I am a huge fan of the .338 Lapua and have been an avid long-range hunter with this caliber for years. My two sons and I have taken game well beyond 1,000 meters and even some shots beyond 1,500 meters. The .338 LM has proven itself to me that it is highly capable of taking these types of shots. As a long-gun trainer for our boys going overseas, this sort of thing is what I do for a living—and it’s my passion. So when I was looking for the next caliber option, I took a look at the .300 Norma. I met cartridge designer Jimmy Sloan at the SHOT Show, and he explained the capabilities of the .300 Norma. I was very interested, but I really didn’t want another barrel burner, so I watched as a few of my friends started playing with this caliber. They were amazed at the accuracy they were getting and how flat it was. I had a chance to shoot with a friend who owned a rifle in .300 Norma, and I was surprised while watching the trace. This new caliber had my attention.

When Berger came out with its new 230-grain .30-caliber hybrid bullet, I was blown away at its .743 BC. I knew then that this was the bullet for my .300 Norma project. I was hoping the heavier bullet would give me the advantages in ballistics that I was looking for while allowing me to push it at a speed that would not burn out the barrel so quickly.

I called Preston Pritchett, owner of Surgeon Rifles, and placed my order for the rifle, ordering a 1:8-inch-twist barrel from Broughton. I am a fan of fast twist rates, so let’s look at this very important component. Here are some considerations: barrel length and twist rate, long VLD-type bullets, heavier VLD-type bullets and shorter barrels may require a faster twist. I have tested this on several occasions and found the same answer with each test. In my opinion, the Greenhill Formula is a little outdated. Even though it may work for some types of bullets and some types of shooting, I believe we need much faster twist rates for extended long-range shots. This gives us better-retained gyroscopic stability as the bullet is reaching transonic flight and into subsonic flight, thus, better grouping capabilities as well as less loss of BC due to loss of stability. I even had a 1:7.8-inch twist on a .308. This was another Surgeon rifle, and it was one of the most accurate rifles I have ever seen.

Even though I expected the possibility of precision and possible large groups at 100, I was more concerned with grouping capability at 800 meters and beyond. Not only did this gun shoot sub-half-inch groups at 100, there were some groups so good that they measured out to be sub-quarter-inch. We used this gun in a military test that I was shooting, and the first 18 of 20 shots were in a four-inch group at 1,000 meters. So you can appreciate my love for fast twist.

Shorter barrels are also a big favorite of mine. I usually go for 20-inch barrels on my bolt guns because of a test that we did on the .338 Lapua in which we tested barrels from 18 to 27 inches. Since then, I have always shot 20-inch barrels on all my bolt guns. However, this gun was being made for a couple of reasons. The first and foremost was for extreme long-range hunting. I was hoping this new caliber would prove itself worthy, and my next gun would be a 20-inch with a medium-weight barrel for a true hunting-weight rifle. For this rifle, however, I had to remove variables, so I tested it with a 26-inch barrel. This would test my super-fast twist, and the next step will be the barrel length.

Now let’s start the comparison with a current requirement for the PSR contract or your next long-range hunting rifle. We’ll compare the .300 Norma with the 230-grain Berger and a .338 Lapua with the 250-grain Scenar and the 300-grain Sierra as well as the current .300 Win. Mag. with both 195- and 220-grain Sierra bullets and the 230-grain Berger tactical bullet that is shorter and has slightly less BC.
Subsonic is still pretty tight, with the .250-grain .338 dragging a bit behind, though still subsonic well past a mile, and this is an important indicator as to how well your algorithm will work.

The elevation holds are close as well, with the .300 Norma being the flatter choice. The 10-mph wind hold in miles is really important, and these are close, but the Norma and the .300-grain .338 LM are the winners, with close to one MOA and nearly two MOA over its competitors. This is a big win, because wind is why we miss at long range, and this is a definite advantage.

Notice the Berger 230 grain is holding its own in the .300 Win. Mag. because of its high BC.

The remaining energy is important, as we derive a lot of information from this number. As you can see, there are no real winners here; they all perform fairly evenly. The .300 Win. Mag. in the 190- and 220-grain versions are falling behind.

The .300 Norma I used in this comparison is one that I have, and these are the performance parameters of that weapon along with results from a .338 that I have shot on numerous occasions. I know that Berger has a 230-grain bullet with a .743 BC, and I have been told that I can load this to 3,000 fps.

Two soldiers shoot at a target so far away, it’s invisible to the naked eye. This is typical of some of the shots they’re required to make in Afghanistan.

As you can see, this combination is a clear winner in all departments but remaining energy. Loading this bullet properly may require one of the newer magazines that are four-plus inches in overall length. You can see why this new contender is making a big splash in the long-range world. These are really good numbers.

Now let’s compare those numbers. Let’s talk about the downside. The caliber is not as mature when it comes to extreme long-range engagements when looking at options of bullets for different requirements.

We need AP, expansion, ball and target ammo as well as the payloadability to handle a Raulfoss-type capability for a strike indicator, and even the 300-grain is proving to be a stretch, so the 230 grain may not be enough. I know we have these types of bullets in the .308 calibers, but most don’t meet the extended range requirement.

Now the upside. The caliber is .308, so it is super stable. The ammo can be bought at Black Hills, and there are really good numbers.

This makes for an easy range card to set to memory. My actual holds may be off by .1 mil at a couple of ranges, but I can work with that. One of the positives of a muzzle velocity that is not too fast is the potential for barrel life extension. Maybe this one won’t be a barrel burner.

Remember to put a level on your scope when shooting extreme long range. Remember that just 2.5 degrees of cant will shift your impact .5 mil at 1,000 meters. When shooting past 1,000 meters, this becomes extremely important. Another important factor is the change in temperature as the day goes on. The small changes we see in temperature from hour to hour may seem inconsequential—and, truly, they may be at short ranges—but when you start shooting well over 1,000 meters, these small changes can make a huge difference. Even a 1.3-degree swing can give you a .3 mil shift at one mile. This is close to 19 inches, so you can see the issue. Understand the effects that temperature has on density altitude and how it affects the elevation holds when engaging far targets.

All in all, the .300 Norma is a great new option for the long-range world, however, our other choices are no slouches. Whether you choose the .300 Norma, the .338 Lapua, or the .300 Win. Mag. with the new 230-grain Berger bullet (always a good caliber choice, and with the extra performance we are getting out of the Berger it is now really amazing), do your research and get to the range.

Don’t let other people put their limits on you. Long-range shooting is a great hobby, art and lifelong passion. As it is extremely fun. The author sets up to shoot his test rifle. The Surgeon-built rifle is a Broughton barrel and an Accuracy International chassis/stock.