

» FEDERAL'S NEW 7MM BACKCOUNTRY «

RIFLESHOOTER

EVOKE

CHRISTENSEN FLAIR
WITH A LOWER
PRICE TAG

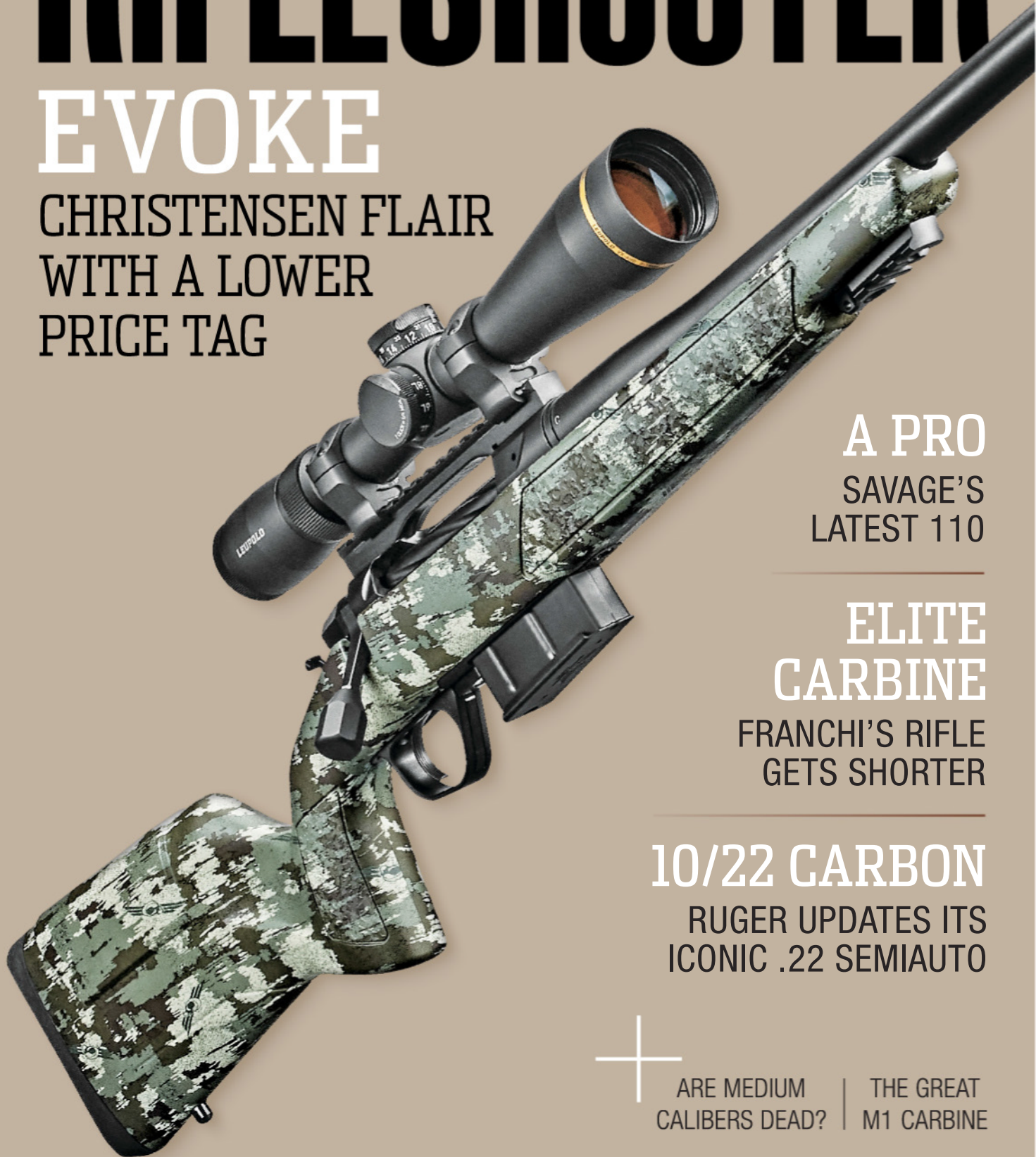
A PRO
SAVAGE'S
LATEST 110

ELITE
CARBINE
FRANCHI'S RIFLE
GETS SHORTER

10/22 CARBON
RUGER UPDATES ITS
ICONIC .22 SEMIAUTO

+

ARE MEDIUM CALIBERS DEAD?	THE GREAT M1 CARBINE
------------------------------	-------------------------

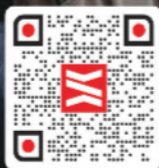




SILENCER
CENTRAL.

ORDERED ON YOUR **PHONE**
DELIVERED TO YOUR **DOOR**

TRUSTED IN THE
HARSHEST
CONDITIONS



TO GET STARTED
CALL 866.540.9777 OR
VISIT [SILENCERCENTRAL.COM](https://silencercentral.com)

MOSSBERG® | PATRIOT™ LR TACTICAL

**MAXIMIZE
YOUR
DOWN-RANGE
POTENTIAL.**

SCAN CODE FOR
MORE INFO ▶



Patriot LR Tactical
MDT® Adjustable Stock with M-LOK® Forend
AICS-Style Magazine; Available in 3 calibers
(Scope not included)

THE ADJUSTABLE, CUSTOMIZABLE, PATRIOT LR TACTICAL.

Our newest tack driver sports a long list of long-range features. From its multi-axis adjustable MDT® stock with aluminum V-block bedding and M-LOK® compatible forend, to its 20 MOA scope base, user-adjustable trigger, AICS-style magazine, and suppressor-ready threaded barrel—these bolt-actions deliver target-finding precision at the range or on the hunt.

Mossberg—Makers of dependable, hardworking firearms for more than a century.

LEARN MORE AT
MOSSBERG.COM

MOSSBERG®
SINCE 1919

M-LOK is a registered trademark of Magpul Industries Corp.
MDT is a registered trademark of Modular Driven Technologies.

SAFETY TIP

Store firearms securely, inaccessible to children and unauthorized users. Consult and comply with any and all applicable federal, state, and local: laws, regulations, requirements, and/or restrictions, including but not limited to those regarding the purchase, ownership, use, transport, and carrying of a firearm. Not all products are available in all states or jurisdictions.

FEATURES

22 Striking A Balance

Christensen Arms' new Evoke lineup delivers high-end features without the high-end price tag.

by Keith Wood

28 Memoriam for Mediums?

Medium-bore cartridges come and go, but the category is too good to die.

by Craig Boddington

34 The 10/22 Goes Carbon

The iconic .22 semiauto gets a new stock and a carbon-fiber barrel.

by Joseph von Benedikt

40 Elite Carbine

Franchi shortens the excellent Momentum Elite rifle with a new carbine.

by Frank Melloni

46 The Professional

One of the latest iterations of Savage's 110, the PPR, is aimed at discriminating hunters.

by Brad Fitzpatrick

52 Basic Black

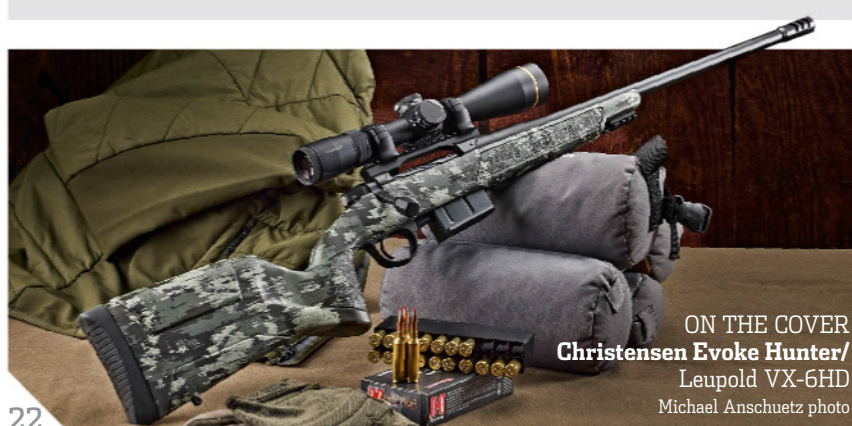
Weatherby's Vanguard Obsidian is a budget rifle that outshoots its price tag.

by Brad Fitzpatrick

58 Priming the Pump

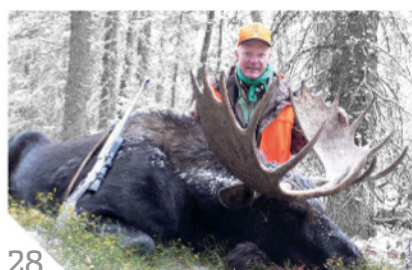
The classic Remington Model 14 slide action was a hunter favorite.

by Layne Simpson



22

ON THE COVER
Christensen Evoke Hunter/
Leupold VX-6HD
Michael Anschuetz photo



28



34



40



46



52



58

DEPARTMENTS

6 Commence Fire

Check out what's going on in the RifleShooter universe.

8 Lands & Grooves

- Federal's new 7mm Backcountry
- .28 Nosler vs 7mm PRC
- Great new gear

14 It's History

The M1 Carbine served for more than 30 years and is still a great gun.

Jeff John

18 All That Brass

The new funnel kit from RCBS makes short work of charging cases.

Joseph von Benedikt

20 Through the Looking Glass

Sightmark's Presidio 3-18X is a solid, affordable long-range scope.

Brad Fitzpatrick

64 Last Page

Craig's annual look at what deer cartridges he's seeing in the field.

Craig Boddington

**IN THE WORST CONDITIONS,
IT'S AT ITS BEST.**

MRO HD



The Trijicon MRO® HD optic was built with a rugged design to survive in the roughest environments. We made it that way because that's what the teams on the ground count on. Plus, with a refined 2.0 MOA center dot and 68 MOA segmented circle reticle, the MRO HD puts you on target fast—even from non-standard shooting positions.

Upgrade your optic at
Trijicon.com/MROHD



Brilliant Aiming Solutions™



SUMMIT PRECISION

www.summit-precision.com

Ultralight Carbon Fiber Barrels

Light, Tight, and Priced Just Right!!



- Multiple length options
- 15 choices of Carbon Fiber
- 416R Stainless Steel
- Stainless or Matte Black finish
- Threaded .500-28

RIFLESHOOTER

RIFLESHOOTERMAG.COM

VICE PRESIDENT, SHOOTING GROUP PUBLISHER

CHRIS AGNES

EDITORIAL STAFF

EDITOR IN CHIEF **J. SCOTT RUPP**

ART DIRECTOR **HEATHER FERRO**

STAFF PHOTOGRAPHER **MICHAEL ANSCHUETZ**

COPY EDITOR **BILL BOWERS**

DIGITAL EDITOR **SCOTT ERGAS**

CONTRIBUTING EDITORS

**CRAIG BODDINGTON, BRAD FITZPATRICK,
JEFF JOHN, PAYTON MILLER, LAYNE SIMPSON,
JON R. SUNDRA, STAN TRZONIEC,
JOSEPH VON BENEDIKT, KEITH WOOD**

**ELIZABETH CAREY, PRODUCTION MANAGER
ASHLEY HONEA, PRODUCTION COORDINATOR**

ENDEMIC AD SALES

SENIOR VP, ENDEMIC SALES **MICHAEL SAVINO** MIKE.SAVINO@OUTDOORSRG.COM

NATIONAL ENDEMIC SALES **JIM MCCONVILLE** (440) 327-3610

WESTERN REGION **HUTCH LOONEY** HUTCH@HLOONEY.COM

ADVERTISING SALES MANAGER **MARK THIFFAULT** (720) 630-9863

EAST COAST REGION **PAT BENTZEL** (717) 695-8095

NATIONAL AD SALES

SENIOR DIRECTOR, NON-ENDEMIC SALES
KEVIN DONLEY KEVIN.DONLEY@OUTDOORSRG.COM

NATIONAL ACCOUNT EXECUTIVE
CARL BENSON CARL.BENSON@OUTDOORSRG.COM

DIRECT RESPONSE ADVERTISING NON-ENDEMIC
ANTHONY SMYTH (914) 409-4202

RIFLESHOOTER (ISSN 1095-4090) MAY/JUNE 2025, Volume 27, No. 3. Published bimonthly by Outdoor Sportsman Group®, 1040 6th Ave., 17th Floor, New York, NY 10018. Periodicals Postage Paid at New York, NY and at additional mailing offices.

POSTMASTER: Please send address changes to Rifleshooter, P.O. Box 37539, Boone, IA 50037-0539. Return undeliverable Canadian addresses to 500 Rt 46 East, Clifton, NJ 07011. Canada Post International Publications Mail Product/Sales Agreement No. 41405030.

SUBSCRIPTION INQUIRIES

Should you wish to change your address, order new subscriptions, or report a problem with your current subscription, you can do so by writing Rifleshooter, P.O. Box 37539, Boone, IA 50037-0539, or e-mail us at rflcstserv@cdsfulfillment.com, or call TOLL FREE 1-800-627-7975, Outside U.S. call 515-237-3699.

BE AWARE THAT RIFLESHOOTER ONLY ACCEPTS SUBSCRIPTION REQUESTS FROM AUTHORIZED AGENTS! WE MAY NOT HONOR REQUESTS FROM UNAUTHORIZED AGENTS, AND YOU THEREFORE MAY LOSE YOUR MONEY IF YOU BUY FROM AN UNAUTHORIZED AGENT. If you are offered a subscription to Rifleshooter, please call 1-800-627-7975 to determine if the agent is authorized. For more information on subscription scams, please visit www.ftc.gov.

Subscription rate for one year is \$23.94 (U.S., APO, FPO, and U.S. possessions). Canada add \$13 (U.S. funds) per year, includes sales tax and GST. Foreign add \$15 (U.S. funds) per year.

By subscribing to Rifleshooter, you agree to our Terms of Service (<https://www.outdoorsrg.com/about/terms-of-service/>) and acknowledge our Privacy Policy (<https://www.outdoorsrg.com/about/privacy/>).

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

OUTDOOR SPORTSMAN GROUP®
P.O. Box 126640
Harrisburg PA 17112

Attn: Privacy Coordinator or email your label information and note to privacy@outdoorsrg.com.

FOR REPRINTS:

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

OUTDOOR SPORTSMAN GROUP®

PUBLISHING & BRANDED MEDIA

PRESIDENT AND CHIEF EXECUTIVE OFFICER

Mike Carney

EVP, OPERATIONS

Derek Sevcik

VP, CONSUMER MARKETING

Peter Watt

SENIOR DIRECTOR, MANUFACTURING & TECHNOLOGY

Kyle Morgan

SENIOR DIRECTOR, PRODUCTION

Connie Mendoza

SENIOR CREATIVE DIRECTOR

Tim Neher

DIRECTOR, DIGITAL EDITORIAL

Darren Choate

DIRECTOR, SOCIAL MEDIA

James Clark

FOR QUESTIONS REGARDING DIGITAL EDITIONS,
PLEASE CONTACT

DIGITALSUPPORT@OUTDOORSRG.COM

MEDIA

OUTDOORSRG.COM

FISHING

BASSFAN.COM

FLORIDASPORTSMAN.COM

FLYFISHERMAN.COM

GAMEANDFISHMAG.COM

IN-FISHERMAN.COM

HUNTING

BOWHUNTER.COM

BOWHUNTINGMAG.COM

GUNDOGSMAG.COM

PETERSSENSHUNTING.COM

NORTHAMERICANWHITETAIL.COM

WILDFOWLMAG.COM

SHOOTING

GUNSANDAMMO.COM

HANDGUNS.COM

RIFLESHOOTERMAG.COM

SHOOTINGTIMES.COM

FIREARMSNEWS.COM

TELEVISION

OUTDOORCHANNEL.COM

THESPORTSMANCHANNEL.COM

WORLDFISHINGNETWORK.COM

COPYRIGHT 2025 BY OUTDOOR SPORTSMAN GROUP, INC.®
RIFLESHOOTER® IS A REGISTERED TRADEMARK OF
OUTDOOR SPORTSMAN GROUP IN THE UNITED STATES.
ALL RIGHTS RESERVED. NO PART OF THIS BOOK MAY BE
REPRODUCED WITHOUT WRITTEN PERMISSION.

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

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

MODEL 1854



Scan for
More Info



PERFORMANCE. DURABILITY.

The Model 1854 is rugged, reliable, and ready.

Take control of your performance in the field with the new Model 1854 from Smith & Wesson®. A triumph from over 170 years of craftsmanship, this lever-action rifle seamlessly melds precision engineering and timeless design. Experience the perfect blend of heritage and innovation - experience Smith & Wesson Smooth™.



Smith & Wesson®

EMPOWERING AMERICANS™

smith-wesson.com

©2024 Smith & Wesson Inc. All Rights Reserved.



Wood Is Good

Thank you for your articles in the March/April issue depicting rifles with wood stocks. I thoroughly enjoyed reading "Proud to be an American," which related to CZ's 600 American and "Revel Yell," which described Savage's new lever-action rimfire. For those of us who have offered criticism in the past of the many articles pertaining to "black rifles," I write to give credit where credit is due.

Dick Parker, North Carolina

Well I'll be durned; a front cover with a wood-stocked rifle! Beautiful, says this six-decades-old reader. Seriously, I love your content, writers, photos. Keep up the great work.

Ken Myers, Virginia

More to Life than Creedmoor

Why is it that when I read about tests of new rifles, the majority are chambered in 6.5 Creedmoor or .308 Win.? Why not mix it up with 7mm Rem. Mag., .30-06, .243 Win., 7mm-08, .300 Win. Mag., .270 Win., .28 Nosler, .338 Win. Mag. and .338 Lapua? We already know the 6.5 Creedmoor is an accurate round, and it would be nice to see other calibers and how they can be accurate with today's advancements with bullet technology and powders.

Ray Stomberski

Mr. Stomberski: Believe us, we have been trying to mix it up—see last issue's Browning X-Bolt 2 Hunter in .243, for example—but we're at the mercy of what samples we can get in a timely fashion. The first guns available to us are usually 6.5 Creedmoor and .308 Win. We'll keep trying!

No Way the Editor Wasn't Running This

I just wanted to say that the article way over in the back of your March/April by J.S. Rupp ("Rifle Report: Browning X-Bolt 2 Hunter") was about the most perfect article covering a rifle and a customer's concerns that I've ever read! The article was brief, covered everything of importance that needed saying, listed all the stats and had a great picture—without rambling on about scopes, competitors or what someone else in their family likes and dislikes.

N. Cooter

CORRECTION: An editing error in last issue's "Kicking Back" by Layne Simpson created the impression his wife killed elk with 100-grain bullets from a .270 Win. The bullets were 130-grain Nosler Partitions.

Weaver Soldiers on with RCBS

As part of a licensing agreement with Revelyst, which owns the Weaver name, RCBS will continue to manufacture all Weaver rings, bases and mounts in Oroville, California.

"After the Hodgdon Powder Company purchased the RCBS business last year, it was a natural decision to license the Weaver brand," said Aaron Oelger, Hodgdon's marketing vice president, noting that RCBS has been making Weaver rings, bases and mounts in Oroville since 2012. "Other companies may build Weaver-style rings, but we remain the only authentic source for Weaver rings, bases and mounts."



Speer Awarded Customs Contract

Speer Ammunition has secured a U.S. Customs and Border Protection contract to supply .308 rifle ammo to the agency, a contract that comes with a \$7 million ceiling. The ammunition is Speer's Gold Dot Tipped round, featuring a bonded bullet that traces its origin to Speer's popular Gold Dot handgun design.



"Speer is the gold standard," said David Leis, the company's vice president for government sales. "The versatility, reliability and superior construction of the new Speer LE Gold Dot Tipped Duty Rifle loads allow law enforcement agencies to utilize this tested and proven bullet technology in duty rifles confidently."

MidwayUSA Foundation's Banner Day

Last year's Giving Tuesday saw more than half a million dollars raised—capping the MidwayUSA Foundation's most successful such campaign since its inception. And with a matching contribution from Larry and Brenda Potterfield, the total swelled to more than \$1 million in a single day. The foundation uses these monies to fund grants to shooting programs across the country, providing critical needs like ammunition, targets, travel expenses and more. The foundation is a 501(c)3 organization, meaning contributions are tax deductible. Visit MidwayUSAFoundation.org for more info.



CMP Nat'l Rifle Matches Go Electric

Beginning with this year's Highpower rifle matches, National Trophy rifle competitions and rifle Games events—held July 22 through August 3 at Camp Perry near Port Clinton, Ohio—the Civilian Marksmanship Program will utilize an eTarget system. The system displays shot scores on individual monitors at the firing line and eliminates pit duty for competitors, which will significantly reduce the duration of each match. For more info on the competitions, visit THECMP.ORG/CMP-NATIONAL-MATCHES/.



CMP photo

CONTACT US

EMAIL Rifles@OutdoorSG.com

INSTAGRAM, TWITTER @RifleShooterMag

FACEBOOK facebook.com/RifleShooterMag

SNAIL MAIL RifleShooter, P.O. Box 271305, Fort Collins, CO 80527

ADDRESS CHANGES/SUBSCRIPTION QUESTIONS

EMAIL, PHONE RFLCUSTSERV@CDSFULFILLMENT.COM, 800-627-7975

SNAIL MAIL RifleShooter, P.O. Box 37539, Boone, IA 50037-0539



LONG LIVE THE LEVER GUN™

Ruger-made Marlin® lever-action rifles are American-made with great pride and attention to detail. You can expect the same time-honored features of the traditional Marlin rifle elevated by Ruger's exacting standards of quality.



The acquisition, ownership, possession and use of firearms are heavily regulated. Some models may not be legally available in your state or locale. Whatever your purpose for lawfully acquiring a firearm - know the law, get trained and shoot safely.





Backcountry Boomer

**FEDERAL'S 7MM
BACKCOUNTRY
ROUND BRINGS
NEW TECHNOLOGY
AND IMPRESSIVE
BALLISTICS.**

by Brad Fitzpatrick

There have been several new hunting cartridges released over the last decade, but Federal's new 7mm Backcountry is unique.

When I asked Federal's senior media relations manager J.J. Reich what made this cartridge different from the myriad other hunting rounds to hit the market in recent memory, his response was three numbers: 20; 170; and 3,000.

As in, the 7mm Backcountry drives a 170-grain bullet from a 20-inch barrel at 3,000 fps.

Those are impressive figures, but what's most impressive—and perhaps game-changing—is how it achieves those impressive stats. When Reich first told me about the cartridge, I expected the cartridge would be oversize to accommodate a super-size powder charge. It's not. In fact, when I pulled the first 7mm Backcountry cartridge from the box, I set it side-by-side with a .280 Ackley Improved. The two rounds looked virtually identical.

The .280 Ackley can't produce 7mm Backcountry ballistics, though, so I asked Reich how they'd managed to accomplish such velocity from a case of that size. Turns out the 7mm Backcountry is loaded in patented Peak Alloy steel cases.

While most consider steel-cased ammo a budget option, Reich said Peak Alloy cases are entirely different from traditional steel cases. The

metal is similar to the high-tech steel alloys used in bank safes, race cars and nuclear reactors, and it results in a case strong enough to safely handle pressures up to 80,000 psi—far more than standard brass cases.

"The 7mm Backcountry is a result of six years of development," says Brad Abramowski, centerfire rifle ammunition engineer for Federal. "Driven by the U.S. military's need for improved performance ammunition, we tested many materials at high pressures to ensure rifle function out of a one-piece case configuration for manufacturing efficiency and design reliability."

This boost in pressure results in improved ballistics that allow the 7mm Backcountry to perform at such impressive levels. According to Abramowski, the team worked hard to ensure that the resulting cartridge offered those impressive ballistics yet remained safe to operate in bolt-action rifles. In addition, the cases are nickel plated for smoother operation.

"The results showed that brass cases loaded at pressures normal for brass cases created similar stress as high-strength steel alloy cases loaded at significantly higher chamber pressures," said Abramowski. "Peak Alloy allows Federal to safely increase chamber pressures far beyond the limits of brass-case ammunition."

The 7mm Backcountry's development is related, at least tangentially, to the increasing popularity of suppressors. I've become a huge fan of suppressors and own several, and after hunting with them I don't want to head afield without one. But many rifles still require a 24- or 26-inch barrel to reach 3,000 fps, and spinning a suppressor on such a long barrel makes a rifle unwieldy and difficult to maneuver in the field.

I've carried a .300 Win. Mag. with a 24-inch barrel and nine-inch suppressor through Alaskan deadfalls for the better part of a week, and I would greatly have appreciated a shorter rifle with magnum-level energy. The 7mm Backcountry offers that, and it will appeal to the millions of hunters who head afield with a can on their rifles.

Many shooters will wonder if it's possible to handload this round. Reich said you can, but the caveat is you will have to use the Peak Alloy cases. Federal plans to offer full reloading data on its website.

Regarding wear, Reich says throat and barrel erosion and extractor wear are on par with legacy cartridges, so 7mm Backcountry rifles should, according to Federal, hold up as long as traditional centerfire rifles.

Federal is initially offering five loads for the 7mm Backcountry, three with its own bullets: the 170-grain Terminal Ascent at 3,000 fps; a 155-grain Terminal Ascent bullet that posts 3,150 fps; and the new 175-grain Fusion Tipped bullet at 2,975 fps.

There's also a lead-free 168-grain Barnes LRX offering with a ballistic coefficient of .513 and a velocity of 3,000 fps, as well as a Berger Elite Hunter 195-grain bullet with an impressive .755 G1 BC and a velocity of 2,850 fps.

For the 7mm Backcountry cartridge



(From l.): .280 Ackley Improved, 7mm Backcountry, 7mm Rem. Mag., 7mm PRC. The Backcountry is the only one that manages 3,000 fps from a 20-inch barrel. (Below) The cartridge is loaded in nickel-plated Peak Alloy steel cases, which permit a much higher pressure than brass cases.

to succeed, gun companies will have to buy in, but that doesn't seem to be a problem. Nearly a dozen firearms manufacturers are slated to offer 7mm Backcountry rifles for 2025, a list that includes Ruger, Savage, Weatherby, Gunwerks, Christensen Arms, Proof Research and others. That list is still expanding, so it's likely we'll see more added in the next few months.

For testing, I was sent a Proof Research Glacier TI rifle in 7mm Backcountry. The rifle was equipped with a 20-inch sendero-contour Proof carbon-fiber barrel with a 1:8 twist to stabilize the heavy 170-grain .284 bullets. The barrel was threaded 5/8x24 to accommodate a suppressor. I added a Banish Backcountry 30 suppressor from Silencer Central and a Trijicon Tenmile HX scope.

Initial accuracy results with the 170-grain Terminal Ascent load were impressive. The three test groups averaged 0.87 inch at 100 yards, and even in a light rifle recoil was manageable, on par with the 7mm PRC.

I had an opportunity to hunt elk with the Proof 7mm Backcountry in west Texas with the team from Trijicon. I shot my bull at 40 yards, and at the impact the bull reared up and headed downhill, crashing through



the ocotillo and coming to rest less than 30 yards from where he'd been standing as I shot. The bullet had done its job effectively and didn't break up when striking heavy bone at a relatively high velocity.

The 7mm Backcountry has the goods to be an effective wilderness hunting cartridge, especially for those who like rifles with short barrels for use with suppressors. It makes use of the latest materials technology and drives heavy, high-BC bullets at impressive velocities from light rifles with stubby barrels.

It's difficult to say which new hunting cartridges will wither and which will thrive, but the 7mm Backcountry has the goods to go the distance. ■

CARTRIDGE CLASH » Brad Fitzpatrick

.28 Nosler vs 7mm PRC

In 2014, 6.5s were the hottest trend, and Nosler introduced its first branded centerfire cartridge that year, the .26 Nosler. The .26 stirred up some interest but nothing like the second cartridge in the Nosler line, the .28 Nosler. Nicknamed the “new herd bull” in Nosler marketing materials, the .28 drives a 160-grain .284-inch AccuBond bullet from the muzzle at 3,300 fps.

The beltless case is based on a shortened 7mm Rem. Ultra Mag, with a .550-inch maximum body diameter against a .534-inch rebated rim. The cartridge will function with a standard magnum bolt face, and with a cartridge overall length of 3.340 inches it will fit in a standard-length action. The case features a 35-degree shoulder and holds 93 grains of water.

The .28 Nosler is the company’s most popular round, and it’s particularly popular with Western hunters who want the reach it provides. Savage, Browning, Christensen Arms, Fierce and Nosler chamber it in their guns.

The .28 Nosler seemed like it would hang on to the title of hottest new 7mm cartridge until Hornady introduced the 7mm PRC in 2022. The round was a natural progression because Hornady already had its 6.5 and .300 PRCs, and like those, the 7mm PRC was built for long, high-BC bullets. The case was designed to offer velocities pushing 3,000 fps with a 175-grain bullet, and with an overall length of 3.340, the 7mm PRC fits in standard length actions.

The battle between the .28 Nosler and 7mm PRC is a fight between raw speed and finesse. The .28 Nosler, with its large case capacity, offers impressive muzzle velocities. The listed 3,300 fps velocity for the 160-grain AccuBond load is 300 fps faster than the 7mm PRC with a 160-grain CX monolithic bullet. The .28 pushes a 175-grain AccuBond Long Range about 125 fps

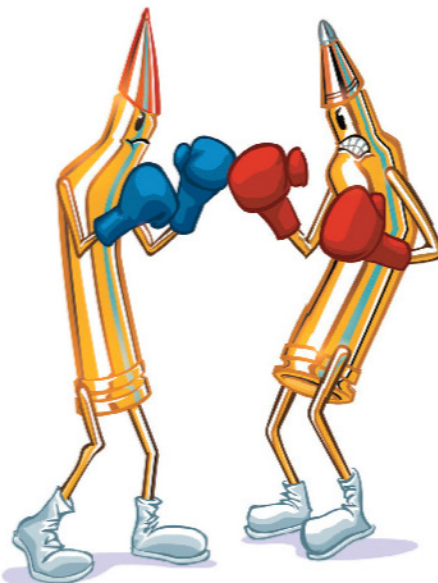
faster than the 7mm PRC pushes a 175-grain ELD-X bullet.

When zeroed at 200 yards, the .28 Nosler 175-grain ABLR load drops 16 inches at 400 yards and 118 at 800. The PRC, by comparison, drops 17.2 inches at 400 when zeroed at 200 yards and 125.7 inches at 800 yards. Not only does the .28 Nosler shoot faster, it also packs more energy. Muzzle energy for the 175-grain Nosler round is 3,794 ft.-lbs., almost exactly 300 ft.-lbs. more than the PRC.

But these raw data don’t tell the whole story. The 7mm PRC calls for a 1:8 twist to handle really heavy, high-BC bullets from 180 grains and heavier. If you’re interested in shooting your 7mm at extreme distances, such bullets matter. The Nosler has a slower 1:9 twist, which is not optimized for the heaviest 7mm bullets, and they may make the cartridge too long for factory chambers.

All that extra powder held in the .28 Nosler’s case generates a lot of recoil—noticeably more than the 7mm PRC—and muzzle blast. The .28 is overbore, and it will reduce barrel life as well, although most hunters will never shoot a rifle enough to wear out a barrel like match shooters do.

Both cartridges are extremely versatile and suitable for everything from goats and antelope to elk and moose at extended ranges. Ammunition for both is widely available, although the



price of .28 Nosler ammo is markedly higher. Premium 7mm PRC factory ammunition sells for under \$65 a box, while most 28 Nosler ammunition hovers between \$80 and \$100.

There are probably more companies chambering the 7mm PRC than the .28 Nosler, but it’s close, and finding a rifle chambered in either isn’t an issue.

The 7mm PRC is an efficient, modern cartridge that serves double duty as a long-range target and hunting round. The .28 Nosler is mostly suitable for those applications, too, but it achieves its goals with more powder and recoil. Both are good cartridges that are suitable for almost any job you’d ask of a 7mm.

.28 NOSLER

HITS

- Shoots flat and hits hard
- Extra energy a benefit on the biggest game
- Greater maximum point blank range

MISSSES

- Louder and punchier to shoot
- Not well suited for heaviest 7mm bullets
- Ammunition costs more

7MM PRC

HITS

- Growing number of rifles and ammo
- 1:8 twist for use with very heavy bullets
- More manageable recoil

MISSSES

- Lacks the raw speed, power of the .28
- Trajectory not quite as forgiving
- Nosler had a good head start

THE FN REFLEX[®] XL

CLASS-LEADING CONCEALED CARRY



BEST-IN-CLASS TRIGGER



UP TO 18+1 ROUNDS OF 9MM



INTERCHANGEABLE BACKSTRAPS



OPTICS READY



MORE INFORMATION

Designed with the same hammer-fired, best-in-class trigger and cold hammer-forged barrel process as the micro-compact FN Reflex[®], the FN Reflex XL gives you maximum concealed carry capacity with a 15+1 and 18+1 magazine. It's designed for deep concealment and absolute confidence. This is proof that American craftsmanship is alive and well.

FNAMERICA.COM



Smith & Wesson 1854 Stealth Hunter

Available in .357 Mag., .44 Mag. and .45 Colt, the new Smith & Wesson Model 1854 Stealth Hunter is a tricked-out lever gun. Aside from a short 16.3-inch barrel—perfect for suppressor use—it features a 10.5-inch Picatinny rail for mounting optics and a newly designed fore-end with 15 M-Lok slots for accessories. The front sight is the HiViz H3 fiber optic. Overall length is 33.3 inches, and the gun weighs 6.5 pounds.

>>\$1,399, SMITH-WESSON.COM

Hornady Gun Cabinets

Handy, secure storage that won't break the bank, Hornady's new gun cabinets come in eight-, 12- and 18-gun capacities—the latter two with digital locks. Designed and assembled in the U.S., the cabinets are constructed of 18-gauge steel and have three-point locks. They come with one fixed shelf and three heavy-duty, PVC-coated gun racks. A neoprene floor mat protects gunstocks and keeps them from sliding.

>>\$254-\$429, HORNADY.COM



Federal Gold Medal Berger 6mm ARC

The 6mm ARC has become a darling among precision shooters, and now they can have Berger's excellent BT Target bullets loaded in Federal's Gold Medal line. The 108-grain bullet is loaded in Federal brass with Gold Medal match primers and a specially formulated powder—all built to Federal's toughest specs for accuracy, pressure and velocity. Velocity figure wasn't available at press time.

>>\$58, FEDERALPREMIUM.COM



Nosler Whitetail Country

Nosler's new Whitetail Country load is available in boattail solid-base and flat-base bullets, the latter for straight-wall cartridges. Both have copper jackets and lead cores, and the two straight-wall offerings feature an ogive developed for optimal feeding. Whitetail Country Solid Base calibers include 6.5 Creedmoor (140-grain; 2,650 fps), .270 Win. (130; 3,060), 7mm-08 (140; 2,825), .30-30 (150 roundnose; 2,390), .308 (165; 2,800) and .30-06 (165; 2,900). The Straight-Wall lineup includes .350 Legend (180; 2,100) and .45-70 (300; 1,950).

>>\$35, \$40 (.45-70), NOSLER.COM



MTM SC3 Suppressor Case

Lots of shooters and hunters own suppressors, and most of us have more than one. The new SC3 suppressor case accommodates large and small silencers, and it's molded from high-impact polypropylene and features strong snap-tight latches and a robust hinge. There are two padlock points for secure closure. Cooled-down suppressors are held in place with foam padding. Outside dimensions are 13.1x9.7x3.2 inches.

>>\$22, MTMCASE-GARD.COM



800-338-3220 | HORNADY.COM



AEROMATCH™

Shoot The Best

- Match-proven profiles perfected by Hornady.
- Optimized for precision, consistency, and reliability.
- For high-volume competitive shooters.
- Refined designs for superior match performance.

Featuring HPBT Profiles: 22 Cal. 69 gr./ 77 gr. | 30 Cal. 168 gr./ 175 gr.

Featuring Compound Profiles: 6mm 105 gr. | 6.5mm 140 gr.



When Light Was Right

THE M1 CARBINE SERVED AS A HANDY BATTLE GUN FOR OFFICERS AND OTHERS FOR MORE THAN 30 YEARS.

The World War II U.S. .30 M1 Carbine light-rifle concept was born in World War I when there were many missions for which the long, 10-pound Model 1903 rifle firing a full-power cartridge was a clumsy choice but a handgun was just not enough. Limited use of the Winchester Model 1907 Self Loading Rifle impressed many, and it was not forgotten—just ignored as other priorities such as the M1 Garand took precedence.

But in 1940, Army Ordnance revisited the light rifle. Just as in World War I, there was a vacuum between the heavy battle rifle, handgun and the new but equally heavy submachine gun. A light, handy, short semiauto or full-auto rifle firing a cartridge capable of hitting targets out to 300 yards could fill that niche—giving officers and specialists like radiomen something more effective than a handgun.

Winchester was tasked with developing the cartridge based on its Model 1907's .32 WSL but in .30 caliber. Winchester used non-corrosive primers from the get-go and quickly achieved the target 2,000 fps with a 110-grain full-metal-jacket roundnose bullet.

Although not a participant in the original group of firearms submis-



The M1 Carbine filled a niche between battle rifles and handguns, primarily a gun for officers and specialist troops. The early “high wood” stock is identified by the straight stock line covering half the operating rod.



sions, Winchester was encouraged to participate, and its short-recoil, gas-operated entry won the competition. By late 1941, the first contracts were issued to Winchester and the Inland Division of General Motors. By the end of World War II, nine manufacturers made more than 6 million Carbines—more than any other U.S. small arm.

Opinions about the M1 Carbine generally denigrate the cartridge's performance while praising its handling qualities. Essentially the M1 Carbine fires a powerful pistol cartridge in a rifle platform that's much easier to master than a handgun, especially for specialist troops who had to master other crafts. Although the 300-yard range proved optimistic, the M1 Carbine was effective much farther than the submachine gun, and the tare weight of five pounds was a blessing.

My sample is an early “high wood” M1 Carbine made in 1943 by Inland. The “high wood” guns are special because they feel better between the hands than later ones. The wrist is more sculpted, and the heel of the hand has a comfortable spot to rest—it feels like a fine sporting rifle.

They're called “high wood” because the stock covers the operating rod halfway, and only the handguard is relieved for the op rod. This created a weak spot because the stock's wood was necessarily thinner there.

Later stocks are thicker and straighter through the wrist, and the area around the operating rod fully relieved. This includes today's reproductions, and these later models just don't feel as lively, but they are sturdier.

The two-mag belt pouch easily slips over the butt without trouble, and

adding one to the belt puts 75 rounds within easy reach. Because the little carbine wasn't designated as a battle rifle, provision for a bayonet wasn't included, and those issued with a Carbine received the M3 fighting or trench knife for last-ditch defense. By war's end a bayonet lug and bayonet very similar to the M3 knife were standard. After all, bringing a knife to a bayonet fight isn't particularly comforting.

The rear sight was a simple flip-up aperture with two leaves for ranges from 100 to 300 yards. It was not adjustable for windage. American soldiers balked because of their reputation for shooting ability, and by the end of the war a fully adjustable rear sight with windage and finer elevation increments—but still sensibly limited to 300 yards—was standard.

The front sight was a simple square blade in a band with a ramp protected by twin ears machined integrally together. The sight picture is easy to acquire and quite good.

An early complaint was that the push-button safety and magazine release button were close together and felt the same, and soldiers occasionally dropped the magazine while taking the gun off Safe. Later models would get a rotating safety lever.

The M1 Carbine's shooting qualities are highly desirable even today. At 35.75 inches long, with a short 13.25-inch length of pull, it is a great rifle for new shooters, kids and women. The action is easily charged, and the five-pound weight and balance are perfect for beginners. Recoil is mild. The only downside is there is no automatic bolt hold-open after the last shot. The bolt must be manually opened and the hold-open button manually applied, but it isn't hard to master.

The cartridge is often derided, but at home-defense distances the 110-grain .30 bullet at 2,000 fps is no slouch. Most carbines prefer full-metal-jacket bullets, but Remington and Winchester offer softpoint roundnose loads. A performance choice for self defense is Hornady's Critical Defense.

Collectors enjoy the fact that there are enough subtle variations from the



There is no automatic bolt hold-open. Early M1 Carbine sights had a simple two-position leaf that could be flipped for ranges from 100 to 300 yards. (Below l.) The similarity of the safety and mag release caused problems early on, so the safety was changed on later models. (Below r.) The sturdy front sight, ears and band were made integrally and pinned to the barrel.



nine contractors to fill a specialty collection. These include a nifty folding-stock paratrooper version and even select-fire models.

Since the gun was used by the U.S. from World War II through Vietnam over an incredible lifespan of more than 30 years, they were constantly rebuilt and upgraded as well as distributed among our allies. Therefore, having one with all the parts it originally left the factory with is exceedingly rare.

For instance, my Inland was made in 1943. A later GI armorer's attention gave it a Saginaw trigger guard, a fully adjustable rear sight and a Korean War era M2 stock (the M2 was the select-fire version) but no bayonet lug. Upon disassembly for routine cleaning, the gas piston was frozen with dried cosmoline. A gas nut wrench is necessary for disassembly, and once cleaned and tightened, the little M1 Carbine runs like a champ.

I wanted my carbine to represent a World War II rifle and acquired mostly Inland-marked parts—including the

high wood stock, trigger guard, oiler, magazines and a 1943-dated magazine pouch. A sight pushing tool was necessary to remove the adjustable sight, and a shim was necessary to secure the early flip sight.

A period-correct M1 Carbine may have all the correct parts, but those parts may not have been on the gun from the get-go, so buyer beware. Good books for reference include Bruce N. Canfield's *Complete Guide to the M1 Garand and M1 Carbine* and Craig Riesch's *U.S. M1 Carbines, Wartime Production*.

Even collector-grade examples may not have all matching parts, but you can still expect these to command prices from \$4,000 on up. "Mutt guns" like mine range between \$1,250 and \$2,250, depending on rarity. I bought mine from Midway USA for \$1,450 and sank another \$450 in parts.

If a lot of shooting is in your plans, adding a good reproduction like those from Auto Ordnance and Inland is the best of both worlds. ■

Outdoors on Demand



These days, America's sportsmen and women are clamoring for more "content," as we call it in the media: more articles, more television shows, more website info. Outdoor Sportsman Group—which publishes this magazine as well as bringing you the Sportsman Channel and Outdoor Channel—has answered that call with the My Outdoor TV (MOTV) app.

It's a resource like no other, a curated treasure trove of outdoor-oriented television shows and videos. Think of it like your own personal Netflix, with episodes of "Gun Stories" with Joe Montegna, the gun restoration show "The Gunfather," "Guns & Ammo," "Shooting USA" and more. The universe of content is even bigger when it comes to hunting, and I know a lot if not most of you enjoy your time in

the field. Check out "Petersen's Hunting Adventures," shows by hunting legends Fred Eichler and Jim Shockey, "Meat Easter" and many, many more. Plus there is a ton of fishing as well, including live streams of various angling competitions.

MOTV is an incredibly deep library containing more than 20,000 episodes of outdoor television shows as well as short-form video encompassing how-to instructional and history topics you can watch anytime, anywhere.

In addition to the TV episodes, I think *RifleShooter* readers will really appreciate short-form videos such as "Gun Stories Tidbits" on iconic rifles as the M1 Garand, the Remington rolling block and the AK-47. And, again, it's all HD-quality video for the ultimate viewing experience.

Perhaps even better for shooters and hunters on the go, in addition to

streaming video, you can take this content with you via the "Take With Me" feature that allows you to download content for later viewing when you're without Internet access—say, at the range or in hunting camp.

If you're one of the folks out there who can't get Sportsman Channel or Outdoor Channel through your television provider, this is your porthole into the awesome world of true outdoor programming. MOTV is available on the web, as well as Apple and Android platforms.

A subscription is just \$9.99 per month or \$98.99 per year, and you get multiple device accessibility with one account. New content is loaded every month, and with the yearly subscription you can get a free magazine subscription. MOTV is the TV you want, your way. Check it out today at MyOUTDOORTV.COM. ■



LEAD BY DESIGN

Versatile, adaptable, and groundbreaking, the MK 22™ is an exemplary configuration of the MRAD platform. This USSOCOM & U.S. Army contract winner can be chambered in 300 NM, 338 NM, and 7.62x51 NATO. As it continues being actively deployed across a multitude of tier one units, it's reliability and guaranteed Sub-MOA performance allows it to adapt to any user or diverse operational scenario.

barrett.net

Super Funnel

RCBS'S MATCH-MASTER FUNNEL KIT IS HEAD AND SHOULDERS ABOVE THE REST AND WORTH EVERY PENNY.



While expensive compared to simple plastic funnels, the RCBS kit—which comes with adapters for the most popular calibers—makes charging cases incredibly fast and easy.

Imagine a powder funnel that shunted propellant into the case in fractions of a second—no bridging, no granules sticking to the sidewalls, no tiresome tap-tap-tapping the funnel to get the powder to finally shake down through the funnel and into the case.

It's not a pipe dream. A while back, an enterprising young RCBS engineering intern named Marshall Clow dreamed the same dream and set out to create a product. The very successful result is the Matchmaster funnel kit (\$100).

Some of the technology is proprietary, so I can only provide a glimpse into how and why it works. But the fact is it does indeed work. Like magic.

The funnel is made of 6061-T6 aluminum, which is inherently anti-static. Static is a significant portion of the reason powder sticks in funnels, and this is particularly the case with flake and ball powders, which have a lot of surface and little weight.

Marshall told me static isn't the only culprit that causes powder granules to cling to the inner sidewalls of funnels. Fingerprints are problematic too. RCBS settled on a special anodizing that shrugs off the effect of fingerprint oil

and more or less eliminated granules hanging in the funnel.

For shooters loading long-grain stick-type propellants, bridging is a far more common annoyance than static. Bridging occurs when those long grains of powder clump together and form a structure across the mouth of the funnel that causes the charge to hang up. Typically, several taps to the side of the funnel are necessary to dislodge the bridge.

The patented geometry of the inside of the RCBS funnel aligns the long grains so they flow into and fall through the tubular bottlenecked portion of the funnel end first, effectively preventing them from bridging.

The use of caliber-specific threaded adapters seems to be part of the secret sauce. The kit comes with six different adapters that serve the vast majority of cartridges: .22, 6mm, 6.5mm, 7mm, .308 and .338. And yes, you can use the closest fit for calibers that aren't included. For instance, I charged a bunch of .25 Creedmoor cases using

the 6.5mm adapter, and it worked perfectly.

Individual adapters may be purchased for \$19 apiece in .17, .20, .277, .375, .416 and .50 calibers. However, adapters for some of the big-bore cartridges I'm so fond of loading, such as .35 Whelen and .45-70 Gov't, are not yet offered.

The funnel itself is a relatively heavy affair when compared to plastic funnels. Add the weight of an aluminum adapter, and you've got a fairly robust bit of kit perching atop your cartridge case during use.

I learned quickly that a properly fitting loading block is important; it needs to hold the cartridge cases upright and straight when you set the funnel in place. If the holes in the loading block are oversize—for example if loading .30-06 cases in a magnum block—they can teeter and tip. This doesn't prevent the funnel from functioning; it just makes it harder to pour the charge in without spilling.

Threads between the funnel and

adapter are coarse, so you can spin one adapter out and another into place in short order. Plus, there's a band of knurled texturing around each adapter and at the bottom end of the funnel, providing plenty of gripping surface for changing adapters.

Before testing the Matchmaster, I watched an RCBS video where design engineers compared pour rates with a whole series of different competing funnels, both plastic and aluminum, using a broad selection of different gunpowders.

The difference between all other funnels and the Matchmaster was startling. It dumped 250 grains of RL-50—a long-grain extruded powder—in just over three seconds. The next fastest competing funnel took more than seven seconds, and most took between 19 and 59 seconds. With practical charge weights of 40 to 70 grains, the powder vanishes through the funnel so fast you wonder if it was even there.

Another RCBS test showed 240

grains of 300-MP powder—a small-granule ball powder known for clinging—through 10 different funnels. Not only was the RCBS Matchmaster funnel the fastest, it was the only one that had zero residual granules clinging to the inner sides of the funnel.

I loaded a batch of .25 Creedmoor cases with Reloder 16 powder, which is a relatively short-grain extruded propellant. It dumped through the Matchmaster funnel so easily I learned to just ignore the funnel after pouring the gunpowder from my charger pan.

Next, I loaded two batches of .338 Rem. Ultra Mag, which generally requires the large charges that are the most challenging to funnel. I loaded one batch with Retumbo powder and one with Reloder 26, both extruded powders. The Matchmaster funnel sent the massive charges into the cases with a brisk whoosh, with nary a hangup caused by bridging or any other reason.

I found just one characteristic of the

Matchmaster funnel that was slightly harder to use than my plastic funnels. If I didn't pay attention, I'd sometimes spill a few grains when I poured from the charger pan into the funnel.

That's because the Matchmaster funnel is a bit smaller in diameter up top—presumably to keep weight down—and my lazy habit of just sort of dumping the powder into the top of the funnel sometimes allowed an errant kernel to bounce out. To compensate, I made a point of pouring the powder directly into the funnel, which is probably a good habit to foster anyway.

If there's one other downside to the Matchmaster funnel, it's that \$100 suggested retail—considerably more than the average plastic funnel. You could buy 16 plastic RCBS funnels for the price of one Matchmaster. That said, in my opinion the Matchmaster funnel kit is worth every cent. It's one of those small refinements that makes the process of handloading a whole lot more enjoyable. ■

SIERRA®



For the world's most elite shooters.

MatchKing®

WWW.SIERRABULLETS.COM



SCAN TO LEARN MORE

Sightmark Scores

LOADED WITH FEATURES, THE PRESIDIO 3-18X IS A LONG-RANGE PERFORMER FOR SHOOTERS ON A BUDGET.

There are more optics companies offering up products than at any time in my life, but few companies offer as diverse a product portfolio of affordably priced optics as Sightmark. The company's Presidio scope line offers a 6:1 zoom ratio and just about everything a shooter could want in an affordable package.

Presidio scopes are available in 1-6X, 2.5-15X, 3-18X and 5-30X, so no matter the hunting or shooting task you face, you should be able to find one that works for you. The 3-18x50mm Presidio I tested has a 30mm main tube body made from high-grade anodized aluminum. Presidios feature multicoated lenses, and the scopes are nitrogen purged, shockproof and waterproof. They're also IPX7 waterproof and dustproof rated. Operating temperature is listed as -20 to 160 degrees.

My sample came with the LR2 reticle, which is an illuminated mil Christmas-tree reticle in the first focal plane, but Sightmark also offers the 3-18x50mm with an MR2 illuminated reticle. This reticle features wind-age and holdover stadia lines on the horizontal/vertical axes, but there's



Despite the low price tag, the Presidio is well-built with lots of premium features, and its simple operation and affordability make it a good option for shooters looking to get into the long-range game without breaking the bank.

no wind-hold "tree" in the bottom portion.

The LR2 is an etched reticle offering short, 0.5-mil stadia lines on all four axes and taller one-mil lines. The even-numbered mil aiming points are marked. The reticle provides 10 mils of left/right/under hold and 11 mils of holdover.

The LR2 features six red illumination settings and is powered by a single CR2032 battery. Accessing the battery requires removing a threaded cap on the left side of the scope where the illumination setting is located.

There are intermediate off positions, and the settings are clearly marked with the illumination-level setting and a zero for the off settings. This makes it very easy to determine what power setting you're at, and it's simpler than having to toggle through settings to find the desired brightness. The illumination setting is integral with the side-focus knob, and the side

SPECIFICATIONS

SIGHTMARK PRESIDIO

POWER x OBJ.	3-18x50mm (tested)
LENGTH, WEIGHT	13 in., 31 oz.
MAIN TUBE	30mm
RETICLE	LR2 (tested) first focal plane; red illumination w/6 levels
ADJUSTMENTS	exposed turret; 0.1 mil adjustment; 31 mil travel (measured); zero stop
BATTERY	CR2032, 500-hour life
EYE RELIEF	3.8 in.
PRICE	\$400
MANUFACTURER	Sightmark, SIGHTMARK.COM

focus is adjustable from 10 yards to infinity.

The exposed top turret of the Presidio 3-18x50mm features a zero stop and claims 26 mils of adjustment, although when testing the optic

I managed more than that—about 31 mils before stopping. That’s more than enough elevation and windage adjustment for almost any shooter. To put the elevation capability into perspective, a 6.5 PRC firing a 147-grain match bullet drops about 16 mils at 1,600 yards when zeroed at 100 yards, so the Presidio has enough adjust to shoot beyond 2,000 in this example.

The Presidio’s turret arrangement is among my favorites. Each full turn of the elevation and windage turrets adjusts a total of five mils, and a trio of white lines helps keep track of rotations. The knobs are large enough that they’re easy to use, and the texturing around the top is aggressive enough so you can quickly make large adjustments.

Clicks are audible and tactile and the numbers and the aforementioned revolution indicators are bold and easy to see. Windage turrets feature “L” and “R” indicators to help orient your adjustments properly and prevent spinning the dial in the wrong direction.

I found the texturing on the magnification adjustment to be more difficult to grasp than that on the turrets, but Sightmark offers a solution with the included throw lever. There’s nothing fancy about the throw lever, but it works and doesn’t have the tendency to unscrew like some other levers.

I mounted the Presidio on a 6mm Creedmoor using Sightmark’s 30mm Weaver/Picatinny rings. At 31 ounces the Sightmark isn’t a particularly light scope, but it also isn’t too heavy for field use. Overall length is 13.5 inches with scope caps in place (13 without caps), so despite being heavier than some competitors, the scope is relatively short.

First-focal-plane reticles change size with magnification, and the 3-18x50mm’s reticle and its hold points can sometimes be difficult to make out. At the 3X setting, the reticle itself is hard to discern, although illumination helps. For me, the holdover points became visible and useful at about 8X, although you may find you need more or less magnification to see them. At 100 yards I could easily make out the



The Presidio comes with flip-up lens covers and a throw lever. (Below l.) Lines on the windage and elevation turrets serve as revolution counters. (Below r.) Lenses are multi-coated, and the scope offers good low-light performance and clarity.



reticle on 8.5X with illumination on setting three.

The Presidio is rated up to .338 caliber, so the mild 6mm Creedmoor’s recoil didn’t test the optic. A massive snow and ice storm dumped over a foot of snow on the range, and temperatures fell to the teens. Despite the miserable conditions the Presidio did well. Clouds and the bright blanket of snow gave everything a blue luster in late evening, but I was able to see clearly without excessive distortion.

Low-light performance was good, and because I was shooting at my home range I was able to test the optic in wooded conditions against other optics. There were several takeaways. First, the Presidio’s clarity and color fidelity are excellent for a scope in this price category.

Eye relief is about 3.8 inches, and the eye box was not as forgiving as some other scopes on 3X. Since I was

limited to 100 yards and the scope is in mils—and one mil is about 3.6 inches at 100 yards—to test tracking the best I could do was adjust one mil, 10 clicks, in each direction.

The results were consistent, and the Presidio tracks in the proper direction and roughly the proper amount. Plenty of affordable scopes track poorly, but the Presidio doesn’t have that issue.

Costing about \$400 and offering a limited lifetime warranty, the Presidio is one of the few sub-\$500 scopes with mil adjustments and a first-focal-plane layout that’s relatively user-friendly. Everything is simple to operate and well-designed. Color fidelity and edge clarity are very good for this class.

This is the ideal scope for someone who is interested in trying out a dedicated long-range optic without having to pay \$1,000 or more. ■

STRIKING A BALANCE



CHRISTENSEN'S NEW EVOKE LINEUP COMBINES SOLID FEATURES, ACCURACY AND AFFORDABILITY.

by Keith Wood



Michael Anschuetz photo

Christensen Arms has been at the leading edge of rifle design since it developed the industry's first carbon-fiber-wrapped barrel three decades ago. The innovation ultimately led the company into the business of building complete rifles—rifles that have seen significant use the world over.

That said, the firm's products have always leaned toward the premium end of the price spectrum and were financially out of reach of many shooters and hunters. With the introduction of the new Evoke rifle, Christensen is now offering a rifle at a competitive price—starting at \$899—that maintains many of the design elements that have helped build the company's name.

The Evoke is offered in four different models including the Evoke, Evoke Mossy Oak, Evoke Precision and Evoke Hunter. I tested the latter, and it's available in seven cartridges: 6.5 Creedmoor, 6.5 PRC, the new 7mm Backcountry, 7mm PRC, .308 Win., .300 Win. Mag. and .300 PRC. Staples such as the .270 Win. and .30-06 are available on the base Evoke and the Mossy Oak version.

The most noticeable feature on the Evoke Hunter is what is missing: the carbon-fiber barrel Christensen Arms is known for. The fact is it would be virtually impossible to build a rifle at this price with a carbon-fiber barrel. As it did with the Mesa series, the company opted for a stainless steel barrel to keep the cost down. Although I've had good luck with a number of carbon-fiber barrels, having a steel barrel is in no way a handicap.

The Evoke Hunter is equipped with a button-rifled and hand-lapped barrel made from 416R stainless steel. Barrel lengths on this model vary from 18 to 22 inches, depending on the chambering.

My test rifle was chambered in 6.5 PRC so it shipped with a 22-inch sporter-contour barrel with a 1:8 twist. The barrel was threaded 5/8x24 at the muzzle and fitted with a removable six-port RFR muzzle brake. It doesn't come with a thread protector. The barreled action was Cerakoted in satin black.

The Evoke Hunter is built around the company's Model 25 action, a 700-style action with a tubular receiver.

The receiver uses a steel recoil lug that sandwiches between the face of the receiver and the barrel shank. The ejection port is generously cut, and there is a receiver-mounted bolt stop at nine o'clock.

Although the top of the receiver is compatible with scope mounts designed to fit the 700, the rifle ships with a zero m.o.a. Picatinny rail installed. This means you can mount an optic to the rail or use readily available after-market mounts. The rail does add some height above the bore to the scope, which is a reason that some may choose an alternate route.

There is a vertical ledge milled into the top of the receiver that serves as a recoil shoulder for the Picatinny mount. Since in the real world scope mounting systems are usually the first failure point, this is a great idea.

Contrary to what you may read online, this is not a three-lug action but a traditional two-lug design with a 90-degree bolt throw. The bolt body is spiral-fluted. The bolt uses an M16-style, spring-loaded extractor along with a pair of plunger-type ejectors. The bolt fits into a .150-inch counterbore in the barrel in the style of the 700. In its marketing materials, Remington used

to bill this setup as “three rings of steel” since the case head is encapsulated by the bolt, the barrel shank and the receiver ring.

The Evoke Hunter uses a detachable magazine system based on the AICS pattern. The bottom metal arrangement that facilitates the magazine is a bit unique, incorporating a magazine release button that sits inside the trigger guard in the style of a Mauser Oberndorf or 700 BDL-pattern rifle. Pressing the button forward releases the magazine.

Not only will this system be familiar to those accustomed to using more traditional floorplate magazines, it also prevents the button from being actuated accidentally. The magazine that shipped with the rifle is a steel short magnum model with a 3+1 capacity. I tested the rifle with a polymer magazine from Magpul, and this worked as well.

The Evoke Hunter features a TriggerTech trigger. These triggers are known for their creep-free break thanks to an internal roller system. Mine came



The Evoke is built on Christensen's Model 25 push-feed action. The rifle ships with a zero m.o.a. scope rail, and the receiver is drilled and tapped on the Remington 700 pattern.



The rifle feeds from AICS magazines, and the magazine release is inside the trigger guard. The trigger is from TriggerTech.

SPECIFICATIONS

CHRISTENSEN ARMS EVOKE

TYPE	two-lug bolt-action centerfire
CALIBER	6.5 Creedmoor, 6.5 PRC (tested), 7mm Backcountry, 7mm PRC, .308 Win., .300 Win. Mag., .300 PRC
CAPACITY	3+1
BARREL	22 in. stainless steel, 1:8 twist; threaded 5/8x24
OVERALL LENGTH	43 in.
WEIGHT	8 lb., 1.6 oz.
FINISH	black Cerakote
STOCK	synthetic
SIGHTS	none; drilled and tapped on 700 pattern; 0 m.o.a. Picatinny rail installed.
TRIGGER	single-stage adjustable; measured pulls 3.9 lb. as received, 2.5 lb. as tested
SAFETY	two-position
PRICE	\$999
MANUFACTURER	Christensen Arms, CHRISTENSENARMS.COM

from the factory set at 3.9 pounds and broke without creep, as advertised.

That's not an unreasonable weight for hunting but not conducive to maximizing a rifle's mechanical accuracy potential from the bench. These triggers are easily adjustable without removing the stock, so I dialed the weight down to 2.5 before heading to the range. The 700-style safety sits just to the right of the tang, where it is easily accessible.

Aside from using an all-steel barrel, one of the ways Christensen Arms was able to keep the price down on the Evoke Hunter was by using an injection-molded stock rather than a more rigid—and expensive—fiberglass or carbon setup. I see a great number of injection-molded stocks on test rifles and I can say that the quality seems to be steadily improving; this one is better than most in terms of rigidity.

The Evoke Hunter's stock is a hybrid design, incorporating elements from traditional sporters as well as more modern precision stocks. The stock has a straight comb with a raised cheekpiece. I ran across several websites describing the cheekpiece as adjustable but, for the record, it is not.

The stock's pistol grip is fairly vertical, making it comfortable for shooting from supported positions such as from a bipod or tripod. These days, more and more hunters are using these shooting aids in the field, and the Evoke's grip design complements that trend.

The fore-end is relatively slim which, in my opinion, is the correct answer on a hunting rifle. Giant beavertail fore-ends might be great on sandbags, but good luck sliding them into a saddle scabbard or getting a hand on them in an unsupported position or when your shooting rest is a tree.

The barrel is free-floated within the fore-end, but since this is an injection-molded stock, exerting pressure on the stock can cause it to contact the barrel.

Internally, the stock has an aluminum block secured to the polymer that serves as a pillar for the forward action screw and also as a bedding block of sorts. The rear screw has a more traditional round pillar.

After firing the rifle, I noticed that

the engagement between the bottom of the action and the aluminum block was a bit uneven, which suggests to me that bedding the action to the stock would have a significant positive effect in terms of accuracy and repeatability.

One of the stock's more practical features is a short Picatinny rail section attached to the forward tip of the fore-end. This three-slot rail is ideal for securely mounting a bipod, and it also serves as a sling swivel attachment point. A standard sling swivel stud is mounted at the toe of the stock. A soft rubber buttpad helps dampen recoil. The stock is finished in the company's own Christensen Arms Hunter camo.

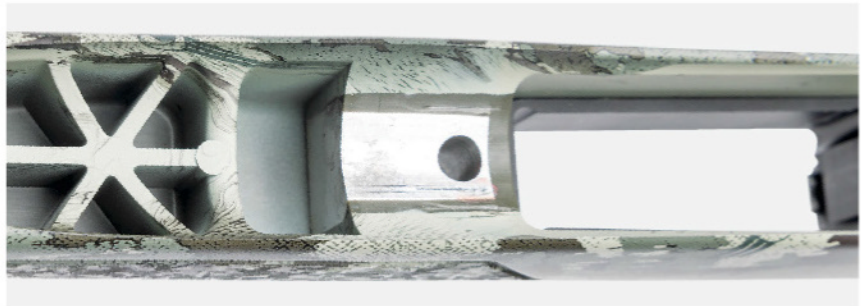
For testing I mounted Leupold's new VX-6HD Gen 2 3-18x44mm and quickly got things zeroed. Thanks to the muzzle brake, recoil was extremely light, and at extended ranges it would be possible to spot one's own hits. The device certainly made the muzzle blast more apparent but not obnoxiously so.

I tried three loads: two from Hornady and one from Gunwerks. The Evoke Hunter showed potential for excellent accuracy but was a bit inconsistent. One group would be a tiny cluster while the next would spread out.

My experience tells me that, when this happens, a loose optic or the rifle's bedding are usually to blame. In this



The stock comes with a short Picatinny rail section near the tip of the fore-end, ideal for mounting a bipod.



The injection-molded stock incorporates an aluminum block where the front of the receiver is torqued onto the stock.

ACCURACY RESULTS

CHRISTENSEN EVOKE HUNTER

6.5 PRC	Bullet Weight (gr.)	Muzzle Velocity (fps)	Std. Dev. (fps)	Avg. Group (in.)
Hornady Outfitter CX	130	2,879	15	0.70
Gunwerks Berger VLD Hunting	140	2,947	6	1.10
Hornady Precision Hunter ELD-X	143	2,741	17	1.20

Notes: Accuracy results are averages of three three-shot groups at 100 yards from a benchrest. Velocities are averages of 10 shots recorded on a Garmin Xero C1 chronograph. Temperature, 36 degrees; elevation, 194 feet. Abbreviations: VLD, very low drag

case, it was the latter. I determined the rifle was very sensitive to the fore-end position on the shooting rest. When the front bag position was near the barrel shank, groups were excellent. If the rest was placed farther out on the fore-end, groups strung vertically.

This is a common ailment with injection-molded stocks due to their lack of rigidity. If that keeps you up at night, it would be easy to stiffen things up with some two-part epoxy poured into the voids inside the barrel channel.

All that said, the rifle still shot well, with groups averaging right around one m.o.a. Christensen Arms advertises the Evoke as a sub-m.o.a. rifle, and it exceeded that standard with at least one of the loads I tested.

The Evoke Hunter's magazine system worked relatively well, but the box was somewhat susceptible to movement. In one case, I cycled the bolt but the top cartridge in the magazine did not feed into the chamber. The magazine had shifted just enough to allow the bolt to



The test rifle came equipped with a six-port muzzle brake that did an excellent job of cutting recoil, and its 5/8x24 threading makes it easy to add a muzzle device.

pass over the lip of the cartridge case and not push it into the chamber.

My test rifle weighed a touch over eight pounds, which made it very shootable. The rifle also balanced well, making it comfortable to carry and stable in realistic shooting positions.

For a general-use hunting rifle, this is the weight range I prefer. Ultralight rifles are nice to carry but difficult to shoot well in the field. Heavy PRS-style rifles have the opposite problem. A seven- to eight-pound sporter is the Goldilocks spot for me.

Christensen Arms offers a wide

range of well-built hunting rifles at a variety of price points. The new Evoke series of rifles is the most economical in its centerfire lineup, but that doesn't mean that the guns skimp on the details.

It wasn't long ago when shooters had to make a serious investment to acquire a rifle with the kinds of features included on the Evoke Hunter. Today, there are a host of factory rifles such as this one that cost under a grand but have all the bells and whistles. The Evoke Hunter is a capable rifle that is ready for the field. ■

DYNAMIC PERFORMANCE
THE WALTHER DYNAMIC PERFORMANCE TRIGGER UPGRADE PACKAGE

FITS WALTHER PDP
AND PPQ SERIES PISTOLS

WALTHER®

SHOP NOW AT
WWW.WALTHERARMS.COM

**SPECIAL
NEWSSTAND-ONLY
SHOOTING PUBLICATIONS**

**NOW AVAILABLE AT OUR
ONLINE NEWSSTAND
OSGNEWSSTAND.COM**



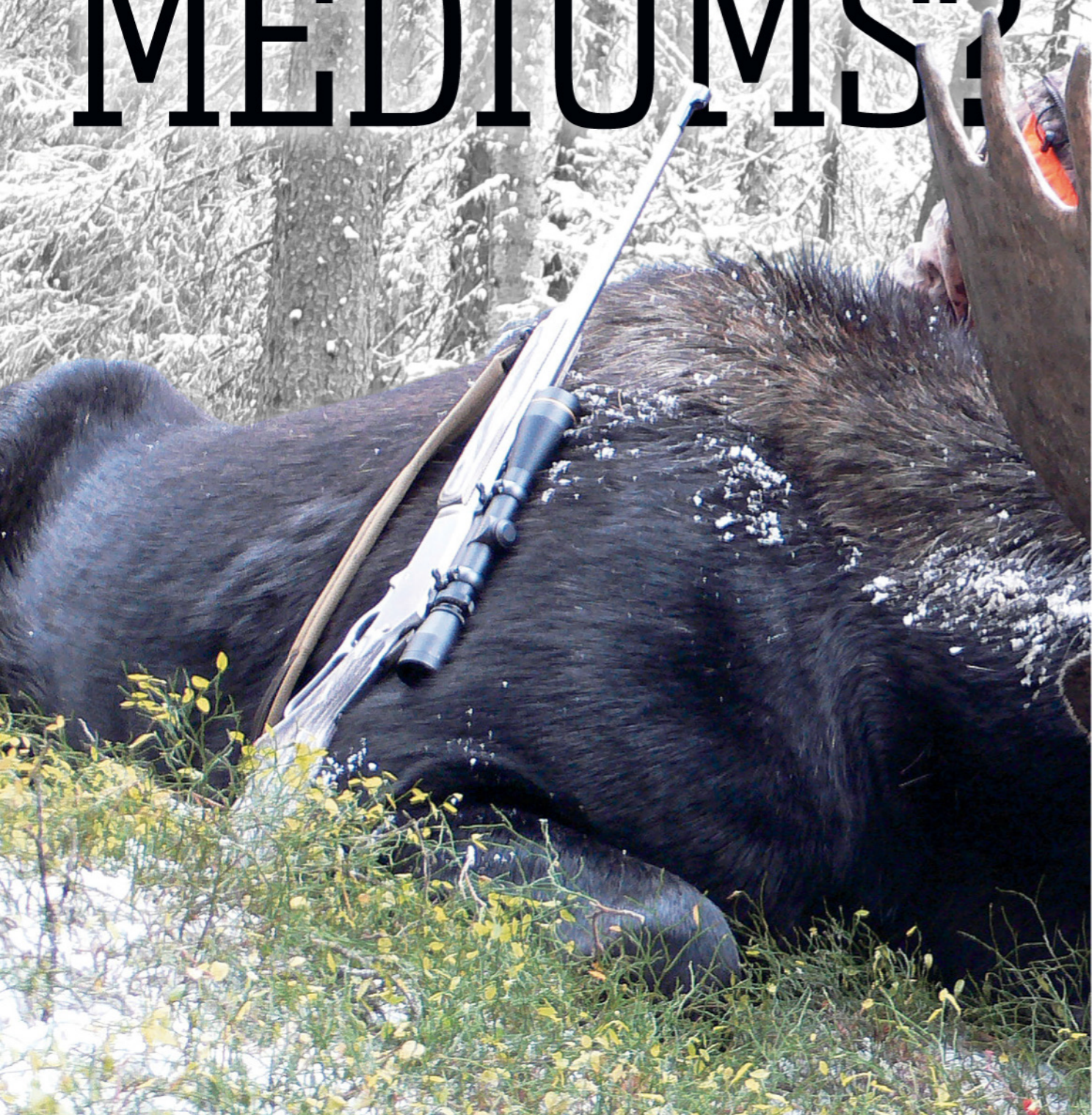
TAKE YOUR PLACE AT
THE TOP
OF THE FOOD CHAIN

THE REIMAGINED
VIPER® HD LINE IS HERE.



SCAN TO SEE THE **NEW**
VIPER® HD
RIFLESCOPES

MEMORIAM FOR MEDIUMS?





THE MEDIUM BORES ARE LARGELY UNLOVED AND OVERLOOKED THESE DAYS, BUT THEY'RE NOT DEAD YET.

by Craig Boddington

The medium bores are not dead. That's a good thing because, if they were, the graveyard of deceased cartridges would be huge.

There have been dozens of them over the years. Many are obsolete while others barely hang on, yet we keep creating more.

Popular American bullet diameters stop at .308 inch because few of us need anything larger—not to hunt deer or elk, not to punch paper or ring steel. Short of the big bears and African game animals that have a 9.3mm minimum caliber restriction, there's little need for a rifle with a bore larger than .30.

Despite that, there are tons of choices between .30 and 9.3. Many of these .32/8mm, .33 and .35 cartridges are gone, and many are on life support. Few have enjoyed lasting popularity. The mild but hard-hitting .35 Rem. dates to 1906 and has probably been the most significant. Big-woods whitetail hunters loved it because it put deer down quickly, but today no production rifles are so chambered.

In my time, the .338 Win. Mag. has been the most important. I hesitate to call it popular, but it is widely chambered, with a healthy selection of factory loads. Introduced in 1958 in the Winchester Model 70 Alaskan, the .338 started slowly as word got out that it had a lot of recoil. No kidding. When you add velocity to bullet weight, recoil goes up sharply, and for most of us that level of power and recoil is not necessary.

Recoil can be mitigated somewhat by reducing bullet weight. For instance, a .338 Win. Mag. kicks less with a 180-grain bullet than with a 250-grain bullet. However, at some point you're defeating the purpose in a hunting scenario because the lighter bullet will have less sectional density: It will make as big a hole but will not penetrate as deeply. For target work, the lighter bullet cannot have as high a ballistic coefficient.

Despite their high energy yields, the fastest medium magnums are not street-legal for certain African game, and this doesn't do them any favors. If at some point you need something specifically for Africa, you'd pass up the mediums and move straight up to the .375s.

Now that I've given all the reasons you shouldn't want or need a medium bore, I'll tell you why I do like them. Let's go through them diameter by diameter.

8mm/.32

A century ago, the obsolete .32 Rem. and almost-gone .32 Win. Spl. had followings, both specified for .321-inch bullets. Since

then, no .32 caliber or 8mm rifle cartridge has done well in the U.S., although 8mms do remain popular in Europe. Germany switched to a spitzer bullet in 1895 and increased its 8x57 bullet diameter to .323-inch. Although .323-inch equals 8.2mm, it's now accepted that an "8mm" uses a .323-inch bullet.

Many 8x57 Mausers crossed the pond as war souvenirs and through the surplus market. A lot were rechambered to the wildcat 8mm-06 because of brass availability. Both are fine cartridges, similar to the .30-06 with the advantage of greater bullet diameter, but neither has a significant U.S. following today.

The 8mm Rem. Mag. (1978) was America's first 8mm rifle cartridge. I shot the powerful and flat-shooting round when it was new and then again extensively in the 1990s. I loved the Big Eight, and I used it for several elk, bears, African antelopes and even a few sheep. I've used various fast .30s for decades, and I am convinced that my 8mm Rem. Mag. hit harder and took down large game quicker than any .30, even if bullet weight and velocity are similar.

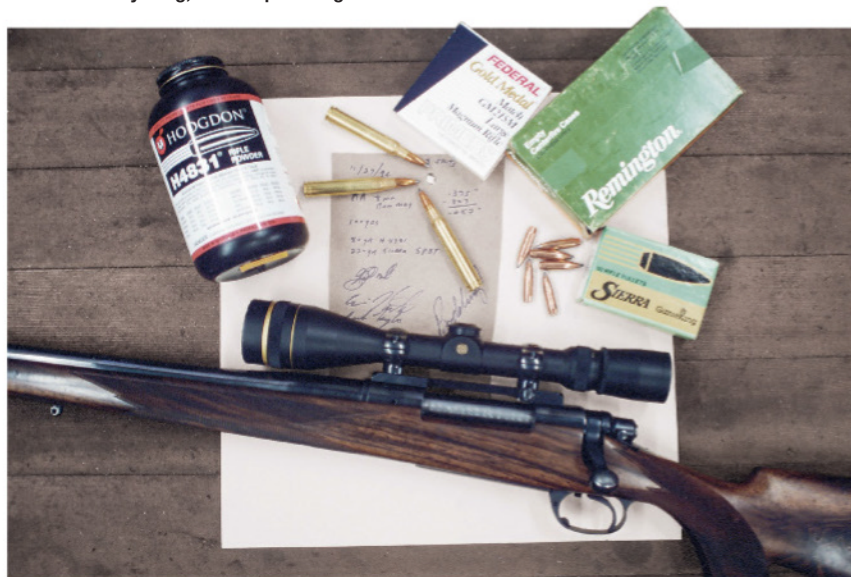
However, despite heroic marketing efforts, it sold poorly. Based on the 2.8-inch .375 H&H case, it needs a full-length action. It also acquired a reputation as a hard kicker, which it is. I gave up on my 8mm Rem. Mag. not because of either issue but because of the round's limited bullet selection and because my long-barreled, wood-stock rifle was too heavy for mountain hunting. The 8mm Rem. Mag. is no longer offered in factory loads, and there are no production rifles.

Winchester's .325 WSM (2005) was the last of the company's short magnums. It's fast and powerful, and I used it to take a big Arctic grizzly and also took it to Africa. Since I'm a medium-bore fan, I liked the .325 WSM, but even though it's relatively new, it barely hangs on.

I doubt we'll see any new 8mm cartridges, but if you want to hit game harder, the 8mms are still out there.



Just a few of the faster medium-bore cartridges that have both the velocity and energy to be truly versatile. (L.-r.): .325 WSM, 8mm Rem. Mag., .35 Whelen, .338 Win. Mag., .33 Nosler, .338-.378 Wby Mag., .338 Lapua Mag.



While his 8mm Rem. Mag. is super accurate and powerful, Boddington eventually stopped using it—both because of the cartridge's limited bullet availability and because the rifle itself was too heavy to be a mountain rifle.

.33

The .33s are the most common mediums today, partly because of the .338 Win. Mag.'s longevity and the bullet selection it created. In 1902, Winchester introduced the .33 Win. in its big 1886 lever action, using the first .338-inch bullet. In 1906, Westley Richards in England introduced the .318 WR, and two years later, WJ Jeffery, also English, introduced the .333 Jeffery. Neither the .318 WR nor the .333 Jeffery used the .338-inch bullet, but they were popular, and with heavy solids they were used on game all the way up to pachyderms.

In the 1930s, gun writer Elmer Keith teamed up with Charlie O'Neil and Don Hopkins to create the wildcat .333 OKH, which was based on the .30-06 case necked up. Keith and his buddies wanted greater bullet diameter than .30—as well

as long, heavy-for-caliber bullets—primarily for larger, tougher game such as elk.

The .333 OKH used the Jeffery's .333-inch bullet, but when Winchester developed the .338 Win. Mag. it returned to the .338-inch bullet it had used in the .33 Win. Since then, .338-inch bullets have been standard for all .33s—including Keith's later developments. These included the .334 OKH, which was based on the full-length .300 H&H case, and the .338-.378 KT (Keith-Thomson) on the .378 Wby. Mag. case.

With the distinctive Weatherby double-radius shoulder, the .334 OKH would become the .340 Wby. Mag. Weatherby would similarly modify the .338-.378 KT to introduce the .338-.378 Wby. Mag.

The SAAMI-standardized .338-06, which is similar to .333 OKH, has a following, but no major manufacturer has picked it up. The .338 Federal came out in 2005. Based on the .308 Win., it's a great, highly efficient cartridge, and it's hard to figure out why it hasn't done better.

I rate the Hornady-developed .338 Marlin Express as the most versatile cartridge ever chambered for a tubular-magazine lever action. Regrettably, its 2009 introduction coincided with Marlin's sale. Few .338 Marlin Express rifles were released, and I still regret not buying the test rifle I used. Hornady also developed the compact but not popular .338 Ruger Compact Mag.

There are several faster .33s. Weatherby has three: .338 Wby. RPM, .340 Wby. Mag. and .338-.378 Wby. Mag. Remington's developed the big .338 Rem. Ultra Mag, and Nosler introduced its .33 Nosler. And then there are proprietaries, including the .330 Dakota and Lazzeroni 8.59mm (.338) Titan.

I've hunted with most of the faster .33s. I had a long affair with the .340 Wby. Mag. It is faster, flatter-shooting and harder-hitting than the .338 Win. Mag., and while I loved its performance, I didn't love its recoil.

I hunted with the .340 for a decade and then tried the even faster .338 Rem. Ultra Mag, which I used to take the Newfoundland moose in the lead photograph of this article. Grudgingly I accepted the

reality that the recoil was more than I needed, and I returned to the .338 Win. Mag.

The Win. Mag. is no pussycat, but it's manageable and fast enough for my needs. The .338 is not a constant-use cartridge. I don't need it for deer-size game, but I've used it for elk, moose, bears and a full run of African plains game. It's wonderfully versatile and hard-hitting while not unbearable to shoot.

Recently, I got the itch to try for one more big bear, and I decided on an exceptionally accurate .338 Win. Mag. barrel on my Blaser R8. My chance came on a tough shot, with darkness coming on fast. I was standing in head-high alders, and there was nothing to rest on. The bear was past 200 yards, and the first shot immobilized him, but getting him down took more shots than I care to say. I'll be honest: For the biggest bears a .375 is probably a better choice, but the faster .33s will get the job done.

.35

There's no shortage of .35 caliber cartridges. The 9x57 Mauser and 9x56 Mannlicher Schoenauer, both introduced in 1904, were popular in Europe at one time but are now obsolete. The .358 Norma Mag. never caught on, and the .358 Shooting Times Alaskan never made it into factory form.

Winchester introduced the long-

cased .35 Win. in 1903 in its 1895 lever-action rifle. That cartridge employed a .358-inch bullet. Remington used the same bullet diameter for its .35 Rem., and so did John Rigby in his .350 Rigby Rimless Mag. (1908).

Since then, most .35 caliber rifle cartridges have been loaded with .358-inch bullets, but there are exceptions. Winchester's .35 Win. Self Loading and more powerful .351 WSL used .351- and .352-inch bullets, respectively. The .348 Win. (1936) for the Model 71 was loaded with an oddball .348-inch bullet. I love the fast and powerful .348, but it was chambered only in the Model 71—which was legend-



The .348 Win., excellent on boars and bears, was chambered only in the top-eject Model 71 Winchester and was traditionally hampered by iron sights and blunt-nose bullets.

Opposite Ends of the Spectrum— .338 Lapua Mag. and .338 ARC

Millennial terms like “purpose-driven” strike us old guys like fingernails on a blackboard. For me, the purpose of the mediums is obvious: to put larger holes in bigger, tougher game at distances dependent on velocity, and limited by acceptable recoil. However, there are purposes within purposes, and newer mediums are often highly specialized—“purpose-driven,” if you must.

The big .338 Lapua Mag. was envisioned as a long-range sniper's cartridge, and it easily transferred to extreme-range target shooting. Based on the .416 Rigby case, it differs little from the .338-.378 Wby. Mag.,

itself a belted version of the .416 Rigby. The .338 Lapua Mag. offers great long-range performance, but ultra-fast mediums like this one have too much recoil for my taste—or require too much gun weight and an ear-blasting muzzle brake.

Then there's the new kid in town, Hornady's .338 ARC. Its initial supersonic load features a 175-grain bullet at 2,075 fps. While that's not impressive, its real purpose is maximized performance with subsonic loads. That initial load is a 307-grain bullet at 1,050 fps. Energy yield isn't high—just 753 ft.-lbs. at the muzzle—and range is limited, but that long, heavy bullet will hit hard and penetrate.—CB

ary but never common. The .35 Win. and the Win. Self Loading cartridges are long gone. The .35 Rem and .348 Win. hang on, thanks to older rifles still in use.

In 1955, Winchester introduced the .358 Win. in the Model 88 lever-action rifle. Based on the .308 case necked up, the .358 is my favorite non-magnum medium. Propelling a 200-grain bullet to 2,500 fps or a 250-grain bullet to maybe 2,250, it lacks extreme range, but within a couple hundred yards it hits like a freight train. It's awesome for black bears and hogs, and it's excellent for elk and moose in timber. It never became popular, and

today it's chambered only to Browning's BLR lever gun.

In 1965, Remington introduced the short-cased .350 Rem. Mag. It was the original short magnum and was about 300 fps faster than the .358 Win. It was a great little cartridge, but it was introduced in the light Model 600 carbine, and recoil was severe. It didn't sell well.

Remington kept trying, though. The .35 Whelen dates back to a wildcatted round Col. Townsend Whelen and James Howe of Griffin & Howe worked up in the 1920s. A necked-up .30-06, it hung on as a common wildcat for decades and was

legitimized by Remington in 1988. The .35 Whelen did well initially, but it seems to be languishing. An effective, accurate cartridge with surprisingly mild recoil, the .35 Whelen is probably the fastest .35 that has a following.

I've used the .35 Whelen quite a bit, and I like it, but I prefer the .358 Win. simply because the Whelen is just another bolt-action cartridge, while the .358 was chambered to the lever actions I admire. I just got my hands on a Savage Model 99 in .358, and with a load of W748 powder behind a 225-grain Swift A-Frame it yields good accuracy and just over 2,400 fps. I'm looking forward to hunting with it.

In 1982, Winchester tried again with the .356 Win., a semi-rimmed version of the .358 designed for a beefed-up Model 94. It fell on its face. Undaunted, in 2019 Winchester introduced the .350 Legend—an AR-compatible cartridge meeting criteria established by formerly shotgun-only states that decided to permit straight-wall cartridges. With its small case, the Legend is less powerful than the .358 or .356, but with its .357-inch bullet diameter, it can use .357 pistol or carbine bullets—even .355-inch 9mm pistol bullets as practice ammo.

In 2022, Remington countered with the .360 Buckhammer, a rimmed case that also meets all straight-wall criteria. Intended for tubular magazine lever actions, it was first chambered by Henry. The Buckhammer is slightly faster and more powerful than the .35 Rem. and uses .358-inch bullets. Like the .350 Legend, the Buckhammer sold well initially, but it's too soon to tell what its lasting impact might be.

I would be remiss to fail to mention long guns in .357 Magnum. In handguns, I find the .357 marginal for deer and hogs, but the cartridge is effective at short range with the added velocity from rifle barrels.

I don't think the mediums are dead, certainly not among us geezers who grew up reading Elmer Keith. Many of us cling to—and scrounge ammo or reload for—the older mediums. Among younger rifle shooters, the more specialized new cartridges should help keep the mediums alive. ■



These mediums are limited in range and versatility, but they hit hard and make large holes. (L.-r.): .338 ARC, .338 Federal, .35 Rem., .350 Legend, .360 Buckhammer, .358 Win., .348 Win.

BALLISTIC COMPARISON

SELECT MEDIUM-BORE CARTRIDGES

Cartridge	Bullet/Weight (gr.)	Muzzle Velocity (fps)	Muzzle Energy (ft.-lbs.)	300 Yd. Drop (in.)
.32 Win. Spl.	170	2,250	1,911	-24.7
.325 WSM	200	2,950	3,866	-6.8
8mm Rem. Mag.	200	3,000	3,996	-6.7
.338 Federal	200	2,630	3,071	-9.2
.338 Win. Mag.	225	2,800	3,918	-7.4
.340 Wby. Mag.	225	2,970	4,407	-6.6
.350 Legend	150	2,325	1,800	-23.6
.35 Rem.	200	2,020	1,812	-25.4
.360 Buckhammer	200	2,217	2,183	-19.1
.358 Win.	200	2,490	2,753	-12.4
.35 Whelen	200	2,800	3,481	-9.4
.350 Rem Mag	200	2,775	3,419	-9.5

Notes: Typical factory loads and factory ballistics. 300-yard drop based on 200-yard zero. 8mm Rem. Mag. figures based on a now-defunct Nosler factory load.

**CO-DESIGNED BY ONE OF THE MOST
SUCCESSFUL INFLUENCERS IN THE WORLD:
THE U.S. MILITARY.**

VCOG



Trijicon

The U.S. Marine Corps needed a tough-as-nails, absolutely precise riflescope that gave warfighters the ability to engage targets from CQB to long range with confidence. Mission accomplished.

Read the full story at
Trijicon.com/VCOG.



THE 10/22 GOES CARBON



Ruger's new Carbon X-22 is possibly the snazziest semi-auto rimfire I've ever put my hands on. It's fitted with a 16.1-inch barrel sleeved in carbon fiber and a lightweight Magpul MOE X-22 stock, and the whole caboodle weighs just 3.5 pounds.

A contender for the most popular .22 semiauto ever—more than 7 million had been sold by 2015, which is the most recent number I have—Ruger's 10/22 design features a simple, incredibly reliable blowback action fed by a unique rotary 10-round magazine. Initially, Bill Ruger gave the 10/22 styling reminiscent

of the M1 carbine of World War II and Korean War fame. It has since morphed into myriad configurations ranging from full-stocked Mannlicher types to chassis-stocked precision variations. It is easily modified and is a favorite for custom builds using aftermarket stocks, barrels and so forth.

RUGER COMBINES A MAGPUL STOCK WITH A CARBON-FIBER BARREL FOR A LIGHT, ERGONOMIC SEMIAUTO RIMFIRE.

by Joseph von Benedikt



I doubt buyers will feel the need to make any modifications to the new Carbon X-22 version. For enthusiasts of light weight, excellent accuracy and extremely good ergonomics, it's just right.

This rifle's heart is the classic 10/22 action, with some refinements. Each Carbon X-22 is fitted with Ruger's BX-Trigger,

which is a darned nice go-switch. It's been engineered to have a distinct reset, which is important to those who revel in rapid-fire capabilities, and minimal overtravel, which is crucial to accuracy aficionados. It's advertised to have a light, crisp pull of 2.5 to three pounds. My test sample measured a tad heavier than that,

registering three pounds, six ounces on a Lyman digital scale. Still, it's an excellent trigger with a very good feel.

Another excellent refinement of the original 10/22 action is the addition of an extended magazine release lever. It's molded against the front profile of the trigger guard, and it's easily activated by the tip of the trigger finger. The lever is ambidextrous, featuring a minimalist flare on each side, and it's low in profile so you won't bump it and drop your magazine accidentally. But at the same time, it's perfectly placed so you'll never miss it when in a hurry to reload.

As for the trigger guard itself, it and the complete "bottom metal" assembly are made of a high-impact composite that Ruger lists as heat-stabilized and glass-filled. It's tougher than a wheelbarrow and much lighter than metal.

Up top, the action has a factory-installed optic rail made of one solid piece of high-strength aluminum. This sure makes it easy to mount a scope. To wring out its accuracy potential at the range I mounted Steiner's new 2-12x42mm H6Xi compact precision scope. It has parallax adjustment that ranges from 25 yards to infinity, so it's ideal for accurate work with a rimfire.

A matte black finish covers the complete action assembly. Composite parts are the natural black of the glass-filled polymer, and the machined aluminum action itself is anodized.

As I like to say, the heart of a rifle is the action, but the soul lives in its barrel. The Carbon X-22 has a beautiful soul. Made of cold-hammer-forged stainless steel, it's sleeved in carbon fiber and features barrel tensioning.

Tensioning is an accurizing method pioneered by handgun silhouette shooters decades ago. In essence, tensioning applies a bit of stretch to the core of a barrel that's sleeved inside a shell. It's a technique being employed in some of the most accurate centerfire barrels on the market today.

Carbon X-22 muzzles are threaded 1/2x28, making it easy to install a suppressor or other muzzle device, and each rifle comes with a tasteful thread protector. I confess I don't enjoy cleaning out the added blowback fouling that finds its way into the action when shooting a

semiautomatic .22 rimfire suppressed, but it's worth the effort.

Barreled actions are mated with Magpul's MOE X-22 stock, which is factory-finished with Magpul's exclusive TSP texture and white speckle on black paint. The MOE X-22 is the perfect stock to marry with lightweight hardware, as it's super light at 18.9 ounces and features wonderful ergonomics.

Sling swivel attachment points are molded into the stock at the tip of the fore-end and in the toe of the stock. A short, two-slot section of M-Lok rail is inletted into the bottom of the fore-end, making it easy to install M-Lok-compatible accessories. For accuracy testing, I installed a disk-lock adapter for a Spartan Vidarr bipod.

Naturally, the fore-end channel in the

Magpul MOE X-22 stock is free-floated, ensuring that no accuracy-degrading contact between barrel and stock will occur.

Ruger's composite trigger guard and magazine assembly fit nice and flush, showcasing Magpul's attention to detail and quality. The pistol grip has a near-vertical angle and is quite slim. The resulting feel is fantastic; it positions the shooting hand and wrist torque-free and the index finger comfortably on the trigger. Trigger reach is close enough for small hands to manage easily yet not cramped for beefy hands like mine.

Aft, the buttstock features a cutout profile on the underside of the stock, which I presume reduces weight and gives the stock a racy look. Contrary to modern precision-shooting design, the

comb of the stock has a discernible rearward slant. Although it doesn't provide the best cheek weld, it seems to help the little .22 mount naturally to the shoulder for a lively, quick-handling feel.

In all, the 10/22 Carbon X-22 is a super attractive, ergonomic and appealing package. Enough so that it elicited involuntary "Oohs" from my two boys and me when we unboxed it.

How does it shoot? To find out, I scrounged up several different .22 LR loads, set up a target on the 50-yard line and went prone with the bipod up front and a bunny-ear sandbag under the buttstock.

My test ammo selection included a variety of loads. Zippiest was CCI's 32-grain Segmented HP, which is a hunting load that features a three-piece fragmenting projectile that I've found is often surprisingly accurate. It's rated at 1,640 fps, which I figured was probably optimistic considering the 16.1-inch barrel. You can compare real-world velocity in the accompanying chart.

CCI's Clean-22 ammo features polymer-coated projectiles said to reduce airborne lead particulates for indoor shooting, while SK Magazine is a stan-



Carbon X-22 rifles use Ruger's rotary magazines. The magazine release is an extended lever, easily activated by the tip of the trigger finger.



Magpul's MOE X-22 stock has a straight, almost vertical grip, and a sling attachment point is molded into the toe of the buttstock as well as the fore-end.

SPECIFICATIONS

RUGER 10/22 CARBON X-22 MAGPUL MOE

TYPE	blowback-operated semi-auto rimfire
CALIBER	.22 Long Rifle
CAPACITY	10-round rotary magazine
BARREL	16.1 in. carbon fiber; threaded 1/2x28
OVERALL LENGTH	34.1 in.
WEIGHT	3 lb. 8 oz.
STOCK	Magpul MOE X-22; textured white speckle on black
FINISH	matte black
TRIGGER	BX; 3 lb. 6 oz. pull (measured)
SAFETY	crossbolt
SIGHTS	none; Picatinny optics rail
PRICE	\$649
MANUFACTURER	Ruger, RUGER.COM

MODEL **2020** BOUNDARY



BOUNDARY



KNOW NO BOUNDS.

The Model 2020 Boundary family of bolt action rifles is expertly crafted for unrivaled precision and quality. With a refined carbon fiber stock and a robust hinged floor plate design, the Boundary offers the sleek lines of a classic hunting rifle with premium, modern features. Built on the custom-grade Model 2020 action, the Boundary is available in long and short action configurations and backed by our .75 MOA guarantee.



**.75 MOA
GUARANTEE**



SPRINGFIELD ARMORY.

[SPRINGFIELD-ARMORY.COM](https://springfield-armory.com)

dard-velocity German-made bulk ammo from a company renowned for affordable but very accurate rimfire fodder.

Remington .22 Thunderbolt ammo features a simple lead roundnose bullet and is often more accurate than it has any right to be. To this collection I added Winchester's classic Super-X roundnose load.

I chose to test the standard-velocity

SK ammo first, figuring its lead round-nose bullets coated with the company's excellent lubricant would give the fresh, new barrel a bit of seasoning. Interestingly, it generated very slow muzzle velocity in the 16.1-inch barrel, averaging just 820 fps. It was so mild it failed to cycle the blowback action most of the time. I have no doubt a zestier but still subsonic standard-velocity load cooking

up 1,000 fps or so in the 16.1-inch barrel would have run the action just fine.

My old accuracy-standard Thunderbolt load didn't shoot well at all in the Carbon X-22. Resulting groups averaged 2.29 inches, which is nearly twice as wide as all the other loads. Most surprising was Winchester's Super-X ammo, which turned in a startling 0.55-inch average at 50 yards. That's terrific accuracy from almost any rimfire, let alone an ultralight semiauto.

Even in the cold, the Carbon X-22 ran with stellar reliability with all high-velocity ammo. No surprise there; it's a Ruger 10/22. Even though I was bundled up in winter clothing, handling was as good as my initial impressions had suggested it would be. The little rimfire carbine shoulders well, points naturally and balances wonderfully.

Because the Carbon X-22 is so ideally suited for use with a suppressor, as soon as I'd completed the standard *RifleShooter* accuracy testing, I spun a three-ounce SilencerCo Warlock 22 rimfire suppressor on the muzzle.

Sound reduction was gratifying. When the X-22 was loaded with the slow-velocity SK rounds, I could just about hear the firing pin strike. I'd hoped that the suppressor would increase back-pressure enough to cycle the blowback action, but it was not to be. With supersonic ammo the little rifle was slightly louder but ran without a hiccup.

Ruger's new Carbon X-22 with Magpul MOE stock is a far cry from Bill Ruger's original 10/22. It retains the incredibly reliable action but boasts a cutting-edge stock made of durable composites.

The stainless barrel is short and has no sights and is wrapped in carbon fiber, plus it's optimized for use with a silencer. From recoil pad to muzzle, the Carbon X-22 is made of materials that shrug off abuse and corrosion and abrasion while providing top-shelf performance and reliability.

Suggested retail price is \$649. I suspect you'll find the Carbon X-22 on dealers' shelves for less than that, but even at full price I think this handy, accurate, ergonomic and reliable rimfire carbine is worth every penny. ■



The carbon-fiber barrel keeps the gun light. The muzzle is threaded 1/2x28 for a suppressor or other muzzle device, and a thread protector is included.



A flush-fit M-Lok rail is embedded in the fore-end for easily attaching a bipod, and there's a molded-in sling attachment point in the fore-end tip.

ACCURACY RESULTS

RUGER 10/22 CARBON X-22 MAGPUL MOE

.22 Long Rifle	Bullet Weight (gr.)	Muzzle Velocity (fps)	Std. Dev. (fps)	Avg. Group (in.)
Winchester Super-X LRN	40	1,170	10	0.55
CCI Clean-22 LRN	40	1,143	26	1.09
CCI Segmented HP	32	1,557	22	1.18
SK Magazine LRN	40	820	28	1.19
Remington Thunderbolt LRN	40	1,187	22	2.29

Notes: Accuracy results are averages of three five-shot groups fired from a bipod at 50 yards. Velocities are averages of 15 rounds measured with a Garmin Xero C1 Pro chronograph. Temperature, 25 degrees; elevation, 4,700 feet. Abbreviations: HP, hollowpoint; LRN, lead roundnose



DXT2 Big Dot Night Sights

See Your Sights Day and Night!

Available in Optic Yellow or Optic Orange



- Tritium equipped front and rear sight
- Photoluminescent Glow Dot surrounding tritium
- Industry leading 0.188" wide front sight
- Simple Dot-the-"i" sight alignment system
- Sight body CNC machined from steel
- 10 Year No Questions Asked Warranty



A NEW CARBINE VERSION OF THE FRANCHI MOMENTUM ELITE IS A HANDY GUN GOOD FOR THE CLIMB OR THE BLIND.

Although there is no denying that longer-barreled rifles deliver higher velocities and downrange energy, this extra performance comes at the expense of overall handling. For generations, a common solution was to swap out the trusty bolt action for a more compact lever-action carbine. While this will always work, the lever's typical chamberings often

cut down the hunter's ethical range to less than 200 yards.

Finding a shot outside of that distance in a woodland setting is a challenge, but should your hunting area include a field, you're likely out of luck if the buck of a lifetime steps out across the way. Reduced-length bolt actions strike a better balance between effective range and agility, and since suppressors are becoming commonplace, they are becoming increasingly attractive. To my point, we have Franchi's new Momentum Carbine Elite—the company's newest, shortest Momentum.

Introduced in 2018, the Momentum lineup continues to see model additions, now including barrel length. At the time of this writing, Carbine Elite chamberings include 6.5 Creedmoor, .308 Win. and .350 Legend. The latter two feature 18-inch barrels, while the Creedmoor gets a 20.

The Momentum series is built with

a short-throw 60-degree bolt, which is the product of its tri-lug configuration. The bolt is milled from a single piece of steel and has a body that is larger than the bolt head, which is the formula for effortless operation.

Driving a smaller diameter part with a larger diameter ram ensures it will more readily clear its pathway and eliminates any binding that would result from canting. It slides within a tubular receiver that is milled from solid bar stock, which is both simple to machine and inherently rugged.

Just as with its shotguns, Franchi takes much pride in its rifle barrels. Like previous Elites, Momentum Carbine Elites feature chrome-molybdenum barrels with hammer-forged rifling. The barrel terminates in a radial brake that is threaded on via a caliber-appropriate thread pitch—5/8x24 in this case. Its slim stature floats it along the stock's entirety, enhancing accuracy and elimi-



ELITE CARBINE

by Frank Melloni

nating any sling tension that would be transferred by the shooter.

My sample was chambered in .308 Win. and had a 1:11 twist. The barrel's longitudinal fluting helps to keep it cool thanks to the added surface area, while shaving weight off in the process.

The rifle feeds from a single-stack detachable three-round magazine, and Franchi generously includes a pair with the rifle. This magazine is comprised nearly entirely of polymer, which has proved itself capable for decades. Polymer is also a good way to drop weight and production costs in one fell swoop.

Magazine swaps are facilitated via the button located inside the trigger guard, which I wasn't particularly fond of, as adrenaline-charged and perhaps frigid fingers shouldn't be anywhere near a trigger except to press it. But if you practice with the rifle and always make sure to place the gun on Safe before operating the mag-release but-

ton—which is a good habit with a hunting rifle anyway—this shouldn't pose a problem.

Trigger weight on the Momentum Carbine Elite is adjustable through the Relia trigger system. Its rated range is two to four pounds, but I have always found it to be adjustable beyond those specifications.

Varying the pull weight involves loosening a locking nut to either adjust in or back out a tensioning screw. On my sample, I found I could crank the pull weight down as far 1.3 pounds or make it as heavy as 4.4 pounds. Of course, thread engagement is minimal at these weights, so it's best to keep it within what Franchi recommends.

The Carbine Elite's polymer stock is built for comfort. The material is light in weight and also weather resistant, which ensures a repeatable point of impact as it will not swell with humidity. The grip, fore-end and the area above

the magazine well are molded to fill your palm to ensure a secure purchase. A coarse checkering pattern is also incorporated to help with damp hands.

The butt features a relieved pocket for those who like placing their hand rearward when shooting from a supported position, and it, too, is checkered. The buttstock also features a removable cheek riser to help better align the shooter's eye with an optic, and the soft TSA recoil pad helps offset the kick that comes with lighter, shorter firearms. Different cheek pad heights and different recoil pad thicknesses are available from Franchi for a custom fit.

The Momentum Carbine Elite marks the release of one of Franchi's three latest camo patterns: Terra. Its generally lighter appearance disappears well when placed against the sky or the thinned vegetation that is typical of late-season hunts. The hints of white also do a great job of hiding the rifle in snow or

sand, both of which were likely back-grounds for my upcoming hunt.

Franchi includes a color-matched Picatinny rail with each rifle, so you can immediately add your favorite glass. I took this opportunity to get some more work done with Burris's new Veracity PH hunting scope. It features a suite of electronics that gives the shooter an instant firing solution based on

an uploaded custom ballistic profile. Although advanced, it has the same physical dimensions as a conventional riflescope, allowing it to be mounted with a standard set of rings.

Not sure what to expect on the hunt, I opted to add a sling as well. Cross-Breed just released its Tracker, a leather sling with a widened, padded shoulder area. Affixing it to the Carbine Elite was

a bit of a challenge because the rifle's stock includes QD sling sockets and M-Lok slotting—but not studs for standard swivels, which is what the Tracker sling comes with. With time running short, I ordered a pair of cheap QD swivels to replace the stock ones on the Tracker, a decision I would later regret.

I was issued a few boxes of Fiocchi's Hyperformance Scirocco load for the hunt, so I promptly zeroed the rifle and input the necessary data into the Burris Connect app on my phone and pushed it over to the Veracity PH. From here, all I needed to do was crank the elevation dial until the number in the heads-up display matched the target distance.

I tested the setup on steel out to 700 yards, and I was able to reliably connect with every target except the farthest. For hunting, I take the farthest steel-target distance that I am comfortable hitting on my first round and cut that in half. This left me with a self-prescribed effective range of less than 350 yards, which I confirmed was enough for where we'd be hunting.



Momentum rifles feature a fat, fluted, tri-lug bolt with a 60-degree throw, and they ship with a Picatinny rail attached to the receiver for easy scope mounting.



The fore-end is set up with both M-Lok slots and a QD swivel socket—as opposed to a traditional sling stud.

SPECIFICATIONS

FRANCHI MOMENTUM CARBINE ELITE

TYPE	three-lug bolt-action centerfire
CALIBER	6.5 Creedmoor, .308 Win. (tested), .350 Legend
CAPACITY	3+1, detachable box magazine
BARREL	18 in. fluted, 1:11 twist; threaded 5/8x24; radial brake installed
OVERALL LENGTH	40.5 in.
WEIGHT	7 lb.
FINISH	Cobalt Cerakote
STOCK	Franchi Terra camo-finished synthetic
TRIGGER	Relia single-stage adjustable
SIGHTS	none; Picatinny rail included
SAFETY	two-position rocker
PRICE	\$1,249
MANUFACTURER	Franchi, FRANCHIUSA.COM

My travels took me to Goose Creek Outfitters (GOOSECREEKOUTFITTERS.COM), run by Scott and LaCaylla Fink in the Sandhills region of northcentral Nebraska. I shared a camp with five other media members, each of us taking the Carbine Elite on one of its inaugural runs. After settling in, we compared notes on the rifle and collected a bevy of data points to work into our evaluations.

Shortly before first light, I was paired up with my hunting partner, David Kelley, and our guide, Matt, to explore the banks of the Dismal River—which, despite its name, is vibrant and full of life. Our best vantage point was atop a hill that overlooked a popular crossing, leaving us with shots that ranged from approximately 110 to 325 yards.

Getting there required a bit of an uphill trek, which helped us appreciate the compact rifles on our backs, as well as the comfortable slings suspending them. However, right at the beginning of our hike I noticed the sudden relief of about eight pounds, followed by a resounding thud. Retrieving the rifle—which was unloaded—I determined that the cheap-o QD sling swivel I'd bought had detached from the rifle's socket. I popped it back in and tested to be sure it was secure, but shortly thereafter it failed again. I carried the rifle in my hands the rest of the way.

We reached our destination, and it didn't take long for a good buck to appear, giving Dave a shot. The deer dropped from a single bullet, and before Dave and Matt headed down to retrieve it, they suggested I stay back to watch in case they kicked anything up.

Since Dave's rifle hadn't suffered two falls like mine had, I planted myself behind his gun, which was equipped with a Dead Air suppressor. As Dave and Matt approached the downed buck, another began to cross the river, heading straight toward them. I decided that he was big enough to shoot, but he was getting dangerously close to those guys.

Fortunately, the buck banked hard in the other direction, putting him about 100 yards away from me and well clear of Dave and Matt. I had forgotten to factor in the downward slope and



Franchi's new Terra camo pattern features a good mix of light and dark shades. The raised comb and TSA recoil pad are replaceable, and the company offers various sizes of both.



The rifle feeds from a detachable box magazine, and Franchi includes two with the gun, something few rifle manufacturers do these days.

ACCURACY RESULTS

FRANCHI MOMENTUM CARBINE ELITE

.308 Win.	Bullet Weight (gr.)	Muzzle Velocity (fps)	Std. Dev. (fps)	Avg. Group (in.)
Sierra MatchKing Competition	168	2,478	11	0.87
Fiocchi Hyperformance SST	150	2,712	13	1.27
Fiocchi Hyperformance Scirocco	150	2,732	21	2.14

Notes: Accuracy results are averages of three-shot groups at 100 yards from a Caldwell Rock Rest. Velocities are averages of 10 shots recorded with a Caldwell G2 chronograph. Temperature, 45 degrees; elevation, 700 feet

put my first round over his back, but the Franchi's short bolt throw helped me send a rapid follow-up shot, dropping the buck where he stood.

All six of us tagged out in a single day, so I soon found myself back on my home range with time to do some formal accuracy testing—plus I wanted to see if the rifle was still zeroed after it had fallen to the ground. It was indeed, which was rather impressive since both times it had landed directly on a turret.

I also found out just how accurate the Carbine could be. Fiocchi's SST load was able to meet Franchi's sub-m.o.a. promise on several occasions, and feeding the rifle match-grade ammunition all but guaranteed this level of consistency.

Franchi's Momentum Elite Carbine proved to be a handy little rifle with tremendous utility and confirmed game-getting reliability. Filling the freezers of half a dozen hunters in a single day is all the proof of concept I need, but meeting the sub-m.o.a. mark with two



The rifle proved itself in the field in Nebraska and later at the range, where one of three loads averaged less than an inch at 100 yards and another was close to that mark.

out of three ammunition types easily sealed the deal.

The velocity loss that comes with the abbreviated barrel did not affect its downrange lethality, and when paired

with a muzzle device it is surprisingly pleasant to shoot. If you're looking for a rifle that is short on length but long on performance, I give the Carbine Elite my highest recommendation. ■

RINGS | MOUNTS | BASES | MAGAZINE EXTENSIONS | PRECISION SHOOTING ACCESSORIES



WARNE

HYPERLITE™



MADE IN USA

The NEW Warne® HyperLite™ scope rings are the ultimate lightweight optic mounting solution. Crafted from our exclusive MagnaFusion™ Alloy, these rings offer a staggering 35% weight reduction over traditional aluminum scope rings without compromising on strength or stability while providing an unbeatable foundation for your optic.

warnescopemounts.com

BERGER.

NEW AMMO FOR 2025



PREMIUM COMPONENTS AND CONSTRUCTION

Berger Ammunition is built for serious competitive shooters, hunters, and firearm enthusiasts who demand the highest level of performance. Assembled exclusively with Lapua cases and Vihtavuori propellants, Berger Ammunition enables you to spend your time on the firing line and in the field - instead of handloading in your basement. Available in the following cartridges:

223 Remington
6mm Creedmoor
6.5mm Creedmoor
6.5 PRC & 300 PRC
260 Remington
308 Winchester

300 WSM **NEW**
30-06 Springfield **NEW**
300 Winchester Magnum
300 Norma Magnum **NEW**
338 Lapua Magnum
338 Norma Magnum **NEW**

NEW FOR 2025



300 WSM HUNTING AMMUNITION



30-06 SPRINGFIELD HUNTING
AMMUNITION



300 NORMA MAGNUM 245 GRAIN
LONG RANGE HYBRID TARGET



338 NORMA MAGNUM 300 GRAIN
HYBRID OTM TACTICAL

SEE ALL THAT'S NEW FOR 2025 @ [BERGERBULLETS.COM](https://www.bergerbullets.com)



#SHOOTBETTER



THE PROFESSIONAL

by Brad Fitzpatrick



**SAVAGE'S NEW
PROFESSIONAL
PURSUIT RIFLE IS
A WELL-ROUNDED
GUN PACKED WITH
PREMIUM FEATURES
FOR HUNTERS.**

Over the past several years, Savage Arms has expanded its lineup of premium 110 rifles, and the latest addition to that family is the Professional Pursuit Rifle or PPR. Loaded with many of the features modern hunters want on their guns, the PPR marks another important evolutionary step forward in the life of the Model 110 rifle.

Since its introduction in 1958, the Savage 110 has kept pace with new developments in the rifle market. However, much of the gun's basic mechanical geometry remains largely unchanged since its introduction—a testament to designer Nicholas L. Brewer's engineering prowess.

At the heart of all Model 110 rifles, including the new PPR, is a push-feed bolt with dual locking lugs. However, the bolt is designed to float slightly, and this allows for two critical things to happen. First, the locking lugs bear evenly in the cutouts in the recesses in the receiver, which eliminates the need for a gunsmith to true the bolt to the action. Second, the head of the cartridge has complete contact with the bolt face. As a result, Savage rifles have enjoyed a reputation for excellent accuracy.

Aft of the forward lugs is a rotating baffle that prevents binding, and there's also a rear baffle that acts as a gas shield. The 110 PPR's enhanced extractor is positioned in the center of the outboard lug, and a pair of plunger-style ejectors extend through the bolt face.

The bolt body itself is spiral fluted and features a Blackout Cerakote finish. The bolt knob is oversize and is threaded 5/16x24. At the center rear portion of the bolt is a silver-colored cocking indicator; removing the bolt requires pressing down on the lever on the right rear side of the receiver and pulling the trigger.

The receiver is made from lightweight stainless steel and is relieved to help keep mass to a minimum. A Cerakote OD green finish protects the metalwork, and the characteristic Savage barrel nut is mated to a 20-inch Proof Research carbon-fiber stainless steel barrel. The 5/8x24 threads on the muzzle allow you to mate a variety of muzzle devices to the rifle, and the PPR comes equipped with Savage's Omniport muzzle brake. Riding atop the receiver is a 20 m.o.a. Picatinny rail for mounting optics.

The barreled action of the PPR rides in a Grayboe Phoenix 2 stock with an earth tone finish (green, tan and brown) and black epoxy spider webbing. The Grayboe Phoenix 2 is an

excellent choice for the PPR because it offers so many of the features that today's shooters and hunters desire. The stock's vertical grip is large enough to accommodate big hands while maintaining a comfortable shooting position. There's plenty of room for the thumb-forward grip style, and since the Savage's three-position safety is located on the tang, the grip/safety combo is one of the simplest and fastest to operate in the field.

Phoenix 2 stocks feature an adjustable comb that can be loosened and adjusted with one hand, and unlike the previous generation of Phoenix stocks, on the Phoenix 2 the comb can be lowered so you can remove the bolt without first removing the comb.

The comb also offers some cant adjustment. The Phoenix 2's comb is set back far enough that it doesn't require a cutout to cycle the bolt, a feature that

was included on the first-generation Phoenix.

In addition to the comb adjustment, there are also spacers that allow length-of-pull adjustment from 12.5 to 13.5 inches. There are flush QD mounting cups positioned on the right and left sides of the stock as well as on the bottom, so you can mount a sling almost anywhere you'd like—a feature that's becoming increasingly popular on today's hunting rifles.

The Phoenix 2's rear side QD cups are mounted higher on the stock than on the previous version of the Phoenix. This allows the rifle to ride closer to the body with less movement when in the field—always a bonus on a hunting rifle.

In addition to the two QD cup mounts on the underside of the fore-end, there are also four M-Lok channels, another feature that today's hunters demand. The M-Lok attach-

ment channels allow the shooter to customize the gun to their needs, and the modular design makes it easy to switch configurations based on your shooting or hunting conditions.

You can attach your sling as well as an Arca rail section or a bipod, or you can keep the bottom open and uncluttered while still attaching a sling to the side of the rifle stock. This makes the PPR configurable to a variety of conditions, from shooting long-range targets to hunting in dense cover.

In 2003, Savage revolutionized rifle triggers with the introduction of its AccuTrigger. The bladed design made it safer than some other designs, and owners could adjust the trigger down to light pull weights.

Minimum pull weight on the PPR is just 1.5 pounds, and the trigger can be adjusted up to four pounds. Out of the box the trigger broke at 2.25 pounds average for 10 pulls on a Wheeler gauge, and the break was clean and well-defined. I didn't see any reason to adjust the trigger for testing.

The trigger guard and magazine frame are one piece, made of polymer. A three-round polymer AICS-style magazine fits flush in the stock, and the paddle-style ambidextrous release is located at the front of the trigger guard. To release the magazine, press forward on the paddle and pull down on the magazine.

Savage says the PPR was designed "for those who spend time chasing wild game." It's clear when you handle this rifle that it was designed with the modern hunter in mind, and its long list of features make it perhaps the best all-purpose Savage 110 bolt gun available today.

The stock certainly plays an important role in the gun's versatility. With its multiple attachment points and adjustability the PPR is a gun that you can customize to fit your needs. The adjustable comb is one of the best I've tested. The side adjustment knob is rather large, although it's not so big it interferes, and it's easy to loosen, adjust and secure—even with one hand. I also appreciate having the ability to cant the comb as needed.



The Savage 110 PPR is built on the proven 110 action. Naturally it incorporates the AccuTrigger, and a 20 m.o.a. Picatinny rail permits easy optic mounting.

ACCURACY RESULTS

SAVAGE 110 PROFESSIONAL PURSUIT RIFLE

6.5 Creedmoor	Bullet Weight (gr.)	Muzzle Velocity (fps)	Std. Dev. (fps)	Avg. Group (in.)
Hornady ELD-X	143	2,551	13	0.84
Federal Center Strike OTM	140	2,542	13	1.06
Remington Core-Lokt PSP	140	2,513	10	1.15

Notes: Accuracy results are averages of three three-shot groups at 100 yards from a fixed rest. Velocity figures are 10-shot averages recorded on a LabRadar. Temperature, 31 degrees; elevation 1,020 feet. Abbreviations: OTM, open-tip match; PSP, pointed softpoint

There's also ample space on the comb so you can obtain proper eye relief without the risk that the end of the comb will jab you in the face when you fire. I've had that happen, and it's not a pleasant experience.

I was slow to join in on the modern stock movement, but now that I have jumped aboard I understand the value of a stock like the Grayboe Phoenix 2. Being able to swap out bipods and other accessories and adjust sling orientation is certainly a benefit.

For example, I like to run a bipod to shoot prone when the conditions allow. It's stable and familiar to me, but in many cases the hunting environment precludes the use of short bipods. You might not realize this until you're actually in the field, and conditions can change from day to day depending on the area you're hunting.

That's no problem with this rifle. I

can lock my Warne Skyline bipod on a segment of Picatinny rail while hunting in open cover, and the next day remove the bipod if I'm hunting in a blind.

I also like having the ability to remove or reattach the sling in a variety of positions as needed. This is also a benefit for those who hunt in a blind. You can carry the rifle sling to your stand and remove the sling with the touch of a button to prevent it clanging on the rail of your stand while you're hunting whitetails.

The new generation hybrid target/hunting rifles like the PPR offer lots of amenities, but several of these guns are impractical in the field simply because they are too heavy or too long. Not so with the PPR. The 6.5 Creedmoor version I tested weighed 7.25 pounds unloaded, and overall length is 41.5 inches. That makes this gun handy, maneuverable and light enough to carry at thin-air elevations.

The PPR's short overall length is due in large part to the fact that the light

SPECIFICATIONS	
SAVAGE 110 PROFESSIONAL PURSUIT RIFLE	
TYPE	two-lug bolt-action centerfire
CALIBER	6.5 Creedmoor (tested), 6.5 PRC, .270 Win., 7mm PRC, .28 Nosler, .308 Win, .30-06, .300 WSM, .300 Win. Mag.
CAPACITY	3-round AICS detachable box magazine
BARREL	20 in. Proof Research carbon fiber, 1:8 twist; threaded 5/8x24
OVERALL LENGTH	41.5 in.
WEIGHT	7 lb., 4 oz.
STOCK	Grayboe Phoenix 2 adjustable; earth tone/black spider web finish
FINISH	Cerakote OD green receiver
TRIGGER	AccuTrigger adjustable; 2 lb., 4 oz. (measured, as received and tested)
SIGHTS	none; 20 m.o.a. Picatinny rail
PRICE	\$2,399
MANUFACTURER	Savage Arms, SAVAGEARMS.COM



In addition to the comb-height adjustment, the Grayboe stock on the 110 PPR also comes with length-of-pull spacers. There are QD cups positioned on the bottom and sides of the stock.

THE PROFESSIONAL

sendero-contour Proof Research barrel measures just 20 inches in length. A rifle like this benefits from a short barrel because so many shooters use suppressors these days, and when you mount an average-length can on a gun

with a 24-inch pipe, the resulting rifle is unwieldy. With my Banish Backcountry suppressor in place, the rifle was still under 48 inches long.

The 20 m.o.a. rail makes it easy to mount optics and offers built-in

elevation for shooters who want to use this rifle to ring steel at extended ranges. For testing purposes, I mounted a Leupold VX-5HD 3-15x44mm, which brought the overall unloaded weight without the suppressor to eight pounds, 13 ounces—not exactly mountain light but certainly manageable.

The PPR proved to be capable of excellent accuracy with loads it liked, and all the ammo in the chart was tested without a suppressor. It went under an inch for all three groups at 100 yards with Hornady's 143-grain ELD-X ammunition, and this rifle/optic/ammunition setup would be extremely versatile for hunting a wide range of game.

The Omniport brake does a good job settling recoil, although the 6.5 Creed-moor hardly classifies as hard-kicking. When I tested the rifle, temps hovered below freezing with wind chills in the teens, so extra layers were the order of the day. Thanks to the PPR's design I could remove or add spacers as needed to get the desired length of pull.



The 110 PPR offers plenty of QD cup and M-Lok attachment points on the fore-end for slings, bipods and other accessories. Rearranging those accessories is fast and straightforward.

MISSION CONFIGURABLE. FIELD READY.

CFS 6-36x50mm F1

The Configurable Field Spotting Scope (CFS) 6-36x50mm F1 was designed with practical field use in mind. An emphasis on balanced ergonomics, flexible configurations, and refined optical quality, while maintaining the ruggedness Nightforce is known for make the CFS ideal for your next adventure.



LEARN MORE



Nightforce is a registered trademark of Nightforce Optics, Inc.
© 2024 Nightforce Optics, Inc. All rights reserved.



NIGHTFORCE
RUGGED. RELIABLE. REPEATABLE.™

The action functioned well and went through the entire test without any issues, but in a few instances I had to fiddle with the magazine to seat it securely. Because it fits flush there are no extended surfaces to grab and strip the magazine either, and on two occasions I had to reach through the action to pop the mag free. The bolt operation is smooth, though, and the three-position tang safety is outstanding.

The barrel channel in the stock is rather large, possibly large enough to catch brush and weeds in the field in very heavy cover, but the overall design of the rifle is superb and the performance was very good.

The one bummer, at least for now, is that there is not a left-handed version of the PPR available. Then again, Savage has been building left-handed guns since 1959, so the odds of getting a southpaw version of this gun are as good as with any major manufacturer.

Suggested retail price for the 110 PPR is \$2,399, which isn't cheap.



The polymer magazine frame and trigger guard are one piece, and the magazine release is a paddle at the front of the guard. The rifle uses AICS-style magazines, and one three-round mag is included.

However, you're getting a proven action with a premium barrel and stock, and with accuracy potential under an inch the Savage stacks up well against other rifles in this price category.

Following a break in production of the Winchester Model 70 in the early 2000s, the Savage 110 is now the longest-production centerfire bolt-

action rifle in the U.S. From the beginning these rifles have been considered "value" guns, but what we've seen from Savage in the last several years—the Ultralite, Impulse, Klym—shows this is a brand that knows how to make premium rifles for discerning hunters who are primarily concerned about performance, not price. ■

ACCURACY YOU'LL NEVER NEED UNTIL YOU DO.

OCCASIONALLY WE'LL GET A CALL FROM AN ANGRY CUSTOMER TELLING US THEY HAND LOAD THEIR OWN AMMO. METHODICALLY LABORING OVER EVERY DETAIL. AND STILL OUR AMMO SHOOTS AS WELL AS OR BETTER THAN THEIRS.



WWW.BLACK-HILLS.COM



TO LOCATE A DEALER NEAR YOU, PLEASE CALL 800.568.6625



BASIC BLACK

by Brad Fitzpatrick _____



**WEATHERBY'S
NEW VANGUARD
OBSIDIAN IS A
BOLT GUN THAT
SHOOTS ABOVE ITS
PRICE TAG.**

Roy Weatherby was a showman. In the days before polymer stocks permeated the rifle market, his high-gloss California walnut stocks, white-line spacers and rosewood-accented Mark Vs were the most eye-catching rifles on any gun rack.

By the late 1960s, Roy was a house-

hold name, but not everyone could afford his sleek Mark V rifles. That prompted the company in 1970 to release the Vanguard, which was called “The only medium priced rifle that lives up to the Weatherby reputation!”

The original Vanguard rifles mimicked the Mark V’s sleek looks, although the aesthetics were a bit less flashy, and they carried a suggested retail price of \$200. When you consider that the Mark V was priced at more than \$300 by then, the Vanguard was certainly the best option for a budget-conscious shooter who wanted a Weatherby rifle.

I wonder what Roy would think of the new Vanguard Obsidian, which is perhaps the most basic rifle to ever wear the flying W logo.

Don’t get me wrong. The Vanguard Obsidian still has touches that hint at its Weatherby DNA. It features a Monte Carlo stock, albeit a black polymer one instead of California walnut. The action—manufactured in Japan by Howa—bears the characteristic trio of relief ports, and the contour of the enclosed bolt shroud mimics that of the Mark V. And, like every other Vanguard rifle, it is guaranteed to shoot 0.99 inch or less for three shots at 100 yards.

Vanguards have always been the least expensive way to own a Weatherby rifle, but the price point of the Obsidian is truly impressive—just \$569, which makes it one of the most affordable rifles on the market. And I think it may offer the best bang for your buck of any bolt gun out there.

The Vanguard used a push-feed, dual-lug action similar to the Remington Model 700—quite unlike Weatherby’s own nine-lug Mark V. The overall design of the action has changed little in the last 50-plus years, and the Obsidian still uses that same push-feed forged steel bolt design. The bolt body is fluted, with the aforementioned vents, and there’s a small cocking indicator that extends below the rear shroud. The bolt handle extends down and back and features a bell-shaped bolt head with texturing.

The sturdy M16-style extractor is positioned just above the outboard lug of the rifle at the two o’clock position. The bolt also features a plunger-style

ejector that protrudes through the recessed bolt face, similar to the Remington 700.

Vanguard receivers are cylindrical but feature a flat metal base and a heavy-duty recoil lug that is flat on the rear surface and angled at the front. The recoil lug rests in a cutout in the polymer stock.

There have been a few upgrades to Vanguard guns over the years. Early guns had a reputation for heavy, creepy triggers, but this was addressed with the development of the HACT two-stage trigger in the 2010s. By removing a lock nut and adjusting the

screw on the front of the trigger housing, you can dial the trigger down to a pull weight of just 2.5 pounds.

Most Vanguard rifles I've tested had trigger break weights around three pounds out of the box, including the Obsidian. Trigger break weight when tested on a Wheeler gauge averaged just a bit over three pounds for 10 pulls.

Another new feature found on all Vanguard rifles since July 2024 is a threaded muzzle. The 22-inch No. 2 contour barrel on the 6.5 Creedmoor Obsidian test rifle has 1/2x28 threads, and with a basic adapter I was able to

add a Silencer Central Banish Backcountry suppressor. There's also an Obsidian rifle with a 20-inch No. 3 contour barrel, perfect for those who like to run a suppressor full-time or need a compact rifle for brush hunting.

Vanguard chrome-moly barrels are cold-hammer-forged, and the 6.5 Creedmoor comes with a 1:8 twist suitable for stabilizing heavy bullets. Both the receiver and the barrel of the Obsidian feature a matte blue finish.

I like that Weatherby went with a classic stock profile and did not resort to adding weird lines to the polymer stock in an attempt to make the gun look "modern." The Vanguard's polymer stock is austere, but the ergonomics are good. There's a palm swell on the pistol grip that fills the hand, and the Monte Carlo stock aligns the shooter's eye with the optic.

Sling-swivel studs are located on the butt and fore-end. In keeping with the Obsidian color scheme, the recoil



The Vanguard has a two-lug action for a 90-degree throw, and it sticks with a traditional scope-mounting setup. The trigger is a clean-breaking two-stage design.



The polymer stock is far plainer than the company's Mark V stocks, but it's rugged, and the Weatherby DNA comes through thanks to the Monte Carlo cheekpiece.

SPECIFICATIONS

WEATHERBY VANGUARD OBSIDIAN

TYPE	two-lug bolt-action centerfire
CALIBER	.223, .22-250, .243, .25-06, .257 Wby. Mag., 6.5 Creedmoor (tested), 6.5 PRC, 6.5-300 Wby. Mag., .270 Win., 7mm-08, 7mm Rem. Mag., 7mm PRC, .308 Win., .30-06, .300 Win. Mag., .300 Wby. Mag., .350 Legend
CAPACITY	4; internal box mag
BARREL	22 in. No. 2 profile, 1:8 twist; threaded 1/2x28
OVERALL LENGTH	42 in.
WEIGHT	7 lb., 6 oz.
STOCK	black polymer, Monte Carlo cheekpiece
FINISH	matte blue
TRIGGER	two-stage; 3 lb., 2 oz. (measured)
SIGHTS	none; drilled and tapped
PRICE	\$569
MANUFACTURER	Weatherby, WEATHERBY.COM

pad is dense. On the test rifle it was well-fitted—no gaps or uneven spots.

Detachable box magazines are quite popular today, but the Obsidian uses an internal box magazine with a steel hinged floorplate and follower. I understand the practical advantages of a detachable box magazine, especially in competition or tactical situations, but for a hunting rifle the internal box is a reliable and sensible design.

I've tested many rifles with detachable box magazines, and they aren't always easy to use. The Vanguard's time-tested internal box has been working well for so many years that changing to a box magazine would amount to solving a problem that didn't exist.

Vanguard rifles have a three-position safety. In the rearmost position it blocks the trigger and locks the bolt. Moving it forward to the middle position blocks the trigger but unlocks the bolt for loading or unloading the rifle. Pressing fully forward allows the rifle to fire. The design is unlike a Winchester wing safety that rotates to three positions around a vertical axis; operation is more akin to a rocker-style safety, albeit with a third position.

Other controls include a bolt stop release button that must be depressed downward to remove the bolt, and a floorplate release that is located on the front of the trigger guard. The floorplate release is tucked neatly out of the way so it doesn't run the risk of dumping the contents of your magazine at your feet about the time you're ready to fire at an animal.

The Vanguard Obsidian was built to be a hunting rifle, so no matter the game you're hunting there's probably an Obsidian chambered in a suitable round. Although traditionally cited as a Weatherby rifle for non-Weatherby cartridges, the Obsidian is available chambered in .257, .300 and 6.5-300 Weatherby magnums, as well as 14 non-Weatherby cartridges ranging from .223 Rem. to .300 Win. Mag.

I'm no stranger to the Vanguard line. I've owned three and have tested at least five other variants, and I had high expectations for the Obsidian test rifle. It didn't disappoint.

With a Burris Fullfield E1 4.5-14x42 scope aboard, the rifle met Weatherby's 0.99-inch accuracy guarantee with Nosler's 140-grain Whitetail Country ammunition, a traditional cup-and-core hunting bullet. One group with the Nosler measured right at an inch, and the next two groups measured 0.94 and 0.82 for a 0.92-inch average.

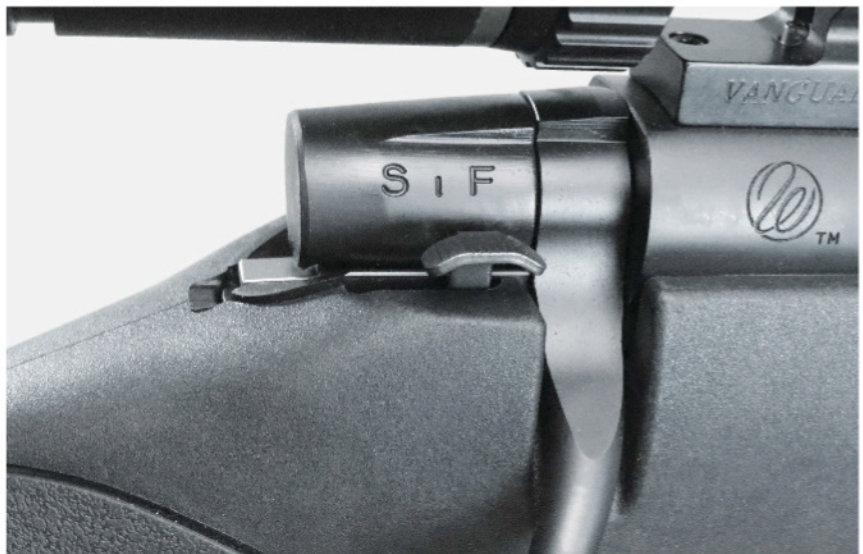
The Vanguard Obsidian 6.5 Creedmoor holds four cartridges in the staggered box magazine and weighs

7.4 pounds. It's not light, but recoil was very mild in this chambering. Adding a can to the rifle makes it a dream to shoot, and it would make a great setup for deer hunters. And if you live in a state that restricts rifles to straight-wall cartridges, you'll be happy to know Weatherby also offers the Obsidian in .350 Legend.

Starting with the budget rifle renaissance of the early 2000s, rifle manufacturers decided that inexpensive hunting guns needed some piz-



The hinged floorplate of the Vanguard Obsidian worked great every time—no need to worry about properly inserting a box magazine.



The rifle has a three-position rocker-style safety, with the middle position allowing the bolt to be cycled with the trigger blocked.

zazz to stand out on store shelves. The Obsidian looks like the offspring of the original Vanguard that debuted in 1970. Sure, it lacks many of the niceties found on other rifles like an optics rail, M-Lok fore-end, muzzle brake and so forth, but the clean, classic lines of the Obsidian make it a winner in my book.

Weatherby has also done a remarkable job of making this gun feel like the true mid-price sporter it envisioned and not an entry-level gun. For proof of this look no further than the thread protector. Some companies do their guns an aesthetic disservice by adding an oversized, knurled thread protec-

tor that seems like an afterthought. At least on my sample, unless you look closely at the Vanguard Obsidian you won't even notice the thread protector—which is as it should be.

Years ago when Weatherby first launched the Vanguard 2, a former marketing professional for the brand told me that one of the primary complaints was that the trigger was “creepy.” This was, of course, a result of ignorance about the mechanics of the two-stage trigger. It does add a layer of safety—the trigger has to travel farther than a single-stage—and I think it looks better than a bladed design.

Like I said, the internal box magazine is a worry-free design, and I didn't have any feeding issues with the Vanguard Obsidian. There were no issues with the bolt riding over top of the uppermost cartridge in the stack, and the ejector tossed the empties clear of the action without striking the scope.

The three-position safety is a beneficial safety feature, and hunters have the option to lock the bolt closed—a benefit in heavy cover. However, I do think there are more intuitive three-position designs. I find the Winchester Model 70 wing safety to be simpler, and I think Ruger's and Savage's three-position tang safeties are the simplest and quietest of all, but the Weatherby's safety works just fine.

The action doesn't cycle as smoothly as rifles like Winchester's XPR and others with full-diameter bolts. Further, the use of two locking lugs instead of three means that the Weatherby requires a 90-degree lift to cycle the action.

And, as I said, the Obsidian is a simple, classic design without the features that some hunters want, such as QD cups and factory-installed optic rails.

The Obsidian, though, is a darn fine rifle. Suitable for hunting most any game, it manages to be inexpensive without looking cheap. The action has proved itself to be trustworthy for over 50 years, and as budget rifles go, the Obsidian is certainly a great value.

In 1970 the original Vanguard sold for \$200, which, when adjusted for inflation, translates to \$1,622 at the time of this writing. The current price of a Vanguard Obsidian is less than a third of that, and the new rifle comes with a better trigger and an accuracy guarantee.

The person who saves and saves hard to buy a new hunting rifle needs to know that the gun he or she purchases will serve them for years to come. The Obsidian might be rather plain, especially compared to some of its Weatherby brand mates, but this blue-collar bolt action offers most hunters everything they need. ■



The Obsidian is unapologetically a budget hunting gun, but it's accurate, dependable and an affordable way to own a Weatherby.

ACCURACY RESULTS

WEATHERBY VANGUARD OBSIDIAN

6.5 Creedmoor	Bullet Weight (gr.)	Muzzle Velocity (fps)	Std. Dev. (fps)	Avg. Group (in.)
Nosler Whitetail Country PSP	140	2,623	14	0.92
Hornady ELD-X	143	2,589	12	1.05
Remington Core-Lokt PSP	140	2,521	11	1.28

Notes: Accuracy results are averages of three three-shot groups at 100 yards from a fixed rest. Velocity figures are 10-shot averages recorded on a LabRadar. Temperature, 31 degrees; elevation 1,020 feet. Abbreviation: PSP, pointed softpoint



INTRODUCING SAVAGE REVEL

A sleek, modern take on the classic lever action rimfire rifle. Crafted with precision engineering and advanced materials, this rifle embodies a fusion of tradition and innovation. Your new go-to backpack rifle boasts timeless aesthetics with cutting-edge performance and a simple takedown. This rifle sets a new standard in rimfire firearms. This is Revel.



**TO LEARN MORE
SCAN HERE**



PRIMING THE PUMP

by Layne Simpson



Jeff John photo

WITH THE MODEL 14, REMINGTON HAD A SLIDE-ACTION RIFLE THAT QUICKLY FOUND FAVOR WITH HUNTERS.

Slide-action rifles have put meat in the pots of American families for a long time. Colt beat the competition to the punch in 1885 with its Lightning magazine rifle in three action lengths: short for the .22 Short and .22 Long rimfire cartridges; medium for the .32-20 Win., .38-40 Win. and .44-40 Win.; and long for cartridges ranging in power from the .38-56 Win. to the .50-95 Express. Lightning production ended at Colt around 1904.

Remington introduced the first truly successful slide-action centerfire rifle in 1909 and called it the Model 14. It was designed by J.D. Pedersen, who later became famous for designing a blowback-operated unit that allowed a soldier in the field to quickly replace the bolt of his 1903 Springfield service rifle and convert it to semiautomatic operation.

The Model 14 was chambered for the .25 Rem., .30 Rem., .32 Rem. and .35 Rem., all introduced by Remington in the Model 8 autoloader in 1906. While

designing the rifle, Pedersen closely studied the Colt Lightning and made improvements that would make his rifle superior in a number of ways.

The major complaint from hunters regarding the Colt was unreliable spent case extraction, and Pedersen solved that problem by incorporating mechanical camming of the bolt that improved primary extraction. This allowed the bolt to reliably snatch a fired case from the chamber, not only when its wall was heavily coated with early smokeless powder fouling but when it was rusty due to neglect on the part of the rifle's owner.

The Colt Lightning could be rapid-fired by holding back the trigger while operating the slide. Remington considered this to be a safety issue, and the trigger of the Pedersen design had to be released after firing before the next shot could be fired.

Determined to make the rifle as foolproof as possible, he made sure the firing pin was blocked from forward travel until the bolt was fully forward and locked into battery. The bolt can then be unlocked only by firing (or dry-firing) the rifle or by pressing a release located on the side of the bolt.

Adding to the safety factor, as the bolt release button is depressed, both sear and trigger movement are blocked, thus preventing the rifle from firing as the bolt begins to unlock. The transverse manual safety button at the rear of the trigger guard is left in its engaged position as the slide is being operated to load or unload the rifle.

Hunters loved the Model 14 for a number of reasons, not least of which was that it was both sleek and lightweight. A receiver without openings protected the inner workings of the action from rain, snow and debris, and that did not go unnoticed. In the event of a case rupture during firing—not exactly uncommon in those days—the solid receiver protected the shooter from escaping propellant gases.

The facsimile of a brass cartridge head embedded in the left wall of the receiver indicated what cartridge the rifle was chambered to. A hole through its center aligned with the breech end of the barrel vented propellant gas in the event of a blown cartridge case.

The magazine holds five rounds, with each cartridge inserted through a window in the bottom of the magazine just forward of the receiver. In those days, most people hunted to eat rather than for sport, and it was not only legal but popular to ground-sluice geese, ducks and other game birds with deer rifles. For this reason, Remington loaded the cartridges for which the Model 14 was chambered with full metal jacket as well as expanding bullets of softnose design.

Having the noses of hard-nose bullets resting against primers was not a good thing in a tubular magazine, so deep spiral grooves in the wall of the Model 14's magazine cant each cartridge just enough to prevent that from happening. The design also prevents cartridges from rattling in the magazine.

On Remington's later Model 760 pump gun, parallel steel bars are fastened to a steel tube to which the pump "handle" is attached. Pumping the slide to and fro cycles the bolt. Since

the fore-end of the Model 14 is firmly attached to the tubular magazine, both travel together for cycling the bolt. Remington advertisements played up the fact that the separate cartridge carrier in lever-action rifles was not needed, therefore the Model 14 action cycled more smoothly.

Rifles capable of being easily taken down were quite popular in those days, and Remington stayed with that trend. Rotating the head of a through-bolt on the left side of the Model 14 receiver allowed the stock and trigger assembly to be pulled downward and away from the receiver.

Doing so transformed a rifle that measured 40.75 inches long to a 27.5-inch package that could be stowed in a canvas or leather carrying case available from Remington at extra cost.

Company advertising took another jab at the competition by stating that unlike the interrupted thread connection between the barrel and receiver

of other takedown rifles, the Model 14 would not become loose from wear during numerous takedowns and reassemblies over the years. The promotional message went on to emphasize that the Model 14 action was as strong as that of any solid-frame rifle.

As was customary among all rifle manufacturers in those days, the front sight ramp of the Model 14 barrel was machined integrally with the barrel rather than made separately and attached. Open sights were standard, but various receiver-attached or tang-mounted aperture sights were available at additional cost.

The common use of telescopic sights was still years in the future, and most hunters used open or aperture sights. Much to the chagrin of future collectors, when scopes did eventually arrive, the solid-top receiver and side ejection of spent cases made the Model 14 perfect for drilling and tapping for mounting one.

The field-grade Model 14 was rather plain, with no checkering on its American walnut stock. A carbine version an 18-inch barrel called the Model 14R was also offered.

Remington offered higher grades on a special-order basis. Moving one step up in price bought the Model 14-C Special, with its figured walnut and nicely executed checkering coverage. Next in line for more money was the Model 14-D Peerless, with European walnut and a lightly engraved receiver.

Then came the Model 14-E, with even fancier finish and engraving. At the very top was the Model 14-F Premier, which in addition to more engraving had the finest Circassian walnut replete with elaborate checkering pattern, along with a gold name plate bearing the lucky owner's initials. The Premier's stocks had curved grips, and those above the standard grade were available with no grip cap, or grip caps made of steel or horn.

My rifle is a Model 14-C in .35 Rem. It has cut checkering on its nicely figured stock, the optional red rubber recoil pad, QD sling swivel posts and a Lyman folding tang sight. I love that little rifle. It weighs seven pounds, handles like a



J.D. Pedersen solved the extraction problems that plagued the Colt Lightning pump rifle, and he incorporated numerous other features to make the Model 14 reliable and foolproof.



Spiral grooves in the wall of the tubular magazine cant cartridges to prevent bullet noses from resting against primers.

dream and will always be a pleasure to spend time in the woods with.

With most loads it averages around three inches at 100 yards, with an occasional group close enough to two inches to make me smile. The smallest cluster fired thus far was with Federal ammunition. Two of the 200-grain bullets went into practically the same hole and the third cut into the first two.

Another variation called the Model 14½ in .38-40 Win. and .44-40 Win. was introduced in 1914 in both rifle and carbine styles. Unlike the Model 14 chambered for other cartridges, the wall of its tubular magazine did not have the spiral grooving. The half-magazine version held eight rounds while the full-magazine version filled with 11 rounds was quite popular among prison guards.

The most unusual Model 14½ variation I have owned through the years had the safety on the side of its bolt rather than at the rear of the trigger guard. It was basically a sliding plate that could be moved to the upper position for Safe and to the lower position for Fire.

Due to horizontal grooves machined into its surface, collectors call this a “thumbnail” safety, for good reason. One of the worst designs to appear on any firearm, it was extremely difficult to operate when wearing gloves and impossible to manage with a cold, wet thumb. That probably explains why it appeared on very few rifles.

Just over 125,000 Model 14 and Model 14½ rifles had been produced when both were replaced by the Model 141 Gamemaster in 1934. At that point in time the .35 Rem. had become the most popular. Few rifles in .25 Rem. were sold, so it was dropped. Barrel lengths were increased to 24 inches for the rifle and 18.5 inches for the carbine.

The front sight ramp was machined separately and attached to the barrel with screws. Stock and fore-end were increased in size and that, along with the longer barrel, increased the weight of the rifle to 7.75 pounds.

Through the years I have owned and hunted with several Model 141s and consider it one of the all-time great deer

rifles, but I still prefer the trimness and lighter weight of the Model 14.

Another unusual variation I used to own was a carbine in .30 Rem. with a Model 14 barreled action and a Model 141 stock and fore-end. During the transition, Remington still had a few Model 14 barreled actions on the shelf but no wood for them, so it fitted them with Model 141 wood.

Remington’s great pump gun enjoyed some success with hunters all across the country, but its stronghold was the Northeast, where most shots at deer and black bears were at fairly close range. Longtime friend Dick Dietz, who was with Remington for many years, told me that more were sold in Pennsylvania than in all other states combined.

That’s mainly because semiautomatic rifles were not allowed there for hunting, and when it came to getting off a well-aimed follow-up shot at a whitetail bouncing along through thick timber, the pump gun was about as fast as the autoloader.

When Model 141 production ceased in 1950, prices ranged from \$48 for the standard grade to just over \$300 for the Premier grade. Its 1952 replacement, the Model 760 Gamemaster, was not as handsome, and stampings had replaced machined steel parts, but it could be more accurate. It was equally reliable and most important of all, at \$104 it was available in .30-06, .300 Savage and .270 Win. The .35 Rem. made a comeback in 1953. ■



The facsimile of a brass cartridge head embedded in the receiver indicates chambering and includes a hole to vent gases in the event of a case rupture.



Cartridges are loaded in the magazine through a hinged gate at its bottom, and a spring-loaded follower feeds the action.

ROSSI
EST. 1889



POWER AND PRECISION

IN A CLASSIC PACKAGE.

357 MAG | 44 MAG | 444 MARLIN | 30-30 WIN | 360 BUCKHAMMER | 45-70 GOVT.

Delivering exceptional ruggedness and versatility, Rossi® R95 lever-action rifles offer a thrilling, dependable experience for shooters who demand the very best from their gear. The R95 is now available in a wide variety of calibers along with multiple finishes and barrel lengths—offering enhanced shooting options for hunting, target practice and more.



RossiUSA.com

THE LAST WORD

Continued from page 64

Thigpen brought his standby .270 Wby. Mag. as always.

Then there are the mavericks. Often, I resemble that remark. I'm hoping to take my Kansas buck with a Marlin 1894 in .44 Mag., topped with an Aimpoint red dot. It's a poor choice at several of our blinds, but it's just fine for most tree stands in the woods where I'm taking it.

I was pleased that I'm not the only hunter who places value on history. I mentioned we had two .270s, and the hunters brought them not just because they like them but because they also knew that 2025 is the .270's centennial.

THEN THERE ARE THE MAV-ERICKS. OFTEN, I RESEMBLE THAT REMARK. I'M HOPING TO TAKE MY KANSAS BUCK WITH A MARLIN 1894 IN .44 MAG.

Ruger collector Lee Newton always brings a special No. 1. This year, with the .300 H&H also turning 100, Lee brought a No. 1 in .300 H&H dressed in awesome wood. And Kevin Perry brought a gorgeous custom .300 H&H by Kevin Weaver. We've never had a .300 H&H in our camp before, and in 2024 we had three.

This year, my Maverick of the Year award goes to Dr. Richard Saloom. He brought a vintage Sako in 7x64 Brenneke, the European equivalent to .280 Rem. As backup, he brought an older Steyr-Mannlicher, also in 7x64.

It's the first time we've seen that cartridge. Although it's uncommon in this country, you bet it worked well on a nice Kansas buck—as would dozens and dozens of good deer cartridges. ■



mtm®
CASE-GARD™
QUALITY SHOOTING SPORTS ACCESSORIES

**GETTING IT THERE IS EASY
WITH MTM® CRATES**

MADE IN THE USA

**11 SHAPES AND SIZES
ALL SEALED WITH AN O-RING
AT MTMCASE-GARD.COM**



LEHIGH DEFENSE
ULTIMATE BULLET PERFORMANCE

SCAN QR CODE to learn more about our Tipped Xtreme Chaos bullets.

POWER PERFECTED.

FEATURED

TIPPED XTREME CHAOS .308 CAL. 165 GR. **LEAD-FREE BULLETS**

The Tipped Xtreme Chaos rifle bullet delivers massive energy transfer with unmatched precision and performance.

- Five projectiles create multiple wound channels
- Bullet base expansion of up to 50%
- Deep, straight-line penetration

ULTIMATE BULLET PERFORMANCE® SHOP NOW AT [LEHIGHDEFENSE.COM](https://lehighdefense.com)

Deer Camp Guns 2024

We've been doing our Kansas Timber Trails whitetail camp for 15 years, and I wish I'd kept a complete list of all the rifles and cartridges used, but I do have lists from recent seasons. It's a small bellwether of current tastes, what's hot and what's not. Since I'm too set in my ways to instantly fall for new whiz-bangs, hunting camps are often where I first see new cartridges actually used.

In 2007, Steve Hornady and Dave Emary introduced the 6.5 Creedmoor, describing it as a "long-range target cartridge," designed for accuracy, efficiency and to get an aerodynamic bullet out as far as possible before going subsonic—with minimal recoil.

Designing engineer Emary said, "We don't expect big sales from this cartridge, but competitive shooters like it."

Nobody expected it to become one of our best-selling centerfires. I didn't, and I had no immediate interest. I first saw it used in my Kansas deer camp a year later. Today, we see a couple Creedmoors every season.

I also first saw a 6.5 PRC in our Kansas deer camp. Retired Navy SEAL Kevin James flattened a nice buck, which is no surprise since the 6.5 PRC is ballistically identical to the old .264 Win. Mag., albeit with a modern, efficient case.

This efficiency leads to longer barrel life. Rapid throat erosion is one of the faults of the overbore-capacity .264, but the two are identical in field performance and are big hammers on whitetails.

Our guests understand that we can't offer long-range shots in our timbered ridges. Fast magnums aren't needed and few of our hunters bring them,

unless it happens to be a favorite rifle, which is always valid and more important than ideal suitability.

Our woods stay dark late and get dark early. Bright optics are essential, but range isn't needed. So far, I'm the only person on my place to take deer with .30-30s, with both an Aimpoint red dot and a riflescope. With optics, a .30-30 is fine for most of our stands.

Whitetail habitat and terrain vary, dictating shooting distances, thus changing selection of rifles and cartridges. One of the places I'm lucky to hunt now and then is friend Zack Aultman's place in south Georgia. There the mature pine forest is sterile, but the woodlots are striped with long food plots and bisected by endless power line rights-of-way, and a rifle for his country needs some reach.

run to newer cartridges. I carried a Ruger No. 1 in .300 H&H, shooting 150-grain handloads at screaming velocity.

I'd hunted with the 6.8 Western, a good short-action cartridge, but Austin's .338 RPM was the first I've seen in the field. Not quite as fast as the .338 Win. Mag., it offers a more compact case with increased magazine capacity. Shooting a light bullet loaded fast, Austin stalked an old, heavy Oklahoma buck, flattening it. My Oklahoma buck also dropped in its tracks.

Our first Kansas group came in two days after I got back from Oklahoma, and it's always fun for me to see what everybody brings when they check zero at 100 yards in the pasture the day before the hunt.

There are always a couple of mav-

WHITETAIL HABITAT AND TERRAIN VARY, DICTATING SHOOTING DISTANCES, THUS CHANGING SELECTION OF RIFLES AND CARTRIDGES.

I got my first experiences with all three PRCs—6.5, 7mm and .300—there, and while Zack is partial to those rounds, his favorites also include .270 Wby. Mag., .30-06 Ackley Improved and several Jarrett proprietary cartridges.

This fall, Oklahoma's rifle season fell before ours, so I went south to hunt with friend Austin Brown. I'd never been down to his country, and while it's just 60 miles away, it's quite different—lower ridges, fewer trees, much open prairie.

Austin had a Mark Bansner rifle in .338 Wby. RPM. His friend, Ohio knife maker Evan Siembida, was wielding a Browning X-Bolt in 6.8 Western. Considerably younger than me, their tastes

ericks, along with some of the usual suspects. Among the latter group were two 6.5 Creedmoors, two .270 Wins., two .308s, one 7x57 and one 7mm-08. Our shots rarely exceed 150 yards, so those are all good choices.

Somebody usually brings a .30-06—a big gun for deer though always effective—but not this year. Two hunters brought .30-06s as backups but didn't use them.

Magnums aren't necessary, but they work and we always see a few. Ryan Murray and Mike Deasey both brought .300 WSMs because they're favorites. No tracking was needed for their bucks. Fellow retired Marine Col. Jim

Continued on page 63

Howa™

NEW

22 ARC

VARMINT / TARGET PRECISION MINI ACTIONS



- Available in 22" Std, 20" Steel Light Varmint & 20" Carbon Fiber
- Threaded Barrel / Suppressor Ready
- Machined Receiver & Forged Bolt
- Large Integral Front Barrel Lug
- Tool-Less Firing Pin Removal
- Mini Actions Also Available in .223, 762x39, 6.5 Grendel, 350 Legend, 6mm ARC
- M-16 Style Extractor
- 5 rd Detachable Mag
- 3 Position Safety
- 12% Shorter Bolt Throw Than Std. Short Actions

22 ARC outperforms all 22 caliber cartridges in its class
22 ARC rivals 22-250 performance from a mini action
22 ARC dual-purpose match and varmint applications
22 ARC designed to take advantage of today's long ogive, high-BC bullets



FOR MORE INFORMATION
ABOUT HOWA'S 22ARC MA



SUB-MOA
GUARANTEE

LIFETIME
WARRANTY



FOR MORE INFORMATION VISIT: LEGACYSPORTS.COM
 CATALOG OUT NOW - REQUEST YOUR FREE COPY TODAY: 1.800.553.4229



LegacySportsIntl



LegacySportsInternational

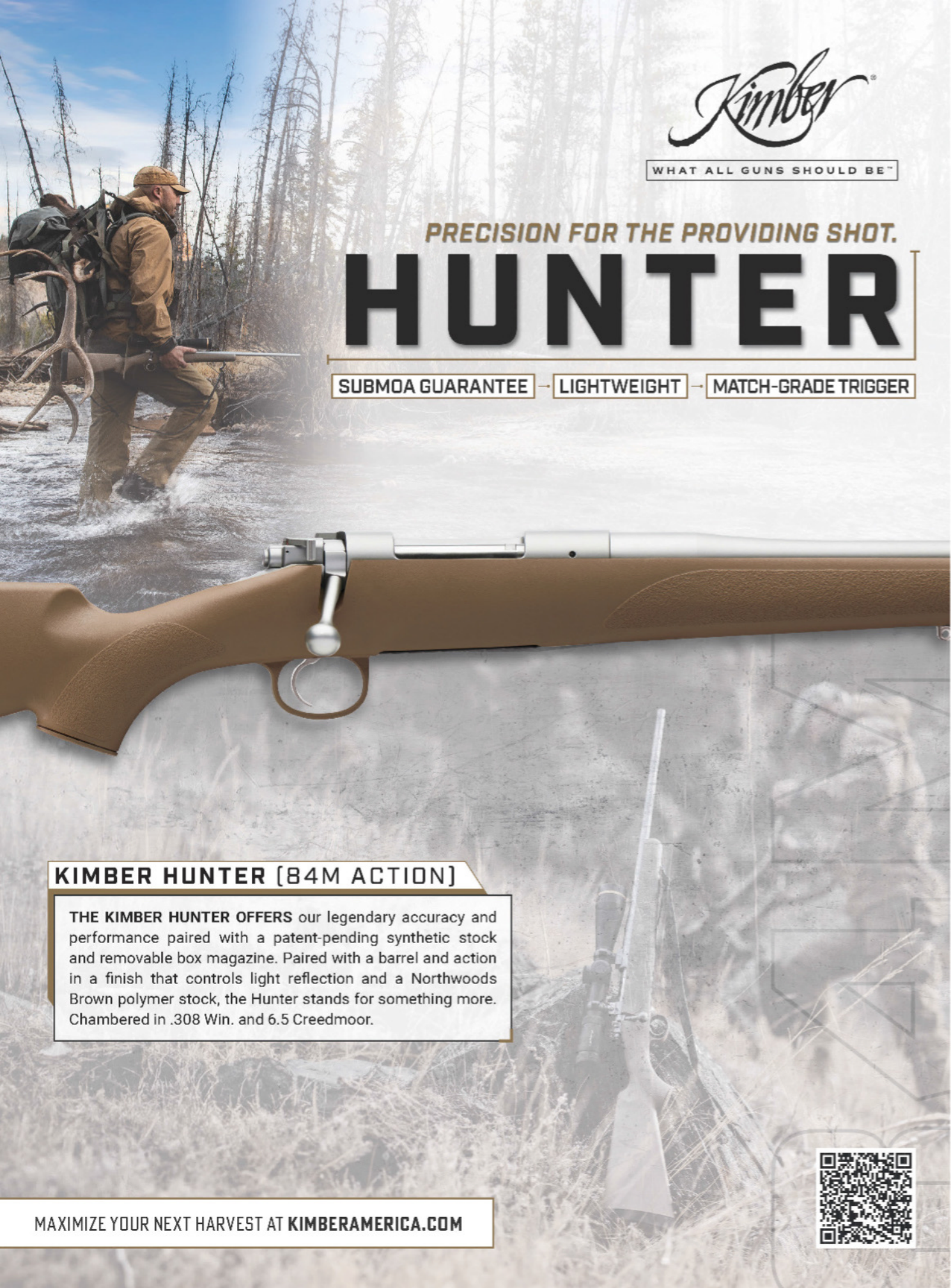


LegacySportsInt

LEGACY
SPORTS
INTERNATIONAL®



LEARN MORE AT
HORNADY.COM



Kimber®

WHAT ALL GUNS SHOULD BE™

PRECISION FOR THE PROVIDING SHOT.

HUNTER

SUBMOA GUARANTEE — LIGHTWEIGHT — MATCH-GRADE TRIGGER

KIMBER HUNTER [84M ACTION]

THE KIMBER HUNTER OFFERS our legendary accuracy and performance paired with a patent-pending synthetic stock and removable box magazine. Paired with a barrel and action in a finish that controls light reflection and a Northwoods Brown polymer stock, the Hunter stands for something more. Chambered in .308 Win. and 6.5 Creedmoor.

MAXIMIZE YOUR NEXT HARVEST AT KIMBERAMERICA.COM

