

»» SPECIAL CARTRIDGE ISSUE! ««

RIFLESHOOTER

MESA Ti

CHRISTENSEN'S NEW
TITANIUM EDITION
GETS IT RIGHT



GREAT CALIBERS

- OLD WARHORSES THAT STILL ROCK
- .222 REM. FAMILY
- THE 6.5 EXPLOSION

BRAVO'S .300 BLK

SWEET COMPLETE
AR-15 FROM BCM



LOADING FEDERAL'S
TERMINAL ASCENT

RUGER AMERICAN
RIFLE HUNTER

DAISY RED RYDER
CELEBRATES 80 YEARS

**GALLERY
OF GUNS**.com

1,000'S OF FIREARMS

**ROCK SOLID
GUARANTEE**

**DAVIDSON'S
Guaranteed**
LIFETIME
REPLACEMENT

NO HIDDEN FEES
-OR-
TRANSFER FEES



EXCLUSIVE FIREARMS
YOU WON'T FIND ANYWHERE ELSE!



LIKE THIS ONE!



Ruger 10/22 Takedown with FDE Magpul Stock
#31138 • 22 LR • 10+1 • 16.13" Barrel



4

REASONS TO GET YOUR NEXT FIREARM
AT GALLERYOFGUNS.COM!

©2020 Davidson's, Inc. All Rights Reserved.

FIOCCHI[®]

COMPETES



LANNY BARNES
OLYMPIAN & WORLD CHAMPION

Fiocchi competes and dominates on the competitive shooting circuit. World-class shooters choose Fiocchi ammunition for reliable accuracy. Our superior components, derived from innovation, Old World craftsmanship and our 140-year heritage, produce the most-accurate and reliable ammunition on the market. **Trust Fiocchi when your best shot counts.**



3G

Three Gun

FIOCCHI TRAINING DYNAMICS

FIOCCHI[®]

VIEW OUR ENTIRE LINE OF AMMUNITION AT

FIOCCHIUSA.COM    

FEATURES

24 High Climber

Christensen's newest Mesa shows that titanium rifles can be affordable.

by Brad Fitzpatrick

32 Old Warhorses

Five historic cartridges with a military heritage that still soldier on today.

by Craig Boddington

42 Bravo!

BCM's complete rifle in .300 BLK has the goods.

by David M. Fortier

48 Triple Deuce

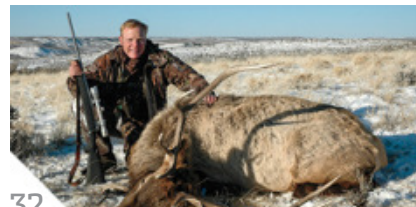
The .222 Rem., great in its own right, also spawned other terrific rounds.

by Layne Simpson

54 The 6.5 Phenomenon

A look at the current crop of 6.5mm cartridges and how they stack up.

by Joseph von Benedikt



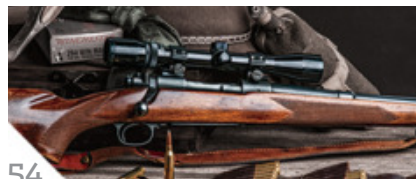
32



42



48



54

DEPARTMENTS

6 Commence Fire

Reader feedback and other cool stuff

8 Lands & Grooves

- Daisy Red Ryder 80th
- .300 Ham'r vs .350 Legend
- .26 Macho wildcat

16 Tactical Technology

Ruger upgrades the American with a new Magpul stock.

David M. Fortier

20 All That Brass

Loading tips for Federal's new Terminal Ascent big game bullet.

Joseph von Benedikt

64 The Last Word

The last old-time gunsmith

Craig Boddington

RIFLE REPORTS



60

Ruger 77/22 Hornet

by Stan Trzonic



"The Champ"

Team Ruger Captain, Doug Koenig

Be **Original**

The Ruger® 10/22® rifle has been put to the test by more than just beginners. With our high-end Ruger® Custom Shop offerings, professionals like World Champion Doug Koenig are turning to the reliability of a proven winning rifle for competition. When it comes to competing at the highest levels, he knows that performance is everything. He and the rest of Team Ruger agree - there is nothing quite like an original.



THERE IS ONLY ONE 10/22®

RUGER.COM/1022



RUGER®
ONLY 10/22®

Get a Clean Shot of the Inside
So you can make clean shots outside every time.

BORECAM™ PRO Wireless Digital Borescope

Inspect your bores for wear, throat erosion, tool marks, rifling damage, and copper or lead fouling with the new Lyman Borecam Pro.

- Easy to use apps for iOS and Android phones or tablets
- Wireless WiFi operation
- 720P Resolution for a clean, sharp image
- Fits 20 caliber & larger barrels
- Takes photos and video
- 24" long rod

Lyman
Brands that Perform

www.LymanProducts.com

RIFLESHOOTER

RIFLESHOOTERMAG.COM

PUBLISHER MIKE SCHOBY

EDITORIAL STAFF

EDITOR IN CHIEF **J. SCOTT RUPP**
ART DIRECTOR **HEATHER FERRO**
STAFF PHOTOGRAPHER **MICHAEL ANSCHUETZ**
COPY EDITOR **MICHAEL BRECKLIN**

CONTRIBUTING EDITORS

CRAIG BODDINGTON, BRAD FITZPATRICK, DAVID M. FORTIER, RICK HACKER, PAYTON MILLER, LAYNE SIMPSON, JON R. SUNDRRA, JAMES TARR, STAN TRZONIEC, JOSEPH VON BENEDIKT

KATHRYN MCGLOTHLEN, PRODUCTION MANAGER
AL ZIEGLER, PRODUCTION COORDINATOR

ENDEMIC AD SALES

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

ACCOUNT DIRECTOR-DETROIT OFFICE
KEVIN DONLEY (248) 798-4458

NATIONAL ACCOUNT EXECUTIVE-CHICAGO OFFICE
CARL BENSON (312) 955-0496

DIRECT RESPONSE ADVERTISING NON-ENDEMIC
ANTHONY SMYTH (914) 693-8700

RIFLESHOOTER (ISSN # 1095-4090), July/August 2020, Volume 22, No. 4. Published bi-monthly by OUTDOOR SPORTSMAN GROUP®, 1040 6th Ave., 12th Floor, New York, NY 10018-3703. Periodical postage paid at New York, NY, and at additional mailing offices. POSTMASTER: Send address change (Form 3579) to RifleShooter, P.O. Box 37539, Boone, IA 50037-0539. Return undeliverable Canadian addresses to: 500 R. 46 East, Clifton, NJ 07011. Canada Post Publications Mail 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 rfcusterserv@cdsfulfillment.com, or call

TOLL FREE 1 (800) 627-7975.

BE AWARE THAT PETERSEN'S 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 Petersen's 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 \$19.94 (U.S., APO, FPO, and U.S. possessions). Canada add \$13.00 (U.S. funds) per year, includes sales tax and GST. Foreign add \$15.00 (U.S. funds) per year.

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

OUTDOOR SPORTSMAN GROUP®
1040 6th Ave., 12th Floor
New York, NY 10018-3703

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

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

Printed in the U.S.A.



A good day at the range...we make it easy.



AMERICAN FAMILY OWNED
MANUFACTURING IN THE
U.S.A. SINCE 1968

MTM MOLDED PRODUCTS COMPANY - (937) 890-7461 - WWW.MTMCASE-GARD.COM

OUTDOOR SPORTSMAN GROUP®

PUBLISHING & BRANDED MEDIA

PRESIDENT & CEO Jim Liberatore

CHIEF OPERATING OFFICER, PUBLISHING & BRANDED MEDIA
Mike Carney

EVP, GROUP PUBLISHER & OPERATIONS
Derek Sevcik

VP, CONSUMER MARKETING
Peter Watt

VP, MANUFACTURING
Deb Daniels

SENIOR DIRECTOR, PRODUCTION
Connie Mendoza

DIRECTOR, PUBLISHING TECHNOLOGY
Kyle Morgan

SENIOR CREATIVE DIRECTOR
Tim Neher

OUTDOOR SPORTSMAN DIGITAL

DIGITAL EDITOR, HUNTING
Drew Pellman

EDITORIAL DIRECTOR, FISHING
Jeff Simpson

FOR QUESTIONS REGARDING DIGITAL EDITIONS,
PLEASE CONTACT
DIGITALSUPPORT@OUTDOORS.G.COM

MEDIA
OUTDOORS.G.COM

FISHING
BASSFAN.COM
FLORIDASPORTSMAN.COM
FLYFISHERMAN.COM
GAMEANDFISHMAG.COM
IN-FISHERMAN.COM

HUNTING
BOWHUNTER.COM
BOWHUNTINGMAG.COM
GUNDOG.MAG.COM
PETERSENSHUNTING.COM
NORTHAMERICANWHITETAIL.COM
WILDFOWLMAG.COM

SHOOTING
GUNSANDAMMO.COM
HANDGUNS.COM
RIFLESHOOTERMAG.COM
SHOOTINGTIMES.COM
FIREARMSNEWS.COM

TELEVISION
OUTDOORCHANNEL.COM
THESPORTSMANCHANNEL.COM
WORLDFISHINGNETWORK.COM

COPYRIGHT 2020 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.

ROSSI

VALUE AND PERFORMANCE

ROSSI'S NEW RIMFIRE LINE

ROSSI RIMFIRE RIFLE SERIES

ROSSI22M

Rossi's rimfire line adds a new dimension to our small bore rifle offerings. Available in both bolt and semi-auto actions, these rifles feature high-performance button-rifled barrels for improved accuracy and an ergonomic, Monte Carlo textured stock for maximum comfort.

Optic not included

Ergonomic, Monte Carlo textured stock for optimized handling

Semi-Auto (.22 LR) and Bolt (.17 HMR / .22 LR / .22 WMR) Actions

18" barrels on .22 LR's and 21" barrels on .22 WMR and .17 HMR

ROSSI

ROSSIUSA.COM

SAFETY NOTE: Always wear ear and eye protection when shooting firearms.
(Images shown are for marketing purposes only and are not intended as safe firearm handling examples.)

R700 & H1500 Carbon Fiber SPRING SALE!

NEW!

Under 2 lbs.

VG2™ CF Rem 700 Howa 1500

Stocky's

VG2 Carbon Fiber \$549 save \$100

NEW!

Only 20.0z.

PROOF Research

PROOF HUNTER \$799 save \$50

Stocky's

ph (561) 584-8500
America's Gunstock Specialists!

INSTANT SHIPPING

www.NewRifleStocks.com

EXPERT SUPPORT



"I'm cleaning my .303 Enfield as we speak! Heading to the range tomorrow!"

JVCASS86 responding to our Instagram post asking which of the cartridges above is your favorite. For the whole story, read Craig Boddington's "Old Warhorses" feature article beginning on page 32 of this issue.



.30-30 Tribute

I just read Craig Boddington's great May/June article in my favorite gun magazine. It was wonderful in every way, paying tribute to possibly America's favorite centerfire rifle and caliber: the .30-30 Win. Craig only seems to improve with time. Keep up the great work, my friend!

Norm Cooter

Hodgdon Retires

Chris Hodgdon is retiring from day-to-day operations at the company his family founded three generations ago. "One of the first things I noticed about Chris was his passion for reloading and the shooting sports," said Steve Kehrwald, president and CEO of Hodgdon. Those in the



shooting and hunting community who had the good fortune to get to know Chris would share those sentiments, and they also know what a true gentleman he is. We at *RifleShooter* wish him the best and hope he now gets to spend more time reloading, shooting and hunting.

It's Ham'R Time

Wilson Combat's .300 Ham'r cartridge was recently accepted by SAAMI. The cartridge's approved maximum average pressure is 57,500 psi. Designed for a wide variety of sporting and defensive uses, the round is optimized for the AR-15 and bullets in the 95- to 150-grain bullets, with velocities ranging from 2,280 fps to 2,770 fps.



CCI for Steel

CCI's Clean-22 Steel Challenge is now the official ammo for the Steel Challenge Shooting Association. The round features a 40-grain polymer-coated bullet that produces less fouling—especially in suppressors. Forty-six percent of Steel Challenge competition is done with rimfires, according to the association.



NOW AT RIFLESHOOTERMAG.COM



Remington 700 Magpul Enhanced



Springfield M1A Tanker

CONTACT US

EMAIL Rifles@OutdoorSG.com

INSTAGRAM, TWITTER @RifleShooterMag

FACEBOOK facebook.com/RifleShooterMag

SNAIL MAIL RifleShooter, P.O. Box 271245, Fort Collins, CO 80527

ADDRESS CHANGES/SUBSCRIPTION QUESTIONS

EMAIL RFLCUSTSERV@CDSFULFILLMENT.COM

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



ALL FOR ONE. FIT FOR ALL.

**GET A GUNSMITH FIT
RIGHT OFF THE SHELF.**

The Savage 110 family with AccuFit™ features interchangeable comb risers and length of pull inserts for a customized, precise fit and consistent range accuracy. **Learn more about AccuFit at www.SavageArms.com/AccuFit.**



Model 110 with AccuFit™

SAVAGE®

BETTER COMES STANDARD.



You Won't Shoot Your Eye Out, Kid

THE RED RYDER
CELEBRATES 80
YEARS WITH A
SPECIAL EDITION.

by Layne Simpson

"A Christmas Story" is one of my favorite movies because it does a wonderful job of depicting small-town America as it was during my innocent youth. And just like Ralphy in the movie, at a very young age I began subtly pestering my parents for a special Christmas present. Mom never budged but Dad, possibly seeing an eventual hunting buddy in me, placed a Daisy Red Ryder carbine with my name on it beneath our tree. And what

a terrific gift it proved to be.

During summers, the Red Ryder chalked up long strings of one-shot kills on huge grasshoppers that invaded our farm. Mockingbirds, robins and cardinals were off-limits, but chipmunks digging up the flower garden and pesky English sparrows were fair game.

The biggest and most fun quarry was huge rats that inhabited our four-story barn. I loved to sit quietly in the darkness and when a rascally rodent was heard rustling in the hay, a sudden beam of light from my trusty Little Beaver flashlight would cause it to freeze in place just long enough to receive a speeding BB between its beady eyes. A side-on shot through the shoulders was equally deadly.

The design of the Red Ryder was completed in 1938, but it was not given that name until 1940. To celebrate its uninterrupted production to this day, Daisy has introduced an 80th anniversary version. A metal medallion with the inscription "1940-2020, 80th Anni-

versary", is inlaid into the left-hand side of its stained, hardwood stock. The same inscription appears on the fore-end. Branded into the opposite side of the stock are Red Ryder and his horse Thunder with Red's unfurled lariat spelling out his name.

From a distance, the latest Red Ryder looks the same as the 1950s rifle of my youth, but close examination reveals differences. Both have a capacity of 650 BBs and a saddle ring replete with rawhide thong. But the new rifle has a loading gate on the side of the barrel instead of the rotating steel cap of the original, and the metal cocking lever has been replaced by plastic.

Engaging a transverse safety blocks trigger movement. Sights consist of a ladder-adjustable notched leaf at the rear and a ramped blade up front, so not much change there.

I wish Daisy air rifles were not now made in China, but it's better to see that than today's kids missing out on the thrill of having a Red Ryder. The receiver and barrel are stamped with

the usual safety warnings.

The Red Ryder is spring powered, and because it is gravity-fed its muzzle has to be pointed upward as it is being cocked. As BBs are heard rolling to the rear, one will appear at a small port in the top of the barrel, just forward of the fore-end retention band. Begin pulling the lever and when the seventh click is heard, a large coiled spring connected to a piston is fully compressed and latched into position.

Closing the lever and pulling the trigger frees the piston to speed forward and compress air in a chamber. Forcing the compressed air to exit through a small port increases its velocity, and a BB exits the smoothbore barrel at, according to Daisy, 300 to 350 fps for a maximum distance of 195 yards.

It is not a toy, and due to the possibility of a steel BB bouncing back toward the shooter when striking a hard object, safety glasses should be worn. An occasional drop of oil through a small hole in the side of the barrel keeps spring and piston travel smooth and trouble-free.

I had never bench-tested a Red Ryder prior to discovering the 80th Anniversary rifle and a supply of BBs beneath our Christmas tree. As I gathered up my new blue-steel beauty



Special treatments to honor the 80th birthday of an American icon, the Daisy Red Ryder, include anniversary markings and medallions. Changes from the original include a loading gate on the side and a transverse safety.

and rushed outside to punch holes in paper, my wife smiled and jokingly quipped, “Don’t shoot your eye out.”

Five, five-shot groups at 20 feet averaged less than an inch. Even bigger surprises were a velocity spread of six fps and a two fps standard deviation. All BBs zipped clean through two back-to-back layers of 0.150-inch cardboard and then through a third layer positioned eight inches behind them.

Probably due to a shifting breeze, average group size increased to 1.8 inches at 35 feet where only two of the 25 BBs failed to completely penetrate

the third layer of cardboard. I now see why those big rats dropped in their tracks. With the rifle zeroed at 20 feet, it still shot precisely to point of aim at 35 feet. Windage was dead-on at both distances.

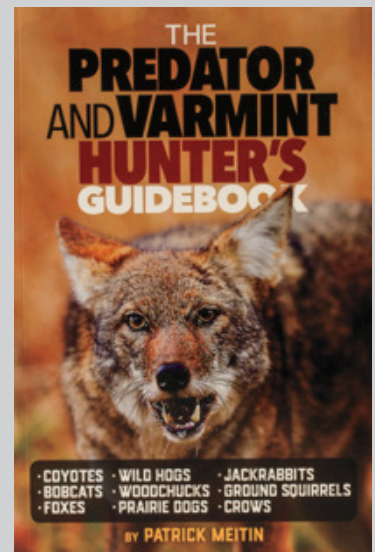
Suggested retail price for the 80th Anniversary Red Ryder is \$35, and the memories alone are well worth more than that. A savvy shopper, Santa bought mine at Walmart a couple weeks before Christmas for \$24. A 2,400-count bottle of BBs was \$3.57. The Red Ryder is as much fun to shoot now as it was back when. ■

The Predator and Varmint Hunter's Guidebook

It's that time of year when lots of serious rifle shooters turn their attention to shooting varmints and predators—either as a tune-up for fall big game seasons or because it's their passion. It's certainly Patrick Meitin's passion, and over the course of 270-plus pages he dispenses tons of advice based on his experiences. Topics range from setups and calling to species and shooting, and the book is well-illustrated with color photographs. For rifle (and handgun) fans, there's a wealth of information on firearms, ammunition and optics for everything from prairie dogs to wild hogs.

I think *RifleShooter* readers will especially like the chapter on cartridges, and Meitin expands on this in his chapter on pet loads. He gives recipes for .22 Hornet and K-Hornet, .221 Fireball, .222 Rem., .223 Rem. (for several different rifles), .22-250 Rem., 220 Swift, .243 Win., .257 Roberts and .25-06 Rem. He also has a separate section here for .223 loads for wild boars, which, of course, are considerably tougher than other varmints.

There's a lot of good info on rifles, optics and suppressors as well, plus advice on long-range shooting. Softbound, \$25, KRAUSEBOOKS.COM—JSR



GARTRIDGE CLASH » Brad Fitzpatrick

.300 Ham'r vs .350 Legend

Bill Wilson is a dedicated hunter with a special affinity for hunting hogs. In 2005, he began searching for a competent hunting cartridge for pigs, deer and similar-size game that worked in AR-15 rifles. He tried the .300 Whisper, .30 Rem. AR and .300 BLK, but none suited him.

Then he worked with Kurt Buchert to bring Buchert's 7.62x40 cartridge to market, but Wilson still felt it didn't improve terminal ballistics as much as he would have liked. So Wilson lengthened the throat by .060 inch, lengthened the case by .040 inch, and saw a 100 fps jump over the 7.62x40. The .300 Ham'r was born, and recently it was SAAMI approved.

The .350 Legend debuted a year after the .300 Ham'r, and like the Ham'r, it was designed with a specific audience in mind: deer hunters in straight-wall-only states like my native Ohio who wanted a low-cost, light-recoiling gun that was lethal on whitetails out to 200 yards or so.

Though it shares the same .378-inch rim diameter as the .223 Rem., the Legend's cartridge case is a new design, and it will propel the company's .357-inch 150-grain Extreme Point bullet at 2,325 fps from a 20-inch barrel. A .30-30 rifle with a 20-inch barrel firing the same bullet manages 2,205 fps. The .350 Legend generates about 1,800 ft.-lbs. of energy with that load, which is about 200 ft.-lbs. more than the .30-30, and the Legend retains 903 ft.-lbs. of energy at 200 yards.

The 1.71-inch case falls in line with straight-wall state regulations and, perhaps most importantly, the .350 Legend is pleasant and affordable to shoot. Recoil is less than a .243 Win. rifle of similar weight, and practice ammo costs less than a dollar a round. It's a sensible round for moderate-range deer hunting, and it functions in

both AR and bolt-action rifles.

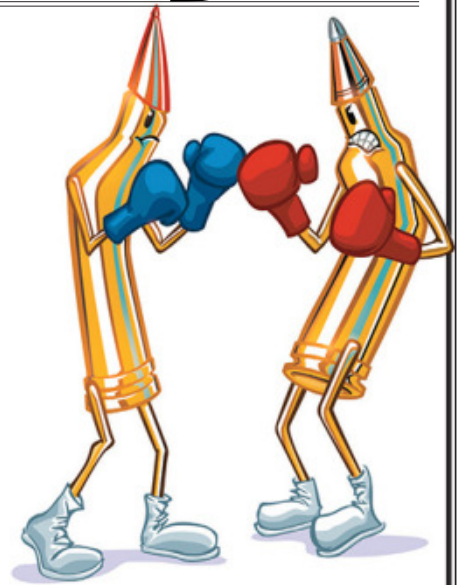
Like the Ham'r, the .350 Legend is SAAMI approved. It's worth noting that most factory .350 Legend ammo uses .355-inch bullets, but that doesn't preclude it from use in straight-wall states with .357-inch minimums as of this writing.

The ballistics of the two cartridges are fairly similar. With a 16.25-inch barrel the .300 Ham'r fires a 125-grain Hornady SST bullet at 2,290 fps and generates 1,747 ft.-lbs. of muzzle energy. Rifles in .350 Legend with 16-inch barrels achieve 2,225 fps and produce 1,649 ft.-lbs. of punch at the muzzle.

When both loads are zeroed at 100 yards, the .300 Ham'r load with 150-grain SSTs drops 6.6 inches at 200 yards as compared to 8.5 inches for the .350 Legend. The .300 Ham'r is also carrying about 300 ft.-lbs. more energy at that distance than the Legend.

The .300 Ham'r is optimized to shoot bullets from 95 to 150 grains and was not intended to use subsonic bullets. The .350 Legend, by contrast, fires a wide range of bullets and greatly varying velocities. At the bottom end is the 124-grain full-metal-jacket load from Browning at 2,500 fps, and the heavyweight Legend load is the open-tip subsonic load weighing in at 265 grains and traveling at 1,060 fps.

Federal, Winchester, Browning and Hornady offer .350 Legend ammunition, and all of it is affordable. Wilson



Combat offers more than a dozen different Ham'r loads on its website with prices as low as \$14 per 20. Wilson also offers in-depth loading data.

In terms of rifle availability, you'll find lots of low-cost options for the .350 Legend. Several companies offer affordably priced bolt guns that are ideal for whitetail hunting, and you can also purchase AR uppers in the caliber. Just note the the .350 Legend does not work with standard AR-15 mags.

Right now only Wilson offers complete .300 Ham'r rifles or barrels (.300 Ham'r runs with a standard 5.56 bolt). The .300 Ham'r will work in 5.56 magazines, but it's better-suited to .300 BLK mags.

.300 HAM'R

HITS

- Good trajectory and energy
- Easy to convert an AR-15
- Wide selection of hunting, defense loads

MISSES

- No bolt-action rifle options
- Sole-source ammunition
- No subsonic loads

.350 LEGEND

HITS

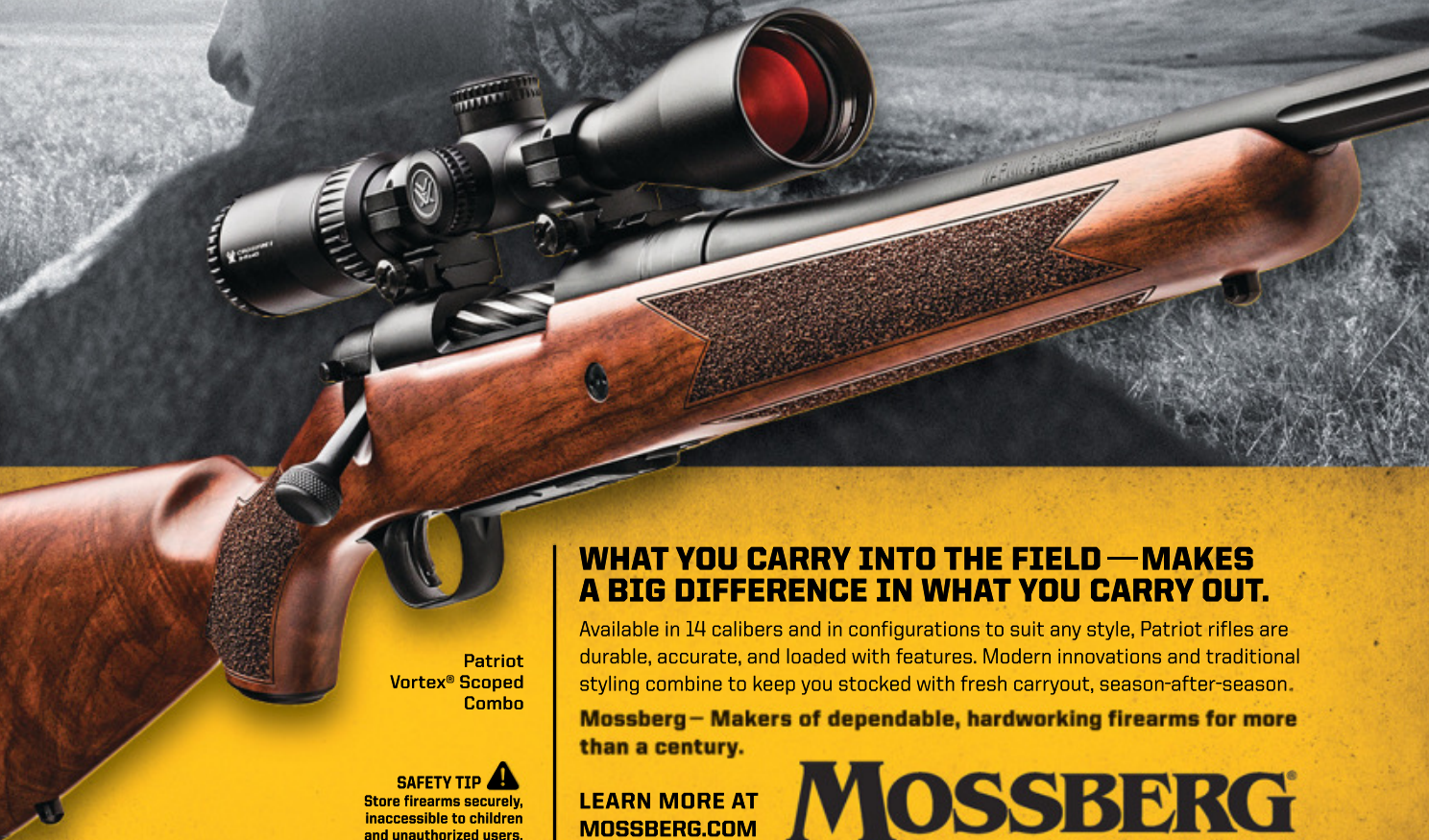
- Legal for deer in straight-wall states
- Low-cost practice ammo available
- Good selection of low-cost rifles

MISSES


- Inferior ballistics to .300 Ham'r
- Harder to convert AR-15
- Accuracy generally not on par with Ham'r

MOSSBERG | PATRIOT RIFLES

**RIFLES
BUILT FOR
THE LONG
HAUL.**



Patriot
Vortex® Scoped
Combo

SAFETY TIP 
Store firearms securely,
inaccessible to children
and unauthorized users.

**WHAT YOU CARRY INTO THE FIELD — MAKES
A BIG DIFFERENCE IN WHAT YOU CARRY OUT.**

Available in 14 calibers and in configurations to suit any style, Patriot rifles are durable, accurate, and loaded with features. Modern innovations and traditional styling combine to keep you stocked with fresh carryout, season-after-season.

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

LEARN MORE AT
MOSSBERG.COM

MOSSBERG
SINCE 1919

Wildcat Notes: .26 Macho

The genesis of the .26 Macho came during a benchrest match in May 2014. Fellow competitor Steve Grosvenor brought up the idea to build a custom cartridge. I thought the idea was interesting, so together we started planning. The goal was simply to develop an accurate hunting cartridge that would be devastating on deer-size game. We decided to explore the .264/6.5mm caliber, which is known for its inherent accuracy and healthy bullet selection.

Steve did a lot of research and decided on the .260 Rem. as the parent case. The .260 has shown it will digest a lot of different powders has decent velocity and low recoil.

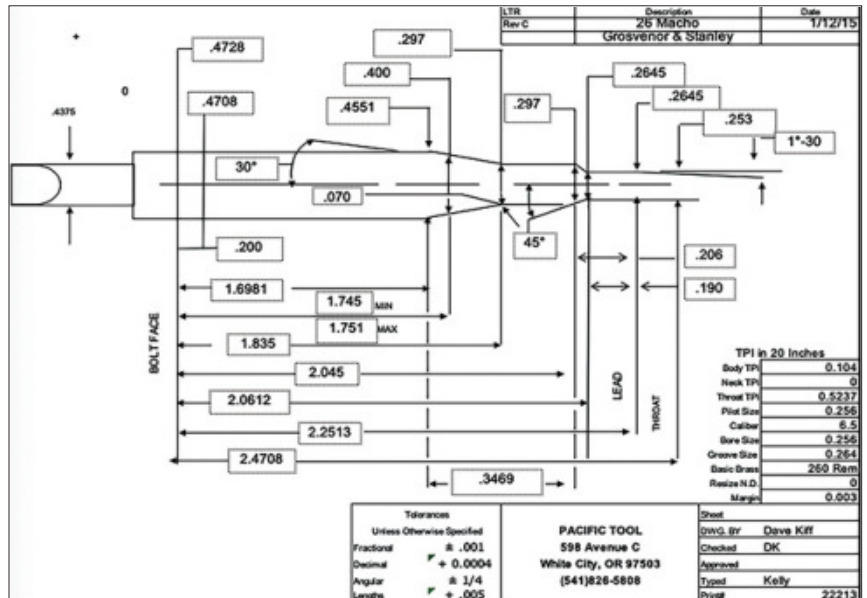
Most .26 caliber bullets are long, slender, boattails, but I wanted a shorter, flat-base bullet that would not have to be seated deeply in the case. We also wanted a bullet heavy enough for deer-size game but light enough to get some decent velocity. We settled on the Sierra 120-grain Pro Hunter bullet.

We did not want to turn our case necks, so we decided on a .297-inch neck, which would give our loaded case necks slightly over .002-inch clearance over the heel of the bullet.

We wanted the proven accuracy and reliable feeding of a 30-degree shoulder angle, along with more case capacity than the .260 Ackley Improved provides. We ultimately decided upon pushing the shoulder forward roughly .080 inch to accomplish this. The .26 Macho ended up with 56.4 grains of water capacity—a significant increase over the .260 Rem.'s 52.8 grains.

We sent our reamer dimensions to Dave Kiff at Pacific Tool and Gauge. Kiff gave us a few recommendations, and we received the finished chamber reamer in early 2015. The project also required custom dies, and I sent three fired cases and a copy of the reamer print to Hornady's Custom Shop. A few weeks later, two perfectly made dies arrived in the mail.

To fire-form the brass, I took Lapua



.260 Rem. brass, loaded it with a stout load of H4350, used a lot of neck tension and seated the bullet long to engage in the rifling. It took two firings to really sharpen things up.

For load work-up, I started with H4350 because it is a proven powder in both the .260 Rem. and .260 Ackley. I knew I would be safe by starting with a low powder charge at 41 grains, and I worked my way up by shooting a ladder-load test at 200 yards. (*Editor's note: To learn more about this, visit our website and search for "ladder test."*)

The sweet spot ended up being around 48.5 grains of H4350. I started shooting groups with powder charges in that range. The proven winner with H4350 was 48.7 grains, with multiple groups at 100 yards under half an inch.

I then experimented with different powders, neck bushings, and seating depths to see if I could find a better load. I tried Reloder 15, Reloder 16, Reloder 17 and H4831 SC. All produced sub-one-inch groups at 100 yards, which tells me the Macho is a

WARNING: The loads here are safe only in the guns for which they were developed. Neither the author nor Outdoor Sportsman Group assumes any liability for accidents or injury resulting from the use or misuse of this data.



The .26 Macho's parent case is the .260 Rem. (l.), with a 30-degree shoulder that was pushed forward about .080 inch.

good eater just like its parent case. The 48.7-grain charge of H4350 (.293 bushing, CCI BR2 primer) became my go-to load. It pushes the 120-grain Sierra from a 26-inch barrel just shy of 3,200 fps—a pretty good boost over the 2,900 fps the .260 Rem. does with the same-weight bullet.

After three successful seasons and three different bucks, it is rewarding to report that we met our goal. The .26 Macho can accurately propel the 120-grain Sierra bullet to speeds great enough to allow the bullet to create a devastating wound channel on deer-size game.—Jason Stanley

BE YOUR OWN PROTECTOR

WITH THE PROTECTOR SERIES FROM WILSON COMBAT®

Light Weight
M-LOK® Rail

Wilson Combat®
Match Grade Barrel

Mil-Spec Forged
Upper and Lower

MSRP \$1999.95
(Optic Not Included)

2-Stage Tactical
Trigger Unit

Black Nitride, Mil-Spec
Bolt Carrier Group

5.56 Nato, 300BLK
or 300 HAM'R
Right or Left Hand



QUALITY YOU CAN TRUST

SERVICE YOU DESERVE

SINCE 1977

CARBINE OR PISTOL MODELS AVAILABLE

Learn more at www.wilsoncombat.com

NEW GEAR » J. Scott Rupp



Thompson/Center Performance Center T/CR22

Featuring a new carbon-fiber barrel and cool thumbhole stock, the Performance Center T/CR22s have style to spare. The barrels are 18.375 inches long and are threaded 1/2x28. They're fitted to a 6061 machined aluminum receiver with Picatinny rail. A brown laminated thumbhole stock is shown here, and this stock style is also offered in blue and red laminates. T/CR22s have oversize bolt handles and easy-to-operate magazine release levers. The rifle feeds from a 10-round rotary magazine, and it accepts Ruger 10/22 mags and some other 10/22 components.

>>\$642, TCARMS.COM



MTM Case-Gard Screw-It Deluxe Bore Guide Kit

Bore guides are an integral part of any serious cleaning regimen. The Screw-It kit is designed to work with both bolt actions and ARs, and an AR link and collar nut are included. The interchangeable tips provide a tight chamber fit to prevent bore wear. The kit works with bolt diameters 0.695 inch or smaller and is compatible with cleaning rods up to 0.375 inch in diameter.

>>\$15, MTM-CASEGARD.COM

DROP INTO A McMILLAN[®] UPGRADE YOUR REM-STYLE ACTION INSTANTLY

Introducing **McMillan's** NEW Z-Series Stock. This stock utilizes a universal inlet that fits Remington[®] and Remington[®] clone barreled actions. Built from the ground up to incorporate the most requested features packaged in a drop-in fiberglass stock. It's now possible to own an off-the-shelf high-performance McMillan stock. Drop into one today.





Tract Toric 10x50mm

This power is a new addition to the Toric line from Tract Optics, and it features renowned Schott HT glass and fully multicoated lenses for superior clarity, resolution, light transmission and color accuracy—plus an anti-scratch coating to protect the lenses during tough use. The exit pupil is 5mm for great performance in low light. The magnesium alloy body is argon-filled, and the binocular is fogproof and waterproof. It has multi-step eyecups and a locking diopter, which is handy in the field.

>>\$744, TRACTOPTICS.COM

Trijicon Tenmile

The new Tenmile scopes are intended for long-range shooters. The Tenmiles provide 100 m.o.a. of adjustment and are available in six matte-finished models from 3-18x44mm to 5-50x56mm, with 30mm or 34mm tubes depending on model. They feature illuminated reticles, and can be had in first- or second-plane formats and in either mills or m.o.a. adjustments. They have a zero stop, easy-focus eyepiece, and the magnification throw levers can be repositioned to accommodate various shooting positions.

>>\$1,399–\$2,675, TRIJICON.COM



Hornady Subsonic

Suppressors are all the rage, but to be truly quiet, you need ammo that runs slower than the speed of sound. Enter Hornady Subsonic. Its Sub-X bullets have lead cores and grooved gilded metal jackets, plus a flat profile and Flex Tip insert for sure expansion at subsonic velocities. New loads include .30-30 Win. (175 grains), .450 Bushmaster (395) and .45-70 Gov't (410). All are targeted for muzzle velocities of 1,050 fps.

>>\$33–\$45, HORNADY.COM



Rifle Components and Scope Sold Separately.

NEW McMillan® Z-Series

Fits any Remington-style action and barrel.

- Universal inlet for most popular Remington® clone actions and most barrel contours. Actions include: APA, Defiance, Bighorn, Stiller, Lone Peak, Surgeon, Ultimatum® and more!
- Features a low top line to eliminate the need for bolt release inlets and port cuts.
- The Z-1 ergonomic grip and built-in thumb-shelf helps optimize hand placement for trigger control and comfort.
- Available in right-handed configurations.



LEARN MORE AT: MCMILLANUSA.COM

by David M. Fortier

An American at Heart

WITH THE NEW HUNTER, RUGER TAKES ITS POPULAR RIFLE LINE TO THE NEXT LEVEL.



The Ruger American Rifle Hunter features a polymer Magpul stock, 20-inch heavy profile barrel, M-Lok slots, muzzle brake and detachable box magazine at an affordable price.

Ruger's American Rifle caught the attention of many shooters. Here was a nicely built rifle capable of excellent out-of-the-box accuracy at an economical price. There is a lot to like about the action, but the factory plastic stock left a bit to be desired as a precision rig as opposed to a hunting rifle.

And then there was the magazine. Many shooters wished it took a readily available popular model already in common use. Having the option of buying a magazine with a higher capacity would be a plus as well.

Well, Ruger listened to the feedback and responded with the American Rifle Hunter. While still being economical, it features a Magpul stock and feeds from popular AC-pattern magazines—definite improvements, in my opinion. Available in two popular calibers, .308 Win. and 6.5 Creedmoor, I chose the latter to review for this article.

The heart of the rifle is a beefy, modern-looking action with a bit of European flair. The American Rifle's design is a distinct departure from the Mauser 98-based Model 77 line.

Gone are Ruger's proprietary integral scope bases; they've been replaced by a conventional aluminum scope rail with 1913-type slots—but not for its entire length. Due to this a 1913 one-piece

mount may or may not fit, although you could change to a different rail if you wanted to.

The fat bolt has three locking lugs, a beefy claw extractor and plunger ejector. It features cock on opening, and dual cocking cams ease the initial upward bolt stroke. Machining on the bolt body is a little rough, but it's nothing to complain about.

The three-lug bolt features a relatively short 70-degree rotation which enhances speed. An easy-to-reach tang safety is southpaw-friendly and out of the way of low-mounted optics.

The cold-hammer-forged barrel is 20 inches long and rifled with a 1:8 twist (as tested), allowing shooters to use a wide range of bullet weights. The barrel tapers from approximately 1.15 inches just ahead of the receiver to 0.85 inch just behind the muzzle threads.

The muzzle features 5/8x24 threads for attaching muzzle devices and comes with a Ruger hybrid muzzle brake installed. The brake reduces recoil while minimizing noise and blast to the sides of the shooter. The rifle features Ruger's Marksman adjustable trigger, which can be set between three and five pounds.

Rather than a traditional Mauser

style internal box magazine, the American Rifle Hunter feeds from a Magpul five-round 7.62 AC detachable box magazine. The magazine release is an easy to reach ambidextrous paddle at the rear of the magazine well.

The good-looking gray synthetic

SPECIFICATIONS

RUGER AMERICAN RIFLE HUNTER

TYPE	three-lug bolt action
CALIBER	6.5 Creedmoor (tested), .308
CAPACITY	5-round detachable box magazine
BARREL	20 in. cold hammer forged, 1:8 twist, 5/8x24 threads
OVERALL LENGTH	41.25–43.25 in.
WEIGHT	9.2 lb.
STOCK	Magpul Hunter American
FINISH	matte black
TRIGGER	Ruger Marksman adjustable; 4.5 lb. pull (measured, as received)
SIGHTS	none; optics rail
SAFETY	two-position tang
PRICE	\$799
MANUFACTURER	Ruger, RUGER.COM

FOLLOW YOUR T/C® COMPASS®



COMPASS II®





THOMPSON/CENTER


www.TCARMS.com


#TCompassII



 [facebook/tcarmsco](https://facebook.com/tcarmsco)

 [twitter/tcarmsco](https://twitter.com/tcarmsco)

 [instagram/tcarmsco](https://instagram.com/tcarmsco)

 [youtube/tcarmsco](https://youtube.com/tcarmsco)

 MADE IN USA

Magpul Hunter American stock is adjustable for length of pull via a spacer system. Spacers are included. Comb height is easily adjustable using different-height combs, but no spares are included, so you will have to purchase these from Magpul.

M-Lok slots are provided at three, six and nine o'clock on the fore-end. A sling slot is provided on the left and right side of the butt. Overall length is 41.75 inches (with a 13.5-inch length of pull), and weight comes in at 9.2 pounds.

I was turned off by the stock on the original American, and the Magpul stock is a welcome option. It is ergonomic, comfortable and easy to adjust while also keeping the rifle's weight and price down. However, you must remove the included cheek riser in order to install or remove the bolt. This is simple enough and requires removing only one screw.

A 20-inch barrel would not be my first choice for a 6.5 Creedmoor if I was

competing with it, but it's fine on a hunting rifle. The shorter barrel is handy if you plan on mounting a sound suppressor. I like the bolt's short rotation, and it's a fairly smooth and fast action once you get the feel for it. The trigger is also quite good. It exhibited no creep and broke crisply at 4.5 pounds with almost no overtravel.

I found magazine swaps to be fast, although I do wish the entrance to the mag well was a bit wider for when first inserting the magazine. Rounds fed smoothly from the magazine and extracted and ejected cleanly.

For testing I installed a Meopta Meopro 5-30x56mm RD FFP Optika 6 scope. The rifle performed quite well. The brake and soft recoil pad make it comfortable to fire, so recoil is not an issue. The fairly wide and flat fore-end as well as the butt sit nicely on bags. While the pistol grip is bit smaller in diameter than I'd prefer, overall I found it comfortable.

Accuracy firing from a rest at 100 yards was good. Results are shown in the accompanying table. Best single group came using Federal's 140-grain OTM Gold Medal Match— 0.5 inch.

Moving to firing off a Harris bipod, I proceeded to stretch the Ruger's legs a bit. Starting at 280 yards I worked my way out to 800 yards while engaging various steel plates. At 500 yards I also fired a five-shot group with the Federal load and was rewarded with a 3.7-inch cluster.

With the reduction in velocity from the 20-inch barrel you will notice a bit more wind drift, but such is life. At 800 yards I was able to make consistent hits on an eight-inch plate. Next, I did some position shooting and shot from a "tank trap" and other improvised supports. Across the board the Ruger American Rifle Hunter performed well.

While the Magpul stock is not perfect, it's certainly a nice upgrade. Yes, the bottom metal is polymer and the stock is not as rigid as a more expensive piece. Even so, it performed well. What do I like best about the Ruger American Rifle Hunter? Its \$799 suggested retail price. For the money it's a pretty nice deal.

Buy it now. Log on to GALLERYOFGUNS.COM, select this firearm, pay a deposit and it will be at your local gun store in two days. When purchased from GALLERYOFGUNS.COM, Davidson's guarantees to repair or replace this firearm for life.

ACCURACY RESULTS

RUGER AMERICAN RIFLE HUNTER

6.5 Creedmoor	Bullet Weight (gr.)	Muzzle Velocity (fps)	Std. Dev. (fps)	Avg. Group (in.)
FEDERAL GOLD MEDAL MATCH OTM	140	2,618	22	0.68
HORNADY ELD MATCH	140	2,633	23	0.75
BLACK HILLS GOLD/HORNADY ELD MATCH	147	2,587	24	0.80

Notes: Accuracy results are averages of four five-shot groups fired from a rest at 100 yards. Velocities are averages of 10 shots recorded at the muzzle with a LabRadar chronograph. Temperature, 10 degrees; elevation 1,030 feet. Abbreviation: OTM, open tip match

THE NEW STANDARD IN LONG RANGE

LONG RANGE HYBRID TARGET

• 22 CAL 85.5 GRAIN

• 6MM 109 GRAIN

• 6.5MM 144 GRAIN

• 7MM 190 GRAIN

• 30 CAL 208 GRAIN

• 30 CAL 220 GRAIN

- Jump-Tolerant Hybrid Ogive Profile Design
- Doppler Radar Tested BC's Vary Less Than 1%
- More Consistent BC's Than All Other Bullets
- Proprietary MRT™ Manufacturing Processes

Learn more about our **No BS BC** at: NoBSBC.com

BERGER
SHOOT BETTER

BergerBullets.com

#ShootBetter



RONIN™

Featuring an unyielding commitment to strength, reliability and quality, the new Ronin™ Operator® 1911 from Springfield Armory® combines a legacy of service with the features modern shooters demand. Available in 9mm and .45 ACP, the Ronin Operator is ready to deliver right out of the box. From its forged steel slide and frame to its hammer-forged barrel, the Ronin Operator is designed and built for a lifetime of service.

\$849 MSRP



*FORGED FRAME
AND SLIDE*



The forged frame and slide, the heart and soul of Springfield Armory 1911 pistols, sets this gun apart from competitor's cast models on the market by surpassing them in both strength and durability.

SPRINGFIELD-ARMORY.COM

SPRINGFIELD ARMORY.
DEFEND YOUR LEGACY.

Climbing to the Top

**FEDERAL'S NEW
TERMINAL ASCENT
PROMISES GREAT
ACCURACY AND
PERFORMANCE.**



Federal's initial Terminal Ascent offerings (from l.): 130-grain 6.5mm, 136-grain .277, 155-grain 7mm, 175-grain .308 and 200-grain .308.

An evolution of the legendary Trophy Bonded Bear Claw, Federal's new Terminal Ascent bullet is a cutting-edge projectile possessing excellent aerodynamics and outstanding accuracy. It offers arguably the most versatile on-impact performance characteristics of all big game hunting bullets.

Along with factory-loaded ammo for myriad popular cartridges, Federal introduced the Terminal Ascent in component-bullet form. Initial calibers and weights include a 130-grain 6.5mm version with a G1 ballistic coefficient of .532, 136-grain .277 (BC.493), 155-grain 7mm (.586), 175-grain .308 (.520) and a 200-grain .308 (.608).

The Terminal Ascent is basically the fourth generation of Bear Claw-type bullets. Following the original Bear Claw was the composite-tipped, boat-tailed Trophy Bonded Tip big game bullet optimized for all-around use on deer- to moose-size game.

Third came the Edge TLR, which provided excellent aerodynamics and on-impact performance, but Federal felt it lacked the extraordinary accuracy demanded by today's extended-range hunters.

Two years of R&D have resulted in the Terminal Ascent, a bullet that

shares the ideal impact performance of the Edge TLR and regularly shoots 0.6-inch, 10-shot, 100-yard groups.

Like the Bear Claw, the design features a rear portion of solid copper and a lead front core bonded to the jacket. As a result, no matter how fast it is driven and how close an animal, the Terminal Ascent won't "grenade" on impact. A good mushroom shape with a generous shank will create a large-diameter wound channel and drive deep—no matter how much heavy bone and dense muscle it encounters.

A boattail enables air to flow around the rear profile with minimum friction and cavitation. A sophisticated heat-resistant, hollow composite tip with a sleek profile further enhances aerodynamics and provides an unparalleled on-impact expansion mechanism.

This composite tip is heat resistant, so it doesn't erode and suffer reduced, unpredictable aerodynamics like common Delrin polymer may when high-BC projectiles are fired from extreme-velocity cartridges.

Because of the hollow composite tip, which collapses inward on impact

and exposes the massive hollow nose of the main projectile, the Terminal Ascent design provides reliable expansion at velocities as low as 1,500 fps—and in many versions 1,400 fps. This means that even when impacting at long range, your bullet will expand reliably and kill cleanly.

To test how easy it is to obtain good handload results with the Terminal Ascent, I assembled 10-round batches for three different cartridges, using an educated guess to pick propellant types and charge weights.

For my Ruger M77 Hawkeye African, I loaded the 130-grain 6.5mm version over 47 grains of Reloder 16 in once-fired Lapua 6.5x55 cases. For the 155-grain 7mm, I loaded a test batch for my .280 Ackley Improved Kimber Mountain Ascent, charging Nosler brass with 59 grains of H4831sc. I loaded the 200-grain .30 caliber version for my Kimber 8400 .300 Win. Mag., charging once-fired, nickel-plated Federal cases with 70 grains of H4831sc.

All cases I primed with Federal Gold Medal primers. Before seating the

BUILT FOR PERFECTIONISTS

BY PERFECTIONISTS

Every Trijicon® long-range riflescope follows in the footsteps of our most proven, battle-tested products. Otherwise, it wouldn't be a Trijicon riflescope. Expect absolute precision at extended ranges, brilliant clarity from sunup to sundown, and extreme durability you can trust to take a beating and maintain zero.



»THE NEW
Trijicon Tenmile™



Trijicon AccuPoint®

See what it takes to make a brilliant aiming solution at [Trijicon.com](https://www.trijicon.com).



Terminal Ascent bullets, I contacted Federal's tech guru Jared Kutney for some seating-depth advice.

"Terminal Ascent bullets have a secant ogive—some more noticeable than others—but in contrast to standard secant ogive bullets, they do like a little jump. We recommend starting with .050 to .075 inch of jump and adjusting from there. We have found that .060 inch works well for the 6.5mm and 7mm bullets, specifically."

Following his suggestions but wishing to mix it up a little, I seated bullets in the 6.5x55 test batch .060 inch off the rifling leade but seated projectiles in the .280 Ackley Improved and the .300 Win. Mag. ammo to .050 off the leade.

Three consecutive three-shot 100-yard groups averaged 0.69 inch out of the .300 Win. Mag. Velocity averaged 2,842 fps with a standard deviation of 13 fps. The Ruger 6.5x55 produced superb accuracy as well, averaging 0.77-inch groups for a series of three consecutive three-shot groups at 100 yards. Velocity averaged 3,029 fps with a standard deviation of eight fps.

Finally, I tested the 155-grain 7mm Terminal Ascent in the lightweight Kimber. It has a spaghetti-thin barrel, and it will shoot sub m.o.a. with ammo it likes, but it takes considerably more tuning than heavier rifles.

My handload did not produce sub-

m.o.a. accuracy—averaging 1.23 m.o.a. for three three-shot groups—but standard deviation was just 4.6 fps. Average speed was 3,000 fps.

So two out of three of the rifles tested produced sub-m.o.a. accuracy with the first Terminal Ascent handloads attempted—and that was on a day with winds gusting to 15 mph. I'd say that's downright impressive.

As for the rifle that didn't, I'm going to work with it. The 155-grain 7mm Terminal Ascent bullet is theoretically perfectly balanced for the .280 Ackley cartridge, and I'm determined to find an accurate load. Judging by the easy accuracy provided by the 6.5mm and .30 caliber versions, I suspect it won't be difficult.

One other element of the Terminal Ascent bullet line intrigued me. I'm a big fan of the Trophy Bonded Tip bullet and had excellent luck using the Edge TLR in Africa, but I wanted to know more about the AccuChannel grooves around the Terminal Ascent's shank.

"Solid shank bullets benefit from grooves from a dispersion standpoint," he said. "Our leading theory is that it makes the bullet more malleable by creating a void into which bullet material can displace when engaging the rifling. The effect is a reduced magnitude of vibration applied to the barrel, and therefore, by way of reduced harmonic

reaction of the barrel, a more consistent launch vector from shot to shot."

There is a drawback, though. "The downside of grooves is the added drag they impart to the bullet in flight," Kutney said.

However, all grooves are not created equal, and good engineers can minimize adverse effects.

"The AccuChannel provides a smoother geometry from a fluid flow standpoint so as to minimize the drag penalty of each groove," Kutney said.

How much BC reduction are we talking about? Not much. Comparing the aerodynamics listed for equal-weight Edge TLR and the Terminal Ascent, the more accurate newer version gives up just 1.5 to 4 percent of BC.

I've taken a number of animals with Trophy Bonded Bear Claws, Trophy Bonded Tips and Edge TLRs. In every case, terminal performance has been textbook perfect.

Because the Terminal Ascent shares the construction characteristics of its predecessors and adds an unprecedented level of accuracy, it will undoubtedly provide excellent, dependable performance in the field. ■

WARNING: The loads shown here are safe only in the guns for which they were developed. Neither the author nor Outdoor Sportsman Group assumes any liability for accidents or injury resulting from the use or misuse of this data.

**LOAD SK SEMI-AUTO RIFLE.
ENGAGE TARGETS.
REPEAT.**



SK's "Semi-Auto Rifle" is designed to outperform, replace, and eventually retire all other inferior semi-auto ammunition offerings currently crowding the market. It's built to deliver pinpoint accuracy while functioning flawlessly through any 10/22 style firearms, AR's, 597's, and more.

**OUR PASSION.
YOUR SUCCESS.**

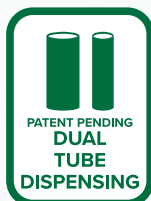
FIND AN SK RETAILER NEAR YOU:
660-460-2800
sales@capstonepg.com

sk-ammunition.com



INTRODUCING

MATCHMASTER™ POWDER DISPENSER



*IN MATCH MODE
**IN STANDARD MODE

RCBS
PRECISIONEERED RELOADING™

Learn more at RCBS.COM



Christensen Arms is quickly becoming one of the premier manufacturers of bolt-action hunting rifles. The company's excellent components and attention to detail make its guns attractive to serious shooters and hunters, but despite the cutting-edge design and excellent accuracy potential, these rifles aren't so pricey that they're out of reach for the average person.

This year, the Gunnison, Utah, company is offering two new titanium-action models to its bolt-action rifle

lineup. The Mesa Titanium Edition comes with a sporter-profile stainless steel barrel, and the Ridgeline Titanium Edition features a carbon-fiber-wrapped barrel.

I had the opportunity to test the Mesa Titanium, which with its 22-inch barrel and a starting weight of just 6.1 pounds is a mountain rifle in the purest sense. Excessive mass has been shaved, the stock is trim and slender, and it's built from durable components that can handle the most brutal high-mountain weather conditions imaginable.

When I first saw it at SHOT Show 2020, I found it to be a refreshing departure from a show floor dominated by heavy hybrid hunting/tactical rifles. The Mesa Titanium isn't designed to serve double-duty as a competition target rifle and hunting gun. Rather, it's designed with one very specific goal in mind: to be a lightweight, accurate sporter that offers the accuracy of a target rifle distilled into a handy hunting package that, despite its many class-leading features, costs well under two grand.

"For too long rifles built with

HIGH CLIMBER

CHRISTENSEN ARMS' LIGHTWEIGHT MESA TITANIUM IS A PEAK PERFORMER.

by Brad Fitzpatrick

lightweight titanium actions have been beyond the financial reach of most hunters," says Jason Christensen, president of Christensen Arms. "We're excited to change that starting with these two new titanium editions."

With a suggested retail of \$1,795, the Mesa Titanium Edition is billed as the most accessible titanium action rifle ever built. It's about \$1,500 less than the new Weatherby Mark V Backcountry Ti, and the Mesa Titanium Edition rifle is only a few hundred dollars more than what you'll pay for many titanium actions alone.

With such a low cost of ownership relative to other titanium rifles, you might expect that Christensen Arms has cut corners on the construction of the Mesa Titanium, but that's not the case. The cylindrical machined titanium action is mated to a Christensen Arms 416R stainless steel, featherlight contour, bead-blasted barrel with removable stainless steel radial brake. The button-rifled, hand-lapped barrels on these rifles feature a match chamber, 1/2x28 threads on the muzzle and come with a recoil lug sandwiched

between the barrel and action.

Four chambering options are currently available: 6.5 Creedmoor, 6.5 PRC, .308 Win. and .300 Win. Mag. Both the 6.5 Creedmoor and the 6.5 PRC have 1:8-twist barrels, ideal for stabilizing popular heavy-for-caliber 0.264-inch hunting bullets, while both .30 caliber versions feature 1:10-twist barrels. The three short-action offerings come with 22-inch barrels while the .300 Win. Mag. has a 24-inch barrel.

Those barreled actions rest on Invar pillars. Invar, a nickel-iron alloy, is notable for its low coefficient of thermal expansion (its name is derived from the word “invariable,” a nod to the alloy’s uniformity in widely varying temperatures). This resistance to temperature-induced change helps improve shot-to-shot consistency.

The pillars rest in a sleek Christensen Arms carbon-fiber-composite sporter stock with a straight comb, and the base color is a glossy metallic gray

that is accented by black epoxy resin spiderwebbing. In addition to giving every stock a unique look, the epoxy also offers added texturing to improve the shooter’s grip on the rifle. Also included is a soft black LimbSaver recoil pad with cutouts that look and act like spring chambers to dampen recoil.

Bucking the popular trend toward three-lug, full-diameter bolts, Christensen’s Mesa Titanium features a dual lug bolt that is nitride treated and spiral fluted. The team at Christensen seems particularly fond of spiral fluting, for it appears not only on the bolt body but also on the bolt shroud and bolt handle.

The bolt comes with an added ring of steel that encircles the head of the cartridge—an added measure of security—and magnum models feature dual spring-powered ejectors. An M16-style extractor takes a healthy bite on the case to ensure reliable cycling. The bolt’s flattened, skeletonized handle comes with a removable bolt knob, and there’s also an option to purchase an oversized tactical-style bolt knob.

A billet aluminum machined hinged floorplate with “Titanium Edition” in bold lettering keeps loaded cartridges (four in standard calibers, three in magnums) locked within the rifle’s internal box magazine. The Mesa Titanium Edition’s receiver has a generous ejection port cutout that allows you to top-load the gun, and the receiver is drilled and tapped to mate with Remington 700-pattern bases. Christensen also sells its own top rails in either zero or 20 m.o.a.

The Mesa Titanium Edition’s controls are easy to operate and well laid out. There’s a two-position rocker-type safety that is angled slightly downward so it’s easier to access than competing designs. There’s a surprising amount of travel between the Safe and Fire positions, which is a good thing since that reduces the odds that the safety will move inadvertently from Safe to Fire when carrying the rifle in the field.

What’s more, the safety is easy to manipulate with your hand in the firing position, and it can be toggled between the safe and fire positions



The Mesa Titanium is built on a cylindrical titanium action with an open ejection port. Optional top optics rails are available in 0 or 20 m.o.a.



The smooth cycling action and excellent trigger, along with the lightweight titanium action, combine for a great lightweight hunting rifle.

BARNES[®]

OPTIMIZED FOR YOUR TARGET™

TESTED. TUNED. HANDLOADED ACCURACY OUT OF THE BOX.

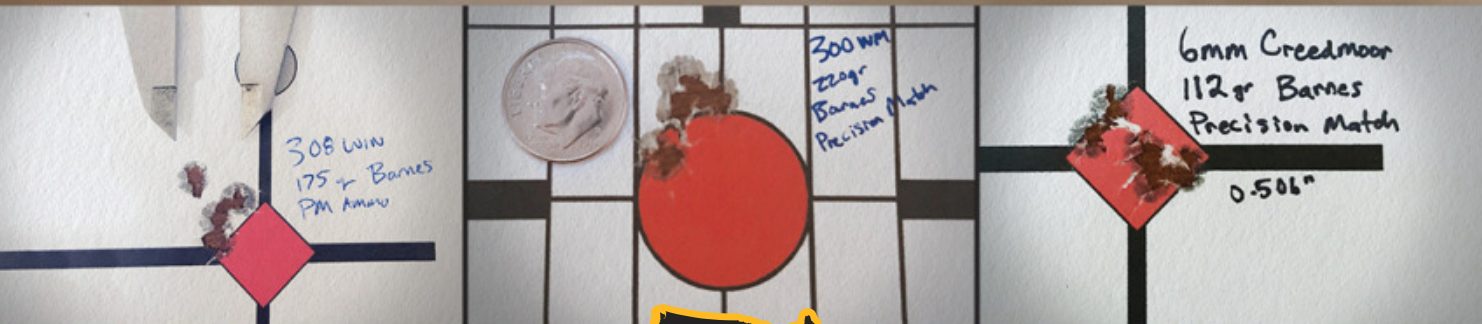


CONSISTENCY DELIVERED.

Barnes Precision Match is engineered and assembled with premium components, tested to deliver the ultimate in shot-to-shot consistency. In all conditions, at any range from 100 yards to 1 mile. It's the most accurate commercially loaded ammunition on the planet.

Available in 5.56 x 45mm, 6mm Creedmoor, 260 Remington, 6.5 Creedmoor, 300 AAC Blackout, 308 Win, 300 Win Mag, 338 Lapua Mag, 6.5 Grendel

Images below are from real shooters. Outdoor conditions. Not staged in a lab. All shot from 300 yards.



BarnesBullets.com



silently, an important feature on a hunting rifle. Other controls include a rocker bolt release on the left rear portion of the receiver and a magazine floorplate release located within the oversized trigger guard.

Christensen Arms doesn't put lousy triggers in any of its guns, and the Mesa Titanium is no exception. The factory match trigger comes set between 2.5 and 3.5 pounds, and my sample's trigger gun measured 2.7 pounds on a Wheeler gauge. There was

not a hint of creep or take-up. The trigger is not only consistent but also well engineered, with a narrow, curved face that's easy to manipulate.

As I mentioned, the action is easily top-loaded; you can top off the rifle as easily as you would a Remington 700 or a Model 70. Magazine capacity is listed at three rounds for the magnum calibers, which includes 6.5 PRC. It's possible to jam a fourth round in the magazine, but "jam" is the operative word. It won't feed, so don't try it.

The Mesa Titanium's grip diameter is slightly smaller than some competing rifles, and it's certainly slimmer than most of hybrid tactical/hunting

rifles. But there's plenty of room for your hand on this gun, and the grip angle naturally aligns the shooter's finger with the trigger face.

The test rifle came with Christensen's zero m.o.a. top rail, which utilizes beefy screws and has two machined buttresses that secure it fore and aft on the action opening to act as stabilizers. It's a \$60 upgrade, but it's worth it.

I'd also suggest upgrading to the oversized bolt knob if you can spare the extra \$50. It's not an absolute necessity, but the smallish bolt knob that comes standard is one of the few design elements that wasn't completely to my liking. The good news is it's easy to swap out. What's more, the bolt knob is held in place with plenty of robust threads, so it won't be working its way loose at inopportune times.

The Mesa Titanium I tested weighed six pounds, eight ounces with the company's top rail included. With Trijicon's new Huron 2.5-10x40mm scope in place, the gun weighs just under eight pounds. I think that's plenty light for most hunting. Any hunter fit enough to scale cliffs and cross shale slides all day won't find the Mesa Titanium much of a burden.

In addition to being one of the best-looking new guns on the market, the Mesa Titanium is also very accurate. I tested two different loads in the rifle—Hornady's Precision Hunter 143-grain ELD-X and Hornady's 147-grain ELD Match—and both held under an inch for three shots throughout the test.

The ELD-X load fired groups of 0.61, 0.74 and 0.81 inch for an average of 0.72 inch, while the Match ammo produced three groups in the 0.7-

TRIJICON HURON RIFLESCOPES

Trijicon optics have always been known for superb clarity and rock-solid build quality, and the company is offering a new line of hunting scopes for 2020 that are more affordably priced. The new Trijicon Huron scopes are designed with hunters in mind and are available in 1-4x24, 2.5-10x40 and 3-12x40 versions with 30mm main tubes and a 3-9x40 model with a one-inch main tube.

I tested one of the first Huron models during a whitetail hunt in Saskatchewan where the temperature dipped to -12 degrees and found the scope offered great clarity and reliable performance despite the miserable conditions. One standout feature of these second-focal-plane scopes is the ease with which you can reset the zero. Simply lift the top turret, rotate it back to zero and drop it. You've effectively rezeroed your gun without the need for tools.

Huron scopes have the same rock-solid aluminum body construction that made Trijicon optics famous, and these scopes are suited to survive the abuse of a high mountain hunt. They don't have the same illumination features as the AccuPower and AccuPoint scopes, but they share the same glass and optical quality. There are four different reticle options available, and with a starting price of just \$650, they're an excellent value.—*BF*



The radial brake effectively reduces recoil, but it's easy to remove and replace with the provided thread protector should you elect to do so

ACCURACY RESULTS

CHRISTENSEN ARMS MESA TITANIUM EDITION

6.5 PRC	Bullet Weight (gr.)	Muzzle Velocity (fps)	Std. Dev. (fps)	Avg. Group (in.)
HORNADY ELD MATCH	143	2,285	13	0.72
HORNADY PRECISION HUNTER ELD-X	147	2,876	10	0.78

Notes: Accuracy results are average of three three-shot groups at 100 yards from a fixed rest. Velocities are averages of 10 shots recorded on a ProChrono digital chronograph placed 10 feet from the muzzle.

PRECISION



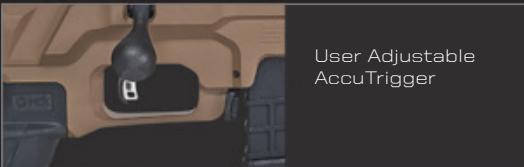
OBSESSION



MDT Chassis System



Fully-Adjustable Comb and Length of Pull



User Adjustable AccuTrigger



THE ALL-NEW
110 PRECISION



THE ALL-NEW
AXIS II
PRECISION



BETTER COMES STANDARD.

inch range. As you can see, the Mesa Titanium performs extremely well for an off-the-shelf hunting rifle, and there are plenty of guns that cost substantially more than \$1,795 that can't match those accuracy figures.

SPECIFICATIONS

CHRISTENSEN ARMS MESA TITANIUM EDITION

TYPE	bolt-action centerfire
CALIBER	6.5 Creedmoor, 6.5 PRC (tested), .308 Win., .300 Win. Mag.
CAPACITY	3+1 (as tested)
BARREL	22 in. w/removable radial brake
OVERALL LENGTH	43 in. w/brake
WEIGHT	6 lb., 9 oz. (top rail in place)
STOCK	Christensen Arms carbon-fiber composite
FINISH	natural bead blast
TRIGGER	2.7 lb. pull (measured)
SIGHTS	none; drilled and tapped (Remington 700 pattern); optional top rail
PRICE	\$1,795
MANUFACTURER	Christensen Arms, CHRISTENSENARMS.COM

After firing the three-shot groups required by the *RifleShooter* testing protocol, I decided to test five shots. That group measured 1.05 inches, and it included one shot that I knew I pulled high and left.

With its screw-on radial brake and LimbSaver pad, the Mesa Titanium is a



The Mesa Titanium Edition uses a dual-lug bolt with a nitride finish. Magnum versions, including the 6.5 PRC, come equipped with two plunger-type ejectors.

soft-shooting rifle. Sure, muzzle blast is pretty dramatic, but recoil is light and the gun's straight-comb design and comfortable, secure gripping surfaces make it easy to manage.

The 6.5 PRC is a wonderfully versatile hunting cartridge, but in really light rifles, it does generate recoil that could frighten away new shooters. The Mesa Titanium manages recoil well, and I wouldn't hesitate to purchase one of these rifles chambered in a hard-hitting caliber like .300 Win. Mag.

Considering its beefy M16 extractor and dual ejectors, you would expect that the Mesa Titanium is a reliably cycling gun, and you'd be correct. The bolt stroke is smooth, and there were no issues in feeding, extraction or ejection. There's no gentle flop of empty brass from the receiver following the bolt stroke, either. Instead, the Mesa hurls empties well away from the shooter—a feature that will appeal to everyone except brass hawks.

Hybrid tactical/hunting rifles are popular right now, but the truth is the practicality of a heavy gun with a long barrel for hunting is limited. Are those guns good for making long shots? Sure. Do they make sense if you must hike up mountains or maneuver in the confines of a tree stand or ground blind? Not hardly.

The term "mountain rifle" brings to mind a specialized gun for a specific hunt, but light, accurate, weatherproof guns like the Mesa Titanium are well suited to any pursuit. With an overall length of 43 inches and a weight of just over 6.5 pounds, the Mesa Titanium is handy enough for hunting in a blind or stand, and it's also ideal for making fast shots in relatively dense cover.

And, of course, this gun is built to perform under the most extreme conditions. It's tough enough for a moose hunt in Alaska or a high-altitude sheep hunt, regardless of the weather conditions. What's more, despite its light weight, the Mesa shoots just as well as most of those heavy-barreled hybrid rifles that are so popular today. The Christensen Arms Mesa Titanium Edition is one of the best all-around hunting rifles I've seen in some time. ■



The combination of the LimbSaver recoil pad, straight-comb stock and removable muzzle brake help tame even the most abusive recoil.



THE NEW **RRAGE** IN ENTRY CARBINES

16" LIGHTWEIGHT CHROME MOLY
1:9 Twist Barrel

LAR-15 RRAGE RIFLE DS1850
with RRA Six-Position Tactical CAR
MSRP: \$759.99*

INTRODUCING THE **LAR-15 RRAGE RIFLE**

Punching above its weight class, this new entry carbine features a sleek monolithic upper receiver/handguard with side and bottom MLOK® ports. **This NEW RRAGE sets a higher benchmark for all entry carbines to follow.**

LAR-15 RRAGE RIFLE QUICK SPECS: CALIBER: .223/5.56MM NATO CHAMBER
WEIGHT: 5.7 POUNDS | LENGTH: 36"

**ONLY AVAILABLE THROUGH
YOUR LOCAL DEALER.**

ROCKRIVERARMS.COM



PERFORMANCE TUNED.

* Prices are subject to change. Optics and scope mount not included.



The .30-06 is obviously an old military cartridge that has never gone out of style. It's a powerful, effective round suitable for a huge variety of big game.

OLD WARHORSES

FIVE GREAT MILITARY CARTRIDGES
THAT CONTINUE TO SOLDIER ON.

by Craig Boddington

Military cartridges tend to remain in service for extended periods because it takes much treasure for nations to gear up for a new cartridge. Some warhorses stay in harness purely on merit. The .50 BMG, for example, has been a world-standard heavy machine gun cartridge for a century, and these days it has been repurposed into military and civilian long-range shooting.

Other military cartridges remain in the harness on somewhat less merit. In 1886 the French 8x50 Lebel was the first smokeless-powder military cartridge, and a few years later it was loaded with the world's first spitzer boattail. Its ballistics were anemic even at the turn of the century, though, so it stayed in service for 50 years but not on merit—although it was widely used throughout Central and West Africa on game up to elephant.

Some old military cartridges bridged the gap from long military service to worldwide sporting use. I decided that a full century of use would be the minimum for inclusion on this list, which ruled out such great and popular cartridges like the 7.62x39, 7.62x51/.308 Win. and 5.56 NATO/.223 Rem.

So here is my list of five great old warhorses that not only survived but also still have worldwide impact. I'll take them in order of introduction.

.45-70 GOVERNMENT

The .45-70 (1873) is the cartridge that really won the West. Although officially in service only 19 years, it was widely used in the Spanish-American War in 1898. By then it had long been America's standard choice for larger game, and amazingly, it remains popular today.

Then and now, the .45-70 is the most common cartridge in big single-shot actions. John Marlin's Model 1881 lever action was the first repeating action large enough to house the .45-70, followed by the Winchester Model 1886 and the Marlin 1895.

Today it's still chambered to "vintage" single-shots like the Remington rolling block and Sharps and Winchester High Walls, but its greatest current popularity is probably in big lever actions—includ-

ing reintroductions of the Winchester '86 and the current 1895 Marlin.

Unlike most of my selections, the .45-70 is primarily an American phenomenon, rarely seen elsewhere, although I've encountered a few European double rifles in .45-70. In a tricked-up "guide gun" with modern sights and finishes, the .45-70 is as modern as tomorrow—and still highly effective.

All .45-70 factory loads from major manufacturers are mild out of concern that they might be used in the weak trapdoor Springfield action. Even so, the

.45-70 is adequate for short-range use on all North American big game.

Modern lever actions and most single-shots are strong enough to handle heavier loads, which take the .45-70 into a different class. Handload recipes are legion, and several smaller ammo companies, including Buffalo Bore and Garrett, supply .45-70 ammunition graded by recommended actions. With heavy loads and proper bullets, the .45-70 is adequate for game up to Cape buffalo. The .45-70 Gov't has come a long way since the Little Big Horn.

.303 BRITISH

I was on the fence on the great .303 (1888). It's definitely out to pasture in current firearms, but the .303 must be one of the most significant cartridges of all time. It had one of the longest runs as standard military issue: a whopping 69 years.

Uniquely, it was introduced in 1888 with a compressed blackpowder load and converted to Cordite in 1892. The .303 (0.311-inch bullet) served Great Britain well through both world wars and innumerable colonial disputes, and it's still frequently encountered wherever the Union Jack flew.

Its rimmed case was adapted to few civilian bolt actions, but there are plenty of Lee-Enfields still in use around the world. I carried a "jungle carbine" Enfield on an Alaskan moose hunt years ago, and I recently used a World War I Short Magazine Lee Enfield on a roebuck hunt in England.

The most common loads today are 150 or 180 grains, which are effective for deer, elk and even moose. However, the .303 made its bones with a heavy-for-caliber 215-grain bullet, used throughout the Empire for large game because the .303 is what many British explorers, soldiers and settlers had. Walter Bell, while famous for the 7x57 Mauser, probably took more elephants with the .303.

It has been chambered to many single-shots, most recently a run of Ruger's No. 1, and is seen in some double rifles. My late friend Joe Bishop had a Holland Royal double in .303, probably the only rifle in Joe's collection I actively coveted.

7x57 MAUSER

In the late 19th century, the development of smokeless military cartridges was frantic. A half-dozen 6.5mm cartridges, a dozen 8mm cartridges and several more "in between" metric military cartridges were adopted by various countries between 1886 and 1905. Only one was a pure 7mm using a 0.284-inch bullet: the 7mm Mauser (1892), adopted by Spain in the improved 1893 Mauser rifle.

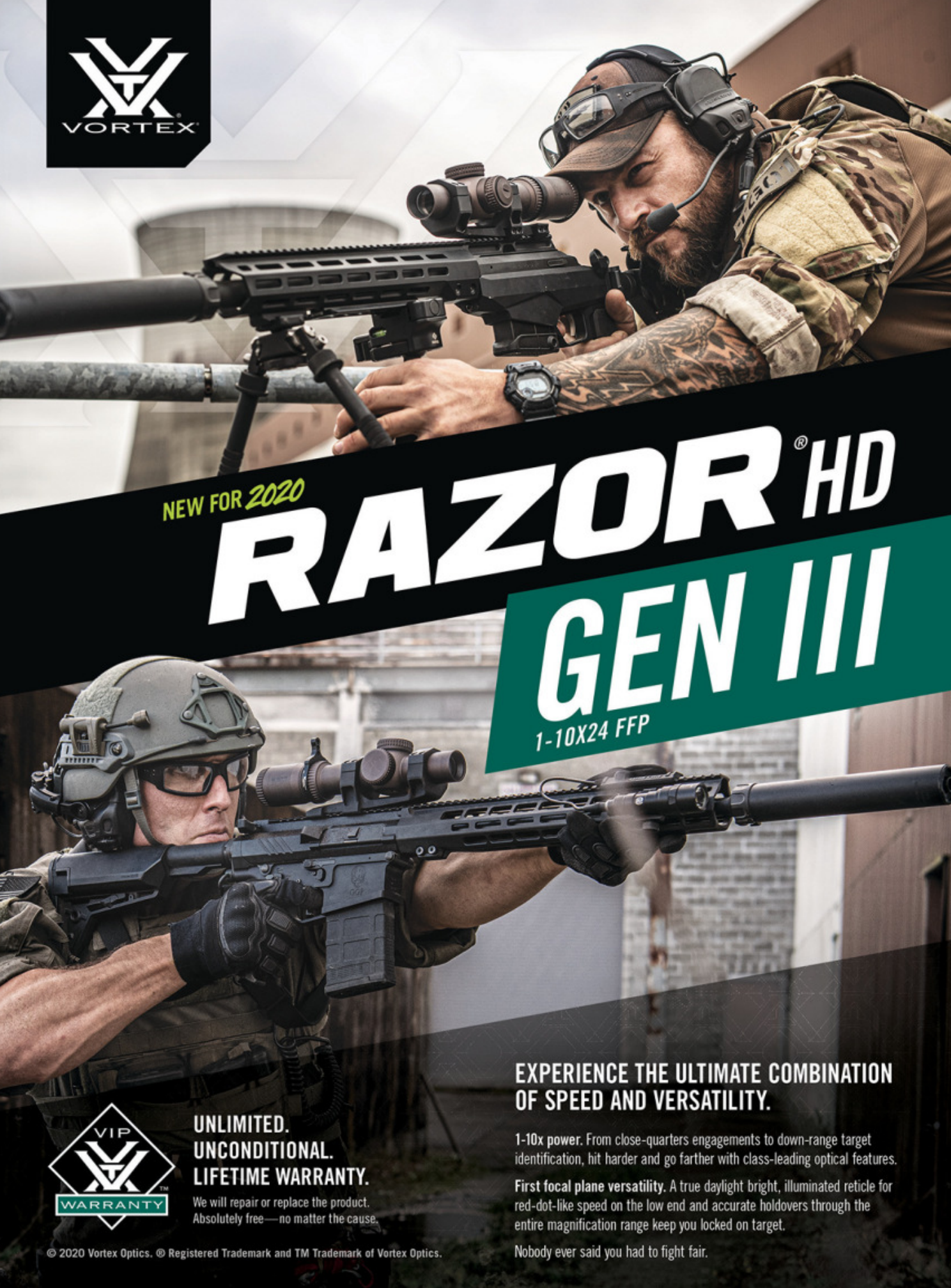
The 7x57 was ultimately adopted by 18 countries. Fearing British aggression, President Martinus Steyn of the Orange



Boddington's pick of the world's most influential and lasting warhorses, all more than a century old: (l.-r.) .45-70, .303 British, 7x57 Mauser, 6.5x55 Swedish Mauser and .30-06.



A Rigby Highland Stalker in .275 Rigby (7x57) shows this great Mauser round is not only still around but also still sought after.



NEW FOR 2020

RAZOR[®] HD

GEN III

1-10X24 FFP



**UNLIMITED.
UNCONDITIONAL.
LIFETIME WARRANTY.**

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

**EXPERIENCE THE ULTIMATE COMBINATION
OF SPEED AND VERSATILITY.**

1-10x power. From close-quarters engagements to down-range target identification, hit harder and go farther with class-leading optical features.

First focal plane versatility. A true daylight bright, illuminated reticle for red-dot-like speed on the low end and accurate holdovers through the entire magnification range keep you locked on target.

Nobody ever said you had to fight fair.

Free State and President Paul Kruger of the Transvaal Republic secured huge quantities of the new 1895 Mauser and 7x57 ammunition. So in the Second Boer War (1898–1902) the Brits with .303s faced the Boer 7x57 Mausers. Also in 1898, American troops with Krags faced Spaniards armed with 7x57 Mausers.

The “Boer Mauser” may not have been superior to the 10-shot Lee-Enfield, but it’s certain the Boer farmers outshot the Brits. It’s clearer that the clip-loading Spanish Mausers proved superior to the Krag. Both Americans and British came out of the conflicts with lasting respect for the 7x57 Mauser, which quickly became a popular sporting cartridge worldwide.

With its heavy-for-caliber, 173-grain solid, the 7x57 Mauser was used by some—including, of course, Walter Bell—for game up to elephant. In England, John Rigby renamed it the .275 Rigby, offering a fast 140-grain load, greatly increasing its versatility.

Although never as popular here as across the pond, the 7x57 gained and has kept an American following. Best known for championing the .270 Win., Jack O’Connor was also a lifelong fan of the 7x57, using it—and not a .270—for the majority of his desert sheep.

Modern factory loads are mild out of concern for use in older rifles. With

good handloads, the 7x57 can exceed the 7mm-08 Rem. and performs better with heavier bullets, but common 7mm-08 factory loads are faster. And the 7mm-08 can be housed in a shorter action. This has hurt the 7x57’s popularity, but it still retains a loyal following, and there are a few new modern rifles chambered for it.

The 7x57 has history, nostalgia and romance, and it’s probably more popular than the 7mm-08 in custom rifles. I can’t argue with Karamoja Bell, but I don’t see it as an elephant cartridge. However, it is extremely effective on game up to and including elk, with mild recoil and awesome performance.

6.5x55 SWEDISH MAUSER

The several early 6.5mm military cartridges used heavy-for-caliber bullets, from 156 to 160 grains. Although velocities were mediocre, penetration was astonishing, and late Victorian hunters waxed euphoric. The 6.5x53R Mannlicher (1892) caused most of the stir, but the 6.5x54 Mannlicher-Schoenauer (1900) was also a popular sporting cartridge.

Both were controversial because, like the 7x57, outspoken hunters used these early 6.5mm cartridges for game up to elephant. The 6.5x55 (1894) stayed a bit above the fray because, as the military cartridge of both Sweden and Norway, it was quickly adopted by Scandinavian

THREE THAT DIDN'T MAKE THE CUT

There are several great old cartridges that don’t quite meet my criteria but cannot be overlooked. The 7.65x53 Argentine Mauser, though rare in the United States, remains one of the most popular sporting cartridges in Argentina and other South American countries.

Developed by Mauser for Belgium in 1889, it uses an odd 0.313-inch bullet, but its short case essentially does what the .308 Win. was designed to do. Many believe the 7.65x53 Argentine was one of Peter Paul Mauser’s best military cartridges.

I was on the fence with the 8x57S Mauser, which is similar to the .30-06 in performance. New rifles haven’t been chambered here for decades, but it remains popular in Europe and is kept alive in this country by thousands of surplus ‘98 Mausers. The original cartridge was adopted by Germany in 1888 with a 0.318-inch bullet, and in the day it was properly called a 7.9mm Mauser. In 1905 Germany switched to a lighter, faster spitzer with a larger diameter 0.323-inch bullet.

The earlier diameter is referred to as “J,” while the 0.323-inch is termed “S.” We were on the wrong side of the 8x57 in both world wars, which is perhaps a partial reason the 8mm bullet diameter has not been popular in America.

Adopted in 1892 and replaced in 1903, the .30-40 Krag had one of the shortest runs as America’s service cartridge, but its impact cannot be overlooked. Although rimmed and thus limited in suitable actions, the .30-40 was a standard and popular American hunting cartridge through the 1930s. Not as powerful as the .30-06, it’s somewhat similar to the .303 British in performance.

In recent years it has made a slight comeback in single-shots and reissues of the 1895 Winchester. It’s definitely out to pasture, but the .30-40 Krag should not be forgotten.—CB



A Marlin 1895 .45-70 from the Marlin Custom Shop demonstrated that with the right bullets, the cartridge handles Cape buffalo with no problem.

FASTER EASIER

READY RIGHT OUT OF THE BOX

BDX 2.0

The world's most advanced optics system



QUICKLY AND EASILY BOND BDX RANGEFINDERS
AND SIGHTS USING QUICKBOND™ FEATURE

COMBO KITS PRE-BONDED FROM THE FACTORY

PRESET BALLISTIC GROUPS LOADED ON ALL
SIERRA BDX RIFLESCOPE AND
KILO BDX RANGEFINDERS

SMART BDC™ RETICLES TO CUSTOMIZE
RIFLESCOPES OUT OF THE BOX

APP FREE EASY SET-UP ON ALL BDX PRODUCTS

TO UNLOCK THE ADVANCED FEATURES OR
CREATE A CUSTOM BALLISTIC PROFILE, JUST
DOWNLOAD THE BDX SMARTPHONE APP



Ballistic Data Xchange

sigsauer.com

SIGSAUER
NEVER SETTLE

OLD WARHORSES

moose hunters and not so much by elephant hunters.

Over time, the other early 6.5mms dropped by the wayside, but the 6.5x55 has retained a worldwide following. It remains common throughout Europe and is still a staple for Scandinavian hunters. In the United States, it's a cartridge that has come and gone in popularity. But it keeps coming back.

As with the 7x57, factory loads are

purposefully mild. This is unfortunate because, on paper, it doesn't look as good as the .260 Rem. or 6.5 Creedmoor—although, truthfully, the three are ballistically identical. The 6.5x55 has the greatest case capacity so with good handloads in a modern action it can outrun the others. Its only drawback is that it's too long to be housed in a short action. But in real terms, there is nothing the 6.5 Creedmoor can do that the 6.5x55 cannot do.

The 6.5x55 is unlikely to become more popular, but it's hardly a rare cartridge. With common bullets of about 140 grains, it's an awesome cartridge for deer-size game and is adequate for elk. With heavy bullets it's more effective on larger game. And because it requires a .30-06-length action, it is better suited to heavy bullets than are the short-action 6.5s.

Although I've used 6.5x55s here and there, I've never owned one. Getting my hands on a good 6.5x55 in some sort of left-hand action is now a bucket list gun.

BALL CARTRIDGE, CALIBER .30, MODEL OF 1906

The 1903 Springfield was introduced with a rimless cartridge firing a 220-grain round-nose bullet. In 1906 we changed to a 150-grain spitzer, at the same time shortening the case neck 0.07 inch. The ".30-03" cartridges continued to be loaded commercially for years. Sounds confusing, but .30-06 cartridges could be safely fired in rifles for either version, but the older .30-03 cartridges with the longer neck shouldn't chamber in .30-06 rifles.

I've held the famous sporterized Springfield rifle that Theodore Roosevelt used on his epic 1909 safari. To some degree, it was the Roosevelt safari that started the legend of the .30-06 as a great hunting cartridge.

According to the curators at the



The Lee-Enfield was and is a solid platform for the .303 British. It provided great firepower for the Brits in two world wars and is a capable sporting round today.



VIHTAVUORI

VIHTAVUORI N555

Designed for Precision Rifle platforms, specifically 6mm and 6.5 Creedmoor, 260 Remington, 284 Winchester, and 30-06 Springfield.

- The Most Temperature Stable Powder in its Class
- Unprecedented Performance in 6.5 Creedmoor
- Includes Anti-Fouling Agent to Increase Shooting Sessions
- Clean Burning with Unmatched Lot-to-Lot Consistency

vihtavuori.com

To locate our powders near you, contact Capstone Precision Group 660-460-2800 • sales@capstonepg.com



THERE IS ONLY ONE PRO



AIMPOINT® PATROL RIFLE OPTIC

ACCEPT NO SUBSTITUTE

✓ BATTERY LIFE	OVER THREE YEARS
✓ FLIP COVERS	SOLID FRONT / TRANSPARENT REAR
✓ READY CONDITION	ALWAYS READY ALWAYS ON
✓ MATERIAL	HARD ANODIZED ALUMINUM ALLOY
✓ WATERPROOF	150 FEET
✓ TORQUE LIMITING MOUNT	YES
✓ OBJECTIVE THREADED FOR ANTI-REFLECTION DEVICE	YES
✓ REMOVABLE SPACER	YES
✓ IN-SERVICE AND BATTERY CHANGE REMINDER	YES
✓ SUGGESTED RETAIL PRICE	\$490

Aimpoint®

ANYTIME, ANYWHERE

DIGITAL ACCESS NOW INCLUDED WITH YOUR PAID SUBSCRIPTION!

ENJOY DIGITAL ACCESS ON YOUR PHONE, TABLET & MORE*



SUBSCRIBE TODAY AT

WWW.RIFLESHOOTERMAG.COM

CURRENT SUBSCRIBERS GO TO MYMAGNOW.COM
AND SELECT "CREATE DIGITAL ACCOUNT"

*Digital Edition is available on updated iPad/iPhone, most Android devices, and the Microsoft Store for Windows

serious airgun hunting starts here

TEXANLSS QUIETLY TURNS 50!

TEXANLSS 50-CF



Yep, you read that right. In 2020 the TexanLSS turns .50! Bigger and badder than before, but just as quiet, the TexanLSS 50-CF features a Lothar Walther barrel as well as our TX2 valve system and a 490 cc carbon fiber bottle rated for 250 BAR (3625 psi). The TexanLSS in .50 caliber adds even more versatility and power to the Texan line!

www.airforceairguns.com
or contact us today at 877-247-4867

Now 800+ FOOT POUNDS!

AIRFORCE
airguns

Shown with optional scope and rings.

OLD WARHORSES

Springfield Armory Museum, Roosevelt's rifle was never modified, so it was really a .30-03 and never a .30-06.

It really doesn't matter. The Roosevelts used 220-grain roundnose bullets with open sights, and for sure it was the heavy-for-caliber 220-grain bullet that made the .30-06's reputation as a hunting cartridge.

Later, in France, the .30-06 would have more serious business. Although there were multiple changes in bullets and loads—and the shift from Springfield to Garand—the .30-06 remained America's service cartridge for 51 years, through both world wars, Korea and the banana wars in between.

To call it a success as a warhorse would be a gross understatement. As a hunting cartridge, it took time. Lever actions were dominant until after World War I, and bolt-action sporters were uncommon. In the 1920s bolt actions became more available, and commercial sporters, such as Remington's M30 and Winchester's M54, joined World War I surplus and the .30-06 took over. America holds the world's largest hunting market, with room for many cartridges to be successful, but despite so many great choices, the .30-06 reigned as America's premier hunting cartridge for decades.

The .30-06 remains one of the top sellers today, although the sands of time have revealed chinks in its armor. The .30-06 is needlessly powerful and has more recoil than necessary for deer-size game. It works, you bet, but it's a better elk than deer cartridge, and I think this has much to do with the current ascendancy of the 6.5 Creedmoor.

Still, the '06 has remained popular in spite of so many brave new magnums. By any measure, the .30-06 is fast, flat-shooting and powerful. With new loads and increasingly aerodynamic bullets, it is faster and flatter-shooting than ever—and still powerful.

The .30-06 is one of the most versatile of all hunting cartridges, acceptable for all North American big game and useful for just about any non-dangerous game anywhere in the world. More brave and bold cartridges will come along, but I won't live to see the .30-06 put out to pasture—and neither will you. ■



**GEAR UP
TODAY!**

**The Marketplace for the Outdoor,
Hunting and Shooting Sports Worlds.**

everest.com

#calibermember



BRAVO!

BCM'S RELIABLE AND ACCURATE .300 BLK MK12 MCMR.

by David M. Fortier



It seems like everyone and their brother is making an AR. There are so many manufacturers/assemblers out there that it can get fairly confusing. It's important to understand that while they all might look alike, some are indeed built better, using higher-quality components, than others.

One name that stands out is Bravo Company Manufacturing or BCM. Based out of Hartland, Wisconsin, Bravo Company has evolved from offering AR acces-

sories, parts, barrels and upper receiver assemblies to now offering complete rifles.

Bravo Company Manufacturing was founded in 2005 to meet the demands of the private Protective Services Detail (PSD) market. While PSDs performed missions that were similar to the military, they were not in the military supply chain and needed a commercial alternative they could depend on.

The BCM product line was subsequently built with these needs in mind,

following the philosophy of "no shortcuts." You didn't need to wonder about the quality of steel used in a bolt or barrel or if the piece was properly made.

The 16-inch AR-15 I reviewed is the company's MK12 16 300 BLK MCMR model. It's chambered for .300 BLK, and a similar rifle is also available in 5.56.

The foundation is a Bravo Company flattop upper receiver. This good-looking rifle sports T-marks that aid in remounting optics, iron sights or accessories to the same location. The upper has stan-

BRAVO!

standard features such as a forward assist, brass deflector and ejection port door cover. Riding inside the upper is a BCM bolt carrier machined to military specifications. It has a Parkerized exterior while the interior is chrome lined.

Fitted to the carrier is a proper mil-spec gas key that is chrome-lined and heat-treated. It is secured by two properly staked Grade 8 fasteners, and the bolt assembly is machined from mil-spec Carpenter No. 158 steel and shot peened for increased strength. It's fitted with an extractor and ejector machined from tool steel and Bravo's extractor spring. It is also High Pressure Tested (HPT) and Magnetic Particle Inspected (MPI).

At the rear of the upper you'll find a BCM Gunfighter charging handle. Racking a standard charging handle straight

back with the support hand can place a lot of stress on the 1/16-inch roll pin, and under hard use the roll pin/latch can fail. This is especially true if you run an extended latch.

The Gunfighter latch is an extended latch, but it's been redesigned internally to take the load off the roll pin and place it onto the body of the charging handle itself. The latch and handle feature limiters, which strengthens the design, and the latch itself has been beefed-up.

Mated to the front of the receiver is a 16-inch, cold-hammer-forged barrel. The barrel is machined with a continuous taper from mil-spec 11595E, HPT and MPI steel. It is fluted from the chamber to the rear of the gas block to reduce weight, increase surface area and aid balance. It is chrome lined to enhance service

life and has M4 feed ramps. Barrel twist is 1:7, which allows use of a wide range of bullet weights. The muzzle features 5/8x24 threads and has a Bravo Comp Mod 1 to aid control.

The carbine-length gas system is the traditional Stoner direct-impingement design. A low-profile gas block is fitted and tucks neatly beneath the 13-inch MCMR handguard. The aluminum handguard is free-floating with an M1913 rail at 12 o'clock and M-Lok slots around its circumference for a wide variety of accessories.

Bravo Company mounts the upper to one of its forged lower receivers. This was nicely outfitted with a Bravo PNT single-stage trigger group that provides a crisp reset. To facilitate use with gloves, an oversize BCM trigger guard comes standard. A BCM QD end plate is fitted for easy attachment of a sling.

Furniture consists of a Bravo Company Mod 3 pistol grip with internal storage compartment and a BCM collapsible stock. The stock is robust, easy to adjust and nicely contoured. A rubber buttpad keeps the butt from sliding around, and there are multiple sling at-



The receiver houses a BCM mil-spec bolt carrier and a bolt machined from Carpenter No. 158 steel. The bolt is shot peened, HPT and MPI.



The chrome-lined barrel is fluted and sports a 1:7 twist. The handguard is a Bravo Company 13-inch MCMR free-floating model.

SPECIFICATIONS

BRAVO COMPANY MK12 16 300 BLK MCMR

TYPE	direct-impingement AR-15
CALIBER	.300 BLK
CAPACITY	30-round detachable box magazine
BARREL	16 in., tapered w/fluting, chrome-lined, 1:7 twist
OVERALL LENGTH	32.5–35.5 in.
WEIGHT	6 lb., 1 oz.
STOCK	BCM Gunfighter collapsible
FINISH	manganese phosphate
TRIGGER	BCM PNT single-stage; 5 lb. pull (measured)
SIGHTS	none; optics rail
SAFETY	two-position
PRICE	\$1,500
MANUFACTURER	Bravo Company, BRAVOCOMPANYUSA.COM



INTRODUCING THE PERFECT BLEND OF SHOTGUN POWER, AR PLATFORM ERGONOMICS WITH OPTIONS TO CUSTOMIZE FRONT TO BACK

Get to know the all-new VR80 semi-automatic shotgun. Made from rugged 7075 T6 aluminum, this beast is compatible with most commercial buffer tube stocks and pistol grips. As long as we're talking compatibility, the forend is also compatible with most aftermarket accessories. The VR80. It's a must-have.

\\ ROCKISLANDARMORY.COM

Disclaimer: Accessories sold separately. 9- and 19-round aftermarket magazines also available.

RIA
IMPORTS

BRAVO!

tachment points. The MK12 16 300 BLK MCMR weighs in at 6.1 pounds without magazine or accessories and is only 32.5 inches in length with the stock collapsed. Included is a BCM 30-round magazine.

In the hands the MK12 16 300 BLK MCMR is light, quick handling and well balanced. The handguard is small in diameter and comfortable to hold. The stock adjusts easily, has zero play and

provides a bit of cheek support.

During my initial examination, I noted the bolt carrier reciprocated smoothly, the controls all functioned as they should and magazines dropped cleanly free. The finish is nicely applied, and I found zero issues to gripe about.

For testing I attached a Leupold Mk4 1.5-5x20mm scope with a .300 BLK BDC reticle using a Geissele one-piece mount.

I chose this scope because it has hold-over points for both supersonic and subsonic .300 AAC BLK loads. Test ammunition consisted of both supersonic and subsonic loads ranging in weight from 110 to 220 grains from Barnes, Hornady, Remington and SIG Sauer.

Accuracy was checked shooting from a rest at 100 yards. Despite rather gusty wind conditions, the MK12 16 300 BLK MCMR performed well for such a light-weight carbine. Cartridges fed smoothly, chambered without issue and extracted and ejected flawlessly. The single-stage trigger is a bit heavy but broke cleanly. Recoil is very mild, and it is a comfortable rifle to shoot. It is also a great deal of fun.

Accuracy results are found in the accompanying chart. I did note a significant point of impact change switching from supersonic to subsonic loads, which is to be expected. Subsonic loads impacted 10 to 14 inches lower on the target.

From the bench I moved to shooting paper and steel silhouettes from 25 to 100 yards. Here the MK12 16 300 BLK MCMR

ACCURACY RESULTS				
BRAVO COMPANY MK12 16 300 BLK MCMR				
.300 BLK	Bullet Weight (gr.)	Muzzle Velocity (fps)	Std. Dev. (fps)	Avg. Group (in.)
SIG Sauer Elite Hunter HT	120	2,285	14.2	1.5
SIG Sauer Elite Match OTM	125	2,172	9.9	1.7
SIG Sauer Elite Match OTM	220	1,050	11.4	1.7
Barnes TAC-TX	110	2,310	17.0	1.8
Remington AccuTip	125	2,234	25.0	2.0
Hornady A-Max	208	1,009	5.0	2.1

Notes: Accuracy results are averages of four five-shot groups fired from a rest at 100 yards. Velocities are averages of 10 shots recorded with a LabRadar Doppler chronograph set to record at the muzzle. Elevation, 1,030 feet. Temperature, 40 degrees. Abbreviation: OTM, open tip match

NOW SHIPPING

.300 BLACKOUT 110 GR. TTSX™

THIS PROJECTILE EXPANDS IMMEDIATELY UPON IMPACT RETAINING NEARLY 100% OF ITS WEIGHT AND PENETRATING TO DESIRED DEPTHS OF 18"+





Velocity 2250 FPS
Energy 1237 FT LBS



Ammunition

WE SELL DEALER DIRECT
WWW.BLACK-HILLS.COM | 605.348.5150






BRAVO!

really shined. It's quick to the shoulder, handles well and has a smooth recoil impulse. It's easy to control shooting fast. I shot drills from both shoulders, and switching back and forth, with no issues.

Next, I extended the distance a bit and moved to shooting prone off the magazine from 280 to 500 yards. While the .300 BLK is at its best inside 300 yards, I just wanted to see what I could do pushing it a bit farther just to have some fun. At 280 yards the MK12 16 300 BLK MCMR shot a nice 5.5-inch group in the center of the silhouette's chest.

My next berm is at 400 yards, and while the cartridge struggles a bit in the wind, it did very well at this distance. I simply held using the reticle, adjusted for the gusting wind and fired. The Bravo Company carbine held the center of the chest without issue. Past this, I had to be on my game due to a gusting wind and the size of the 20x11-inch LaRues I was aiming for. At 500 yards I made frequent hits, but the Kansas wind was getting the better of me.

I switched from supersonic ammuni-

tion to Hornady's 208-grain subsonic. Using the Leupold's BDC marks, I was able to put 10 rounds out of 10 on a steel silhouette at 280 yards. Yes, the subsonic bullets take a while to get out there, but if you can dope the wind, you can have quite a bit of fun shooting them beyond 100 yards.

I love the AR-15 and its ability to be easily tailored to my tastes. The .300

BLK simply increases the versatility of this wonderful platform. While suggested retail of the MK12 16 300 BLK MCMR is not inexpensive at \$1,500, it is a well-made piece. If you are looking for a quick-handling, reliable and accurate .30 caliber semiauto carbine for use inside 300 yards, I'd seriously consider Bravo Company's MK12 16 300 BLK MCMR. ■



Bravo Company is best known for its AR parts and accessories, and the BCM Gunfighter line is something to check out if you are upgrading your AR.

FOR THOSE WHO KNOW



M-LOK SLOTS
1/2X28 MUZZLE THREADS

CZ 457 VARMINT
PRECISION CHASSIS





TRIPLE DEUCE

THE .222 REM. IS NOT ONLY A CLASSIC ROUND. IT ALSO SPAWNED AN ENTIRE FAMILY OF CARTRIDGES.

by Layne Simpson

There was a time when the .222 Rem. was America's favorite varmint cartridge. Beginning soon after its introduction in 1950, it also became the most popular cartridge in benchrest competition. The "triple deuce" was pushed from that game by the 6mm PPC during the 1970s, but for 40 years the .222 Rem. held the world record for the smallest five-shot group fired at 100 yards: a 0.009-inch cluster from Mac McMillan's Light Varmint-class rifle.

Mike Walker of Remington designed the .222, and it was introduced in the Remington Model 722 rifle, which he also designed. He was one of the founders of the International Benchrest Shooters Association and first shot the cartridge in competition at the Johnstown, New York, gun club during the summer of 1950. Walker also started Remington's custom shop, and the rifle on a Model 722 action he shot competitively would eventually evolve into the Remington 40X.

The little cartridge excelled in other types of competitive shooting as well. In 1960, Remington Model 760 pump guns wearing Redfield International target sights and fitted with heavy,

match-grade barrels in .222 Rem. were adopted by the U.S. Army Marksmanship Unit at Ft. Benning, Georgia, for use in 100-meter international running deer competition, where a moving target is exposed for only a few seconds. Army marksmen used those rifles to win medals at matches held in countries around the world.

While I was growing up, varmint shooters in my area seemed to have more Sako L46 rifles than Remington 722s. One of my father's hunting pals had a Sako with the optional heavy barrel. And in addition to the standard three-round detachable magazine, it had the six-rounder offered by Sako at the time. I eventually ended up with that rifle and still enjoy shooting it.

Many other rifles were eventually chambered for the .222: Remington models 600, 788 and 40X; Sako L461 Vixen; Savage/Anschutz M153; Steyr Model M; Beeman 60J; BRNO ZKB Fox; Anschutz 1533; Savage Model 340; Browning Hi-Power; and H&R 317 (the latter two on the Sako L461 action).

The Winchester Model 70 was never available in .222, and today it saddens collectors to know that during the 1950s many in .22 Hornet were re-chambered to .222 by Griffin & Howe

and other shops. I have one of those as well.

There is also a rimmed version of the .222. In 1909 the Australian government purchased thousands of .310 caliber single-shot rifles on the small Martini action for use in training young cadets in schools and military academies. The rifles were eventually declared obsolete and sold on the military surplus market during the 1950s. I paid \$8 for one of the actions and eventually had a beautiful little custom rifle built around it.

The actions became popular enough for the Super Cartridge Company of Australia to start making a .222 Rimmed case that required no

modification to the extractor of the rifle. Friends of mine there often refer to it as the .222 Super. A .357 Mag. shell holder and standard .222 Rem. reloading dies are used to load the case. My custom rifle is chambered for that one and the cases are imported by Graf & Sons of Missouri.

The .222 Rem. has other offspring. When the U.S. military was seeking a new lightweight battle cartridge in the 1950s, engineer Earle Harvey at government-owned Springfield Armory lengthened the .222 Rem. case to 1.850 inches and delivered an experimental number called the .224 Springfield. Upon learning about its development in 1958, a Remington official obtained

permission to introduce the cartridge commercially as the .222 Rem. Mag. in the Model 722 rifle. Remington dropped the cartridge sometime back, but Reed's Ammunition and Research of Oklahoma City continues to load it. Unprimed cases of excellent quality are available from Nosler.

When the military finally adopted a slightly shorter version of the .222 Rem. Mag. called the 5.6x45 for its new M16 rifle in 1964, the Remington guys quickly pounced again and introduced it commercially as the .223 Rem. Oddly enough, the .223 was available only in the Model 760 pump gun until it was added to the Model 700 Varmint Special in 1967. Little did anyone know how incredibly popular the cartridge would eventually become.

Remington went shorter as well. During the design stages of the XP-100 pistol in 1960, the plan was to introduce it in .222 Rem. But when muzzle flash proved to be a bit much from a 10.75-inch barrel, the .222 case was shortened to 1.4 inches and the .221 Fireball was born.

But it is not the runt of the family. That title is held by the .22 TCM, which has a case length of only 1.025 inches. Introduced by Rock Island Armory in its 1911 pistol and an economy-grade Model 2 rifle, muzzle velocities of its 40-grain bullet from five- and 22-inch barrels are 2,050 fps and 2,750 fps respectively.

Going longer rather than shorter, in 1968 the Germans decided they needed a better roe deer cartridge for use in drillings and single-shot rifles. So they lengthened the .222 Rem. Mag. case to 1.968 inches, added a rim and called it the 5.6x50R Mag. Shortly thereafter, a rimless version called the 5.6x50 Mag. was introduced for bolt-action rifles.

Among ammunition loaded in Europe, the Nosler 60-grain Partition and a 63-grain bullet made by RWS loaded to 3,100 fps are popular choices for shots at deer out to 200 yards or so. The ammunition can sometimes be found in the United States, and hand-loaders can get unprimed cases from Huntington Die Specialties.

The .17 Rem. was created in 1971 by



The family: (from l.) .222 Rem., .222 Super, .222 Rem. Mag., .223 Rem., 5.6x50 Mag., .221 Fireball, .22 TCM, .17 Rem., .17 Fireball, .204 Ruger, .300 BLK.



Simpson's custom single-shot rifle on a Martini Cadet action is chambered for a rimmed version of the .222 Rem. often referred to as the .222 Super.

THE ULTIMATE
LONG-RANGE
TACTICAL
RIFLE



TFM

THE TFM IS THE ULTIMATE
LONG-RANGE TACTICAL RIFLE

Contains the Christensen Arms carbon
fiber barrel and fully adjustable aerograde
carbon fiber stock

STARTING AT	ACCURACY GUARANTEE	RETAIL PRICE
7.3 LBS	HALF-MOA	\$4,895

CHRISTENSENARMS.COM/TFM



shortening the .222 Rem. Mag. case to 1.796 inches and necking it down for a 0.172-inch bullet. Thirty-seven years later, Remington necked down the .221 Fireball case and gave us the .17 Fireball. I have Cooper rifles chambered for both, and they consistently shoot inside a half-inch at 100 yards.

Moving up a tad in bullet diameter, the .204 Ruger is a result of necking

down the .222 Rem. Mag. case, staying with its original length and increasing shoulder angle to 30 degrees. Pushing a Nosler 32-grain, 0.204-inch Ballistic Tip from the 26-inch barrel of my Remington Model 700 VLS at just over 4,100 fps, it is great fun to shoot and one of my favorites for bumping off varmints at fairly long distances. Contrary to popular opinion, I don't find it to shoot flatter or buck wind better than the .17 Rem.

Moving way up in bullet diameter, we have the .300 Whisper. It was created around 1992 by J.D. Jones of SSK Industries by necking up the .221 Fire-

ball case. Loaded to subsonic velocities with 200- and 250-grain bullets, it was intended for use in suppressed firearms. Then one day in 2011 Jones learned with chagrin that Remington had registered the cartridge with SAAMI and renamed it .300 Blackout.

There have also been a few wildcats. Back when the .222 Rem. was dominating Light Varmint and Heavy Varmint classes of benchrest competition, the 6x47—made by necking up the .222 Rem. Mag. case—was the most popular cartridge in Sporter class where 6mm and larger bullets were required. Federal offered 6x47 unprimed

WARNING: The loads here are safe only in the guns for which they were developed. Neither the author nor Outdoor Sportsman Group assumes any liability for accidents or injury resulting from the use or misuse of this data.

FAVORITE LOADS

Cartridge/Rifle	Bullet Weight (gr.)	Powder	Powder Charge (gr.)	COL (in.)	Muzzle Vel. (fps)	Std. Dev. (fps)	Avg. Group (in.)
.17 Rem. Fireball, Cooper Model 21 Varminter, 26-in. bbl.							
Berger Varmint HP	20	H335	20.0	1.770	4,010	14	0.41
.17 Rem., Cooper Model 21 Varminter, 26-in. bbl.							
Nosler Varmageddon	20	H CFE 223	27.7	2.175	4,349	9	0.46
Hornady V-Max	25	H CFE 223	26.0	2.170	4,128	11	0.40
.221 Rem. Fireball, Remington Model 700LTD, 24-in. bbl.							
Berger Varmint HP	30	V N110	15.3	1.834	3,547	15	0.93
Berger Varmint HP	40	V N110	15.8	1.837	3,325	19	1.15
.222 Rem., Sako L46, 24-in. bbl.							
Nosler Ballistic Tip	40	A 2200	23.0	2.133	3,466	9	0.48
Sierra BlitzKing	50	A LT-30	21.4	2.128	3,510	15	0.50
.222 Rimmed, Martini Cadet, 24-in. bbl.							
Nosler Ballistic Tip	40	H CFE BLK	19.1	2.165	3,370	12	0.53
Nosler Ballistic Tip	50	RL-7	21.0	2.210	3,217	8	0.80
.223 Rem., Jarrett Custom M40X, 24-in. bbl.							
Nosler Ballistic Tip	40	H CFE 223	28.7	2.267	3,621	7	0.28
Nosler Ballistic Tip	50	H CFE 223	28.2	2.266	3,445	4	0.26
.222 Rem. Mag., Remington Model 722, 24-in. bbl.							
Sierra Blitz	50	IMR 3031	25.5	2.270	3,433	22	0.89
Speer HP	52	H335	27.6	2.245	3,429	18	1.11
6x45, Kimber Model 84, 22-in. bbl.							
Sierra BlitzKing	55	H322	25.5	2.260	3,140	14	0.66
Nosler Partition	85	H335	25.0	2.260	2,789	18	0.95
6x47, Jarrett Custom 40X, 22-in. bbl.							
Berger Match HP	68	H BL-C(2)	28.7	2.449	3,127	3	0.22
Euber Match HP	68	IMR 4198	24.1	2.445	3,209	6	0.20

Notes: All powder charges are maximum or close to it and should be reduced for starting loads in other rifles. Federal GM205M primers were used. Cases are Remington (.17 Fireball, .17 Rem.), Graf & Sons (.222 Rimmed), Nosler (.222 Mag., 6x47) and Lapua (.222 Rem., .223 Rem., 6x45). Accuracy is the average of four or more five-shot groups fired from a sandbag rest at 100 yards. Velocities are averages of 10 shots clocked 12 feet from the muzzle by an Oehler Model 33 chronograph. Powder legend: A, Accurate; H, Hodgdon; IMR, IMR; RL, Reloder; V, VihtaVuori

cases for several years.

The 6x45, formed by necking up the .223 Rem. case, is more popular today due to the abundance of .223 brass. Black Hills used to load the ammo, and AR-15 rifles built by Les Baer Custom were chambered for it. I have long had a beautiful Model 84 in 6x45 built by the original Kimber of Oregon, and with the Nosler 85-grain Partition loaded to 2,800 fps, it has proven to be a deadly little 200-yard deer and hog thumper.

I began competing in handgun metallic silhouette competition during the late 1970s, and a T/C Contender chambered for the 7mm TCU was the gun I used in Production class. The cartridge is formed by necking up the .223 Rem. case and fire-forming to minimum body taper and a sharper shoulder angle.

You could make your own or buy them already formed from Wes Ugalde, who developed the cartridge. A few Kimber Model 84 rifles were chambered for the 7mm TCU.

The .222 Rem. is seldom written about today, but it is far from obsolete. Remington and other companies here and abroad continue to load the ammo. I am presently handloading Starline and Lapua cases, and while it's unlikely .222 brass will become scarce, the .222 case is easily formed by running .223 Rem. brass through a .222 Rem. full-length resize die with its expander/decap assembly removed. Then trim to 1.69 inches.

Only virgin brass is used for this procedure, and should neck diameter with a bullet seated exceed 0.253 inch, the neck wall will have to be thinned by reaming or, preferably, by outside turning. Annealing extends service life.

Tipped bullets weighing 40 and 50 grains are hard to beat in the .222, and my Sako and custom Martini rifles are quite fond of Nosler Ballistic Tips and Sierra BlitzKings. The Berger 30-grain hollowpoint is also quite effective on varmints.

The tipped bullets are too long to be stabilized by the 1:16 twist of my

rechambered Model 70, so it gets fed the Speer 40-grain softpoint and the Sierra 45-grain SPT.

IMR 4198 and BLC-(2) are the classic powders, but others such as CFE BLK, Accurate LT-30, H322, VihtaVuori N130 and Reloder 7 have the correct burn rates. My rifles are partial to Federal GM205M and the CCI BR4 primers, although some ball powders seem to burn a bit cleaner when ignited by the Remington No. 7½.

Most shopping for a new varmint rifle today will choose the .223 Rem. I cannot disagree because there's more variety in factory loads, and military surplus 5.6mm brass often found at dirt-cheap prices is just the ticket for high-volume prairie dog shooting.

Even so, there are still enough of us who enjoy classic rifles and cartridges to keep the .222 Rem. active in the field. Shortly before writing this, I was happy to learn that one of my editors is having a rifle rebarreled for a grand little cartridge that won my heart many tiny groups and varmint shoots ago. ■



ANYTIME ANYWHERE

DIGITAL ACCESS NOW INCLUDED WITH YOUR PAID SUBSCRIPTION!

ENJOY DIGITAL ACCESS ON YOUR PHONE, TABLET & MORE*

SUBSCRIBE TODAY AT

WWW.RIFLESHOOTERMAG.COM

CURRENT SUBSCRIBERS GO TO MYMAGNOW.COM AND SELECT "CREATE DIGITAL ACCOUNT"

*Digital Edition is available on updated iPad/iPhone, most Android devices, and the Microsoft Store for Windows

THE 6.5 PHENOMENON

U.S. INTEREST IN 6.5MM CARTRIDGES HAS GONE THROUGH THE ROOF. HERE'S A LOOK AT THE CURRENT CROP.

by Joseph von Benedikt





There are currently at least 10 different popular 6.5mm cartridges. Five of them, including the now-ubiquitous 6.5 Creedmoor, were introduced in just the last decade or so.

These cartridges span the spectrum from modest, efficient little rounds to barrel-burning dragons that spew 6.5mm bullets at shocking speeds.

Do we need them all? Of course not. But clearly, shooters want them. So which to choose? Which offers the best all-around capabilities? Inherent accuracy? Long-range reach? Which are best for hunting? Here's a look at 10 of the top 6.5 rifles available. We'll go more or less chronologically, starting with the Scandinavian favorite introduced 110 years ago.

6.5x55 Swedish Mauser

Undoubtedly the best of a flurry of 6.5mm military cartridges engineered over a century ago, the 6.5x55 provided excellent ballistic performance coupled with moderate recoil. It capably made the transition to modern times, although American ammo companies governed by SAAMI load it gently out of caution for vintage rifles with potentially weak actions.

If you want the best out of the 6.5x55, you must either handload it or purchase European-loaded ammo by Norma, Lapua or the like. It has about 11 percent greater case capacity than the 6.5 Creedmoor—the current gold standard—so when loaded to similar pressures, it produces a step up in velocity. It goes without saying that these loads are suitable only for use in strong actions in good condition.

Because of its 3.15-inch overall cartridge length, the 6.5x55 must be paired with a long action. On the plus side, this makes it easy to seat long, highly aerodynamic bullets well out of the case so they don't intrude on propellant capacity. Magazine capacity runs four or five, plus one in the chamber.

Paired with a tough bullet, the 6.5x55 is adequate for elk, but hunters must place shots carefully. As many proponents point out, the cartridge has been used successfully on tens of thousands of Scandinavian moose. This is true, but keep in mind that Scandinavian moose are much smaller than our North American species, and they are typically shot at close ranges, where the 6.5x55 has adequate energy.

Of course, the "Swede" is superb for deer-size game. For deer, pick a 120- to 143-grain bullet. For bigger, tougher game, opt for monometal versions or heavy Nosler Partitions, Swift A-Frames or the like.

My current favorite all-around 6.5x55 hunting load pushes a 129-grain Hornady InterBond

at 3,030 fps. I took several plains game species in Mozambique with it, including a sable. Fired from a Ruger M77 Hawkeye African, it groups under an inch at 100 yards.

.264 Win. Mag.

This half-century-old cartridge was the first proper 6.5mm hot rod. Based on a shortened, necked-down version of the .375 H&H case, it was advertised to drive 140-grain bullets at 3,200 fps. Velocity was rarely quite that high, but it did provide impressive downrange results.

Created to fit into standard .30-06-length actions, the belted magnum case dictates that capacity in most bolt-action rifles is three in the magazine plus one in the chamber.

Remington's 7mm magnum essentially killed off the .264, and today the .264 Win. Mag. is a cartridge for traditionalists

with a flair for the unusual. Ballistically, it's still a good cartridge, but it's no more capable than modern 6.5s such as the 6.5 PRC and 6.5 Wby RPM, which have superior design characteristics to recommend them.

Only Nosler's current factory ammo features good long-range bullets. Handloaders can achieve best performance by loading aerodynamic projectiles like the Hornady ELD-X, Barnes LRX and Federal Terminal Ascent.

This cartridge crosses into the high-velocity territory that necessitates a tough, controlled-expansion bullet to prevent excessive fragmentation on impact, particularly for use on big-bodied game. That said, with savvy bullet selection, the .264 Win. Mag. works wonderfully on all North American big game up to and including elk.

6.5-.284 Norma

Consisting of a .284 Win. case necked down to hold 6.5mm bullets, this wildcatters' favorite quickly became more popular than its parent cartridge, and it was eventually legitimized by Norma ammunition in 1999. While it can be shoehorned into some short-action rifle models, it's at its best in long actions where bullets can be handloaded long so bases don't intrude into the powder reservoir.

It's a tad slower than the .264 Win. Mag. and 6.5 PRC, but the 6.5-.284 Norma still provides significantly more velocity than the 6.5 Creedmoor. Most 140-grain bullets exit the muzzle at around 2,950 fps.

Of rebated-rim design, the 6.5-.284 features a case head that fits standard bolt faces, with an expanded body diameter that enables the cartridge to hold more gunpowder. Most rifles contain four or five rounds in the magazine, plus one in the chamber.

For a time, the 6.5-.284 was the darling of long-range benchrest competitors, and at least one 1,000-yard world record was set with it. Its popularity has faded a bit, mostly due to the 6.5 PRC cartridge, which offers a trace more velocity and fits into short-magnum-action rifles.

However, the 6.5-.284 is still a superb choice for the discerning open-country hunter and is adequate for all hooved game up to and including elk. Pick a tough, bullet with a high ballistic coefficient to get the best out of it.

.260 Rem.

Introduced in 1997, the .260 Rem. presaged the 6.5mm frenzy. Simply a .308 case necked down to hold 6.5mm bullets, it was a popular wildcat before being adopted by Remington.

It's often been compared to the 6.5 Creedmoor. Proponents assert that the .260 has a bit more capacity and produces a shade more velocity. On the downside, it's not optimized for long, high-BC bullets like the Creedmoor is. Plus, the .260 has gained a reputation for picky accuracy—probably due to varying and often sloppy chamber throat dimensions—while the 6.5 Creedmoor has the opposite reputation. At this point, the



The current 6.5mm lineup, given in loose chronological order: (l.-r.) 6.5x55 Swede, .264 Win. Mag., 6.5-.284 Norma, .260 Rem., 6.5 Grendel, 6.5 Creedmoor, .26 Nosler, 6.5-.300 Wby Mag., 6.5 PRC and 6.5 Wby RPM.



.260 appears to be on a rapid slide into obscurity.

Most bolt-operated actions contain four or five in the magazine, plus one in the chamber. The .260 Rem. has also been successfully adapted to large-frame AR-type semiauto rifles.

Typical 140-grain bullets exit the muzzle at about 2,750 fps. Lighter 120-grain versions offer about 2,900 fps. It's an outstanding deer cartridge, and it serves adequately as a crossover for elk as long as a tough, heavy bullet is chosen and ranges are kept moderate.

6.5 Grendel

Introduced in 2003 by Alexander Arms, the 6.5 Grendel was designed to help the AR-15 be all it can be. Based on a .220 Russian case shortened and necked up to 6.5mm, it's optimized for use with 6.5mm bullets in the 120- to 130-grain range. Velocity is highly dependent on barrel length, and with bullets in the 120- to 130-grain range, the Grendel generates about 2,600 fps in a 24-inch barrel.

In a bolt-action rifle it's the wimpiest of all the popular 6.5mms. However, when compared to the .223 or 6.8 SPC in an AR-15, it offers profoundly better energy and downrange capability. It hits significantly harder than any 7.62x39 bullet out of an AK-47. Plus, it's got reach. I've shot magazine-compatible 6.5 Grendel factory ammo to 1,000 yards with great results using a 24-inch-barreled AR-15.

As a hunting cartridge, the Grendel is lacking on larger game like elk because it simply doesn't drive heavy enough bullets fast enough. But if you want a very moderate recoiler for close hunting on deer-size game, it's wonderful.

6.5 Creedmoor

Ah, the "Creed"—the cartridge responsible for the current 6.5mm feeding frenzy. Introduced as a 1,000-yard competitive cartridge in 2008, the 6.5 Creedmoor is a result of the combined efforts of Hornady's lead ballisticians David Emary and champion long-range shooter Dennis DeMille. It crawled away from the starting line and then meteorically launched to cartridge stardom—opening American shooters' eyes to a new world of long-range precision ability.

Stringent chamber throat design and dimensions make the 6.5 Creedmoor arguably the single most inherently accurate factory cartridge available today. Most hunting rifles contain four or five in the magazine plus one in the chamber.

Because it's designed specifically for long, aerodynamic projectiles, the 6.5 Creedmoor is most comfortable with 135- to 150-grain bullets. Velocity with common 140-grain bullets runs about 2,700 fps. Handloads achieve a bit more. While the Creedmoor is at its best inside about 1,200 yards, depending on altitude and other environmental factors, I've shot it to 1,400 yards with quite good success. For hunting, Hornady's 143-grain ELD-X is

probably the single best all-around bullet for the 6.5 Creedmoor.

Although it's an outstanding hunting cartridge for deer-size game and is certainly adequate for elk—assuming careful bullet choice, precise shot placement, and moderate range limitations—the 6.5 Creedmoor isn't the dragon-slayer many suggest it is. While it may not be just a cartridge like any other, it cannot escape the realities of physics—particularly velocity and energy constraints.

.26 Nosler

Announced in 2013, this was the first cartridge to wear the Nosler name. At the time, it was the fastest factory 6.5mm cartridge in existence. Utilizing a .300 Rem. Ultra Mag case shortened and necked down to hold 6.5mm projectiles, the .26 Nosler is rated to produce 3,300 fps with 140-grain bullets. Pair those speeds with modern ultra-high-BC bullets, and you've got eyebrow-raising long-range potential. Most rifles hold two or three rounds in the magazine.

I worked with a .26 Nosler the fall before it was introduced, and hitting steel targets out to 800 yards was almost laughably easy. Wind drift and time of flight was shockingly low. It's a truly capable extended-range hunting cartridge.

There are some significant downsides, though. Because the .26 Nosler is so overbore (the relationship of propellant reservoir to bore diameter), it's a bit finicky accuracy-wise. And don't bother to try to develop reduced loads. You'll just find inconsistency and potentially some odd pressure spikes that are understandable only to ballistic engineers. The .26 Nosler was built for speed, and it likes to be run hot.

Stoked with heavy-for-caliber Partition or E-Tip Nosler bullets, the .26 Nosler is good for elk. Loaded with 120- to 140-grain AccuBonds, it's a deer-dropping death ray.

6.5-.300 Wby. Mag.

When Nosler claimed the title of fastest 6.5mm factory cartridge, Weatherby responded with the 6.5-.300. As you've guessed, it's a .300 Wby. necked down to 6.5mm. With massive propellant capacity in that full-magnum-length case,

6.5 SPEC COMPARISON

Cartridge	Case Capacity (gr.)	Overall Length (in.)
6.5x55 Mauser	60.7	3.150
.264 Win. Mag.	87.8	3.340
6.5-.284 Norma	67.0	3.228
.260 Rem.	54.8	2.800
6.5 Grendel	35.0	2.260
6.5 Creedmoor	54.0	2.825
.26 Nosler	100.8	3.340
6.5-.300 Wby. Mag.	101.1	3.600
6.5 PRC	68.8	2.955
6.5 Wby. RPM	82.5	3.340

Notes: Capacity is in grains of water.

the 6.5-.300 Wby. drives bullets with amazing speed. Light 100-grain projectiles hit 3,900 fps. Midweight 130-grainers achieve 3,475 fps, and all-around 140-grainers make 3,395 fps.

When the 6.5-.300 Wby. was introduced, I shot the rifle to 1,100 yards and hunted wild hogs with it. I took a good boar at 70 yards, driving a 127-grain Barnes LRX through the quartering-away hog and dropping it in its tracks.

Although massively overbored and a bit temperamental like the .26 Nosler, it's an accurate cartridge. Loaded with a tough, high-BC bullet, it's a bona fide extended-range hunting cartridge ideal for deer, pronghorn, sheep and the like.

Beware of soft, rapid-expansion bullets. At 6.5-.300 velocities, they'll likely pancake on impact and fail to penetrate adequately. Choose bonded-core or mono-metal bullets for hunting. Adam Weatherby's choice for elk is a 140-grain Swift A-Frame. Yes, it gives up that coveted super-high BC, but it can be counted on to hold together and kill cleanly at any reasonable distance.

6.5 PRC

The 6.5 PRC (Precision Rifle Cartridge) made its debut two years ago. It is a short-action magnum created by necking down the .300 RCM. Importantly, it's engineered to hold long, aerodynamic projectiles seated well out and to fit into standard short-magnum actions. All

things considered—efficiency, barrel life, inherent accuracy and adequate authority—it's arguably the single best 6.5mm hunting cartridge ever devised.

Generating nearly 3,000 fps with popular bullets in the 140-grain range, it provides a great deal of downrange performance without crossing the line into the temperamental territory of overbore 6.5s. The 6.5 PRC trounces the milder 6.5mms such as the 6.5 Creedmoor, shades the 6.5-.284 and matches the .264 Win. Mag.—and it fits into light, compact, fast-cycling short-magnum actions. It's superb for deer-size game and adequate for elk.

It's debatably already the second-most popular of all the 6.5mms. Only the Creedmoor is available in more different rifle models from more different manufacturers. Most rifles hold three in the magazine, and high-capacity, detachable-box rifles are available.

Loaded with a heavy 140- to 156-grain high-BC match bullet, the 6.5 PRC is capable to a mile on large steel targets. For hunting, few things are more versatile than a midweight, controlled-expansion bullet such as a Barnes LRX, Nosler AccuBond, Swift Scirocco II or Federal Terminal Ascent driven to 3,100 fps.

6.5 Wby. RPM

Introduced just a few months ago, the RPM (Rebated Precision Magnum) is a complete departure from tradi-

tional Weatherby design, and it has made a tremendous splash among the mountain-rifle community. Why? Because it's the first 6.5mm that both fits into an extremely sleek action and offers true magnum-6.5 ballistic performance.

Most hot-rod 6.5s have large cases with large case heads. They require actions of robust diameter and bolts with magnum bolt faces. This new 6.5 magnum utilizes a rebated rim, so it plays nice with standard bolt faces and fits into svelte actions. Weatherby's introductory Backcountry Ti chambered in 6.5 Wby. RPM weighs less than five pounds. Rifles hold four rounds in the magazine.

As for ballistics, the 6.5 Wby. RPM pushes 140-grain Nosler AccuBond bullets at 3,075 fps. Lighter 127-grain Barnes LRX's exit at 3,225 fps. That's proper mountain-hunting medicine and edges into good elk-cartridge territory.

Capacity is four in the magazine plus one in the chamber. Recoil is zesty but polite. On-impact performance should prove excellent for many big game species.

Only Weatherby rifles will be available chambered in 6.5 Wby. RPM. However, the company offers a broad selection of rifles built for different purposes and guarantees one m.o.a. accuracy in every one of them. ■

6.5MM BALLISTIC COMPARISON

Cartridge	Muzzle				500 Yards				1,000 Yards			
	Velocity	Energy	Drop	Drift	Velocity	Energy	Drop	Drift	Velocity	Energy	Drop	Drift
6.5 Grendel*	2,600	1,846	0	0	1,781	866	52.1	21.2	1,118	341	397.7	107.1
6.5 Creedmoor	2,700	2,314	0	0	2,009	1,281	44.4	15.6	1,422	642	311.5	74.7
.260 Rem.	2,750	2,401	0	0	2,051	1,336	42.6	15.2	1,458	675	298.5	71.8
6.5x55 Swede	2,800	2,489	0	0	2,094	1,392	40.1	14.8	1,495	709	286.2	69.7
6.5-.284 Norma	2,950	2,763	0	0	2,221	1,567	36.3	13.7	1,604	817	253.5	64.0
6.5 PRC	2,995	2,848	0	0	2,260	1,622	35.0	13.3	1,637	851	244.7	62.4
.264 Win. Mag.	3,015	2,886	0	0	2,278	1,647	34.5	13.2	1,652	866	241.0	61.8
6.5 Wby. RPM	3,075	3,002	0	0	2,330	1,723	33.0	12.8	1,696	913	230.0	59.8
.26 Nosler	3,300	3,457	0	0	2,527	2,027	27.9	11.4	1,863	1,101	194.8	53.2
6.5-.300 Wby. Mag.	3,395	3,659	0	0	2,611	2,164	26.1	10.9	1,934	1,187	182.1	50.7

Notes: *All ballistics calculated using a 143-grain Hornady ELD-X bullet except for the 6.5 Grendel. Its data were calculated with a 123-grain Hornady ELD-Match bullet because this cartridge can't efficiently fire a 143-grain bullet. Measurement Units: Velocity (fps), Energy (ft.-lbs.), Drop (inches), Drift (inches in 10-mph wind)

NOTHING GETS BEYOND THIS VAULT DOOR



Create your own safe room or enhance the security of any closet, room, or storm shelter with the SnapSafe® Vault Door. Its thick steel construction and easy installation allow an effective and affordable way to protect an existing area from theft and unintended intrusion.

- 12-gauge door and door frame, available with in-swing or out-swing configurations.
- Features nine 1-inch live locking bolts.
- Comes standard with a SecuRam™ digital lock with key backup.
- Integrated steel trim finishes the exterior doorway.
- Premium slip clutch handle protects lock mechanism against forced entry.

Available in:

- 32-inch out-swing or in-swing
- 36-inch in-swing



SnapSafe®
A Hornady® Company

1-877-214-4470 | snapsafe.com

RIFLE REPORT

by
Stan Trzoniec



Ruger Model 77/22

Bill Ruger was my kind of person. It seemed every time I wanted something, he made it. In the early 1980s I was looking for an adult-size rimfire rifle. And, by golly, here comes Bill and his Model 77/22 rifle built to look and operate like his centerfire rifles.

The 77/22 was originally chambered to .22 Long Rifle, and according to R.L. Wilson's book *Ruger and His Guns*, Ruger and his engineers had more than once considered chambering it in .22 Hornet. But the added expense of lengthening the investment-cast receiver kept the project on the back burner. However, once the company had experience with the .22 Magnum version, they felt confident to move

forward with the Hornet, and by 1995 half of the 77/22 rifles produced were in this caliber.

The stock comes from the mind of Len Brownell, a stock maker hired by Ruger in the early days to help with the new centerfire M77. It's a straight sporter stock with a black spacer and a real, honest to goodness rubber butt-pad. The satin finish has been applied perfectly, and the walnut stock has no pin knots—although there is not much here in the way of fancy figure, grain or color either.

The fore-end has been slimmed for a better grip, and while there is no fore-end tip, a sling swivel and point-pattern checkering are there. The same checkering is found on the pistol grip, and the grip is finished off with the

SPECIFICATIONS

RUGER MODEL 77/22

TYPE	bolt-action centerfire
CALIBER	.22 Hornet
CAPACITY	6-round rotary magazine
BARREL	20 in.
OVERALL LENGTH	39.25 in.
WEIGHT	6.5 lb.
STOCK	satin-finished American walnut
FINISH	matte blue
TRIGGER	single stage; 6 lb. pull (measured)
SIGHTS	none; rings supplied
PRICE	\$999
MANUFACTURER	Ruger, RUGER.COM



LONG RANGE PRECISION: WITH REACH

NEW

EMINUS SERIES

AVAILABLE IN 6-24 X 50MM, 4-16 X 44MM AND 3-9 X 42MM

QUICK-ZOOM LEVER INCLUDED

SIDE-FOCUS PARALLAX DIAL

NEW 6-24 X 50MM

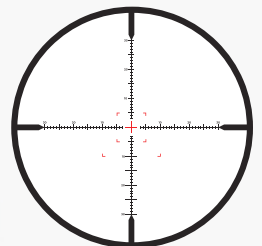


1-PIECE AR MOUNT INCLUDED

30MM TUBE FOR INCREASED
ADJUSTMENT RANGE

**ILLUMINATED MOA
TACPLEX RETICLE**

*Provides all the hold-over you
need and references easily with
the 1/4-MOA target turrets*



Available in the **Strelok Pro**
Ballistic calculator app 



**INCLUDED
SUNSHADE**

*4-16X and 6-24X models
include a 3 in. removable
aluminum sunshade.*

TRUGLO® TACTICAL

WWW.TRUGLO.COM



traditional Ruger pistol grip cap.

The receiver is streamlined and features Ruger's scope mounting setup. Rings come with the rifle. There are two mounting positions behind the ejection port and one in front, and with this arrangement just about any scope can be mounted. That's a benefit on a Hornet rifle, as serious varmint hunters might gravitate to the longer, target-type scopes. I used the slots closest to the ejection port to mount an old Leupold Vari-X 3-9x33mm scope, and it was a perfect match.

The bolt, bolt handle and knob are made from stainless and finished in a natural state. The bolt handle has a graceful turn, and the knob is uncheckered. An unobtrusive bolt release is located in the left rear of the receiver.

The twin lugs lock up tight at 90 degrees just forward of the rear scope base. Rails forward of the locking lugs are long enough to ensure a secure ride into the receiver while picking up a round from the rotary magazine. There is a massive extractor up front, and the action features a mechanical ejector.

The six-round rotary magazine fits flush with the bottom of the stock. It is released via a release that is forward of the trigger guard.

At the rear of the bolt and past the shroud, you will see a locking notch that mates with Ruger's three-position safety. Full forward allows the gun to fire, mid-position allows you work the action on Safe, and all the way back secures both the firing pin and the bolt.

The trigger pull is nothing to write home about. It's non-adjustable and broke at about six pounds, hardly an item to put in the credit column for a varmint gun. It was crisp, to a point, but since this is a varmint gun, I think Ruger should upgrade the trigger in this rifle.

The barrel is 20 inches long and tapers down to 0.625 inch at the muzzle, where you'll find a removable barrel cap for the installation of a muzzle device. It is finely finished and blued. There are no open sights.

The .22 Hornet was introduced by Winchester in 1930, and the round gained popularity with varmint hunters worldwide for its accuracy and mild



The walnut stock is a classic sporter—no Monte Carlo comb or shadow-line cheekpiece. The grip gets a cap, and there's a rubber buttpad at the back.



There are two locations behind the ejection port to attach one of Ruger's supplied proprietary rings, which provides plenty of latitude for scope mounting.



The rifle feeds from a six-round rotary magazine. It fits flush with the stock.

ACCURACY RESULTS

RUGER MODEL 77/22

.22 HORNET	Bullet Weight (gr.)	Muzzle Velocity (fps)	Std. Dev. (fps)	Avg. Group (in.)
HORNADY V-MAX	35	3,055	35	0.62
REMINGTON ACCU TIP-V	35	3,090	52	1.02
WINCHESTER SUPER-X JHP	46	2,546	25	1.25

Notes: Accuracy results are averages of three three-shot groups at 100 yards from a sandbag rest. Velocities are averages of five shots recorded on an Oehler Model 35P chronograph. Temperature: 25 degrees. Elevation: 652 feet. Abbreviation: JHP, jacketed hollowpoint

report. I have used it in a number of rifles over the years. The round is easy and economical to handload and fun to shoot.

The 77/22 was no exception, and it was a pleasure to work with. Factory ammunition fed through the gun with no problems, and except for the Winchester 46-grain hollowpoint, velocities were over the magical 3,000 fps mark.

Being a new gun, loading the rotary magazine was a bit rough for a short time, but it got easier as the morning

wore on. The only thing I didn't like was the six-pound trigger pull, although I got used to it.

You can see in the accompanying table that average accuracy was good. That was especially true for the Hornady V-Max load, which turned in not only the best average but also the star of the day: a 0.43-inch group.

If you're a varmint or a .22 Hornet fan, this Ruger certainly deserves a look. The build quality of the gun is par with others in the same class, and the accuracy is better. Give it a shot. ■

THE LAST WORD

Continued from page 64

Norm was an early convert to the long-for-caliber, aerodynamic 6.5mm bullets. He was amused by the sudden popularity of the Creedmoor, but his personal favorite was the 6.5-284 Norma, the cartridge he used for most of his North American hunting.

He had an interesting theory about bullet performance that I wish I'd taken more time to explore. He accepted that high sectional density increased penetration on game and, when combined with aerodynamics for

UNDER THAT OAK TREE, ATOP HIS CASKET... WAS PROUDLY DISPLAYED HIS PET 6.5-284.

a high ballistic coefficient, improved downrange trajectories. No secrets there, but Norm came to believe there was something more.

Obviously, to properly stabilize his long, heavy-for-caliber 6.5mm bullets, he needed faster-twist barrels. He believed the higher RPMs of a bullet from a fast twist, say a dramatic change such as 1:7 as compared to 1:10 or 1:12, created a buzz-saw effect that considerably enhanced terminal performance on game.

When you think about it, it makes sense, especially with the great hunting bullets we have today that will hold together and don't come unglued during penetration. My problem is I'm not smart enough to know how to prove this theory, but Norm absolutely believed it, and he was one of the most astute rifle guys I've ever known.

Under that California oak tree, atop his casket, with most of the town in attendance, was proudly displayed his pet 6.5-284, built by himself, for himself—an old and well-used friend of many decades.

WOW! SUPER COUPON

SAVE 86%

5 FT. 6" x 7 FT. 6" ALL PURPOSE/WEATHER RESISTANT TARP

Waterproof • Tear-resistant

Customer Rating ★★★★★

LIMIT 3

COMPARE TO BLUE HAWK \$6.98

MODEL: CHGXB-L

ITEM 953/69128/69136/69248/63110/69210 shown

79697155

COUPON valid through 7/12/20*

\$2.99 **WOW! 97¢**

SCISSOR SUPER COUPON

20% OFF

ANY SINGLE ITEM*

79695627

Limit 1 coupon per customer per day. Save 20% on any 1 item purchased. *Cannot be used with other discount, coupon or any of the following items or brands: Inmate, Truck Club membership, Electronic Services Plus, gift card, outer tie item, 2 day Parking Lot Sale Item, compressors, floor jacks, sales, storage cabinets, chisels or bits, trailers, welders, Airtools, Ames, Atlas, Bauer, Central Machinery, Crafts, Dewalt, Hitachi, Skil, Snap-on, Craftsman, Eastman, Fisher, Hercules, Husqvarna, Ingersoll Rand, Porter-Cable, Ridgid, Viking, Waltham, Zurich. Not valid on prior purchases. Non-transferable. Original coupon must be presented. Valid through 7/12/20.

TAILGATOR SCISSOR SUPER COUPON

900 WATT MAX. STARTING 2 CYCLE GAS POWERED GENERATOR

5 hour run time

Customer Rating ★★★★★

SAVE \$16

COMPARE TO POWERSMART \$126.10

MODEL: PSSO

ITEM 63024 63025 shown

79696778

COUPON valid through 7/12/20*

NOW \$109.99

HARDY SCISSOR SUPER COUPON

POWDER-FREE NITRILE GLOVES PACK OF 100

5 mil thickness

Customer Rating ★★★★★

12¢ PER PAIR

SAVE 59%

COMPARE TO VENOM \$7.99

NOW \$5.99

MODEL: VEN4145

AVAIL. IN SM, MED, LG, XL, XXL

ITEM 37050, 64417, 61363, 68496, 68497, 61360, 61359, 68498, 64418 shown

79698596

COUPON valid through 7/12/20*

Apache SCISSOR SUPER COUPON

WEATHERPROOF PROTECTIVE RIFLE CASES

MODEL 9800

Customer Rating ★★★★★

YOUR CHOICE OF COLOR

50-3/8" L
13-5/8" W
5-1/8" H

\$114.99

\$149.99

SAVE \$155

COMPARE TO PELICAN \$269.99

MODEL: DOUBLE RIFLE

BLACK ITEM 64520 TAN ITEM 56862

Case contents not included.

79699278

COUPON valid through 7/12/20*

NEW

SCISSOR SUPER COUPON

.50 CAL METAL AMMO CAN

Customer Rating ★★★★★

SAVE \$13

COMPARE TO GAME WINNER \$24.99

MODEL: FSGWHE1030

ITEM 63750/56810/63181 shown

79699858

COUPON valid through 7/12/20*

NOW \$10.99

UNION SAFE COMPANY SCISSOR SUPER COUPON

PERSONAL PORTABLE SECURITY SAFE

Meets TSA guidelines

Customer Rating ★★★★★

SAVE 49%

COMPARE TO STACK-ON \$29.97

MODEL: IN-233131

ITEM 64079

Contents not included.

79700433

COUPON valid through 7/12/20*

NOW \$14.99

CENTRAL PNEUMATIC SCISSOR SUPER COUPON

3 GALLON, 100 PSI OIL-FREE AIR COMPRESSORS

Air delivery: 0.6 CFM @ 90 PSI

Customer Rating ★★★★★

YOUR CHOICE

SAVE 59%

COMPARE TO PORTER-CABLE \$98.62

MODEL: PCPFG2003

HOT DOG ITEM 69269 97080 shown

PANCAKE ITEM 61615/60637 95275 shown

79700815

COUPON valid through 7/12/20*

NOW \$39.99

HaulMaster SCISSOR SUPER COUPON

4 PIECE, 1" x 15 FT. RATCHETING TIE DOWNS

400 lb. working load

Customer Rating ★★★★★

SAVE 69%

COMPARE TO KEEPER \$22.80

MODEL: 3505

ITEM 90984/63056/63057/63150/56668/63094 shown

79702014

COUPON valid through 7/12/20*

NOW \$6.99

UNION SAFE COMPANY SCISSOR SUPER COUPON

10 GUN ELECTRONIC SECURITY SAFE

CA DOJ compliant

Customer Rating ★★★★★

SAVE \$284

COMPARE TO STACK-ON \$564.57

MODEL: SS-16-IND-E

ITEM 64008/64011 shown

Contents not included.

15640672

COUPON valid through 7/12/20*

NOW \$279.99

*Original coupon only. No use on prior purchases after 30 days from original purchase or without original receipt. Valid through 7/12/20.

At Harbor Freight Tools, the "Compare to" price means that the specified comparison, which is an item with the same or similar function, was advertised for sale at or above the "Compare to" price by another national retailer in the U.S. within the past 90 days. Prices advertised by others may vary by location. No other meaning of "Compare to" should be implied. For more information, go to HarborFreight.com or see store associate.

The Last Old-Time Gunsmith

"On behalf of the United States of America" were the words as Norm Bridge's flag was presented to his son, Art, under the boughs of a massive oak, on a balmy December morning atop a little knoll in the old Catholic section of the Paso Robles, California, cemetery.

Norman R. "Norm" Bridge (April 1925–December 2019) moved to Paso Robles with his family when he was two years old. He graduated from Paso Robles High School, receiving his diploma aboard a U.S. Navy ship, westbound for the Pacific Theater.

Norm served as a Seabee (Naval Construction Battalion) on Guadalcanal. After the war, he went up north to Susanville to earn a gunsmithing degree at Lassen Junior College. He returned to Paso Robles and was a small business owner for an amazing 70 years.

His first venture was Norm's Custom Gun Shop, but in 1964 Norm and his wife, Frances, opened Bridge Sportsmen's Centers on Spring Street, where it remains a Central Coast institution. Art and Debbie Bridge have run the store ably for some years, but the back gunsmithing shop remained Norm's domain, and he was there every day until weeks before his passing.

For sure, Norm is far from the last old-time gunsmith, but he may be the last I have the good fortune to rub shoulders with. Firearms were his passion as well as his profession, and he could do, and did, just about anything gun-related.

Like any old-time, small-town gunsmith, he would take on any job, large or small. Within the year, Norm replaced a broken extractor on a bolt ac-

tion for me, and he drilled out a couple of scope mount screws that ham-handed me had sheared off. Small stuff. But also within the year he hand-fitted a new stock on a double rifle for me. And I knew once it left Norm's hands it was done right.

Rifles were his real love. All up and down the Central Coast there are straight-shooting rifles built by Norm, and he could do it from scratch. That straight-shooting 8mm Rem. Mag. I often used and wrote about was built by Norm, the action trued and well barreled, and Norm crafted the stock from a fine piece of English walnut.

Flukes can be both good and bad,

88, but I only came across two—ever. One, of course, was Norm. He made a lovely .308 and a .358 that I used quite a bit in the '90s. I doubt Norm made a half-dozen of these rifles because they were a lot of trouble, and with low demand the amount of work required was costly. Norm completely changed the barrel hanger, moved it back to the action and completely reworked the trigger. His rebuilt 88s had crisp, clean triggers and produced consistently exceptional accuracy.

Norm was a user of rifles as well as an artisan, and the walls of the Sportsmen's Center are well bedecked with exceptional animals. The Central Coast

HIS REBUILT 88s HAD CRISP, CLEAN TRIGGERS AND PRODUCED CONSISTENTLY EXCEPTIONAL ACCURACY.

so perhaps it was a good fluke, but that rifle produced the tightest group I have ever fired: 0.052 inch. The rifle never quite repeated that group, but it was always consistently accurate, and I attribute that to Norm's skill.

He also did the work on the Winchester Model 88s I've written about. The Model 88 is an awesome lever action, stronger and less pressure-sensitive than even the redoubtable Savage 99. Except the Model 88 had a mushy trigger that was not designed to be messed with, and it had a forestock-to-barrel screw that played havoc with barrel vibrations and often limited potential accuracy.

The 88 was such a gunsmithing nightmare that, when it was still manufactured, few 'smiths would touch it. I'm sure there were (and are) several that broke the code on the

deer herd has been depressed in recent years, but in days gone by, the area was a deer factory. Norm's annual big buck contest was, and is, a major local event. And although our coastal blacktails are small deer, it was always fun to see some of the exceptional bucks that came into the shop.

Norm hunted widely throughout the Rocky Mountain West and frequently in western Canada. One of his goals was to hunt Cape buffalo, and he was just over 80 when he and Art made the dream come true. They had nine days of tough tracking—day after day, mile after mile, with no opportunity. Things weren't looking good, but on the 10th and last day fortune finally smiled, and both Norm and Art took fine bulls.

Continued on page 63



PATRIOT

PROFESSIONAL GRADE WEAPONRY®

BRAVOCOMPANYMFG.COM

800-338-3220 | HORNADY.COM



NEW

**30-30 Win
450 Bushmaster
45-70 Govt**

**PLUS THE
300 Blackout**

RIFLE LOADS
FEATURE PATENTED
SUB-X BULLETS

SHHH...TELL EVERYONE

SUBSONIC AMMUNITION

Hornady® has made a revolutionary breakthrough — without breaking the sound barrier. Hornady® Subsonic Ammunition represents the first truly reliable expanding subsonic ammunition line. Suppressed or unsuppressed, these loads are easy and fun to shoot but still deliver excellent terminal performance.

- Optimized for performance at subsonic velocities
- Unique powders result in low-flash signature
- Great for plinking, target shooting or hunting

For ammunition that delivers big results without a big bang, the only choice is Hornady® Subsonic.

NEW

**9mm Luger
40 S&W
45 Auto**



HANDGUN LOADS
FEATURE PROVEN
XTP BULLETS

