



Really little bullets, like 35- and 40-grain [Hornady V-Max shown], don't honestly have much reason for field use, in my experience. First, they are light and short enough to be affected by faster twist rates, and a 1-7 barrel can blow them right up. Next, they have terrible ballistic coefficients. Shot as fast as all get out, they still lose big to as much as a 55-grain bullet past 200 yards. Such very light bullets do find favor with some practical rifle competitors for specific reasons having nothing to do with ballistics. For practical-style rifle competition, when the premium is on rapid hits on several targets not too distant, a faster-end propellant selection, like Hodgdon Benchmark, and a quality lightweight bullet, like a 40-grain Hornady V-Max, will hammer Milpark targets and steel plates in a hurry. In field-style competitions where the premium is more on longer-range accuracy and less on athleticism, then one of the across-the-course High Power staples, like a 69- or 77-grain Sierra, is (almost certainly) a better choice.

handloading. A loading guide for AR15 rifles is in the works and will be available at some point either after or during the time you're reading this. It's The Competitive AR15: Ammunition. A lot of work and, therefore, a lot of material. It covers anything and everything that the AR15 chassis and the AR10-sized platform will allow into its chamber, but I want to limit it here to those that are most discussed and pondered. There will be more in that material about all these choices, and about a lot more, specifics guaranteed.

[Some of this next is contained, some in the same and some with a different focus, in the project rifle segments. I didn't weed too hard because run all together as it will be here helps complete this segment. It's just not possible not to cross over topics and, as you all know by now, I like to keep subject specifics in close

proximity so each segment seems complete. I know that not everyone reads from start to finish, some skip around, and there's frequently a need for "more."]

CARTRIDGE ALTERNATIVES

If someone wants their ammunition and portion of life devoted to manufacturing of same to be easy, at least one or more parts of it, then .223 Remington is a fair choice. If someone is a Service Rifle owner, then that's a done deal. The choice has been made for us.

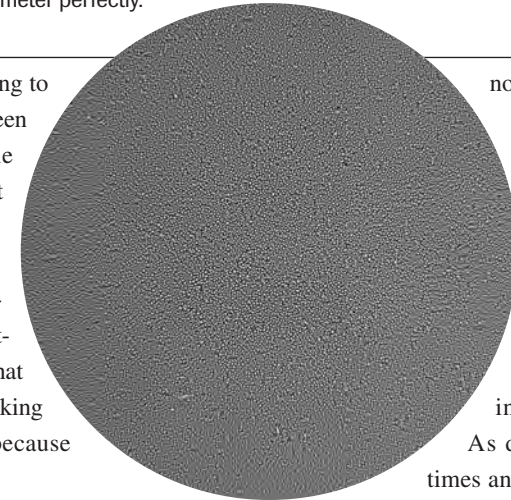
No one shoots .223 R. because they really want to. It's not even in the top five, maybe ten. The round isn't, by design, tops for use across the course, or across much real estate. It wasn't intended to be, and,

Spherical or "ball" propellants are the easy it for high speed. Something like WW 748 or AA2230 will deliver, usually, the highest speed at the lowest pressures, in combination. That's a great combination. Put these with a Remington or WW primer. An additional benefit from some spherical propellants is a genuine increase in barrel life, by as much as 15-percent. Even though they produce more energy, a majority of these double-base propellants also burn cooler. They also meter perfectly.

honestly, it's flatly astounding to me just how much we've been able to beat out of this little casing. What's left is not lamenting and fretting over or even criticizing .223 R. That wouldn't be at all productive. What's left is accepting it, so go ahead and do that now. Then what's left is looking at alternatives to .223 R. because they do exist.

Okay, one more little bit about .223 R. and why so many seem to love to hate it. I'll speak a little more from my perspective as from the collective criticisms of others. The case is small and that means it won't hold much propellant. That means there's not a whole lot of velocity to be had from it. That means even the best flying bullets we have available still need tended to cautiously after launch. Wind is going to move them. A lot. Again, I'm not just rehashing old news, but rather giving this as a base for comparison when we talk about other cartridges that can be wedged into an AR15.

From a structure standpoint, .223 R. has a comparatively short case neck, compared, that is, to casings developed for competitive use. With short bullets that doesn't really present a problem. With bigger, longer bullets it does, and the problem is that daggone magazine box. Rounds can't be more than 2.260 inches overall length and still fit and feed from the box. I take a little off that for function cushion and call it 2.250 for a working maximum. Alls that means is that any bullet bigger than a 55 grain (or equivalent in overall length) has to be seated well back into the case. The bullet has to scoot down under the case neck and case shoulder juncture, and I'm talking about a portion on the bullet that is caliber diameter,



not just the boat-tail part, if the bullet is so constructed. Not only is that eating up the already small capacity available inside the case but it's forcing us to accept violating a well-demonstrated accuracy given, and that is not seating the bullet into the "dreaded doughnut." As described elsewhere a few times and done here again for clarity,

this is a little ring that lives at the case neck, case shoulder juncture. It functions to narrow the opening and causes additional constriction on the bullet. Its evil is compounded by the fact that it will also likely vary from case to case. At the least, it's changing the performance of the load assuming, and rightly so, that it's getting more and more prevalent each reuse. If the bullet doesn't ever get to it then it just doesn't matter. The doughnut is taken right out of the picture.

This is one reason a long case neck tends to be part of Benchrest cartridge design. Comparing designs of .222 Remington to .223 this is clear, and well more is in the segment on building the specialty reduced-course High Power rifle.

Why does another "short-necked" case, the .308 Winchester, perform so well in competition? Easy. The magazines for these rifles are that much longer. The M14/M1A magazine, for instance, allows a 168-grain Sierra MatchKing to seat just to the bottom of the case neck and still fit into the magazine. When various smaller caliber .308 derivatives showed up in conjunction with box-magazine-fed rifles like the AR-10, SR-25, and TUBB 2000, they didn't perform overall as well as the .30 caliber parent. Rounds like .260 Remington and .243 Winchester had to have