

and now it's taking another step: the cartridge itself. Blanket changes in the performance and personality of a standard cartridge (which, again, I say is any size neck on a .308 W. case) come from different weight and size bullets, but now that all the bullets are here (or at least enough bullets are here), it's looking to shift to tuning up what amounts to case capacities. The idea is to provide the right amount of launch to balance exploit and penalty in bullet choice. That's a complex way of saying that, for instance, short-case .243s give the heavy



.22-250, 6mmX, .243.

bullet enough speed to satisfy us spotter chasers while offsetting intolerably quick throat erosion and flight problems (recoil level satisfies all). The trick, as intoned, is not running the long bullets at potential velocities from a big blast of powder. Trick part two, then, is finding a cartridge case with the right capacity so fast powders or downloads don't create their own problems, and that's 6X.

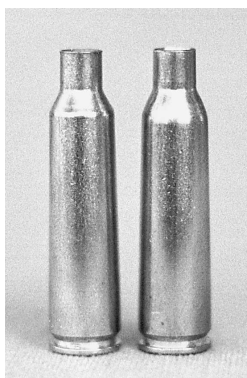
Will this, or a similar, cartridge storm the world and direct how we think and act? I don't know. Chances are, though, that it will win at least one championship. If the top shooters pick it up that's a given. [How much *that* —



I use a Sinclair® Expanding Mandrel to open the .224 necks to .243. I know this tool is "straight." Add some Imperial® and you'll hardly know you did it. Seat bullets to an oal that corresponds with whatever touches the rifling. I use WW® cases and VV N150 powder. Fire form load is 32.0 grains (600 yard load is 35.0). This is with a coated Sierra® 107. I just read off a .243 Winchester case on my Stoney Point® gage and subtracted 0.130 for the shorter chamber. I checked and double checked with dummy rounds, but it worked. Seating depth, gauged this way, is a finite length. I ream the necks on "new" 6X cases and also clean them up with an outside turner, cutting down into the shoulder. Turning is optional but

I think reaming should be done as a precaution toward consistency, if nothing else. I use a 0.240 size reamer on the sized necks, which is desired final neck inside diameter minus 0.001 (they're sized again after this operation), but refer to the material elsewhere on reaming to determine the right combination. I'd recommend Jim Carstensen to do up the dies.

Run the parent cases through a sizing die before fire forming. This is sometimes necessary to get the case to chamber for the firing. 6X is a good example: a .22-250 case won't fit into the 6X rifle chamber until the case is run through the 6X sizing die. The die sluffs the edges on the sharper .22-250 shoulder. Just thread the die to the shellholder, and no lube is necessary. I take the bushing out since the necks are already sized after mandrel expanding. PPCs from 7.62x39mm need to work the same, but the Redding® forming dies provide it. In both these rounds, fire form loads should be stiff to get the shoulder where it needs to be, and bullets should be seated to the lands, or even lands-plus.



The TUBB 2000 offers 6X as a standard chambering. Far as I know it's the first and only set to go for this new round. Loaded to magazine length, the longest bullet is not seated below the neck/shoulder junction on the case. This means avoidance of the "doughnut" for the life of the case. The TUBB 2000 also makes excellent use of the flexibility potential in seating depths by virtue of its chambering method. David Tubb designed reamers that provide no straight section ahead of the case mouth. This means that any bullet can be snugged up to the lands for better accuracy (and adjusted outward as the throat lengthens), and still fit the magazine. Shoots better now, shoots better later. As of this writing, David has put a 30 degree shoulder on his X and raising the roof that amount is an easy 2950 fps.



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winning — has to do with cartridge choice is well beyond the scope of this book.]

There are a couple of viable ways to get the "short six." Next is the 6mm International. These are not the same. I've dealt with some confusion from folks over this, and some of it is in regards to loading data, and therefore serious, so will now spell the differences: the 6mm International is a .22-250 necked out to .243; all other dimensions stay the same as .22-250. Compared to its parent case, the 6X loses body taper and gains capacity (about five grains), and is dimensionally a .243 Winchester, save only for length. [There are some (many, many, many) takes on 6 Int. including shoulder angle changes and "heights," so the one I'm referring to might rightly, and most correctly, and sometimes is, called a 6mm-250.] There's not a thing in the world wrong with 6 International. It's really, really good: the 300 Meter shooters have shown that.

The 6mm International is not, however, usually listed even in most die makers "D" list. Neither, of course, is 6X. Deal with the X, though, is that it's easy to modify "A" list dies to work: get plain old

.243 Winchester dies and cut 0.135 off the sizer and seater. The extra 0.005 is there to ensure enough run up into the die. On my Redding® Competition Bullet Seater, we just trimmed the inner sleeve. Make sure the entry way on the sizing and seating dies is chamfered afterward, and it's a nice touch to taper the sizing button to facilitate expanding .22-250 case necks. Redding® also makes a tapered expander for this purpose. If anyone wants 6mm Int. dies, best send some fired cases to someone and wait it out. And if anyone is going to go through all that time and expense, may as well send them to Neil Jones and get the best. To get those fired cases, LE Wilson® catalogs a 6 Int. seater.



Sixfive

This is currently the best bullet weight, ballistic coefficient, and velocity combination we've found in the NATO housing. Run it with Sierra® bullets: 142s at 600 and maybe 300, and run it with 107s at 200 and maybe 300. Some like to shoot the Sierra® 140 (David Tubb did) at 300 since its accuracy is superb and tolerance for jump is high. Some go with