

## CONTENTS

JANUARY 2022 | VOLUME 39 ISSUE 01

#### **DEPARTMENTS**

- 6 First Shot
- 8 Know Your Cartridge

#### **COLUMNS**

- 10 Defensive Handgunning RICHARD MANN
- 14 Drawing Conclusions MARTY HAYES, J.D.
- 18 Reloading Bench PHIL MASSARO
- **20** Guns & Gear gd editors
- **98** Testfire GD EDITORS

#### **FEATURES**

- The Vudoo Three60 Rimfire: Technology that replaces 'plinking' with 'precision' for the dusty ol' .22 LR.
  - MICHAEL R. SHEA
- Lineage of the Royal Family: A history of the .22-caliber rimfire cartridges ... including some you've never heard of.

  PHIL MASSARO
- 42 Reduced-Caliber Rifle, Full-Caliber Training: Testing the AR-15 rimfire for plinking and training when .223 ammo is nonexistent.
- 76 Shaping Your Future: 10 Top rimfire rifles for youth shooters.

  JOSH WAYNER
- Usurping the King: Can the .224 Valkyrie replace the 5.56 NATO?

  JOSH WAYNER
- 92 America's Rifle: It's got a pile of different names, but there's only one AR-15.

  STEVEN KUO

#### THE BEST GUN LIST IN PRINT

- 51 Show & Auction Listings
- **60** The Gun Digest Marketplace







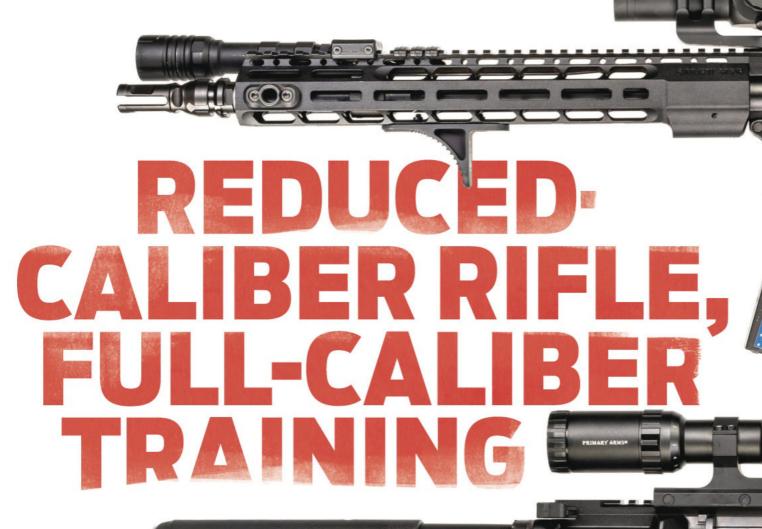








Gun Digest the Magazine (ISSN 1938-5943) is published monthly by Caribou Media dba Gun Digest Media, LLC. Corporate Headquarters is 5600 W. Grande Market Dr., Suite 100, Appleton, WI 54913. Periodicals postage paid at Appleton, WI 54913 and at additional mailing offices. POSTMASTER: Send address changes to Gun Digest the Magazine, P.O. Box 460220, Escondido, CA 92046. Copyright © 2022 Gun Digest Media. GUN DIGEST THE MAGAZINE and its logo are registered trademarks. Other names and logos referred to or displayed in editorial or advertising content may be trademarked or copyrighted. The publisher and advertisers are not liable for typographical errors that may appear in prices or descriptions in advertisements.







Before we get into the things that a rimfire AR-15 excels at, they're less than ideal for some applications. If you're

Optics that match, like this pair from Primary Arms with similar reticles, ensure that skill built with the rimfire AR translate well to your fighting rifle. recreational plinking only touches on the value of low-cost trigger pulls, or more appropriately, the value of lowcost reps.

your mind is cheap plinking at the range

with friends or family. While that's an

entirely valid use for a rimfire AR-15,

Yes, the cheap target practice angle has been talked about ad nauseam thanks to the ammunition shortages brought on by moments of civil unrest and the unknowns presented by COVID-19. That doesn't make it any less valid. Beyond bringing that ammo bill down, the rimfire AR-15 makes a

working on recoil management, obviously the .22 LR isn't going to give you anywhere near the same recoil impulse that a fighting-caliber rifle will. Another byproduct of stepping down in caliber is your holds at distance aren't going to be anywhere near the same.

There are a few less-than-obvious gun-handling skills that don't translate to a rimfire AR too well, either. One of those is malfunctions due to how different the action of a .22 LR AR is when compared to a fighting-caliber rifle.



Since most don't practice malfunction clearing (an essential skill, in my opinion), you're more likely to notice that reloading a .22LR AR isn't the same as a regular AR. There are a couple reasons for that, but it really comes down to the funky-shaped magazines that are required to get the tiny rimmed cartridges to feed reliably. The ½-inch tower that sticks above where the mag feedlots would've been also means that the mags don't sit in mag pouches the same ... and that could build a bad habit.

**RIFLE OPTIONS** 

Truthfully, the rimfire AR is the least interesting part about using a reduced-caliber copy of your fighting rifle. I know that's heresy, but the purpose of this article is to make you a better shooter.

So, let me get throw this opinion on the table right away as well: Conversion kits kinda ... suck. If that's what you have or what you can afford, you do you—but I won't run one in my rifle.

There are two reasons for this, the least of which being that conversion kits often produce terrible accuracy. The biggest reason is that .22 LR bullets leave behind a ton of lead. That lead builds up and *can* cause the bore to become constricted to the point that, when switching back to 5.56 NATO, might result in a *kaboom* rather than a *bang*. After being behind a couple AR-15s that have exploded, the idea of a heavily leaded

While a .22 LR conversion is enticing, lead buildup in the barrel and mediocre accuracy make it a less than ideal option.



5.56 bore after using a conversion kit scares me.

I'm 100 percent of the opinion that you should either have a dedicated .22 LR upper, or even a complete .22 LR rifle. You can do that on the cheap with something like a Smith & Wesson M&P 15-22 or the Heckler & Koch HK 416 in .22 LR. If you want something that more closely resembles your fighting rifle, either buying a complete CMMG rifle chambered in .22 LR, or using their barrel and bolt to clone your upper, is the only route.

Since my go-to rifle has become the 13.7-inch Sons of Liberty Gun Works M4-76 I reviewed last year, I decided to clone that rifle exactly to include the weapon-mounted light, Geissele trigger and even the pinned and welded muzzle device. As long as you put the time in on the range working the skills we talked about, the .22 LR clone of your rifle will pay off in skill before you know it.

46 GUN DIGEST THE MAGAZINE JANUARY 2022

### REPS. REPS. AND MORE REPS.

Basic marksmanship aside, a rimfire AR-15 really shines when working on core shooting mechanics that aren't worked on near enough by most shooters. Concepts like knowing how to hold off the intended target when the rifle is canted or height over bore are rarely talked about, much less practiced.

Another weak point with many shooters is positional shooting, specifically the use of a sling. While these skills are talked about here and there, in all the time I've been shooting seriously, I can count on one hand the number of times I've seen them practiced at public ranges.

The way to become a better shooter is through repetitions, and getting your reps in with a rifle that costs 6 cents per trigger press is much more budget friendly than a fighting rifle's 60 cent per trigger press (current ammo shortage disasters notwithstanding). You could dry-fire, but without the feedback of a

hole in the paper, it can be easy to allow yourself to get sloppy.

#### **SIMPLE DRILLS**

One of the more challenging simple manipulations for folks is going from a high or low ready to sending a well-aimed shot. Since the mechanics are the same on a rimfire AR as they are on a fighting-caliber AR, "up" drills are a good place to start.

Pick a distance, get a shot timer and set it for random start. Work on the act of getting the rifle on target and landing a good hit as quick as you safely can.

Another great skill to practice with a rimfire AR-15 is basic positional shooting. It might not be as sexy as doing tactical barrel rolls, but a good understanding of positional shooting is likely to benefit you far more.

Building on that positional shooting, incorporating on ways to use a sling in multiple positions is another great use of a rimfire AR-15. Here's one of my favorites:

GUNDIGEST.COM

In order to make this work, you need a two-position sling on the buttstock and handguard. When the rifle is slung, rotate the magazine outward and hook

Since the flight path of the 22 LR varies from the 5.56 NATO pretty drastically, a scope like this Primary Arms SLX.1-6 with the ACSS-22LR reticle is ideal.



shot, isn't something that requires a fullcaliber rifle to work on.

**Barrel Races:** Set up two barrels at the 10-, 25- and 50-yard line with them stacked on top of each other to create a barricade. The targets will go on the right and left side of the line of barrels. Start with a full magazine and 60 seconds on the timer. At the beep, engage target 1 with a shot, move to the other side of the barrel and engage target 2. Once you have two hits, sprint to position 2 at the 25-yard line and repeat. The drill is over when you're out of ammo or 60 seconds has elapsed.

Stop and Go: Along the 50-yard line, space out cones with at least 10 yards in between the cones. With a full mag in your rifle and 60 seconds on your shot timer, engage a single target and sprint to the next position. Continue till you're out of ammo, bounding between the cones till the 60-second time is up.

*Terrible T:* Place three cones on the 40-yard line with 10 yards between each cone. The fourth cone goes to the 50yard line behind the center cone. Load your rifle with a full magazine and take a shot from the 50-yard cone, then sprint to one of the 40-yard cones and take a shot. Bound between one of the 40-yard positions and the 50-yard position until you have good hits from every position. Only one shot per position is allowed; if you miss, you must make it up after moving to the next position.

of where you intended. Practicing this is the only way to fully understand how

At only \$219 MSRP.

the Mantis Black-

beard offers many of the benefits of

a dedicated .22 LR

rifle at a fraction of the cost.

isn't in the budget

Mantis Blackbeard is a great stepping

right now, the

your sling, then rotate it back. As you shoulder the rifle, you'll feel the sling tighten, and you can add more tension with your sling adjustment to stabilize the rifle more as needed.

Also, understanding the effect of canting the rifle at all angles is a must if you're actually relying on your rifle for defensive or offensive purposes. If you hold your fighting rifle canted at 90 degrees to the ground, the bullet is likely going to impact to the left or right

#### **MOVEMENT DRILLS**

you and your rifle must react.

When was the last time that you practiced moving and shooting? I'm not talking about walking while you shoot; I'm talking about real "get your ass to cover so you don't get kilt" kinda movement. Drilling, the concept of sprinting to a position and taking a well-aimed

#### **DO THE WORK**

At the end of the day, unless you're willing to put the work in with your rimfire AR, it's just another gun in the safe. Guns are cool and shooting is fun, but there's something magical in

# Even a dedicated .22 LR upper is a great training tool for new shooters of all ages.

## FIGHTING RIFLE VS. TRAINING RIFLE

COMPONENT	FIGHTING RIFLE	.22 LR TRAINING RIFLE
SCOPE	PRIMARY ARMS PLX 1-8X24 ACSS RAPTOR M2	PRIMARY ARMS SLX 1-6X24 ACSS-22LR
SCOPE MOUNT	PRIMARY ARMS GLX 34MM 0 MOA MOUNT	PRIMARY ARMS GLX 30MM 0 MOA MOUNT
UPPER RECEIVER	SONS OF LIBERTY GUN WORKS M4 ASSEMBLED UPPER RECEIVER	SONS OF LIBERTY GUN WORKS M4 ASSEMBLED UPPER RECEIVER
HANDGUARD	SOLGW 13-IN. M76 M-LOK RAIL	SOLGW 13-IN. M76 M-LOK RAIL
BARREL	SOLGW 13.7" 5.56 NATO COMBAT GRADE BARREL	ELLIOT WHITE CUSTOM 15-IN. .22 LR BARREL
BOLT CARRIER GROUP	SOLGW SP/HPT/MPI 5.56 BCG	CMMG DEDICATED .22 LR BOLT
MUZZLE DEVICE	SOLGW NOX (PINNED & WELDED)	SOLGW NOX (PINNED & WELDED)
CHARGING HANDLE	SOLGW RAPTOR LT	SOLGW RAPTOR LT
DUST COVER	SOLGW PORT DOOR COVER KIT	CMMG PORT COVER KIT WITH GAS DEFLECTOR
LOWER RECEIVER	SOLGW ANGRY PATRIOT LOWER RECEIVER	SOLGW ANGRY PATRIOT LOWER RECEIVER
TRIGGER	GEISSELE AUTOMATICS SSA	GEISSELE AUTOMATICS SSA
LOWER PARTS KIT	SOLGW BLASTER GUTS	SOLGW BLASTER GUTS
SAFE/FIRE SELECTOR	RADIANS WEAPONS TALON	RADIANS WEAPONS TALON
TRIGGER GUARD	SOLGW WINTER TRIGGER GUARD	SOLGW WINTER TRIGGER GUARD
PISTOL GRIP	B5 SYSTEMS P23 GRIP	B5 SYSTEMS P23 GRIP
BUFFER TUBE	SOLGW LOYAL 9 A5 BUFFER TUBE	SOLGW LOYAL 9 A5 BUFFER TUBE
STOCK	B5 SYSTEMS BRAVO STOCK	B5 SYSTEMS BRAVO STOCK
END PLATE	SOLGW QD ENDPLATE (STAKED)	SOLGW QD ENDPLATE (STAKED)
CASTLE NUT	FORWARD CONTROLS DESIGN CNF	FORWARD CONTROLS DESIGN CNF
BUFFER	VLTOR A5-H2	VLTOR A5-H2 (NON-ESSENTIAL)
BUFFER SPRING	SPRINGCO USA GREEN SPRING	SPRINGCO USA GREEN SPRING (NON-ESSENTIAL)
WEAPON LIGHT HEAD	MODLIGHT OKW	MODLIGHT PLH (GEN 1)
WEAPON LIGHT BODY	MODLIGHT 18650 SCOUT BODY	MODLIGHT 18650 SCOUT BODY
WEAPON LIGHT MOUNT	ARISAKA IN-LINE M-LOK SCOUT MOUNT	ARISAKA IN-LINE M-LOK SCOUT MOUNT
WEAPON LIGHT TAIL CAP	SUREFIRE UE SCOUT TAIL CAP	SUREFIRE UE SCOUT TAIL CAP
WEAPON LIGHT SWITCH	MODLIGHT MODBUTTON LITE	MODLIGHT MODBUTTON LITE
WIRE MANAGEMENT	LARUE INDEX CLIPS	LARUE INDEX CLIPS
SLING MOUNT	SOLGW 4140 STEEL M-LOK QD SOCKET	SOLGW 4140 STEEL M-LOK QD SOCKET
HAND STOP	TRUE NORTH CONCEPTS GRIPSTOP	TRUE NORTH CONCEPTS GRIPSTOP

having the skill to make your shooting buddies say "damn" out loud.

Maybe it's just me, but as I get older, I'm less excited by the new shiny "in-

novation" being pimped by the talking heads on YouTube that solves a nonexistent problem ... and way more excited at the prospect of getting good. **GDTM**