

New to Precision Rimfire? Me too!

Thoughts from Match Director Mike Charness



I have been shooting – and hosting – precision centerfire competitions since 2008, and love it. In the latter half of 2020, during all the COVID mess, several of us that participate in the shooting club’s “PR200” centerfire matches started talking about adapting our matches to .22 LR rimfire. The club already hosts NRA-sanctioned .22 matches, but we decided that our Precision Rimfire Rifle (PRR) matches would be different. We’d use a variety of target types, including smaller versions of what we use with our 200-yard centerfire matches, and we’d also open it to rimfire calibers other than .22 Long Rifle, and structure the matches so that the shooters don’t have to have deep pockets to be able to enjoy the sport and be competitive.

At the time, I already owned two .22 rifles, both semi-automatic plinkers and neither with a scope. We had set up the matches so that folks could use those types of rifles, and there’s nothing wrong with choosing a semi-auto like the Ruger 10/22 for competition... There are a lot of after-market goodies that can improve its innate accuracy, which isn’t bad to begin with. But I wanted something that could be considered a “trainer” – more similar to the rifles that I use in bolt action centerfire competitions but without spending thousands of dollars. For those of you in a similar situation, I’m going to share my thought process and how I chose my equipment. Of course, your mileage may vary!

THE RIFLE. There have always been three paths to choose from to get into a precision rimfire rifle. The first and most expensive is to buy one of the same kinds of 22 target rifles that are used by Olympic athletes. Those typically require an investment of \$4000 or more. The next level down path would be a factory-built rimfire match rifle from a company like Anschutz, Volquartsen, Vudoo Gun Works, or others that have been consistent winners at national and international matches, but they are still expensive, typically at \$2000 or more for a complete rifle. A Vudoo .22LR was on my wish list (I later bought one in 2021 for competing in Match/Unlimited Class), but for now I chose the third path -- the more reasonably-priced one -- buying a fairly basic rimfire bolt action rifle and bringing it up to match-worthy capability.

My initial budget in mind was to be all-in with my rifle and scope for around \$1000. For common brands to start with, I considered CZ, Ruger, Savage, and Tikka, all with base rifles under \$600, which I figured would give me plenty of room in my budget for a scope and match-grade trigger. I looked closely at a Ruger American Rimfire, Ruger Precision Rimfire, Savage Mark II, Tikka T1x MTR, and CZ 457 series, ultimately deciding on a CZ 457 “At One” model, with the Ruger American Rimfire Target model a close second (which I eventually also bought – a [model 8366](#) – so I’d have a second competition sporter to shoot).

The choice wasn’t easy since those were all excellent candidates for my purpose. For me, the CZ would require less tweaking to get it where I wanted *and* it was actually available in stock at under \$600 at the time I wanted to buy it. The At-One model comes with a laminated Boyd adjustable stock, so I wouldn’t have to think about changing the factory stock to a better chassis right away. The 457 series is CZ’s most recent, and they’ve done several things to improve it over their previous 455 series, including a new fully-

adjustable trigger system allowing adjustment to 1-pound (or lower) pull weight, and tailoring of take-up and overtravel to suit the shooter's preference. It doesn't have the match-chambered barrel that's found on CZ's MTR (Match Target Rifle) series, but the barrel is still a heavy-varmint contour nicely crowned and threaded for suppressor use. CZ barrels are also designed to be user-swappable without need for gunsmithing if I later wanted to put on an MTR or aftermarket precision barrel.

OPTICS. I initially thought that a low power scope with good glass would do the job. After all, I was used to 24x-36x max power at 200 yards, so 9x at 50 yards should be comparable, right? I tried a \$100 3-9x scope and it does work just fine for targets at 50 yards using 9x, but... after asking guys that have been doing .22LR matches for years, they all said I'd be happier with a scope with magnification capability similar to what I use at the longer range, especially with my "old guy eyes". There are many good "budget" or mid-quality choices with side focus and turrets with exposed adjustment knobs. One recommendation I considered was a Mueller 8-32x, but I wanted better glass and picked a slightly more compact Vortex Diamondback Tactical FFP 6-24x, under \$400 at Amazon. I'm already familiar with Vortex from having them on other hunting and target rifles.

TESTING. When I received the rifle, I adjusted the trigger down to around 3 pounds and took it to the range with several types of match-grade 22LR ammunition to see what it liked best. Unlike centerfire rifles, you can't tweak hand loads to get the most of out of your rifle, so that means testing with factory ammo. Thankfully, a 50-round box of almost all high-end .22LR match ammo types can be bought for well under \$20, with several choices in the \$7-\$12/box range.

After sighting in the newly-scoped rifle with conventional 22LR ammo, I shot several groups of each of the test types. At 50 yards, the rifle put most 5-shot groups on paper at 3/4" or less, sometimes making one ragged hole, but not consistently. The barrel was already free-floating, so the next step was to bed the action, which I had already planned to do



before I bought the rifle. I purchased custom bedding pillars for the CZ 457 from Pete's Pillars, and ordered an Acraglas Gel kit from Brownells. After bedding, I adjusted the trigger down to about 1 pound since I was now more comfortable with the rifle. With bedding and lighter trigger pull, most 5-shot groups at 50 yards now came in at 1 MOA (1/2 inch) or better if it wasn't windy and I did my part, and I sent off an order for more of the ammo that this particular rifle seems to prefer. Are there ways that I might try to make it even better in the future? Sure... by testing with more match ammo candidates, or playing with barrel dampening or a rimfire barrel tuner.

FINAL THOUGHTS. You don't necessarily have to spend big bucks to end up with a rifle you'll enjoy for match shooting. Consider starting off with a rimfire rifle you already have, but also consider adding a gun to your collection that you specifically want to use for match purposes. Either way, don't let the fact that there will be better shooters with better equipment out there get in your way... expect to have fun while improving your skills with whatever your chosen or available equipment may be. I've been pleasantly surprised at how much I enjoy shooting the .22 rifle after shooting centerfire almost exclusively for so many years, and you'll almost certainly enjoy it too! [MORE TIPS JUNE 2022 – CLICK HERE](#)