

C6636163

MODEL 700™ M24

Model **SMS**™

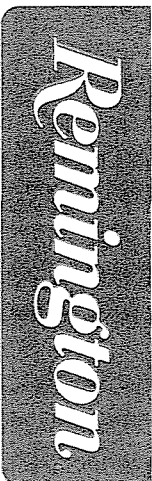
Action

Barrel Length

Capacity

Order No. **5716**

*Includes 1 in chamber.





VERY IMPORTANT:
Instruction Book
enclosed to assure
safe use of this
firearm.

MODEL 700TM H24

MADE IN ILION, N.Y. U.S.A. Reg. U.S. Pat & Tm. Off, Marca Registrada Marque Deposee.

SERIAL NO.
C6636163

ORDER NO.
5716



5716 C6636163



0 47700 25716 7

CONTRACT # DAAA21-87-C-0086

GUN SERIAL # C6636163

OP. #	OP. NAME	READINGS	DATE	INIT
575 & 580	Assemble Action and Stock	4 8 91		Rw
600	Proof	4 8 91		Rw
607	Check Headspace	4 8 91		Rw
610	Dis-assemble Gun	4 8 91		Rw
612	Magnaflux Barrel Action		APR 9 1991	KR
	Magnaflux Bolt		APR 9 1991	11
615	Rollmark Caliber		APR 9 1991	GL
617	Drill and Tap Sight Holes		APR 19 1991	LB
618	Polish Barrel		APR 19 1991	WB
620	Apply Coatings (Barrel Action)		5-10-91	TH
	Apply Coating (Bolt)			
625	Final Assembly A) Clean inside of Bolt Assembly		5/10/91	Rw
	B) Inspect Rear Firing Pin Hole for Chamfer in Bolt Head		5/10/91	Rw
	C) Inspect Ejector Hole for Chamfer		5/10/91	Rw
	D) Oil Firing Pin Ass'y		5/10/91	Rw
	E) Adjust Trigger Pull to Min Setting and Stake		5-13-91	JK

op. #	OP. NAME	READINGS					DATE	INIT
625 cont.	F) Safety On Force	6	6	6			5/13/91	WB
	G) Safety Off Force	3	3	3			5/13/91	WB
	H) Trigger Pull Test & Retainability						5-13-91	JM
	I) Firing Pin Indent	.0225	.0225	.0225			5/13/91	WB
	J) Assemble Stock						5/13/91	Rev
	K) Assemble Swivel Studs						5-20-91	D/H
	L) Attach Front and Rear Sight Assemblies						5/13/91	Rev
	M) Iron Sight Alignment						5/13/91	Rev
	N) Detach Front & Rear Sights & place in numbered container						5/13/91	Rev
	O) Attach Scope to Rifle						5/13/91	Rev
	P) Detach & Attach Scope 20 Times						5/13/91	Rev
640	Gallery Target & Test						5-14-91	D/H
	A) Time						5-14-91	D/H
	B) Malfunctions						5-14-91	D/H
	C) Pierced Primers						5-14-91	D/H
	D) Optical Clarity of Scope						5-14-91	D/H
645	Inspect for Live Ammo						5-14-91	D/H
655	Final Inspection							
	A) Headspace						5-20-91	D/H
	B) Trigger Pull	2.43	2.39	2.53	2.48	2.52	5/20/91	JM
	C) Function						5-20-91	D/H
660	Pack						6-19-91	VF

SWS TRIGGER PULL TEST

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

SERIAL NO. C-6636163

DATE 5/13/91

TESTER JH

	2.50# INITIAL	2.50# AFTER 50 CYCLES	FINAL TEST & TO RESET 2.50#		COMMENTS
PULL #1	2.29	2.45	2.40	2.43	MIN. SETTING, NO AVG. OF 5 READINGS ACCEPT- ABLE LESS THAN 2#
PULL #2	2.12	2.44	2.42	2.39	
PULL #3	2.31	2.47	2.48	2.53	
PULL #4	2.31	2.42	2.46	2.48	
PULL #5	2.36	2.39	2.38	2.52	
TOTAL					
AVG.					

	3.00# INITIAL	3.00# AFTER 20 CYCLES		COMMENTS
PULL #1	3.38	3.45		
PULL #2	3.40	3.49		
PULL #3	3.42	3.36		
PULL #4	3.39	3.36		
PULL #5	3.42	3.48		
TOTAL				
AVG.				

	4.00# INITIAL	4.00# AFTER 20 CYCLES	MAX SETTING GREATER THAN 4#	RESET TO 4# FOR TARGET & ACCURACY
PULL #1	4.32	4.32		4.34
PULL #2	4.37	4.36		4.44
PULL #3	4.30	4.38		4.36
PULL #4	4.31	3.86		4.49
PULL #5	4.31	4.35		4.46
TOTAL				
AVG.				

CENTROIDAL DISTANCE CALCULATIONS
FOR RIFLE # C6636163
14 May 1991

CENTROIDAL DISTANCES

0 TO	1	.108374
1 TO	2	.0820061
1 TO	3	.0300666
1 TO	4	.197023
1 TO	5	.161549

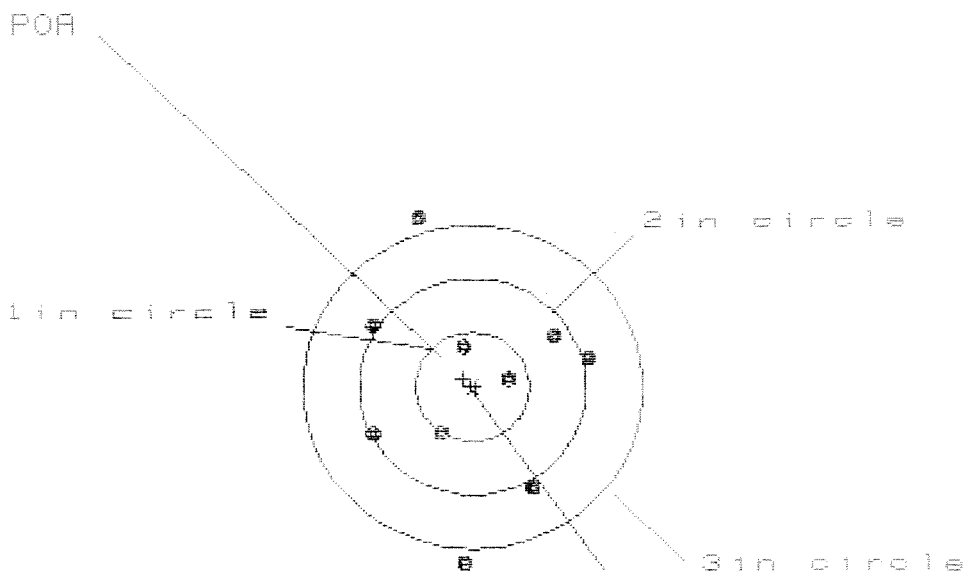
~~1~~ (----FOR

THE AVERAGE X-COORDINATE FOR THIS RIFLE IS: .1126
THE AVERAGE Y-COORDINATE FOR THIS RIFLE IS: -.1142
THE RESULTING AVERAGE POI RADIUS FOR THIS RIFLE IS: .168376
THE AMR FOR THIS RIFLE IS: .9466

14 May 1991

FILE:/PATTERNING/CENTERFIRE_PATT/08636163

CENTERFIRE PATTERNS # 1



OF SHOTS = 10

IN CIR

1 in = 3

2 in = 6

3 in = 8

HS = 1.901

VS = 3.158

GS = 3.181

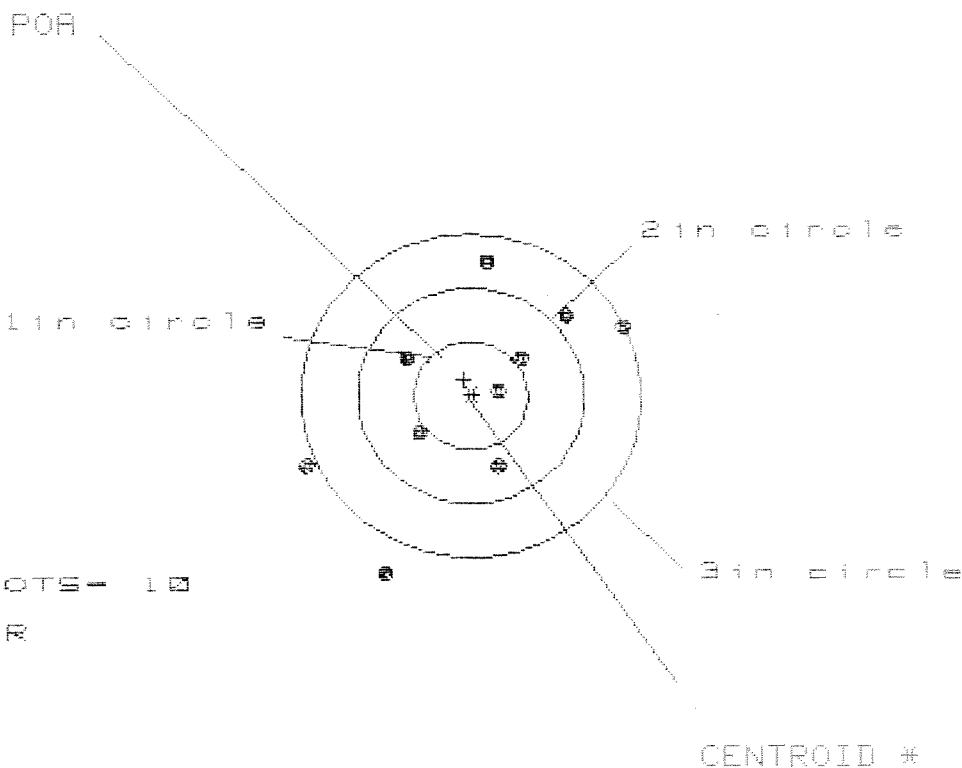
CENTROID #

PATTERN #	:	1		
SHOTS (BEST OF)	:	10	9	8
MAXIMUM X	:	1.037	1.027	.967
MINIMUM X	:	-.864	-.874	-.934
MAXIMUM Y	:	1.542	1.362	.689
MINIMUM Y	:	-1.616	-1.060	-.889
CENTROID X	:	.081	.091	.151
CENTROID Y	:	-.072	.108	-.063
POA TO CENTROID in.	:	.108	.141	.164
MIN RADIUS	:	.350	.182	.294
MEAN RADIUS	:	.939	.850	.764
MAX RADIUS	:	1.619	1.445	1.115
HORIZONTAL SPREAD	:	1.901	1.901	1.901
VERTICAL SPREAD	:	3.158	2.422	1.498
EXTREME SPREAD	:	3.181	2.598	2.027
NUMBER IN ONE INCH CIRCLE	=		3	
NUMBER IN TWO INCH CIRCLE	=		6	
NUMBER IN THREE INCH CIRCLE	=		8	

14 May 1991

FILE:/PATTERNING/CENTERFIRE_PATT/086361B3

CENTERFIRE PATTERNS # 2



OF SHOTS- 10

IN CIR

1in = 1

2in = 5

3in = 8

HS= 2.777

VS= 2.807

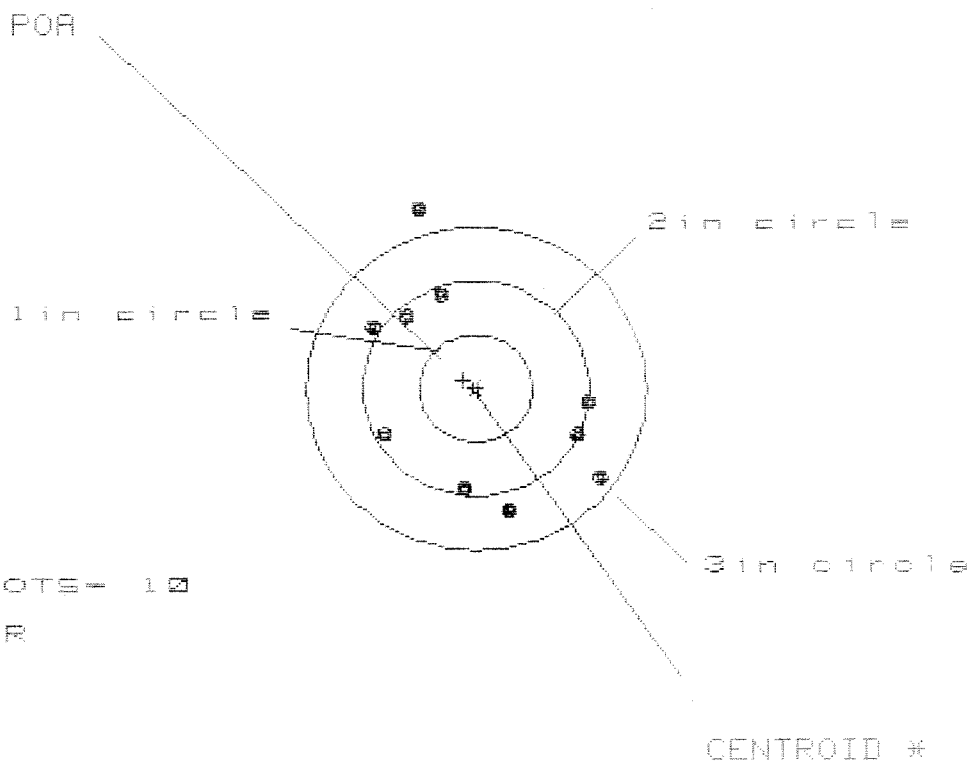
GS= 3.075

PATTERN #	:	2		
SHOTS (BEST OF)	:	10	9	8
MAXIMUM X	:	1.356	1.271	1.083
MINIMUM X	:	-1.421	-1.506	-.833
MAXIMUM Y	:	1.203	1.025	.923
MINIMUM Y	:	-1.604	-.858	-.960
CENTROID X	:	.059	.144	.332
CENTROID Y	:	-.151	.027	.129
POA TO CENTROID in.	:	.162	.147	.356
MIN RADIUS	:	.223	.185	.106
MEAN RADIUS	:	.989	.879	.750
MAX RADIUS	:	1.778	1.712	1.135
HORIZONTAL SPREAD	:	2.777	2.777	1.916
VERTICAL SPREAD	:	2.807	1.883	1.883
EXTREME SPREAD	:	3.075	3.048	2.065
NUMBER IN ONE INCH CIRCLE	=		1	
NUMBER IN TWO INCH CIRCLE	=		5	
NUMBER IN THREE INCH CIRCLE	=		8	

14 May 1991

FILE:/PATTERNING/CENTERFIRE_PATT/C8B36163

CENTERFIRE PATTERNS # 3



OF SHOTS- 10

IN CIR

1 in = 0

2 in = 5

3 in = 9

HS= 1.999

VS= 2.810

GS= 2.995

PATTERN #	:	3		
SHOTS (BEST OF)	:	10	9	8
MAXIMUM X	:	1.091	1.031	1.044
MINIMUM X	:	-.908	-.968	-.840
MAXIMUM Y	:	1.682	1.062	.982
MINIMUM Y	:	-1.128	-.941	-1.022
CENTROID X	:	.111	.171	.042
CENTROID Y	:	-.074	-.261	-.180
POA TO CENTROID in.	:	.134	.312	.185
MIN RADIUS	:	.881	.703	.773
MEAN RADIUS	:	1.098	1.002	.970
MAX RADIUS	:	1.766	1.232	1.081
HORIZONTAL SPREAD	:	1.999	1.999	1.884
VERTICAL SPREAD	:	2.810	2.003	2.003
EXTREME SPREAD	:	2.995	2.443	2.068
NUMBER IN ONE INCH CIRCLE	=		0	
NUMBER IN TWO INCH CIRCLE	=		6	
NUMBER IN THREE INCH CIRCLE	=		9	

14 May 1991

FILE:/PATTERNING/CENTERFIRE_PATT/C6636163

CENTERFIRE PATTERNS

4

POA

1in circle

2in circle

3in circle

CENTROID #

OF SHOTS= 10

IN CIR

1in = 2

2in = 7

3in = 9

HS= 1.988

VS= 2.293

GS= 2.981

PATTERN #

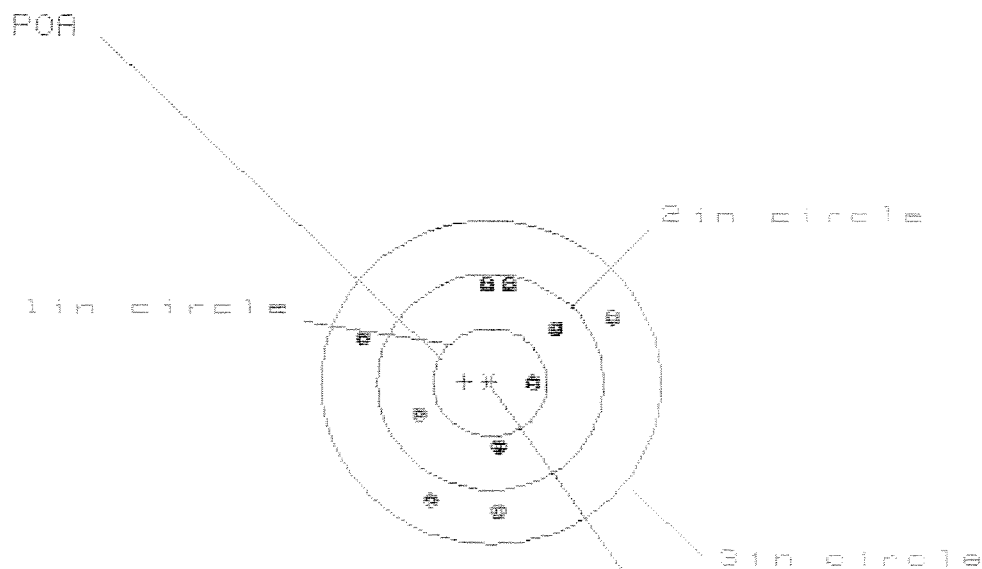
4

SHOTS (BEST OF)	10	9	8
MAXIMUM X	.988	.886	.659
MINIMUM X	-1.000	-1.102	-.991
MAXIMUM Y	.882	.725	.439
MINIMUM Y	-1.411	-.718	-.627
CENTROID X	.084	.186	.075
CENTROID Y	-.269	-.112	-.203
POA TO CENTROID in.	.282	.217	.216
MIN RADIUS	.044	.143	.042
MEAN RADIUS	.791	.667	.609
MAX RADIUS	1.683	1.145	1.058
HORIZONTAL SPREAD	1.988	1.988	1.650
VERTICAL SPREAD	2.293	1.443	1.066
EXTREME SPREAD	2.981	2.283	1.665
NUMBER IN ONE INCH CIRCLE =		2	
NUMBER IN TWO INCH CIRCLE =		7	
NUMBER IN THREE INCH CIRCLE =		9	

14 May 1991

FILE:/PATTERNING/CENTERFIRE_PATT/06636163

CENTERFIRE PATTERNS # 5



OF SHOTS= 10

IN CIR

1 in = 1

2 in = 6

3 in = 10

HS= 2.218

VS= 2.135

GS= 2.370

CENTROID *

PATTERN #	:	5		
SHOTS (BEST OF)	:	10	9	8
MAXIMUM X	:	1.093	.657	.607
MINIMUM X	:	-1.125	-1.004	-1.054
MAXIMUM Y	:	.936	1.005	.875
MINIMUM Y	:	-1.199	-1.130	-1.260
CENTROID X	:	.228	.107	.157
CENTROID Y	:	-.005	-.074	.056
POA TO CENTROID in.	:	.228	.130	.166
MIN RADIUS	:	.364	.486	.444
MEAN RADIUS	:	.916	.877	.836
MAX RADIUS	:	1.258	1.147	1.268
HORIZONTAL SPREAD	:	2.218	1.661	1.661
VERTICAL SPREAD	:	2.135	2.135	2.135
EXTREME SPREAD	:	2.370	2.140	2.140
NUMBER IN ONE INCH CIRCLE	=		1	
NUMBER IN TWO INCH CIRCLE	=		6	
NUMBER IN THREE INCH CIRCLE	=		10	

C6636163

AVERAGE PULL FORCE BETWEEN
INITIAL & CYCLE TESTSSERIAL NO. ~~C6349060~~

2.50# + .50#

DATE 2/10/96

3.00# + .75#

TESTER SF

4.00# + 1.00#

	2.50# INITIAL	2.50# AFTER 50 CYCLES	FINAL TEST & TO RESET 2.50#		COMMENTS
PULL #1	2.50	2.55		2.69	MIN. SETTING, NO AVG. OF 5 READINGS ACCEPT- ABLE LESS THAN 2#
PULL #2	2.59	2.56		2.67	
PULL #3	2.56	2.54		2.68	
PULL #4	2.59	2.58		2.66	
PULL #5	2.52	2.55		2.55	
TOTAL	12.76	12.78		13.25	
AVG.	2.552	2.556		2.65	

	3.00# INITIAL	3.00# AFTER 20 CYCLES		COMMENTS
PULL #1	3.13	3.11		
PULL #2	3.11	3.13		
PULL #3	3.10	3.08		
PULL #4	3.11	3.06		
PULL #5	3.13	3.11		
TOTAL	15.58	15.49		
AVG.	3.116	3.098		

	4.00# INITIAL	4.00# AFTER 20 CYCLES	MAX SETTING GREATER THAN 4#	RESET TO 4# FOR TARGET & ACCURACY
PULL #1	3.88	4.01		4.04
PULL #2	3.92	4.01		4.00
PULL #3	3.91	3.84		4.13
PULL #4	3.96	3.83		4.09
PULL #5	3.96	4.00		4.04
TOTAL	19.63	19.69		20.3
AVG.	3.926	3.938		4.06

CONTRACT # DAAA21-87-C-0086

GUN SERIAL #

C6636163

OP. #	OP. NAME	READINGS	DATE	INITIAL
575 & 580	Assemble Action and Stock			
600	Proof			
607.	Check Headspace			
610	Dis-assemble Gun			
612	Magnaflux Barrel Action			
	Magnaflux Bolt			
615	Rollmark Caliber			
617	Drill and Tap Sight Holes			
618	Polish Barrel			
620	Apply Coatings (Barrel Action)			
	Apply Coating (Bolt)			
625	Final Assembly A) Clean inside of Bolt Assembly			
	B) Inspect Rear Firing Pin Hole for Chamfer in Bolt Head			
	C) Inspect Ejector Hole for Chamfer			
	D) Oil Firing Pin Ass'y			
	E) Adjust Trigger Pull to Min Setting and Stake			

op. #	OP. NAME	READINGS					DATE	INIT
625 cont.	F) Safety On Force	5	5	5			3/7	AC
	G) Safety Off Force	4	4	4			3/7	AC
	H) Trigger Pull Test & Retainability							
	I) Firing Pin Indent	.021	.021	.021			3/7	AC
	J) Assemble Stock							
	K) Assemble Swivel Studs							
	L) Attach Front and Rear Sight Assemblies							
	M) Iron Sight Alignment							
	N) Detach Front & Rear Sights & place in numbered container							
	O) Attach Scope to Rifle							
	P) Detach & Attach Scope 20 Times							
640	Gallery Target & Test							
	A) Time							
	B) Malfunctions							
	C) Pierced Primers							
	D) Optical Clarity of Scope							
645	Inspect for Live Ammo							
655	Final Inspection							
	A) Headspace							
	B) Trigger Pull	2.68	2.62	2.58	2.62	2.60	7/7/96	WB
	C) Function							
660	Pack							

CENTROIDAL DISTANCE CALCULATIONS
FOR RIFLE # 06636163
4 Jan 1968

CENTROIDAL DISTANCES

0 TO 1	.563852
1 TO 2	.371769
1 TO 3	.472341
1 TO 4	.162585
1 TO 5	.251241

51
+23 <----POA

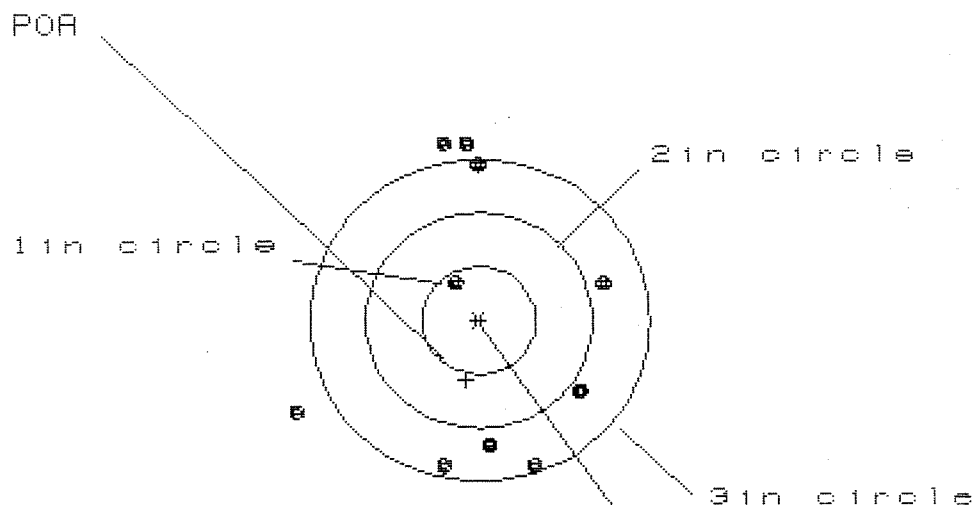
THE AVERAGE X COORDINATE FOR THIS RIFLE IS: .1502
THE AVERAGE Y-COORDINATE FOR THIS RIFLE IS: .4626
THE RESULTING AVERAGE POI RADIUS FOR THIS RIFLE IS: .489227

THE AMR FOR THIS RIFLE IS: 1.014

4 Jan 1988

FILE:/PATTERNING/CENTERFIRE_PATT/C6636163

CENTERFIRE PATTERNS # 1



OF SHOTS- 10

IN CIR

1in = 1

2in = 1

3in = 7

HS- 2.676

CENTROID #

VS= 3.048

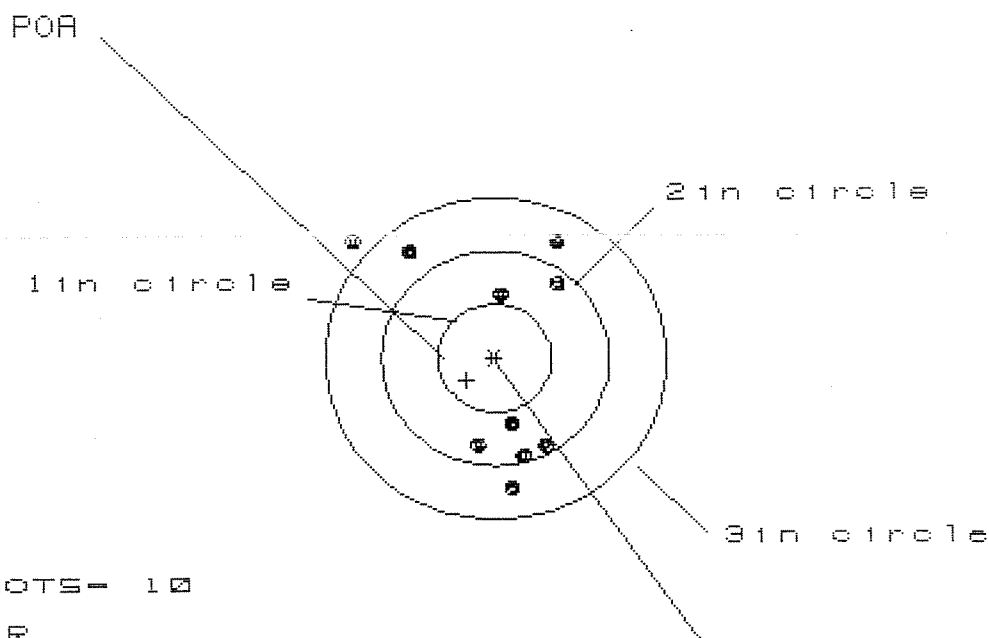
GS= 3.053

PATTERN #	:	1		
SHOTS (BEST OF)	:	10	9	8
MAXIMUM X	:	1.101	.926	.887
MINIMUM X	:	-1.575	-.529	-.568
MAXIMUM Y	:	1.675	1.575	1.697
MINIMUM Y	:	-1.373	-1.473	-1.276
CENTROID X	:	.115	.290	.329
CENTROID Y	:	.552	.652	.455
POA TO CENTROID in.	:	.564	.714	.562
MIN RADIUS	:	.380	.454	.598
MEAN RADIUS	:	1.320	1.253	1.190
MAX RADIUS	:	1.815	1.605	1.789
HORIZONTAL SPREAD	:	2.676	1.455	1.455
VERTICAL SPREAD	:	3.048	3.048	2.973

4 Jan 1988

FILE:/PATTERNING/CENTERFIRE_PATT/C86361B3

CENTERFIRE PATTERNS # 2



OF SHOTS- 10

IN CIR

1in = 0

2in = 6

3in = 9

HS= 1.787

VS= 2.328

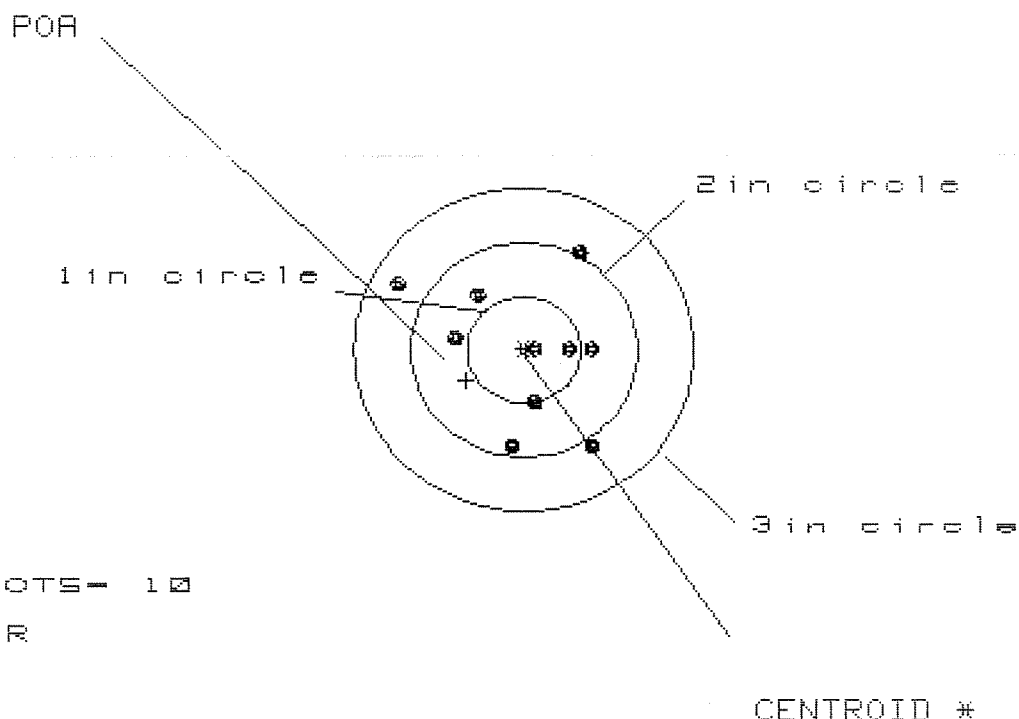
GS= 2.687

PATTERN #	:	2		
SHOTS (BEST OF)	:	10	9	8
MAXIMUM X	:	.571	.436	.441
MINIMUM X	:	-1.216	-.850	-.845
MAXIMUM Y	:	1.075	1.190	1.048
MINIMUM Y	:	-1.253	-1.138	-.929
CENTROID X	:	.251	.386	.381
CENTROID Y	:	.206	.091	.233
POA TO CENTROID in.	:	.325	.397	.446
MIN RADIUS	:	.600	.503	.584
MEAN RADIUS	:	1.010	.916	.894
MAX RADIUS	:	1.602	1.414	1.300
HORIZONTAL SPREAD	:	1.787	1.286	1.286
VERTICAL SPREAD	:	2.328	2.328	1.977
EXTREME SPREAD	:	2.687	2.437	2.187
NUMBER IN ONE INCH CIRCLE	=		0	
NUMBER IN TWO INCH CIRCLE	=		6	
NUMBER IN THREE INCH CIRCLE	=		9	

4 Jan 1988

FILE:/PATTERNING/CENTERFIRE_PATT/C6636163

CENTERFIRE PATTERNS # 3



OF SHOTS- 10

IN CIR

1in = 2

2in = 8

3in = 10

HS= 1.742

VS= 1.820

GS= 2.298

PATTERN #	:	3		
SHOTS (BEST OF)	:	10	9	8
MAXIMUM X	:	.639	.516	.568
MINIMUM X	:	-1.103	-.741	-.677
MAXIMUM Y	:	.886	.960	.864
MINIMUM Y	:	-.934	-.860	-.956
CENTROID X	:	.506	.629	.565
CENTROID Y	:	.287	.213	.309
POA TO CENTROID in.	:	.582	.664	.644
MIN RADIUS	:	.897	.898	.836
MEAN RADIUS	:	.715	.632	.589
MAX RADIUS	:	1.286	1.014	.966
HORIZONTAL SPREAD	:	1.742	1.257	1.245
VERTICAL SPREAD	:	1.820	1.820	1.820
EXTREME SPREAD	:	2.298	1.895	1.895
NUMBER IN ONE INCH CIRCLE	=		2	
NUMBER IN TWO INCH CIRCLE	=		8	
NUMBER IN THREE INCH CIRCLE	=		10	

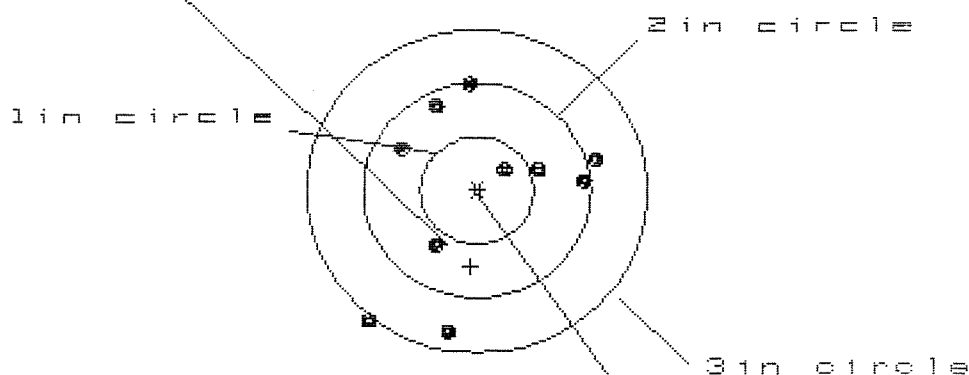
4 Jan 1988

FILE:/PATTERNING/CENTERFIRE_PATT/C86361B3

CENTERFIRE PATTERNS

4

POA



OF SHOTS= 10

IN CIR

1in = 1

2in = 7

3in = 9

HS= 1.994

VS= 2.301

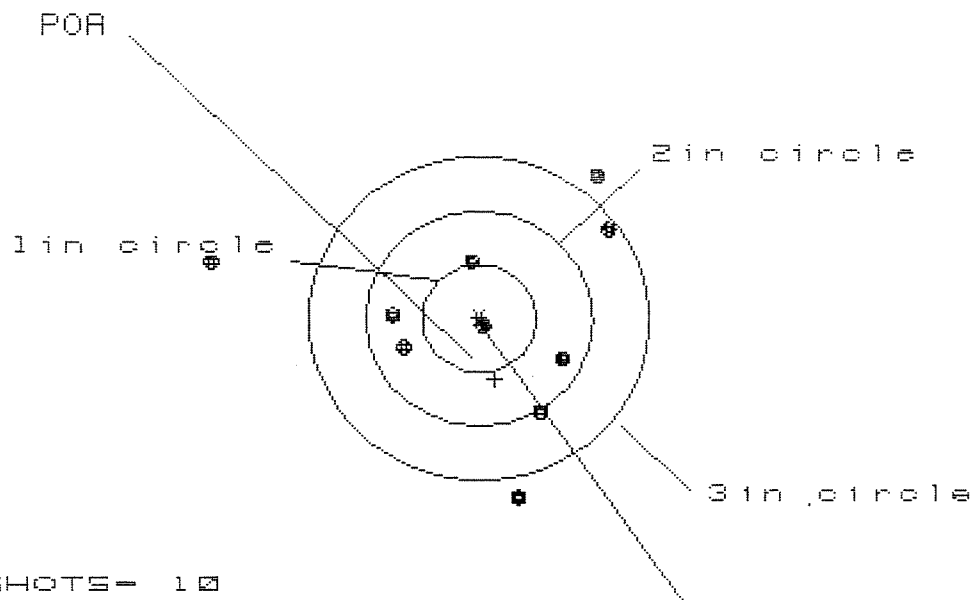
GS= 2.500

PATTERN #	:	4		
SHOTS (BEST OF)	:	10	9	8
MAXIMUM X	:	.995	.884	.836
MINIMUM X	:	-.999	-.800	-.848
MAXIMUM Y	:	.977	.846	.664
MINIMUM Y	:	-1.324	-1.455	-.828
CENTROID X	:	.060	.171	.219
CENTROID Y	:	.705	.836	1.018
POA TO CENTROID in.	:	.707	.853	1.041
MIN RADIUS	:	.345	.181	.153
MEAN RADIUS	:	.903	.790	.670
MAX RADIUS	:	1.548	1.505	.969
HORIZONTAL SPREAD	:	1.994	1.684	1.684
VERTICAL SPREAD	:	2.301	2.301	1.492
EXTREME SPREAD	:	2.508	2.311	1.685
NUMBER IN ONE INCH CIRCLE	=		1	
NUMBER IN TWO INCH CIRCLE	=		7	
NUMBER IN THREE INCH CIRCLE	=		9	

4 Jan 1988

FILE:/PATTERNING/CENTERFIRE_PATT/CS636163

CENTERFIRE PATTERNS # 5



OF SHOTS- 10

IN CIR

1 in = 1

2 in = 6

3 in = 7

HS= 3.540

VS= 3.045

GS= 3.549

CENTROID *

PATTERN #	:	5		
SHOTS (BEST OF)	:	10	9	8
MAXIMUM X	:	1.160	.895	.988
MINIMUM X	:	-2.380	-1.034	-1.021
MAXIMUM Y	:	1.347	1.406	1.201
MINIMUM Y	:	-1.698	-1.639	-.965
CENTROID X	:	-.136	.129	.116
CENTROID Y	:	.563	.504	.709
POA TO CENTROID in.	:	.579	.520	.718
MIN RADIUS	:	.118	.218	.322
MEAN RADIUS	:	1.124	.971	.890
MAX RADIUS	:	2.439	1.642	1.422
HORIZONTAL SPREAD	:	3.540	1.929	1.929
VERTICAL SPREAD	:	3.045	3.045	2.166
EXTREME SPREAD	:	3.549	3.113	2.307
NUMBER IN ONE INCH CIRCLE	=		1	
NUMBER IN TWO INCH CIRCLE	=		6	
NUMBER IN THREE INCH CIRCLE	=		7	