

**Performance of No Man's Land 20 gauge
#4 buckshot (18 pellet)
in Bare 10-percent ballistic gelatin**

Brass Fetcher Ballistic Testing

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Summary

	Shot 1	Shot 2	Shot 3
Calibration depth (Inches, corrected to 590 ft/sec impact velocity) (Ideal gelatin block penetration depth = 3.4")	3.6		
Impact velocity (Measured at 7ft) (ft/sec)	1195		
Median Penetration Depth (inch)	12.1		

Notes :

Weapon – Mossberg 20 gauge *Model 500*; 18.5" barrel length, cylinder choke

Distance – 10.0 feet, muzzle to impact face

Shot 1

Block Calibration Velocity (ft/sec)	Block Calibration Depth (inch)	Block Calibration Temperature (Degrees Fahrenheit)	Block Core Temperature (Degrees Fahrenheit)
578	3.5	42.4	41.8

Impact Velocity (ft/sec)	Deepest Penetration Depth (inch)	Maximum Crack Diameter (inch)	Maximum Crack Diameter Location (inch)
1195	13.7	5.6	3.2

Cavitation Depth (inch)	Pellets Recovered Independent of the primary cavity (quantity)	Pellet Combined Surface Area Independent of the primary cavity (square inch)
8.6	14	0.687

Commentary :

Significant deformation was noted on all pellets.

Two shots exited the top of the gelatin block at 7.1" and 9.4" inches depth and are included in the analysis.

Test site conditions – 75 degrees Fahrenheit, 60% relative humidity

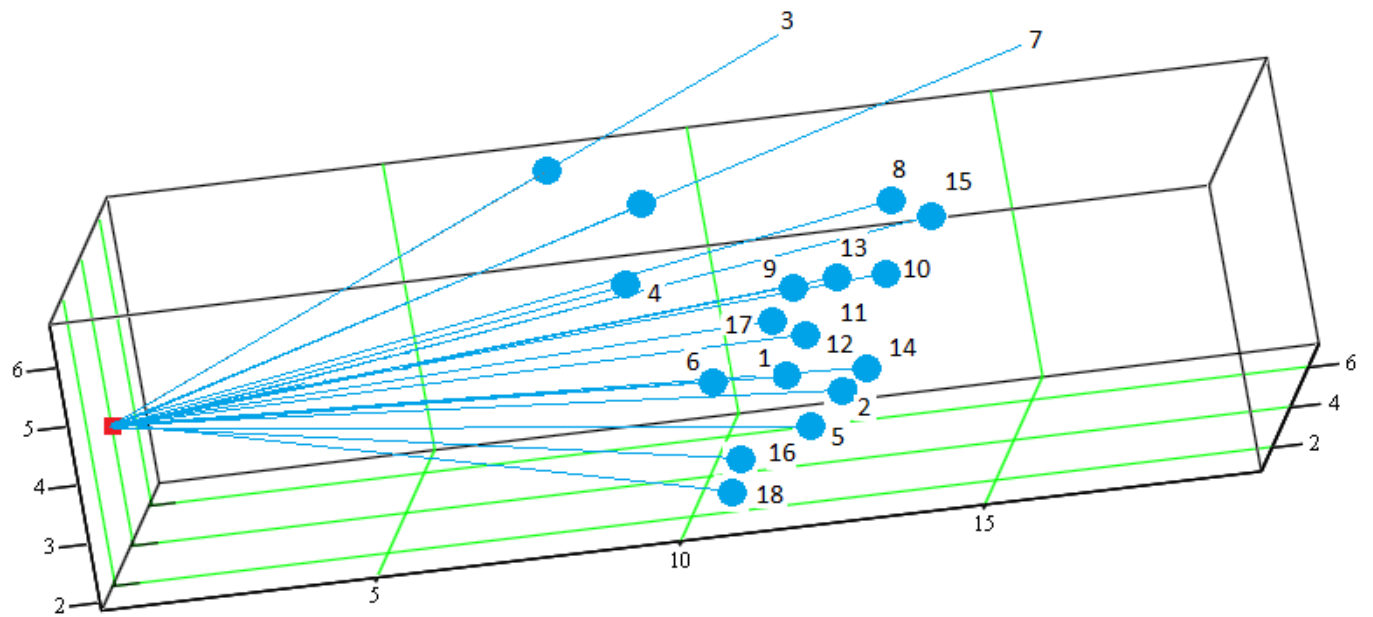
Time out of refrigeration prior to shot impact – 5 minutes

Pellet average diameter – 0.242"

Pellet recovered weight (median over entire load) – 20.8gr

3-dimensional visualization of fragment penetration

Figure 1.



Unit = inch

Individual fragment penetration depths

Pellet number	Individual pellet penetration depths (inch)
1	10.0
2	10.4
3	7.1 (exited block)
4	9.3
5	11.3
6	10.3
7	9.4 (exited block)
8	12.1
9	11.9
10	13.4
11	12.5
12	12.9
13	13.0
14	13.2
15	13.7
16	12.5
17	12.4
18	12.5

Figure 2. Side view of **Shot 1** gelatin block



Figure 3. Top view of **Shot 1** gelatin block

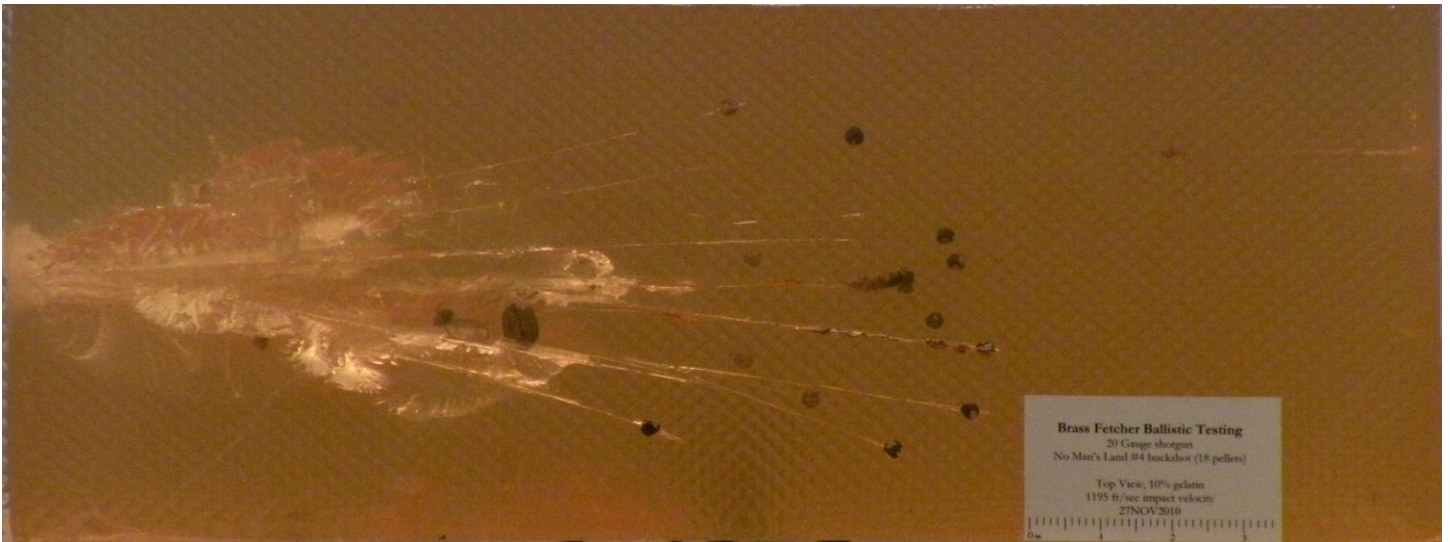


Figure 4. Fragment view of **Shot 1** recovered shot pellets

