

# Brass Fetcher Ballistic Testing

Exterior Ballistics • Terminal Ballistics www.BrassFetcher.com

#### **Ammunition Performance Data Sheet**

Buffalo Bore 460 Rowland 230gr XTP JHP (Item 35B)

#### **Evaluated Metrics**

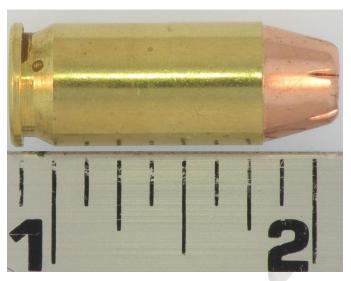
Cartridge Dimensions

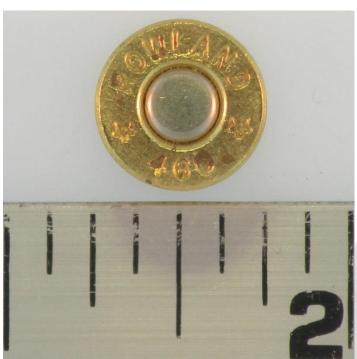
Ambient Velocity and Accuracy
Extreme Cold Velocity and Accuracy
Water Immersion Velocity and Accuracy

Bare Gelatin terminal Performance (Penetration, Expansion, KE, Temporary Cavity) Heavy Clothing + Gelatin terminal Performance (Penetration and Expansion) Automobile Windshield + Gelatin terminal Performance (Penetration and Expansion)

Slide Velocity (Remington R1 1911) Muzzle Flash

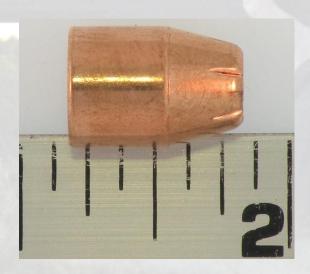
# **Cartridge Dimensions**





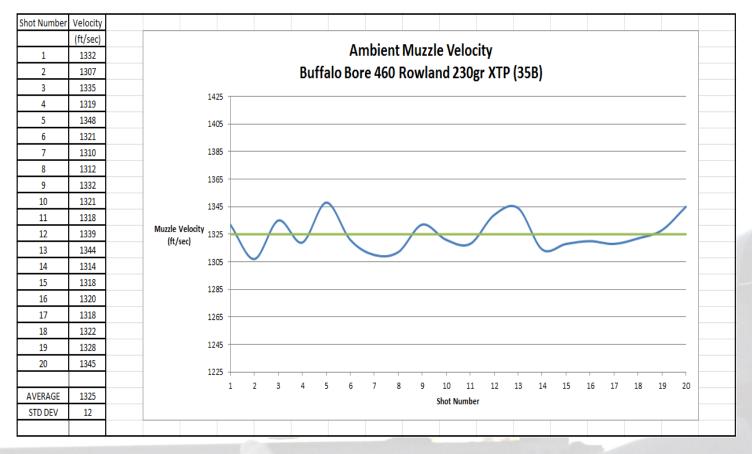
Cartridge overall length: 1.245"

Cartridge Weight: 335gr



Projectile: Hornady 230gr XTP JHP

## **Ambient Velocity and Accuracy**



Firearm: Remington R1 1911 5.0" length 460 Rowland conversion barrel with muzzle compensator

Distance: 8 feet in front of muzzle

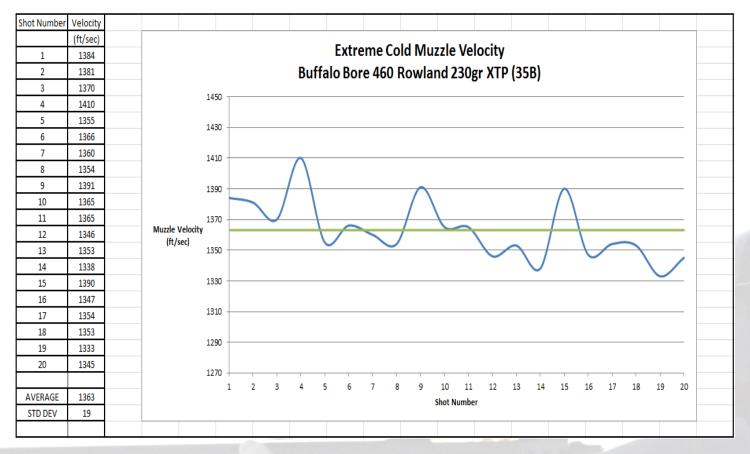
Chronograph: Pact Model 1 XP

Weather: 78°F, 93% humidity

ACCURACY (10 meters from muzzle)



## **Extreme Cold Velocity and Accuracy**



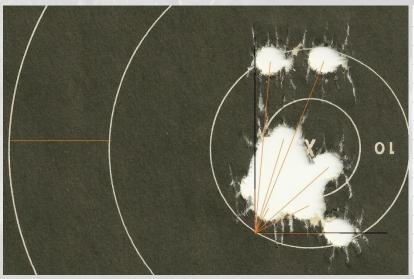
Firearm: Remington R1 1911 5.0" length 460 Rowland conversion barrel with muzzle compensator

Distance: 8 feet in front of muzzle

Chronograph: Pact Model 1 XP

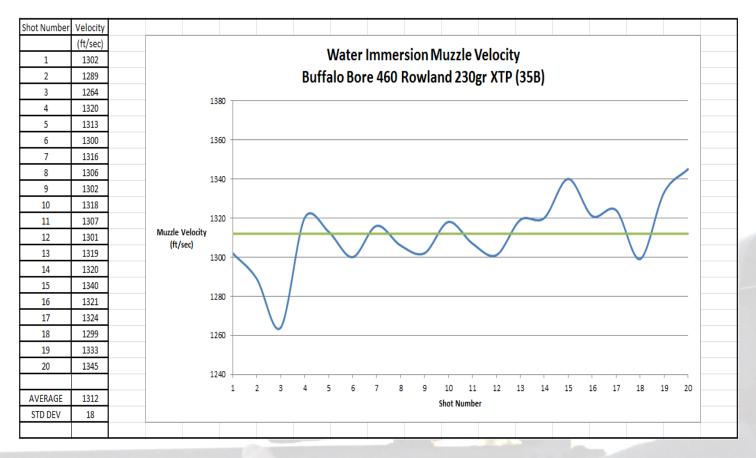
Weather: -20 Degrees Fahrenheit (shot string completed during 8 minutes exposure to 78°F)

#### ACCURACY (10 meters from muzzle)



	<u>x</u>	<u>Y</u>
	(inch)	(inch)
	0.00	0.43
	0.83	0.00
	0.53	0.27
	0.14	0.25
	0.73	0.65
	0.28	0.92
	0.15	1.68
	0.68	1.68
Average	0.42	0.73
Maximum Dispersion	0.41	0.95

## **Water Immersion Velocity and Accuracy**



Firearm: Remington R1 1911 5.0" length 460 Rowland conversion barrel with muzzle compensator

Distance: 8 feet in front of muzzle

Chronograph: Pact Model 1 XP

Weather: 1m submersion in 60°F water for 30 minutes. 78°F, 93% humidity

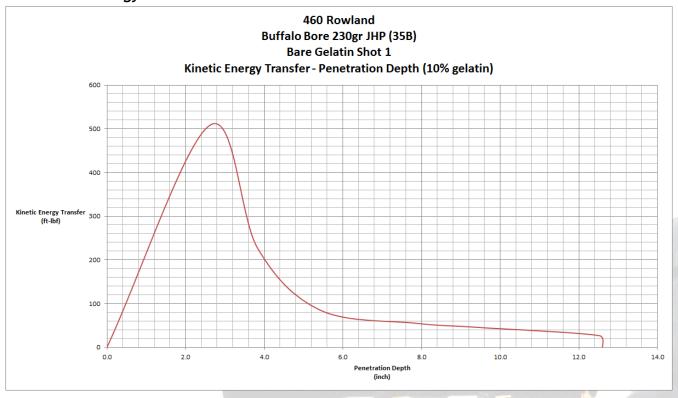
#### ACCURACY (10 meters from muzzle)



	<u>X</u>	<u>Y</u>
	(inch)	(inch)
	0.00	0.49
	0.33	0.00
	0.73	0.19
	0.73	0.04
	0.98	0.04
	1.03	0.31
	1.26	0.22
	1.35	0.38
Average	0.80	0.21
Maximum dispersion	0.55	0.28

# **Bare Gelatin terminal Performance**

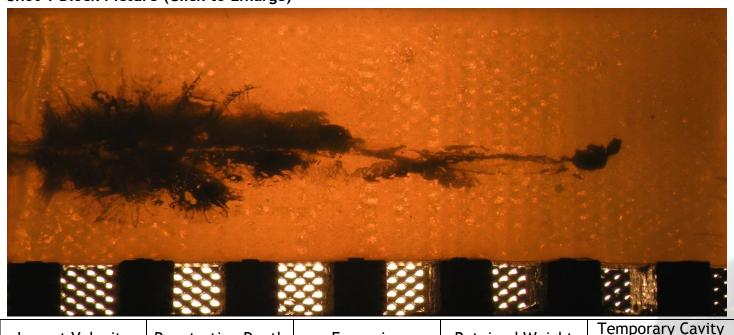
**Shot 1 Kinetic Energy Transfer** 



Shot 1 High Speed Video (Click to watch the video)



Shot 1 Block Picture (Click to Enlarge)

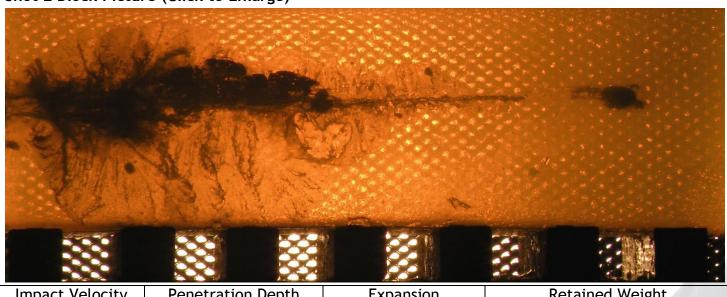


Impact Velocity (ft/sec)	Penetration Depth (inch)	Expansion (square inch)	Retained Weight (grain)	Temporary Cavity Diameter (inch)
1363	11.6	0.420	135.5	6.26

Shot 1 Recovered Projectile (Click to Enlarge)



Shot 2 Block Picture (Click to Enlarge)

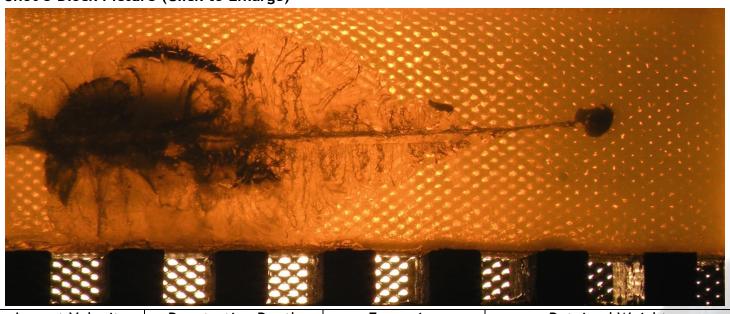


Impact Velocity (ft/sec)	Penetration Depth (inch)	Expansion (square inch)	Retained Weight (grain)
1320	12.2	0.306	137.1

Shot 2 Recovered Projectile (Click to Enlarge)



Shot 3 Block Picture (Click to Enlarge)



Impact Velocity	Penetration Depth	Expansion (square inch)	Retained Weight
(ft/sec)	(inch)		(grain)
1306	11.8	0.339	136.3

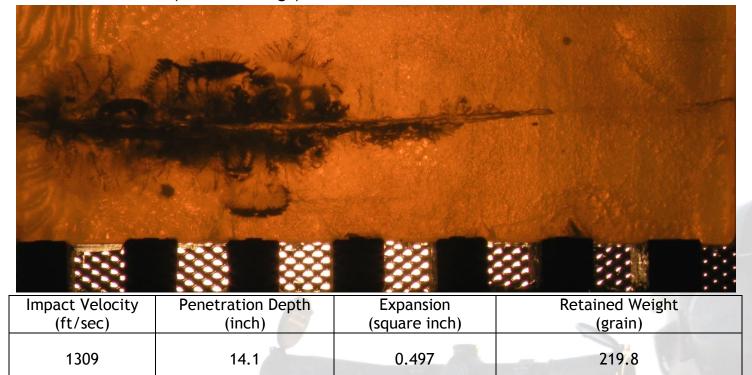
Shot 3 Recovered Projectile (Click to Enlarge)



Shot Number	Impact Velocity (ft/sec)	Penetration Depth (inch)	Expansion (square inch)	Retained Weight (grain)
1	1363	11.6	0.420	135.5
2	1320	12.2	0.306	137.1
3	1306	11.8	0.339	136.3
Average	1330	11.9	0.355	136.3

# **Heavy Clothing + Gelatin terminal Performance**

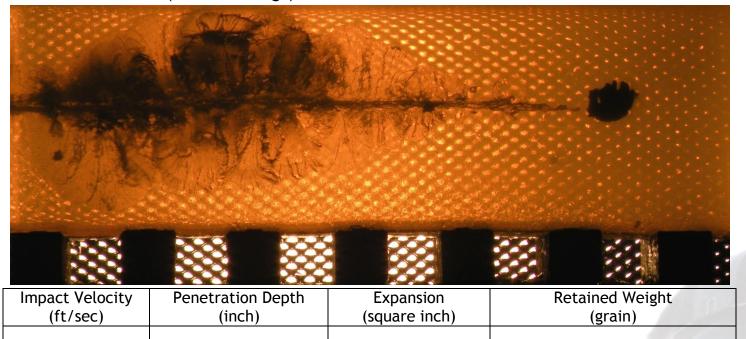
**Shot 1 Block Picture (Click to Enlarge)** 



Shot 1 Recovered Projectile (Click to Enlarge)



**Shot 2 Block Picture (Click to Enlarge)** 



0.745

220.0

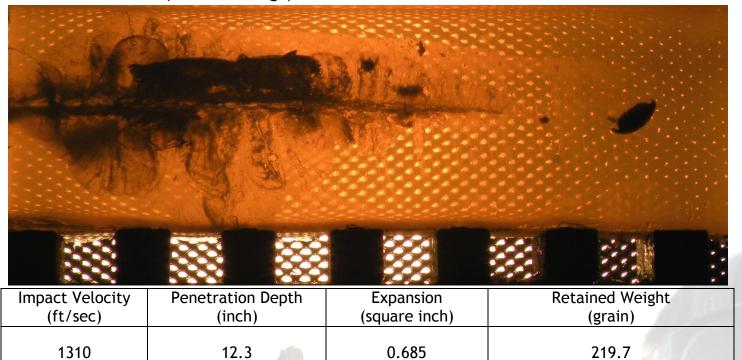
Shot 2 Recovered Projectile (Click to Enlarge)

11.8

1338



**Shot 3 Block Picture (Click to Enlarge)** 



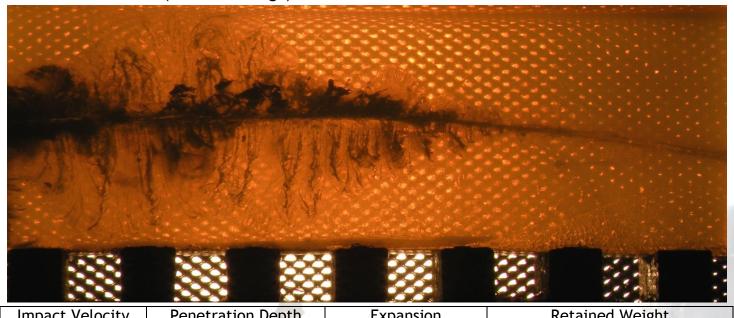
Shot 3 Recovered Projectile (Click to Enlarge)



Shot Number	Impact Velocity (ft/sec)	Penetration Depth (inch)	Expansion (square inch)	Retained Weight (grain)
1	1309	14.1	0.497	219.8
2	1338	11.8	0.745	220.0
3	1310	12.3	0.685	219.7
Average	1319	12.7	0.642	219.8

# <u>Automobile Windshield + Gelatin terminal Performance</u>

Shot 1 Block Picture (Click to Enlarge)

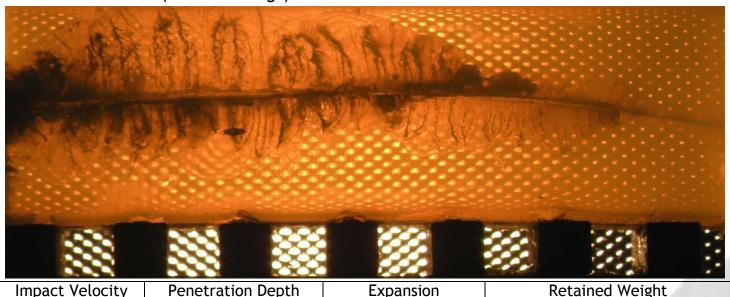


Impact Velocity	Penetration Depth	Expansion (square inch)	Retained Weight
(ft/sec)	(inch)		(grain)
1336	15.0	0.399	210.6

Shot 1 Recovered Projectile (Click to Enlarge)



Shot 2 Block Picture (Click to Enlarge)

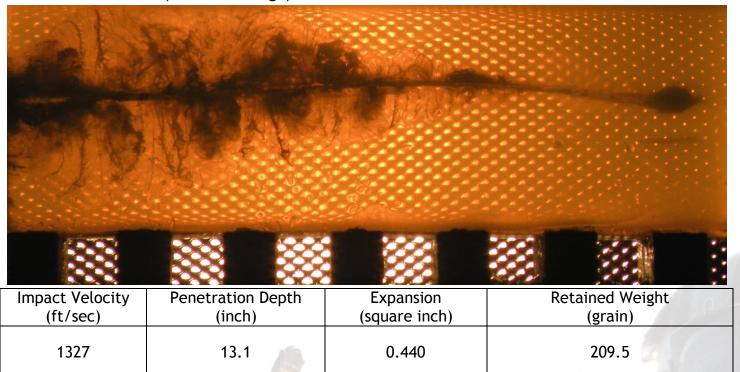


Impact Velocity (ft/sec)	Penetration Depth (inch)	Expansion (square inch)	Retained Weight (grain)
1357	16.3	0.377	208.2

Shot 2 Recovered Projectile (Click to Enlarge)



**Shot 3 Block Picture (Click to Enlarge)** 



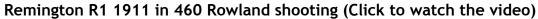
Shot 3 Recovered Projectile (Click to Enlarge)



Shot Number	Impact Velocity (ft/sec)	Penetration Depth (inch)	Expansion (square inch)	Retained Weight (grain)
1	1336	15.0	0.399	210.6
2	1357	16.3	0.377	208.2
3	1327	13.1	0.440	209.5
Average	1340	14.8	0.405	209.4

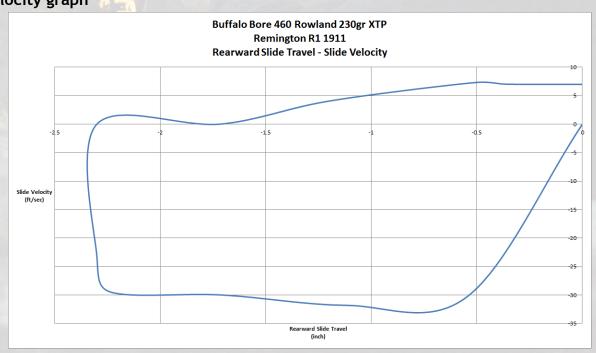
## **Slide Velocity**

The slide velocity of a semi-automatic handgun is an important metric as it is relative to the recoil felt by the shooter and the feed reliability of the firearm. Slow motion video analysis of the tested Remington R1 1911 is presented below.





Slide Velocity graph



#### Muzzle Flash

When a small arm is fired, three target signatures emerge at the muzzle: noise, flash and smoke. Reducing the muzzle flash of a defensive firearm is important because it reduces the likelihood of an opponent visually determining your firing position. While this is most relevant to the world of rifles, a small muzzle flash from a handgun is also important as a means to minimize your "night blindness" after shooting and secondarily important as a means to conceal your firing position from attackers located at some distance from your location.

Remington R1 1911 in 460 Rowland muzzle flash (Click to watch the video)



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