ACCURACY AND CHRONOGRAPH DATA

Remington Golden Bullet 22 LR 36-gr. HP No. 1622AB	**Sig Sauer Sig522 Classic**	**Colt M4 Carbine**
Average Velocity	1097 fps	1029 fps
Standard Deviation	32 fps	70 fps
Muzzle Energy	96 ft.-lbs.	85 ft.-lbs.
Maximum Spread	2.08 in.	1.50 in.
Maximum Shot Radius	1.06 in.	0.91 in.
Average Group Radius	0.75 in.	0.65 in.
Maximum Spread (Scope)		2.29 in.
Maximum Shot Radius (Scope)		1.09 in.
Average Group Radius (Scope)		0.60 in.

CCI Green Tag 22 LR 40-gr. LRN	**Sig Sauer Sig522 Classic**	**Colt M4 Carbine**
Average Velocity	997 fps	950 fps
Standard Deviation	13 fps	14 fps
Muzzle Energy	88 ft.-lbs.	80 ft.-lbs.
Maximum Spread	1.12 in.	2.41 in.
Maximum Shot Radius	0.66 in.	1.31 in.
Average Group Radius	0.43 in.	0.94 in.

Wolf Match Extra 22 LR 40-gr. LRN	**Sig Sauer Sig522 Classic**	**Colt M4 Carbine**
Average Velocity	1041 fps	1012 fps
Standard Deviation	21 fps	38 fps
Muzzle Energy	96 ft.-lbs.	91 ft.-lbs.
Maximum Spread	2.31 in.	2.71 in.
Maximum Shot Radius	1.61 in.	1.43 in.
Average Group Radius	0.42 in.	0.87 in.
Maximum Spread (Scope)	1.67 in.	
Maximum Shot Radius (Scope)	0.87 in.	
Average Group Radius (Scope)	0.54 in.	

To capture velocity data, we used a CED M2 chronograph ($200, Brownells) with the first skyscreen set 10 feet from the muzzle. Test conditions were 72 degrees with 10-mph winds from 6 o'clock.

We shot two rounds of accuracy tests at 50 yards. First, on the 522, we used a Sig Mini Red Dot Sight STS-081, $215. On the Colt, we used the supplied iron sights. For the second round, we chose each gun's best ammo from the first round, then fitted an RWS 3-9x44 Night Pro Illuminated MilDot Reticle scope onto the guns' rails with Weaver 30mm High Rings and shot more groups.

We used a variety of adhesive targets from Birchwood Casey, including the fluorescent-orange 6-inch Target Spot as the best choice to contain ten-shot strings during 50-yard accuracy testing with dot sights and open sights. We also used Caldwell Orange Peel 4-inch Bullseye Targets. To tabulate the results, we scanned the targets and used imaging tools inside Photoshop CS3 to find the group centers and precisely measure the various impacts.