## **ACCURACY AND CHRONOGRAPH DATA**

Black Hills Ammunition 40 S&W	Heckler & Koch	Glock	Smith & Wesson
155-gr. JHP New Manufacture	P30S V3	G22 Gen 4	SD40
Average Velocity	1111 fps	1127 fps	1113 fps
Standard Deviation	12 fps	16 fps	7 fps
Muzzle Energy	425 ftlbs.	437 ftlbs.	426 ftlbs.
Maximum Spread	4.6 in.	3.63 in.	4.05 in.
Maximum Shot Radius	2.34 in.	1.93 in.	2.5 in.
Average Group Radius	1.55 in.	1.20 in.	1.35 in.
Winchester USA 40 S&W	Heckler & Koch	Glock	Smith & Wesson
165-gr. FMJ USA40SWVP	P30S V3	G22 Gen 4	SD40
Average Velocity	960 fps	980 fps	980 fps
Standard Deviation	14 fps	6 fps	10 fps
Muzzle Energy	338 ftlbs.	352 ftlbs.	352 ftlbs.
Maximum Spread	3.43 in.	3.6 in.	3.85 in.
Maximum Shot Radius	1.74 in.	1.86 in.	2.13 in.
Average Group Radius	1.24 in.	1.21 in.	1.41 in.
Winchester USA 40 S&W	Heckler & Koch	Glock	Smith & Wesson
180-gr. JHP USA40JHP	P30S V3	G22 Gen 4	SD40
Average Velocity	967 fps	961 fps	970 fps
Standard Deviation	14 fps	5 fps	14 fps
Muzzle Energy	374 ftlbs.	369 ftlbs.	376 ftlbs.
Maximum Spread	3.25 in.	4.43 in.	5.73 in.
Maximum Shot Radius	1.91 in.	2.33 in.	2.92 in.

To collect accuracy data, we fired from a sandbag rest using open sights. Distance: 25 yards. We recorded velocities using an Oehler 35P chronograph, with the sky screens set 10 feet from the muzzle. To tabulate the results, we scanned the targets and used the Ruler tool inside Photoshop CS3 to find the group centers and measure the various impacts to the thousands of an inch, and rounded the results to the hundredths of an inch. To calculate Average Group Radius, we fired 10 shots, then found the center of the 10-shot group. We then measured the distances from the group center to each shot, and averaged them. Maximum Shot Radius is the distance from a group's statistical center to the center of the most distant hole—the worst shot in the string. Maximum Spread (group diameter) is the distance between the centers of the two widest shots in the group. To find a fuller description of these terms, log on to www.shootingsoftware. com/measure.htm (Recreational Software, Inc.).

1.58 in.

2.00 in.

1.43 in.

Average Group Radius