If for some reason, you no longer wish to receive these e-mails please accept our apologies and respond to this message with REMOVE in the subject line and we will remove your name from the mailing list.
Citizens Association for Responsible Gun Ownership = CARGO
www.cargogunclub.org
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Hello Fellow CARGO Members,

The next meeting will be held at Napoli's on **Thursday, September 15**.

We will meet at Napoli's in Wylie.

Napoli's
701 N Highway 78 # A
Wylie, TX 75098

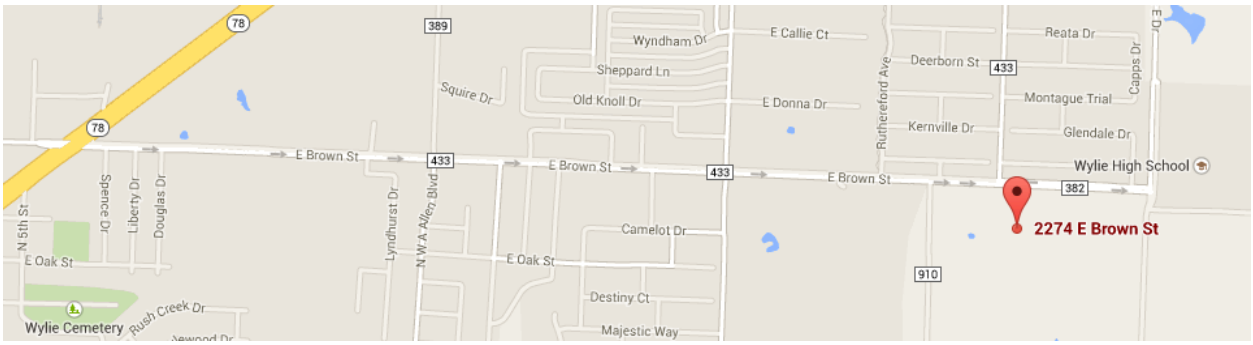
For the dinner portion of the meeting, we will be in the meeting room between 5:45 and 7:00 for food and fellowship. The meeting will begin at 7:00 PM and run until about 9:00.

Under the new Texas Open Carry Law, you could be committing an offence if you remove your pistol from its holster while open carrying. While at Napoli's DO NOT remove your pistol from its holster unless it is an emergency.

Member Don Bridges has volunteered his shop for the meeting. There are a very limited number of chairs at the shop, so please bring a camp chair for the meeting. We will meet there from 7:00 (ish) until 9:00 (ish)

The address is:
2274 EAST Brown Street in Wylie
While heading east on Brown Street, it is 1/2 mile past stop sign that's at the intersection of Brown Street and Kreymer Lane on the right hand side.

The shop is behind a small white house with a picket fence around the front yard.



Meeting gun topics:

- Do you have a firearm that stands above all others in your collection? Is there something specific that you are proud to own? Bring it out to the meeting and share it with the club!
- We are a diverse group of collectors and shooters, what is the oldest and youngest in your collection? This could be the age of the firearm or just the first thing that you ever received – you decide.
- And as always, does anyone have something in your collection?

Non Gun topics:

- We are now August 1st marks the beginning of Campus Carry. Do you know of anyone carrying on a campus? What have you seen or heard about campus carry now that it has been in effect for almost 6 weeks?

If you have any suggestions for future speakers or topics please send your feedback to CARGO@att.net.

When was the last time you visited our web site? Please take some time to go to the CARGO website at www.cargogunclub.org

http://www.foxnews.com/us/2016/09/13/black-rifles-matter-sign-draws-complaints-from-tourists-in-maine-town.html

First Amendment

'Black Rifles Matter' sign draws complaints from tourists in Maine town

Published September 13, 2016
FoxNews.com

The sign, on a private lawn, has sparked controversy in the land of blueberries, pine trees and lobster. (FoxNews.com)

A Maine town's tourism sector has come under fire after some visitors have been complaining about a large, hand-painted sign on a private lawn that reads "Black Rifles Matter."

Linc Sample, the sign's creator, told NECN on Monday that his work in Boothbay Harbor is about gun rights, not race. He was inspired to post the sign after reading an ad in the local paper that supported a ban on assault weapons.

"That's really a trigger for me — the assault weapons ban," Sample told NECN.

Sample said he used "Black Rifles Matter" – a plan on "Black Lives Matter" – to make an impact. He said if anything, the Black Lives Matter movement should be "flattered" he used the phrase.

Boothbay Region Chamber of Commerce Director Rick Prose said that they've received a few complaints from visitors.

"Some of these people have cut their vacation short and left early," Town Manager Thomas Woodin said.

Boothbay Harbor officials said Sample has the proper permitting and is exercising his First Amendment rights, despite some calling for the sign's removal.

"People are ignorant. They shouldn't be putting things out like that," Paul Mayor, who was visiting Maine from Connecticut, told the station. "It's taking a shot obviously at Black Lives Matter."

Another tourist, Jeremy Plasse believes that the town is doing the right thing by leaving the sign up.

"Massachusetts has a ban right now, and I think they should lift it," he added.

Sample said he usually changes the sign and will soon replace the Black Rifles Matter sign that has drawn some scrutiny.

The Associated Press contributed to this report.

http://www.dallasnews.com/news/politics/headlines/20160902-texas-schools-said-campus-carry-would-cost-15m-this-year-but-have-spent-less-than-1m-so-far.ece

Texas schools said campus carry would cost $15M this year but have spent less than $1M so far

John Mone/The Associated Press

By Tom Benning Follow @tombenning tbenning@dallasnews.com

Austin Bureau

Published: 02 September 2016 08:36 AM
Updated: 05 September 2016 02:16 PM

AUSTIN — The costs incurred by most public colleges and universities to implement Texas' contentious campus carry law can be measured in hundreds of thousands of dollars.

That's a far cry from the multimillion-dollar expenses they told lawmakers last year they would rack up to prepare for licensed gun owners to carry concealed in classrooms and other buildings.

The disparity, found in a *Dallas Morning News* survey, underscores the ongoing debate over the measure's impact. And the figures, which could complicate efforts to push back on the law, appear to back up the charge that university officials were guilty of political gamesmanship.

"No one wanted to listen," said Rep. Allen Fletcher, a Tomball Republican who sponsored the legislation. "It was just kind of ludicrous that there was going to be any big outlay of money."

Several of the state's public university systems estimated they would collectively need to spend $15 million this year for bulked-up police forces, gun safes and other security boosts.

But budget info provided from about 40 universities across Texas pegs the law's hard costs so far at collectively around $960,000. The biggest line item for most state schools, which typically spent a few thousand dollars, has been for new signs to provide notice of select gun-free zones.

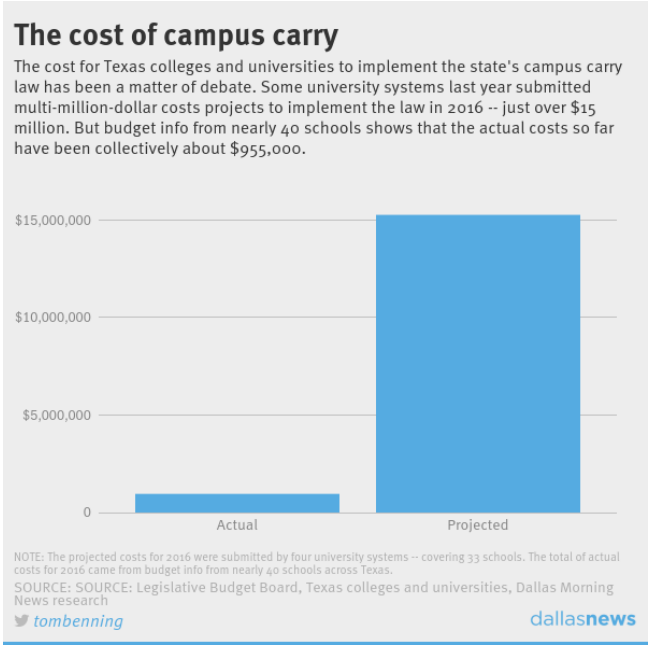
The current fiscal information, notably, does not cover the extensive hours that school officials put into crafting their individual campus carry policies. Nor does it address the concerns of many faculty, students and administrators over how the gun law will change campus life.

"A massive amount of time has gone into planning and implementation," said University of Texas System spokeswoman Jenny LaCoste-Caputo. "It's hard to measure that completely, but it has been substantial."

The less-than-projected costs could also mark the impact of last-minute tweaks that Democrats — who opposed the law outright — pushed to give public schools greater discretion.

The schools, thanks to that compromise, were allowed to establish some "reasonable" gun-free zones, so long as they didn't have the effect of generally prohibiting guns on campus. And the UT System has cited that flexibility as a factor in keeping costs down.

"Some actions of the 84th Legislature, such as campus carry, prompted fears that costly disruptions on campuses might occur," the system wrote in August in its appropriations request to lawmakers. "Thankfully none have taken place."



Campus carry, which went into effect in August, was among the most hotly discussed measures before the Legislature last year.

The law, which Republicans pushed in the name of personal protection, allows the licensed carrying of concealed handguns in most public university buildings. Unlike public schools, private colleges and universities can opt out of the law — and all but one have done so.

The notion that campus carry could cost state schools millions of dollars only sharpened the debate.

Four university systems — UT, the University of Houston, Texas Tech and the University of North Texas — last year submitted fiscal analyses to lawmakers that said the law would cost each at least $1 million in 2016.

The UT System, for instance, predicted an outlay of $9.9 million this year — and $39.2 million over a six-year period. Those costs, which focused especially on medical schools, covered gun safes, new technology and the need for "police to educate the campus community."

Other systems cited high-dollar expenses for "training and secured physical space," "security technology for cameras" and more officers to handle "gun-related activity."

Democrats pounced on the estimates in debates on the measure — saying they proved that the proposal was not just dangerous, but also a financial burden. But Sen. Brian Birdwell, R-Granbury, the bill's author, said then that the projections were "patently absurd."

The UT System's cost projections for campus carry (p. 2)

institutions. The academic institutions would incorporate gun storage cost in dormitories and other residential facilities into new room rates.

Methodology: Surveyed all institutions. Other expenses include developing and maintaining a computer software system that allows police department to validate and verify permit holder's credentials and issuance of site specific credentials to easily recognize permit holders from non-permit holders. There would also be a need for police to educate the campus community about this law and to remind concealed carry licenses owners how important it is to remain in compliance with gun laws at all times. Policies would also need to be developed as well as the purchase of gun safes for the storage of handguns in dormitories or other residential buildings owned by operated by the university.

Technology: It may be necessary to expand surveillance camera networks and door access at some properties. This would allow institutions to monitor all points of access. Legacy systems would need to be converted from an analog system to an IP system in order to effectively expand the camera bank. This would also include the full integration of door access systems, which would allow for the remote close, lock, and monitor all exterior doors.

Summary of Fiscal Implications

	2016	2017	2018	2019	2020	2021
Probable Gain Fund #1	$	$	$	$	$	$
Probable Loss Fund #1	$	$	$	$	$	$
Probable Savings Fund #1	$	$	$	$	$	$
Probable Cost Fund #1	$9,927,417	$6,032,436	$5,725,505	$5,789,268	$5,843,741	$5,868,952

View entire document with DocumentCloud

To get a sense of the actual tab for campus carry, *The News* in August surveyed every public university system in Texas about how much they have spent to implement the law. *The News* also asked, if necessary, those system's flagships and every state school in North Texas.

Most, but not all, schools responded. And the response from the University of Texas was typical.

"We've had almost no direct costs," said school spokesman J.B. Bird.

For most schools, the expenses incurred so far came from "no guns" signs posted at certain areas around campus. Those "exclusion zones" vary by campus. UT-Austin, for example, has gone further than others by banning guns in dorms and allowing faculty to bar them from offices.

[Click here to view The News' campus carry tracker, which shows the firearms policies at public universities across Texas.]

The sign costs at UT-Austin are expected to be several thousand dollars. Estimates at Texas Tech range up to $70,000. At Texas A&M, it's $19,000. At Midwestern State, it's $6,580. At the University of North Texas Health Science Center in Fort Worth, it's $130.

One cost outlier came from the Texas State System, where officials cited campus carry as the reason for hiring additional police officers and security guards at Texas State and Lamar universities. Those costs totaled about $562,000 this year.

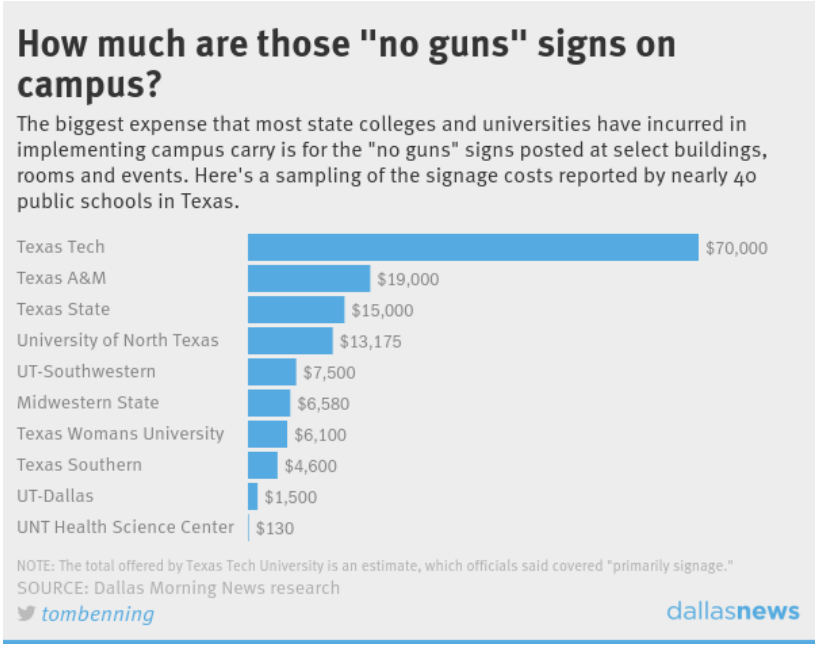
But Texas State University Police Chief Jose Banales said the new law was actually one of "several factors" in the decision to add three officers to his force.

"The university has experienced quite a bit of growth," he said. "So it aligned with what we were anticipating for campus carry."

The lower-than-projected costs aren't likely to dim the spirited pushback against campus carry. And though the pessimistic cost estimates from last year could've just reflected many campus leaders' deep dislike of the proposal, some other factors could be at play.

One reason for the smaller expenses could be that few students are likely to carry on campus, thanks to an age limit of 21 years old to acquire the necessary license. UT-Austin, for instance, has estimated that fewer than 1 percent of its 51,000 students have licenses to carry.

The added discretion for universities to craft their own "reasonable" rules for their campuses also likely contributed. Many school officials scrapped plans for widespread gun lockers — a major factor driving up cost projections — after analyzing the issue as a whole.



But that flexibility also has created other costs — ones not anticipated by last year's projections or reflected by the latest budget data.

Ongoing questions about some universities' policies could result in legal expenses down the road. Some colleges still expect ongoing costs to cover additional training and outreach, particularly as they see how the law works with school in session.

And each school invested significant staff time to host campus forums; solicit feedback from students, faculty and parents; and develop a plan that meets the law's specs. At Texas Woman's University, for instance, officials cited extensive work by police chief Elizabeth Pauley.

"The chief has spent countless hours meeting and talking with students, faculty, parents, staff and reporters about campus carry," said school spokeswoman Amanda Simpson. "She has fielded every email, phone call, office drop in, meeting request [and] stop by as she walks campus."

http://www.alloutdoor.com/2016/08/30/breaking-latest-atf-surprise-drive-ammo-prices-roof/?utm_source=Newsletter&utm_medium=Email&utm_content=2016-09-01&utm_campaign=Weekly+Newsletter

Breaking: Latest ATF Surprise Could Drive Ammo Prices Through the Roof [Updated]

Posted August 30, 2016 in Legal Issues, Shooting by Jon Stokes with 299 Comments

Update: Bob Owens has the news that the ATF has issued an addendum clarifying that the *status quo* pertains with respect to wetted nitrocellulose. So, it looks like we're ok, for now.

Update 2: Guns.com has more detail with a little extra analysis and reporting. It's hard to tell if this was a genuine mistake or if they pulled back as a result of everyone flipping out, but it looks like this still may be on the table at some point in the future because they've rescinded the determination pending "further industry outreach".

As reported on Ammoland, a sudden ATF rule change promulgated entirely without warning in a newsletter has reclassified a critical component of smokeless powder as a "high explosive."

The problem is that there are very strict rules governing the storage and transport of high explosives, and the ammunition supply chain is totally unprepared to suddenly comply with those rules.

Overhauling the ammunition supply chain to accommodate those rules will be a long and expensive process, which would be bad enough news for ammo prices. But the knockout blow is the fact that the industry was given no warning and zero grace period, so they're just screwed, because as of yesterday they're now in sudden violation of federal law.

Manufacturers and importers of smokeless propellant have relied on ATF private letter rulings issued prior to 2016 stating that nitrocellulose wetted with water not less than 25 percent by mass is not subject to regulation under the federal explosives laws. Accordingly, the manufacturers have set up their logistics, storage and operations consistent with nitrocellulose not being regulated as an explosive. Manufacturers and importers may not have adequate storage facilities or record keeping systems to comply with the law. Licensed manufacturers also rely on private, unlicensed vendors to store wetted nitrocellulose in facilities that do not comply with storage requirements. A number of manufacturers also report an adverse impact on their contracts to supply smokeless propellant and finished rounds of ammunition to the Department of Defense.

Publication of the change in classification in an industry newsletter without advance notice has left manufacturers scrambling to determine what standards ATF will allow for alternate storage and record keeping and to obtain permits for unlicensed storage vendors. In the meantime, manufacturers and importers are violating federal law, as ATF allowed no grace period for coming into compliance. We note that ATF has authorized such periods in the past when changing agency positions. For example, see ATF's November 12, 2010 Open Letter regarding explosive pest control devices.

ATF's sudden and unexpected change in policy on wetted nitrocellulose will likely have a significant impact on industry's ability to deliver products to the military and commercial markets. Industry members have relied on the exemption for wetted nitrocellulose for many years and are aware of no accidental detonations or diversion of this product into illicit channels. Consequently, it is unclear why ATF believed it necessary to change its policy and, more importantly, why ATF announced the change in a newsletter article with no advance notice to industry.

Given that this ruling will result in a drastic shortage of smokeless powder, it's going to bite reloaders just as hard as everyone else.

This stunt is also going to hurt the DoD as well as civilians. Given the collateral damage to military ammo supplies, I don't expect this ruling to stand. Something will have to be done or else the troops will run out of ammo.

Whether it actually stands or not, the new ATF ruling does provide a nasty preview of what's to come in a future Democratic administration, so prepare yourselves accordingly. Indeed, I wouldn't be surprised to see an ATF rule change that basically kills the reloading scene by reclassifying smokeless powder and "ammo manufacturing" in a way that makes reloading either very expensive–as with gunsmithing and the recent ITAR ruling–or outright illegal.

As with the Massachusetts Attorney General's recent "clarification" (i.e. massive, unlegislated expansion) of that state's assault weapons ban, what we're seeing here is a wholesale trend at the local and state levels towards using executive fiat to restrict gun rights by reinterpreting existing laws.

Given the deadlock in congress–a deadlock that, if it does end on this election cycle, will probably end with the Democrats taking control of both houses as the Trumptanic sinks and takes the down-ballot races with it–do not expect any legislative relief. The only way to fight these kinds of executive overreaches will be through the courts.

http://www.firearmsnews.com/reviews/review-rock-island-armory-baby-rock-380/?utm_source=newsletter&utm_medium=email&utm_campaign=editorial&utm_term=firearmsnews&utm_content=mainarticleurl

Review: Rock Island Armory Baby Rock .380

by David Hunter Jones | March 10th, 2016

In the world of carry and concealment, compromise is the name of the game. You want high capacity and velocity? Good luck concealing that 20+1 longslide autoloader without a Hawaiian shirt. You want the utmost in concealment? A .22 LR derringer in an ankle holster is neither handy nor potent. Enter the Rock Island Armory Baby Rock.

Many armed citizens have found that the happiest medium lies in a single- or double-stack autoloader. The top caliber choices are – arguably, of course – 9mm Luger, .45 ACP and .380 ACP. Because of this ever-ripening and expanding market, there are hosts of guns that fill this niche, and many do it quite well. Rock Island Armory currently has a host of guns that fit this bill, namely 9mm and .45 ACP 1911s, but they've not jumped into the .380 ACP arena until very recently with their latest offering, the M1911 A380, more commonly known as the Baby Rock.

The Baby Rock proved very reliable with several loads.

Rock Island Armory has been selling guns in the United States for 30 years. In that time, the company's focus has been on crafting and delivering quality firearms at reasonable prices. While the company has plenty of experience with the design, they diverged a bit in function but retained the form in the Baby Rock. As the name implies, the Baby Rock is a scaled down 1911 in looks, but operationally it's a tad different.

Impressions

I first encountered this diminutive pistol this past summer at a media event where Armscor (Rock Island) was exhibiting. Besides their .22 TCM guns, .22 TCM conversion kits and full-sized 1911s, the Baby Rock caught the attention of many writers and editors. Most of the pint-sized 1911s on the market have abbreviated features that make them look like a hacked-down full-size 1911, whereas the Baby Rock looks like it was put into Wayne Szalinski's (Rick Moranis) shrinking machine from the movie "Honey, I Shrunk The Kids." Creating a

slightly-larger-than-pocket-sized 1911 took some creativity and a few liberties with the functioning of the pistol. But here's a spoiler: it runs like a top.

Without anything to reference the Baby Rock's size, it can be mistaken for a full-size 1911.

First, some specs. The Baby Rock is 6.62 inches long, roughly the length of some full-size custom 1911s barrels. For comparison, a full-sized Dan Wesson Silverback in 10mm is nearly 8 ¾ inches long. Granted, the Silverback is a big, heavy gun. And it needs to be to soak up the recoil that 200-plus grain 10mm loads dish out. But I mention the Silverback to compare a jumbo 1911to the Baby Rock. The Baby Rock is 4.62 inches tall, and the Silverback is just shy of 5 3/4 inches. The Baby Rock is widest at its grip panels, and that measurement registers in right at 1-inch. The slide is ¾ of an inch across.

The grips are tacky plastic and quite round as far as 1911 grips go, making it easy to grab, even with big hands like mine. The recoil impulse from even the hottest .380 loads (oxymoron?) is pussycat soft. The grip length is such that no silly two-finger hold is necessary; most everyone ought to be able to get a full and proper strong-hand grip on this gun. The barrel is 3 ¾-inches long. When I grip a full-size 1911 naturally, the gun instinctively points dead on where I'm aiming, whereas the Baby Rock wants to point a little low. This is because it has a slightly steeper grip angler than that of a traditional 1911. That said, shooting it is a pleasure.

The round rubber grips helped fill the shooter's hand nicely. They're quite comfortable, too.

This gun is intended as a carry piece, and its design reiterates that fact. The grip heel is slightly bobbed to print less under a shirt. The mainspring housing is vertically serrated. The dovetailed windage-adjustable rear sight is what Rock Island calls a snag-free number, and it's a plain squared U notch with serrations to reduce glare. It's no more snag-free than a tiny Novak-style sight can be, though. The front post is a plain black post and is dovetailed in place.

The sights are the weakest point of this gun, a trait shared with many pocket-sized handguns. Gaining a proper sight picture can be difficult given how shallow the rear sight's notch is. Either a white dot or ideally a night sight up front would help immensely. The grip safety is small but depresses very easily and keeps the skeletonized hammer away from the web of your hand nicely. The thumb safety is difficult to work without altering your grip on the gun, but after all it is a tiny 1911. It hits between the joints on my thumb with a proper grip. It's somewhat hard to activate, but it bumps to "fire" with ease, even using the skinny part of your thumb.

The Baby Rock's barrel is 3 3/4 inches long and sports a polished feed ramp. It produced very acceptable accuracy.

The slide release, however, is very easily manipulated by hands of all sizes. The magazine release is also eminently usable. However, for the first 100 or so rounds the magazines didn't drop free and had to be pried out, but as the gun "broke in" they ejected nicely. Rock Island states in the included literature that there is a 500 round break-in period due to tight tolerances, and while it is fairly tight, it's no Les Baer.

The extractor is an external number and proved 100% reliable in test firing. The front of the slide sports deep, aggressive cocking serrations that make press checks easy, if you should choose to check the gun's status that way. The trigger has a two holes drilled in it, almost like a skeletonized job, and is vertically serrated on the front face. Finally, the company's logo is etched into the very rear of the slide. As is standard anymore, the ejection port is lowered and flared.

The external extractor proved 100 percent reliable in testing.

The gun is constructed of 4140 ordnance steel and sports a handsome Parkerized finish on both the frame and the slide.

Inner workings

Operation of the Baby Rock is straight blowback. Traditional 1911s have a locked breech design to deal with the pressure and recoil the .45 ACP produces. Many .380s and small-caliber guns enjoy the simpler straight blowback design because of the cartridge's lower power level. Although some still refuse to believe it, today's defensive .380 rounds are competent man-stoppers, especially when aimed accurately and sent through a 3 ¾-inch barrel. Due to the Baby Rock's blowback design, shooters with weaker hands might find the slide a bit tough to retract. It's not hard by any stretch and it's very smooth, but it's not as easy as a regular 1911.

A short guide rod is enveloped by a single recoil spring, and the barrel interfaces with the frame via a single large, non-moving lug. It's just wedged against the frame. However, the barrel does sport a nicely polished feed ramp that mates nicely with the polished ramp on the gun's frame. A fixed ejector hammers empties and sends them out of the way. The barrel bushing and recoil spring plug look right at home on a 1911, they're just small. Only the top half of the barrel is polished and is stamped "CAL .380." The barrel is a six-groove, and has a 1-in-16 twist.

To disassemble the Baby Rock, just follow standard 1911 protocols. No barrel bushing wrench is necessary.

Here is the Baby Rock shown in comparison to a full-size Dan Wesson Silverback 1911.

Range report

Speaking of firing the Baby Rock, in testing I put more than 200 rounds through it, mostly Armscor's own 95-grain FMJ load, which proved disappointingly inaccurate. However, the ambient temperature when I did my test firing was sub-freezing, and feeling the tips of my fingers was difficult. But when I ran 95-grain Speer Gold Dots through it, I realized this little gun *could shoot*. The best 5-shout group I posted from 15 yards on this chilly day was less than 1 ½ inches. Again, I never experienced a malfunction of any sort.

The trigger has a little bit of takeup before it breaks fairly cleanly right at a touch heavier than 6 pounds, which is a little on the heavy side for a single-action straight-pull 1911 trigger.

The Baby Rock comes with a commander-style hammer.

It pointed somewhat naturally but again was a touch low when pointed instinctively. Gripping the small frame tends to leave the trigger closer to the index finger's first joint than second, but a small adjustment places the second joint right on the trigger's face. Pulling the trigger with the pad of your index finger is awkward and not easily accomplished; you almost have to curl your finger back toward you to get it on there. Just get a comfortable grip and get used to where the trigger hits your finger; the Baby Rock isn't like a lot of small double-action guns where the trigger breaks near the frame.

Now, the biggest question of all: is it a good carry gun? Well, it's got a lot going for it, and just a few strikes against. One of the cons is its weight. It's kind of heavy for its chambering and size, but this makes managing recoil a breeze. The sights are marginal at best, but there again, no one is going to mug you from 25 yards. On the upswing, the long-ish barrel means you'll be getting the most out from the .380 ACP round.

The Baby Rock uses a barrel bushing like a normal 1911 does.

It also enjoys high-than-normal capacity for small .380s. It's quite thin and concealable and would disappear under even a T-shirt. Then there's the retail price. The Baby Rock is listed at $430 on Rock Island's website, which means you'll be able to find it for less than $400 all day, and maybe even close to $350 some places. This puts it squarely in contention with many self-defense minded .380s, and much less than lots of small-frame 1911s.

Every shooter who handled and shot the gun complemented it in one way or another. One gal commented that it had a nicer trigger pull that the Kimber Solo 9mm she was fond of packing. One guy asked me if it was for sale right then and there. Besides its performance, the intangibles that this gun has are of the charts. It's a tiny 1911, and that's just plain cool.

Read more: http://www.firearmsnews.com/reviews/review-rock-island-armory-baby-rock-380/#ixzz4K9FKOCkB

http://www.gunsandammo.com/shoot101/choosing-ar-ammo/?utm_source=newsletter&utm_medium=email&utm_campaign=shoot101&utm_term=gunsandammo&utm_content=shoot101

Choosing AR Ammo

Words by James Tarr | Photos by Jeff Jones

I'm frequently asked, "What kind of gun should I buy?" My immediate response is, "What do you plan to use it for? Target shooting, concealed carry and self-defense, competition, hunting?"

Whether you're talking power tools for home improvement or firearms and ammunition, the No. 1 rule is and always has been: Use the right tool for the job. That same rule is doubly true when it comes to picking ammunition for your modern sporting rifle.

The original MSR, the AR15, was designed more than 60 years ago. Its select-fire cousin, the M16, has been the issued service weapon of the U.S. armed forces for more than 50 years in one form or another. Its adoption in 5.56×45 NATO chambering (a slightly higher pressure version of the commercial .223 Rem. load) signaled a change from the big bore cartridges of the past.

As rifle cartridges go, the .223 Rem. is on the small side. The original military load featured a .223 caliber 55-grain bullet, which exited the muzzle somewhere north of 3,000 fps, depending on barrel length.

The 55-grain round is a small, light bullet, generally one-half to one-third the weight of the average pistol bullet. There is not a lot of mass there. What makes the .223 Rem. cartridge work is its high velocity.

A good MSR cannot perform well unless shooters choose the right kind of ammunition. The Federal Fusion MSR line includes a number of benefits for use in AR-style rifles.

However, because it fires a small, relatively light bullet at high velocities, there is a huge difference in performance between different types of projectiles. This means that some types of ammunition are perfectly suited for some jobs, but not others. Here's where it can get complicated if you're unfamiliar with some terms.

FMJ stands for full metal jacket ammunition, and when it comes to practice or plinking or target shooting, FMJ ammo is probably your best choice. The bullets are not designed to do anything upon impact with the target. Rather, their shape is meant to ensure proper feeding from magazines and decent aerodynamics when flying through the air toward the target. FMJ ammo is usually the least-expensive type of ammo as well, which makes it ideally suited for fun at the range.

Similarly named FMJBT (full metal jacket, boat-tail) ammo is a more refined type of projectile with a narrowed base. This boat-tail base gives it better aerodynamics for flatter shooting.

If you're looking for ammo for hunting or self-defense, however, FMJ ammo is the wrong type for you.

When it comes to handgun ammo, police officers are issued hollow-point ammunition, and that type of ammunition should be the choice of anyone carrying a handgun for self-defense. Why? The purpose is to make him stop what he's doing.

The Fusion MSR round includes a proprietary powder that ensures that the action of an AR-style rifle will cycle reliably.

You want bullets that hit hard and transfer a lot of energy so that the bad guy immediately reconsiders his life choices. FMJ ammo tends to zip right through people, causing minimal damage without transferring much energy to the target. It does not do a good job of stopping anyone or anything. That is why FMJ ammo is not a good choice either for self-defense or hunting in either handguns or rifles.

However, if you look at the tiny tip of the .223 bullet, there's not exactly a lot of room for a big hollow point. Not if you want the bullet to feed reliably into the chamber or have decent aerodynamics.

That's not to say there aren't hollow-point rifle bullets, but buyer beware—not all hollow-points are designed to expand.

Perhaps the best-known "hollow point" rifle bullet in the country is the Federal Premium Gold Medal .308, loaded with the Sierra MatchKing bullet. This is a very accurate bullet/cartridge and the runaway favorite of police snipers, but the hollow point in it is an artifact of the manufacturing process and is not designed to expand. Most BTHP bullets are the same, as are OTM (open tip match) bullets, which superficially resemble hollow points.

Rifle bullets are, to some extent, handicapped in design by their nose profile, but rifle cartridges offer something that pistol cartridges can't: velocity.

Pistol bullets need big hollow cavities that open upon impact, because they just don't have much velocity. Still some of them don't expand because pistol bullets travel at such relatively low velocities.

The MSR round includes a cannelure on the bullet to prevent rounds from unseating themselves while being subjected to recoil in a detachable magazine.

Rifle cartridges, on the other hand, often have velocity to spare, and engineers and bullet designers have spent decades designing non-hollow-point bullets that expand upon impact.

One tried-and-true bullet design that has worked for hundreds of years in rifles simply because of the velocity is the simple soft-point (SP) bullet.

Instead of the entire bullet being encapsulated by a copper jacket, a soft-point bullet features an exposed lead tip. Lead is softer than copper, so upon impact, the lead tip begins expanding and working the same way a hollow-point handgun bullet does in transferring energy to the target. The mushrooming of the lead tip also prevents (or at least reduces) over-penetration.

About twenty years ago, one of my friends (who was a cop) made a bulk purchase of Federal .223 Rem. 55-grain SPs (soft points) and sent me a couple hundred. Before I started writing for gun magazines I was much younger and closer to poor, so I was very happy to get that ammo, because I knew how effective it was.

The great thing about soft-point ammo in rifle cartridges is it works just about as well as the high-tech ammo with expanding bullets while being less expensive. It works for self-defense as well as hunting appropriately-sized game.

But traditional soft-point ammo isn't perfect. Because of that exposed tip, if you have to shoot through anything (like windshield glass if you're a cop) or your game is very thick-skinned, that copper jacket can peel away from the core, drastically reducing the effectiveness of the bullet.

A hardened primer means that the free-floating firing pin in the AR platform is in no danger of accidentally setting off a round.

Modern technology hasn't just improved firearms. It has improved ammunition as well, and perhaps the best example of that (and directly related to this discussion of soft-point ammo) is the Fusion MSR line from Federal Ammunition.

First, the MSR in the title. Several years ago, the National Shooting Sports Foundation coined the term "Modern Sporting Rifle" to describe a detachable magazine-fed semi-automatic rifles, such as the AR15 and AK47.

Federal's MSR line features cartridges specifically designed to fit and feed from MSR magazines. Not just that, but both the AR and AK platforms are gas-operated, and the MSR line is loaded with powders which provide the right pressure curve to reliably cycle those actions, something that isn't a concern when using a traditional bolt- or lever-action hunting rifle.

At first glance, the bullet loaded into the MSR line doesn't look like anything special—it has a narrow flat tip with exposed lead. Think of it as a modern product-improved soft point that provides performance near or equal to a premium bullet but at a lower cost.

First, the lead core is molecularly bonded with the copper jacket to prevent jacket separation after impact. The jacket is internally skived for consistent expansion at different distances/velocities.

It also features a cannelure to prevent bullet setback in those rounds bouncing back and forth in the magazine with every shot. The Fusion MSR round also uses a mil-spec primer to prevent slam-fires in AR platform rifles, which have free-floating firing pins.

ACCURACY RESULTS					
FEDERAL PREMIUM FUSION MSR .223					
.223 REMINGTON	Bullet Weight (gr.)	Muzzle Velocity (fps)	Standard Deviation	Extreme Spread	Average Group (in.)
FUSION MSR .223	62	2,712	26	61	1.47

NOTE: ACCURACY RESULTS ARE AVERAGES OF FOUR FIVE-SHOT GROUPS AT 100 YARDS FROM A SANDBAG REST. VELOCITIES ARE AVERAGES OF 10 SHOTS MEASURED WITH AN OEHLER MODEL 35P 12 FEET FROM THE MUZZLE. RIFLE USED: ALEXANDER ARMS INCURSION.

My first experience with Fusion MSR ammo was about three years ago during a hunting trip to Florida. I was carrying a Rock River Arms AR15 that, with this ammo, would consistently do one-inch groups at 100 yards. I

killed both a feral hog and an alligator with the 62-grain .223 Rem. Fusion MSR load, and both of them were one-shot kills.

The Federal Tactical Bonded round is considered THE go-to .223/5.56 round for law enforcement due to its ability to penetrate auto glass and car doors, but unfortunately it is not sold commercially. The Federal Trophy Bonded Tip in .223 Rem. is as close as we can get to the Tactical Bonded in the commercial market. It makes a great choice for a hunting round.

The Fusion MSR round in that caliber offers nearly the same performance at a fraction of the cost. Because of its bonded core and controlled expansion, this load is advertised as an ideal hunting load.

Specifically because of those properties, I think this also would be an ideal defensive load as well, especially if you wanted a round that could reliably penetrate intermediate barriers while still expanding.

Fusion MSR ammo is currently offered in four calibers: .223 Rem., .308 Win., .338 Federal and 6.8 SPC, all of which can be found chambered in AR-style rifles and are popular for hunting.

The .308 Win., in particular, is capable of taking any game on the North American continent.

Read more: http://www.gunsandammo.com/shoot101/choosing-ar-ammo/#ixzz4K9DmpI5C

http://www.gunsandammo.com/rifles/semi-auto-rifle/american-aug-steyr-aug-a3-review/?utm_source=newsletter&utm_medium=email&utm_campaign=editorial&utm_term=gunsandammo&utm_content=mainarticleurl

American AUG: Steyr AUG A3 Review

by Eric R. Poole | August 16th, 2016 | Photos by Sean Utley

Read more: http://www.gunsandammo.com/rifles/semi-auto-rifle/american-aug-steyr-aug-a3-review/#ixzz4K8z6mMtl

American AUG: Steyr AUG A3 Review

by Eric R. Poole | August 16th, 2016 | Photos by Sean Utley 0

Nearing 40 years in maturity and now built in the U.S., the Steyr AUG remains incredibly futuristic. Is America finally ready for a bullpup?

It shouldn't go unnoticed that Steyr celebrated its 150th anniversary in 2014. Named for the Austrian city in which the parent company was founded and is headquartered, Steyr has had several influential rifle and pistol designs since, perhaps none as famous and widely used as its "*Armee Universal Gewehr*," or AUG, translated as "Universal Army Rifle." (AUG is pronounced "A-U-G" rather than "*ogg*.")

Just 12 days shy of Steyr's official 150th birthday, Steyr Arms' CEO Scott O'Brien and Steyr-Mannlicher owner and CEO Dr. Ernst Reichmayr cut the ribbon and opened the doors to unveil a new 33,000-square-foot manufacturing headquarters in Bessemer, Ala.

As a point of record for collectors, Dr. Reichmayr presented the very first Steyr AUG A3 marked "Bessemer, AL" at this event to the city's mayor, Kenneth Gulley. (Surprised by the gift, Gulley seemed somewhat reluctant and uncomfortable accepting and being photographed or filmed with it, quickly handing it over to the city's chief of police. It was a bit comical to watch.)

The facility sports an impressive firearm gallery available to distributors, dealers and their customers who want to compare a wide range of models firsthand without having to maintain the expense of carrying custom-fit inventory. This facility was also designed to accommodate expected growth in domestic firearm manufacturing.

The AUG/A3 M1 is quick and easy to fieldstrip once you've done it a few times. Due to its generally clean operation, fieldstripping the AUG is more of a fun practice you do to impress friends who exclusively shoot AR-15s.

I was in attendance representing Guns & Ammo for this grand opening to learn what new products we could anticipate. It was there that I first learned about the new Steyr AUG/A3 M1, and during this visit, I was afforded the exclusive opportunity to join the assembly line and learn how the inner workings of a Steyr AUG came together. It just so happened that I was building one of the very first American-branded models for myself under the tutelage of Steyr's master gunsmith, Herbert Wohlmuth.

America's AUG

Though I could have opted for the traditional black, OD green or white stock options, I went with a new tan color Steyr calls "Mud." The process to assemble a Steyr AUG A3 M1 is assisted in part by proprietary fixtures and advanced pneumatic machinery. Assembling each and every little part only took me about 20 minutes, but

in that time I was able to appreciate the unique procedures and eye for quality control that go into these builds. The experience culminated in a testfire in Steyr's indoor range.

The new Steyr AUG/A3 blends the decades- proven features and classic ergonomics of the original Steyr AUG with functional enhancements and modern manufacturing techniques that weren't available when it was first conceived back in the early '70s.

Considering its modular bullpup configuration and heavy use of polymer and advanced alloys, the Steyr AUG was well ahead of its time when it was first adopted by the Austrian army in 1977. The Austrians refer to their AUG as the StG 77, which replaced the StG 58, a licensed FN FAL. It still carries the responsibilities of serving as the standard-issue rifle of the Austrian *Bundesheer* and that country's law enforcement.

The AUG/A3 M1 features a two-position finger-adjustable gas regulator, one for normal operation and another for adverse conditions such as extended suppressor use. Don't be surprised if you never use this feature, though.

The U.S. Customs Service — now U.S. Immigration and Customs Enforcement, also known as I.C.E. — used the AUG P from 1987 until 2007. The Steyr AUG even saw limited service in the hands of our FBI. Not long after a few AUGs found their way into the FBI armory at Quantico, a push for standardization of the U.S. military's M16 and M4 effectively swept through federal law enforcement and state agencies.

The Steyr AUG was originally a select-fire rifle that got its full-auto capabilities from a unique trigger pack that slides into the stock. Invented by Austrian Heinrich von Wimmersperg at the end of World War II, the Spz-kr-type progressive trigger is used on select-fire AUG models. The trigger works by pulling it halfway for semiauto fire or drawing it all the way rearward to engage automatic fire. No levers are present to manually select the mode of fire.

A short-stroke gas-piston system featuring two stainless steel guide rods operates the Steyr AUG. Only the right guide rod serves as the action rod, transmitting the rearward motion of the piston to the bolt carrier. The left-hand guide rod can be operated in conjunction with the forward-located charging handle to cycle the action.

During firing, this charging handle is nonreciprocating and can be used as a forward assist and bolt hold-open. The AUG/A3 also features a two-position gas regulator. The first setting is used for normal operation, and the second position is available for unusually fouled conditions.

The AUG's trigger pack is adequate. However, enthusiasts are hoping Geissele develops one like it did for the Israeli Tavor.

The Steyr AUG was always designed to fire from the closed bolt. This layout improves reliability by keeping burnt residue and airborne particles out of the chamber. The rotating bolt has seven radial locking lugs and contains a claw extractor that forms the eighth locking lug.

Heat behind the barrel is virtually nonexistent, meaning that parts last longer even if the AUG is subjected to sustained fire. Whereas Eugene Stoner's AR had a reputation for being filthy, the Steyr AUG seems to have been designed for an army that didn't like to spend its spare time cleaning rifles.

Adaptability was on the mind of Steyr engineers early on because the Steyr AUG A1 was designed to be a part of a larger family. In fact, what many AUG collectors find is that parts such as the select-fire trigger pack will

actually fit right into one of these newer AUG/A3s. Unlike a number of other firearms importers, Steyr has made a great effort to offer its U.S. customers a rifle that's held to the same spec as the ones produced for the world in Austria.

"There are only a handful of AUG parts to meet U.S. part count requirements," says Mike Nischalke, a U.S. representative for Steyr Arms. "Ninety percent of the AUG/A3 is made in Austria. Of the American-made parts on these rifles, two are the receiver and the barrel. The other parts are small pieces like the magazine floorplate, which has no functional purpose other than holding the magazine spring within."

The eight-lug AUG bolt assembly is reliable. An optional left-hand bolt can be ordered for an easy left-hand-eject conversion.

Sum of Its Parts

The AUG/A3 is the third generation of a bullpup-configured rifle initially developed for the 5.56 NATO cartridge with a 1:9-inch twist. Though the Steyr AUG/A3 is built using mostly Austrian pieces, most would agree that the American model is better than its predecessors.

Mechanically, the Steyr AUG still utilizes a short-stroke gas-piston system with dual gas-adjustment settings. This method of operation was far ahead of its time when it was first adopted for military use in 1977, especially when you compare it with individual carbines developed in the 1960s and '70s.

This model is still able to accept 30-round AUG magazines, but if you're hell bent on using M4 magazines because you managed to hoard a sizeable collection during the 2012/2013 gun-buying panic, Steyr offers

another stock that accepts STANAG magazines. Note that AUG magazines are also offered in 10- and 42-round capacities.

It's my opinion, however, that Steyr's translucent 30-round magazines (translucent before anyone thought to make magazines out of see-through polymer) are far better quality. The Steyr AUG mags enjoy a better reputation overseas for being the most reliable detachable mags built for a NATO rifle.

If, after several thousand rounds, you're concerned about giving the AUG a detailed cleaning, disassembling the bolt-carrier group isn't hard to figure out.

In part, this rep can be credited to the strong, yet elastic qualities of the polymer body and the rear lockup tabs, which help to keep the bullet nose properly oriented with the chamber's feed ramps. Long before space-age polymers were used in making AR-type magazines, the AUG mag's rigid polymer design could withstand more abuse than the aluminum-bodied mags currently fielded by most NATO countries.

With the ergonomics of the AUG/A1, universal fit and ambidexterity were common themes, but now the user can kick away brass by swapping out the bolt and removing and snapping an ejection port cover to the other side. Unfortunately, the aforementioned AUG/A3 stock that accepts AR-type magazines does not carry this ambidextrous highlight.

Range Time

Operating a Steyr AUG can be a bit awkward for Americans more familiar with AR-type platforms, but practice will reveal just how comfortable and user friendly the Steyr AUG is. The manual of arms is very different than other modern semiautos, but once mastered, the AUG's weight distribution to the rear makes it quick to snap on target and comfortable to shoot from any position. Unlike an AR, much of the weight is in the rear of the stock, so shooters often perceive that the AUG weighs less than it actually does.

Like earlier AUGs, the A3 M1 maintains the design's famous quick-change barrel and foldable forward grip. The 16-inch heavy barrels of earlier versions give the entire rifle an overall length of just 28.15 inches. This makes for a tight and potentially discreet, yet versatile carbine when you consider that the M4 at its shortest collapsed-stock length averages 29¾ inches. This is ideal for military and law enforcement, which are concerned with operating from vehicles and in tight quarters, or civilians who are continuously tweaking personal defense plans.

The quick-change barrel is standard with a 1:9-inch twist rate. Though it won't key-hole paper targets with heavier 75- or 77-grain bullets, the AUG does well with lighter bullets such as the 55- and 62-grain varieties.

Though the Steyr AUG presents such a short package, it somehow manages to keep sub-MOA accuracy. I don't quite understand it. When shooting the AUG, AR users are often mystified since the removable barrel isn't free floated. The barrel that accompanies each semiauto AUG/A3 is from FN. These FN barrels are cold-hammer forged on Austrian mandrels from Steyr using the same steel FN utilizes for its legendary machine guns.

At the range, I observed a preference for 62-grain loads. Even with military-grade ammo, the AUG/A3 had no problems printing five-shot groups from 100 yards into 1 inch or less. This has to be the most accurate nonfree-floated carbine in existence.

The AUG/A3 is awesome, but it does have a few flaws. For one, the crossbolt safety has four sharp corners that will eventually eat your finger's flesh if you like to engage and disengage the safety between strings. I contacted Steyr Arms to register my complaint, only to be told that I could take a file and knock off the sharp corners.

Second, the triggers on most bullpups suck when compared with most aftermarket AR triggers these days. In other bullpup rifles, this is usually due to a long transfer-bar system that has to manipulate a sear in a trigger pack that's closer to your shoulder than your trigger finger.

In the AUG, Steyr has told me that the rifle was actually designed with a heavier trigger intended to require more pressure for battlefield situations. Having fired an AUG that had in excess of 20,000 rounds through it, I can attest that these triggers do improve with use, but it seems like aftermarket trigger companies are missing an opportunity to make a lightweight option.

In addition to 10- and 30-round “waffle” mags, Steyr Arms offers this virtually indestructible design in a 42-round capacity.

On the AUG/A1 and AUG/A2, the limiting factor in a user’s ability to achieve pinpoint accuracy could have been the integral optic. It was formerly manufactured using Swarovski glass. It wasn’t terrible, but it did limit the Steyr AUG’s versatility.

The AUG/A3 M1 is new in that it offers a multi-configurable variant. The optic attachment platform is available in three different interchangeable options: one with a short rail, one with a high-rail and another with integrated optics, either a fixed 1.5X or 3X. The 1.5X optic incorporates a medium crosshair with an empty, heavy rangefinding circle, whereas the 3X optic carries a medium-crosshair, heavy circle with a thin internal crosshair.

Though the scope now features Picatinny rails running at 12 and 3 o'clock, when attached, the entire setup echoes the slant-back fixed-power profile everyone thinks back to on the original AUGs. The top rail has 15 numbered slots in two sections for adding other accessories, but it also works to protect both sides of the elevation adjustment knob from being knocked around. The same description applies to the windage dial on the right except that the side rails on the optic only have four slots.

PERFORMANCE

LOAD	WEIGHT (GRS.)	VELOCITY (FPS)	SD	ES	AVG. GROUP (IN.)	BEST GROUP (IN.)
Hornady TAP	55	2,737	18	72	1.20	.87
Hornady TAP Urban	60	2,787	30	81	1.01	.75
Lake City SS109	62	2,948	28	72	1.04	.57
Silver State Armory OTM	77	2,642	11	27	1.13	.69

The M1's 16-slot High-Rail and 11-slot Short-Rail options afford users the opportunity to use virtually any other type of optic or manage unnecessary rail estate. Either rail length or optic is user interchangeable if one consults the owner's manual for basic disassembly procedures. They are simply attached to the receiver from underneath and secured by three hex-head screws. (Applying removable Loctite is recommended for each set of threads before installing.)

Atop the front of the receiver is a socket cup ready to accept a quick-disconnect sling swivel like the one provided with the AUG/A3 M1. Combined with sockets at the rear on each side of the stock, this bullpup is easily slung for carry.

Still Futuristic

Zero malfunctions occurred when this rifle was function tested in Steyr's equally impressive indoor range. I'm told that if a Steyr AUG doesn't shoot sub-MOA out of the box, they simply don't ship it. That's a bold accuracy guarantee but one I certainly have experienced for myself. I've worked with a Steyr AUG/A3 for nearly two years and the AUG/A3 M1 Mud example seen here since I built it last April. This experience makes for the fourth time I've tested a Steyr AUG. My conclusion? It won't be my last.

G&A Editor Eric Poole was trained in building the new AUG/A3 M1 by Master Gunsmith Herbert Wohlmuth.

https://www.gunsamerica.com/blog/arbolt-gun-hybrid-mossbergs-mvp-lc-7-62-5-56-series-full-review/?utm_source=email&utm_medium=20160905_BlogDigest_188&utm_campaign=/blog/arbolt-gun-hybrid-mossbergs-mvp-lc-7-62-5-56-series-full-review/

Best Light Chassis Bolt/AR Hybrid is Made by ???? – Full Review.

by Ian Kenney on September 2, 2016

The Mossberg MVP-LC features an aluminum chassis that accepts AR-pattern parts, and the rifle feeds from AR-pattern magazines. The result is a uniquely capable tactical and/or precision rifle that can be had in 5.56 or 7.62 NATO chamberings.

To learn more, visit http://www.mossberg.com/.

To purchase on GunsAmerica.com, click this link: https://www.gunsamerica.com/Search.aspx?T=MVP%20LC.

It wasn't that long ago that Mossberg was best known for tough and dependable pump-action shotguns for hunting and tactical use. Eventually they started producing bolt-action hunting rifles and offered the MVP line of rifles, later expanding to include the MVP Long Range and Light Chassis rifles at the 2015 SHOT show that took the MVP line to a new level for those wanting to get into long-range shooting.

The Mossberg MVP-LC is offered in a 7.62/.308 version and can be bought as a package equipped with a Vortex optic. *Image courtesy of manufacturer.*

The MVP-LC is also offered in 5.56/.223. A folding bipod comes standard on both models. *Image courtesy of manufacturer.*

The Light Chassis series includes 5.56mm and 7.62mm variants that feed from AR-pattern, detachable magazines. That being said I have before me both the 5.56 and the 7.62 versions of their Light Chassis system, and I say system because it can be purchased as a package deal that includes a Vortex optic in addition to a Caldwell bipod that comes standard that helps make this rifle a very appealing turn-key option (you can also buy the rifles without the optic). I can honestly say this is the first rifle series in a long time that I was genuinely excited to shake out.

The rifle employs an aluminum chassis that makes it well-suited to not only long-range work but also tactical roles. *Image courtesy of manufacturer.*

SPECS (5.56 & 7.62)

- **Chambering:** 5.56mm NATO or 7.62mm NATO
- **Barrel:** 16.25 inches or 18.5 inches
- **OA Length:** 35.5 inches or 37.75 inches

- **Weight:** 10 pounds
- **Stock:** Aluminum light chassis
- **Sights:** Vortex Viper HS-T 4-16X
- **Action:** Bolt-action
- **Finish:** Matte blue
- **Capacity:** 10+1
- **MSRP:** $1,995 ($1,365, without optic)

Rifle Overview

At the heart of MVP-LC is Mossberg's MVP action that is based on the 4X4 action but designed to reliably strip rounds from a standard-pattern AR magazine (AR-15 for 5.56 and LR308/SR25 for the 7.62). The bolt body is fluted with a teardrop bolt knob that is easy to grasp for quick bolt manipulations, and the action employs a push-feed system. The barrel is chambered in 5.56 NATO with a twist rate of 1:7 inches or 7.62 NATO with a 1:10 rate of twist. In regards to the 5.56 NATO rate of twist, I think this is fantastic news for long-range shooters that want to push the heavier 75- and 77-grain bullets. The 5.56 NATO chamber also ensures that just about any .223 Remington and 5.56 NATO ammunition that can fit in the magazine can be safely fired from the rifle. The barrel contour of the rifles is also not as heavy as something like a Remington Varmint but also not as light as a standard Sporter contour barrel. At the end is a SilencerCo muzzle brake that can also be removed and replaced with a thread protector if you do not wish to have a muzzle brake on the rifle or need to use a direct thread-on suppressor.

The SilencerCo muzzle brake is standard equipment on the MVP-LC. If you do not wish to have a muzzle brake, it is easily removable and replaced with a thread protector.

There are some slight differences between the 5.56 and 7.62 models, but their basic configuration is just about the same. The action itself on the 7.62 version is similar to the 5.56 action, but it is larger and has a longer overall length, which shouldn't be that surprising considering the action has to handle the larger 7.62 round. The 7.62 action distinguishes itself from its little brother in the way the rounds are picked up from the magazine. Instead of using a steel flap like on the 5.56 bolt, the 7.62 has two small lugs on the bottom of the bolt that act in a similar way as the lugs on a 7.62mm AR bolt. These lugs move along two corresponding slots in the action and the feed ramp during the cycling process. You also get about two more inches of barrel on the 7.62 version compared to the 5.56 MVP LC, but it features the same SilencerCo muzzle brake for recoil reduction, albeit designed for .30-cal rifles. The 1:10 twist rate ensures that it can easily stabilize most common .308 Winchester ammunition.

The standard AR-15 magazine release and magazines of the 5.56 version means the shooter can count on a reliable and proven system.

The 7.62 MVP-LC feeds from LR308/SR25-pattern magazines and comes standard with a 10-round Magpul PMAG.

The MVP-LC is equipped with Mossberg's Lightning Bolt Trigger system that features a trigger blade that blocks the sear from releasing the firing pin until it is fully depressed. Some may look at this feature and see its similarities to Savage's trigger system, but I would say that the Mossberg trigger blade is not as pronounced, nor as finicky in my opinion. This safety feature means that the rifle is designed to not fire without the trigger blade and trigger being depressed. The trigger is user adjustable from two to seven pounds by turning a screw on the front of the trigger housing with a common flat-bladed screwdriver. I tried the 5.56 NATO rifle and found that the trigger consistently broke at about two pounds using my RCBS trigger pull gauge; not too bad for an off-the-shelf rifle.

The MOE grip provides a sure grip in any condition and the adjustable “Lightning” trigger came in a svelte 2-pound pull out of the box.

Mossberg’s main departure from their other rifles in the MVP line-up is the use of an aluminum chassis system that adds the modular capabilities of an AR-pattern rifle to a bolt-action rifle. The chassis is rollmarked Mossberg, but they are actually made by a company called Modular Driven Technologies that makes similar chassis for a variety of other rifle actions. The chassis is made from aircraft grade aluminum and finished in a Cerakote FDE color that is extremely chemical and wear resistant. The chassis comes furnished with a suite of Magpul accessories including a Magpul CTR collapsible stock with cheek riser on a buffer tube extension, Magpul MOE+ Grip and a Magpul 10-round PMAG. Since the chassis uses standard AR parts, many of these factory supplied parts can be easily swapped out at the user’s discretion.

The Magpul CTR stock and cheek riser are standard equipment on the MVP-LC.

As part of the complete Light Chassis system, Mossberg also supplies a Vortex Viper 4-16x44mm HS-T scope with the 5.56mm version as well as a Caldwell 6”-9” bipod on both base and package rifles. The scope has both a mil-based reticle and matching turrets, which tells me that Mossberg has been paying attention to the market and is including a scope that a shooter would actually want. The optic isn’t the best of the line-up, but it is a great scope for this application. It is easy to zero, it has a good magnification range for everything from hunting to target shooting, and the image quality is more than sufficient; in essence a great mid-level scope. Another

aspect of the scope is that it is backed by Vortex Optics' famous VIP warranty which basically states that if it breaks Vortex will fix it. It's hard to argue with that. Now, the bipod is not the best one on the market, but it is serviceable and I appreciated it had notched legs that were easy to adjust while still in position behind the rifle.

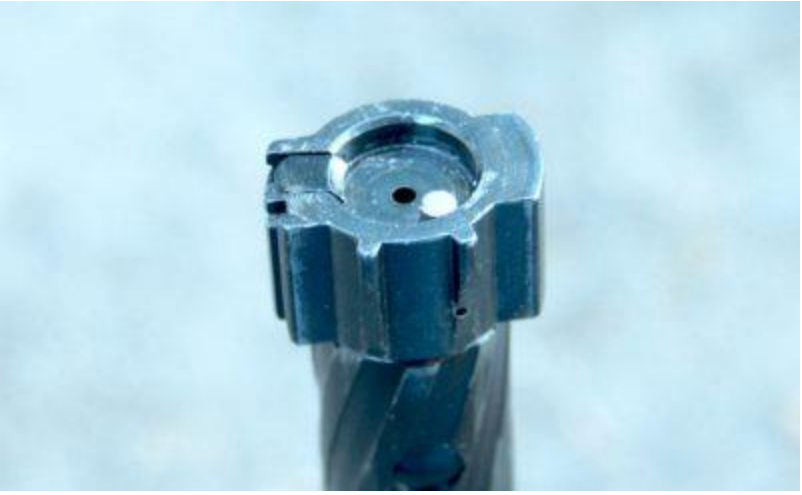
Devil's In The Details

While theoretically the MVP-LC is ready to shoot out of the box, I approached these rifles just as if I'd purchased them myself and brought them home for the first time. I took about an hour to check all of the fasteners, check the scope, and make sure that the rifles were functioning safely. I do this to mitigate any surprises I might encounter out on the range and make sure that my trip is as successful as possible. It's no fun to be chasing your tail and wasting your ammunition while trying to get a zero only to realize that your scope rings are loose. While I was disassembling the rifles, I did take note of a couple of interesting things when it came to assembly and function. None of the items are serious but just a few observations that one should be aware of when they get their own MVP Light Chassis rifle.

The two version of the MVP-LC are roughly comparable in size, with the 5.56 (front) featuring a slightly shorter barrel and action than the 7.62 (rear).

One of the first things that I noticed was that the fasteners did not appear to be torqued to any sort of common standard for action screws or optic fasteners. This is not to say that they were loose; in fact, every fastener that I inspected was more than tight enough to prevent recoil or shock from jarring them loose. However, I'm a stickler for specs, so I went ahead and loosened all of them up and torqued them to their respective manufacturer's recommended settings.

The unique MVP bolt head is designed to reliably strip rounds from a standard AR-15 magazine. The key is the steel flap that hangs down to catch the round, then pivots up in battery.



Instead of using a steel flap like on the 5.56 bolt, the 7.62 has two small lugs on the bottom of the bolt that act in a similar way as the lugs on a 7.62mm AR bolt.

Now, when it came to magazines things got a little more interesting but nothing that is really new to anyone familiar with using a detachable box magazine-fed rifle. I found the magazine well of the 5.56 chassis to be really tight with some magazines and perfectly smooth with some others. The supplied 10-round PMAG and Lancer 20-round magazines that I had fit just fine and worked perfectly. However, my aluminum 20-round magazines, my 30-round PMAGs and some of my aluminum GI magazines were very tight in the magazine well. The rifle fed from all of the magazines just fine, so functionality was 100%, you just had to really shove them in there. I also learned along the way that differences in magazine followers will determine if you can single feed rounds into the action or not. Both the Lancer and Magpul ten round magazines allowed me to single feed, but 30-round PMAGs would essentially lock the bolt back. On the 7.62mm model, I had no problems with the included 10-round Magpul PMAG, which fit cleanly and installed and removed easily.

Perfect the Enemy of the Good?

The clear, crisp optics, comfortable chassis system, and highly effective muzzle brake made for a very soft shooting rifle that was no trouble at all from the bench.

After learning the little ins and outs of these rifles, I was ready to head out to the range to start putting them through their paces. I tried to select a variety of ammunition that would highlight the rifle's abilities as not only a long-range target rifle but also as an effective varmint rifle as well. Amongst the five different types of ammunition that I had to shoot, I used Federal's 69-grain Gold Medal Match, Hornady's 75-grain Match and Hornady's 55-grain Z-Max ammunition. For the 7.62mm, I used some 175-grain Match ammunition I had on hand from Southwest Ammo. All zeroing was performed at 100 yards from a bench with a bipod on the front and a simple rear bag rest; no lead sleds or benchrest set ups here. I used the same Vortex scope on both rifles.

I will get to the results a little farther down but I'm not going to mince words: If you are looking for a ½ MOA precision rifle, this may not be the one for you. However, if you are looking for a versatile and accurate rifle that's quite capable out to extended ranges then, by all means, please continue reading. In the interest of my treating these like they were any one of my other rifles, I gathered my ammunition, my targets, and chronograph to head to the range to get a zero at 100 yards.

The simple but effective mil-based reticle in the Vortex Viper HS-T is perfect for those learning how to use mils for the first time.

As I had a lot more .223 ammo on hand, I started out with the 5.56 rifle. During this first range trip I came to an interesting observation; despite the 1:7 twist of the 5.56mm, which should have favored the heavier match ammunition, that rifle seemed to prefer lighter bullets. That range visit the Federal Gold Medal Match tied the Hornady Z-Max for accuracy, but it was probably the most consistent ammunition out of the bunch. I went back to the range a second time to see if I could improve on the groups at 100 yards using the Federal and Hornady ammunition. The Federal Gold Medal Match shot the best, which basically confirmed for me that the rifle loves this ammunition. I improved the group size from previously with the Hornady 75-grain Match and the group for the Hornady 55-grain Z-Max basically stayed the same. With Federal Gold Medal Match, I'd say that the 5.56mm rifle will do 1 MOA on a consistent basis, otherwise the rifle is solid 1.5 MOA rifle. I don't think that's necessarily horrible, perhaps a little larger than I'm used to but I also recognize that some 100-yard groups don't tell the whole story of whether or not a rifle is any good.

With the 7.62mm, the best five shot group of the Southwest Ammo at 100 yards measured 1.68″ overall, even though four of the five were within less than 1″ of each other. I believe that with a little more time behind the gun and some other bullet weights the groups could shrink more. The muzzle velocity was measured with a MagnetoSpeed Sporter chronograph at 2,539 fps, and that's pretty respectable for a short-barrel .308.

Ammunition	Muzzle Velocity	Best 5 Shot Group	Average Group Size
.223 Southwest Ammunition 77gr Match	2,584 fps	1.44 inches	1.65 inches
.223 Hornady 75 gr Match	2,565 fps	1.28 inches	1.36 inches
.223 Federal 69 gr GMM	2,683 fps	.74 inches	1.00 inches
.223 Hornady 55 gr Z-Max	2,828 fps	.88 inches	1.30 inches
.308 Southwest Ammunition 175gr Match	2,539 fps	1.68 inches	N/A

Muzzle velocities were taken from shooting five rounds of each type of ammunition. Average group size was determined by shooting four 5-shot groups of each type of ammunition.

I can be ok with a rifle not shooting 1/2 MOA groups at 100 yards, but if it can't hit practical sized-targets at range then I have no use for it. Moving on from 100 yards with the 5.56 I shifted to the 200 and 300-yard steel targets and I feel that this is where the 5.56mm rifle really started to grow on me. In this instance, the most practically sized targets at 200 and 300 yards were about four to six inches wide, the other ones were about 18-inches wide, which I'm pretty sure I could've hit with my eyes closed. Between the Federal and Hornady ammunition, each one of them was capable of stacking the rounds on top of one another until there was just one big black spot on the target. It

was not possible for me to go downrange and get accurate group size measurements, but by using the reticle I could deduce that they were hovering right around a 1 – 1.5 MOA group size. Taking out some errant clay birds laying on the back of the 300-yard berm was also no large feat and in what seemed like no time I had cleared the berm. I was able to shoot the rifle at 600 yards where the rifle had no trouble shooting the 12-inch hanging plates or the IPSC target. When I moved to the 7.62mm at these ranges, it didn't really reveal any surprises on steel; any misses were my fault while I was trying to work out my drops. That .308 hit with authority though, ringing the steel like music to my ears.

I did a quick ballistic comparison of the bullet drops for both rifles out to 600 yards as shown in the chart above. What I found interesting is that even at 600 yards the bullet drops are within 2″ of each other, despite the caliber and bullet difference. Granted, the .308 is going to pack more of a punch at any of the listed ranges because as we know there is no replacement for displacement. In terms of just punching paper or clanging steel though, a quick .223 can run neck and neck with a relatively slow .308.

Bullet Drop Comparison						
Range (Yards)	**100**	**200**	**300**	**400**	**500**	**600**
MVP LC .223 (69gr SMK @ 2,683 fps)	Zero	0.5 mil	1.4 mil	2.4 mil	3.7 mil	5.2 mil
MPV LC .308 (175 gr SMK @ 2,539 fps)	Zero	0.6 mil	1.4 mil	2.5 mil	3.6 mil	4.9 mil
Bullet drops calculated using JBM Ballistics from muzzle velocities previously obtained during the testing of both rifles. Information displayed in mils to correspond with the supplied Vortex optics.						

I enjoyed my time with both rifles because they were fun, accurate, and packed with features that I think add real value to the consumer. I believe these rifles could fill a niche in just about any category from hunting to target shooting to law enforcement use. In fact, in the process of testing these rifles, I gained a better appreciation for how the rifle is built, its components, and also the rifle's capabilities and limitations. I'm sure some people would look at this rifle and the MSRP and balk at the seemingly high cost, but I think if you step back and see what you're getting for that money, it's really not that bad. Plus, if you shop around I know you can find this rifle package for well under the MSRP. At the end of the day, the Mossberg MVP Light Chassis is an accurate and reliable rifle that is a good choice for the field and the range to go after whatever target may be in front of you.

To learn more, visit http://www.mossberg.com/.

https://www.gunsamerica.com/blog/gunsafes-snap-safe-take-apart-gunsafe-review/?utm_source=email&utm_medium=20160905_BlogDigest_188&utm_campaign=/blog/gunsafes-snap-safe-take-apart-gunsafe-review/

he Snap Safe Take Apart Gunsafe – Finally an Answer to the Secret Gun Safe (and for those of us who live upstairs!)

by Paul Helinski on September 4, 2016

Snap Safe
Snap Safe Titan – $1148 Shipped

In a perfect world we all have enough secure storage for all of our guns, and not only do our homes offer us ample space for giant safes, those safes also magically appear with no conspicuous delivery and team of installers. For the real world, there is the bolt together, take apart Snap Safe. It still arrives by truck freight, but the box does not resemble a safe, and you can take the pieces in one by one, inconspicuously, up the stairs, whatever, without advertising your safe to the neighborhood.

My test safe is the smallest model, called the Titan ($1,148 Shipped). As you'll see in the video, it fits 12 long guns and has some top storage for ammo and handguns, or there is an alternate interior that fits 6 long guns and some smaller storage shelves. All of the Snap Safes are rated at 2300 degrees for one hour, and they are made of 9 gauge steel. You can order either an electronic or mechanical lock, and the door is 3/16ths solid steel, with real bolts holding the safe closed. I don't see any disadvantage to the Snap Safe as compared to a welded safe, and I would challenge anyone to get into it with a sledge hammer and pry bar.

As of this writing there are now Snap Safes all the way up to 56 long guns ($2,499 Shipped), so no matter the size of your gun accumulation, no matter where you live or what floor you live on, it is now possible for you to own a truly robust and high quality, fire-rated gun safe.

It took me about an hour to put together the Snap Safe Titan you see in the video. As with any push together box, you have to kind of angle the parts together, catch the bolts, then tighten everything up. It's fairly simple, and the parts are clearly labeled as to direction and location. The safe comes with all of the hardware in a nice plastic box, along with a half inch ratchet and socket to do the actual assembly.

The directions say to assemble the safe laying down, but I had space issues so put it together standing up. Perhaps it would have been easier had I followed the instructions, but it wasn't hard anyway, so eh. Getting the door back into its drop in hinges was probably the most taxing part of the job, and a second set of hands would have made that a lot easier. I did want to show you that it is pretty easy to do with one person.

It looks to me like the larger sizes of the Snap Safe use the same door, and the same sides. The door panel, back panel, and top and bottom are larger, but the door, the heaviest part, is still the same weight as the one you see here, so it is manageable by one person. To me that is an important distinction, and I'm sure why they designed it like that.

As I took delivery of the Snap Safe and unboxed it, put it together, and tested the function, I asked myself along the way if there was any downside to the design, as opposed to a welded safe. The only thing I could find was the lock mechanism. As you can see in the video, the control pad of the electronic lock pops right off of the front of the safe. There is a spin lock you can get instead, but the dial on the spin lock is also plastic. If someone

came at the safe trying to hammer it open, either of the locks will smash handily. Then you are the one who will have to break into your own safe, and I don't think that will be particularly easy.

Therefore, my best answer is the purchase the safe with the electronic lock, unlike what I said in the video, and when you go away, remove the electronic lock from the front and tuck the cord inside the hole. You could take the handles off of the bolt mechanism too, and let them try to figure out how to get into the box without any external controls.

Other than that, I just can't find a deal killer on the Snap Safe versus a standard welded safe, regardless of whether you live on the first floor or the fifth. We would all prefer a more discreet delivery option. We all would prefer to not have 4 guys in our homes rolling the safe towards its berth on wooden dowels. And we would all prefer to not have our neighbors see the truck that says Joe's Lock and Safe delivering the thing to our door. Let them think your safe is a go cart kit for your kids that you never got around to building. I think the Snap Safe is the answer that many of us have been hoping to find for a very long time. I wish I had invented it first.

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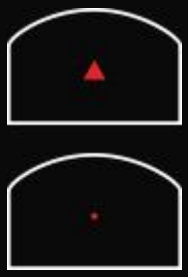

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Long-Range Zombie Kill Tactics—Using Mil-Dots To Survive The Apocalypse!

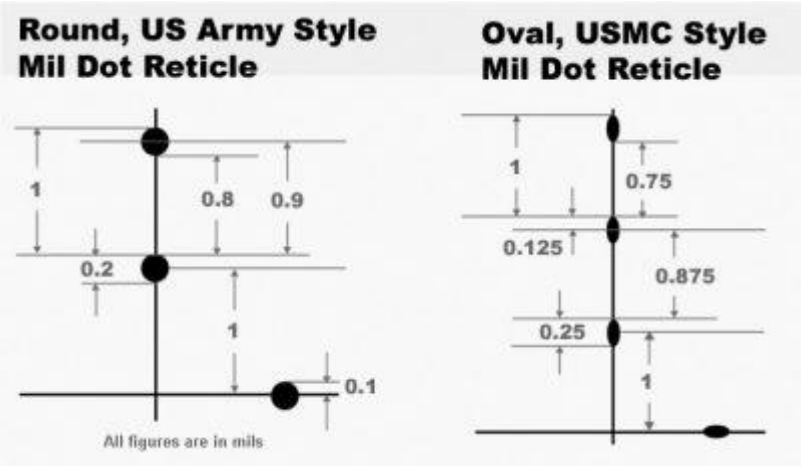
by Ian Kenney on September 8, 2016

For more information or to purchase a Mil-dot Master, visit: mildot.com.

For data book sources visit: ustacticalsupply.com or impactdatabooks.com.

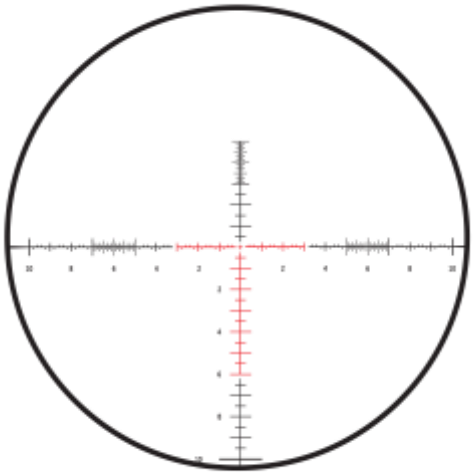
In the film *28 Weeks Later*, the main character was forced to rapidly engage multiple targets from an elevated position. Image *courtesy 20th Century Fox.*

In the movie *28 Weeks Later*, Jeremy Renner's character plays an Army sniper that is in the midst of a population of persons infected with a deadly rage virus. In one scene, he has to engage multiple targets from an elevated position. Of course, the whole situation turns bad as things often do in those types of movies, but it brought up an interesting thought. In the fictional scenario that played out, probably the safest way to neutralize the infected would be from long range before they have a chance to get too close. What isn't shown, like in many movies depicting a sniper, is the work that has to happen before the shot is taken. While it's no doubt not exciting enough to make it into scenes that have long range shooting, finding the range to a target is a vital component in being able to hit a long distance target. I plan to shed some light on that process for you here.



It's vital that you know and understand the different subtensions on the reticle. Not knowing can lead to gross ranging errors and missed shots.

I'm sure some of you are saying, "Why not just use a laser rangefinder (to learn more about these, take a look this article at https://www.gunsamerica.com/blog/optics-buying-guide-using-laser-rangefinding-scope/), we're in the 21st century after all?" It's true that technology has brought long range shooting a long way to make things faster and more efficient for the shooter, especially within the last decade. In the field of laser rangefinders we once had these large, semi-reliable units that have given way to smaller, more efficient units that can go out to a mile. However, laser rangefinders are still not perfect and there are situations where they will not work properly due to lighting or the nature of the target. In those situations where it becomes necessary to use alternative means to obtain an accurate range to the target, one of the more common methods is to use the reticle inside the riflescope. Mil-dot and other mil-based reticles have been used for years by military and other professional shooters around the globe to not only range a target but also work out hold-over corrections for bullet trajectory. Despite the proliferation of technology into nearly all aspects of shooting, this relatively old school skill is still taught at sniper schools. It's also a skill that can serve shooters in other disciplines as well.



The Burris SCR Mil reticle is a good example of an enhanced mil-based reticle.

I'm only going to focus on mils, instead of MOA (to learn more about both types, take a look at this article at https://www.gunsamerica.com/blog/optics-buying-guide-scope-reticles/), because in the movie the shooters were military snipers and mil-dot and mil-based reticles are pretty much the standard in issued optics. The other reason is that mil-based reticles are also more consistent from manufacturer to manufacturer than MOA reticles so there is less chance for confusion or miscalculation. Nearly all modern mil reticles are based on the 6,283 milliradian in a 360° circle specification. This means that you can count on the distance between dots and hash marks being 1 mil, whether it comes from Brand X or Brand Y.

While I hope I haven't thoroughly confused you yet, allow me to explain what exactly a mil is and what it isn't. A mil is actually short hand for milliradian, a unit of measure that is used to derive angles from a circle. I have already briefly mentioned that in a 360° circle there are 6,283 milliradian. Just one milliradian covers a linear distance of 3.6 inches at 100 yards, which grows to cover 36 inches at 1,000 yards. If you are used to the metric system, then one milliradian extends 10 centimeters at 100 meters and 1 meter at 1,000 meters, but it's important to understand that milliradian are not metric. There has been some confusion in the past from those that believe milliradian are metric and therefore in order to use them you have to convert everything to meters. That is simply not the case; milliradian adjustments work just fine for targets that are in inches and yards.

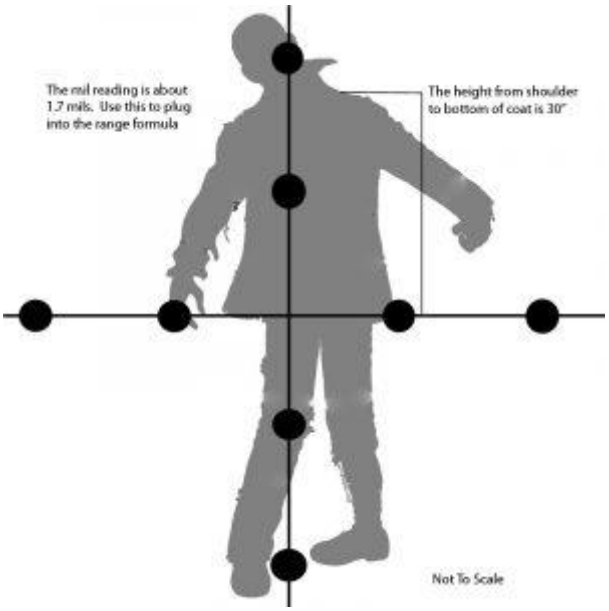
First focal plane optics can be used for ranging at any power setting. Although the reticle is hard to make out on lower settings, it remains the best all around option for tactical use.

There was a time when you only had a few options for a mil reticle but that is pretty much no longer the case as manufacturers now offer a wide variety of mil reticle designs. There are too many of them to list here, but I break mil reticles down into two categories: Basic mil-dot reticles and enhanced mil-based reticles. The basic mil-dot category is pretty self-explanatory and covers those reticles that are simply evenly spaced dots along the vertical and horizontal portions of the reticle. This design dates back to the 1970s when the USMC first adopted a mil-dot reticle in their Unertl 10X riflescopes used on the M40A1. While some people find them to be somewhat obsolete based on current designs, it is still just as effective today as it was years ago. I use a scope with a mil-dot reticle on my designated marksman rifle because I like the simplicity of it and it stands out better against cluttered backgrounds. Enhanced mil-based reticles have essentially become standard options since they include hash marks and other features that make hold over and ranging faster and easier.

When It Counts

The t-shirt in this image is 30 inches tall and 20 inches wide. Use the ranging grid to get an accurate mil reading. How far away is it? Answer is at the end of the article.

Using a mil-dot or other mil-based reticle to range a target isn't really that different from using a ruler to measure something. There are some things that you need to be aware of though before you get started. The most important thing to know when using the reticle to range a target is the actual size of the target, preferably in inches. Let's roll back to the movie *28 Weeks Later* again and pretend the Army sniper had ranged the infected people before he actually started engaging them. Hypothetically he could've ranged nearby objects; however, pressed for time he went with average torso dimensions. Now, the infected aren't zombies per se because they are not reanimated dead tissue, they are just regular folks that had a run of bad luck and had gone on an enraged killing spree. Luckily that means that hits to the torso and vital organs are still going to be effective at neutralizing them (and not requiring head shots as in the Romero-inspired zombie movies). Using the dimensions of an infected adult isn't ideal because they can vary in size, which can throw off the chances for a precise range estimate. However, the infected are comparatively large targets so he could be a little off on his mil reading for a 20-inch shoulder width or 36-inch height from waist to top of head and still get a good hit. This is also why it helps to have more than one dimension to go off of so that you can use it to cross-reference the other mil reading and verify the distance. Most data books have a section or two that list various target dimensions or allow you to fill in the dimensions for various targets you might encounter.



It's essential to know the sizes of objects that you're ranging. Plug 30 in. and 1.7 mils into the formula to get a range of 490 yards.

Aside from knowing the target's dimensions, the next most important things to know are the reticle's subtensions and how to accurately break it down into tenths of a mil. If you know the size of the various parts of the reticle in mils you can use those to get an accurate mil reading and minimize errors that could provide you a false distance. This is why enhanced mil-based reticles have become standard in many manufacturer's scopes, because they provide easy-to-see stadia lines that can provide a mil reading to the tenth mil or better. Most manufacturers today have downloadable pages on their websites that show all of the various subtensions of the reticle in great detail. It's advisable to print these off and keep a copy tucked away in your data book or field notebook.

So you know your target dimensions, you're familiar with the reticle and you have a reading for both the height and width of the target. You now have to convert that into some kind of distance. There are a few different methods that you can use, any one of which can be easily stored in a pocket or data book. The first method is to use a calculator to plug in the target size and mil reading to come up with the distance. This method is probably the most accurate but it is also slower; not good if you're say facing down a horde of crazies. There are actually

two formulas, one for if you are calculating the distance in yards and the other if you are calculating the distance in meters. They go like this:

Range in **Yards**	(27.8 X Target Dimension in Inches) ÷ Mil Reading = Range
Range in **Meters**	(25.4 X Target Dimension in Inches) ÷ Mil Reading = Range

Understand that there are a couple of other formulas that you can use to that are similar to the above two. However, I prefer these. One of the alternate formulas requires the target dimension to be input in yards; quick, what's 8 inches in yards? Exactly. Yet another one uses target dimensions in centimeters instead of inches. Here in the United States we're used to seeing things in inches, so I feel like it's more natural to use the above formulas. It's also the way I was taught in the Army.

Second focal plane reticles require the magnification to be set to the right power in order to range, in this case, 10X. At any other power setting, there will be errors.

A little trick that was taught to me was to record the constants for some of the more common targets if you plan to use the reticle to range often. The constant is obtained when you multiple either 27.8 or 25.4 by the size of the target in inches. This will cut down on the number of steps you have to take to get a range and is therefore faster.

Example: 27.8 X 12" = 333.6 (Constant) → 333.6 / .6 mils =

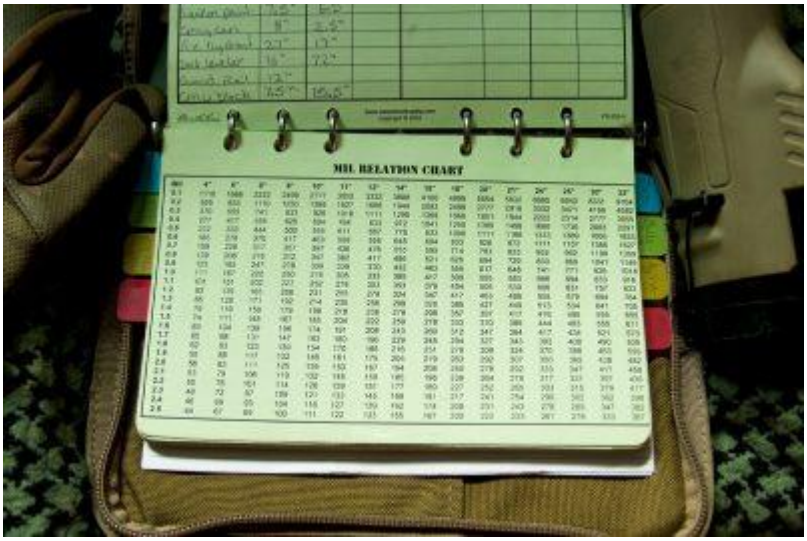
If you don't have a calculator or it suffered an untimely demise you can use a product called a Mil-Dot Master. I was issued these when I was in the Army and it's an analog slide rule that allows you to quickly calculate the range to a target in both yards and meters. It took a little getting used to for me but after that I found that I could quickly line up the target size with the proper mil reading to have a range in just seconds. Finally, you can use what is called a mil relation chart that is in some ways like a multiplication table for target sizes and mil readings. It's a fast, down, and dirty way to figure out a range to the target, but it's not without its limitations. To use it you find the target size along the top of the chart and the mil reading you got for that target. Trace your finger over to where they intersect and you'll have the distance to the target. The main drawback to this method though is that if the target size isn't listed you won't be able to get an accurate range estimate.

Devil’s In The Details

The Mildot Master has been issued to US forces for over a decade. Its simplicity and accuracy allow you to range long-distance targets without a calculator.

There are a few things that have to be taken into account when you are using the reticle to range a distant target, otherwise you could likely come up with an inaccurate estimate. The first is you have to be sure that the scope’s magnification is set to the proper power setting. This is especially the case with second focal plane optics because the reticle’s subtensions are only accurate at one power setting. This is not a problem for first focal plane optics because the reticle will be correct regardless of the magnification setting. In hot climates, beware of mirage that can obscure the edges of the target and make it hard to get an edge-to-edge reading. In very bright light, this same issue can manifest itself if the target is very light in color, causing it to almost wash out.

One way to work around both of those issues is to lower the magnification setting. However, also be aware of any additional conversions you have to make if you use a second focal plane optic. If you go to the halfway point in the power range, 1 mil becomes 2 mil and so forth so you’d have to cut your mil reading by half to be accurate. The shooter must also consider the target’s orientation to the shooter. If the target is not facing the shooter squarely it is going to skew the mil reading and provide inconsistent results. If the target is angled to the side, try to focus on getting a good mil reading of the height. If it is angled down or away from you, you should focus on getting a good reading of the width.



Mil relation charts are an excellent way to get a range quickly if time is a factor. I keep this one in my data book at all times.

All of this is essentially to get to a point where you can put your finger on a dope chart to work out what elevation and windage data you need to use to hit the target. I promise that in real life it goes much faster once you have a working knowledge of how to use the reticle. Practicing as much as you can pays off in maintaining this perishable skill. There are various methods that you can use, but the online game ShooterReady is a fantastic way to get started on learning the ins and outs. At the range, you can practice on reduced-scale targets to work on breaking down the reticle and getting a range using one of the methods above. While it may not seem like a critical skill it is one that can be useful one day when the batteries run out and you need to defend yourself or put meat on the table. Or, if you are ever facing that horde of rage-induced zombies!

Answer to ranging question in the photo: *The distance to the target is 430 yards, confirmed with a Leica 1200CRF. If your range estimate is within 5% of that you are good to go.*

For more information or to purchase a Mil-dot Master, visit: mildot.com.

For data book sources visit: ustacticalsupply.com or impactdatabooks.com.

Thomas Jefferson wrote that "A bill of rights is what the people are entitled to against every government on earth, general or particular, and what no just government should refuse."

Thank you,
Paul Curtis
President - CARGO
www.cargogunclub.org
"If you can read this, thank a teacher. For the fact that it is in English, thank a Veteran."