

Ammunition Comparison

Federal Premium Nosler Partition

	Velocity	Penetration	Retained Weight	Expanded Diameter#	
				Maximum	Minimum
Shot Number 1	2,556 fps	16 in.	116.3 grains	0.614 in.	0.550 in.*
Shot Number 2	2,538 fps	17 in.	115.9 grains	0.600 in.	0.500 in.*
Shot Number 3	2,561 fps	16 in.	113.0 grains	0.660 in.	0.375 in.*
Shot Number 4	2,579 fps	16 in.	113.9 grains	0.540 in.	0.540 in.*
Shot Number 5	2,540 fps	17 in.	114.8 grains	0.631 in.	0.535 in.*
Average	2,548 fps	16.4 in.	114.8 grains (64 percent)	0.609 in. 0.554 in. (+80 percent)	0.500 in.*

* All the Federal Nosler Partition bullets were found with the front core completely gone and with the bullets turned 180 degrees and facing backwards. This caused the expanded metal to start to bend back to the front of the bullet and resulted in a diameter that was not a realistic indication of expansion. However the .554 average is likely not too far off from the true diameter. A measurement of what was judged to be the true expansion shows diameters ranging from 0.475 to 0.560. # Since expanded bullet shapes are irregular, we measured the widest and narrowest diameters.

Remington Safari Grade Swift A-Frame

	Velocity	Penetration	Retained Weight	Expanded Diameter	
				Maximum	Minimum
Shot Number 1	2,439 fps	20 in.	178 grains	0.584 in.	0.530 in.
Shot Number 2	2,495 fps	19 in.	177.7 grains	0.580 in.	0.530 in.
Shot Number 3	2,517 fps	20 in.	177.1 grains	0.584 in.	0.553 in.
Shot Number 4	2,463 fps	20 in.	178.3 grains	0.595 in.	0.552 in.
Shot Number 5	2,512 fps	21 in.	178.6 grains	0.584 in.	0.540 in.
Average	2,485 fps	20 in.	177.94 grains (99 percent)	0.585 in. 0.563 in. (+83 percent)	0.541 in.

Winchester Fail-Safe Supreme

	Velocity	Penetration	Retained Weight	Expanded Diameter	
				Maximum	Minimum
Shot Number 1	2,597 fps	27 in.	154.2 grains	0.475 in.	0.415 in.
Shot Number 2	2,602 fps	27 in.	152.5 grains	0.445 in.	0.359 in.
Shot Number 3	2,583 fps	29 in.	147.8 grains	0.400 in.	0.352 in.
Shot Number 4	2,574 fps	29 in.	150.7 grains	0.475 in.	0.414 in.
Shot Number 5	2,597 fps	26 in.	153.2 grains	0.490 in.	0.390 in.
Average	2,591 fps	27.6 in.	151.7 grains (84 percent)	0.457 in. 0.422 in. (+43 percent)	0.386 in.*

*All the Fail Safe bullets had the petals broken off. The result is effectively a "solid" bullet with a slightly larger frontal diameter. This would account for the increased penetration and for the low expansion diameters and retained bullet weights.

PMC Barnes X-Bullet

	Velocity	Penetration	Retained Weight	Expanded Diameter	
				Maximum	Minimum
Shot Number 1	2,613 fps	20 in.	178.7 grains	0.589 in.	0.483 in.
Shot Number 2	2,605 fps	19 in.	178.5 grains	0.600 in.	0.524 in.
Shot Number 3	2,583 fps	26 in.	179.3 grains	0.572 in.	0.494 in.
Shot Number 4	2,587 fps	24 in.	179.2 grains	0.584 in.	0.480 in.
Shot Number 5	2,608 fps	21 in.	179.5 grains	0.552 in.	0.447 in.
Average	2,599 fps	22 in.	179.04 grains (99 percent)	0.579 in. 0.532 in. (+73 percent)	0.484 in.