GUN TESTS®

THE CONSUMER RESOURCE FOR THE SERIOUS SHOOTER

$5.95 July 2016/Vol. XXVIII, No. 7



OPTICS-READY PISTOLS

Tested: S&W M&P9 Performance Center Ported and Glock G17 Gen4 MOS in 9mm and the FN-USA FNX-45 Tactical in 45 ACP. All three are game changers, but see why we preferred one of the three on... **— Page 6**





MORE AMERICAN AK'S

Tested: The Century Arms C39 Classic Sporter and C39 V2, the Rock River Arms LAR-47 CAR A4, and CMMG's MK47 AKM Mutant. See which model was among the most accurate AK rifles we've ever tested on... **— Page 13**



308 WIN. BOLT GUNS

The Howa Alpine Mountain and Mossberg MVP LR square off. One surprised us with its accuracy, while the other left us wanting more. See which one is which on...
— Page 20

DOWNRANGE: 2 ● FIRING LINE: 3 ● GLOCK REPLACEMENT SIGHTS: 27 ● SHORT SHOTS: 32 ● COMING UP: 32

DOWNRANGE

GUN RIGHTS ADVANCING



Todd Woodard

I'm really bad about looking at the events in California, Maryland, New Jersey, Maryland, and other gun-restrictive states and getting pessimistic about the health of gun rights in the country. I was told recently that such pessimism is a sin, and though I'm not especially religious, I saw the truth in the statement. Devout folks should be optimistic as a part of their character, because they see and proclaim the Good News every day. A fellow named Rick told me that in the hot tub of the club I swim at. I'm usually resistant to being proselytized, especially when I'm not wearing pants, but we had a nice visit and parted friendly. His testimony prompted me to look around for some Good Gun News, which was remarkably easy to find and widespread. To wit:

● On May 17, 2016, a federal judge ruled that a key provision of the District of Columbia's concealed-carry law was likely unconstitutional. At issue was a provision in the law that required applicants to show a "good reason" beyond self-defense to obtain a permit to carry a concealed weapon.

● On April 25, 2016, Oklahoma Gov. Mary Fallin signed House Bill 2637 into law, regarding the use of suppressors while hunting on public land. Current Oklahoma law states that it is only legal for Oklahomans to hunt with a suppressor as long as they are on private property with permission from the landowner.

● As part of a major overhaul of Missouri's gun laws approved by the Legislature this session, Missourians who want to legally carry a gun in public may soon have the option of obtaining a concealed-carry permit that will last a lifetime.

● Mississippi Gov. Phil Bryant signed a bill into law that allows unlicensed "Constitutional Carry" in the state. The measure, House Bill 786, went into effect immediately.

● Iowa became the 42nd state to legalize suppressors when House File 2279 was signed by Gov. Terry Branstad. Effective immediately, the new law also makes Iowa the 39th state to allow suppressors for hunting.

● Idaho recently legalized the carry of a concealed firearm without a permit when Gov. Butch Otter signed SB 1389 into law. It allows everyone who is a resident of Idaho, is 21 years of age or older, and legally allowed to posses a firearm, to carry a firearm concealed on their person without obtaining a permit first. Idaho followed West Virginia in adopting such a permitless framework, commonly referred to as "Constitutional carry." **GT**

GUN TESTS®
THE CONSUMER RESOURCE FOR THE SERIOUS SHOOTER

Editor.....W. Todd Woodard
Managing Editor..... Tracey Taylor
Sr. Product Coordinator..... Kevin Winkle
Contributing Editors.....R.K. Campbell
Roger Eckstine
Robert Sadowski
David Tannahill
Rafael Urista
Ralph Winingham
Social Media Coordinator Cara Blake

TO CONTACT THE STAFF:
GunTestsEditor@icloud.com

GUN TESTS ACCEPTS NO COMMERCIAL ADVERTISING

GUN TESTS ® (ISSN No. 1042-6450) is published monthly by AG Media, Inc.; 111 Corporate Drive, Big Sandy, TX 75755-2446. Periodicals Postage Paid at Big Sandy, TX, and at additional mailing offices.

Copyright © 2016, AG Media. All rights reserved. Reproduction in whole or part is strictly prohibited. Printed in U.S.A. Revenue Canada GST Account #128044658.

Subscriptions: $49 (U.S.) annually. Outside the U.S. and Canada $72 (U.S.) for one year, $144 (U.S.) for two years. Single copies $7.50 (U.S.). Bulk-rate subscriptions for organizations and educational institutions are available.

Postmaster: Please send address changes to: ***GUN TESTS***, P.O. Box 8535, Big Sandy, TX 75755-8535, or ***GUN TESTS***, P.O. Box 39, Norwich ON, N0J 1P0. **Canada Publishing Agreement** #40016479.

ONLINE SUBSCRIPTION SERVICE:
www.Gun-Tests.com
Click "Contact Us"
Or call toll free (800) 829-9084

BACK ISSUES:
Call (800) 571-1555

17 Snubbies, Really? Yes

Mr. B. Young wonders if we indeed put together that many wheelgun reviews. Robert talks about his positive experience with the Taurus recall process. And there's Trump mail.

Re "Firing Line," February 2016

This says the December 2015 issue has a round-up of 17 snubbies, but it doesn't — probably a misprint. Which issue has this snubbie review?

— B. Young @GunTests.com

Page 31 of the December 2015 issue is a Value Guide with 17 review summaries in it, along with the issue dates so you can find the original tests. — Todd Woodard



GUN TESTS VALUE GUIDE: SNUBNOSE REVOLVERS (MULTIPLE CHAMBERINGS)

GUN NAME	ISSUE	GRADE & COMMENTS
Smith & Wesson M317PD 22 M.P. 17040824	July 2015	Grade B+ The 317PD makes sense if you need a 5-shot revolver chambered in 22 M.P.
Smith & Wesson PC M625 44 M.P. 163200 163404	July 2015	Grade C- A crabbed frame forced us to eliminate it from consideration for safety reasons.
Smith & Wesson PC M627 170143 357 Magnum, 164179	April 2015	Grade A- Well-made, nice-shooting revolver. Ballistics back up, chambered chambers, excellent sights.
Smith & Wesson M686 357 Mag- num, 164004 (Used)	April 2015	Grade A- Well-designed six-shot revolver. Test members liked the slender 686 even though it had less capacity.
Smith & Wesson PC M327 170245 357 Magnum, 163139	April 2015	Grade B+ Needed a different grip for its concealed carried. Short ejector rod hindered fast reloads.
FN Barracuda 357 Magnum 24in., 164004750 (Used)	March 2015	Grade B+ On the edge of "gruntitis." Would have moved up a grade if the 6mm cylinder had been included.
Smith & Wesson PC M329 44 Magnum, 164043300	May 2014	Grade A- Ported 3-inch barrel, compact grip made this a concealable N-frame our testers really liked.
S&W M329PD 01/10441 Blacke Backpacker 44 Mag, 17504000	Nov 2014	Grade B- Most pleasant of the 44 Magnums to shoot; nice combination of weight and firepower.
Smith & Wesson PC M627-5 41 Magnum, 17164850	Nov 2014	Grade B- A snappy shooter in 41 Magnum, its 3.8-inch barrel showed less recoil than the 4½ Magnums.
Smith & Wesson M60 PLT0013 3in. barrel 357 Magnum, 5709	Sept 2014	Grade A- Light and thin but packs plenty of power. Adjust able night sights are helpful for carry.
Ruger SP101 Model 5718 357 Magnum, 5709	Sept 2014	Grade A- Traditional snubnose. Felt solid in hand, wore a glare-free finish, was snag-free and accurate.
Ruger SP101 #5719 (3in. barrel) 357 Federal Magnum, 5900/5800	Sept 2014	Grade A- Added capacity are adjustable rear sight. Limited ammo availability must be a concern.
Ruger LCR No. 5411 38 Special +P, 5529	June 2013	Grade A- Polymer skin is 2 steps from a traditional DAO. Trigger was smooth and easy to use. Recoil was no.
Smith & Wesson 642 160000 38 Special +P, 8035-700	June 2013	Grade B- Difficult for many shooters to shoot well. Easy to hide, though.
Smith & Wesson M638 Airweight 163070 38 Special, 8439	March 2013	Grade A- Smaller, narrower grip, but a good choice as a backup due to light weight and small size.
Charter Arms Pitbull 9mm 73920 9mm Luger, 5402	March 2013	Grade A- Largest of the revolvers in the test and most accurate. Operates without intervention.
Charter Arms Police Undercover No. 73840 38 Special, 5402	March 2013	Grade B- Almost a copy of the Pitbull, so the Undercover felt good. Had no grievous in the barrel, however.

Log on to Gun-Tests.com to read complete reviews of these products.

Gun-Tests.com 11

Re "Firing Line," April 2016

Regarding the Taurus settlement and the problems Lou had with his pistol: On August 4, 2015 I sent Taurus my PT-111 Pro and two magazines. Their website was very poor about updating progress of the return, but by 12/16/2015 I did have a new PT-111 G2 with two mags, all new in the box. I had to pay $25 for the FFL transfer fee, but I was reimbursed by 1/15/16. I am actually quite pleased with the new gun. To get reimbursed, I faxed an itemized receipt to Taurus at (305) 624-1126. I hope this helps Lou and perhaps others. The replacement handgun seems to be a very fine product, with no failures in any shooting. Perfect functioning. The mags are very hard to load, though.

—Robert @GunTests.com

Re "A Brace of Snubby 44 Specials: Taurus Takes on Charter Arms" July 2012

I use hard-cast 185-grain bullets at 750 fps for practice in my 2.5-inch 44 Special Bulldog. I carry 200-grain CCI-Speer short-barrel ammo otherwise. Hornady has a Critical Defense 165-grain load as well. I bought the Barami hip grip for concealment, but recoil ruined control with that skinny grip, so I gave it up. I usually just drop the gun



in the back pocket of my jeans when I take a walk. Otherwise, it lives in the console of my truck. I like this gun for some reason.

Mike H. @GunTests.com

Hey Mike: Thanks for taking advantage of the archives. There is tons of good material in there to review. Of the Charter Arms Bulldog

GUN TESTS REPORT CARD GRADING

Gun Tests Grade: A

A gun with this rating functions perfectly, shoots accurately, and exhibits comfortable, easy use for its owner. We may prefer one gun over others based on its unusual accuracy, superior performance, unusual features, or nice cosmetics. We recognize such a gun for these traits without regard to its cost.

Gun Tests Grade: B

We give this ranking to a gun that functions appropriately for its category, but which might not do as well in major areas as an **A**-ranked gun.

Gun Tests Grade: C

We may have reservations about some aspect of a gun's performance or pricing. We express those reservations so the reader can balance our concerns with his or her needs.

Gun Tests Grade: D

Some aspect of a gun's performance — in particular, safety, function, or accuracy — doesn't meet our standards and isn't easily resolved.

Gun Tests Grade: F

Some aspect of a gun's performance is dangerous, inappropriate for the category, or is likely to fail.

No. 14420 44 Special reviewed in 2012, we graded it as an A- gun and said of it: "We like the Charter a lot. With our heavy handload, it vastly outshines any and all 38 Special or 357 Magnum loads for self-defense use, in our opinion. We don't recommend shooting heavy loads in this gun all the time, because good practice can be obtained and the gun will surely last longer with lighter target loads. The full load can be reserved for serious carry purposes and will thus do the gun the least long-term damage. With a change of grips and more barrel polishing, this Bulldog will become the backup gun for one of our staff. Much as we liked it, little things nagged at us. There was nothing at all serious, just cosmetic. We found some spots devoid of finish on the recoil shield, and the ejector rod began to unscrew after 20 shots. The slight initial operating roughness would have put a few people off, but we thought it was acceptable. The barrel was not the finest inside, but then, this is not designed as a target pistol. We would have liked a slicker barrel, but that would run the cost up." — tw

Re "American-Made AK-47 Rifles Compete: PSA vs. Century Arms," June 2016

Are the velocity and energy numbers right for the PSA Classic



Red using Tula ammo? Is that a misprint? That drop-off from the other ammo and from the other guns is too significant to ignore.

— RottweilerGuy @GunTests.com

Robert Sadowski replies: "Yes, that is a misprint. Correct data for the PSA AK-47 Gen2 Classic Red with the Tula Ammo 7.62x39mm 122-grain FMJ is 2348 fps/1493 foot-pounds. Sorry for the error."

Re "Ammo"

I'm a subscriber searching for a comprehensive list of handgun ammunition that will allow me to compare features (+P, hollow point, synthetic bullets, etc.) and prices of manufacturers. I'm trying to compile it myself, and it's just overwhelming. Can you help? **— Mark**

Sorry, I can't help on the ammo guide. I think a comprehensive ammo guide annual would be a valuable resource, but what you seek doesn't exist, as far as I've been able to determine. Perhaps the readership has some ideas? — tw

Re "Make America's Guns Great Again," June 2016

For me, it looks like the upcoming election cycle will be a choice between bad and worse. Trump presents an inconsistent track record, but he currently speaks glowingly of our 2nd Amendment. I consider him potentially bad. Clinton has floated along the centerline on some issues... except gun rights. Her proclamation that the Heller decision was wrong, coupled with a professed interest in Australian-style gun control, sends chills down my spine. Obviously, I consider her to be worse.

— EmeraldCoaster @GunTests.com

"Certainly one of the chief guarantees of freedom under any government, no matter how popular and respected, is the right of citizens to keep and bear arms. This not to say that firearms should not be



very carefully used and that definite safety rules of precaution should not be taught and enforced. But the right of citizens to bear arms is just one more guarantee against arbitrary government, one more safeguard against a tyranny which now appears remote in America, but which historically has proved to be always possible." Cite from Hubert Humphrey (May 27, 1911 to January 13, 1978), Democrat 38th Vice President of the Unites States of America (January 20 1965 to January 20, 1969). I look at the current Democrat, Liberal, Socialist, Progressive Communists, and I am ashamed. The Democratic Party has been hijacked. Mr. Trump has a license to carry. That's all I need to know. I'll be voting for Mr. Trump.

Art Cannon @GunTests.com

Todd: Good on you for stepping up to a controversial issue. Most would take my Dad's advice and avoid politics and religion. We cannot do that this time. Too much to lose. Good on all you folks for staying on topic in the comments section online. Not using vulgarities, no accusatory rage, etc. It's your right to say most anything you wish. I support the First Amendment as much as the Second. My belief in these principles is the main reason "I stood up" during Vietnam. That was a war the morons in Washington made very difficult to be in. Who wants to die or be maimed when a fool like LBJ will not win, but not walk away from, a civil conflict we had no business being part of in the first place? That idiot spent his time in the White House basement (now the Situation Room) and actually pored

over maps, selecting the tiniest of villages and clearings to be bombed. God help and protect us from his like. God Bless our men and women who are volunteering for military service. Everyone agrees they are the best we have ever produced. We owe it to them and ourselves to ensure who we vote for will fight for the constitution — all of it — and hold politicians accountable. We know the limitations Hillary has and will continue to have. Trump is a cipher. Will he keep his promises? God help us if he turns out to be another liar, crook, or incompetent. If he is elected, I truly wish him well. We all should, we all must.

GreyFox 73 @GunTests.com

These were a few of the several dozen comments I received regarding Mr. Trump's gun platform statement. I appreciate all the time readers took to comment on the upcoming presidential race and gun rights. Also, thanks to you all for the civil tone of the discussion. —tw



Re "28-Gauge Showdown: Benelli, Franchi and Weatherby Face Off," May 2016

For the past five years I have platooned a pair of Benelli Legacy 28s during my annual dove shoot in Argentina. Each has digested more than 18,000 shells, and the shotguns have performed flawlessly. Recoil is not an issue, and hitting doubles and triples are common. The only issue I experienced was the loss of the fiber-optic front beads. The barrel heats to such an extent that the fiber-optic insert simply falls out. This year, I'm replacing the various springs as preventive maintenance. As for the cost of the shotguns, it's rounding error in the context of the cost of the trip and the shells. There is no better shotgun for shooting doves.

— JHackley @GunTests.com

Re "40 S&W Shoot Out: Beretta, CZ-USA, Ruger, and SIG Sauer," June 2016

Too bad you didn't test a CZ75 BD or their SP-01; both of which have decockers with the SP-01 having an accessory rail. I have an SP-01 which has a decocker and a single notch rail. I firmly believe that one of these pistols would have fared better than the plain 75 you tested.

— MountieFan16 @GunTests.com

There are always physical limits on the numbers of guns we can test in one feature. But we have reviewed the CZ SP-01 Phantom No. 91158 9mm in the March 2009 issue, giving it a B grade. We said, "The CZ was the most accurate of our pistols, and the short double-action first shot simplified the transition to single action. The profile and grip texture of this new polymer frame puts the Phantom ahead of others and should revitalize interest in this classic pistol. Faulty detent on the decock lever dropped its grade a notch."

We did note in the review that the faulty detent on the decock lever should be a warranty fix. — tw



CZ SP-01 Phantom No. 91158 9mm

Print Subscribers: How to Get Web Access to the Archives

Setting up free electronic access to our website allows you to search the **Gun Tests** archives for specific guns — and you get access to the current issue on the web before it hits your mailbox. Also, you can check the status of your subscription account, update your mailing or email address, pay your subscription invoice or renew your subscription, and communicate with the editorial staff. Current subscribers can begin activating free online access by typing this into your browser: **Gun-Tests.com/activate.**

To create your web-access login, you provide your first and last name, the ZIP/Postal Code, and your account number. That's the first 11 digits found on your magazine's mailing label just above your name. If you can't get the account activated, contact us at **Customer_Service@GunTests.info**, or call 1-800-829-9084.

There are two ways to find guns we've reviewed. The Compare Guns feature (top left corner of the page under the logo) allows you to input several descriptors and narrow the search results. Or you can use the Search function. If you search for a common item, such as "22 LR," you'll get tons of references. Basically, the search function finds every instance of the searched-for topic and lists the accompanying articles the topic appeared in. The more specific and unique the reference, the better the search. We do our best to list the catalog numbers for guns we've tested, so that's usually a good place to start. There's also an "Advanced Search" area to help you narrow the results.

We welcome mail from our readers. To send us comments or questions about previous articles in the magazine, email us at: **GunTestsEditor@icloud.com.** *If you'll include the month and year of the article you're writing about, it's a big help. Also, please include your name, address, and phone number. We won't publish your personal information other than your name, but we may need to contact you about material in your letter.* **GT**

Optics-Ready: M&P9 Ported, FNX-45 Tactical, G17 Gen4 MOS

Tested: S&W M&P9 Performance Center Ported, Glock G17 Gen4 MOS in 9mm and the 45 ACP-chambered FN-USA FNX-45 Tactical. All three are game changers, but we'd buy the Ported.

If there is one new trend taking hold of pistol manufacturers, it is making optics-ready pistols. These handguns come out of the factory with the ability to mount a reflex-style red dot sight. The newest is the Glock G17 Gen4 MOS, which debuted in 2016. Kahr, SIG, and the Canik from Century Arms may also see optics-ready models in 2016. Custom gun makers have been crafting pistols with reflex sights for years, and back in 2012, both S&W and FN launched optics-ready pistols. Just like Picatinny rails have emerged as a widespread feature and laser pointers are being offered on many handgun variants, the optic mount is the next evolution of the handgun.

We have seen this same scenario play out with AR rifles, where optics were once an anomaly and they are now the norm. Why? Ease of aiming and faster target acquisition. What, perhaps, has slowed the trend is cost. Reflex sights can add anywhere from $240 to $600 extra, depending on the sight. There may also be a need to purchase a new holster to accommodate the optic on the handgun and taller iron sights. This seems a little odd to us because many shooters might consider the cost to be excessive on a handgun, but we don't think twice about mounting a high-quality optic on a rifle.

There is no doubt that in the same situations, red-dot reflex sights allow users to aim faster and easier compared to iron sights. Also, reflex sights allow users to aim with both eyes open, peering through a small glass lens that the sight uses to project a reticle onto it via a light-emitting diode. The sight provides an unlimited field of view since there is no magnification and no tube, so tunnel vision is less of an issue when aiming. Also, there is also no need to align three planes — target, front sight, and rear sight — as with iron sights. However, during testing, we found that taller iron sights that co-witnessed with the red dot were preferred because they can help find the dot. Also, BUIS are there in case the optic fails or the battery dies when we need it most. A proper maintenance schedule can alleviate this concern.

To see how various red dots could be mounted and used on factory optics-ready pistols, we acquired a Glock G17 Gen4 MOS, an S&W M&P9 Performance Center Ported model, and an FN America FNX-45 Tactical FDE. The Glock and S&W were 9mm striker-fired pistols that are well known to us. We have reviewed numerous Glock G17 models over previous model generations, but this is first G17 Gen4 MOS that our testers have evaluated. The same is true with the S&W M&P9. We have tested other variants of the M&P9, but this is a first for the S&W M&P9 Performance Center Ported model. The 45-caliber FNX-45 Tactical is also new to our testers. What we were looking for with these optics-ready pistols was ease of installation, accuracy, ease of use, and durability.



Between the two striker-fired pistols, the S&W M&P9 Performance Center Ported 9mm, top, offered more practical game out of the box than the Glock G17 Gen4 MOS, middle. The bigger bore FNX-45 Tactical, bottom, in FDE color redefines the traditional DA/SA pistol, but at a steep price.

For reflex sights we used an older Leupold DeltaPoint ($499), which has been discontinued and replaced with the DeltaPoint Pro and a new Burris FastFire III ($239). We tested these two reflex sights in the July 2014 issue and gave them an A+ and an A-, respectively. We also tried a new Meopta MeoRed ($517) reflex red-dot sight. The MeoRed was specifically designed for use on handguns with cutout slides, as well as AR platforms and shotguns.

Made from aircraft-grade aluminum alloy, the sight is waterproof and shockproof and comes with an integrated MIL-STD 1913 mount and an adapter plate mount, but we used the mount with the pistol. It features a 3-minute-of-angle red-dot reticle with adjustable brightness levels. To turn the unit off, press the button and hold. There is also an auto-off function that turns the unit off after three hours of continuous operation if the function button has not been touched. The MeoRed is powered by one CR 2032 battery for up to 300 hours of run time and features a low-battery indicator dot that signals when the battery is running low. The battery compartment is on the right side of the sight and can be accessed without taking the sight off the gun, as it is secured with two screws to ensure constant battery contact during recoil. We liked the auto turn off feature and the ability to change the battery without removing the sight from the adapter plate.

The FN, Glock, and S&W all came from the factory with a cover plate attached to the top of the slide just forward of the rear sight. A hex wrench was used to remove the plate and replace it with a mounting plate the corresponded to a specific model and brand of reflex sight. All three manufacturers include the tools to mount the sights, and as we found out, some provided more mounting options than others. All the hardware types mount the sight slightly differently, as we will explain.

Mounting the sight allows the user to also keep the iron sights mounted on the slide, and the FN and S&W featured taller iron sights that co-witnessed with the red dot. The Glock's sights were standard size and could not be used when a red dot was attached, so if the shooter wanted to co-witness (shoot to the same point of impact) iron sights with the red dot, he would have to install taller Glock sights like those used with a suppressor, which would appear in the reflex sight window. Mounting the optics was straight forward. We installed the sights in

SMITH & WESSON M&P9L PERFORMANCE CENTER PORTED 10098 9MM LUGER, $812

GUN TESTS GRADE: A

This Performance Center M&P9 provided six reflex-sight mounting options, had tall sights, and employed enhanced features that we thought made it a good value.



Action	Semi-Auto, Double Action Striker Fired
Overall Length	8.5 in.
Overall Height	5.3 in.
Maximum Width	1.3 in.
Weight Unloaded	24.1 oz.
Weight Loaded	30.9 oz.
Barrel	5.0 in. Long, 8 Ports; Stainless Steel
Capacity	17+1
Slide	Black, Stainless Steel, 8 Ports; Optics Cut Top
Frame	Black Polymer; 3-Slot Picatinny Rail
Frame Front Strap Height	2.3 in.
Frame Back Strap Height	3.4 in.
Grips	Textured Polymer; 3 Modular Backstraps
Grip Thickness (max)	1.2 in., 1.25 in., 1.3 in.
Grip Circumference (max)	5.5 in., 5.7 in., 6.0 in.
Front Sight	White Dot Dovetail
Rear Sight	Fixed, 2-Dot
Optics Mounts	Trijicon RMR, Leupold DeltaPoint, Jpoint, Docter, C-More STS, Insight MRDS
Trigger Pull Weight	4.5 lbs.; Adj. Trigger Stop; Performance Center Sear
Trigger Span	2.6/2.8 in.
Magazines	1; Steel, Double Stack
Safety	Decocking/Safety Lever
Warranty	Lifetime
Made In	USA
Website	Smith-Wesson.com



The plate is placed on the slide, then the Leupold DeltaPoint nests on top of it.



The slide has eight ports to reduce weight and vent gases.



Three grip adapters are included that not only adjusted trigger reach but also provided a palm swell.

under five minutes using the tools the manufacturers provided. We also aligned the red dot with the taller S&W and FN sights to make zeroing the red dot quicker.

Once the sights were installed and zeroed, we dropped each unloaded pistol from waist height onto the ground to see if the zero would be knocked off, and found that did not happen. With the sight attached, we also used it for purposes for which it was not intended, like using the sight as a makeshift cocking lever. That's not something we would normally do, but we may need to do it in a pinch. In all cases, the mount held and the sight did not lose zero. Across the board, we found the sight/pistol combination very durable and rugged. Here are the rest of the details about how each firearm performed in our rigorous shooting trials:

Smith & Wesson M&P9L Performance Center Ported 10098 9mm Luger, $812

The list price is shown above. We found this pistol for as low as $656 cash at BudsGunShop.com. Other taxes, handling, and shipping charges may apply, which we don't account for in our reporting of retail prices. As always, we report retail prices to give readers some insight into what firearms might actually be selling for in the market. We do not endorse any retailer, and we have no fiduciary relationship with any retailer.

The Smith & Wesson M&P9 Performance Center Ported pistol was designed to compete out of box in action-shooting competitions. It comes in a hard case with one steel magazine, three grips and a tool to replace them, and S&W's C.O.R.E. (Competition Optics Ready Equipment) adapter plates, screws, and wrenches for up to six reflex-sight options. We mounted the Leupold DeltaPoint and found the installation straightforward and easy.

The process: First find the corresponding plate, place it on the slide, then use the two screws to sandwich the plate between the optic and slide. Just determine which adapter plate

GLOCK G17 GEN4 MOS PG1750203MOS 9MM LUGER, $726

GUN TESTS GRADE: A-

The G17 Gen4 performed well with optics, and they were easy to install with plenty of adapter plates. We would have preferred taller sights like those on the Smith.



Action	Semi-Auto; Locked Breech, Striker Fired
Overall Length	7.9 in.
Overall Height	5.4 in.
Maximum Width	1.2 in.
Weight Unloaded	25.1 oz.
Weight Loaded	32.1 oz.
Barrel	4.5 in., Stainless Steel; RH Hexagonal Rifling
Capacity	17+1
Slide	Black Steel; Optics Cut Top
Frame	Black Polymer; Reversible Enlarged Magazine Catch; 1-Slot Accessory Rail
Frame Front Strap Height	2.5 in.
Frame Back Strap Height	3.5 in.
Grips	Textured Polymer; Finger Grooves, 4 Backstraps
Grip Thickness (max)	1.2 in.
Grip Circumference (max)	6.0 in., 6.2 in., 6.4 in.
Front Sight	Fixed Blade w/White Dot
Rear Sight	Outline
Optics Mounts	Trijicon RMR, Leupold DeltaPoint, Meopta, Docter, C-More, Insight MRDS
Trigger Pull Weight	5.5 lbs., Safe Action
Trigger Span	2.8 in., 2.9 in., 3.0 in.
Magazines	3; Polymer Double Stack
Safety	Trigger, Firing Pin, Drop Safeties
Warranty	Limited One-Year
Made In	Austria/USA
Website	US.Glock.com



The adapter plate is first mounted to the slide, then the optic is mounted to the plate.



The grip options included two with extended beavertails. The tool to remove the grip pin was included with the clip that held the extra backstraps.



The Gen4 recoil spring assembly helped soften recoil.



There are two oblong ports cut into the muzzle-end of the S&W Performance Center's barrel; we felt they helped reduce muzzle flip, which likewise improved accuracy.

9MM LUGER RANGE DATA

Winchester Train 9mm 147-gr. FMJ	**S&W M&P9 Performance Center Ported**	**Glock G17 Gen4 MOS**
Average Velocity	984 fps	982 fps
Muzzle Energy	374 ft.-lbs.	315 ft.-lbs.
Smallest Group	0.9 in.	0.8 in.
Average Group	1.0 in.	0.9 in.
Winchester Defend 9mm 147-gr. FMJ	**S&W M&P9 Performance Center Ported**	**Glock G17 Gen4 MOS**
Average Velocity	973 fps	936 fps
Muzzle Energy	366 ft.-lbs.	286 ft.-lbs.
Smallest Group	1.0 in.	1.0 in.
Average Group	1.5 in.	1.2 in.
Hornady American Gunner 9mm 115-gr. XTP	**S&W M&P9 Performance Center Ported**	**Glock G17 Gen4 MOS**
Average Velocity	1120 fps	1118 fps
Muzzle Energy	320 ft.-lbs.	319 ft.-lbs.
Smallest Group	0.8 in.	1.3 in.
Average Group	0.9 in.	1.5 in.
Hornady Critical Defense 9mm 135-gr. FlexLock	**S&W M&P9 Performance Center Ported**	**Glock G17 Gen4 MOS**
Average Velocity	1138 fps	1010 fps
Muzzle Energy	388 ft.-lbs.	306 ft.-lbs.
Smallest Group	1.5 in.	1.4 in.
Average Group	1.8 in.	1.7 in.

45 ACP RANGE DATA

FN-USA FNX-45 Tactical	**Federal American Eagle 45 ACP 230-gr. FMJ**	**Winchester Train 45 ACP 230-gr. FMJ**	**HPR 45 ACP 185-gr. JHP**
Average Velocity	810 fps	793 fps	1004 fps
Muzzle Energy	335 ft.-lbs.	321 ft.-lbs.	414 ft.-lbs.
Smallest Group	2.1 in.	1.8 in.	2.0 in.
Average Group	2.6 in.	2.3 in.	2.2 in.

To collect accuracy data, we fired five-shot groups from a bench using a rest. Distance: 25 yards. We recorded velocities using a ProChrono digital chronograph with the first screen set 15 feet from the muzzle.

works with your sight; the Trijicon RMR, Leupold DeltaPoint, C-More STS, Doctor, and Insight MRDS are supported. Also, the M&P9 came with tall three-dot steel sights that co-witnessed with the Leupold and were dovetailed into the slide.

This Performance Center pistol featured a ported barrel with two oblong ports that aligned with the two forwardmost ports in the slide. The slide had eight slots milled into it to reduce weight and vent gases. The stainless-steel barrel also had a viewing port that allowed the shooter to see if a round or case was in the chamber. The recoil spring in the M&P9 was a flat coil spring with a steel one-piece recoil guide rod.

The frame featured three grip inserts that adjusted the trigger span as well as provide a bit of a palm swell. The panels had a toothy texture that nonetheless did not abrade the skin. Most testers liked the palm swell and chose to use the small grip module. The FN and Glock had flat grip sides. The M&P9 stored the grip tool in the butt heel, which we thought was a good idea since it is always handy and will not get lost.

The trigger was enhanced on this model with a Performance Center sear that provided a crisp 4.5-pound trigger press. The trigger also reset faster and was equipped with an overtravel adjustment screw. The grip module needed to be removed to adjust the stop with a supplied hex wrench, which is also stored in the butt of the M&P9. We liked how the trigger broke, with some test members preferring the flat face of this trigger compared the to round trigger face of the Glock.

At the range most testers agreed that M&P9's grip made a favorable first impression. The pistol had nice balance and presented a low bore axis, so the gun sits low in the hand. We ran the M&P9 Performance Center on paper at 25 yards and found we were surgically accurate with it using two ammos. With the Hornady American Gunner shooting 115-grain XTP bullets, we averaged 0.9-inch five-shot groups. The Winchester

Train ammo averaged 1.0 inches. We liked this accuracy and attributed the performance to the enhanced Performance Center trigger. In rapid fire, we felt the M&P9 had slightly less muzzle flip than the Glock due to the ported barrels. We also noted that the M&P9 with the ported 5-inch barrel provided more muzzle velocity than the non-ported 4.4-inch barrel of the Glock.

Our Team Said: We liked the Leupold sight on this handgun, and we liked the redundancy of the iron sights being visible through the optic. The Performance Center M&P9 provided six reflex sight mounting options, had tall sights, showed a great trigger, could be adjustable to a variety of hand sizes, and presented other enhanced features. It is a good choice and good value, in our view.

Glock G17 Gen4 MOS PG1750203MOS 9mm Luger, $726

The list price is shown above; several retailers had the model on sale for $599, including the website, OmahaOutdoors.com. The Glock G17 Gen4 MOS (Modular Optic System) variant comes in a polymer carrying case with three magazines, four grip adapters — two with and two with out a beavertail — with a tool, and a mounting-plate kit consisting of four adapter plates, screws, wrench, and instructions. These adapter plates allow mounting of a reflex red-dot sight from Trijicon (RMR), Leupold (DeltaPoint), Meopta, C-More, Docter, EOTech, and Insight. We counted seven different sight options, which was more than the other pistols.

The G17 Gen4 MOS has a small cover plate just forward of the rear sight, which we removed. A razor was needed to initially separate the plate and the slide. We used the plate that corresponded to the Meopta and screwed that to the slide, then screwed the Meopta to the plate adapter. The standard sights did not co-witness with the optic. A set of tall aftermarket sights would cost an additional $110 to $150 from Glockstore.com, which would increase the total cost to $836-$876 and bring the money for the three pistols tested

FN AMERICA FNX-45 TACTICAL FDE 66968 45 ACP, $1349

GUN TESTS GRADE: B+

The full size FNX-45 Tactical is best suited for competition or defense applications; optics-mounting options were limited compared to the other two handguns and its cost was much higher.



Action	Semi-Auto DA/SA, Locked Breech
Overall Length	8.6 in.
Overall Height	6.7 in.
Maximum Width	1.6 in.
Weight Unloaded	33.3 oz.
Weight Loaded	39.5 oz.
Barrel	5.3 in., 1:16 RH Twist; Stainless Steel; Threaded 0.578x28 w/Thread Protector
Capacity	15+1
Slide	Stainless Steel FDE; Front/Rear Cocking Serrations; Top Optics Cut
Frame	Checkered Polymer, FDE 4-Slot Picatinny Rail; Replaceable Steel Frame/Slide Rails
Frame Front Strap Height	2.7 in.
Frame Back Strap Height	3.2 in.
Grips	Textured polymer, 4 modular backstraps
Grip Thickness (max)	1.3 in.
Grip Circumference (max)	5.7/5.8 in.
Front Sight	High-Profile Blade, Night Dot
Rear Sight	High-Profile Two Night Dots
Optics Mounts	Trijicon RMR, Docter
Trigger Pull Weight (Double Action)	13.0 lbs.
Trigger Pull Weight (Single Action)	5.5 lbs.
Trigger Span (Double Action)	3.0 in.
Trigger Span (Single Action)	2.7 in.
Magazines	3; Steel Double Stack
Safety	Ambi Decocking Safety Lever
Warranty	Implied Lifetime
Made In	Belgium
Website	FNAmerica.com



A knurled sleeve protected the muzzle threads.



The magazine floor plate bulges out, making conceal carry a challenge, but the handgun reloads fast.



The slide-plate fit was tight; note the extra-tall rear sight.



The FN's controls are ambidextrous, which may have contributed to the higher cost, but they also increased usability.



The Glock's magazine release (arrow) can be reversed by the user; note the RTF texture is toothy, but not raspy.

into the same range.

The Gen4 series has a Rough Textured Frame (RTF) surface on the frame and the interchangeable back straps to enhance grip. We felt it did that without being too aggressive. Without a grip strap installed on the G17, the frame is a short-trigger-reach frame, or SF for "short frame." Four additional backstraps were included, two with a beavertail and two without. The backstraps increased the trigger reach distance. We preferred to use the G17 sans backstraps. Also new in Gen4 pistols is a user-configurable ambidextrous magazine-release button. Gen3 magazines will work in Gen4 pistols if set up for a right-handed shooter, but will not work if the magazine release is set up for left-handed shooters.

Gen4 pistols also have an improved recoil-spring assembly with a dual recoil-spring setup designed to reduce felt recoil. We did notice that recoil was less with the Gen4 assembly. Another enhancement has been made to the trigger via a new disconnector. A pronounced dot or dimple is punched into the disconnector. We felt this new connector made the trigger break cleaner and much more predicable. The press still required 5.5 pounds, but we liked how this enhanced trigger broke.

At the range, we found we were more accurate and faster on target compared to iron sights using the Meopta. Accuracy was well under 2 inches at 25 yards using a rest. In fact, with the Winchester Train ammo firing a 147-grain FMJ, our smallest group was 0.8 inches, and, on average with this ammo, we were able to achieve 0.9-inch groups. This accuracy impressed us, and we feel the Gen4 trigger helped achieve that.

We did need ramp-up time to acquire the dot in the reflex sight for all pistols, since we are more familiar with iron sights, but once we were over that hump, we found that we could shoot faster and more accurately with a reflex sight than iron sights. The transition from iron sights to optic also requires the shooter to aim differently. Test members needed to lower the muzzle of the pistol slightly to acquire the red dot within the sight's window. Within a few magazines, we were comfortable with the optic.

Our Team Said: The G17 Gen4 MOS performed well and gave users the most reflex sight options. It is a good choice for someone wanting a reflex sight on gun that could perform defense and competition duty, but we feel Glock should have added taller sights to co-witness with the optic.

FN America FNX-45 Tactical FDE 66968 45 ACP, $1349

BudsGunShop.com listed this at $1183. HinterlandOutfitters.com listed it for $1149, but it was out of stock. ShootersPlus.com listed it for $1079 (cash price). The FNX-45 Tactical is a variant of FN's FNX-45 45 ACP pistol, which we tested in 2009 and graded an A-. The FNX-45 Tactical offers a 5.3-inch threaded barrel, with a knurled sleeve that protects the threads, and an optics-ready slide. The pistol comes in a nylon carry case with pouches, three magazines, four backstrap inserts, and two adapter plates,



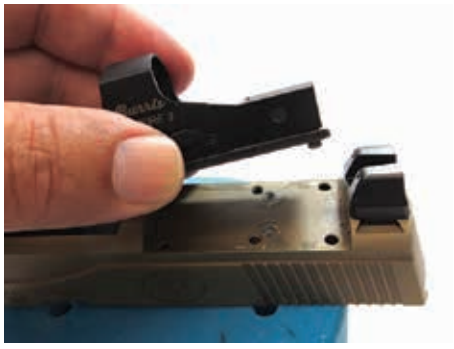
Above are the three guns field-stripped, a pretty easy process across the board. From top are the FNX, the Glock, and the S&W.



This is how the shooter sees the S&W's reflex red dots, in this case the Leupold DeltaPoint. Note the iron sights can be viewed through the sight, a plus as far as our shooters are concerned.



The Glock's iron sights were useless when the optic was mounted. Co-witnessing is better.



The Burris FastFire III red-dot sight attached using one of the two plates provided with the FNX. We wanted more mounting options than the FN provided.

screws and wrenches.

Like the other pistols, two screws hold a top plate in place, and it is removed and replaced with an adapter plate and reflex sight. Only two adapter plates, one for a Trijicon RMR and one for a Docter USA red dot, were provided. We felt that for such an expensive pistol, more mounting plates should be included. We did not have a Trijicon or a Docter sight available, but we were able to mount a Burris FastFire III using one of the plates and screws provided.

Installation was simple. First, place the plate on the slide, then use two screws to mount the optic. The FN and S&W used two screws total, while the Glock used four screws. The iron sights of the FN were tall and co-witnessed with the red dot. They were also 3-dot night sights, and the shooter-facing side was serrated to reduce glare. We liked these sights the best in this test, with the M&P9 sights coming in a close second. The cocking serrations were placed in good locations forward and rearward, so racking the slide was easy. Neither the G17 nor the M&P9 had forward cocking serrations on the slide. The FN used a flat coil spring and solid guide rod in its front end.

The grip angle of the FNX-45 Tactical is similar to a 1911, which makes it a natural pointer. Like the other pistols, the FN's polymer frame offered four different backstraps: arched or flat and either checkered or ribbed. We needed a small hex wrench or a paper clip to remove and replace the inserts. The inserts made the pistol feel like it had less girth, which we thought was impressive because the FN holds 15 cartridges in a double-stack magazine. Many testers felt the grip had a girth slightly larger than the two 9mm pistols. The grip sides were checkered and offered good texture without abrasion. The trigger guard was undercut so users can grasp the pistol high.

The slide rides on steel rails within the frame, like with all the other pistols, but they were replaceable on the FN. What also set the FN apart from the Glock and S&W was not only the caliber, but the trigger system. The FNX-45 Tactical uses a traditional DA/SA trigger with a double-action press that was smooth and consistent, measuring on average about 13 pounds, though testers felt it was less. In single-action mode, the press averaged slightly over 5 pounds. The trigger was wide, so pulling force was spread across a larger surface area of the finger. The trigger reset was short. We liked this old-school style trigger a lot.

The hammer was round and serrated and allowed easy cocking. Elsewhere, the magazine-release button, decocking lever, and slide stop were ambidextrous, another valuable feature. The magazine release worked precisely. The thumb of the shooting hand naturally falls on top of the decocker, which decocks the hammer from SA mode and places the pistol "on safe" when in DA mode. It functions like a 1911 thumb safety; up position is "on safe," the down position is "off safe." In the "off safe" position, a red warning dot was exposed. The slide-stop lever was inset into the polymer frame to avoid moving it inadvertently.

Steel double-stack magazines fed the FN, and they were fairly easy on the shooter's thumbs when reloading, even when loading the fifteenth round. The floor plate on the FNX's magazines was large and rounded, so slapping home a fresh magazine into the magazine well was easily accomplished with or without gloves.

All testers agreed the FN was soft shooting. It did not feel like a 45 ACP in recoil. That soft recoil and short trigger reset along with the Burris FastFire II allowed us to shoot the FN fast, but not faster than the 9mms, with good accuracy. We fired 230-grain FMJs from Federal American Eagle and Winchester W Train and hot HPR 185-grain JHPs, and the FN, like the Glock and S&W, ran flawlessly.

Our Team Said: The FNX-45 Tactical offers a lot of features and gave good performance in a soft shooting pistol, but it fell short on optics-mounting options, which was the focus of this test. Naturally, if you want a 45 ACP, it would be the pick above the others.

Written and photographed by Robert Sadowski, using evaluations from Gun Tests *team testers.*

American AK-Mag Variants II: Century, RRA, CMMG Go At It

We prefer the Century Arms C39 V2 in this test, but the Rock River Arms LAR-47 CAR A4 and the CMMG MK47 AKM Mutant have a lot to recommend them. We'd pass on CA's Classic.

Last month, we began testing AK-pattern rifles built in the U.S., which itself is important to a lot of Gun Tests readers, but also because we wanted to take an in-depth look at the category of what we hoped might be "improved" domestic variants of this famous rifle. Over the years, we've admired various AKs for their reliability while we've criticized their accuracy, fit and finish, and shooter-experience packages, such as crappy triggers and uncomfortable stocks. That said, we were very pleased with three rifles we tested in the June issue, rating one as a Grade A gun (Palmetto State Armory AK-47 MOE Edition 7.62x39mm, $749), a second as a Grade A- rifle (Century Arms RAS47 Magpul-Zhukov 7.62x39mm, $800), and the third a B+ (Palmetto State Armory AK-47 Gen2 Classic Red 7.62x39mm, $849).

This time we pit what are probably the two most significant military rifle actions of the 20th century against each other, the Kalashnikov and the Stoner. But there is a twist: All four rifles are American made, are chambered in 7.62x39, and use Kalashnikov-pattern magazines. The two Kalashnikov actions are made by Century Arms and



The LAR-47 was the lightest rifle in the test at 6.4 pounds. Fit and finish were very good. The pistol group was RRA's grip with finger grooves, but LAR-47 owners can easily change out the furniture.



One of our testers who likes the AK platform said this Century C39 V2 rifle was the most accurate AK he had ever shot. We'd buy this rifle ahead of the others.



Odd malfunction: The Mutant's feed lips shaved soft-point bullets as the rounds were being chambered. The arrow indicates the top part of the lead nose, which doesn't have the same shape as the bottom half. But feeding was fine in the rifle.

look very much like standard AK-pattern rifles. The two Stoner actions, made by Rock River Arms and CMMG, for the most part look like the AR-15 platform familiar to many shooters but have some unique features. The Kalashnikovs have a well-deserved reputation for reliability, and the Stoners have a well-deserved reputation for accuracy. So, how would they do head to head?

To find out, we fired all four rifles in both cold and hot conditions, and because we expect these rifles to be used both as plinkers and for hunting or rural self defense, we used four different types of ammunition for this test: 122-grain FMJs, 123-grain plastic-tipped hollowpoints, 124-grain soft points, and 154-grain soft points. Due to the fairly big groups shot with open sights at 100 yards last time, this round we fired five-shot



A problem arose with the Century C39 Classic's fire-control system. The trigger failured to reset early in accuracy testing and became a permanent irritation, despite our cleaning and lubing the trigger group.



The Mutant looks like a AR-15 with an oversized bolt, but the lower has a large opening that accepts Kalashnikov-pattern magazines. A full-length toprail offers plenty of room for mounting optics.

groups at 50 yards and measured them from center to center. Here's what we learned.

Century Arms C39 Classic Sporter RI2170CN 7.62x39mm, $657

Century Arms has been in business for more than 50 years and is primarily known as an importer of surplus military rifles. But Century Arms also manufactures its own rifles in America. The C39 Classic Sporter was the heaviest of the test at 8.2 pounds, probably a result of the milled receiver and the gray laminate stock. The well-finished fixed stock with a metal buttpad looked pretty sharp, some of our testers said. Despite the short length of pull, our female shooter did not find it particularly comfortable.

The generic black-plastic pistol grip with finger grooves didn't win any raves, but it was functional enough. The controls were standard AK placements. All testers found the safety easy to manipulate, but the female shooter found the bolt handle difficult to rack. The ambidextrous magazine release was oversized and easy to use during rapid magazine changes, using a rocking technique with either hand. The sights were also the standard AK design, which equates to adequate but not great. There was no provision on the receiver to mount optics.

The receiver was milled steel, with lightening rectangles on each side. A nice touch on the left side was a well executed American flag cleanly etched into the receiver.

During shooting tests, the C39 Classic Sporter handled well when coming up to target and transitioning between targets. Recoil was manageable for all shooters. The rifle came out of the box very close to zeroed, but the sights were difficult to resolve vertically due to front-sight hood interfering with the sight picture. While the Classic Sporter's barrel often produced the highest velocities, it also usually produced the largest groups. While most groups would be adequate for short-range hog hunting, only the Hornady Zombie Max rounds produced sub-2-inch groups at 50 yards.

During firing, all brass ejected 15 to 25 feet to the right and slightly behind the shooter. Some reliability

CENTURY ARMS C39 CLASSIC SPORTER RI2170CN 7.62X39MM, $657

GUN TESTS GRADE: D

We wouldn't buy this rifle with the current trigger. We would only award it a C+ grade with a replacement trigger due to its mediocre accuracy.



Action	Semi-Auto; Kalashnikov Short Recoil
	Parkerized Milled Billet 4140 Steel
Overall Length	37.38 in.
Overall Height w/o Scope	7.0 in.
Weight Unloaded	8.2 lbs.
Barrel	16.1 in.; 1:16 Twist; 6 Grooves
	Chrome Moly 4150; Chrome Lined
Muzzle Device	Chevron Brake
Buttstock	Fixed; Gray Laminated Wood
Stock Length of Pull	12.75 in.
Forend	Laminated Wood
Magazine	(2) 30-Rd. Tapco
Front Sight	Standard AK, Elev. & Windage Adj.
Rear Sight	Standard AK, Elev. Adj.
Sight Radius	15
Rail	None
Trigger Weight	5.9 lbs.
Safety	Standard AK
Magazine Release	Ambidextrous Extended Paddle
Warranty	1 Year
Telephone	(800) 527-1252
Website	CenturyArms.biz
Made In	USA



The oversized magazine release (arrow) was easy to use with either hand.



The sights were standard AK design — adequate but not great.



The Century Arms C39 Classic Sporter had a well-finished gray-laminate fixed stock with metal buttpad that looked sharp.

issues came up during testing. While the Tapco and stock steel magazines were easy to insert and remove, the Magpul magazines tended to be sticky to remove. A bigger problem arose with the fire-control system. While the trigger was smooth and averaged 5.9 pounds of pull weight to break, it began generating failures to reset early in accuracy testing. Initially intermittent, the trigger reset issue became a permanent occurrence 50 rounds into the accuracy testing. Since we were able to manually reset the trigger between shots, we proceeded with the accuracy testing. We do not think the trigger issue affected accuracy, but it would have affected the action shooting portion of the test if it happened earlier.

Our Team Said: While the solution to the reset problems is a simple trigger group replacement, we wouldn't buy this rifle as tested. And even with a replacement trigger, we wouldn't buy it due to its mediocre accuracy at the range.

Century Arms C39 V2 RI2245-N 7.62x39mm, $749

The C39 V2 is a newer version of the model from Century Arms. Our example was a little lighter and came with one Magpul magazine. It had a brown fixed wooden stock with metal buttpad. The wood finish was even, but the pores of the wood were still exposed. Some of the testers thought the forend shape was more comfortable than the one on the Classic due to the V2's indentations. The same generic black plastic pistol grip with finger grooves was provided on both of the Century rifles. Our female shooter found this stock set to be more comfortable.

The controls were mostly standard AK style and placement. The safety included a bolt hold-open notch that was very popular with all the testers except our female tester, who found the safety harder to work and almost impossible to release with the bolt held back. The bolt release did get easier with usage. Our consensus was that the new safety design was a simple, significant, and welcome improvement. If the shooter has the hand strength, the bolt hold open is great. If not, then simply don't use the feature. Our female shooter found the bolt on the C39 V2 easier to rack than the bolt on the Classic. The ambidextrous magazine release

CENTURY ARMS C39 V2 RI2245-N 7.62X39MM, $749

GUN TESTS GRADE: A

Worth the money. If you want a unusually well built and good-shooting AK, this is the one to get.



Action	Semi-Auto; Kalashnikov Short Recoil	Magazine	(1) 30-Rd. Magpul
	Parkerized Milled Billet 4140 Steel	Front Sight	Standard AK, Elev. & Windage Adj.
Overall Length	37.25 in.	Rear Sight	Standard AK, Elev. Adj.
Overall Height w/o Scope	7.0 in.	Sight Radius	15
Weight Unloaded	8.1 lbs.	Rail	None
Barrel	16.5 in.; 1:10 Twist; Black Nitrided Chrome Moly 4150	Trigger Weight	6.9 lbs.
		Safety	Modified AK
Muzzle Device	Chevron Brake	Magazine Release	Ambi. Extended Paddle
Buttstock	Fixed; Brown Wood	Warranty	1 Year
Stock Length of Pull	12.75 in.	Telephone	(800) 527-1252
Forend	Brown Wood	Website	CenturyArms.biz
		Made In	USA



The C39 V2's accuracy would be acceptable for hunting out to the limits of the cartridge and the skill of the shooter.



Some testers liked the indentations in the V2's forend better than the shape of the Century Sporter's front wood.



The V2's front hood didn't interfere with the sight picture. The chevron-style muzzle brake controlled recoil and muzzle rise.

CMMG MK47 AKM MUTANT 76AFCD7 7.62X39MM, $1650

GUN TESTS GRADE: B

Took more breaking in than normal, and we expected better accuracy.



Action	Semi-Auto; DGI Semi "Mid Size" Stoner, Carbine Length; Black Anodized 7075-T6 Aluminum
Overall Length (Min./Max.)	33.5 to 36.8 in.
Overall Height w/o Scope	7.0 in.
Weight Unloaded	7.2 lbs.
Barrel	16.1 in.; 1:10 Twist; 6 Groove; Black Nitride Chrome Moly 4140
Muzzle Device	SV Muzzle Brake
Buttstock	Magpul MOE Collapsible
Stock Length of Pull	Variable
Magazine	(2) 30-Rd. Magpul
Forend	CMMG RKM15 Aluminum; KeyMod Attachment
Front Sight	NA
Rear Sight	NA
Sight Radius	NA
Rail	M1918 Picatinny Top; 21.25 in. Long
Trigger Weight	6.5 lbs.; Single Stage Mil-Spec
Safety	AR-15 Style
Magazine Release	Ambidextrous Paddle
Warranty	Lifetime
Telephone	(660) 248-2293
Website	CMMGInc.com
Made In	USA



The Magpul OEM collapsible stock proved to be sturdy and tight.



The safety and charging handle are standard AR-15, but the magazine release is a three-sided paddle located at the front of the trigger guard (arrow).



The CMMG RKM15 Keymod system is relatively light and easy on the hands.



The barrel description is often tagged SBN, which is short for Salt Bath Nitride. Nitriding offers improved wear, abrasion, and corrosion resistance.

was oversized and easy to use during rapid magazine changes using a rocking technique with either hand.

The sights were the standard AK design, but the front hood didn't interfere with the sight picture as much as with the Classic. Again, there was no provision to mount optics. The C39 V2 barrel was 16.5 inches long and, like the Classic, was tipped with a chevron-style muzzle brake that proved effective at controlling recoil and muzzle rise. The receiver was milled steel with deeper rectangles on each side. Unfortunately, the etched American flag was missing — a feature we found we liked on the Sporter.

During the shooting tests, the C39 V2 handled well when coming up to target and transitioning between targets. Recoil was manageable for all shooters. The rifle is marketed as having an enhanced trigger group. While the trigger pull was a little heavier at 6.9 pounds, it was very smooth and consistent with an excellent surprise break. There were no reset problems as we noted on the Sporter.

The rifle came out of the box very close to zeroed. At 50 yards, the C39 V2 produced much better groups than the Century Classic and would be acceptable for hunting out to the limits of the cartridge and the skill of the shooter. Like most AKs, the brass ejected 15 to 25 feet to the right and slightly behind. No reliability issues came up during testing.

Our Team Said: One tester has been shooting the AK platform for more than 25 years, and he stated that our Century Arms C39 V2 was probably the most accurate AK he had ever shot. We'd buy this rifle.

CMMG MK47 AKM Mutant 76AFCD7 7.62x39mm, $1650

The imaginatively and appropriately named Mutant is an adaptation of the standard Stoner AR-15 platform to accommodate the 7.62x39mm cartridge. While the upper looks like a standard AR-15 with an oversized bolt, the lower has a large opening at the bottom that accepts standard Kalashnikov-pattern magazines. The

ROCK RIVER ARMS LAR-47 CAR A4 CL RIFLE AK1263
7.62X39MM, $1270

GUN TESTS GRADE: D
(WITH OPEN SIGHTS)
GUN TESTS GRADE: A
(W/OPTICS,COMPATIBLE MAGS)

This rifle clearly has enough accuracy to make maximum use of the cartridge. We just wish it worked better with open sights and more brands of magazines.



Action	Semi-Auto; DGI Stoner, Black-Anodized Aluminum; Proprietary Forged LAR-47 Lower; Proprietary Forged A4 Upper	Forend	Classic CAR Polymer
		Magazine	(1) 30-Rd. RRA
		Front Sight	NA
Overall Length (Min./Max.)	33.5 to 36.5 in.	Rear Sight	NA
Overall Height w/o Scope	7.0 in.	Rail	M1918 Picatinny Top
Weight Unloaded	6.4 lbs.	Trigger Weight	7.3 lbs.; RRA Two-Stage
Barrel	16.0 in.; 1:10 Twist; HBAR; Black Chrome-Lined	Safety	AR-15 Style
		Magazine Release	Ambidextrous Paddle
Muzzle Device	A2 Flash Hider; 5/8-24 Threads	Warranty	Limited Lifetime
		Telephone	(866) 980-ROCK
Buttstock	RRA Tactical CAR Collapsible	Website	RockRiverArms.com
Stock Length of Pull	Variable	Made In	USA

Our shooters liked the RRA's heavy barrel, which produced a slightly muzzle-heavy feel.



The safety on this rifle will not work unless the action is cocked.



The LAR-47 CAR A-4 has a unique aluminum lower receiver that accepts standard Kalashnikov magazines.



Yes, that does look odd to the AR-15 owner's eye: A familiar bolt and receiver marked 7.62x39mm. That must be why it's called an "AR-47."



rifle comes with Magpul's OEM pistol grip and collapsible stock (with tensioner). The stock proved sturdy and tight for a collapsible stock, which often rattle.

The forend is a CMMG RKM15 Keymod system with a full-length upper rail that is relatively light and gentle on the hands when shooting. The safety and charging handle are standard AR-15 designs, but the magazine release consists of a large three-sided paddle conveniently located at the front of the slightly oversized trigger guard. The single-stage trigger released at a fairly consistent average of 6.5 pounds with acceptable take up and overtravel. The sights used consisted of height-adjustable rear peeps sights with two sizes of peepholes and a front post with heavy protective ears. All testers found them easy to work with, but they required maximum adjustment to get onto the paper. We also shot the Mutant with the TRS-25 Red Dot sight but saw no significant differences in accuracy.

While most of the shooters found the rifle and its controls easy to use, our female tester found the Mutant to be a little heavy, the safety a little stiff, and the rifle difficult to rack. She did find the rifle to be pleasant to shoot and she really liked the adjustable stock. Other testers found the CMMG Mutant's slightly-muzzle-heavy balance to be helpful for off-hand shooting.

We tested the Mutant with several magazines. Most worked fine; however, Magpul magazines were a little sticky to remove. Surplus steel magazines didn't originally feed very well, but as the rifle broke in, the feeding issues mostly disappeared for the FMJ cartridges. However, we continued to experience issues with soft-point bullets, particularly the final one to two rounds in a 30-round magazine. Upon close inspection, we found the tips were being shaved by the feed lips as they were being chambered. Prior to break-in, we found the Hornady plastic-tipped bullets being marred when chambered, to the point that they sometimes would

RANGE DATA

Tula 7.62x39mm 122-gr. FMJ	Century Arms C39 Classic	Century Arms C39 V2	CMMG MK47 AKM "Mutant"	Rock River LAR-47 CAR A4 CL Rifle
Average Velocity	2436 fps	2368 fps	2456 fps	2372 fps
Muzzle Energy	1607 ft.-lbs.	1519 ft.-lbs.	1634 ft.-lbs.	1524 ft.-lbs.
Smallest Group	1.6 in.	1.1 in.	1.7 in.	1.0 in.
Average Group	2.4 in.	1.5 in.	1.8 in.	1.1 in.

Tula 7.62x39mm 124-gr. SP	Century Arms C39 Classic	Century Arms C39 V2	CMMG MK47 AKM "Mutant"	Rock River LAR-47 CAR A4 CL Rifle
Average Velocity	2440 fps	2372 fps	2418 fps	2356 fps
Muzzle Energy	1639 ft.-lbs.	1549 ft.-lbs.	1609 ft.-lbs.	1528 ft.-lbs.
Smallest Group	2.1 in.	1.1 in.	1.8 in.	0.8 in.
Average Group	2.6 in.	1.7 in.	2.2 in.	0.9 in.

Tula 7.62x39mm 154-gr. SP	Century Arms C39 Classic	Century Arms C39 V2	CMMG MK47 AKM "Mutant"	Rock River LAR-47 CAR A4 CL Rifle
Average Velocity	2189 fps	2141 fps	2233 fps	2140 fps
Muzzle Energy	1638 ft.-lbs.	1567 ft.-lbs.	1705 ft.-lbs.	1566 ft.-lbs.
Smallest Group	2.4 in.	1.8 in.	1.3 in.	1.5 in.
Average Group	3.0 in.	2.1 in.	1.6 in.	1.8 in.

Hornady 7.62x39mm 123-gr. Z-Max Tipped HP	Century Arms C39 Classic	Century Arms C39 V2	CMMG MK47 AKM "Mutant"	Rock River LAR-47 CAR A4 CL Rifle
Average Velocity	2221 fps	2212 fps	2271 fps	2183 fps
Muzzle Energy	1347 ft.-lbs.	1336 ft.-lbs.	1408 ft.-lbs.	1301 ft.-lbs.
Smallest Group	1.3 in.	1.8 in.	1.2 in.	0.6 in.
Average Group	1.6 in.	2.0 in.	1.5 in.	0.8 in.

Ammunition Notes: All our test ammunition had steel cases. Tula Ammo 7.62x39mm 122-grain full metal jacket, $24.60/100 (MidsouthShootersSupply.com #112-UL076210); Tula Ammo 7.62x39mm 124-grain soft point UL076213, $10.66/40 (DefenderOutdoors.com #127429); Tula Ammo 7.62x39mm 154-grain soft point UL076214, $10.66/30 (DefenderOutdoors.com #127430); Hornady Zombie Max 7.62x39mm 123-grain Z-Max Tipped Hollowpoint 80782, $16.48/20 (AbleAmmo.com).

Equipment Notes: *There are Bolt Hold Open (BHO) magazines available on the market, but we did not use them for our testing. Therefore, none of the rifles' bolts held open when shot empty due to the standard magazine design.*

In addition to the open sights, we did field-shoot the rifles with a Bushnell Trophy Red Dot Sight TRS-25 on board. Pros: Great price, easy to solidly mount, 3-minute-of-angle-size dot was great a compromise between speed and accuracy, 11 brightness intensities, easy to manipulate controls. Cons: No auto power shutoff, the finish was easy to damage, the dot got slightly out of round at higher brightness intensities, and it was too easy to turn on accidentally. Conclusion: We'd pass because of the lack of auto power shut-off.



Muzzle velocity was measured with a MagnetoSpeed electromagnetic sensor chronograph to detect the presence of the bullet. These sensors are immune to muzzle blast, which allows the sensors to be located near the muzzle under the gun.

not feed. The Hornady failures seemed to permanently disappear after the first 150 rounds had been fired. After 250 rounds, we had no further functional issues with the 154-grain soft point or any other test ammunition for the duration. Evidently, this particular rifle required an extended break-in period, though we didn't see that documented anywhere. The heavy Tula 154-grain SP grouped better in the Mutant than any other rifle/round combo in the test. This rifle would be good for hog hunting with the heavy soft-point.

Our Team Said: The Mutant was OK, but when compared to the C39 V2, it was easy to put the V2 at a grade above the CMMG.



This top view of the LAR-47 shows how it saves some weight: A shorter top rail than on the Mutant and a polymer handguard.



The LAR-47 was the most accurate rifle in the test with 123-grain Hornady Zombie Max ammo. The two-stage trigger was the heaviest in the test at 7.3 pounds but was consistent.



Above: The RRA standard collapsible stock is shown at top; it's a basic unit that nonetheless allows for LOP management for a variety of shooters' lengths. Bottom is the Magpul sliding unit on the CMMG Mutant. The arrow points to a friction lock.

Rock River Arms LAR-47 CAR A4 CL Rifle
AK1263 7.62x39mm, $1270

There have been AR-15s in the Soviet 7.62x39mm for decades. Unfortunately, many of them are unreliable due to the way the angled cartridge feeds in a straight box magazine. The Rock River Arms LAR-47 CAR A4 attempts to solve this problem with a unique aluminum lower receiver specially designed to accept the standard Kalashnikov magazines.

The upper receiver will be familiar to anyone who knows the Stoner action. The bolt is oversized. The lower action has the familiar trigger and safety group, but the magazine release is more like that on an AK-47, with very large wings on either side for ambidextrous operation. The rifle comes with a Thermold magazine, Magpul BUIS, and a very nice lockable case. Fit of the rifle was very good, with an even matte-black finish. The LAR-47 was the lightest rifle of the test at a handy 6.4 pounds. The rifle came with a standard ribbed forearm and CAR-style collapsible buttstock with rubber recoil pad. The pistol group was the standard RRA grip with finger grooves, which most testers liked. Because the LAR-47 is a Stoner platform, owners can easily change out the furniture to suit themselves. The rifle has a 16-inch heavy barrel with an A2-style flash hider and railed gas block.

The heavy barrel gives the rifle a slightly muzzle-heavy feel that some of the testers really liked during the dynamic shooting drills. Recoil was considered reasonable by all shooters, with our female tester stating that the RRA recoiled noticeably less than the Kalashnikov style rifles. During these drills we discovered an interesting quirk: the safety on this rifle will not work unless the action is cocked. Nobody considered it a significant issue, just an interesting trait. The two-stage trigger was the heaviest in the test at 7.3 pounds but was extremely consistent, with no more than a 2-ounce variation and little overtravel.

At the range, we saw the rifle was bone dry out of the box. Function firing it, we saw the first two rounds fail to extract. We lubed the rifle thoroughly. A third round also failed to extract. At this point, we explored different magazine options and discovered that this sample LAR-47 is very picky about magazines. We exchanged the Magpul magazine we were using for a surplus steel one and experienced no failures to extract — but they would not always lock into the action. When we tried a second Magpul magazine, we found it interfered with bolt travel. Tapco magazines would not lock into place. The Bulgarian plastic magazine experienced no functioning problems, but could be a little sticky to insert and remove. The Thermold magazine that came with the rifle functioned well. AK-47 magazines are notorious for having widely varying specifications, so our recommendation is to thoroughly function-test any magazine at the range before using it in the field. When we installed the Magpul BUIS, we found that they could not be lowered enough to hit paper. We tried two other back-up iron sights with the same results. Upon closer review, we found that the gas-block rail was 0.25 inch lower than the top rail. We suspect that the wrong gas block was installed on our test gun. While we believe this is something that RRA would quickly remedy, we have to report the results of the sample as we received it.

Since we could not use iron sights, we used the Bushnell TRS-25 sight to complete our testing. This rifle was easy to shoot fast and accurately onto multiple targets. In fact, the LAR-47 was consistently the most accurate rifle in the test with two types of ammunition (124-grain Tula soft points and 123-grain Zombies) averaging well under 1 inch.

Our Team Said: With the magazine and sight situations worked out, this rifle/sight combination proved to be very effective for both dynamic drills and accuracy testing.

Written and photographed by David Tannahill, using evaluations from Gun Tests *team testers.*

New 308 Win. Bolt Guns: Howa, Mossberg Square Off

Here are two very different rifles, the Howa Alpine Mountain and Mossberg MVP LR, that we pitted head to head. One surprised us with its accuracy, while the other left us wanting more.

One can be spoiled by shooting accurate rifles, and accuracy typically comes at a cost. With the idea of finding a relatively inexpensive rifle that shoots accurately, is consistent, and is easy and comfortable to use, we looked into new rifles from Mossberg, the MVP LR, $945; and from Howa, the Alpine Mountain Package $1577. These two new rifles are both chambered in 308 Win./7.62x51mm NATO and are positioned by their manufacturers to do very different tasks. Even so, the shooter who prizes hole-in-hole performance will be challenged picking between these two because of the inherent trade-offs they present.



The Howa Alpine Mountain Package (top) is good to go right out of the box and would make a great lightweight hunting rifle. Our sole concern: The release could mean an accidentally dumped magazine. The Mossberg MVP LR (bottom) is a good entry-level rifle for long range shooting. Both rifles had good accuracy. We actually did a few double takes looking though the Meopta MeoPro HD 80 spotting scope ($1725; MeoptaSportsOptics.com) at some of the groups.

The Howa was designed to be a lightweight hunter, and the Mossberg's intent is to shoot accurately at long range. We feel both rifles accomplish their intended purpose, but as you will see, we found a potential pitfall in the Howa's magazine release, and with the Mossberg, we found we wanted better accuracy and a little better set-up for long range. With that said, both of these rifles had sub-MOA accuracy. We were surprised at the accuracy of the Howa and actually expected better accuracy out of the MVP LR, but at the end of testing we were satisfied, but not elated, with the results we achieved with both rifles.

We test-fired both rifles using a sandbag rest, mechanical rifle rest, and bipod in the prone and off a bench at target sets at 100 yards. The firing sequence consisted of five shots. Then we allowed the barrel to cool and changed ammo brand and fired another 5-shot string. Ammunition consisted of a range of bullet weights: Aguila 150-grain FMJ-BT, Hornady Match 178-grain BTHP, and Black Hills 168-grain BTHP. We also increased consecutive shot strings to 10 rounds to see the effect of a hot barrel on accuracy.

The variables in the test were the scopes. The Howa came with a Vortex Viper 3-9x40mm scope. The Viper scope is a traditional hunting scope with screw-on turret caps. With the caps removed, the turrets are pulled up to adjust windage and elevation. The magnification ring is large and easily rotated without disrupting aim. A Dead-Hold BDC reticle is in the second focal plane, so the reticle stays the same size even when magnification is increased or decreased. Subtensions on the reticle can be used to judge holdover for elevation and wind adjustments, but the scope needs to be on the highest magnification setting. We saw a bit of parallax at distances past 100 yards, but for hunting purposes, we could easily live with it. This is a basic scope, and we thought it was a good pairing with the Howa. Initially, we also thought this scope might be a liability compared to the scope we used on the Mossberg, but the little Howa kept pace with the Mossberg from the bench, so the optic wasn't a liability at all.

On the Mossberg LR, we mounted a Meopta ZD 6-24x56mm RD ($2070; MeoptaSportsOptics.com),

which is specifically designed for long-range shooting. The Meopta features an illuminated MilDot II reticle with an integrated range finder and is calibrated for tactical calibers like 7.62x51mm NATO/308 Win., 338 Lapua Mag. and 50 BMG/12.7x99mm NATO. The MilDot II RD reticle is located in the second focal plane, and when the magnification is set at 12x, the reticle subtensions can be used for windage and elevation adjustments and range finding. The scope has finger-adjustable windage and elevation turrets; one click for every quarter-minute. Clicks are tactile and audible. We used Weaver Tactical rings and the Picatinny style rail that came with the Mossberg. After bore sighting, the Meopta was easy to zero. We found adjusting the reticle for parallax to be simple, and it showed a clear sight picture all the way to the edges of glass. We really liked this scope, though some would have wanted the reticle in the first focal plane, but all agreed it was well suited for long range work. Here are the details on how these 308 bolt guns shot with these optics:

Mossberg MVP LR 27697 7.62mm NATO/308 Win., $945

This is the list price. Using the Gallery of Guns Gun Genie on the Mossberg site, we found several rifles near the Houston office selling for between $696 (FountainFirearms.com) and $815 (FullArmorFirearms.com). The Mossberg MVP LR is built off Mossberg's MVP series of rifles. It uses a proprietary bolt-face design that feeds from both standard AR-10 style and M1A/M14-style magazines. We had plenty of Magpul AR-10 style magazines on hand and had no issues with them.

The bolt was a push-feed style with two lugs, and it cocked on opening. Manipulating the bolt was smooth, and it wiggled slightly, but we had no issues working it from a variety of shooting positions. The bolt body had a decorative spiral, and the bolt handle had a large tactical-style knob, which we liked. The bolt throw was 60 degrees, which gave plenty of room for our fingers between the bolt handle and the Meopta's eyepiece. A one-piece Picatinny style rail came installed on the receiver, and it provided enough space to mount the large Meopta scope. However, we would have liked a slightly longer rail because the Meopta is such a long scope, as are other long-range glass. In our opinion, since this rifle

MOSSBERG MVP LONG RANGE (LR) 27697 7.62MM NATO/308 WIN., $945

GUN TESTS GRADE: A-

The MVP LR is well suited as an entry-level rifle for long-range shooting; it offered reasonable accuracy, but not quite on par with the lighter Howa.



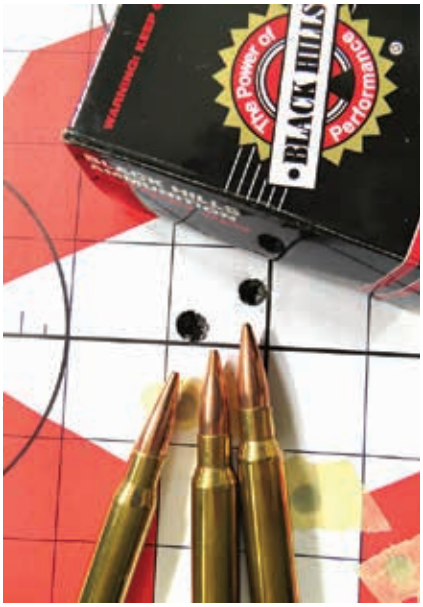
Action Type	Bolt, Two Lugs, 60-Degree Lift; Tactical Handle
Overall Length	39.5 in.
Barrel	20.0 in. Matte Blued Steel; Medium Bull Fluted, Threaded
Overall Height	6.5 in.
Stock Length of Pull	13.25 in.
Weight Unloaded	8.0 lbs.
Weight Loaded	9.3 lbs.
Capacity	10+1
Action	Matte Blued Steel; Installed Picatinny Rail
Magazine	Detachable Polymer Box; Accepts M1A/M14 and AR10-style
Stock	Polymer Pillar Bedded; Adj. Cheekrest; OD Green Stippled Benchrest Style; Dual Front Swivels
Trigger Pull Weight	3.0 lbs., LBA Adj.
Safety	2 Position
Accuracy Guarantee	None
Warranty	1-Year Limited
Telephone	(203) 230-5300
Website	Mossberg.com
Made In	USA



The bolt knob was oversized and comfortable to operate. The bolt throw was 60 degrees, which gave plenty of room for our fingers between the bolt handle and the Meopta's eye piece.



The pistol grip had a palm swell, and was comfortable to shoot.



We did a double take when we shot this group with Black Hills ammo. That's two holes on the left side of the group.

is touted as "long range" in its name, we would have also preferred a Picatinny rail that offered 20 MOA elevation, such as an EGW heavy-duty scope base (296-000-242WB, $70, Brownells.com). This is something an owner might consider buying if 1000 yards is the goal.

The safety had two positions; fully forward is the "Fire" position; fully rearward is the "Safe" position, which locks the trigger, though the bolt can be manipulated to eject a round out of or into the chamber. It was located on the right side of the receiver and fell under the thumb of a right-handed shooter. The bolt release was located on the left side of the receiver. To remove it, partially retract the bolt, press the bolt release button, and the bolt assembly pulls free from the receiver. The 20-inch barrel had a 1:10-inch twist and a medium-bull taper with shallow flutes. The muzzle was threaded for a device and wore a protective sleeve, which we liked. The magazine release was inset into the bottom of the stock so there is no fear of an accidental magazine dump. The inset was small, and large-fingered shooters could only get the tip of a finger into the hole to press the release paddle. The paddle was flush with the bottom of the stock. All metal wore a nice matte-blue finish.

The trigger is Mossberg's LBA system, which allows users to adjust the trigger. From the factory, ours measured 3 pounds. It was crisp with no take up and broke cleanly and consistently. The trigger guard and magazine well were polymer. Nit: A slight flare on the magazine well would make magazine changes a bit smoother, though we had no issues.

The synthetic stock is similar to a benchrest stock, with a wide, flat forend well suited for shooting off a rest and a vertical pistol grip with palm swell, which made shooting the rifle prone or seated very comfortable. The barrel was free floated in the stock from the action forward. The stock had a green stippled texture covering the entire stock. The black cheekpiece was adjustable via a push button, and it wore a rubbery

HOWA ALPINE MOUNTAIN PACKAGE HMR33143+VX 308 WIN., $1577

GUN TESTS GRADE: B+

The Alpine Mountain was lightweight and accurate, but we thought the magazine release may be an issue for some hunters.



Action Type	Bolt, Two-Lugs, 70-Degree Lift
Overall Length	40.25 in.
Barrel Length	20 in.
Sights	Vortex Viper 3-9x42mm; Talley Rings
Overall Height	6.0 in.
Stock Length of Pull	13.5 in.
Weight Unloaded	6.7 lbs.
Weight Loaded	6.9 lbs.
Capacity	5+1
Action Finish	Gray Cerakote
Barrel Finish	Gray Cerakote
Magazine Type	Detachable Polymer Box
Stock	Fiberglass, Pillar Bedded
Trigger Pull Weight	3.5 lbs., Two-Stage Adj.
Safety	Two Position
Accuracy Guarantee	None Stated
Warranty	5 Years
Telephone	(800) 5-LEGACY
Website	LegacySports.com
Made In	Japan



The Howa with Hornady Match ammo shot this 0.65-inch group; average groups with Hornady ammo were 0.75 inches.



In this natural carry position, the user's hand can press against the magazine release and accidentally dump a magazine. We'd add a stiffer spring to the magazine release to stop this from happening.



The barrel was skinny, yet it gave us excellent accuracy.

RANGE DATA

Aguila 7.62x51mm 150-gr. FMJ Boattail	Mossberg MVP LR	Howa Alpine Mountain
Average Velocity	2715 fps	2699 fps
Muzzle Energy	2454 ft.-lbs.	2427 ft.-lbs.
Smallest Group	0.46 in.	0.97 in.
Average Group	0.63 in.	0.98 in.
Hornady Match 308 Win. 178-gr. Boattail Hollowpoint	**Mossberg MVP LR**	**Howa Alpine Mountain**
Average Velocity	2539 fps	2534 fps
Muzzle Energy	2548 ft.-lbs.	2538 ft.-lbs.
Smallest Group	0.96 in.	0.65 in.
Average Group	1.1 in.	0.77 in.
Black Hills 308 Win. 168-gr. Boattail Hollowpoint	**Mossberg MVP LR**	**Howa Alpine Mountain**
Average Velocity	2554 fps	2569 fps
Muzzle Energy	2434 ft.-lbs.	2462 ft.-lbs.
Smallest Group	0.66 in.	0.75 in.
Average Group	0.83 in.	1.00 in.

To collect accuracy data, we fired three-shot groups from a bench using a rest. Distance: 100 yards with optics. We recorded velocities using a ProChrono digital chronograph with the first screen set 15 feet from the muzzle.

texture that was comfortable and provided a good cheek weld. As we raised the cheek piece, it wiggled ever so slightly; the less it was extended, the less it wiggled. The rubber buttpad was sharp edged and serrated; it stuck to our clothing. Sling swivel studs were installed, as well as an attachment point for a bipod. We would have liked an adjustable LOP with different size spacers, but team members of all statures liked the feel of the stock and found it comfortable to shoot. The MVP LR had a nice heft to it, so it stayed in place on the bags and made recoil feel less.

We fired from the magazine and single-loaded cartridges with no issues, and found it quite easy to shoot three-shot groups under a minute of angle. With the Aguila 150-grain FMJ BT ammo, we were able to get our best group, three shots in 0.46 inches. With the Black Hills ammo, our best group opened to 0.66 inches. With Hornady Match, our best group was 1 inch. On average, this rifle shot just under 1 MOA for three shots at 100 yards. Also, we ran the Mossberg until the barrel was hot — 10 consecutive rounds — and did see group size increase slightly.

Our Team Said: We really liked shooting this rifle, but had hoped for smaller groups. It is entirely possible the owner could find factory ammo and/or handload ammunition to get this gun at a half-inch at 100 yards. The MVP LR operated smoothly and had enough heft to absorb recoil. The stock was comfortable and the trigger was crisp. This is a good entry-level long-distance rifle at a fair price.



The Howa bolt face (left) is a traditional two-lug push-feed style, while the Mossberg bolt face (right) has two small lugs marked by the arrows that push the cartridge out of a double-stack magazine.

Howa Alpine Mountain Package HMR33143+VX 308 Win., $1577

The Howa Alpine Mountain Package model is built for hunting. Lightweight and very maneuverable, our shooters said they could carry this rifle all day on a hunt. With the mounted scope, the rifle weighed 6.7 pounds. It had nice balance for shooting off hand, and from a rest we were surprised at the accuracy.

The Alpine Mountain starts with Howa's 1500 action with a light contour 20-inch barrel — make that a skinny barrel — with a 1:10-inch twist rate. We thought that once the barrel heated up, groups would suffer badly, but that was not the case.

The barreled action wore a gray Cerakote finish that was well executed. The 1500 action is a push feed that uses two lugs and has a 70-degree bolt lift, which had our fingers close to the eyepiece of the Vortex. It cocks on opening and operated smoothly with little wiggle. The smooth bolt knob was drilled out to relieve metal and reduce weight. The three-position safety allowed the rifle to Fire in the forward most position. In the middle position, the trigger is locked, but the bolt can be manipulated. In the rearward position, the trigger and bolt are locked. The bolt release was located on

VALUE GUIDE: TOP-RANKED BOLT-ACTION RIFLES MULTIPLE CHAMBERINGS

GUN NAME	ISSUE	GRADE	COMMENTS
Ruger Precision Rifle 18001 308 Win., $1399	April 2016	A	The Ruger is set up for long-range shooting and offers a lot of adjustment options.
Savage Arms Model 12 LRP 19137 6.5 Creedmoor, $1252	Jan 2016	A	The Model 12 LRP shot the smallest groups of the test with every round we tried.
Krag 1898 Springfield 30-40 Krag, ~$1500	Sept 2015	A	It worked well in its day, and good examples still do today, with a fine inner beauty.
Iver Henriksen Mauser 98 338 Winchester Magnum, ~$5000	July 2015	A	Classic lines in the Elmer Keith style, the Henriksen 338 is an impressive rifle.
Winchester Modified Model 70 338 Winchester Magnum, $1390	July 2015	A	Originally an A- in the December 2012 issue, upgrades raised its performance.
Mitchell's Mauser M48 8x57mm, $450	March 2015	A	Looking much like a wartime Mauser 98K, the Mitchell M48 is not German, but Yugoslavian.
CZ-USA 527 Varmint 03066 17 Hornet, $725	Feb 2014	A	Highly accurate hot or cold, with standard and set triggers that didn't vary in pull weight.
Weatherby Vanguard 2 Deluxe 257 Weatherby Magnum, $1149	April 2013	A	The Vanguard has the same stock design as the Mark V and it works just as well.
Howa Hogue Youth 2N1COMBO No. HWR66204+ 243 WIN., $641	April 2013	A	Trouble free, capable of delivering MOA accuracy and adaptable to any size shooter.
Ruger American No. 6904 243 Winchester, $449	Feb 2013	A	The Ruger American delivered performance that was worthy of a much more expensive rifle.
Winchester M70 F'wt Compact SA 535126220 308 Win., $880	Jan 2013	A	We liked this slim, trim Model 70. Excellent wood, great metal, excellent trigger.
Savage 11/111 Lightweight Hunter 19209 308 Win., $899	Jan 2013	A	The Savage was the epitome of a light hunting rifle. We've seen very few 308 rifles this light.
CZ-USA 550 American Safari 416 Rigby, $1907	Feb 2012	A	The CZ 550 had great sights and recoil pad, nice wood, and an excellent trigger.
Anschütz 64 MP R No. 009977 22 LR, $1399	July 2011	A	Enough accuracy, charisma, and versatility to keep the shooter interested for a lifetime.
Steyr Jeff Cooper Scout 308 Winchester, $2975	May 2011	A	It is distinguished by its gray color and the Cooper logo on the butt.
Kimber 84M Longmaster VT 22-250 Rem., $1391	Feb 2011	A	Effortless accommodation to the shooter. On par with more costly custom rifles.
Kimber 8400 Caprivi 375 H&H Magnum, $3196	March 2010	A	The lovely wood of the Kimber Caprivi stole our hearts. Well-fitted ebony forend tip.

Log on to **Gun-Tests.com** to read complete reviews of these products in the designated months.
Highly-ranked products from older reviews are often available used at substantial discounts.

VALUE GUIDE: TOP-RANKED BOLT-ACTION RIFLES MULTIPLE CHAMBERINGS

GUN NAME	ISSUE	GRADE	COMMENTS
Savage Arms 16FSS No. 17425 270 WSM, $569	June 2006	A	A Best Buy, it delivered at least one MOA group with all three test rounds. Liked the Accu-Trigger.
Browning A-Bolt II Comp. Striker No. 035012248 270 WSM, $734	June 2006	A	The A-Bolt II favored the heaviest loads. Bolt operation remained smooth and fast.
Savage 10FPXP-LEA 308 Win., $1861	Nov 2004	A	A Best Buy, we would hazard a guess that with a tuned load, the Savage will shoot half-MOA all day.
Savage Model 12VSS 308 Win., $628	Feb 2003	A	A Best Buy, this outstanding heavy-barrel rifle was also one of the cheapest.
Tikka T3 CTR 308 Winchester, $950	April 2016	A-	The CTR was well balanced and operated smoothly. It's a hunter that can dabble at long range.
Ruger Precision Rifle 18005 6.5 Creedmoor, $1399	Jan 2016	A-	Adjustability and AR-15 ergonomics make this rifle appealing and easy to shoot
Ruger K77/17-VHZ #7212 17 Hornet, $969	Feb 2014	A-	This is a smooth, rapid-cycling full-size rifle with a crisp single-action trigger.
Browning T-Bolt Target/Varmint No. 025176270 17 HMR, $799	Sept 2013	A-	The T-bolt is almost as fast as a semi-auto. It is a classy rifle that is fun to shoot.
Ruger K77/17VMBBZ No. 7027 17 HMR, $969	Sept 2013	A-	Shot every load tested to 1 MOA or better. Full-length barrel maximized velocity and power.
Thompson Center Dimension No. 8402 243 Win., $679	April 2013	A-	This gets a high grade based on accuracy and a remarkably simple procedure for caliber changes.
Weatherby Mark V Deluxe 257 Weatherby Magnum, $2400	April 2013	A-	Many would think it's overrated because of its too-glossy finish, but it does perform.
Winchester M70 Alaskan 338 Winchester Magnum, $1270	Dec 2012	A-	A great Pachmayr recoil pad and a well-designed stock made for a comfortable rifle.
Steyr Arms SSG69 PII 308 Winchester, $1899	April 2010	A-	The long barrel helps produce additional velocity, favoring longer-distance applications.
Kimber 84M LPT 308 Winchester, $1315	April 2010	A-	The LPT featured superb balance and an excellent single-stage trigger.
Ruger Hawkeye Tactical HM77VLEH 308 Win., $1172	April 2010	A-	This highly accurate compact rifle is a great choice for stowing in the trunk of a patrol car.
CZ-USA 550 American Safari 04211 375 H&H Magnum, $1179	March 2010	A-	U.S. styling sets off the CZ, formerly known as the ZKK 602. The weight was up there.
Howa 24-Inch HB 6.5 Creedmoor, HKF92507KH+AB $1000	Jan 2016	B+	Many of the benefits of a heavy-caliber hunting rifle with very little of the punishing abuse.

Log on to **Gun-Tests.com** to read complete reviews of these products in the designated months.
Highly-ranked products from older reviews are often available used at substantial discounts.

the left side of the receiver and is pressed to remove the bolt assembly.

The HACT (Howa Actuator Controlled Trigger) trigger is a two-stage trigger that is user adjustable, but Howa recommends owners take the rifle to a gunsmith for adjustment. Ours was factory set at 3.5 pounds, and that was perfect for us. Testers liked the bit of take-up with the first stage; the second stage was consistent. The face of the trigger was grooved for better trigger-finger grip and no slip.

The bottom metal is actually polymer and is Legacy Sports' Ammo Boost kit, which features a detachable polymer magazine. The Howa came with a five-shot magazine, but 10-rounders ($52; LegacySports.com) are available. Magpul 10-round magazines ($19; Magpul.com), which are compatible with the Mossberg, are less expensive.

The magazine release sat forward of the magazine, and in our opinion, was in a position where a user could easily dump the magazine by accident. One team member carries his deer rifle at that balance point, and when holding the rifle, his hand hit the magazine release and dumped the magazine. Also, if you were to brace the rifle against a rest or push through thick brush, you could also accidentally dump the magazine. We would put a stiffer spring in the release to make it a bit more difficult to press.

The fiberglass stock was pillar bedded and free floats the barrel all the way to the receiver for accuracy. It wore a green-and-black spiderweb-type finish that we liked. It had a bit of texture to make gripping the rifle more secure. A Pachmayr Decelerator buttpad was perfectly mated to the stock. Sling swivel studs were installed.



The Howa's detachable magazine is Legacy Sports' Ammo Boost kit; we'd prefer a traditional floorplate.



Mossberg magazine changes were incident free, but we would have liked a chamfer on the edge of the magwell (arrow) to ease reloading.

With such a light rifle, you can expect recoil, and we were right to do so. But the little Howa's buttpad helped reduce felt recoil. The crisp trigger and Vortex Viper scope helped us shoot sub-MOA groups. We were surprised at how well this rifle shot. With Hornady Match ammo loaded with 178-grain BTHP bullets, our smallest three-shot group at 100 yards was 0.65 inches. With the Black Hills 168-grain BTHP bullets, the smallest group increased to 0.75 inches. Aguila ammo gave us 0.97 inches with its 150-grain FMJ BT bullet. It did not take long for the skinny barrel to heat up. With 10 consecutive shots, groups enlarged slightly, but by no means greatly eroded accuracy. We doubt either of these rifles would be shot until its barrel was hot to the touch.

Our Team Said: The Howa provides a lightweight, accurate hunting-rifle combo package right out of the box, but the magazine release gave us some concern and we downgraded it accordingly. If that's not an issue for you, move the grade up. If you already have an AR-10 or another semi-auto 308 Winchester rifle and have been thinking about adding a bolt gun in the same chambering to broaden your prep, either the Howa or Mossberg will provide enough accuracy to rival or surpass your autoloader. If you see your use mainly as an overlook gun, then the Mossberg is likely the better bet. If you see needing to tote a rifle up and down hills, then pick the Howa. Both will shoot groups under an inch with the right ammo, if you do your part.

Written and photographed by Robert Sadowski, using evaluations from Gun Tests *team testers.* **GT**



The Mossberg's magazine release is inset into the bottom of the stock (arrow). The release paddle sits flush with the bottom.



The Pachmayr Decelerator buttpad on the Howa was much appreciated because this lightweight rifle produced tolerable, but noticeable, recoil.



A push button on the Mossberg allows the user to adjust the cheek riser; the further it was extended, the more it wiggled.

Glock Night Sights: We Test Glow-in-the-Dark Aiming Aids

While all are an improvement over standard factory Glock sights, some are better than others when it comes to quickly finding the sight in the dark, and others are better for 24-hour accuracy.

As a carry handgun, the Glock is rugged, reliable, and combat worthy. About the only modifications that actually improve the Glock are the addition of a better trigger and a set of aftermarket sights. We dealt extensively with the issue of trigger replacements in the April 2014. There, we installed a Zev Technologies' GlockWorx Ultimate kit from Brownells.com ($250, #100-006-566WB, Mfr. Part: ZTFULULT4G9BLK) into our Glock 17. We gave the Ultimate Kit an A grade, saying it "was the upgrade that produced the biggest difference in performance all by itself, increasing the accuracy of the Glock 17 from an average grouping of 2.3 inches down to 1.6 inches."

Also in the April 2014 issue, we looked at two sight-upgrade kits, both from Brownells. One was the Brownells Glock 17 Sight Upgrade Kit ($200, #080-000-919WB), which included a Meprolight (Kimber) ML-10224 Tru-Dot Night Sight System for Glock 17, 19, 22, 23, 31, 32, 33, 34, 35, 37, 38, 39; an MGW Glock Sight Adjustment Tool, and an Ed Brown Front Sight Tool for Glock. Since we had the installation tools handy, we also ordered a set of TruGlo tritium fiber-optic Brite-Sites ($90, #902-000-107WB, Mfr. Part: TG131GT1Y), yellow rear and green front. We chose to put the TruGlo sights on the Glock 17 and the Tru-Dots on a G34 so that we could shoot them side by side.

With the Ed Brown Front Sight Tool for Glock ($20 sold separately, #087-017-001WB, Mfr. Part: 952) and the MGW Glock Sight Mover ($100 sold separately, #584-045-017WB, Mfr. Part: MGW309) for the rear sight, we started the switch with a disassembly of the slide to get access to the front sight. With the Ed Brown front sight tool and a small crescent wrench, we loosened the screw beneath the sight and removed it, then replaced the white dot with the new TruGlo front sight and tightened with the crescent wrench. Once the front sight was swapped, we hooked the slide into the MGW. The device came with some thin plates to raise the slide up the right height. We did not need them. The old sight drifted out with relative ease, going left to right pointed away from us. The new rear TruGlo sight did require some minor fitting with a file and a little more strength to slide in, but with the MGW tool, leverage was not a problem. We used the same process to put the Meprolite sights onto a factory Glock 34.

Despite the new TruGlo sights being fixed like the originals, we found them to be much clearer and easier to acquire and reacquire targets. We took to the range with the TruGlo sights installed, using all other original parts, and we cut our average



The Glock factory night sight is superior to the standard plastic sight, but there are better aftermarket options.







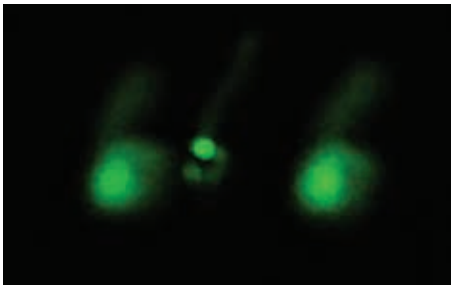
Above left is the TruGlo factory night-sight set, our top-ranked replacement sight for the Glock and a Best Buy. Directly above, the AmeriGlo set was well made and offered a good fit. Left is the Henning Battlehook Sight Set, also a Grade A item.



The Tru Glo front sight is bright, and worked well in all light conditions.







Above: TruGlo sights are bright and offer a good sight picture.

group size down by almost half an inch, from 2.3 inches with the standard Glock to 1.9 inches with the TruGlo sights. We turned down the lights over the shooters, leaving the targets illuminated to check out how much the tritium would glow in the fiber-optic sights. The green front sight was quite bright, while the rear yellow sights were significantly dimmer, although still visible.

The Meprolight Tru-Dots provided an even more impressive change on the G34. We shaved just over a full inch off our average group size at 10 yards once we installed them.

Upgrading fixed sights can seem like a challenge to someone who hasn't done work on pistols previously, but with these tools and the simplicity of Glock's designs, this upgrade is a great place to start if you want to attempt a DIY project. You can drift the sights out with a punch, which will save $100 for the MGW tool, but you risk rupturing the tritium capsules. The MGW mover requires oil on the crankshaft, but it made drifting the dovetail sights in and out so easy we quickly misplaced our punch set. Overall, we found the TruGlo sights to be a nice upgrade and would recommend putting them in place of the standard non-tritium sights on any factory Glock. We gave them a Grade: A ranking, along with the Meprolight Tru-Dot tritium.

Naturally, readers asked about other sights, so we began looking at more replacements we could test head to head, rather than as a general Glock upgrade. So, again working with Brownells, we assembled a sextet of night sights suitable for installation on various Glocks. Also, we believe you can broaden our recommendations to include other firearms of similar size — the visual presentation won't be appreciably different on different platforms — though the installation process may differ gun to gun.

Starting Point

The factory Glock sight features a rear sight with a .150 wide rear notch coupled with a .140 wide front, leav-







Above: The AmeriGlo set proved to be a good fit, and the smaller dots, some raters felt, were more precise. The front sight of the AmeriGlo is marked Trijicon, the supplier of the tritium inserts.





The rear sight of the AmeriGlo sight features two small dots that worked well in practice.

ing very little light between the front post and the rear sight notch. When fitting a quality aftermarket front sight, the thinner front sight with a .115 to .125 front post offers better precision. When choosing a set of sights to improve the sight picture, you may as well go ahead and invest in tritium sights. Night sights, as they are called, add a greater dimension to the utility of the firearm. When choosing sights, another reason that we discard factory Glock sights is fragility. They do sometimes get knocked out of alignment or even off the gun — after all, they are plastic. Glock changed the front sight's anchoring a few years ago, but just the same, steel sights are better. Most night sights consist of steel sights with a tritium insert in a sleeve mounted in the steel sight.

The first step is to choose the proper sights, which we will cover shortly. Next, before you change the sights, mark the exact position of the sights that are presently mounted on the pistol. This will allow centering the replacements, and if done properly, only minor adjustment is needed after they are mounted. Then, mark the center of the sights, and when you install the sights, this will be aligned with the mark on the slide.

Use the sight pusher to remove the rear sight. The slide is locked into place with the sight pusher on either side of the sights. The screw handle is turned to move the sights from the frame. The front sights were once simply pulled out, but (finally) Glock began using a screw attachment with the Gen 4 guns.

Next, clean the rear dovetail of the slide and begin to press the replacement rear sight in the dovetail, right to left, using the Glock Sight Mover. Remember to use the registering marks to be certain that the sights are properly aligned.

The Replacements

We rated the sights on several points, including ease of installation, quality of fit and finish, and visibility in both daylight and dim-light firing. We also viewed the sights in a dark storage room with no interference from light of any type. The sights were mounted on various Glock 40 S&W pistols. During the firing test, we used Black Hills Ammunition 155-grain JHPs and Winchester 180-grain FMJs to offer both a quality defensive load and a practice load while we ran the sights. The after all the firing was done, our team assembled and tried to choose the aftermarket part we liked best. Here are the results:





Battlehook sights offer a high profile that invites snagging on the belt or other object to rack the slide if need be. This is the rear sight for the Battlehook set. The Battlehook rear sight is serrated. We gave this sight a high rating for sight picture. All raters felt that this sight offers the superior sight picture for precision use.



The Battlehook front sight is designed for real precision.

TRUGLO Tritium Fiber-Optic Sight Sets For Glock TG131GT1, $100; 902-000-083WB @ Brownells.com

As we noted above, these received a Grade: A ranking in 2014. We start with them as a baseline for scoring the other sights. The TruGlo sights use a combination of tritium installed in fiber-optic tubes. This is a contrast to the standard night sights installed in an ampule and mounted in an aluminum sleeve in a steel housing. These sights gave the brightest glow in the dark room. During firing tests in the daylight, the TruGlo sights gave excellent, accurate results. Firing in dim light conditions, the sights also gave good results. The combination of good accuracy in all conditions, excellent luminosity, general good manufacturing quality, and a fair price makes this set a great value. Fits Glock Models: 17, 19, 22, 23, 24, 26, 27, 33, 34, 35, 38, and 39.

GUN TESTS GRADE: A/BEST BUY

AmeriGlo Pro Tritium Night Sight Sets for Glock GL235, $85; 100-004-207WB @ Brownells.com

The AmeriGlo three-dot sight caused some interesting discussion and provided some insight into the differences in how humans perceive light and color. The AmeriGlo sights feature tritium surrounded in a white outline. So do others, but the small dots give a different appearance. Some raters saw three green dots, others felt that the rear dots were white. In any case, the sight picture was good. In dim light conditions, our shooters said the sights were

not as bright as the TruGlo. The sight picture in daylight conditions was as good as any tested, save the Battlehook. The AmeriGlo sights are good low-profile designs that conceal-carry well. We like them better than the Glock factory type sights. The green/yellow combination 100-004-207WB fits Glock Models: 20, 21, 29, 30, 31, 32, and 36. The green/yellow combination (Mfr Part: GL229) 100-004-206WB, $100, fits Glock Models: 17, 19, 22, 23, 24, 26, 27, 33, 34, 35, 37, 38, and 39.

GUN TESTS GRADE: A

Henning Battlehook Sight Set Tritium Front for Glock HKB03, $115; 100-014-869WB @Brownells.com

Henning Battlehook Sight Set Tritium Front & Rear for Glock HKB09, $150 100-014-870WB @Brownells.com

This sight set is made by Henning's Shop LLC (HenningShop.com) of Longmont, Colorado, telephone (720) 325-7890, or email to: orders@henningshop.com. We ordered this set with only the front sight in tritium to see how it performed as a contrast to the others and with three-dot tritium night sights for $150. The Battlehook sights fit more snugly than the others, but they pressed in without difficulty. Two #6-32 steel screws in the rear sight gave additional insurance it wouldn't shift in the dovetail, since part of the sight's appeal is one-handed racking of the slide. The rear sight includes a 10-degree forward angle, greatly assisting in operating of the slide. The rear sight also extends to the rear of the slide, allowing for a longer sight radius. Machined from 4140 steel, the front and rear sight feature a mil-spec parkerized finish, and 40-LPI serrations further cut glare. The rear sight is designed to give operators a surface for snagging the rear sight to rack the slide (thus the name Battlehook) or clear a malfunction when only one hand is available. With a wounded hand or a hand busy with other gear, the Battlehook works as designed. This extra option certainly is worth consideration. The front sight was bright and offered a good aiming point in darkness. The single dot offered a fast sighting option. When testing the single dot in dim light, however, if misaligned, the broad rear sight posts covered the front sight. We could carefully realign the sights and see a dot. This isn't the night sight for the average person, but is instead better for a well-trained shooter. This isn't the fault of the company; it was delivered exactly as we specified and told us what we needed to know.

We would instead recommend ordering the three-dot option. This is the design that all raters agreed gave the best daylight sight picture for absolute accuracy and was also the most "tactical," to use a term that three of the four raters mentioned. The sight actually increases the sight radius slightly due to the overhang on the rear of the slide. All liked the serrated rear-facing side. If you are headed to the sandbox, our military intelligence officer said "get this one." This sight set was the most expensive tested, but the machine work was excellent, in our view.

GUN TESTS GRADE: A (FRONT & REAR)
GUN TESTS GRADE: B (FRONT ONLY)

XS Sight Systems 24/7 Big Dot Tritium Express Sight Set for Glock GL0001S5, $115 006-115-002WB @Brownells.com

This sight design is simply known as the Big Dot or Express system. Patterned after the old-style Express sights found on dangerous-game rifles, the big dot was highly visible in dim light conditions, we saw. The sights were easy to install. The front dot was held with a retaining screw, same as the other sights. The rear sight, however, slid into the Glock dovetail easily. It was then tightened with the supplied tool and two set screws in the body of the rear sight. The front big dot was visible, but the tritium dot itself was fairly small, being centered in a white-outline post. In daylight conditions, we got very fast hits at 7 yards. As a trade-off, the big dot covered a portion of the target, but we'd take that for some



The XS sights gave a good glow in the dark room.







The XS Big Dot front dot is bright enough, but the tritium is enclosed in a white dot, so the whole dot doesn't glow.

uses because recovery was rapid during firing strings. The problem was accuracy. At 25 yards, it was difficult to make a good group with the big dot sight. Repeatability was not good. As an example, our best shot fired a 4-inch group at 15 yards. He then reloaded and fired another four-shot group about the same size, but an inch and a half from the original group, despite using the same aiming point. Therefore, we'd gauge the Big Dot sight as a good choice for home defense. If your personal preference is for short-range practice with little time spent beyond 10 yards, then the Big Dot sight has merit. Fits Glock 36 and all 9mm, 357 SIG, and 40 S&W models in the company's line.

GUN TESTS GRADE: B

Glock Factory Night Sights
Glock Front Night Sight W/Hex Screw NF17G24, $40
Glock Night Sight Rear 6.5mm NR17G24 @ $45
@Glockparts.com

If the old sights go dead, or you simply wish to keep the stock look, Glock factory sights are an option. These sights gave a better daytime sight picture than the XS sights, we felt, but not as good as the TruGlo. On the other hand, they are a great improvement over the standard factory Glock non-night-sight version. We liked the three-dot picture. We have seen writers describe students who misaligned three-dot front sights, but our trainers on the team have never seen this. Since body positioning and a firm grip and hold are vital in night shooting, we fail to see how a trained shooter could misalign the sights so badly. The Glock night sights were fine, and there was nothing wrong. While we learn toward the bright TruGlo, the factory Glock sights have seen much rugged service. Also, it's worth noting that factory Glock sight installation in late-model versions features a staked-in-place front sight. These require considerable effort with a punch to remove. The prices are right, and the product is easy enough to install. The sight was graded down a slot simply because it isn't as bright as the TruGlo. Fits all Glocks.

GUN TESTS GRADE: B

Advantage Tactical Glock ATS Sight ATS00125, $98
ATS00126 with Firefly, +$130
@AdvantageTactical.com

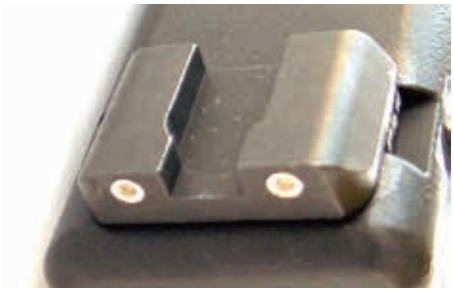
The Advantage Tactical sight isn't a night sight and does not claim to be. So, the test was undertaken with that understanding. However, they do make claims that the glow-in-the-dark Firefly front sight is as effective as a night sight once it is charged with a pocket flashlight or some such light. The company points out that tritium has a finite life, while their material does not. However, the problem is that the sights need to be charged from a light source, and they are only available with the large front sight. This sight kit includes five differently colored front sights, five differently colored rear sight inserts, .044 inch of elevation shim, a front-sight tool, and rear-sight set-screw hex key. It was possible to hand-press the rear sight in and then tighten the set screw. We found the Advantage Tactical sight offers a pyramid-type design that proved quite fast and accurate in daylight firing. Speed was comparable to the XS, but with better repeatability.

Confirmation of the aiming point was excellent. It would be difficult to impossible to misalign the Advantage Tactical front sights. In dim-light testing, the front sight was big, bold, and bright. Once charged with a minute or so of light, it holds the charge for an hour or so before going dim, and a few seconds of light again brings it back up. The system is interesting, but we feel that it is not as viable as a true night sight.

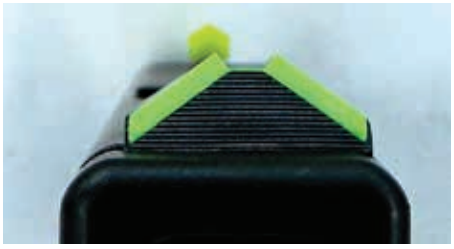
Combat accuracy, however, was excellent, which is why the system is only rated own a single grade. Also, there is an ability to snag the sight and rack the slide. However, this function isn't as good as the Battlehook because the Advantage Tactical sight is plastic. We put it down another half grade for the need to replenish the glow-in-the-dark functionality.



Minimal effort was required to remove the Glock factory sight. This factory night sight was dim to dead after years of service.



The Glock sight picture with factory night sights is credible, but aftermarket sights go one better.



The Advantage Tactical Sight gave an excellent sight picture.



The Advantage Tactical Sight Firefly is an interesting concept, but we prefer self-luminous sights.

Fits all Glock models, including the G41, G42, G43.

GUN TESTS GRADE: B

Written and photographed by R.K. Campbell, using evaluations from Gun Tests team testers. **GT**

GUN TESTS
THE CONSUMER RESOURCE FOR THE SERIOUS SHOOTER

SHORT SHOTS

Ruger Introduces Takedown Lite 10/22

Sturm, Ruger & Co., Inc.'s Ruger 10/22 Takedown Lite combines the attributes of the 10/22 Takedown line with a new, lighter weight barrel and the Ruger Modular Stock System.

The 10/22 Takedown Lite weighs 4.7 pounds and is 34.50 inches long when assembled; each subassembly is less than 20.25 inches long. Disassembly is a simple matter of pushing a recessed lever, twisting the subassemblies and pulling them apart. The 16.12-inch tensioned barrel features a 1/2"-28 threaded muzzle and is fitted with a thread cap, which can be removed to allow for the use of muzzle accessories.

This new barrel configuration consists of a cold hammer-forged alloy steel barrel mated with a 6061-T6 aluminum alloy sleeve. Taking a page from the Ruger 22/45 Lite, the 10/22 Takedown Lite's aluminum alloy barrel sleeve is ventilated, resulting in the lightest-weight 10/22 target barrel yet from Ruger. The rifle is shipped in a carrying case, which provides storage with extra pockets and magazine pouches. The Ruger 10/22 Takedown Lite Models include Model 21152, which has a black receiver and a list price of $659; the Model 21153 with a blue-anodized receiver and blue aluminum sleeve; the Model 21154 with a red-anodized receiver and red aluminum barrel sleeve; and the Model 21155 with green metal treatment.



COMING UP IN GUN TESTS

● Three AR Pistols: Kel-Tec PLR-16, Spike's Tactical The Jack, and CMMG Mk4 K. We test three AR-style pistols that run the spectrum from a full-out custom build to a dirt cheap — relatively speaking — polymer model.

GUN TESTS
THE CONSUMER RESOURCE FOR THE SERIOUS SHOOTER

Customer Service Contacts

If you have a problem with your magazine subscription, damaged or missing issues, need to change your mailing or email address, or renew your subscription, visit Online Customer Service at:
Gun-Tests.com
Click "Contact Us"

CALL TOLL FREE: 800-829-9084

SUBSCRIPTION DEPARTMENT
Gun Tests (US)
P.O. Box 8535
Big Sandy, TX 75755-8535

Gun Tests (Canada)
Box 7820 STN Main
London ON
Canada N5Y 5W1

QUANTITY REPRINTS
Reprints of **Gun Tests** articles are available.
Minimum Order: 1,000.
Contact:
GunTestsEditor@icloud.com

EDITORIAL OFFICES
Gun Tests *welcomes letters or email concerning our articles. Please include your name, telephone number, and hometown.*

We will respect your request not to publish personal information. Email comments to
GunTestsEditor@icloud.com.
Or "Like" the **Gun Tests Magazine** Facebook page.
Twitter: @GunTestsMag
YouTube: Gun Tests Magazine

Because of daytime testing requirements, the writers and editorial staff can't answer phone inquiries. But the staff responds to email. If you have a question or comment about Gun Tests evaluations, please email individual writers at: GunTestsEditor@icloud.com. Thanks for your understanding.