capping things off with a Caldwell XLA bipod, it was time to take all three loadings to the range.

FEEDING THE BEAST

The white-box Match line is Hornady's most discriminating rifle food, featuring its highest grade bullets and powders. The 6 ARC loading in this line is built on a relatively heavy-for-caliber 108-grain ELD Match projectile that features Hornady's heat shield tip. We averaged 2,633 fps from our sample and fired three-shot groups that all beat the MOA benchmark with longer five-shot strings hovering slightly over MOA. Cycling was trouble-free and recoil was much closer to 5.56 than it was 6.5 Grendel, allowing us to shoot quite a bit with no punitive repercussions to the shoulder. After finishing our groups at 100, we turned a box loose onto a full-sized Caldwell IPSC that was previously placed at 1,040 yards and connected with 18 out of 20 rounds. This certainly made me a believer and demonstrated in spades the value of trading off short-range accuracy and wind-beating capability.

Hornady's Black line is designed to run its best through the AR-15 platform by using specially selected propellants and bullets. It serves the black-rifle community by being a less-expensive alternative to match-grade ammo without sacrificing enough to be considered undesirable range junk. The 6mm ARC loading here features a 105-grain BTHP projectile that surprisingly is only a few points lower in BC than the tipped 108-grain ELD Match. When fired out of my test build, I achieved an average velocity of 2,615 fps, which wasn't much different from what we got with the Match loading. Also surprising was the fact that this proved to be more accurate than the Match round, with 100-yard five-shot groups measuring as small as 0.96 inches. After wrapping up the close stuff, we dialed in nearly the exact same elevation and achieved an admirable long-range hit rate with 17 out of 20 smacking center mass on our steel. Not bad for "the cheap stuff."

THE HUNTING ROUND

As the 6mm ARC retains a great deal of energy at extended distances, it makes an excellent choice for hunting. The AR-15 is light on the back and easy to shoot offhand, so there is no reason not to consider building or buying one chambered in this cartridge

A BARREL WITH AN ADVANTAGE

Building a gun to fire the 6mm ARC can be as simple as re-barreling an existing AR-15. However, your results are dependent on picking the right launch tube. The build in this article featured a Ballistic Advantage 22-inch DMR barrel cut with a 1-in-7 twist. This company guarantees three-shot, sub-MOA accuracy with all of its barrels, and I met that with not only the required match ammo but the less-expensive "target" ammo as well. The Nickel Boron-coated feed ramps ensured uninterrupted cycling that was exceptionally gentle on the rounds during feeding. This undoubtedly played a major role in its consistency. Aside from being accurate, the bead-blasted finish of this and the other barrels from the premium line helps it to defeat elemental damage and look absolutely gorgeous hanging off of an upper receiver. Check out ballisticadvantage.com for more information. -Frank Melloni



⇒

The Black line is intended to be the most economical load of the three, but the author found it to be the best shooter.



BUYING AT Brownells

For more than 80 years Brownells has been serving gun builders of all varieties. Whenever taking on a largescale project, Brownells is my first stop. Aside from carrying all of the major brands, Brownells offers a high-quality "house" brand that consists of the most popular products, like the lower parts kit used in this feature. In addition, Brownells is often the sole distributor of exclusive products such as the Geissele Rapid-Fire Trigger, which was also used to complete this build. For more, visit brownells.com. *—Frank Melloni* for your next medium-game rifle. After all, grandpa took many a deer with his .243 Winchester, so 6mm is certainly adequate for whitetail. If you decide to hunt with this modern ".243," Hornady Precision Hunter will be there waiting for you with a 6mm ARC load that contains the companies praised ELD-X bullet. This 103-grain bullet is also built with the heat shield tip and performs much like its Match counterpart, except that it expands once it contacts tissue. In our testing, we averaged velocities north of 2,600 fps and every group was more than tight enough to ensure an ethical hit on deer-sized game within conventional hunting distances. We reduced our long-range test distance to 500 yards for this round but also cut our target size down to just 12 inches. In this scenario, we were able to put 19 out of 20 rounds on steel with the nagging suspicion that "someone" pulled the one that didn't connect.

PERFORMANCE HORNADY 6MM ARC SPECTRUM

LOAD	VELOCITY	ENERGY	ACCURACY
Black 105 BTHP	2,615	1,594	0.96
Match 108 ELD	2,633	1,662	1.25
Precision Hunter 103 ELD-X	2,627	1,578	2.09

Bullet weight measured in grains, velocity in feet per second (fps) by chronograph, energy in foot-pounds (fpe) and accuracy in inches for best five-shot groups at 100 yards.



THE UPSHOT

My range time left me thoroughly impressed with both the rifle's performance and the 6mm ARC's as well. I loved that the least expensive ammunition shot the tightest, giving me an easy solution to extended long-range sessions while the Match load is capable of scoring that extra hit when the chips are down. It also tells me that this sucker is going to be very responsive to a bit of load development, and I'd be a liar if I said I haven't already been researching dies and powders. Another noteworthy observation is that all three rounds shared the same point of impact at 100 yards, a tough feat to accomplish. It would be an understatement to write that not having to get to the range to re-zero in between tasks takes a lot of the headache out of owning a multirole rifle. While versatility exists in the cartridge world, versatility on command is rare indeed. In closing, although I am not entirely sure what Hornady plans to do next with the 6mm ARC, one thing is for sure; they can pick any direction they want to go with it. For more information, visit hornady.com. 🌋

A MUST-HAVE AR TOOL

Torque specs are critical when building firearms, especially the AR-15. The headspace on this platform is set by how "tight" the barrel nut is, and if it is off by a few pounds in either direction you are likely to have failures that range from inaccuracy to ruptured cases. The Real Avid Crowfoot Wrench Set contains a ½-inch drive torque wrench and an assortment of heads that fit the most common AR-15 parts. This kit was used to properly headspace the test rifle as well as attach the Kahntrol Solutions muzzle brake. For more info, visit realavid.com. *—Frank Melloni*



MULTI-MISSION RIFLE

GOING LONG AND LIGHT WITH ATI'S

POLYMER OMNI HYBRID MAXX

BY FRED MASTISON

Once a weapons platform seems to have reached its max design efficiency, the hardcore gun Jedi begin to look at ammo. The history of firearms is replete with countless wildcat cartridges that were

designed to bring something more to a weapon platform. While it happens in handguns, it is primarily seen in the rifle world. This is exactly the case with the new rifle from American Tactical Importers (ATI) with their Omni Hybrid



Maxx 6mm ARC.

This new rifle from ATI slips back into an area that many have dabbled with, using a reinforced polymer receiver and aluminum upper. This design has had both fans and detractors, but it is undeniably unique. The ATI 6mm ARC rifle features an 18-inch barrel and 15-inch M-Lok-style rail. The barrel has a 1-in-7 twist rate, a 5/8x24 thread pitch, and a flash hider at 5/8x24 pattern. It features an American Tactical SR-1 Rear Stock and a Nano Composite Trigger Kit. Beyond its polymer lower, its other unique feature is that it is chambered in the new 6mm ARC.

DESIGN HISTORY

The 6mm ARC was one of the products Hornady brought to the annual Athlon Outdoors 2021 Rendezvous in Idaho. While there, I got the chance to talk

MULTI-MISSION RIFLE





"IN FACT, THE 6MM ARC HAS UNOFFICIALLY BEEN IN Service with U.S. Special operations for almost two years."

The Hornady Match ammo proved to be very accurate, producing a 0.75-inch group at 100 yards during the author's testing.

quite a bit about ammunition. A little background on this unique round is in order if we are to really understand what is going on here. On the surface, it may appear that Hornady, the designer of the cartridge, just decided to push out a new round. This is not remotely the case. The 6mm Advanced Rifle Cartridge (ARC) was designed to meet a request by the U.S. Military. In fact, the 6mm ARC has unofficially been in service with U.S. Special Operations for almost two years. The exact units using the round are a piece of close-hold information for Hornady and they simply say it is being used by a "notable Department of Defense (DOD) entity." Hornady's description is equally as cryptic. "The 6mm ARC has been tested, selected and fielded





SPECIFICATIONS

ATI OMNI HYBRID MAXX

CALIBER:	6mm ARC
BARREL:	18 inches
OA LENGTH:	32.5 to 35 inches
WEIGHT:	6.2 pounds (empty)
STOCK:	ATI SR-1
SIGHTS:	None
ACTION:	Gas-operated semi-auto
FINISH	Polymer (lower), hardcoat anodized (upper)
CAPACITY:	10+1
MSRP:	\$949

by a specialized group within the U.S. DoD for its multipurpose combat rifle program. The versatile 6mm ARC does much of what larger cartridges can and everything that smaller cartridges can't. Designed to meet the needs of the world's toughest critics, the 6mm ARC utilizes efficient, high-BC bullets to deliver unprecedented performance from the AR-15 platform. Commercial 6mm ARC offerings will feature bullets selected to deliver ideal performance for hunting, match shooting and personal protection applications."

This is a very unique situation where a round sees secretive service in the military before it is part of the civilian market. The 6mm ARC is based on the 6.5 Grendel. The designers necked down the cartridge to 6mm and then pulled the shoulder back closer to the case head. The case was also shortened to help make it compatible with

\uparrow

The Omni Hybrid Maxx is a hybrid consisting of a reinforced polymer lower and an aluminum upper. The author found the test rifle, chambered in 6mm ARC, to be quite accurate out to 1,200 yards.







MULTI-MISSION RIFLE



"...I SOON FOUND MYSELF GETTING HITS AT 1,000 YARDS AS WELL AS THE FARTHEST TARGET AT 1,200 YARDS."

low-drag bullets.

The question most people ask is, why? What is the goal of the 6mm ARC? It is really the same thing that every cartridge designer has ever chased-a lighter round that performs like a heavier round. The 6mm ARC is designed to do what much larger cartridges can and everything that smaller cartridges cannot. It is built to deliver substantially better ballistics than the .223 Rem. and offers a lighter gun/ammo system with 30 percent less weight than the AR-10/.308 Win. system. In short, the round is designed to be effective in combat situations. This means it needs to exhibit top performance at close-contact distance as well as at longer range engagements. With the bullet design, the 6mm ARC does this well. It stays supersonic past 1,000 yards and has demonstrated solid accuracy.

RANGE REPORT

The unique nature of the Omni Hybrid Maxx coupled with the 6mm ARC had me anticipating range day more than normal. The setup was straightforward. I mounted a Tract Optics TORIC 4.5-30x56 34mm MRAD ELR scope and a bipod for stability. I would also be using a sand sock to finish out my shooting rig. Shots for groups would be made from a bench utilizing a rear sand sock as well to improve consistency. After a quick zero and target reset, rounds quickly began to fly downrange. In that Hornady is the only show in town for ammo, I shot both their Precision Hunter 103-grain ELD-X as well as the 108-grain ELD Match. Both performed well, but the Match ultimately gave me the best group at 0.75 inches at 100 yards. Two major items became evident almost immediately. First was the trigger on the rifle. For a budget realm gun, it was actually very nice and broke cleanly at just over 4 pounds. Second was the minimal muzzle rise and recoil. This was all about the ammunition at this point. These two factors allow for not only accurate shooting but quicker

follow-up shots. It was easy to stay on the scope and prepare for my next shot. This is one of the benefits of shooting a semi-automatic rifle in comparison to a bolt gun. While I have seen some people run a bolt like a rifle ninja, most people must come off their scopes to run the bolts, thus breaking their shooting position. The adjustable stock was a nice feature and greatly contributed to the overall accuracy of the rifle. Recoil-wise, the gun is a breeze. Most shooters would not notice any difference between the 6mm ARC and the standard 5.56. While the physics tells us running a 108-grain projectile does produce more recoil than a 55-grain projectile, the difference is negligible.

I did not want to relegate the Omni Hybrid Maxx to being just a bench gun, so it was important to run it from a variety of shooting positions as well. I ran it from several other positions ranging from prone to kneeling as well as offhand shooting. In each instance, it ran well and provided solid accuracy. The rifle is a lightweight shooter, but it is still easily manageable regarding recoil and muzzle rise. The ability for a rifle to run from a variety of positions is an essential part of serious applications. Very few real-world shots are ever taken from a prone or bench position. In the world of lethal application or even competition, shooters are often required to shoot from odd angles and improvised positions. This is especially true considering the background of the 6mm ARC round. The weight and accuracy of the rifle are a solid fit for that application.

I wanted to get a feel for not only the rifle's performance but the ammo as well, so I set up and started punching steel at distance. Targets I consider close, such as 300 to 500 yards, were child's play for the rifle. This round, by design, is meant to be able to reach out and touch someone at distances a standard 5.56 might struggle. The rifle and ammo performed as promised, and I soon found myself getting hits at 1,000 yards as well as the farthest target at 1,200 yards. At that point, I ran out of range but wished I could have found the fail point distance. It is noteworthy to mention that this was shot on a clear Arizona morning with absolutely no wind or major environmental factors. As the disclaimer always says, "your results may vary."

AT DAY'S END

Overall impressions of the gun were a mixed bag. The magazine included in the package was a .410 magazine from ATI's Milsport .410 semi-auto shotgun. While the rounds did indeed fit, I experienced a few misfeeds. I would ultimately replace it with an actual 6mm ARC magazine from someone like AR-Stoner. As I mentioned, the trigger was nice and better than I expected in a rifle with an MSRP of \$949.

For those who already shoot in the 6mm arena, the question will be, "Why not just stick with 6.5 Grendel?" Well, it comes down to what you want performance-wise. In all honesty, for the average civilian shooter plinking inside 300 yards, it is hard to justify. Where the rifle and ammo shine, however, is when you need to start reaching out at more serious distances. Hornady ballistician Jayden Quinlan, who conceptualized the ARC, shared this. "The farther out your target is, the more advantage you'll see. For the guy who's shooting at 200 to 300 yards, he has the advantage of a bigger bullet selection over the Grendel. For the guy shooting beyond 300, there's a distinct advantage in hit probability and wind deflection." The fact that the lower was reinforced polymer did not seem to affect function or performance in any way.

Do I believe polymer ARs are the wave of the future? I am not sure. There will always be durability questions, but I remember a little company back in the 80s called Glock that faced the same scrutiny. Overall, the rifle performed well, save a few misfeeds. The complete rifle is 100 percent made in the USA and assembled at ATI's Summerville, South Carolina, facility. If you are looking for an AR to join the 6mm ARC family, this may be something you would have interest in. For more, visit americantactical.us and hornady.com. **T**







★ BCM [®]	
	BCM ATHLON BCM O ATHLON
★ BCM [®]	
	BCM CM ATHLON BCM O ATHLON
	BCM [®] ATHLON BCM [®] ATHLON
★ BCM°	$\bigstar BCM^{\circ}$
	The self-adhesive paper stickers contained on the reverse side of this sheet are NOT
★ BCM °	weatherproof. Do not get them wet. The sticker
	removable from many surfaces. Be aware of where you choose to stick these stickers.
★ BCM [®]	
	BCM ATHLON BCM OUTDOORS
	BCM O ATHLON BCM O ATHLON
10 and	
	BCM ATHLON BCM OUTDOORS
★ BCM [®]	

BRAVOCOMPANYMFG.COM



WE'RE TAKING IT TO NEW HEIGHTS TO SHOW YOU THE JOYS OF KITPLANE OWNERSHIP

BY WILL DABBS, MD

Did you ever find yourself as a kid dreaming of tearing about the skies in your own WWIIvintage fighter plane? Of course you did. Every normal male child on the planet dreamt of doing that. However, owning your own restored fighter is the very pinnacle of exotic rich-guy luxury.

In the immediate aftermath of World War II, surplus military aircraft were actually quite plentiful. Uncle Sam tried selling these things to the public for about three years, but nobody was really interested. America had grown weary of war, and those with means had little interest in acquiring the implements of combat.

This homebuilt Van's RV-6A offers a little bit of that fighter plane sweetness on a working man's budget. There are currently some 2,700 of these nifty little planes flying. Some enterprising investors eventually realized that you could drain the gas for resale and scrap the planes and get more than what the government was asking for them. In short order most of these classic warbirds were gone. Nowadays, no more than a handful in airworthy condition remain. So what is a poor fella to do?

DOLLARS AND SENSE

A P51 Mustang cost the government \$50,985 in 1945. That's about \$787,000 in today's money. Of the 15,000 or so that were made only about 150 remain flyable today. Most of those planes are in museums. When a decent Mustang comes onto the market, it rarely lasts long and typically sells for between



÷

Most vintage WW2 warplanes are considered too valuable to fly and reside in museums as a result. (Kogo Photo)

\$2 and \$3 million nowadays.

In recent years restoring and maintaining these old vintage planes has become big business. With the fall of the Iron Curtain, Eastern Europe and Russia opened up for exploration and exploitation. Many tanks and combat aircraft were identified, recovered and relocated to the U.S. for restoration.

Paul Allen, the co-founder of Microsoft, has a passion for vintage military aircraft. His collection resides in the Flying Heritage and Combat Armor Museum in Everett, Washington, today. Allen recovered a Focke-Wulf Fw 190 A-5 in 1990 from Russia and had it meticulously restored. This plane is currently the only Fw 190 in the world flying with its original BMW 801 radial engine.

While each of these planes recovered from the muck is a priceless artifact of one of the most extraordinary periods in human history, what's a regular guy to do if he wants to taste a little of that sweetness himself? If you're not Paul Allen, chances are you won't be retrieving Nazi fighter planes from Russian swamps and restoring them to flyable condition. However, for us normal guys there yet remains a way to get there from here—at least sort of.

AVIATION PARTICULARS

Flying is undeniably expensive. However, many Americans enjoy a fair amount of discretionary cash. We have in this very column explored some of the most extraordinary vehicles. These all-terrain trucks and off-road racers could do some simply spectacular things, but they were reliably spendy. In the world of exotic high performance automobiles it's not hard to drop half a million dollars on a supercar or custom survival truck with all the bells and whistles. For a fraction of that you can get into a very nice airplane.







Drop a handy niece or nephew down in the other seat and you will instantly become the coolest uncle ever.



The sliding canopy allows you to keep the lid open while taxiing in the heat. It also looks just super cool to putter about the airfield with your elbow hanging out.





"...AS THE UNITED STATES WAS THE BIRTHPLACE OF Powered Flight, it is strikingly easy to get all the Makings of a proper homebuilt airplane delivered Straight to your door on the back of a big truck."

HISTORY OF THE FIRST JET FIGHTER

The Messerschmitt Me 262 Schwalbe (Swallow) was the world's first jet fighter to enter service. It looked the part—a technological marvel with a shark-like, pointy fuselage, swept wings and two underslung turbojet engines.

When officials demonstrated the Schwalbe to Adolf Hitler at Insterburg, Germany, on November 26, 1943, Hitler was merely making offhand conversation when he asked designer Willy Messerschmitt if the Me 262 could carry bombs. It could indeed, Messerschmitt assured the Führer, but while the Me 262 bore the name of his aircraft company he had not participated in its design and knew little about it.

As an air-to-air weapon, the Me 262 extracted a toll. Its pilots—intrepid men, all, for the Me 262 was cantankerous and difficult to fly—were credited with shooting down 542 Allied warplanes while sustaining just 100 combat losses. Luftwaffe ace Hauptmann (Captain) Franz Schall was credited with 17 aerial victories, including six fourengine bombers and 10 P-51 Mustangs.

Generalleutnant (Major General) Adolf Galland, a top ace, said in a 1994 interview that the jet "might have been in action one year earlier, had the highest priority been attached to it from the start." But while about 1,430 Me 262s were manufactured, "never more than 50 or 60 came to operation at any one time," said Galland.

Historians debate whether Hitler hastened his own defeat by ordering Me 262s converted into "blitz bombers." In fact, some were modified. But German officers recognized that the Me 262 could accomplish more as an air-to-air weapon and, for the most part, quietly ignored the order.

In its first combat on July 25, 1944, an Me 262 attacked a British Mosquito flying a reconnaissance mission over Munich. The futuristic jet's combat debut was delayed more by technical problems—especially with the engines—than by any order from the Führer.

A typical Me 262 was powered by two 1,984-pound-thrust Junkers Jumo-004B axial-flow turbojet engines, was armed with four 30mm nose cannons, and reached a speed of 540 miles per hour. Needless to say, the Me 262 heralded a new era in fighter aircraft, despite its own inability to significantly influence the course of the air war in Europe. —*Robert F. Dorr*







Attorneys make fun stuff like airplanes unduly expensive. Most new-made, factory-built general aviation aircraft are cost prohibitive. By contrast, older airplanes remain quite reasonable. Unlike autos, the stringent maintenance requirements for an operational airplane keep these old planes flying safely for generations.

In addition to the purchase price, the new airplane owner needs to budget for an annual inspection and the inevitable incidentals. Additionally, avgas isn't cheap. Everything you might need to replace or service will be more expensive on an airplane than a car. However, you can still get into a very nice airplane at a modest cost. To find decent performance on a real-world budget, you should consider a homebuilt.

We Americans do cherish our freedom. In most states you can build a gun from scratch for personal use and you need neither register nor serialize it. Likewise, as the United States was the birthplace of powered flight, it is strikingly easy to get all the makings of a proper homebuilt airplane delivered straight to your door on the back of a big truck.

LEARNING TO FLY

The Army taught me to fly, so getting into the game was not as arduous as it could have been. If you start from scratch and rent your training aircraft, you'll drop \$10,000 earning your private pilot's license. Owning your own airplane obviously makes this more convenient and potentially cheaper as well.

When I was getting back into flying after nearly 20 years out of the cockpit, I bought a cheap beater Piper Tomahawk and flew it for a year or so to get my air sense back. The Tomahawk is a factorybuilt trainer plane that dates back to the late 1970s. The Tomahawk is docile and forgiving, making it the perfect primary training aircraft. After a while, however, I was ready for something a little spunkier.

VAN'S KITPLANE

My current plane is a Van's Aircraft RV-6A. The RV family is the most popular homebuilt aircraft design in the world. There are literally thousands of these spunky little planes flying. The RV-6A is



TECHNICAL SPECS:

VAN'S AIRCRAFT RV-6A

SEATS:	Two
LENGTH:	20 feet, 2 inches
WINGSPAN:	23 feet
GROSS WEIGHT:	1,600 pounds
ENGINE:	Lycoming 0-360
MAX SPEED:	180 knots (210 mph)
STALL SPEED:	43 knots (49 mph)



TACTICAL RIDES INCOMPANY INCOMPANY INCOMPANY INCOMPANY INCOMPANY

markedly faster than my old Tomahawk, and the added performance makes it much more fun. In general, faster airplanes are more demanding to fly, but RV homebuilts remain nonetheless quite predictable and forgiving.

My RV-6A seats two side-by-side and cruises at about 160 knots. That's 184

miles per hour. My feisty little airplane cuts a car trip by two-thirds. A threehour drive is a one-hour flight. Flying will never be cheaper than driving, but it will always be faster and more fun. I live in north central Mississippi. I can have an early breakfast at home and then lunch in Chicago.





"ZIPPING OUT TO THE AIRFIELD TO TURN A LITTL AVGAS INTO NOISE IS A SIMPLY SPLENDID WAY TO KILL A PRETTY SATURDAY AFTERNOON." Building such a machine yourself is indeed not for the faint of heart. Most such projects take literally years to complete. However, the end result is pride of ownership and recreational opportunities like none other.

My used RV-6A cost about what a decent sportscar or nicely appointed SUV might. It will carry two normal-sized people and their luggage and look cool doing it. What it is really good for, however, is just playing around.

Think of this energetic little homebuilt aircraft like a three-dimensional motorcycle. The machine is eminently maneuverable. Aileron rolls don't take a lot of talent. As I tell new fliers, a ride in my plane can be a Rolls Royce or a roller coaster. That snazzy little machine is capable of doing all sorts of things I'm not willing to do myself.

BEFORE YOU TAKE OFF

It is indeed a daunting expenditure to go from a pedestrian to a pilot. Add in maintenance costs and \$5-per-gallon avgas and the numbers can become scary. I have a day job as well as this writing side gig, and that is what feeds my particular addiction. Thanks for that, by the way.

If you've got this itch, nothing else will really scratch it. Zipping out to the airfield to turn a little avgas into noise is a simply splendid way to kill a pretty Saturday afternoon. In weak moments you can imagine yourself chasing the Luftwaffe across the skies of Europe. There's really nothing else in the world quite like it. For more information, visit vansaircraft.com.


ATHLON OUTDOOR HIN GWENNAY

NEW GUN AND ACCESSORIES GIVEAWAYS ANNOUNCED THE FIRST FRIDAY OF EACH MONTH!

ballistic L TACTICAL-LIFE PDW





















HYBRID RIFLE REVIEW

NEET M+M²S

→

The 4x32 Browe Combat Optic calibrated in 7.62x39mm is as bulletproof tough as the M10X is inherently adaptable and practical. The excellent muzzlebrake made it a pleasure to shoot.

THE M10X-WHAT YOU GET IF AN FAL, AN AK AND AN AR-15 HAVE A LOVE CHILD BY FRANK JARDIM • F.J.G. JARDIM PHOTOS

Despite its looks, this is no ordinary AK variant. The big deal about the M10X International Defense Rifle is that it draws together some of the best design features of the world's most successful post-World War II military rifles and combines them to deliver a high level of accuracy from the 7.62x39mm cartridge while maintaining durability and reliability in a modern, easily adaptable modular form. When I got into it, I found it most similar to the Swiss STGW 90 (SIG SG 550) with its AK-style bolt, combined gas piston and bolt return spring, free-floated gas tube with integral regulator, and the use of a milled steel receiver with the barrel threaded into it. It may come as no surprise, then, that the rifle's designer, Mike Meier, president of M+M Industries, is a Swiss immigrant. However, the M10X is not a copy of the STGW 90 or anything else for that matter. In addition, the STGW 90 didn't originate all the characteristics it shares with the M10X either.

MEET THE M10X

Looking specifically at the design antecedents of the M10X, I see the AKM long-stroke gas piston operating system and aspects of its sheet metal lower receiver including the trigger and hammer, magazine and magazine mounting system. In the barreled action, I see the FAL's minimalist and rugged machined steel receiver, which stands alone from the pistol grip/fire-control group and the top cover. Like the FAL and many other Westernstyle rifles with receivers machined fully from steel, the M10X's barrel is screwed on with precision threads rather than pressed in and pinned in place. In the M10X's field stripping procedure, I see the AR-15's hinged lower receiver that allows for easy removal of the bolt and cleaning from the breech end.

HYBRID RIFLE REVIEW



SPECIFICATIONS

M10X ELITE INTERNATIONAL DEFENSE RIFLE

CALIBER:	7.62 x 39
BARREL:	16.5 inches, gas nitride treated
OA LENGTH:	28.13 inches folded, 38.25 inches fully extended
WEIGHT:	7.68 pounds (empty)
STOCK:	Side-folding Magpul Zhukov
SIGHTS:	None
ACTION:	Semi-automatic
FINISH:	Burnt bronze
CAPACITY:	30+1
MSRP:	\$1,499

SIMPLICITY IS KEY

There's also a lot new and innovative in the M10X aside from its unique blend of established design features. Among the most notable are aggressive simplification to reduce production costs and increase reliability along with planned modularity to permit easy future adaptation and upgrading of the rifle's self-contained barreled action and operating system in the manner you would a bolt-action rifle.

In terms of simplification, the M10X has only 52 parts compared to the typical AK's 80 parts and the typical AR's 95 parts. Yet, the M10X has features that most AK and AR platforms don't: ambidextrous safety, a removable charging handle that installs without tools for left- or right-handed operation, an adjustable gas system to compensate for variables in ammunition performance and suppressor





use, and a rigid, monolithic combination action-cover/handguard ideal for optics.

The M10X's extruded aluminum monolithic upper is really a shell for the actual receiver within. It has Picatinny rail along the full length of the top, six rows of M-Lok slots for ventilation and mounting accessories, QD sling swivel attachment holes on either side and an integral hand stop on the bottom. This makes the M10X as versatile in terms of accessory mounting as a quality AR but with the added inherent sturdiness of a Lewis Machine Tool monolithic upper receiver. The M10X's entire steel barreled action and operation system slides snuggly into this aluminum upper and is secured at the lower front of the receiver with one set screw.

What looks like a sheet metal AKM lower receiver, which also attaches to the lower front of the steel receiver on





the barreled action that is the core of this rifle, is made from tough stainless steel and thicker-than-a-typical AKM receiver (1.5 mm vs. 1 mm). Immediately noticeable here is the lack of rivets. Instead, the lower components are attached with Torx head screws. Two advantages come from this. If you have loose-fitting magazines, the screws allow adjustment of the magazine catch position to tighten the fit, and, the rear trunnion can be changed out easily to suit your preferred buttstock configuration.

The rear trunnion itself is a fairly complex piece of machined aluminum that houses the take-down button for opening up the action and a nested rubber buffer pad to cushion the recoiling force of the bolt carrier. Unlike a standard AK, which beats its rear trunnion mercilessly with steel-on-steel impact every time you take a shot, the M10X system isn't subject to wear and tear as long as the rubber cushion is serviceable.

VERSATILE AND ADAPTABLE

The design of the upper and lower receiver components around a core, barreled action/operation system, gives the M10X potential to be modified in countless ways outside the usual changes in barrel length. Agency "X" might want a super lightweight polymer lower. Foreign military customer "Y" might want a fulllength front handguard without a hand stop so they can mount a bipod far forward and use the rifle in a DSR role. Police department "Z" might want a different rear trunnion installed on the lower to use a standard AR-style, six-position buttstock. M+M designed the M10X to



be adaptable as a major selling point. At present, the rifle is only available with one receiver/handguard/lower configuration, but new options for it are probably as close as the first major military or law enforcement contract for it.

The aluminum on the M10X is mil-spec hardcoat III anodized for wear resistance, but it is not subject to any wear during firing as an AR-15 receiver is. Most of the steel surfaces on the M10X, including the barrel, are nitride treated for wear resistance. The bolt carrier and bolt are slimmer and lighter than those of the typical AK and attach to the gas piston with the charging handle. There is no recoil guide or spring behind the bolt because, like the STGW 90, the recoil spring is mounted on the gas piston rod. This simplifies field stripping because you don't have to compress any springs. If there is a flaw in this system, it is that the spring would seem more susceptible to loss of temper from the heat transfer of prolonged firing. The STGW 90 actually held the spring back from the end of the pistol to reduce this, but that is not the case with the M10X, though one could fashion a heat sink for it. Based on internal testing, M+M advises the spring to be replaced every 5,000 to 7,000 rounds as preventive maintenance. Those springs cost only a few bucks, so a lifetime supply won't set you back much. Most recreational shooters will never shoot hot or heavy enough to need to change the spring.

RANGE REPORT

On my test outing to the 300-yard upper facilities at the Knob Creek Gun Range in West Point, Kentucky, I was impressed with the M10x's very un-AK-like accuracy and light recoil. The muzzle is threaded for 5/8x24 accessories and comes with a very effective muzzle-brake/flash-hider. The rubber buffer in the rear trunnion

and the geometry of the adjustable length-of-pull of the Magpul Zhukov folding stock probably helped with recoil mitigation, too.

Any standard AK trigger will fit the M10X, but M+M used an excellent trigger of their own manufacture. It's a two-stage trigger with the usual AK slide before let-off, but the pull is quite light. This trigger will not hold the gun back from its full accuracy potential much, if at all.

For optics, I installed a Browe Combat Optic (BCO-005) 4x32 scope. This is the most advanced version of the tough Trijicon combat optic familiar to many U.S. military personnel. Brian Browe founded the company in 2009 after years as the Director of Operations for Trijicon. With 22 years of experience in tactical optics, he took the old Trijicon scope to a whole new level of excellence. In addition to being just about as indestructible as an optic can be, I chose the BCO because it has a self-adjusting illuminated reticle and is available calibrated for 7.62 x 39mm. The scope automatically meters the light coming off the target, not the ambient light where you are standing, and adjusts the intensity of the illuminated reticle automatically. You can also manually select from 10 daytime intensity levels and three night-vision levels as suits the mission.

My average five-shot groups fired from the bench at 100-yard bullseye targets with the BCO 4x optic averaged 1.98 inches with Hornady Black loaded with their 123-grain SST bullet, 3.5 inches for Geco Target's 124-grain FMJ and 4.0 inches for Wolf Performance steel-cased 123-grain FMJ loads. I'm sure a 9x magnification scope would have tightened those groups up an inch. All loads functioned flawlessly, and loaded and ejected smoothly. The rifle comes with an ExTech Tactical MAG 47, stainless steel reenforced feed lip polymer magazine, which is the best polymer magazine for the AK I've found. It's like a US Palm magazine, but better because the floorplate is removable for cleaning. The rifle comes with a pair of QD sling swivels and a pair of M-Lok rail sections, too.

PARTING SHOTS

My time with the M10X convinced me that it made the AK-47 officially obsolete. No matter how you look at it, the AK is a legacy system, and there's only so much anyone can do to upgrade its basic design. I give M+M a lot of credit for recognizing that, taking a step back and re-imagining what a modern battle rifle could be. Because of its 7.62 x 39mm caliber, I wouldn't be surprised to see this rifle get attention in regions that were once within the sphere of Soviet influence and still inclined toward this caliber. But I suspect if it is adopted by a significant power, it will be a chambered in a more modern caliber. For more information, visit mm-industries.com. The second se

PERFORMANCE

M+M M10X INTERNATIONAL DEFENSE RIFLE

LOAD	VELOCITY	ACCURACY
Hornady Black 123 SST JHP	2,271	1.13
Geco Target 124 FMJ	2,376	2.25
Wolf Performance 123 FMJ	2,247	3.00

Bullet weight measured in grains, velocity in feet per second (fps) by chronograph and accuracy in inches for best five-shot groups at 100 yards.



Z SCATTERGUN



EAA'S NEW CHURCHILL 220 OPTICS TACTICAL REPORTS FOR HOME-DEFENSE DUTY

The Churchill 220 Optics Tactical red-dotequipped, 20-gauge defensive shotgun from European American Armory is sensible firepower. The feature set is optimized for maneuverability and close-quarters power projection, while the

20-gauge chambering keeps the chaos manageable. It is home defense without the kick.

[BY WILL DABBS, MD]

Featuring a 3-inch chamber and an 18.5-inch barrel topped off with a spiked breacher choke tube, the Churchill 220 Optics Tactical shotgun packs 5+1 onboard and weighs a paltry 5 pounds empty. The gas-operated, semiautomatic is designed for a single mission. This is the home-defense gun for the shooter who is comfortable with his or her masculinity.

A MOST PATHETIC POISON Testicles are a curse, and testosterone is the most potent poison known to man. It is not a statistical aberration

SCATTERGUN

→

Using the Akkar 20-gauge gas-operated semi-auto sporting shotgun as a foundation, the Churchill 220 Optics Tactical optimizes the chassis for home defense.

SPECIFICATIONS

EAA CHURCHILL 220 OPTICS TACTICAL SHOTGUN

GAUGE:	20, 3-inch chamber
BARREL:	18.5 inches
OA LENGTH:	37.5 inches
WEIGHT:	5 pounds (empty)
STOCK:	Synthetic
SIGHTS:	Fiber-optic front/5-MOA red-dot
ACTION:	Gas-operated semi-auto
FINISH:	Matte
CAPACITY:	5+1
CHOKE:	Cylinder bore breacher-style
MSRP:	\$627



The oversized charging handle makes it easy to run this scattergun in a rush.



The aircraft-grade aluminum receiver on the Churchill 220 Optics Tactical shotgun offers modest weight and high strength.

"EVERYTHING ABOUT THE CHURCHILL 220 IS OPTIMIZED FOR DEFENSIVE APPLICATIONS."

that 93 percent of the American incarcerated population is male. Whenever you read a news item about somebody blowing themselves up trying to invent a better way to barbecue meat, your first thought is never, "What was she thinking?" Whoever did that was a dude.

The curse extends across all species. I have myself done a fair amount of turkey hunting. Turkeys are either too stupid or too wily to be predictable. That's half the challenge. The technique to turkey hunting is common regardless of geography.

The hunter sets up in a position of concealment and uses a turkey call to emulate the plaintive cries of the female bird. Once you have the attention of a likely gobbler, you toss in a gobble or three to seed the scenario with the requisite patina of jealousy. The male turkey will then make haste to your position, driven by the urge to secure a spot of female companionship. The fact that he thinks he'll have to engage in mortal combat with some other male turkey



The Churchill 220 Optics Tactical 20-gauge defensive shotgun comes with a solid but no-frills 5-MOA red-dot sight that perfectly complements the gun for close-quarters use.



The Churchills's polymer pistol-grip stock is both comfortable and quite rugged.

to earn the affections of said feathered strumpet just accelerates matters.

The turkey then pops out into a clearing and catches a face-full of No. 4 shot for his trouble. The next thing you know his brown basted carcass is the centerpiece of some family's holiday repast. All the poor guy wanted was a proper date.

The point is simply that testosterone drives guys to do silly stupid things. Leaping school buses on a motorcycle, jumping out of a perfectly good airplane without a parachute or reflexively buying the biggest shotgun in the store are all examples of silly things guys have done under the influence of this most potent poison. Sometimes we tend to overdo it a bit. I'm man enough to admit that I really don't care for the 12-gauge shotgun. I'm kind of a skinny guy, and the immutable dicta of physics mandate that a lightweight 12-bore stoked with some proper defensive rounds will absolutely punish you. After a dozen or so high brass buckshot or slug rounds, my fun-meter is pegged. Fortunately, EAA has the answer.

ORIGIN STORY

The term shotgun first appeared in print in 1776 in the prose of James Fenimore Cooper. Prior to that time, such a weapon would typically be known as a "fowling piece." This presupposes a large-bore, muzzle-loading gun that fired shot rather than a single projectile.

The British Brown Bess musket sported a 0.75-inch bore diameter. That's roughly the same size as a modern 10-gauge shotgun. It was not uncommon to load the Brown Bess with a buck-and-ball load that consisted of a combination of shot and a separate large-caliber musket ball.

The gauge system used to describe a shotgun bore is a curious English contrivance. The gauge is defined by the weight—in fractions of a pound—of a solid sphere of lead with a diameter equal to the inside diameter of the barrel. Put another way, shotgun gauge is the number of pure lead balls of a certain diameter that make up a pound. For instance, a 12-gauge has a bore diameter of 0.729 inches. Twelve lead balls of this particular diameter would weigh a pound.

A 20-gauge shotgun has a bore diameter of 0.614 inches. This means that the humble 20-gauge still has a substantially larger bore diameter than that of a .50-caliber machinegun. The 20-gauge is, indeed, an underappreciated beast.

Lots of ammunition companies offer serious 20-gauge defensive rounds. Additionally, recoil in this loading is substantially more compassionate than might be the case with a 12-bore. In the proper platform this makes for some formidable capabilities.

I have done my time in an urban emer-

gency room. In close-quarters combat most any rifle beats most any handgun. At appropriate ranges most any shotgun will beat most any rifle. At bad breath ranges simple birdshot will carve a guy up like a gigantic ice cream scoop. The only thing more effective would include an impact fuse.

CHURCHILL 220 PARTICULARS

Everything about the Churchill 220 is optimized for defensive applications. The polymer furniture is just about indestructible, and the ample pistol grip stock offers a solid, comfortable shooting platform. The gun shoulders quickly and remains easy to control.

The semi-automatic action is easy to manage. The gun loads via a gate in the bottom of the receiver like most repeating scatterguns. The charging handle reciprocates with the bolt, so you can manually manipulate it in the event it gets sticky. The safety is the typical crossbolt pushbutton located just ahead of the triggerguard. A generously fenced, fiber-optic front sight offers quick acquisition in the absence of the red-dot.

→ The 20

The 20-gauge shell is shown here alongside the formidable .44 Magnum revolver cartridge. The classic 20 is plenty spunky for close-up work in home-defense situations.

The Churchill 220 Optics Tactical shotgun comes from the factory with an excellent red-dot sight and throw-lever mount. This full-sized optic features nice glass clarity, a 5-MOA red dot and an ample field-of-view. By running the gun with both eyes open you take advantage of the same situational awareness and rapid reaction capabilities found in a modern HUD-equipped fighter plane. HUD is mil-speak for Heads-Up Display. This is the way fighter pilots have been killing each other for generations now. Nowadays advances in microelectronics allow us to mount this same technology atop our small arms.

The Churchill 220 Optics Tactical features a lightweight yet rugged aluminum receiver and sling studs both front and rear. The gun's dull, weather-resistant





Ammunition manufacturers offer ample versatility for your favorite 20-gauge shotgun.

finish is both robust and cool-looking. The overall package brings more closerange thump than any rifle or pistol in a package that is actually fun to shoot.

TRIGGER TIME

The Churchill 220 Optics Tactical just feels good in the hands. To charge the gun, feed five 20-gauge rounds in from the bottom, jack the bolt, and slip in one more. The bolt locks back automatically over an empty chamber. There is a right-sided pushbutton that drops the



bolt on a fresh round.

Slide-action shotguns look and sound cool, but that's one more complex motor task to try to remember when somebody is actively attempting to kill you. With a properly-stoked Churchill 220 Optics Tactical shotgun you just point the thing at something you dislike, punch off the safety and squeeze. The action cycles way faster than I can. The downrange effects against soft targets, like milk jugs filled with water, are simply epic.

I love this red-dot sight on a shotgun. The gun moves fast and offers an enviable degree of precision. When throwing slugs, the Churchill 220 Optics Tactical shoots plenty straight at typical home-defense ranges. I like a nice, tuned sniper rig as much as the next rabid gun nerd, but there is no conceivable circumstance under which you might use a gun like that for real against a hostile bipedal adversary. A typical defensive engagement will invariably be up close and personal. In this

4

This 7-meter target shows the effects of a single round of 20-gauge birdshot.



"BUCKSHOT OFFERS UNPARALLELED DOWNRANGE THUMP ALONG WITH A CERTAIN DEGREE OF IMPRECISION THAT MAKES STRESS ENGAGEMENTS EASIER."

battlespace the Churchill 220 Optics Tactical thrives.

Buckshot offers unparalleled downrange thump along with a certain degree of imprecision that makes stress engagements easier. However, you need to make a sober assessment of the friendly situation before deciding a proper ammo loadout. If I had kids about, for instance, I'd be slow to throw buckshot around the house with wanton abandon.

By contrast, basic birdshot does not over-penetrate and brings with it plenty of close-range heartache. Additionally, the survival applications are self-evident. Like most autoloading shotguns, the Churchill 220 prefers high brass slugs, buckshot and turkey loads. However, I left the bolt locked to the rear for a few days and it loosened up enough to cycle cheap birdshot as well. The gun just needs to be broken in a bit. At close ranges said birdshot will explode a water-filled milk jug like a hand grenade.

RUMINATIONS

The options at your typical American gun emporium are ample, to say the least. Most folks pick a handgun for home defense, but the handgun is the toughest of all small arms in common use to run accurately and well. A trickedout black rifle has undeniable merits. However, when there is something warm and precious sleeping on the other side of the drywall, I'd be extra careful where I tossed my high-velocity rifle rounds.

A 12-gauge is a formidable tool, to be sure, but if the shooting experience is unpleasant that is a powerful disincentive to train. The argument could be made that the Churchill 220 Optics Tactical 20-gauge autoloading shotgun really is the ideal home-defense tool. Easy to run, fast, powerful, thoroughly reliable with the right ammo, and mean, this opticsequipped room broom is comfortable, versatile and fun. The Churchill 220 Optics Tactical shotgun is the optimized defensive tool for the security-minded man or woman who doesn't feel like he or she has anything ridiculous to prove. For more information, visit eaacorp.com. The second sec

ALE SUPPORT



BUDGET AIR 5 TALLAN FLAR STOEGER'S NEW XM1 MARKS THE PRICE AND PERFORMANCE SPOTS

BY GORDON D. SMITH

As little as five years ago, if you had an interest in airguns and wanted to step up to the pre-charged pneumatic (PCP) variety, you were looking at a hefty investment. The airguns were expensive, and you needed to add items such as High-Pressure Air (HPA) handpumps or SCBA tanks. Then there was the question of who could fill the tanks or if you should purchase an expensive home compressor. Now, however, jumping into the PCP game is not so daunting because in

the past five years more manufacturers have entered the PCP arena and introduced portable HPA compressors. Competition and economies of scale opened the market to



The various pellets tried during this testing and evaluation.

more affordable PCP airguns, handpumps and compressors than ever before. While highend PCP airguns continue to command prices in the four figures, entry-level PCPs are available starting below the \$200 mark. For a little more, some offer packages that include a handpump so you can get started without other accoutrements.

THE NEW XM1 Stoeger Industries was founded in 1924 in New York as a gun store, firearms

AIR SUPPORT



purveyor and publisher. Now a subsidiary of Benelli USA group in Accokeek, Maryland, in turn part of Beretta Holdings, they formed an airgun division more than a decade ago and began importing airguns. The new XM1 is their first foray into the PCP realm, and because Stoeger is known for their quality in value-priced firearms, they chose to introduce an entry-level model. The XM1 design was handled by the Benelli design team in Italy, and the lines of the airgun are incredibly sleek and sporty. Advanced ergonomics are incorporated into the design and utilizes what the company calls "Proadaptive Checkering" consisting of

÷

Picatinny rail with magnetic magazine holders.

raised "Thridion" markings that add to the tactile grip.

The XM1 S4 is the suppressed version and, in full disclosure, was given to me for this review. It came well packaged in a colorful cardboard box having foam lining, which protects it in transit. Along with an owner's manual, there were baggies containing the rear sight, short Picatinny rails and screws for mounting. Also, a seven-round rotary magazine, single-shot tray, brass fill probe and additional O-rings were included. The XM1 also comes with a taller cheekpiece and larger hand grip that can easily be swapped out. Colorful spacers in the buttstock can be removed to shorten the length-of-pull. The magazine, single-shot tray and one Picatinny rail have embedded magnets to ensure proper alignment with the breech and a clever way of storing up to three mags along the side.

DIGGING DEEPER

Starting at the muzzle is the permanently affixed, patented S4 suppressor system. This latest evolution of their "S" line of sound suppression consists of a decompression chamber in front of six baffles, which work in concert with their compensator technology; all housed in a polymer barrel sleeve. A red fiber-optic front sight sits atop the suppressor. Adding about 6 inches to the length of the standard XM1, the S4 does its job well, and I would rate this .22 as "backyard friendly." The barrel is 21 inches of rifled steel mated with an aluminum receiver. Underneath the barrel is the non-removeable air cylinder. Rated at 200 bar (2,900 psi) fill pressure, a manometer gauge resides at the muzzle end with the fill port just behind it. The two supplied Picatinny rails attach to either side of the forearm, which also has a sling stud hole molded into it. A wide, curved, two-stage metal

trigger is only adjustable for the pull length. Surprisingly smooth, it broke at a nice, light average of 2 pounds, 8 ounces. A cross-block safety is in the front of the triggerguard.

The vertical pistol grip is part of the polymer buttstock making this a thumbhole-style stock. A second sling attachment hole is molded into the toe of the buttstock and it is finished off with a soft rubber buttpad with a molded-in ergonomic design for additional comfort in the shoulder pocket.

Back on top, the oversized bolt head is uniquely shaped and covered with the "Thridion" checkering. I found it very comfortable as it lends itself to nestling between the thumb pad and first knuckle joint of the forefinger. Cocking occurs when pulling the bolt back, and travel was smooth and easy. There is not a lot of real estate on top for scope mounting with the rails being typical 11mm-wide dovetails found on many airguns.



"WHILE HIGH-END PCP AIRGUNS CONTINUE TO COMMAND PRICES IN THE FOUR-FIGURES, ENTRY-LEVEL PCPS ARE AVAILABLE STARTING BELOW THE \$200 MARK."





Alternate view of the muzzle/ suppressor/compensator.

COOL RUNNINGS

I topped my rifle with an MTC Mamba-Lite scope on medium-high Sports Match rings. Higher rings are necessary to provide clearance for the rotary magazine. It was a great matchup, and the accuracy I achieved was surprising. PCPs don't usually need a break-in period like other types of airguns might, and this thing shot well right out of the chute. Most airguns can be picky as to what they shoot well. This XM1 took everything I put through it, yielding excellent accuracy with all but a couple of the pellets I tried. So far, I've tried nine different pellets from five brands.

Stoeger Airguns rates the XM1 in .22 as a 900-fps air rifle, and it did slightly exceed that velocity when using 11.75-grain Predator GTO lead-free pellets. Heavier lead pellets in the 14.5 to 18.21



Closeup of the pistol grip showing the "Proadaptive Checkering."

grain weights shot between 840 fps and 725 fps, respectively at 6,000 feet above sea level. The shooter can expect to average 35 shots per fill with heavier pellets before velocity drops off. This particular airgun showed the most accuracy shooting Predator and Sig-branded pellets with the prize going to the new Predator Hades. These 15.89grain pellets knocked out one ragged hole at 20 yards. With this kind of accuracy and punch-over 20 foot-pounds



A five-hole group made by Predator Hades pellets at 20 yards.

SPECIFICATIONS

STOEGER XM1 S4 PCP

CALIBER:	.22
ACTION:	Pre-charged pneumatic
OA LENGTH:	45.5 inches
WEIGHT:	5.8 pounds
STOCK:	Black (or camo) synthetic
SIGHTS:	Fiber-optic front, square notch rear
FINISH:	Black or Realtree Edge
CAPACITY:	7
MSRP:	\$230



Spacers provided with the XM1 for length-of-pull adjustment.

of energy at launch-the XM1 will make a great small-game/ pest hunting tool, as well.

THE UPSHOT

This little rifle really surprised me. For this price, I did not expect such accuracy and consistency. Lots of nice touches like extra O-rings, extra magazine storage, preventing bolt closing on an empty magazine and the effectiveness of the suppressor along with the ergonomics of the rifle were all pluses. My only reservations are minor in nature and include the owner's manual being inadequate,



One of the Picatinny rails has a trio of channels with magnets to hold extra magazines.

and it needs more rail for scope mounting. Also, rather than a plug that has to be removed each time you want to insert the fill probe, a rotating collar to keep dust out of the fill hole is preferable.

The XM1 also comes in .177 caliber, and the black version lists for \$200 with the scoped kit MSRP at \$230. A .22 caliber-only Realtree Edge kit including a 4x32mm scope retails for \$250. Stoeger Airguns offers a warranty with five-year limited coverage for the original owner. For more info, check out stoegerindustries.com. **T**

Z PRECISION

THE ROCK RIVER ARMS RBG-1S GOES TO ING-RANGE CLASS (BY FRED MASTISON • KYLE BRUTKE PHOTOS)



Spotter up. Steel silhouette at 1,075 yards. Half value wind, hold right edge. Send it. The shooter presses the trigger and the shot rings out. About 1.9 seconds later the round impacts the steel and a faint sound echoes through the canyon back to the shooter. A quick cycle of the bolt and the shooter is back on target ready to send another one. This was a scenario played out countless times recently during an introduction to precision rifle class I ran in Idaho. These were mostly new shooters interested in learning more about the art of long-range shooting. There was a variety of rifles ranging from simple to custom. I had been preparing for the class when I received a very special package from Rock River Arms. I had received their new RBG-1S bolt rifle and thought the class would be a great place to put it through its paces.

GIMME, GIMME, GIMME!

I have been waiting a while for this rifle to land on my doorstep. Rock River has been working on this rifle for several years

> to perfect it. I shot a prototype of this rifle in 2019 during a media event and made a mental note to keep an eye on its development. While Rock River is obviously well known in the AR realm, they have made a serious move into the bolt gun market with the RBG-1S. The rifle is available in a few configurations. You can get it in .308 Win./7.62x51mm and 6.5 Creedmoor, along with a 20-, 22- or 24-inch barrel. You also have stock color options including black, green or tan. Rock River

Arms sent me a .308 rifle with a tan stock and 24-inch barrel for testing. This rifle is fed by a 10-round AICS-pattern detachable box magazine.

Rock River took their time to build a gun that is more than an "and also" in the bolt gun world. The rifle is serious business and is composed of exceptional parts. The stainless steel barrels come

Z PRECISION

from Wilson Combat and are air-gauged for precision. The Wilson barrels are cryo treated, which is a process that brings the temperature of the steel to minus 300 degrees via liquid nitrogen and is kept there for 24 hours. This process reduces inherent stresses in the barrel steel, and testing shows it increases the accuracy of the barrel. Rock River is fanatical about the fit on this gun and does the final chambering and finish work in-house. The barrel has a 1:8 twist and is threaded at the muzzle 5/8x24. The thread protector extends a bit beyond the barrel to help protect the crown.

THE SKINNY

The rifle's action is a butter smooth TL3 from Bighorn Arms. It is a 416 stainless steel design with a spiral-fluted bolt body, floating bolt head and hearty fixed ejector. It has a threaded bolt handle allowing you to add a custom handle should you choose. I found the one on the rifle fit me well and worked perfectly. As I said, the action is very smooth and is also free of bolt chatter because it fits so nicely in

the action. The rifle's receiver includes a 20-MOA aluminum Picatinny rail. The rifle also has standard scope base holes drilled into the receiver should you choose to run conventional ring mounts. The rifle is mounted in a Kinetic Research Group Whiskey-3 Chassis. The W3C combines precise aluminum bedding with tool-less adjustments, durability and excellent ergonomics. It is a solid choice for this rifle and has an adjustable length-of-pull and cheek riser as well as height adjustable butt pad. The pistol grip is composed of polymer halves screwed onto the aluminum chassis. Supplied with the rifle is a second pistol grip that is both thicker and longer front to back than the factory-installed grip, which allows you to customize this part of the rifle. The rifle is built to accept Accuracy International-patterned magazines. This includes obviously the AI mags themselves, but there are others such as Magpul, which allows us to save a little money. Lastly, is the trigger. Rock River

"IF YOU ARE LOOKING FOR A TURNKEY, OUT-OF-THE-BOX RIFLE THAT WILL GIVE YOU SUB-½-MOA PERFORMANCE, THEN YOU NEED TO TAKE A LONG, HARD LOOK AT ROCK RIVER ARMS."



chose to use the popular TriggerTech adjustable trigger for this gun. On my rifle, it broke just under 3 pounds and had almost no take-up at all.

Even with all these quality components, the gun is more than the sum of its parts. When I spoke to Rock River about this gun, the term accuracy kept coming up. This is understandable in that it is a precision bolt rifle, after all. What I did not appreciate, however, was just how much accuracy they were shooting for with this gun. When I received my rifle, it included a test target, as many high-end guns do. This one, though, was a threeshot group that measured an incredible 0.230 inches. That only served to make me wonder what I would be able to do with this rifle. With that, I packed it up and headed to Idaho.

CLASS ACT

I was quick to share the rifle at the precision rifle course, and soon there were several shooters in line to test the RBG-1S. It was a popular rifle and became the center of a couple serious discussions about how much accuracy we can expect from a rifle. This also provided a teachable moment for the class. In short, I listed off several tips to keep in mind for precision shooting. The first is to invest in a serious rifle. The RBG-1S fits the bill on this pretty easily. What you save by buying a cheap rifle will come back and haunt you later as





your skills exceed the rifle's capabilities. The second is to take the time to fit the gun around you. This includes everything from the length of pull to where you set your scope. I always lay people down behind their guns and then begin the fitting process. The biggest mistake most people make is in scope placement. If it is not set at the right spot, you will be fighting the "black donut" forever. The third thing is something I honestly did not appreciate until I tried it. Standard ear pro tends to move as we get our cheek weld. If an air pocket opens, then you will know quickly when the rifle fires. I have started using amplified earbuds and now swear by them. More specifically I use the Walker Silencer 2.0 earbuds. They do not interfere with my cheek weld





SPECIFICATIONS ROCK RIVER ARMS RBG-1S

CALIBER:	.308 Win.
BARREL:	24 inches
OA LENGTH:	43.5 inches
WEIGHT:	10.5 pounds (empty)
CHASSIS:	KRG Whiskey-3, fully adjustable, tan
SIGHTS:	None; MOA rail; receiver drilled and tapped
ACTION:	Bolt
CAPACITY:	10; accepts AICS-pattern magazines
MSRP:	\$4,450

and provide solid ear protection. They also provide amplified ambient sound, which makes it easier to visit and teach without taking them out. Number four is to always use quality ammunition and, in fact, find the ammo that your gun shoots best. I have had people come to class with high-end rifles but then drag out Walmart ammo. Cheap ammo will break your heart simply because it is not designed for precision work. Your highend rifle will end up shooting a 2-inch group if you feed it junk. Lastly is to buy good glass. I am a believer in the adage, "buy once, cry once." Like a cheap rifle, you will quickly out skill your cheap glass.

With my speech concluded we took to shooting. Performance-wise the gun did not disappoint. The trigger proved to be fantastic and broke very cleanly. The gun comes in at just over 10 pounds before glass and ammo.



This has enough mass to make recoil management a breeze. The smooth action of the bolt made us grin as it easily cycled. While we focused on steel during the class, I took the rifle out to my range here in Arizona once I returned. This trip was all about groups. I set up with the goal of seeing if I could replicate the target Rock River had sent with the rifle. Now I have to say that, yes, I know the group was probably shot from a ransom rest in perfect conditions. I would set up with a bipod and my trusty homemade rear bag.

Glass for the test would be the Tract Optics TORIC 4.5-30X56mm MRAD ELR scope. This scope has served me well on other rifles, and I knew it would be a good fit for the RBG-1S. Ammowise I brought three flavors for the day: Federal 168-grain Gold Medal Match, Hornady 168-grain ELD Match and the last of my Black Hills 168-grain Match HPBT. All are solid performers, but I wanted to see with which one the rifle performed the best. The weather was beautiful with no wind at all. A quick setup and zero took little time and we were soon at it. I took my time to keep the barrel from getting too hot and ensure the best groups possible. In the



end, we broke out calipers to see what I was able to do. While I was not able to replicate the target Rock River sent, I did get three very nice targets. All three brands performed well, but the Hornady ELD seemed to fit the gun the best. It gave me a very nice 0.35-inch group, which is impressive. I am uncomfortable in listing these rounds in order of group size because they all performed very well. I was not remotely happy about packing the rifle up and heading off the range. When you get a gun like that, you want to shoot it all day.

The Rock River RBG-1S is a highperformance blaster that will certainly be showing up in the hands of serious shooters around the country. If you are looking for a turnkey, out-of-the-box rifle that will give you sub-1/2-MOA performance, then you need to take a long, hard look at Rock River Arms. For more information, visit rockriverarms.com.



PERFORMANCE

ROCK RIVER ARMS RBG-1S

LOAD	VELOCITY	ACCURACY
Hornady ELD Match 168	2,840	0.35
Federal Gold Medal Match 168	2,650	0.40
Black Hills Match HPBT 168	2,650	0.50

Bullet weight measured in grains, velocity in feet per second (fps) by chronograph and accuracy in inches for best three-shot groups at 100 yards.



Out of the ashes of First World War came the Thompson submachine gun, a firearm that could rightfully be considered the granddaddy of black guns. Yet another weapon was introduced in 1919 and, now 100-plus years later, it still remains in use throughout parts of the world-the U.S. Model 1919 .30-caliber machine gun designed by John Moses Browning (1855-1926).

To this day, Browning has remained one of America's most prolific and successful firearms designers of the 19th and 20th centuries. He pioneered the development of modern automatic and semi-automatic firearms and was awarded 128 firearms patents—the first when he was just 24 years old.



JMB BACKSTORY

Among the final weapons he designed was the U.S. M1919 air-cooled, recoil-operated machine gun, a weapon that improved upon his earlier designs that went back nearly a quarter century. It was, however, not his first foray into automatic weapons.

While Browning had already successfully developed various lever-action rifles, as well as revolvers and pistols, he and his brother Matthew S. Browning were also among the early pioneers in firearms design to devise a gas-operated machine gun. Developed in 1889 with a patent filed in 1892, it would become the Colt-Browning M1895, a machine gun that would earn the nickname "potato digger" due to its unusual operating mecha-

U.S. Army infantry engage in city fighting during World War II. Note the Browning M1919 machine gun has an empty cloth belt exiting on the right of weapon. This cloth belt was replaced during the war with the M1 link, a disintegrating belt.

T FLASHBACK

÷

The M1919A4 is the most common variant of the .30-caliber machine gun. This is a World War II version with original period tripod.





The flip-up sights on the gun were accurate, rugged and easy to utilize in combat.

nism, one that caused the breechblock to slide rearward to eject a spent round.

The M1895 was the first machine gun to be adopted by the United States military even though it was never adopted officially by the United States Army. It was used by the U.S. Navy for its Naval Infantry as well as the United States Marine Corps and it saw use during the 1898 invasion of Guantanamo Bay during the Spanish-American War. Two M1895 machine guns were also supplied to Lt. Colonel Theodore Roosevelt's Rough Riders-purchased by the East Coast socialites George and Isabella Tiffany for their son William Tiffany, and thus were forever nicknamed as the "Tiffany Guns."

While the M1895 performed well, Browning continued to consider other designs and in 1903 filed a patent for a recoil-powered automatic gun–similar in concept if not actual design to Hiram Stevens Maxim's machine gun. Both weapons utilized the principle of recoil operation, water cooling and forward ejection, but there were notable differences in the designs. Browning's featured a sliding-



An overhead view shows how the M1 link belt of ammunition feeds into the M1919A4.

block locking mechanism that saved weight and reduced the complexity of the operation while the Browning fed left-toright opposite of the Maxim design.

Many of the nations of Europe, which were on a path to war, adopted variations of the Maxim and this included the British Vickers and the German MG08. Browning revisited his design in 1910 and built a prototype. With its water jacket and basic shape the similarities to the Maxim remained; yet at 103 pounds including the gun, tripod, water and ammunition it was actually lighter than the British or German models that weighed in at more than 137 pounds.

Browning was unable to take his design forward at first, but this changed when the U.S. entered World War I in April 1917. The U.S. arsenal was woefully lacking in machine guns, and those that they had were out modeled and out classed. The United States Army Ordnance Department, which had shown little interest in a new machine gun, realized a new model was required. Browning quickly arranged a test at the



A side view shows the machine gun's charging handle and sideplate.

Springfield Armory in May 1917, and his weapon performed extremely well.

The Browning-designed U.S. Model 1917, chambered in the M1906 .30-06 ball cartridge, was adopted as the Army's principal heavy machine gun. However, the M1917 saw limited service during World War I, but it wasn't a fault of the design.

Production delays meant that only about 1,200 of the new heavy machines guns ever made it to Europe and those were only used in the closing stages of the war. Still the Browning design proved successful, and more than 128,000 M1917s would be produced in total. The water-cooled machine gun would see use in World War II, Korea and even into Vietnam. It would also pave the way for an even more robust design, one that would change it from strictly a heavy machine into a versatile weapon.

ENTER THE MODEL 1919

Browning reconsidered his design, and one notable factor remained its weight. The water jacket, which cooled the barrel, meant that the heavy machine gun was heavy in weight as well as firepower. This is why similar designs such as the Vickers and MG08 were only used in fixed positions as defensive firearms.

The Germans had developed the MG08/15 with a pistol grip and removable assault magazine to make it more compact but it was still heavy-and despite what video games may suggestit was nearly impossible to be fired on the move. Perhaps seeing that the next war wouldn't be so static, Browning opted to make his machine gun more portable.

The result was the U.S. Model 1919, which was still chambered for the powerful and effective .30-06 cartridge. Unlike the other ground-mounted machine guns of the era, the M1919 featured an air-cooled barrel, which was heavier to reduce overheating but was easier to maintain in combat conditions than the M1917 machine gun or its water-cooled cousins.

By removing the water jacket, the machine gun team didn't need to carry a condensing can, further making it more mobile. In its early design it still relied upon the bulky–and extremely heavy– tripod, and also utilized a cloth ammunition belt. Similar in design to the Vickers ammo belt, these could get dirty and foul the gun, so it wasn't just the barrel that was given a makeover.

The M1919 was refined to accept a metal M1 link, the first in disintegrating belts. This provided the benefit of allowing a single round to hold two links together, and more could be added to make up a belt of any quantity of rounds.

By the outbreak of World War II, a new tripod was also introduced that was smaller and far more compact. This allowed the M1919 machine gun to take the role of a medium machine gun and serve as a company or battalion support weapon. It still required at least a two-man machine gun team, but in most cases four men were charged with carrying the gun and its ammunition.

This included the gunner, who actually fired the gun and when advancing carried the tripod and a box of ammunition. The assistant gunner was charged with carrying the actual weapon along with the spare parts and tools and would assist feeding the weapon while in combat. Two other soldiers in the unit would carry additional ammunition.

To make it even more compact and maneuverable, the M1919A1 version featured a lighter barrel and bipod, while the M1919A2 version was developed specifically for cavalry units by utilizing a shorter 18-inch barrel and a special tripod. However, this version was short lived and apparently never used in combat due to the changing role of "cavalry" in the U.S. Army.

M1919 VARIATIONS

The most common variant of Browning's design was the M1919A4, which refined the holes in the barrel jacket as a way to reduce the weight. This version relied on a low-slung tripod for infantry but also fixed mounts on Jeeps, tanks and other vehicles.

A less successful variation was introduced in the latter stages of World War II as the M1919A6, which was meant to offer more sustained firepower than the Browning Automatic Rifle (BAR). This variation featured a bipod similar to the one used on the BAR as well as a carry handle that was attached to the barrel jacket. The most notable differences were the addition of a metal buttstock and a lighter barrel with a muzzle booster. Unlike other versions, the M1919A6 featured a barrel that could be more easily changed out to reduce overheating.

However, the M1919A6 at 32 pounds was heavier than the German MG-34 that weighed 26 pounds although the barrel changing wasn't nearly as quick. It tried to turn the weapon into something it wasn't-a light machine gun. John Browning, who had passed away in 1926, likely wouldn't have approved of this variation as it didn't improve upon his design in the least.

The version that the venerable gun designer might have liked was the .30 AN/M2 variation, which was developed from the M1919A4 specifically for use in combat aircraft. It featured a thinner barrel to keep the weight down but had an impressive rate of fire of 1,200-plus RPM. The only drawback was that the .30-caliber round wasn't as powerful as needed to get the job done.

However, a heavier version was already an option. Seven years after his death, the Browning design was upgraded in 1933 as the Browning M2 .50-caliber machine gun–a weapon that like its .30-caliber version remains in use to this day.

The U.S. Model 1919 machine gun has clearly left its mark in history. It has been-and continues to be-used by nations around the globe, while civilian-friendly semi-automatic versions of this esteemed firearm are also available. It is a testament to the Browning design that 100 years later it has left its mark and has become an icon of infantry small arms. (See pg. 124 for more.) **%**

BROWNING M1919 FUN FACTS:

DESIGNED:	1919	. Annalis
MANUFACTURERS	Buffalo Arms Corporation, Rock Island Arsenal, Saginaw Steering Gear (Division of General Motors)	K.
PRODUCED:	1919-1945	
NUMBER PRODUCED:	438,971	-
WEIGHT:	31 pounds (M1919A4)	
LENGTH:	37.94 inches (1919A4), 53 inches (M1919A6)	
BARREL LENGTH:	24 inches	
ACTION:	Recoil-Operated/Short-Recoil Operation	
RATE OF FIRE:	400-600 rounds per minute/1,200 rounds per minute (AN/M2 version)	
MUZZLE VELOCITY:	2,800 feet per second	
MAXIUM EFFECTIVE RANGE:	1,500 yards	

T FLASHBACK

→

Two of John Browning's World War I-era small arm designs at the Rock Island Arsenal—the Browning Automatic Rifle (BAR) and the U.S. Model 1917 machine gun (bottom), the latter being updated two years later as the U.S. Model 1919 machine gun.





Two of John Browning's weapons in action in Peleliu. The Marine in the foreground is using a Browning Automatic Rifle, while a machine gun team is using the M1919 .30-caliber machine gun.



An armored Jeep in the Korean War in 1951. Note the M1919A6 variation of the .30-caliber machine gun. While this version could be used with a metal buttstock and bipod, it was also mounted on vehicles.



The U.S. M1919 was nearly 50 years old during the height of the Vietnam War, but it was still widely used on vehicles during the conflict. In this staged photo members of the 1st Cavalry Division are readying the Jeep-mounted weapon.



124

MILITARY HISTORY



LEARN SOME U.S. HISTORY. ROAD TRIP IT TO 11 OF 'MERICA'S FAMOUS FORTS

Whether fighting enemies abroad, within, or before even becoming a country, defending the land that's been part of the United States has been a major focus for military operations for centuries. The country's historical forts have been a large part of that, spanning several countries and time periods. A trip to some of these is a must for any history buff. Preserving these facilities keeps a connection to the country's past and those who gave their

lives. Here's a look at just a few of America's historic forts and a bit of their history.

FORT TICONDEROGA TICONDEROGA, NY

Built by the French in 1757, this site was originally used in battles between France and the British. Its critical location near Lake Champlain along the La Chute River made it important to early Americans' fight for freedom. After capturing the fort in 1775 from the British, American forces repelled the redcoats. U.S. forces again fought back the Brits from the fort in the War of 1812. The fortress offers plenty for visitors including reenactments of 18th Century activities such as tailoring, shoemaking and weapons demonstrations. Visitors can even take in the countryside with a boat ride along the shores of Lake Champlain.





FORT MCHENRY BALTIMORE, MB

The War for American Independence may have meant the country was free of the British, but the War of 1812 truly showed the U.S. was ready to go at it alone. Fort McHenry offers a unique look into the Battle of Baltimore. Witnessing the Americans fending off British forces inspired Francis Scott Key to write "The Star-Spangled Banner," set to the tune of a British drinking song.

"The failed bombardment of Fort McHenry forced the British to abandon their land assault on the crucial port city of Baltimore," the American Battlefield Trust notes. "This British defeat was a turning point in the War of 1812, leading both sides to reach a peace agreement later that year."



FORT MONROE HAMPTON, VA

As early as the 1600s, this site's location at Old Point Comfort at the tip of the Virginia peninsula offered defense for the navigation channel between the Chesapeake Bay and Hampton Roads. Various fort iterations were part of the area for the next 200 years, but after the War of 1812 military planners envisioned a more fortified defense to protect nearby naval yards and vessels. The fort was constructed from 1819 to 1834.

Monroe is also believed to be the site of the first arrival of black slaves in British territory that would eventually become the U.S. In 1619, an English privateer brought 20 to 30 slaves captured from a Spanish ship and traded them at Point Comfort in Virginia, the future location of Fort Monroe. This facility not only offers American history, but a look at the issues and events surrounding Europeans' arrival into the New World.

TACTICAL-LIFE.COM

MILITARY HISTORY

FORT SUMTER CHARLESTON, SC

There are numerous great Civil War sites to visit, but this is where the War Between the States actually began. Confederate forces attacked the fort on April 12, 1861, and captured the facility a day later. Located on an island in Charleston Harbor, the fort was planned as part of a series of protective installations after the War of 1812. It was still unfinished in 1861.

A second battle occurred on Sept. 8, 1863, when Union forces attempted to recapture the fort. That effort failed and the facility remained in Confederate hands despite being mostly destroyed. Visitors can stroll among the fortifications and cannons, envisioning the sights and sounds of a war that would last for four more long years.



Those heading to Hawaii to visit the sacred grounds of Pearl Harbor may also want to visit this key defense location. The fort hosted several coastal artillery batteries and defended Pearl Harbor after its construction in 1916. The site is located on former Hawaiin royalty land of Queen Emma. During the Pearl Harbor attack on Dec. 7, 1941, a Japanese Zero fighter was shot down and crashed near the fort. Coastal artillery became obsolete after World War II, but some of the fort remains preserved for visitors as an interesting example of 20th Century harbor defense.



FORT ABERCROMBIE MILL BAY, AK

Now part of a 182-acre state park, this historic fort not only offers a glimpse into World War II-era coastal defense systems, but also unmatched wildlife, forests and landscapes make this a great trip. The defenses included two Mark VI battleship guns to protect the naval installation. There are even camping spots available, offering a nice opportunity to take in the wilds of Alaska while also learning about a prominent part of U.S. military history.



FORT LEAVENWORTH LEAVENWORTH, KS

Still in use today, this fort was built in 1827 and remains the oldest active Army outpost west of the Mississippi. The fort played a major role in the country's westward expansion and also houses the country's only maximum security military prison. Visitors can check out the Frontier Army Museum, historical buildings and more at this installation that helped tame the Wild West.

THE ALAMO SAN ANTONIO, TX

The battle in San Antonio not only featured a cast of Texas heroes like James Bowie, Williams B. Travis and David Crockett, but served as inspiration for Texans fighting for independence from Mexico. The Alamo not only served as a fort but was also a mission when a handful of Texas volunteer soldiers held off the Mexican army from February 23 to March 6, 1836. A stroll through the Alamo is a step back in time, and interestingly, many of the artifacts displayed come from the collection of rock superstar Phil Collins, who became enthralled by Alamo history as a child.

"When I got older and became successful, I decided to spend my money on original items from the Alamo rather than on Ferraris," Collins said during a news conference in 2014 announcing his artifacts inclusion at the historic site. "This completes the journey for me... these artifacts are coming home."



126

CASTILLO DE SAN MARCOS ST AUGUSTINE, FL



This is the oldest city in the United States, founded in 1565 by Spanish conquistador Don Pedro Menendez de Aviles. The city also has the distinction of being home to four historic fortresses. The most important of those is the Castillo de San Marcos, which was constructed in 1695 after several Spanish wooden forts were destroyed by invaders. The fort remains the oldest masonry fort in the continental United States, and the structure and the soldiers stationed there helped battle **the British, pirates and other attackers seeking Spanish gold.**



EL MORRO SAN JUAN, PUERTO RICO

The construction of this Spanish fort, officially known as Castillo San Felipe del Morro, began in 1539, and the massive complex still is a large part of Puerto

Rico's historical capital of Old San Juan. The fort is a Spanish engineering marvel, and it's not hard to imagine soldiers gazing out into the Atlantic, ready to fire at intruders looking to invade the walled city. It's also interesting to see those Spanish uniforms, woolen and not quite fitting for the hot and humid tropical climate. This stone structure was used even through World War II and remains a must-see for any history buff heading to the Island of Enchantment.

FORT CHRISTIANSVAERN AND FORT FREDERIK ST CROIX, US VIRGIN ISLANDS

The U.S. purchased the islands of St. Thomas, St. John and St. Croix from Denmark in 1917 for \$25 million in gold. The forts on St. Croix were built in the mid-1700s and offer a glimpse into the battle for control of the Caribbean in the 17th and 18th centuries, including the slave trade. The cannons on display show that military supremacy meant plenty of firepower. A trip to either fort not only offers a look at a

unique piece of American history but a window into this history that included naval battles, piracy and plenty of rum production.



The Secret City of Oak Ridge is a secret no longer! Just down the road from the Museum of Appalachia (Clinton, TN), towards the I-40 highway that runs between Nashville and Knoxville lies the small town of Oak Ridge. In 1942, during World War II, a very secret project known as the Manhattan Project (actually a military reservation) was under construction. One of the sites was a 60,000-acre isolated location in rural Tennessee on acquired farmlands-this would become the Oak Ridge Plant. Other sites for the Manhattan Project included Los Alamos, New Mexico, and Hanford, Washington. The Oak Ridge location played a pivotal role in creating the most powerful explosives the world had ever seen, ushering in the age of the atomic bomb. The bombs dropped on Hiroshima and Nagasaki were created there.

Today, there's a great museum devoted to the history of the Oak Ridge area, and it's visited by school children and adults from around the world. At the entrance is an image of Albert Einstein, and just outside is a Twin Tower steel mockup made from actual steel taken from the New York Ground Zero site. Here you can view mockups and real equipment used to create the beginning of the atomic revolution. The prevalence of Tennessee Valley Authority dams and their power capacity played an integral role in the site selection for the project. —*Bob T. Epstein*





CALE-TICAL SATIRE FOR OPERATORS WHO ARE NUTS ABOUT GUNS

BY MARK CHESNUT

SCOTUS Upholds Concealed Carry (Except For Medical Workers)

Following the recent Covid vaccine decision where the U.S. Supreme Court decided Americans, except many medical workers, have the freedom to choose whether to be vaccinated or not, the Court has now ruled that the Second Amendment does, indeed, protect the right of Americans to carry a handgun outside the home–except for those same medical workers.

"We've already determined the government has more control over those who work in the medical field for employers who receive federal funds," said Chief Justice John Roberts. "It would only follow that these particular Americans also don't get to enjoy many of the rights enumerated in the Bill of Rights, like the right to free speech and the right to keep and bear arms. Plus, doctors and nurses don't really know much about guns."

Future cases will likely determine whether, as the Declaration of Independence puts it, all men are really "created equal," and whether those medical workers retain the right to life, liberty and the pursuit of happiness as also mentioned in that historic document.

PELOSI HAS A NEW PLAN

In a newly announced Goldilocks-type scheme, U.S. House Speaker Nancy Pelosi plans to limit gun ownership for certain age groups-those she deems too old and too young to own firearms.

Leaked documents show the proposed age range for legal gun ownership is 53 years, four months to 58 years, six months-ironically the exact



same age range of her armed security detail.

"Yeah, that seems just right," Pelosi explained to a fawning "mainstream" media during her announcement of the legislation. "These folks that are too old and too young are responsible for much of the carnage we see on our streets today. This commonsense legislation should finally put an end to our gun problem."

DICK'S IS "HAPPY" TO LOSE \$250 MILLION

The head of Dick's Sporting Goods admits that the decision to stop selling guns cost the company and shareholders at least \$250 million over the past few years, but claims she's happy to take the big loss.

"Heck, what's a few hundred million bucks among friends," said now-CEO Lauren Hobert. "I mean, it's possible a board member might have to sell



a yacht or private jet or two, but in the end our virtue signaling should result in more sales of kayaks and polyethylene undergarments, possibly making up some of the difference."

In the meantime, the company is planning a rebranding effort in hopes that gun owners have a short memory. Later this year, the name of Dick's stores will be changed to Peter's, keeping with the same phallic theme to signify their continuing attitude toward American gun owners.

COMPANY WOWS SHOT WITH NO NEW PRODUCTS

Stock Photo

In the biggest surprise of the 2022 SHOT (Shooting, Hunting, Outdoor Trade) Show, Alloyant Armament, maker of top-quality firearm accessories, showed up in Las Vegas without a single new product.

"It's hard to stand out among so many gun and equipment makers and get the attention you deserve," said Fred Hinklebom, Alloyant president. "We figured to toss a Hail Mary and try putting all our marketing money behind the fact that we don't have a new product." By day 2 of the SHOT Show, Hinklebom's strategy appeared to be working. The booth was at overflow capacity most of the day, mainly because of the free beer offered to gun writers.

"At last count, we have writers penning upcoming stories about us for seven different magazines and 11 firearm-related websites," Hinkleboom beamed. "It's amazing what a little pale ale and lager will get you these days."





INNOVATIVE. VERSATILE. OPTICS READY.

The all-new, optics-ready Taurus GX4[™] is a palm-sized micro-compact 9mm that's big on personal protection. With our exclusive TORO (Taurus Optic Ready Option) platform seamlessly integrated into the slide, the Taurus GX4[™] is capable of accommodating the latest micro-sized red dot sight technology. Right out of the box. Ensuring this exceptional everyday carry firearm is not only easy to conceal, but effortless to update. For added peace of mind, the Taurus GX4[™] is backed by our Limited Lifetime Warranty and industry defining customer service.



-TAURUS



"Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum."

SPRINGFIELD ARMORY.

See complete line up

