C6523432

MODEL 700™ M24

Model SWS ™

Action

Barrel Length

Capacity

Order No. 5716

*Includes 1 in chamber.

Remington

11/02/07 13:11:29

Arms Services Repair & Estimate System

File Add Repair Estimate Repair Expedite Repair Inquiry Repair Tools CSR Tools Reports Table Maintenance System Maintenance Help

Repair Inquiry

Repair Number: RE00136216

Verify Repair

Serial: C6523432 Model M24 SWS Center Fire
Caliber: 7.62 NATO

Repairman:

Status: Closed 11/2/2007 10:17:28 AM

Address Information

Customer: (Received From)		Return To: (Received From)	
Name:	BARRY MOBERLY		BARRY MOBERLY
Address 1:	L-3 COMMUNICATIONS		L-3 COMMUNICATIONS
Address 2:	5749 BRIAR HILL RD BLDG 221 PO Box:		5749 BRIAR HILL RD BLDG 221 PO Box:
City:	LEXINGTON		LEXINGTON
State:	KY Zip Code: 40516 Country: US	State:	KY Zip Code: 40516 Country: US

FFL:

Contact / Condition | Problems | Estimate | History / Status | Shipping / Billing

Contact Information

Phone: NN
Fax:
Email:
Comments:

Received Condition

Fair
Condition Notes:
CSR Notes:

Accessories Received

Code	Desc	Qty
A007	With Stud	3
A008	With Swivel	3
A010	Hard Case	1
A026	Scope	1
A055	Deployment Kit	1
D000	SCOPE CASE	1

Repair Search | Refresh | Close

nagletj | 11/2/2007 | 1:11 PM | CAPS | NUM | INS | SCRL

start | 2 Mi... | 5 Int... | 4 Mi... | Part S... | longo... | Arms ... | 1:11 PM

Serial Number: C6523432

Model: M24 SWS

RE00136216

M-24 INSPECTION CHECKLIST
CONTRACT #: DAAE-20-02-C-0149

R & R NUMBER 136216

SERIAL NUMBER C6523432

LOG-IN DATE 11-2-07

OPERATION #	OPERATION NAME		DATE	INITIAL
500	DIS-ASSEMBLE GUN		7-9-08	RTL
505	RE-BARREL		7-9-08	RTL
560	ASSEMBLE		7-10-08	RTL
600	PROOF	MAGNA - FLUX JUL 15 2008	7-10-08	SD
605	CHECK HEADSPACE		7-10-08	SD
610	DIS-ASSEMBLE GUN		7-11-08	RTL
612	MAGNAFLUX	OPERATOR (AR)	7/15/08	(AR)
510	DRILL AND TAP		7-11-08	SP
615	ROLLMARK CALIBER		7/15/08	RT
618	ROTO-BLAST		7-17	CM
620	APPLY COATINGS		7-24-08	RTL
625	FINAL ASSEMBLY		7-24-08	RTL
640	FUNCTION TEST AND	(PASS) FAIL	9-2-08	D.P.D.
650	TARGET	(PASS) FAIL	9-2-08	D.P.D.
	MALFUNCTION	CORRECTION		
	MALFUNCTION	CORRECTION NA		
	MALFUNCTION	CORRECTION		
	MALFUNCTION	CORRECTION	9-6-08	TL
670	FINAL INSPECTION A) HEADSPACE	(PASS) FAIL	9-8-08 9-8-08	RTL RTL
	B) TRIGGER PULL (+/- .5 LBS, MIN 2.50 LBS, MAX 4.0 LBS)	2.42 2.42 2.42 2.19 2.27	9-8-08	RTL
680	F) SAFETY ON FORCE (2 LBS MIN, 10 LBS MAX)	6# 6# 6#	9-8-08	RTL
	G) SAFETY OFF FORCE (2 LBS MIN)	4# 4# 4#	9-8-08	RTL
	I) FIRING PIN INDENT (.020)	.024 .024 .024	9-8-08	RTL
690	PACK		9-5-08	TL

SNIPER WEAPON SYSTEM - UNIQUE STATISTICAL INFOMATION

FIREARM SERIAL NUMBER / DATASET NAME: C6523432.__0
FILE DATE AND TIME: 09/03/2008 10:50

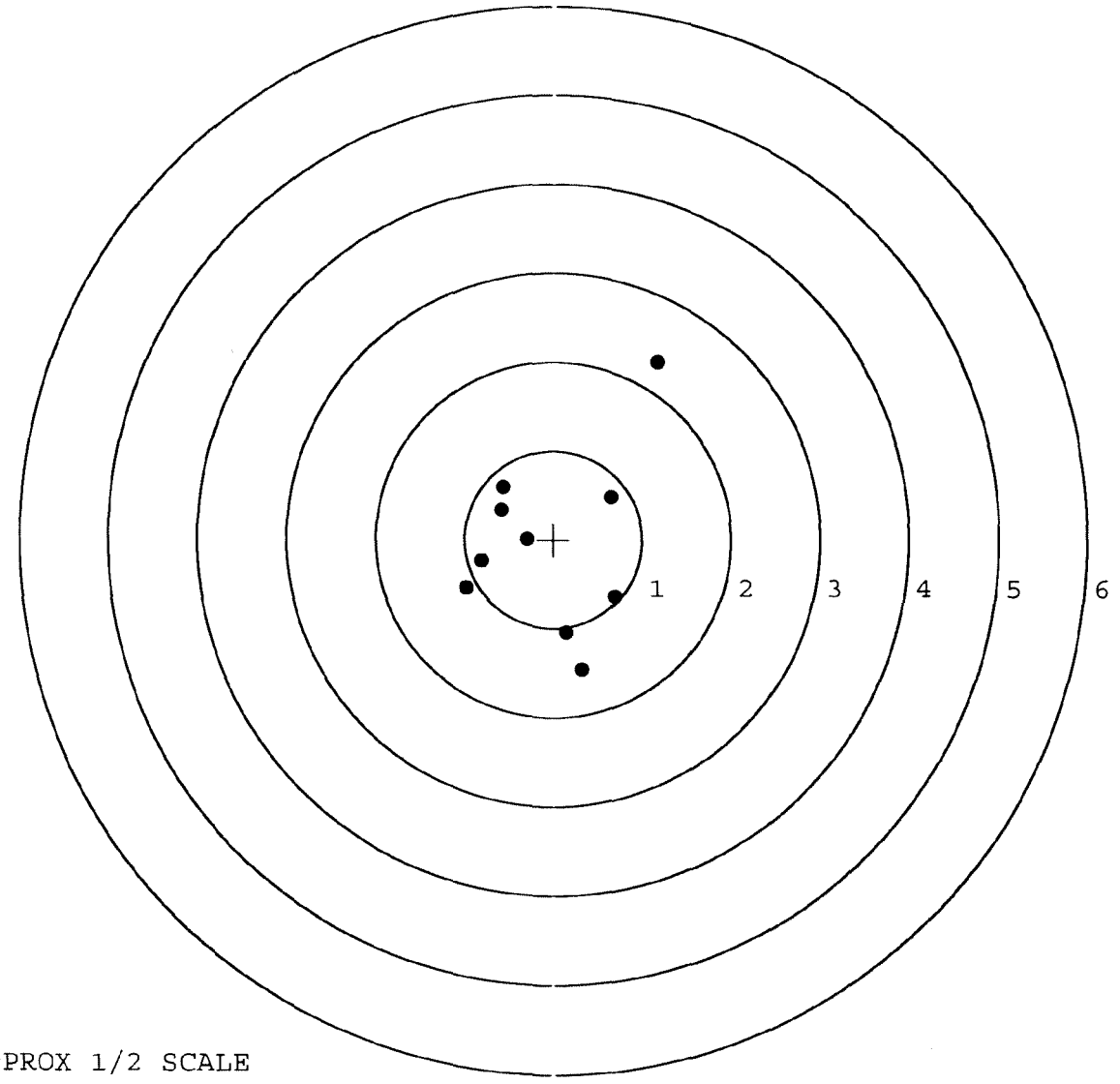
THE FOLLOWING DATA IS ALL REPORTED IN UNITS OF INCHES

The Average X Centroid of the Five Target Set:	0.047
The Average Y Centroid of the Five Target Set:	0.046
The Average Point of Impact of the Five Target Set:	0.066
The Average Mean Radius of the Five Target Set:	0.798
The Distance from POA to Centroid Target #1:	0.064
The Distance from Centroid Target #2 to Centroid Target #1:	0.285
The Distance from Centroid Target #3 to Centroid Target #1:	0.157
The Distance from Centroid Target #4 to Centroid Target #1:	0.180
The Distance from Centroid Target #5 to Centroid Target #1:	0.046

SERIAL NUMBER: C6523432.__0
TARGET NUMBER: 1
FILE DATE: 09/03/2008
FILE TIME: 10:50

X CENTROID:	-0.026
Y CENTROID:	-0.059
POA TO CENTROID:	0.064
HORZ SPREAD:	2.152
VERT SPREAD:	3.472
GROUP SPREAD:	3.573
MIN RADIUS:	0.274
MAX RADIUS:	2.379
MEAN RADIUS:	1.033
# IN 1 IN DIAMETER:	1
# IN 2 IN DIAMETER:	6
# in 3 IN DIAMETER:	9

POINT#	X	Y
1:	-0.984	-0.553
2:	-0.808	-0.244
3:	0.325	-1.473
4:	0.147	-1.058
5:	0.700	-0.649
6:	0.647	0.474
7:	-0.294	-0.003
8:	-0.590	0.330
9:	-0.568	0.587
10:	1.168	1.999

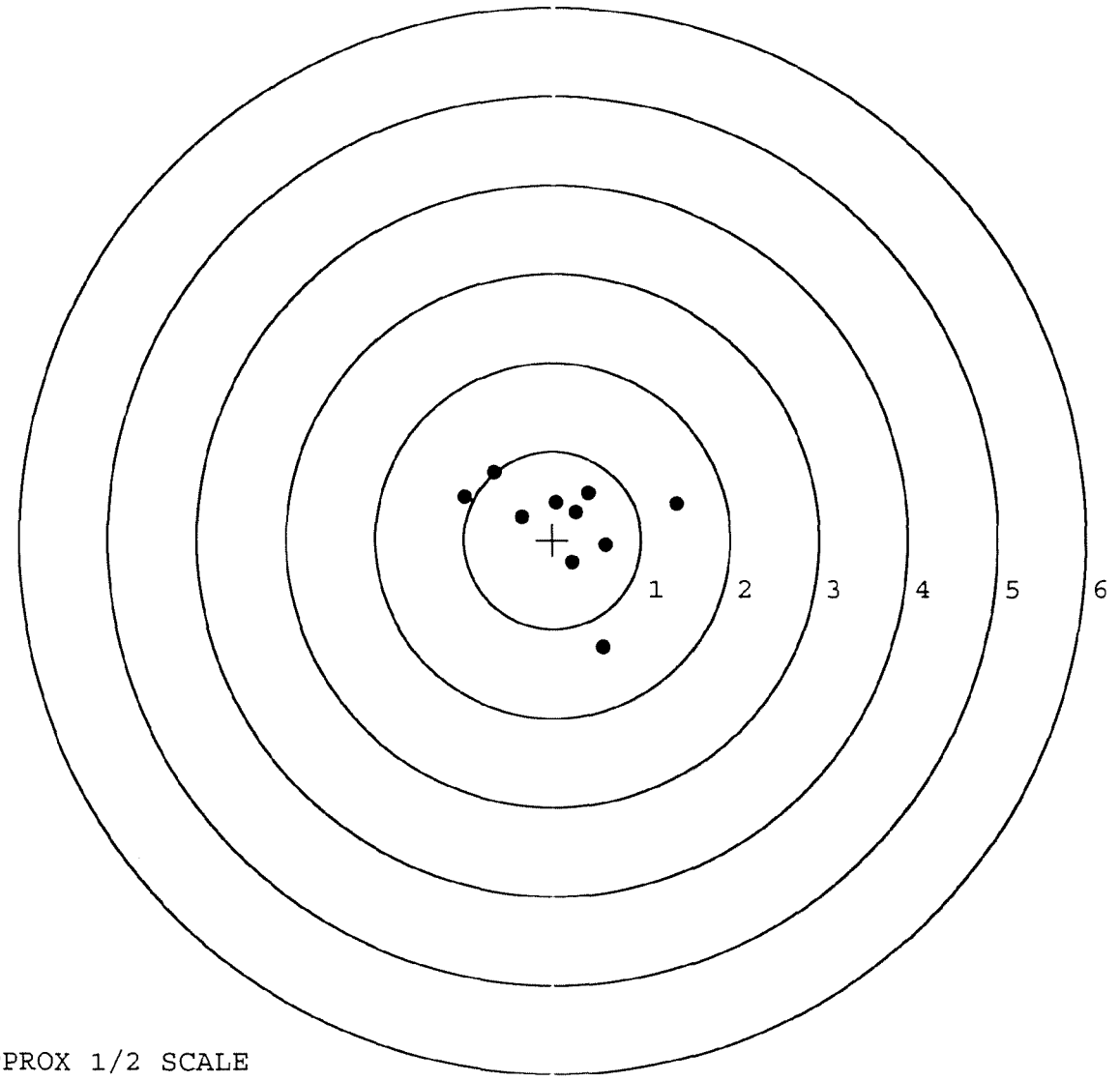


TARGET APPROX 1/2 SCALE

SERIAL NUMBER: C6523432.__0
TARGET NUMBER: 2
FILE DATE: 09/03/2008
FILE TIME: 10:50

X CENTROID:	0.149
Y CENTROID:	0.166
POA TO CENTROID:	0.223
HORZ SPREAD:	2.388
VERT SPREAD:	1.965
GROUP SPREAD:	2.326
MIN RADIUS:	0.184
MAX RADIUS:	1.434
MEAN RADIUS:	0.725
# IN 1 IN DIAMETER:	4
# IN 2 IN DIAMETER:	6
# in 3 IN DIAMETER:	10

POINT#	X	Y
1:	0.579	-1.202
2:	0.222	-0.256
3:	0.602	-0.054
4:	1.394	0.409
5:	0.403	0.535
6:	0.266	0.309
7:	0.035	0.423
8:	-0.350	0.258
9:	-0.666	0.763
10:	-0.994	0.478

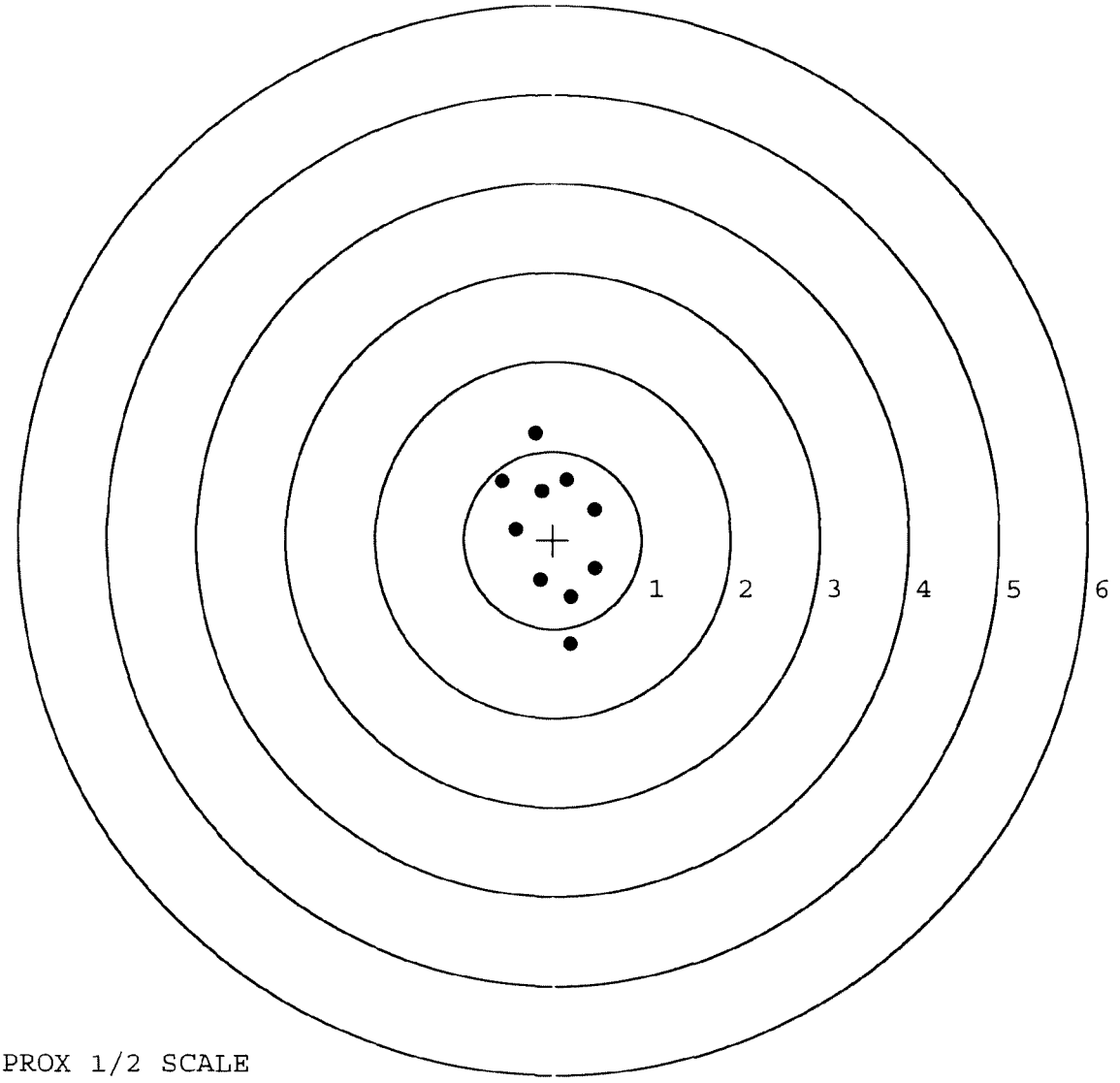


TARGET APPROX 1/2 SCALE

SERIAL NUMBER: C6523432.__0
TARGET NUMBER: 3
FILE DATE: 09/03/2008
FILE TIME: 10:50

X CENTROID:	0.004
Y CENTROID:	0.095
POA TO CENTROID:	0.095
HORZ SPREAD:	1.055
VERT SPREAD:	2.379
GROUP SPREAD:	2.411
MIN RADIUS:	0.420
MAX RADIUS:	1.286
MEAN RADIUS:	0.722
# IN 1 IN DIAMETER:	2
# IN 2 IN DIAMETER:	8
# in 3 IN DIAMETER:	10

POINT#	X	Y
1:	0.196	-1.177
2:	0.206	-0.645
3:	0.476	-0.323
4:	-0.146	-0.457
5:	0.471	0.346
6:	0.156	0.679
7:	-0.127	0.549
8:	-0.415	0.120
9:	-0.579	0.657
10:	-0.196	1.202

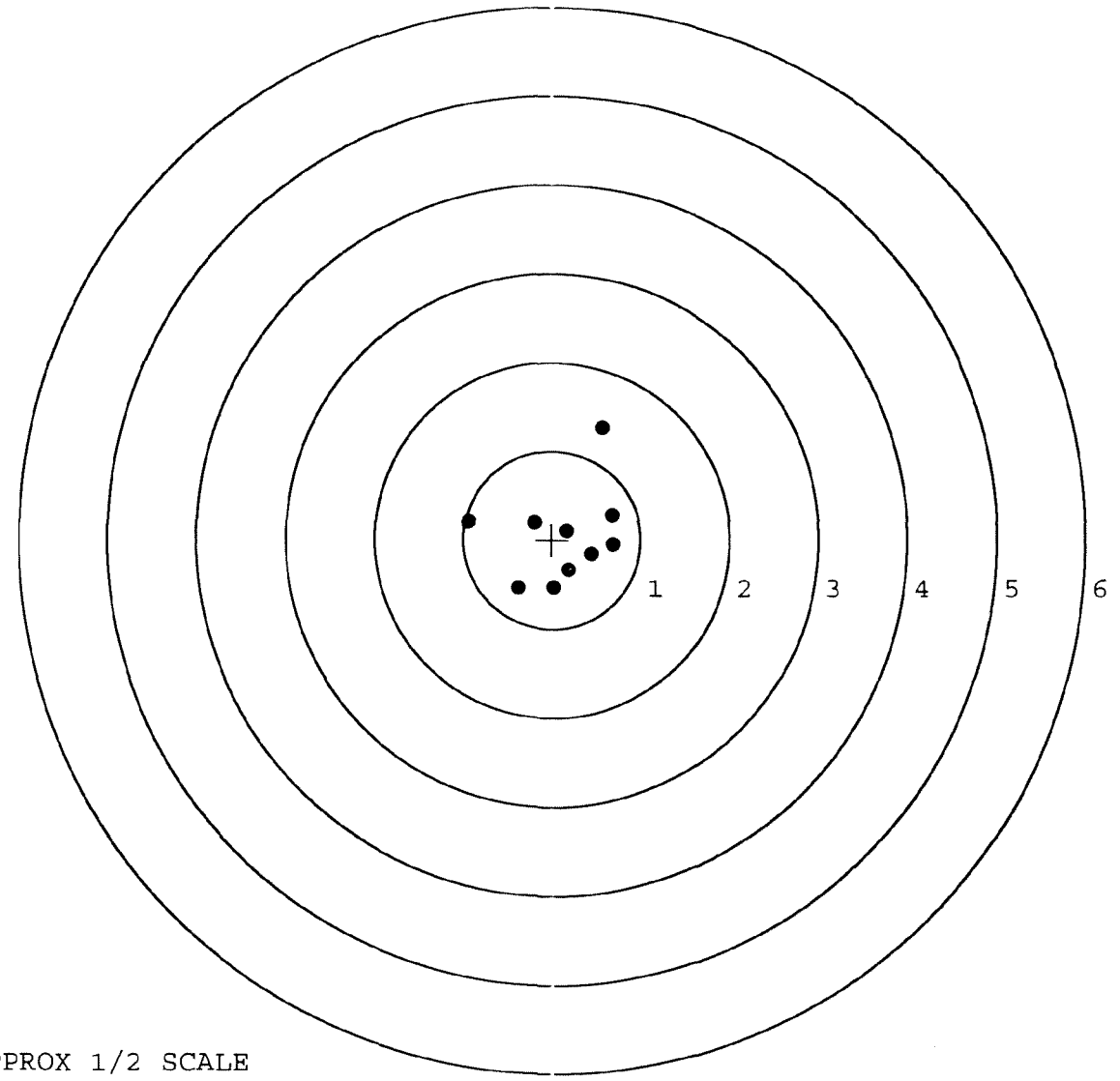


TARGET APPROX 1/2 SCALE

SERIAL NUMBER: C6523432.__0
TARGET NUMBER: 4
FILE DATE: 09/03/2008
FILE TIME: 10:50

X CENTROID:	0.125
Y CENTROID:	0.039
POA TO CENTROID:	0.131
HORZ SPREAD:	1.636
VERT SPREAD:	1.811
GROUP SPREAD:	2.046
MIN RADIUS:	0.080
MAX RADIUS:	1.301
MEAN RADIUS:	0.614
# IN 1 IN DIAMETER:	4
# IN 2 IN DIAMETER:	8
# in 3 IN DIAMETER:	10

POINT#	X	Y
1:	-0.384	-0.549
2:	0.020	-0.543
3:	0.191	-0.341
4:	0.452	-0.163
5:	0.690	-0.057
6:	0.679	0.279
7:	0.172	0.103
8:	-0.195	0.193
9:	-0.946	0.206
10:	0.569	1.262

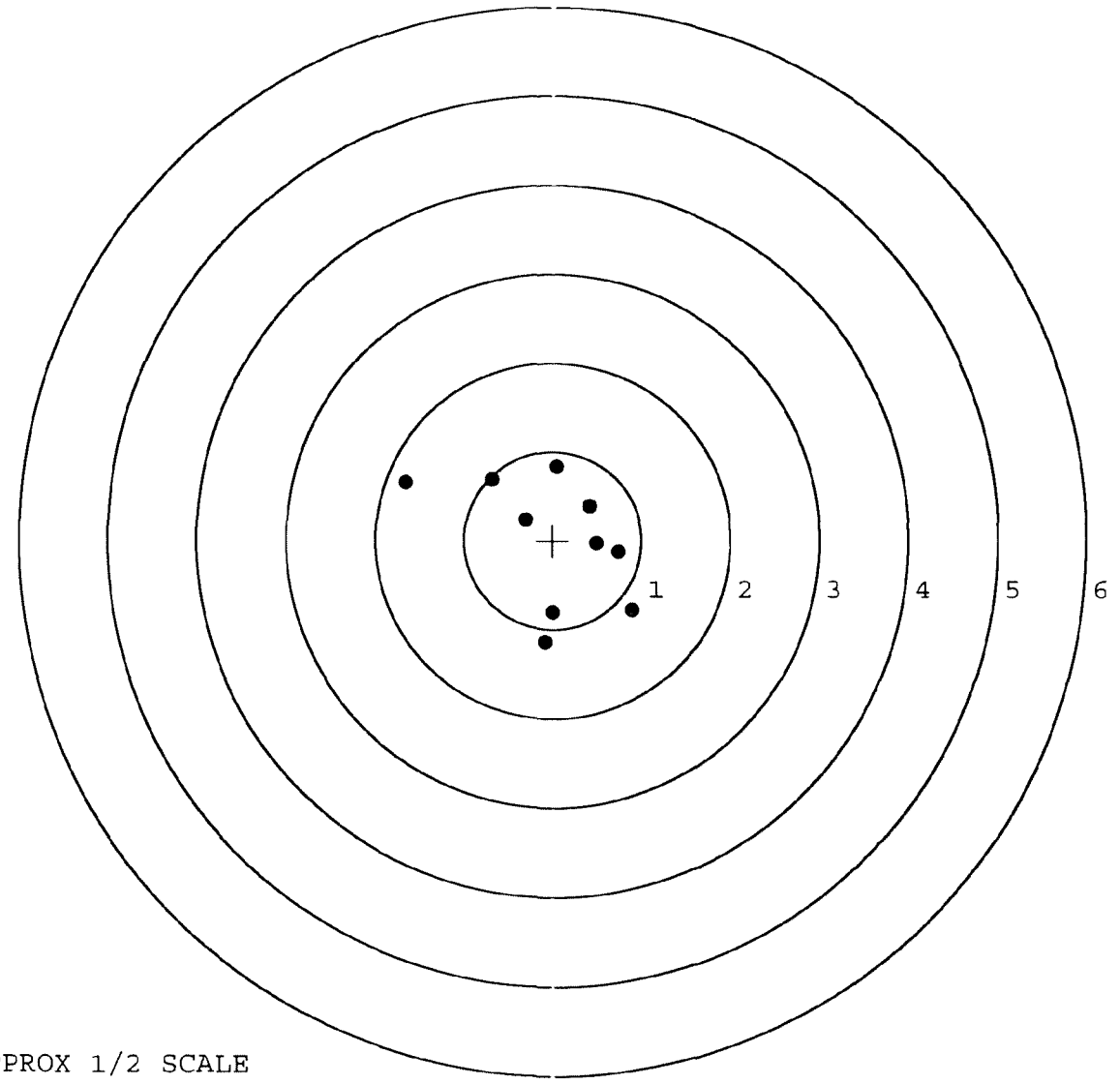


TARGET APPROX 1/2 SCALE

SERIAL NUMBER: C6523432.__0
TARGET NUMBER: 5
FILE DATE: 09/03/2008
FILE TIME: 10:50

X CENTROID:	-0.016
Y CENTROID:	-0.014
POA TO CENTROID:	0.021
HORZ SPREAD:	2.563
VERT SPREAD:	1.975
GROUP SPREAD:	2.940
MIN RADIUS:	0.385
MAX RADIUS:	1.778
MEAN RADIUS:	0.899
# IN 1 IN DIAMETER:	1
# IN 2 IN DIAMETER:	7
# in 3 IN DIAMETER:	9

POINT#	X	Y
1:	-0.091	-1.147
2:	0.000	-0.819
3:	0.897	-0.790
4:	0.744	-0.132
5:	0.494	-0.028
6:	0.419	0.388
7:	0.041	0.828
8:	-0.313	0.232
9:	-0.689	0.682
10:	-1.666	0.650



TARGET APPROX 1/2 SCALE

RECEIVING AND ESTIMATING REPORT

COMMENTS: W/10X SCOPE, M-24 SNIPER, W/DEPLOYMENT KIT
ATTN: FRED MARTIN Scope 89-0071

ORDER R 94-18343

INITIAL	CUSTOMER ORDER NO.
FDC	DAAA09-92-C-0834

DATE RECEIVED	DATE OPENED	DATE CODE	SERIAL NUMBER	NEW SERIAL NUMBER	MODEL AND GRADE
06/11/94	06/11/94		C6523432		700 7.62 NATO

ACCESSORIES: SLING STRAP HARD CASE SCOPE MNTS SCOPE BASE

FROM:

COMMANDER (W52H094138H226)
DEFENSE DIST DEPOT ANNISTON
ATTN DDAA-UR BLDG 112
ANNISTON AL 36201-5025

SHIP TO:

COMMANDER (W52H094138H226)
DEFENSE DIST DEPOT ANNISTON
ATTN DDAA-UR BLDG 112
ANNISTON AL 36201-5025

CUST NO: 098397 C.O.D.

ACCOUNT NUMBER	ACCOUNT NUMBER N/C	WRITE ☐	PROM. DATE	ESTIMATED	VIA
					FRT

GUN CONDITION
- ☐ NEW
- ☐ LIGHTLY WORN
- ☐ WORN
- ☐ VERY WORN
- ☐ UNREPAIRABLE
- ☐ MARRED

REPAIR CHARGE	
EXCISE	
TAX	
INSURANCE	
UPS	
PARCEL POST	
TOTAL	

CUSTOMER CONCERN	AMMO	FUNCTION	FINISH	ACCURACY	FIT	INSPECT
CYCLE	A1	B1				
TRIGGER GROUP		B2			E1	F1
BOLT ASSY.		B3			E2	F2
BARREL ASSY.		B4		D1	E3	F3
REC. ASSY.		B5		D2	E4	F4
WOOD			C1	D3	E5	F5
METAL			C2			

MAIN FAULT

PARTS		COMMENTS
Trigger ASSY	173.71	
Scope Rep	119.43	
Clean/Insp/Prop	50.00	
	343.14	

REPAIRMAN	PROOF	CLEAN	TEST	TARGET	PATTERN
			AC		
GALLERY TESTER	DATE	DATE	DATE	DATE	DATE
			11/2/95		

OFFICE COPY

RD6925 REV. 1/94

SWS TRIGGER PULL TEST

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

SERIAL NO. C6523432

DATE _____

TESTER RW

	2.50# INITIAL	2.50# AFTER 50 CYCLES	FINAL TEST & TO RESET 2.50#		COMMENTS
PULL #1	2.71	2.38	2.51		MIN. SETTING, NO AVG. OF 5 READINGS ACCEPTABLE LESS THAN 2#
PULL #2	2.74	2.50	2.51		
PULL #3	2.71	2.36	2.44		
PULL #4	2.88	2.48	2.48		
PULL #5	2.84	2.54	2.58		
TOTAL	13.88	12.26	12.52		
AVG.	2.78	2.45	2.50		

	3.00# INITIAL	3.00# AFTER 20 CYCLES		COMMENTS
PULL #1	3.20	3.13		
PULL #2	3.29	3.10		
PULL #3	3.32	3.15		
PULL #4	3.32	3.20		
PULL #5	3.22	3.17		
TOTAL	16.35	15.75		
AVG.	3.27	3.15		

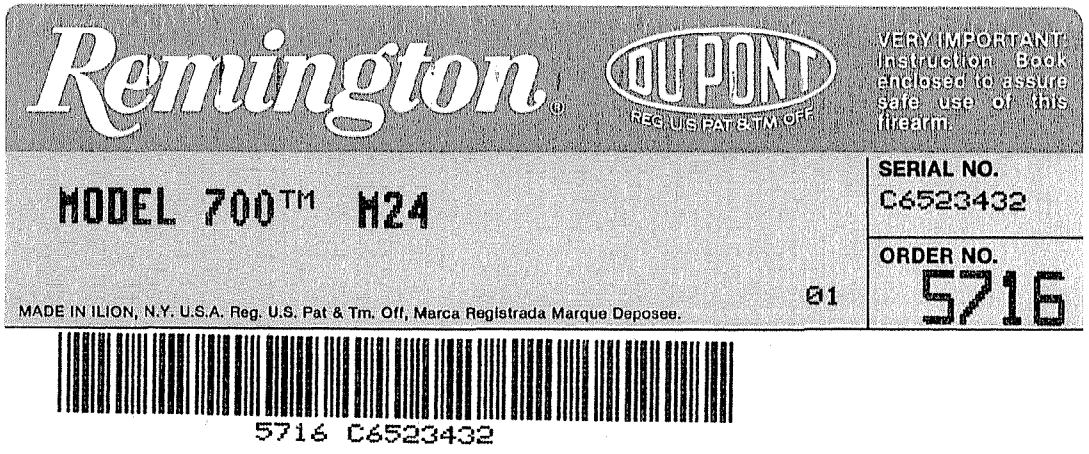
	4.00# INITIAL	4.00# AFTER 20 CYCLES	MAX SETTING GREATER THAN 4#	RESET TO 4# FOR TARGET & ACCURACY
PULL #1	4.13	4.12		4.19
PULL #2	4.11	4.12		4.00
PULL #3	4.14	4.31		4.11
PULL #4	4.30	4.28		4.17
PULL #5	4.18	4.20		4.24
TOTAL	20.86	21.03		20.71
AVG.	4.17	4.21		4.14

CONTRACT # DAAA21-87-C-0086

GUN SERIAL # C652 3432

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 1/2	5 1/2	5 1/2			11/28	WB
	G) Safety Off Force	3 3/4	3 3/4	3 3/4			11/28	WB
	H) Trigger Pull Test & Retainability							
	I) Firing Pin Indent							
	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 Clearity of Scope							
645	Inspect for Live Ammo							
655	Final Inspection A) Headspace							
	B) Trigger Pull	2.39	2.43	2.49	2.39	2.39	11/28	WB
	C) Function							
660	Pack							



CONTRACT # DAAA21-87-C-0086

GUN SERIAL # C6523432

OP. #	OP. NAME	READINGS	DATE	INIT
575 & 580	Assemble Action and Stock		10/4/90	KA
600	Proof		10/4/90	KA
607	Check Headspace		10/4/90	KA
610	Dis-assemble Gun		10/4/90	KA
612	Magnaflux Barrel Action		10/9/90	KR
	Magnaflux Bolt		10/9/90	KR
615	Rollmark Caliber		10/9/90	SS
617	Drill and Tap Sight Holes		10/11/90	EB
618	Polish Barrel RB		10/12/90	WB
620	Apply Coatings (Barrel Action)		10-18-90	TA
	Apply Coating (Bolt)		10	TA
625	Final Assembly A) Clean inside of Bolt Assembly		10/19/90	WB
	B) Inspect Rear Firing Pin Hole for Chamfer in Bolt Head		10/19/90	WB
	C) Inspect Ejector Hole for Chamfer		10/19/90	WB
	D) Oil Firing Pin Ass'y		10/19/90	WB
	E) Adjust Trigger Pull to Min Setting and Stake		11/5/90	DL

op. #	OP. NAME	READINGS					DATE	INIT
625 cont.	F) Safety On Force	5.25	5.0	4.75			11-2-90	KT
	G) Safety Off Force	3.0	3.25	3.75			11-2-90	KT
	H) Trigger Pull Test & Retainability						11-5-90	
	I) Firing Pin Indent	.024	.025	.025			11-2-90	KT
	J) Assemble Stock						11-5-90	
	K) Assemble Swivel Studs						11-9-90	DH
	L) Attach Front and Rear Sight Assemblies						11-5/90	
	M) Iron Sight Alignment						11-5/90	
	N) Detach Front & Rear Sights & place in numbered container						11-5/90	
	O) Attach Scope to Rifle						11/5/90	
	P) Detach & Attach Scope 20 Times						11/5/90	
640	Gallery Target & Test						11-6-90	KT
	A) Time						11-6-90	KT
	B) Malfunctions						11-6-90	KT
	C) Pierced Primers						11-6-90	KT
	D) Optical Clearity of Scope						11-6-90	KT
645	Inspect for Live Ammo						11-6-90	KT
655	Final Inspection A) Headspace						11-9-90	DH
	B) Trigger Pull	2.21	2.15	2.11	2.16	2.08	11-9-90	DH
	C) Function						11-9-90	DH
660	Pack						12-17-90	DH

SWS TRIGGER PULL TEST

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

SERIAL NO C6523432
DATE 11-5-90
TESTER JL

	2.50# INITIAL	2.50# AFTER 50 CYCLES	FINAL TEST & TO RESET 2.50#		COMMENTS
PULL #1	2.27	2.19	2.33	221	MIN. SETTING,
PULL #2	2.24	2.21	2.33	215	NO AVG. OF 5
PULL #3	2.21	2.17	2.33	211	READINGS ACCEPT-
PULL #4	2.21	2.33	2.28	216	ABLE LESS THAN 2#
PULL #5	2.26	2.28	2.30	2.08	
TOTAL	11.19	11.18	11.57		
AVG.	2.238	2.236	2.314		

	3.00# INITIAL	3.00# AFTER 20 CYCLES		COMMENTS
PULL #1	3.34	3.12		
PULL #2	3.49	3.13		
PULL #3	3.47	3.22		
PULL #4	3.43	3.25		
PULL #5	3.41	3.11		
TOTAL	17.14	15.83		
AVG.	3.428	3.166		

	4.00# INITIAL	4.00# AFTER 20 CYCLES	MAX SETTING GREATER THAN 4#	RESET TO 4# FOR TARGET & ACCURACY
PULL #1	4.15	4.50		4.48
PULL #2	4.11	4.18		4.49
PULL #3	4.46	4.38		4.47
PULL #4	4.39	4.46		4.16
PULL #5	4.47	4.50		4.50
TOTAL	21.58	22.02		22.10
AVG.	4.316	4.404		4.42

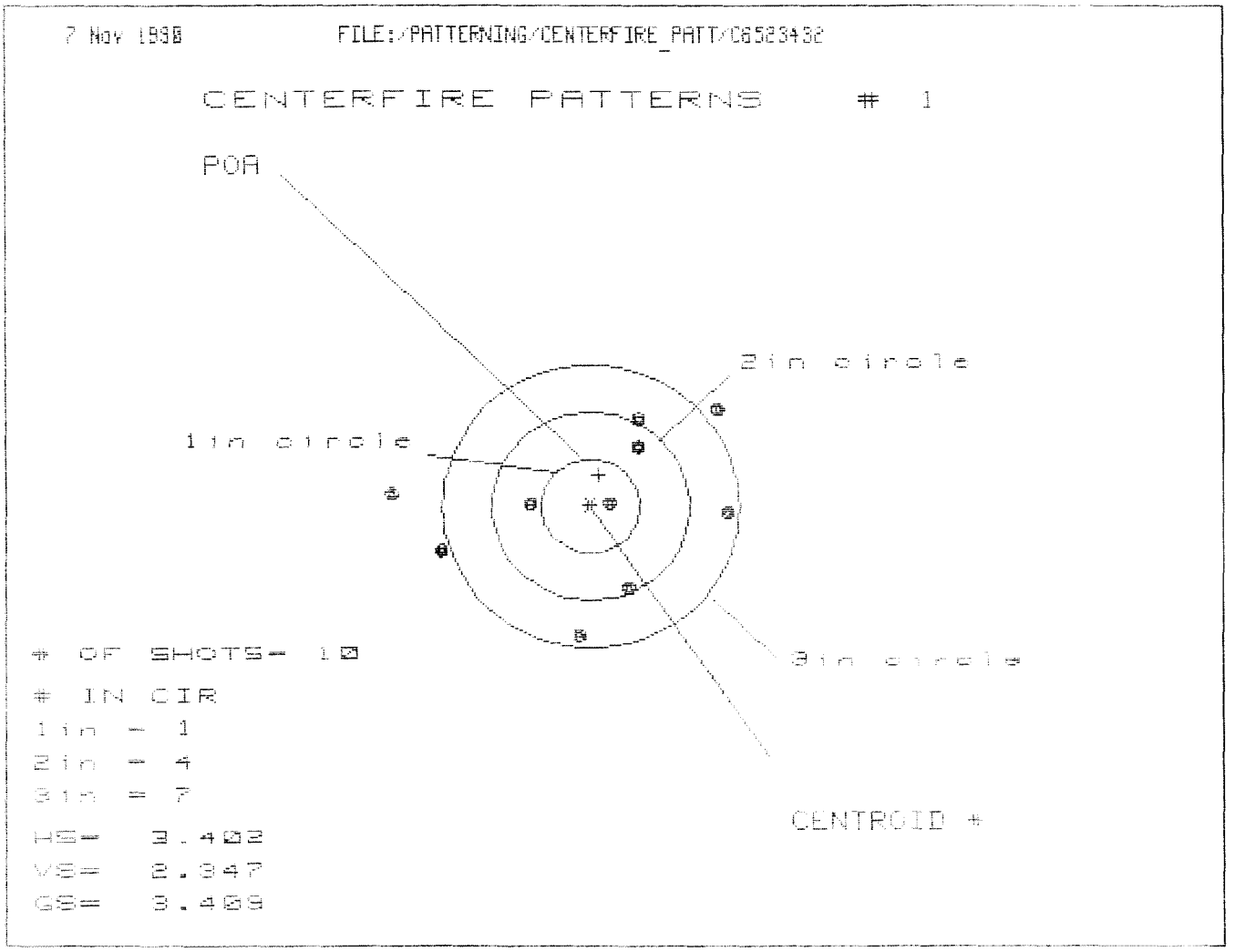
CENTROIDAL DISTANCE CALCULATIONS
FOR RIFLE # C6523432
7 Nov 1990

CENTROIDAL DISTANCES

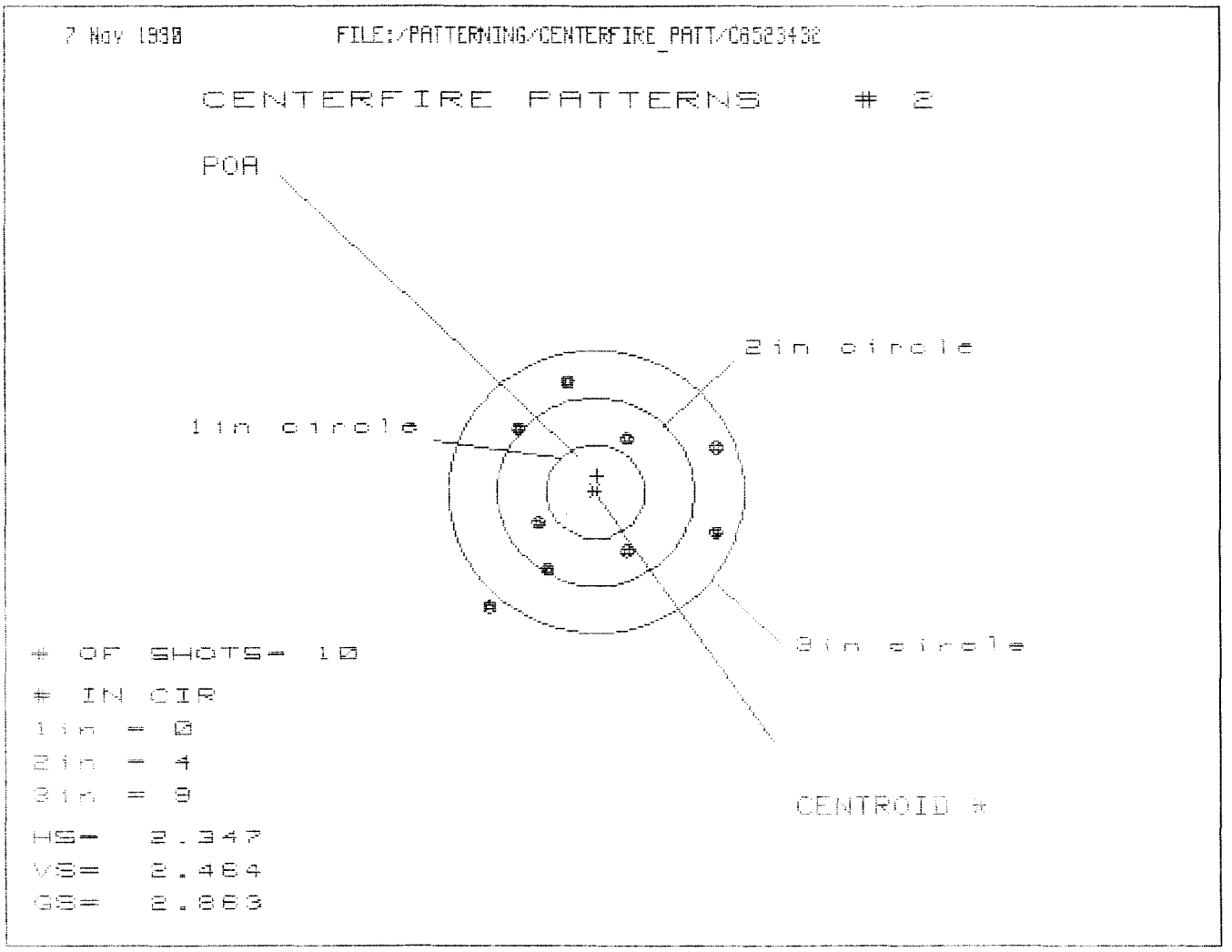
0	TO	1	.342708
1	TO	2	.174642
1	TO	3	.308415
1	TO	4	.516462
1	TO	5	.394183

THE AVERAGE X-COORDINATE FOR THIS RIFLE IS: .09
THE AVERAGE Y-COORDINATE FOR THIS RIFLE IS: -.1368
THE RESULTING AVERAGE POI RADIUS FOR THIS RIFLE IS: .163751

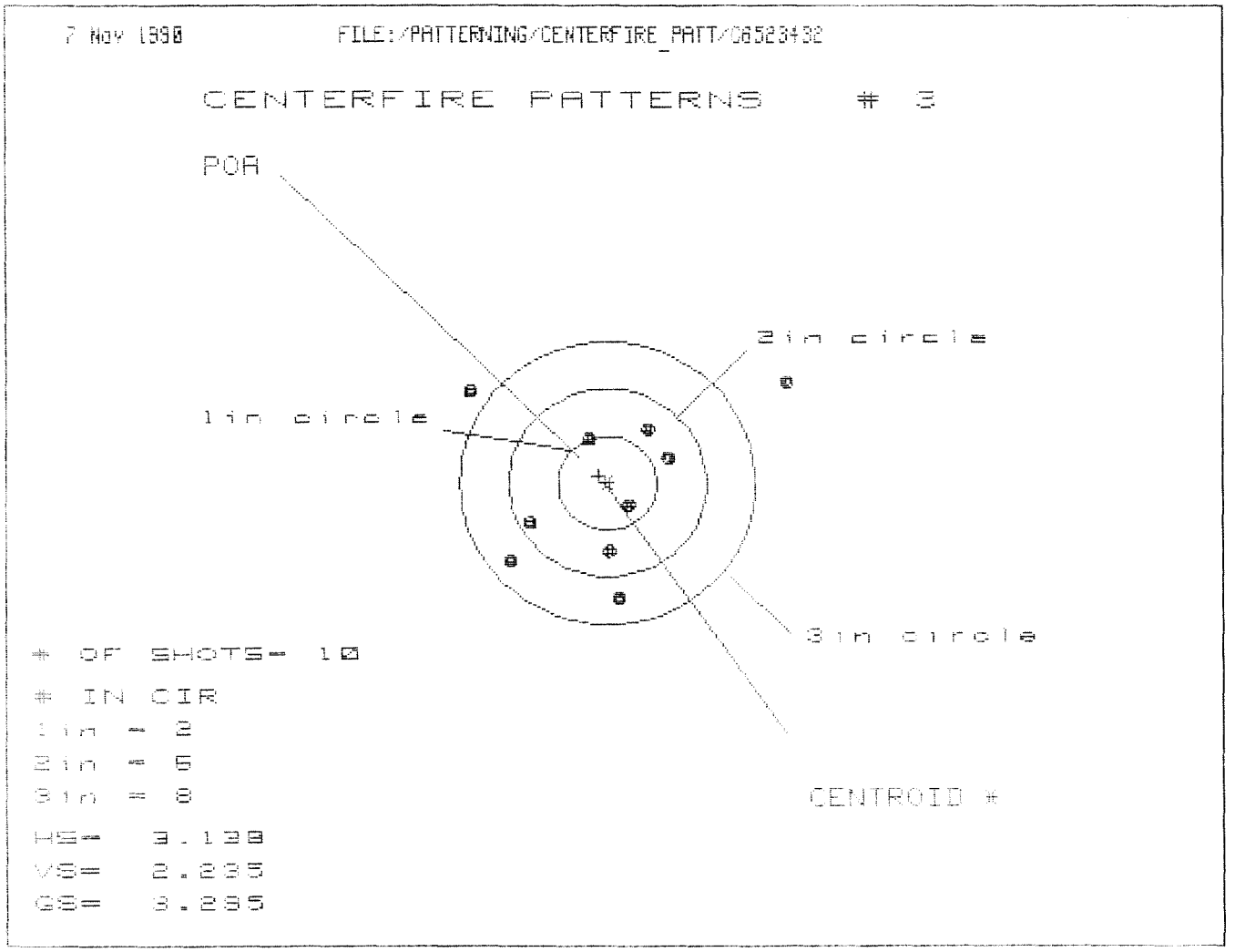
THE AMP FOR THIS RIFLE IS: 1.032



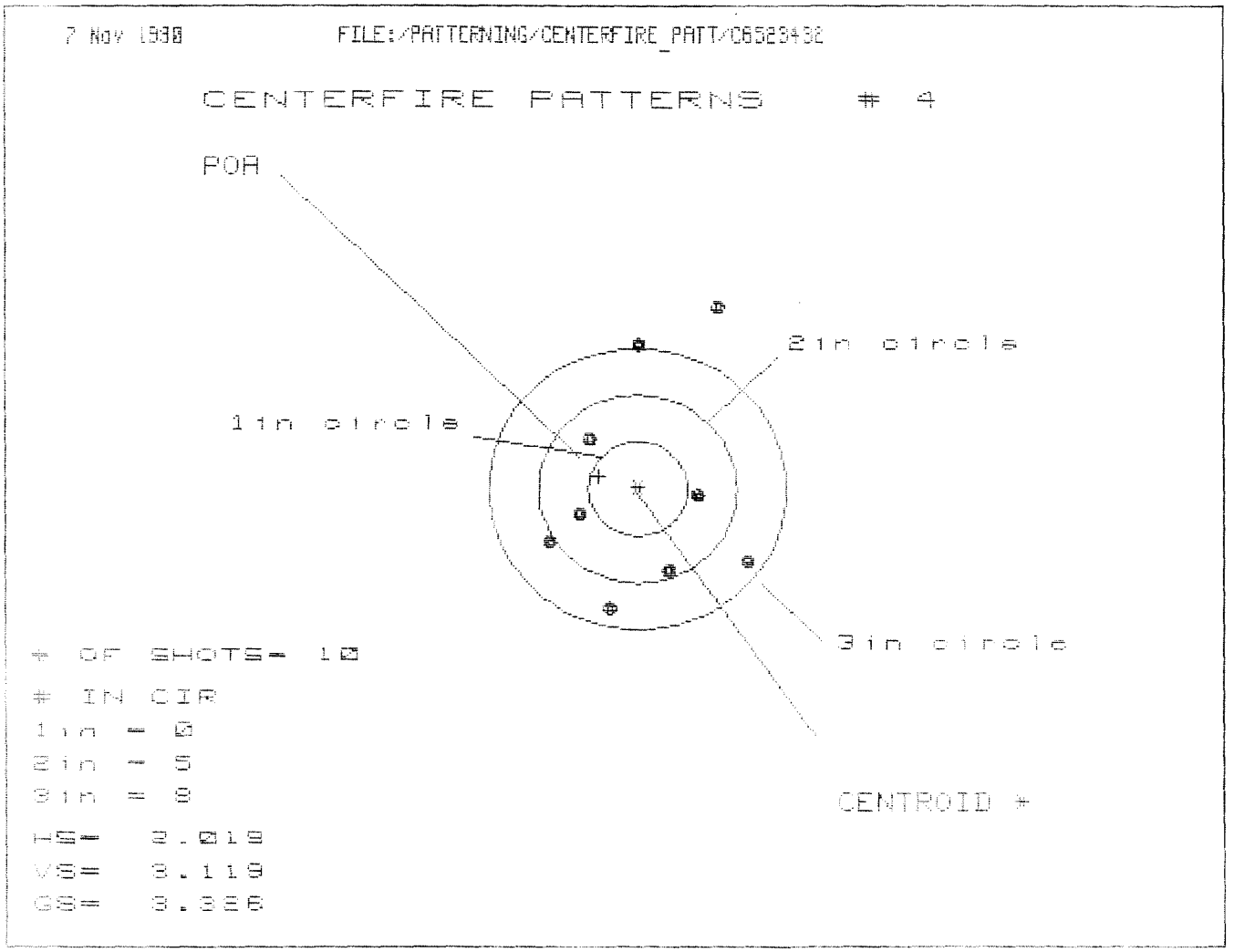
PATTERN #	:	1		
SHOTS (BEST OF)	:	10	9	8
MAXIMUM X	:	1.393	1.170	1.299
MINIMUM X	:	-2.009	-1.747	-1.618
MAXIMUM Y	:	1.010	1.025	1.086
MINIMUM Y	:	-1.337	-1.322	-1.194
CENTROID X	:	-.085	.138	.009
CENTROID Y	:	-.332	-.347	-.475
POA TO CENTROID in.	:	.343	.374	.475
MIN RADIUS	:	.206	.031	.191
MEAN RADIUS	:	1.154	1.019	.979
MAX RADIUS	:	2.014	1.810	1.654
HORIZONTAL SPREAD	:	3.402	2.917	2.917
VERTICAL SPREAD	:	2.347	2.347	2.280
EXTREME SPREAD	:	3.409	3.163	2.945
NUMBER IN ONE INCH CIRCLE	=		1	
NUMBER IN TWO INCH CIRCLE	=		4	
NUMBER IN THREE INCH CIRCLE	=		7	



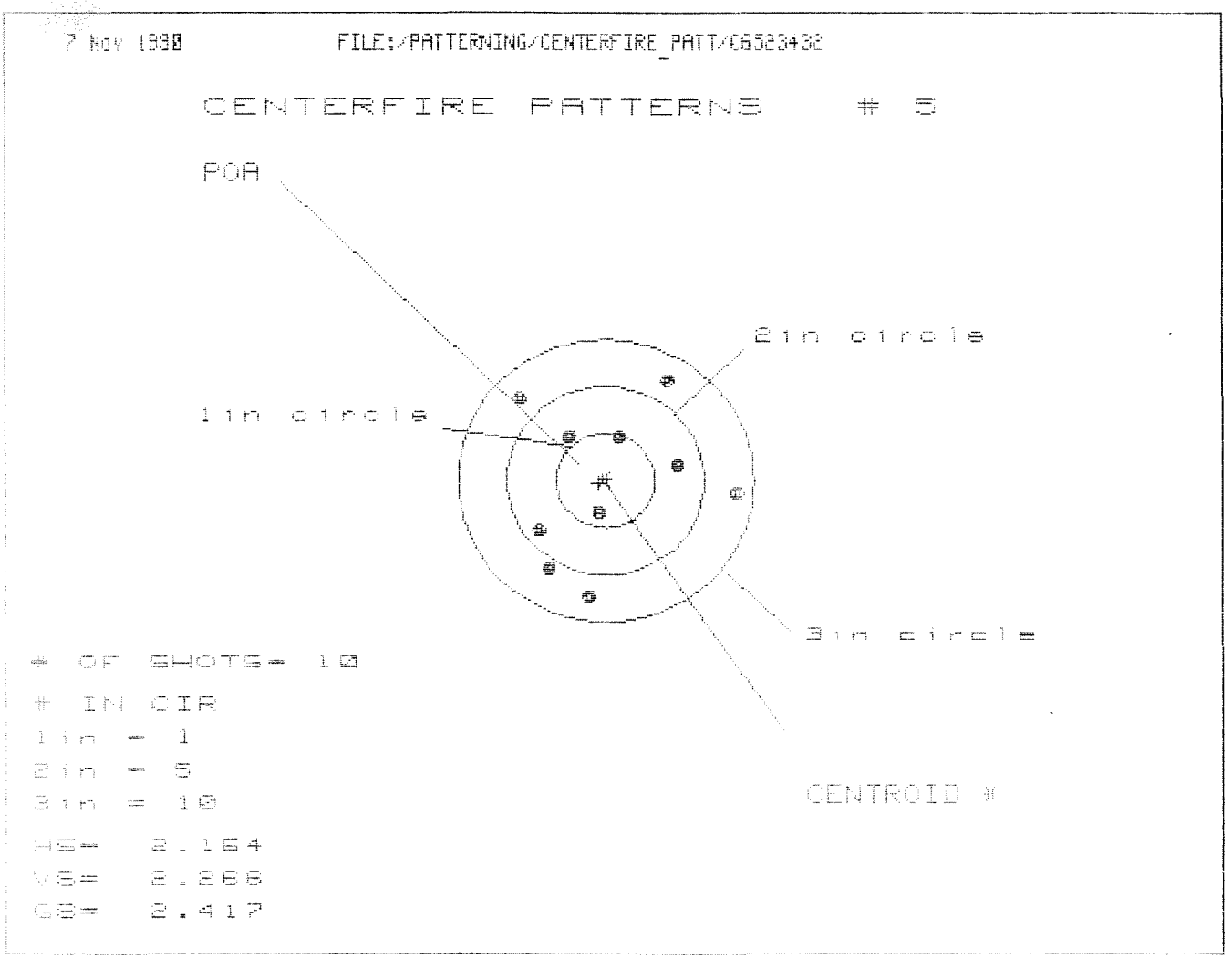
PATTERN #	:	2		
SHOTS (BEST OF)	:	10	9	8
MAXIMUM X	:	1.225	1.101	1.180
MINIMUM X	:	-1.122	-.874	-.737
MAXIMUM Y	:	1.201	1.061	.996
MINIMUM Y	:	-1.263	-.992	-1.057
CENTROID X	:	-.015	.109	-.028
CENTROID Y	:	-.172	-.032	.033
POA TO CENTROID in.	:	.173	.114	.044
MIN RADIUS	:	.603	.421	.446
MEAN RADIUS	:	1.007	.907	.859
MAX RADIUS	:	1.689	1.217	1.207
HORIZONTAL SPREAD	:	2.347	1.975	1.917
VERTICAL SPREAD	:	2.464	2.053	2.053
EXTREME SPREAD	:	2.863	2.260	2.142
NUMBER IN ONE INCH CIRCLE	=		0	
NUMBER IN TWO INCH CIRCLE	=		4	
NUMBER IN THREE INCH CIRCLE	=		9	



PATTERN #	:	3		
SHOTS (BEST OF)	:	10	9	8
MAXIMUM X	:	1.781	.845	.700
MINIMUM X	:	-1.357	-1.159	-.893
MAXIMUM Y	:	1.042	1.085	.804
MINIMUM Y	:	-1.193	-1.077	-.942
CENTROID X	:	.087	-.111	.034
CENTROID Y	:	-.076	-.192	-.327
POA TO CENTROID in.	:	.115	.221	.329
MIN RADIUS	:	.311	.445	.298
MEAN RADIUS	:	.990	.869	.749
MAX RADIUS	:	2.063	1.587	1.052
HORIZONTAL SPREAD	:	3.138	2.004	1.593
VERTICAL SPREAD	:	2.235	2.162	1.746
EXTREME SPREAD	:	3.295	2.629	1.933
NUMBER IN ONE INCH CIRCLE	=		2	
NUMBER IN TWO INCH CIRCLE	=		6	
NUMBER IN THREE INCH CIRCLE	=		8	



PATTERN #	:	4		
SHOTS (BEST OF)	:	10	9	8
MAXIMUM X	:	1.082	1.173	1.190
MINIMUM X	:	-.937	-.846	-.829
MAXIMUM Y	:	1.893	1.794	1.018
MINIMUM Y	:	-1.226	-1.015	-.791
CENTROID X	:	.392	.301	.284
CENTROID Y	:	-.134	-.345	-.569
POA TO CENTROID in.	:	.414	.458	.636
MIN RADIUS	:	.627	.488	.496
MEAN RADIUS	:	1.100	.946	.811
MAX RADIUS	:	2.063	1.799	1.235
HORIZONTAL SPREAD	:	2.019	2.019	2.019
VERTICAL SPREAD	:	3.119	2.809	1.809
EXTREME SPREAD	:	3.326	2.835	2.084
NUMBER IN ONE INCH CIRCLE	=		0	
NUMBER IN TWO INCH CIRCLE	=		5	
NUMBER IN THREE INCH CIRCLE	=		8	



PATTERN #	:	5		
SHOTS (BEST OF)	:	10	9	8
MAXIMUM X	:	1.314	.832	.824
MINIMUM X	:	-.851	-.705	-.713
MAXIMUM Y	:	1.033	1.013	.857
MINIMUM Y	:	-1.283	-1.253	-1.068
CENTROID X	:	.071	-.074	-.066
CENTROID Y	:	.030	.050	.206
POA TO CENTROID in.	:	.078	.089	.217
MIN RADIUS	:	.311	.308	.413
MEAN RADIUS	:	.909	.851	.788
MAX RADIUS	:	1.325	1.275	1.149
HORIZONTAL SPREAD	:	2.164	1.537	1.537
VERTICAL SPREAD	:	2.266	2.266	1.925
EXTREME SPREAD	:	2.417	2.417	2.254
NUMBER IN ONE INCH CIRCLE	=		1	
NUMBER IN TWO INCH CIRCLE	=		5	
NUMBER IN THREE INCH CIRCLE	=		10	