

**CRAIG
BODDINGTON**
PROFESSIONAL MEMBER
Photos Courtesy of Author

ACCURATE HUNTER

LONG-RANGE MANIA

Caroline Boddington, then 16, had no trouble ringing steel at 1,000 yards with a 6.5mm Creedmoor, but that doesn't mean she's prepared to shoot at game at such distance.



Coming off the gun after taking the biggest ram of my life. Feelings are mixed, and there's a lot of relief knowing I didn't blow it! The duct tape on my stock is a diagram of my reticle with distances for the stadia lines. Today this probably isn't necessary, but I like to keep things as goof-proof as possible!

Today's interest in extreme-range shooting cannot be ignored. I have not tried to ignore it; I love to ring steel way out there. I don't profess to be particularly adept at it, but with an early background in prairie dog shooting, I'm pretty good at calling wind. Thing is, both ringing steel and shooting prairie dogs are hit-or-miss propositions, and the results are "no harm, no foul." Shooting at big game is a different deal.

Long-range shooting is not new. However, *knowledge* of distance has been a stumbling block. Thousand-yard competition was popular before metallic cartridges. From the Civil War through Vietnam, snipers worked out distances on maps. Coincidence or split-image range finders were used for artillery and naval gunfire from the 1890s.

The affordable, compact laser range finder came into common use just 20 years ago. This amazing technology removed distance as a variable. You must also know your projectile's trajectory, but there's technological help here as well. Range-compensating reticles and adjustable turrets aren't new, but today's quality scopes have consistent—and repeatable—adjustments that allow you to "dial the range" or the holdover adjustment.

For years I carried printed ballistics data for my load—or taped it to my stock. Sometimes I still do, but in our modern world, there's better help. Computerized ballistics programs—and now smartphone applications—give you everything you need to make corrections. Personal knowledge of your trajectory seems no longer important. However, rather than putting blind faith in electronics, let's assume we have at least done the required range work to check velocity and practiced at actual ranges to verify data.

Despite all the brave new cartridges, actual velocities haven't changed much. The .220 Swift broke 4,000 feet per second (fps) in 1935. To this day, few rifle cartridges are faster—and cannot get faster as long as we're using nitrocellulose propellants.

There are changes! Optics are better, and rifle accuracy we once thought exceptional is now routine. Projectile aerodynamics have also improved. Ballistic Coefficient (BC) is the index of a projectile's ability to overcome air resistance in flight. The most commonly printed is the "G1 BC" expressed as a three-digit decimal. We used to think a BC of .500 was very high, and thus, denoted high velocity retention and flat trajectory. Extreme-range shooting has spurred development of more aerodynamic bullets, with BCs into the mid-.600s common.

These days there's a lot of help available for figuring both trajectory and wind. I'm working it out on the bench with the Zeiss Hunting App on my smartphone, which interfaces with Zeiss's latest range-finding binocular.





Aerodynamics help, and higher retained velocity means more residual energy. When I was a kid, we thought a quarter-mile shot was very far. Still is, especially under real field conditions, but extreme-range shooters are now routinely engaging targets at a mile, and some are hitting targets with shoulder-fired rifles at distances once the province of artillery. However, even with super-high BC bullets, much beyond a quarter mile holdover is measured in feet no matter what you're shooting. Double that distance and holdover quickly stretches to (many) yards, and keeps increasing exponentially with distance.

With known distance and known trajectory curve, it's really just a matter of mathematics, which artillerymen have dealt with since the Napoleonic Wars. As I've said before, it is not for me to tell anyone "how far is too far." It depends on equipment, knowledge of equipment, conditions, and the one thing nobody wants to talk about: *skill!* But, put all of today's advancements together, and there should be no problem making proper hits on a deer-sized target at a half-mile.

Except, I think, we are still missing some things. *Wind* is the great variable—because, while we can always measure wind at the shooter, judging wind at the target and at points between shooter and

target remains an imprecise art form. There are no range flags in game country, and it's impractical to post Kestrels at 200-yard increments on an unknown sheep mountain. There are rare calm days with perfect conditions, but at distance, an errant eddy can push a bullet out of an animal's vital zone. In military sniping, all hits count. In ethical hunting, this is not acceptable; an "almost miss" is worse than a miss. Wind—more properly, our ability to read it precisely—is the archenemy to long-range shooting.

There are other problems. Bullet performance often becomes erratic at long range, often with lack of expansion. It's a tall order to ask a bullet to perform equally well at 220 yards and 880 yards because of the huge impact/velocity differential. A bullet that expands well at extreme range might expand prematurely at close range. Bullet-makers are working wonders, and this is getting better, but bullet performance at distance remains an issue. Collateral to this is calling the shot. Since bullet energy is greatly reduced, so is an animal's visual reaction to the shot. How sure can you be of a hit or miss—and, if a hit, exactly where did the bullet strike? By modern doctrine, military snipers work in teams, spotter and shooter with equal training. In many teams they trade off, but

spotting is considered as important a skill as pressing the trigger. Similarly, extreme-range hunters would be wise to always work in teams. But this doesn't solve all the problems.

Consider flight time and a target we have no control over! My most disastrous near-misses have come when an animal starts to move as the trigger breaks, too late to call the shot back. This has happened more than once at moderate ranges. How many steps can an animal take when flight time stretches beyond a half-second? Sure, we watch body language, but how can you be certain the animal isn't going to walk out of your shot?

Finally, we have that pesky human element. What positions are available? How steady can you get? Do you really know your equipment, and have you practiced for this shot at actual distance?

In the '90s, I hunted with a guy who was a real pioneer in extreme-range shooting at game. I watched him make several shots that I wouldn't consider. He was very good and practiced religiously. He was not perfect, but he had the capability as some extreme-range shooters have today. Even so, a favorite saying was, "I've never backed up to take a shot."

Capability is awesome, but you aren't required to use it. Knowing you can shoot at extreme range if the

conditions allow builds confidence and makes normal shots so much easier! In the runup for a truly epic hunt in Mongolia last year I practiced on steel and verified my data to 800 yards. I was confident I could shoot to 600 yards if conditions were near perfect. That's beyond my self-imposed limit, so I was hoping I wouldn't have to. But it's nice to know I can—in the event the farthest shot was 350 yards. We took eight animals, no misses; only a couple of insurance shots. Perfect outcome, and no regrets that it was not necessary to shoot farther!

Extreme-range shooting is fascinating. Current interest is speeding development, giving us better optics, better bullets and better tools. But I'm concerned that too many of us are mentally transferring military sniping and ringing steel to shooting at game, which has altogether different problems and ethical concerns. Some folks actually are "backing up" to take shots!

I was just on a black bear hunt in Idaho. When I arrived, the previous party was in camp with a day or so remaining. Nice folks and all, but the first question I got when I arrived was, "So, are you into extreme-range shooting?" That's a question I try to avoid, but since I'd brought a lever-action .348 with aperture sights, my intentions were obvious!



OPPOSITE LEFT: In Alaska last year we had this group of rams (the small white dots) dead to rights at 600 yards. I was confident at the distance, but I couldn't read the wind. We walked away—and had another chance three days later at 120 yards. To me, that's a better outcome. **OPPOSITE RIGHT:** Military snipers work as teams, spotter and shooter. This is a sound plan for long-range hunters as well. The spotter can be a guide or a buddy you trade shots with, but at extreme range it's almost essential to have an extra pair of eyes calling the shot. **LEFT:** On a recent black bear hunt in Idaho I was in camp with a group that, amazingly and inexplicably, insisted on long-range shots. With a Winchester M71 in .348, I wasn't prepared for long-range. Didn't matter; I took my bear at 70 yards.



This group had come into camp insisting on shots “no closer than 400 yards!” That doesn't work well for black bears over bait! Bears are most likely to appear at dusk and prefer shadowed, secure approaches to a bait. The blinds were set for 70 to 100 yards for rifle hunters. Some baits allowed glassing from distance, which was done, but shooting was problematic. Bears are hard to

judge; the greater the distance the more difficult it is to evaluate the nuances of body and head shape. As the light fades, all you have is a dark blob, hard to judge, and visualizing a proper aiming point is difficult.

For these guys, regrettably, the hunt wasn't very successful. Although bears were seen at long range, no long shots were taken. The only shooting position

envisioned was prone over a bipod. This is a great way to shoot at long range, where stability is paramount—but not all situations allow it because of low brush. Bears are extra-challenging because they're low to the ground, stay out of the open, and when feeding rarely stand still for more than a few seconds. Several of this group took bears, the farthest at 200 yards, but several did not. I hunted four

days and saw four different bears in adequate light at 70 yards, a very good bear hunt that ended with a nice boar my last evening. Under the right conditions with the right rifle, I might shoot a black bear at 400 yards (although I never have). However, I can't imagine coming into any situation for any animal and insisting on “a long-range shot or nothing.” Is this what we're coming to? ■

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