

C6498763

(START DATE)  
6/21/87

MODEL 700<sup>TM</sup> M24

Model **SMS** <sup>TM</sup>

Action

Barrel Length

Capacity

Order No. **5715**

\*Includes 1 in chamber.



# Arms Services Repair & Estimate System

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

## Repair Inquiry

Repair Number: **RE00111988**

Serial: C6498763 Model: M24 SWS Center Fire  
Caliber: 7.62 NATO

Repairman:

Status: Closed 5/9/2006 9:42:13 AM

Verify Repair

### Address Information

|                                                          |                                  |                                                |                                  |
|----------------------------------------------------------|----------------------------------|------------------------------------------------|----------------------------------|
| Customer: <input checked="" type="radio"/> Received From |                                  | Return To: <input type="radio"/> Received From |                                  |
| Name:                                                    | E WING SENSITIVE ITEMS WAREHOUSE |                                                | E WING SENSITIVE ITEMS WAREHOUSE |
| Address 1:                                               | B 7920 APENNINES ROAD            |                                                | B 7920 APENNINES ROAD            |
| Address 2:                                               | PO Box:                          |                                                | PO Box:                          |
| City:                                                    | FORT RILEY                       |                                                | FORT RILEY                       |
| State:                                                   | KS                               | Zip Code:                                      | 66442                            |
| Country:                                                 | US                               | State:                                         | KS                               |
| Zip Code:                                                | 66442                            | Country:                                       | US                               |

FFL: ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

### Contact / Condition

### Problems

### Estimate

### History / Status

### Shipping / Billing

#### Contact Information

Phone: 785 239 9080

Fax:

Email:

Comments:

#### Received Condition

Fair

Condition Notes:

CSR Notes:

#### Accessories Received

| Code | Desc        | Qty |
|------|-------------|-----|
| A007 | With Stud   | 3   |
| A009 | Soft Case   | 1   |
| A016 | Scope Rings | 2   |
| A017 | Scope Base  | 1   |

### Repair Search

### Refresh

### Close

nagletj

5/9/2006

9:54 AM

CAPS

NUM

INS

SCRL

start

3 Micr...

Part Se...

SAP Lo...

3 Micr...

2 Inte...

Arms S...

9:54 AM

Serial Number: **C6498763**

Model: **M24 SWS**



**RE00111988**

SNIPER WEAPON SYSTEM - UNIQUE STATISTICAL INFORMATION

FIREARM SERIAL NUMBER / DATASET NAME: C6498763.\_\_\_0  
FILE DATE AND TIME: 05/18/2006 16:18

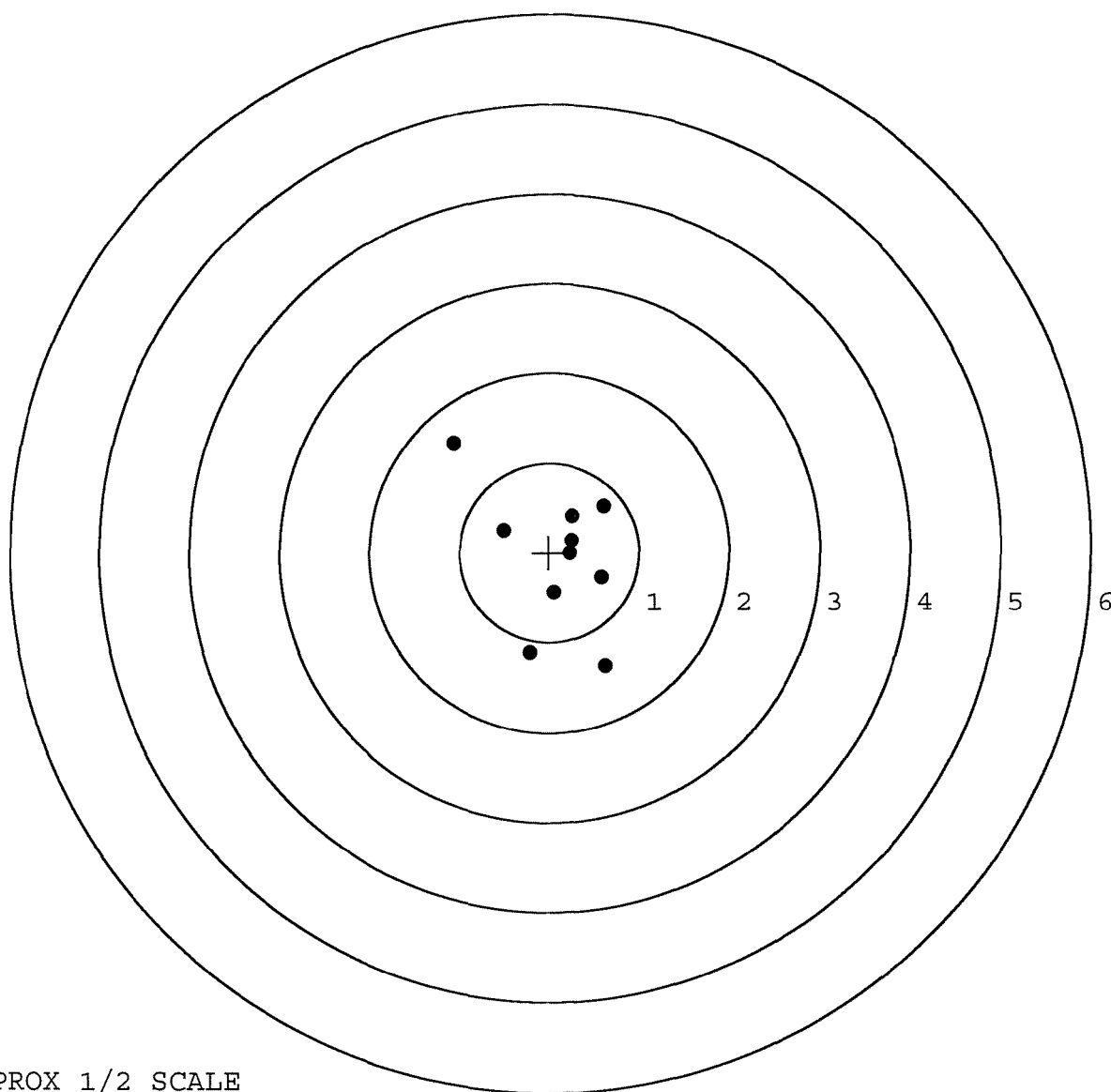
THE FOLLOWING DATA IS ALL REPORTED IN UNITS OF INCHES

|                                                             |        |
|-------------------------------------------------------------|--------|
| The Average X Centroid of the Five Target Set:              | -0.011 |
| The Average Y Centroid of the Five Target Set:              | -0.056 |
| The Average Point of Impact of the Five Target Set:         | 0.057  |
| The Average Mean Radius of the Five Target Set:             | 0.600  |
| The Distance from POA to Centroid Target #1:                | 0.104  |
| The Distance from Centroid Target #2 to Centroid Target #1: | 0.073  |
| The Distance from Centroid Target #3 to Centroid Target #1: | 0.130  |
| The Distance from Centroid Target #4 to Centroid Target #1: | 0.233  |
| The Distance from Centroid Target #5 to Centroid Target #1: | 0.291  |

SERIAL NUMBER: C6498763.\_\_\_\_0  
TARGET NUMBER: 1  
FILE DATE: 05/18/2006  
FILE TIME: 16:18

X CENTROID: 0.084  
Y CENTROID: -0.062  
POA TO CENTROID: 0.104  
HORZ SPREAD: 1.715  
VERT SPREAD: 2.478  
GROUP SPREAD: 3.014  
MIN RADIUS: 0.162  
MAX RADIUS: 1.726  
MEAN RADIUS: 0.746  
# IN 1 IN DIAMETER: 4  
# IN 2 IN DIAMETER: 7  
# in 3 IN DIAMETER: 9

| POINT# | X      | Y      |
|--------|--------|--------|
| 1:     | -1.080 | 1.212  |
| 2:     | -0.511 | 0.244  |
| 3:     | 0.055  | -0.450 |
| 4:     | 0.590  | -0.275 |
| 5:     | 0.237  | -0.007 |
| 6:     | 0.259  | 0.401  |
| 7:     | 0.613  | 0.517  |
| 8:     | -0.214 | -1.123 |
| 9:     | 0.635  | -1.266 |
| 10:    | 0.257  | 0.129  |

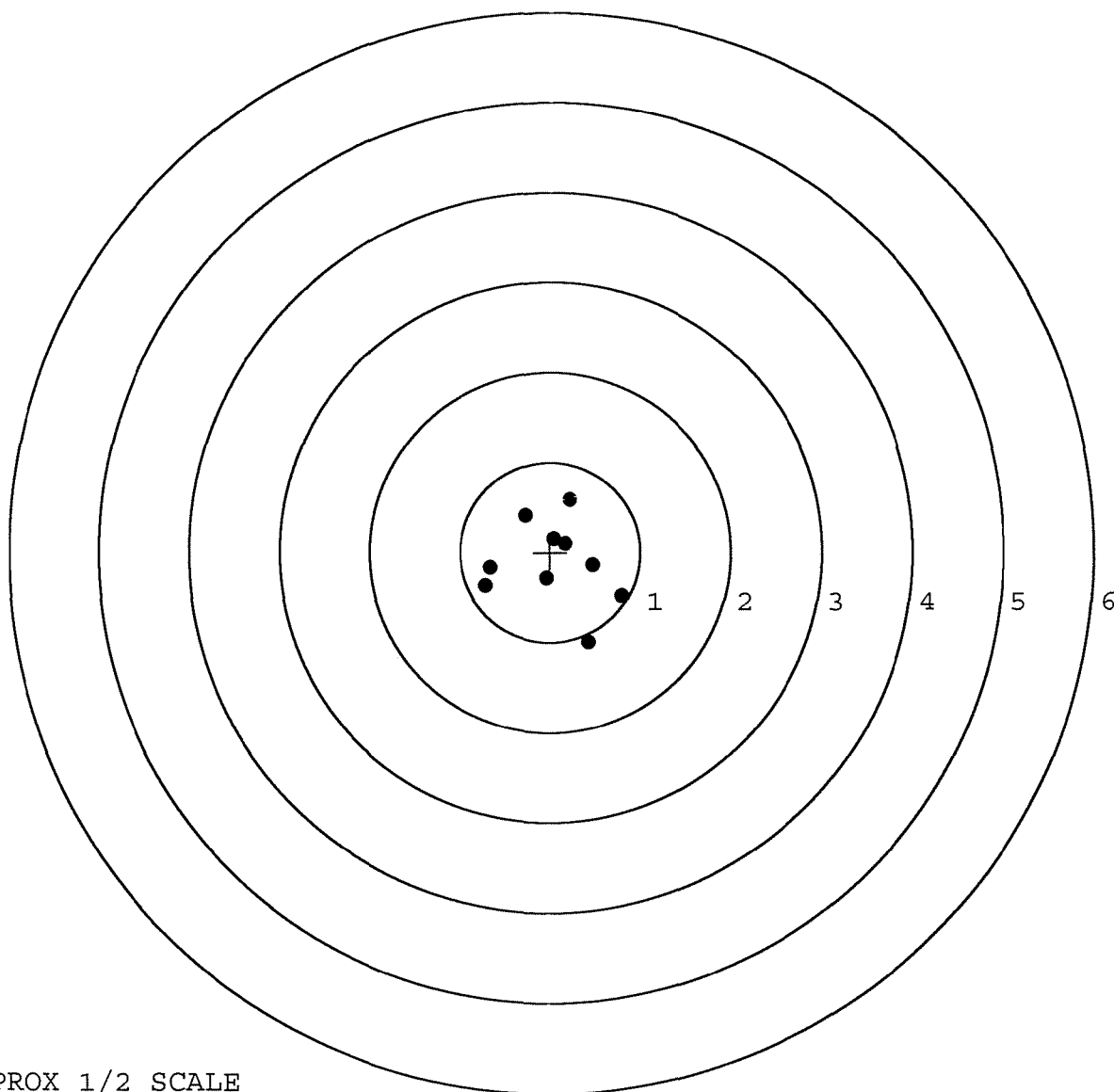


TARGET APPROX 1/2 SCALE

SERIAL NUMBER: C6498763. \_\_0  
TARGET NUMBER: 2  
FILE DATE: 05/18/2006  
FILE TIME: 16:18

X CENTROID: 0.044  
Y CENTROID: -0.123  
POA TO CENTROID: 0.130  
HORZ SPREAD: 1.519  
VERT SPREAD: 1.583  
GROUP SPREAD: 1.597  
MIN RADIUS: 0.188  
MAX RADIUS: 0.962  
MEAN RADIUS: 0.582  
# IN 1 IN DIAMETER: 4  
# IN 2 IN DIAMETER: 10  
# in 3 IN DIAMETER: 10

| POINT# | X      | Y      |
|--------|--------|--------|
| 1:     | -0.275 | 0.412  |
| 2:     | 0.223  | 0.582  |
| 3:     | -0.670 | -0.174 |
| 4:     | -0.722 | -0.377 |
| 5:     | -0.045 | -0.289 |
| 6:     | 0.173  | 0.099  |
| 7:     | 0.475  | -0.144 |
| 8:     | 0.797  | -0.483 |
| 9:     | 0.437  | -1.001 |
| 10:    | 0.043  | 0.148  |

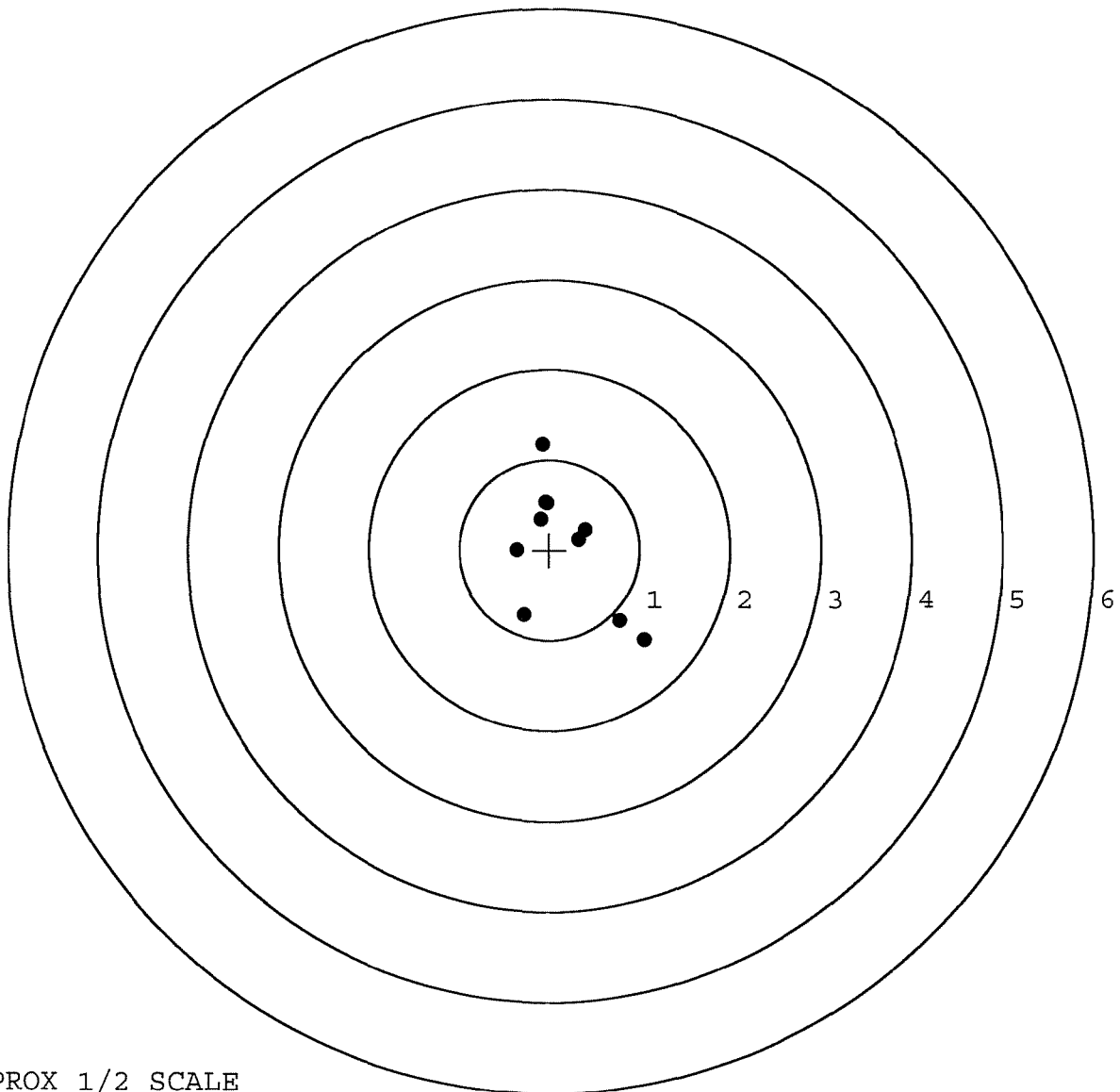


TARGET APPROX 1/2 SCALE

SERIAL NUMBER: C6498763. 0  
TARGET NUMBER: 3  
FILE DATE: 05/18/2006  
FILE TIME: 16:18

X CENTROID: 0.169  
Y CENTROID: 0.036  
POA TO CENTROID: 0.173  
HORZ SPREAD: 1.420  
VERT SPREAD: 2.172  
GROUP SPREAD: 2.450  
MIN RADIUS: 0.178  
MAX RADIUS: 1.363  
MEAN RADIUS: 0.690  
# IN 1 IN DIAMETER: 3  
# IN 2 IN DIAMETER: 7  
# in 3 IN DIAMETER: 10

| POINT# | X      | Y      |
|--------|--------|--------|
| 1:     | -0.078 | 1.172  |
| 2:     | -0.041 | 0.524  |
| 3:     | -0.098 | 0.335  |
| 4:     | -0.365 | -0.013 |
| 5:     | 0.328  | 0.117  |
| 6:     | 0.401  | 0.221  |
| 7:     | -0.274 | -0.724 |
| 8:     | 0.792  | -0.787 |
| 9:     | 1.055  | -1.000 |
| 10:    | -0.029 | 0.515  |

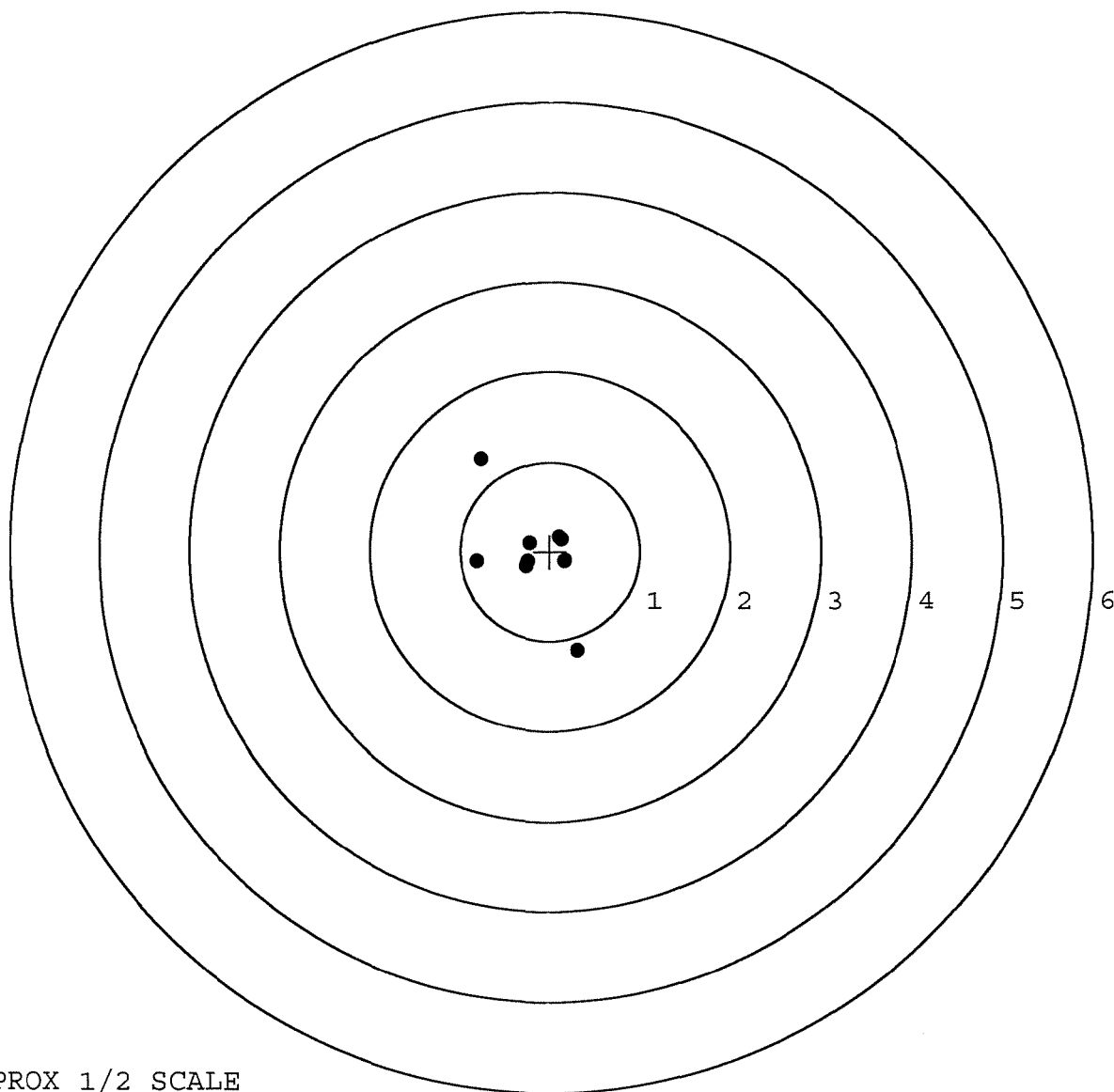


TARGET APPROX 1/2 SCALE

SERIAL NUMBER: C6498763. \_\_0  
TARGET NUMBER: 4  
FILE DATE: 05/18/2006  
FILE TIME: 16:18

X CENTROID: -0.146  
Y CENTROID: -0.027  
POA TO CENTROID: 0.149  
HORZ SPREAD: 1.133  
VERT SPREAD: 2.143  
GROUP SPREAD: 2.400  
MIN RADIUS: 0.133  
MAX RADIUS: 1.228  
MEAN RADIUS: 0.482  
# IN 1 IN DIAMETER: 7  
# IN 2 IN DIAMETER: 8  
# in 3 IN DIAMETER: 10

| POINT# | X      | Y      |
|--------|--------|--------|
| 1:     | -0.767 | 1.033  |
| 2:     | -0.819 | -0.115 |
| 3:     | 0.314  | -1.110 |
| 4:     | -0.253 | -0.107 |
| 5:     | 0.164  | -0.109 |
| 6:     | 0.127  | 0.137  |
| 7:     | -0.227 | 0.096  |
| 8:     | -0.271 | -0.161 |
| 9:     | 0.167  | -0.101 |
| 10:    | 0.101  | 0.165  |

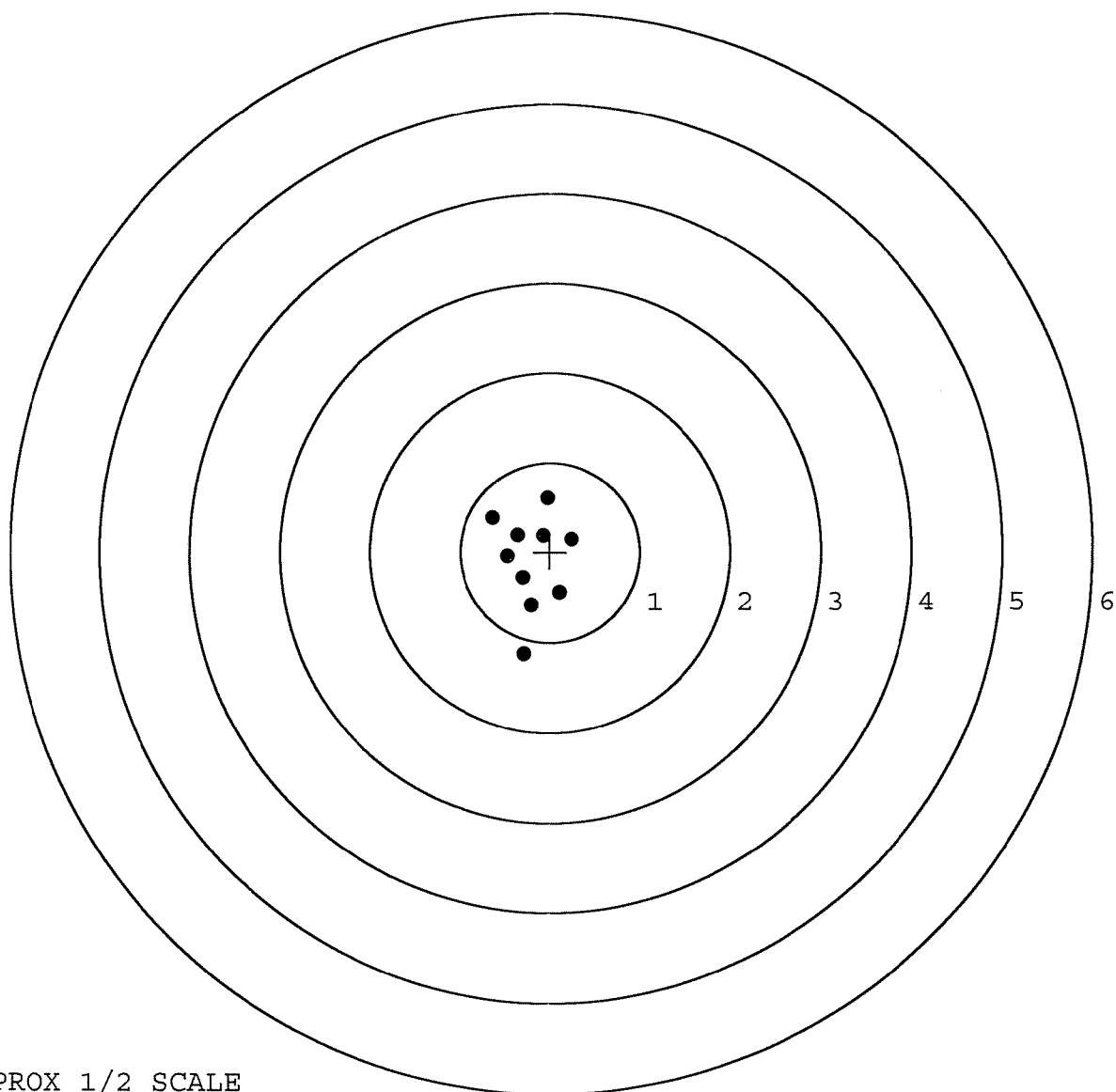


TARGET APPROX 1/2 SCALE

SERIAL NUMBER: C6498763.\_\_\_0  
TARGET NUMBER: 5  
FILE DATE: 05/18/2006  
FILE TIME: 16:18

X CENTROID: -0.204  
Y CENTROID: -0.102  
POA TO CENTROID: 0.228  
HORZ SPREAD: 0.886  
VERT SPREAD: 1.729  
GROUP SPREAD: 1.749  
MIN RADIUS: 0.213  
MAX RADIUS: 1.029  
MEAN RADIUS: 0.501  
# IN 1 IN DIAMETER: 6  
# IN 2 IN DIAMETER: 9  
# in 3 IN DIAMETER: 10

| POINT# | X      | Y      |
|--------|--------|--------|
| 1:     | -0.027 | 0.602  |
| 2:     | -0.642 | 0.382  |
| 3:     | -0.288 | -1.127 |
| 4:     | -0.210 | -0.596 |
| 5:     | 0.108  | -0.454 |
| 6:     | 0.244  | 0.140  |
| 7:     | -0.078 | 0.180  |
| 8:     | -0.365 | 0.190  |
| 9:     | -0.476 | -0.047 |
| 10:    | -0.306 | -0.289 |



TARGET APPROX 1/2 SCALE

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

| R & E NUMBER  | 111988               |                                           |                   |         |
|---------------|----------------------|-------------------------------------------|-------------------|---------|
| SERIAL NUMBER | C6498763             |                                           |                   |         |
| LOG-IN DATE   | 5-9-06               |                                           |                   |         |
| OPERATION #   | OPERATION NAME       |                                           | DATE              | INITIAL |
| 500           | DIS-ASSEMBLE GUN     |                                           | 5-10-06           | RTZ     |
| 505           | RE-BARREL            |                                           | 5-12-06           | RTZ     |
| 560           | ASSEMBLE             |                                           | 5-12-06           | RTZ     |
| 600           | PROOF                | MAGNA-FLUX INSPECTED                      | 5-12-06           | TRW     |
| 605           | CHECK HEADSPACE      | MAY 12 2006                               | 5-12-06           | TRW     |
| 610           | DIS-ASSEMBLE GUN     |                                           | 5-12-06           | RTZ     |
| 612           | MAGNAFLUX            | OPERATOR <u>muels</u>                     | 5/12/06           | und     |
| 510           | DRILL AND TAP        |                                           | 5-12-06           | TRW     |
| 615           | ROLLMARK CALIBER     |                                           | 5-12-06           | CW      |
| 618           | ROTO-BLAST           |                                           | 5-12-06           | LB      |
| 620           | APPLY COATINGS       |                                           | 5/15/06           | RB      |
| 625           | FINAL ASSEMBLY       |                                           | 5-18-06           | RTZ     |
| 640           | FUNCTION TEST AND    | (PASS) FAIL                               | 5-18-06           | X.P.R.  |
| 650           | TARGET               | (PASS) FAIL                               | 5-18-06           | X.P.R.  |
|               | MALFUNCTION          | CORRECTION                                |                   |         |
|               | MALFUNCTION          | CORRECTION                                |                   |         |
|               | MALFUNCTION          | CORRECTION                                |                   |         |
|               | MALFUNCTION          | CORRECTION                                |                   |         |
| 670           | FINAL INSPECTION     |                                           | 5-23-06           | MTM     |
|               | A) HEADSPACE         | (PASS) FAIL                               | 5-23-06           | MTM     |
|               | B) TRIGGER PULL      | +/- .5 LBS<br>MIN 2.50 LBS<br>MAX 4.0 LBS |                   |         |
| 680           | F) SAFETY ON FORCE   | 2 LBS MIN<br>10 LBS MAX                   | 7 lbs 7 lbs 7 lbs | MTM     |
|               | G) SAFETY OFF FORCE  | 2 LBS<br>MIN                              | 3 lbs 3 lbs 3 lbs | MTM     |
|               | I) FIRING PIN INDENT | .020                                      | .022 .022 .022    | MTM     |
| 690           | PACK                 |                                           | 5-25-06           | ADA     |

*Remington*®



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

MODEL 700™ M24

SERIAL NO.  
C6498763

ORDER NO.  
5716

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

01



5716 C6498763

UPC



0 47700 25716 7

CONFIDENTIAL-SUBJECT TO PROTECTIVE ORDER  
KINZER V. REMINGTON

M2400007314

CONTRACT # DAAA21-87-C-0086

GUN SERIAL #

C6498763

| OP. #        | OP. NAME                                                       | READINGS | DATE    | INIT |
|--------------|----------------------------------------------------------------|----------|---------|------|
| 575 &<br>580 | Assemble Action<br>and Stock                                   | 4 12     | 90      | RW   |
| 600          | Proof                                                          | 4 12     | 90      | K    |
| 607          | Check Headspace                                                | 4 12     | 90      | K    |
| 610          | Dis-assemble Gun                                               |          |         | RW   |
| 612          | Magnaflux Barrel<br>Action                                     | 4-19-90  |         | KCR  |
|              | Magnaflux Bolt                                                 | 4-19-90  |         | KCR  |
| 615          | Rollmark Caliber                                               | 4-19-90  |         | GL   |
| 617          | Drill and Tap Sight Holes                                      |          | 4/27/90 | KB   |
| 618          | Polish Barrel RB                                               |          | 4/24/90 | WB   |
| 620          | Apply Coatings<br>(Barrel Action)                              |          | 4-30-90 | TA   |
|              | Apply Coating (Bolt)                                           |          | 4-30-90 | TA   |
| 625          | Final Assembly<br>A) Clean inside of<br>Bolt Assembly          |          | 5/1/90  | RW   |
|              | B) Inspect Rear Firing<br>Pin Hole for Chamfer<br>in Bolt Head |          | 5/1/90  | RW   |
|              | C) Inspect Ejector Hole<br>for Chamfer                         |          | 5/1/90  | RW   |
|              | D) Oil Firing Pin Ass'y                                        |          | 5/1/90  | RW   |
|              | E) Adjust Trigger Pull to<br>Min Setting and Stake             |          | 5/18/90 | WB   |

| op. #        | OP. NAME                                                    | READINGS |       |       |     |     | DATE      | INIT |
|--------------|-------------------------------------------------------------|----------|-------|-------|-----|-----|-----------|------|
| 625<br>cont. | F) Safety On Force                                          | 5        | 5     | 5     |     |     | 5/18/90   | WB   |
|              | G) Safety Off Force                                         | 2        | 2     | 2     |     |     | 5/18/90   | WB   |
|              | H) Trigger Pull Test & Retainability                        |          |       |       |     |     | 5/18/90   | WB   |
|              | I) Firing Pin Indent                                        | .0225    | .0225 | .0225 |     |     | 5/18/90   | WB   |
|              | J) Assemble Stock                                           |          |       |       |     |     | 5/18/90   | RW   |
|              | K) Assemble Swivel Studs                                    |          |       |       |     |     | 25 May 90 | JS   |
|              | L) Attach Front and Rear Sight Assemblies                   |          |       |       |     |     | 5/18/90   | RW   |
|              | M) Iron Sight Alignment                                     |          |       |       |     |     | 5/18/90   | RW   |
|              | N) Detach Front & Rear Sights & place in numbered container |          |       |       |     |     | 5/18/90   | RW   |
|              | O) Attach Scope to Rifle                                    |          |       |       |     |     | 5/18/90   | WB   |
|              | P) Detach & Attach Scope 20 Times                           |          |       |       |     |     | 5/18/90   | WB   |
| 640          | Gallery Target & Test                                       |          |       |       |     |     | 5-18-90   | AC   |
|              | A) Time                                                     |          |       |       |     |     | 5-18-90   | AC   |
|              | B) Malfunctions                                             |          |       |       |     |     | 5-18-90   | AC   |
|              | C) Pierced Primers                                          |          |       |       |     |     | 5-18-90   | AC   |
|              | D) Optical Clarity of Scope                                 |          |       |       |     |     | 5-18-90   | AC   |
| 645          | Inspect for Live Ammo                                       |          |       |       |     |     | 5-18-90   | AC   |
| 655          | Final Inspection                                            |          |       |       |     |     | 25 May 90 | JS   |
|              | A) Headspace                                                |          |       |       |     |     | 25 May 90 | JS   |
|              | B) Trigger Pull                                             | 251      | 243   | 244   | 243 | 232 | 25 May 90 | JS   |
|              | C) Function                                                 |          |       |       |     |     | 25 May 90 | JS   |
| 660          | Pack                                                        |          |       |       |     |     | 6-20-90   | DH   |

SWS TRIGGER PULL TEST

AVERAGE PULL FORCE BETWEEN  
INITIAL & CYCLE TESTS

2.50# + .50#  
3.00# + .75#  
4.00# + 1.00#

SERIAL NO. C6498763

DATE 5/18/90

TESTER WLB

|         | 2.50#<br>INITIAL | 2.50# AFTER<br>50 CYCLES | FINAL TEST &<br>TO RESET 2.50# |      | COMMENTS                                                               |
|---------|------------------|--------------------------|--------------------------------|------|------------------------------------------------------------------------|
| PULL #1 | 2.55             | 2.30                     | 2.22                           | 2.51 | MIN. SETTING,<br>NO AVG. OF 5<br>READINGS ACCEPT-<br>ABLE LESS THAN 2# |
| PULL #2 | 2.51             | 2.25                     | 2.28                           | 2.43 |                                                                        |
| PULL #3 | 2.50             | 2.22                     | 2.19                           | 2.44 |                                                                        |
| PULL #4 | 2.54             | 2.20                     | 2.23                           | 2.43 |                                                                        |
| PULL #5 | 2.51             | 2.20                     | 2.19                           | 2.32 |                                                                        |
| TOTAL   | 12.61            | 11.17                    | 11.11                          |      |                                                                        |
| AVG.    | 2.52             | 2.21                     | 2.22                           |      |                                                                        |

|         | 3.00#<br>INITIAL | 3.00# AFTER<br>20 CYCLES |  | COMMENTS |
|---------|------------------|--------------------------|--|----------|
| PULL #1 | 3.22             | 3.07                     |  |          |
| PULL #2 | 3.23             | 3.09                     |  |          |
| PULL #3 | 3.16             | 3.10                     |  |          |
| PULL #4 | 3.24             | 3.03                     |  |          |
| PULL #5 | 3.27             | 3.08                     |  |          |
| TOTAL   | 16.12            | 15.37                    |  |          |
| AVG.    | 3.22             | 3.07                     |  |          |

|         | 4.00#<br>INITIAL | 4.00# AFTER<br>20 CYCLES | MAX SETTING<br>GREATER THAN 4# | RESET TO 4# FOR<br>TARGET & ACCURACY |
|---------|------------------|--------------------------|--------------------------------|--------------------------------------|
| PULL #1 | 4.12             | 4.13                     |                                | 4.37                                 |
| PULL #2 | 4.18             | 3.96                     |                                | 4.53                                 |
| PULL #3 | 4.18             | 4.10                     |                                | 4.23                                 |
| PULL #4 | 4.14             | 4.06                     |                                | 4.35                                 |
| PULL #5 | 4.08             | 4.08                     |                                | 4.32                                 |
| TOTAL   | 20.70            | 20.33                    |                                | 22.00                                |
| AVG.    | 4.14             | 4.07                     |                                | 4.40                                 |

CENTROIDAL DISTANCE CALCULATIONS  
FOR RIFLE # C6498763  
18 May 1990

CENTROIDAL DISTANCES

|      |   |         |
|------|---|---------|
| Ø TO | 1 | .383919 |
| 1 TO | 2 | .590496 |
| 1 TO | 3 | .553218 |
| 1 TO | 4 | .411461 |
| 1 TO | 5 | .83557  |

$\begin{matrix} 2 & 5 \\ 4 & 3 \\ 1 \end{matrix}$  <----POB

THE AVERAGE X-COORDINATE FOR THIS RIFLE IS: .4088  
THE AVERAGE Y-COORDINATE FOR THIS RIFLE IS: .1128  
THE RESULTING AVERAGE POI RADIUS FOR THIS RIFLE IS: .424077

THE AMR FOR THIS RIFLE IS: .9302

18 May 1998

FILE:/PATTERNING/CENTERFIRE\_PATT/C649B7B3

# CENTERFIRE PATTERNS

# 1

POB

1 in circle

2 in circle

3 in circle

CENTROID #

# OF SHOTS= 10

# IN CIR

1 in = 2

2 in = 7

3 in = 10

HS= 2.129

VS= 1.990

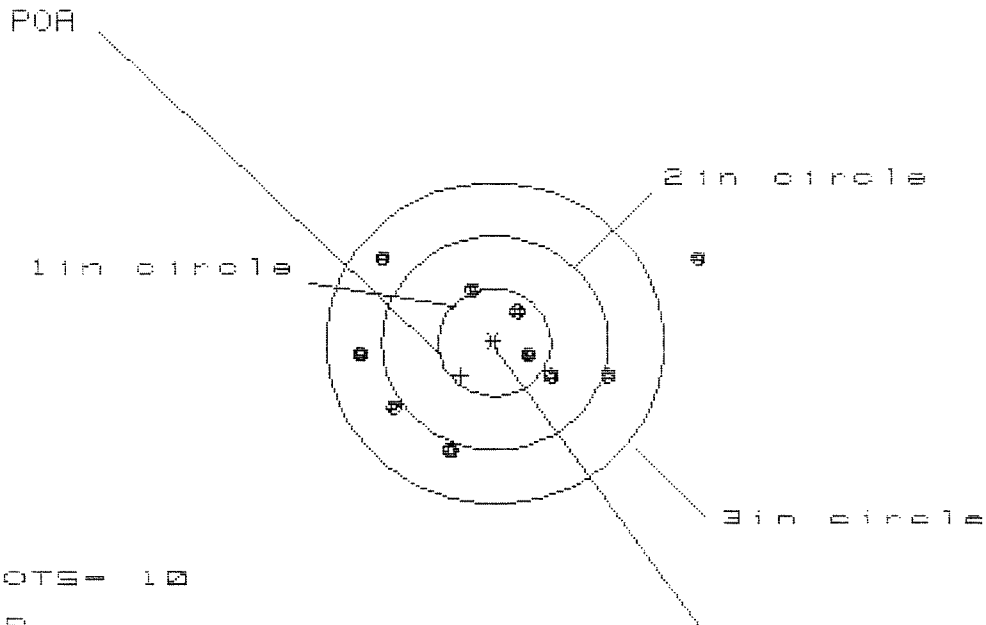
GS= 2.247

| PATTERN #                     | 1      | 2      | 3      |
|-------------------------------|--------|--------|--------|
| SHOTS (BEST OF)               | 10     | 9      | 8      |
| MAXIMUM X                     | .944   | .812   | .865   |
| MINIMUM X                     | -1.185 | -.620  | -.567  |
| MAXIMUM Y                     | .941   | .922   | .788   |
| MINIMUM Y                     | -1.049 | -1.068 | -1.064 |
| CENTROID X                    | .255   | .387   | .334   |
| CENTROID Y                    | -.287  | -.268  | -.134  |
| POB TO CENTROID in.           | .384   | .470   | .360   |
| MIN RADIUS                    | .154   | .221   | .078   |
| MEAN RADIUS                   | .813   | .770   | .692   |
| MAX RADIUS                    | 1.198  | 1.149  | 1.064  |
| HORIZONTAL SPREAD             | 2.129  | 1.432  | 1.432  |
| VERTICAL SPREAD               | 1.990  | 1.990  | 1.852  |
| EXTREME SPREAD                | 2.247  | 2.247  | 1.937  |
| NUMBER IN ONE INCH CIRCLE =   | 2      |        |        |
| NUMBER IN TWO INCH CIRCLE =   | 7      |        |        |
| NUMBER IN THREE INCH CIRCLE = | 10     |        |        |

18 May 1998

FILE:/PATTERNING/CENTERFIRE\_PATT/C6498763

CENTERFIRE PATTERNS # 2



# OF SHOTS = 10

# IN CIR

1in = 2

2in = 4

3in = 8

HS = 3.025

VS = 1.894

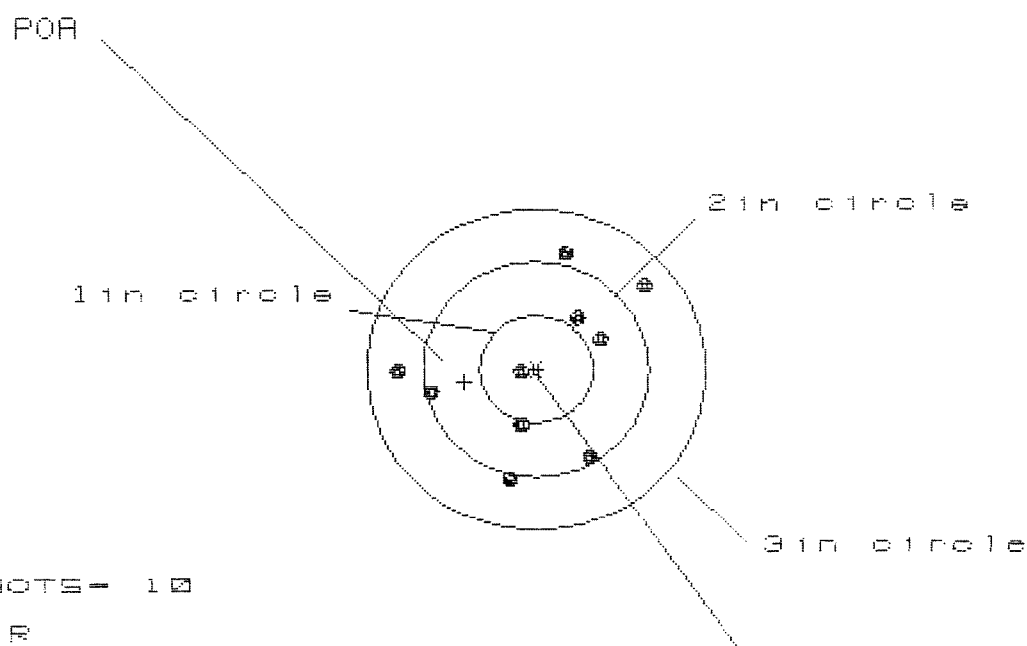
GS = 3.159

|                             |   |        |        |        |
|-----------------------------|---|--------|--------|--------|
| PATTERN #                   | : | 2      |        |        |
| SHOTS (BEST OF)             | : | 10     | 9      | 8      |
| MAXIMUM X                   | : | 1.784  | 1.213  | 1.113  |
| MINIMUM X                   | : | -1.241 | -1.043 | -1.143 |
| MAXIMUM Y                   | : | .847   | .933   | .727   |
| MINIMUM Y                   | : | -1.047 | -.961  | -.845  |
| CENTROID X                  | : | .297   | .099   | .199   |
| CENTROID Y                  | : | .302   | .216   | .100   |
| POA TO CENTROID in.         | : | .424   | .238   | .222   |
| MIN RADIUS                  | : | .291   | .479   | .400   |
| MEAN RADIUS                 | : | .962   | .864   | .804   |
| MAX RADIUS                  | : | 1.945  | 1.231  | 1.145  |
| HORIZONTAL SPREAD           | : | 3.025  | 2.256  | 2.256  |
| VERTICAL SPREAD             | : | 1.894  | 1.894  | 1.572  |
| EXTREME SPREAD              | : | 3.159  | 2.313  | 2.262  |
| NUMBER IN ONE INCH CIRCLE   | = |        | 2      |        |
| NUMBER IN TWO INCH CIRCLE   | = |        | 4      |        |
| NUMBER IN THREE INCH CIRCLE | = |        | 9      |        |

18 May 1988

FILE:/PATTERNING/CENTERFIRE\_PATT/C6498763

# CENTERFIRE PATTERNS # 3



# OF SHOTS- 10

# IN CIR

1in = 1

2in = 6

3in = 10

HS= 2.193

VS= 2.028

GS= 2.336

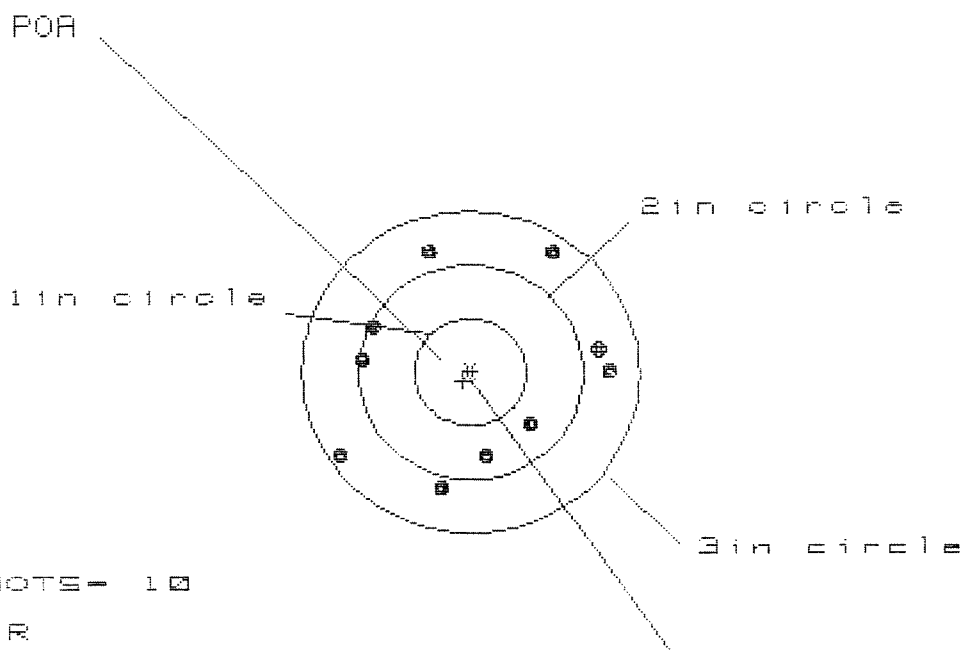
CENTROID #

|                             |   |        |        |       |
|-----------------------------|---|--------|--------|-------|
| PATTERN #                   | : | 3      |        |       |
| SHOTS (BEST OF)             | : | 10     | 9      | 8     |
| MAXIMUM X                   | : | 1.004  | .656   | .522  |
| MINIMUM X                   | : | -1.189 | -1.078 | -.956 |
| MAXIMUM Y                   | : | 1.040  | 1.127  | 1.135 |
| MINIMUM Y                   | : | -.988  | -.901  | -.893 |
| CENTROID X                  | : | .634   | .523   | .657  |
| CENTROID Y                  | : | .116   | .029   | .021  |
| POA TO CENTROID in.         | : | .645   | .523   | .658  |
| MIN RADIUS                  | : | .142   | .112   | .201  |
| MEAN RADIUS                 | : | .827   | .768   | .723  |
| MAX RADIUS                  | : | 1.275  | 1.181  | 1.156 |
| HORIZONTAL SPREAD           | : | 2.193  | 1.734  | 1.478 |
| VERTICAL SPREAD             | : | 2.028  | 2.028  | 2.028 |
| EXTREME SPREAD              | : | 2.336  | 2.083  | 2.083 |
| NUMBER IN ONE INCH CIRCLE   | = |        | 1      |       |
| NUMBER IN TWO INCH CIRCLE   | = |        | 6      |       |
| NUMBER IN THREE INCH CIRCLE | = |        | 10     |       |

18 May 1998

FILE:/PATTERNING/CENTERFIRE\_PATT/C649B7B3

# CENTERFIRE PATTERNS # 4



# OF SHOTS- 10

# IN CIR

1in = 0

2in = 3

3in = 10

HS= 2.383

VS= 2.171

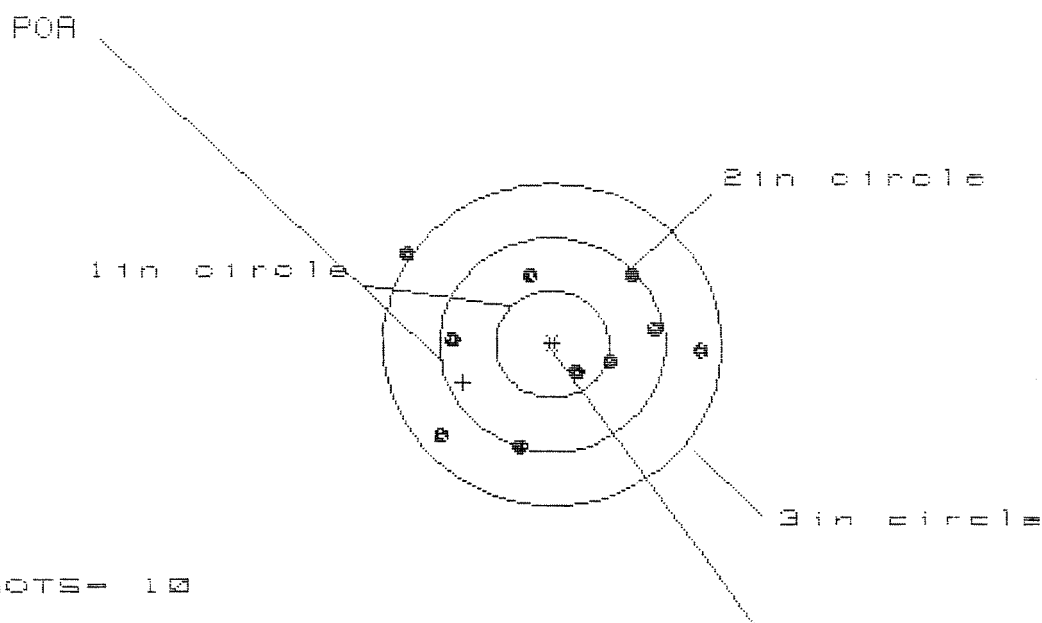
GS= 2.695

|                             |   |        |        |        |
|-----------------------------|---|--------|--------|--------|
| PATTERN #                   | : | 4      |        |        |
| SHOTS (BEST OF)             | : | 10     | 9      | 8      |
| MAXIMUM X                   | : | 1.192  | 1.060  | 1.136  |
| MINIMUM X                   | : | -1.191 | -1.120 | -1.044 |
| MAXIMUM Y                   | : | 1.143  | 1.060  | 1.192  |
| MINIMUM Y                   | : | -1.028 | -1.111 | -.979  |
| CENTROID X                  | : | .067   | .199   | .123   |
| CENTROID Y                  | : | .079   | .161   | .030   |
| POA TO CENTROID in.         | : | .103   | .256   | .126   |
| MIN RADIUS                  | : | .684   | .657   | .610   |
| MEAN RADIUS                 | : | 1.089  | 1.047  | 1.008  |
| MAX RADIUS                  | : | 1.403  | 1.217  | 1.269  |
| HORIZONTAL SPREAD           | : | 2.383  | 2.180  | 2.180  |
| VERTICAL SPREAD             | : | 2.171  | 2.171  | 2.171  |
| EXTREME SPREAD              | : | 2.695  | 2.382  | 2.184  |
| NUMBER IN ONE INCH CIRCLE   | = |        | 0      |        |
| NUMBER IN TWO INCH CIRCLE   | = |        | 3      |        |
| NUMBER IN THREE INCH CIRCLE | = |        | 10     |        |

18 May 1998

FILE:/PATTERNING/CENTERFIRE\_PATT/C8438763

# CENTERFIRE PATTERNS # 5



# OF SHOTS= 10

# IN CIR

1in = 1

2in = 6

3in = 9

HS= 2.614

VS= 1.849

GS= 2.757

CENTROID #

|                             |   |        |        |       |
|-----------------------------|---|--------|--------|-------|
| PATTERN #                   | : | 5      |        |       |
| SHOTS (BEST OF)             | : | 10     | 9      | 8     |
| MAXIMUM X                   | : | 1.328  | 1.185  | .912  |
| MINIMUM X                   | : | -1.286 | -1.085 | -.937 |
| MAXIMUM Y                   | : | .857   | .749   | .759  |
| MINIMUM Y                   | : | -.992  | -.897  | -.887 |
| CENTROID X                  | : | .791   | .934   | .786  |
| CENTROID Y                  | : | .354   | .259   | .249  |
| POA TO CENTROID in.         | : | .866   | .969   | .824  |
| MIN RADIUS                  | : | .369   | .216   | .295  |
| MEAN RADIUS                 | : | .960   | .863   | .833  |
| MAX RADIUS                  | : | 1.545  | 1.328  | 1.204 |
| HORIZONTAL SPREAD           | : | 2.614  | 2.270  | 1.849 |
| VERTICAL SPREAD             | : | 1.849  | 1.646  | 1.646 |
| EXTREME SPREAD              | : | 2.757  | 2.421  | 2.276 |
| NUMBER IN ONE INCH CIRCLE   | = |        | 1      |       |
| NUMBER IN TWO INCH CIRCLE   | = |        | 6      |       |
| NUMBER IN THREE INCH CIRCLE | = |        | 9      |       |