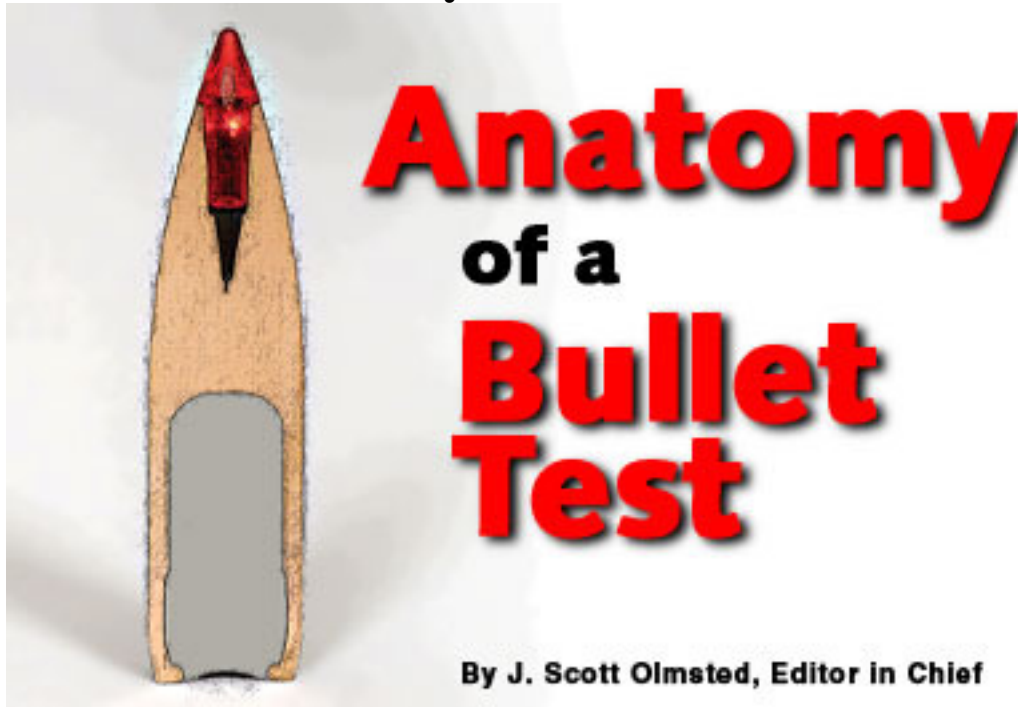


## Anatomy of a Bullet Test



By J. Scott Olmsted, Editor in Chief

By J. Scott Olmsted, Editor In Chief, American Hunter

Last August, 10 of us sat in the international departures terminal at Atlanta's Hartsfield Airport waiting to leave for Africa as Kevin Howard, PR man for Winchester Ammo, unveiled his company's latest incarnation, a bullet dubbed the EX2006.

"We haven't named it yet," Howard said after his presentation.

"How 'bout the Smackdown," I wisecracked to everyone's amusement. "You gotta admit it's catchy."

To my delight it seemed everyone liked the name. Perhaps it would be considered by the Winchester brain trust back in the States. Or not. To my chagrin it was named the XP3. To create it, Winchester married some of the best designs among premium hunting bullets today. That's important to note,

because its introduction in Africa was not without debate.

One of the most important factors in any killing shot is terminal performance. In a perfect world, a bullet expands on impact, creates a wide wound channel and retains enough weight to penetrate to vital areas on the toughest game. Ideally, it does this across the spectrum of impact velocities produced by today's uber magnums. Of course, all this is moot if the bullet isn't placed right (that being the other important factor in killing shots).

Manufacturers can control only one of these variables. So since they have yet to come up with a way to keep us calm in the moment of truth, they are relegated to producing better projectiles.



For years, the Nosler Partition (introduced in 1948) was the benchmark against which all other hunting bullets were measured. But it's only one of three types of premium bonded projectiles available today. It accomplishes its task with a design that smashes together upon impact, thus mechanically locking the core and jacket together to prevent separation—the Swift A-Frame also does this. Bonded bullets, the most prevalent design today, fuse the core and jacket together (heat or chemical processes are used) to prevent separation—the Swift Scirocco, Federal/Speer Trophy Bonded Bear Claw, Hornady InterBond, Remington Core-Lokt Ultra Bonded, Nosler AccuBond, Federal Fusion and Barnes MRX are bonded. Lastly, a combination of the two bonds the core and jacket and locks the two together upon impact—the Winchester Fail Safe does this and now, as you'll see, so does the XP3.

### **The XP3's Design**

Winchester used a mix-and-match approach to design the XP3. It has a polymer tip like the Scirocco and AccuBond, and it's a bonded design. At first it looks like a Fail Safe without its steel insert. But it's much more than that.

The Fail Safe was developed in the early 1990s by Winchester engineers, and it is the last bullet designed totally by Winchester engineers since the company partnered with Nosler to form Combined Technologies. Its construction is complex—more than 30 steps are required—and expensive. Its hallmark is a steel cap wrapped around the front end of a lead core. The rear core is sealed at the base by a brass cap. A solid copper front end has a hollow point with an interior scored to help expansion.

It'll punch through just about anything, and many hunters swear by it. Many others don't like it for the same reason. They complain it doesn't open up and doesn't make a big enough exit hole. "I was in on the development of the Fail Safe from the start in

the '90s," says Kevin Howard. "A lot of people thought the bullet did not expand because its exit wound was never big. But what happened was the front of the bullet cut its way out of the animal unlike a round-nose bullet with a blunt end that tears its way through the hide and makes a bigger exit hole. So the Fail Safe would expand on the front end, but did not expand at all in the rear section. It did not create the blown-out tissue damage that a soft-point does, but its design enabled it to penetrate much deeper than a bullet with a huge mushroom. This meant it could get to the vitals on almost any big-game animal from any direction."

The XP3 combines the best properties of Winchester's Supreme bullets into one projectile. Like the AccuBond, the polymer tip initiates expansion and improves flight characteristics by 15 percent over the Fail Safe. Annealing the tip produces better obturation and allows a better bulge than the Fail Safe. Like the Fail Safe, it has a copper web that separates the front of the bullet from the back. Finally, bonding the rear of the jacket to the lead core keeps it together for secondary expansion and provides excellent penetration. More importantly, its construction is less complex than the Fail Safe and thus it's cheaper to produce.

### **An African Field Test**

Of the 10 people who went to Africa last year, five of us were writers for hunting magazines. We gun writers know volumes about bullet development and performance, or so we think; after all, we live and breathe this stuff. So naturally, each night the talk turned to the performance of the XP3 on the game we shot.

Initial results weren't encouraging. We recovered few bullets from the .300 WSM A-Bolts we shot. The projectiles were smoking right through the animals, which made us think the XP3 was behaving more like a solid than anything else.



That's not a bad thing, but most of us had in mind the classic picture of a mushroomed bullet that left a gaping exit wound.

The picture improved as the week wore on and more animals fell. We only recovered 15 bullets, but the notes each hunter made on each kill gave us better perspective (see table: "XP3 Terminal Ballistics"). Soon, anecdotal evidence was replaced by real data. There was an eland shot head-on through the chest; the bullet was recovered in the ribs after it penetrated 3 feet. Another bullet entered an eland's shoulder and plowed through 35 inches of animal before exiting. Fifteen one-shot kills were recorded. Slowly, almost everyone stopped scratching their heads.

I was one of the remaining Doubting Thomases. My vision was colored by what I expected to see when we dug out bullets: a mushroom. Instead I found two bent bullets—one from an impala I shot at 60 yards, another from a gemsbok writer Greg Rodriguez shot at 80 yards. Only four bullets had any petals left at all. Howard worked on me, but it wasn't until recently, as he and I conversed via e-mail, that I began to see what Winchester engineers envisioned all along.

The XP3 doesn't mushroom like bullets of old because it's not supposed to. It bulges more than the Fail Safe, so wider wound cavities and bigger exit holes will result. But the real advantage over the Fail Safe, says Howard, is in tissue damage it does immediately after impact. "The engineers at Winchester just sent me a high-speed video of an XP3 and a Power-Point shot into 20-percent gelatin. The Power-Point creates a lot of damage in the first 12 inches and then stops at about 14. The XP3 creates the same damage in the first 12 inches, but continues it to 18-19 inches and penetrates a total of almost 23 inches. It's clear in the video what we saw in Africa: The XP3 delivers a lot of energy and damage immediately."

In the end, only three animals shot with the XP3 were not recovered—the result of poor shot placement. On average, the 15 .30-caliber bullets we recovered retained 87 percent of their weight and expanded to .5092 inch. Moreover, 28 animals—from a 15-pound steenbok to 1,500-pound eland—were downed. Remember that other factor in killing shots? Bullet placement. Do your part. Winchester engineers did theirs.

### Available Calibers

The XP3 is available in the Winchester Supreme Elite line of ammo in the following loads: 150-grain .270 Win., .270 WSM., .308, .30-06, .300 WSM and .300 Win. Mag.; 180-grain in .30-06, .300 WSM and .300 Win. Mag. Any day now 160-grain loadings in 7mm WSM and 7mm Rem. Mag. will be available. See [winchester.com](http://winchester.com) for details.