

Rifle Details	
Weapon Maker	Barrett
Model	MK22 Mod 0
SN	USA000592
Caliber	300 PRC
Barrel Twist	1-8
Barrel ID	#1

Group Summary											
Group	Projectile	Powder	Charge	OAL	#	STDEV	ESP	AVG	TSF Spread	TSF STDEV	Group Size
1	230 ATIP	N565	76.9	34	27	6	25	2870.4	65.83	10.73	NA
2	220 Berger LRT	N565	76.9	34	4	6.6	15.7	2944.3	20.609	8.73	NA

Shot Details																
Group/Shot	Projectile	Brass	Brass Age	TRIM	EM	AMP	Primer	PLot	Powder	Lot	Grain Weight	Measured Charge#4	TSF	Speed	Speed Change	STDEV from Average
1	230 ATIP	Lapua	1	2.570	0.307	0	GM215M	M651Q02	N565	230072	76.9	4983.10	54.180	2862.30	0.00	0.90
2	230 ATIP	Lapua	1	2.570	0.307	0	GM215M	M651Q02	N565	230072	76.9	4983.30	44.212	2870.50	8.20	0.20
3	230 ATIP	Lapua	1	2.570	0.307	0	GM215M	M651Q02	N565	230072	76.9	4983.60	86.368	2871.30	0.80	0.90
4	230 ATIP	Lapua	1	2.570	0.307	0	GM215M	M651Q02	N565	230072	76.9	4983.60	58.333	2877.10	5.80	6.70
5	230 ATIP	Lapua	1	2.570	0.307	0	GM215M	M651Q02	N565	230072	76.9	4982.80	44.835	2864.50	-12.60	-5.80
6	230 ATIP	Lapua	1	2.570	0.307	0	GM215M	M651Q02	N565	230072	76.9	4983.40	41.720	2879.50	15.00	9.20
7	230 ATIP	Lapua	1	2.570	0.307	0	GM215M	M651Q02	N565	230072	76.9	4984.00	49.160	2865.50	-14.00	-4.90
8	230 ATIP	Lapua	1	2.570	0.307	0	GM215M	M651Q02	N565	230072	76.9	4982.90	57.087	2866.30	0.80	-4.10
9	230 ATIP	Lapua	1	2.570	0.307	0	GM215M	M651Q02	N565	230072	76.9	4982.70	52.311	2873.00	6.70	2.60
10	230 ATIP	Lapua	1	2.570	0.307	0	GM215M	M651Q02	N565	230072	76.9	4983.60	45.873	2865.80	-7.20	-4.60
11	230 ATIP	Lapua	1	2.570	0.307	0	GM215M	M651Q02	N565	230072	76.9	4982.70	47.742	2857.70	-8.10	-12.60
12	230 ATIP	Lapua	1	2.570	0.307	0	GM215M	M651Q02	N565	230072	76.9	4984.10	42.343	2875.20	17.50	4.80
13	230 ATIP	Lapua	1	2.570	0.307	0	GM215M	M651Q02	N565	230072	76.9	4983.00	42.135	2875.60	0.40	5.20
14	230 ATIP	Lapua	1	2.570	0.307	0	GM215M	M651Q02	N565	230072	76.9	4982.20	42.758	2882.70	7.10	12.30
15	230 ATIP	Lapua	1	2.570	0.307	0	GM215M	M651Q02	N565	230072	76.9	4983.80	51.065	2874.60	-8.10	4.30
16	230 ATIP	Lapua	1	2.570	0.307	0	GM215M	M651Q02	N565	230072	76.9	4982.00	53.349	2867.00	-7.60	-3.40
17	230 ATIP	Lapua	1	2.570	0.307	0	GM215M	M651Q02	N565	230072	76.9	4983.00	66.274	2871.90	4.90	1.50
18	230 ATIP	Lapua	1	2.570	0.307	0	GM215M	M651Q02	N565	230072	76.9	4983.70	45.508	2872.30	0.40	2.00
19	230 ATIP	Lapua	1	2.570	0.307	0	GM215M	M651Q02	N565	230072	76.9	4983.70	41.354	2866.30	-6.00	-4.00
20	230 ATIP	Lapua	1	2.570	0.307	0	GM215M	M651Q02	N565	230072	76.9	4982.30	39.693	2865.70	-0.60	-4.60
21	230 ATIP	Lapua	1	2.570	0.307	0	GM215M	M651Q02	N565	230072	76.9	4983.10	37.824	2871.50	5.80	1.10
22	ATIP	Lapua	1	2.570	0.307	0	GM215M	M651Q02	N565	230072	76.9	4982.20	51.322	2875.50	4.00	5.20
23	ATIP	Lapua	1	2.570	0.307	0	GM215M	M651Q02	N565	230072	76.9	4983.70	59.629	2864.60	-10.90	-5.80
24	ATIP	Lapua	1	2.570	0.307	0	GM215M	M651Q02	N565	230072	76.9	4984.00	44.469	2880.10	15.50	9.70
25	ATIP	Lapua	1	2.570	0.307	0	GM215M	M651Q02	N565	230072	76.9	4983.70	103.654	2873.30	-6.80	2.90
26	ATIP	Lapua	1	2.570	0.307	0	GM215M	M651Q02	N565	230072	76.9	4982.20	54.454	2863.30	-10.00	-7.00
27	ATIP	Lapua	1	2.570	0.307	0	GM215M	M651Q02	N565	230072	76.9	7984.00	51.000	2866.60	3.30	-3.70
STDEV/Average												0.61	10.728	2870.54		

Definitions	
Acronym	Definition
AMP	The annealing setting used on the AMP Annealer or the number of seconds flame annealed
AVG	The average of all shot speeds in a group
Brass Age	How many times the brass has been reloaded
Charge	The target charge in grain weight before measuring
EM	Size of expander mandrel used
ESP	Extreme spread of measure velocities in a group
Measured Charge	The actual charge measured on the scale in mg
OAL	The length measurement used on an adjusted LE Wilson seating Die
PLot	Primer lot number
Primer	Primer model used in the case
STDEV	The standard deviation of all shot speeds in a group
STDEV from Average	The std deviation recorded for each shot by the chronograph
STDEV/Average	The first two measurements are STDEV. Last is Average
TRIM	Case Trim Length measured with calipers and primer installed.
TSF	Terminal Seating Force (Final Seating Press Measurement)
TSF Spread	Largest TSF measurement minus the smallest TSF measurement for a group
TSF STDEV	Standard deviation of TSF measurements for a group

Notes:
Numbers Loog great but the groups do not. The brass was mixed in terms of shoulder setback.

Primer crush may also be an issue.

Shot Details-1																
Group/Shot	Projectile	Brass	Brass Age	TRIM	EM	AMP	Primer	PLot	Powder	Lot	Grain Weight	Measured Charge#4	TSF	Speed	Speed Change	STDEV from Average
1	220 Berger LRT	Lapua	1	2.570	0.307	0	GM215M	M651Q02	N565	230072	76.9	4982.30	59.946	2939.00	0.00	-5.300
2	220 Berger LRT	Lapua	1	2.570	0.307	0	GM215M	M651Q02	N565	230072	76.9	4982.30	70.287	2949.00	10.00	4.700
3	220 Berger LRT	Lapua	1	2.570	0.307	0	GM215M	M651Q02	N565	230072	76.9	4984.10	64.629	2936.70	-12.30	-7.600
4	220 Berger LRT	Lapua	1	2.570	0.307	0	GM215M	M651Q02	N565	230072	76.9	4982.20	49.678	2952.40	15.70	8.200
STDEV/Average												0.92	8.730	2944.28		

Environmentals	
Location	Newberry, SC
Temp	31C
Pressure	29.52 in Hg
Humidity	40%
Wind	3.1 from 11:00
Range	100 yards
Date	5 Jul 25

Grain Conversion	
Grain	MG
76.9	4983.04
77	4989.51
77.1	4995.99

