GUN TESTS

THE CONSUMER RESOURCE FOR THE SERIOUS SHOOTER

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HICAP 9MM PISTOLS

Here are three handy handguns that offer big round counts and smaller profiles. Tested: Rock Island Armory Model M1911 A2 FS-Tactical, a Springfield Armory Prodigy, and a Cosaint COS21 Commander. ● Page 5

SHOTSHELL SHOWDOWN

We compare short shotshell-firing guns from Mossberg and Remington to a very good Black Aces shotgun to see what we'd choose to protect hearth and home and perhaps take on the road. ● Page 14

RED-DOT OPTICS

We had a chance to shoot two new red dots from Ruger and Meopta to see if they're worth your money. In the view of our testers, one is, and one is not. ● Page 21

GUN TESTS CREDO

REMEMBER: FIREARMS SAFETY AND SECURITY BEGINS WITH YOU

DOWNRANGE

COURT RULING SUPPORTS CARRY RECIPROCITY

I'm looking at a remarkable opinion by Massachusetts District Court Associate Justice John F. Coffey, who ordered on August 3, 2023, that the state's prohibition on non-residents bearing arms for self-defense without obtaining a state license to carry is a violation of their Second Amendment rights. This has major implications for concealed-carry reciprocity across the country.

Judge Coffey wrote in the case of *Commonwealth of Massachusetts v. Dean F. Donnell*, "An individual only loses a constitutional right if he commits an offense or is or has been engaged in certain behavior that is covered by 18 USC section 922. He doesn't lose that right simply by traveling into an adjoining state whose statute mandates that residents of that state obtain a license prior to exercising their constitutional right. To hold otherwise would inexplicably treat Second Amendment rights differently than other individually held rights. Therefore, the Court finds that GL. 269, sec. (10a) is unconstitutional as applied to this particularly situated defendant and allows the motion to dismiss on that ground."

The defendant in the case, New Hampshire resident Dean Donnell, was charged in Lowell (Mass.) District Court with carrying a firearm without a Massachusetts license. Donnell filed a motion to dismiss the charge, claiming that the Massachusetts law was unconstitutional on its face. Adjacent New Hampshire is a permitless carry state, so adults who can legally possess a firearm there may open-carry or concealed-carry in public without a NH license, which the Granite State issues for reciprocity.

Judge Coffey noted that Donnell "was in compliance with his home state's laws on the possession of the firearm" when Massachusetts charged him. Donnell was facing a mandatory minimum sentence of 18 months in prison under GL. 269.

"This Court can think of no other constitutional right which a person loses simply by traveling beyond his home state's border into another state continuing to exercise that right and instantaneously becomes a felon subject to mandatory minimum sentence of incarceration," Coffey wrote in his ruling.

This firearms case is another fruit of *Bruen*, which I covered in the August 2022 issue. The full name of the landmark gunowner-rights court case is *New York State Rifle & Pistol Association, Inc., et al. v. Bruen.* That Supreme Court case established that if conduct such as Mr. Donnell's was "clearly covered by the Second Amendment," the Commonwealth of Massachusetts needed to show a historical tradition "relating to disparate treatment of nonresidents" to uphold the law. Donnell's brief, submitted by counsel Alexandra M. Brunnell, argued that "Requiring non-residents to obtain licenses violates the Second Amendment because there is no historical analogue burdening the right to interstate travel." So Coffey held that the state failed to meet its burden in proving that Mr. Donnell's conduct in the event was not constitutionally protected and warranted a felony charge.

Judge Coffey wrote in his order, "The Commonwealth points to no historical precedent limiting the reach of one's exercise to a federal constitutional right to only within that resident's states borders." Further, "The logical conclusion to the Commonwealth's argument is that an 'ordinary law abiding' resident of the state of New Hampshire can become a felon merely by traveling into the state of Massachusetts."

This is by no means the end of this case. But for now, kudos to Mr. Donnell and his team.

— Todd Woodard

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RIA Sights Are Too Tight?

Reader Tom works hard to get the sights changed out on his Rock Island Armory pistol and wants the company to get a mandatory ding for it. Also, Reader Gregory wants more 'port-side' information.

Re "10mm Pistols: We Test Taylor's, Dan Wesson, and Rock Island," September 2023

I recently purchased a 9mm 1911 Rock Island Armory Standard FS Model 51632. Certainly didn't need another 1911, but this was a screaming deal and something to play with. The first task was to change the front and rear sights. Starting with the rear, it would not even budge with my sight pusher, and I actually bent the pusher's frame a little. I contacted RIA, and they said drive it out from left to right with a non-marring brass punch. Well, it should have pushed out that way with the sight pusher. I had read on-line that they use threadlocker on their sights. I applied microtorch heat, trying over and over with the sight pusher, beating on the sight base with a punch and a hammer, and finally the sight comes out of the frame. I noticed red threadlocker in two small depressions on the underside of the sight. Of course, as an amateur gunsmith, I dinged up the dovetail and cocking serrations in the process. I contacted RIA again about this. From the chat with Armscor:

As per our gunsmith, Loctite is used on all of our sights, and some sights may be tighter in the dovetails than others due to manufacturing tolerances.

Why would they use red threadlocker on a sight that has a set screw in the middle to hold it in place?

Now for the front sight. I got a new propane bottle for my torch head, and it had a much better flame than the micro-torch. In the heating process, I melted some of the Delrin on my sight pusher. The sight wouldn't budge. Clamped the slide in a vise, heated it again, and beat on the blade with a punch and a hammer. Now it comes out. Red threadlocker again.

Reader Tom says his RIA's fixed sights in dovetails are essentially non-adjustable, at least without possibly damaging the sights or gun or both.

In summary, I think you should automatically dock every single RIA pistol with fixed sights one letter grade for being essentially non-adjustable. And this might be something to investigate with other fixed-sight pistols you review. How hard is it to move the sight?

In my view, RIA fixed sights are essentially non-adjustable, at least without a very real possibility of damage to the sight or gun or both. Me? I will never buy an RIA product again. I let them know that. **— Tom**

Hey Tom: It's hard to fault your efforts. If the sights wouldn't budge with all the effort you expended, they were pretty danged tight. However, I can't automatically apply a demerit to any specific company's products. But this is a situation we can keep an eye on. — Todd Woodard

Lefty (Hand, Not Politics) Tests

I've been a subscriber since way back in the 1990s. Your articles have helped me make a lot of important decisions over the years. I am a member of a marginalized group called "lefties" (hand, not politics). Southpaws make up about 15% of the population, and many people who are left-eye dominant also choose to become port-side shooters.

We are requesting a couple of sentences (maybe even a paragraph) describing the pluses and deficiencies of operating each firearm tested from our alternative viewpoint. As an example, many semi-autos tend to leave powder burns in the face of a lefty. Many times a pistol may eject hot brass on the arms or face due to our slight variation of hold and stance. Right-side bolt actions, while not impossible to operate, are usually a bit clunky. Sometimes, firearms are purpose built to be ambidextrous.

There are odd references in the magazine from time to time concerning ambidexterity, but we need reporting on a consistent basis, We are not demanding a left-hand evaluator. If you have one handy, we're okay with that. We are asking your professional staff to evaluate all firearms from our side of the world and give us a brief summary, as warranted. **— Gregory**

Gregory: This is a perfectly reasonable ask. Thanks for letting me know about your needs. — tw

Re "Firing Line," September 2023

Todd, thanks for your rapid response to my question on slide-stop insertion during reassembly of the Mil-Spec Springfield. From his response, Mr. Sadowski

seemed to think I was asking for instructions on slide-stop insertion in 1911 pistols. My question was not answered. Was a tool required to insert the slide stop on the Mil-Spec Springfield 1911 in your test, yes or no? — **Cathy**

Hey Cathy: Robert Sadowski said, "If you insert the slide stop correctly, you do not need a screwdriver to depress the slide-stop plunger." He was referring to the Mil-Spec Springfield, per your ask. So, no, a tool isn't needed for this operation on the Mil-Spec Springfield. — tw

Please Test MC14T Tip-Up

Hi Todd, I don't remember if I already asked you this. I'm 79 now, and I must confess my memory isn't what it used to be.

That said, please test the EAA/Girsan MC14T Tip-up pistol in 380 ACP. I have a friend whose hands are quite weak. She finds even the Smith & Wesson EZ pistols to be just a little too hard

EAA/Girsan MC14T 380 ACP

for her to easily rack the slide. She can do it, but not happily. It will be interesting to see if this tip-up pistol has a good trigger; not only the pull weight, but also the feel of the trigger itself. And the sights, of course. And the felt recoil. I'm a little disappointed that this pistol is a double-action rig, in addition to single action. From what I have read over the years in your outstanding magazine, the double-action pull weight is always much higher than single action. That's why I personally prefer single-action-only pistols, provided the single-action pull weight is reasonable, and the trigger itself is a relatively sweet one. Thanks in advance. — **Phil**

Phil: We're on it. — tw

Re "Subcompact High-Capacity 9mm Pistols Shoot It Out," September 2023

Hi, Todd. I'm a subscriber who reads every issue immediately upon receipt. I had to laugh at the only error I've ever seen in GUN TESTS. In the specs section for the Taurus 9mm pistol, I read the Slide Retraction Effort was 14.0 ounces. After I laughed out loud, I said to myself, "Even my 90-year-old arthritic and crippled granny could rack that slide with no problem." With thanks again and best wishes. — **Phil**

Hey Phil: Thanks to you and other readers who pointed out that mistake. The Slide Retraction Effort for the Taurus GX4XL Standard 1-GX4XL941 9mm Luger should have read 14.0 pounds, not ounces. — tw **GT**

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.

We welcome mail from our readers. To send us comments or questions about articles in the magazine or on GUN TESTS+, e-mail us at the address below:

GunTestsEditor@me.com

If you include the month and year of the article you're writing about, it's a big help. Or you can leave comments directly on articles posted on our website:

Gun-Tests.com

Also, please include your name, address, and phone number in your email. We won't publish your personal information, other than your first name, but we may need to contact you about your questions or comments. **GT**

HiCap Pistols from Cosaint, Rock Island, and Springfield Armory

Readers are always looking for a handy pistol with a lot of capacity, and here are three 9mms that fill that bill at three price points. Our team likes all of them, but one is a Best Buy and one is Our Pick.

Several 9mm models with double-stack magazines have really caught our eye recently. The first came from a new company called Cosaint. Our sample was a high-capacity COS21 with a Commander-length slide, an Officer's Model–length barrel, and a bit of a compensator. It runs $2600. The next piece came from Rock Island Armory, the Model M1911 A2 FS-Tactical, $774. It uses a slightly older design, but it is built with modern production methods and comes in at an incredible price point. The third was the Springfield Armory Prodigy, $1650. Boasting features similar to other 2011-style pistols, the Prodigy gun itself is similar to a pistol we tested in the August 2023 issue, but this one was a package that comes with a Hex Dragonfly red dot, whereas the August gun was shot exclusively with a Crimson Trace CTS-1250. Because the Hex was a factory-installed optic, we wondered if it would improve the Prodigy's downrange results beyond what the Crimson Trace dot could do.

***Top to bottom** are a Rock Island Armory Model M1911 A2 FS-Tactical, a Springfield Armory Prodigy, and a Cosaint COS21 Commander. The Rock Island uses an older design but comes in at a great price. The Prodigy is similar to a pistol we tested in the August 2023 issue, but this one comes with a Hex Dragonfly red dot, as shown. The Cosaint sports a slide/barrel combo that is available on request but is not listed on their website. This COS21 uses the 4.25-inch Commander-length slide.*

This trio looks and feels like a 1911-style handgun, with one major difference. A 1911 in 45 ACP is a great pairing, but a standard magazine only holds seven rounds. Switching to a 9mm chambering adds a couple more rounds, but in this age of high-capacity 9mms, we want more than that.

Two Canadian gentlemen, Ted Szabo and Thanos Polyzos, brought us a great solution to the capacity problem at Para-Ordnance in the mid-1980s, with a 1911 top end mated to a double-stack-magazine-capable grip frame. The first generation of Para-Ord double-stack 1911s was bit large, but edges were rounded and bulk was trimmed, making the 2nd Gen a much more usable pistol. Also, STI (now Staccato) provided a major step in the evolution of the platform with a stainless-steel frame attached to a polymer grip module, and the 2011 was born.

Modern iterations retain the most important characteristics of Browning's classic 1911 design, such as the 18-degree grip angle, superb trigger, and greatly improved sights, along with high-capacity magazines. Our three test guns in 9mm Luger have all these features. To see how they performed, we tested with 115-grain FMJ fodder from Winchester and Remington and a 124-grain FMJ round from Armscor. Our fourth round was a defensive choice, Hornady's Critical Duty 124-grain +P. Function was perfect for all three of the pistols tested. We did not have a single malfunction in more than 1200 rounds fired. Here's more on how they did.

Cosaint Arms COS21 Commander
9mm Luger, $2600

We are constantly on the look for new guns to test, and a company called Cosaint recently popped

COSAINT ARMS COS21 COMMANDER 9MM LUGER, $2600

GUN TESTS GRADE: A-

The lightest of the three tested, we thought it would make a great carry or house gun. We didn't adjust the scoring because of the price, but many shooters won't pick this one because of the money.

Action Type	Semi auto, hammer fired
Overall Length	7.8 in.
Overall Height	6.0 in.
Maximum Width	1.38 in. at magwell
Weight Unloaded	1.7 lbs.
Weight Loaded	2.4 lbs.
Slide Material	Steel, optics cut
Slide Retraction Effort	11.5 lbs.
Receiver Material	Alloy, Picatinny rail
Finish	Burnt bronze and black Cerakote
Front Strap Height	3.0 in.
Back Strap Height	3.25 in.
Barrel Length	4.25 in.
Grip Thickness (Maximum)	1.275 in.
Grip Circumference	5.8 in.
Magazines	Two MBX 20 round
Rear Sight	C&H plate with fixed rear
Front Sight	Green fiber optic in dovetail
Sight Radius	5.25 in.
Trigger Pull Weight	2.3 lbs.
Trigger Span	3.1 in.
Safeties	Thumb levers and grip
Warranty	Lifetime support, no written warranty
Telephone	(828) 330-8214
Website	CosaintArms.com
Made In	U.S.

ROCK ISLAND ARMORY M1911 A2 FS-TACTICAL 51679 9MM LUGER, $774

GUN TESTS GRADE: B+ BEST BUY

Accuracy was very good, function was perfect, and you get all that at a price less than $800. We knocked it down a grade for its weight, but that also improved its handling.

Action Type	Semi auto, hammer fired
Overall Length	8.5 in.
Overall Height	5.75 in.
Maximum Width	1.53 in. at magwell
Weight Unloaded	2.96 lbs.
Weight Loaded	3.6 lbs.
Slide	4160 steel
Slide Retraction Effort	13.5 lbs.
Receiver	4160 steel, Picatinny rail
Finish	Parkerized
Front Strap Height	3.0 in.
Back Strap Height	3.5 in.
Barrel Length	5.0 in.
Grip Thickness (Maximum)	1.43 in.
Grip Circumference	5.9 in.
Magazines	Two 18 round
Rear Sight	LPA Adjustable
Front Sight	Red fiber optic in dovetail
Sight Radius	6.5 in.
Trigger Pull Weight	3.3 lbs.
Trigger Span	2.9 in.
Safeties	Thumb levers and Grip
Warranty	Limited
Telephone	(775) 537-1444
Website	Armscor.com
Made In	The Philippines

up on our radar. When we checked into things, we found that the corporation may be new, but their pedigree is solid. The driving force behind Cosaint is Greg Mooney. In his career, he has helped manage companies like Benchmade and Benelli USA. In his last venture, he was a member of the executive team for STI/Staccato, the Georgetown, Texas pistol builder. The Cosaint COS21 reminds us of a Staccato in some ways, but we can see Mooney's unique input into the Cosaint design in several ways.

Cosaint builds Officer's Model sized as well as Commander and Government Model length pistols. Giving Colt credit for the model names, those monikers designate 3.5-inch, 4.25-inch, and 5-inch barrels, respectively. Our test sample sports a slide/barrel combo that is available on request but is not listed on their website. Our COS21 uses the 4.25-inch Commander-length slide. Cocking serrations have

SPRINGFIELD ARMORY 1911 DS PRODIGY 4.25 IN. PH9117AOSD 9MM LUGER, $1650

GUN TESTS GRADE: A- OUR PICK

Occupying the middleweight class of the three pistols tested, we felt the Prodigy was heavy enough to shoot quickly and light enough to carry comfortably. The Hex red dot is included in the price.

Action Type	Semi auto, hammer fired
Overall Length	7.75 in.
Overall Height	5.75 in.
Overall Height w/optic	6.25 in.
Maximum Width	1.44 in.
Weight Unloaded	2.2 lbs.
Weight Loaded	2.8 lbs.
Slide	Carbon steel, optics cut
Slide Retraction Effort	11.0 lbs.
Receiver	Carbon steel, Picatinny rail
Finish	Cerakote black
Front Strap Height	3.0 in.
Back Strap Height	3.25 in.
Barrel Length	4.25 in.
Grip Thickness (Maximum)	1.295 in.
Grip Circumference	5.75 in.
Magazines	One 17 round; one 20 round
Rear Sight	Fixed black U-notch
Front Sight	Fixed green fiber optic
Sight Radius	5.6 in.
Trigger Pull Weight	4.3 lbs.
Trigger Span	3.0 in.
Safeties	Thumb levers and grip
Warranty	Limited lifetime for original owner
Telephone	(800) 680-6866
Website	Springfield-Armory.com
Made In	U.S.

been cut fore and aft, making press checks easy. One of the cool things about a 9mm 1911 versus a 45 ACP or 10mm version is the recoil spring that is required. The 9mm can use a much lighter spring, making the firearm much easier to manipulate. Racking the

The ported slide matched with the shorter barrel on the Cosaint did a great job of reducing muzzle flip in the COS21 Commander.

Make sure that you keep some little tool handy (arrow) to capture the Cosaint Commander's guide rod. This is a tiny hex-head wrench.

Cosaint's slide is a breeze, our testers said.

Aft of the green-fiber-optic front sight, the slide has a flat top that merges smoothly into the optics plate cover made by C&H Precision Weapons (chpws.com). The system provides a milling template and various plates that accomplish what the AOS plate does on the Springfield Prodigy. The C&H slide cut provides a cross-shaped surface that matches with the reverse cut in the plate. Tighten down four screws, and the optic is solidly mounted. Of course, alternate plates can be chosen depending on your optic. Our pistol arrived without a specific optic plate, but it provided a different plate to cover the milled section. That cover plate includes a rear sight with a nice front ledge that would work for the tacticool "tack rack" that every defensive pistol absolutely must be prepared to perform. The sights also appear to be high enough to be usable with most suppressors.

Our Cosaint COS21 came with a bit of a twist on the barrel. It is a bull barrel, allowing for a bushingless design. The recoil-spring guide rod is full length and works with a reverse plug. In this case, that also means that some sort of tool must be used to capture the spring plug before the top end can be disassembled. We used a very small Allen key we keep in the toolbox just for that purpose. Simply lock the slide to the rear, insert the short leg of the Allen key into the provided hole in the guide rod, and let the slide come forward. Everything can be removed and disassembled from there. The barrel may be of standard configuration, but it is shorter than normal. Our sample arrived with a 4.25-inch slide mated to a 3.5-inch barrel. The slide doesn't have a proper expansion chamber built into it, but it does have two slots that port out the top, acting as a simple compensator. The porting is a $150 option

9MM LUGER RANGE DATA

Remington 115-grain FMJ	Springfield Prodigy	Cosaint COS21 Commander	Rock Island Armory FS-Tactical
Average Velocity	1147 fps	1128 fps	1196 fps
Muzzle Energy	336 ft.-lbs.	325 ft.-lbs.	365 ft.-lbs.
Best Group	1.49 in.	1.52 in.	1.07 in.
Average Group	1.73 in.	1.79 in.	1.46 in.

Winchester 115-grain FMJ	Springfield Prodigy	Cosaint COS21 Commander	Rock Island Armory FS-Tactical
Average Velocity	1104 fps	1062 fps	1159 fps
Muzzle Energy	311 ft.-lbs.	288 ft.-lbs.	343 ft.-lbs.
Best Group	1.47 in.	1.20 in.	1.10 in.
Average Group	1.97 in.	1.45 in.	1.38 in.

Armscor 124-grain FMJ	Springfield Prodigy	Cosaint COS21 Commander	Rock Island Armory FS-Tactical
Average Velocity	1060 fps	1026 fps	1071 fps
Muzzle Energy	309 ft.-lbs.	290 ft.-lbs.	316 ft.-lbs.
Best Group	1.73 in.	1.50 in.	0.96 in.
Average Group	1.96 in.	1.83 in.	1.33 in.

Hornady 124-grain Critical Duty	Springfield Prodigy	Cosaint COS21 Commander	Rock Island Armory FS-Tactical
Average Velocity	1177 fps	1095 fps	1223 fps
Muzzle Energy	382 ft.-lbs.	330 ft.-lbs.	412 ft.-lbs.
Best Group	0.79 in.	1.44 in.	1.46 in.
Average Group	1.43 in.	1.66 in.	1.49 in.

Our shooters fired these pistols at American Shooting Centers in Houston. We shot them for accuracy at 15 yards by firing multiple five-shot groups from a sandbagged Caldwell Pistol Rest and a Mini DRC Fortune Cookie from Wiebad.com. We used a LabRadar chronograph to measure velocities.

Our 115 FMJs came from Remington, Winchester, and Armscor. Our fourth round was a defensive choice, Hornady's Critical Duty 124-grain +P JHP. We did not have any malfunctions in more than 1200 rounds fired.

that adds a unique look to the pistol and softens recoil substantially.

Except for the nose end of the dust cover, the frames used on the Prodigy and the Cosaint could be twins. The Prodigy has a single groove cut in the Picatinny rail on the dust cover, and the Cosaint sports three lateral cuts. The Cosaint's dust cover is also about 0.25 inch shorter. Once again, the slide stop sits at or below flush with the side of the frame. A left-side thumb safety is standard, with our ambi version being a $75 upgrade. The trigger was skeletonized with a triangular pattern, and it appears to be a long version. A quick measurement showed the Cosaint's trigger face to extend about 0.150 inch further from the grip than did the Prodigy's. That is great for those with longer fingers and easy to change if you have shorter fingers.

The grip itself is a polymer piece OEM'd by Additive America out of North Carolina. These grips aren't molded, they're printed. Then stippling is added, along with a removable polymer magazine well. The completed unit is very light and feels good in the hand. Did we mention the 2.3-pound trigger with very little take up or overtravel? That works for us.

The Cosaint uses MBX magazines (MBXExtreme.com) that are 126mm long, so they extend just past the bottom of the mag well. That makes them legal for USPSA Limited division, and they fed well for us. They are also available in 141.25mm, 155mm and 171.25mm lengths. And they sell for $124 each! Two are included with the pistol. Being the cheap people that we are and thinking that two different 2011-style pistols might be able to use the same magazines, we tested the magazines from Springfield in the Cosaint. They fit well, but we did not find them to work perfectly, as did the MBX mags. We would actually like to see a slightly shorter version of the magazine body, perhaps 120mm, thereby shortening the overall height for concealed carry.

Elsewhere, the sight picture was very easy to pick up on the Cosaint, especially during go-fast drills. While the thin front sight was easy to acquire, it was also too tall, with all four types of ammunition shooting 3 to 4.5 inches low at 15 yards. That, however, is a very simple fix. Remember, too, that we were using back-up iron sights (BUIS) on a pistol essentially designed for mounting an optic. We still wound up with an average group size of 1.68 inches across the four ammo types.

We also wondered about the 3.5-inch barrel/4.25-

DRILL DATA (5x5x5)

Pistol	Time to First Shot (seconds)	Split Average (seconds)	Total Time (seconds)
Springfield Prodigy	1.360	0.200	2.160
Cosaint COS21 Commander	1.395	0.230	2.310
Rock Island FS-Tactical	1.570	0.264	2.625

Process: Fire five shots from draw at a 5-inch circle placed at 5 yards. Numbers are averages for two repetitions.

DRILL DATA (5x7, A ZONE)

Pistol	Time to First Shot (seconds)	Split Average (seconds)	Total Time (seconds)
Springfield Prodigy (irons)	1.335	0.199	2.130
Springfield Prodigy (red dot)	1.200	0.201	2.005
Cosaint COS21 Commander	1.255	0.205	2.075
Rock Island FS-Tactical	1.380	0.204	2.195

Process: Fire five shots from draw at A-zone plate (5-by-11 inches) at 7 yards. Numbers are averages for two repetitions.

DRILL DATA (5x8, A ZONE)

Pistol	Total Time (seconds)
Springfield Prodigy (irons)	1.210
Springfield Prodigy (red dot)	1.298
Cosaint COS21 Commander	1.238
Rock Island FS-Tactical	1.342

Process: Fire five shots from draw at A-zone plate (5-by-11 inches) at 8 yards. Average of five draws from holster.

inch slide combination and whether it would be effective in reducing muzzle flip without a proper expansion chamber. We need not have worried. Muzzle flip was minimal, and the front sight just seemed to sit there during the higher-speed shooting portion of the tests. We loved the dimensions of the printed grip and the stippling. Everything was comfortable in the hand, and controls were easy to manipulate. With a $2600 retail for this model, it is easy to see who Cosaint's competition is. And we think the Cosaint compares well to a Staccato pistol.

Our Team Said: Cosaint may be new to the firearms industry, but its management is obviously very experienced and knows how to build a good gun. We took a new Cosaint pistol, ran it hard and watched it shine. With all these positives, however, it came in second to the RIA in accuracy.

All three pistols provide for the ability to attach a light or a laser. Top to bottom are the RIA, Springfield, and Cosaint rails.

The magwell on the Cosaint (left) and the RIA (right) provide larger openings for faster mag changes. Without the magwell, the Prodigy (center) would be easier to conceal. The magwells on the Cosaint and the RIA are easily removed, if desired.

Rock Island Armory M1911 A2 FS-Tactical 51679 9mm Luger, $774

Owned and operated by the Tuason family, Rock Island Armory/Armscor has done business out of the Philippines for many decades. During this time, they have become the most prodigious producer of 1911-style firearms in the world. They opened their first office in the states in 1985. Now, with facilities in Nevada, Utah, and Montana, RIA/Armscor continues its inroads into the American market. Known for their innovation with products such as the 22 TCM cartridge, the STK 100 pistol, and their recent RIA 5.0, Rock Island Armory has become a force to be reckoned with. Rock Island has long had a reputation for producing quality products at a great price. Wanting to cover the gamut of prices while we tested "fat frame" 1911s, we secured a sample of the RIA M1911 A2 FS-Tactical. We found street pricing for it under $800 and soon found that we had a pistol with more than $800 worth of features in it.

In contrast to the lightweight Springfield Armory Prodigy and the even more feathery Cosaint COS21, the RIA FS-Tactical is all beef. The 5.0-inch barrel may be standard diameter, but the slide and frame are both full-profile solid-steel components. No

lightening cuts, no alloys, no tapered noses, just 4140 ordnance steel. Weight, consequently, is a good bit heavier than its stable mates for this test. The RIA is about three-quarters pound heavier than Springfield's Prodigy and well over a pound more than the Cosaint. Is that a problem? Depends on what you are trying to do. For those who need something light to carry all day, every day, it might be an issue. For those with an aversion to recoil or an intended usage where the pistol isn't toted around on a belt, weight can be an absolute blessing.

Elsewhere, the FS-Tactical has many features we expect to see on a good 1911. The barrel has been fitted nicely and barely moves when we press on the hood. It has a fully supported chamber and a nicely polished feed ramp. The slide allows just enough movement for function but has very little side-to-side play. Cocking serrations have been milled front and rear.

Like on the other pistols, the RIA has a good example of a skeletonized trigger that worked well. Required compression was 3.3 pounds, with everything nice and crisp. Note that those carved-out triggers are not just decorative, because 1911 triggers bounce around under recoil. The lighter the triggers are, the lighter the return spring can be set against it, thereby contributing to an overall lighter trigger pull.

The RIA is not optics ready, instead presenting a good red-fiber-optic front sight and an adjustable LPA rear sight. We noticed that, like the Springfield and the Cosaint, the RIA did not include a firing-pin safety. The firing-pin safety was declared a must-have in the 1980s when folks discovered the firing pin could light off a cartridge in the chamber if a 1911 was dropped directly on its nose from enough height. Linkages were engineered that would prevent movement of the firing pin unless the trigger was also properly depressed. The result was, perhaps, improved safety, along with a heavy, sometimes gritty trigger. Many have since learned that a lightweight firing pin and a heavy firing pin spring can accomplish much the same thing with less degradation of the trigger pull. As we understand it, removing all those Series 80 parts made it much easier to machine a 1911-style pistol for optical sights. The RIA does not have optical sights, and what it does have should suffice quite nicely for most applications. However, should you so desire, a good machinist could mill the slide to accept an optic of your choice. We wouldn't do that to this gun, but it could probably be done. We mentioned Para-Ordnance earlier, and this pistol reminds us very much of a second-generation Para frame. The edges of the front strap have been rounded off from the squared first-gen style. The trigger guard has been undercut a bit to allow a higher grip. The beavertail safety has been blended in nicely, and a good ambi-safety has been installed. Even the mainspring housing is steel, and this one has been checkered at 20 lines per inch, per our best guess. A large steel magazine well vacuumed up every mag

***Left:** The printed grip on the Cosaint COS21 works well with a printed magwell. The grip texture allowed a great hold without being abrasive. The Cosaint was a great weight for concealed carry. We would probably opt to remove the magwell (arrow) for carry and look for a flush-fitting magazine. **Center:** The Rock Island FS-Tactical brings a lot of beef to help hold down recoil, but the barrel is straight (arrow), not a bull-barrel style. There are no plastic parts on this pistol except for the mainspring housing. **Right:** The Springfield Armory Prodigy uses a two-level grip texture that allows loose or very secure control with a simple change in hand pressure. We liked the feel. The guide rod is two pieces (arrow).*

we threw in its direction. The magwell can easily be removed if so desired. Hex-head grip screws held thin G10 grip panels tightly in place against the frame.

The Para-Ordnance models of 30+ years ago tended to have feeding problems in which the second or third round would nose down into the feed ramp instead of the chamber. At the time, we would rip the magazine apart and change out springs, modify feed angles on the follower, and more. Eventually we got those pistols to run like a house afire. Part of the problem was that we were all trying to feed a heavy stack of 45 ACP cartridges at warp speed. The 9mm rounds this RIA is chambered for did not create the same challenge. In fact, this Rock Island pistol ran like a champ straight out of the box.

The LPA sights provided a great sight picture, while they provided secure and precise adjustment of point of impact. All that steel served to mitigate muzzle flip extremely well, making the RIA very comfortable to shoot. That weight also made it a bit more difficult to move. We noticed that our first shots from the holster for the Rock Island were a bit slower than the other two, though the splits (times between shots) were essentially the same. If muzzle velocity is of primary importance to you, the full 5-inch barrel on the Rock Island provided the highest speeds, especially with the hottest rounds. For example, the RIA clocked more than 125 fps faster with the Hornady 124-grain +P Critical Duty than did the Cosaint.

Our Team Said: While the Springfield Prodigy and the Cosaint were designed to be used with optical sights, the Rock Island FS-Tactical was built around a great set of adjustable iron sights, and it showed. For its accuracy and function, this is a Best Buy.

All three pistols use good beavertail safeties and rounded hammers to prevent hammer bite. Left to right are the Cosaint, Springfield, and RIA.

All three pistols provide good fiber-optic front sights. Clockwise from low left are the Cosaint, Springfield, and RIA sights.

Three different grips offer three different concepts on weapon retention. Left to right are the Cosaint, Springfield, and RIA.

Springfield Armory 1911 DS Prodigy 4.25-Inch PH9117AOSD 9mm Luger, $1650

Springfield Armory has been in the 1911 world for decades, but to this point, the company has primarily concentrated on single-stack designs. Being very familiar with their 1911 platform, we were very pleased to see their introduction of a high-capacity variant in late 2022. We were even more pleased to see them do so at a $1700 price point, which includes a Hex Dragonfly reflex red dot sight.

The new 1911 DS (double stack) Prodigy pistol comes in two barrel lengths: 4.25 and 5.0 inches. The shorter barrel should cycle a bit faster and be easier to maneuver in tight spaces. The longer version will be slightly slower to swing but brings the advantage of reduced muzzle flip. We were able to test drive a sample of each. While recognizing subtle differences, we liked both sizes. The shooter will have the enviable job of deciding which they like best.

For the full test, we secured a 4.25-inch version. Even with the shorter barrel, Springfield puts a bit of weight out front. Instead of the traditional thin barrel secured by a bushing, Springfield uses a bull barrel that measured 0.700 inch at the muzzle. The stainless-steel match tube locked up very tightly, as did the rest of the top end. The slide (along with that beefy barrel) pushes the balance forward, using a slab-sided design for it and most of the dust cover. The frame has been reinforced to the point where the body of the slide stop virtually sits flush with the surface of the frame. There is a tiny bit of a relief cut on the front of the dust cover and the bottom of the slide that helped us get the Prodigy back into our Comp-Tac International holster ($74, Comp-Tac.com). The slide sports five grasping grooves at the rear and four on the muzzle end. Some folks disparage the forward cocking serrations, but we like them for doing a quick press check by squeezing the slide between thumb and fore finger then gently pressing to the rear.

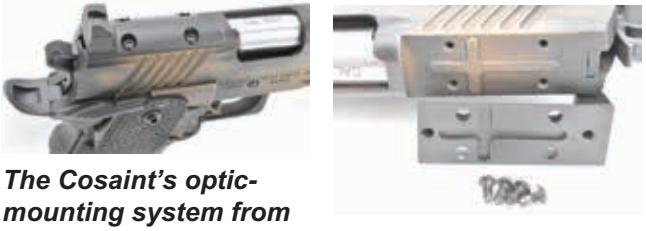
We ordered the Prodigy with the Hex Dragonfly already mounted because we wanted to get some experience with Springfield's factory dot. We found the Hex Dragonfly to be very solidly mounted. The front sight is a green-fiber-optic tube in a dovetail mount. The rear is a serrated black panel, as we described in the August 2023 issue. We shot groups substantially larger with the irons on this gun than we did the August model, but the August Prodigy

was shot only with red dots. This time, the Prodigy shot larger groups off the bench than did the Rock Island, and the Cosaint outshot the Springfield with three of the four rounds. The overall averages for the Prodigy were 1.73 inch with the Remington FMJs, 1.97 inch with the Winchester FMJs, and 1.96 inch with the Armscor FMJs. The Hornady 124-grain Critical Duty JHPs shot a 1.43-inch average. Also, we fired the Remington FMJs with the Hex red dot on and saw the average bench groups shrink from 1.73 inch to 1.18 inch. The latter measurement was very much on par with the August gun, which with the Crimson Trace dot fired average groups of 1.02, 1.06, 1.20, and 1.27 inches with different ammos than we used this round.

Our Houston shooters have tested quite the number of red-dot sights over the years, finding them to be substantial assistance to older eyes. One of the problems with their introduction has been establishing some kind of consistency with the mounting systems. We've contributed hours, dollars, and more than a few muttered expletives as we tried to attach different optics to different pistols. Springfield Armory machines its optics-ready models to match with the Agency Optic System (AOS). Using a common base, multiple plates are available that will allow most current red dots to work with their pistols. Our sample shipped with the Hex Dragonfly sight and the appropriate plate. More are available from the company (Springfield-Armory.com) and other sources. The AOS mount not only provides a secure platform for the optic but also allows the retention of the rear sight. The rear unit can be considered suppressor height, making it tall enough to co-witness with the front sight through the optic window. We ran many drills using the Hex sight and then tested the irons by leaving the Hex sight on with the dot turned off while we shot the speed drills. Worked fine, though shooting irons through the optic window will take some training by the owner. Note that the Cosaint pistol uses a system of similar design from C&H Precision Weapons.

This optic provides a good-sized viewport with a protective cover that extends up and in front of the glass. Our standard practice is to operate the slide by pushing against the optic. Even when doing so enthusiastically, we found few residual hand prints on the glass, showing that the cover was doing its job. The elevation is on top of the rear deck and the windage is on the right side. The on/off/intensity button is of the left side. The battery mounts underneath the unit, so it must be removed to change, but that shouldn't be a problem. Using a 16-hour auto-off helps the Dragonfly achieve an estimated 100,000-hour run time (three years) with a CR2032 battery. At 3.5 minutes-of-angle size, the dot is a good compromise between accuracy and speed. It has an IPX7 waterproof rating, and the electronics have a five-year limited warranty. Suggested retail is $249, and that seems to be the street price as of

Above are the sight pictures for the Cosaint (left), RIA (center), and Springfield (right). We prefer the less-cluttered views of the Cosaint and the Prodigy, but we can't argue with the accuracy results from the RIA, which were best of the test.



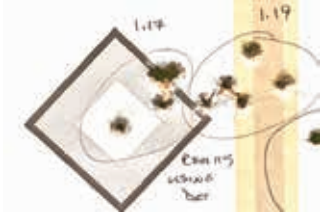
The Cosaint's optic-mounting system from C&H makes for a very sturdy red-dot carrier.

The Rock Island pistol uses a great adjustable rear sight from LPA. We think the all-irons set-up on the RIA helped its accuracy.

Here's the shooter's view behind the Prodigy with the Hex Dragonfly red dot. It's big enough for a great sight picture and small enough for carry.

Right: Here's a great group for the Cosaint COS21 with the Remington 115-grain FMJ ammo.

Right: The Rock Island pistol shot very well with the Armscor ammo produced by its parent company.



Right: The Springfield Armory Prodigy shot even better when we turned on the Hex Dragonfly red dot.

this writing. The AOS mounting plate worked great and kept everything nice and snug. The Dragonfly requires the Springfield Armory standard pattern, which would also work for a Vortex Venom or a Burris FastFire.

No longer the mono-body part to which we have become accustomed, the lower portion of the Prodigy receiver uses a steel frame with a polymer grip attached. Attachments points are at the top of the trigger guard and where we would normally find the top grip screw. Think of the frame more as a cradle into which the standard parts fit or on which they hang. The trigger, slide stop, thumb safety, grip safety, and all the fire-control group are attached to the frame. The only moving part we can see purely in the polymer frame is the magazine release. The checkered mainspring housing sits, as would be expected, in the frame. To date, we have more than 800 rounds through the gun with nary a malfunction.

Grip frames on 2011-style pistols like the Prodigy (shown) and the Cosaint attach using a small screw (arrow) at the top of the trigger guard and what would normally be the top grip screw on a 1911.

The Prodigy comes with 17-round and 20-round magazines (arrows). The bottom magazine is an optional 26-rounder.

But how about a nice 26-round magazine for home defense? That's the third magazine below the gun above and inserted in the gun at right. More of the 17s and 20s as well as the 26-rounders are available from the Springfield Armory website.

The bull barrel on the Prodigy, left, pushes weight forward and helps control recoil. The Prodigy's two-piece guide rod, right, must be unscrewed from the front to disassemble the pistol.

The grip sports a squared-off trigger guard that is cut high to allow the shooter's hand a bit higher purchase on the pistol, obviating muzzle flip a bit. The magazine well is slightly flared front and rear. The side panels are pretty square, because, we would think, there just isn't enough material left in the narrow grips to allow further thinning while maintaining structural integrity. Don't get us wrong here — thin is good, especially on what some might use as a carry gun. The thinner grips also translate into a smaller overall grip circumference, which is greatly appreciated by testers with less than monster-sized hands. The ambidextrous thumb safety is big enough to find and activate without being obnoxious. The beavertail grip safety was high and smooth while providing a tall memory bump. The grip safety on a good 1911 should not be difficult to deactivate — unless you have small hands or unless you have less than beefy palms. In any case, there is a tall memory bump to help the shooter make proper contact with the safety. Kudos to Springfield Armory for the assist. We found the right-side lever of the ambidextrous grip safety could be a bit less than positive to activate. This required that we position our thumb directly and firmly over the top of the lever before we tried to push it straight down for deactivation.

The polymer insert on the grip sports texturing that is a Springfield Armory creation. First introduced with the Hellcat pistol, the points on the grip are arranged in two layers. The first is comfortable with a casual grip and is very easy to shift in the hand. The second deeper layer comes into play when the shooter holds the pistol tightly, as when shooting. We found the difference to be noticeable as well as effective and liked the concept.

The skeletonized, alloy trigger was very crisp, with very little overtravel. Required compression was just over 4.3 pounds. It could have been a bit lighter, as on the Cosaint. Our sample arrived with 17-round and a 20-round magazines marked as being made by Duramag. The Springfield Armory store has more of these, as well as a 26-round mag available for $60 each.

Our Team Said: The Prodigy's list of features is very complete, and the price is good. We think the Prodigy is worthy of being compared to more expensive 2011s. If you have a favorite optic, then choose the PH9117AOS version we tested in August and add your own red dot. If you want an optic that's factory-installed, then pick the PH9117AOSD reviewed here and enjoy the Hex Dragonfly.

Written and photographed by Joe Woolley, using evaluations from Gun Tests *Team members.* **GT**

SPECIAL REPORT

Shockwaves Vs. Shotgun: What Is Best for Your Defensive Needs?

We compare three short shotshell-firing guns from Mossberg and Remington to a very good Black Aces shotgun to see what we'd choose to protect hearth and home and perhaps take on the road.

We recently tested three shorty-type shotshell-chambered firearms, one of which was a new Mossberg model, with a diverse group of mini shotgun shells to see if any of the three could handle the 1¾-inch shotshells reliably. In particular, the Mossberg 590S Shockwave firearm is purportedly designed for factory reliability with mini shells. If the gun were to work as advertised, the 590S would go a long way toward legitimizing the mini shell and its niche popularity.

However, after shooting two Mossberg 590 pump firearms and a Remington TAC-14 pumpgun, we have to point out our disinclination toward these units when compared to a standard shotgun, such as a Black Aces Tactical Pro Series S Max, tested separately. Aside from their reliability issues with the mini shells we focused on this issue, the Shockwave-type guns are also very difficult to use well, which we detail in more depth below.

Also, we remind you that these Shockwave-type firearms aren't shotguns by definition, because they have 14-inch barrels and are just over 26 inches in overall length, which means they aren't short-barrel shotguns and regulated as such under the National Firearms Act. The Shockwaves and TAC-14s aren't legal everywhere, including a couple of usually gun-friendly jurisdictions. Never add a shoulder stock or pistol grip stock to the Shockwave types because this is illegal. Such modifications convert a Shockwave from a shotshell-chambered firearm to a short-barrel shotgun. Just be careful.

We recently tested three short shotshell-chambered firearms. Top is the new Mossberg 590S Shockwave, which is said to handle 1¾- to 3-inch shotshells interchangeably. Center is a Remington TAC-14 pumpgun, which lacks either the factory capability or aftermarket parts to handle mini shells properly. Bottom is an 590 Shockwave, which we originally tested in 2017 with an OpSol Clip that allowed it to feed and fire mini shells. The problem with the aftermarket parts is they restrict the shotshell firearms to only mini shells. There is little difference between the two bottom shotguns. The Remington is smoother in operation, while the Mossberg 590 Shockwave has a superior safety location and holds one more shell. Also, the Remington features an integral fore end stop to prevent the hand from moving forward. The Mossbergs both use fore end loops.

Mini Shell Testing

We previously tested mini shells in the August 2020 issue. Interest in these shells and the introduction of the 590S spurred this follow-up test. Unfortunately, we were unable to obtain the excellent Nobel Sport Italia (NSI) MiniBuck 6P, a 12-gauge 2.25-inch ⅞-ounce shotshell with six 00 buckshot pellets rated for 1250 fps. As far as we can learn, they are out of production. This is a shame because these were the best in previous testing. Instead, this round we were able to test mini shells from Aguila, Federal, Firequest, and Mason Munitions. We fired the rounds in the 14-inch-barrel Shockwaves and the TAC-14, as well as 18.5-inch barrels in the Black Aces Tactical Pro Series S Max semi-auto, a Remington 870 full-size pumpgun, and a full-size Mossberg Maverick pump.

The well-known Aguila Minishell, a 12-gauge 1¾-inch shotshell with a ⅝-ounce payload of 11 buckshot pellets (seven No. 4s and four No. 1s) is rated for 1200 fps, and it fired reasonably tight patterns from 18.5-inch-barrel shotguns but blossomed to 13-by-9-inch spreads out of the Shockwaves. The load delivered around 600 foot-pounds of energy on average with its dual load of No. 4 buckshot and No. 1 buckshot. The Aguila is more expensive than the Federal load at $24.38 average for 20 shells. The reason the Aguila shell made such a wide pattern was that the heavier No. 1 buckshot went high over the

No. 4 buckshot pattern. While we like the cohesive Federal pattern and higher energy, the Aguila never gave the initial problems with feeding the Federal did. The Aguila shell measured 1.5 inches unfired and 1.9 inches fired.

The Federal Shorty Shotshell is a 12-gauge 1¾-inch cartridge with 15 No. 4 buckshot pellets rated for 1200 fps. It was the most affordable at $11 per 10 shells. We saw the product on-line for $9 at one outlet. We were concerned with reliability after a false start with them in the 590S. The buckshot in this load averaged a 10-by-8-inch pattern at 10 yards and delivered more than 800 foot-pounds of energy. The Federal Shorty shell measured 1.4 inches in length unfired and 1¾ inches fired.

Next, there are six balls in the Firequest Shorty 00 Buck shotshell (Firequest.com), with three over the powder wad, then another wad, and then three balls below a wad beneath the crimp. There's also a similar load with the six 00 balls situated together under the top and bottom wads (G25-059) and a third (G25-061) that has 12 No. 4 buckshot with two layers of six shot. The Firequest load provided impressive performance. Velocity is 1115 fps, and the load averaged less than 900 foot-pounds of muzzle energy. The pattern is a tight 3.5-by-5.5 inches. By any standard, the extra penetration of 00 buck and the tight pattern make the Firequest load a desirable option. However, the load is pricey, listing at $60 per 25. That is about $50 more than 20 Federal shells. Recoil and muzzle flash are limited. The load also performed well in standard 18.5-inch barrels. Feed reliability in a Remington 870 was a failure; we could not get the first one to chamber, much less feed. The Firequest shell started at an unfired length of 1.65 inches and wound up at a 1.8-inch fired overall length.

The Mason Munitions (MasonMunitions.com) load is affordable at $25 for 20 shells. Mason also offers a well-designed mini-shell adapter ($15) that's similar to the better-known OpSol clip. This load uses eight No. 1 buckshot (30-caliber) shells, burns clean, and feeds as well as any other mini shell. The Mason starts out at an unfired length of 1.45 inches and finishes at a fired length of 1.5 inches.

The mini-shell adapter installation is pretty easy. Make sure gun is on Safe. Ensure the firearm is unloaded, with no shells in either the magazine tube or chamber. Slide the pump slide into its extended position. Squeeze and insert the back, flat end of the mini-shell adapter into the magazine loading port at an angle.

Push the rest of the adapter down into the magazine well so that it is flush to the rear and the bottom. Slowly rack the slide a few times to make sure that the mini-shell adapter is in the correct position. It should not move. If it does, remove the adapter and repeat steps one through three.

Here's how the various shells fed and fired in these shotshell-chambered firearms.

RANGE DATA

Aguila Minishell 1¾-inch ⅝ oz. Lead No. 4 & No. 1 Buckshot	**Black Aces Tactical Pro Series S Max 517 18.5-inch barrel**	**Mossberg 590S Shockwave 14-inch barrel**
Muzzle Velocity	1100 fps	990 fps
Muzzle Energy	750 ft.-lbs.	607 ft.-lbs.
Spread at 10 Yards	6.8x7.7 in.	13x9 in.
Federal Shorty 1¾-inch 11/16 oz. Lead No. 4 Buckshot	**Black Aces Tactical Pro Series S Max 517 18.5-inch barrel**	**Mossberg 590S Shockwave 14-inch barrel**
Muzzle Velocity	1145 fps	1085 fps
Muzzle Energy	904 ft.-lbs.	813 ft.-lbs.
Spread at 10 Yards	6x6.6 in.	10x8 in.
Firequest Shorty 1¾-inch No. 00 Buckshot	**Black Aces Tactical Pro Series S Max 517** 18.5-inch barrel	**Mossberg 590S Shockwave** 14-inch barrel
Muzzle Velocity	1159 fps	1115 fps
Muzzle Energy	963 ft.-lbs.	891 ft.-lbs.
Spread at 10 Yards	4.5x2.5 in.	3.5x5.5 in.
Mason Munitions 1¾-inch No. 1 Buckshot	**Black Aces Tactical Pro Series S Max 517 18.5-inch barrel**	**Mossberg 590S Shockwave 14-inch barrel**
Muzzle Velocity	1160	1130 fps
Muzzle Energy	968 ft.-lbs.	919 ft.-lbs.
Spread at 10 Yards	6x7 in.	8x9.5 in.
Hornady Critical Defense 2¾-inch 00 Buckshot 8 shot 86240	**Black Aces Tactical Pro Series S Max 517 18.5-inch barrel**	**Mossberg 590S Shockwave 14-inch barrel**
Muzzle Velocity	1254 fps	1180 fps
Muzzle Energy	1503 ft.-lbs.	1275 ft.-lbs.
Spread at 10 Yards	4.3 in.	6.0 in.

MOSSBERG 590S SHOCKWAVE 51601
12 GAUGE, $536
GUN TESTS GRADE: B

The Mossberg 590S performs almost flawlessly with mini shells, unlike previous factory guns; also allows firing 2¾-inch and 3-inch shells. As a result, this is the most desirable of the shotshell firearms.

MOSSBERG 590 SHOCKWAVE 50659
12 GAUGE, $455
GUN TESTS GRADE: C

Reliability with the mini-shells was poor, and this was primarily a test with the mini-shells. Standard 2¾-inch shells functioned fine, however, so it wasn't an F. Still, the Shockwave is hard to shoot accurately. We'd pass.

Action Type	Pump
Chamber Size	3.0 in.
Overall Length	26.37 in.
Capacities	4+1 (3 in.) 5+1 (2¾ in.) 8+1 (1¾ in.)
Weight Unloaded	5.5 lbs.
Weight Loaded	6.5 lbs.
Barrel Length	14.375 in.
Finish	Matte blued
Choke	Cylinder bore
Stock	Raptor grip, textured polymer
Stock Fore End	Corn cob, ribbed polymer w/strap
Front Sight	Brass bead
Rear Sight	None
Trigger Pull Weight	6.9 lbs.
Safety	Ambidextrous thumb
Warranty	Limited lifetime
Telephone	(800) 363-3555
Website	Mossberg.com
Made In	U.S.

REMINGTON 870 TAC-14 81230
12 GAUGE, $423
GUN TESTS GRADE: C-

Despite the low grade, we really liked the Remington. It is smoother than either of the Mossberg 590 variants by a noticeable degree. It is reliable with 2¾-inch shells. The problem is reliability with mini shells, which doesn't seem possible with Remington shell carrier design.

Action Type	Pump
Chamber Size	3.0 in.
Overall Length	26.3 in.
Capacity	4+1 (2¾-in. shells)
Weight Unloaded	5.65 lbs.
Weight Loaded	6.6 lbs.
Barrel Length	14.0 in.
Finish	Matte blued
Choke	Cylinder bore
Buttstock	Raptor pistol grip, textured polymer
Fore End	MagPul M-Lok, polymer
Front Sight	Brass bead
Trigger Pull Weight	5.5 lbs.
Safety	Manual trigger block
Warranty	2 year
Telephone	(899) 243-9700
Website	Remington.com
Made In	U.S.

Mossberg 590 Shockwave 50659
12 Gauge, $455

We first tested this model in the October 2017 issue, the first year the Shockwave was offered. It earned an A grade, with the review saying, "The Shockwave was like all Model 590 shotguns — built to last and well made. We'd opt for the OpSol Texas Mini-Clip and pack it with Aguila Mini Shells." A 20-gauge Shockwave 50657 likewise earned an A, as did a .410 bore 50649, both reviewed in the March 2019 issue. However, they weren't fired with shorty sub-gauge shells, since those didn't exist until 2022.

We had on hand two 99% identical Shockwave firearms, the 590 and the 590S. The Mossberg 590 features a heavier barrel than the Mossberg 500, making it well suited to Shockwave configuration. The shotgun features synthetic furniture, a raptor-type firing grip, and a standard bead front sight. The receiver is red-dot sight compatible.

The trigger housing is polymer. The safety is the famous tang-mounted ambidextrous Mossberg type. Disassembly is easily accomplished by unscrewing the magazine tube cover and pulling apart the barrel from the receiver.

The safety of the 590 was stiff, even very stiff, and lightened up but little during the test. The action is markedly less smooth than the Remington's, we felt. The tubular magazine holds five 2¾-inch shells.

The Shockwave firearms were loaded with a mix of 2¾-inch birdshot loads for familiarization. Mossberg recommends the Shockwave be fired from the hip. Raising the barrel to almost eye level invites a broken nose and/or a trip to the dentist. It

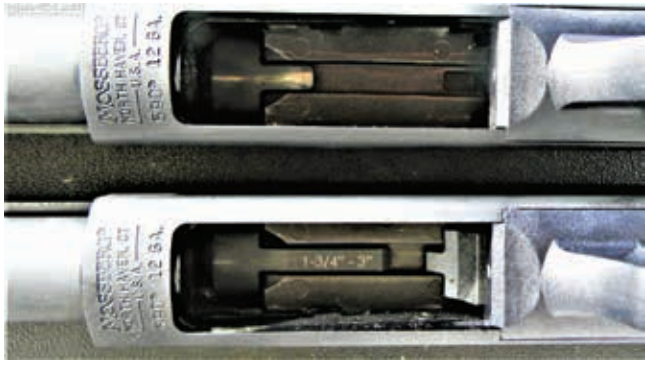
is awkward to hold the Shockwave in any manner in which the bead is visible to the eye. All raters agreed a standard-stocked shotgun with an 18-inch barrel is much faster into action and leagues ahead in every firing course. The weight of the original Shockwave is well balanced.

With concentration on the proper hold and a firm grip, we were able to run the Shockwave reliably and get hits out to 5 yards under controlled range conditions. From the hip, it is true you have an excellent view of the field for fast reaction. The problem is getting a hit with the Shockwave. The drawbacks are many. A major problem is that the wrist cannot be locked when firing the Shockwave due to the Raptor grip. Next, we have only a two-point engagement, the forward and rear hands. The usual cheek weld is not possible. With the Shockwave-type shotgun, the forward and rear hands are not together as they are on a handgun and are not aligned with a cheek weld, as on a full-size shotgun. As a result, only a slight change in the position of either hand results in a miss.

We had difficulty in putting a full pattern on the target at 5 yards. Most raters fired high. These are experienced shotgunners, with two instructors in the crew, one police and one military. Opinions about the original Shockwave ranged from perhaps it would be useful for close-range home defense to useless. We all agreed that there is accountability for every round fired in home defense. The Shockwave makes hits very difficult to come by.

We tried a few of the mini shells and found reliability was poor. The shells would point out the bottom of the loading port during the firing cycle. We only got three consecutive shells to feed properly, and this was the best effort. All the shells did chamber properly if we got that far in the feed cycle. We tried to fire the Aguila during the combat firing test and were unimpressed.

To try to get the gun going, we moved to 2¾-inch shells and found Federal Ballisticlean cartridges with eight pellets of 00 frangible buckshot functioned fine, and with this training buckshot round, recoil was surprisingly not a problem. The Shockwave remained controllable. The shotgun was fired above hip level in a line with the pectoral muscles with a little better accuracy. The blast and flash with standard buckshot was awesome, and we felt it because the muzzle wasn't that far ahead of our faces.



The Mossberg 590S action with its factory modifications, bottom, proved reliable with all types of shells. The original 590 Shockwave action, top, feeds standard 2¾- or 3-inch shells fine, but not the 1¾-inch mini shells.

Our shooters had to consciously avoid aiming using the bead so as not to fire high. Some raters consistently fired into the cranial region of the B27 target at only 5 yards, even though they were trying for low center mass. Good we have a high berm at the firing range.

Our Team Said: The original Shockwave exhibited poor firing results as far as hit probability is concerned. Reliability with standard shells is flawless, but reliability with the all the shorties was flawed. The trigger at 7.0 pounds is manageable with a rapid reset.

Remington 870 TAC-14 81230
12 Gauge, $423

This was our first test of the TAC-14 12 gauge. A 20-gauge 81145 version was reviewed in the March 2019 issue and got an A- grade. It was not fired with 20-gauge shorty shells because they weren't available.

It is unusual to see this Remington priced lower than the original Mossberg, but this was true in our South Carolina test area at the time of our test. The TAC-14 is similar to the Shockwave in set up. There is no support strap on the fore end, but we had no difficulty in controlling the Remington. There is a stop or ridge on the end of the fore end that seems effective in preventing the hand from running forward. Just the same, the Mossberg strap is seen as a fail safe to prevent the hand from slipping close to the muzzle on firing.

The Remington's M-Lok fore end allows mounting a combat light or laser, which the tested Mossbergs lack. The Remington features a crossbolt safety. We found it engaged in a positive manner. Most raters say the Mossberg safety is easier to use quickly. A fly in the ointment was a very stiff safety on one of the Mossberg shotguns.

The Remington's action is markedly smoother than either Mossberg, we felt. The much smoother dual-bar action is an advantage of the Remington. The Mossbergs also have dual arms, but they were much more difficult to operate quickly. One rater noted that his Mossberg 500 Retro shotgun is smoother than either of the 590 shotguns.

The Remington holds one fewer round than the Mossbergs. With 2¾-inch shells, four shells should be adequate for most situations. While seven mini shells may be loaded, they will not feed. Some refused to chamber. The extractor held the shell's rim, but the nose of the shell was off and would not enter

SIDE TEST: BLACK ACES TACTICAL PRO SERIES S MAX 517 12 GAUGE

We first tested the S Max in the March 2021 issue, where it earned an A grade and a Best Buy recommendation. A big store like Palmetto State Armory offers these shotguns for around $300, which is quite a bargain. We tested it this time because it offered a standard fixed buttstock and a birdshead-style grip stock and because its semi-auto function allowed us to see how the mini shells would work. We had already done full-size-shotgun function tests with an unaltered Mossberg Maverick and a Remington 870 and found them unable to handle the mini shells reliably. In the case of the Maverick, however, it can accept a mini-shell clip from OpSol or Mason Munitions, which makes the Maverick able to feed the shorter shells.

Which brings us to the S Max. This is a viable self-loading shotgun with good features. In all firing drills with the Raptor grip in place, the Black Aces S Max completely outclassed all of the 14-inch-barrel shotguns by such a wide margin the results were almost laughable. However, the S Max will not feed or function with mini shells. But then none of the three pumps were 100% reliable with mini shells either. For reasons we will outline later, we did not find this to be a major drawback. The S Max is comfortable to fire reliably with full-power shells and offers good fit and finish. While it may seem unfair to compare this shotgun to the shorter Shockwave, it really isn't that much larger or longer. And it works. The only drawback is that the Black Aces shotgun, when fitted with a raptor grip, is 4.7 inches longer overall than the Shockwave. We can live with that.

Elsewhere, the S Max's finish is superior to either the Shockwaves or the TAC-14. The blued finish is dark, deep, and well done. The walnut stocks are nicely finished. The shotgun is supplied with a birdshead grip to allow the shotgun to be used at close quarters and stored easily. With the birdshead grip attached, the shotgun remains a legal length because the barrel is 18.5 inches long. The shotgun is supplied with three choke tubes, giving the S Max much versatility. While changing the stock requires some time and elbow grease, you may hunt with shotgun — it makes a crackerjack bird and rabbit gun — and store it ready for home defense with the raptor grip if you so chose.

To operate the Black Aces shotgun, rack the bolt before loading then press the decocker button. The Black Aces Tactical features an extended bolt lever to make racking the bolt easier. Then you begin loading the magazine. The Black Aces Tactical shotgun magazine holds six shells, one more than other shotshell arms tested. If you attempt to rack a shell into the magazine without pressing the decocking lever, the shotgun will not load. In other words, the bolt must be released before the chamber is loaded — but the bolt is racked before the shell carrier is pressed upward to load the shotgun.

The Black Aces Tactical Pro Series S Max's handling was surprisingly good.

We rated the Black Aces Tactical Pro Series S Max's front post sight to be a little superior to a simple front bead. The S Max is a well-made shotgun for the price.

A choice of two buttstocks is a good option that's available with the Black Aces Tactical Pro Series S Max. Each stock was well made and a good fit to the Black Aces Tactical Pro Series S Max receiver.

The Black Aces Tactical shotgun has a total capacity of seven shells, with a shell in the chamber and six in the magazine. This beats the Mossberg's standard capacity handily and is within two shells even if the Mossberg is loaded with mini shells. The recommended home ready condition, with the chamber empty, allows six shells to be ready.

The safety is a crossbolt type and is positive in operation. This shotgun is more similar to the Benelli M2 types than the later M4, but the Benelli influence is present in this shotgun. The S Max uses a simple front post for aiming. It is easily picked up for fast shooting. The controls are easily manipulated. The trigger is nice at 6.0 pounds even.

The Black Aces shotgun was fired in equal amounts with both the standard stock and birdshead grip. The shotgun was surprisingly easily to control with the birdshead grip. The Black Aces Tactical S Max weighs 6.5 pounds. By holding the birdshead grip and pushing forward while pushing to the rear with the fore end, the shotgun was controllable, and we had good results with the birdshead grip to 7 yards. With the standard stock installed, the shotgun was easy to use well. The Black Aces S Max shotgun never failed to feed, chamber, fire, or eject 2¾-inch shells. With the standard stock installed, we fired slugs with good results, a 3-inch group at 15 yards. The Shockwave isn't viable at long range with any load.

The Black Aces is a simple shotgun well fitted to personal defense and home defense. The shotgun simply blazed away without fault, completely outclassing both short shotshell firearms when using buckshot and birdshot loads. Sure, it

BLACK ACES TACTICAL PRO SERIES S MAX 517 12 GAUGE, $300

GUN TESTS GRADE: A OUR PICK

This reliable shotgun outperforms the shotshell firearms types by a tremendous factor, in our view. The Black Aces S Max is a relatively light shotgun. Despite this, recoil was not objectionable. The shotgun handles well, and we were surprised that it was still controllable with its own birdshead grip.

Action Type	Semi-auto, gas operated
Chamber Size	3.0 in.
Overall Length, Full Stock	39.0 in.
Overall Length, Birdshead grip	31.0 in.
Capacity	6+1
Weight	6.5 lbs.
Weight Loaded	7.3 lbs.
Barrel	18.5 in. long; black carbon steel
Receiver	Anodized black aluminum alloy
Choke Tubes	(3) Benelli Mobil
Stock	Natural walnut, semi-pistol; birdshead grip
Stock Length of Pull	14.25 in.
Stock Fore End	Ribbed natural walnut
Front Sight	Post
Trigger Pull Weight	6.0 lbs.
Safety	Crossbolt
Warranty	Limited lifetime
Telephone	(407) 630-9359
Website	BlackAcesTactical.com
Made In	Turkey

is 4.5 inches longer or so in the barrel, but what a difference this makes. The other firearms are worthless for slug firing. The Black Aces S Max will deliver slugs on a human silhouette target out to 50 yards.

Our Team Said: While some may say we are comparing apples to oranges, we are actually outlining choices for home defense. None of our test team can imagine choosing a Shockwave firearm over a shotgun similar to the Black Aces S Max. We tried- and the Black Aces will not function with mini shells. No surprises at all there. We also obtained a second used version with black stock just to confirm our good impression of the S Max. The second shotgun, found without a box or raptor grip, came with a few dings. It worked as well as the original.

For us, we'd choose the S Max over the 590S Shockwave as a defensive shotgun for home, auto, plane, or boat and stoke it with 2¾-inch shells.

the chamber. We suffered double feeds as well.

There is no adaptor to make the Remington run with mini shells, so this isn't a viable platform for these shells. With standard loads, the Remington was much the same in firing drills as the Mossberg. It fired high and demanded effort to get a hit.

Our Team Said: We liked the smooth action of the Remington TAC-14. But when it comes to magazine capacity and feed reliability with mini shells, the 590S is the only game in town. If you plan to buy the TAC-14, plan to use it only with standard-length shells. Based on its failure to feed with mini shells and no mini-shell adapter option, as well as difficult accuracy with 2¾-inch shells, we're hard-pressed to recommend this item for home defense. If you are going to use standard-length buckshot, there is little real difference between the Remington and Mossberg products.

Mossberg 590S Shockwave 51601 12 Gauge, $536

The big question is how did Mossberg modify the 590 to feed mini shells successfully in the 590S? It isn't that difficult because Mason offers a magazine port insert to cure feeding issues. The problem is the shotgun is then limited to mini shells. The competency in Mossberg engineering is that the company was able to design a shotgun that feeds both full-length shells and mini shells interchangeably.

They do that by redesigning the shell lifter. In the old-style 590 Shockwave reviewed above, the center of the lifter has a type of tab that feeds shells. That is no longer true in the 590S. Also, the 590S has a stamped plate that acts as a ramp or trunnion for bolt movement. This plate is attached to the action bars. Bolt tilt and movement locking and unlocking is affected by this part. This part is different from the 590. The 590S features what Mossberg has termed an energy-absorbing bumper in front of the trigger-assembly housing. Placing the shotgun upside down and observing the action as shells feed, it seems that a mini-shell-sized elevator space is created. Yet, function with full-length shells is retained.

We fired the 590S more than the others combined for several reasons. It didn't take long to confirm the 590 Shockwave and Remington TAC-14 would not feed mini shells but they did feed standard shells. No use wasting the mini shotgun shells. On the other hand, the 590S has made claims to complete reliability with mini shells and full-length shells as well. We had to confirm this.

As it happened, the 590S is indeed mostly reliable. However, when attempting to test with the Federal Shorty, we racked the pump with the action upside down (you never know) and experienced failures to feed. A shotgun like the Black Aces will feed 2¾-inch shells upside down. The first full 590S magazine resulted in several failures to feed, reminiscent of the standard 590. Vigorously stroking the action, we were able to fire two magazines of the Federal

Shortys without incident. Next, we cycled and fired 20 shells of the Aguila without incident. Also, the Mason and Firequest shells performed well.

Elsewhere, we had no more surprises. From the stabilizing strap on the fore end to the Raptor grip, handling was identical to the original 590.

Our Team Said: Save for a few inexplicable malfunctions in the beginning, the 590S Shockwave fed mini shells well. This ups the capacity of the 590S Shockwave from five to eight shells. Considering the shells exhibit no more recoil than birdshot loads in this firearm, there is some appeal. Because the 590S is useful with minis shells, we spent more time with this version. With firing limited to 5 yards, some of the raters got decent hits on the target. But those who managed hits practiced a lot, and all were much slower than with a standard-stocked shotgun.

Left to right are the Aguila, Firequest, and Federal mini shells. We had not previously tested the Firequest load, which has its buckshot balls in two layers of three shot sandwiched between three wads. Below is one of the wads and half of the shot charge.

Here's a look at the fired and unfired lengths of the clear Mason mini shells (left two) and fired and unfired Aguila Minishells (right two). The Mason shell is short even after firing. Bottom: Mason uses No. 1 buckshot in its loading. In the opinion of our test team, this is a viable compromise that offers penetration with more total pellets.

The Bottom Line

After you read the sidebar reviewing the Black Aces Tactical Pro Series S Max, come back over here and read our conclusions on choosing a Shockwave-style firearm versus a short semi-auto or pump for home defense.

The logic of choosing a mini shell with about 50% of the energy of a standard buckshot load doesn't make much sense to us. Better to learn to control recoil or use reduced-recoil buckshot loads that remain effective. Also, save in a single from-the-factory shotgun, the 590S, mini shells are unreliable in every short gun we've tested. Moreover, our team noticed some other issues:

- Sacrificing a three-point hold on the shotshell firearms leads to misses. A slight movement of either hand on a Shockwave-style firearm results in an errant shot, which can create lifelong trouble.
- There is no viable means of firing a Shockwave from cover.
- Another serious concern is retention, which includes using leverage to free the shotgun from an attacker's grasp and butt-stroke the adversary. This isn't as feasible with the Shockwave.
- Rapid reloads are problematic. It is difficult enough to practice quickly reloading the shotgun's tubular magazine with the weak-side hand. During high-stress events, shooters often drop 2¾-inch shells. This results in many using the violin-type reloading drill, which uses the strong-side hand to reload the shotgun riding on the shoulder. Mini shells are extremely difficult to handle quickly using a standard or violin reload technique.

A folding stock or pistol grip shotgun isn't as desirable as a fully stocked shotgun, but they remain well ahead of the Shockwave-type firearm. Yes, you could buy a 590 Shockwave and add an OpSol Mini Clip or Mason mini-shell adapter, but why? A regular shotgun with either a standard stock or a pistol grip stock, or both, as with the Black Aces shotgun, seems to be a better choice for most people.

Just the same, if your mind is made up and you must have one of the shotshell firearms, the Mossberg 590S Shockwave is an answer to many problems. As a boat gun for dispatching sharks at close quarters, or in a carefully considered home-defense situation for use at a few feet, or in an auto, where legal, the Shockwave has one overwhelming advantage over a pistol, and that is power.

If you own Mossberg 500 or 590 or the Maverick 88 shotguns and you want to fire mini shells for fun and practice, order the Mason Mini Shell Adapter or the OpSol clip. We find they work at least as well as the 590S, are affordable, and are easy retrofits. Just be certain your shells feed from all the firing positions you might encounter.

Written and photographed by Gun Tests *Staff, using evaluations from* Gun Tests *Team members.* **GT**

Ruger and Meopta Optics: Are They Ready for Prime Time?

We had a chance to shoot two new red dots to see if they're worth your money. In the view of our testers, one is, and one is not.

We recently had a chance to compare two red dots you might consider for use on your firearms. The firsts contestant was Ruger's ReadyDot, a $100 Ruger-branded optic designed for use with Ruger's optic-ready pistols and other handguns using the Shield RMSc footprint. The second was Meopta's Meosight IV 3-MOA Red-Dot Sight 1047103, $400. Here's what we thought of them:

Ruger ReadyDot Optic 90742, $100

This was a recent price at Ruger.com. The ReadyDot doesn't use batteries. Like the original Weaver Quik-Point Model S1, the ReadyDot utilizes ambient light and fiber optics to provide an aiming point. Red-dot sights for handguns are popular, and the Ruger optics-ready pistols are among the best combination of affordability and reliability. An affordable red dot for these handguns is the goal.

Properly used with both eyes open and trained behind the sight, red-dots increase speed to an accurate hit, rapidity of follow-up shots, and may even increase the shooter's ability to connect at longer range. Our initial evaluation of the Ruger ReadyDot resulted in as many demerits as merits.

The most obvious drawback is that there is no means of adjusting the zero. For most Ruger pistols, the point of aim and point of impact may have a correlation close enough for close-in defense. We have always preferred to properly zero a defensive handgun. Fixed iron sights on modern handguns are usually zeroed for one range or another, usually 10 yards, and we expected at least this type of utility. But the ReadyDot isn't adjustable for windage or elevation. Still, co-witnessing the dot with conventional sights is possible with some combinations.

The fiber optic is designed to gather and reflect light. The dot is fairly large, on the order of 15 minutes of angle. This is a large dot, and there is no adjustment for dot size or intensity. When used in different environments, a conventional battery-powered red dot may be adjusted for low or high light conditions. This dot can't be manually adjusted to make it dimmer or brighter.

Ruger claims there's an automatic brightness adjustment, so we mounted the ReadyDot on a Taurus TX22 22-caliber pistol that had proven to be accurate with its onboard sights.

Firing off hand with the Meopta MeoSight IV, we had excellent results. The MeoSight is relatively compact and light and offers full adjustability, which the Ruger ReadyDot did not.

Right: We put the Meopta atop an FN 502 22 LR for side-by-side testing.

Right: Ruger's ReadyDot is useful in some light conditions. For getting your feet wet in a red-dot system, the ReadyDot has merit. Here it is mounted on a Taurus TX22.

We removed the TX22's plate and added the Ruger ReadyDot in a few minutes time. Those who use a red-dot sight realize the lens is coated to reflect the red dot. In this case, coating gave the lens a well-defined blue shift.

Left: Ruger's ReadyDot is compact and doesn't use batteries. This is a thin red-dot sight design.

Left: The ReadyDot's dim center isn't very visible. The red dot is projected onto the blue tinted prism lens.

Left: Fired in an indoor range, ambient light was sufficient to offer a good aiming point. The level of ambient light dictates brightness.

After mounting the ReadyDot, we first explored differences in brightness. Inside a home with normal lighting, the large dot was properly illuminated for inside use. Outside, the dot was brighter, which is considered superior for outdoors use. The changeover was instantaneous, so the Ruger ReadyDot did prove to be self adjusting.

However, in darker conditions, such as an unlit back yard or dim bed room, the dot disappeared. Mounting a combat light and then using the dot in the flashlight beam did not help. To us, the best combination of aiming occurs when the target and the red dot are in the same light conditions.

On the upside, the ReadyDot doesn't suffer from the familiar starburst effect in bright light. It actually offers a solid aiming point in most outdoor scenarios. But home defense is serious business, and that nighttime to dim-light shooting is seriously curtailed is simply untenable, in our view.

We also checked sight alignment, since adjustment is unavailable. We fired the Taurus TX 22 and Ruger ReadyDot at 7, 12, and 25 yards using Winchester Wildcat 40-grain ammunition. At 7 yards, the point of impact was half an inch off to the right, with the groups centered for elevation. At 12 yards, the rightward point of impact had strayed from the aiming point by 2.0 inches and then 3.5 inch at 25 yards. At close range, perhaps the point of impact would not matter as much or could be accounted for in a personal defense situation. For target shooting and marksmanship, this was far from ideal.

On the other hand, because there is no battery compartment, the ReadyDot is quite compact. Also, during the firing test, the Ruger ReadyDot did not shift its point of impact.

Our Team Said: There are serious drawbacks to the Ruger ReadyDot. The device cannot be zeroed. We are probably lucky the sight was as close as it was with elevation on and windage off. In dim light we were able to identify the target but we were unable to discern a faint point of light in the sight. If you have additional funds to purchase a real red dot instead of the ReadyDot, you should. For occasional practice in mastering the red dot or to explore red-dot sights before switching over to this type of sighting equipment, the Ruger ReadyDot has some merit. Beyond that, we can't see much use for it.

GUN TEST GRADE: D

Meopta Meosight IV 1047103 Red-dot Sight, $400

The MeoSight IV red-dot reflex sight is Meopta's lightest offering at 1.2 ounces, making it well suited for handgun use. We think the MeoSight is also well suited for use on long guns intended primarily for home defense or for use at modest ranges.

If mounted on a long gun, the supplied adapter for a Picatinny rail is used. The body is aluminum.

The MeoSight IV is intended to offer great speed and accuracy. The lens is scratch resistant, and the sight picture remains wide for such a compact sight. Meopta stresses the MeoSight IV was designed for good performance when firing on the move.

In common with other red-dot sights, this unit does not have any magnification. The dot is 3 minutes of angle (MOA), much smaller and precise than the Ruger's.

The MeoSight has a high degree of adjustment, with 120 MOA possible in elevation and windage adjustment. In common with most red-dot sights of this size and weight, power is supplied by a Cr1632 3-volt battery for 30,000 hours of battery life. The MeoSight has an automatic cut off after four hours of inactivity.

The MeoSight IV is relatively compact and light. Handguns with a Docter Optic footprint capability accept the MeoSight IV. Controls are easily accessible, and adjustment is simple enough.

The MeoSight IV features both an automatic and a manual brightness setting. There are five light-intensity

Initial shooting at 25 yards showed high accuracy potential with the Meopta MeoSight IV. Then we sighted the MeoSight IV in properly — a function the Ruger optic did not provide. This group would be difficult to achieve with sights on the gun.

levels. We tested this extensively and can endorse that the levels are distinct and useful. The sight is supplied with a Picatinny rail mount and uses the Docter pattern.

To test it on a gun, we chose an FN 502 22 rimfire to parallel the rimfire use of the ReadyDot. One reason for mounting the MeoSight IV on the FN 502 was that the FN 502 rimfire, a threaded-barrel handgun, features large suppressor-ready sights. The use of a red-dot sight with these tall sights allows the pistol to be properly zeroed.

Our primary concern when testing red-dot sights is personal defense. You must draw the pistol, allowing the presentation to lead into a good shooting stance and a proper sight reference. It all occurs in the blink of an eye. A red-dot sight is an aid for those willing to invest time, effort, and range time in mastering the concept. An advantage of the red-dot sight is the things that are not done and need not be learned. Sight alignment, setting the light between the rear notch and front post, and closing one eye aren't necessary steps. You fire with both eyes open.

In range testing, we found the MeoSight red-dot sight to be very fast and offer real speed and accuracy. Of course the raters had different ideas concerning light settings for various engagement distances, and the MeoSight allowed them to choose what they liked for distance and dimness.

Moving from one target to another was very smooth, and moving targets were easily addressed. None of our experienced raters have ever bought into point and shoot with a handgun. We use our sights. In this case, point-and-shoot firing using the red dot is very fast and very accurate. Adjusting the red dot's location with the supplied tool was simple enough.

We found the controls pressure switch easily applied: forward is positive and rear is negative, with the setting returning to the previous setting after the red-dot sight goes off on its own. When firing quickly offhand and once the pistol was sighted in, we found the 3-MOA dot is small enough for precise shooting but also makes for excellent speed. The red dot offers a good contrast against combat-type targets and practical applications we explored. As an example, following a moving reptile or rodent in the common use a 22 LR firearm is put to is easily accomplished. An important consideration is that when you are attempting to engage a moving target, firing with both eyes open allows you to anticipate movement and nearby cover and obstacles. While you may learn to fire with both eyes open with fixed iron sights, this isn't as fast and accurate as the red-dot sight.

Our Team Said: The MeoSight IV sight is easily adjusted for zero and for dot brightness. We enjoyed using the sight. Our evaluation is that the MeoSight IV is a good to very good red-dot sight. Perhaps prices for the sight will come down and make it more affordable.

GUN TEST GRADE: A

Written and photographed by Gun Tests *Staff, using evaluations from* Gun Tests *Team members.* **GT**

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COMING UP IN GUN TESTS

- 9mm Slimline High-Capacity Shoot Out: A popular trend in concealed-carry handguns is to stuff as many cartridges as possible into as slim a profile as possible. Four guns that do that are the IWI Masada Slim, the KelTec P15 in both polymer and metal frames, and Smith & Wesson's Equalizer.
- 7 PRC Bolt Guns: Tested are the Christensen Arms FFT Titanium, Mossberg's Patriot, and the new Remington Model 700 Long-Range.
- Pistol-Caliber Carbines are the latest rage for action shooting sports and self-defense classes. And why not? They can weigh less, recoil less and cost less to shoot than their center-fire rifle brethren. Tested, the new FPC from Smith & Wesson, the brand-new Saint Victor from Springfield Armory, and the MPX from SIG Sauer in a variant built to be competitive right out of the box for USPSA's PCC division.

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