

REMINGTON ARMS COMPANY, INC.

INTER-DEPARTMENTAL CORRESPONDENCE



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xc: W.H. Coleman, II/File
K.W. Soucy
G.J. Hill
J.R. Snedeker
R.S. Murphy
F.L. Supry
File

RESEARCH TEST AND MEASUREMENT REPORT

REPORT# 870211
JANUARY 30, 1987

MODEL 700 CLASSIC 338 WIN MAG TRIAL AND PILOT RIFLES
VISUAL, ACCURACY AND FUNCTION

-2-

MODEL 700 CLASSIC 338 WIN MAG TRIAL AND PILOT EVALUATION

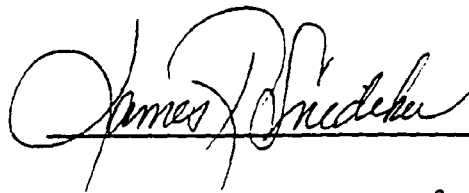
ABSTRACT:

Research and Development finds the Trial and Pilot Evaluation of the Model 700 Classic, 338 Win Mag caliber rifle, to be acceptable. The Trial and Pilot Evaluation consisted of Visual Inspection, Accuracy, and Function. The eight rifle sample was found to be within Remington Specifications for each phase of the Trial and Pilot Evaluation.

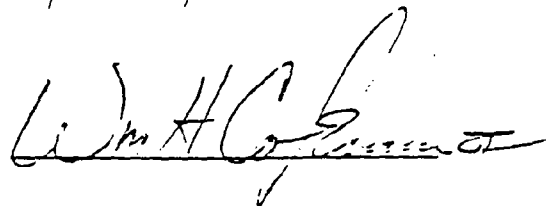
Prepared by: F.L. SUPRY
Date Prepared: 1/30/87

proofread and cleared by:

J.R. SNEDEKER, Research Supervisor
Test, Measurement & Mech. Analysis Lab



W.H. COLEMAN, II
New Products Research Lab Director



REPORT# 870211

WORK ORDER# B-0504-000
DATE: JANUARY 30, 1987

TO: J.R. SNEDEKER

FROM: F.L. SUPRY

TITLE: ACCURACY AND FIELD FUNCTION: MODEL 700 CLASSIC 338 WIN MAG

ABSTRACT:

On January 21, 1987 a request was received to conduct a Visual, Accuracy and Function evaluation of the Model 700 Classic 338 WIN MAG caliber, Trial and Pilot rifles currently in the warehouse. Eight rifles were randomly selected from the warehouse.

SCOPE OF TEST:

To determine if the production run samples meet the Remington Specifications set by the Research Design Section.

TEST RESULTS:

The eight rifle Trial and Pilot Evaluation was found to be acceptable. The following results were obtained:

A. VISUAL:

- a. The overall appearance of the rifles was very good.

B. ACCURACY:

- a. Average group size = 2.43 inches center to center

C. FUNCTION:

- a. No malfunctions occurred.

-4-

TEST REPORT:

1. ACCURACY:

- A. The Remington specification for group size is 3.5 inches, center to center.
- B. Three (3) rifles were tested for 100 yard accuracy and the following results were established:

	GROUP NUMBER			AVERAGE
	1	2	3	
Rifle# B6830009 -	1.65 in.	2.29 in.	2.69 in.	2.21 in.
Rifle# B6833596 -	2.65 in.	3.79 in.	1.81 in.	2.65 in.
Rifle# B6830876 -	2.64 in.	2.79 in.	1.88 in.	2.44 in.

2. FUNCTION:

- A. Three rifles were subjected to a 30 round per rifle, Function Test and the following results were obtained:
- a. No malfunctions occurred.

TEST PROCEDURE:

1. ACCURACY

- A. The following three (3) rifles were used in the 100 yard accuracy test:

B6830009 B6833596 B6830876

- B. The accuracy was shot by the Custom Shop, at the R & D 100 yard range.
- C. Leupold base and rings were used in conjunction with a Redfield 12X (4-plex) scope.
- D. Winchester ammunition; index X3381, code 9WC61, 200 grain soft point, was used for the 100 yard accuracy test.
- E. Before shooting the 100 yard accuracy test, the bores on each rifle were brushed with Hoppe's No. 9 solvent and patched dry.

TEST PROCEDURE: (continued)

1. ACCURACY (continued)

- F. A total of three (3), five (5) shot groups were shot with each rifle. The rifles were cooled between each group, and one (1) "warmer" shot was fired before the next group was shot.
- G. The patterns were analyzed for group size, and averages were calculated for each rifle.

2. VISUAL:

- A. The visual inspection committee consisted of G.Hill, J. Willoughby (P. E. & C.); F. Supry, and J. Selan (R. & D.).
- B. Five (5) rifles were selected, using random number tables, from a sample lot of eight rifles.
- C. The rifles used in the Visual Inspection were:
B6833465 B6830372 B6829175 B6833550 B6831373
- D. Each rifle was wiped down with a clean white Coyne towel, and examined by each member of the Visual Inspection Committee. All comments were recorded, and are included in this report.

3. FUNCTION:

- A. The following three rifles were selected for the Function Test:
B6830009 B6833596 B6830876
- B. The three rifles were subjected to the loading and firing of 30 rounds of Winchester ammunition (15 rounds of 200 grain, and 15 rounds of 225 grain). Fifteen rounds were fired; 5 at a slow feeding cycle speed, 5 at a medium feeding cycle speed, and 5 at a fast feeding cycle speed. The rifles were allowed to cool and then the procedure repeated with the remaining ammunition type.
- C. The following ammunition was used in the function test:
 - a. X3381 200 grain soft point
 - b. X3382 225 grain soft point

VISUAL INSPECTION MODEL 700 CLASSIC 338 WIN MAG CALIBER

<u>SERIAL NUMBER</u>	<u>-----COMMENTS-----</u>
B6833465	SMALL NICKS IN RIGHT SIDE OF BBL GROOVE - BURNISH MARK ON THE RECOIL PAD - SLIGHT TURN MARKS ON RIGHT SIDE OF BBL, UNDER THE FRONT SIGHT BASE.
B6830372	ROUGH FILL IN THE BOLT HANDLE SLOT - FLOOR PLATE SLIGHTLY LOOSE - PITS ON THE BOLT PLUG.
B6829175	FIBER THREAD UNDER THE RECOIL PAD - SLIGHT MAR ON THE SIGHT SCREW - INCOMPLETE POLISH ON THE FIRING PIN HEAD - FLOOR PLATE SLIGHTLY LOOSE.
B6833550	SLIGHT BREAKOUT OF STOCK AT THE RAIL ON THE RIGHT SIDE OF THE RECEIVER - RECEIVER SEEMS TO SET TOO DEEP IN THE STOCK - FLOOR PLATE TAKEDOWN SCREW MARRED.
B6831373	NICK ON THE FLOOR PLATE - EXCESSIVE SANDING IN THE BOLT HANDLE SLOT AREA - FIBER THREAD UNDER RECOIL PAD.

IN GENERAL THESE WERE VERY GOOD LOOKING RIFLES. THE CHECKERING WAS CLEAR, AND THE WOOD AND METAL FINISHES WERE EXCELLENT. THE VISUAL INSPECTION COMMITTEE FINDS THE VISUAL INSPECTION OF THE MODEL 700 CLASSIC 338 WIN MAG TO BE ACCEPTABLE.

REMINGTON ARMS COMPANY, INC.

INTER-DEPARTMENTAL CORRESPONDENCE

Remington.



PETERS



"CONFINE YOUR LETTER TO ONE SUBJECT ONLY" _____

xc: W.H. Coleman, II/File
 K.W. Soucy
 G.J. Hill
 J.R. Snedeker
 F.L. Supry
 File

RESEARCH TEST AND MEASUREMENT REPORT

REPORT# 870641
MARCH 12, 1987

MODEL 700 LEFT HAND - TRIAL AND PILOT EVALUATION
243 WIN AND 308 WIN CALIBERS

MODEL 700 LEFT HAND 243 WIN AND 308 WIN TRIAL AND PILOT EVALUATION

ABSTRACT:

Research and Development finds the Trial and Pilot Evaluation of the Model 700 left hand 243 win caliber, and the Model 700 left hand 308 win caliber rifles to be acceptable. The Trial and Pilot Evaluation consisted of Visual Inspection, Accuracy, and Function. The ten rifle sample (five rifles of each caliber) was found to be within Remington specifications for each phase of the Trial and Pilot Evaluation.

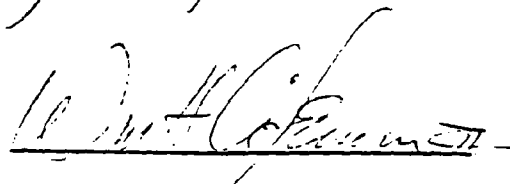
Prepared by: F.L. Supry
Date prepared: 12 march 1987

proofread and cleared by:

J.R. Snedeker, Research Supervisor
Test, Measurement & Mech. Analysis Lab



W.H. Coleman, II
New Products Research Lab Director



REPORT# 870641

WORK ORDER# 81411-905

To: J.R. Snedeker

From: F.L. Supry

MODEL 700 LEFT HAND (243 WIN, AND 308 WIN) TRIAL AND PILOT EVALUATION

INTRODUCTION:

On March 5, 1987 a request was received to conduct a Visual, Accuracy, and Function Evaluation of the Model 700 left hand (243 Win and 308 Win caliber) Trial and Pilot rifles. Five rifles of each caliber were randomly selected from production.

SCOPE OF TEST:

To determine if the production run samples meet the Remington Specifications set by the Research Design Section.

TEST RESULTS:

The ten rifle Trial and Pilot Evaluation was found to be acceptable. The following results were obtained:

A. VISUAL:

a. The overall appearance of the rifles was good.

B. ACCURACY: (Average group size)

a. 243 Win = 1.972 inches.
b. 308 Win = 1.749 inches.

C. FUNCTION:

a. No malfunctions occurred.

REPORT# 870641

WORK ORDER# 81411-905

TEST REPORT:

1. VISUAL:

- A. The visual inspection committee felt that the following two items need to be checked more thoroughly:
- a. Finish peeling by the grip checkering.
 - b. Rear sight being raised off the ramp.
- B. Data sheets containing the comments on each rifle inspected is included in the appendix of this report.

2. ACCURACY:

- A. The Remington Specification for group size is as follows:
- a. 243 Win caliber: 2.2 inches, center to center.
 - b. 308 Win caliber: 3.5 inches, center to center.
- B. Three rifles of each caliber were tested for 100 yard accuracy and the following results were obtained.

		GROUP			AVG
		1	2	3	
243 WIN CALIBER					
Rifle# B6850372	-	2.305	2.329	1.505	2.046
Rifle# B6849949	-	1.815	1.666	1.603	1.695
Rifle# B6849906	-	2.603	1.527	2.395	2.175

OVERALL GROUP SIZE AVERAGE = 1.972 INCHES

308 WIN CALIBER

Rifle# B6851090	-	2.337	1.852	1.713	1.968
Rifle# B6851007	-	1.497	2.266	1.188	1.650
Rifle# B6851094	-	1.324	2.204	1.356	1.628

OVERALL GROUP SIZE AVERAGE = 1.749

3. FUNCTION:

- A. Three rifles of each caliber were subjected to a 30 round per rifle, function test and the following results were obtained:
- a. No malfunctions occurred.

REPORT# 870641

WORK ORDER# 81411-905

TEST PROCEDURE:

1. VISUAL:

- A. The visual inspection committee consisted of G. Hill, G. Barnes (P.E. & C.); J. Baggetta, C. Stephens, and F. Supry (R. & D.).
- B. All five rifles of each caliber were used in the visual inspection. The rifles were as follows:
 - a. 243 Win caliber:
B6849906 B6849999 B6849949 B6849965 B6850372
 - b. 308 Win caliber:
B6851094 B6851145 B6851007 B6850969 B6851090
- C. Each rifle was wiped down with a clean white Coyne towel, and examined by each member of the visual inspection committee. All comments were recorded, and are included in the appendix of this report.

2. ACCURACY:

- A. The following rifles were used in the 100 yard accuracy test:
 - a. 243 Win caliber:
B6850372 B6849949 B6849906
 - b. 308 Win caliber:
B6851090 B6851007 B6851094
- B. The accuracy was shot by C. Stephens, at the R&D 100 yard range located in building 52-1.
- C. Leupold base and rings were used in conjunction with a Redfield 12X (4-plex) scope.
- D. Remington ammunition; index R243W3, code W20LD0948, and index R308W3, code C13TC6305 was used for the 100 yard accuracy test.
- E. Before shooting the accuracy test, the bores on each rifle were brushed with Hoppe's No. 9 solvent and patched dry.
- F. A total of three, five shot groups were shot with each rifle. The rifles were cooled between each group, and one "warmer" shot was fired before the next group was shot.
- G. The targets were analyzed for group size and the averages calculated, using the HP 9000 computer and digitizing tablet.

REPORT# 870641

WORK ORDER# 81411-905

TEST PROCEDURE: (continued)

3. FUNCTION:

A. The following rifles were selected for the function test:

- a. 243 Win Caliber:
B6849906 B6849999 B6849965
- b. 308 Win caliber:
B6851007 B6851145 B6850969

B. Each of the rifles was subjected to the loading and firing of 30 rounds of Remington ammunition (15 rounds of 80 grain and 15 rounds of 100 grain for the 243 Win caliber rifles, and 15 rounds of 55 grain and 15 rounds of 180 grain for the 308 Win caliber rifles). Fifteen rounds were fired; 5 at a slow feeding cycle speed, 5 at a medium feeding cycle speed, and 5 at a fast feeding cycle speed. The rifles were allowed to cool, and then the procedure was repeated with the remaining ammunition type.

C. The following ammunition was used in the function test:

- a. R243W1 - 80 grain pointed soft point.
- b. R243W3 - 100 grain pointed soft point.
- c. R308W5 - 55 grain Win accelerator.
- d. R308W2 - 180 grain soft point.

REPORT# 870641

WORK ORDER# 81411-905

APPENDIX

REPORT# 870641

WORK ORDER# 81411-905

VISUAL INSPECTION MODEL 700 LEFT HAND 243 WIN AND 308 WIN CALIBERS

243 WIN CALIBER:

<u>SERIAL NUMBER</u>	<u>COMMENTS</u>
B6849906	FINISH PEELING AT GRIP CHECKERING. BRIGHT MARK ON THE BARREL. SMALL PIMPLES IN THE FINISH NEAR THE STUD, AT THE FORE END TIP.
B6849999	SMALL CHIP ON GRIP CAP. SMALL PIMPLES IN THE FINISH, ON THE RIGHT SIDE OF THE STOCK NEAR THE TRIGGER GUARD. SLIGHT CRACK IN THE BOLT HANDLE SLOT, AND SANDING BREAKTHROUGH IN THE SAME AREA.
B6849949	REAR SIGHT RAISED OFF THE SLIDE. MAR ON THE TRIGGER GUARD. BLEED OUT ON THE CROSS PIN. SLIGHT DING IN THE STOCK, LEFT SIDE NEAR FORE END TIP.
B6849965	GAP BOTH SIDES OF THE BUTT PLATE. SCRATCH LEFT SIDE OF STOCK BY THE RECEIVER.
B6850372	FINISH PEELING RIGHT SIDE OF STOCK NEAR THE CHECKERING.

308 WIN CALIBER:

B6851094	SLIGHT DING ON THE FLOOR PLATE, RIGHT SIDE.
B6851145	MAR ON THE FLOOR PLATE, LEFT SIDE. TWO SLIGHT DINGS ON THE BUTT PLATE. BUTT PLATE INSERT NOT FLUSH.
B6851007	FINISH RUN NEAR THE CHECKERING. SPACE UNDER FORE END TIP.
B6850969	DENT ON THE TOP OF THE STOCK, NEAR THE REAR SWIVEL. TWO SLIGHT DINGS ON THE RIGHT SIDE OF THE TRIGGER GUARD. REAR SIGHT RAISED OFF OF RAMP.
B6851090	SLIGHT DING, LEFT SIDE OF STOCK, NEAR THE BOLT HANDLE SLOT. EXCESSIVE WOOD MARGIN AT THE SAFETY SLOT. BOLT HANDLE SLOT IS ROUGH.

xc: W.H. Coleman, II/File
K.W. Soucy
G.J. Hill
J.R. Snedeker
F.L. Supry
File

RESEARCH TEST AND MEASUREMENT REPORT

REPORT# 870641
MARCH 12, 1987

MODEL 700 LEFT HAND - TRIAL AND PILOT EVALUATION
243 WIN AND 308 WIN CALIBERS

MODEL 700 LEFT HAND 243 WIN AND 308 WIN TRIAL AND PILOT EVALUATION

ABSTRACT:

Research and Development finds the Trial and Pilot Evaluation of the Model 700 left hand 243 win caliber, and the Model 700 left hand 308 win caliber rifles to be acceptable. The Trial and Pilot Evaluation consisted of Visual Inspection, Accuracy, and Function. The ten rifle sample (five rifles of each caliber) was found to be within Remington specifications for each phase of the Trial and Pilot Evaluation.

Prepared by: F.L. Supry
Date prepared: 12 march 1987

proofread and cleared by:

J.R. Snedeker, Research Supervisor
Test, Measurement & Mech. Analysis Lab

W.H. Coleman, II
New Products Research Lab Director

Report No. 870641

RESEARCH TEST & MEASUREMENT LAB WORK REQUEST

<input type="checkbox"/> Developmental <input type="checkbox"/> Design Acceptance <input type="checkbox"/> Pre-Pilot <input type="checkbox"/> Pilot <input checked="" type="checkbox"/> Production Acceptance	<u>AREA OF TESTING</u> <input type="checkbox"/> Safety Related <input type="checkbox"/> Litigation <input type="checkbox"/> Competitive Evaluation <input type="checkbox"/> Warehouse Audit <input type="checkbox"/> New Design <input type="checkbox"/> Cost Reduction <input type="checkbox"/> Design Change Stake _____ <input type="checkbox"/> Plant Assistance <input checked="" type="checkbox"/> Other <u>T & P</u>	
<u>FIREARM STAT'S</u> MODEL: <u>700 left hand</u> CAL. or GAGE: <u>243 & 308</u> BARREL TYPE: _____ PROOFED: YES <input checked="" type="checkbox"/> NO _____	<u>REPORT REQ'D.</u> FORMAL <input checked="" type="checkbox"/> TEST RESULTS ONLY _____	DATE REQUESTED: <u>3/5/87</u> DATE NEEDED BY: _____ REQUESTED BY: <u>GJ Hill</u> WORK ORDER NO: _____
<u>TEST TYPE</u> <input type="checkbox"/> Strength Test <input type="checkbox"/> Ammunition Test <input type="checkbox"/> Dry Cycle Test <input type="checkbox"/> Photo/Video <input checked="" type="checkbox"/> Function Test <input type="checkbox"/> Environmental Test <input type="checkbox"/> Measurements <input checked="" type="checkbox"/> Other <u>VISUAL</u> <input checked="" type="checkbox"/> Accuracy Test <input type="checkbox"/> Customer Complaint <input type="checkbox"/> Endurance Test		

EXPLAIN IN DETAIL THE REASON FOR THIS TEST:

Trial & Pilot of left hand model 700's
in the 243 & 308 calibers.

① visual, ② ACCURACY, ③ FUNCTION

① All ten

② 3 of each caliber at 100 yards

③ All ten

-GUNS REQUIRED:

5 of each caliber

NOTE: NO firearms or parts will be tested in the Labs unless they are accompanied by a Work Request, and both are delivered to the Labs by the designer or engineer. All Work Requests are to be filled out in detail. No Exceptions.

DATE COMPLETED: _____
 TEST COMPLETED BY: _____
 REPORT DATE: _____

REMINGTON ARMS COMPANY, INC.

INTER-DEPARTMENTAL CORRESPONDENCE



"CONFINE YOUR LETTER TO ONE SUBJECT ONLY" _____

xc: W.H. Coleman, II/File
K.W. Soucy
G.J. Hill
J.R. Snedeker
J.F. Matousek, Jr
F.L. Supry
File

RESEARCH TEST AND MEASUREMENT REPORT

REPORT# 871112
APRIL 29, 1987

MODEL 700 FS TRIAL AND PILOT EVALUATION

308 WIN CALIBER

MODEL 700 FS 308 WIN CALIBER - TRIAL AND PILOT EVALUATION

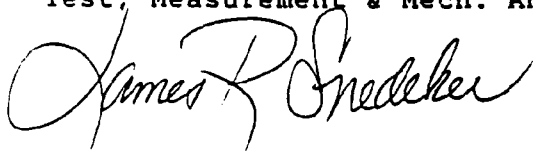
ABSTRACT:

Research and Development finds the Trial and Pilot Evaluation of the Model 700 FS 308 win caliber rifles to be acceptable. The Trial and Pilot Evaluation consisted of Visual Inspection, Accuracy, and Function. The eight rifle sample (four rifles with gray stocks and four rifles with camo stocks) was found to be within Remington specifications for each phase of the Trial and Pilot Evaluation.

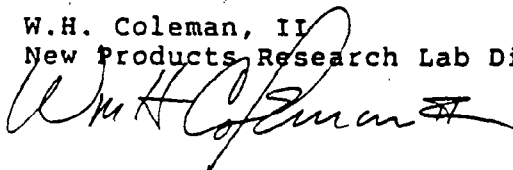
Prepared by: F.L. Supry
Date prepared: 29 April 1987

proofread and cleared by:

J.R. Snedeker, Research Supervisor
Test, Measurement & Mech. Analysis Lab



W.H. Coleman, II
New Products Research Lab Director



REPORT# 871112

WORK ORDER# 81389-914

To: J.R. Snedeker

From: F.L. Supry

MODEL 700 FS 308 WIN CALIBER - TRIAL AND PILOT EVALUATION

INTRODUCTION:

On April 21, 1987 a request was received to conduct a Visual, Accuracy, and Function Evaluation of the Model 700 FS 308 Win caliber, Trial and Pilot rifles. Eight rifles, four of each stock option, were randomly selected from production.

SCOPE OF TEST:

To determine if the production run samples meet the Remington Specifications set by the Research Design Section.

TEST RESULTS:

The eight rifle Trial and Pilot Evaluation was found to be acceptable. The following results were obtained:

A. VISUAL:

- a. The overall appearance of the rifles was good.

B. ACCURACY: (Average group size)

- a. 308 Win (Gray) = 1.857 inches.
- b. 308 Win (Camo) = 1.832 inches.

C. FUNCTION:

- a. No malfunctions occurred.

REPORT# 871112

WORK ORDER# 81389-914

TEST REPORT:

1. VISUAL:

- A. The visual inspection committee felt that the following three items need to be checked more thoroughly:
- a. "F" stamp upsetting the receiver, near the bolt handle slot.
 - b. The Proof Stamp was light.
 - c. The swivels were off center.
- B. Data sheets containing the comments on each rifle inspected is included in the appendix of this report.

2. ACCURACY:

- A. The Remington Specification for group size is as follows:
- a. 308 Win caliber: 3.5 inches, center to center.
- B. Two rifles of each stock option were tested for 100 yard accuracy and the following results were obtained.

		GROUP		AVG
	1	2	3	
Gray Stock				
Rifle# B6848853	- 1.738	1.409	1.444	1.530
Rifle# B6848285	- 2.542	2.382	1.626	2.183

OVERALL GROUP SIZE AVERAGE = 1.857 INCHES

Camo Stock

Rifle# B6849758	- 1.813	1.606	2.421	1.947
Rifle# B6848296	- 1.359	1.804	1.986	1.716

OVERALL GROUP SIZE AVERAGE = 1.832

3. FUNCTION:

- A. The rifles were subjected to a 30 round per rifle, function test and the following results were obtained:
- a. No malfunctions occurred.

REPORT# 871112

WORK ORDER# 81389-914

TEST PROCEDURE:

1. VISUAL:

- A. The visual inspection committee consisted of G. Hill, G. Barnes, P. Johnson, R. Long (P.E. & C.); R. Howe, and F. Supry (R. & D.).
- B. All four rifles of each stock option were used in the visual inspection. The rifles were as follows:
 - a. Gray Stock:
B6848853 B6848285 B6849351 B6849316
 - b. Camo Stock:
B6849330 B6849758 B6848296 B6849254
- C. Each rifle was wiped down with a clean white Coyne towel, and examined by each member of the visual inspection committee. All comments were recorded, and are included in the appendix of this report.

2. ACCURACY:

- A. The following rifles were used in the 100 yard accuracy test:
 - a. Gray Stock:
B6848285 B6848853
 - b. Camo Stock:
B6848296 B6849758
- B. The accuracy was shot by C. Stephens, at the R&D 100 yard range located in building 52-1.
- C. Leupold base and rings were used in conjunction with a Redfield 12X (4-plex) scope.
- D. Remington ammunition; index R308W3, code C13TC6305 was used for the 100 yard accuracy test.
- E. Before shooting the accuracy test, the bores on each rifle were brushed with Hoppe's No. 9 solvent and patched dry.
- F. A total of three, five shot groups were shot with each rifle. The rifles were cooled between each group, and one "warmer" shot was fired before the next group was shot.
- G. The targets were analyzed for group size and the averages calculated, using the HP 9000 computer and digitizing tablet.

REPORT# 871112

WORK ORDER# 81389-914

TEST PROCEDURE: (continued)

3. FUNCTION:

A. All four rifles of each stock option were used in the function test. The rifles were as follows:

a. Gray Stock:

B6848853 B6848285 B6849351 B6849316

b. Camo Stock:

B6849330 B6849758 B6848296 B6849254

B. Each of the rifles was subjected to the loading and firing of 30 rounds of Remington 308 Win caliber ammunition (15 rounds of 55 grain and 15 rounds of 180 grain). Fifteen rounds were fired; 5 at a slow feeding cycle speed, 5 at a medium feeding cycle speed, and 5 at a fast feeding cycle speed. The rifles were allowed to cool, and then the procedure was repeated with the remaining ammunition type.

C. The following ammunition was used in the function test:

a. R308W5 - 55 grain Win accelerator.

b. R308W2 - 180 grain soft point.

REPORT# 871112

WORK ORDER# 81389-914

APPENDIX

REPORT# 871112

WORK ORDER# 81389-914

VISUAL INSPECTION MODEL 700 FS 308 WIN CALIBERS

Gray Stock:

<u>SERIAL NUMBER</u>	<u>COMMENTS</u>
B6848853	MISMATCH ON THE TRIGGER GUARD. POOR COLOR ON THE BOLT. LIGHT PROOF MARK.
B6848285	POOR COLOR ON THE BOLT. LIGHT PROOF MARK.
B6849351	LIGHT PROOF MARK. GOUGE IN THE SAFETY SLOT.
B6849316	MAR ON THE TRIGGER GUARD. LIGHT PROOF MARK.

Camo Stock:

B6849330	SLIGHT BLEMISH OVER SERIAL NUMBER. LIGHT PROOF MARK. REAR SWIVEL OFF CENTER. BRIGHT MAR ON THE BOLT PLUG.
B6849758	LIGHT PROOF MARK. REAR SWIVEL OFF CENTER. BRIGHT MAR ON THE BOLT PLUG.
B6848296	LIGHT PROOF MARK. BRIGHT MAR ON THE BOLT PLUG.
B6849254	LIGHT PROOF MARK. BRIGHT MAR ON THE BOLT PLUG.

GENERAL COMMENTS:

THE BRIGHT MAR ON THE BOLT PLUGS WAS CAUSED BY THE "F" STAMP ON THE RECEIVER BEING STAMPED CLOSE TO THE EDGE, UPSETTING THE SLOT.

THE STYLE OF BARREL FINISH CONTRIBUTES TO THE PROOF MARK BEING LIGHT.

THE SWIVELS ARE PUT IN SLIGHTLY OFF CENTER BY THE VENDOR.

RD-49-B

REMINGTON ARMS COMPANY, INC.

INTER-DEPARTMENTAL CORRESPONDENCE

Remington.



PETERS



"CONFINE YOUR LETTER TO ONE SUBJECT ONLY" _____

xc: W.H. Coleman, II/File
K.W. Soucy
G.J. Hill
T.C. Douglas
J.R. Snedeker
J.F. Matousek, Jr.
F.L. Supry
File

RESEARCH TEST AND MEASUREMENT REPORT

REPORT# 871383
MAY 28, 1987

MODEL 700 "POLICE" 223 REM CALIBER BOLT ACTION RIFLES

TRIAL AND PILOT EVALUATION

MODEL 700 "POLICE" 223 REM CALIBER - TRIAL AND PILOT EVALUATION

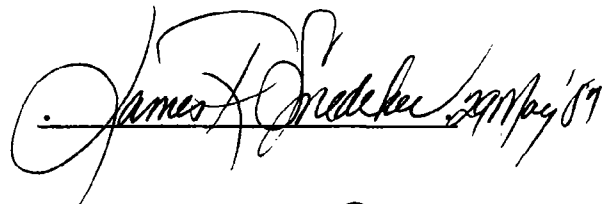
ABSTRACT:

Research and Development finds the Trial and Pilot Evaluation of the Model 700 "Police" 223 Rem caliber rifles to be acceptable. The Trial and Pilot Evaluation consisted of Accuracy, and Function. The five rifle sample was found to be within Remington specifications for each phase of the Trial and Pilot Evaluation.

Prepared by: F.L. Supry
Date prepared: 28 May 1987

proofread and cleared by:

J.R. Snedeker, Research Supervisor
Test, Measurement & Mech. Analysis Lab



W.H. Coleman, II
New Products Research Lab Director



REPORT# 871383

WORK ORDER# 82034-905

To: J.R. Snedeker

From: F.L. Supry

MODEL 700 "POLICE" 223 REM CALIBER - TRIAL AND PILOT EVALUATION

INTRODUCTION:

On May 18, 1987 a request was received to conduct an Accuracy, and Function Evaluation of the Model 700 "Police" 223 Rem caliber, Trial and Pilot rifles. Five rifles were randomly selected from production.

SCOPE OF TEST:

To determine if the production run samples meet the Remington Specifications set by the Research Design Section.

TEST RESULTS:

The five rifle Trial and Pilot Evaluation was found to be acceptable. The following results were obtained:

A. ACCURACY: (Average group size)

a. 223 Rem = 1.009 inches.

C. FUNCTION:

a. No malfunctions occurred.

REPORT# 871383

WORK ORDER# 82034-905

TEST REPORT

1. ACCURACY:

A. The Remington Specification for group size is as follows:

a. 223 Rem caliber: 1.5 inches, center to center.

B. Three rifles tested for 100 yard accuracy and the following results were obtained.

			GROUP		AVG
	1		2	3	
Rifle# B6853162	-	0.795	1.144	0.911	0.950
Rifle# B6853148	-	1.571	0.881	1.465	1.304
Rifle# B6853242	-	1.089	0.560	0.672	0.774

OVERALL GROUP SIZE AVERAGE = 1.009 INCHES

3. FUNCTION:

A. The rifles were subjected to a 30 round per rifle, function test and the following results were obtained:

a. No malfunctions occurred.

TEST PROCEDURE:

1. ACCURACY:

A. The following rifles were used in the 100 yard accuracy test:

B6853162 B6853148 B6853242

B. The accuracy was shot by J.E. Selan, at the R&D 100 yard range located in building 52-1.

C. Leupold base and rings were used in conjunction with a Redfield 12X (4-plex) scope.

D. Remington ammunition; index R223R3 , code A06ID was used for the 100 yard accuracy test.

REPORT# 871383

WORK ORDER# 82034-905

TEST PROCEDURE: (continued)

1. ACCURACY: (continued)

- E. Before shooting the accuracy test, the bores on each rifle were brushed with Hoppe's No. 9 solvent and patched dry.
- F. A total of three, five shot groups were shot with each rifle. The rifles were cooled between each group, and one "warmer" shot was fired before the next group was shot.
- G. The targets were analyzed for group size and the averages calculated, using the HP 9000 computer and digitizing tablet.

2. FUNCTION:

- A. Three rifles were used in the function test. The rifles were as follows:

B6853162 B6853148 B6853242

- B. Each of the rifles was subjected to the loading and firing of 30 rounds of Remington 223 Rem caliber ammunition (15 rounds of 55 grain metal case, and 15 rounds of 55 grain pointed soft point). Fifteen rounds were fired; 5 at a slow feeding cycle speed, 5 at a medium feeding cycle speed, and 5 at a fast feeding cycle speed. The rifles were allowed to cool, and then the procedure was repeated with the remaining ammunition type.
- C. The following ammunition was used in the function test:
 - a. R223R1 - 55 grain pointed soft point.
 - b. R223R3 - 55 grain metal case.

REMINGTON ARMS COMPANY, INC.

INTER-DEPARTMENTAL CORRESPONDENCE

Remington.



PETERS



"CONFINE YOUR LETTER TO ONE SUBJECT ONLY" _____

XC: W.H. Coleman, II/File
K.W. Soucy
G.J. Hill
T.C. Douglas
J.R. Snedeker
J.F. Matousek, Jr.
F.L. Supry
File

RESEARCH TEST AND MEASUREMENT REPORT

REPORT# 871383
MAY 28, 1987

MODEL 700 "POLICE" 223 REM CALIBER BOLT ACTION RIFLES

TRIAL AND PILOT EVALUATION

MODEL 700 "POLICE" 223 REM CALIBER - TRIAL AND PILOT EVALUATION

ABSTRACT:

Research and Development finds the Trial and Pilot Evaluation of the Model 700 "Police" 223 Rem caliber rifles to be acceptable. The Trial and Pilot Evaluation consisted of Accuracy, and Function. The five rifle sample was found to be within Remington specifications for each phase of the Trial and Pilot Evaluation.

Prepared by: F.L. Supry
Date prepared: 28 May 1987

proofread and cleared by:

J.R. Snedeker, Research Supervisor
Test, Measurement & Mech. Analysis Lab

_____.

W.H. Coleman, II
New Products Research Lab Director

_____.

REPORT# 871383

WORK ORDER# 82034-905

To: J.R. Snedeker

From: F.L. Supry

MODEL 700 "POLICE" 223 REM CALIBER - TRIAL AND PILOT EVALUATION

INTRODUCTION:

On May 18, 1987 a request was received to conduct an Accuracy, and Function Evaluation of the Model 700 "Police" 223 Rem caliber, Trial and Pilot rifles. Five rifles were randomly selected from production.

SCOPE OF TEST:

To determine if the production run samples meet the Remington Specifications set by the Research Design Section.

TEST RESULTS:

The five rifle Trial and Pilot Evaluation was found to be acceptable. The following results were obtained:

A. ACCURACY: (Average group size)

a. 223 Rem = 1.009 inches.

C. FUNCTION:

a. No malfunctions occurred.

REPORT# 871383

WORK ORDER# 82034-905

TEST REPORT

1. ACCURACY:

A. The Remington Specification for group size is as follows:

a. 223 Rem caliber: 1.5 inches, center to center.

B. Three rifles tested for 100 yard accuracy and the following results were obtained.

			GROUP		AVG
	1		2	3	
Rifle# B6853162	-	0.795	1.144	0.911	0.950
Rifle# B6853148	-	1.571	0.881	1.465	1.304
Rifle# B6853242	-	1.089	0.560	0.672	0.774

OVERALL GROUP SIZE AVERAGE = 1.009 INCHES

3. FUNCTION:

A. The rifles were subjected to a 30 round per rifle, function test and the following results were obtained:

a. No malfunctions occurred.

TEST PROCEDURE:

1. ACCURACY:

A. The following rifles were used in the 100 yard accuracy test:

B6853162 B6853148 B6853242

B. The accuracy was shot by J.E. Selan, at the R&D 100 yard range located in building 52-1.

C. Leupold base and rings were used in conjunction with a Redfield 12X (4-plex) scope.

D. Remington ammunition; index R223R3 , code A06ID was used for the 100 yard accuracy test.

REPORT# 871383

WORK ORDER# 82034-905

TEST PROCEDURE: (continued)

1. ACCURACY: (continued)

- E. Before shooting the accuracy test, the bores on each rifle were brushed with Hoppe's No. 9 solvent and patched dry.
- F. A total of three, five shot groups were shot with each rifle. The rifles were cooled between each group, and one "warmer" shot was fired before the next group was shot.
- G. The targets were analyzed for group size and the averages calculated, using the HP 9000 computer and digitizing tablet.

2. FUNCTION:

- A. Three rifles were used in the function test. The rifles were as follows:

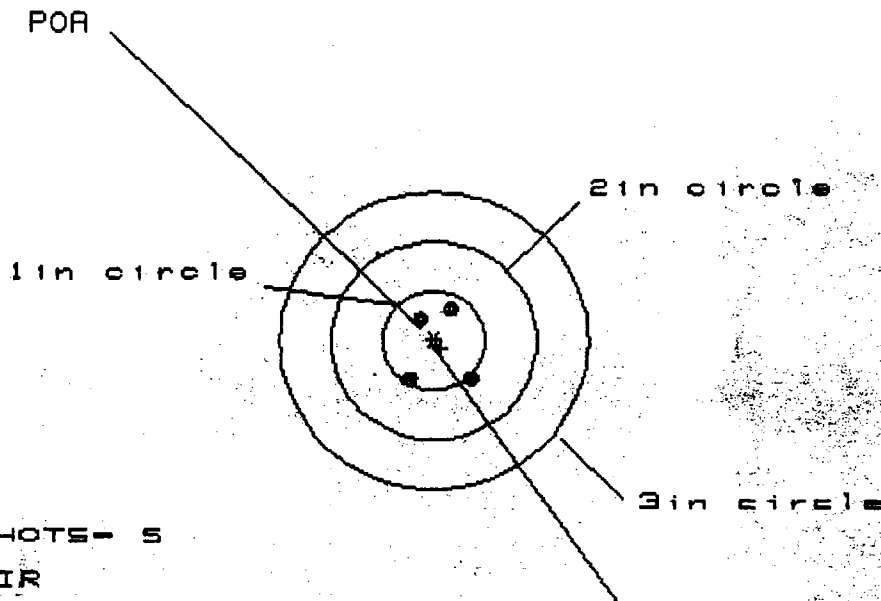
B6853162 B6853148 B6853242

- B. Each of the rifles was subjected to the loading and firing of 30 rounds of Remington 223 Rem caliber ammunition (15 rounds of 55 grain metal case, and 15 rounds of 55 grain pointed soft point). Fifteen rounds were fired; 5 at a slow feeding cycle speed, 5 at a medium feeding cycle speed, and 5 at a fast feeding cycle speed. The rifles were allowed to cool, and then the procedure was repeated with the remaining ammunition type.
- C. The following ammunition was used in the function test:
 - a. R223R1 - 55 grain pointed soft point.
 - b. R223R3 - 55 grain metal case.

18 May 1987

FILE:/PATTERNING/CENTERFIRE_PATT/86853182

CENTERFIRE PATTERNS # 1



OF SHOTS- 5

IN CIR

1in = 4

2in = 5

3in = 5

HS= .678

VS= .652

GS= .795

AVG= .950

PATTERN #

1

1

.223 POLICE M-700

TRIAL & PILOT

SHOTS (BEST OF)

1

5

4

3

MAXIMUM X

1

.401

.247

.188

MINIMUM X

1

-.278

-.178

-.095

MAXIMUM Y

1

.294

.204

.061

MINIMUM Y

1

-.358

-.430

-.055

CENTROID X

1

-.064

-.164

-.105

CENTROID Y

1

.077

.167

.318

POA TO CENTROID in

1

.100

.234

.328

MIN RADIUS

1

.222

.094

.095

MEAN RADIUS

1

.359

.256

.134

MAX RADIUS

1

.538

.465

.198

HORIZONTAL SPREAD

1

.679

.425

.283

VERTICAL SPREAD

1

.652

.634

.116

EXTREME SPREAD

1

.795

.763

.304

NUMBER IN ONE INCH CIRCLE

1

4

4

NUMBER IN TWO INCH CIRCLE

1

5

5

NUMBER IN THREE INCH CIRCLE

1

5

5

100 YDS.

SAND BAG RAST

AMMO

REMINGTON 556 MC

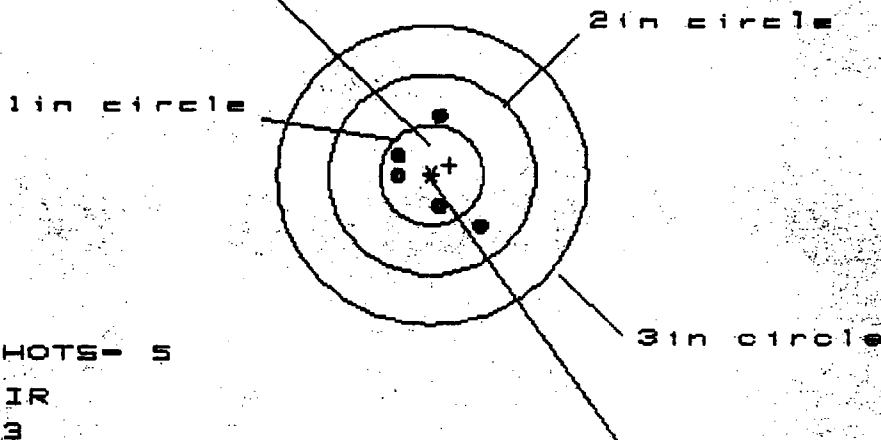
2ST. SOLID

18 May 1987

FILE:/PATTERNING/CENTERFIRE_PATT/B6853162

CENTERFIRE PATTERNS # 2

POA



OF SHOTS- 5

IN CIR

1 in = 3

2 in = 5

3 in = 5

HS= .009

VS= 1.072

GS= 1.144

CENTROID *

PATTERN #

1

2

4

3

SHOTS (BEST OF)

MAXIMUM X	1	.483	.205	.261
MINIMUM X	1	-.926	-.205	-.137
MAXIMUM Y	1	.597	.478	.198
MINIMUM Y	1	-.475	-.397	-.238
CENTROID X	1	-.175	-.296	-.364
CENTROID Y	1	-.097	.022	-.137
POA TO CENTROID in.	1	.200	.297	.389
MIN RADIUS	1	.287	.209	.131
MEAN RADIUS	1	.449	.349	.242
MAX RADIUS	1	.678	.528	.353
HORIZONTAL SPREAD	1	.989	.418	.398
VERTICAL SPREAD	1	1.072	.875	.436
EXTREME SPREAD	1	1.144	.875	.598
NUMBER IN ONE INCH CIRCLE			3	
NUMBER IN TWO INCH CIRCLE			5	
NUMBER IN THREE INCH CIRCLE			5	

18 May 1987

FILE:/PATTERNING/CENTERFIRE_PATT/B6B53162

CENTERFIRE PATTERNS # 3

POA

1 in circle

2 in circle

3 in circle

CENTROID *

OF SHOTS - 5

IN CIR

1 in = 4

2 in = 5

3 in = 5

HS = .872

VS = .715

GS = .911

PATTERN #

1

2

3

SHOTS (BEST OF)

1

5

4

3

MAXIMUM X

1

.422

.528

.413

MINIMUM X

1

-.458

-.344

-.260

MAXIMUM Y

1

.293

.183

.202

MINIMUM Y

1

-.422

-.348

-.297

CENTROID X

1

-.041

-.147

-.032

CENTROID Y

1

-.047

-.120

-.172

POA TO CENTROID in

1

.063

.190

.175

MIN RADIUS

1

.253

.152

.277

MEAN RADIUS

1

.428

.357

.357

MAX RADIUS

1

.514

.549

.459

HORIZONTAL SPREAD

1

.872

.872

.673

VERTICAL SPREAD

1

.715

.502

.499

EXTREME SPREAD

1

.911

.872

.754

NUMBER IN ONE INCH CIRCLE

=

4

NUMBER IN TWO INCH CIRCLE

=

5

NUMBER IN THREE INCH CIRCLE

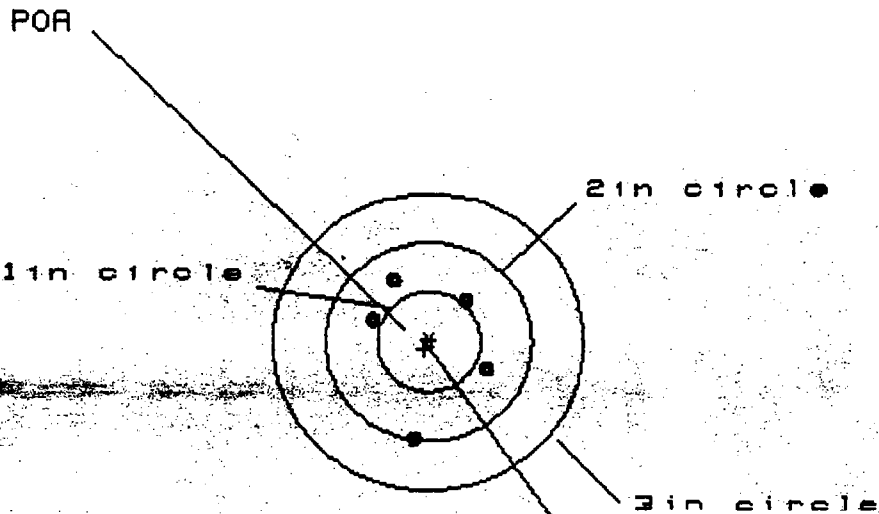
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5

18 May 1987

FILE:/PATTERNING/CENTERFIRE_PATT/86853148

CENTERFIRE PATTERNS # 1



OF SHOTS- 5

IN CIR

1in = 0

2in = 0

3in = 5

HS- 1.071

VS- 1.558

GS- 1.571

AVG- 1.304

PATTERN # 1

.223 REM. TRAIL & PILOT
POLICE M-700

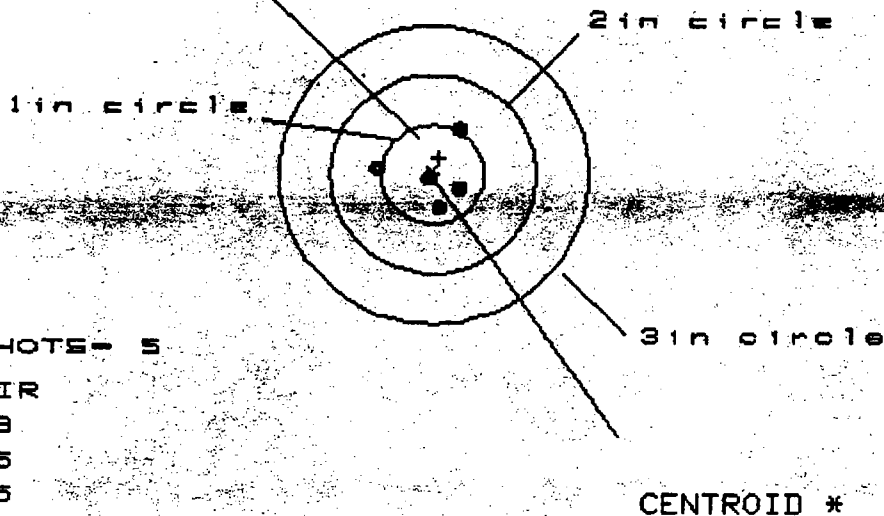
SHOTS (BEST OF)	1	5	4	3
MAXIMUM X	.562	.530	.411	100 YDS.
MINIMUM X	-.509	-.540	-.660	SAND BAG REST
MAXIMUM Y	.609	.372	.268	
MINIMUM Y	-.949	-.496	-.372	
CENTROID X	.041	.072	.192	AMMO: REMINGTON
CENTROID Y	.073	.310	.186	55GR M.C. 107-ALLO
PURIFIED CENTROID (in)	.004	.318	.267	
MIN RADIUS	.552	.395	.365	
MEAN RADIUS	.674	.544	.529	
MAX RADIUS	.957	.726	.668	
HORIZONTAL SPREAD	1.071	1.071	1.071	
VERTICAL SPREAD	1.558	.868	.640	
EXTREME SPREAD	1.571	1.242	1.172	
NUMBER IN ONE INCH CIRCLE	=	0		
NUMBER IN TWO INCH CIRCLE	=	5		
NUMBER IN THREE INCH CIRCLE	=	5		

18 May 1987

FILE:/PATTERNING/CENTERFIRE_PATT/BBB53148

CENTERFIRE PATTERNS # 2

POA



OF SHOTS - 5

IN CIR

1 in - 3

2 in - 5

3 in - 5

HS - .798

VS - .773

GS - .881

PATTERN

1

2

3

4

SHOTS (BEST OF)

1

5

4

3

MAXIMUM X

1

.279

.342

.189

MINIMUM X

1

-.519

-.456

-.177

MAXIMUM Y

1

.471

.158

.090

MINIMUM Y

1

-.382

-.195

-.132

CENTROID X

1

.058

.120

.032

CENTROID Y

1

.155

.292

.335

POA TO CENTROID

1

.175

.307

.336

MIN RADIUS

1

.118

.045

.133

MEAN RADIUS

1

.958

.275

.175

MAX RADIUS

1

.539

.483

.198

HORIZONTAL SPREAD

1

.798

.788

.366

VERTICAL SPREAD

1

.773

.343

.222

EXTREME SPREAD

1

.881

.816

.369

NUMBER IN ONE INCH CIRCLE

1

3

3

3

NUMBER IN TWO INCH CIRCLE

1

5

5

5

NUMBER IN THREE INCH CIRCLE

1

5

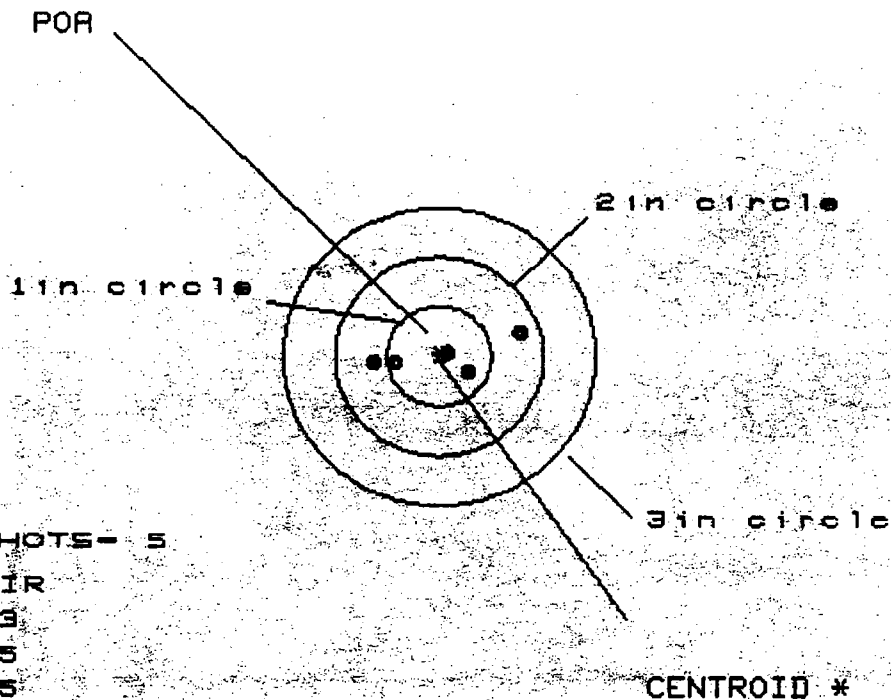
5

5

18 May 1987

FILE:/PATTERNING/CENTERFIRE_PATT/86853148

CENTERFIRE PATTERNS # 3



OF SHOTS- 5

IN CIR

1 in - 3

2 in - 5

3 in - 5

HS- 1.448

VS- .343

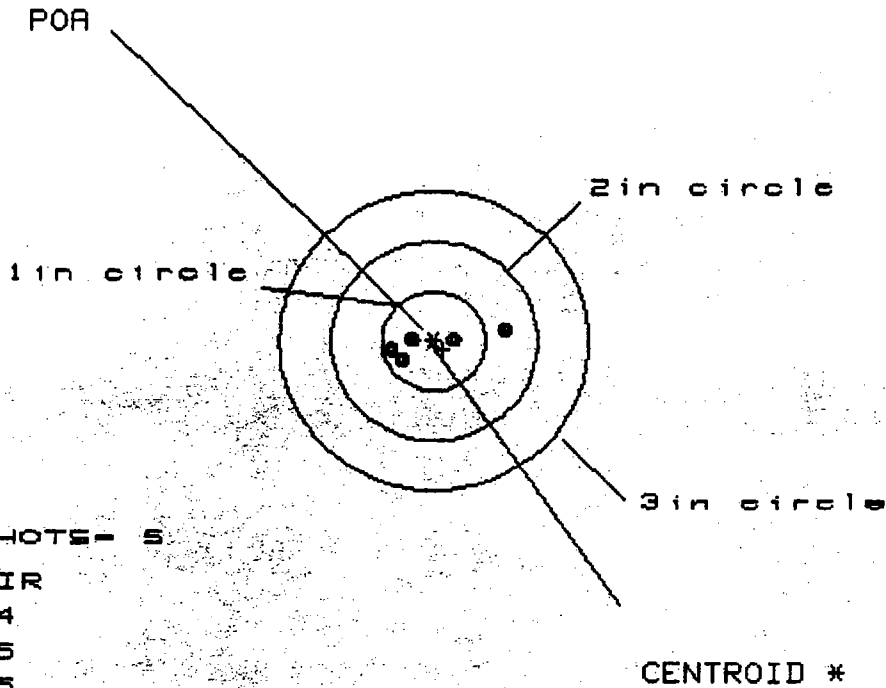
GS- 1.465

PATTERN #	1	2	3	4	5
SHOTS (BEST OF)	1	5	4	3	
MAXIMUM X	1	.783	.454	.297	
MINIMUM X	1	-.656	-.471	-.377	
MAXIMUM Y	1	.199	.107	.118	
MINIMUM Y	1	-.144	-.095	-.094	
CENTROID X	1	.275	.278	.183	
CENTROID Y	1	.043	.082	.107	
POA TO CENTROID IN.	1	.086	.286	.155	
MIN RADIUS	1	.078	.224	.142	
MEAN RADIUS	1	.453	.485	.276	
MAX RADIUS	1	.807	.772	.378	
HORIZONTAL SPREAD	1	1.448	.925	.674	
VERTICAL SPREAD	1	.343	.282	.282	
EXTREME SPREAD	1	1.465	.934	.676	
NUMBER IN ONE INCH CIRCLE		3	5		
NUMBER IN TWO INCH CIRCLE		5	5		
NUMBER IN THREE INCH CIRCLE		5	5		

18 May 1987

FILE:/PATTERNING/CENTERFIRE_PATT/06853242

CENTERFIRE PATTERNS # 1



OF SHOTS- 5

IN CIR

1 in = 4

2 in = 5

3 in = 5

HS= 1.000

VS= .244

GS= 1.089

AVG = .7737

PATTERN #

1

SHOTS (BEST OF)

5

4

3

MAXIMUM X

.684

.341

.266

MINIMUM X

.396

-.224

-.172

MAXIMUM Y

.097

.088

.082

MINIMUM Y

.147

-.123

-.129

CENTROID X

.088

-.250

-.186

CENTROID Y

.080

.056

.062

POA TO CENTROID (in)

.119

.265

.195

MIN RADIUS

.172

.090

.124

MEAN RADIUS

.253

.204

.203

MAX RADIUS

.591

.344

.270

HORIZONTAL SPREAD

1.000

.565

.438

VERTICAL SPREAD

.244

.211

.211

EXTREME SPREAD

1.089

.569

.472

NUMBER IN ONE INCH CIRCLE

4

NUMBER IN TWO INCH CIRCLE

5

NUMBER IN THREE INCH CIRCLE

5

.223 - POLICE M-700

TRIAL & PILOT

100 YDS.

SAND BAG REST

AMMO:

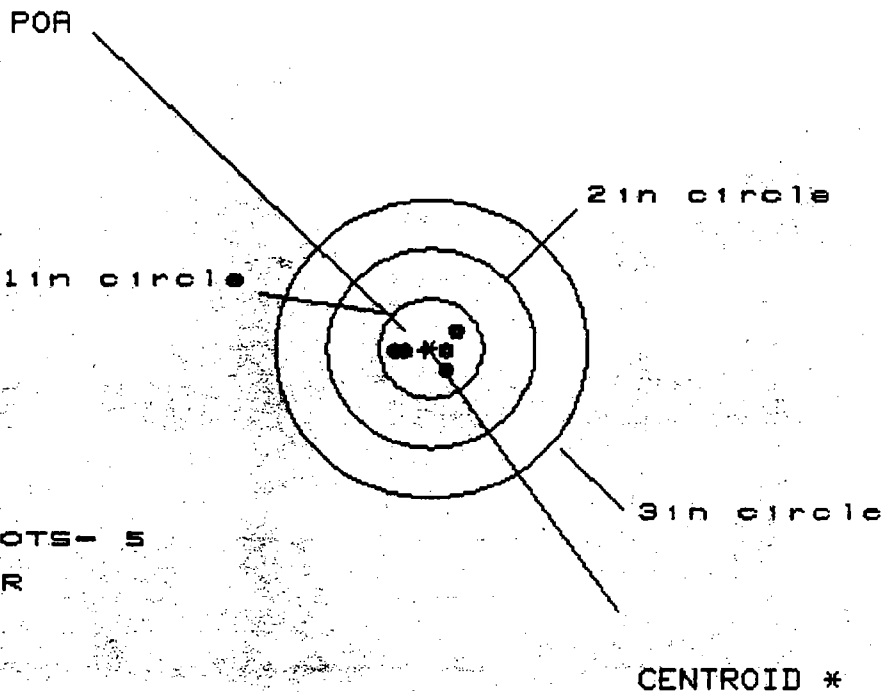
REMINGTON 556R MC

40T. 70610

18 May 1987

FILE:/PATTERNING/CENTERFIRE_PATT/86853242

CENTERFIRE PATTERNS # 2



OF SHOTS - 5

IN CIR

1 in = 5

2 in = 5

3 in = 5

HE = .520

VS = .379

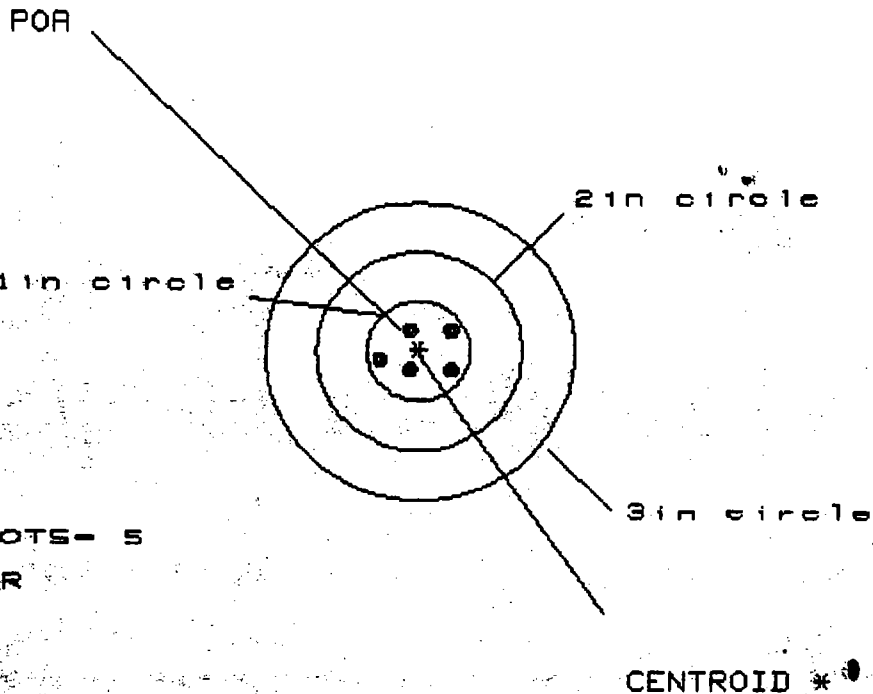
GS = .560

PATTERN #	1	2	3	4	5
SHOTS (BEST OF)	1	5	4	3	
MAXIMUM X	1	.202	.122	.149	
MINIMUM X	1	-.318	-.313	-.272	
MAXIMUM Y	1	.204	.203	.053	
MINIMUM Y	1	-.175	-.176	-.109	
CENTROID X	1	.055	.135	.094	
CENTROID Y	1	.024	.025	-.042	
POA TO CENTROID in.	1	.069	.137	.183	
MIN RADIUS	1	.189	.111	.156	
MEAN RADIUS	1	.253	.214	.200	
MAX RADIUS	1	.310	.313	.279	
HORIZONTAL SPREAD	1	.520	.435	.421	
VERTICAL SPREAD	1	.379	.379	.172	
EXTREME SPREAD	1	.560	.482	.430	
NUMBER IN ONE INCH CIRCLE		5	5		
NUMBER IN TWO INCH CIRCLE		5	5		
NUMBER IN THREE INCH CIRCLE		5	5		

18 May 1987

FILE:/PATTERNING/CENTERFIRE_PATT/86853242

CENTERFIRE PATTERNS # 3



OF SHOTS- 5

IN CIR

1 in = 5

2 in = 5

3 in = 5

HM = .532

VS = .339

GS = .672

PATTERN #

3

SHOTS (BEST OF)

5

4

3

MAXIMUM X .282 .194 .244

MINIMUM X -.350 -.216 -.151

MAXIMUM Y .183 .171 .216

MINIMUM Y -.156 -.168 -.111

CENTROID X .014 .074 .009

CENTROID Y -.013 -.001 -.058

POA TO CENTROID IN .019 .074 .059

MIN RADIUS .166 .226 .140

MEAN RADIUS .276 .250 .224

MAX RADIUS .353 .268 .268

HORIZONTAL SPREAD .632 .418 .395

VERTICAL SPREAD .339 .339 .327

EXTREME SPREAD .672 .513 .513

NUMBER IN ONE INCH CIRCLE 5 5 5

NUMBER IN TWO INCH CIRCLE 5 5 5

NUMBER IN THREE INCH CIRCLE 5 5 5

100 YDS.

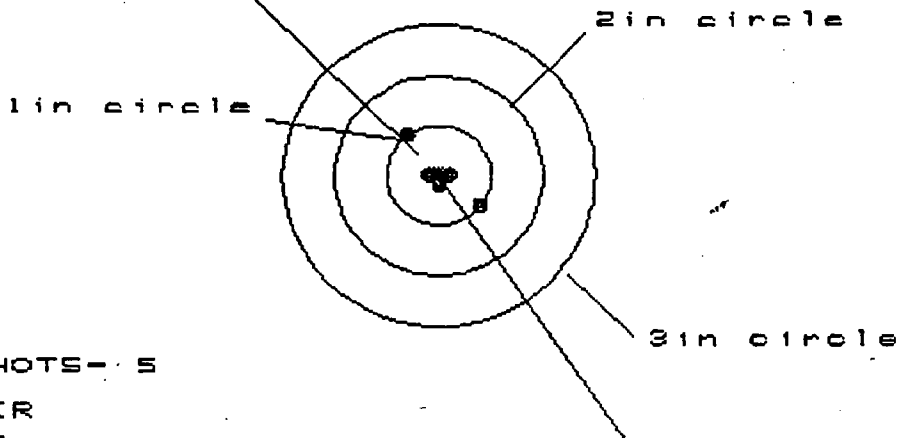
LYMAN 20X SUPER TGT. SPOT.

.223 REM.
55 GR. M.C. LOT #A06ID
100 YDS.

15 Apr 1988

CENTERFIRE PATTERNS # 1

POA



OF SHOTS - 5

IN CIR

1 in = 5

2 in = 5

3 in = 5

HS = .650

VS = .705

GS = .959

AUG: .772

CENTROID *

PATTERN #	:	1		
SHOTS (BEST OF)	:	5	4	3
MAXIMUM X	:	.366	.294	.124
MINIMUM X	:	-.284	-.217	-.119
MAXIMUM Y	:	.401	.116	.049
MINIMUM Y	:	-.304	-.204	-.067
CENTROID X	:	.004	.076	-.023
CENTROID Y	:	-.008	-.108	-.041
POA TO CENTROID in.	:	.009	.132	.047
MIN RADIUS	:	.098	.090	.067
MEAN RADIUS	:	.263	.199	.107
MAX RADIUS	:	.492	.358	.129
HORIZONTAL SPREAD	:	.650	.512	.243
VERTICAL SPREAD	:	.705	.320	.116
EXTREME SPREAD	:	.959	.604	.245
NUMBER IN ONE INCH CIRCLE	=	5		
NUMBER IN TWO INCH CIRCLE	=	5		
NUMBER IN THREE INCH CIRCLE	=	5		

15 Apr 1986

CENTERFIRE PATTERNS # 2

POR

1 in circle

2 in circle

3 in circle

OF SHOTS - 5

IN CIR

1 in = 5

2 in = 5

3 in = 5

HS = .510

VS = .707

GS = .772

CENTROID *

PATTERN #	2		
SHOTS (BEST OF)	5	4	3
MAXIMUM X	.318	.088	.070
MINIMUM X	-.192	-.112	-.083
MAXIMUM Y	.339	.310	.216
MINIMUM Y	-.368	-.283	-.273
CENTROID X	-.046	-.126	-.155
CENTROID Y	-.051	-.136	-.041
POR TO CENTROID in.	.069	.185	.160
MIN RADIUS	.203	.179	.101
MEAN RADIUS	.309	.244	.200
MAX RADIUS	.465	.313	.273
HORIZONTAL SPREAD	.510	.200	.153
VERTICAL SPREAD	.707	.594	.489
EXTREME SPREAD	.772	.596	.492
NUMBER IN ONE INCH CIRCLE	= 5		
NUMBER IN TWO INCH CIRCLE	= 5		
NUMBER IN THREE INCH CIRCLE	= 5		

15 Apr 1986

CENTERFIRE PATTERNS

3

POA

1 in circle

2 in circle

3 in circle

OF SHOTS- 5

IN CIR

1 in - 5

2 in - 5

3 in = 5

HS- .386

VS= .305

GS= .459

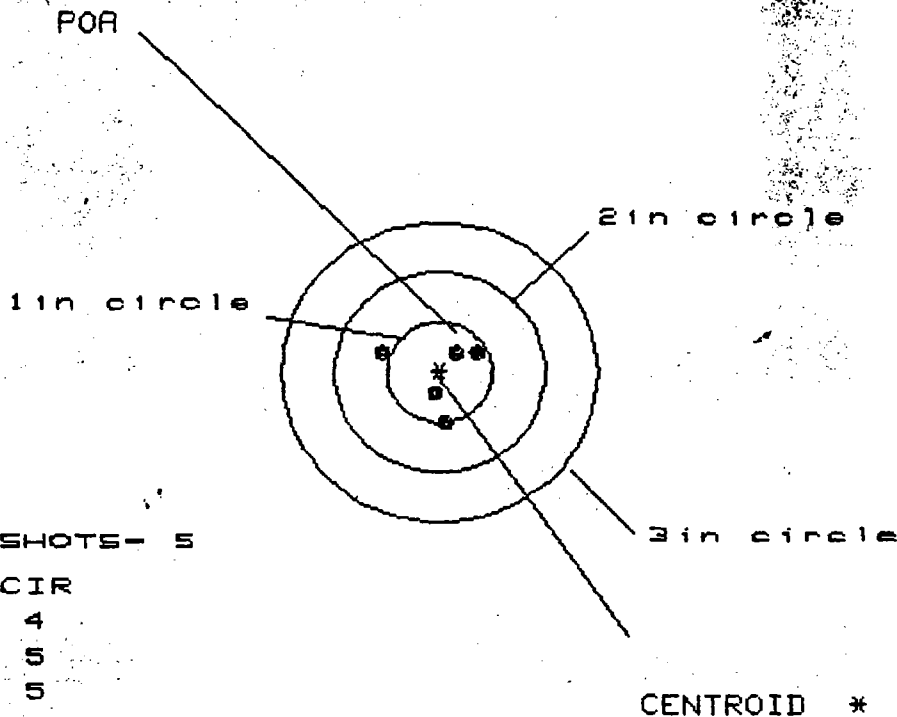
CENTROID *

PATTERN #	3	4	3
SHOTS (BEST OF)	5	4	3
MAXIMUM X	.201	.155	.193
MINIMUM X	-.185	-.147	-.109
MAXIMUM Y	.160	.181	.146
MINIMUM Y	-.145	-.105	-.106
CENTROID X	-.019	.027	-.011
CENTROID Y	.014	-.026	.009
POA TO CENTROID in.	.024	.037	.014
MIN RADIUS	.134	.140	.135
MEAN RADIUS	.195	.171	.171
MAX RADIUS	.244	.233	.197
HORIZONTAL SPREAD	.386	.302	.302
VERTICAL SPREAD	.305	.286	.252
EXTREME SPREAD	.459	.386	.355
NUMBER IN ONE INCH CIRCLE	5	5	5
NUMBER IN TWO INCH CIRCLE	5	5	5
NUMBER IN THREE INCH CIRCLE	5	5	5

15 Apr 1986

CENTERFIRE PATTERNS

4



OF SHOTS- 5

IN CIR

1 in - 4

2 in - 5

3 in - 5

HS- .881

VS- .697

GS- .916

PATTERN #	1	4	3
SHOTS (BEST OF)	5	4	3
MAXIMUM X	.344	.210	.184
MINIMUM X	-.537	-.166	-.192
MAXIMUM Y	.240	.296	.164
MINIMUM Y	-.457	-.398	-.290
CENTROID X	-.352	-.218	-.192
CENTROID Y	-.203	-.263	-.130
POA TO CENTROID in.	.406	.341	.232
MIN RADIUS	.220	.229	.126
MEAN RADIUS	.389	.314	.240
MAX RADIUS	.588	.405	.348
HORIZONTAL SPREAD	.881	.376	.376
VERTICAL SPREAD	.697	.694	.454
EXTREME SPREAD	.916	.751	.589
NUMBER IN ONE INCH CIRCLE	= 4		
NUMBER IN TWO INCH CIRCLE	= 5		
NUMBER IN THREE INCH CIRCLE	= 5		

15 Apr 1986

CENTERFIRE PATTERNS # 5

POA

1 in circle

2 in circle

3 in circle

CENTROID *

OF SHOTS- 5

IN CIR

1 in = 5

2 in = 5

3 in = 5

HS= .746

VS= .510

GS= .754

PATTERN # : 5

SHOTS (BEST OF)	5	4	3
MAXIMUM X	.337	.235	.239
MINIMUM X	-.409	-.430	-.426
MAXIMUM Y	.149	.177	.066
MINIMUM Y	-.361	-.333	-.075
CENTROID X	.019	.121	.117
CENTROID Y	.058	.030	.141
POA TO CENTROID in.	.061	.125	.183
MIN RADIUS	.300	.219	.188
MEAN RADIUS	.360	.314	.290
MAX RADIUS	.425	.465	.431
HORIZONTAL SPREAD	.746	.665	.665
VERTICAL SPREAD	.510	.510	.141
EXTREME SPREAD	.754	.680	.680
NUMBER IN ONE INCH CIRCLE	= 5		
NUMBER IN TWO INCH CIRCLE	= 5		
NUMBER IN THREE INCH CIRCLE	= 5		

Report No. 871383

RESEARCH TEST & MEASUREMENT LAB WORK REQUEST

<u>AREA OF TESTING</u> <input type="checkbox"/> Developmental <input type="checkbox"/> Design Acceptance <input type="checkbox"/> Pre-Pilot <input checked="" type="checkbox"/> Pilot <input type="checkbox"/> Production Acceptance		<input type="checkbox"/> Safety Related <input type="checkbox"/> Competitive Evaluation <input type="checkbox"/> New Design <input type="checkbox"/> Design Change <input type="checkbox"/> Plant Assistance <input type="checkbox"/> Litigation <input type="checkbox"/> Warehouse Audit <input type="checkbox"/> Cost Reduction Stake _____ <input type="checkbox"/> Other _____	
<u>FIREARM STAT'S</u> MODEL: <u>Police Sniper</u> CAL or GAGE: _____ BARREL TYPE: _____ PROOFED: YES <input checked="" type="checkbox"/> NO _____		<u>REPORT REQ'D.</u> FORMAL <input checked="" type="checkbox"/> TEST RESULTS ONLY _____	DATE REQUESTED: <u>5/18/87</u> DATE NEEDED BY: _____ REQUESTED BY: <u>GJ Hill</u> WORK ORDER NO: <u>82034-905</u>
<u>TEST TYPE</u> <input type="checkbox"/> Strength Test <input checked="" type="checkbox"/> Function Test <input checked="" type="checkbox"/> Accuracy Test <input type="checkbox"/> Ammunition Test <input type="checkbox"/> Environmental Test <input type="checkbox"/> Customer Complaint <input type="checkbox"/> Dry Cycle Test <input type="checkbox"/> Measurements <input type="checkbox"/> Endurance Test <input type="checkbox"/> Photo/Video <input type="checkbox"/> Other _____			

EXPLAIN IN DETAIL THE REASON FOR THIS TEST:

Trial and Pilot - Accuracy & Function

- Rem. Specs 1.5" center to center

M 700 "POLICE"

Bolt Action Rifle

223 REM

GUNS REQUIRED:

NOTE: NO firearms or parts will be tested in the Labs unless they are accompanied by a Work Request, and both are delivered to the Labs by the designer or engineer. All Work Requests are to be filled out in detail. No Exceptions.

DATE COMPLETED: 5/18/87TEST COMPLETED BY: JESREPORT DATE: 5/28/87

R 223R3 - 55yr. MR

R 223R1 - 55yr PSY

RD-69-B

REMINGTON ARMS COMPANY, INC.

INTER-DEPARTMENTAL CORRESPONDENCE

Remington.



PETERS



"CONFINE YOUR LETTER TO ONE SUBJECT ONLY"_____

xc: W.H. Coleman, II/File
K.W. Soucy
G.J. Hill
T.C. Douglas
J.R. Snedeker
J.F. Matousek, Jr.
F.L. Supry
File

RESEARCH TEST AND MEASUREMENT REPORT

REPORT# 871531
JUNE 10, 1987

MODEL 700 RS TRIAL AND PILOT EVALUATION

270 WIN CALIBER

MODEL 700 - 270 WIN CALIBER - TRIAL AND PILOT EVALUATION

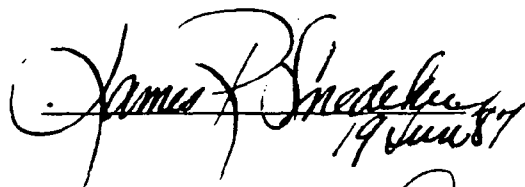
ABSTRACT:

Research and Development finds the Trial and Pilot Evaluation of the Model 700, 270 win caliber rifles to be acceptable. The Trial and Pilot Evaluation consisted of Visual Inspection, Accuracy, and Function. The eight rifle sample was found to be within Remington specifications for each phase of the Trial and Pilot Evaluation.

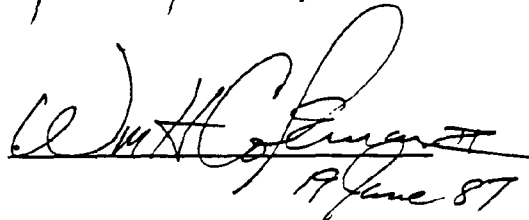
Prepared by: F.L. Supry
Date prepared: 10 June 1987

proofread and cleared by:

J.R. Snedeker, Research Supervisor
Test, Measurement & Mech. Analysis Lab


19 June 87

W.H. Coleman, II
New Products Research Lab Director


19 June 87

REPORT# 871531

WORK ORDER# 82034-905

To: J.R. Snedeker

From: F.L. Supry

MODEL 700 RS - 270 WIN CALIBER - TRIAL AND PILOT EVALUATION

INTRODUCTION:

On June 02, 1987 a request was received to conduct a Visual Inspection, Accuracy, and Function Evaluation of the Model 700 RS, 270 Win caliber, Trial and Pilot rifles. Eight rifles, four Camo and four Grey, were randomly selected from production.

SCOPE OF TEST:

To determine if the production run samples meet the Remington Specifications set by the Research Design Section.

TEST RESULTS:

The eight rifle Trial and Pilot Evaluation was found to be acceptable. The following results were obtained:

A. VISUAL INSPECTION:

- a. The overall appearance of the rifles was acceptable.
- b. The pattern design of the Camo stocks was well liked.

B. ACCURACY: (Average group size)

- a. 270 Win = 1.91 inches.

C. FUNCTION:

- a. Three rifles fired 225 rounds each, with no malfunctions.
- b. One rifle had one stem high malfunction.
- c. The overall malfunction rate was 0.11%.

REPORT# 871531

WORK ORDER# 82034-905

TEST REPORT

1. VISUAL INSPECTION:

- A. The visual inspection committee made the following general comments:
- a. They liked the pattern in the Camo stocks.
 - b. Several of the stocks showed a rough area at the top of the grip. More care is needed in transit.
- B. Data sheets containing the comments on each rifle inspected is included in the appendix of this report.

2. ACCURACY:

- A. The Remington Specification for group size is as follows:
- a. 270 Win caliber: 3.5 inches, center to center.
- B. Four rifles tested for 100 yard accuracy and the following results were obtained.

		GROUP			AVG
		1	2	3	
Rifle#	B6865078	- 1.435	1.648	2.199	1.761
Rifle#	B6864276	- 1.668	2.420	1.584	1.891
Rifle#	B6862889	- 1.951	1.838	2.422	2.070
Rifle#	B6865545	- 2.169	1.856	1.750	1.925

OVERALL GROUP SIZE AVERAGE = 1.91 INCHES

3. FUNCTION:

- A. Four of the rifles were subjected to a 225 round per rifle, field function test and the following results were obtained:
- a. One stem chamber malfunction occurred.

REPORT# 871382

WORK ORDER# 82034-905

TEST PROCEDURE:

1. VISUAL:

- A. The visual inspection committee consisted of J. Piseck, G. Barnes (P.E. & C.); C. Stephens, and F. Supry (R. & D.).
- B. Six rifles, three Camo and three Grey, were used in the visual inspection. The rifles were as follows:
 - a. Camo:
B6865679 B6864928 B6864900
 - b. Grey:
B6866020 B6865078 B6862889
- C. Each rifle was wiped down with a clean white Coyne towel, and examined by each member of the visual inspection committee. All comments were recorded, and are included in the appendix of this report.

2. ACCURACY:

- A. The following rifles were used in the 100 yard accuracy test:

B6865078 B6864276 B6862889 B6865545

- B. The accuracy was shot by C.J. Stephens, at the R&D 100 yard range located in building 52-1.
- C. Leupold base and rings were used in conjunction with a Redfield 12X (4-plex) scope.
- D. Remington ammunition; index R270W4, 150 grain soft point, code E23F B6007 was used for the 100 yard accuracy test.
- E. Before shooting the accuracy test, the bores on each rifle were brushed with Hoppe's No. 9 solvent and patched dry.
- F. A total of three, five shot groups were shot with each rifle. The rifles were cooled between each group, and one "warmer" shot was fired before the next group was shot.
- G. The targets were analyzed for group size and the averages calculated, using the HP 9000 computer and digitizing tablet.

REPORT# 871382

WORK ORDER# 82034-905

TEST PROCEDURE: (continued)

3. FIELD FUNCTION:

- A. Four rifles were used in the function test. The rifles were as follows:

B6865078 B6864276 B6862889 B6865545

- B. Each of the rifles was subjected to the loading and firing of 225 rounds of Remington and competitive ammunition, in a Field Function test conducted at the Ilion Fish and Game Club. Fifteen rounds were fired; 5 at a slow feeding cycle speed, 5 at a medium feeding cycle speed, and 5 at a fast feeding cycle speed. The rifles were allowed to cool, and then the procedure was repeated with each remaining ammunition type.

- C. The following ammunition was used in the function test:

R270W1	270A	X2701	16902
R270W2	270B	X2703	16903
R270W3	270C	X2704	IVI 270
R270W4	270E	X2705	

APPENDIX

REPORT# 871382

WORK ORDER# 82034-905

VISUAL INSPECTION SUMMARY

CAMO STOCKS:

SERIAL NUMBER -	COMMENTS
B6865679	SLIGHT OPENING BETWEEN FLOOR PLATE AND STOCK
B6864928	SCUFF MARK AT BARREL BRACKET BULGE SCUFF MARK AT THE FORE-END TIP SCUFF MARK AT THE GRIP CAP MISMATCH AT THE TOE
B6864900	SLIGHT DISCOLOR AT THE BUTT PAD MAR AT THE TOP OF THE RECEIVER (BEFORE BLASTING)

GREY STOCKS:

B6866020	SLIGHT OPENING BETWEEN FLOOR PLATE AND STOCK MAR ON THE TANG SCUFF MARK ON THE TOP OF THE GRIP AREA GAP AT THE TOE OF THE BUTT PLATE
B6865078	OPENING AT THE REAR OF THE TRIGGER GUARD SCUFF MARK ON THE TOP OF THE GRIP AREA
B6862889	ROUGH CHEEK PIECE MINIMUM OVER-TRAVEL ON THE SAFETY MAR BY THE GRIP CAP

GENERAL COMMENTS"

THE COMMITTEE LIKED THE PATTERN DESIGN OF THE CAMO STOCKS.

MORE CARE NEEDS TO BE TAKEN, IN TRANSIT, TO KEEP FROM MARRING THE TOP OF THE GRIP AREA.

RD-49-B

REMINGTON ARMS COMPANY, INC.

INTER-DEPARTMENTAL CORRESPONDENCE

Remington.



PETERS



"CONFINE YOUR LETTER TO ONE SUBJECT ONLY" _____

xc: W.H. Coleman, II/File
K.W. Soucy
D.J. Anderson
G.J. Hill
T.C. Douglas
J.R. Snedeker
J.F. Matousek, Jr.
F.L. Supry
File

RESEARCH TEST AND MEASUREMENT REPORT

REPORT# 872151
AUGUST 06, 1987

MODEL XP-100 35 REM CALIBER TRIAL AND PILOT EVALUATION

Report# 872151

Work Order# 111411-001800

MODEL XP-100 35 REM CALIBER TRIAL AND PILOT EVALUATION

ABSTRACT:

Research and Development finds the Trial and Pilot Evaluation of the Model XP-100 35 REM caliber to be acceptable.

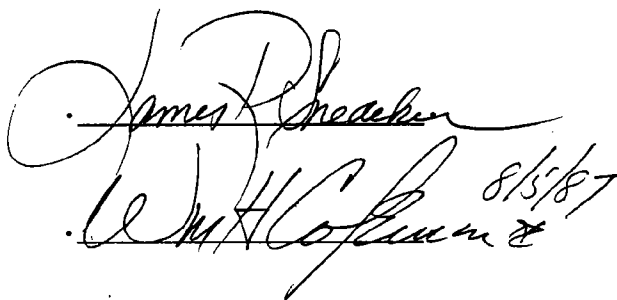
The pistols tested were randomly selected, after being put in the warehouse. The pistols were examined, as received, by Research Technicians, and then subjected to the 100 yard (off hand bench rest) accuracy test. The barrels with the maximum and minimum extreme spread were removed from the stocks and shot one five shot group each, using the Gallery accuracy device.

Prepared by: F.L. Supry
Date Prepared: 08/06/87

proofread and cleared by:

J.R. SNEDEKER, Research Supervisor
Test, Measurement & Mech. Analysis Lab

W.H. COLEMAN, II
New Products Research Lab Director


The block contains two handwritten signatures. The top signature is for J.R. Snedeker, and the bottom signature is for W.H. Coleman, II. To the right of the bottom signature is the date 8/5/87.

Report# 872151

Work Order# 111411-001800

MODEL XP-100 35 REM CALIBER TRIAL AND PILOT EVALUATION

TO: J.R. Snedeker
FROM: F.L. Supry

INTRODUCTION:

In July 1987, a request to conduct a Trial and Pilot Evaluation of the Model XP-100 35 REM caliber pistol was received by the Test Lab. The evaluation would use four pistols, withdrawn from the warehouse, and consist of Visual Inspection and 100 yard accuracy.

SCOPE OF THE TEST:

To determine if the production run sample would meet the Remington Specifications set by the Research Design Section.

TEST RESULTS:

The Model XP-100, chambered in the 35 REM caliber, was found to be acceptable in all phases of the Trial and Pilot Evaluation.

Report# 872151

Work Order# 111411-001800

MODEL XP-100 35 REM CALIBER TRIAL AND PILOT EVALUATION

REPORT TEXT:

1. VISUAL INSPECTION:

A. There were no major items in the appearance of the pistols.

B. The pistols used in the Visual Inspection were:

B7520239 B7520092 B7520550 B7520284

C. Comments on each pistol are located in the appendix.

2. ACCURACY:

The Remington standard for the XP-100, chambered in the 35 REM caliber is an extreme group size of: 3.5 inches for a 5 shot group.

A. The pistols used in the accuracy test were:

B7520239 B7520092 B7520550 B7520284

B. The following averages were established:

	<u>BENCH REST</u>	<u>ACCURACY DEVICE</u>
a. Group Size:	2.82 inches	2.49 inches
b. Horizontal Spread:	2.24 inches	2.16 inches
c. Vertical Spread:	1.73 inches	2.15 inches

C. Accuracy results per individual pistol are located in the appendix of this report.

Report# 872151

Work Order# 111411-001800

MODEL XP-100 35 REM CALIBER TRIAL AND PILOT EVALUATION

TEST PROCEDURE:

1. VISUAL INSPECTION:

- A. The visual inspection was done by F.L. Supry and C.J. Stephens.
- B. All 4 of the pistols were examined.
- C. Each pistol was wiped down with a clean white Coyne towel, and examined. All comments were recorded.

2. ACCURACY:

- A. The off hand (bench rest) accuracy was shot by C.J. Stephens, at the R&D 100 yard range.
- B. Weaver bases and rings were used, in conjunction with a Redfield 12X scope.
- C. Remington ammunition, index R35R1, code E27 C6005L, 150 grain pointed soft point, was used for the 100 yard accuracy test.
- D. Before shooting the 100 yard accuracy test, the bores on each pistol were brushed with Hoppe's No. 9 solvent and patched dry.
- E. A total of three, five shot groups, were shot with each pistol. The pistols were cooled between each group, and one "warmer" shot was fired before the next group was shot.
- F. The accuracy device accuracy was shot by R. Sterling, at the Gallery 100 yard range.
- G. The stocks were removed from two of the pistols, and one five shot group was shot with each pistol.
- H. The patterns were analyzed for group size, horizontal spread, and vertical spread, using the HP 9000 computer and digitizing tablet.

Report# 872151

Work Order# 111411-001800

MODEL XP-100 35 REM CALIBER TRIAL AND PILOT EVALUATION

APPENDIX

Report# 872151

Work Order# 111411-001800

MODEL XP-100 35 REM CALIBER TRIAL AND PILOT EVALUATION

VISUAL INSPECTION:

GENERAL COMMENTS:

The appearance of the Model XP-100 35 REM caliber sample was very good.

COMMENTS PER INDIVIDUAL PISTOL:

B7520239	Glue marks: left side of the stock by fore-end tip. right side of stock by diamond.
B7520092	Scratch on left panel, above the trigger guard. Scratch on right panel, in front of the diamond.
B7520284	Bottom of pistol grip rough, at the seam. Light proof stamp.
B7520550	Small pits on the right panel of the stock.

Report# 872151

Work Order# 111411-001800

MODEL XP-100 35 REM CALIBER TRIAL AND PILOT EVALUATION

ACCURACY RESULTS - EXTREME SPREAD

<u>SERIAL NUMBER</u>	<u>GROUP#</u>	<u>BENCH REST</u> (inches)	<u>ACCURACY DEVICE</u> (inches)
B7520092	1	3.07	NA
	2	2.70	NA
	3	2.81	NA
B7520284	1	3.00	2.49
	2	2.98	NA
	3	2.74	NA
B7520239	1	2.52	NA
	2	2.20	NA
	3	4.09	NA
B7520550	1	2.27	2.37
	2	2.05	NA
	3	3.36	NA

NOTE:

THE ACCURACY DEVICE WAS USED TO VERIFY THE BARRELS WITH THE MINIMUM AND MAXIMUM EXTREME SPREAD, FROM THE OFF HAND BENCH REST SHOOTING.

5 Aug 1987

FILE:/PATTERNING/CENTERFIRE_PATT/DOOVER3

CENTERFIRE PATTERNS

#

3

POA

1in circle

2in circle

3in circle

OF SHOTS - 5

IN CIR

1in = 2

2in = 4

3in = 4

HS = 1.984

VS = 1.451

GS = 2.288

CENTROID #

PATTERN #

3

	5	4	3
SHOTS (BEST OF)	5	4	3
MAXIMUM X	.706	.386	.099
MINIMUM X	-1.278	-.310	-.181
MAXIMUM Y	.592	.377	.398
MINIMUM Y	-.859	-.483	-.462
CENTROID X	.062	.382	.253
CENTROID Y	.096	.311	.290
POA TO CENTROID in.	.115	.492	.384
MIN RADIUS	.257	.312	.191
MEAN RADIUS	.719	.392	.357
MAX RADIUS	1.540	.486	.469
HORIZONTAL SPREAD	1.984	.696	.280
VERTICAL SPREAD	1.451	.860	.860
EXTREME SPREAD	2.288	.860	.860
NUMBER IN ONE INCH CIRCLE =	2		
NUMBER IN TWO INCH CIRCLE =	4		
NUMBER IN THREE INCH CIRCLE =	4		

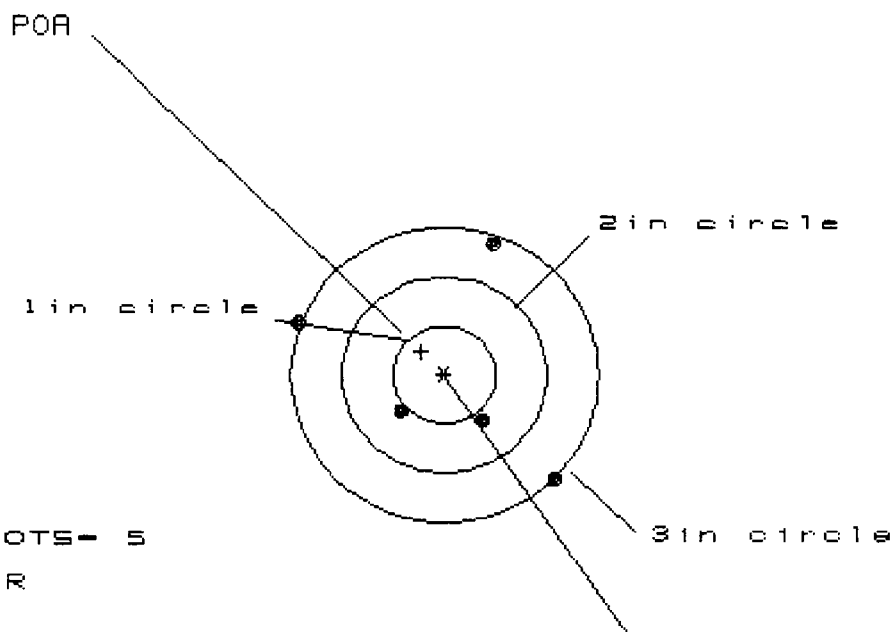
200 gr

0550

5 Aug 1987

FILE:/PATTERNING/CENTERFIRE_PATT/XP10035

CENTERFIRE PATTERNS # 1



OF SHOTS- 5

IN CIR

1in - 0

2in - 2

3in = 4

HS- 2.537

VS- 2.362

GS- 2.971

CENTROID *

2.367
2.621

Avg = 2.494

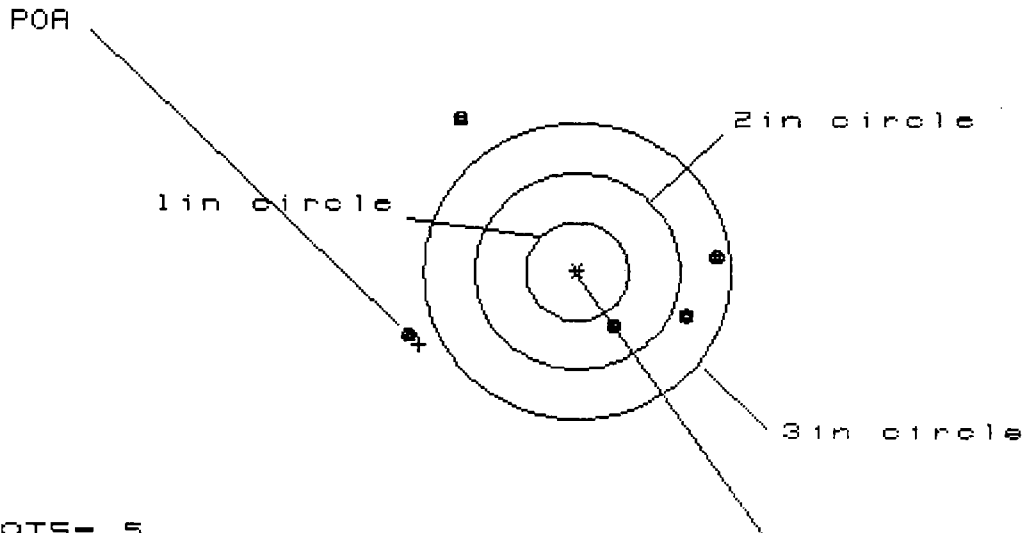
PATTERN #	1	2	3
SHOTS (BEST OF)	5	4	3
MAXIMUM X	1.077	.712	.298
MINIMUM X	-1.460	-.821	-.584
MAXIMUM Y	1.336	1.466	1.167
MINIMUM Y	-1.026	-.896	-.600
CENTROID X	.224	.589	.352
CENTROID Y	-.238	-.368	-.069
POA TO CENTROID in.	.327	.694	.358
MIN RADIUS	.597	.305	.664
MEAN RADIUS	1.128	.945	.894
MAX RADIUS	1.550	1.467	1.205
HORIZONTAL SPREAD	2.537	1.533	.882
VERTICAL SPREAD	2.362	2.362	1.767
EXTREME SPREAD	2.971	2.450	1.945
NUMBER IN ONE INCH CIRCLE =	0		
NUMBER IN TWO INCH CIRCLE =	2		
NUMBER IN THREE INCH CIRCLE =	4		

150gr (0284)
~~0250~~ ~~0284~~2.537
- 350
2.1872.362
- 350
2.0122.971
- 350
2.621

5 Aug 387

FILE:/PATTERNING/CENTERFIRE_PATT/XP10035

CENTERFIRE PATTERNS # 2



OF SHOTS- 5

IN CIR

1 in - 0

2 in - 1

3 in - 3

HS- 2.953

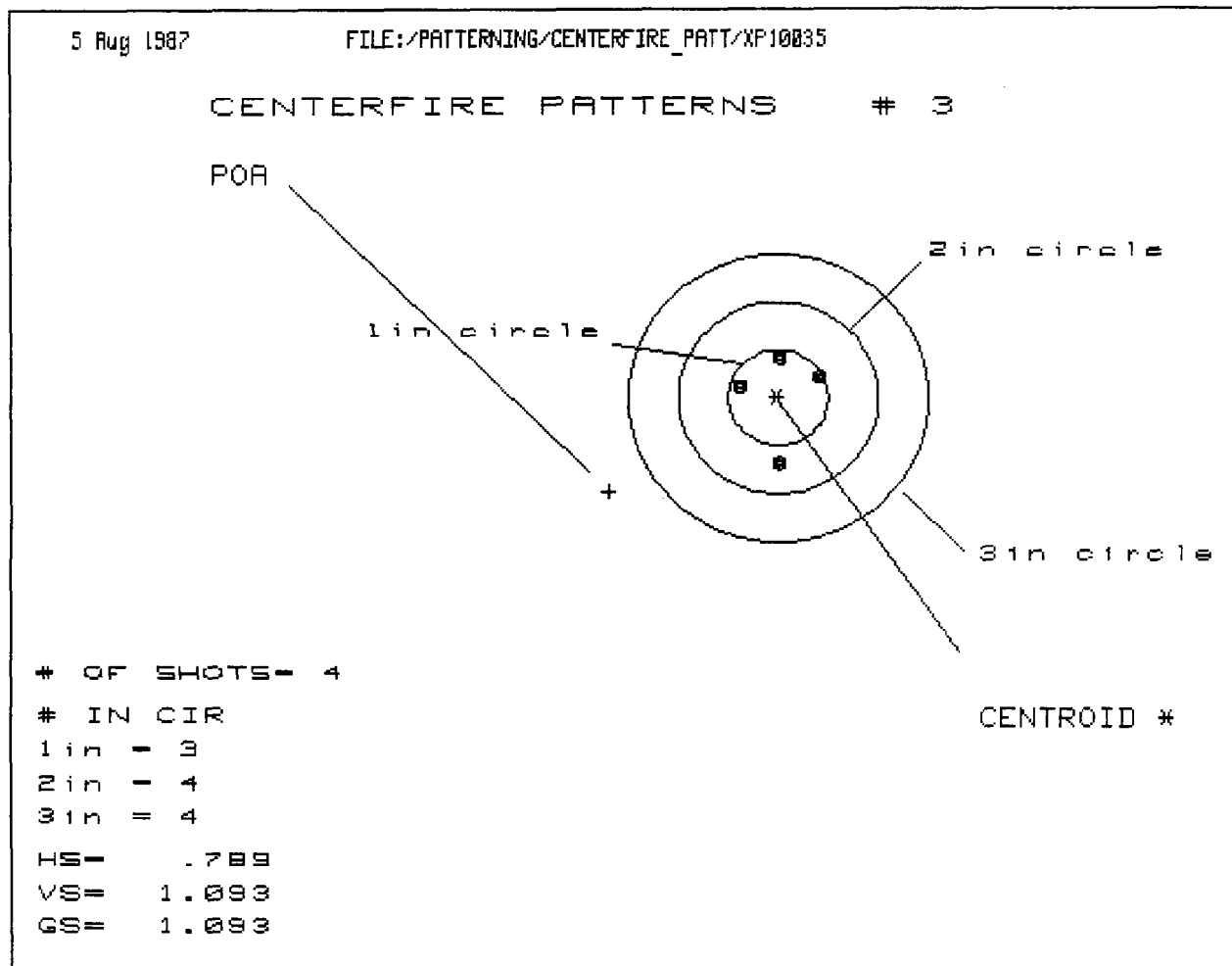
VS- 2.170

GS- 3.073

PATTERN #	2	4	3
SHOTS (BEST OF)	5	4	3
MAXIMUM X	1.329	1.034	.395
MINIMUM X	-1.624	-1.919	-.558
MAXIMUM Y	1.508	.565	.470
MINIMUM Y	-.662	-.285	-.278
CENTROID X	1.541	1.836	2.475
CENTROID Y	.747	.370	.465
POA TO CENTROID in.	1.712	1.873	2.519
MIN RADIUS	.674	.200	.253
MEAN RADIUS	1.376	1.032	.497
MAX RADIUS	1.915	1.940	.624
HORIZONTAL SPREAD	2.953	2.953	.953
VERTICAL SPREAD	2.170	.850	.748
EXTREME SPREAD	3.073	3.073	1.211
NUMBER IN ONE INCH CIRCLE	= 0		
NUMBER IN TWO INCH CIRCLE	= 1		
NUMBER IN THREE INCH CIRCLE	= 3		

2

200gr
(0284)



PATTERN #	3
SHOTS (BEST OF)	4
MAXIMUM X	.373
MINIMUM X	-.416
MAXIMUM Y	.405
MINIMUM Y	-.688
CENTROID X	1.687
CENTROID Y	.979
POA TO CENTROID in.	1.950
MIN RADIUS	.405
MEAN RADIUS	.484
MAX RADIUS	.689
HORIZONTAL SPREAD	.789
VERTICAL SPREAD	1.093
EXTREME SPREAD	1.093
NUMBER IN ONE INCH CIRCLE =	3
NUMBER IN TWO INCH CIRCLE =	4
NUMBER IN THREE INCH CIRCLE =	4

5 Aug 1987

FILE:/PATTERNING/CENTERFIRE_PATT/XP10035

CENTERFIRE PATTERNS # 4

POA

1in circle

2in circle

3in circle

CENTROID *

OF SHOTS- 5

IN CIR

1in = 0

2in = 2

3in = 3

HS- 2.488

VS- 2.639

GS- 2.717

PATTERN #	5	4	3
SHOTS (BEST OF)	5	4	3
MAXIMUM X	.806	.386	.472
MINIMUM X	-1.682	-.387	-.301
MAXIMUM Y	1.481	1.690	.535
MINIMUM Y	-1.158	-.949	-.385
CENTROID X	.086	.506	.420
CENTROID Y	-.456	-.665	-1.229
POA TO CENTROID in.	.464	.836	1.299
MIN RADIUS	.841	.387	.227
MEAN RADIUS	1.289	.970	.477
MAX RADIUS	1.878	1.710	.713
HORIZONTAL SPREAD	2.488	.773	.773
VERTICAL SPREAD	2.639	2.639	.920
EXTREME SPREAD	2.717	2.717	1.202
NUMBER IN ONE INCH CIRCLE =		0	
NUMBER IN TWO INCH CIRCLE =		2	
NUMBER IN THREE INCH CIRCLE =		3	

150gr

0550

$$\begin{array}{r} 2.488 \\ - 350 \\ \hline 2,138 \end{array}$$

$$\begin{array}{r} 2639 \\ 350 \\ \hline 2,289 \end{array}$$

$$\begin{array}{r} 2717 \\ - 350 \\ \hline 2,367 \end{array}$$

4 Aug 1987

FILE:/PATTERNING/CENTERFIRE_PATT/07520550

CENTERFIRE PATTERNS # 1

POA

1in circle

2in circle

3in circle

CENTROID *

OF SHOTS - 5

IN CIR

1in = 1

2in = 2

3in = 5

HS = 2.565

VS = 1.060

GS = 2.620

2.559 = 2.56
 Avg. 2.86
 35 Rem.

PATTERN #	1	2	3
SHOTS (BEST OF)	5	4	3
MAXIMUM X	1.207	.868	.938
MINIMUM X	-1.358	-1.152	-.863
MAXIMUM Y	.530	.529	.673
MINIMUM Y	-.530	-.531	-.355
CENTROID X	.034	.373	.084
CENTROID Y	.301	.302	.126
POA TO CENTROID in.	.303	.480	.151
MIN RADIUS	.498	.617	.678
MEAN RADIUS	1.049	.931	.867
MAX RADIUS	1.358	1.254	1.003
HORIZONTAL SPREAD	2.565	2.020	1.801
VERTICAL SPREAD	1.060	1.060	1.028
EXTREME SPREAD	2.620	2.265	1.801
NUMBER IN ONE INCH CIRCLE =	1		
NUMBER IN TWO INCH CIRCLE =	2		
NUMBER IN THREE INCH CIRCLE =	5		

Avg
 HS = 1.57
 VS = 1.90

2.620
 - 350
 2.27

2.545
 - 350
 2.195

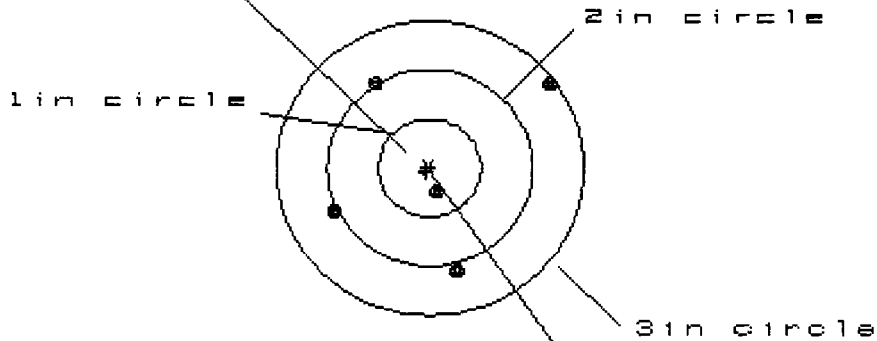
1.066
 350
 .710

4 Aug 1987

FILE:/PATTERNING/CENTERFIRE_PATT/87520550

CENTERFIRE PATTERNS # 2

POA



OF SHOTS- 5

IN CIR

1 in = 1

2 in = 1

3 in = 5

HS= 2.026

VS= 1.904

GS= 2.399

CENTROID *

PATTERN #	2	3	4	5
SHOTS (BEST OF)	5	4	3	
MAXIMUM X	1.125	.565	.529	
MINIMUM X	-.901	-.619	-.431	
MAXIMUM Y	.883	1.095	.826	
MINIMUM Y	-1.021	-.809	-.494	
CENTROID X	.033	-.249	-.437	
CENTROID Y	.040	-.172	.097	
POA TO CENTROID in.	.052	.302	.447	
MIN RADIUS	.280	.346	.624	
MEAN RADIUS	.960	.781	.704	
MAX RADIUS	1.409	1.132	.831	
HORIZONTAL SPREAD	2.026	1.184	.960	
VERTICAL SPREAD	1.904	1.904	1.320	
EXTREME SPREAD	2.399	2.085	1.362	
NUMBER IN ONE INCH CIRCLE =	1	1	1	
NUMBER IN TWO INCH CIRCLE =	1	1	1	
NUMBER IN THREE INCH CIRCLE =	5	5	5	

1.409
3.50
1.059

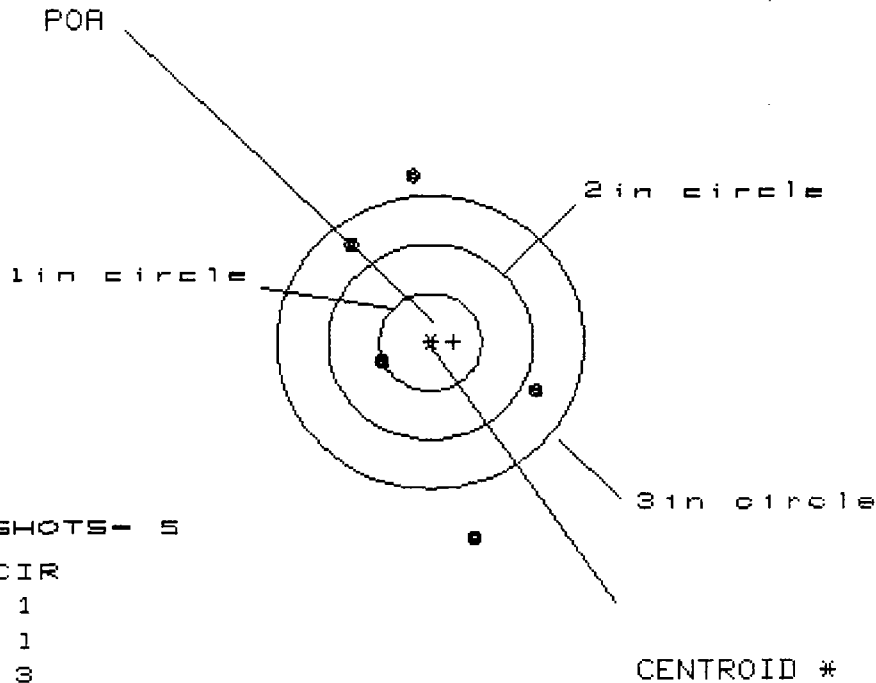
2.026
1.350
1.676

2.399
2.50
2.049

4 Aug 1987

FILE:/PATTERNING/CENTERFIRE_PATT/87520550

CENTERFIRE PATTERNS # 3



OF SHOTS - 5

IN CIR

1 in = 1

2 in = 1

3 in = 3

HS = 1.786

VS = 3.674

GS = 3.710

PATTERN #	1	3	4	3
SHOTS (BEST OF)	5	4	3	
MAXIMUM X	.980	1.078	1.069	
MINIMUM X	-.806	-.709	-.717	
MAXIMUM Y	1.676	1.177	.884	
MINIMUM Y	-1.998	-.945	-.553	
CENTROID X	-.228	-.326	-.317	
CENTROID Y	-.005	.494	.102	
POA TO CENTROID in.	.228	.592	.333	
MIN RADIUS	.494	.801	.483	
MEAN RADIUS	1.313	1.068	.942	
MAX RADIUS	2.035	1.433	1.203	
HORIZONTAL SPREAD	1.786	1.786	1.786	
VERTICAL SPREAD	3.674	2.122	1.437	
EXTREME SPREAD	3.710	2.392	2.292	
NUMBER IN ONE INCH CIRCLE =	1	1	1	
NUMBER IN TWO INCH CIRCLE =	1	1	1	
NUMBER IN THREE INCH CIRCLE =	3	3	3	

3.710
 .350
 3.360

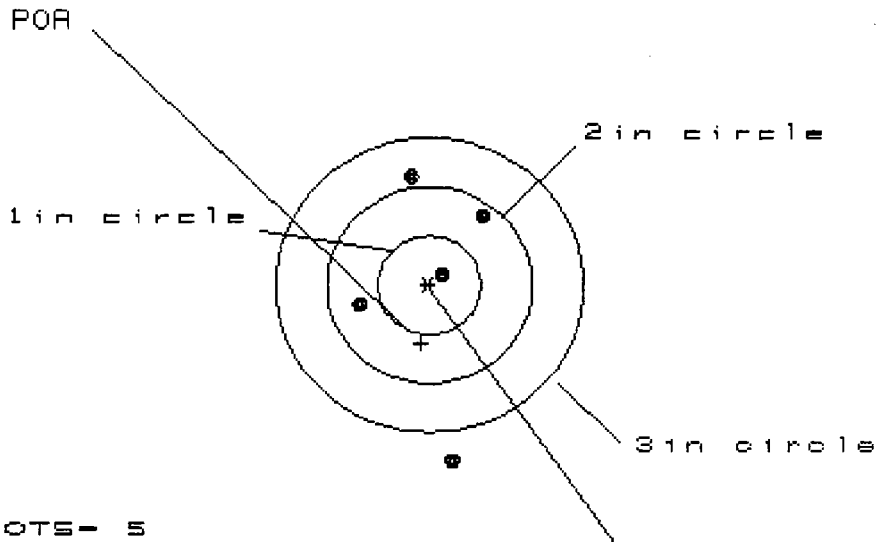
1.786
 350
 1.436

3.674
 350
 3.324

4 Aug 1987

FILE:/PATTERNING/CENTERFIRE_PATT/B7520239

CENTERFIRE PATTERNS # 1



OF SHOTS- 5

IN CIR

1 in = 1

2 in = 3

3 in = 4

HS= 1.175

VS= 2.939

GS= 2.972

CENTROID *

2.937 = 2.94

Aug. 3.26

35 Rem.

PATTERN #	1	2	3
SHOTS (BEST OF)	5	4	3
MAXIMUM X	.525	.587	.542
MINIMUM X	-.650	-.588	-.633
MAXIMUM Y	1.115	.659	.482
MINIMUM Y	-1.824	-.621	-.482
CENTROID X	.079	.017	.062
CENTROID Y	.592	1.048	.829
POA TO CENTROID in.	.598	1.049	.831
MIN RADIUS	.173	.329	.121
MEAN RADIUS	.941	.625	.532
MAX RADIUS	1.841	.856	.750
HORIZONTAL SPREAD	1.175	1.175	1.175
VERTICAL SPREAD	2.939	1.280	.884
EXTREME SPREAD	2.972	1.470	1.470
NUMBER IN ONE INCH CIRCLE =	1		
NUMBER IN TWO INCH CIRCLE =	3		
NUMBER IN THREE INCH CIRCLE =	4		

AVG = 2.25
 HS = 1.59
 VS = 1.59

2.972
 - .350

 2.522

1.175
 - .350

 0.825

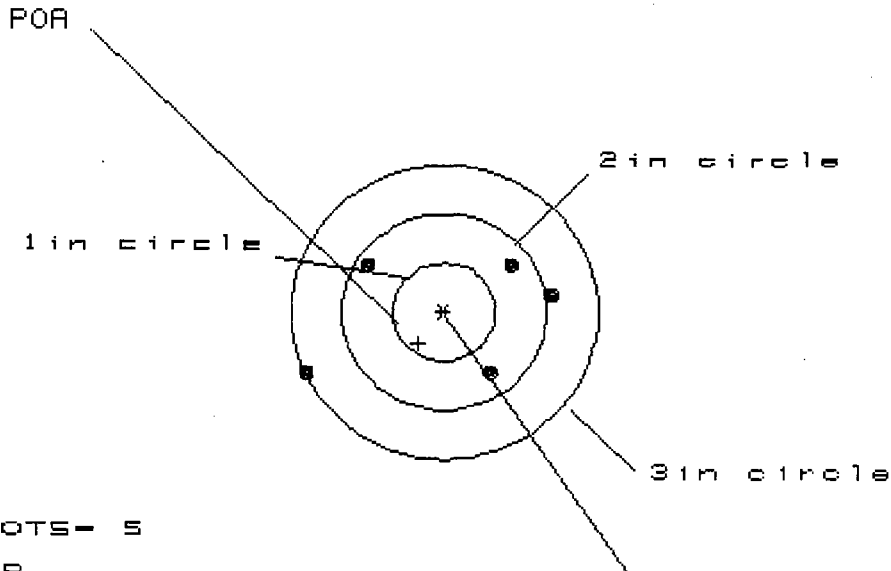
2.937
 - .350

 2.587

4 Aug 1987

FILE:/PATTERNING/CENTERFIRE_PATT/B7520239

CENTERFIRE PATTERNS # 2



OF SHOTS - 5

IN CIR

1 in - 0

2 in - 3

3 in - 4

HS - 2.409

VS - 1.141

GS - 2.553

CENTROID *

PATTERN #	1	2	3
SHOTS (BEST OF)	5	4	3
MAXIMUM X	1.041	.700	.518
MINIMUM X	-1.368	-1.071	-.838
MAXIMUM Y	.515	.359	.379
MINIMUM Y	-.626	-.727	-.707
CENTROID X	.249	.591	.357
CENTROID Y	.318	.474	.454
POA TO CENTROID in.	.404	.758	.577
MIN RADIUS	.714	.458	.642
MEAN RADIUS	.992	.752	.773
MAX RADIUS	1.504	1.114	.900
HORIZONTAL SPREAD	2.409	1.771	1.356
VERTICAL SPREAD	1.141	1.086	1.086
EXTREME SPREAD	2.553	1.788	1.553
NUMBER IN ONE INCH CIRCLE =		0	
NUMBER IN TWO INCH CIRCLE =		3	
NUMBER IN THREE INCH CIRCLE =		4	

2.409
- .350
2.059

1.141
- .350
.791

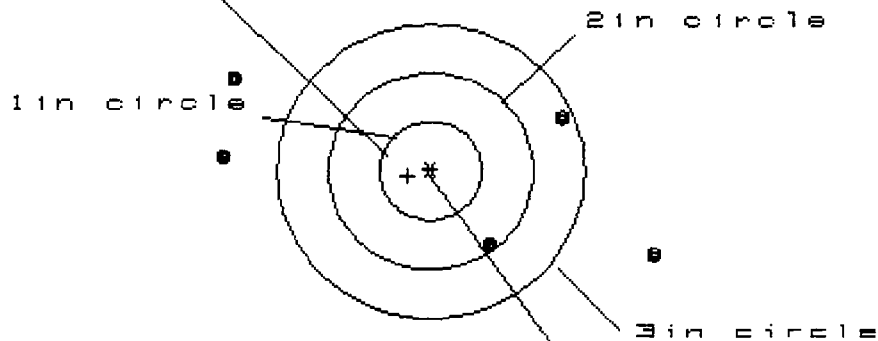
2.553
- .350
2.203

4 Aug 1987

FILE:/PATTERNING/CENTERFIRE_PATT/B7520239

CENTERFIRE PATTERNS # 3

POA



OF SHOTS - 5

IN CIR

1in = 0

2in = 1

3in = 2

HS = 4.211

VS = 1.734

GS = 4.437

CENTROID *

Aug. 3-26

PATTERN #	5	4	3
SHOTS (BEST OF)	5	4	3
MAXIMUM X	2.164	1.813	1.353
MINIMUM X	-2.047	-1.506	-1.965
MAXIMUM Y	.914	.709	.557
MINIMUM Y	-.820	-.938	-.702
CENTROID X	.222	-.319	.140
CENTROID Y	.052	.257	.021
POA TO CENTROID in.	.228	.410	.142
MIN RADIUS	.905	1.424	.931
MEAN RADIUS	1.754	1.581	1.455
MAX RADIUS	2.315	1.841	1.970
HORIZONTAL SPREAD	4.211	3.318	3.318
VERTICAL SPREAD	1.734	1.647	1.259
EXTREME SPREAD	4.437	3.343	3.343
NUMBER IN ONE INCH CIRCLE =	0		
NUMBER IN TWO INCH CIRCLE =	1		
NUMBER IN THREE INCH CIRCLE =	2		

4.437
 .350
 4.087

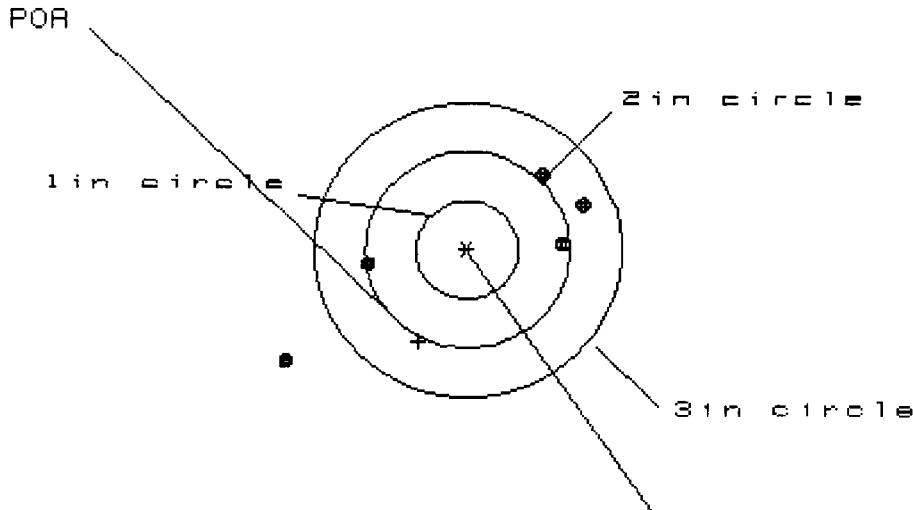
4.211
 - .350
 3.861

1.734
 .350
 1.384

4 Aug 1987

FILE:/PATTERNING/CENTERFIRE_PATT/B7520284

CENTERFIRE PATTERNS # 1



OF SHOTS- 5

IN CIR

1 in = 0

2 in = 1

3 in = 4

HS= 2.939

VS= 1.976

GS= 3.345

CENTROID *

2.904 = 2.90

Aug 3-2
35 Rem.

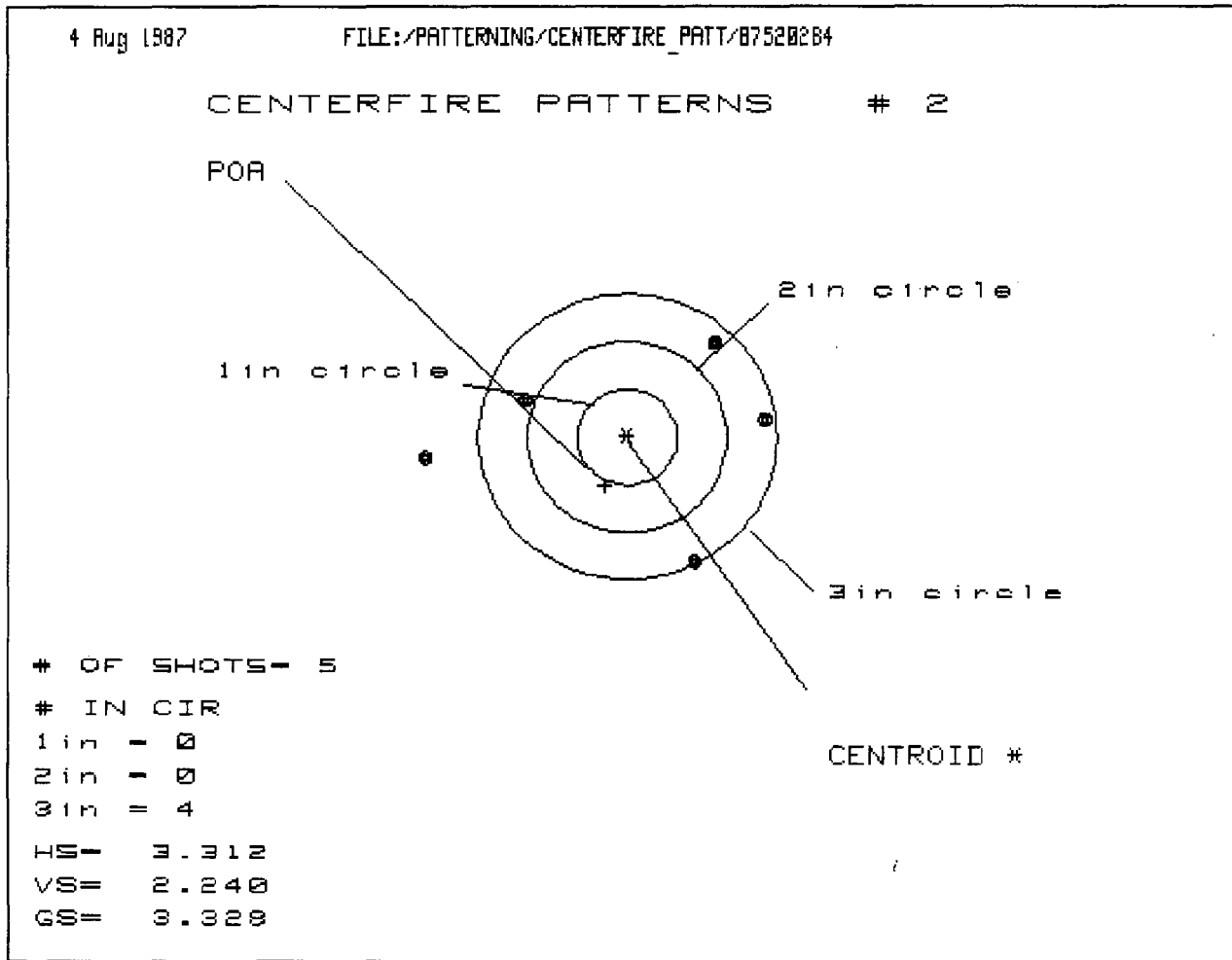
PATTERN #	1	4	3
SHOTS (BEST OF)	5	4	3
MAXIMUM X	1.146	.698	.701
MINIMUM X	-1.793	-1.444	-1.211
MAXIMUM Y	.804	.511	.555
MINIMUM Y	-1.172	-.459	-.415
CENTROID X	.471	.919	.686
CENTROID Y	.933	1.226	1.182
POA TO CENTROID in.	1.045	1.532	1.367
MIN RADIUS	.923	.503	.715
MEAN RADIUS	1.276	.828	.916
MAX RADIUS	2.142	1.515	1.280
HORIZONTAL SPREAD	2.939	2.142	1.912
VERTICAL SPREAD	1.976	.970	.970
EXTREME SPREAD	3.345	2.222	1.976
NUMBER IN ONE INCH CIRCLE =	0	0	0
NUMBER IN TWO INCH CIRCLE =	1	1	1
NUMBER IN THREE INCH CIRCLE =	4	4	4

AUG
HS = 2.76
VS = 1.33

3.345
- 350
2.995

2.739
- 350
2.589

1.976
- 350
1.626



PATTERN #	:	2		
SHOTS (BEST OF)	:	5	4	3
MAXIMUM X	:	1.335	.841	.915
MINIMUM X	:	-1.977	-1.482	-1.408
MAXIMUM Y	:	.958	.913	.470
MINIMUM Y	:	-1.282	-1.327	-.341
CENTROID X	:	.225	.719	.645
CENTROID Y	:	.510	.555	.998
POA TO CENTROID in.	:	.557	.908	1.188
MIN RADIUS	:	1.051	.847	.682
MEAN RADIUS	:	1.434	1.178	1.024
MAX RADIUS	:	1.985	1.514	1.414
HORIZONTAL SPREAD	:	3.312	2.323	2.323
VERTICAL SPREAD	:	2.240	2.240	.811
EXTREME SPREAD	:	3.328	2.364	2.333
NUMBER IN ONE INCH CIRCLE	=	0	0	0
NUMBER IN TWO INCH CIRCLE	=	0	0	0
NUMBER IN THREE INCH CIRCLE	=	4	4	4

$$\begin{array}{r} 3.312 \\ - .360 \\ \hline 2.952 \end{array}$$

$$\begin{array}{r} 2.240 \\ - .350 \\ \hline 1.89 \end{array}$$

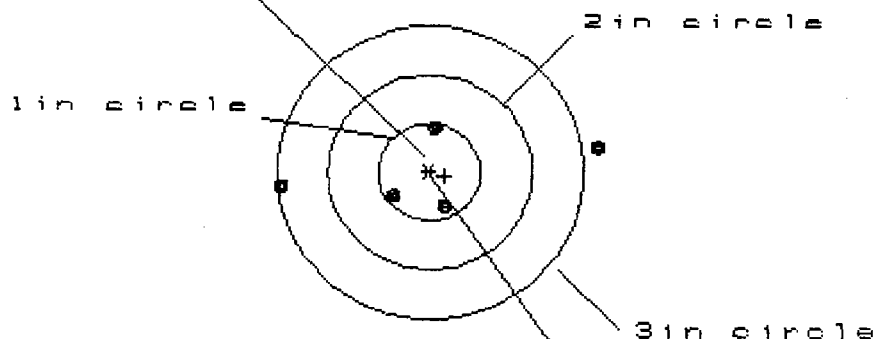
$$\begin{array}{r} 3.328 \\ - .350 \\ \hline 2.978 \end{array}$$

4 Aug 1987

FILE:/PATTERNING/CENTERFIRE_PATT/87520284

CENTERFIRE PATTERNS # 3

POA



OF SHOTS - 5

IN CIR

1in = 3

2in = 3

3in = 4

HS = 3.065

VS = .812

GS = 3.090

CENTROID *

PATTERN #	3	4	3
SHOTS (BEST OF)	5	4	3
MAXIMUM X	1.599	.586	.231
MINIMUM X	-1.466	-1.066	-.354
MAXIMUM Y	.432	.501	.485
MINIMUM Y	-.380	-.311	-.327
CENTROID X	-.145	-.545	-.190
CENTROID Y	.038	-.031	-.015
POA TO CENTROID in.	.150	.546	.191
MIN RADIUS	.423	.141	.387
MEAN RADIUS	.881	.641	.429
MAX RADIUS	1.623	1.067	.500
HORIZONTAL SPREAD	3.065	1.652	.585
VERTICAL SPREAD	.812	.812	.812
EXTREME SPREAD	3.090	1.673	.819
NUMBER IN ONE INCH CIRCLE =	3		
NUMBER IN TWO INCH CIRCLE =	3		
NUMBER IN THREE INCH CIRCLE =	4		

3.090
 .350
 2.740

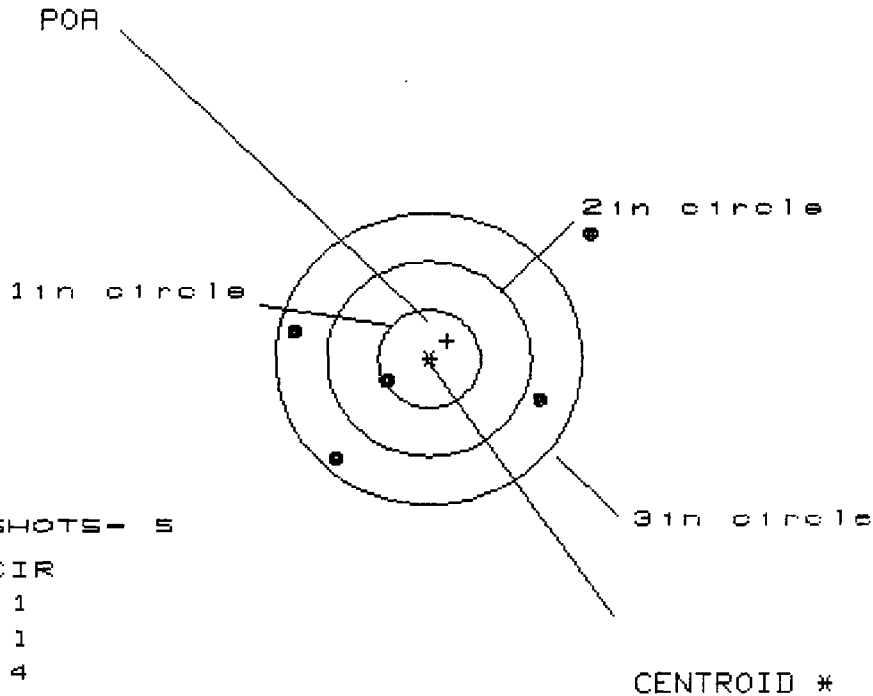
3.065
 .350
 2.715

.812
 .350
 .462

4 Aug 1987

FILE:/PATTERNING/CENTERFIRE_PATT/87520092

CENTERFIRE PATTERNS # 1



2.858 = 2.86

Aug. 8.76
35 Rem.

PATTERN #	1	2	3
SHOTS (BEST OF)	5	4	3
MAXIMUM X	1.593	1.504	1.187
MINIMUM X	-1.350	-.952	-.807
MAXIMUM Y	1.332	.664	.368
MINIMUM Y	-1.017	-.684	-.462
CENTROID X	-.182	-.580	-.263
CENTROID Y	-.183	-.516	-.738
POA TO CENTROID n.	.258	.776	.783
MIN RADIUS	.497	.159	.528
MEAN RADIUS	1.302	.918	.883
MAX RADIUS	2.076	1.509	1.190
HORIZONTAL SPREAD	2.943	2.456	1.994
VERTICAL SPREAD	2.349	1.348	.830
EXTREME SPREAD	3.417	2.580	2.070
NUMBER IN ONE INCH CIR	= 1	= 1	= 1
NUMBER IN TWO INCH CIR	= 1	= 1	= 1
NUMBER IN THREE INCH CIR	= 4	= 4	= 3

Avg

HS = 2.36

VS = 2.17

3.417

350

3.067

2.943

-350

2.593

2.349

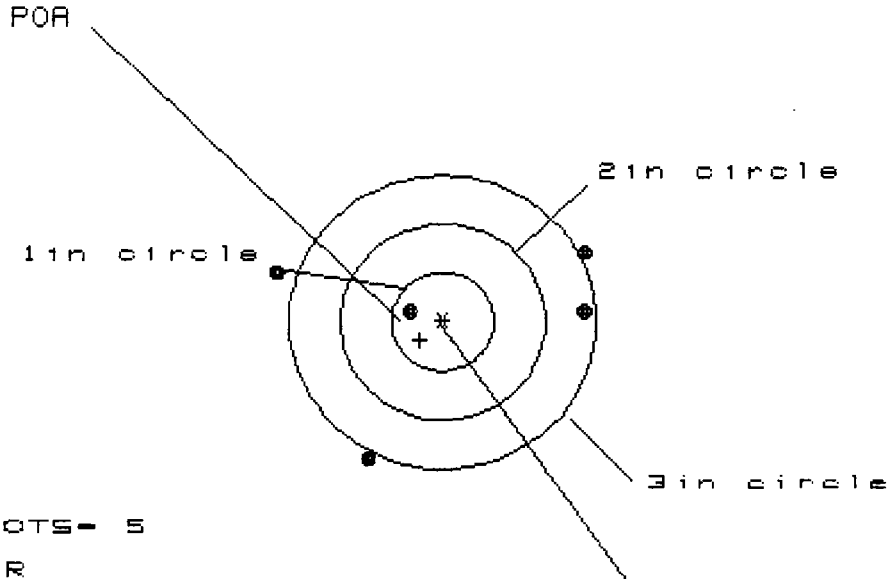
-350

1.999

4 Aug 1987

FILE:/PATTERNING/CENTERFIRE_PATT/B7520092

CENTERFIRE PATTERNS # 2



OF SHOTS- 5
IN CIR
1in - 1
2in - 1
3in - 2
HS- 3.044
VS- 2.098
GS- 3.051

CENTROID *

PATTERN #	2	4	3
SHOTS (BEST OF)	5	4	3
MAXIMUM X	1.377	.961	.588
MINIMUM X	-1.667	-1.118	-1.156
MAXIMUM Y	.688	.814	.386
MINIMUM Y	-1.410	-1.284	-.204
CENTROID X	.219	.636	1.008
CENTROID Y	.189	.063	.491
POA TO CENTROID in.	.289	.639	1.121
MIN RADIUS	.386	.821	.604
MEAN RADIUS	1.321	1.187	.826
MAX RADIUS	1.742	1.702	1.170
HORIZONTAL SPREAD	3.044	2.078	1.744
VERTICAL SPREAD	2.098	2.098	.590
EXTREME SPREAD	3.051	2.953	1.834
NUMBER IN ONE INCH CIRCLE	= 1		
NUMBER IN TWO INCH CIRCLE	= 1		
NUMBER IN THREE INCH CIRCLE	= 2		

3.044
- .350
2.694

2.098
- .350
1.748

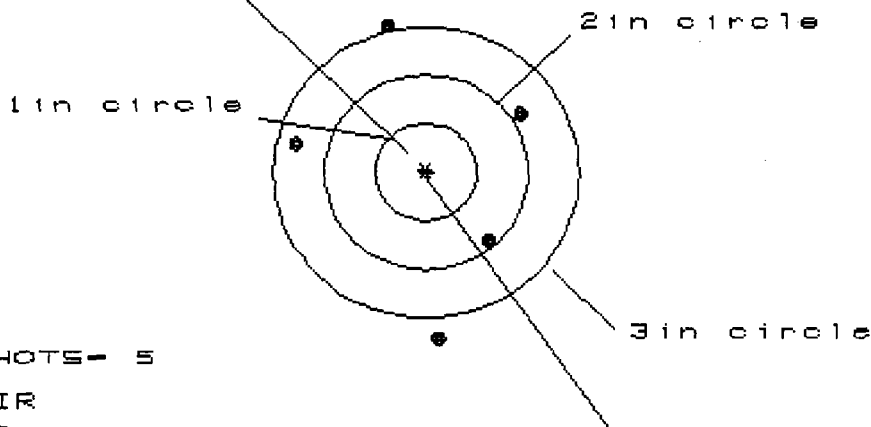
3.051
- .350
2.701

4 Aug 1987

FILE:/PATTERNING/CENTERFIRE_PATT/B7520092

CENTERFIRE PATTERNS # 3

POA



OF SHOTS- 5

IN CIR

1in - 0

2in - 1

3in - 3

HS- 2.148

VS- 3.121

GS- 3.156

CENTROID *

PATTERN #	3	4	3
SHOTS (BEST OF)	5	4	3
MAXIMUM X	.884	.911	.797
MINIMUM X	-1.264	-1.237	-1.351
MAXIMUM Y	1.461	1.046	.530
MINIMUM Y	-1.660	-1.145	-.797
CENTROID X	-.021	-.048	.066
CENTROID Y	.002	.418	.069
POA TO CENTROID in.	.022	.420	.095
MIN RADIUS	.971	.929	.957
MEAN RADIUS	1.303	1.148	1.101
MAX RADIUS	1.664	1.325	1.377
HORIZONTAL SPREAD	2.148	2.148	2.148
VERTICAL SPREAD	3.121	2.191	1.327
EXTREME SPREAD	3.156	2.411	2.181
NUMBER IN ONE INCH CIRCLE =	0	0	0
NUMBER IN TWO INCH CIRCLE =	1	1	1
NUMBER IN THREE INCH CIRCLE =	3	3	3

3.156
 .350
 2.806

2.148
 .350
 1.798

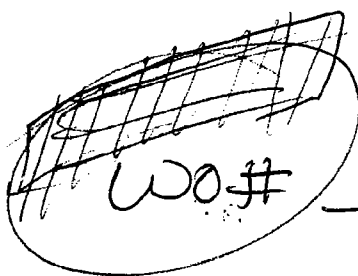
3.121
 .350
 2.771

7 guns 87251 WO #
Serial # B7520239
B7520092
" 0550
" 0284

50yr P. Soft Pine Corelok R3521
Code # E27 C6005L

12 x redfield
weaver base & ~~mount~~ (rings)

100 yards - C. Stephens



81411

111411 - 001800

DJ Anderson

RD-49-B

REMINGTON ARMS COMPANY, INC.

INTER-DEPARTMENTAL CORRESPONDENCE

Remington.



PETERS



"CONFINE YOUR LETTER TO ONE SUBJECT ONLY"_____

xc: W.H. Coleman, II/File
K.W. Soucy
D.J. Anderson
G.J. Hill
T.C. Douglas
J.R. Snedeker
J.F. Matousek, Jr.
F.L. Supry
File

RESEARCH TEST AND MEASUREMENT REPORT

REPORT# 872151
AUGUST 06, 1987

MODEL XP-100 35 REM CALIBER TRIAL AND PILOT EVALUATION

Report# 872151

Work Order# 111411-001800

MODEL XP-100 35 REM CALIBER TRIAL AND PILOT EVALUATION

ABSTRACT:

Research and Development finds the Trial and Pilot Evaluation of the Model XP-100 35 REM caliber to be acceptable.

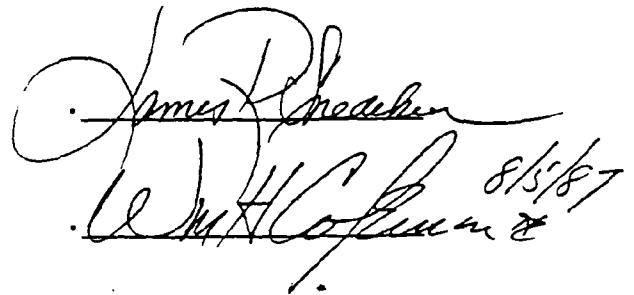
The pistols tested were randomly selected, after being put in the warehouse. The pistols were examined, as received, by Research Technicians, and then subjected to the 100 yard (off hand bench rest) accuracy test. The barrels with the maximum and minimum extreme spread were removed from the stocks and shot one five shot group each, using the Gallery accuracy device.

Prepared by: F.L. Supry
Date Prepared: 08/06/87

proofread and cleared by:

J.R. SNEDEKER, Research Supervisor
Test, Measurement & Mech. Analysis Lab

W.H. COLEMAN, II
New Products Research Lab Director


8/5/87

Report# 872151

Work Order# 111411-001800

MODEL XP-100 35 REM CALIBER TRIAL AND PILOT EVALUATION

TO: J.R. Snedeker
FROM: F.L. Supry

INTRODUCTION:

In July 1987, a request to conduct a Trial and Pilot Evaluation of the Model XP-100 35 REM caliber pistol was received by the Test Lab. The evaluation would use four pistols, withdrawn from the warehouse, and consist of Visual Inspection and 100 yard accuracy.

SCOPE OF THE TEST:

To determine if the production run sample would meet the Remington Specifications set by the Research Design Section.

TEST RESULTS:

The Model XP-100, chambered in the 35 REM caliber, was found to be acceptable in all phases of the Trial and Pilot Evaluation.

Report# 872151

Work Order# 111411-001800

MODEL XP-100 35 REM CALIBER TRIAL AND PILOT EVALUATION

REPORT TEXT:

1. VISUAL INSPECTION:

A. There were no major items in the appearance of the pistols.

B. The pistols used in the Visual Inspection were:

B7520239 B7520092 B7520550 B7520284

C. Comments on each pistol are located in the appendix.

2. ACCURACY:

The Remington standard for the XP-100, chambered in the 35 REM caliber is an extreme group size of: 3.5 inches for a 5 shot group.

A. The pistols used in the accuracy test were:

B7520239 B7520092 B7520550 B7520284

B. The following averages were established:

	<u>BENCH REST</u>	<u>ACCURACY DEVICE</u>
a. Group Size:	2.82 inches	2.49 inches
b. Horizontal Spread:	2.24 inches	2.16 inches
c. Vertical Spread:	1.73 inches	2.15 inches

C. Accuracy results per individual pistol are located in the appendix of this report.

Report# 872151

Work Order# 111411-001800

MODEL XP-100 35 REM CALIBER TRIAL AND PILOT EVALUATION

TEST PROCEDURE:

1. VISUAL INSPECTION:

- A. The visual inspection was done by F.L. Supry and C.J. Stephens.
- B. All 4 of the pistols were examined.
- C. Each pistol was wiped down with a clean white Coyne towel, and examined. All comments were recorded.

2. ACCURACY:

- A. The off hand (bench rest) accuracy was shot by C.J. Stephens, at the R&D 100 yard range.
- B. Weaver bases and rings were used, in conjunction with a Redfield 12X scope.
- C. Remington ammunition, index R35R1, code E27 C6005L, 150 grain pointed soft point, was used for the 100 yard accuracy test.
- D. Before shooting the 100 yard accuracy test, the bores on each pistol were brushed with Hoppe's No. 9 solvent and patched dry.
- E. A total of three, five shot groups, were shot with each pistol. The pistols were cooled between each group, and one "warmer" shot was fired before the next group was shot.
- F. The accuracy device accuracy was shot by R. Sterling, at the Gallery 100 yard range.
- G. The stocks were removed from two of the pistols, and one five shot group was shot with each pistol.
- H. The patterns were analyzed for group size, horizontal spread, and vertical spread, using the HP 9000 computer and digitizing tablet.

Report# 872151

Work Order# 111411-001800

MODEL XP-100 35 REM CALIBER TRIAL AND PILOT EVALUATION

APPENDIX

Report# 872151

Work Order# 111411-001800

MODEL XP-100 35 REM CALIBER TRIAL AND PILOT EVALUATION

VISUAL INSPECTION:

GENERAL COMMENTS:

The appearance of the Model XP-100 35 REM caliber sample was very good.

COMMENTS PER INDIVIDUAL PISTOL:

B7520239 Glue marks: left side of the stock by fore-end tip.
 right side of stock by diamond.

B7520092 Scratch on left panel, above the trigger guard.
Scratch on right panel, in front of the diamond.

B7520284 Bottom of pistol grip rough, at the seam.
Light proof stamp.

B7520550 Small pits on the right panel of the stock.

Report# 872151

Work Order# 111411-001800

MODEL XP-100 35 REM CALIBER TRIAL AND PILOT EVALUATION

ACCURACY RESULTS - EXTREME SPREAD

<u>SERIAL NUMBER</u>	<u>GROUP#</u>	<u>BENCH REST</u> (inches)	<u>ACCURACY DEVICE</u> (inches)
B7520092	1	3.07	NA
	2	2.70	NA
	3	2.81	NA
B7520284	1	3.00	2.49
	2	2.98	NA
	3	2.74	NA
B7520239	1	2.52	NA
	2	2.20	NA
	3	4.09	NA
B7520550	1	2.27	2.37
	2	2.05	NA
	3	3.36	NA

NOTE:

THE ACCURACY DEVICE WAS USED TO VERIFY THE BARRELS WITH THE MINIMUM AND MAXIMUM EXTREME SPREAD, FROM THE OFF HAND BENCH REST SHOOTING.

RD-49-B

REMINGTON ARMS COMPANY, INC.

INTER-DEPARTMENTAL CORRESPONDENCE

Remington.



PETERS



"CONFINE YOUR LETTER TO ONE SUBJECT ONLY"_____

xc: W.H. Coleman, II/File
 K.W. Soucy
 D.J. Anderson
 G.J. Hill
 T.C. Douglas
 J.R. Snedeker
 J.F. Matousek, Jr.
 F.L. Supry
 File

RESEARCH TEST AND MEASUREMENT REPORT

REPORT# 872151
AUGUST 06, 1987

MODEL XP-100 35 REM CALIBER TRIAL AND PILOT EVALUATION

Report# 872151

Work Order# 111411-001800

MODEL XP-100 35 REM CALIBER TRIAL AND PILOT EVALUATION

ABSTRACT:

Research and Development finds the Trial and Pilot Evaluation of the Model XP-100 35 REM caliber to be acceptable.

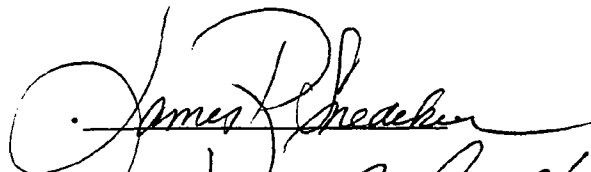
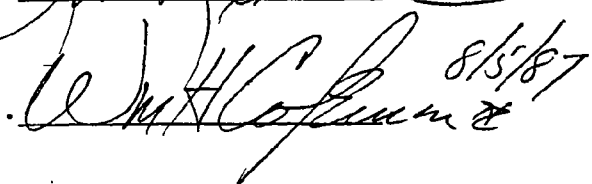
The pistols tested were randomly selected, after being put in the warehouse. The pistols were examined, as received, by Research Technicians, and then subjected to the 100 yard (off hand bench rest) accuracy test. The barrels with the maximum and minimum extreme spread were removed from the stocks and shot one five shot group each, using the Gallery accuracy device.

Prepared by: F.L. Supry
Date Prepared: 08/06/87

proofread and cleared by:

J.R. SNEDEKER, Research Supervisor
Test, Measurement & Mech. Analysis Lab

W.H. COLEMAN, II
New Products Research Lab Director

Report# 872151

Work Order# 111411-001800

MODEL XP-100 35 REM CALIBER TRIAL AND PILOT EVALUATION

TO: J.R. Snedeker
FROM: F.L. Supry

INTRODUCTION:

In July 1987, a request to conduct a Trial and Pilot Evaluation of the Model XP-100 35 REM caliber pistol was received by the Test Lab. The evaluation would use four pistols, withdrawn from the warehouse, and consist of Visual Inspection and 100 yard accuracy.

SCOPE OF THE TEST:

To determine if the production run sample would meet the Remington Specifications set by the Research Design Section.

TEST RESULTS:

The Model XP-100, chambered in the 35 REM caliber, was found to be acceptable in all phases of the Trial and Pilot Evaluation.

Report# 872151

Work Order# 111411-001800

MODEL XP-100 35 REM CALIBER TRIAL AND PILOT EVALUATION

REPORT TEXT:

1. VISUAL INSPECTION:

A. There were no major items in the appearance of the pistols.

B. The pistols used in the Visual Inspection were:

B7520239 B7520092 B7520550 B7520284

C. Comments on each pistol are located in the appendix.

2. ACCURACY:

The Remington standard for the XP-100, chambered in the 35 REM caliber is an extreme group size of: 3.5 inches for a 5 shot group.

A. The pistols used in the accuracy test were:

B7520239 B7520092 B7520550 B7520284

B. The following averages were established:

	<u>BENCH REST</u>	<u>ACCURACY DEVICE</u>
a. Group Size:	2.82 inches	2.49 inches
b. Horizontal Spread:	2.24 inches	2.16 inches
c. Vertical Spread:	1.73 inches	2.15 inches

C. Accuracy results per individual pistol are located in the appendix of this report.

Report# 872151

Work Order# 111411-001800

MODEL XP-100 35 REM CALIBER TRIAL AND PILOT EVALUATION

TEST PROCEDURE:

1. VISUAL INSPECTION:

- A. The visual inspection was done by F.L. Supry and C.J. Stephens.
- B. All 4 of the pistols were examined.
- C. Each pistol was wiped down with a clean white Coyne towel, and examined. All comments were recorded.

2. ACCURACY:

- A. The off hand (bench rest) accuracy was shot by C.J. Stephens, at the R&D 100 yard range.
- B. Weaver bases and rings were used, in conjunction with a Redfield 12X scope.
- C. Remington ammunition, index R35R1, code E27 C6005L, 150 grain pointed soft point, was used for the 100 yard accuracy test.
- D. Before shooting the 100 yard accuracy test, the bores on each pistol were brushed with Hoppe's No. 9 solvent and patched dry.
- E. A total of three, five shot groups, were shot with each pistol. The pistols were cooled between each group, and one "warmer" shot was fired before the next group was shot.
- F. The accuracy device accuracy was shot by R. Sterling, at the Gallery 100 yard range.
- G. The stocks were removed from two of the pistols, and one five shot group was shot with each pistol.
- H. The patterns were analyzed for group size, horizontal spread, and vertical spread, using the HP 9000 computer and digitizing tablet.

Report# 872151

Work Order# 111411-001800

MODEL XP-100 35 REM CALIBER TRIAL AND PILOT EVALUATION

APPENDIX

Report# 872151

Work Order# 111411-001800

MODEL XP-100 35 REM CALIBER TRIAL AND PILOT EVALUATION

VISUAL INSPECTION:

GENERAL COMMENTS:

The appearance of the Model XP-100 35 REM caliber sample was very good.

COMMENTS PER INDIVIDUAL PISTOL:

B7520239 Glue marks: left side of the stock by fore-end tip.
right side of stock by diamond.

B7520092 Scratch on left panel, above the trigger guard.
 Scratch on right panel, in front of the diamond.

B7520284 Bottom of pistol grip rough, at the seam.
Light proof stamp.

B7520550 Small pits on the right panel of the stock.

Report# 872151

Work Order# 111411-001800

MODEL XP-100 35 REM CALIBER TRIAL AND PILOT EVALUATION

ACCURACY RESULTS - EXTREME SPREAD

<u>SERIAL NUMBER</u>	<u>GROUP#</u>	<u>BENCH REST</u> (inches)	<u>ACCURACY DEVICE</u> (inches)
B7520092	1	3.07	NA
	2	2.70	NA
	3	2.81	NA
B7520284	1	3.00	2.49
	2	2.98	NA
	3	2.74	NA
B7520239	1	2.52	NA
	2	2.20	NA
	3	4.09	NA
B7520550	1	2.27	2.37
	2	2.05	NA
	3	3.36	NA

NOTE:

THE ACCURACY DEVICE WAS USED TO VERIFY THE BARRELS WITH THE MINIMUM AND MAXIMUM EXTREME SPREAD, FROM THE OFF HAND BENCH REST SHOOTING.

RESEARCH TEST & MEASUREMENT LAB WORK REQUEST

<input checked="" type="checkbox"/> Developmental <input type="checkbox"/> Design Acceptance <input type="checkbox"/> Pre-Pilot <input type="checkbox"/> Pilot <input type="checkbox"/> Production Acceptance	AREA OF TESTING <input type="checkbox"/> Safety Related <input type="checkbox"/> Litigation <input type="checkbox"/> Competitive Evaluation <input type="checkbox"/> Warehouse Audit <input type="checkbox"/> New Design <input checked="" type="checkbox"/> Cost Reduction <input type="checkbox"/> Design Change Stake _____ <input type="checkbox"/> Plant Assistance <input type="checkbox"/> Other _____	
FIREARM STAT'S. MODEL: <u>XP-100</u> CAL. or GAGE: <u>35 REM</u> BARREL TYPE: _____ PROOFED: YES <input checked="" type="checkbox"/> NO _____	REPORT REQ'D. FORMAL _____ TEST RESULTS ONLY <input checked="" type="checkbox"/>	DATE REQUESTED: <u>12-5-88</u> DATE NEEDED BY: <u>1-16-89</u> REQUESTED BY: <u>RS MURPHY</u> WORK ORDER NO: <u>481152</u>

TEST TYPE

<input type="checkbox"/> Strength Test	<input type="checkbox"/> Ammunition Test	<input type="checkbox"/> Dry Cycle Test	<input type="checkbox"/> Photo/Video
<input checked="" type="checkbox"/> Function Test	<input type="checkbox"/> Environmental Test	<input type="checkbox"/> Measurements	<input type="checkbox"/> Other _____
<input type="checkbox"/> Accuracy Test	<input type="checkbox"/> Customer Complaint	<input type="checkbox"/> Endurance Test	_____

EXPLAIN IN DETAIL THE REASON FOR THIS TEST:

These XP's were assembled in Production. Please function these three guns to 500 rds in a jack. Shoot the 200 gr. bullet weight. Every 100 rounds please return the guns to production and comparabr check (and record) the sear engagement. The test is to verify that the lock washers installed to prevent movement of the engagement screw will work. NOTE: If the lock washers

GUNS REQUIRED: do not work, sear engagement may change and the gun may FSR or fire on closing!

B7525755 # B7525802 # B7525875

NOTE: NO firearms or parts will be tested in the Labs unless they are accompanied by a Work Request, and both are delivered to the Labs by the designer or engineer. All Work Requests are to be filled out in detail. No Exceptions.

DATE COMPLETED: 12/8/88
 TEST COMPLETED BY: CS
 REPORT DATE: 12/19/88

TEST AND MEASUREMENT LAB

TEST REPORT

REQUESTER:R. MURPHY
REPORT NO.:883401
WRITTEN BY:C.STEPHENS

TESTER:C. STEPHENS

DATE:9 DEC 88
WORK ORDER:481152

TEST TYPE:TEST RESULTS

FIREARM STAT'S:

MODEL:XP100
BARREL TYPE:

CAL OR GAGE:35 REM
PROOFED:YES

REASON FOR TEST:

TO VERIFY THAT INSTALLING LOCKWASHERS ON THE ENGAGEMENT SCREW WILL PREVENT MOVEMENT OF THE SCREW.

EQUIPMENT REQUIRED:

3 XP100 IN 35 REM, SHOOTING ROOM, COMPARATOR, PERSONAL

TEST PROCEDURE:

EACH GUN WAS SHOT 500 RDS. AT 100 RD. INTERVALS EACH GUN WAS TAKEN TO PRODUCTION AND THE SEAR ENGAGEMENT AND OVER TRAVEL CHECKED.

TEST RESULTS:

THE RESULTS SHOW THAT TWO GUNS SHOWED MOVEMENT WITHIN TWO HUNDRED ROUNDS ON SEAR ENGAGEMENT. BOTH GUNS REMAINED WITHIN SPECS. ALL THREE GUNS SHOT THE LAST THREE HUNDRED ROUNDS WITH NO MOVEMENT

Trigger Adjustment Locknut.

		1		2		3		4		5		6	
		100 rds.		200 rds.		300 rds.		400 rds.		500 rds.			
		Sear	Over Travel	Sear	Over Travel	Sear	Over Travel	Sear	Over Travel	Sear	Over Travel		
1	Serial No.	Mean	Max	Mean	Max	Min	Max	Min	Max	Min	Max		
2	B7525802	Mean	Max	Mean	Max	Min	Max	Min	Max	Min	Max		
3	B7525755	Max	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean		
4													
5	B7525875	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean		
6													
7													
8													
9													
10													
11													
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13													
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REMINGTON ARMS COMPANY, INC.

INTER-DEPARTMENTAL CORRESPONDENCE

Remington.



PETERS



"CONFINE YOUR LETTER TO ONE SUBJECT ONLY" _____

xc: W.H. Coleman, II/File
K.W. Soucy
D.J. Anderson
G.J. Hill
T.C. Douglas
J.R. Snedeker
J.F. Matousek, Jr.
F.L. Supry
File

RESEARCH TEST AND MEASUREMENT REPORT

REPORT# 872151
AUGUST 06, 1987

MODEL XP-100 35 REM CALIBER TRIAL AND PILOT EVALUATION

Report# 872151

Work Order# 111411-001800

MODEL XP-100 35 REM CALIBER TRIAL AND PILOT EVALUATION

ABSTRACT:

Research and Development finds the Trial and Pilot Evaluation of the Model XP-100 35 REM caliber to be acceptable.

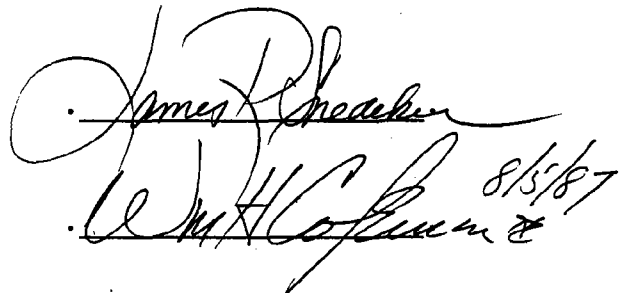
The pistols tested were randomly selected, after being put in the warehouse. The pistols were examined, as received, by Research Technicians, and then subjected to the 100 yard (off hand bench rest) accuracy test. The barrels with the maximum and minimum extreme spread were removed from the stocks and shot one five shot group each, using the Gallery accuracy device.

Prepared by: F.L. Supry
Date Prepared: 08/06/87

proofread and cleared by:

J.R. SNEDEKER, Research Supervisor
Test, Measurement & Mech. Analysis Lab

W.H. COLEMAN, II
New Products Research Lab Director



Report# 872151

Work Order# 111411-001800

MODEL XP-100 35 REM CALIBER TRIAL AND PILOT EVALUATION

TO: J.R. Snedeker
FROM: F.L. Supry

INTRODUCTION:

In July 1987, a request to conduct a Trial and Pilot Evaluation of the Model XP-100 35 REM caliber pistol was received by the Test Lab. The evaluation would use four pistols, withdrawn from the warehouse, and consist of Visual Inspection and 100 yard accuracy.

SCOPE OF THE TEST:

To determine if the production run sample would meet the Remington Specifications set by the Research Design Section.

TEST RESULTS:

The Model XP-100, chambered in the 35 REM caliber, was found to be acceptable in all phases of the Trial and Pilot Evaluation.

Report# 872151

Work Order# 111411-001800

MODEL XP-100 35 REM CALIBER TRIAL AND PILOT EVALUATION

REPORT TEXT:

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A. There were no major items in the appearance of the pistols.

B. The pistols used in the Visual Inspection were:

B7520239 B7520092 B7520550 B7520284

C. Comments on each pistol are located in the appendix.

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The Remington standard for the XP-100, chambered in the 35 REM caliber is an extreme group size of: 3.5 inches for a 5 shot group.

A. The pistols used in the accuracy test were:

B7520239 B7520092 B7520550 B7520284

B. The following averages were established:

	<u>BENCH REST</u>	<u>ACCURACY DEVICE</u>
a. Group Size:	2.82 inches	2.49 inches
b. Horizontal Spread:	2.24 inches	2.16 inches
c. Vertical Spread:	1.73 inches	2.15 inches

C. Accuracy results per individual pistol are located in the appendix of this report.

Report# 872151

Work Order# 111411-001800

MODEL XP-100 35 REM CALIBER TRIAL AND PILOT EVALUATION

TEST PROCEDURE:

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- A. The visual inspection was done by F.L. Supry and C.J. Stephens.
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Report# 872151

Work Order# 111411-001800

MODEL XP-100 35 REM CALIBER TRIAL AND PILOT EVALUATION

APPENDIX

Work Order# 111411-001800

VISUAL INSPECTION:

The appearance of the Model XP-100 35 REM caliber sample was very good.

B7520239 Glue marks: left side of the stock by fore-end tip.
 right side of stock by diamond.

B7520092 Scratch on left panel, above the trigger guard.
Scratch on right panel, in front of the diamond.

B7520284 Bottom of pistol grip rough, at the seam.
Light proof stamp.

B7520550 Small pits on the right panel of the stock.

Report# 872151

Work Order# 111411-001800

MODEL XP-100 35 REM CALIBER TRIAL AND PILOT EVALUATION

ACCURACY RESULTS - EXTREME SPREAD

<u>SERIAL NUMBER</u>	<u>GROUP#</u>	<u>BENCH REST</u> (inches)	<u>ACCURACY DEVICE</u> (inches)
B7520092	1	3.07	NA
	2	2.70	NA
	3	2.81	NA
B7520284	1	3.00	2.49
	2	2.98	NA
	3	2.74	NA
B7520239	1	2.52	NA
	2	2.20	NA
	3	4.09	NA
B7520550	1	2.27	2.37
	2	2.05	NA
	3	3.36	NA

NOTE:

THE ACCURACY DEVICE WAS USED TO VERIFY THE BARRELS WITH THE MINIMUM AND MAXIMUM EXTREME SPREAD, FROM THE OFF HAND BENCH REST SHOOTING.

5 Aug 1987

FILE:/PATTERNING/CENTERFIRE_PATT/XP10035

CENTERFIRE PATTERNS

1

POA

1 in circle

2 in circle

3 in circle

OF SHOTS- 5

IN CIR

1 in = 0

2 in = 2

3 in = 4

HS= 2.537

VS= 2.362

GS= 2.971

CENTROID *

2.367
2.421

Avg = 2.494

PATTERN #

1

SHOTS (BEST OF)

5

4

3

MAXIMUM X

1.077

.712

.298

MINIMUM X

-1.460

-.821

-.584

MAXIMUM Y

1.336

1.466

1.167

MINIMUM Y

-1.026

-.896

-.600

CENTROID X

.224

.589

.352

CENTROID Y

-.238

-.368

-.069

POA TO CENTROID in.

.327

.694

.358

MIN RADIUS

.597

.305

.664

MEAN RADIUS

1.128

.945

.894

MAX RADIUS

1.550

1.467

1.205

HORIZONTAL SPREAD

2.537

1.533

.882

VERTICAL SPREAD

2.362

2.362

1.767

EXTREME SPREAD

2.971

2.450

1.945

NUMBER IN ONE INCH CIRCLE =

0

NUMBER IN TWO INCH CIRCLE =

2

NUMBER IN THREE INCH CIRCLE =

4

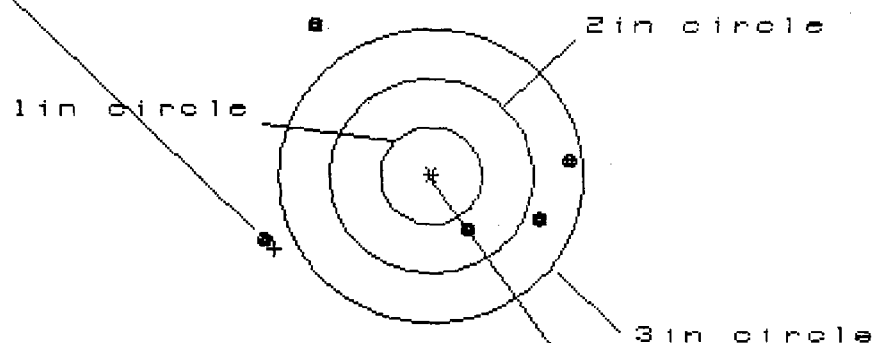
1509r (0284)
~~0550 0584~~2.537
- 350
2.1872.362
- 350
2.0122.971
- 350
2.621

5 Aug 387

FILE:/PATTERNING/CENTERFIRE_PATT/XP10035

CENTERFIRE PATTERNS # 2

POA



OF SHOTS - 5

IN CIR

1 in - 0

2 in - 1

3 in - 3

HS = 2.953

VS = 2.170

GS = 3.073

PATTERN #	2	4	3
SHOTS (BEST OF)	5	4	3
MAXIMUM X	1.329	1.034	.395
MINIMUM X	-1.624	-1.919	-.558
MAXIMUM Y	1.508	.565	.470
MINIMUM Y	-.662	-.285	-.278
CENTROID X	1.541	1.836	2.475
CENTROID Y	.747	.370	.465
POA TO CENTROID in.	1.712	1.873	2.519
MIN RADIUS	.674	.200	.253
MEAN RADIUS	1.376	1.032	.497
MAX RADIUS	1.915	1.940	.624
HORIZONTAL SPREAD	2.953	2.953	.953
VERTICAL SPREAD	2.170	.850	.748
EXTREME SPREAD	3.073	3.073	1.211
NUMBER IN ONE INCH CIRCLE =	0		
NUMBER IN TWO INCH CIRCLE =	1		
NUMBER IN THREE INCH CIRCLE =	3		

2.

200gr
(0284)

5 Aug 1987

FILE:/PATTERNING/CENTERFIRE_PATT/000VER3

CENTERFIRE PATTERNS

#

3

POA

1in circle

2in circle

3in circle

OF SHOTS - 5

IN CIR

1in = 2

2in = 4

3in = 4

HS = 1.984

VS = 1.451

GS = 2.288

CENTROID *

PATTERN #

:

3

1

SHOTS (BEST OF)

:

5

4

3

MAXIMUM X

:

.706

.386

.099

MINIMUM X

:

-1.278

-.310

-.181

MAXIMUM Y

:

.592

.377

.398

MINIMUM Y

:

-.859

-.483

-.462

CENTROID X

:

.062

.382

.253

CENTROID Y

:

.096

.311

.290

POA TO CENTROID in.

:

.115

.492

.384

MIN RADIUS

:

.257

.312

.191

MEAN RADIUS

:

.719

.392

.357

MAX RADIUS

:

1.540

.486

.469

HORIZONTAL SPREAD

:

1.984

.696

.280

VERTICAL SPREAD

:

1.451

.860

.860

EXTREME SPREAD

:

2.288

.860

.860

NUMBER IN ONE INCH CIRCLE =

2

NUMBER IN TWO INCH CIRCLE =

4

NUMBER IN THREE INCH CIRCLE =

4

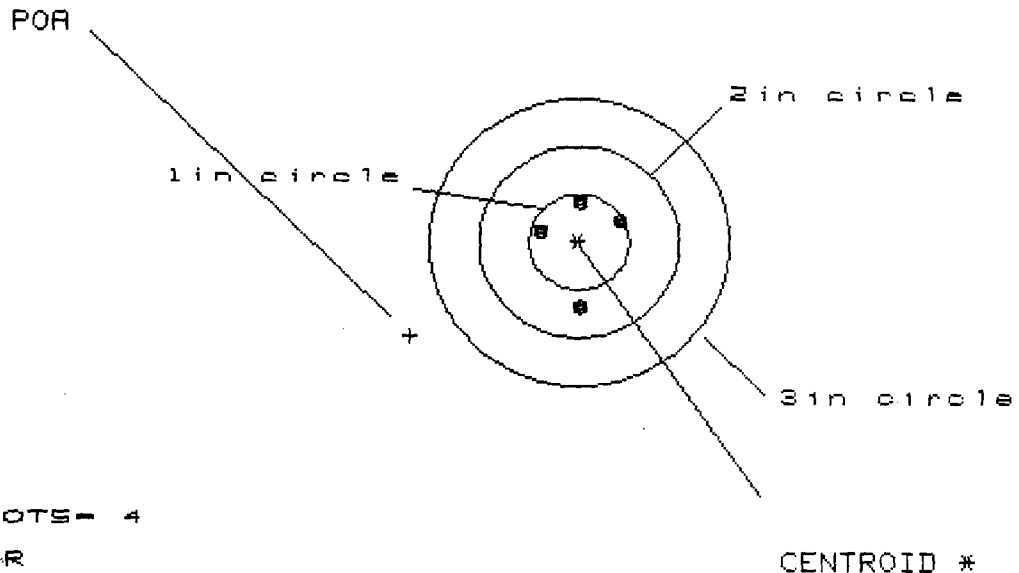
200 gr

0550

5 Aug 1987

FILE:/PATTERNING/CENTERFIRE_PATT/XP10035

CENTERFIRE PATTERNS # 3



OF SHOTS - 4

IN CIR

1 in = 3

2 in = 4

3 in = 4

HS = .789

VS = 1.093

GS = 1.093

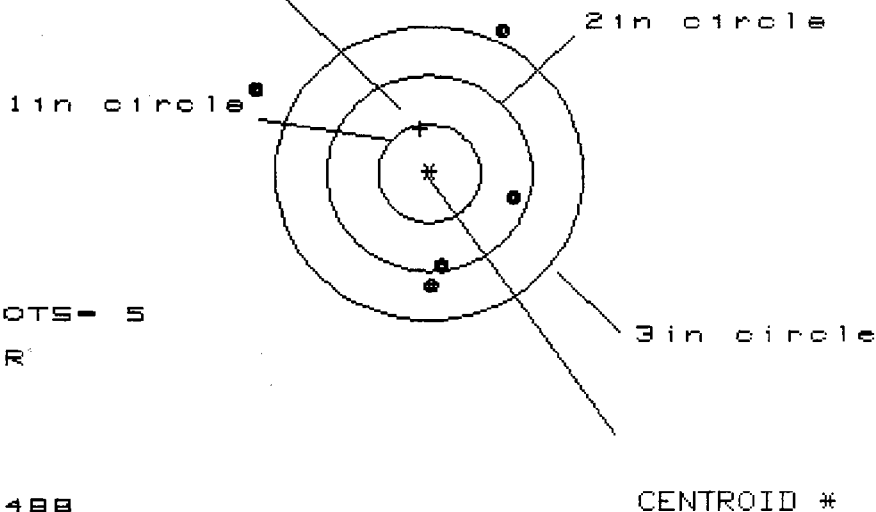
PATTERN #	3	3	2
SHOTS (BEST OF)	4	3	2
MAXIMUM X	.373	.385	.183
MINIMUM X	-.416	-.404	-.183
MAXIMUM Y	.405	.176	.114
MINIMUM Y	-.688	-.124	-.114
CENTROID X	1.687	1.675	1.877
CENTROID Y	.979	1.208	1.270
POA TO CENTROID in.	1.950	2.065	2.266
MIN RADIUS	.405	.177	.216
MEAN RADIUS	.484	.329	.216
MAX RADIUS	.689	.423	.216
HORIZONTAL SPREAD	.789	.789	.366
VERTICAL SPREAD	1.093	.300	.228
EXTREME SPREAD	1.093	.792	.431
NUMBER IN ONE INCH CIRCLE =		3	
NUMBER IN TWO INCH CIRCLE =		4	
NUMBER IN THREE INCH CIRCLE =		4	

5 Aug 1987

FILE:/PATTERNING/CENTERFIRE_PATT/XP10035

CENTERFIRE PATTERNS # 4

POA



OF SHOTS - 5

IN CIR

1in = 0

2in = 2

3in = 3

HS = 2.488

VS = 2.639

GS = 2.717

CENTROID #

PATTERN #	4	3	3
SHOTS (BEST OF)	5	4	3
MAXIMUM X	.806	.386	.472
MINIMUM X	-1.682	-.387	-.301
MAXIMUM Y	1.481	1.690	.535
MINIMUM Y	-1.158	-.949	-.385
CENTROID X	.086	.506	.420
CENTROID Y	-.456	-.665	-1.229
POA TO CENTROID in.	.464	.836	1.299
MIN RADIUS	.841	.387	.227
MEAN RADIUS	1.289	.970	.477
MAX RADIUS	1.878	1.710	.713
HORIZONTAL SPREAD	2.488	.773	.773
VERTICAL SPREAD	2.639	2.639	.920
EXTREME SPREAD	2.717	2.717	1.202
NUMBER IN ONE INCH CIRCLE =	0		
NUMBER IN TWO INCH CIRCLE =	2		
NUMBER IN THREE INCH CIRCLE =	3		

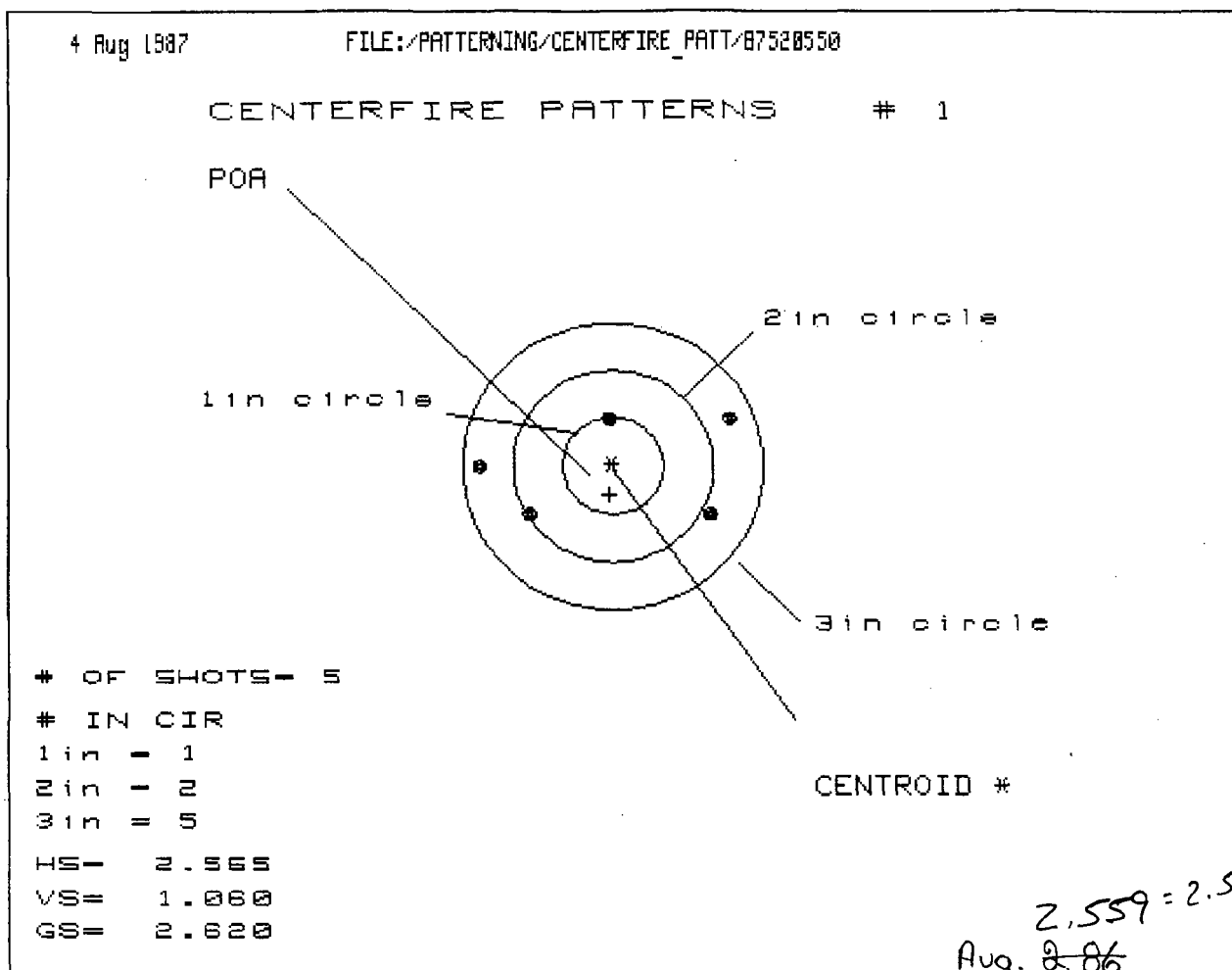
150gr

0550

$$\begin{array}{r} 2.488 \\ - 3.50 \\ \hline 2.138 \end{array}$$

$$\begin{array}{r} 2.639 \\ - 3.50 \\ \hline 2.289 \end{array}$$

$$\begin{array}{r} 2.717 \\ - .750 \\ \hline 2.367 \end{array}$$



PATTERN #	1	2	3
SHOTS (BEST OF)	5	4	3
MAXIMUM X	1.207	.868	.938
MINIMUM X	-1.358	-1.152	-.863
MAXIMUM Y	.530	.529	.673
MINIMUM Y	-.530	-.531	-.355
CENTROID X	.034	.373	.084
CENTROID Y	.301	.302	.126
POA TO CENTROID in.	.303	.480	.151
MIN RADIUS	.498	.617	.678
MEAN RADIUS	1.049	.931	.867
MAX RADIUS	1.358	1.254	1.003
HORIZONTAL SPREAD	2.565	2.020	1.801
VERTICAL SPREAD	1.060	1.060	1.028
EXTREME SPREAD	2.620	2.265	1.801
NUMBER IN ONE INCH CIRCLE =	1		
NUMBER IN TWO INCH CIRCLE =	2		
NUMBER IN THREE INCH CIRCLE =	5		

AUG

HS = 1.57

VS = 1.90

2.620

- 350

2.27

2.565

- 350

2.215

1.066

- 350

.710

4 Aug 1987

FILE:/PATTERNING/CENTERFIRE_PATT/B7520550

CENTERFIRE PATTERNS # 2

POA

1 in circle

2 in circle

3 in circle

OF SHOTS - 5

IN CIR

1 in - 1

2 in - 1

3 in - 5

HS - 2.026

VS - 1.904

GS - 2.399

CENTROID *

PATTERN #	2	4	3
SHOTS (BEST OF)	5	4	3
MAXIMUM X	1.125	.565	.529
MINIMUM X	-.901	-.619	-.431
MAXIMUM Y	.883	1.095	.826
MINIMUM Y	-1.021	-.809	-.494
CENTROID X	.033	-.249	-.437
CENTROID Y	.040	-.172	.097
POA TO CENTROID in.	.052	.302	.447
MIN RADIUS	.280	.346	.624
MEAN RADIUS	.960	.781	.704
MAX RADIUS	1.409	1.132	.831
HORIZONTAL SPREAD	2.026	1.184	.960
VERTICAL SPREAD	1.904	1.904	1.320
EXTREME SPREAD	2.399	2.085	1.362
NUMBER IN ONE INCH CIRCLE =	1	1	1
NUMBER IN TWO INCH CIRCLE =	1	1	1
NUMBER IN THREE INCH CIRCLE =	5	5	5

1.409
3.50
1.059

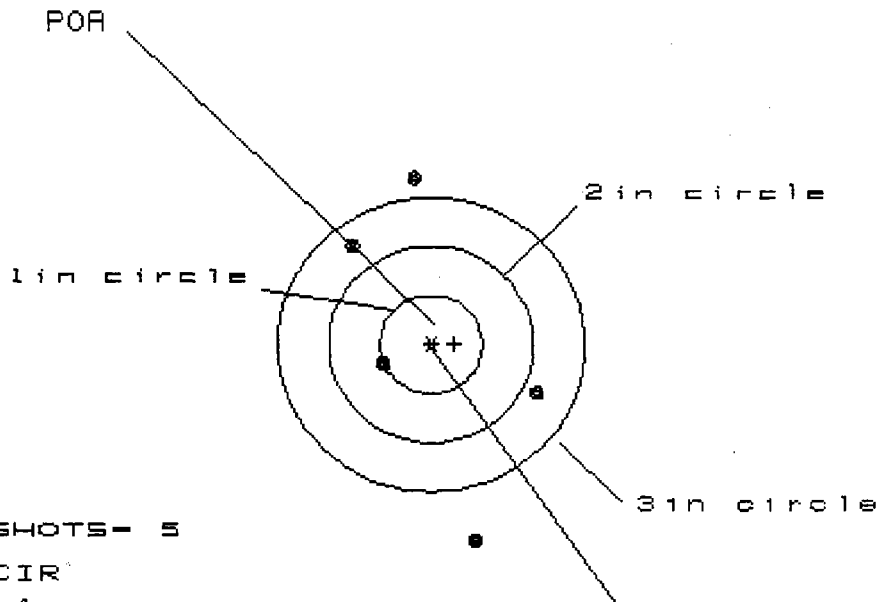
2.026
1.350
1.676

2.399
.250
2.049

4 Aug 1987

FILE:/PATTERNING/CENTERFIRE_PATT/B7520550

CENTERFIRE PATTERNS # 3



OF SHOTS- 5

IN CIR

1 in = 1

2 in = 1

3 in = 3

HS= 1.786

VS= 3.674

GS= 3.710

PATTERN #	3	4	3
SHOTS (BEST OF)	5	4	3
MAXIMUM X	.980	1.078	1.069
MINIMUM X	-.806	-.709	-.717
MAXIMUM Y	1.676	1.177	.884
MINIMUM Y	-1.998	-.945	-.553
CENTROID X	-.228	-.326	-.317
CENTROID Y	-.005	.494	.102
POA TO CENTROID in.	.228	.592	.333
MIN RADIUS	.494	.801	.483
MEAN RADIUS	1.313	1.068	.942
MAX RADIUS	2.035	1.433	1.203
HORIZONTAL SPREAD	1.786	1.786	1.786
VERTICAL SPREAD	3.674	2.122	1.437
EXTREME SPREAD	3.710	2.392	2.292
NUMBER IN ONE INCH CIRCLE =	1	1	1
NUMBER IN TWO INCH CIRCLE =	1	1	1
NUMBER IN THREE INCH CIRCLE =	3	3	3

3.710
 .350
 3.360

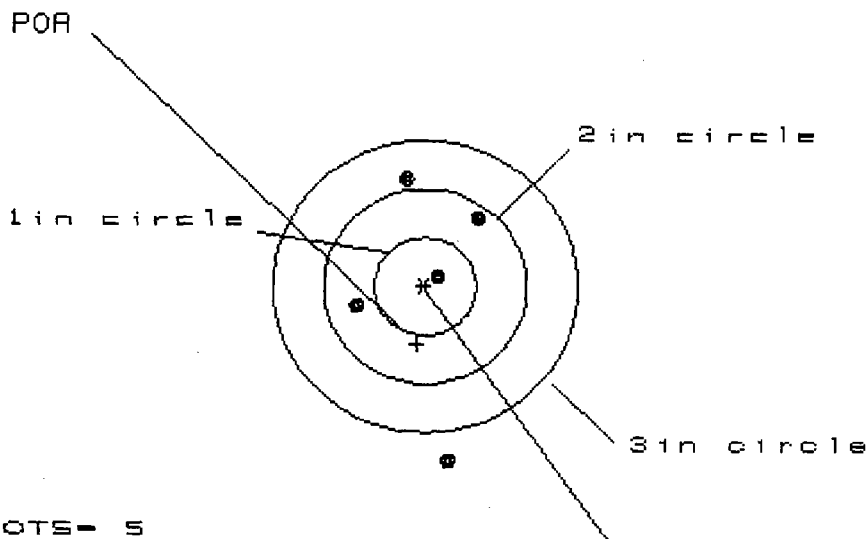
1.786
 350
 1.436

3.674
 350
 3.324

4 Aug 1987

FILE:/PATTERNING/CENTERFIRE_PATT/B7520239

CENTERFIRE PATTERNS # 1



OF SHOTS- 5

IN CIR

1in = 1

2in = 3

3in = 4

HS- 1.175

VS- 2.939

GS- 2.972

CENTROID *

2.937 = 2.94

Aug. 3.26

35 Rem.

PATTERN #	1	2	3
SHOTS (BEST OF)	5	4	3
MAXIMUM X	.525	.587	.542
MINIMUM X	-.650	-.588	-.633
MAXIMUM Y	1.115	.659	.482
MINIMUM Y	-1.824	-.621	-.402
CENTROID X	.079	.017	.062
CENTROID Y	.592	1.048	.829
POA TO CENTROID in.	.598	1.049	.831
MIN RADIUS	.173	.329	.121
MEAN RADIUS	.941	.625	.532
MAX RADIUS	1.841	.856	.750
HORIZONTAL SPREAD	1.175	1.175	1.175
VERTICAL SPREAD	2.939	1.280	.884
EXTREME SPREAD	2.972	1.470	1.470
NUMBER IN ONE INCH CIRCLE	= 1		
NUMBER IN TWO INCH CIRCLE	= 3		
NUMBER IN THREE INCH CIRCLE	= 4		

AUG
 HS = 2.25
 VS = 1.59

2.972
 - .350
 2.522

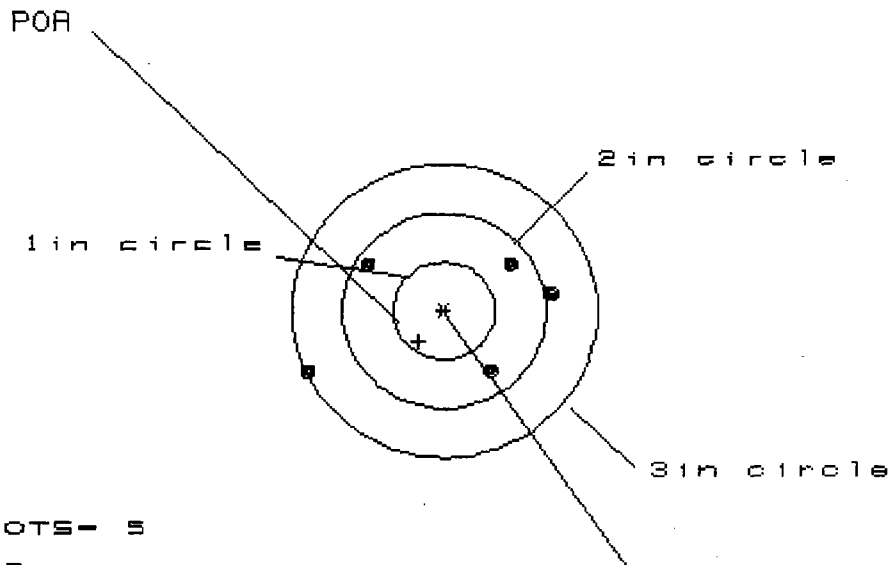
1.175
 - .350
 0.825

2.939
 - .350
 2.589

4 Aug 1987

FILE:/PATTERNING/CENTERFIRE_PATT/87520239

CENTERFIRE PATTERNS # 2



OF SHOTS- 5

IN CIR

1 in = 0

2 in = 3

3 in = 4

HS- 2.409

VS- 1.141

GS- 2.553

PATTERN #	2	4	3
SHOTS (BEST OF)	5	4	3
MAXIMUM X	1.041	.700	.518
MINIMUM X	-1.368	-1.071	-.838
MAXIMUM Y	.515	.359	.379
MINIMUM Y	-.626	-.727	-.707
CENTROID X	.249	.591	.357
CENTROID Y	.318	.474	.454
POA TO CENTROID in.	.404	.758	.577
MIN RADIUS	.714	.458	.642
MEAN RADIUS	.992	.752	.773
MAX RADIUS	1.504	1.114	.900
HORIZONTAL SPREAD	2.409	1.771	1.356
VERTICAL SPREAD	1.141	1.086	1.086
EXTREME SPREAD	2.553	1.788	1.553
NUMBER IN ONE INCH CIRCLE =	0		
NUMBER IN TWO INCH CIRCLE =	3		
NUMBER IN THREE INCH CIRCLE =	4		

2.409
- .350
2.059

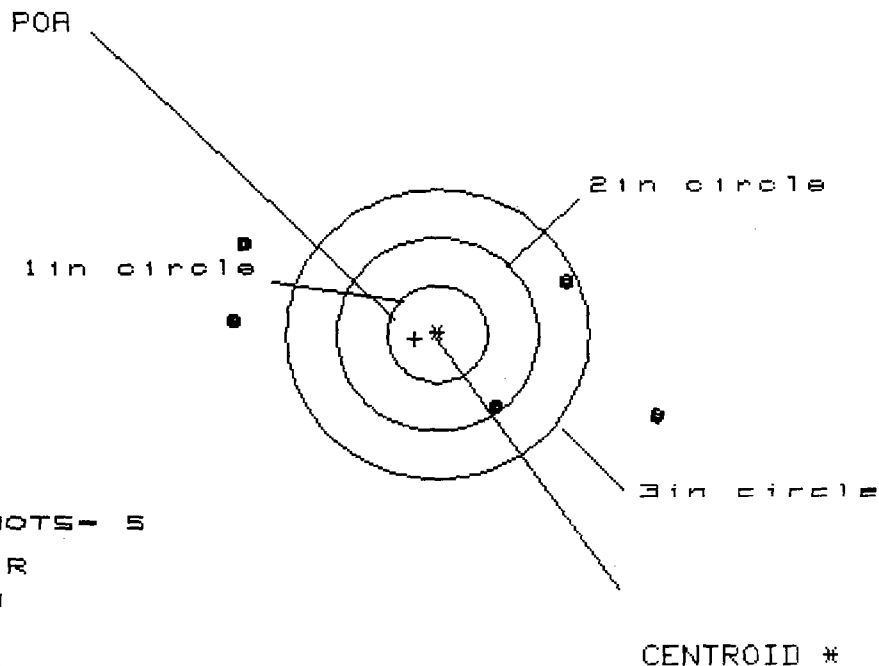
1.141
- .350
.791

2.553
- .350
2.203

4 Aug 1987

FILE:/PATTERNING/CENTERFIRE_PATT/87520239

CENTERFIRE PATTERNS # 3



OF SHOTS- 5

IN CIR

1 in = 0

2 in = 1

3 in = 2

HS = 4.211

VS = 1.734

GS = 4.437

Aug. 3.26

PATTERN #	3	3	3
SHOTS (BEST OF)	5	4	3
MAXIMUM X	2.164	1.813	1.353
MINIMUM X	-2.047	-1.506	-1.965
MAXIMUM Y	.914	.709	.557
MINIMUM Y	-.820	-.938	-.702
CENTROID X	.222	-.319	.140
CENTROID Y	.052	.257	.021
POA TO CENTROID in.	.228	.410	.142
MIN RADIUS	.905	1.424	.931
MEAN RADIUS	1.754	1.581	1.455
MAX RADIUS	2.315	1.841	1.970
HORIZONTAL SPREAD	4.211	3.318	3.318
VERTICAL SPREAD	1.734	1.647	1.259
EXTREME SPREAD	4.437	3.343	3.343
NUMBER IN ONE INCH CIRCLE =	0		
NUMBER IN TWO INCH CIRCLE =	1		
NUMBER IN THREE INCH CIRCLE =	2		

4.437
 .350
 4.087

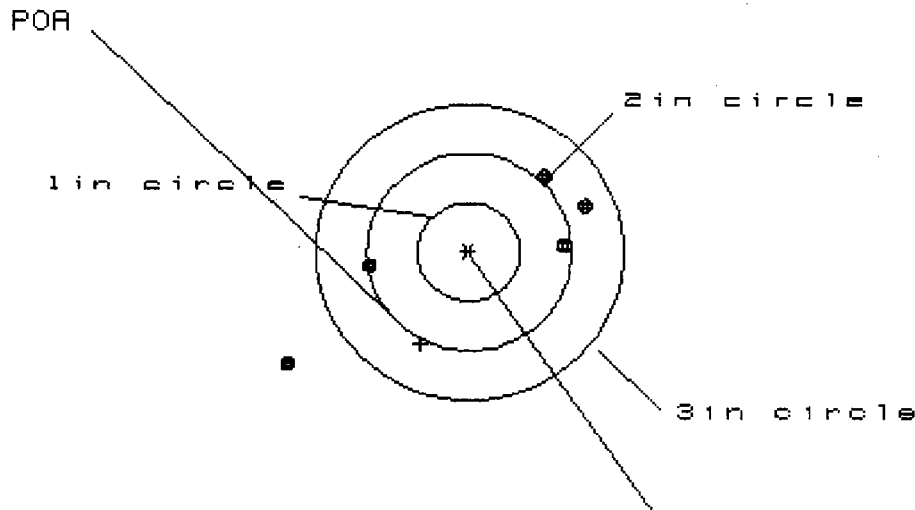
4.211
 - .350
 3.861

1.734
 .350
 1.384

4 Aug 1987

FILE:/PATTERNING/CENTERFIRE_PATT/B75202B4

CENTERFIRE PATTERNS # 1



OF SHOTS- 5

IN CIR

1 in = 0

2 in = 1

3 in = 4

HS- 2.939

VS- 1.976

GS- 3.345

CENTROID *

2.904 = 2.90

Aug 3.2
35 Rem.

PATTERN #	1	4	3
SHOTS (BEST OF)	5	4	3
MAXIMUM X	1.146	.698	.701
MINIMUM X	-1.793	-1.444	-1.211
MAXIMUM Y	.804	.511	.555
MINIMUM Y	-1.172	-.459	-.415
CENTROID X	.471	.919	.686
CENTROID Y	.933	1.226	1.182
POA TO CENTROID in.	1.045	1.532	1.367
MIN RADIUS	.923	.503	.715
MEAN RADIUS	1.276	.828	.916
MAX RADIUS	2.142	1.515	1.280
HORIZONTAL SPREAD	2.939	2.142	1.912
VERTICAL SPREAD	1.976	.970	.970
EXTREME SPREAD	3.345	2.222	1.976
NUMBER IN ONE INCH CIRCLE =	0	0	0
NUMBER IN TWO INCH CIRCLE =	1	1	1
NUMBER IN THREE INCH CIRCLE =	4	4	4

AUG
HS = 2.76
VS = 1.33
$$\begin{array}{r} 3.345 \\ - 350 \\ \hline 2.995 \end{array}$$

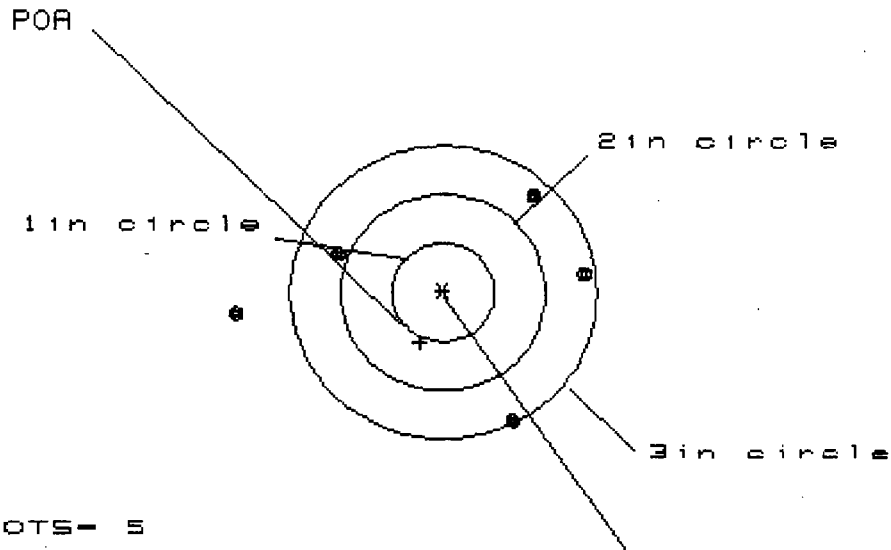
$$\begin{array}{r} 2.739 \\ - 350 \\ \hline 2.589 \end{array}$$

$$\begin{array}{r} 1.976 \\ - 350 \\ \hline 1.626 \end{array}$$

4 Aug 1987

FILE:/PATTERNING/CENTERFIRE_PATT/B75202B4

CENTERFIRE PATTERNS # 2



OF SHOTS- 5

IN CIR

1 in = 0

2 in = 0

3 in = 4

HS- 3.312

VS- 2.240

GS- 3.328

PATTERN #	2	4	3
SHOTS (BEST OF)	5	4	3
MAXIMUM X	1.335	.841	.915
MINIMUM X	-1.977	-1.482	-1.408
MAXIMUM Y	.958	.913	.470
MINIMUM Y	-1.282	-1.327	-.341
CENTROID X	.225	.719	.645
CENTROID Y	.510	.555	.998
POA TO CENTROID in.	.557	.908	1.188
MIN RADIUS	1.051	.847	.682
MEAN RADIUS	1.434	1.178	1.024
MAX RADIUS	1.985	1.514	1.414
HORIZONTAL SPREAD	3.312	2.323	2.323
VERTICAL SPREAD	2.240	2.240	.811
EXTREME SPREAD	3.328	2.364	2.333
NUMBER IN ONE INCH CIRCLE =		0	
NUMBER IN TWO INCH CIRCLE =		0	
NUMBER IN THREE INCH CIRCLE =		4	

3.312
- .380
2.962

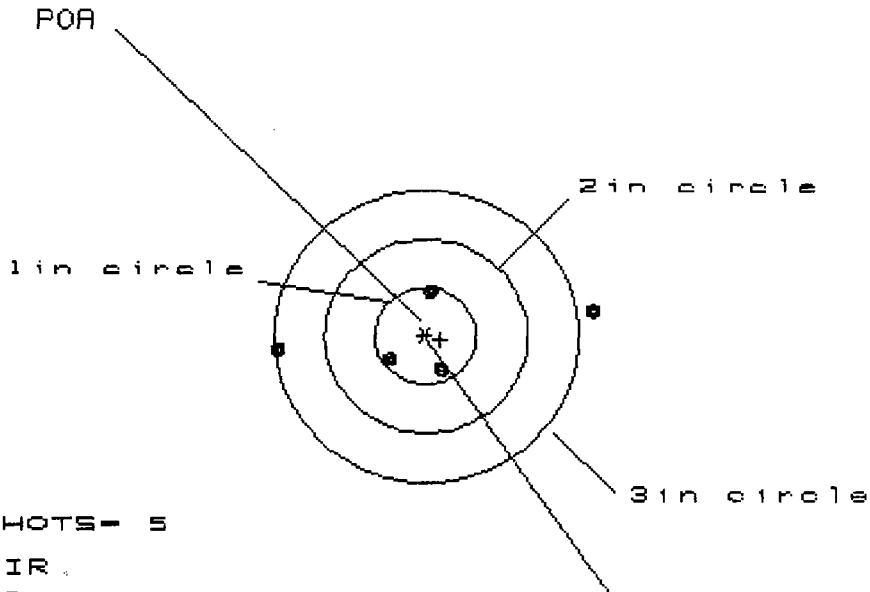
2.240
- .350
1.89

3.328
- .350
2.978

4 Aug 1987

FILE:/PATTERNING/CENTERFIRE_PATT/87520284

CENTERFIRE PATTERNS # 3



OF SHOTS- 5

IN CIR.

1 in - 3

2 in - 3

3 in = 4

HS- 3.065

VS= .812

GS= 3.090

PATTERN #	3	5	4	3
SHOTS (BEST OF)	5	4	3	
MAXIMUM X	1.599	.586	.231	
MINIMUM X	-1.466	-1.066	-.354	
MAXIMUM Y	.432	.501	.485	
MINIMUM Y	-.380	-.311	-.327	
CENTROID X	-.145	-.545	-.190	
CENTROID Y	.038	-.031	-.015	
POA TO CENTROID in.	.150	.546	.191	
MIN RADIUS	.423	.141	.387	
MEAN RADIUS	.881	.641	.429	
MAX RADIUS	1.623	1.067	.500	
HORIZONTAL SPREAD	3.065	1.652	.585	
VERTICAL SPREAD	.812	.812	.812	
EXTREME SPREAD	3.090	1.673	.819	
NUMBER IN ONE INCH CIRCLE =	3	3	4	
NUMBER IN TWO INCH CIRCLE =	3	3	4	
NUMBER IN THREE INCH CIRCLE =	3	3	4	

3.090
 .350

 2.740

3.065
 .350

 2.715

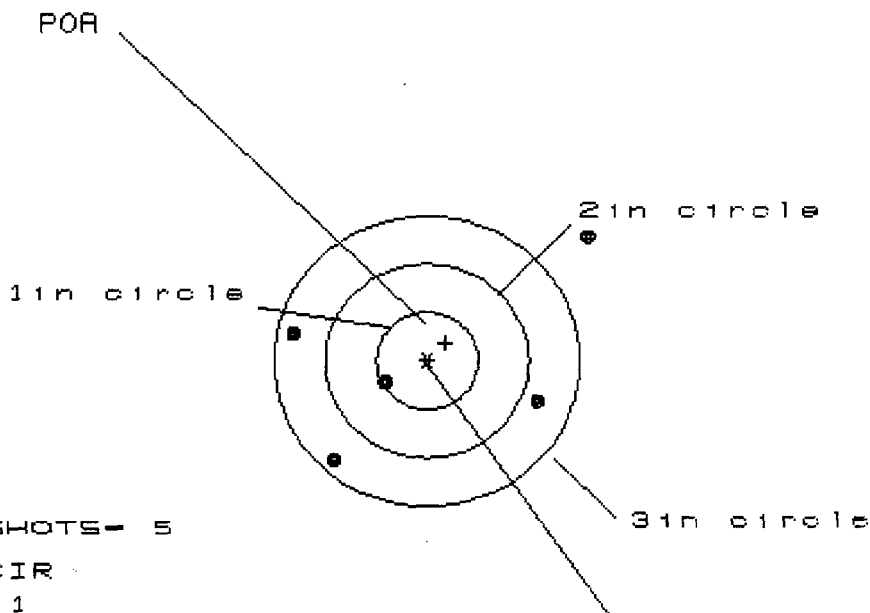
.812
 .350

 .462

4 Aug 1987

FILE:/PATTERNING/CENTERFIRE_PATT/B7520092

CENTERFIRE PATTERNS # 1



OF SHOTS - 5

IN CIR

1in = 1

2in = 1

3in = 4

HS = 2.843

VS = 2.349

GS = 3.417

CENTROID *

2.858 = 2.86

Aug. 8/6
35 Rem.

PATTERN #	1	2	3
SHOTS (BEST OF)	5	4	3
MAXIMUM X	1.593	1.504	1.187
MINIMUM X	-1.350	-.952	-.807
MAXIMUM Y	1.332	.664	.368
MINIMUM Y	-1.017	-.684	-.462
CENTROID X	-.182	-.580	-.263
CENTROID Y	-.183	-.516	-.738
POA TO CENTROID n.	.258	.776	.783
MIN RADIUS	.497	.159	.528
MEAN RADIUS	1.302	.918	.883
MAX RADIUS	2.076	1.509	1.190
HORIZONTAL SPREAD	2.943	2.456	1.994
VERTICAL SPREAD	2.349	1.348	.830
EXTREME SPREAD	3.417	2.580	2.070
NUMBER IN ONE INCH CIR	= 1		
NUMBER IN TWO INCH CIR	= 1		
NUMBER IN THREE INCH CIR	= 4		

Aug
HS = 2.36
VS = 2.17

3.417
- 350
3.067

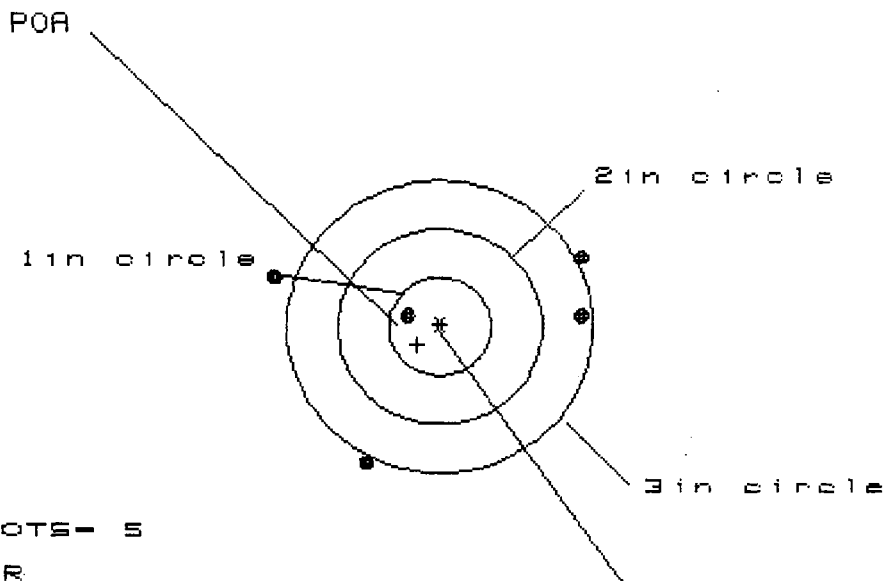
2.943
- 350
2.593

2.349
- 350
1.999

4 Aug 1987

FILE:/PATTERNING/CENTERFIRE_PATT/B7520092

CENTERFIRE PATTERNS # 2



OF SHOTS- 5

IN CIR

1in = 1

2in = 1

3in = 2

HE= 3.044

VS= 2.098

GS= 3.051

PATTERN #	2	4	3
SHOTS (BEST OF)	5	4	3
MAXIMUM X	1.377	.961	.588
MINIMUM X	-1.667	-1.118	-1.156
MAXIMUM Y	.688	.814	.386
MINIMUM Y	-1.410	-1.284	-.204
CENTROID X	.219	.636	1.008
CENTROID Y	.189	.063	.491
POA TO CENTROID in.	.289	.639	1.121
MIN RADIUS	.386	.821	.604
MEAN RADIUS	1.321	1.187	.826
MAX RADIUS	1.742	1.702	1.170
HORIZONTAL SPREAD	3.044	2.078	1.744
VERTICAL SPREAD	2.098	2.098	.590
EXTREME SPREAD	3.051	2.953	1.834
NUMBER IN ONE INCH CIRCLE	= 1		
NUMBER IN TWO INCH CIRCLE	= 1		
NUMBER IN THREE INCH CIRCLE	= 2		

$$\begin{array}{r} 3.044 \\ - .350 \\ \hline 2.694 \end{array}$$

$$\begin{array}{r} 2.098 \\ - .350 \\ \hline 1.748 \end{array}$$

$$\begin{array}{r} 3.051 \\ - .350 \\ \hline 2.701 \end{array}$$

4 Aug 1987

FILE:/PATTERNING/CENTERFIRE_PATT/87520092

CENTERFIRE PATTERNS # 3

POA

1 in circle

2 in circle

3 in circle

OF SHOTS - 5

IN CIR

1 in = 0

2 in = 1

3 in = 3

HS = 2.148

VS = 3.121

GS = 3.156

CENTROID *

PATTERN #	3	4	3
SHOTS (BEST OF)	5	4	3
MAXIMUM X	.884	.911	.797
MINIMUM X	-1.264	-1.237	-1.351
MAXIMUM Y	1.461	1.046	.530
MINIMUM Y	-1.660	-1.145	-.797
CENTROID X	-.021	-.048	.066
CENTROID Y	.002	.418	.069
POA TO CENTROID in.	.022	.420	.095
MIN RADIUS	.971	.929	.957
MEAN RADIUS	1.303	1.148	1.101
MAX RADIUS	1.664	1.325	1.377
HORIZONTAL SPREAD	2.148	2.148	2.148
VERTICAL SPREAD	3.121	2.191	1.327
EXTREME SPREAD	3.156	2.411	2.181
NUMBER IN ONE INCH CIRCLE	= 0		
NUMBER IN TWO INCH CIRCLE	= 1		
NUMBER IN THREE INCH CIRCLE	= 3		

3.156
 .350
 2.806

2.148
 .350
 1.798

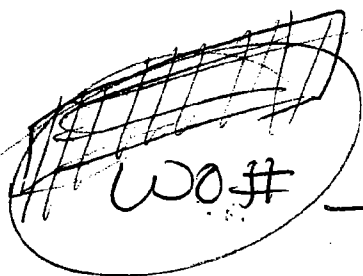
3.121
 .350
 2.771

7 guns 87451 WO #
 Serial # B7520239
 B7520092
 " 0550
 " 0284

150gr P. Soft Point Core Loke R3501
 Code # E27 C6005L

12 x redfield
 weaver base & mount (rings)

100 yards - C. Stephens



81411

111411 - 001800

DS Anderson

XP 100

6 files to Stan.

16 XP 100

788