

C6522223

MODEL 720™ M24

Model **SMS**™

Action

Barrel Length

Capacity

Order No. **5716**

*Includes 1 in chamber.

Remington

SNIPER WEAPON SYSTEM - UNIQUE STATISTICAL INFORMATION

FIREARM SERIAL NUMBER / DATASET NAME: C6522223.___0
FILE DATE AND TIME: 02/02/2005 08:57

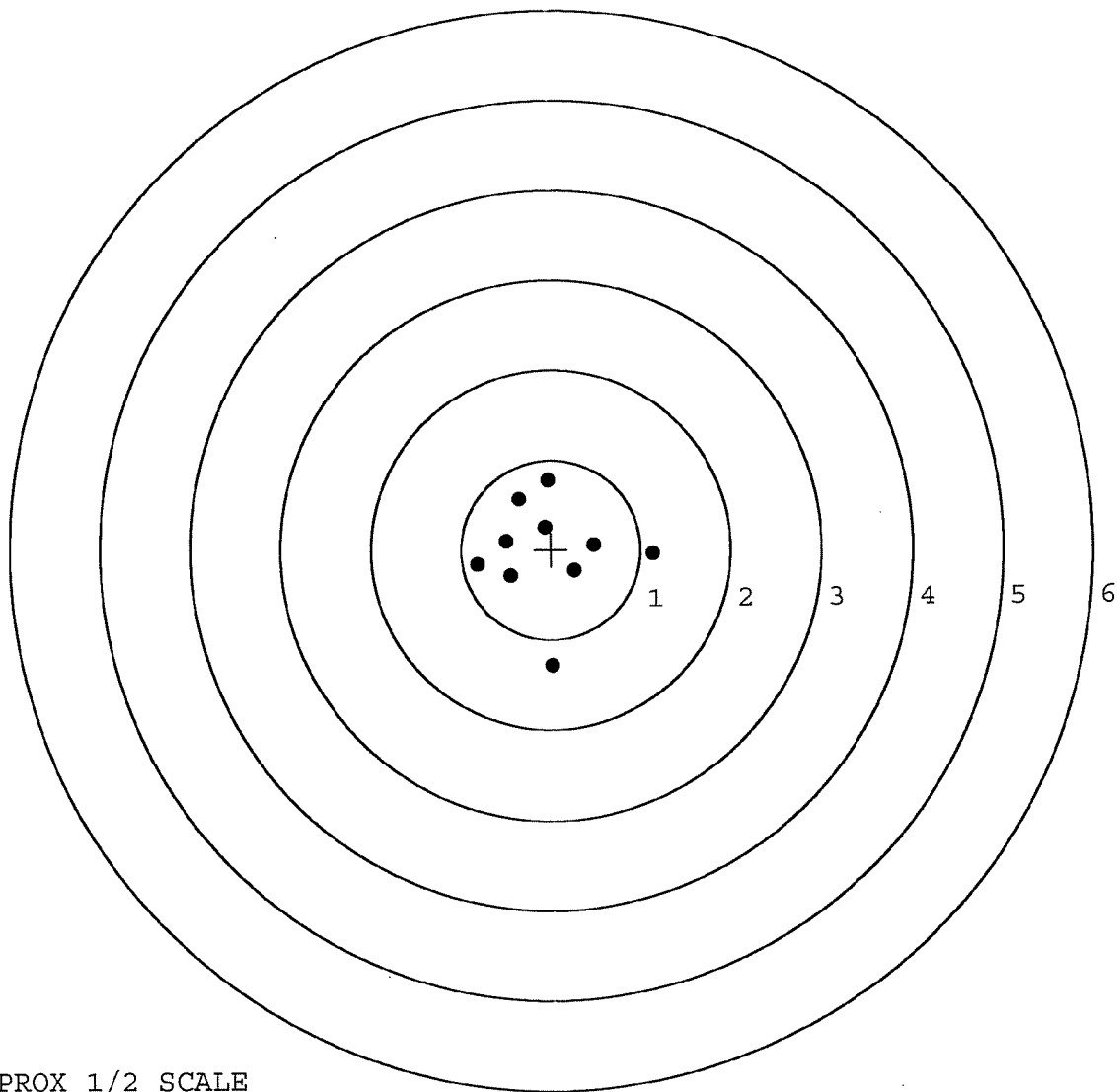
THE FOLLOWING DATA IS ALL REPORTED IN UNITS OF INCHES

The Average X Centroid of the Five Target Set:	0.039
The Average Y Centroid of the Five Target Set:	-0.110
The Average Point of Impact of the Five Target Set:	0.117
The Average Mean Radius of the Five Target Set:	0.647
The Distance from POA to Centroid Target #1:	0.048
The Distance from Centroid Target #2 to Centroid Target #1:	0.174
The Distance from Centroid Target #3 to Centroid Target #1:	0.062
The Distance from Centroid Target #4 to Centroid Target #1:	0.261
The Distance from Centroid Target #5 to Centroid Target #1:	0.172

SERIAL NUMBER: C6522223. __0
 TARGET NUMBER: 1
 FILE DATE: 02/02/2005
 FILE TIME: 08:57

POINT#	X	Y
1:	1.138	-0.054
2:	0.012	-1.298
3:	0.262	-0.237
4:	0.474	0.052
5:	-0.458	-0.292
6:	-0.823	-0.166
7:	-0.504	0.098
8:	-0.070	0.247
9:	-0.359	0.564
10:	-0.036	0.779

X CENTROID: -0.036
 Y CENTROID: -0.031
 POA TO CENTROID: 0.048
 HORZ SPREAD: 1.961
 VERT SPREAD: 2.077
 GROUP SPREAD: 2.078
 MIN RADIUS: 0.280
 MAX RADIUS: 1.268
 MEAN RADIUS: 0.687
 # IN 1 IN DIAMETER: 4
 # IN 2 IN DIAMETER: 8
 # in 3 IN DIAMETER: 10



TARGET APPROX 1/2 SCALE

SERIAL NUMBER: C6522223. 0

TARGET NUMBER: 2

FILE DATE: 02/02/2005

FILE TIME: 08:57

POINT#	X	Y
1:	0.648	-1.167
2:	0.150	-1.045
3:	0.156	-0.707
4:	-0.092	-0.338
5:	-0.555	-0.437
6:	-1.156	-0.118
7:	0.539	-0.026
8:	0.236	0.185
9:	-0.092	0.465
10:	-0.117	1.140

X CENTROID: -0.028

Y CENTROID: -0.205

POA TO CENTROID: 0.207

HORZ SPREAD: 1.804

VERT SPREAD: 2.307

GROUP SPREAD: 2.431

MIN RADIUS: 0.148

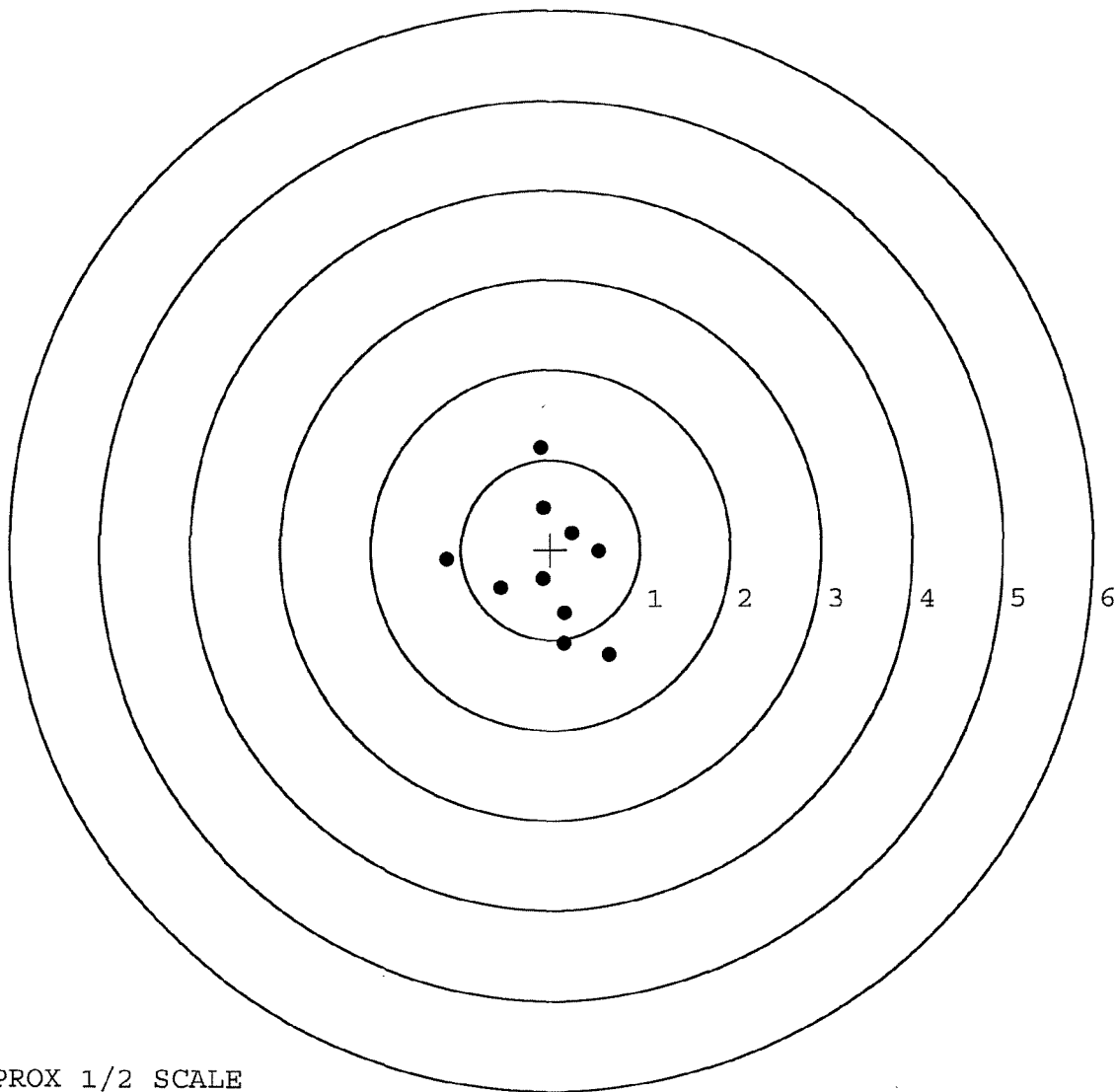
MAX RADIUS: 1.348

MEAN RADIUS: 0.751

IN 1 IN DIAMETER: 2

IN 2 IN DIAMETER: 7

in 3 IN DIAMETER: 10



TARGET APPROX 1/2 SCALE

SERIAL NUMBER: C6522223.0

TARGET NUMBER: 3

FILE DATE: 02/02/2005

FILE TIME: 08:57

POINT#	X	Y
1:	0.595	-0.835
2:	0.512	-0.176
3:	0.307	-0.010
4:	0.259	0.286
5:	-0.137	0.319
6:	-0.043	0.140
7:	-0.293	0.021
8:	-0.126	-0.326
9:	-0.563	-0.318
10:	-0.629	0.027

X CENTROID: -0.012

Y CENTROID: -0.087

POA TO CENTROID: 0.088

HORZ SPREAD: 1.224

VERT SPREAD: 1.154

GROUP SPREAD: 1.497

MIN RADIUS: 0.229

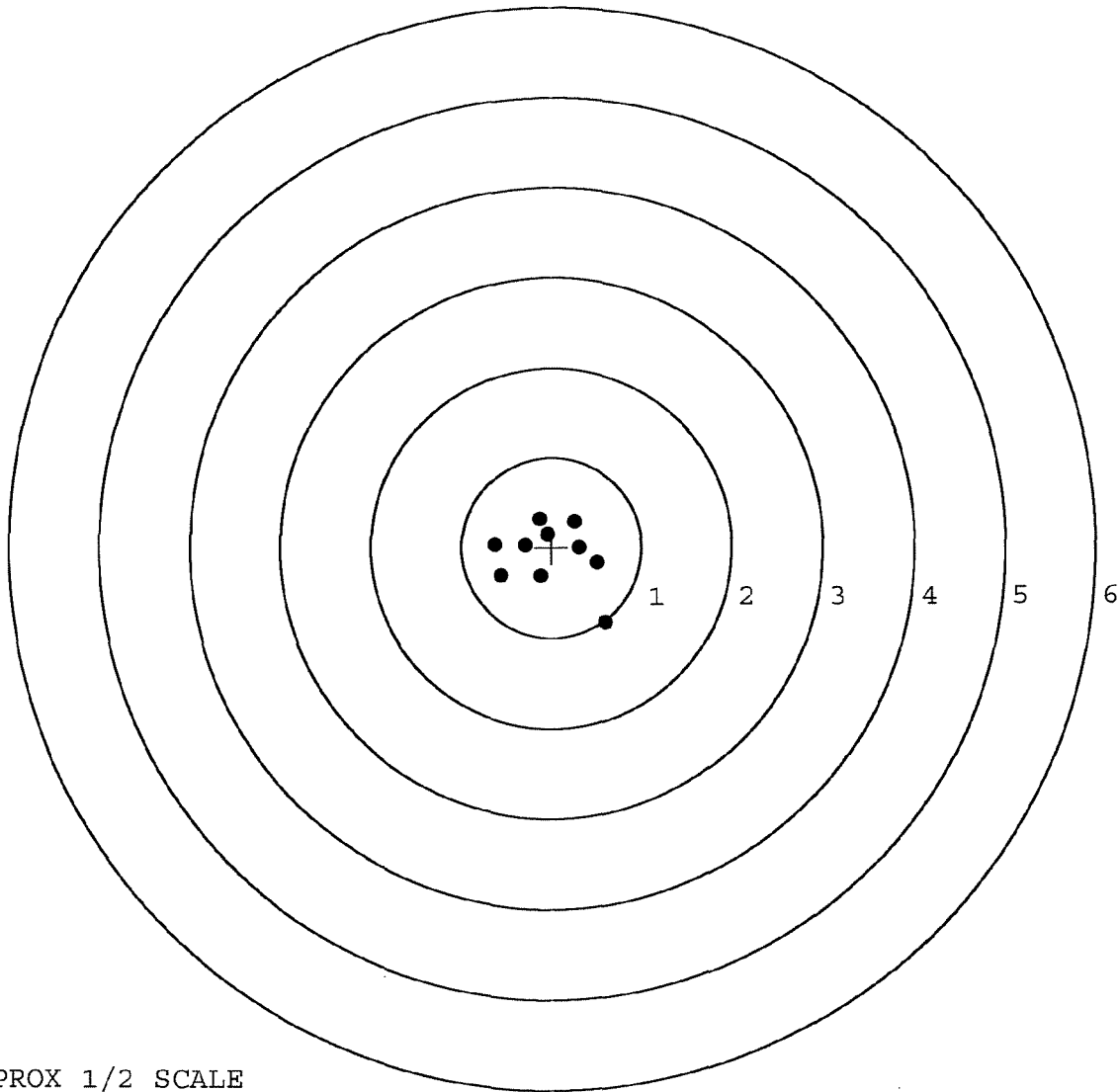
MAX RADIUS: 0.963

MEAN RADIUS: 0.473

IN 1 IN DIAMETER: 6

IN 2 IN DIAMETER: 10

in 3 IN DIAMETER: 10



TARGET APPROX 1/2 SCALE

SERIAL NUMBER: C6522223. 0

TARGET NUMBER: 4

FILE DATE: 02/02/2005

FILE TIME: 08:57

POINT#	X	Y
1:	1.134	-0.073
2:	0.761	-0.077
3:	0.999	0.179
4:	0.411	-0.106
5:	0.083	0.160
6:	0.200	-0.042
7:	0.122	0.565
8:	-0.307	-0.520
9:	-0.425	-0.165
10:	-0.735	-0.403

X CENTROID: 0.224

Y CENTROID: -0.048

POA TO CENTROID: 0.229

HORZ SPREAD: 1.869

VERT SPREAD: 1.085

GROUP SPREAD: 1.898

MIN RADIUS: 0.025

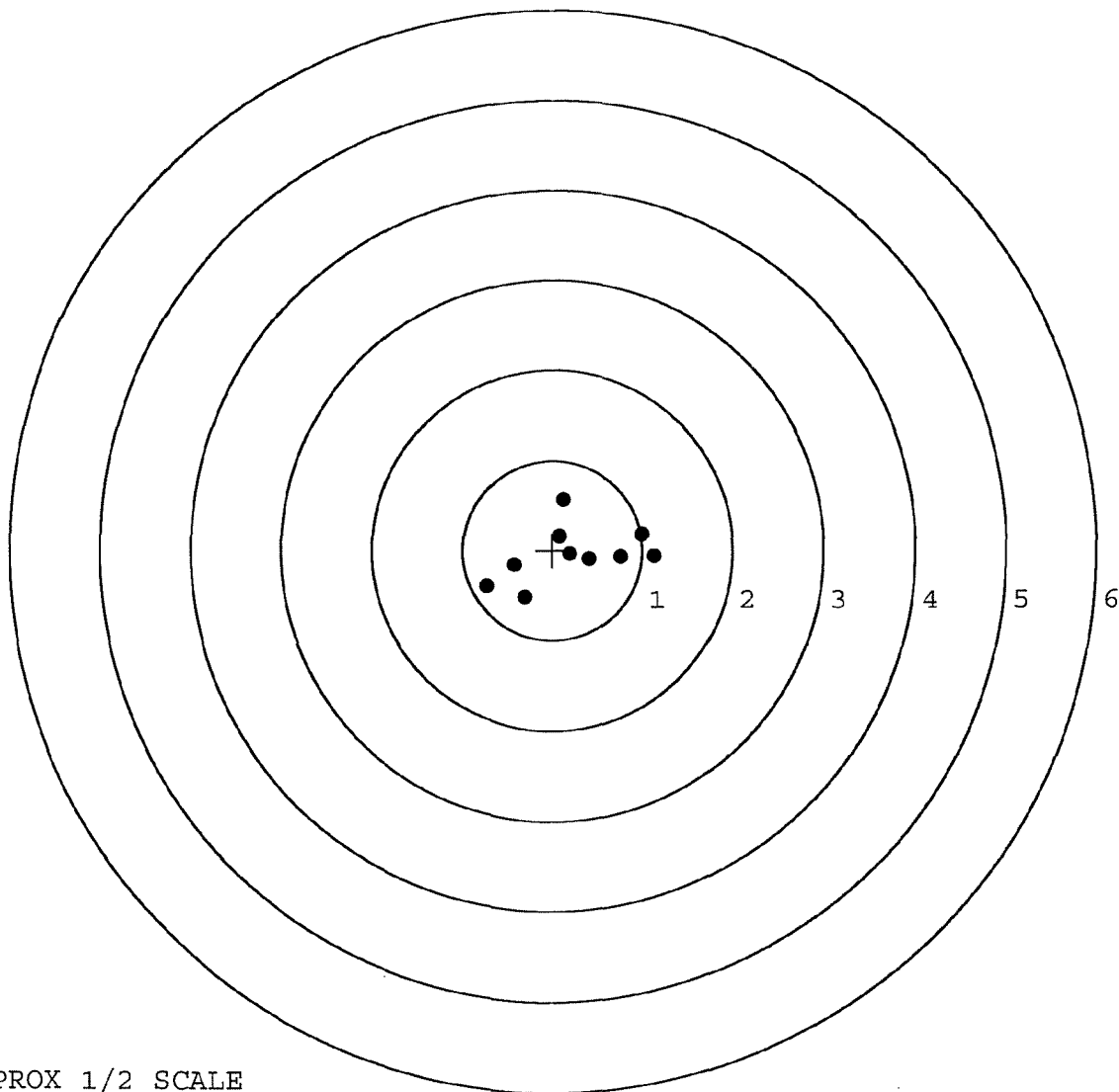
MAX RADIUS: 1.023

MEAN RADIUS: 0.574

IN 1 IN DIAMETER: 3

IN 2 IN DIAMETER: 9

in 3 IN DIAMETER: 10



TARGET APPROX 1/2 SCALE

SERIAL NUMBER: C6522223. 0

TARGET NUMBER: 5

FILE DATE: 02/02/2005

FILE TIME: 08:57

POINT#	X	Y
1:	0.562	-0.419
2:	-0.835	-0.381
3:	1.200	-2.167
4:	-0.161	0.719
5:	-0.198	0.490
6:	-0.155	0.233
7:	0.372	0.276
8:	0.112	0.183
9:	-0.127	-0.172
10:	-0.284	-0.563

X CENTROID: 0.049

Y CENTROID: -0.180

POA TO CENTROID: 0.187

HORZ SPREAD: 2.035

VERT SPREAD: 2.886

GROUP SPREAD: 3.191

MIN RADIUS: 0.176

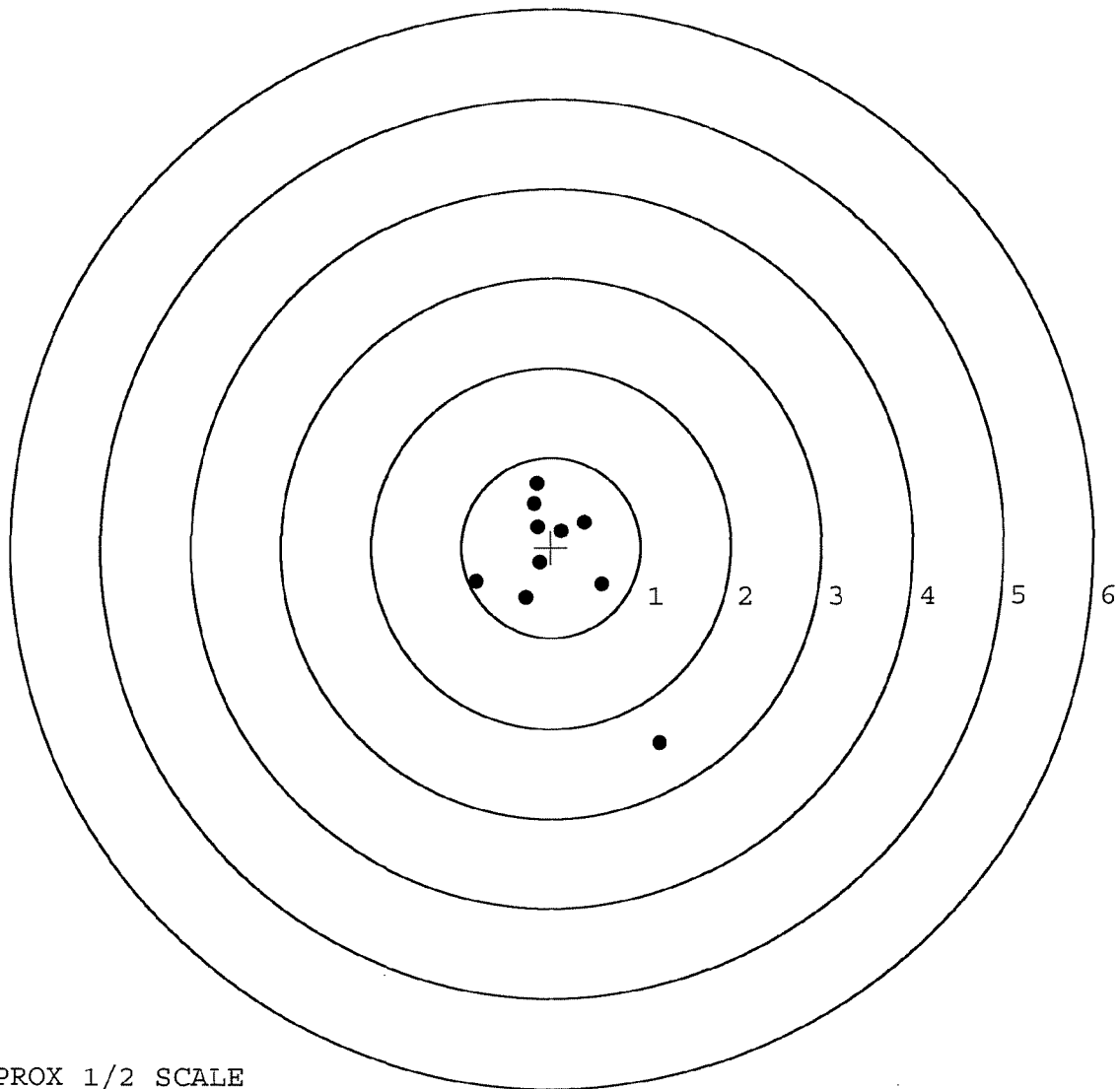
MAX RADIUS: 2.296

MEAN RADIUS: 0.748

IN 1 IN DIAMETER: 3

IN 2 IN DIAMETER: 9

in 3 IN DIAMETER: 9



TARGET APPROX 1/2 SCALE

R & E NUMBER	91476		
SERIAL NUMBER	C6522223		
LOG-IN DATE	1-19-05		
INSPECT AND VERIFY:			
OPERATION #	OPERATION NAME	DATE	INITIAL
550	DIS-ASSEMBLE GUN	1-21-05	RTL
560 A	RE-BARREL	1-21-05	RTL
B	DRILL AND TAP	1-26-05	TRW
575	ASSEMBLE	1-21-05	RTL
600	PROOF	1-26-05	TRW
605	CHECK HEADSPACE	1-26-05	TRW
610	DIS-ASSEMBLE GUN	1-24-05	RTL
612	MAGNAFLUX	OPERATOR	
615	ROLLMARK CALIBER	1-27-05	CW
618	ROTO-BLAST	1-27-05	LB
620	APPLY COATINGS	1/29/05	HP
625 A	FINAL ASSEMBLY	1-31-05	RTL
B	TRIGGER PULL TEST	N/A	
C	SAFETY "ON" FORCE		
D	SAFETY "OFF" FORCE		
E	FIRING PIN INDENT		
640	TARGET	2-2-05	TRW
655	FINAL INSPECT	2-11-05	RTL
660	PACK	2-11-05	WZ
		SHIP DATE	
QAR INSPECTION DATE			

M-24

CONTRACT # DAAA21-87-C-0086

GUN SERIAL #

C 6522223

OP. #	OP. NAME	READINGS	DATE	INIT
575 & 580	Assemble Action and Stock		6/24/90	KJ
600	Proof		6/26/90	KJ
607	Check Headspace		6/26/90	KJ
610	Dis-assemble Gun		6/26/90	KJ
612	Magnaflux Barrel Action		7/10/90	KR
	Magnaflux Bolt		7/10/90	KR
615	Rollmark Caliber		7/10/90	S.S.
617	Drill and Tap Sight Holes		7/11/90	FoB
618	Polish Barrel RB		7/13/90	WB
620	Apply Coatings (Barrel Action)		7/23/90	JA
	Apply Coating (Bolt)			
625	Final Assembly		8/6/90	KS
	A) Clean inside of Bolt Assembly			
	B) Inspect Rear Firing Pin Hole for Chamfer in Bolt Head		8/6/90	KS
	C) Inspect Ejector Hole for Chamfer		8/6/90	KS
	D) Oil Firing Pin Ass'y		8/6/90	KS
	E) Adjust Trigger Pull to Min Setting and Stake		9-6-90	GL

op. #	OP. NAME	READINGS					DATE	INIT
625 cont.	F) Safety On Force	5½	6	5½				
	G) Safety Off Force	3	3	3				
	H) Trigger Pull Test & Retainability						9-6-90	JH
	I) Firing Pin Indent	.023	.0225	.0235				
	J) Assemble Stock						8/7/90	KS
	K) Assemble Swivel Studs						9/8/90	JH
	L) Attach Front and Rear Sight Assemblies						8/7/90	KS
	M) Iron Sight Alignment						8/7/90	KS
	N) Detach Front & Rear Sights & place in numbered container						8/7/90	KS
	O) Attach Scope to Rifle						8/7/90	KS
	P) Detach & Attach Scope 20 Times						8/7/90	KS
640	Gallery Target & Test						8-9-90	NF
	A) Time						8-9-90	NF
	B) Malfunctions						8-9-90	NF
	C) Pierced Primers						8-9-90	NF
	D) Optical Clarity of Scope						8-9-90	NF
645	Inspect for Live Ammo						8-9-90	NF
655	Final Inspection							
	A) Headspace						9/8/90	JH
	B) Trigger Pull	2.33	2.45	2.48	2.51	2.14	9-6-90	JH
	C) Function						9/8/90	KS
660	Pack						9-19-90	DH

AVERAGE PULL FORCE BETWEEN
INITIAL & CYCLE TESTS
2.50# ± .50#
3.00# ± .75#
4.00# ± 1.00#

SERIAL NO. 06522223DATE 9-6-90TESTER J21.

	2.50# INITIAL	2.50# AFTER 50 CYCLES	FINAL TEST & TO RESET 2.50#		COMMENTS
PULL #1	2.41	2.49	2.41	2.33	MIN. SETTING, NO AVG. OF 5 READINGS ACCEPT- ABLE LESS THAN 2#
PULL #2	2.48	2.16	2.26	2.45	
PULL #3	2.45	2.19	2.27	2.48	
PULL #4	2.30	2.23	2.31	2.51	
PULL #5	2.16	2.42	2.21	2.14	
TOTAL	11.80	11.49	11.46	11.91	
AVG.	2.36	2.298	2.292	2.382	

	3.00# INITIAL	3.00# AFTER 20 CYCLES		COMMENTS
PULL #1	3.41	3.37		
PULL #2	3.33	3.29		
PULL #3	3.50	3.15		
PULL #4	3.39	3.22		
PULL #5	3.25	3.30		
TOTAL	16.88	16.33		
AVG.	3.376	3.266		

	4.00# INITIAL	4.00# AFTER 20 CYCLES	MAX SETTING GREATER THAN 4#	RESET TO 4# FOR TARGET & ACCURACY
PULL #1	4.16	4.41		4.14
PULL #2	4.50	4.38		4.23
PULL #3	4.46	4.39		4.37
PULL #4	4.16	4.29		4.34
PULL #5	4.19	4.23		4.27
TOTAL	21.47	21.70		21.35
AVG.	4.294	4.34		4.27

CENTROIDAL DISTANCE CALCULATIONS
FOR RIFLE # C6522223
9 Aug 1990

CENTROIDAL DISTANCES

Ø TO	1	.62521
1 TO	2	.51257
1 TO	3	.793252
1 TO	4	.887929
1 TO	5	1.896

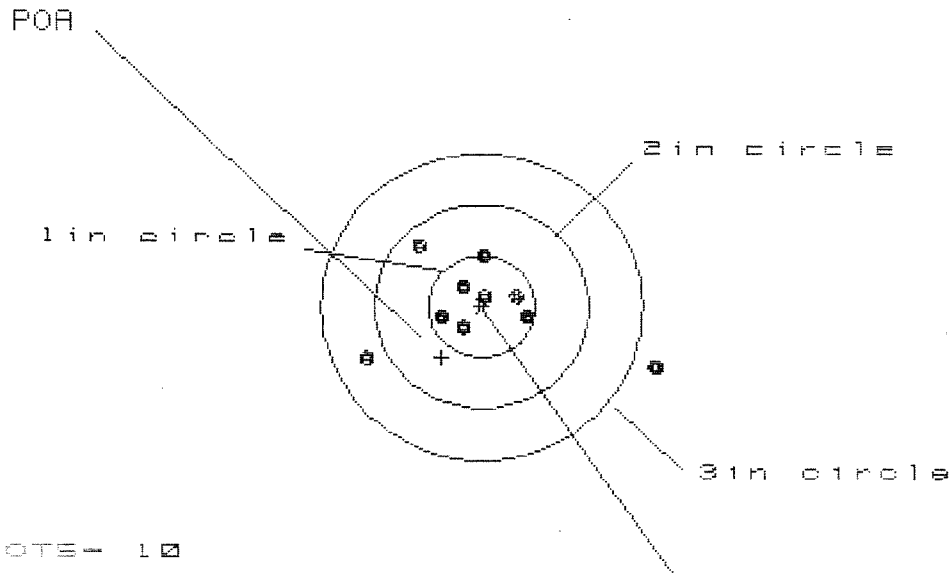
$\frac{1}{43} \frac{1}{2}$ <----POA
 5

THE AVERAGE X-COORDINATE FOR THIS RIFLE IS: .0624
 THE AVERAGE Y-COORDINATE FOR THIS RIFLE IS: -.1568
 THE AVERAGE RADIUS FOR THIS RIFLE IS: .16876

9 Aug 1998

FILE:/PATTERNING/CENTERFIRE_PATT/06522223

CENTERFIRE PATTERNS # 1



OF SHOTS - 10

IN CIR

1 in = 8

2 in = 8

3 in = 9

MEAN = 0.000

SD = 1.000

VARIANCE = 0.000

CENTROID #

MEAN (BEST OF)	10	9	8
MAXIMUM X	1.614	.552	.446
MINIMUM X	-1.028	-.849	-.460
MAXIMUM Y	.581	.512	.439
MINIMUM Y	-.626	-.588	-.369
CENTROID X	.378	.199	.305
CENTROID Y	.498	.567	.640
SD OF CENTROID X	.625	.601	.708
SD OF CENTROID Y	.982	.155	.098
MAX SPREAD	.594	.456	.360
MIN SPREAD	1.701	1.028	.636
HORIZONTAL SPREAD	2.642	1.401	.906
VERTICAL SPREAD	1.207	1.092	.808
EXTREME SPREAD	2.645	1.463	1.124
PERCENT IN ONE INCH CIRCLE	=	6	
PERCENT IN TWO INCH CIRCLE	=	8	
PERCENT IN THREE INCH CIRCLE	=	9	

9 Aug 1990

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CENTERFIRE PATTERNS # 2

POA

1 in circle

2 in circle

3 in circle

CENTROID *

OF SHOTS - 10

IN CIR

1 in = 3

2 in = 7

3 in = 10

MEAN 2.204

SEMI 1.817

SEM 2.465

PATTERN #		2		
SHOTS (BEST OF)		10	9	8
MAXIMUM X	:	.966	.888	.723
MINIMUM X	:	-1.238	-1.316	-.774
MAXIMUM Y	:	.681	.555	.584
MINIMUM Y	:	-1.136	-.496	-.467
CENTROID X	:	.600	.678	.843
CENTROID Y	:	.936	.162	.133
POA TO CENTROID (in)	:	.601	.697	.853
ALL RADIUS	:	.062	.150	.220
MEAN RADIUS	:	.727	.650	.555
SEM RADIUS	:	1.334	1.336	.930
HORIZONTAL SPREAD	:	2.204	2.204	1.497
VERTICAL SPREAD	:	1.817	1.051	1.051
EXTREME SPREAD	:	2.465	2.228	1.784
NUMBER IN ONE INCH CIRCLE	=		3	
NUMBER IN TWO INCH CIRCLE	=		7	
NUMBER IN THREE INCH CIRCLE	=		10	

9 Aug 1998

FILE:/PATTERNING/CENTERFIRE_PATT/06522223

CENTERFIRE PATTERNS # 3

POA

1 in circle

2 in circle

3 in circle

CENTROID *

OF SHOTS- 10

IN CIR

1 in = 2

2 in = 6

3 in = 8

HE = 1.702

VE = 2.585

OE = 2.710

PATTERN #	1	2	3
SHOTS (BEST OF)	10	9	8
MAXIMUM X	.899	.880	.687
MINIMUM X	-.894	-.982	-.678
MAXIMUM Y	1.654	1.122	1.028
MINIMUM Y	-.931	-.747	-.762
CENTROID X	.398	.406	.519
CENTROID Y	-.295	-.479	-.385
POA TO CENTROID (in)	.495	.628	.647
MIN RADIUS	.226	.397	.371
MEAN RADIUS	.901	.817	.766
MAX RADIUS	1.656	1.195	1.071
HORIZONTAL SPREAD	1.702	1.702	1.365
VERTICAL SPREAD	2.585	1.869	1.791
EXTREME SPREAD	2.710	2.285	2.040
NUMBER IN ONE INCH CIRCLE =	2	2	
NUMBER IN TWO INCH CIRCLE =	6	6	
NUMBER IN THREE INCH CIRCLE =	9	9	

9 Aug 1998

FILE:/PATTERNING/CENTERFIRE_PATT/06522223

CENTERFIRE PATTERNS # 4

POA

1in circle

2in circle

3in circle

OF SHOTS- 10

IN CIR

1in = 4

2in = 7

3in = 9

HS= 3.068

VS= 1.595

CS= 3.382

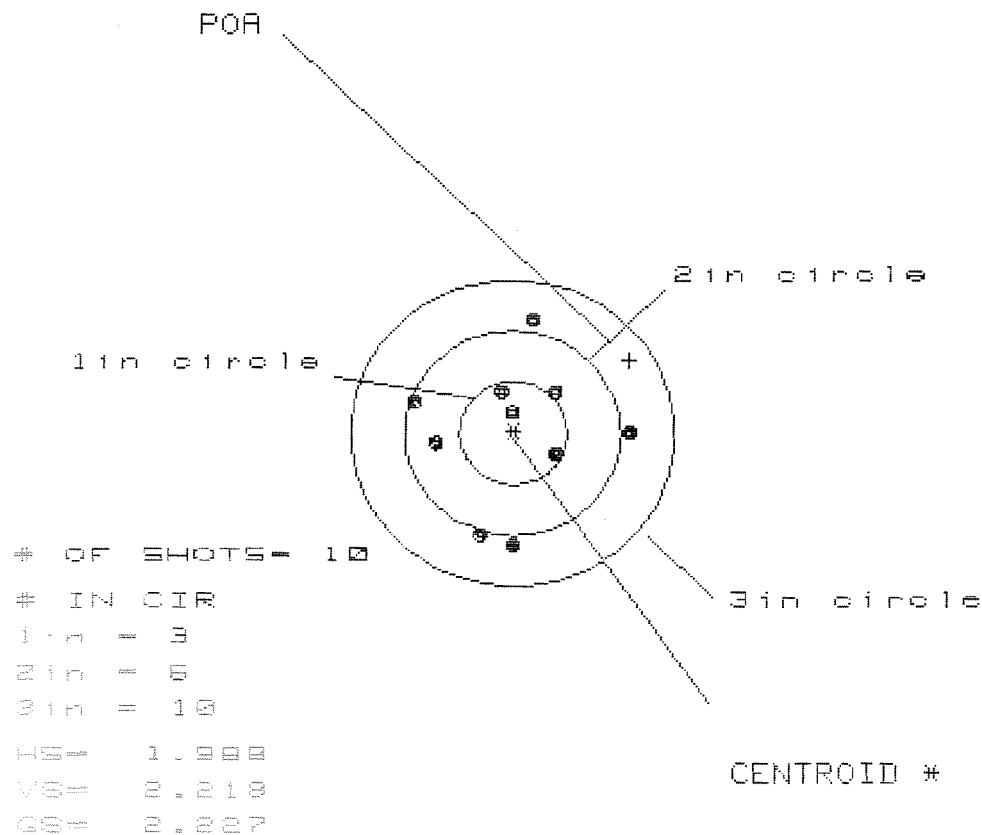
CENTROID *

PATTERN #	1	2	3
SHOTS (BEST OF)	10	9	8
MAXIMUM X	2.095	.747	.665
MINIMUM X	-.973	-.740	-.821
MAXIMUM Y	.776	.599	.507
MINIMUM Y	-.819	-.733	-.526
CENTROID X	.021	-.212	-.131
CENTROID Y	-.315	-.401	-.309
POA TO CENTROID (in.)	.315	.454	.336
MIN RADIUS	.210	.149	.074
MEAN RADIUS	.741	.554	.474
MAX RADIUS	2.234	.982	.868
HORIZONTAL SPREAD	3.068	1.487	1.487
VERTICAL SPREAD	1.595	1.332	1.033
EXTREME SPREAD	3.382	1.933	1.693
NUMBER IN ONE INCH CIRCLE =	4		
NUMBER IN TWO INCH CIRCLE =	7		
NUMBER IN THREE INCH CIRCLE =	9		

9 Aug 1998

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CENTERFIRE PATTERNS # 5



PATTERN #	5	5	5
SHOTS (BEST OF)	10	9	8
MAXIMUM X	1.117	1.115	.550
MINIMUM X	-.871	-.873	-.733
MAXIMUM Y	1.088	.962	.951
MINIMUM Y	-1.130	-1.092	-1.103
CENTROID X	-1.085	-1.083	-1.223
CENTROID Y	-.708	-.582	-.571
POA TO CENTROID in.	1.236	1.230	1.350
MIN RADIUS	.192	.073	.117
MEAN RADIUS	.759	.690	.635
MAX RADIUS	1.130	1.143	1.121
HORIZONTAL SPREAD	1.988	1.988	1.283
VERTICAL SPREAD	2.218	2.054	2.054
EXTREME SPREAD	2.227	2.118	2.118
NUMBER IN ONE INCH CIRCLE =		3	
NUMBER IN TWO INCH CIRCLE =		6	
NUMBER IN THREE INCH CIRCLE =		10	

Remington
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Remington
REG. U.S. PAT. & TM. OFF.

MODEL 700™ H24

SERIAL NO. C6522223

ORDER NO. 5716

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LPC

