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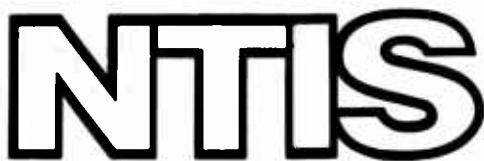
**THE EFFECT OF DIMENSIONS AND DYNAMIC  
IMBALANCE OF PROJECTILES UPON BALLISTIC  
PREFORMANCE**

A. S. Jennings

Naval Weapons Laboratory  
Dahlgren, Virginia

November 1973

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THE EFFECT OF DIMENSIONS AND DYNAMIC IMBALANCE OF  
PROJECTILES UPON BALLISTIC PERFORMANCE

A. S. Jennings

Engineering Department

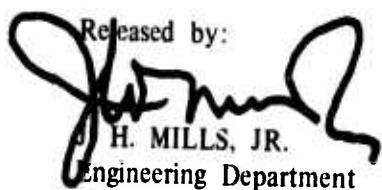


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## **FOREWORD**

This study was conducted at the request of NAVORD ltr ORD-0841/356:ANC of 23 October 1970. It is part of the design agent work being done at NWL. The main purpose was to determine if specific physical characteristics of a projectile have an effect upon its ballistic performance. The ultimate goas was to correlate laboratory tests and dimensional inspection data with ballistic tests in order to substitute laboratory tests or body measurements as an acceptance criteria in lieu of the current ballistic testing. This report summarizes the testing and analysis on selected physical parameters.

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Dynamic imbalance can be predicted fairly well by knowing the total indicated reading (eccentricity) of the projectile cavity at several locations. Further studies of this type are needed to define a complete set of parameters which would insure acceptance in ballistic tests.

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## **ABSTRACT**

The dynamic imbalance and physical dimensions were measured on a number of 5"/38 MARK 66 MOD 0 projectiles. These projectiles were ballistic tested. Statistical techniques were used to correlate ballistic performance with measured projectile characteristics. A dynamic imbalance of 10 inch-ounces or less does not have a significant effect upon the ballistic performance of the subject projectile. Three of the projectile body dimensions had effect upon ballistic performance of the projectiles for the range of data analyzed. Dynamic imbalance can be predicted fairly well by knowing the total indicated reading (eccentricity) of the projectile cavity at several locations. Further studies of this type are needed to define a complete set of parameters which would insure acceptance in ballistic tests.

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## I. INTRODUCTION

Naval projectile bodies are ballistic tested at the Naval Weapons Laboratory to determine if a lot of projectiles are of acceptable quality. Five projectiles (inert loaded and fitted with a dummy nose plug) are tested from each lot of projectiles. A lot is defined as a group of 500 projectiles manufactured by a vendor. The sample of five projectiles from a lot is selected at random and is representative of the lot.

The D/R ratio (Dispersion/Range) is used as an acceptance criterion. This ratio is determined from the ranging data of five ballistic tests and is computed for each lot. D/R is defined as the mean deviation divided by the mean. This parameter is a measure of relative variation of the range for a given lot. The range is the distance from the gun to the impact point of the projectile.

In order to compute D/R it is necessary to compute a corrected range ( $R_c$ ) for each test. Corrected range is the actual range which has been standardized to standard conditions of ballistic density, range wind, initial velocity, and impact height.

D/R is computed as follows:

$$D/R = \left[ \frac{1}{N} \sum_{c=1}^N |R_c - \bar{R}| / \bar{R} \right] 100$$

where

$R_c$  = corrected range

$\bar{R}$  = average corrected range

N = number of tests

A lot of projectile bodies is accepted from the vendor if the D/R is 0.70% or less; otherwise, the lot is rejected or a retest is conducted.

The ballistic test criterion described above is a fair acceptance test for projectile bodies but it does not provide necessary information for the manufacturer to determine the quality of the projectile before ballistic testing.

This study was conducted to investigate the sensitivity of ballistic data to several projectile body physical parameters. The goal was to find parameters that would either eliminate or decrease the ballistic tests that are conducted by the Navy and would enable the manufacturer to check for the conformance of the ammunition to documentation. Three factors were considered: (1) dynamic imbalance, (2) dimensional inspection of the projectile body, and (3) the correlating of dynamic imbalance and dimensional data.

## **II. DESCRIPTION OF MATERIAL**

The projectile bodies used in this study were shipped to the Naval Weapons Laboratory for ballistic acceptance tests. They are 5"/38 MARK 66 MOD 0 projectiles manufactured by Lansdowne Steel and Iron Corporation, Morton, Pennsylvania. Figure 1 shows the projectile body configuration. The projectiles were manufactured under contract number N0010468C5481. Projectiles from lots 33-197 are included in this study. Lots 1-33 were not included due to the fact that the production of the subject projectile had reached lot 32 when this program was initiated. The dynamic imbalance study encompassed lots 33-197, which was 824 projectiles. Lots 62-96 (155 projectiles) were included in the dimensional inspection study.

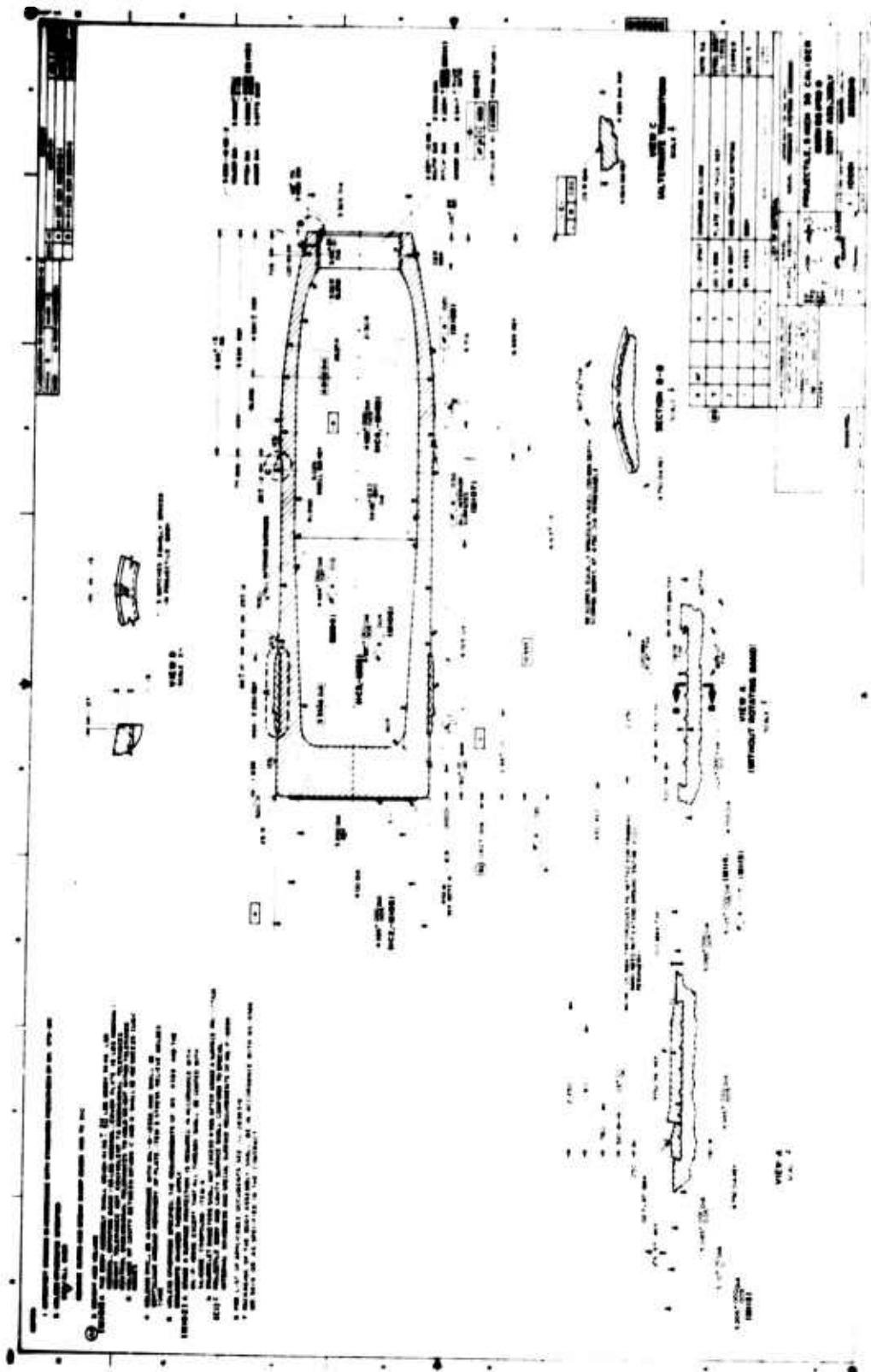


FIGURE 1

Drawing of a 5"/38 Mk 66 Mod 0 Projectile Body

### **III. TESTS AND PROCEDURES**

#### **A. Dynamic Imbalance Test**

This test was conducted on a Gisholt balancing machine shown in Figure 2. The projectile is placed on two sets of rollers such that the rollers contact the projectile at the aft and forward bourrelets. Figure 3 shows distances between the rollers and the projectile base. A paper band (see Figure 2) graduated in  $5^{\circ}$  increments is placed on the periphery of the projectile to obtain the angular location of imbalance (heavy side). Angular locations were the same for a given projectile in the empty and inert loaded condition.

The projectiles are rotated at a speed of approximately 850 RPM (a 5"/38 projectile exits the gun at 12,500 RPM). Dynamic imbalance is measured at the rear bourrelet (called right plane) and at the forward bourrelet (called left plane). This imbalance is expressed in inch-ounces. A stroboscope is used to measure the angular location of imbalance from the paper band. This angle is measured for each plane and then the angle of separation between imbalance of the two planes is determined disregarding the direction. Consequently, the angle of separation of imbalance is always  $180^{\circ}$  or less.

Dynamic imbalance, angle of separation, and center of gravity was measured on 824 projectiles. These data were taken on the empty projectile bodies and also on the projectiles after preparation for ballistic testing which includes inert filling the cavity and installing a dummy nose fuze. The data are given in Appendix A with ballistic results for each test.

#### **B. Dimensional Inspection of Projectile Bodies**

Numerous measurements were taken on the body in order to obtain a good dimensional interpretation. A Cordax measuring machine (Figure 4) was utilized to take the measurements. This machine has a movable probe which can be moved in the X, Y, and Z planes. A computer is coordinated with the machine for computations.

The projectile is placed in a modified lathe chuck and aligned so that the bourrelets are true within 0.001 prior to measuring. All measurements were taken with the bourrelets as reference points. Figure 5 shows the measurements and their locations.

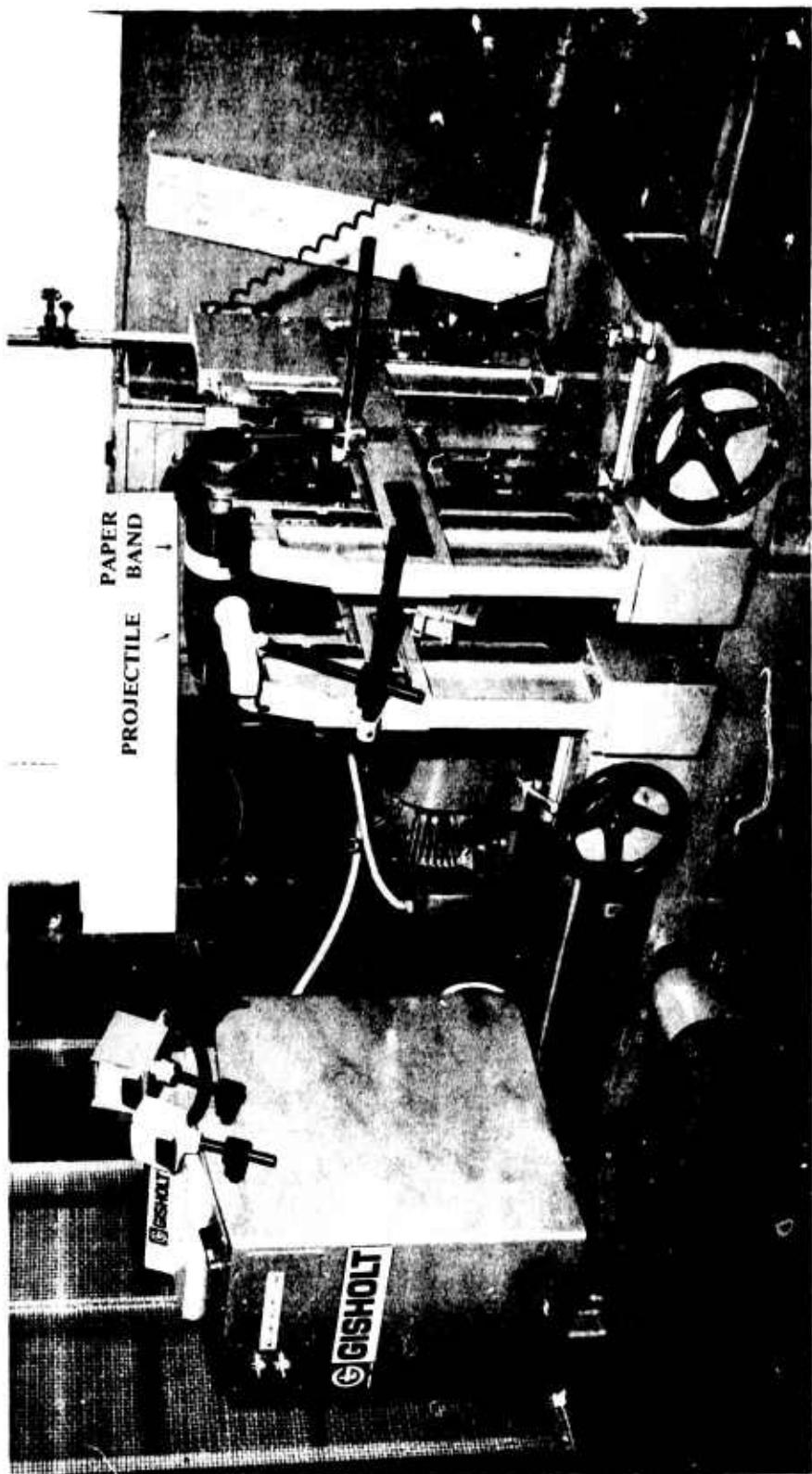


FIGURE 2  
Dynamic Imbalance Testing Machine With Projectile Body on Machine

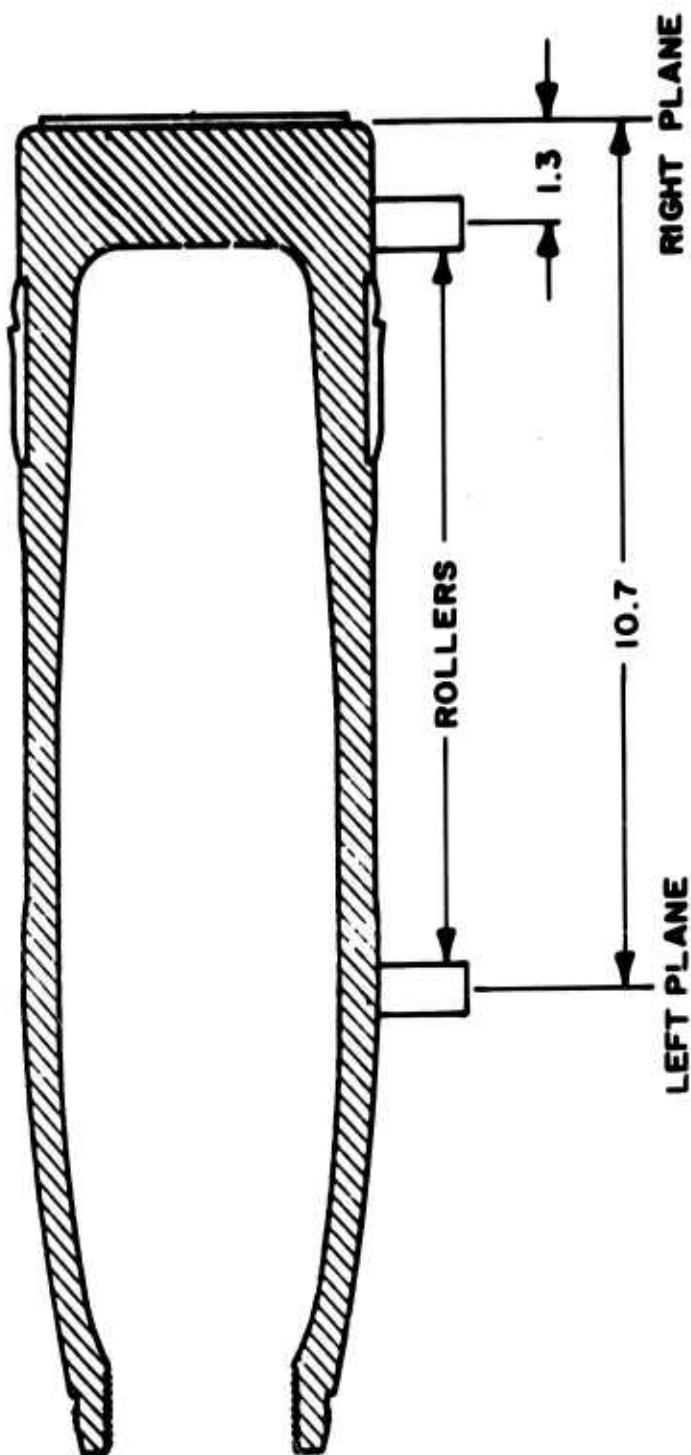


FIGURE 3

5''/38 Projectile Dynamic Balancing Set-Up

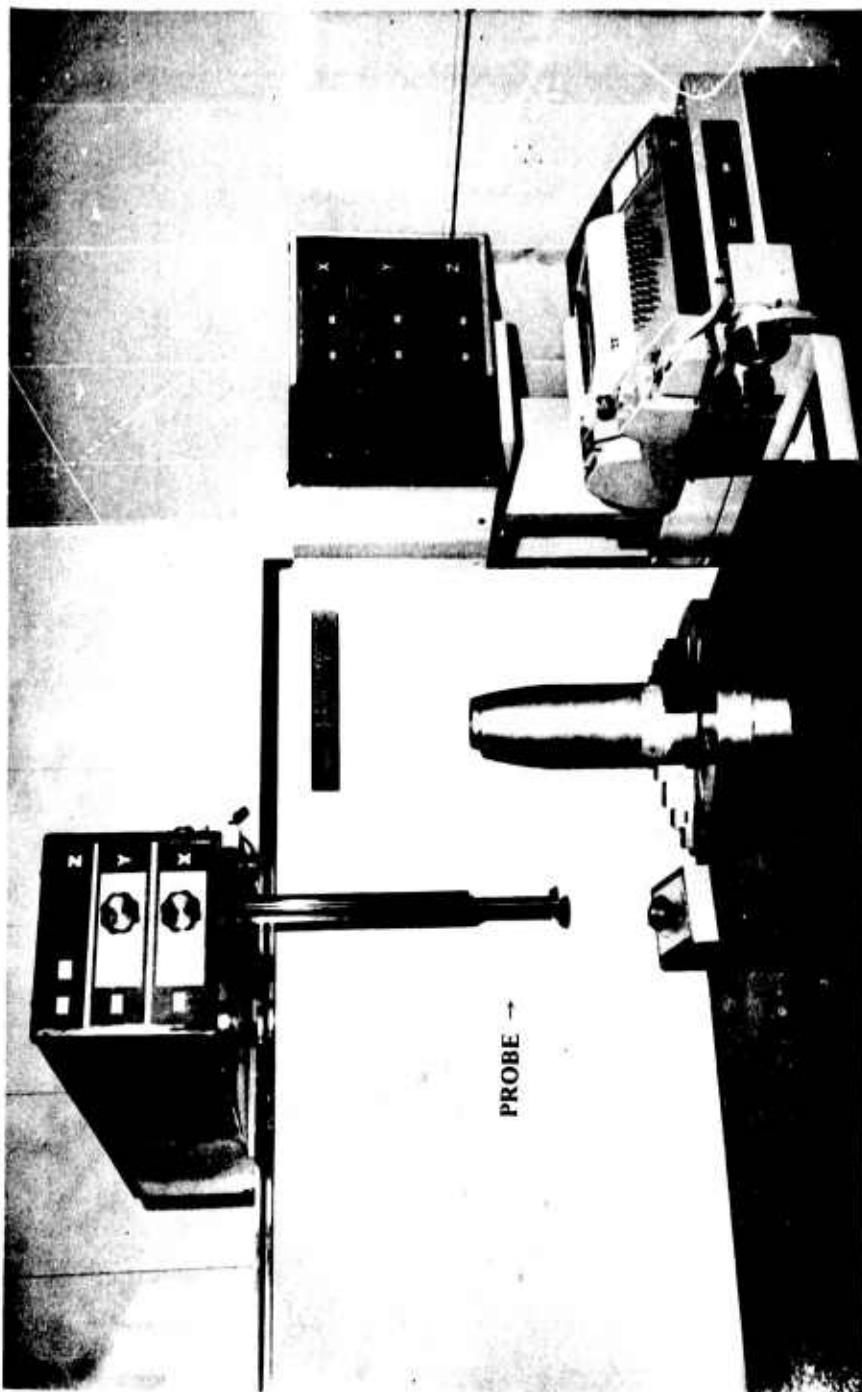


FIGURE 4

Gauging Machine Set-Up for Measuring Projectiles

The total indicated reading (TIR), may also be called eccentricity, was computed as shown in Figure 6. This TIR was computed from the X-act and Y-act data given in Appendix B. It was computed at various locations within and outside the projectile. However, the outside TIR did not vary to any degree due to the aligning on the bourrelets.

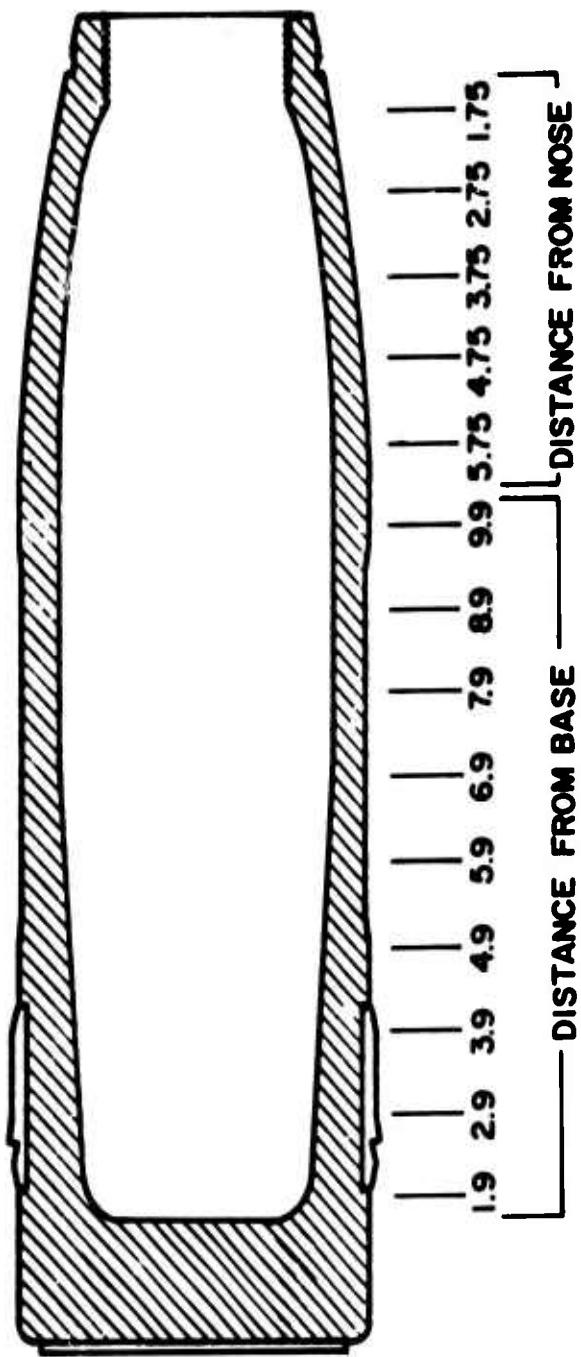
Data in the Z3 category of Appendix B was used to compute the angle of the nose threads (threads for nose fuze) relative to the bourrelets. It was thought that a misaligned fuze would cause the projectile to be unstable in flight. Figure 7 shows an adapter which was placed in the nose to facilitate taking measurements at the  $L_1$  and  $L_2$  positions. Trigonometric functions were used to compute the thread angle relative to the bourrelets.

Data were obtained from the Cordax machine and then processed via computer to facilitate later analysis. These data are given in Appendix B for the 155 projectiles inspected.

### C. Ballistic Tests

The projectiles which were dimensionally inspected and had the dynamic imbalance measured were ballistic tested at NWL. Appendix A gives the meteorological data, lots tested, and date of ballistic testing. Initial velocity, range (yards), and drift (yards) were also measured for each test. All tests were conducted at 15° gun elevation.

Lots 62-96 were included in the dimensional inspection study. These projectiles were ballistic tested on four days. Lots 33-197 were included in the dynamic imbalance study. These projectiles were ballistic tested on 17 days.

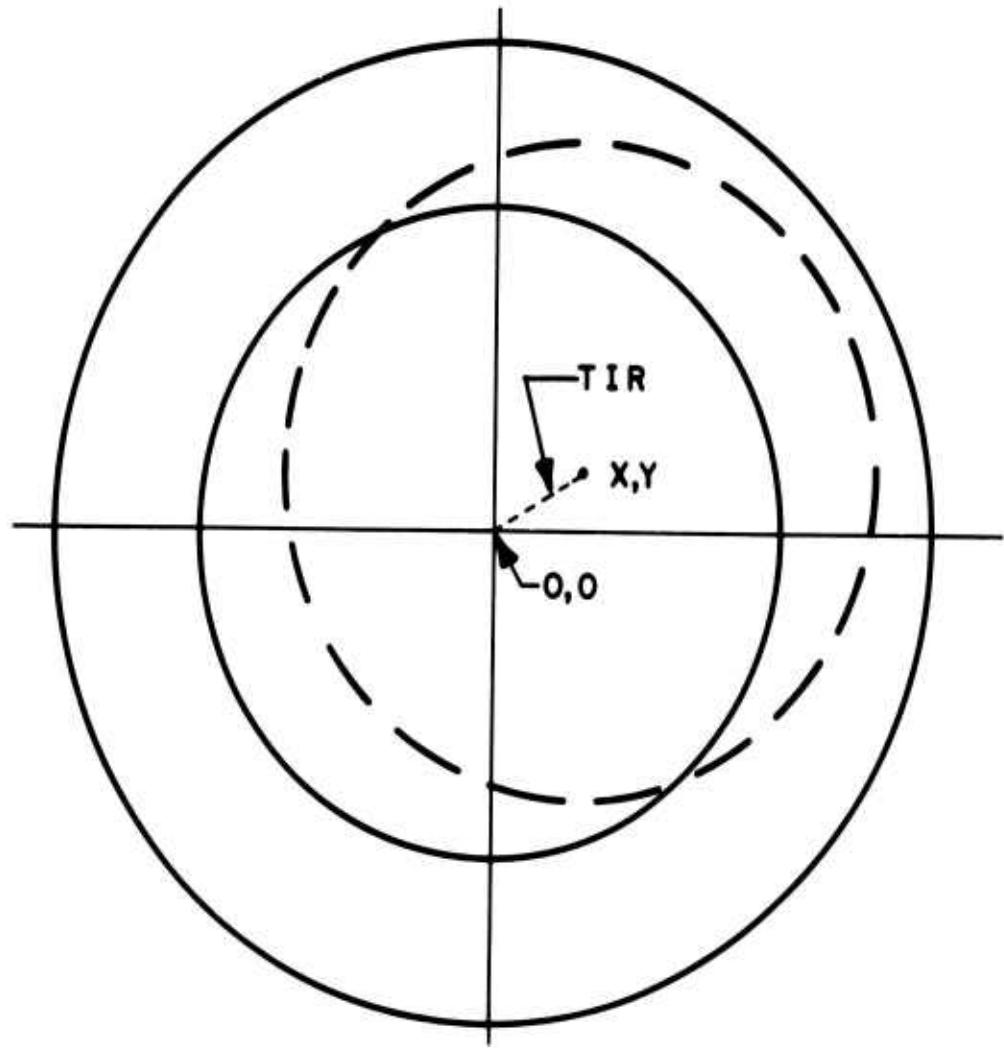


MEASUREMENTS AT EACH LOCATION: OUTSIDE TIR, OUTSIDE DIAMETER, INSIDE TIR,  
INSIDE DIAMETER

OTHER MEASUREMENTS: BASE THICKNESS, TOTAL LENGTH

FIGURE 5

Location of Projectile Measurements



$$TIR = \sqrt{x^2 + y^2}$$

FIGURE 6

Transverse Section of a Projectile Showing  
Normal Inside Wall and an Off Center Inside Wall

#### IV. ANALYSIS AND RESULTS

Statistical techniques such as regression analysis and analysis of variance were utilized to analyze the data of the two studies. Analyses of the two studies will be discussed separately even though the approach was nearly identical. Then relationships between the two studies will be discussed. Three criteria were used to evaluate the importance of the variables under study; they are: (1) The standard error, (2) multiple correlation coefficient, and (3) the F-ratio. It was decided that a variable should meet the criteria of all three tests before it would be considered significant in its influence upon ballistic range. The standard error should decrease, the multiple correlation coefficient should increase, and the F-ratio should be significant in order that a variable be considered to have an influence upon ballistic range.

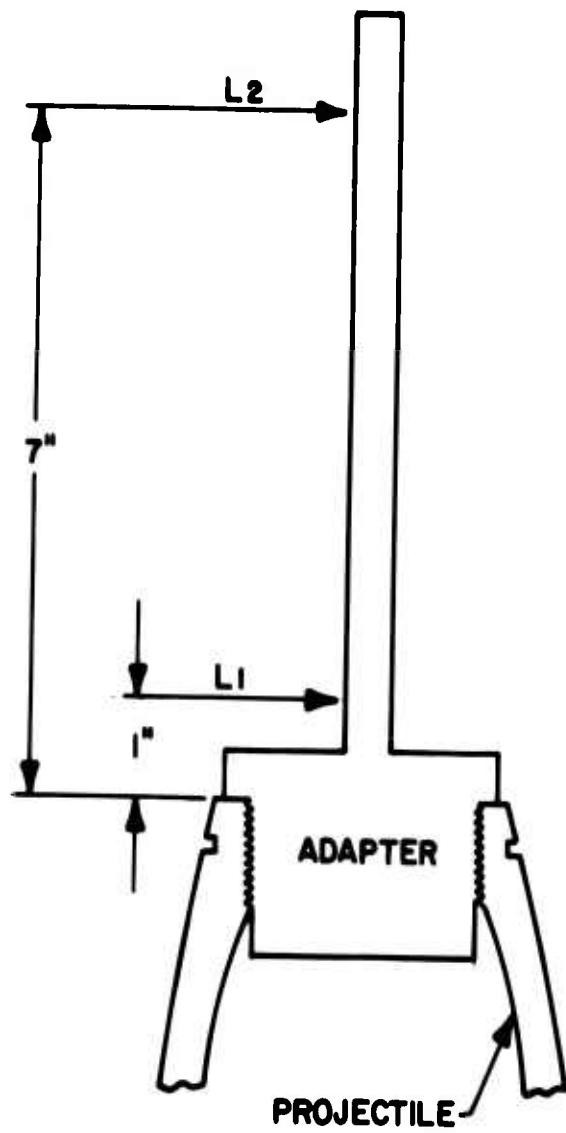
It is known from previous work that weather conditions and initial velocity have an influence upon the range of a projectile. Therefore, the first step in each study was to remove the effect of weather and initial velocity and then determine if additional variables can be added to a model from a statistical standpoint. If additional variables can be added to the model then they have an effect upon the ballistic performance as measured by the range.

##### A. Dynamic Imbalance

Dynamic imbalance data are shown in Appendix A. These data were gathered on 824 projectiles. These projectiles were ballistic tested and the ranging data obtained. Figures 8 and 9 show histograms of inert loaded imbalance data given in Appendix A.

Statistical analysis of the data (Table 1) showed that neither right imbalance, left imbalance, separation angle, or center of gravity of inert loaded projectiles have an important effect upon ballistic range of this projectile for the range of data studied. It can be seen from Table 1 that the standard error decreased markedly by adding ballistic density, initial velocity, range wind, and cross wind to the model to a value of 71.4. Adding additional variables to the model did not appreciably lower the standard error.

The multiple correlation coefficient (mcc) increased substantially by adding ballistic density, initial velocity, range wind, and cross wind to the model to a value of 0.960. Note from Table 1 that the adding of the other variables does not increase the mcc. Therefore the adding of the additional variables to the model did not explain any additional variation in the performance of the projectile.



**FIGURE 7**

**Nose Area of Projectile Showing Adapter Inserted for  
Taking Measurements**

	CELL#	MID.	FRFQ	RANGE	VARIANCE	Coeff. VAR.	SKEWNESS	NC. CELLS
MEAN	824	2.97027	9.83067	2.97027	2.71654	•55510	•66253	17
MEDIAN	800	2.80000	1.64880	2.80000	1.64880	•64880	•64880	17
MAXIMUM	100	10.00010	20.00000	10.00010	20.00000	•20.000	•20.000	17
MINIMUM	100	1.00000	1.00000	1.00000	1.00000	•1.00000	•1.00000	17
SIG. CFV	100	1.00000	1.00000	1.00000	1.00000	•1.00000	•1.00000	17
COEFF. VAR.	100	0.00000	0.00000	0.00000	0.00000	•0.00000	•0.00000	17
SKEWNESS	100	0.00000	0.00000	0.00000	0.00000	•0.00000	•0.00000	17
NC. CELLS	100	0.00000	0.00000	0.00000	0.00000	•0.00000	•0.00000	17

## Histogram and Statistics of 5"/38 MARK 66 MOD 0 Projectile Dynamic Imbalance (Right Plane)

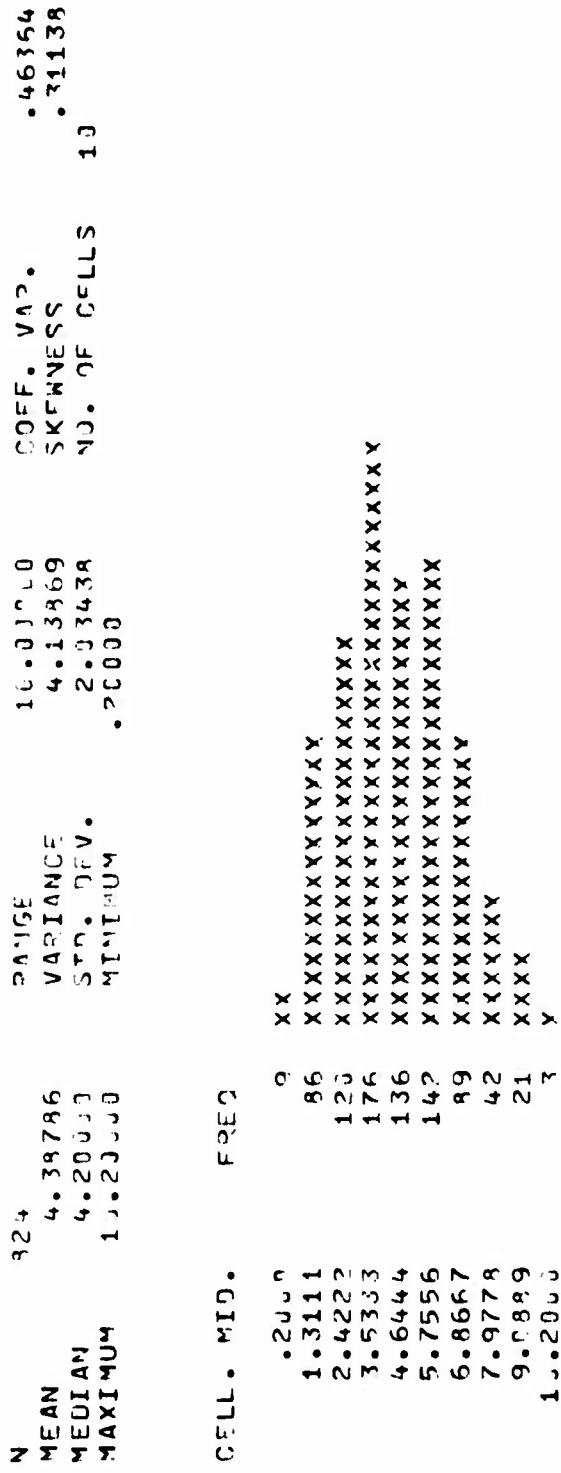


FIGURE 9  
Histogram and Statistics of 5"/38 MARK 66 MOD 0  
Projectile Dynamic Imbalance (Left Plane)

# ANALYSIS OF DYNAMIC IMBALANCE DATA

BALLISTIC DENSITY	INITIAL VELOCITY	VARIABLES IN MODEL				MULTIPLE CORRELATION COEFFICIENT	F-RATIO (1)
		RANGE WIND	CROSS WIND	RIGHT IMBALANCE	LEFT IMBALANCE	SEPARATION ANGLE	
x	x	x	x	x	x	140.7	.832
x	x	x	x	x	x	103.5	.913
x	x	x	x	x	x	74.6	.956
x	x	x	x	x	x	98.9	.921
x	x	x	x	x	x	71.4	.960
x	x	x	x	x	x	71.0	.960
x	x	x	x	x	x	71.4	.960
x	x	x	x	x	x	71.4	.960
x	x	x	x	x	x	71.4	.960
x	x	x	x	x	x	71.4	.960

{1} This F-RATIO is for the significance of the added variable  
{2} Significant at 99 percent probability level  
NS - Not significant

Right imbalance was determined to be significant from the standpoint of the F-ratio at the 99 percent probability level. None of the other variables other than weather and initial velocity were significant with respect to the F-ratio. Even though right imbalance was important with respect to the F-ratio it failed to meet the criteria of decreasing standard error and increasing the *mec*.

Based upon this analysis it has been determined that a dynamic imbalance of 10 inch-ounces or less does not have a significant effect upon the range of this projectile. The angle of separation between the imbalance of the two planes did not have an effect upon performance either. This angle varied from 0° to 180°. The center of gravity varied from 7.58-7.82 inches from the base and did not have any effect upon ballistic range.

Figures 10 and 11 show the relationship between empty dynamic imbalance and inert loaded dynamic imbalance for the two planes. A small part of the data (170 out of 824) was used here for the scatter diagrams since plots of all the data are not practical. It can be observed from Figure 10 that there is a fair relationship between empty dynamic imbalance and inert loaded dynamic imbalance for the right plane (rear bourrelet). Generally, the inert loaded imbalance is about 1 unit less than the empty imbalance. Figure 11 shows that there is no relationship between empty imbalance and inert imbalance for the left plane (forward bourrelet). There is no proved explanation for this lack of relationship. However, it may be caused by the variation in height of the inert filler within the projectile cavity. The height of the filler within the cavity can be quite variable due to the volume variation of projectile cavities since all the inert loaded projectiles were brought to the same weight for ballistic testing (55.18 pounds).

#### B. Dimensional Inspection Data

Inspection data are given in Appendix B. These data were gathered on 155 projectiles. These projectiles were ballistic tested and ranging data obtained. These 155 projectiles were a subset of the 824 projectiles of the dynamic imbalance study.

A different technique was required to remove the effect of weather in this study since the ballistic testing was performed on only four days and not 17 as in the imbalance study. Blocking (a statistical technique) was used to remove the day-to-day (or weather) effect. Table 2 shows the analysis. The effect of days was highly significant with respect to the F-ratio. The addition of initial velocity to the model was highly significant with respect to the F-ratio also. This variable also meets the other two criteria by reducing the standard error and increasing the multiple correlation coefficient substantially. Table 2 shows the results of adding the

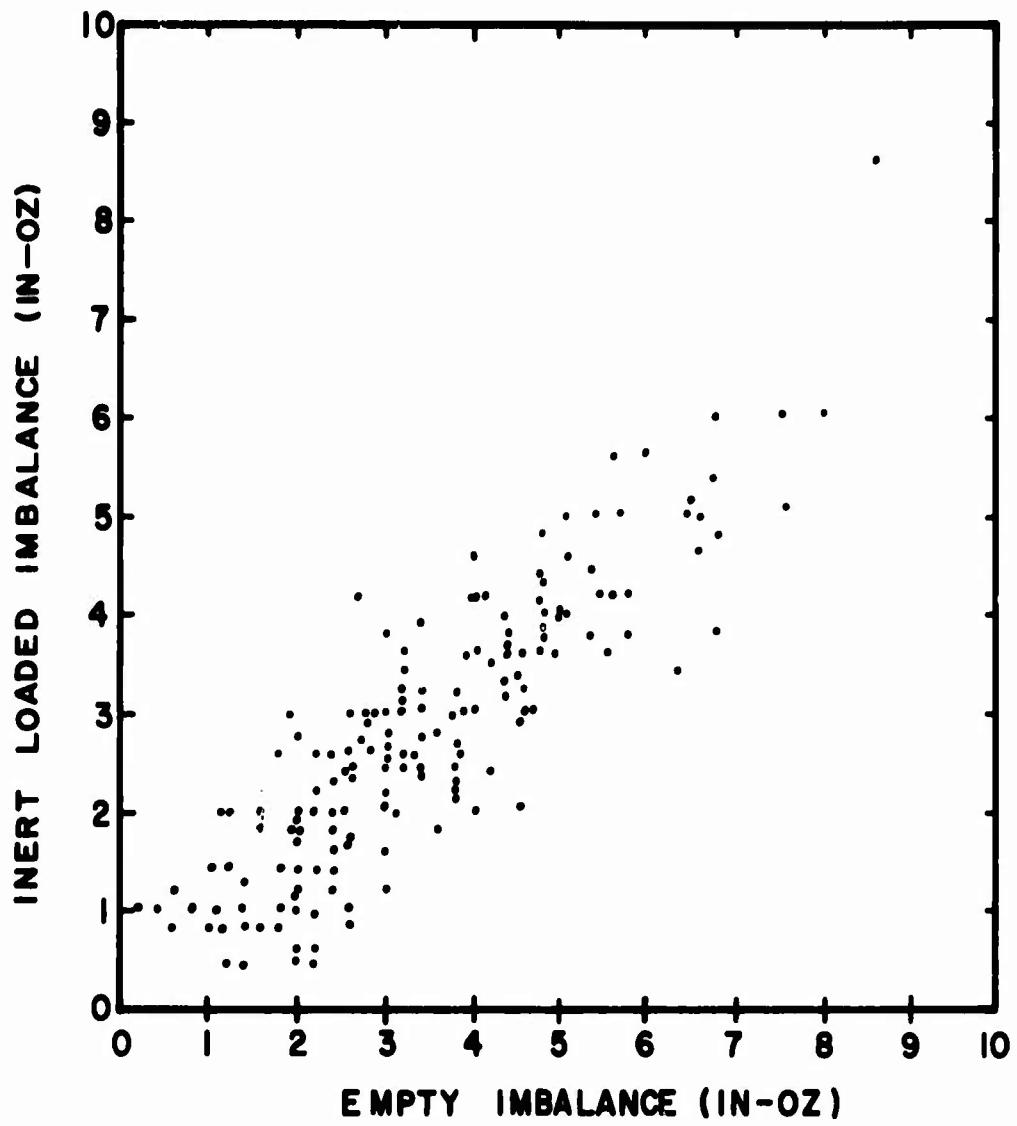


FIGURE 10

Scatter Diagram of Relation Between Empty Projectile Imbalance and  
Inert Loaded Imbalance in the Right Plane (Rear Bourrelet)  
for 5"/38 Mk 66 MOD 0 Projectile

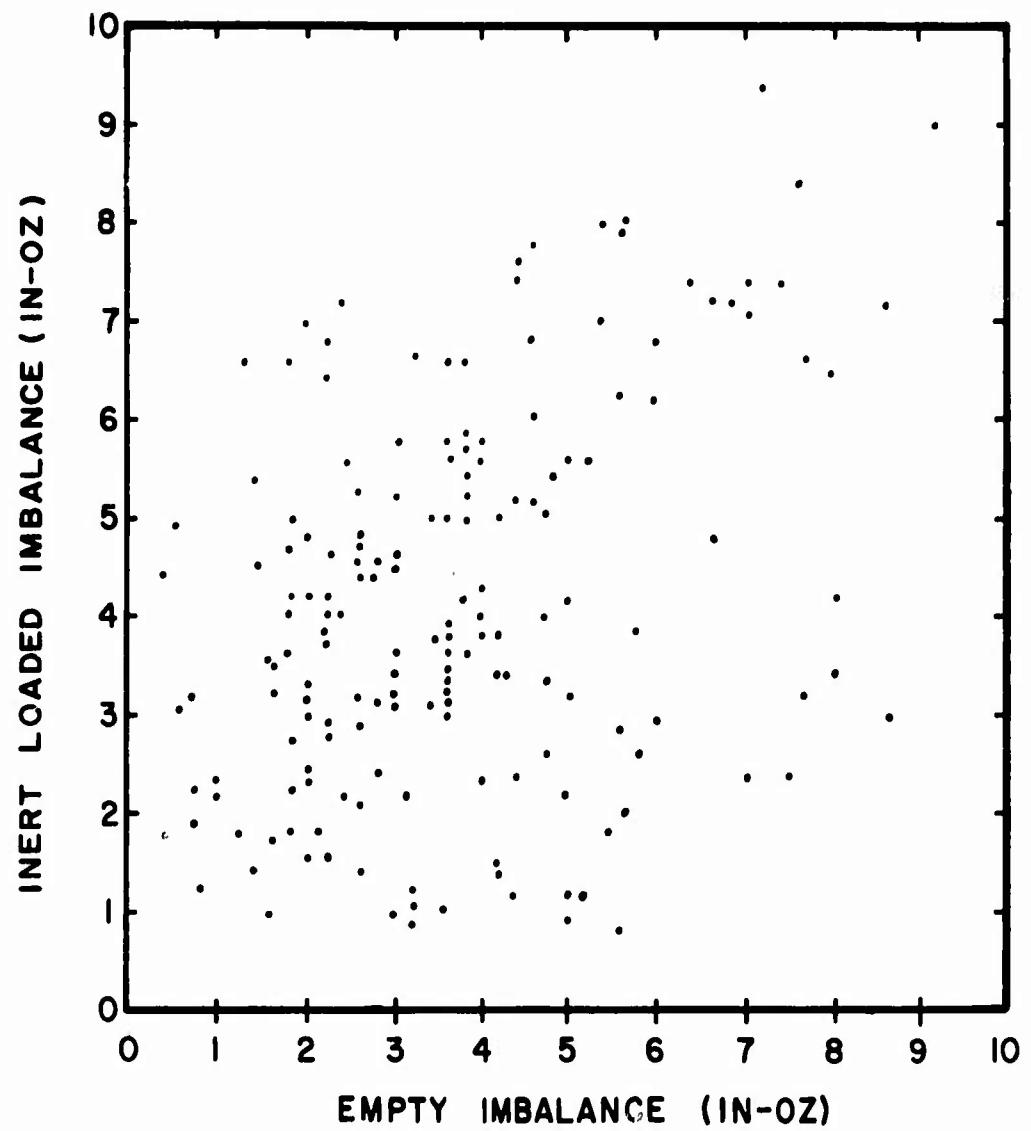


FIGURE 11

Scatter Diagram of Relation Between Empty Projectile Imbalance and  
Inert Loaded Imbalance in the Left Plane (Forward Bourrelet) for  
5"/38 Mk 66 MOD 0 Projectiles

TABLE 2  
ANALYSIS OF DIMENSIONAL INSPECTION DATA

DAYS	INITIAL VELOCITY	VARIABLES IN MODEL			MULTIPLE CORRELATION COEFFICIENT	F-RATIO (1)
		FORWARD BOURRELET DIAMETER	INSIDE TIR 3.75 FROM NOSE	PROJECTILE LENGTH		
X					.86.5	.702
X	X				.59.2	.874
X	X	X			.57.8	.681
X	X	X	X		.56.5	.888
X	X	X	X	X	.56.0	.890
X	X	X	X	X	.55.8	.892
						2.09 NS

(1) This F-RATIO is for the significance of the added variable

\*\*\* Significant at 99 percent probability level

\* Significant at 90 percent probability level

four most important dimensions (as selected by the computer program) to the model in addition to days and initial velocity. Three dimensions (forward bourrelet diameter, inside TIR 3."75 from the nose, and projectile length) have a significant effect upon ballistic range. These three dimensions meet the three statistical requirements as discussed earlier and can be seen in Table 2. None of the other dimensions had an effect upon ballistic range for the range of data analyzed. Statistics of the data analyzed are given in Table 3. Appendix C shows histograms and statistics of the measurements. Most of the measurements were fairly normally distributed.

Figure 12 shows the location and order of importance of the three significant projectile measurements with respect to ballistic range. The following model or regression equation was derived incorporating the significant variables which influence ballistic range:

$$R = 46783.4 + 97.6X_1 - 22.8X_2 + 60.8X_3 + 6.086 \begin{pmatrix} \text{INITIAL} \\ \text{VELOCITY} \end{pmatrix} \\ - 9152.844 \begin{pmatrix} \text{FORWARD} \\ \text{BOURRELET} \\ \text{DIAMETER} \end{pmatrix} - 2380.307 \begin{pmatrix} \text{INSIDE} \\ \text{TIR 3.75} \\ \text{FROM NOSE} \end{pmatrix} \\ - 289.044 \begin{pmatrix} \text{PROJECTILE} \\ \text{LENGTH} \end{pmatrix}$$

Where

$$\begin{aligned} R &= \text{range (yds)} \\ X_1 \\ X_2 \\ X_3 \end{aligned} \quad \left. \begin{array}{l} X_1 \\ X_2 \\ X_3 \end{array} \right\} \text{blocking for days}$$

This equation has a multiple correlation coefficient of 0.890. The square of this number implies that this equation explains 79.2% of the variation in ballistic range.

The model may be interpreted as follows: (1) range is increased 6.086 yards for each ft/sec increase in initial velocity, (2) range is decreased 9.152 yards for each 0."001 increase in the forward bourrelet diameter, (3) range is decreased 2.38 yards for each 0."001 increase in the inside TIR at 3."75 from the nose, (4) range is decreased 2.89 yards for each 0."01 increase in the projectile length.

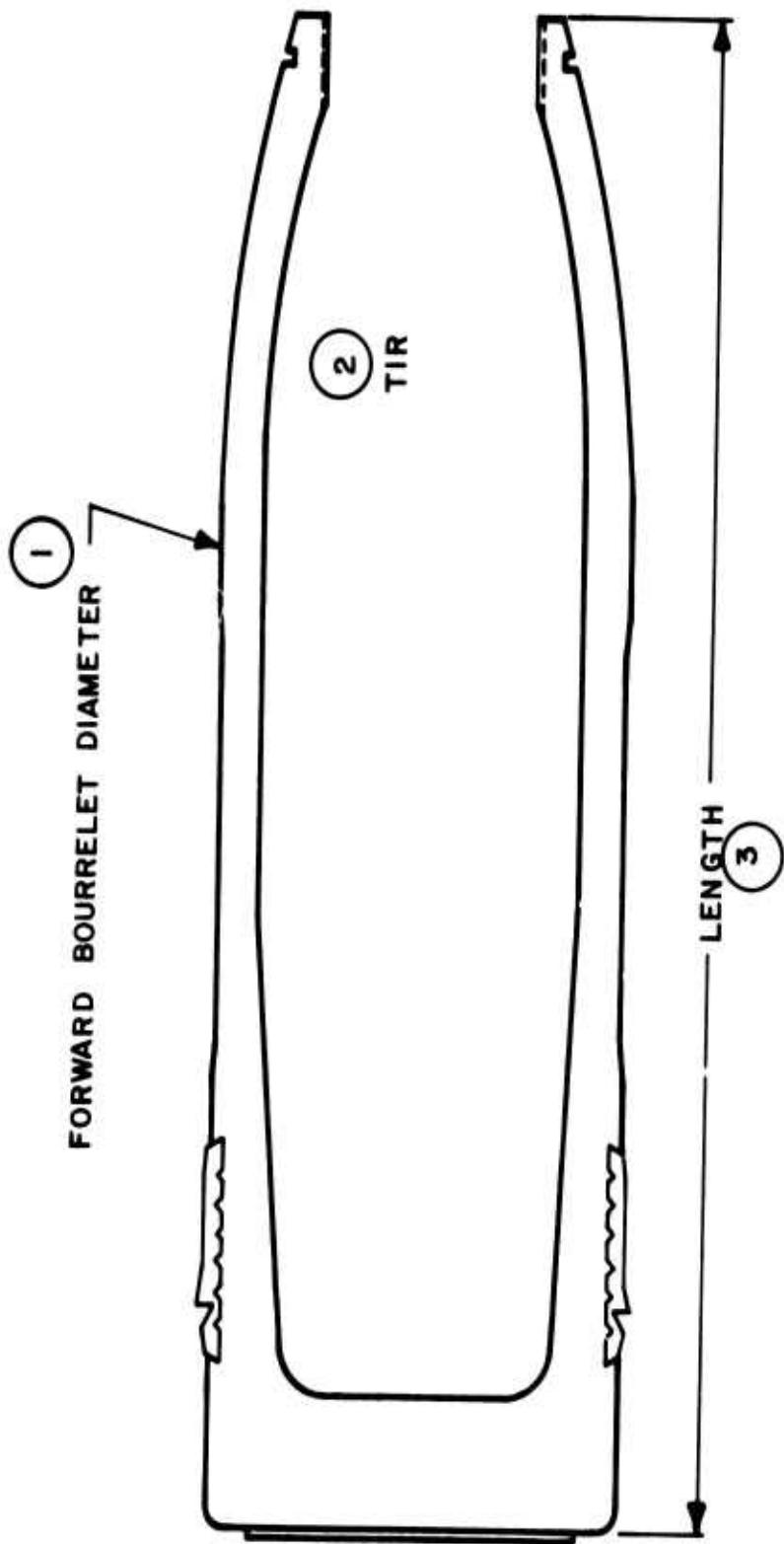


FIGURE 12

Location of Significant Projectile Measurements and  
the Order of Importance

**TABLE 3**  
**5"/38 MARK 66 MOD 0 PROJECTILE BODY STATISTICS**

MEASUREMENT LOCATION (in)	AVERAGE (in)	MAXIMUM (in)	MINIMUM (in)	STANDARD DEVIATION	RANGE (in)
INSIDE DIAMETER					
1.9*	2.960	3.113	2.701	.059	.412
2.9*	3.369	3.390	3.334	.010	.056
3.9*	3.486	3.523	3.462	.010	.061
4.9*	3.605	3.689	3.576	.012	.113
5.9*	3.723	3.847	3.694	.023	.153
6.9*	3.839	3.994	3.810	.022	.184
7.9*	3.924	3.994	3.905	.011	.089
8.9*	3.927	3.994	3.907	.011	.087
9.9*	3.931	3.994	3.908	.010	.086
5.75**	3.934	3.965	3.911	.009	.054
4.75**	3.896	3.923	3.856	.011	.067
3.75**	3.733	3.817	3.653	.035	.164
2.75**	3.470	3.549	3.386	.032	.163
1.75**	2.930	3.041	2.804	.049	.237
OUTSIDE DIAMETER					
1.9*	4.983	4.988	4.976	.002	.012
2.9*	5.124	5.128	5.119	.002	.009
3.9*	5.124	5.128	5.119	.002	.009
4.9*	4.984	4.989	4.978	.002	.011
5.9*	4.957	4.966	4.949	.004	.017
6.9*	4.957	4.966	4.945	.004	.021
7.9*	4.956	4.965	4.946	.004	.019
8.9*	4.956	4.967	4.945	.004	.022
9.9*	4.957	4.981	4.946	.005	.035
5.75**	4.983	4.987	4.980	.002	.007
4.75**	4.887	4.899	4.880	.003	.019
3.75**	4.701	4.712	4.692	.003	.020
2.75**	4.437	4.449	4.426	.004	.023
1.75**	4.094	4.105	4.082	.004	.023

\* Distance from base

\*\* Distance from nose

TABLE 3 (Continued)

## 5"/38 MARK 68 MOD 0 PROJECTILE BODY STATISTICS

<u>MEASUREMENT LOCATION (in)</u>	<u>AVERAGE (in)</u>	<u>MAXIMUM (in)</u>	<u>MINIMUM (in)</u>	<u>STANDARD DEVIATION</u>	<u>RANGE (in)</u>
INSIDE TOTAL INDICATED READING					
1.9*	.014	.053	.002	.009	.051
2.9*	.013	.046	.000	.008	.046
3.9*	.012	.033	.001	.007	.032
4.9*	.011	.030	.001	.006	.029
5.9*	.011	.029	.001	.006	.028
6.9*	.011	.026	.001	.005	.025
7.9*	.011	.026	.001	.005	.025
8.9*	.011	.025	.000	.005	.025
9.9*	.012	.032	.001	.006	.031
5.75**	.013	.043	.002	.007	.041
4.75**	.012	.038	.000	.007	.038
3.75**	.010	.035	.000	.006	.035
2.75**	.010	.035	.001	.006	.034
1.75**	.013	.036	.002	.007	.034
MISCELLANEOUS					
Base Thickness	1.533	1.626	1.435	.037	.191
Length	16.645	16.726	16.493	.037	.233
Thread Angle	.002	.005	.000	.002	.005

\* Distance from base

\*\* Distance from nose

Tolerances (from Figure 1) of the three significant measurements are as follows:

Measurement	Tolerance (inches)	Effect on Ballistic Range
Forward Bourrelet diameter	$4.985^{+.000}_{-.005}$	45.7 yds
Inside TIR 3.75 from NOSE	.000 - .050	119.0 yds
Projectile length	$16.63 \pm .15$	86.7 yds

The right column is the effect the measurements would have on ballistic range from the minimum to the maximum tolerance. These were determined by multiplying the coefficients in the above equation by the range of the measurement tolerance. It can be observed that inside TIR 3.75 from the NOSE and projectile length can have a sizeable effect on ballistic range for the current tolerances. The tolerances of these measurements should be decreased to about half of the current value because of their effect on ballistic performance.

### C. Relationship Between Dynamic Imbalance and Projectile Dimensions

TIR measurements were taken at 17 locations inside the projectile cavity. These 17 measurements give a good representation of the eccentricity of the inside cavity relative to the bourrelets. These data are given in Appendix B at various distances from the projectile base (Z1 locations) and from the projectile nose (Z2 locations).

Multiple regression techniques were used to determine if dynamic imbalance could be predicted from projectile inside cavity TIR measurements. Sixty-five projectiles were used for this study from lots 62-74. Dynamic imbalance data for empty projectiles (Appendix A) were used. The right and left planes were investigated separately. The dynamic imbalance can be predicted fairly well by using the inside cavity TIR at three locations for the right plane and also for three different locations for the left plane. All 17 locations were evaluated in the regression work but only three locations were statistically significant for each plane. These three inside TIR measurements significantly influence the right plane (base bourrelet) dynamic imbalance: TIR 4.9 inches from base, TIR 8.9 inches from base, and TIR 2.9 inches from base. Note that these three locations are in the area of the rear bourrelet (see Figure 5).

The following three inside TIR measurements significantly influence the left plane (forward bourrelet) dynamic imbalance: TIR 9.9 inches from base, TIR 3.75 inches from NOSE, and TIR 2.75 inches from NOSE. Note that these three locations are in the area of the forward bourrelet (see Figure 5). The following equations were derived by regression analysis to predict dynamic imbalance from TIR measurements:

**Right Plane (Base Bourrelet)**

$$DI = 0.096 + 78.4845 \left( \begin{matrix} \text{INSIDE TIR} \\ \text{AT 4.9 IN} \end{matrix} \right) + 135.7693 \left( \begin{matrix} \text{INSIDE TIR} \\ \text{AT 8.9 IN} \end{matrix} \right) + 100.2835 \left( \begin{matrix} \text{INSIDE TIR} \\ \text{AT 2.9 IN} \end{matrix} \right)$$

This equation explains 87% of the variations in dynamic imbalance.

**Left Plane (Forward Bourrelet)**

$$DI = -0.246 + 188.2139 \left( \begin{matrix} \text{INSIDE TIR} \\ \text{AT 9.9 IN} \end{matrix} \right) + 110.5646 \left( \begin{matrix} \text{INSIDE TIR} \\ \text{AT 3.75 IN} \end{matrix} \right) + 52.662 \left( \begin{matrix} \text{INSIDE TIR} \\ \text{AT 2.75 IN} \end{matrix} \right)$$

This equation explains 84% of the variation in dynamic imbalance. These equations validate the fact that dynamic imbalance is caused mostly by the eccentricity of the inside cavity of the projectile.

## V. CONCLUSIONS

- (1) A dynamic imbalance of ten inch-ounces or less does not significantly influence the ballistic range of a 5"/38 MARK 66 projectile.
- (2) Three projectile body dimensions had a significant effect upon the ballistic range of a 5"/38 MARK 66 projectile.
- (3) Dynamic imbalance is highly correlated with total indicated reading (eccentricity) of the inside projectile cavity.
- (4) None of the tests studied seems to be a substitute for ballistic testing of projectiles as an acceptance test.

**APPENDIX A**

**Dynamic Imbalance Data**

EMPTY LOADED													
DATE TESTED	PROJ NO.	RANGE (YDS)	D-VELOCITY (FT/SEC)	INITIAL V-LOCITY (FT/SEC)	BALLISTIC RANGE MILE	CROSS WIND (KTS)	DYNAMIC BALANCE (KTS)	CENTFR OF GRAVITY				CENTFR OF GRAVITY (IN-02) (IN-03) (IN-02) (IN-03)	
								RIGHT PLANE		LEFT PLANE			
								DYNAMIC	BALANCE	DYNAMIC	BALANCE		
7-6-74	31	11947	161	2531	99.34	6.20	2.51	4.4	1.03	2.2	2.00	6.4	
7-6-74	33	92 12.54	164	2576	99.34	6.25	2.51	4.6	1.03	3.4	5.0	6.4	
7-6-74	33	93 11942	182	2544	99.34	6.25	2.51	7.4	2.43	5.4	7.4	6.4	
7-6-74	33	94 11947	196	2226	99.34	6.25	2.51	7.5	2.43	6.4	7.5	6.4	
7-6-74	33	95 11971	143	2515	99.34	6.20	2.51	7.5	2.43	7.5	7.5	6.4	
7-6-74	34	91 12042	143	2542	99.34	6.24	2.51	4.4	1.03	4.9	7.66	6.4	
7-6-74	34	92 11937	177	2229	99.34	6.25	2.51	7.6	3.40	5.2	7.64	6.52	
7-6-74	34	93 11951	171	2526	99.34	6.25	2.51	7.6	3.59	7.4	7.57	6.52	
7-6-74	34	94 11943	172	2524	99.34	6.25	2.51	7.6	3.63	7.4	7.66	6.52	
7-6-74	34	95 11915	161	2533	99.34	6.20	2.51	7.6	2.20	7.0	7.65	6.52	
7-6-74	35	91 12056	135	2529	99.34	6.25	2.51	7.6	1.33	3.2	7.65	6.52	
7-6-74	35	92 12063	135	2527	99.34	6.24	2.51	7.6	2.11	2.11	7.65	6.52	
7-6-74	35	93 12017	131	2544	99.34	6.20	2.51	7.6	1.10	7.4	7.66	6.52	
7-6-74	35	94 11952	129	2557	99.34	6.25	2.51	7.6	1.14	7.8	7.64	6.52	
7-6-74	35	95 12040	143	2532	99.34	6.25	2.51	7.6	1.03	1.5	7.67	6.52	
7-6-74	35	96 12047	142	2546	99.34	6.20	2.51	7.6	1.23	1.5	7.65	6.52	
7-6-74	36	92 12049	147	2526	99.34	6.25	2.51	7.6	1.16	1.5	7.65	6.52	
7-6-74	36	93 12021	131	2534	99.34	6.25	2.51	7.6	1.10	2.2	7.65	6.52	
7-6-74	36	94 12061	131	2526	99.34	6.25	2.51	7.6	1.10	2.2	7.65	6.52	
7-6-74	36	95 12064	129	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	36	97 12064	136	2531	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	92 12045	137	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	93 12091	147	2243	99.34	6.25	2.51	7.6	1.03	1.5	7.65	6.52	
7-6-74	37	94 12057	131	2534	99.34	6.25	2.51	7.6	1.10	2.2	7.65	6.52	
7-6-74	37	95 12057	130	2526	99.34	6.25	2.51	7.6	1.10	2.2	7.65	6.52	
7-6-74	37	96 12029	131	2526	99.34	6.25	2.51	7.6	1.10	2.2	7.65	6.52	
7-6-74	37	97 12063	129	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	98 12064	136	2531	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	99 12047	137	2531	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	100 12057	137	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	101 12057	130	2526	99.34	6.25	2.51	7.6	1.10	2.2	7.65	6.52	
7-6-74	37	102 12057	129	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	103 12064	136	2531	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	104 12064	137	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	105 12064	137	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	106 12064	137	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	107 12064	137	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	108 12064	137	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	109 12064	137	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	110 12064	137	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	111 12064	137	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	112 12064	137	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	113 12064	137	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	114 12064	137	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	115 12064	137	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	116 12064	137	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	117 12064	137	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	118 12064	137	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	119 12064	137	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	120 12064	137	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	121 12064	137	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	122 12064	137	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	123 12064	137	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	124 12064	137	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	125 12064	137	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	126 12064	137	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	127 12064	137	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	128 12064	137	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	129 12064	137	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	130 12064	137	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	131 12064	137	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	132 12064	137	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	133 12064	137	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	134 12064	137	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	135 12064	137	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	136 12064	137	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	137 12064	137	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	138 12064	137	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	139 12064	137	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	140 12064	137	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	141 12064	137	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	142 12064	137	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	143 12064	137	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	144 12064	137	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	145 12064	137	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	146 12064	137	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	147 12064	137	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	148 12064	137	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	149 12064	137	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	150 12064	137	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	151 12064	137	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	152 12064	137	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	153 12064	137	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	154 12064	137	2547	99.34	6.25	2.51	7.6	1.14	2.2	7.65	6.52	
7-6-74	37	155 12064											

DATE TESTED	LOT NO.	PROJ NO.	RANGE (YARDS)	DRIFT (YARDS)	INITIAL VELOCITY (FT/SEC)	BALLISTIC RANGE (METERS)	CROSS WIND (PERCENT)	DENSITY (KTS)	GRAVITY (IN-02)	RIGHT PLANE		LEFT PLANE		CENTER OF GRAVITY			
										RIGHT DYNAMIC BALANCE (DEG)	RIGHT GRAVITY (IN-01)	LEFT DYNAMIC BALANCE (DEG)	LEFT GRAVITY (IN-01)	RIGHT DYNAMIC BALANCE (DEG)	RIGHT GRAVITY (IN-01)		
7-4-6-73	42	92	12032	125	2734	99.34	6.29	2.51	2.6	3.0	210	7.64	4.3	120	1.6	324	6.58
7-4-6-73	42	93	12039	141	2527	99.14	6.26	2.51	5.4	150	7.64	6.0	110	6.4	128	6.52	
7-4-6-73	42	94	11939	154	2517	99.14	6.25	2.51	4.2	160	7.64	4.4	350	2.6	360	6.50	
7-4-6-73	42	95	11937	127	2525	99.14	6.26	2.51	4.6	150	7.64	4.6	300	7.2	300	6.50	
7-4-6-73	43	81	12339	-66	2579	97.63	-1.25	-0.27	5.0	310	7.54	4.6	300	2.8	368	6.54	
7-4-6-73	43	82	12247	-57	2773	97.63	-1.25	-0.27	5.2	160	7.54	4.6	300	2.8	368	6.54	
7-4-6-73	43	83	12249	-64	2374	97.63	-1.25	-0.27	4.6	170	7.64	1.9	360	5.3	198	6.54	
7-4-6-73	43	84	12212	-46	2574	97.63	-1.25	-0.27	4.9	140	7.64	1.9	360	4.6	258	6.52	
7-4-6-73	43	85	12277	-52	2573	97.63	-1.25	-0.27	4.2	140	7.65	1.6	160	2.2	190	6.53	
7-4-6-73	44	31	12032	-54	2544	97.64	-1.25	-0.27	6.2	260	7.64	2.0	250	2.6	250	6.60	
7-4-6-73	44	92	11919	-11	2527	97.63	-1.25	-0.27	5.0	260	7.72	3.0	270	3.6	90	6.62	
7-4-6-73	44	93	11934	-59	2530	97.63	-1.25	-0.27	1.4	160	7.73	2.0	50	2.8	220	6.59	
7-4-6-73	44	94	12056	-6	2525	97.63	-1.25	-0.27	3.0	260	7.74	2.2	60	2.8	250	6.63	
7-4-6-73	44	95	12032	-52	2532	97.63	-1.25	-0.27	6.6	320	5.6	7.3	290	4.8	120	6.61	
7-4-6-73	45	91	11949	-55	2529	97.63	-1.25	-0.27	3.4	710	7.73	3.6	290	4.8	200	6.58	
7-4-6-73	45	92	12060	-51	2334	97.63	-1.25	-0.27	3.0	80	7.65	4.8	290	5.4	200	6.58	
7-4-6-73	45	93	12039	-55	2534	97.63	-1.25	-0.27	6.4	260	7.74	1.6	20	2.0	190	6.60	
7-4-6-73	45	94	11932	-51	2531	97.63	-1.25	-0.27	4.0	210	7.67	2.4	260	3.2	90	6.59	
7-4-6-73	45	95	11979	-56	2529	97.63	-1.25	-0.27	10.0	40	9.2	4.4	33	5.6	230	6.57	
7-4-6-73	46	90	11916	-39	2524	97.63	-1.25	-0.27	4.6	40	7.68	2.4	50	3.8	240	6.55	
7-4-6-73	46	91	12024	-57	2524	97.63	-1.25	-0.27	3.6	40	7.60	3.8	760	4.0	250	6.52	
7-4-6-73	46	92	12056	-55	2529	97.63	-1.25	-0.27	4.8	330	4.6	3.6	720	4.8	160	6.55	
7-4-6-73	46	93	11934	-43	2516	97.63	-1.25	-0.27	6.0	20	7.74	1.6	20	2.0	190	6.60	
7-4-6-73	46	94	11936	-42	2517	97.63	-1.25	-0.27	4.0	260	7.67	2.4	260	3.2	90	6.59	
7-4-6-73	46	95	11937	-45	2525	97.63	-1.25	-0.27	4.2	310	5.6	5.4	400	6.8	110	6.57	
7-4-6-73	47	B1	11957	-36	2524	97.63	-1.25	-0.27	5.4	100	7.68	2.2	40	2.8	290	6.54	
7-4-6-73	47	B2	11957	-36	2524	97.63	-1.25	-0.27	5.4	100	7.68	2.2	40	2.8	290	6.54	
7-4-6-73	47	R1	11935	-43	2524	97.63	-1.25	-0.27	4.0	270	7.8	7.2	250	4.8	80	6.56	
7-4-6-73	47	R2	11974	-43	2522	97.63	-1.25	-0.27	6.0	270	7.68	1.6	100	4.8	380	6.59	
7-4-6-73	47	R3	11974	-43	2521	97.63	-1.25	-0.27	4.8	330	4.6	3.6	720	4.8	160	6.55	
7-4-6-73	47	R4	11849	-48	2535	97.63	-1.25	-0.27	5.4	130	7.69	3.6	740	4.8	240	6.60	
7-4-6-73	47	R5	12034	-47	2516	97.63	-1.25	-0.27	6.6	300	7.69	3.8	290	4.8	80	6.58	
7-4-6-73	47	R6	11963	-43	2517	97.63	-1.25	-0.27	7.4	330	7.71	2.8	290	3.4	110	6.57	
7-4-6-73	47	R7	11949	-43	2529	97.63	-1.25	-0.27	4.2	310	5.6	5.2	290	6.8	110	6.58	
7-4-6-73	47	R8	11936	-53	2522	97.63	-1.25	-0.27	6.8	310	7.72	5.2	110	5.0	290	6.54	
7-4-6-73	47	R9	11957	-43	2516	97.63	-1.25	-0.27	4.0	270	7.72	4.8	110	5.4	330	6.56	
7-4-6-73	47	R10	11974	-43	2521	97.63	-1.25	-0.27	6.0	100	7.70	1.6	100	4.8	310	6.57	
7-4-6-73	47	R11	11968	-45	2515	97.63	-1.25	-0.27	6.2	40	7.70	2.4	50	1.8	240	6.57	
7-4-6-73	47	R12	12141	-42	2518	97.63	-1.25	-0.27	4.0	360	7.67	1.6	110	4.0	650	6.52	
7-4-6-73	47	R13	12141	-42	2521	97.63	-1.25	-0.27	4.2	300	5.2	120	4.2	120	6.52		
7-4-6-73	47	R14	12141	-35	2521	97.63	-1.25	-0.27	4.6	300	7.70	3.6	300	6.8	120	6.60	
7-4-6-73	47	R15	12141	-35	2521	97.63	-1.25	-0.27	4.2	360	7.69	5.2	160	6.8	360	6.59	
7-4-6-73	47	R16	12141	-35	2521	97.63	-1.25	-0.27	4.2	360	7.70	5.2	160	6.8	360	6.59	
7-4-6-73	47	R17	12141	-35	2521	97.63	-1.25	-0.27	4.2	360	7.71	5.2	160	6.8	360	6.59	
7-4-6-73	47	R18	12141	-35	2521	97.63	-1.25	-0.27	4.2	360	7.72	5.2	160	6.8	360	6.59	
7-4-6-73	47	R19	12141	-35	2521	97.63	-1.25	-0.27	4.2	360	7.73	5.2	160	6.8	360	6.59	
7-4-6-73	47	R20	12141	-35	2521	97.63	-1.25	-0.27	4.2	360	7.74	5.2	160	6.8	360	6.59	
7-4-6-73	47	R21	12141	-35	2521	97.63	-1.25	-0.27	4.2	360	7.75	5.2	160	6.8	360	6.59	
7-4-6-73	47	R22	12141	-35	2521	97.63	-1.25	-0.27	4.2	360	7.76	5.2	160	6.8	360	6.59	
7-4-6-73	47	R23	12141	-35	2521	97.63	-1.25	-0.27	4.2	360	7.77	5.2	160	6.8	360	6.59	
7-4-6-73	47	R24	12141	-35	2521	97.63	-1.25	-0.27	4.2	360	7.78	5.2	160	6.8	360	6.59	
7-4-6-73	47	R25	12141	-35	2521	97.63	-1.25	-0.27	4.2	360	7.79	5.2	160	6.8	360	6.59	
7-4-6-73	47	R26	12141	-35	2521	97.63	-1.25	-0.27	4.2	360	7.80	5.2	160	6.8	360	6.59	
7-4-6-73	47	R27	12141	-35	2521	97.63	-1.25	-0.27	4.2	360	7.81	5.2	160	6.8	360	6.59	
7-4-6-73	47	R28	12141	-35	2521	97.63	-1.25	-0.27	4.2	360	7.82	5.2	160	6.8	360	6.59	
7-4-6-73	47	R29	12141	-35	2521	97.63	-1.25	-0.27	4.2	360	7.83	5.2	160	6.8	360	6.59	
7-4-6-73	47	R30	12141	-35	2521	97.63	-1.25	-0.27	4.2	360	7.84	5.2	160	6.8	360	6.59	
7-4-6-73	47	R31	12141	-35	2521	97.63	-1.25	-0.27	4.2	360	7.85	5.2	160	6.8	360	6.59	
7-4-6-73	47	R32	12141	-35	2521	97.63	-1.25	-0.27	4.2	360	7.86	5.2	160	6.8	360	6.59	
7-4-6-73	47	R33	12141	-35	2521	97.63	-1.25	-0.27	4.2	360	7.87	5.2	160	6.8	360	6.59	
7-4-6-73	47	R34	12141	-35	2521	97.63	-1.25	-0.27	4.2	360	7.88	5.2	160	6.8	360	6.59	
7-4-6-73	47	R35	12141	-35	2521	97.63	-1.25	-0.27	4.2	360	7.89	5.2	160	6.8	360	6.59	
7-4-6-73	47	R36	12141	-35	2521	97.63	-1.25	-0.27	4.2	360	7.90	5.2	160	6.8	360	6.59	
7-4-6-73	47	R37	12141	-35	2521	97.63	-1.25	-0.27	4.2	360	7.91	5.2	160	6.8	360	6.59	
7-4-6-73	47	R38	12141	-35	2521	97.63	-1.25	-0.27	4.2	360	7.92	5.2	160	6.8	360	6.59	
7-4-6-73	47	R39	12141	-35	2521	97.63	-1.25	-0.27	4.2	360	7.93	5.2	160	6.8	360	6.59	
7-4-6-73	47	R40	12141	-35	2521	97.63	-1.25	-0.27	4.2	360	7.94	5.2	160	6.8	360	6.59	
7-4-6-73	47	R41	12141	-35	2521	97.63	-1.25	-0.27	4.2	360	7.95	5.2	160	6.8	360	6.59	
7-4-6-73	47	R42	12141	-35	2521	97.63	-1.25	-0.27	4.2	360	7.96	5.2	160</				

## TINSET LOADS

DATE TESTED	PROJ. NO.	WINGSPAN (YDS)	INITIAL WIND (FT/SEC)	BALLISTIC DEENSITY (PSECFUT)	RANGE WIND (KTS)	CROSS WIND (KTS)	RIGHT PLANE DYNAMIC BALANCE (IN-02)	LEFT PLANE DYNAMIC BALANCE (IN-02)	RIGHT PLANE GRAVITY (IN-02) (DEG)	LEFT PLANE GRAVITY (IN-02) (DEG)	CENTRIF. CF GRAVITY (IN-02)			
											RIGHT PLANE DYNAMIC BALANCE (IN-02)	LEFT PLANE DYNAMIC BALANCE (IN-02)		
9-17-70	51	83	126.57	127	2528	26.7	-10.31	-5	12.0	2.9	2.7	1.5	6.52	
9-17-70	51	94	126.57	125	2531	9.7	-10.31	5.2	4.2	7.4	10	6.0	6.62	
9-17-70	51	35	126.11	127	2532	9.7	-7.4	4.0	1.0	13.4	7.0	6.0	5.4	
9-17-70	52	91	124.57	129	2539	9.7	-7.4	1.2	2.5	2.8	1.0	2.79	3.4	
9-17-70	52	82	126.4	126	2527	9.7	-7.4	1.4	2.4	2.2	1.0	2.79	3.4	
9-17-70	52	83	126.61	133	2523	9.7	-7.4	3.4	2.4	4.2	2.2	2.59	1.6	
9-17-70	52	84	119.59	118	2527	9.7	-7.0	1.0	1.0	1.4	0.4	2.49	7.6	
9-17-70	52	82	119.97	111	2519	9.7	-7.0	1.0	1.0	1.4	0.4	2.49	7.7	
9-17-70	51	81	122.18	111	2544	9.7	-7.0	1.0	1.0	1.4	0.4	2.49	7.7	
9-17-70	53	92	119.42	111	2525	9.7	-7.0	1.0	1.0	1.4	0.4	2.49	7.6	
9-17-70	53	93	127.72	129	2536	9.7	-7.0	1.0	1.0	1.4	0.4	2.49	7.5	
9-17-70	53	94	119.39	124	2531	9.7	-7.0	1.0	1.0	1.4	0.4	2.49	7.4	
9-17-70	53	95	127.74	115	2534	9.7	-7.0	1.0	1.0	1.4	0.4	2.49	7.3	
9-17-70	54	91	126.17	111	2531	9.7	-7.0	1.0	1.0	1.4	0.4	2.49	7.2	
9-17-70	54	93	126.4	117	2534	9.7	-7.0	1.0	1.0	1.4	0.4	2.49	7.1	
9-17-70	54	94	126.33	114	2523	9.7	-7.0	1.0	1.0	1.4	0.4	2.49	7.0	
9-17-70	54	95	126.52	112	2527	9.7	-7.0	1.0	1.0	1.4	0.4	2.49	6.9	
9-17-70	55	91	126.14	112	2527	9.7	-7.0	1.0	1.0	1.4	0.4	2.49	6.8	
9-17-70	55	92	126.72	111	2531	9.7	-7.0	1.0	1.0	1.4	0.4	2.49	6.7	
9-17-70	54	92	126.17	113	2534	9.7	-7.0	1.0	1.0	1.4	0.4	2.49	6.6	
9-17-70	54	93	126.4	117	2534	9.7	-7.0	1.0	1.0	1.4	0.4	2.49	6.5	
9-17-70	54	95	126.33	114	2523	9.7	-7.0	1.0	1.0	1.4	0.4	2.49	6.4	
9-17-70	54	96	126.52	112	2527	9.7	-7.0	1.0	1.0	1.4	0.4	2.49	6.3	
9-17-70	55	91	126.14	116	2527	9.7	-7.0	1.0	1.0	1.4	0.4	2.49	6.2	
9-17-70	55	92	119.59	111	2525	9.7	-7.0	1.0	1.0	1.4	0.4	2.49	6.1	
9-17-70	55	93	116.94	116	2527	9.7	-7.0	1.0	1.0	1.4	0.4	2.49	6.0	
9-17-70	55	94	120.50	116	2537	9.7	-7.0	1.0	1.0	1.4	0.4	2.49	5.9	
9-17-70	55	96	119.52	112	2527	9.7	-7.0	1.0	1.0	1.4	0.4	2.49	5.8	
9-17-70	56	91	119.32	111	2519	9.7	-7.0	1.0	1.0	1.4	0.4	2.49	5.7	
9-17-70	56	92	119.52	112	2520	9.7	-7.0	1.0	1.0	1.4	0.4	2.49	5.6	
9-17-70	56	93	119.34	113	2524	9.7	-7.0	1.0	1.0	1.4	0.4	2.49	5.5	
9-17-70	56	94	119.92	116	2527	9.7	-7.0	1.0	1.0	1.4	0.4	2.49	5.4	
9-17-70	56	95	119.62	114	2512	9.7	-7.0	1.0	1.0	1.4	0.4	2.49	5.3	
9-17-70	57	91	119.12	116	2513	9.7	-7.0	1.0	1.0	1.4	0.4	2.49	5.2	
9-17-70	57	92	119.17	111	2527	9.7	-7.0	1.0	1.0	1.4	0.4	2.49	5.1	
9-17-70	57	93	119.39	117	2524	9.7	-7.0	1.0	1.0	1.4	0.4	2.49	5.0	
9-17-70	57	94	119.13	112	2528	9.7	-7.0	1.0	1.0	1.4	0.4	2.49	4.9	
9-17-70	57	95	85	119.16	103	2526	9.7	-7.0	1.0	1.0	1.4	0.4	2.49	4.8
9-17-70	57	96	84	119.92	115	2527	9.7	-7.0	1.0	1.0	1.4	0.4	2.49	4.7
9-17-70	57	97	81	119.52	112	2515	9.7	-7.0	1.0	1.0	1.4	0.4	2.49	4.6
9-17-70	58	93	116.54	111	2521	9.7	-7.0	1.0	1.0	1.4	0.4	2.49	4.5	
9-17-70	58	94	124.45	113	2525	9.7	-7.0	1.0	1.0	1.4	0.4	2.49	4.4	
9-17-70	58	95	82	119.42	117	2518	9.7	-7.0	1.0	1.0	1.4	0.4	2.49	4.3
9-17-70	59	91	119.16	111	2519	9.7	-7.0	1.0	1.0	1.4	0.4	2.49	4.2	
9-17-70	59	92	119.52	115	2526	9.7	-7.0	1.0	1.0	1.4	0.4	2.49	4.1	
9-17-70	59	93	120.76	116	2516	9.7	-7.0	1.0	1.0	1.4	0.4	2.49	4.0	
9-17-70	59	94	120.36	113	2523	9.7	-7.0	1.0	1.0	1.4	0.4	2.49	3.9	
9-17-70	59	95	85	119.79	117	2521	9.7	-7.0	1.0	1.0	1.4	0.4	2.49	3.8
9-17-70	59	96	91	119.32	111	2517	9.7	-7.0	1.0	1.0	1.4	0.4	2.49	3.7
9-17-70	59	97	82	126.33	117	2529	9.7	-7.0	1.0	1.0	1.4	0.4	2.49	3.6
9-17-70	60	83	119.39	115	2524	9.7	-7.0	1.0	1.0	1.4	0.4	2.49	3.5	

DATE TESTED	PROJ NO.	LOT NO.	RANGE (YDS)	DRIFT (YNS)	INITIAL VELOCITY (FT/SEC.)	BALLISTIC VELOCITY (FT/SEC.)	CROSS WIND (KTS)	ANGLE OF ELEVATION (DEG.)	RIGHT PLANE			CENTER PLANE			LEFT PLANE			CENTR. OF GRAVITY		
									DYNAMIC BALANCE	GRAVITY BALANCE										
9-1-7-73	60	94	120.34	1.67	227.6	97.73	1.83	-10.31	-8	250	3.4	90	7.65	-4	250	120	6.62			
8-1-7-70	60	85	120.67	1.12	252.9	97.70	1.81	-10.31	3.2	120	3.1	2.5	7.71	4.0	140	1.9	2.5			
9-1-7-70	61	91	119.87	1.11	251.6	97.79	1.81	-10.31	3.2	110	3.1	2.5	7.72	3.6	137	3.0	2.6			
9-1-7-73	61	92	120.03	1.14	251.2	97.70	1.81	-10.31	4.6	140	4.8	150	7.73	6.2	171	6.6	6.62			
9-1-7-73	61	93	119.73	0.97	252.1	97.73	1.81	-10.31	3.2	130	4.8	340	7.65	3.1	140	6.6	6.6			
9-1-7-73	61	94	119.97	1.16	251.7	97.73	1.81	-10.31	3.4	100	4.8	161	7.66	5.2	140	4.2	4.2			
9-1-7-73	61	95	120.34	1.29	252.4	97.73	1.81	-10.31	5.0	160	5.0	353	7.69	3.6	133	5.4	5.56			
9-1-7-73	62	91	118.94	0.60	251.8	102.95	5.12	-12.27	5.0	90	2.5	70	7.59	7.6	120	4.8	4.8			
9-1-7-73	62	92	117.24	4.6	251.6	102.95	5.12	-12.27	5.4	140	7.2	140	7.59	6.8	120	4.8	4.8			
9-1-7-73	62	93	117.12	4.5	251.4	102.93	5.12	-12.27	5.2	150	6.2	50	7.59	6.6	214	6.57	6.57			
9-1-7-73	62	94	114.42	4.9	252.7	116.95	5.12	-12.27	6.0	260	7.2	270	7.59	6.6	170	5.6	5.59			
9-1-7-73	62	95	118.45	4.3	251.7	116.95	5.12	-12.27	2.2	160	7.2	150	7.60	7.0	140	2.9	2.9			
9-1-7-73	63	91	119.54	4.1	252.5	112.45	5.12	-12.27	4.4	120	5.0	200	7.64	6.4	140	5.4	5.56			
9-1-7-73	63	92	118.59	3.8	252.6	112.45	5.12	-12.27	4.2	80	4.2	70	7.70	6.2	100	4.8	4.8			
9-1-7-73	63	93	117.41	4.1	252.2	102.95	5.12	-12.27	4.5	150	4.6	90	7.04	4.6	160	5.2	5.59			
9-1-7-73	63	94	117.37	3.4	252.3	102.95	5.12	-12.27	4.5	140	4.6	160	7.04	6.2	190	5.2	5.56			
9-1-7-73	63	95	116.45	4.1	251.5	102.95	5.12	-12.27	4.7	150	4.6	70	7.55	7.6	170	5.2	5.59			
9-1-7-73	64	91	117.53	3.2	251.5	102.95	5.12	-12.27	4.8	260	7.2	270	7.59	6.6	170	5.6	5.55			
9-1-7-73	64	92	117.14	3.0	251.6	102.95	5.12	-12.27	4.8	160	7.2	270	7.59	6.6	170	5.6	5.56			
9-1-7-73	64	93	116.73	3.7	251.1	112.45	5.12	-12.27	4.6	170	4.2	290	7.54	5.4	140	5.2	5.55			
9-1-7-73	64	94	116.24	3.6	251.4	102.95	5.12	-12.27	4.6	170	4.2	290	7.54	5.4	140	5.2	5.55			
9-1-7-73	64	95	117.14	4.2	251.9	102.95	5.12	-12.27	4.6	140	4.6	210	7.54	6.6	170	5.6	5.55			
9-1-7-73	65	91	117.23	4.5	251.3	102.95	5.12	-12.27	4.7	150	4.6	160	7.54	6.6	170	5.6	5.55			
9-1-7-73	65	92	115.11	4.1	251.7	116.95	5.12	-12.27	2.4	240	1.8	340	7.57	3.4	150	6.2	6.62			
9-1-7-73	65	93	115.44	3.2	252.9	116.95	5.12	-12.27	1.6	140	5.2	160	7.72	7.8	230	2.6	2.6			
9-1-7-73	65	94	117.63	2.5	251.0	112.45	5.12	-12.27	2.0	210	5.2	270	7.56	1.2	230	2.8	2.8			
9-1-7-73	65	95	117.65	3.0	252.0	112.45	5.12	-12.27	1.6	170	4.2	290	7.56	1.0	190	2.2	2.2			
9-1-7-73	65	96	117.03	1.9	251.9	102.95	5.12	-12.27	1.6	140	4.6	210	7.54	1.0	190	2.2	2.2			
9-1-7-73	65	97	117.14	4.2	251.9	102.95	5.12	-12.27	1.6	140	4.6	210	7.54	1.0	190	2.2	2.2			
9-1-7-73	65	98	117.23	4.5	251.3	102.95	5.12	-12.27	1.7	150	4.6	160	7.54	1.0	190	2.2	2.2			
9-1-7-73	65	99	116.51	2.9	251.7	116.95	5.12	-12.27	3.0	100	5.3	120	7.66	1.4	220	3.6	3.54			
9-1-7-73	65	100	116.49	3.5	252.9	116.95	5.12	-12.27	3.0	100	5.3	120	7.66	1.4	220	3.6	3.55			
9-1-7-73	65	101	117.61	1.3	251.0	112.45	5.12	-12.27	4.2	160	4.2	180	7.55	5.4	210	5.6	5.54			
9-1-7-73	65	102	117.19	2.6	252.0	112.45	5.12	-12.27	4.2	120	4.2	180	7.55	5.4	210	5.6	5.53			
9-1-7-73	65	103	117.13	2.7	251.7	102.95	5.12	-12.27	4.6	200	4.0	170	7.67	5.2	190	5.4	5.53			
9-1-7-73	65	104	117.65	2.3	251.3	102.95	5.12	-12.27	4.6	220	3.0	240	7.64	6.6	250	3.4	3.54			
9-1-7-73	65	105	117.55	1.7	251.3	102.95	5.12	-12.27	4.7	160	6.6	120	7.65	6.6	250	3.4	3.54			
9-1-7-73	65	106	116.9	2.2	249.6	116.92	5.12	-12.27	7.4	100	5.3	120	7.66	5.4	210	5.6	5.54			
9-1-7-73	65	107	117.61	1.3	251.0	112.45	5.12	-12.27	4.2	160	4.2	180	7.55	5.4	210	5.6	5.53			
9-1-7-73	65	108	117.19	2.6	252.0	112.45	5.12	-12.27	4.2	120	4.2	180	7.55	5.4	210	5.6	5.53			
9-1-7-73	65	109	117.13	2.7	251.7	102.95	5.12	-12.27	4.6	200	4.0	170	7.67	5.2	190	5.4	5.53			
9-1-7-73	65	110	117.65	2.3	251.3	102.95	5.12	-12.27	4.6	220	3.0	240	7.64	6.6	250	3.4	3.54			
9-1-7-73	65	111	117.55	1.7	251.3	102.95	5.12	-12.27	4.7	160	6.6	120	7.65	6.6	250	3.4	3.54			
9-1-7-73	65	112	116.9	2.2	249.6	116.92	5.12	-12.27	7.4	100	5.3	120	7.66	5.4	210	5.6	5.54			
9-1-7-73	65	113	117.61	1.3	251.0	112.45	5.12	-12.27	4.2	160	4.2	180	7.55	5.4	210	5.6	5.53			
9-1-7-73	65	114	117.19	2.6	252.0	112.45	5.12	-12.27	4.2	120	4.2	180	7.55	5.4	210	5.6	5.53			
9-1-7-73	65	115	117.13	2.7	251.7	102.95	5.12	-12.27	4.6	200	4.0	170	7.67	5.2	190	5.4	5.53			
9-1-7-73	65	116	117.65	2.3	251.3	102.95	5.12	-12.27	4.6	220	3.0	240	7.64	6.6	250	3.4	3.54			
9-1-7-73	65	117	117.55	1.7	251.3	102.95	5.12	-12.27	4.7	160	6.6	120	7.65	6.6	250	3.4	3.54			
9-1-7-73	65	118	116.9	2.2	249.6	116.92	5.12	-12.27	7.4	100	5.3	120	7.66	5.4	210	5.6	5.54			
9-1-7-73	65	119	117.61	1.3	251.0	112.45	5.12	-12.27	4.2	160	4.2	180	7.55	5.4	210	5.6	5.53			
9-1-7-73	65	120	117.19	2.6	252.0	112.45	5.12	-12.27	4.2	120	4.2	180	7.55	5.4	210	5.6	5.53			
9-1-7-73	65	121	117.13	2.7	251.7	102.95	5.12	-12.27	4.6	200	4.0	170	7.67	5.2	190	5.4	5.53			
9-1-7-73	65	122	117.65	2.3	251.3	102.95	5.12	-12.27	4.6	220	3.0	240	7.64	6.6	250	3.4	3.54			
9-1-7-73	65	123	117.55	1.7	251.3	102.95	5.12	-12.27	4.7	160	6.6	120	7.65	6.6	250	3.4	3.54			
9-1-7-73	65	124	116.9	2.2	249.6	116.92	5.12	-12.27	7.4	100	5.3	120	7.66	5.4	210	5.6	5.54			
9-1-7-73	65	125	117.61	1.3	251.0	112.45	5.12	-12.27	4.2	160	4.2	180	7.55	5.4	210	5.6	5.53			
9-1-7-73	65	126	117.19	2.6	252.0	112.45	5.12	-12.27	4.2	120	4.2	180	7.55	5.4	210	5.6	5.53			
9-1-7-73	65	127	117.13	2.7	251.7	102.95	5.12	-12.27	4.6	200	4.0	170	7.67	5.2	190	5.4	5.53			
9-1-7-73	65	128	117.65	2.3	251.3	102.95	5.12	-12.27	4.6	220	3.0	240	7.64	6.6	250	3.4	3.54			
9-1-7-73	65	129	117.55	1.7	251.3	102.95	5.12	-12.27	4.7	160	6.6	120	7.65	6.6	250	3.4	3.54			
9-1-7-73	65	130	116.9	2.2	249.6	116.92	5.12	-12.27	7.4	100	5.3	120	7.66	5.4	210	5.6	5.54			
9-1-7-73	65	131	117.61	1.3	251.0	112.45	5.12	-12.27	4.2	160	4.2	180	7.55	5.4	210	5.6	5.53			
9-1-7-73	65	132	117.19	2.6	252.0	112.45	5.12	-12.27</												

DATE TESTED	PROJ NO.	LOT NO.	DRIFT (YDS)	INITIAL VELOCITY (FT/SEC)	BALLISTIC PANG DEG/SEC	CROSS WIND (KTS)	RIGHT PLANE DYNAMIC BALANCE (INFG1)	LEFT PLANE DYNAMIC BALANCE (INFG2)	CENTER OF GRAVITY (LIND)	RIGHT PLANE DYNAMIC BALANCE (IN-02)	LEFT PLANE DYNAMIC BALANCE (IN-03)	EMPTY		INERT LOADED		
												RIGHT PLANE DYNAMIC BALANCE (IN-02)	LEFT PLANE DYNAMIC BALANCE (IN-03)	CENTER OF GRAVITY (LIND)	RIGHT PLANE DYNAMIC BALANCE (IN-02)	LEFT PLANE DYNAMIC BALANCE (IN-03)
3-3-73	69	31	11777	24	2517	1.5-35	-5.12	-12.57	6.0	160	2.4	120	7.6	110	2.8	90
1-1-26-73	70	31	11753	24.9	2532	1.02-23	1.75	21.63	7.4	160	3.4	40	5.4	30	3.8	40
1-1-26-73	71	31	11752	25	2531	1.0-24	1.75	21.63	7.5	160	4.4	10	7.71	5.6	100	4.2
1-1-26-73	72	31	11746	25.9	2530	1.02-23	1.75	21.63	1.5	160	1.2	370	7.72	3.3	70	5.6
1-1-26-73	73	31	11745	24.7	2541	1.02-23	1.75	21.63	1.0	190	2.2	260	7.74	2.1	210	2.4
1-1-26-73	74	31	11743	24.2	2529	1.02-23	1.75	21.63	2.0	150	3.2	360	7.6	3.2	320	2.6
1-1-26-73	75	31	11734	25.6	2546	1.02-23	1.75	21.63	2.0	220	4.3	240	7.73	3.4	330	4.8
1-1-26-73	76	31	11549	216	2519	1.02-23	1.75	21.63	2.0	240	3.2	250	7.71	5.0	210	7.0
1-1-26-73	77	31	11546	25.0	2543	1.02-23	1.75	21.63	3.4	340	2.4	270	7.69	5.4	290	7.4
1-1-26-73	78	31	11632	237	2572	1.02-23	1.75	21.63	1.0	100	1.8	130	7.72	2.0	20	1.2
1-1-25-73	79	31	11674	24.0	2235	1.02-23	1.75	21.63	2.4	40	1.8	90	7.72	2.6	350	5.4
1-1-26-73	80	31	11734	24.5	2535	1.02-23	1.75	21.63	3.6	150	1.2	290	7.67	5.4	100	4.4
1-1-26-73	81	31	11812	24.3	2571	1.02-23	1.75	21.63	3.4	50	3.2	130	7.70	6.4	40	2.0
1-1-26-73	82	31	11739	24.2	2528	1.02-23	1.75	21.63	1.8	40	3.2	110	7.72	1.6	370	3.6
1-1-26-73	83	31	11732	24.8	2532	1.02-23	1.75	21.63	3.6	140	1.2	320	7.76	3.2	310	5.6
1-1-26-73	84	31	11732	24.6	2537	1.02-23	1.75	21.63	0.8	250	2.2	260	7.70	4.8	240	3.0
1-1-26-73	85	31	11635	24.1	2523	1.02-23	1.75	21.63	2.6	250	3.8	200	7.73	3.0	310	3.4
1-1-26-73	86	31	11656	237	2523	1.02-23	1.75	21.63	1.4	50	1.4	140	7.70	2.4	240	6.0
1-1-26-73	87	31	11610	212	2524	1.02-23	1.75	21.63	1.4	50	1.4	140	7.70	2.4	170	3.0
1-1-26-73	88	31	11697	231	2537	1.02-23	1.75	21.63	1.0	10	3.6	40	7.72	2.6	300	6.0
1-1-26-73	89	31	11697	231	2529	1.02-23	1.75	21.63	2.6	120	1.0	290	7.74	2.0	300	6.0
1-1-26-73	90	31	11742	242	2532	1.02-23	1.75	21.63	5.4	320	4.2	320	7.72	6.4	270	5.6
1-1-26-73	91	31	11432	239	2537	1.02-23	1.75	21.63	3.0	120	3.0	120	7.75	2.8	120	6.3
1-1-26-73	92	31	11657	24.7	2525	1.02-23	1.75	21.63	1.0	100	2.4	160	7.71	2.6	210	6.4
1-1-26-73	93	31	11716	236	2522	1.02-23	1.75	21.63	3.6	360	3.4	350	7.74	4.2	150	6.0
1-1-26-73	94	31	11694	235	2531	1.02-23	1.75	21.63	4.0	40	3.6	330	7.73	3.2	330	6.0
1-1-26-73	95	31	11764	24.2	2225	1.02-23	1.75	21.63	5.0	330	1.2	230	7.69	6.6	500	5.2
1-1-26-73	96	31	11792	33	2521	1.05-53	16.65	3.32	2.2	4.2	270	7.74	4.2	300	6.0	
1-1-26-73	97	31	11792	33	2532	1.05-53	16.65	3.32	2.2	320	7.72	5.4	280	5.0		
1-1-26-73	98	31	11793	123	2524	1.05-53	16.65	3.32	1.4	330	7.6	90	7.76	2.8	270	5.6
1-1-26-73	99	31	11649	127	2517	1.05-53	16.65	3.32	5.0	160	4.8	160	7.75	6.8	120	6.5
1-1-26-73	100	31	11751	139	2525	1.05-53	16.65	3.32	2.8	80	3.6	360	7.74	4.0	150	6.5
1-1-26-73	101	31	11779	123	2524	1.05-53	16.65	3.32	7.6	560	5.4	500	7.73	3.0	350	6.0
1-1-26-73	102	31	11694	24.5	2531	1.02-23	1.75	21.63	4.0	40	3.6	330	7.73	3.2	330	6.0
1-1-26-73	103	31	11764	24.2	2225	1.02-23	1.75	21.63	5.0	330	1.2	230	7.69	6.6	500	5.2
1-1-26-73	104	31	11792	33	2521	1.05-53	16.65	3.32	2.2	320	7.74	4.2	270	5.0	300	6.0
1-1-26-73	105	31	11792	33	2532	1.05-53	16.65	3.32	2.2	320	7.72	5.4	280	5.0	270	5.6
1-1-26-73	106	31	11793	148	2523	1.05-53	16.65	3.32	1.4	360	5.2	360	7.76	4.0	230	6.0
1-1-26-73	107	31	11656	161	2211	1.05-53	16.65	3.32	3.6	80	6.6	500	7.74	2.2	200	6.5
1-1-26-73	108	31	11739	124	2515	1.05-53	16.65	3.32	1.2	40	4.6	210	7.75	4.0	150	6.5
1-1-26-73	109	31	11819	160	2542	1.05-53	16.65	3.32	1.2	360	1.0	260	7.74	6.8	160	6.0
1-1-26-73	110	31	11949	161	2528	1.05-53	16.65	3.32	1.4	360	1.4	90	7.74	5.0	280	5.6
1-1-26-73	111	31	11793	148	2534	1.05-53	16.65	3.32	1.2	360	1.4	110	7.75	2.4	270	5.6
1-1-26-73	112	31	11656	161	2211	1.05-53	16.65	3.32	1.2	40	4.6	310	7.74	2.2	210	5.6
1-1-26-73	113	31	11731	134	2519	1.05-53	16.65	3.32	1.2	40	4.6	210	7.75	4.0	150	6.5
1-1-26-73	114	31	11614	57	2537	1.05-53	16.65	3.32	2.2	320	1.4	260	7.74	5.0	400	5.6
1-1-26-73	115	31	11892	90	2528	1.05-53	16.65	3.32	1.4	360	5.0	90	7.74	3.0	270	5.6
1-1-26-73	116	31	11793	137	2518	1.05-53	16.65	3.32	1.4	360	1.4	190	7.75	2.4	270	5.6
1-1-26-73	117	31	11656	204	2522	1.05-53	16.65	3.32	4.4	330	1.4	270	7.75	2.4	130	5.6
1-1-26-73	118	31	11731	134	2526	1.05-53	16.65	3.32	3.6	240	5.2	220	7.76	4.0	350	5.6
1-1-26-73	119	31	11733	89	2531	1.05-53	16.65	3.32	1.0	200	3.6	200	7.75	2.2	220	5.6
1-1-26-73	120	31	11656	161	2211	1.05-53	16.65	3.32	2.4	320	5.2	360	7.76	4.0	150	6.0
1-1-26-73	121	31	11731	134	2519	1.05-53	16.65	3.32	1.2	40	4.6	210	7.75	4.0	150	6.0
1-1-26-73	122	31	11733	89	2531	1.05-53	16.65	3.32	1.0	200	3.6	200	7.75	2.2	220	5.6
1-1-26-73	123	31	11656	161	2211	1.05-53	16.65	3.32	2.4	320	5.2	360	7.76	4.0	150	6.0
1-1-26-73	124	31	11731	134	2519	1.05-53	16.65	3.32	1.2	40	4.6	210	7.75	4.0	150	6.0
1-1-26-73	125	31	11656	161	2211	1.05-53	16.65	3.32	2.4	320	5.2	360	7.76	4.0	150	6.0
1-1-26-73	126	31	11731	134	2519	1.05-53	16.65	3.32	1.2	40	4.6	210	7.75	4.0	150	6.0
1-1-26-73	127	31	11656	161	2211	1.05-53	16.65	3.32	2.4	320	5.2	360	7.76	4.0	150	6.0
1-1-26-73	128	31	11731	134	2519	1.05-53	16.65	3.32	1.2	40	4.6	210	7.75	4.0	150	6.0
1-1-26-73	129	31	11656	161	2211	1.05-53	16.65	3.32	2.4	320	5.2	360	7.76	4.0	150	6.0
1-1-26-73	130	31	11731	134	2519	1.05-53	16.65	3.32	1.2	40	4.6	210	7.75	4.0	150	6.0
1-1-26-73	131	31	11656	161	2211	1.05-53	16.65	3.32	2.4	320	5.2	360	7.76	4.0	150	6.0
1-1-26-73	132	31	11731	134	2519	1.05-53	16.65	3.32	1.2	40	4.6	210	7.75	4.0	150	6.0
1-1-26-73	133	31	11656	161	2211	1.05-53	16.65	3.32	2.4	320	5.2	360	7.76	4.0	150	6.0
1-1-26-73	134	31	11731	134	2519	1.05-53	16.65	3.32	1.2	40	4.6	210	7.75	4.0	150	6.0
1-1-26-73	135	31	11656	161	2211	1.05-53	16.65	3.32	2.4	320	5.2	360	7.76	4.0	150	6.0
1-1-26-																



DATE TESTED	LOT NO.	PROJ NO.	PANIC (Y/N)	DRIFT (Y/N)	CROSS WIND (FT/SEC)	BALLISTIC RANGE (FTS)	INITIAL VELOCITY (YDS)	DENSITY (PFS)	CROSS WIND (FT/SEC)	RIGHT PLANE DYNAMIC BALANCE (IN-07)	LEFT PLANE DYNAMIC BALANCE (IN-07)	CENTER OF GRAVITY (IN)	RIGHT PLANE DYNAMIC BALANCE (IN-02)	LEFT PLANE DYNAMIC BALANCE (IN-02)	CENTER OF GRAVITY (IN-02)	EMPTY		
																INPUT	LOADED	
12-1-4-7-4	96	93	11515	125	2504	167.04	21.64	-1.3	-1.03	3.6	294	5.4	244	7.72	4.6	260	4.0	250
12-1-4-7-4	85	94	11612	115	251.9	167.43	21.64	-1.03	-1.03	2.4	360	4.6	246	7.74	3.4	350	5.0	330
12-1-4-7-3	86	95	1167	117	251.1	167.08	21.64	-1.03	-1.03	2.2	120	3.6	240	7.64	2.0	130	6.0	130
12-1-4-7-3	89	91	1167	116	251.7	17.05	21.64	-1.03	-1.03	3.5	350	5.4	240	7.20	3.4	310	6.8	340
12-1-4-7-3	89	92	11514	105	24.9	167.05	21.64	-1.03	-1.03	4.0	110	2.4	110	7.76	4.0	70	4.4	66
12-1-4-7-3	89	93	11464	102	24.9	167.05	21.64	-1.03	-1.03	2.4	363	5.0	310	7.74	2.6	240	4.2	250
12-1-4-7-3	49	94	11536	114	25.6	167.04	21.64	-1.03	-1.03	2.6	61	7.4	160	7.76	3.0	70	7.6	50
12-1-4-7-3	59	95	1157.9	111	24.3	167.04	21.64	-1.03	-1.03	3.4	363	5.6	70	7.70	4.2	360	7.6	160
12-1-4-7-3	91	31	11538	115	251.1	167.05	21.64	-1.03	-1.03	3.8	110	2.4	143	7.70	1.6	150	7.0	65
12-1-4-7-2	92	91	11434	112	24.74	167.29	21.64	-1.03	-1.03	1.8	160	3.0	160	7.64	2.0	150	7.0	100
12-1-4-7-2	94	83	11437	112	24.98	167.04	21.64	-1.03	-1.03	5.6	130	3.2	130	7.70	2.0	250	7.6	60
12-1-4-7-2	94	96	11555	116	251.3	167.04	21.64	-1.03	-1.03	2.0	173	1.4	173	7.72	2.6	210	7.6	65
12-1-4-7-2	94	15	11537	114	251.2	167.04	21.64	-1.03	-1.03	1.0	103	2.2	79	7.64	1.8	90	1.8	85
12-1-4-7-2	91	81	11532	122	24.95	167.04	21.64	-1.03	-1.03	0.8	60	3.9	135	7.74	1.6	100	2.2	80
12-1-4-7-2	91	92	11511	121	24.97	167.04	21.64	-1.03	-1.03	5.4	300	2.6	320	7.70	5.4	280	3.4	260
12-1-4-7-2	91	93	11563	122	25.6	167.04	21.64	-1.03	-1.03	2.6	150	1.8	80	7.72	3.8	140	4.4	350
12-1-4-7-2	91	94	11538	123	24.96	167.04	21.64	-1.03	-1.03	2.6	160	1.6	160	7.70	3.2	120	4.2	160
12-1-4-7-2	91	94	11538	123	24.96	167.04	21.64	-1.03	-1.03	2.6	130	3.2	130	7.70	3.2	120	4.2	160
12-1-4-7-2	91	85	11514	116	24.99	167.04	21.64	-1.03	-1.03	3.6	220	5.2	160	7.72	2.6	240	6.0	65
12-1-4-7-2	91	15	11537	114	2504	167.04	21.64	-1.03	-1.03	4.0	103	2.0	103	7.70	2.6	240	6.0	65
12-1-4-7-2	91	92	11539	130	25.1	167.04	21.64	-1.03	-1.03	1.0	203	4.8	250	7.70	1.4	220	4.0	65
12-1-4-7-2	92	93	11561	126	24.93	167.04	21.64	-1.03	-1.03	3.0	120	3.0	160	7.70	7.8	90	6.0	65
12-1-4-7-2	92	94	11529	124	22.04	167.04	21.64	-1.03	-1.03	2.0	240	2.6	240	7.70	2.4	220	5.8	65
12-1-4-7-2	92	95	11437	124	24.93	167.04	21.64	-1.03	-1.03	1.4	90	4.0	340	7.64	1.4	160	2.2	300
12-1-4-7-2	93	91	11593	123	24.99	167.04	21.64	-1.03	-1.03	3.6	220	5.2	160	7.74	2.6	250	6.5	65
12-1-4-7-2	92	92	11514	121	2504	167.04	21.64	-1.03	-1.03	4.0	103	2.0	103	7.70	2.6	240	6.0	65
12-1-4-7-2	92	92	11539	130	25.1	167.04	21.64	-1.03	-1.03	1.0	203	4.8	250	7.70	1.4	220	4.0	65
12-1-4-7-2	93	93	11561	126	24.93	167.04	21.64	-1.03	-1.03	2.4	120	3.0	160	7.70	7.8	90	6.0	65
12-1-4-7-2	92	94	11529	124	22.04	167.04	21.64	-1.03	-1.03	2.0	240	2.6	240	7.70	2.4	220	5.8	65
12-1-4-7-2	92	95	11437	124	24.93	167.04	21.64	-1.03	-1.03	1.4	90	4.0	340	7.64	1.4	160	2.2	300
12-1-4-7-2	93	91	11593	123	24.99	167.04	21.64	-1.03	-1.03	3.6	220	5.2	160	7.74	2.6	250	6.5	65
12-1-4-7-2	93	92	11621	126	2506	167.04	21.64	-1.03	-1.03	1.6	90	2.5	40	7.70	2.6	240	6.0	65
12-1-4-7-2	93	93	11565	128	2501	167.04	21.64	-1.03	-1.03	3.4	190	3.8	110	7.70	4.4	103	4.0	50
12-1-4-7-2	93	94	11513	132	24.95	167.04	21.64	-1.03	-1.03	2.0	203	4.8	250	7.70	1.4	220	4.0	65
12-1-4-7-2	93	95	11545	127	24.95	167.04	21.64	-1.03	-1.03	2.0	203	4.8	250	7.70	3.4	103	5.8	300
12-1-4-7-2	93	96	11556	128	24.97	167.04	21.64	-1.03	-1.03	2.0	203	4.8	250	7.70	3.4	230	5.6	260
12-1-4-7-2	93	97	11437	124	24.96	167.04	21.64	-1.03	-1.03	2.0	240	2.6	240	7.70	2.4	220	5.8	65
12-1-4-7-2	93	98	11593	123	24.99	167.04	21.64	-1.03	-1.03	3.6	220	5.2	160	7.74	2.6	250	6.5	65
12-1-4-7-2	94	92	11562	114	24.97	167.04	21.64	-1.03	-1.03	1.4	70	2.5	40	7.70	2.6	240	6.0	65
12-1-4-7-2	94	95	11514	147	24.97	167.04	21.64	-1.03	-1.03	2.0	250	4.2	250	7.72	3.8	100	4.0	50
12-1-4-7-2	94	96	11515	146	24.97	167.04	21.64	-1.03	-1.03	2.0	250	4.2	250	7.72	3.8	100	4.0	50
12-1-4-7-2	94	97	11510	137	24.97	167.04	21.64	-1.03	-1.03	2.0	250	4.2	250	7.72	3.8	100	4.0	50
12-1-4-7-2	94	98	11591	127	2507	167.04	21.64	-1.03	-1.03	1.4	70	2.5	40	7.70	2.4	170	3.0	300
12-1-4-7-2	95	92	11525	142	24.96	167.04	21.64	-1.03	-1.03	2.0	203	4.8	250	7.70	2.4	220	5.8	65
12-1-4-7-2	95	93	11516	143	24.99	167.04	21.64	-1.03	-1.03	3.6	270	5.6	270	7.64	4.4	210	5.0	65
12-1-4-7-2	95	94	11514	137	24.95	167.04	21.64	-1.03	-1.03	2.0	250	4.2	250	7.64	2.0	300	4.0	50
12-1-4-7-2	95	96	11514	147	24.95	167.04	21.64	-1.03	-1.03	2.0	250	4.2	250	7.64	2.0	300	4.0	50
12-1-4-7-2	95	97	11510	137	24.95	167.04	21.64	-1.03	-1.03	2.0	250	4.2	250	7.64	2.0	300	4.0	50
12-1-4-7-2	95	98	11591	127	2507	167.04	21.64	-1.03	-1.03	1.4	70	2.5	40	7.70	2.4	170	3.0	300
12-1-4-7-2	96	92	11423	137	24.96	167.04	21.64	-1.03	-1.03	2.0	250	4.2	250	7.64	2.0	300	4.0	50
12-1-4-7-2	96	97	11514	147	24.96	167.04	21.64	-1.03	-1.03	2.0	250	4.2	250	7.64	2.0	300	4.0	50
12-1-4-7-2	96	98	11514	147	24.96	167.04	21.64	-1.03	-1.03	2.0	250	4.2	250	7.64	2.0	300	4.0	50
12-1-4-7-2	97	92	11613	162	2513	167.04	21.64	-1.03	-1.03	5.6	320	6.0	220	7.66	4.0	150	4.0	65
12-1-4-7-2	97	93	11613	162	2513	167.04	21.64	-1.03	-1.03	5.6	320	6.0	220	7.66	4.0	150	4.0	65
12-1-4-7-2	97	98	11577	134	2524	167.04	21.64	-1.03	-1.03	2.0	270	4.8	270	7.64	3.4	330	4.0	65







EMPTY									
INPUT LOADERS									
DATE TESTED	PROJ NO.	LOT	DRIFT (YDS)	INITIAL VELOCITY (FT/SEC)	BALLISTIC EFFICIENCY (PERCENT)	RIGHT PLANE DYNAMIC BALANCE (LIN-02)	LEFT PLANE DYNAMIC BALANCE (LIN-02)	CENTER OF GRAVITY (IN-02)	GRAVITY BALANCE (IN-02) (DEG)
11-2-7-72	92	A1734	229	251.7	100.0%	16.35	14.16	-.4	1.2
11-3-7-72	125	A3 21730	219	251.9	102.0%	15.35	16.15	7.8	.90
11-3-7-72	125	94 21730	219	251.5	103.0%	15.35	14.16	5.6	.80
11-3-7-72	125	95 21730	216	252.4	103.0%	15.35	14.16	5.6	.80
11-3-7-72	126	81 21616	194	253.4	108.7%	24.61	19.50	7.4	6.45
12-0-7-72	126	32 21616	194	251.7	108.7%	24.61	19.50	7.4	-0.00
12-0-7-72	126	93 21773	195	253.7	108.7%	24.61	19.50	7.4	-0.00
12-0-7-72	127	34 21751	195	252.4	102.7%	24.61	19.50	7.2	-0.00
12-0-7-72	128	95 21751	162	253.7	103.7%	24.61	19.50	7.0	-0.00
12-0-7-72	127	81 21591	191	254.2	104.9%	24.61	12.30	6.2	-0.00
12-0-7-72	127	92 21161	189	254.7	103.7%	24.61	12.30	7.6	-0.00
12-0-7-72	127	93 21174	172	254.6	108.7%	24.61	10.50	5.8	-0.00
12-0-7-72	127	93 21742	172	254.6	108.7%	24.61	10.50	5.8	-0.00
12-0-7-72	127	B4 21554	173	253.3	104.9%	24.61	10.50	5.6	-0.00
12-0-7-72	127	B5 21564	159	253.0	106.7%	24.61	10.50	6.0	-0.00
12-0-7-72	129	B1 21725	177	223.2	101.7%	24.61	10.50	3.6	-0.00
12-0-7-72	129	92 21719	154	254.7	108.7%	24.61	10.50	4.4	-0.00
12-0-7-72	129	93 21032	173	254.7	105.9%	24.61	10.50	4.4	-0.00
12-0-7-72	129	B4 21739	179	254.3	108.7%	24.61	10.50	3.8	-0.00
12-0-7-72	129	95 21585	195	254.5	104.9%	24.61	10.50	6.4	-0.00
12-0-7-72	129	B1 21534	162	253.0	106.7%	24.61	10.50	5.0	-0.00
12-0-7-72	129	32 21835	157	254.4	103.7%	24.61	10.50	5.3	-0.00
12-0-7-72	129	93 21723	152	254.1	106.7%	24.61	10.50	4.0	-0.00
12-0-7-72	129	34 21734	156	224.2	108.7%	24.61	10.50	4.6	-0.00
12-0-7-72	129	95 21822	164	254.2	105.9%	24.61	10.50	5.0	-0.00
12-0-7-72	129	B1 21737	157	254.7	104.9%	24.61	10.50	4.4	-0.00
12-0-7-72	129	92 21561	173	252.6	103.7%	24.61	10.50	4.2	-0.00
12-0-7-72	130	92 21649	157	253.9	103.7%	24.61	10.50	4.6	-0.00
12-0-7-72	130	84 21530	174	251.7	104.9%	24.61	10.50	5.4	-0.00
12-0-7-72	130	85 21572	164	252.5	108.7%	24.61	10.50	5.0	-0.00
12-0-7-72	131	31 21715	174	254.3	104.9%	24.61	10.50	5.4	-0.00
12-0-7-72	131	92 21774	174	254.2	103.7%	24.61	10.50	4.6	-0.00
12-0-7-72	131	B1 21737	157	254.1	108.7%	24.61	10.50	4.4	-0.00
12-0-7-72	131	93 21632	174	252.6	103.7%	24.61	10.50	4.2	-0.00
12-0-7-72	132	84 21632	173	253.5	108.7%	24.61	10.50	5.2	-0.00
12-0-7-72	131	93 21631	173	252.6	104.9%	24.61	10.50	4.6	-0.00
12-0-7-72	132	91 21569	181	251.0	108.7%	24.61	10.50	4.2	-0.00
12-0-7-72	132	B2 21616	177	252.5	103.7%	24.61	10.50	5.0	-0.00
12-0-7-72	132	93 21616	195	254.2	103.7%	24.61	10.50	5.4	-0.00
12-0-7-72	132	93 21632	195	254.2	103.7%	24.61	10.50	5.4	-0.00
12-0-7-72	132	94 21530	172	251.7	104.9%	24.61	10.50	4.4	-0.00
12-0-7-72	132	95 21524	173	251.1	104.9%	24.61	10.50	4.6	-0.00
12-0-7-72	132	91 21531	167	251.9	104.9%	24.61	10.50	4.4	-0.00
12-0-7-72	133	32 21473	174	251.5	105.9%	24.61	10.50	4.2	-0.00
12-0-7-72	132	91 21572	174	251.2	104.9%	24.61	10.50	4.2	-0.00
12-0-7-72	133	93 21572	174	251.9	103.7%	24.61	10.50	4.2	-0.00
12-0-7-72	133	94 21429	162	251.9	104.9%	24.61	10.50	4.2	-0.00
12-0-7-72	133	95 21552	175	251.3	104.9%	24.61	10.50	4.2	-0.00
12-0-7-72	134	91 21534	184	251.8	101.7%	24.61	10.50	5.6	-0.00
12-0-7-72	134	92 21551	195	251.4	103.7%	24.61	10.50	5.4	-0.00
12-0-7-72	134	92 21551	195	251.4	103.7%	24.61	10.50	5.4	-0.00







DATE TEST	PROJ NO.	LOT NO.	RANGE (YDS)	DRAFT (YDS)	INITIAL VELOCITY (FT/YSEC)	BALLISTIC RANGE (PERCENT) (KITS)	CRUSS WIND (KTS)	DYNAMIC WIND (KTS)	RIGHT PLANE DYNAMIC BALANCE (IN-02) (DEG)	LEFT PLANE DYNAMIC BALANCE (IN-02) (DEG)	INERT LOADFO		EMPTY	
											RIGHT PLANE DYNAMIC BALANCE (IN-02) (DEG)	LEFT PLANE DYNAMIC BALANCE (IN-02) (DEG)	CENTER OF GRAVITY (IN)	CENTER OF GRAVITY (IN)
1-18-71	162	B1	1141.5	161	2495	159.27	6.27	3.07	2.0	170	3.2	14.0	-0.0	-0.0
1-19-71	162	B2	1121.8	162	2496	1C9.27	6.27	3.17	2.6	150	5.2	22.0	-0.0	-0.0
1-19-71	162	B3	1122.9	169	2479	1D9.27	6.27	3.27	2.0	160	2.8	24.0	-0.0	-0.0
1-19-71	162	B4	1127.2	123	2495	1D9.27	6.27	3.17	1.8	23.0	6.0	150	-0.0	-0.0
1-19-71	162	B5	1134.1	157	2496	1D9.27	6.27	3.17	4.4	34.0	14.0	140	-0.0	-0.0
1-19-71	163	B1	1134.6	151	2497	1D9.27	6.27	3.17	5.0	24.0	1.6	31.0	-0.0	-0.0
1-19-71	163	B2	1123.2	159	2482	1D9.27	6.27	3.07	2.2	27.0	4.2	22.0	-0.0	-0.0
1-19-71	163	B3	1125.4	150	2494	2+4.4	6.27	3.07	1.2	26.0	7.7	22.0	-0.0	-0.0
1-19-71	163	B4	1134.8	161	2494	1D9.27	6.27	3.07	3.0	24.0	4.4	21.0	-0.0	-0.0
1-19-71	163	B5	1125.6	160	2484	1D9.27	6.27	3.17	6.0	26.0	4.4	27.0	-0.0	-0.0
1-19-71	164	B1	1127.1	156	2483	1D9.27	6.27	3.17	1.8	160	5.8	120	-0.0	-0.0
1-19-71	164	B2	1134.7	153	2449	1+9.27	6.27	3.17	3.6	20.0	4.2	24.0	-0.0	-0.0
1-19-71	164	B3	1129.5	151	2491	1+9.27	6.27	3.17	3.0	30.0	6.6	190	-0.0	-0.0
1-19-71	164	B4	1127.2	129	2486	1D9.27	6.27	3.17	3.0	36.0	3.0	33.0	-0.0	-0.0
1-19-71	164	B5	1134.3	155	2492	1D9.27	6.27	3.17	6.8	14.0	5.8	34.0	-0.0	-0.0
1-19-71	165	B1	1127.9	154	2470	1+9.27	6.27	3.17	4.4	33.0	5.2	33.0	-0.0	-0.0
1-19-71	165	B2	1123.9	151	2481	1D9.27	6.27	3.17	6.0	23.0	3.6	160	-0.0	-0.0
1-19-71	165	B3	1131.5	161	2493	1+9.27	6.27	3.17	4.2	30.0	9.4	33.0	-0.0	-0.0
1-19-71	165	B4	1141.6	155	2442	1C9.27	6.27	3.07	2.0	26.0	1.4	10.0	-0.0	-0.0
1-19-71	165	B5	1124.6	155	2476	1D9.27	6.27	3.07	4.0	26.0	1.2	40.0	-0.0	-0.0
1-26-71	166	B1	1183.9	-19*	2508	1D2.69	2+0.81	-36.16	3.4	8.0	9.8	60	-0.0	-0.0
1-26-71	166	B2	1193.9	-18*	2506	1D2.69	2+0.81	-36.16	3.4	8.0	9.8	60	-0.0	-0.0
1-26-71	166	B3	1193.9	-17.6	2516	1D2.68	2+0.81	-36.16	1.6	24.0	4.2	24.0	-0.0	-0.0
1-26-71	166	B4	1185.2	-17.3	2494	1D2.69	2+0.81	-36.16	1.6	21.0	5.6	70	-0.0	-0.0
1-26-71	166	B5	1209.2	-17.3	2534	1D2.68	2+0.81	-36.16	1.6	32.0	2.6	115	-0.0	-0.0
1-26-71	167	B1	1206.2	-14.4	2517	1D2.64	2+0.81	-36.16	1.6	24.0	5.4	26.0	-0.0	-0.0
1-26-71	167	B2	1193.6	-16*	2497	1D2.64	2+0.81	-36.16	1.6	24.0	5.4	26.0	-0.0	-0.0
1-26-71	167	B3	1193.2	-17*	2515	1D2.63	2+0.81	-36.16	1.2	100	6.4	17.5	-0.0	-0.0
1-26-71	167	B4	1193.9	-17*	2519	1D2.63	2+0.81	-36.16	1.2	100	6.4	21.0	-0.0	-0.0
1-26-71	167	B5	1202.9	-16.3	2500	1D2.69	2+0.81	-38.16	1.0	32.0	6	45	-0.0	-0.0
1-26-71	168	B1	1192.2	-17.4	2492	1D2.69	2+0.81	-38.16	4.0	36.0	3.3	125	-0.0	-0.0
1-26-71	168	B2	1193.9	-17.6	2501	1D2.69	2+0.81	-38.16	2.4	160	3.8	30.5	-0.0	-0.0
1-26-71	168	B3	1120.4	-16.3	2406	1D2.69	2+0.83	-38.16	3.6	190	2.6	25.0	-0.0	-0.0
1-26-71	168	B4	1194.4	-17.4	2437	1D2.64	2+0.83	-38.16	1.4	23.0	4.4	12.0	-0.0	-0.0
1-26-71	168	B5	1151.3	-19*	2234	1D2.69	2+0.83	-38.16	2.4	160	5.4	115	-0.0	-0.0
1-26-71	169	B1	1203.3	-16.3	2504	1D2.64	2+0.83	-38.16	1.6	23.0	6.0	45	-0.0	-0.0
1-26-71	169	B2	1195.4	-17.2	2512	1D2.63	2+0.83	-38.16	1.6	25.0	5.0	160	-0.0	-0.0
1-26-71	169	B3	1187.7	-17.7	2491	1D2.65	2+0.83	-38.16	3.8	26.0	3.2	17.5	-0.0	-0.0
1-26-71	169	B4	1197.3	-17.1	2496	1D2.69	2+0.83	-38.16	2.2	24.0	4.2	10.0	-0.0	-0.0
1-26-71	169	B5	1183.1	-19*	2504	1D2.64	2+0.83	-38.16	4.8	190	3.6	11.0	-0.0	-0.0
1-26-71	170	B1	1197.3	-16.9	2516	1D2.64	2+0.83	-38.16	4.0	14.0	5.0	19.0	-0.0	-0.0
1-26-71	170	B2	1195.3	-17.6	2512	1D2.69	2+0.83	-38.16	1.0	22.0	4.0	10.0	-0.0	-0.0
1-26-71	170	B3	1175.2	-13*	2490	1D2.60	2+0.83	-38.16	2.0	26.0	4.8	11.0	-0.0	-0.0
1-26-71	170	B4	1187.5	-17.3	2497	1D2.69	2+0.83	-38.16	2.0	130	4.7	15.0	-0.0	-0.0
1-26-71	170	B5	1184.7	-16.5	2492	1D2.63	2+0.83	-38.16	1.4	18.0	4.0	7.0	-0.0	-0.0
1-26-71	171	B1	1169.8	-17.2	2433	1D2.69	2+0.83	-38.16	4.2	24.0	5.6	20.0	-0.0	-0.0





DATE TESTED	PROJ NO	RANGE (YDS)	DRIFT (YDS)	INITIAL VELOCITY (FT/SEC)	BALLISTIC DENSITY (OF AIR)	X-ANGLE (DEG)	CROSS WIND (KTS)	RIGHT PLANE DYNAMIC BALANCE (IN-02)	LEFT PLANE DYNAMIC BALANCE (IN-02)	CENTER OF GRAVITY (IN)		EMPTY	
										CENTER OF GRAVITY (IN)	RIGHT PLANE DYNAMIC BALANCE (IN-02)	LEFT PLANE DYNAMIC BALANCE (IN-02)	CENTER OF GRAVITY (IN)
2-9-71	159	84	11537	86	2528	107.36	24.91	-10.00	20	5.2	60	7.76	-0.0
2-9-71	159	85	11516	89	2517	107.99	24.91	-10.00	24.0	7.2	24.0	7.74	-0.0
2-9-71	159	81	11647	77	2524	107.95	24.91	-10.00	21.0	4.4	40	7.72	-0.0
2-9-71	159	92	11533	92	2526	107.95	24.91	-10.00	11.3	2.4	10.3	7.74	-0.0
2-9-71	159	83	11532	74	2522	107.94	24.91	-10.00	2.2	1.70	5.5	7.74	-0.0
2-9-71	159	84	11515	71	2513	107.95	24.91	-10.00	22.0	2.2	2.0	7.74	-0.0
2-9-71	159	85	11574	77	2512	107.98	24.91	-10.00	1.4	6.0	2.2	7.75	-0.0
2-9-71	159	91	11647	102	2542	104.99	17.64	-2.31	0.0	26.0	6.6	24.0	-0.0
2-9-71	159	92	11433	104	2541	104.92	17.64	-2.31	15.0	6.2	36.0	7.75	-0.0
2-9-71	159	83	11636	119	2536	104.99	17.64	-2.31	2.0	1.70	1.6	16.0	-0.0
2-9-71	159	94	11733	118	2547	104.93	17.64	-2.31	3.6	1.8	22.0	7.75	-0.0
2-9-71	159	95	11831	134	2541	104.99	17.64	-2.31	3.2	11.0	6.4	1.0	-0.0
2-9-71	159	91	11646	104	2547	104.99	17.64	-2.31	4.2	20.0	2.0	23.0	-0.0
2-9-71	159	92	11613	103	2529	104.99	17.64	-2.31	4.3	13.0	2.0	36.0	-0.0
2-9-71	159	93	11783	95	2550	104.99	17.64	-2.31	2.2	3.3	3.4	14.0	-0.0
2-9-71	159	94	11758	135	2544	104.99	17.64	-2.31	2.0	6.0	3.6	35.0	-0.0
2-9-71	159	95	11712	149	2519	104.99	17.64	-2.31	6.4	1.6	6.8	1.0	-0.0
2-9-71	159	91	11842	102	2541	104.99	17.64	-2.31	1.1	25.0	5.5	7.75	-0.0
2-9-71	159	92	11845	104	2546	104.99	17.64	-2.31	4.2	20.0	2.0	23.0	-0.0
2-9-71	159	93	11856	103	2541	104.99	17.64	-2.31	4.3	13.0	2.0	36.0	-0.0
2-9-71	159	94	11733	104	2541	104.99	17.64	-2.31	4.2	3.3	3.4	14.0	-0.0
2-9-71	159	95	11862	97	2545	104.99	17.64	-2.31	6.4	10.0	2.6	20.0	-0.0
2-9-71	159	91	11719	143	2530	104.99	17.64	-2.31	2.0	3.0	3.6	35.0	-0.0
2-9-71	159	92	11812	157	2515	104.99	17.64	-2.31	2.0	31.0	5.5	7.75	-0.0
2-9-71	159	93	11892	106	2552	104.99	17.64	-2.31	1.1	25.0	5.5	7.75	-0.0
2-9-71	159	94	11853	129	2553	104.99	17.64	-2.31	1.1	12.0	1.8	21.0	-0.0
2-9-71	159	95	11845	102	2541	104.99	17.64	-2.31	7.3	7.0	7.0	37.0	-0.0
2-9-71	159	91	11733	104	2541	104.99	17.64	-2.31	4.2	36.0	2.0	36.0	-0.0
2-9-71	159	92	11764	115	2541	104.99	17.64	-2.31	6.4	10.0	2.6	20.0	-0.0
2-9-71	159	93	11782	97	2545	104.99	17.64	-2.31	6.4	10.0	2.6	20.0	-0.0
2-9-71	159	94	11719	143	2530	104.99	17.64	-2.31	3.0	20.0	2.0	26.0	-0.0
2-9-71	159	95	11777	98	2515	104.99	17.64	-2.31	2.0	3.0	3.6	35.0	-0.0
2-9-71	159	93	11633	93	2551	104.99	17.64	-2.31	2.0	31.0	5.5	7.75	-0.0
2-9-71	159	94	11732	102	2545	104.99	17.64	-2.31	1.1	12.0	1.8	21.0	-0.0
2-9-71	159	95	11845	105	2545	104.99	17.64	-2.31	5.6	17.0	2.6	1.0	-0.0
2-9-71	159	91	11704	107	2540	104.99	17.64	-2.31	5.6	27.0	4.8	39.0	-0.0
2-9-71	159	92	11770	111	2545	104.99	17.64	-2.31	1.1	5.0	1.6	4.5	-0.0
2-9-71	159	93	11757	105	2545	104.99	17.64	-2.31	3.0	12.0	2.0	26.0	-0.0
2-9-71	159	94	11659	93	2546	104.99	17.64	-2.31	2.0	29.0	2.0	7.76	-0.0
2-9-71	159	95	11794	104	2571	104.99	17.64	-2.31	1.1	19.0	4.4	4.0	-0.0
2-9-71	159	93	11620	105	2556	104.99	17.64	-2.31	5.2	30	5.2	7.74	-0.0
2-9-71	159	94	11704	107	2540	104.99	17.64	-2.31	6.0	12.0	6.6	36.0	-0.0
2-9-71	159	95	11729	124	2576	104.99	17.64	-2.31	7.0	20.0	2.0	37.0	-0.0
2-9-71	159	91	11837	111	2532	104.99	17.64	-2.31	2.0	34.0	7.6	7.76	-0.0
2-9-71	159	92	11756	97	2541	104.99	17.64	-2.31	3.0	12.0	2.0	26.0	-0.0
2-9-71	159	93	11631	123	2518	104.99	17.64	-2.31	1.1	2.0	2.0	7.76	-0.0
2-9-71	159	94	11735	117	2335	104.99	17.64	-2.31	6.0	21.0	5.3	1.0	-0.0
2-9-71	159	95	11739	103	2346	104.99	17.64	-2.31	1.1	23.0	5.6	31.0	-0.0
2-9-71	159	91	11729	124	2576	104.99	17.64	-2.31	6.0	12.0	6.6	36.0	-0.0
2-9-71	159	92	11757	111	2532	104.99	17.64	-2.31	2.0	20.0	2.0	37.0	-0.0
2-9-71	159	93	11756	97	2541	104.99	17.64	-2.31	3.0	12.0	2.0	26.0	-0.0
2-9-71	159	94	11631	123	2518	104.99	17.64	-2.31	1.1	2.0	2.0	7.76	-0.0
2-9-71	159	95	11735	117	2335	104.99	17.64	-2.31	6.0	21.0	5.3	1.0	-0.0
2-9-71	159	91	11739	103	2346	104.99	17.64	-2.31	1.1	23.0	5.6	31.0	-0.0
2-9-71	159	92	11729	124	2576	104.99	17.64	-2.31	6.0	12.0	6.6	36.0	-0.0
2-9-71	159	93	11757	111	2532	104.99	17.64	-2.31	2.0	20.0	2.0	37.0	-0.0
2-9-71	159	94	11756	97	2541	104.99	17.64	-2.31	3.0	12.0	2.0	26.0	-0.0
2-9-71	159	95	11631	123	2518	104.99	17.64	-2.31	1.1	2.0	2.0	7.76	-0.0

**APPENDIX B**

**Projectile Inspection Data**

## GUN PROJECTILE INSPECTION DATA

5/38 MK 45-0 LCT 62 PROJECTILE R1

INSPECTION DATE 09/29/70

71	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
1.50	0.0121	0.0297	0.03207	2.571	-0.0002	0.0001	0.00022	4.984
2.50	0.0101	0.0192	0.02169	3.583	-0.0039	-0.0047	0.00611	5.122
3.50	0.0077	0.0209	0.02227	3.501	-0.0034	-0.0030	0.00453	5.120
4.50	0.0057	0.0215	0.02224	3.614	-0.0009	-0.0	0.00090	4.982
5.50	0.0072	0.0198	0.02107	3.732	0.0020	0.0006	0.00206	4.950
<b>6.50</b>	<b>0.0030</b>	<b>0.0200</b>	<b>0.02153</b>	<b>3.846</b>	<b>-0.0012</b>	<b>-0.0011</b>	<b>0.00163</b>	<b>4.957</b>
7.50	0.0009	0.0201	0.02193	3.929	-0.0009	-0.0011	0.00142	4.959
8.50	0.0078	0.0181	0.01971	3.926	-0.0012	-0.0005	0.00130	4.960
9.50	0.0090	0.0164	0.01825	3.928	-0.0008	-0.0003	0.00095	4.962
72	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
5.75	0.0109	0.0143	0.01798	3.919	0.0014	0.0013	0.00191	4.984
4.75	0.0122	0.0123	0.01732	3.865	0.0009	0.0006	0.00109	4.880
3.75	0.0104	0.0069	0.01249	3.87	0.0022	0.0006	0.00229	4.704
3.25	0.0030	0.0024	0.00869	3.85	0.0013	0.0017	0.00214	4.580
2.75	0.0076	-0.0	0.00760	3.434	0.0015	0.0010	0.00180	4.439
2.25	0.0080	0.0001	0.00800	3.258	0.0018	0.0014	0.00229	4.274
1.75	0.0059	-0.0034	0.00672	2.878	0.0026	0.0011	0.00292	4.092
1.25	0.0147	0.0130	0.01962	2.581	0.0028	0.0006	0.00286	3.890
72	X-ACT	Y-ACT	TIR					
1.00	-0.0	0.0054	0.00540					
7.00	0.0025	0.0047	0.00532					

BASE THICKNESS (IN) 1.536

PROJECTILE LENGTH (IN) 16.588

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

72 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LCT 62 PROJECTILE P2

INSPECTION DATE 9/29/70

71	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
1.90	0.0165	0.0082	0.01843	3.117	0.0018	-0.0011	0.00211	4.992
2.50	0.0194	0.0029	0.01952	3.257	0.0004	0.0001	0.00041	5.123
3.90	0.0206	0.0054	0.02264	3.484	0.0027	-0.0001	0.00270	5.124
4.90	0.0196	0.0054	0.02174	3.603	-0.0014	-0.0001	0.00140	4.983
5.90	0.0202	0.0127	0.02165	3.717	0.0001	0.0002	0.00022	4.940
6.90	0.0209	0.0115	0.02385	3.834	0.0006	-0.0001	0.00061	4.958
7.90	0.0201	0.0136	0.02427	3.920	-0.0005	0.0	0.00050	4.957
8.90	0.0175	0.0145	0.02273	3.921	-0.0021	0.0006	0.00218	4.954
9.90	0.0171	0.0141	0.02210	3.920	-0.0014	0.0007	0.00157	4.955
72	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
5.75	0.0195	0.0139	0.02195	3.920	-0.0011	0.0004	0.00117	4.983
4.75	0.0151	0.0129	0.01986	3.888	-0.0010	0.0012	0.00156	4.833
3.75	0.0069	0.0123	0.01410	3.724	-0.0023	0.0013	0.00264	4.712
3.25	0.0031	0.0134	0.01175	3.620	-0.0022	0.0013	0.00304	4.530
2.75	0.0010	0.0119	0.01194	3.485	-0.0031	0.0019	0.00358	4.440
2.25	-0.0013	0.0054	0.00940	3.301	-0.0026	0.0015	0.00300	4.286
1.75	-0.0071	0.0075	0.01043	2.953	-0.0031	0.0018	0.00259	4.101
1.25	-0.0072	0.0075	0.01040	2.632	-0.0028	0.0022	0.00256	3.901
73	X-ACT	Y-ACT	TIR					
1.00	-0.0012	-0.0017	0.00208					
7.00	-0.0113	-0.0206	0.02350					

BASE THICKNESS (IN) 1.435

PROJECTILE LENGTH (IN) 16.403

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/28 MK 56-0 LCT 62 PROJECTILE B3

INSPECTION DATE 09/28/70

Z1	(- - - - INSIDE - - - -)			(- - - - OUTSIDE - - - -)			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
1.90	-0.0344	0.0164	0.03811	3.008	-0.0002	-0.0019	0.00151	4.984
2.90	-0.0239	0.0073	0.02499	3.374	0.0010	-0.0	0.00100	5.119
3.90	-0.0282	0.0103	0.03002	3.484	0.0012	-0.0004	0.00125	5.123
4.90	-0.0275	0.0117	0.02984	3.606	-0.0012	0.0004	0.00125	4.983
5.90	-0.0253	0.0120	0.02854	3.722	0.0006	0.0018	0.00190	4.965
6.90	-0.0225	0.0124	0.02569	3.836	0.0010	0.0014	0.00172	4.963
7.90	-0.0190	0.0122	0.02258	3.925	-0.0004	0.0011	0.00117	4.961
8.90	-0.0145	0.0122	0.01895	3.927	0.0003	0.0010	0.00104	4.963
9.90	-0.0132	0.0126	0.01825	3.926	-0.0012	0.0008	0.00144	4.964
Z2	(- - - - INSIDE - - - -)			(- - - - OUTSIDE - - - -)			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
5.75	-0.0085	0.0140	0.01638	3.932	-0.0019	0.0005	0.00156	4.987
4.75	-0.0012	0.0158	0.01585	3.886	-0.0004	0.0005	0.00064	4.890
3.75	0.0017	0.0165	0.01659	3.709	-0.0012	0.0013	0.00177	4.702
3.25	0.0045	0.0149	0.01556	3.596	-0.0017	0.0005	0.00177	4.579
2.75	0.0085	0.0150	0.01724	3.454	-0.0017	0.0010	0.00157	4.437
2.25	0.0123	0.0150	0.01940	3.219	-0.0009	0.0015	0.00175	4.272
1.75	0.0220	0.0168	0.02769	2.973	-0.0015	0.0011	0.00186	4.089
1.25	-0.0037	0.0119	0.01237	2.590	-0.0016	0.0007	0.00175	3.986
Z3	X-ACT	Y-ACT	TIR					
1.00	0.0018	0.0059	0.00617					
7.00	0.0014	0.0039	0.00414					

BASE THICKNESS (IN) 1.491

PROJECTILE LENGTH (IN) 16.562

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 46-0 ICT 62 PROJECTILE R4

INSPECTION DATE 6/28/70

(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)				
Z1	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	CIA
1.90	-0.0220	0.0144	0.0262	3.007	-0.0004	0.0005	0.00064	4.980
2.90	-0.0192	0.0090	0.0203	3.361	-0.0001	0.0016	0.00160	5.121
3.90	-0.0189	0.0108	0.0226	3.479	0.0	0.0022	0.00220	5.119
4.90	-0.0204	0.0116	0.0274	3.596	-0.0021	0.0012	0.00242	4.932
5.90	-0.0192	0.0103	0.0217	3.712	-0.0008	0.0001	0.00081	4.955
6.90	-0.0184	0.0091	0.0209	3.829	-0.0001	0.0011	0.00110	4.955
7.90	-0.0188	0.0072	0.0201	3.944	-0.0010	0.0013	0.00164	4.956
8.90	-0.0200	0.0070	0.0211	3.914	-0.0016	0.0018	0.00241	4.958
9.90	-0.0229	0.0060	0.0237	3.921	-0.0023	0.0015	0.00275	4.950
(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)				
Z2	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	CIA
5.75	-0.0227	0.0063	0.0235	3.928	-0.0006	0.0022	0.00229	4.992
4.75	-0.0198	0.0074	0.0211	3.895	-0.0011	0.0027	0.00292	4.996
3.75	-0.0150	0.0055	0.0159	3.705	-0.0026	0.0030	0.00397	4.697
2.25	-0.0140	0.0039	0.0145	3.589	-0.0017	0.0030	0.00345	4.578
2.75	-0.0147	0.0053	0.0157	3.453	-0.0017	0.0035	0.00389	4.437
2.25	-0.0130	0.0066	0.0145	3.254	-0.0018	0.0038	0.00420	4.275
1.75	-0.0128	0.0032	0.0121	2.894	-0.0019	0.0030	0.00355	4.095
1.25	-0.0010	0.0018	0.0020	2.597	-0.0013	0.0035	0.00372	3.892
Z3	X-ACT	Y-ACT	TIR					
1.00	-0.0071	-0.0021	0.00775					
7.00	-0.0036	-0.0050	0.00616					

BASE THICKNESS (IN) 1.494

PROJECTILE LENGTH (IN) 16.533

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 65-0 LCT 62 PROJECTILE AS

INSPECTION DATE 9/28/70

Z1	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
1.90	0.0164	-0.0046	0.0170 <sup>2</sup>	3.020	-0.0002	-0.0012	0.00122	4.979
2.90	0.0072	-0.0041	0.00837	3.365	0.0016	0.0028	0.00322	5.124
3.90	0.0093	-0.0065	0.01135	3.483	0.0010	0.0021	0.00233	5.110
4.90	0.0074	-0.0065	0.01023	3.603	-0.0018	-0.0008	0.00197	4.981
5.90	0.0093	-0.0060	0.01107	3.718	-0.0001	-0.0010	0.00100	4.959
6.90	0.0077	-0.0032	0.00838	3.837	0.0010	-0.0014	0.00172	4.956
7.90	0.0022	-0.0021	0.00304	3.920	0.0	-0.0011	0.00110	4.955
8.90	0.0017	-0.0019	0.00255	3.924	-0.0014	0.0	0.00140	4.954
9.90	0.0014	-0.0001	0.00140	3.927	-0.0021	-0.0003	0.00212	4.955
Z2	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
5.75	-0.0010	0.0025	0.00269	3.927	-0.0019	-0.0001	0.00190	4.982
4.75	-0.0017	0.0003	0.00188	3.887	-0.0006	0.0001	0.00061	4.884
3.75	-0.0026	-0.0071	0.00756	3.688	-0.0020	0.0004	0.00204	4.699
3.25	-0.0023	-0.0126	0.01281	3.564	-0.0026	0.0	0.00260	4.579
2.75	-0.0002	-0.0145	0.01452	3.434	-0.0033	0.0006	0.00335	4.438
2.25	0.0036	-0.0154	0.01582	3.253	-0.0029	0.0009	0.00304	4.278
1.75	0.0054	-0.0149	0.01575	2.919	-0.0033	0.0015	0.00362	4.104
1.25	0.0064	-0.0125	0.01404	2.606	-0.0021	0.0013	0.00247	3.904
Z3	X-ACT	Y-ACT	TIR					
1.00	0.0016	0.0061	0.00431					
7.00	0.0044	-0.0048	0.00593					

BASE THICKNESS (IN) 1.457

PROJECTILE LENGTH (IN) 16.521

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## PROJECTILE INSPECTION DATA

5/38 MK 66-0 LCT 63 PROJECTILE B1

INSPECTION DATE 9/16/70

Z1	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
1.90	0.0090	0.0053	0.01044	2.928	0.0005	-0.0002	0.00054	4.981
2.90	0.0154	0.0008	0.01542	3.362	-0.0035	-0.0001	0.00350	5.126
3.90	0.0149	-0.0013	0.01496	3.479	-0.0035	0.0009	0.00361	5.126
4.90	0.0138	-0.0016	0.01389	3.596	-0.0017	0.0	0.00170	4.984
5.90	0.0116	-0.0053	0.01275	3.712	-0.0007	0.0009	0.00106	4.959
6.90	0.0138	-0.0066	0.01530	3.828	-0.0025	-0.0009	0.00266	4.958
7.90	0.0087	-0.0081	0.01189	3.917	-0.0015	0.0003	0.00153	4.959
8.90	0.0106	-0.0110	0.01528	3.922	-0.0015	0.0003	0.00153	4.955
9.90	0.0127	-0.0146	0.01935	3.932	-0.0023	-0.0009	0.00247	4.964
Z2	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
5.75	0.0146	-0.0189	0.02380	3.937	-0.0009	0.0003	0.00095	4.982
4.75	0.0133	-0.0185	0.02278	3.897	-0.0006	-0.0007	0.00092	4.890
3.75	0.0104	-0.0020	0.01059	3.712	-0.0020	0.0002	0.00201	4.703
3.25	0.0091	-0.0002	0.00910	3.600	-0.0013	-0.0002	0.00132	4.582
2.75	0.0049	0.0048	0.00686	3.469	-0.0011	0.0004	0.00117	4.440
2.25	0.0016	0.0073	0.00747	3.203	-0.0012	0.0008	0.00144	4.277
1.75	0.0008	0.0142	0.01422	2.950	-0.0010	0.0001	0.00100	4.096
1.25	0.0007	0.0128	0.01287	2.646	0.0012	-0.0001	0.00120	3.894
Z3	X-ACT	Y-ACT	TIR					
1.00	-0.0045	0.0024	0.00510					
7.00	-0.0043	0.0018	0.00466					

BASE THICKNESS (IN) 1.562

PROJECTILE LENGTH (IN) 16.653

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/3A MK 66-0 LCT 63 PROJECTILE B2

INSPECTION DATE CO/23/70

71	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.60	C.0058	-C.0062	0.00849	3.002	0.0007	-0.0012	0.00139	4.921
2.30	C.0066	-C.0067	0.00872	3.367	0.0013	0.0004	0.00136	5.123
3.60	C.0069	-C.0082	0.00825	3.485	C.0008	0.0008	0.00113	5.121
4.90	C.0007	-C.0109	0.01092	3.603	0.0001	-0.0001	0.00014	4.982
5.90	C.0010	-C.0115	0.01154	3.714	-0.0002	0.0007	0.00073	4.952
6.90	0.0020	-0.0128	0.01294	3.832	0.0008	0.0013	0.00153	4.953
7.90	C.0029	-C.0130	0.01332	3.915	0.0003	0.0018	0.00182	4.951
8.90	0.0016	-0.0145	0.01459	3.919	0.0007	0.0016	0.00176	4.951
9.90	0.0024	-C.0162	0.01638	3.922	0.0002	0.0014	0.00141	4.953
72	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	C.0039	-0.0158	C.C1627	3.926	0.0014	0.0006	0.00152	4.982
4.75	C.0024	-C.0130	0.01344	3.876	0.0009	0.0014	0.00165	4.884
3.75	0.0044	-0.0055	C.01047	3.726	0.0004	0.0016	0.00165	4.699
3.25	C.0022	-0.0105	C.01073	3.610	-0.0006	0.0016	0.00171	4.580
2.75	0.0001	-0.0112	C.01120	3.471	0.0008	0.0014	0.00161	4.437
2.25	-0.0004	-0.0090	0.00901	3.271	0.0004	0.0009	0.00098	4.277
1.75	C.0004	-0.0164	C.01640	2.917	-0.0003	0.0011	0.00114	4.096
1.25	0.0013	-0.0142	0.01426	2.593	0.0005	0.0021	0.00216	3.896
73	X-ACT	Y-ACT	TIR					
1.00	-C.0016	C.0014	0.00236					
7.00	-0.0064	C.0055	0.01268					

BASE THICKNESS (IN) 1.472

PROJECTILE LENGTH (IN) 16.576

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

73 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LCT 63 PROJECTILE B3

INSPECTION DATE 9/22/70

Z1	(- - - - INSIDE - - - - )			(- - - - OUTSIDE - - - - )			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
1.90	C.0145	-0.0019	C.01660	2.618	-0.0005	-0.0014	0.00149	4.979
2.90	0.0147	-0.0057	0.01741	3.369	0.0033	-0.0002	0.00331	5.119
3.90	0.0164	-C.0055	0.01895	3.485	0.0021	-0.0010	0.00233	5.121
4.90	0.0153	-C.0101	0.01932	3.605	-0.0031	-0.0005	0.00314	4.979
5.90	0.0162	-0.0107	0.01950	3.722	-0.0021	-0.0007	0.00221	4.953
6.90	C.0146	-C.0054	0.01736	3.832	-0.0019	-0.0003	0.00192	4.957
7.90	0.0116	-C.0079	0.01403	3.925	-0.0006	0.0	0.00060	4.953
8.90	0.0052	-C.0061	C.00563	3.930	-0.0013	0.0006	0.00143	4.954
9.90	0.0032	-0.0052	0.00574	3.932	-0.0038	0.0	0.00380	4.962
Z2	(- - - - INSIDE - - - - )			(- - - - OUTSIDE - - - - )			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
5.75	C.0022	-C.0090	C.00926	3.930	-0.0009	0.0003	0.00095	4.982
4.75	-C.0009	-C.0085	0.00855	3.884	-0.0026	-0.0001	0.00260	4.888
3.75	C.0004	-0.0161	0.01510	3.734	-0.0025	0.0007	0.00260	4.702
3.25	C.0008	-0.0182	0.01422	3.623	-0.0029	0.0008	0.00301	4.580
2.75	-C.0012	-C.0180	0.01804	3.485	-0.0042	0.0004	0.00422	4.478
2.25	-C.0013	-0.0127	0.01277	3.292	-0.0031	0.0009	0.00323	4.276
1.75	C.0020	-C.0067	0.00690	2.942	0.0	4.0009	4.00090	4.093
1.25	C.0054	-C.0020	0.00622	2.613	-0.0021	0.0011	0.00237	3.892
Z3	X-ACT	Y-ACT	TIR					
1.00	-0.0135	C.0018	C.01752					
7.00	-0.0123	0.0077	C.01451					

BASE THICKNESS (IN) 1.575

PROJECTILE LENGTH (IN) 16.640

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/3A MK 66-A LCT E3 PROJECTILE R4

INSPECTION DATE 9/17/70

Z1	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
1.90	0.0153	-0.0041	0.01584	2.910	0.0014	0.0002	0.00141	4.987
2.90	0.0061	-0.0048	0.00776	3.356	0.0012	0.0018	0.00216	5.129
3.90	0.0040	-0.0049	0.00939	3.471	0.0022	0.0008	0.00234	5.124
4.90	0.0042	-0.0034	0.00980	3.580	0.0001	-0.0002	0.00022	4.984
5.90	0.0077	-0.0020	0.00826	3.704	0.0003	-0.0001	0.00032	4.960
6.90	0.0061	-0.0022	0.00648	3.821	0.0025	0.0001	0.00260	4.963
7.90	0.0034	-0.0009	0.00371	3.923	-0.0022	-0.0012	0.00251	4.957
8.90	0.0032	-0.0005	0.00324	3.926	-0.0021	-0.0014	0.00252	4.962
9.90	0.0048	0.0006	0.00484	3.935	-0.0013	-0.0022	0.00254	4.962
Z2	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
5.75	0.0030	0.0014	0.00414	3.938	-0.0011	-0.0025	0.00273	4.983
4.75	0.0021	0.0009	0.00228	3.888	-0.0009	-0.0022	0.00234	4.888
3.75	-0.0041	-0.0036	0.00546	3.725	-0.0020	-0.0030	0.00361	4.699
3.25	-0.0074	-0.0011	0.00768	3.615	-0.0020	-0.0035	0.00403	4.577
2.75	-0.0048	0.0006	0.00482	3.478	0.0005	-0.0035	0.00354	4.435
2.25	-0.0126	-0.0010	0.01264	3.283	-0.0006	-0.0033	0.00235	4.270
1.75	-0.0134	-0.0027	0.01320	2.920	-0.0002	-0.0030	0.00110	4.080
1.25	-0.0042	-0.0053	0.00482	2.615	-0.0015	-0.0036	0.00290	3.888
Z3	X-ACT	Y-ACT	TIR					
1.00	-0.0049	-0.0025	0.00550					
7.00	-0.0153	0.0086	0.02113					

BASE THICKNESS (IN) 1.560

PROJECTILE LENGTH (IN) 16.670

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LCT 62 PROJECTILE #5

INSPECTION DATE 9/28/70

(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)				
Z1	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0187	C.0050	0.01936	2.911	0.0012	0.0001	0.00120	4.984
2.90	-0.0124	C.0002	0.01240	3.347	0.0016	-0.0007	0.00175	5.125
3.90	-0.0129	C.0021	0.01307	3.465	0.0003	-0.0	0.00030	5.125
4.90	-0.0116	C.0019	0.01175	3.584	0.0017	0.0006	0.00180	4.985
5.90	-0.0050	C.0014	0.00514	3.697	-0.0009	-0.0001	0.00091	4.952
6.90	-0.0078	C.0015	0.00704	3.813	0.0001	0.0004	0.00041	4.951
7.90	-0.0047	-C.0	0.00470	3.916	-0.0003	-0.0002	0.00042	4.953
8.90	-0.0073	-C.0002	0.00730	3.917	0.0005	-0.0002	0.00054	4.953
9.90	-0.0022	-C.0018	0.00272	3.920	0.0006	-0.0005	0.00078	4.952
(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)				
Z2	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0004	-C.0019	0.00194	3.925	0.0023	-0.0006	0.00238	4.982
4.75	0.0030	-C.0025	C.00391	3.892	0.0030	0.0001	0.00300	4.883
3.75	0.0024	-0.0010	0.00307	3.746	0.0007	-0.0009	0.00114	4.679
3.25	0.0027	-C.0024	C.00375	3.640	0.0019	-0.0	0.00130	4.578
2.75	0.0067	-C.0042	C.00791	3.511	0.0014	0.0004	0.00145	4.433
2.25	0.0110	-C.0045	C.01189	3.318	0.0018	-0.0008	0.00197	4.272
1.75	0.0122	-C.0010	0.01224	2.966	0.0026	-0.0002	0.00261	4.042
1.25	0.0094	-C.0055	C.01039	3.649	0.0031	-0.0	0.00310	3.901
Z3	X-ACT	Y-ACT	TIR					
1.00	0.0028	C.0031	C.00410					
7.00	0.0273	C.0049	C.02774					

BASE THICKNESS (IN) 1.539

PROJECTILE LENGTH (IN) 16.607

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LCT 64 PROJECTILE R1

INSPECTION DATE 09/15/70

Z1	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
1.90	-0.0029	-0.0023	0.00451	2.898	0.0049	0.0011	0.00502	4.483
2.90	0.0036	-0.0060	0.00700	3.359	0.0010	-0.0	0.00100	5.124
3.90	0.0000	-0.0051	0.00518	3.477	0.0008	0.0014	0.00161	5.124
4.90	-0.0035	-0.0042	0.00547	3.598	0.0006	0.0008	0.00100	4.985
5.90	-0.0010	-0.0044	0.00451	3.705	-0.0012	0.0009	0.00150	4.955
6.90	0.0027	-0.0039	0.00465	3.825	0.0006	0.0011	0.00125	4.950
7.90	0.0004	-0.0029	0.00392	3.917	0.0006	0.0020	0.00200	4.957
8.90	-0.0005	-0.0065	0.00652	3.923	-0.0012	0.0017	0.00200	4.960
9.90	-0.0017	-0.0045	0.00481	3.922	-0.0011	0.0011	0.00156	4.962
Z2	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
5.75	-0.0001	-0.0060	0.00680	3.924	-0.0006	0.0018	0.00190	4.981
4.75	-0.0002	-0.0055	0.00550	3.880	0.0006	0.0016	0.00171	4.984
3.75	0.0034	-0.0050	0.00605	3.742	-0.0013	0.0010	0.00154	4.696
2.25	0.0056	-0.0024	0.00617	2.632	-0.0024	0.0010	0.00250	4.574
2.75	0.0090	-0.0011	0.00907	3.496	-0.0026	0.0020	0.00328	4.472
2.25	0.0052	0.0004	0.00532	2.295	-0.0000	0.0020	0.00215	4.270
1.75	0.0012	0.0015	0.00192	2.951	-0.0024	0.0013	0.00221	4.080
1.25	0.0066	0.0026	0.00709	2.620	-0.0020	0.0019	0.00274	3.884
Z3	X-ACT	Y-ACT	TIP					
1.00	-0.0063	0.0040	0.00746					
7.00	-0.0169	0.0111						

Base thickness 1.569

Projectile Length 16.663

## GUN PROJECTILE INSPECTION DATA

5/23 MK 66-0 LCT 64 PROJECTILE B2

INSPECTION DATE 09/21/70

Z1	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
1.00	-0.0031	0.0020	0.00364	2.977	0.0002	0.0003	0.00026	4.094
2.00	0.0011	0.0005	0.00121	3.265	0.0021	0.0002	0.00211	5.121
3.00	0.0005	0.0017	0.00177	3.480	0.0008	0.0008	0.00113	5.121
4.00	-0.0021	-0.0019	0.00277	3.600	-0.0007	0.0008	0.00106	4.992
5.00	-0.0008	-0.0001	0.00091	3.714	-0.0001	0.0014	0.00140	4.956
6.00	0.0006	-0.0033	0.00335	3.824	0.0001	0.0007	0.00071	4.956
7.00	-0.0002	-0.0031	0.00311	3.924	0.0007	0.0005	0.00086	4.957
8.00	-0.0019	-0.0037	0.00416	3.927	-0.0016	0.0002	0.00161	4.958
9.00	-0.0043	-0.0037	0.00567	3.933	-0.0014	-0.0005	0.00149	4.960
Z2	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
5.75	-0.0031	-0.0036	0.00475	3.935	0.0019	0.0011	0.00220	4.986
4.75	-0.0043	-0.0033	0.00542	3.886	-0.0009	0.0007	0.00114	4.887
3.75	-0.0025	-0.0045	0.00515	3.737	-0.0008	0.0012	0.00144	4.700
3.25	0.0017	-0.0040	0.00435	3.627	-0.0016	0.001C	0.00149	4.577
2.75	0.0039	-0.0030	0.00492	3.491	-0.0004	0.0014	0.00146	4.435
2.25	0.0059	-0.0046	0.00748	3.301	-0.0009	0.0004	0.00098	4.270
1.75	0.0082	-0.0039	0.00508	2.943	-0.0013	0.0005	0.00139	4.088
1.25	0.0032	-0.0033	0.00460	2.634	0.0	0.0011	0.00110	3.888
Z3	X-ACT	Y-ACT	TIR					
1.00	0.0024	0.0004	0.00243					
7.00	0.0075	-0.0043	0.00865					

BASE THICKNESS (IN) 1.513

PROJECTILE LENGTH (IN) 16.664

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 46-0 LCT 64 PROJECTILE B3

INSPECTION DATE 09/22/70

Z1	INSIDE				OUTSIDE				CTA
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
1.90	0.0075	C.0165	0.01812	2.962	0.0012	0.0004	0.00126	4.981	
2.90	0.0045	0.0036	0.00576	3.364	0.0004	0.0001	0.00041	5.121	
3.90	0.0084	C.0060	0.01032	3.482	C.0001	-0.0003	0.00032	5.120	
4.90	0.0060	C.0073	C.01004	3.597	-0.0006	0.0003	0.00067	4.982	
5.90	0.0058	C.0075	C.00948	3.712	0.0001	0.0007	0.00071	4.953	
6.90	0.0049	C.0082	0.00956	3.827	0.0024	0.0015	0.00287	4.954	
7.90	0.0046	C.0085	0.00966	3.917	0.0010	0.0015	0.00180	4.952	
8.90	0.0013	C.0103	C.01039	3.917	0.0010	0.0015	0.00180	4.952	
9.90	C.0006	C.0123	0.01231	3.921	0.0008	0.0003	0.00085	4.958	
Z2	INSIDE				OUTSIDE				CTA
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
5.75	-C.0029	C.0150	0.01528	3.928	0.0016	0.0014	0.00213	4.984	
4.75	-C.0044	C.0150	C.01563	3.887	0.0018	0.0019	0.00262	4.890	
3.75	-C.0020	0.0140	C.01414	3.691	0.0006	0.0011	0.00125	4.704	
3.25	-0.0030	C.0089	C.00939	3.578	0.0015	0.0024	0.00283	4.581	
2.75	-0.0029	0.0044	0.00522	3.445	0.0015	0.0015	0.00212	4.441	
2.25	-0.0029	-0.0014	0.00322	3.270	0.0009	0.0015	0.00175	4.279	
1.75	C.0016	-0.0075	C.00767	2.959	0.0013	0.0006	0.00143	4.097	
1.25	C.0016	-0.0142	0.01429	2.624	0.0008	0.0011	0.00136	3.893	
Z3	X-ACT	Y-ACT	TIR						
1.00	C.0024	C.0039	0.00446						
7.00	0.0191	C.0185	0.02588						

BASE THICKNESS (IN) 1.533

PROJECTILE LENGTH (IN) 16.664

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 60-0 LCT 64 PROJECTILE B4

INSPECTION DATE 09/24/70

(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)				
Z1	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0160	0.0003	0.01600	2.948	-0.0006	0.0013	0.00143	4.981
2.90	-0.0056	-0.0036	0.00666	3.354	0.0046	0.0014	0.00481	5.122
3.90	-0.0103	-0.0035	0.01088	3.475	0.0049	0.0015	0.00512	5.124
4.90	-0.0121	-0.0024	0.01234	3.591	0.0	-0.0021	0.00210	4.981
5.90	-0.0135	-0.0015	0.01358	3.708	0.0001	0.0017	0.00170	4.951
6.90	-0.0138	-0.0006	0.01381	3.830	0.0023	0.0021	0.00311	4.951
7.90	-0.0159	-0.0012	0.01595	3.918	0.0007	0.0020	0.00212	4.951
8.90	-0.0166	0.0010	0.01663	3.921	-0.0005	0.0022	0.00226	4.949
9.90	-0.0167	0.0035	0.01706	3.925	0.0007	0.0020	0.00212	4.951
(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)				
Z2	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0183	0.0081	0.02001	3.929	-0.0001	0.0009	0.00091	4.981
4.75	-0.0158	0.0076	0.01753	3.887	-0.0006	0.0015	0.00162	4.882
3.75	-0.0137	0.0048	0.01452	3.709	-0.0010	0.0017	0.00197	4.697
3.25	-0.0142	0.0035	0.01462	3.593	-0.0014	0.0016	0.00212	4.573
2.75	-0.0159	-0.0005	0.01581	3.459	-0.0011	0.0017	0.00202	4.432
2.25	-0.0153	-0.0004	0.01531	3.266	-0.0022	0.0024	0.00326	4.274
1.75	-0.0153	-0.0015	0.01537	2.911	-0.0018	0.0017	0.00248	4.092
1.25	-0.0086	-0.0061	0.01054	2.591	-0.0015	0.0018	0.00234	3.892
Z3	X-ACT	Y-ACT	TIR					
1.00	-0.0020	0.0014	0.00244					
7.00	0.0111	-0.0146	0.01834					

BASE THICKNESS (IN) 1.518

PROJECTILE LENGTH (IN) 16.586

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

INSPECTION DATE 9/24/70

Z1	(- - - - INSIDE - - - - )				(- - - - OUTSIDE - - - - )			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0018	0.0142	0.01431	2.899	0.0	0.0015	0.00150	4.992
2.90	-0.0020	0.0055	0.00971	3.356	0.0015	-0.0006	0.00162	5.119
3.90	-0.0040	0.0066	0.01049	3.475	0.0003	0.0002	0.00124	5.123
4.90	-0.0083	0.0082	0.01167	3.594	-0.0004	0.0010	0.00109	4.990
5.90	-0.0128	0.0084	0.01531	3.710	0.0006	0.0017	0.00180	4.954
6.90	-0.0153	0.0077	0.01713	3.827	0.0005	0.0015	0.00158	4.954
7.90	-0.0185	0.0078	0.02008	3.917	0.0007	0.0019	0.00202	4.954
8.90	-0.0213	0.0086	0.02297	3.923	0.0006	0.0020	0.00209	4.954
9.90	-0.0191	0.0087	0.02099	3.927	-0.0001	0.0021	0.00210	4.954
Z2	(- - - - INSIDE - - - - )				(- - - - OUTSIDE - - - - )			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0203	0.0100	0.02243	3.934	-0.0003	0.0017	0.00172	4.992
4.75	-0.0173	0.0119	0.02100	3.887	0.0006	0.0028	0.00284	4.984
3.75	-0.0122	0.0129	0.01782	3.719	-0.0008	0.0031	0.00320	4.700
3.25	-0.0177	0.0104	0.01720	3.610	-0.0007	0.0027	0.00279	4.577
2.75	-0.0136	0.0123	0.01834	3.474	-0.0007	0.0032	0.00322	4.436
2.25	-0.0129	0.0104	0.01657	3.284	-0.0005	0.0024	0.00245	4.275
1.75	-0.0068	0.0086	0.01096	2.920	-0.0001	0.0034	0.00340	4.094
1.25	-0.0090	0.0103	0.01304	2.610	0.0005	0.0029	0.00294	3.873
Z3	X-ACT	Y-ACT	TIR					
1.00	-0.0055	0.0057	0.00792					
7.00	0.0065	0.0254	0.02622					

BASE THICKNESS (IN) 1.575

PROJECTILE LENGTH (IN) 16.579

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

INSPECTION DATE 9/22/70

Z1	INSIDE			DIA	OUTSIDE			DIA
	X-ACT	Y-ACT	TIR		X-ACT	Y-ACT	TIR	
1.90	C.0049	-0.0113	0.01232	2.872	-0.0002	0.0006	0.00043	4.980
2.90	-0.0037	-0.0026	C.00452	3.364	-0.0024	-0.0002	0.00241	5.121
3.90	-0.0061	-0.0045	C.00754	3.482	-0.0020	0.0001	0.00200	5.121
4.90	C.0007	-0.0069	0.00694	3.598	-0.0023	0.0004	0.00237	4.981
5.90	0.0036	-0.0072	0.00805	3.710	-0.0016	0.0013	0.00206	4.954
6.90	0.0060	-0.0065	0.00942	3.828	-0.0008	0.0005	0.00094	4.955
7.90	C.00090	-0.0084	0.01160	3.921	-0.0006	0.0004	0.00072	4.956
8.90	C.0114	-C.0095	0.01515	3.924	-0.0014	0.0011	0.00178	4.957
9.90	0.0116	-C.0112	0.01612	3.926	-0.0020	0.0010	0.00224	4.958
Z2	INSIDE			DIA	OUTSIDE			DIA
	X-ACT	Y-ACT	TIR		X-ACT	Y-ACT	TIR	
5.75	C.0151	-C.0105	0.01839	3.924	-0.0013	0.0016	0.00206	4.982
4.75	C.0151	-C.0101	0.01817	3.881	-0.0014	0.0020	0.00244	4.986
3.75	C.0069	-0.0021	0.00712	3.734	-0.0010	0.0027	0.00288	4.694
3.25	C.0025	0.0026	C.00361	3.625	-0.0013	0.0017	0.00214	4.574
2.75	-0.0023	0.0023	C.00910	3.486	-0.0017	0.0016	0.00233	4.436
2.25	-0.0059	C.0068	0.00400	3.300	-0.0013	0.0020	0.00230	4.270
1.75	-C.0154	C.0073	0.01727	2.953	-0.0010	0.0014	0.00172	4.042
1.25	-0.0104	C.0124	0.01618	2.618	-0.0026	0.0019	0.00222	3.885
Z3	X-ACT	Y-ACT	TIR					
1.00	-C.0069	-0.0028	0.00735					
7.00	-0.0120	C.0068	0.01458					

BASE THICKNESS (IN) 1.524

PROJECTILE LENGTH (IN) 16.644

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

INSPECTION DATE 9/23/70

Z1	(- - - - INSIDE - - - -)			DIA	(- - - - OUTSIDE - - - -)			DIA
	X-ACT	Y-ACT	TIR		X-ACT	Y-ACT	TIR	
1.90	C.0036	0.0025	C.00428	2.995	0.0005	-0.0010	0.00112	4.979
2.90	0.0149	C.0045	C.01554	3.268	0.0028	0.0006	0.00286	5.121
3.90	0.0135	C.0040	C.01408	3.484	0.0023	0.0004	0.00233	5.122
4.90	0.0058	0.0016	0.00698	3.605	-0.0007	0.0008	0.00106	4.980
5.90	C.0114	C.0010	C.01144	3.717	-0.0004	0.0007	0.00081	4.954
6.90	0.0125	C.0003	C.01250	3.833	0.0008	0.0010	0.00128	4.954
7.90	0.0114	-C.0007	0.01142	3.919	0.0002	0.0015	0.00151	4.954
8.90	C.0171	-C.0014	0.01218	3.921	-0.0015	0.0014	0.00205	4.957
9.90	C.0144	-C.0017	0.01450	3.922	-0.0020	0.0014	0.00244	4.957
Z2	(- - - - INSIDE - - - -)			DIA	(- - - - OUTSIDE - - - -)			DIA
	X-ACT	Y-ACT	TIR		X-ACT	Y-ACT	TIR	
5.75	C.0127	-0.0023	C.01389	3.917	-0.0015	0.0027	0.00307	4.923
4.75	0.0115	-0.0007	C.01152	3.884	-0.0017	0.0026	0.00211	4.882
3.75	C.0023	0.0	C.00330	3.714	-0.0022	0.0029	0.00448	4.694
3.25	C.0019	C.0034	0.00402	3.601	-0.0024	0.0030	0.00417	4.572
2.75	-C.0023	C.0077	C.00804	3.467	-0.0027	C.0021	0.00342	4.430
2.25	-C.0020	C.0070	C.00729	3.278	-0.0031	0.0026	0.00405	4.265
1.75	-0.0025	0.0105	C.01074	2.919	-0.0013	0.0027	0.00300	4.084
1.25	-0.0016	0.0025	C.00297	2.608	-0.0017	0.0027	0.00319	3.882
Z3	X-ACT	Y-ACT	TIR					
1.00	-C.0068	0.0083	C.01073					
7.00	-0.0060	0.0058	C.00835					

BASE THICKNESS (IN) 1.516

PROJECTILE LENGTH (IN) 16.654

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

INSPECTION DATE 09/16/70

71	(- - - - INSIDE - - - - )			(- - - - OUTSIDE - - - - )			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
1.50	-0.0094	C.0224	C.02429	2.953	-0.0	-0.0005	0.00050	4.980
2.50	-C.0072	0.0149	C.01655	3.362	0.0011	0.0008	0.00136	5.122
3.50	-C.0059	C.0190	C.01984	3.478	-0.0	0.0011	0.00110	5.121
4.50	-0.0085	C.0218	C.02240	3.598	-0.0005	0.0007	0.00086	4.979
5.50	-C.0044	C.0225	C.02293	3.713	-0.0	0.0011	0.00110	4.949
6.50	C.0008	C.0218	0.02181	3.830	0.0006	0.0003	0.00067	4.945
7.50	0.0021	C.0226	C.02270	3.919	0.0008	0.0012	0.00144	4.946
8.50	0.0071	C.0219	C.02302	3.920	-0.0005	0.0013	0.00139	4.945
9.50	0.0101	C.0210	C.02330	3.920	0.0007	0.0021	0.00221	4.946
72	(- - - - INSIDE - - - - )			(- - - - OUTSIDE - - - - )			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
5.75	C.0160	C.0226	C.02761	3.919	0.0017	0.0020	0.00262	4.984
4.75	C.0130	C.0179	C.02266	3.883	0.0016	0.0034	0.00376	4.981
3.75	C.0101	C.0074	C.01252	3.725	0.0002	0.0030	0.00301	4.690
3.25	C.0094	C.0038	0.01014	3.612	-0.0035	0.0014	0.00377	4.571
2.75	0.0066	C.0021	C.00693	3.480	-0.0010	0.0032	0.00325	4.433
2.25	0.0059	C.0021	C.00590	3.289	-0.0014	0.0031	0.00340	4.272
1.75	C.0028	-0.0043	0.00513	2.941	-0.0002	0.0024	0.00241	4.090
1.25	C.0004	-0.0049	0.00492	2.614	0.0004	0.0041	0.00412	3.892
73	X-ACT	Y-ACT	TIR					
1.00	-C.0084	C.0007	C.00843					
7.00	-C.0100	C.0054	C.01216					

BASE THICKNESS (IN) 1.542

PROJECTILE LENGTH (IN) 16.647

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

73 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

INSPECTION DATE 9/25/70

(- - - - - INSIDE - - - - -) (- - - - - OUTSIDE - - - - -)

Z1	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
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1.90	0.0065	-0.0117	0.01338	2.926	-0.0003	-0.0002	0.00034	4.983
2.90	-0.0009	-0.0173	0.01732	3.361	0.0035	0.0008	0.00359	5.122
3.90	0.0014	-0.0154	0.01546	3.472	0.0003	0.0002	0.00034	5.126
4.90	0.0033	-0.0145	0.01487	3.591	-0.0017	0.0	0.00170	4.984
5.90	0.0052	-0.0127	0.01372	3.706	-0.0003	-0.0009	0.00095	4.960
6.90	0.0055	-0.0124	0.01357	3.826	-0.0001	-0.0009	0.00081	4.959
7.90	0.0025	-0.0105	0.01078	3.921	-0.0006	0.0002	0.00062	4.960
8.90	0.0036	-0.0088	0.00951	3.924	-0.0020	-0.0004	0.00204	4.959
9.90	0.0053	-0.0055	0.00764	3.925	-0.0010	-0.0006	0.00117	4.963

(- - - - - INSIDE - - - - -) (- - - - - OUTSIDE - - - - -)

Z2	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
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5.75	0.0071	-0.0038	0.00805	3.624	-0.0009	-0.0016	0.00184	4.983
4.75	0.0021	-0.0025	0.00326	3.880	-0.0014	-0.0010	0.00172	4.887
3.75	-0.0026	-0.0029	0.00462	3.691	-0.0019	-0.0013	0.00230	4.649
3.25	-0.0060	0.0004	0.00601	3.572	-0.0030	-0.0015	0.00335	4.577
2.75	-0.0063	0.0031	0.00702	3.443	-0.0023	-0.0026	0.00347	4.435
2.25	-0.0075	0.0018	0.00771	3.273	-0.0024	-0.0020	0.00312	4.271
1.75	-0.0119	0.0018	0.01204	2.955	-0.0017	-0.0018	0.00248	4.049
1.25	-0.0160	0.0055	0.01692	2.618	-0.0016	-0.0025	0.00297	3.885

Z3 X-ACT Y-ACT TIR

1.00	-0.0019	0.0052	0.00554
7.00	0.0230	0.0213	0.03135

BASE THICKNESS (IN) 1.554

PROJECTILE LENGTH (IN) 16.599

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

INSPECTION DATE 09/16/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	C.00088 -C.0079	0.01183	2.985	-0.0007	-0.0010	0.00122	4.991	
2.90	0.0106 -C.0098	0.01444	3.375	0.0016	0.0008	0.00170	5.124	
3.90	0.0112 -C.0101	0.01508	3.486	-0.0033	-0.0005	0.00334	5.110	
4.90	0.0134 -C.0088	0.01603	3.606	-0.0022	-0.0018	0.00294	4.979	
5.90	0.0131 -C.0113	0.01730	3.715	-0.0009	-0.0028	0.00294	4.957	
6.90	0.0142 -C.0109	0.01790	3.836	0.0005	-0.0023	0.00235	4.960	
7.90	0.0124 -C.0120	0.01726	3.928	-0.0003	-0.0022	0.00222	4.958	
8.90	0.0140 -C.0132	0.01924	3.932	-0.0011	-0.0020	0.00229	4.962	
9.90	0.0134 -C.0161	0.02095	3.938	-0.0009	-0.0026	0.00275	4.962	
Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	C.0137 -C.0204	0.02457	3.935	0.0004	-0.0008	0.00097	4.995	
4.75	C.0108 -C.0182	0.02116	3.892	0.0010	-0.0020	0.00224	4.950	
3.75	0.0097 -C.0142	0.01720	3.729	-0.0012	-0.0013	0.00177	4.703	
3.25	0.0104 -C.0144	0.01776	3.616	-0.0013	-0.0011	0.00170	4.582	
2.75	C.0107 -C.0109	0.01527	3.486	-0.0015	-0.0015	0.00212	4.440	
2.25	0.0106 -C.0100	0.01457	3.305	-0.0009	-0.0014	0.00166	4.276	
1.75	C.00088 -C.0068	0.01112	2.964	-0.0002	-0.0018	0.00121	4.025	
1.25	C.00069 -C.0046	0.00829	2.638	-0.0009	-0.0017	0.00198	3.892	
Z3	X-ACT	Y-ACT	TIR					
1.00	-C.0015	-C.0050	C.00522					
7.00	-C.0191	0.0029	C.01932					

BASE THICKNESS (IN) 1.542

PROJECTILE LENGTH (IN) 16.650

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

INSPECTION DATE 9/21/70

Z1	(- - - - INSIDE - - - - )			(- - - - OUTSIDE - - - - )			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
1.90	-0.0252	-0.0260	0.03767	2.690	-0.0047	-0.0018	0.00603	4.994
2.90	-0.0245	-0.0253	0.03594	3.353	-0.0013	-0.0014	0.00191	5.127
3.90	-0.0234	-0.0225	0.02246	3.474	-0.0029	-0.0003	0.00292	5.124
4.90	-0.0212	-0.0183	0.02828	3.593	-0.0028	-0.0013	0.00309	4.986
5.90	-0.0202	-0.0145	0.02495	3.706	-0.0008	-0.0015	0.00170	4.958
6.90	-0.0144	-0.0120	0.01874	3.822	-0.0014	-0.0020	0.00244	4.960
7.90	-0.0100	-0.0067	0.01325	3.911	-0.0046	-0.0032	0.00595	4.966
8.90	-0.0090	-0.0040	0.00585	3.916	-0.0030	-0.0025	0.00391	4.954
9.90	-0.0120	-0.0014	0.01209	3.916	-0.0016	-0.0037	0.00403	4.960
Z2	(- - - - INSIDE - - - - )			(- - - - OUTSIDE - - - - )			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
5.75	-0.0101	0.0025	0.01043	2.924	-0.0002	-0.0029	0.00291	4.931
4.75	-0.0090	0.0023	0.00848	3.884	0.0	-0.0021	0.00210	4.937
3.75	-0.0107	0.0052	0.01190	3.706	-0.0012	-0.0022	0.00251	4.701
2.75	-0.0082	0.0057	0.01277	3.587	-0.0014	-0.0024	0.00278	4.578
2.75	-0.0077	0.0140	0.01448	3.457	-0.0008	-0.0028	0.00291	4.436
2.25	-0.0026	0.0167	0.01690	3.281	-0.0002	-0.0027	0.00271	4.276
1.75	0.0005	0.0216	0.02161	2.964	0.0	-0.0028	0.00280	4.094
1.25	-0.0062	0.0138	0.01390	2.627	0.0002	-0.0023	0.00231	3.995
Z3	X-ACT	Y-ACT	TIR					
1.00	0.0022	-0.0046	0.00560					
7.00	0.0010	-0.0061	0.00916					

BASE THICKNESS (IN) 1.505

PROJECTILE LENGTH (IN) 16.594

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

INSPECTION DATE 9/26/70

71	(- - - - INSIDE - - - -)			(- - - - OUTSIDE - - - -)			TIR	
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	
1.90	C.0049	-C.0077	C.00913	2.966	0.0010	-0.0007	0.00122	4.978
2.90	C.0007	-C.0166	0.01661	3.352	0.0024	-0.0006	0.00247	5.121
3.90	C.0015	-C.0131	0.01319	3.471	0.0026	-0.0011	0.00232	5.122
4.90	-0.0012	-0.0131	0.01315	3.596	-0.0007	0.0001	0.00071	4.931
5.90	C.0018	-C.0069	0.00713	3.712	0.0008	0.0	0.00080	4.956
6.90	0.0015	-C.0049	0.00512	3.834	0.0010	-0.0	0.00100	4.957
7.90	0.0023	-C.0047	0.00523	3.924	0.0023	0.0004	0.00233	4.957
8.90	C.0019	-0.0020	0.00276	3.925	0.0001	-0.0004	0.00041	4.957
9.90	C.0030	-C.0022	0.00374	3.935	0.0008	-0.0005	0.00094	4.957
Z2	(- - - - INSIDE - - - -)			(- - - - OUTSIDE - - - -)			TIR	
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	
5.75	C.0030	-C.0027	C.00404	2.939	0.0015	-0.0005	0.00162	4.987
4.75	C.0002	-C.0019	C.00181	3.892	0.0015	-0.0005	0.00158	4.894
3.75	-0.0104	C.0001	C.01040	3.708	0.0007	0.0006	0.00032	4.702
3.25	-0.0105	C.0015	C.01061	3.595	C.0008	-0.0002	0.00082	4.581
2.75	-C.0072	C.0064	0.00960	3.456	0.0	-0.0006	0.00060	4.430
2.25	-C.0056	C.0097	C.01255	3.290	0.0009	-0.0001	0.00031	4.277
1.75	-C.0082	C.0160	C.01802	2.951	0.0017	0.0001	0.00170	4.077
1.25	-0.0046	C.0176	0.01819	2.644	0.0023	0.0001	0.00230	2.916
Z3	X-ACT	Y-ACT	TIR					
1.00	C.0001	C.0045	C.00460					
7.00	0.0213	C.0080	0.02275					

BASE THICKNESS (IN) 1.584

PROJECTILE LENGTH (IN) 16.576

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

INSPECTION DATE 9/25/70

Z1	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
1.90	0.0113	-0.0011	0.01135	2.947	0.0014	-0.0004	0.00146	4.997
2.90	0.0104	-0.0039	0.01111	3.359	0.0017	0.0029	0.00336	5.120
3.90	0.0077	-0.0046	0.00897	3.472	0.0026	0.0045	0.00520	5.120
4.90	0.0067	-0.0039	0.00741	3.588	0.0008	0.0004	0.00097	4.981
5.90	0.0073	-0.0035	0.00810	3.707	0.0006	0.0007	0.00092	4.957
6.90	0.0083	-0.0037	0.00909	3.822	0.0023	0.0009	0.00247	4.957
7.90	0.0086	-0.0022	0.00888	3.910	0.0017	0.0	0.00170	4.957
8.90	0.0094	-0.0033	0.00902	3.916	0.0011	0.0013	0.00170	4.959
9.90	0.0089	-0.0028	0.00933	3.916	0.0015	0.0008	0.00170	4.959
Z2	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
5.75	0.0098	-0.0029	0.01022	3.919	0.0020	0.0009	0.00219	4.984
4.75	0.0096	0.0001	0.00960	3.887	0.0016	0.0019	0.00249	4.987
3.75	0.0029	0.0020	0.00352	3.736	0.0013	0.0016	0.00206	4.700
3.25	0.0024	0.0019	0.00256	3.628	0.0015	0.0014	0.00205	4.577
2.75	0.0008	0.0020	0.00219	3.454	0.0015	0.0018	0.00234	4.437
2.25	0.0018	0.0003	0.00182	3.300	0.0025	0.0011	0.00273	4.273
1.75	0.0056	0.0076	0.00944	2.947	0.0021	0.0010	0.00232	4.042
1.25	0.0090	0.0051	0.00949	2.622	0.0013	0.0011	0.00170	3.800
Z3	X-ACT	Y-ACT	TIR					
1.00	-0.0016	0.0053	0.00554					
7.00	0.0066	0.0008	0.00100					

BASE THICKNESS (IN) 1.545

PROJECTILE LENGTH (IN) 16.590

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

INSPECTION DATE 9/22/70

(- - - - INSIDE - - - -)				(- - - - OUTSIDE - - - -)				
Z1	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	CIA
1.90	-0.0103	C.0003	0.01230	2.017	-0.0040	-0.0017	0.00435	4.984
2.90	-C.0087	-0.0030	C.00920	3.035	-0.0024	-0.0011	0.00264	5.125
3.90	-0.0179	-C.0048	0.01853	3.475	-0.0038	0.0002	0.00381	5.127
4.90	-C.0216	-C.0066	0.02268	3.593	-0.0019	-0.0008	0.00206	4.996
5.90	-0.0214	-0.0042	0.02181	3.700	-0.0034	0.0003	0.00241	4.988
6.90	-0.0231	-0.0058	C.02392	3.828	-0.0026	0.0005	0.00265	4.958
7.90	-0.0254	-C.0055	C.02594	3.918	-0.0038	-0.0005	0.00383	4.957
8.90	-0.0245	-C.0050	0.02500	3.921	-0.0050	0.0002	0.00500	4.959
9.90	-0.0260	-0.0056	0.02856	3.931	-0.0042	0.0004	0.00422	4.959

(- - - - INSIDE - - - -)				(- - - - OUTSIDE - - - -)				
Z2	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	CIA
5.75	-C.0262	-0.0135	0.02947	3.935	-0.0039	-0.0008	0.00398	4.991
4.75	-C.0242	-C.0101	0.02632	3.893	-0.0051	-0.0001	0.00510	4.995
3.75	-C.0262	-0.0065	C.02695	3.734	-0.0053	0.0009	0.00538	4.702
2.25	-0.0235	-C.0007	0.02251	3.625	-0.0073	0.0	0.00730	4.591
2.75	-C.0201	C.0031	0.02034	3.493	-0.0061	0.0004	0.00611	4.479
2.25	-0.0194	C.0049	0.01904	3.310	-0.0064	0.0009	0.00646	4.279
1.75	-C.0156	C.0076	C.01725	2.960	-0.0059	0.0005	0.00592	4.066
1.25	-0.0142	0.0123	0.01986	2.630	-0.0062	0.0	0.00620	3.937

Z3	X-ACT	Y-ACT	TIR
1.00	-C.0098	-C.0001	C.00980
7.00	-0.0120	-0.0217	C.02480

BASE THICKNESS (IN) 1.567

PROJECTILE LENGTH (IN) 16.650

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

INSPECTION DATE 9/23/70

(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)				
Z1	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	0.0024	-0.0122	0.01243	2.893	0.0	-0.0001	0.00010	4.921
2.90	-0.0009	-0.0124	0.01243	3.361	0.0026	0.0003	0.00262	5.122
3.90	-0.0013	-0.0123	0.01227	3.477	0.0022	0.0005	0.00227	5.120
4.90	-0.0024	-0.0119	0.01215	3.594	-0.0008	0.0003	0.00095	4.990
5.90	-0.0031	-0.0137	0.01405	3.712	0.0013	0.0002	0.00132	4.954
6.90	-0.0025	-0.0130	0.01324	3.827	0.0024	0.0004	0.00244	4.957
7.90	-0.0039	-0.0091	0.00590	3.919	0.0025	0.0	0.00250	4.955
8.90	-0.0020	-0.0055	0.00993	3.924	0.0024	0.0003	0.00242	4.952
9.90	-0.0044	-0.0093	0.01028	3.924	0.0030	0.0001	0.00300	4.954
Z2	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0052	-0.0057	0.01101	3.923	0.0010	0.0013	0.00144	4.982
4.75	-0.0001	-0.0061	0.00610	3.888	0.0049	0.0	0.00490	4.893
3.75	0.0004	0.0008	0.00089	3.770	0.0040	0.0001	0.00400	4.707
3.25	0.0007	-0.0001	0.00071	3.664	0.0039	0.0002	0.00391	4.585
2.75	0.0006	-0.0009	0.00108	3.529	0.0041	-0.0011	0.00424	4.442
2.25	-0.0001	-0.0014	0.00140	3.329	0.0052	-0.0007	0.00525	4.231
1.75	0.0017	-0.0016	0.00236	2.993	0.0048	-0.0009	0.00493	4.090
1.25	0.0025	-0.0035	0.00405	2.647	0.0045	-0.0007	0.00455	3.899
Z3	X-ACT	Y-ACT	TIR					
1.00	0.0062	-0.0012	0.00622					
7.00	0.0301	-0.0054	0.03042					

BASE THICKNESS (IN) 1.562

PROJECTILE LENGTH (IN) 16.595

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

INSPECTION DATE 9/16/70

71	INSIDE				OUTSIDE			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.00	0.0136	0.0193	0.01648	2.022	0.0045	0.0006	0.00454	4.984
2.00	0.0121	0.0175	0.01424	3.361	-0.0018	-0.0008	0.00197	5.126
3.00	0.0152	0.0175	0.01187	3.477	0.0001	-0.0010	0.00100	5.128
4.00	0.0154	0.0251	0.01059	3.600	-0.0005	-0.0006	0.00078	4.997
5.00	0.0049	0.0199	0.01105	3.712	0.0018	-0.0006	0.00190	4.958
6.00	0.0126	0.0114	0.01169	3.828	0.0005	-0.0018	0.00187	4.961
7.00	0.0106	0.0133	0.01131	3.910	-0.0054	-0.0030	0.00618	4.952
8.00	-0.0123	0.0114	0.01163	3.914	-0.0004	-0.0017	0.00108	4.955
9.00	-0.0136	0.0143	0.01475	3.918	-0.0009	-0.0014	0.00166	4.956
72	INSIDE				OUTSIDE			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0148	0.0157	0.01642	2.924	-0.0005	-0.0021	0.00216	4.991
4.75	-0.0159	0.0152	0.01627	3.879	0.0031	0.0004	0.00312	4.887
3.75	-0.0021	0.0161	0.01640	3.700	-0.0025	-0.0021	0.00326	4.639
2.75	-0.0120	0.0135	0.01365	3.580	-0.0018	-0.0016	0.00241	4.576
2.75	-0.0128	0.0067	0.00726	3.440	-0.0029	-0.0028	0.00403	4.435
2.25	-0.0142	0.0062	0.00749	3.268	-0.0029	-0.0022	0.00344	4.275
1.75	-0.0145	0.0026	0.00770	2.945	-0.0023	-0.0025	0.00340	4.094
1.25	-0.0154	-0.0020	0.00234	2.617	-0.0025	-0.0025	0.00354	3.894
73	X-ACT	Y-ACT	TIR					
1.00	-0.0142	-0.0067	0.01791					
7.00	-0.0175	-0.0137	0.01542					

BASE THICKNESS (IN) 1.466

PROJECTILE LENGTH (IN) 16.590

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

73 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

INSPECTION DATE 9/25/70

Z1	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)				
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	0.0142	-0.0074	0.01601	2.893	0.0019	0.0007	0.00202	4.993
2.90	0.0070	0.0066	0.00703	3.361	0.0024	0.0029	0.00376	5.124
3.90	0.0081	0.0068	0.00814	3.476	0.0010	0.0037	0.00383	5.123
4.90	0.0101	0.0064	0.01011	3.601	-0.0010	0.0019	0.00215	4.995
5.90	0.0124	0.0033	0.01322	3.704	0.0025	0.0026	0.00361	4.994
6.90	0.0141	0.0045	0.01480	3.825	0.0020	0.0021	0.00290	4.991
7.90	0.0132	0.0061	0.01454	3.921	0.0019	0.0027	0.00330	4.992
8.90	0.0122	0.0065	0.01382	3.920	0.0014	0.0024	0.00278	4.991
9.90	0.0117	0.0064	0.01151	3.928	0.0008	0.0022	0.00234	4.990
Z2	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)				
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0111	0.0076	0.01345	3.928	0.0005	0.0022	0.00226	4.991
4.75	0.0092	0.0053	0.01093	3.876	0.0019	0.0034	0.00382	4.994
3.75	0.0088	0.0047	0.00998	3.731	0.0017	0.0034	0.00390	4.997
3.25	0.0069	0.0014	0.00704	3.622	0.0010	0.0036	0.00374	4.975
2.75	0.0050	0.0004	0.00502	3.483	0.0013	0.0040	0.00421	4.426
2.25	0.0055	0.0005	0.00552	3.292	0.0007	0.0036	0.00367	4.275
1.75	0.0076	-0.0009	0.00865	2.941	0.0010	0.0029	0.00403	4.095
1.25	0.0075	-0.0035	0.00914	2.629	0.0012	0.0041	0.00427	3.995
Z3	X-ACT	Y-ACT	TIR					
1.00	-0.0084	0.0007	0.00843					
7.00	-0.0109	0.0054	0.01216					

BASE THICKNESS (IN) 1.586

PROJECTILE LENGTH (IN) 16.584

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

Z1	INSIDE			OUTSIDE			DIA
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR	

1.90	-0.0014	-0.0049	0.00510	2.906	0.0	-0.0015	0.00150	4.941
2.90	-0.0014	0.0014	0.00158	3.349	-0.0009	-0.0013	0.00159	5.127
3.90	-0.0042	-0.0005	0.00423	3.462	-0.0003	0.0014	0.00143	5.123
4.90	-0.0058	0.0010	0.00539	3.576	-0.0008	0.0014	0.00161	4.943
5.90	-0.0053	0.0013	0.00545	3.694	-0.0001	0.0	0.00010	4.959
6.90	-0.0043	0.0025	0.00679	3.812	-0.0004	0.0	0.00040	4.960
7.90	-0.0045	0.0045	0.00636	3.912	-0.0010	0.0013	0.00164	4.969
8.90	-0.0050	0.0044	0.00666	3.920	-0.0015	0.0022	0.00266	4.963
9.90	-0.0070	0.0061	0.00929	3.921	0.0003	0.0040	0.00401	4.958

Z2	INSIDE			OUTSIDE			DIA
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR	

5.75	-0.0072	0.0071	0.01011	3.931	-0.0017	0.0015	0.00227	4.920
4.75	-0.0070	0.0051	0.00564	3.897	-0.0020	0.0022	0.00264	4.927
3.75	-0.0047	0.0074	0.00965	3.729	-0.0047	0.0026	0.00537	4.702
3.25	-0.0013	0.0067	0.00920	3.610	-0.0029	0.0036	0.00462	4.580
2.75	-0.0010	0.0042	0.00432	3.478	-0.0034	0.0027	0.00434	4.438
2.25	-0.0004	0.0040	0.00402	3.294	-0.0035	0.0042	0.00547	4.277
1.75	0.0052	-0.0023	0.00559	2.957	-0.0034	0.0037	0.00502	4.096
1.25	0.0042	-0.0113	0.01206	2.612	-0.0034	0.0052	0.00621	3.826

Z3	X-ACT	Y-ACT	TIR
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1.00	-0.0045	0.0024	0.00734
7.00	-0.0159	0.0124	0.02967

BASE THICKNESS (IN) 1.538

PROJECTILE LENGTH (IN) 16.609

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/28 MK 54- LOT 67 PROJECTILE #4

INSPECTION DATE 9/16/70

71	INSIDE			OUTSIDE			DIA
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR	

1.90	2.0272	-0.0242	0.04445	2.894	0.0018	0.0015	0.00234	4.985
2.90	2.0237	-0.0166	0.03275	3.374	0.0017	0.0017	0.00242	5.123
3.90	2.0211	-0.0169	0.02894	3.496	-0.0009	0.0017	0.00122	5.124
4.90	2.0202	-0.0207	0.02878	3.611	-0.0015	0.0006	0.00162	4.984
5.90	2.0175	-0.0228	0.02874	3.727	0.0002	0.0014	0.00141	4.956
6.90	2.0136	-0.0213	0.02527	3.840	0.0022	0.0010	0.00242	4.956
7.90	2.0114	-0.0169	0.02295	3.920	-0.0001	0.0010	0.00170	4.957
8.90	2.0067	-0.0187	0.01855	3.932	-0.0006	0.0012	0.00134	4.950
9.90	2.0043	-0.0170	0.01754	3.937	0.0009	0.0021	0.00228	4.959

72	INSIDE			OUTSIDE			DIA
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR	

5.75	-0.0012	-0.1162	0.01424	2.942	0.0014	0.0017	0.00157	4.985
4.75	-0.0058	-0.1104	0.01191	3.912	-0.0009	0.0014	0.00156	4.984
3.75	-0.0076	-0.1026	0.00794	3.751	0.0001	0.0007	0.00071	4.694
2.75	-0.0077	-0.0100	0.00775	3.630	0.0007	0.0014	0.00157	4.573
2.75	-0.0066	-0.0025	0.00682	3.514	-0.0001	0.0016	0.00160	4.432
2.25	-0.0061	-0.0082	0.01225	3.220	-0.0025	0.0005	0.00071	4.267
1.75	-0.0067	-0.0127	0.01525	3.012	-0.0003	0.0011	0.00114	4.095
1.25	-0.0102	-0.0125	0.01401	2.870	-0.0015	0.0015	0.00212	3.877

73	X-ACT	Y-ACT	TIR
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1.90	-0.0036	-0.0129	0.00486
7.90	-0.0001	-0.0011	0.00110

BASE THICKNESS (IN) 1.560

PROJECTILE LENGTH (IN) 16.655

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

72 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-1 LCT 67 PROJECTILE RS

INSPECTION DATE 9/16/70

71	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)			DIA
	X-ACT	Y-ACT	TIP	X-ACT	Y-ACT	TIP	
1.90	1.0162	-1.0100	0.01250	2.948	0.0002	0.0	1.01021
2.90	1.0127	-0.0126	0.01280	3.045	-0.0115	-0.0005	1.01150
3.90	1.0121	-1.0116	0.01201	3.492	-0.0126	0.0011	1.01125
4.90	-0.0124	-1.0115	1.01151	3.654	0.0002	0.0008	0.01222
5.90	0.0124	-0.0115	0.01198	3.714	-0.0029	0.0001	0.01191
6.90	1.0126	-0.0108	0.01217	3.837	0.0006	-0.0001	0.00041
7.90	1.0145	-0.0101	0.01015	3.924	0.0014	0.0014	1.01198
8.90	1.0117	-1.0103	0.00944	3.925	-0.0011	0.0012	0.00164
9.90	1.0122	-1.0075	0.00776	3.932	-0.0001	0.0011	0.01110

72	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)			DIA
	X-ACT	Y-ACT	TIP	X-ACT	Y-ACT	TIP	
5.75	1.0124	-1.0147	0.01528	3.631	0.0009	0.0017	0.01122
4.75	1.0127	-0.0029	1.00364	3.987	0.0008	1.0024	1.00254
3.75	1.0127	-0.0123	0.01038	3.722	0.0005	1.0025	1.00255
2.75	1.0155	-0.0162	0.01820	3.615	0.0002	0.0027	1.00271
1.75	0.0128	-1.0189	0.00668	3.484	0.0035	0.0035	1.01495
0.75	0.0157	-1.0154	0.01094	3.300	0.0016	0.0029	0.00064
-1.25	0.0154	-0.0123	0.01548	2.937	0.0012	0.0021	0.00232
1.25	0.0162	-1.0195	0.01168	2.636	0.0022	0.0032	1.01298

73 X-ACT Y-ACT TIP

1.00	0.0124	0.0088	0.00051
2.00	0.0114	0.0170	0.02047

BASE THICKNESS (IN) 1.525

PROJECTILE LENGTH (IN) 16.662

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

73 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LCT 68 PROJECTILE 81

INSPECTION DATE 9/25/70

71	(- - - - INSIDE - - - -)			(- - - - OUTSIDE - - - -)			DIA
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR	

1.90	-0.0212	-0.0024	0.02134	2.982	0.0018	-0.0002	0.00181	4.981
2.90	-0.0147	-0.0008	0.01472	3.262	0.0025	0.0002	0.00251	5.122
3.90	-0.0155	0.0005	0.01551	3.480	0.0008	0.0005	0.00094	5.122
4.90	-0.0150	-0.0008	0.01502	3.605	-0.0001	-0.0002	0.00022	4.981
5.90	-0.0114	-0.0026	0.01189	3.713	0.0015	0.0004	0.00155	4.957
6.90	-0.0122	-0.0020	0.01236	3.828	0.0022	-0.0002	0.00221	4.957
7.90	-0.0111	-0.0027	0.01142	3.919	0.0016	0.0001	0.00160	4.957
8.90	-0.0097	-0.0045	0.01069	3.921	0.0002	0.0004	0.00045	4.957
9.90	-0.0077	-0.0059	0.00970	3.927	0.0009	-0.0001	0.00091	4.954

72	(- - - - INSIDE - - - -)			(- - - - OUTSIDE - - - -)			DIA
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR	

5.75	-0.0032	-0.0077	0.00834	3.936	0.0019	0.0015	0.00242	4.982
4.75	-0.0010	-0.0066	0.00659	3.902	0.0010	0.0018	0.00205	4.988
3.75	0.0044	-0.0042	0.00603	3.693	-0.0003	0.0013	0.00133	4.609
3.25	0.0019	-0.0041	0.00452	3.568	0.0005	0.0008	0.00094	4.577
2.75	0.0001	-0.0013	0.00142	3.440	-0.0002	0.0010	0.00102	4.436
2.25	-0.0010	-0.0035	0.00364	3.274	0.0003	0.0019	0.00192	4.274
1.75	0.0009	-0.0056	0.00567	2.981	0.0022	0.0017	0.00278	4.094
1.25	0.0029	-0.0047	0.00547	2.621	0.0015	0.0013	0.00198	3.875

73 X-ACT Y-ACT TIR

1.00	-0.0020	-0.0018	0.00269
7.00	-0.0165	-0.0171	0.02376

BASE THICKNESS (IN) 1.524

PROJECTILE LENGTH (IN) 16.582

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/28 MK 46-6 LCT AR PROJECTILE B2

INSPECTION DATE 6/21/70

(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)				
Z1	X-ACT	Y-ACT	TIR	ZIA	X-ACT	Y-ACT	TIR	ZIA

1.00	-0.1041	0.0042	0.00587	0.006	0.0029	-0.0006	0.10108	4.987
2.00	-0.0127	0.0165	0.01757	0.362	-0.121	-0.108	0.10228	5.123
3.00	-0.0045	0.0065	0.00016	0.478	-0.0028	0.0005	0.00284	5.125
4.00	-0.0055	0.0042	0.00082	0.602	-0.0138	-0.0023	0.00351	4.997
5.00	-0.0148	0.0124	0.00516	0.714	0.0007	-0.0023	0.10176	4.966
6.00	-0.0112	0.0010	0.00225	0.831	-0.0105	0.0022	0.00154	4.950
7.00	-0.0220	0.0007	0.00088	0.913	-0.0002	0.0001	0.10022	4.950
8.00	-0.0154	-0.0015	0.00156	0.919	-0.0028	0.0011	0.00032	4.953
9.00	-0.0074	-0.0011	0.00768	0.926	-0.0032	0.0001	0.00032	4.961

(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)				
Z2	X-ACT	Y-ACT	TIR	ZIA	X-ACT	Y-ACT	TIR	ZIA

5.75	-0.149	-0.0025	0.00550	0.932	-0.110	0.1010	0.00141	4.984
4.75	-0.0046	-0.0044	0.00437	0.861	0.0038	0.0026	0.00061	4.940
3.75	0.0014	-0.0034	0.00284	0.714	-0.0025	0.0022	0.00033	4.711
2.75	0.0012	-0.0069	0.00080	0.594	-0.0028	0.0017	0.000340	4.591
1.75	0.0125	-0.0082	0.00867	0.462	-0.0022	0.0024	0.00420	4.426
0.75	0.146	-0.0101	0.1012	0.272	-0.0015	0.0032	0.10353	4.079
-0.75	0.141	-0.0117	0.11240	0.918	-0.0024	0.0023	0.000332	4.006
-1.75	0.112	-0.173	0.01254	0.599	-0.0012	0.0032	0.00126	0.867

Z2	X-ACT	Y-ACT	TIR
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1.00	-0.171	0.0083	0.0142
2.00	-0.0106	0.0087	0.11264

BASE THICKNESS (IN) 1.501

PROJECTILE LENGTH (IN) 16.400

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-C LCT 69 PROJECTILE R3

INSPECTION DATE 9/24/70

(- - - - INSIDE - - - - )				(- - - - OUTSIDE - - - - )				
Z1	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA

1.00	-0.0305	0.0140	0.03356	2.778	0.0011	-0.0009	0.0014?	4.981
2.90	-0.0112	-0.0028	0.01154	3.350	0.0005	-0.0022	0.00226	5.124
3.90	-0.0156	-0.0034	0.01597	3.468	0.0006	-0.0017	0.00180	5.123
4.90	-0.0167	-0.0061	0.01856	2.593	-0.0009	0.0009	0.00127	4.982
5.90	-0.0186	-0.0021	0.01872	3.701	-0.0021	0.0009	0.00228	4.955
6.90	-0.0167	0.0005	0.01671	3.818	-0.0027	0.0007	0.00279	4.955
7.90	-0.0176	0.0017	0.01768	3.917	-0.0016	0.0014	0.00213	4.956
8.90	-0.0182	0.0026	0.01829	3.922	-0.0024	0.0009	0.00256	4.955
9.90	-0.0184	0.0047	0.01996	3.928	-0.0033	0.0013	0.00355	4.955

(- - - - INSIDE - - - - )				(- - - - OUTSIDE - - - - )				
Z2	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA

5.75	-0.0211	0.0059	0.02191	3.936	-0.0021	0.0002	0.00211	4.981
4.75	-0.0188	0.0042	0.01926	3.896	-0.0035	0.0016	0.00385	4.885
3.75	-0.0164	0.0045	0.01739	3.743	-0.0038	0.0013	0.00402	4.699
2.25	-0.0131	0.0042	0.01376	3.634	-0.0038	0.0017	0.00416	4.579
2.75	-0.0059	0.0034	0.00681	3.506	-0.0035	0.0019	0.00398	4.435
2.25	-0.0027	0.0044	0.00516	3.330	-0.0045	0.0017	0.00481	4.275
1.75	0.0021	0.0016	0.00264	2.994	-0.0034	0.0020	0.00394	4.074
1.25	0.0045	0.0005	0.00453	2.658	-0.0028	0.0026	0.00382	3.896

Z3	X-ACT	Y-ACT	TIR
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1.00	-0.0023	0.0063	0.00671
7.00	-0.0009	0.0155	0.01553

BASE THICKNESS (IN) 1.626

PROJECTILE LENGTH (IN) 16.582

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/28 MK 66-0 LCT AR PROJECTILE B4

INSPECTION DATE 09/16/70

Z1	INSIDE			OUTSIDE			TIR	DIA
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
1.90	-0.0067	0.0203	0.02138	2.904	-0.0	-0.0010	0.00100	4.981
2.90	-0.0112	0.0115	0.01605	3.257	-0.0012	0.0009	0.00150	5.120
3.90	-0.0097	0.0107	0.01444	3.474	-0.0007	0.0027	0.00270	5.120
4.90	-0.0060	0.0088	0.01065	3.597	-0.0016	-0.0003	0.00162	4.981
5.90	-0.0087	0.0100	0.01325	3.707	-0.0009	-0.0009	0.00127	4.950
6.90	-0.0047	0.0100	0.01105	3.824	0.0001	-0.0014	0.00140	4.958
7.90	-0.0028	0.0086	0.00933	3.914	0.0003	-0.0013	0.00132	4.962
8.90	-0.0027	0.0084	0.00930	3.918	-0.0016	-0.0018	0.00234	4.961
9.90	0.0024	0.0084	0.00974	3.918	-0.0014	-0.0016	0.00212	4.964
Z2	INSIDE			OUTSIDE			TIR	DIA
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
6.75	0.0004	0.0075	0.00751	3.925	0.0006	0.0002	0.00047	4.989
4.75	0.0014	0.0063	0.00645	3.890	0.0010	-0.0006	0.00117	5.020
3.75	0.0018	-0.0021	0.00277	3.710	-0.0011	-0.0012	0.00162	5.102
3.25	0.0031	-0.0027	0.00411	3.594	0.0028	0.0002	0.00241	4.912
2.75	0.0034	-0.0029	0.00486	3.461	0.0004	-0.0009	0.00052	4.941
2.25	0.0019	-0.0043	0.00805	3.282	-0.0017	-0.0017	0.00240	4.972
1.75	0.0109	-0.0081	0.01258	2.958	-0.0011	-0.0007	0.00130	4.992
1.25	0.0081	-0.0091	0.01314	2.637	-0.0002	-0.0025	0.00231	5.021
Z3	X-ACT	Y-ACT	TIR					
1.00	0.0010	-0.0032	0.00135					
7.00	-1.0024	-0.0288	0.02840					

BASE THICKNESS (IN) 1.654

PROJECTILE LENGTH (IN) 16.655

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LCT 68 PROJECTILE 85

INSPECTION DATE 9/16/70

Z1	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)			DIA
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	

1.90	-0.0012	0.0183	0.01834	2.988	0.0012	0.0011	0.0016 <sup>2</sup>	4.980
2.90	0.0025	0.0085	0.0086	3.258	-0.0026	0.0014	0.00295	5.121
3.90	-0.0012	0.0100	0.01007	3.477	-0.0029	0.0014	0.00322	5.121
4.90	-0.0034	0.0108	0.01132	3.602	0.0002	0.0013	0.00132	4.978
5.90	-0.0015	0.0110	0.01110	3.716	0.0005	0.0025	0.00255	4.954
6.90	-0.0020	0.0120	0.01217	3.831	0.0017	0.0023	0.00286	4.955
7.90	-0.0048	0.0106	0.01164	3.922	0.0016	0.0021	0.00264	4.952
8.90	-0.0066	0.0104	0.01232	3.922	0.0002	0.0021	0.00211	4.951
9.90	-0.0045	0.0101	0.01106	3.926	0.0006	0.0026	0.00267	4.981

Z2	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)			DIA
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	

5.75	-0.0022	0.0127	0.01517	3.928	0.0018	0.0035	0.00394	4.986
4.75	-0.0033	0.0107	0.01419	3.891	0.0028	0.0037	0.00464	4.890
3.75	-0.0044	0.0080	0.01250	3.712	0.0007	0.0043	0.00436	4.701
3.25	-0.0127	0.0095	0.01586	3.595	0.0007	0.0031	0.00318	4.579
2.75	-0.0147	0.0116	0.01873	3.455	0.0011	0.0035	0.00357	4.440
2.25	-0.0143	0.0113	0.01794	3.275	-0.0004	0.0031	0.00313	4.279
1.75	-0.0129	0.0131	0.01832	2.936	0.0012	0.0027	0.00295	4.030
1.25	-0.0057	0.0054	0.01110	2.608	0.0029	0.0044	0.00527	3.997

Z3	X-ACT	Y-ACT	TIR
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1.00	0.0019	0.0029	0.00430
7.00	0.0234	-0.0009	0.02342

BASE THICKNESS (IN) 1.502

PROJECTILE LENGTH (IN) 16.595

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 6A-C LCT GP PROJECTILE R1

INSPECTION DATE 9/22/70

Z1	INSIDE				OUTSIDE				DIA
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	EIA	
1.40	0.0130	0.0102	0.0165	2.692	0.0011	0.0011	0.00150	4.084	
2.50	0.0087	0.0126	0.0153	3.362	0.0030	-0.0002	0.00321	5.128	
3.90	0.0090	0.0082	0.0114	3.470	0.0013	0.0003	0.00123	5.126	
4.90	0.0103	0.0056	0.0117	2.602	0.0022	0.0016	0.00272	4.084	
5.90	0.0074	0.0045	0.0078	2.714	0.0030	0.0002	0.00301	4.060	
6.90	0.0046	0.0024	0.0074	2.831	0.0022	0.0003	0.00227	4.054	
7.90	0.0052	0.0027	0.0055	2.916	0.0045	0.0010	0.00461	4.056	
8.90	0.0088	0.0009	0.0084	2.916	0.0040	0.0005	0.00403	4.058	
9.90	0.0084	-0.0020	0.0100	2.622	0.0022	-0.0006	0.00226	4.050	
Z2	INSIDE				OUTSIDE				DIA
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	EIA	
5.75	0.0107	-0.0035	0.0116	2.625	0.0030	-0.0001	0.00200	4.084	
4.75	0.0093	-0.0080	0.0115	3.875	0.0019	0.0002	0.00321	4.800	
3.75	0.0064	-0.0141	0.0154	3.687	0.0032	0.0007	0.00328	4.702	
2.25	0.0015	-0.0193	0.0193	3.567	0.0030	0.0005	0.00204	4.573	
2.75	-0.0050	-0.0260	0.0264	2.420	0.0024	-0.0002	0.00341	4.432	
2.25	-0.0052	-0.0255	0.0300	3.245	0.0027	0.0001	0.00270	4.277	
1.75	-0.0117	-0.0324	0.0345	2.910	0.0045	-0.0006	0.00454	4.094	
1.25	-0.0049	-0.0259	0.0263	2.584	0.0047	0.0014	0.00432	4.036	
Z3	X-ACT	Y-ACT	TIR						
1.00	0.0051	0.0006	0.0064						
7.00	0.0150	0.0244	0.0290	7					

BASE THICKNESS (IN) 1.474

PROJECTILE LENGTH (IN) 16.588

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 46-C LOT 69 PROJECTILE #2

INSPECTION DATE 9/16/70

71	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)			DIA
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR	

1.90	0.0100	0.0048	0.02047	2.911	-0.0027	-0.0012	0.00295	4.983
2.90	0.0124	0.0069	0.02555	3.362	-0.0009	-0.0002	0.00092	5.124
3.90	0.0122	0.0036	0.02062	3.482	0.0001	-0.0001	0.00014	5.125
4.90	0.0164	0.0034	0.01694	3.597	0.0	-0.0001	0.00010	4.997
5.90	0.0154	0.0022	0.01556	3.711	-0.0020	-0.0012	0.00233	4.961
6.90	0.0171	-0.0008	0.01712	3.827	-0.0015	-0.0008	0.00170	4.964
7.90	0.0151	-0.0019	0.01522	3.917	0.0002	0.0	0.00020	4.959
8.90	0.0122	-0.0041	0.01382	3.918	-0.0025	-0.0004	0.00253	4.957
9.90	0.0144	-0.0058	0.01747	3.923	0.0005	0.0008	0.00094	4.962

72	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)			DIA
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR	

5.75	0.0124	-0.0125	0.01022	3.931	-0.0004	0.0019	0.00194	4.994
4.75	0.0128	-0.0124	0.01924	3.902	-0.0010	0.0026	0.00279	4.993
3.75	0.0059	-0.0060	0.00935	3.735	-0.0019	0.0037	0.00416	4.715
2.75	-0.0115	0.0003	0.00058	3.619	-0.0029	0.0028	0.00403	4.592
2.75	-0.0064	0.0058	0.00864	3.486	-0.0021	0.0028	0.00350	4.429
2.25	-0.0072	0.0093	0.01176	3.321	-0.0031	0.0037	0.00476	4.278
1.75	-0.0163	0.0162	0.02284	3.014	-0.0015	0.0030	0.00335	4.096
1.25	-0.0201	0.0159	0.02562	2.633	-0.0027	0.0037	0.00458	3.825

73 X-ACT Y-ACT TIR

1.00	-0.0027	0.0026	0.00275
7.00	0.0171	-0.0045	0.01768

BASE THICKNESS (IN) 1.542

PROJECTILE LENGTH (IN) 16.668

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

72 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-C LCT 69 PROJECTILE #2

INSPECTION DATE 9/24/70

Z1	INSIDE				OUTSIDE			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0144	-0.0064	0.0077	3.074	0.0017	-0.0012	3.074	3.074
2.90	-0.0019	-0.0042	0.0041	3.074	0.0010	0.0009	0.0010	3.074
3.90	-0.0044	-0.0089	0.0097	3.069	0.0009	0.0010	0.0011	3.074
4.90	-0.0062	-0.0117	0.0114	3.069	0.0006	0.0008	0.0010	3.063
5.90	-0.0075	-0.0156	0.0172	3.024	0.0011	0.0013	0.0017	3.066
6.90	-0.0075	-0.0149	0.0149	3.038	0.0012	0.0012	0.0013	3.066
7.90	-0.0073	-0.0175	0.0160	3.011	0.0007	0.0015	0.0016	3.064
8.90	-0.0119	-0.0200	0.0222	3.014	-0.0005	0.0014	0.0013	3.062
9.90	-0.0134	-0.0217	0.0258	3.016	0.0001	0.0023	0.0020	3.064
Z2	INSIDE				OUTSIDE			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0129	-0.0068	0.0240	3.016	-0.0014	0.0013	0.0013	3.016
4.75	-0.0114	-0.0152	0.0243	3.034	0.0	0.0034	0.0034	3.034
3.75	-0.0077	-0.0138	0.0150	3.087	0.0001	0.0034	0.0030	3.087
3.25	-0.0105	-0.0080	0.0120	3.050	-0.0011	0.0030	0.0030	3.050
2.75	-0.0065	0.0007	0.0083	3.021	-0.0005	0.0030	0.0024	3.021
2.25	-0.0114	-0.0012	0.0114	3.044	-0.0007	0.0031	0.0018	3.044
1.75	-0.0094	0.0010	0.0056	2.923	0.0005	0.0027	0.0016	2.923
1.25	-0.0016	0.0011	0.0031	2.600	-0.0009	0.0027	0.0016	2.600
Z3	X-ACT	Y-ACT	TIR					
1.00	0.0052	0.0012	0.0044					
7.00	0.0344	0.0182	0.0360					

BASE THICKNESS (IN) 1.466

PROJECTILE LENGTH (IN) 16.52

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NUTS (IN)

Z3 IS DISTANCE FROM NUTS (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-C LCT 69 PROJECTILE B4

INSPECTION DATE 9/23/70

Z1	INSIDE			DIA	OUTSIDE			CIA
	X-ACT	Y-ACT	TIR		X-ACT	Y-ACT	TIR	

1.90	0.0023	0.0156	0.01595	3.00P	0.0012	-0.0018	0.00214	4.991
2.90	0.0028	0.0073	0.00782	3.365	0.0020	-0.0008	0.00215	5.122
3.90	0.0044	0.0059	0.00736	3.484	0.0026	-0.0006	0.00267	5.121
4.90	0.0017	0.0015	0.00399	3.605	0.0009	-0.0010	0.00135	4.981
5.90	0.0085	0.0024	0.00883	3.720	0.0008	-0.0006	0.00100	4.751
6.90	0.0089	-0.0007	0.00893	3.834	0.0008	-0.0007	0.00106	4.953
7.90	0.0048	-0.0038	0.00968	3.922	0.0005	-0.0006	0.00078	4.950
8.90	0.0094	-0.0060	0.01115	3.924	-0.0	-0.0007	0.00070	4.949
9.90	0.0103	-0.0088	0.01355	3.925	0.0004	-0.0007	0.00081	4.950

Z2	INSIDE			DIA	OUTSIDE			CIA
	X-ACT	Y-ACT	TIR		X-ACT	Y-ACT	TIR	

5.75	0.0124	-0.0126	0.01836	3.920	0.0012	-0.0002	0.00122	4.943
4.75	0.0126	-0.0157	0.02013	3.898	0.0024	0.0009	0.00256	4.889
3.75	0.0059	-0.0146	0.01575	3.713	0.0011	-0.0001	0.00110	4.703
3.25	0.0022	-0.0114	0.01187	3.588	0.0003	0.0	0.00030	4.579
2.75	0.0010	-0.0066	0.00662	3.452	0.0013	-0.0002	0.00132	4.439
2.25	0.0014	-0.0054	0.00559	3.282	0.0017	0.0003	0.00173	4.275
1.75	-0.0017	-0.0043	0.00462	2.982	0.0014	-0.0004	0.00146	4.094
1.25	0.0002	-0.0072	0.00720	2.605	0.0023	0.0007	0.00240	3.892

Z3 X-ACT Y-ACT TIR

1.00	-0.0039	0.0022	0.00448
7.00	0.0010	0.0265	0.02652

BASE THICKNESS (IN) 1.496

PROJECTILE LENGTH (IN) 16.585

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 16-0 LCT AG PROJECTILE 85

INSPECTION DATE 9/24/70

Z1	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)			TIR	DIA
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
1.90	0.0318	-0.0107	0.01345	2.920	0.0022	-0.0004	0.00124	4.934
2.90	0.0126	-0.0155	0.03110	3.760	0.0011	-0.0005	0.00171	5.171
3.90	0.0298	-0.0124	0.03228	3.481	-0.0006	-0.0008	0.00100	5.174
4.90	0.0266	-0.0092	0.02815	3.602	0.0016	-0.0001	0.00140	4.944
5.90	0.0224	-0.0063	0.02425	3.716	0.0024	-0.0006	0.00247	4.956
6.90	0.0212	-0.0074	0.02252	3.830	0.0027	-0.0013	0.00170	4.958
7.90	0.0170	-0.0055	0.01787	3.917	0.0007	-0.0015	0.00137	4.953
8.90	0.0126	-0.0047	0.01348	3.920	-0.0010	-0.0012	0.00151	4.952
9.90	0.0114	-0.0032	0.01184	3.920	-0.0015	-0.0018	0.00112	4.952
Z2	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)			TIR	DIA
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
5.75	0.0062	-0.0014	0.00931	3.924	0.0005	-0.0017	0.00177	4.944
4.75	0.0040	-0.0008	0.00605	3.881	0.0005	-0.0006	0.00078	4.830
3.75	-0.0025	0.0012	0.00777	3.736	-0.0012	-0.0012	0.00170	4.702
3.25	-0.0048	0.0069	0.00841	3.425	-0.0012	-0.0015	0.00214	4.574
2.75	-0.0056	0.0111	0.01742	3.486	-0.0014	-0.0019	0.00245	4.437
2.25	-0.0046	0.0083	0.00949	3.283	-0.0015	-0.0013	0.00143	4.276
1.75	-0.0052	-0.0007	0.00535	2.943	-0.0010	-0.0024	0.00240	4.072
1.25	-0.0125	-0.0009	0.00389	2.614	-0.0012	-0.0014	0.00184	3.941
Z3	X-ACT	Y-ACT	TIR					
1.00	-0.0079	-0.0037	0.00836					
7.00	-0.0276	-0.0145	0.03135					

BASE THICKNESS (IN) 1.530

PROJECTILE LENGTH (IN) 16.500

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/30 MK 56-0 LOT 70 PROJECTILE R1

INSPECTION DATE 10/13/70

Z1	(- - - - INSIDE - - - -)				(- - - - OUTSIDE - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0047	0.0153	0.02043	2.701	0.0	-0.0005	0.00050	4.982
2.90	0.0012	0.0270	0.02703	3.334	0.0021	-0.0006	0.00218	5.121
3.90	0.0034	0.0210	0.02127	3.463	0.0024	-0.0023	0.00322	5.124
4.90	0.0046	0.0178	0.01838	3.600	0.0003	-0.0001	0.00032	4.985
5.90	0.0050	0.0072	0.00877	3.763	-0.0007	-0.0010	0.00122	4.950
6.90	-0.0017	-0.0011	0.00202	3.994	-0.0012	-0.0008	0.00144	4.959
7.90	-0.0019	-0.0009	0.00201	3.994	0.0003	-0.0010	0.00104	4.959
8.90	-0.0025	-0.0009	0.00266	3.994	-0.0008	-0.0010	0.00128	4.960
9.90	-0.0021	-0.0011	0.00237	3.994	-0.0011	-0.0013	0.00170	4.961
Z2	(- - - - INSIDE - - - -)				(- - - - OUTSIDE - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0173	0.0073	0.01978	3.941	0.0004	-0.0001	0.00041	4.980
4.75	0.0207	0.0107	0.02330	3.878	-0.0002	-0.0005	0.00054	4.890
3.75	0.0083	0.0021	0.00856	3.672	0.0001	-0.0010	0.00100	4.702
2.75	0.0006	0.0040	0.00404	3.536	-0.0011	-0.0008	0.00136	4.580
2.75	-0.0055	0.0074	0.00922	3.403	-0.0017	-0.0006	0.00180	4.440
2.25	-0.0096	0.0092	0.01330	3.226	-0.0013	-0.0012	0.00177	4.276
1.75	-0.0202	0.0089	0.02203	2.911	0.0003	-0.0008	0.00085	4.095
1.25	-0.0090	0.0133	0.01604	2.587	0.0004	-0.0009	0.00098	3.893
Z3	X-ACT	Y-ACT	TIR					
1.00	-0.0030	0.0013	0.00327					
7.00	0.0153	0.0139	0.02067					

BASE THICKNESS (IN) 1.623

PROJECTILE LENGTH (IN) 16.712

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 70 PROJECTILE B2

INSPECTION DATE 10/09/70

71	INSIDE			OUTSIDE			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
1.90	-0.0191	-0.0051	0.01977	2.894	0.0020	0.0002	0.00201	4.984
2.90	-0.0140	0.0084	0.01633	3.360	0.0019	0.0009	0.00210	5.123
3.90	-0.0135	0.0049	0.01436	3.479	0.0009	0.0006	0.00108	5.128
4.90	-0.0155	-0.0029	0.01577	3.600	-0.0002	-0.0	0.00020	4.983
5.90	-0.0138	-0.0053	0.01478	3.716	0.0007	-0.0001	0.00071	4.951
6.90	-0.0122	-0.0045	0.01300	3.830	-0.0001	-0.0006	0.00061	4.950
7.90	-0.0120	-0.0019	0.01215	3.925	-0.0003	-0.0004	0.00050	4.950
8.90	-0.0114	-0.0006	0.01142	3.928	-0.0017	-0.0	0.00170	4.948
9.90	-0.0144	-0.0002	0.01440	3.935	-0.0008	-0.0004	0.00089	4.950

72	INSIDE			OUTSIDE			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
5.75	-0.0122	0.0024	0.01243	3.945	0.0001	-0.0006	0.00061	4.983
4.75	-0.0130	0.0070	0.01476	3.909	-0.0005	-0.0	0.00050	4.883
3.75	-0.0058	0.0064	0.00864	3.727	-0.0007	-0.0006	0.00092	4.696
3.25	-0.0030	0.0011	0.00320	3.609	-0.0020	-0.0002	0.00201	4.571
2.75	0.0018	-0.0062	0.00646	3.475	-0.0008	-0.0001	0.00081	4.432
2.25	0.0038	-0.0095	0.01023	3.301	-0.0010	-0.0003	0.00104	4.271
1.75	0.0113	-0.0137	0.01776	2.985	-0.0005	-0.0006	0.00078	4.090
1.25	0.0160	-0.0103	0.01903	2.623	-0.0006	0.0002	0.00063	3.889

23 X-ACT Y-ACT TIR

1.00	-0.0005	-0.0013	0.00139
7.00	0.0220	-0.0082	0.02373

BASE THICKNESS (IN) 1.546

PROJECTILE LENGTH (IN) 16.662

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 70 PROJECTILE 83

INSPECTION DATE 10/14/70

Z1	(- - - - INSIDE - - - - -)				(- - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	0.0082	-0.0158	0.01780	3.080	0.0003	0.0005	0.00058	4.982
2.90	0.0063	-0.0063	0.00891	3.376	-0.0001	0.0001	0.00014	5.123
3.90	-0.0074	-0.0049	0.00888	3.495	-0.0004	0.0001	0.00041	5.123
4.90	-0.0091	-0.0060	0.01090	3.612	-0.0002	0.0001	0.00022	4.983
5.90	-0.0126	-0.0038	0.01316	3.725	0.0004	-0.0014	0.00146	4.953
6.90	-0.0137	-0.0014	0.01377	3.839	0.0011	-0.0007	0.00130	4.952
7.90	-0.0147	0.0006	0.01471	3.906	0.0012	-0.0006	0.00134	4.952
8.90	-0.0155	0.0021	0.01564	3.909	-0.0009	-0.0014	0.00166	4.951
9.90	-0.0206	0.0057	0.02137	3.913	0.0004	-0.0014	0.00146	4.953
Z2	(- - - - INSIDE - - - - -)				(- - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0198	0.0083	0.02147	3.919	0.0002	0.0010	0.00102	4.982
4.75	-0.0167	0.0088	0.01888	3.868	0.0012	-0.0013	0.00177	4.888
3.75	-0.0075	-0.0050	0.00901	3.682	0.0006	-0.0012	0.00134	4.701
3.25	-0.0067	-0.0131	0.01471	3.559	-0.0008	-0.0019	0.00206	4.577
2.75	-0.0039	-0.0159	0.01637	3.419	0.0007	-0.0013	0.00148	4.437
2.25	0.0003	-0.0133	0.01330	3.222	0.0001	-0.0014	0.00140	4.276
1.75	0.0019	-0.0137	0.01383	2.881	0.0016	-0.0009	0.00184	4.095
1.25	-0.0109	-0.0076	0.01329	2.572	0.0011	-0.0015	0.00186	3.895
Z3	X-ACT	Y-ACT	TIR					
1.00	-0.0016	-0.0	0.00160					
7.00	0.0103	0.0146	0.01787					

BASF THICKNESS (IN) 1.473

PROJECTILE LENGTH (IN) 16.593

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LNT 70 PROJECTILE B4

INSPECTION DATE 10/13/70

Z1	(- - - - INSIDE - - - -)				(- - - - OUTSIDE - - - -)				DIA
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
1.90	-0.0058	-0.0015	0.00599	3.015	0.0011	-0.0004	0.00117	4.983	
2.90	-0.0014	-0.0019	0.00236	3.372	0.0026	0.0010	0.00279	5.123	
3.90	-0.0028	0.0021	0.00350	3.492	0.0025	0.0009	0.00266	5.124	
4.90	-0.0021	0.0038	0.00434	3.606	0.0002	0.0006	0.00063	4.982	
5.90	-0.0013	0.0043	0.00449	3.723	-0.0007	0.0005	0.00086	4.959	
6.90	0.0005	0.0036	0.00363	3.839	0.0017	0.0012	0.00208	4.957	
7.90	0.0019	0.0037	0.00416	3.928	0.0	0.0010	0.00100	4.956	
8.90	0.0018	0.0033	0.00376	3.933	-0.0011	0.0009	0.00142	4.955	
9.90	0.0020	0.0017	0.00818	3.940	-0.0004	0.0010	0.00108	4.956	
Z2	(- - - - INSIDE - - - -)				(- - - - OUTSIDE - - - -)				DIA
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
5.75	0.0141	0.0016	0.01419	3.946	0.0006	0.0013	0.00143	4.983	
4.75	0.0166	-0.0005	0.01661	3.892	0.0003	0.0021	0.00212	4.886	
3.75	0.0100	-0.0029	0.01041	3.698	-0.0001	0.0023	0.00230	4.701	
3.25	0.0065	-0.0021	0.00693	3.568	-0.0003	0.0026	0.00262	4.579	
2.75	0.0008	-0.0015	0.00170	3.433	-0.0015	0.0025	0.00292	4.437	
2.25	-0.0011	-0.0003	0.00114	3.248	-0.0014	0.0023	0.00269	4.277	
1.75	-0.0104	-0.0010	0.01045	2.904	-0.0015	0.0020	0.00250	4.095	
1.25	-0.0146	-0.0038	0.01509	2.585	-0.0001	0.0020	0.00200	3.895	
Z3	X-ACT	Y-ACT	TIR						
1.00	-0.0003	0.0052	0.00521						
7.00	0.0003	0.0030	0.00301						

BASE THICKNESS (IN) 1.508

PROJECTILE LENGTH (IN) 16.662

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 70 PROJECTILE BS

INSPECTION DATE 10/09/70

Z1	(- - - - INSIDE - - - - -)				(- - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	0.0074	0.0012	0.00750	3.038	0.0017	0.0004	0.00175	4.984
2.90	0.0152	-0.0014	0.01526	3.370	0.0017	0.0005	0.00177	5.125
3.90	0.0107	0.0011	0.01076	3.489	0.0004	0.0015	0.00155	5.125
4.90	0.0105	0.0024	0.01077	3.608	-0.0001	0.0007	0.00071	4.983
5.90	0.0086	0.0018	0.00879	3.724	-0.0004	0.0014	0.00146	4.955
6.90	0.0083	0.0019	0.00851	3.842	0.0008	0.0016	0.00179	4.955
7.90	0.0044	0.0031	0.00538	3.915	0.0010	0.0014	0.00172	4.954
8.90	0.0043	0.0042	0.00601	3.917	0.0011	0.0024	0.00264	4.955
9.90	0.0022	0.0026	0.00341	3.921	-0.0009	0.0022	0.00238	4.956
Z2	(- - - - INSIDE - - - - -)				(- - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0027	0.0005	0.00275	3.928	0.0024	0.0017	0.00294	4.984
4.75	0.0005	0.0001	0.00051	3.885	0.0004	0.0020	0.00204	4.888
3.75	-0.0112	0.0010	0.01124	3.691	0.0002	0.0016	0.00161	4.704
3.25	-0.0153	0.0041	0.01584	3.561	0.0	0.0020	0.00200	4.583
2.75	-0.0190	0.0087	0.02090	3.424	-0.0006	0.0026	0.00267	4.443
2.25	-0.0203	0.0118	0.02348	3.239	0.0005	0.0027	0.00275	4.283
1.75	-0.0269	0.0166	0.03161	2.905	0.0002	0.0028	0.00281	4.103
1.25	-0.0206	0.0129	0.02431	2.580	0.0001	0.0024	0.00240	3.903
Z3	X-ACT	Y-ACT	TIR					
1.00	-0.0027	-0.0013	0.00300					
7.00	0.0010	-0.0008	0.00128					

BASE THICKNESS (IN) 1.486

PROJECTILE LENGTH (IN) 16.590

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/3R MK 66-0 LOT 71 PROJECTILE B1

INSPECTION DATE 10/06/70

Z1	(- - - - INSIDE - - - -)				(- - - - OUTSIDE - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	0.0005	-0.0166	0.01661	2.988	0.0009	0.0003	0.00095	4.982
2.90	-0.0056	-0.0034	0.00655	3.388	0.0016	0.0007	0.00175	5.121
3.90	-0.0037	-0.0062	0.00722	3.503	0.0004	0.0005	0.00064	5.120
4.90	0.0052	-0.0084	0.00988	3.613	-0.0005	0.0007	0.00086	4.982
5.90	0.0046	-0.0097	0.01074	3.731	0.0004	0.0006	0.00072	4.954
6.90	0.0067	-0.0093	0.01146	3.847	-0.0009	0.0009	0.00127	4.954
7.90	0.0080	-0.0086	0.01175	3.930	0.0010	0.0015	0.00180	4.951
8.90	0.0066	-0.0092	0.01132	3.932	0.0002	0.0016	0.00161	4.953
9.90	0.0082	-0.0101	0.01301	3.940	0.0005	0.0018	0.00187	4.954
Z2	(- - - - INSIDE - - - -)				(- - - - OUTSIDE - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0076	-0.0095	0.01217	3.949	0.0012	0.0024	0.00268	4.982
4.75	0.0073	-0.0090	0.01159	3.911	0.0005	0.0015	0.00158	4.884
3.75	0.0044	-0.0077	0.00887	3.731	0.0003	0.0020	0.00202	4.699
3.25	0.0068	-0.0058	0.00894	3.611	0.0004	0.0024	0.00243	4.576
2.75	0.0107	-0.0037	0.01132	3.479	0.0006	0.0032	0.00326	4.435
2.25	0.0094	-0.0008	0.00943	3.305	-0.0003	0.0029	0.00292	4.274
1.75	0.0067	0.0049	0.00930	2.984	0.0010	0.0029	0.00307	4.094
1.25	0.0101	0.0067	0.01212	2.626	0.0006	0.0026	0.00267	3.893
Z3	X-ACT	Y-ACT	TIR					
1.00	-0.0012	0.0022	0.00251					
7.00	-0.0171	-0.0133	0.02166					

BASE THICKNESS (IN) 1.519

PROJECTILE LENGTH (IN) 16.656

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/3B MK 66-0 LOT 71 PROJECTILE B2

INSPECTION DATE 10/09/70

(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)				
Z1	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0168	0.0068	0.01812	2.872	-0.0	0.0002	0.00020	4.983
2.90	-0.0105	0.0134	0.01702	3.357	-0.0012	0.0006	0.00134	5.125
3.90	-0.0124	0.0124	0.01754	3.473	-0.0012	0.0022	0.00251	5.123
4.90	-0.0099	0.0138	0.01698	3.594	-0.0027	-0.0014	0.00304	4.983
5.90	-0.0070	0.0128	0.01459	3.708	-0.0024	-0.0005	0.00245	4.958
6.90	-0.0040	0.0123	0.01293	3.828	-0.0010	-0.0006	0.00117	4.957
7.90	-0.0036	0.0145	0.01494	3.923	-0.0014	-0.0004	0.00146	4.958
8.90	0.0011	0.0130	0.01305	3.932	-0.0026	-0.0003	0.00262	4.957
9.90	0.0036	0.0144	0.01484	3.941	-0.0024	-0.0010	0.00260	4.957
(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)				
Z2	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0095	0.0168	0.01930	3.951	-0.0013	-0.0016	0.00206	4.984
4.75	0.0119	0.0171	0.02083	3.916	-0.0027	-0.0013	0.00300	4.887
3.75	0.0084	0.0060	0.01032	3.742	-0.0034	-0.0009	0.00352	4.700
2.25	0.0062	-0.0028	0.00680	3.627	-0.0029	-0.0005	0.00294	4.577
2.75	-0.0002	-0.0127	0.01270	3.495	-0.0042	-0.0014	0.00443	4.436
2.25	-0.0023	-0.0179	0.01805	3.324	-0.0032	-0.0012	0.00342	4.276
1.75	-0.0040	-0.0250	0.02532	3.018	-0.0035	-0.0016	0.00385	4.095
1.25	-0.0061	-0.0314	0.03199	2.641	-0.0040	-0.0015	0.00427	3.894
Z3	X-ACT	Y-ACT	TIR					
1.00	-0.0056	-0.0031	0.00640					
7.00	0.0021	0.0206	0.02071					

BASE THICKNESS (IN) 1.611

PROJECTILE LENGTH (IN) 16.666

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/39 MK 66-0 LOT 71 PROJECTILE 83

INSPECTION DATE 10/09/70

21	(- - - - INSIDE - - - - )			(- - - - OUTSIDE - - - - )			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
1.90	0.0140	0.0014	0.01407	2.881	-0.0010	-0.0001	0.00100	4.984
2.90	0.0167	-0.0040	0.01717	3.363	0.0001	-0.0011	0.00110	5.124
3.90	0.0178	-0.0015	0.01786	3.481	-0.0016	-0.0016	0.00226	5.123
4.90	0.0162	-0.0010	0.01623	3.598	-0.0012	-0.0002	0.00122	4.985
5.90	0.0165	-0.0002	0.01650	3.713	-0.0	-0.0006	0.00060	4.959
6.90	0.0180	0.0021	0.01812	3.828	-0.0015	-0.0012	0.00192	4.956
7.90	0.0167	0.0037	0.01710	3.915	-0.0011	-0.0005	0.00121	4.958
8.90	0.0148	0.0067	0.01625	3.915	-0.0029	-0.0005	0.00294	4.956
9.90	0.0159	0.0029	0.01822	3.923	-0.0017	-0.0003	0.00173	4.954

72	(- - - - INSIDE - - - - )			(- - - - OUTSIDE - - - - )			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
5.75	0.0152	0.0093	0.01782	3.932	-0.0019	-0.0013	0.00230	4.984
4.75	0.0108	0.0097	0.01452	3.900	-0.0016	-0.0006	0.00171	4.885
3.75	0.0066	0.0112	0.01300	3.729	-0.0026	-0.0016	0.00305	4.699
3.25	0.0104	0.0113	0.01536	3.610	-0.0018	-0.0014	0.00228	4.579
2.75	0.0146	0.0106	0.01804	3.480	-0.0021	-0.0015	0.00258	4.437
2.25	0.0151	0.0106	0.01845	3.312	-0.0015	-0.0013	0.00198	4.276
1.75	0.0159	0.0124	0.02016	3.005	-0.0008	-0.0014	0.00161	4.095
1.25	0.0144	0.0112	0.01924	2.631	-0.0011	-0.0011	0.00156	3.894

73 X-ACT Y-ACT TIR

1.00 0.0021 0.00C7 0.00221  
7.00 0.0226 -0.0120 0.02559

BASE THICKNESS (IN) 1.593

PROJECTILE LENGTH (IN) 16.655

21 IS DISTANCE FROM RASF (IN)

22 IS DISTANCE FROM NOSE (IN)

73 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 71 PROJECTILE B4

INSPECTION DATE 10/12/70

71	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)			DIA
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR	

1.90	-0.0069	0.0078	0.01041	3.028	-0.0010	-0.0001	0.00100	4.982
2.90	-0.0033	0.0077	0.00838	3.379	0.0009	0.0003	0.00095	5.123
3.90	-0.0043	0.0054	0.00690	3.498	0.0004	0.0003	0.00050	5.121
4.90	-0.0057	0.0073	0.00926	3.616	-0.0015	-0.0002	0.00151	4.982
5.90	-0.0050	0.0070	0.00860	3.733	-0.0002	0.0003	0.00036	4.953
6.90	-0.0021	0.0065	0.00683	3.854	-0.0011	0.0005	0.00121	4.951
7.90	-0.0004	0.0058	0.00581	3.934	-0.0003	-0.0	0.00030	4.952
8.90	-0.0006	0.0059	0.00593	3.935	-0.0006	0.0006	0.00085	4.950
9.90	0.0032	0.0030	0.00439	3.943	0.0002	0.0012	0.00122	4.952

72	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)			DIA
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR	

5.75	0.0094	0.0009	0.00944	3.943	-0.0004	0.0011	0.00117	4.982
4.75	0.0069	-0.0012	0.00700	3.891	-0.0018	0.0005	0.00187	4.886
3.75	-0.0005	-0.0019	0.00196	3.780	-0.0017	0.0015	0.00227	4.700
3.25	-0.0053	0.0042	0.00676	3.667	-0.0011	0.0016	0.00194	4.577
2.75	-0.0085	0.0091	0.01245	3.505	-0.0015	0.0005	0.00158	4.434
2.25	-0.0137	0.0151	0.02039	3.249	-0.0017	0.0003	0.00173	4.273
1.75	-0.0236	0.0210	0.03159	2.872	-0.0007	0.0010	0.00122	4.093
1.25	-0.0052	0.0059	0.00786	2.605	-0.0011	0.0015	0.00186	3.893

73	X-ACT	Y-ACT	TIR
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1.00	-0.0024	-0.0005	0.00245
7.00	0.0020	-0.0009	0.00219

BASE THICKNESS (IN) 1.510

PROJECTILE LENGTH (IN) 16.647

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

73 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-O LOT 71 PROJECTILE B5

INSPECTION DATE 10/09/70

Z1	INSIDE				OUTSIDE			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0072	0.0075	0.01040	2.987	0.0001	0.0004	0.00041	4.984
2.90	-0.0063	0.0045	0.00774	3.373	-0.0005	0.0004	0.00064	5.125
3.90	-0.0027	0.0050	0.00568	3.487	-0.0007	0.0006	0.00092	5.123
4.90	0.0006	0.0069	0.00693	3.602	-0.0028	0.0001	0.00280	4.985
5.90	0.0058	0.0083	0.01013	3.718	0.0004	0.0007	0.00081	4.959
6.90	0.0063	0.0092	0.01165	3.835	-0.0002	0.0016	0.00161	4.958
7.90	0.0073	0.0107	0.01295	3.926	-0.0019	0.0007	0.00202	4.957
8.90	0.0092	0.0116	0.01481	3.928	-0.0005	0.0009	0.00103	4.958
9.90	0.0087	0.0117	0.01458	3.929	-0.0011	0.0013	0.00170	4.959

Z2	INSIDE				OUTSIDE			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0116	0.0115	0.01633	3.932	-0.0011	0.0011	0.00156	4.983
4.75	0.0090	0.0089	0.01266	3.892	-0.0001	0.0015	0.00150	4.886
3.75	0.0103	0.0077	0.01286	3.701	-0.0012	0.0019	0.00225	4.700
3.25	0.0125	0.0134	0.01833	3.574	-0.0016	0.0016	0.00226	4.577
2.75	0.0133	0.0146	0.01975	3.434	-0.0018	0.0015	0.00234	4.438
2.25	0.0123	0.0139	0.01856	3.256	-0.0014	0.0016	0.00213	4.271
1.75	0.0100	0.0124	0.01593	2.935	-0.0002	0.0009	0.00092	4.092
1.25	0.0098	0.0018	0.00996	2.596	0.0008	0.0021	0.00225	3.890

Z3 X-ACT Y-ACT TIR

1.00	-0.0020	0.0052	0.00557
7.00	-0.0088	0.0283	0.02964

BASE THICKNESS (IN) 1.559

PROJECTILE LENGTH (IN) 16.650

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 65-0 LOT 72 PROJECTILE B1

INSPECTION DATE 10/14/70

21	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)				
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0112	-0.0037	0.01180	2.949	0.0027	-0.0004	0.00273	4.984
2.90	-0.0053	-0.0087	0.01019	3.368	0.0012	0.0001	0.00120	5.122
3.90	-0.0116	-0.0092	0.01481	3.488	-0.0	0.0005	0.00050	5.120
4.90	-0.0148	-0.0085	0.01707	3.604	0.0004	0.0002	0.00045	4.982
5.90	-0.0172	-0.0060	0.01822	3.722	0.0001	-0.0005	0.00051	4.958
6.90	-0.0176	-0.0030	0.01785	3.832	0.0015	-0.0	0.00150	4.959
7.90	-0.0182	-0.0034	0.01951	3.932	0.0007	-0.0009	0.00114	4.959
8.90	-0.0182	0.0016	0.01827	3.927	0.0001	-0.0005	0.00051	4.959
9.90	-0.0171	0.0044	0.01766	3.931	-0.0002	-0.0001	0.00022	4.960
72	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)				
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0142	0.0072	0.01592	3.937	-0.0013	-0.0002	0.00132	4.980
4.75	-0.0101	0.0081	0.01295	3.902	-0.0004	-0.0004	0.00057	4.880
3.75	-0.0041	0.0073	0.00837	3.720	-0.0013	-0.0004	0.00136	4.704
3.25	-0.0025	0.0126	0.01285	3.596	-0.0028	0.0005	0.00284	4.583
2.75	0.0023	0.0181	0.01825	3.463	-0.0015	-0.0003	0.00153	4.441
2.25	0.0025	0.0174	0.01758	3.292	-0.0024	0.0003	0.00242	4.277
1.75	0.0025	0.0285	0.02871	2.982	-0.0019	-0.0005	0.00196	4.097
1.25	0.0045	0.0192	0.02142	2.616	-0.0012	0.0002	0.00122	3.897
23	X-ACT	Y-ACT	TIR					
1.00	-0.0069	-0.0028	0.00745					
7.00	-0.0092	-0.0023	0.00948					

BASE THICKNESS (IN) 1.528

PROJECTILE LENGTH (IN) 16.661

21 IS DISTANCE FROM BASE (IN)

22 IS DISTANCE FROM NOSE (IN)

23 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

R/38 MK 56-0 LOT 72 PROJECTILE B2

INSPECTION DATE 10/08/70

71	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0072	0.0169	0.01837	2.911	0.0019	-0.0002	0.00191	4.995
2.90	-0.0082	0.0266	0.02784	3.365	0.0023	-0.0020	0.00305	5.124
3.90	-0.0075	0.0206	0.02192	3.485	0.0032	-0.0011	0.00338	5.124
4.90	-0.0109	0.0171	0.02028	3.605	0.0011	-0.0002	0.00112	4.983
5.90	-0.0097	0.0129	0.01614	3.717	0.0010	0.0002	0.00102	4.960
6.90	-0.0088	0.0118	0.01472	3.835	0.0014	-0.0001	0.00140	4.960
7.90	-0.0104	0.0077	0.01294	3.920	0.0018	0.0003	0.00182	4.961
8.90	-0.0075	0.0049	0.00896	3.921	0.0008	0.0006	0.00100	4.962
9.90	-0.0082	0.0001	0.00820	3.925	0.0021	0.0009	0.00225	4.963

72	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0080	-0.0038	0.00886	3.931	0.0012	0.0007	0.00139	4.982
4.75	-0.0090	-0.0039	0.00890	3.892	0.0007	0.0001	0.00071	4.989
3.75	-0.0025	-0.0033	0.00414	3.712	0.0023	0.0017	0.00286	4.702
3.25	0.0025	-0.0042	0.00489	3.589	0.0010	0.0014	0.00172	4.579
2.75	0.0056	-0.0105	0.01190	3.452	0.0012	0.0010	0.00156	4.438
2.25	0.0092	-0.0142	0.01692	3.275	0.0018	0.0019	0.00262	4.274
1.75	0.0127	-0.0123	0.01768	2.961	0.0016	0.0012	0.00200	4.093
1.25	0.0042	-0.0027	0.00499	2.613	0.0005	0.0019	0.00196	3.991

73	X-ACT	Y-ACT	TIR
1.00	-0.0009	0.0061	0.00091
7.00	-0.0236	-0.0040	0.02394

BASE THICKNESS (IN) 1.478

PROJECTILE LENGTH (IN) 16.655

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

73 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GIN PROJECTILE INSPECTION DATA

5/3A MK 66-0 LOT 72 PROJECTILE #3

INSPECTION DATE 10/12/70

71	INSIDE			OUTSIDE			DIA
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR	

1.90	0.0064	0.0041	0.00760	2.875	0.0002	-0.0014	0.00141	4.984
2.90	-0.0024	0.0061	0.00656	3.352	-0.0006	-0.0020	0.00209	5.122
3.90	-0.0019	0.0047	0.00507	3.473	0.0013	-0.0011	0.00170	5.121
4.90	0.0007	0.0013	0.00144	3.591	-0.0019	-0.0014	0.00236	4.982
5.90	0.0016	0.0001	0.00160	3.710	-0.0018	-0.0026	0.00316	4.960
6.90	0.0022	-0.0013	0.00256	3.825	-0.0011	-0.0010	0.00211	4.959
7.90	0.0068	-0.0029	0.00739	3.920	0.0	-0.0017	0.00170	4.959
8.90	0.0048	-0.0053	0.00715	3.923	-0.0026	-0.0015	0.00300	4.959
9.90	0.0087	-0.0077	0.01136	3.929	-0.0029	-0.0020	0.00352	4.961

72	INSIDE			OUTSIDE			DIA
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR	

5.75	0.0148	-0.0110	0.01844	3.936	-0.0021	-0.0017	0.00270	4.982
4.75	0.0117	-0.0133	0.01771	3.898	0.0023	0.0	0.00230	4.891
3.75	0.0045	-0.0110	0.01188	3.708	-0.0055	-0.0027	0.00613	4.702
3.25	0.0078	-0.0043	0.00574	3.587	-0.0040	-0.0019	0.00443	4.580
2.75	0.0051	0.0015	0.00532	3.455	-0.0036	-0.0018	0.00407	4.437
2.25	0.0036	0.0055	0.00657	3.288	-0.0034	-0.0012	0.00361	4.273
1.75	0.0015	0.0117	0.01180	2.979	-0.0035	-0.0018	0.00394	4.091
1.25	-0.0086	0.0134	0.01592	2.599	-0.0027	-0.0012	0.00295	2.899

73	X-ACT	Y-ACT	TIR
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1.00	-0.0091	-0.0031	0.00961
7.00	-0.0002	-0.0021	0.00944

BASE THICKNESS (IN) 1.540

PROJECTILE LENGTH (IN) 16.660

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

73 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## MIN PROJECTILE INSPECTION DATA

5/3A MK A6-A LOT 72 PROJECTILE 84

INSPECTION DATE 10/14/70

#	INSIDE				OUTSIDE			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA

1.90	-0.0103	-0.0008	0.0103	2.999	-0.0010	-0.0014	0.00172	4.984
2.90	-0.0178	0.0143	0.02283	3.375	0.0017	-0.0014	0.00220	5.121
3.90	-0.0102	0.0049	0.01132	3.496	0.0010	-0.0005	0.00112	5.122
4.90	-0.0084	0.0037	0.00936	3.609	0.0003	-0.0005	0.00058	4.984
5.90	-0.0054	0.0022	0.00592	3.725	0.0011	-0.0009	0.00142	4.953
6.90	-0.0034	0.0040	0.00525	3.839	0.0025	-0.0006	0.00257	4.952
7.90	-0.0019	0.0033	0.00381	3.925	0.0012	-0.0002	0.00122	4.952
8.90	-0.0003	0.0022	0.00222	3.925	0.0010	0.0002	0.00102	4.951
9.90	0.0008	0.0027	0.00282	3.925	0.0005	-0.0002	0.00054	4.951

#	INSIDE				OUTSIDE			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA

5.75	0.0065	0.0017	0.00672	3.926	0.0014	0.0007	0.00157	4.982
4.75	0.0041	0.0009	0.00420	3.877	0.0015	0.0016	0.00219	4.881
3.75	0.0027	-0.0007	0.00279	3.721	-0.0001	0.0017	0.00170	4.694
2.75	-0.0023	0.0023	0.00325	3.588	-0.0006	0.0012	0.00134	4.573
2.75	-0.0034	0.0062	0.00717	3.425	-0.0004	0.0012	0.00126	4.431
2.25	-0.0050	0.0050	0.00707	3.185	0.0	0.0010	0.00100	4.269
1.75	-0.0125	0.0051	0.01350	2.804	0.0005	0.0011	0.00121	4.089
1.25	-0.0122	-0.0053	0.01330	2.571	0.0006	0.0012	0.00134	3.888

#	X-ACT	Y-ACT	TIR
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2.2	0.0002	0.0022	0.00221
7.00	0.0010	0.0007	0.00122

BASE THICKNESS (IN) 1.523

PROJECTILE LENGTH (IN) 16.656

21 IS DISTANCE FROM BASE (IN)

22 IS DISTANCE FROM NOSE (IN)

23 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 72 PROJECTILE B5

INSPECTION DATE 10/06/70

71	(- - - - - INSIDE - - - - -)			DIA	(- - - - - OUTSIDE - - - - -)			DIA
	X-ACT	Y-ACT	TIR		X-ACT	Y-ACT	TIR	
1.90	-0.0068	-0.0023	0.00718	2.960	0.0024	-0.0004	0.00243	4.985
2.90	0.0046	0.0004	0.00464	3.368	0.0022	0.0001	0.00220	5.124
3.90	-0.0038	0.0001	0.00380	3.482	0.0028	-0.0005	0.00284	5.125
4.90	-0.0062	-0.0012	0.00632	3.597	-0.0013	-0.0002	0.00132	4.982
5.90	-0.0054	-0.0023	0.00587	3.714	-0.0004	0.0005	0.00064	4.963
6.90	-0.0065	-0.0037	0.00748	3.830	0.0014	0.0004	0.00146	4.965
7.90	-0.0043	-0.0034	0.00548	3.925	0.0006	0.0001	0.00061	4.964
8.90	-0.0072	-0.0039	0.00819	3.926	-0.0001	0.0003	0.00032	4.965
9.90	-0.0087	-0.0063	0.01074	3.935	-0.0003	0.0003	0.00042	4.966
22	(- - - - - INSIDE - - - - -)			DIA	(- - - - - OUTSIDE - - - - -)			DIA
	X-ACT	Y-ACT	TIR		X-ACT	Y-ACT	TIR	
5.75	-0.0051	-0.0084	0.00983	3.938	-0.0001	0.0006	0.00061	4.981
4.75	-0.0034	-0.0061	0.00698	3.892	-0.0004	0.0014	0.00146	4.894
3.75	-0.0088	-0.0088	0.00884	3.759	0.0001	0.0019	0.00190	4.706
3.25	-0.0081	0.0045	0.00927	3.638	0.0	0.0012	0.00120	4.584
2.75	-0.0075	0.0099	0.01242	3.480	-0.0013	0.0011	0.00170	4.444
2.25	-0.0135	0.0130	0.01874	3.243	-0.0007	0.0009	0.00114	4.281
1.75	-0.0206	0.0138	0.02480	2.869	0.0002	0.0019	0.00191	4.098
1.25	0.0017	0.0075	0.00769	2.588	-0.0012	0.0012	0.00170	3.995
23	X-ACT	Y-ACT	TIR					
1.00	-0.0045	0.0096	0.01060					
7.00	0.0124	0.0200	0.02353					

BASE THICKNESS (IN) 1.493

PROJECTILE LENGTH (IN) 16.660

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

73 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 73 PROJECTILE B1

INSPECTION DATE 10/05/70

(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)				
Z1	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0053	0.0060	0.00801	2.938	-0.0004	0.0013	0.00136	4.983
2.90	-0.0031	0.0066	0.00729	3.372	0.0005	0.0013	0.00139	5.125
3.90	-0.0052	0.0073	0.00896	3.493	0.0009	0.0019	0.00210	5.124
4.90	-0.0064	0.0041	0.00818	3.608	-0.0004	0.0022	0.00224	4.981
5.90	-0.0071	0.0065	0.00963	3.721	-0.0001	-0.0003	0.00032	4.955
6.90	-0.0024	0.0079	0.00826	3.839	0.0025	0.0004	0.00253	4.956
7.90	-0.0033	0.0083	0.00893	3.927	0.0001	0.0	0.00010	4.954
8.90	-0.0043	0.0092	0.01016	3.927	0.0004	0.0015	0.00155	4.954
9.90	-0.0033	0.0091	0.00968	3.931	0.0009	0.0019	0.00210	4.955

(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)				
Z2	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0040	0.0083	0.00921	3.938	0.0027	0.0024	0.00361	4.984
4.75	-0.0015	0.0104	0.01071	3.902	0.0023	0.0030	0.00378	4.884
3.75	-0.0022	0.0167	0.01684	3.761	0.0012	0.0031	0.00332	4.698
3.25	-0.0024	0.0158	0.01598	3.644	-0.0008	0.0027	0.00282	4.578
2.75	-0.0019	0.0125	0.01264	3.489	0.0014	0.0033	0.00358	4.435
2.25	-0.0025	0.0137	0.01393	3.243	0.0018	0.0036	0.00402	4.274
1.75	0.0015	0.0141	0.01418	2.865	0.0012	0.0044	0.00456	4.092
1.25	0.0031	0.0028	0.00418	2.585	0.0017	0.0045	0.00481	3.891

73 X-ACT Y-ACT TIR

1.00	-0.0004	0.0021	0.00214
7.00	0.0059	-0.0084	0.01026

BASE THICKNESS (IN) 1.526

PROJECTILE LENGTH (IN) 16.656

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 65-0 LOT 73 PROJECTILE B2

INSPECTION DATE 10/15/70

Z1	(- - - - INSIDE - - - - )			(- - - - OUTSIDE - - - - )			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
1.90	0.0045	0.0118	0.01263	2.979	0.0018	0.0021	0.00277	4.982
2.90	-0.0039	0.0095	0.01027	3.380	0.0010	0.0016	0.00189	5.123
3.90	-0.0020	0.0109	0.01108	3.493	0.0009	0.0017	0.00192	5.122
4.90	0.0023	0.0107	0.01094	3.609	-0.0022	0.0026	0.00341	4.983
5.90	0.0026	0.0104	0.01072	3.722	-0.0009	0.0028	0.00294	4.960
6.90	0.0054	0.0121	0.01325	3.839	-0.0008	0.0023	0.00244	4.960
7.90	0.0060	0.0102	0.01183	3.928	-0.0030	0.0028	0.00410	4.959
8.90	0.0036	0.0093	0.00997	3.935	-0.0022	0.0031	0.00380	4.958
9.90	0.0042	0.0075	0.00860	3.942	-0.0033	0.0031	0.00453	4.959
Z2	(- - - - INSIDE - - - - )			(- - - - OUTSIDE - - - - )			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
5.75	0.0039	0.0053	0.00658	3.945	-0.0031	0.0028	0.00418	4.983
4.75	0.0042	0.0019	0.00461	3.896	-0.0025	0.0035	0.00430	4.889
3.75	0.0038	-0.0019	0.00425	3.766	-0.0034	0.0035	0.00488	4.704
2.25	-0.0012	0.0013	0.00177	3.646	-0.0040	0.0042	0.00580	4.583
2.75	-0.0033	0.0044	0.00550	3.492	-0.0036	0.0039	0.00531	4.443
2.25	-0.0034	0.0049	0.00596	3.261	-0.0039	0.0039	0.00552	4.282
1.75	-0.0070	0.0055	0.00890	2.895	-0.0037	0.0040	0.00545	4.102
1.25	-0.0177	0.0015	0.01776	2.583	-0.0031	0.0042	0.00522	3.901
Z3	X-ACT	Y-ACT	TIR					
1.00	-0.0105	0.0045	0.01142					
7.00	-0.0183	0.0048	0.0189?					

BASE THICKNESS (IN) 1.547

PROJECTILE LENGTH (IN) 16.664

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/3R MK 66-0 LOT 73 PROJECTILE #3

INSPECTION DATE 10/15/70

Z1	INSIDE				OUTSIDE			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0048	0.0092	0.01038	3.006	0.0007	-0.0009	0.00114	4.981
2.90	-0.0091	-0.0072	0.01160	3.390	-0.0009	-0.0010	0.00135	5.123
3.90	-0.0070	0.0008	0.00705	3.507	0.0006	-0.0003	0.00067	5.123
4.90	-0.0033	0.0044	0.00550	3.621	-0.0005	-0.0009	0.00103	4.983
5.90	-0.0001	0.0082	0.00820	3.734	-0.0021	-0.0005	0.00216	4.957
6.90	0.0015	0.0077	0.00784	3.852	-0.0013	-0.0008	0.00153	4.956
7.90	0.0013	0.0090	0.00909	3.940	-0.0028	-0.0007	0.00289	4.958
8.90	0.0008	0.0112	0.01123	3.946	-0.0032	-0.0006	0.00326	4.957
9.90	0.0050	0.0133	0.01421	3.953	-0.0044	-0.0010	0.00451	4.958

Z2	INSIDE				OUTSIDE			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0090	0.0139	0.01656	3.954	-0.0010	-0.0013	0.00164	4.981
4.75	0.0092	0.0111	0.01442	3.905	-0.0007	-0.0016	0.00175	4.888
3.75	0.0070	0.0064	0.00948	3.777	-0.0015	-0.0012	0.00192	4.703
3.25	0.0005	0.0018	0.00187	3.660	-0.0026	-0.0011	0.00282	4.581
2.75	-0.0064	-0.0015	0.00657	3.504	-0.0035	-0.0012	0.00370	4.439
2.25	-0.0115	-0.0059	0.01293	3.267	-0.0033	-0.0016	0.00367	4.275
1.75	-0.0151	-0.0093	0.01773	2.896	-0.0026	-0.0018	0.00316	4.102
1.25	-0.0039	-0.0108	0.01148	2.606	-0.0028	-0.0021	0.00350	3.903

Z3	X-ACT	Y-ACT	TIR
1.00	-0.0066	0.0016	0.00679
7.00	-0.0136	0.0246	0.02911

BASE THICKNESS (IN) 1.498

PROJECTILE LENGTH (IN) 16.665

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 56-0 LOT 73 PROJECTILE B4

INSPECTION DATE 10/07/70

Z1	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)				
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	0.0123	0.0048	0.01320	3.014	0.0005	0.0	0.00050	4.982
2.90	0.0	0.0003	0.00030	3.378	-0.0025	-0.0014	0.00287	5.123
3.90	0.0043	0.0013	0.00449	3.495	-0.0057	-0.0010	0.00579	5.125
4.90	0.0013	0.0014	0.00191	3.604	-0.0028	-0.0002	0.00281	4.983
5.90	0.0004	0.0024	0.00243	3.720	-0.0019	-0.0004	0.00194	4.958
6.90	-0.0001	0.0040	0.00400	3.836	-0.0008	-0.0009	0.00120	4.961
7.90	0.0022	0.0041	0.00465	3.928	-0.0019	-0.0004	0.00194	4.958
8.90	-0.0023	0.0062	0.00661	3.932	-0.0028	-0.0007	0.00289	4.957
9.90	-0.0022	0.0069	0.00724	3.941	-0.0032	-0.0015	0.00353	4.959
Z2	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)				
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0052	0.0063	0.00817	3.943	-0.0052	0.0062	0.00817	4.982
4.75	-0.0034	0.0062	0.00707	3.889	-0.0034	0.0062	0.00707	4.890
3.75	-0.0038	0.0065	0.00753	3.735	-0.0038	0.0065	0.00753	4.702
3.25	-0.0006	0.0078	0.00782	3.606	-0.0006	0.0078	0.00782	4.581
2.75	0.0044	0.0098	0.01074	3.447	0.0044	0.0096	0.01056	4.438
2.25	0.0076	0.0100	0.01256	3.235	0.0076	0.0100	0.01256	4.279
1.75	0.0021	0.0107	0.01090	2.876	0.0021	0.0107	0.01090	4.094
1.25	-0.0153	-0.0088	0.01765	2.574	-0.0153	-0.0088	0.01765	3.894
Z3	X-ACT	Y-ACT	TIR					
1.00	-0.0081	-0.0001	0.00810					
7.00	-0.0064	-0.0046	0.00788					

BASE THICKNESS (IN) 1.504

PROJECTILE LENGTH (IN) 16.656

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 73 PROJECTILE 85

INSPECTION DATE 10/08/70

71	(- - - - INSIDE - - - - )				(- - - - OUTSIDE - - - - )			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0015	-0.0029	0.00326	2.992	0.0014	0.0010	0.00172	4.982
2.90	0.0070	-0.0107	0.01279	3.368	0.0011	0.0017	0.00202	5.124
3.90	-0.0004	-0.0161	0.01610	3.484	0.0002	0.0018	0.00181	5.123
4.90	-0.0040	-0.0216	0.02197	3.603	-0.0003	0.0017	0.00173	4.980
5.90	-0.0001	-0.0207	0.02070	3.716	0.0009	0.0017	0.00192	4.955
6.90	-0.0015	-0.0184	0.01846	3.828	0.0020	0.0029	0.00352	4.954
7.90	-0.0025	-0.0175	0.01768	3.905	0.0015	0.0023	0.00275	4.956
8.90	-0.0030	-0.0195	0.01973	3.907	0.0006	0.0029	0.00296	4.957
9.90	-0.0039	-0.0186	0.01900	3.908	0.0002	0.0031	0.00311	4.958

72	(- - - - INSIDE - - - - )				(- - - - OUTSIDE - - - - )			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0026	-0.0167	0.01600	3.911	0.0010	0.0032	0.00335	4.983
4.75	-0.0015	-0.0151	0.01517	3.877	0.0015	0.0030	0.00335	4.884
3.75	-0.0025	-0.0072	0.00762	3.688	-0.0002	0.0027	0.00271	4.699
3.25	0.0024	0.0014	0.00278	3.563	0.0006	0.0041	0.00414	4.576
2.75	0.0069	0.0050	0.00852	3.429	0.0005	0.0035	0.00354	4.433
2.25	0.0105	0.0100	0.01450	3.249	0.0007	0.0040	0.00406	4.270
1.75	0.0150	0.0148	0.02107	2.949	0.0005	0.0034	0.00344	4.089
1.25	0.0054	0.0228	0.02343	2.593	0.0004	0.0038	0.00382	3.888

73	X-ACT	Y-ACT	TIR
1.00	-0.0022	0.0036	0.00422
7.00	-0.0038	-0.0162	0.01664

BASE THICKNESS (IN) 1.498

PROJECTILE LENGTH (IN) 16.660

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

73 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 74 PROJECTILE B1

INSPECTION DATE 10/14/70

71	INSIDE - - - - -				OUTSIDE - - - - -			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA

1.90	-0.0023	0.0023	0.00402	2.963	0.0002	-0.0001	0.00022	4.982
2.90	-0.0111	0.0044	0.01194	3.372	0.0004	-0.0007	0.00081	5.122
3.90	-0.0074	0.0062	0.00965	3.491	-0.0005	-0.0011	0.00121	5.123
4.90	-0.0075	0.0047	0.00885	3.606	-0.0014	0.0003	0.00143	4.983
5.90	-0.0068	0.0042	0.00799	3.719	-0.0017	-0.0006	0.00180	4.956
6.90	-0.0025	0.0061	0.00659	3.837	0.0	-0.0009	0.00090	4.954
7.90	-0.0002	0.0052	0.00520	3.920	0.0003	0.0006	0.00067	4.956
8.90	-0.0036	0.0059	0.00691	3.922	-0.0005	-0.0002	0.00054	4.954
9.90	-0.0028	0.0032	0.00425	3.928	-0.0017	-0.0004	0.00175	4.955

72	INSIDE - - - - -				OUTSIDE - - - - -			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA

5.75	0.0016	0.0029	0.00331	3.937	-0.0007	-0.0	0.00070	4.982
4.75	0.0010	0.0008	0.00128	3.899	-0.0007	0.0	0.00070	4.883
3.75	-0.0036	0.0024	0.00433	3.752	-0.0017	-0.0006	0.00180	4.698
3.25	-0.0019	0.0066	0.00697	3.630	-0.0014	-0.0005	0.00149	4.576
2.75	0.0031	0.0083	0.00886	3.510	-0.0022	0.0001	0.00220	4.434
2.25	0.0008	0.0115	0.01153	3.331	-0.0023	-0.0002	0.00231	4.273
1.75	-0.0010	0.0129	0.01294	2.987	-0.0025	-0.0009	0.00264	4.091
1.25	0.0013	0.0189	0.01894	2.638	-0.0007	-0.0004	0.00081	3.890

23	X-ACT	Y-ACT	TIR
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1.00	-0.0058	0.0009	0.00587
7.00	-0.0064	0.0021	0.00674

BASE THICKNESS (IN) 1.535

PROJECTILE LENGTH (IN) 16.680

21 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

22 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 74 PROJECTILE B2

INSPECTION DATE 10/13/70

71	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0017	-0.0010	0.00197	2.960	0.0002	-0.0001	0.00022	4.982
2.90	-0.0026	-0.0016	0.00305	3.378	0.0030	0.0009	0.00313	5.121
3.90	-0.0040	0.0015	0.00427	3.493	0.0032	0.0019	0.00372	5.125
4.90	-0.0053	0.0033	0.00624	3.607	0.0020	0.0002	0.00201	4.983
5.90	-0.0052	0.0012	0.00534	3.721	0.0019	0.0017	0.00255	4.958
6.90	-0.0031	0.0009	0.00323	3.839	0.0037	0.0013	0.00392	4.958
7.90	-0.0042	0.0002	0.00420	3.932	0.0035	0.0015	0.00381	4.959
8.90	-0.0057	-0.0009	0.00577	3.933	0.0021	0.0011	0.00237	4.957
9.90	-0.0049	-0.0031	0.00580	3.938	0.0023	0.0013	0.00264	4.957
72	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0040	-0.0045	0.00602	3.943	0.0037	0.0001	0.00370	4.983
4.75	-0.0011	-0.0049	0.00502	3.899	0.0026	0.0009	0.00275	4.889
3.75	0.0032	-0.0024	0.00400	3.744	0.0036	0.0014	0.00386	4.704
3.25	0.0062	-0.0047	0.00778	3.616	0.0033	0.0020	0.00386	4.583
2.75	0.0080	-0.0060	0.01000	3.459	0.0023	0.0016	0.00280	4.441
2.25	0.0105	-0.0036	0.01110	3.223	0.0025	0.0020	0.00320	4.282
1.75	0.0094	0.0029	0.00981	2.854	0.0027	0.0014	0.00304	4.101
1.25	0.0161	-0.0107	0.01933	2.570	0.0030	0.0011	0.00320	3.901
73	X-ACT	Y-ACT	TIR					
1.00	-0.0008	-0.0010	0.00128					
7.00	0.0034	0.0019	0.00385					

BASE THICKNESS (IN) 1.575

PROJECTILE LENGTH (IN) 16.662

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

73 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 65-0 LOT 74 PROJECTILE #3

INSPECTION DATE 10/13/70

71	INSIDE				OUTSIDE			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA

1.90	-0.0047	0.0171	0.01773	2.851	0.0014	0.0002	0.00141	4.982
2.90	-0.0053	0.0125	0.01358	3.379	0.0034	0.0017	0.00380	5.124
3.90	-0.0075	0.0116	0.01381	3.493	0.0020	0.0013	0.00239	5.124
4.90	-0.0118	0.0051	0.01490	3.607	-0.0007	0.0012	0.00139	4.982
5.90	-0.0131	0.0055	0.01421	3.723	-0.0003	0.0012	0.00124	4.959
6.90	-0.0153	0.0025	0.01550	3.840	0.0019	0.0020	0.00276	4.959
7.90	-0.0145	0.0012	0.01455	3.927	-0.0003	0.0024	0.00242	4.960
8.90	-0.0176	-0.0	0.01760	3.931	-0.0004	0.0021	0.00214	4.956
9.90	-0.0187	-0.0010	0.01873	3.931	-0.0006	0.0023	0.00238	4.956

72	INSIDE				OUTSIDE			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA

5.75	-0.0173	-0.0015	0.01736	3.937	-0.0004	0.0024	0.00243	4.981
4.75	-0.0155	-0.0017	0.01559	3.911	0.0007	0.0035	0.00357	4.888
3.75	-0.0073	-0.0022	0.00762	3.728	-0.0012	0.0039	0.00408	4.701
3.25	-0.0011	-0.0063	0.00640	3.592	-0.0013	0.0038	0.00402	4.581
2.75	0.0026	-0.0050	0.00937	3.457	-0.0018	0.0034	0.00385	4.439
2.25	0.0063	-0.0083	0.01042	3.290	-0.0008	0.0038	0.00388	4.278
1.75	0.0112	-0.0062	0.01280	2.994	-0.0008	0.0038	0.00388	4.098
1.25	0.0087	-0.0043	0.00970	2.626	-0.0002	0.0041	0.00410	3.897

73	X-ACT	Y-ACT	TIR
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1.00	-0.0024	0.0078	0.00816
7.00	-0.0054	0.0185	0.01927

BASE THICKNESS (IN) 1.618

PROJECTILE LENGTH (IN) 15.681

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

73 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 74 PROJECTILE 84

INSPECTION DATE 10/14/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	0.0038	-0.0062	0.00727	3.006	0.0012	-0.0014	0.00184	4.982
2.90	0.0083	-0.0078	0.01139	3.382	0.0010	-0.0002	0.00102	5.124
3.90	0.0017	-0.0045	0.00965	3.500	0.0013	0.0006	0.00143	5.124
4.90	0.0006	-0.0101	0.01012	3.617	-0.0015	0.0001	0.00150	4.984
5.90	0.0006	-0.0093	0.00932	3.732	0.0009	-0.0001	0.00091	4.959
6.90	0.0028	-0.0104	0.01077	3.854	0.0008	0.0004	0.00089	4.958
7.90	-0.0011	-0.0108	0.01086	3.936	0.0015	-0.0004	0.00155	4.957
8.90	-0.0037	-0.0114	0.01199	3.940	-0.0005	-0.0002	0.00054	4.957
9.90	-0.0050	-0.0107	0.01181	3.950	-0.0004	-0.0	0.00040	4.956
Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0099	-0.0116	0.01525	3.950	-0.0003	0.0004	0.00050	4.984
4.75	-0.0077	-0.0093	0.01207	3.896	-0.0004	0.0001	0.00041	4.885
3.75	-0.0081	-0.0066	0.01045	3.709	-0.0010	0.0006	0.00117	4.699
3.25	-0.0042	-0.0065	0.00774	3.591	-0.0010	0.0003	0.00104	4.578
2.75	0.0025	-0.0057	0.00622	3.454	-0.0012	-0.0001	0.00120	4.436
2.25	0.0075	-0.0046	0.00880	3.275	-0.0003	0.0005	0.00058	4.276
1.75	0.0101	-0.0012	0.01017	2.934	0.0002	-0.0001	0.00022	4.095
1.25	0.0037	-0.0054	0.00655	2.613	0.0006	0.0001	0.00061	3.894
Z3	X-ACT	Y-ACT	TIR					
1.00	-0.0028	-0.0015	0.00918					
7.00	-0.0010	0.0005	0.00196					

Base thickness 1.557

Length 16.665

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 74 PROJECTILE B5

INSPECTION DATE 10/13/70

71	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)			DIA
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	

1.90	-0.0065	-0.0243	0.02515	2.866	0.0001	-0.0005	0.00051	4.984
2.90	0.0036	-0.0149	0.01533	3.363	0.0007	-0.0015	0.00166	5.124
3.90	0.0009	-0.0141	0.01413	3.477	0.0013	-0.0007	0.00148	5.122
4.90	-0.0047	-0.0169	0.01754	3.602	0.0002	0.0006	0.00063	4.982
5.90	0.0059	-0.0156	0.01668	3.711	0.0004	0.0001	0.00041	4.952
6.90	0.0072	-0.0164	0.01791	3.831	0.0013	-0.0012	0.00177	4.950
7.90	0.0094	-0.0154	0.01804	3.925	0.0003	-0.0003	0.00042	4.950
8.90	0.0072	-0.0156	0.01718	3.930	-0.0	0.0003	0.00030	4.951
9.90	0.0084	-0.0172	0.01914	3.936	-0.0013	0.0002	0.00132	4.951

72	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)			DIA
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	

5.75	0.0094	-0.0202	0.02229	3.942	0.0006	0.0006	0.00085	4.984
4.75	0.0086	-0.0197	0.02150	3.903	0.0007	0.0013	0.00149	4.984
3.75	0.0068	-0.0080	0.01050	3.721	-0.0003	0.0015	0.00153	4.696
2.25	0.0100	0.0023	0.01114	3.599	-0.0009	0.0010	0.00135	4.572
2.75	0.0153	0.0136	0.02047	3.464	-0.0002	0.0012	0.00122	4.431
2.25	0.0210	0.0195	0.02866	3.293	-0.0	0.0016	0.00160	4.269
1.75	0.0238	0.0273	0.03622	2.989	-0.0004	0.0013	0.00136	4.088
1.25	0.0137	0.0247	0.02824	2.620	0.0014	0.0020	0.00244	3.890

73	X-ACT	Y-ACT	TIR
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1.00	-0.0018	0.0026	0.00316
7.00	-0.0007	0.0028	0.00288

Base thickness 1.571

Length 16.658

## GUN PROJECTILE INSPECTION DATA

6/38 MK 66-0 LCT 75 PROJECTILE #1

INSPECTION DATE 11/03/70

Z1	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)			DTA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
1.50	0.0099	0.0036	0.0105	3.006	0.0002	-0.0007	0.00073	4.992
2.50	0.0145	-0.0054	0.0154	3.387	0.0001	-0.0024	0.00240	5.124
3.50	0.0060	-0.0029	0.0066	3.503	-0.0024	-0.0023	0.00410	5.126
4.50	0.0021	-0.0007	0.0021	3.616	-0.0027	-0.0005	0.00275	4.996
5.50	0.0017	-0.0013	0.0021	3.731	-0.0023	-0.0009	0.00247	4.959
6.50	0.0071	-0.0020	0.0029	3.849	-0.0002	-0.0004	0.00045	4.953
7.50	0.0007	-0.0041	0.0041	3.925	0.0010	-0.0004	0.00102	4.957
8.50	-0.0024	-0.0026	0.0036	3.929	0.0011	0.0004	0.00117	4.952
9.50	-0.0024	-0.0022	0.0032	3.935	-0.0012	-0.0006	0.00134	4.959
Z2	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)			DTA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
5.75	-0.0046	-0.0015	0.0047	2.941	-0.0001	-0.0004	0.00041	4.995
4.75	-0.0040	-0.0004	0.0040	3.894	-0.0004	-0.0002	0.00045	4.992
7.75	0.0015	-0.0016	0.0021	3.695	-0.0005	-0.0007	0.00026	4.702
3.25	-0.0114	-0.0042	0.0049	3.543	-0.0005	-0.0002	0.00054	4.991
2.75	-0.0051	-0.0074	0.0064	3.402	0.0001	-0.0003	0.00032	4.441
2.25	0.0044	-0.0088	0.0099	3.224	-0.0007	0.0001	0.00071	4.777
1.75	-0.0127	-0.0055	0.0099	2.902	-0.0003	-0.0009	0.00126	4.975
1.25	0.0040	0.0067	0.0052	2.577	-0.0004	-0.0011	0.00041	4.994
7.2	X-ACT	Y-ACT	TIR					
1.00	-0.0077	0.0029	0.0077					
7.00	-0.0052	0.0050	0.0077					

BASE THICKNESS (IN) 1.515

PROJECTILE LENGTH (IN) 14.462

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## WIN PROJECTILE INSPECTION DATA

3/78 MK 46-C LCT 75 PROJECTILE RD

INSPECTION DATE 10/27/70

21	INSIDE				OUTSIDE			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	0.0052	0.0111	0.01448	3.027	0.0004	-0.0001	0.00041	4.081
2.90	0.0072	0.0075	0.01047	3.074	0.0012	0.0002	0.00150	5.125
3.90	0.0064	0.0028	0.00981	3.494	0.0012	0.0002	0.00122	5.125
4.90	0.0162	-0.0006	0.00623	3.602	0.0010	0.0011	0.00100	4.983
5.90	0.0052	-0.0071	0.00980	3.721	-0.0007	0.0002	0.00073	4.959
6.90	0.0159	-0.0071	0.00623	3.834	0.0017	0.0008	0.00183	4.942
7.90	0.0055	-0.0067	0.01026	3.922	0.0004	0.0001	0.00041	4.962
8.90	0.0051	-0.0117	0.01276	3.925	0.0008	0.0007	0.00106	4.960
9.90	0.0054	-0.0123	0.01426	3.932	-0.0001	0.0001	0.00014	4.963
22	INSIDE				OUTSIDE			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.00350	-0.0154	0.01614	3.928	0.0009	0.0003	0.00095	4.084
6.75	0.00130	-0.0113	0.01132	3.954	0.0012	-0.0004	0.00124	4.077
3.75	0.0023	-0.0082	0.00711	3.758	-0.0005	-0.0	0.00050	4.707
3.25	0.0002	-0.0047	0.00694	3.632	-0.0001	-0.0005	0.00051	4.584
2.75	0.0002	-0.0052	0.01057	3.474	-0.0004	0.0006	0.00072	4.441
2.25	0.0115	-0.0070	0.01746	3.240	-0.0002	-0.0004	0.00045	4.270
1.75	0.0153	-0.0082	0.01274	3.868	0.0009	0.0004	0.00091	4.097
1.25	0.0050	0.0127	0.01345	3.520	-0.0011	-0.0005	0.00121	3.895
22	X-ACT	Y-ACT	TIR					
1.00	-0.0016	0.0004	0.0014					
7.00	-0.0154	0.0022	0.02562					

BASE THICKNESS (IN) 1.632

PROJECTILE LENGTH (IN) 16.651

21 IS DISTANCE FROM BASE (IN)

22 IS DISTANCE FROM NUISE (IN)

22 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

## GUN PROJECTILE INSPECTION DATA

5/39 MK 36-0 LCT 75 PROJECTILE R3

INSPECTION DATE 10/23/70

71	- - - - - INSIDE - - - - -			- - - - - OUTSIDE - - - - -			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
1.90	-0.0110	-0.0226	0.02513	2.973	0.0	-0.0016	0.00160	4.990
2.90	-0.0073	-0.0184	0.01869	3.371	0.0023	-0.0008	0.00244	5.123
3.90	-0.0041	-0.0187	0.01567	3.490	0.0019	-0.0004	0.00124	5.127
4.90	-0.0074	-0.0167	0.01827	3.605	-0.0005	-0.0002	0.00054	4.994
5.90	-0.0046	-0.0157	0.01636	3.721	-0.0004	-0.0002	0.00043	4.958
6.90	-0.0064	-0.0129	0.01440	3.837	0.0005	0.0	0.00050	4.958
7.90	-0.0057	-0.0106	0.01204	3.919	-0.0006	0.0002	0.00063	4.959
8.90	-0.0074	-0.0084	0.01119	3.920	-0.0014	0.0009	0.00144	4.959
9.90	-0.0063	-0.0063	0.01123	3.925	-0.0013	0.0007	0.00149	4.962

72	- - - - - INSIDE - - - - -			- - - - - OUTSIDE - - - - -			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
5.75	-0.0071	-0.0020	0.00738	2.932	-0.0005	0.0013	0.00139	4.992
6.75	-0.0062	0.0	0.00430	2.968	-0.0015	0.0015	0.00212	4.924
7.75	-0.0029	0.0027	0.00520	2.723	-0.0035	0.0013	0.00372	4.707
8.75	-0.0057	0.0093	0.01007	3.597	-0.0032	0.0021	0.00383	4.627
9.75	-0.0070	0.0125	0.01476	2.456	-0.0028	0.0025	0.00275	4.448
1.75	-0.0045	0.0139	0.01524	2.286	-0.0029	0.0009	0.00304	4.234
1.75	-0.0043	0.0074	0.00873	2.982	-0.0026	0.0022	0.00241	4.103
1.25	-0.0070	0.0064	0.01093	2.424	-0.0022	0.0013	0.00256	3.922

73	X-ACT	Y-ACT	TIR
1.00	-0.0064	0.0004	0.00441
7.00	-0.0055	-0.0029	0.00417

BASE THICKNESS (IN) 1.647

PROJECTILE LENGTH (IN) 16.645

71 TS DISTANCE FROM BASE (IN)

72 TS DISTANCE FROM NOSE (IN)

73 TS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 4K 66-0 LOT 75 PROJECTILE R4

INSPECTION DATE 11/02/70

71	INSIDE				OUTSIDE				DIA
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
1.90	-0.0021	-0.0051	0.00552	3.022	0.0013	-0.0001	0.00130	4.932	
2.90	0.0007	-0.0059	0.00584	3.379	0.0014	0.0002	0.00141	5.122	
3.90	-0.0004	-0.0044	0.00442	3.492	0.0014	0.0006	0.00152	5.124	
4.90	0.0002	-0.0050	0.00500	3.614	-0.0015	-0.0010	0.00184	4.935	
5.90	0.0024	-0.0072	0.00405	3.732	0.0017	-0.0	0.00170	4.957	
6.90	0.0042	0.0007	0.00623	3.852	-0.0005	-0.0002	0.00054	4.956	
7.90	0.0055	-0.0004	0.00551	3.976	-0.0016	-0.0006	0.00171	4.956	
8.90	0.0042	0.0009	0.00686	3.938	-0.0041	-0.0021	0.00410	4.957	
9.90	0.0054	0.0001	0.00540	3.947	-0.0035	-0.0006	0.00355	4.957	
72	INSIDE				OUTSIDE				DIA
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
5.75	0.0024	-0.0014	0.00279	3.950	-0.0037	0.0001	0.00370	4.922	
6.75	0.0018	0.0020	0.00249	3.891	-0.0024	0.0008	0.00253	4.982	
3.75	0.0062	0.0058	0.01196	3.700	-0.0039	0.0	0.00390	4.705	
3.25	0.0115	0.0094	0.01495	3.579	-0.0045	0.0011	0.00443	4.594	
2.75	0.0129	0.0082	0.01405	3.449	-0.0049	0.0024	0.00482	4.447	
2.25	0.0139	0.0112	0.01784	3.274	-0.0046	-0.0004	0.00462	4.280	
1.75	0.0170	0.0156	0.02207	2.944	-0.0041	0.0009	0.00410	4.073	
1.25	0.0115	0.0172	0.02042	2.619	-0.0036	0.0009	0.00400	3.900	
73	X-ACT	Y-ACT	TIR						
1.00	-0.0052	0.0028	0.00444						
7.00	-0.0003	0.0015	0.00648						

BASE THICKNESS (IN) 1.511

PROJECTILE LENGTH (IN) 16.446

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

73 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 46-0 LCT 75 PROJECTILE RS

INSPECTION DATE 10/26/70

71	INSIDE				OUTSIDE				DIA
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
1.00	0.0146	-0.0040	0.01514	2.951	-0.0012	-0.0	0.00120	4.092	
2.00	0.0155	-0.0056	0.02029	3.374	0.0008	-0.0001	0.00091	5.124	
3.00	0.0182	-0.0074	0.01851	2.487	0.0006	0.0012	0.00174	5.127	
4.00	0.0127	-0.0033	0.01712	2.605	-0.0020	-0.0001	0.00200	4.094	
5.00	0.0055	-0.0044	0.01047	2.720	-0.0004	-0.0004	0.00057	4.057	
6.00	0.0096	-0.0046	0.01045	2.838	0.0013	-0.0	0.00130	4.057	
7.00	0.0128	-0.0042	0.01247	2.929	0.0013	0.0002	0.00122	4.055	
8.00	0.0072	-0.0051	0.00892	2.920	-0.0005	-0.0004	0.00064	4.055	
9.00	0.0055	-0.0050	0.00743	2.936	-0.0011	0.0	0.00110	4.055	
72	INSIDE				OUTSIDE				DIA
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
5.75	0.0027	-0.0046	0.00590	2.946	0.0004	0.0002	0.00046	4.095	
4.75	0.0052	-0.0037	0.00638	2.908	0.0020	0.0008	0.00215	4.094	
3.75	-0.0025	-0.0012	0.00761	2.757	0.0003	0.0007	0.00076	4.097	
3.25	0.0010	0.0045	0.00741	2.648	0.0001	0.0011	0.00110	4.074	
2.75	0.0042	0.0051	0.01092	2.512	0.0013	0.0016	0.00205	4.044	
2.25	0.0075	0.0083	0.01110	2.331	0.0012	0.0007	0.00120	4.074	
1.75	0.0135	0.0055	0.01505	2.020	0.0020	0.0009	0.00310	4.094	
1.25	0.0057	0.0122	0.01247	2.646	0.0019	0.0011	0.00220	3.951	
73	X-ACT	Y-ACT	TIR						
1.00	-0.0011	0.0055	0.00400						
2.00	-0.0018	0.0055	0.00474						

BASE THICKNESS (IN) 1.570

PROJECTILE LENGTH (IN) 16.462

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

73 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/29 MK 66-0 LCT 76 PROJECTILE R1

INSPECTION DATE 10/29/70

(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)				
Z1	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.00	0.0009	0.0072	0.02173	2.907	0.0009	0.0002	0.00092	4.985
2.00	0.0124	0.0031	0.01955	2.970	0.0007	-0.0002	0.00073	5.123
3.00	0.0205	0.0040	0.02089	3.489	-0.0009	-0.0001	0.00091	5.124
4.00	0.0102	0.0034	0.02019	3.607	-0.0009	0.0004	0.00098	4.984
5.00	0.0124	0.0035	0.01971	3.722	0.0002	0.0016	0.00161	4.962
6.00	0.0171	0.0042	0.01761	3.836	0.0002	0.0018	0.00181	4.961
7.00	0.0170	0.0046	0.01848	3.926	0.0001	0.0016	0.00160	4.960
8.00	0.0160	0.0034	0.01636	3.926	-0.0005	0.0015	0.00158	4.960
9.00	0.0127	0.0039	0.01329	3.934	-0.0010	0.0022	0.00242	4.961
(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)				
Z2	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0004	0.0031	0.00600	2.941	-0.0010	0.0006	0.00135	4.983
6.75	0.0022	0.0025	0.00762	2.904	-0.0006	0.0014	0.00152	4.952
3.75	0.0022	0.0022	0.00356	2.770	-0.0015	0.0018	0.00241	4.707
3.25	-0.0012	0.0057	0.00654	2.647	-0.0013	0.0028	0.00202	4.626
2.75	-0.0061	0.0042	0.00811	2.486	-0.0023	0.0023	0.00325	4.448
2.25	-0.0131	0.0064	0.00749	2.244	-0.0021	0.0023	0.00211	4.284
1.75	-0.0013	0.0063	0.00643	2.856	-0.0033	0.0012	0.00251	4.105
1.25	0.0103	0.0021	0.01076	2.572	-0.0063	0.0002	0.00420	4.017
Z2	X-ACT	Y-ACT	TIR					
1.00	-0.0009	0.0019	0.00820					
7.00	-0.0184	-0.0063	0.01840					

BASE THICKNESS (IN) 1.544

PROJECTILE LENGTH (IN) 14.646

Z1 TS DISTANCE FROM BASE (IN)

Z2 TS DISTANCE FROM NOSE (IN)

Z3 TS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/28 MK 66-0 LOT 76 PROJECTILE P2

INSPECTION DATE 11/02/70

71	INSIDE			OUTSIDE			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
1.90	0.0044	-0.0016	0.00468	2.973	0.0014	0.0002	0.00141	4.992
2.90	0.0132	-0.0105	0.01687	3.376	-0.0015	0.0	0.00150	5.122
3.90	0.0075	-0.0065	0.00992	3.492	-0.0013	0.0005	0.00139	5.127
4.90	0.0004	-0.0044	0.00442	3.608	0.0	0.0005	0.00050	4.994
5.90	0.0013	-0.0036	0.00293	3.726	0.0017	0.0009	0.00192	4.959
6.90	-0.0043	-0.0036	0.00600	3.840	0.0005	0.0012	0.00130	4.961
7.90	-0.0053	-0.0024	0.00592	3.925	0.0014	0.0013	0.00191	4.960
8.90	-0.0085	-0.0010	0.00656	3.929	-0.0018	0.0006	0.00130	4.960
9.90	-0.0103	-0.0014	0.01099	3.932	-0.0016	-0.0002	0.00161	4.951
72	INSIDE			OUTSIDE			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
5.75	-0.0113	-0.0023	0.01225	3.939	-0.0005	0.0015	0.00152	4.995
4.75	-0.0097	-0.0015	0.00682	3.903	-0.0009	0.0006	0.00100	4.992
3.75	-0.0062	0.0019	0.00617	3.795	-0.0020	0.0008	0.00215	4.702
3.25	-0.0074	0.0020	0.00813	3.664	-0.0017	0.0005	0.00177	4.694
2.75	-0.0060	0.0015	0.00619	3.505	-0.0012	0.0015	0.00192	4.642
2.25	-0.0053	0.0057	0.01091	3.254	-0.0020	0.0010	0.00224	4.291
1.75	-0.0114	0.0100	0.01516	2.956	-0.0007	0.0014	0.00157	4.039
1.25	-0.0017	0.0056	0.00595	2.589	-0.0006	0.0006	0.00095	3.626
73	X-ACT	Y-ACT	TIR					
1.00	-0.0052	0.0020	0.00566					
7.00	-0.0091	-0.0206	0.02252					

BASE THICKNESS (IN) 1.542

PROJECTILE LENGTH (IN) 16.470

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

73 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/73 MK 44-0 LCT 74 PROJECTILE R3

INSPECTION DATE 10/23/70

Z1	INSIDE				OUTSIDE				DIA
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
1.00	0.0147	0.0100	0.01778	3.012	-0.0002	-0.0011	0.00112	4.084	
2.00	0.0186	0.0097	0.02051	3.074	0.0017	-0.0010	0.00157	5.126	
3.00	0.0120	0.0104	0.01589	3.492	0.0005	-0.0002	0.00054	5.126	
4.00	0.0087	0.0101	0.01233	3.507	0.0002	-0.0001	0.00022	4.086	
5.00	0.0046	0.0099	0.01190	3.720	-0.0004	-0.0010	0.00108	4.057	
6.00	0.0084	0.0103	0.01322	3.834	0.0014	-0.0004	0.00146	4.056	
7.00	0.0040	0.0112	0.01271	3.925	0.0005	-0.0002	0.00054	4.055	
8.00	0.0042	0.0117	0.01242	3.927	-0.0001	0.0	0.00010	4.057	
9.00	0.0037	0.0119	0.01237	3.920	0.0	0.0002	0.00020	4.056	
Z2	INSIDE				OUTSIDE				DIA
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
5.75	0.0010	0.0115	0.01164	3.934	-0.0007	0.0002	0.00072	4.084	
6.75	0.0026	0.0112	0.01142	3.903	-0.0009	0.0005	0.00094	4.084	
7.75	0.0009	0.0080	0.00804	3.771	-0.0016	0.0012	0.00200	4.092	
8.75	-0.0017	0.0084	0.00857	3.640	-0.0013	0.0004	0.00134	4.074	
9.75	-0.0047	0.0101	0.01104	3.498	-0.0011	0.0010	0.00140	4.036	
1.25	-0.0023	0.0097	0.00957	2.240	-0.0019	0.0011	0.00211	4.271	
1.75	0.0016	0.0098	0.00931	2.962	-0.0011	0.0009	0.00124	4.021	
2.25	0.0021	0.0104	0.01005	2.577	0.0015	0.0029	0.00324	3.943	
Z2	X-ACT	Y-ACT	TIR						
1.00	-0.0022	0.0044	0.00522						
2.00	-0.0018	0.0024	0.00244						

BASE THICKNESS (IN) 3.554

PROJECTILE LENGTH (IN) 14.761

Z1 TO DISTANCE FROM BASE (IN)

Z2 TO DISTANCE FROM NUISE (IN)

Z2 TO DISTANCE FROM NUISE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 55-0 ACT 76 PROJECTILE R4

INSPECTION DATE 10/22/70

71	INSIDE			OUTSIDE			TIR	RTA
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		

1.00	0.0061	-0.0064	0.00815	2.678	-0.0003	-0.0019	0.00107	4.098
2.00	0.0140	0.0066	0.01401	3.680	0.0013	-0.0002	0.00132	5.121
3.00	0.0062	-0.0012	0.00929	3.468	0.0001	0.0002	0.00022	5.124
4.00	0.0060	-0.0041	0.00727	3.610	-0.0011	-0.0020	0.00222	4.098
5.00	0.0048	-0.0049	0.00679	3.726	-0.0002	-0.0019	0.00137	4.062
6.00	0.0044	-0.0064	0.00777	3.841	0.0007	-0.0019	0.00202	4.062
7.00	0.0034	-0.0075	0.00823	3.920	0.0010	-0.0021	0.00222	4.062
8.00	0.0014	-0.0089	0.00891	3.924	-0.0015	-0.0024	0.00223	4.062
9.00	0.0025	-0.0111	0.01129	3.927	-0.0002	-0.0019	0.00191	4.060

72	INSIDE			OUTSIDE			TIR	RTA
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		

5.75	0.0049	-0.0122	0.01315	3.632	-0.0003	-0.0020	0.00202	4.046
4.75	0.0044	-0.0114	0.01241	3.877	-0.0009	-0.0021	0.00129	4.047
3.75	0.0007	-0.0130	0.01302	3.667	-0.0014	-0.0018	0.00222	4.077
2.75	-0.0057	-0.0102	0.01202	3.524	-0.0019	-0.0021	0.00223	4.046
2.75	-0.0147	-0.0092	0.01156	3.286	-0.0015	-0.0021	0.00259	4.046
2.25	-0.0105	-0.0039	0.01120	3.205	-0.0015	-0.0025	0.00292	4.027
1.75	-0.0082	-0.0049	0.00955	2.892	-0.0004	-0.0022	0.00224	4.010
1.25	-0.0167	0.0115	0.01571	2.570	-0.0007	-0.0025	0.00260	3.904

73	X-ACT	Y-ACT	TIR
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1.00	0.0008	0.0015	0.00175
7.00	0.0012	0.0001	0.00120

BASE THICKNESS (IN) 1.611

PROJECTILE LENGTH (IN) 16.662

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

73 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LCT 74 PROJECTILE RS

INSPECTION DATE 11/01/70

(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)				
Z1	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0020	0.0000	0.00051	2.945	0.0003	-0.0007	0.00074	.4.983
2.90	-0.0022	0.0005	0.00489	3.362	0.0040	-0.0002	0.00400	5.123
3.90	-0.0051	0.0043	0.00467	3.474	0.0032	-0.0008	0.00320	5.126
4.90	-0.0056	0.0024	0.00600	3.595	-0.0009	-0.0022	0.00239	4.992
5.90	-0.0052	-0.0020	0.00566	3.711	0.0006	-0.0	0.00060	4.959
6.90	-0.0029	-0.0041	0.00502	3.826	0.0018	-0.0002	0.00181	4.957
7.90	-0.0020	-0.0065	0.00716	3.920	0.0018	-0.0001	0.00180	4.957
8.90	-0.0020	-0.0072	0.00747	3.920	0.0015	-0.0002	0.00151	4.960
9.90	0.0002	-0.0076	0.00760	3.923	0.0014	-0.0009	0.00134	4.959
(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)				
Z2	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0024	-0.0075	0.00819	3.933	0.0023	-0.0009	0.00247	4.997
4.75	0.0023	-0.0071	0.00746	3.902	0.0023	-0.0004	0.00239	4.939
3.75	-0.0011	-0.0024	0.00264	3.724	0.0022	-0.0002	0.00221	4.701
3.25	0.0002	-0.0026	0.00261	3.604	0.0011	0.0005	0.00121	4.521
2.75	0.0064	-0.0010	0.00648	3.462	0.0022	-0.0	0.00220	4.440
2.25	0.0121	-0.0021	0.01228	3.284	0.0014	-0.0008	0.00151	4.275
1.75	0.0092	-0.0017	0.00837	3.592	0.0018	-0.0010	0.00106	4.094
1.25	0.0044	0.0049	0.00659	3.628	0.0021	-0.0005	0.00216	3.821
Z2	X-ACT	Y-ACT	TIR					
1.00	-0.0	0.0003	0.00030					
7.00	-0.0026	0.0072	0.02372					

BASE THICKNESS (IN) 1.544

PROJECTILE LENGTH (IN) 16.656

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NUSE (IN)

Z2 IS DISTANCE FROM NUSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

6/29 MK 66-C LCT 77 PROJECTILE R1

INSPECTION DATE 10/21/70

71	INSIDE			OUTSIDE			TIR	DIA
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
1.00	0.0027	-0.0074	0.00775	2.987	-0.0013	0.0005	0.00123	4.081
2.00	0.0038	-0.0139	0.01431	3.087	-0.0	-0.0010	0.00100	5.124
3.00	0.0042	-0.0089	0.00594	3.502	0.0001	-0.0007	0.00071	5.121
4.00	0.0037	-0.0029	0.00470	3.614	-0.0020	-0.0003	0.00202	4.081
5.00	0.0057	-0.0021	0.00607	3.729	-0.0027	-0.0014	0.00204	4.084
6.00	0.0044	-0.0020	0.00443	3.846	-0.0007	-0.0005	0.00074	4.084
7.00	0.0072	-0.0002	0.00720	3.960	-0.0017	-0.0004	0.00170	4.082
8.00	0.0054	-0.0003	0.00541	3.983	-0.0021	-0.0011	0.00217	4.085
9.00	0.0050	-0.0009	0.00509	3.992	-0.0030	-0.0009	0.00313	4.084
72	INSIDE			OUTSIDE			TIR	DIA
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
5.75	0.0070	-0.0009	0.00705	2.935	-0.0010	-0.0008	0.00123	4.084
4.75	0.0072	0.0012	0.00720	3.824	-0.0014	-0.0010	0.00173	4.084
3.75	0.0041	0.0051	0.00764	3.747	-0.0024	-0.0013	0.00273	4.082
3.25	0.0039	0.0056	0.01056	3.618	-0.0023	-0.0006	0.00212	4.082
2.75	0.0051	0.0129	0.01297	3.454	-0.0012	-0.0011	0.00153	4.041
2.25	0.0009	0.0127	0.01273	3.204	-0.0027	-0.0004	0.00273	4.082
1.75	0.0012	0.0093	0.00940	2.914	-0.0024	-0.0010	0.00240	4.081
1.25	-0.0112	0.0066	0.01294	2.574	-0.0011	-0.0011	0.0015	4.081
73	X-ACT	Y-ACT	TIR					
1.00	-0.0001	-0.0037	0.00270					
7.00	-0.0062	-0.0269	0.02691					

BASE THICKNESS (IN) 1.546

PROJECTILE LENGTH (IN) 16.754

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 77 PROJECTILE R2

INSPECTION DATE 10/20/70

71	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)			DIA
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR	
1.00	0.0025	0.0030	0.00075	2.961	0.0008	0.00120	4.035
2.00	0.0048	-0.0041	0.00630	3.378	0.0035	-0.0018	5.125
3.00	0.0049	-0.0035	0.00594	3.454	-0.0009	-0.0017	5.125
4.00	0.0036	-0.0019	0.00407	3.612	0.0007	-0.0006	4.934
5.00	0.0034	-0.0027	0.00450	3.727	-0.0008	-0.0014	4.960
6.00	0.0024	-0.0048	0.00546	3.843	0.0012	-0.0010	4.942
7.00	0.0015	-0.0057	0.00589	3.929	0.0009	-0.0014	4.960
8.00	-0.0002	-0.0081	0.00810	3.933	0.0001	-0.0017	4.940
9.00	-0.0014	-0.0066	0.00775	3.935	0.0007	-0.0026	4.951
72	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)			DIA
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR	
5.75	-0.0018	-0.0082	0.00942	3.939	-0.0003	-0.0021	4.984
4.75	-0.0071	-0.0053	0.00670	3.893	0.0013	-0.0011	4.842
3.75	-0.0051	0.0001	0.00510	3.700	0.0	-0.0019	4.704
3.25	-0.0045	-0.0027	0.00525	3.555	0.0003	-0.0024	4.583
2.75	-0.0014	-0.0045	0.00703	3.420	0.0010	-0.0016	4.440
2.25	-0.0061	-0.0047	0.00770	3.252	-0.0	-0.0016	4.280
1.75	-0.0119	-0.0055	0.01311	2.950	0.0010	-0.0021	4.087
1.25	-0.0149	0.0047	0.01562	2.951	0.0017	-0.0015	3.995
73	X-ACT	Y-ACT	TIR				
1.00	0.0021	0.0022	0.00291				
7.00	0.0045	0.0012	0.00370				

BASE THICKNESS (IN) 1.674

PROJECTILE LENGTH (IN) 16.456

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

73 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/39 MK 66-0 LOT 77 PROJECTILE R3

INSPECTION DATE 10/21/70

71	INSIDE				OUTSIDE			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	0.0054	0.0051	0.01308	2.938	0.0012	0.0003	0.00124	4.981
2.90	0.0172	-0.0051	0.01794	3.368	-0.0009	-0.0013	0.00153	5.120
3.90	0.0130	-0.0014	0.01708	3.482	-0.0023	-0.0021	0.00311	5.121
4.90	0.0104	0.0022	0.01102	3.506	-0.0021	-0.0016	0.00254	4.971
5.90	0.0054	0.0039	0.01014	3.710	-0.0015	-0.0023	0.00225	4.954
6.90	0.0051	0.0053	0.00963	3.823	-0.0005	-0.0010	0.00112	4.953
7.90	0.0077	0.0058	0.00964	3.920	-0.0004	-0.0015	0.00155	4.952
8.90	0.0054	0.0057	0.00795	3.923	-0.0021	-0.0016	0.00264	4.952
9.90	0.0049	0.0057	0.00752	3.927	-0.0012	-0.0020	0.00223	4.952
72	INSIDE				OUTSIDE			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0054	0.0049	0.00729	3.930	-0.0012	-0.0026	0.00296	4.943
4.75	0.0052	0.0034	0.00621	3.892	-0.0008	-0.0025	0.00242	4.924
3.75	0.0041	0.0032	0.00520	3.760	-0.0015	-0.0026	0.00200	4.897
3.25	0.0064	0.0049	0.00806	3.634	-0.0019	-0.0021	0.00277	4.974
2.75	0.0091	0.0050	0.01029	3.464	-0.0034	-0.0025	0.00421	4.927
2.25	0.0052	0.0054	0.01041	3.207	-0.0018	-0.0029	0.00341	4.973
1.75	0.0086	0.0034	0.00915	2.829	-0.0015	-0.0026	0.00300	4.962
1.25	0.0079	0.0121	0.01440	2.569	-0.0014	-0.0016	0.00254	4.962
73	X-ACT	Y-ACT	TIR					
1.00	-0.0052	-0.0052	0.00715					
7.00	-0.0012	-0.0051	0.00642					

BASE THICKNESS (IN) 1.676

PROJECTILE LENGTH (IN) 16.674

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

73 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

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GUN PROJECTILE INSPECTION DATA

5/29 MK 46-0 LCT 77 PROJECTILE R4

INSPECTION DATE 10/29/70

71	INSIDE			OUTSIDE			DIA
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR	

1.20	-0.0015	0.0027	0.00300	0.970	0.0012	0.0008	0.00144	4.927
2.50	0.0043	-0.0030	0.00698	2.281	-0.0017	-0.0047	0.00500	5.124
3.80	-0.0002	-0.0051	0.00511	3.464	-0.0017	-0.0031	0.00354	5.125
4.20	-0.0034	-0.0035	0.00524	3.60 <sup>o</sup>	-0.0022	0.0006	0.00223	4.923
5.50	-0.0021	-0.0035	0.00462	2.727	-0.0013	-0.0004	0.00124	4.950
6.70	-0.0051	-0.0042	0.01001	3.846	-0.0014	0.0009	0.00164	4.949
7.50	-0.0016	-0.0054	0.00974	3.925	-0.0017	0.0010	0.00157	4.951
8.20	-0.0013	-0.0068	0.01234	3.929	-0.0022	0.0009	0.00239	4.942
9.50	-0.0114	-0.0061	0.01293	3.92 <sup>o</sup>	-0.0019	0.0009	0.00210	4.940

72	INSIDE			OUTSIDE			DIA
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR	

5.70	-0.0114	-0.0080	0.01343	3.932	-0.0010	0.0013	0.00164	4.927
4.70	-0.0051	-0.0078	0.01205	3.987	-0.0020	0.0014	0.00244	4.923
3.70	-0.0071	-0.0053	0.00910	3.689	-0.0017	0.0013	0.00214	4.927
3.25	-0.0045	-0.0023	0.00558	3.55 <sup>o</sup>	-0.0036	0.0012	0.00270	4.974
2.75	0.0014	-0.0011	0.00194	3.421	-0.0024	0.0018	0.00214	4.932
2.25	0.0012	-0.0010	0.00025	3.241	-0.0013	0.0019	0.00240	4.927
1.75	0.0007	-0.0044	0.00444	2.924	-0.0013	0.0016	0.00296	4.940
1.25	0.0040	-0.0155	0.01573	2.579	-0.0009	0.0026	0.00272	4.940

73	X-ACT	Y-ACT	TIR
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1.00	-0.0001	0.0029	0.00304
7.00	0.0177	0.0184	0.02563

BASE THICKNESS (IN) 1.567

PROJECTILE LENGTH (IN) 16.673

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

73 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

## GUN PROJECTILE INSPECTION DATA

5/28 MK 46-0 ACT 77 PROJECTILE RS

INSPECTION DATE 10/27/70

71	- - - - - INSIDE - - - - -				- - - - - OUTSIDE - - - - -			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.00	-0.0012	0.0025	0.00277	2.977	0.0005	-0.0001	0.00051	4.034
2.00	-0.0027	0.0004	0.00265	3.380	0.0022	0.0002	0.00221	5.133
3.00	-0.0042	0.0005	0.00423	3.457	0.0026	0.0008	0.00272	5.124
4.00	-0.0066	-0.0020	0.00200	3.611	0.0012	-0.0005	0.00130	4.035
5.00	0.0006	-0.0025	0.00255	3.724	0.0028	-0.0006	0.00266	4.057
6.00	0.0021	-0.0032	0.00446	3.841	0.0027	-0.0008	0.00222	4.056
7.00	0.0026	-0.0015	0.00300	3.926	0.0021	-0.0003	0.00212	4.057
8.00	-0.0020	-0.0015	0.00250	3.932	0.0012	0.0004	0.00124	4.057
9.00	-0.0007	0.0007	0.00079	3.941	0.0002	-0.0009	0.00032	4.057

72	- - - - - INSIDE - - - - -				- - - - - OUTSIDE - - - - -			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0004	0.0046	0.00444	2.844	0.0031	0.0001	0.00310	4.032
4.75	-0.0012	0.0035	0.00364	2.954	0.0012	-0.0003	0.00124	4.035
3.75	0.0012	0.0015	0.00242	2.761	0.0010	-0.0003	0.00104	4.000
2.75	0.0015	-0.0029	0.00219	3.641	0.0003	-0.0004	0.00050	4.070
2.75	0.0014	-0.0064	0.00655	3.684	0.0001	-0.0	0.00010	4.032
2.75	0.0063	-0.0061	0.01726	2.254	0.0010	-0.0004	0.00109	4.073
1.75	0.0115	-0.0051	0.01464	2.891	0.0006	-0.0002	0.00063	4.032
1.75	0.0159	-0.0079	0.01771	2.573	0.0006	0.0002	0.00063	3.820

73 X-ACT Y-ACT TIR

1.00	0.0009	-0.0014	0.00141
7.00	-0.0012	-0.0014	0.00191

BASE THICKNESS (IN) 1.564

PROJECTILE LENGTH (IN) 16.478

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

73 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/29 MK 66-0 LCT 78 PROJECTILE B1

INSPECTION DATE 10/23/70

(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)				
71	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.80	-0.0038	-0.0154	0.01545	2.856	0.0019	0.0003	0.00197	4.0986
2.80	-0.0070	-0.0072	0.01004	3.870	0.0030	-0.0013	0.00227	5.122
3.80	-0.0062	-0.0055	0.01052	3.888	0.0022	-0.0001	0.00220	5.123
4.80	-0.0070	-0.0102	0.01277	3.606	0.0022	0.0015	0.00266	4.998
5.80	-0.0087	-0.0101	0.01333	3.721	0.0020	0.0016	0.00255	4.950
6.80	-0.0099	-0.0105	0.01476	3.841	0.0014	0.0007	0.00157	4.249
7.80	-0.0112	-0.0100	0.01501	3.832	0.0013	0.0012	0.00177	4.240
8.80	-0.0104	-0.0100	0.01443	3.834	0.0009	0.0018	0.00201	4.949
9.80	-0.0083	-0.0100	0.01370	3.842	0.0007	0.0016	0.00175	4.947
(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)				
72	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0051	-0.0100	0.01161	3.648	0.0010	0.0014	0.00173	4.997
6.75	-0.0041	-0.0077	0.00617	3.904	0.0004	0.0017	0.00130	4.990
3.75	-0.0043	-0.0032	0.00707	3.777	-0.0001	0.0015	0.00150	4.694
3.75	-0.0054	-0.0061	0.00540	3.651	-0.0018	0.0019	0.00262	4.672
2.75	-0.0068	0.0001	0.00480	3.488	-0.0006	0.0025	0.00257	4.642
2.75	-0.0055	0.0013	0.00558	3.237	-0.0009	0.0022	0.00242	4.271
1.75	-0.0050	0.0150	0.02262	2.936	-0.0003	0.0020	0.00219	4.013
1.75	0.0110	-0.0080	0.01450	2.590	0.0004	0.0034	0.00242	3.591
73	X-ACT	Y-ACT	TIR					
1.00	-0.0017	0.0032	0.10416					
7.00	0.0054	0.0274	0.02917					

BASE THICKNESS (IN) 1.500

PROJECTILE LENGTH (IN) 16.711

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

73 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/29 MK 66-0 LCT 79 PROJECTILE B2

INSPECTION DATE 10/22/70

(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
Z1	X-ACT	Y-ACT	TIR	Z1A	X-ACT	Y-ACT	TIR

1.00	0.0217	-0.0353	0.04402	2.985	-0.0006	-0.0011	0.00116	4.970
2.00	0.0249	-0.0134	0.03154	3.248	-0.0002	-0.0021	0.00211	5.123
3.00	0.0097	-0.0102	0.01341	3.496	-0.0029	-0.0015	0.00324	5.124
4.00	-0.0066	-0.0043	0.00789	3.651	-0.0012	-0.0015	0.00192	4.992
5.00	-0.0056	-0.0029	0.00504	3.780	-0.0023	-0.0009	0.00247	4.969
6.00	-0.0030	-0.0054	0.00445	3.991	-0.0012	-0.0007	0.00179	4.950
7.00	0.0036	-0.0134	0.01389	3.934	-0.0016	-0.0002	0.00191	4.961
8.00	0.0030	-0.0137	0.01402	3.938	-0.0028	-0.0006	0.00295	4.960
9.00	0.0031	-0.0165	0.01574	3.928	-0.0009	-0.0001	0.00081	4.953

(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
Z2	X-ACT	Y-ACT	TIR	Z1A	X-ACT	Y-ACT	TIR

5.75	0.0153	-0.0154	0.02502	3.621	-0.0013	-0.0013	0.00134	4.982
6.75	0.0120	-0.0155	0.02017	3.879	-0.0025	-0.0004	0.00253	4.931
3.75	0.0111	-0.0143	0.01910	3.725	-0.0020	-0.0002	0.00291	4.705
2.75	0.0050	-0.0050	0.01071	3.616	-0.0023	-0.0002	0.00121	4.693
2.75	0.0126	-0.0026	0.00368	3.682	-0.0035	0.0002	0.00351	4.642
2.25	-0.0014	0.0001	0.00140	3.297	-0.0029	-0.0001	0.00290	4.221
1.75	-0.0144	0.0018	0.00474	3.947	-0.0034	-0.0002	0.00341	4.101
1.25	-0.0034	0.0066	0.00742	3.621	-0.0034	-0.0001	0.00040	3.938

Z3	X-ACT	Y-ACT	TIR
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1.00	-0.0014	-0.0067	0.00157
7.00	-0.0137	0.0064	0.01421

BASE THICKNESS (IN) 1.567

PROJECTILE LENGTH (IN) 16.461

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/30 MK 66-0 LOT 78 PROJECTILE B3

INSPECTION DATE 10/30/70

71	INSIDE			OUTSIDE			TIR	DIA
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		

1.00	-0.0020	0.0160	0.02691	2.920	-0.0002	0.0003	0.00037	4.081
2.00	-0.0019	0.0072	0.02305	3.367	0.0001	0.0005	0.00061	5.122
3.00	-0.0021	0.0082	0.02171	3.480	0.0002	0.0005	0.00054	5.174
4.00	-0.0167	0.0079	0.01843	3.601	-0.0004	-0.0006	0.00072	4.082
5.00	-0.0159	0.0059	0.01787	3.715	-0.0011	0.0002	0.00112	4.051
6.00	-0.0129	0.0016	0.01799	3.831	-0.0014	-0.0003	0.00143	4.057
7.00	-0.0101	0.0012	0.01047	3.924	-0.0017	0.0004	0.00175	4.057
8.00	-0.0092	-0.0012	0.00928	3.929	-0.0013	0.0004	0.00134	4.057
9.00	-0.0055	-0.0023	0.00594	3.938	-0.0018	0.0004	0.00184	4.057

72	INSIDE			OUTSIDE			TIR	DIA
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		

5.75	-0.0129	-0.0040	0.00498	3.545	-0.0005	0.0002	0.00054	4.082
4.75	-0.0000	-0.0044	0.00449	3.910	-0.0026	0.0003	0.00242	4.087
3.75	0.0059	0.0005	0.00582	3.725	-0.0022	0.0007	0.00231	4.701
2.75	0.0101	0.0008	0.01014	3.602	-0.0024	0.0008	0.00153	4.579
2.75	0.0142	-0.0034	0.01475	3.472	-0.0026	0.0002	0.00261	4.437
2.75	0.0144	-0.0064	0.01749	3.299	-0.0024	0.0005	0.00265	4.276
1.75	0.0062	-0.0053	0.00524	2.933	-0.0013	0.0018	0.00222	4.094
1.25	0.0169	-0.0059	0.01791	2.637	-0.0014	0.0015	0.00205	3.222

73	X-ACT	Y-ACT	TIR
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1.00	-0.0021	-0.0015	0.00244
7.00	0.0015	0.0013	0.00198

BASE THICKNESS (IN) 1.526

PROJECTILE LENGTH (IN) 16.665

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

73 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/39 MK 66-0 LOT 78 PROJECTILE #4

INSPECTION DATE 10/23/70

71	INSIDE				OUTSIDE			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA

1.00	0.0076	0.0047	0.00894	2.944	0.0005	0.0009	0.00103	4.082
2.00	0.0029	0.0001	0.00290	2.377	0.0029	-0.0004	0.00291	5.122
3.00	0.0050	0.0012	0.00514	3.494	0.0008	-0.0032	0.00230	5.122
4.00	0.0016	0.0011	0.00124	3.609	-0.0010	0.0011	0.00142	4.082
5.00	-0.0014	-0.0005	0.00146	2.724	0.0009	0.0018	0.00197	4.082
6.00	-0.0026	-0.0001	0.00250	2.942	0.0022	0.0010	0.00242	4.082
7.00	-0.0043	-0.0008	0.00424	3.924	0.0011	0.0024	0.00244	4.082
8.00	-0.0055	-0.0017	0.00576	3.928	0.0020	0.0016	0.00253	4.082
9.00	-0.0061	-0.0029	0.00684	2.933	0.0002	0.0012	0.00122	4.082

72	INSIDE				OUTSIDE			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA

5.75	-0.0170	-0.0069	0.01467	2.947	0.0010	0.0013	0.00204	4.082
4.75	-0.0121	-0.0039	0.01271	2.908	0.0016	0.0014	0.00213	4.082
3.75	-0.0091	-0.0019	0.00529	2.749	0.0013	0.0023	0.00264	4.082
3.25	-0.0103	-0.0009	0.01033	2.623	0.0005	0.0010	0.00112	4.082
2.75	-0.0061	0.0009	0.00614	2.487	0.0014	0.0020	0.00244	4.082
2.25	-0.0041	0.0047	0.00637	2.314	0.0013	0.0021	0.00281	4.082
1.75	0.0054	0.0054	0.01084	2.865	0.0020	0.0019	0.00260	4.082
1.25	0.0020	0.0134	0.01355	2.617	0.0020	0.0008	0.00215	4.082

73 X-ACT Y-ACT TIR

1.00	-0.0000	0.0039	0.00400
7.00	0.0042	0.0106	0.01140

BASE THICKNESS (IN) 1.567

PROJECTILE LENGTH (IN) 16.671

71 TS DISTANCE FROM BASE (IN)

72 TS DISTANCE FROM NUSE (IN)

73 TS DISTANCE FROM NUSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

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5/23 MK 44-C LCT 70 PROJECTILE BS

INSPECTION DATE 10/16/70

71	INSIDE				OUTSIDE				DIA
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
1.80	0.0151	-0.0032	0.00645	2.654	-0.0016	0.0019	0.00248	4.696	
2.80	0.0072	-0.0020	0.00305	3.372	0.0008	0.0038	0.00128	5.121	
3.80	0.0045	-0.0025	0.00570	3.493	-0.0019	0.0035	0.00128	5.174	
4.80	0.0071	0.0005	0.00732	3.605	-0.0013	0.0014	0.00151	4.846	
5.80	0.0056	0.0023	0.01015	3.727	-0.0026	0.0011	0.00282	4.860	
6.80	0.0084	0.0049	0.00695	3.844	-0.0009	0.0017	0.00152	4.856	
7.80	0.0053	0.0069	0.01152	3.964	-0.0016	0.0017	0.00222	4.857	
8.80	0.0042	0.0075	0.00598	3.932	-0.0037	0.0018	0.00411	4.858	
9.80	0.0052	0.0072	0.00999	3.942	-0.0023	0.0020	0.00205	4.856	
72	INSIDE				OUTSIDE				DIA
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
8.75	0.0101	0.0051	0.01014	3.845	-0.0019	0.0014	0.00234	4.885	
4.75	0.0017	0.0056	0.00471	3.905	-0.0022	0.0015	0.00353	4.890	
3.75	0.0041	-0.0012	0.00676	3.727	-0.0036	0.0014	0.00186	4.704	
2.75	0.0024	-0.0056	0.00409	3.607	-0.0035	0.0019	0.00393	4.580	
2.75	-0.0002	-0.0085	0.00250	3.474	-0.0043	0.0019	0.00470	4.430	
2.75	-0.0004	-0.0082	0.00231	3.302	-0.0036	0.0011	0.00274	4.280	
1.75	0.1074	-0.0085	0.00389	3.224	-0.0037	0.0022	0.00440	4.092	
1.75	0.0012	-0.0082	0.00542	3.445	-0.0032	0.0009	0.00342	3.945	
72	X-ACT	Y-ACT	TIR						
1.00	-0.0044	-0.0002	0.00640						
7.00	-0.0161	-0.0127	0.03247						

BASE THICKNESS (IN) 1.670

PROJECTILE LENGTH (IN) 16.654

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

73 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## WIN PROJECTILE INSPECTION DATA

6/39 MK 66-0 LCT 79 PROJECTILE B1

INSPECTION DATE 10/21/70

71	INSIDE			OUTSIDE			DIA
	X-ACT	Y-ACT	TIP	X-ACT	Y-ACT	TIP	

1.90	-0.0021	-0.0020	0.00780	2.941	0.0012	0.0007	0.00132	4.982
1.90	-0.0049	0.0021	0.00721	3.380	-0.0015	-0.0022	0.00222	5.121
3.90	-0.0049	-0.0014	0.00694	3.498	-0.0040	-0.0008	0.00408	5.124
4.90	-0.0051	-0.0066	0.00924	2.619	-0.0010	-0.0006	0.00117	4.985
5.90	-0.0064	-0.0016	0.00165	2.729	-0.0016	-0.0008	0.00179	4.959
6.90	0.0025	-0.0022	0.00406	3.845	0.0003	-0.0008	0.00075	4.956
7.90	0.0044	-0.0024	0.00501	2.927	0.0001	-0.0001	0.00014	4.954
8.90	0.0025	-0.0014	0.00287	2.930	-0.0014	-0.0005	0.00142	4.954
9.90	0.0022	-0.0010	0.00245	2.940	-0.0007	-0.0006	0.00092	4.985

72	INSIDE			OUTSIDE			DIA
	X-ACT	Y-ACT	TIP	X-ACT	Y-ACT	TIP	

3.75	0.0050	-0.0010	0.00510	2.951	-0.0001	-0.0008	0.00091	4.972
4.75	0.0041	-0.0012	0.00427	2.956	-0.0007	-0.0006	0.00092	4.926
3.75	0.0039	-0.0025	0.00456	2.704	-0.0009	-0.0002	0.00032	4.700
3.25	-0.0019	-0.0033	0.00374	2.579	-0.0026	-0.0006	0.00247	4.679
2.75	-0.0047	-0.0036	0.00522	2.445	-0.0015	-0.0007	0.00161	4.439
2.25	-0.0021	0.0011	0.00237	2.267	-0.0014	-0.0010	0.00172	4.176
1.75	-0.0027	0.0042	0.00484	2.959	-0.0020	-0.0009	0.00212	4.055
1.25	-0.0040	-0.0031	0.00470	2.559	-0.0015	-0.0010	0.00140	3.986

73	X-ACT	Y-ACT	TIP
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1.00	-0.0042	-0.0015	0.00446
2.00	-0.0187	0.0160	0.02520

BASE THICKNESS (IN) 1.550

PROJECTILE LENGTH (IN) 16.652

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

73 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

## GUN PROJECTILE INSPECTION DATA

5/79 MK 66-0 LCT 79 PROJECTILE R2

INSPECTION DATE 10/29/76

71	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
1.90	-0.0004	-0.0072	0.00721	2.968	0.0021	0.0005	0.00216	4.984
2.90	-0.0019	-0.0073	0.00754	3.379	0.0017	-0.0021	0.00270	5.126
3.90	0.0046	-0.0084	0.00958	3.496	0.0022	-0.0021	0.00304	5.127
4.90	0.0057	-0.0102	0.01241	3.410	0.0	0.0015	0.00150	4.994
5.90	0.0049	-0.0109	0.01195	3.727	-0.0	0.0013	0.00130	4.958
6.90	0.0133	-0.0074	0.01435	3.941	-0.0001	0.0009	0.00091	4.956
7.90	0.0112	-0.0078	0.01365	3.921	0.0003	0.0014	0.00143	4.957
8.90	0.0115	-0.0027	0.01181	3.925	-0.0014	0.0011	0.00179	4.955
9.90	0.0119	-0.0017	0.01202	3.929	-0.0024	0.0012	0.00249	4.954
72	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
5.75	0.0047	0.0016	0.00480	2.937	-0.0001	0.0012	0.00120	4.931
4.75	0.0070	0.0040	0.00806	3.892	-0.0015	0.0010	0.00242	4.893
3.75	0.0123	0.0020	0.01363	3.757	-0.0014	0.0010	0.00204	4.704
2.75	0.0171	-0.0022	0.01745	3.626	-0.0019	0.0021	0.00277	4.521
1.75	0.0195	-0.0060	0.02040	3.464	-0.0027	0.0013	0.00300	4.443
0.75	0.0208	-0.0101	0.02221	3.211	-0.0027	0.0013	0.00300	4.322
1.75	0.0248	-0.0119	0.02529	2.926	-0.0018	0.0021	0.00277	4.104
0.75	0.0114	0.0124	0.01243	2.572	-0.0024	0.0018	0.00215	3.871
73	X-ACT	Y-ACT	TIR					
1.00	-0.0011	-0.0017	0.00202					
7.00	0.0008	-0.0021	0.00229					

BASE THICKNESS (IN) 1.511

PROJECTILE LENGTH (IN) 16.454

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

73 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LCT 7G PROJECTILE 83

INSPECTION DATE 10/16/70

71	--- INSIDE ---				--- OUTSIDE ---			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA

1.90	-0.0126	0.0107	0.01653	2.900	0.0011	0.0001	0.00110	4.047
2.90	-0.0055	0.0090	0.01055	3.357	0.0031	-0.0004	0.00213	5.125
3.90	-0.0049	0.0101	0.01118	3.475	-0.0004	0.0005	0.00064	5.125
4.90	-0.0054	0.0117	0.01286	3.600	0.0008	0.0007	0.00106	4.934
5.90	-0.0034	0.0122	0.01268	3.713	0.0017	0.0016	0.00232	4.962
6.90	-0.0002	0.0124	0.01250	3.827	0.0011	0.0012	0.00143	4.963
7.90	-0.0015	0.0119	0.01196	3.921	0.0007	0.0009	0.00114	4.962
8.90	-0.0032	0.0120	0.01234	3.926	0.0002	0.0005	0.00054	4.964
9.90	-0.0022	0.0140	0.01506	3.932	0.0009	0.0005	0.00103	4.962

72	--- INSIDE ---				--- OUTSIDE ---			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA

5.75	-0.0	0.0159	0.01590	3.932	0.0014	0.0	0.00140	4.040
4.75	0.0004	0.0126	0.01263	3.889	0.0020	0.0008	0.00215	4.831
3.75	0.0020	0.0051	0.00592	3.709	0.0008	-0.0004	0.00089	4.704
3.25	0.0022	-0.0041	0.00455	3.591	-0.0002	-0.0004	0.00045	4.591
2.75	0.0004	-0.0153	0.01532	3.459	0.0014	-0.0006	0.00152	4.440
2.25	-0.0018	-0.0200	0.02008	3.291	0.0004	-0.0002	0.00045	4.275
1.75	-0.0021	-0.0223	0.02239	3.074	0.0012	-0.0007	0.00125	4.025
1.25	0.0023	-0.0224	0.02407	2.612	0.0016	-0.0009	0.00194	2.632

73	X-ACT	Y-ACT	TIR
----	-------	-------	-----

1.00	-0.0014	-0.0002	0.00141
7.00	-0.0017	0.0047	0.00500

BASE THICKNESS (IN) 1.527

PROJECTILE LENGTH (IN) 14.654

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

73 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

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5/29 MK 66-0 LCT 79 PROJECTILE R4

INSPECTION DATE 10/30/70

71	INSIDE			DIA	OUTSIDE			DIA
	X-ACT	Y-ACT	TIR		X-ACT	Y-ACT	TIR	
1.90	-0.0042	-0.0060	0.00732	2.585	0.0007	0.0004	0.00001	4.787
2.90	-0.0077	-0.0074	0.01064	3.381	0.0041	0.0015	0.00437	5.122
3.90	-0.0027	-0.0022	0.00349	3.500	0.0009	0.0004	0.00008	5.177
4.90	-0.0057	-0.0046	0.00752	3.611	-0.0008	0.0007	0.00106	4.884
5.90	-0.0044	-0.0058	0.00728	3.724	-0.0001	0.0005	0.00051	4.759
6.90	-0.0026	-0.0077	0.00913	3.842	0.0012	0.0011	0.00143	4.751
7.90	-0.0054	-0.0069	0.00981	3.926	-0.0014	0.0	0.00140	4.889
8.90	-0.0035	-0.0049	0.00602	3.925	-0.0012	0.0003	0.00124	4.853
9.90	-0.0031	-0.0020	0.00256	3.936	-0.0021	0.0005	0.00214	4.840
72	INSIDE			DIA	OUTSIDE			DIA
	X-ACT	Y-ACT	TIR		X-ACT	Y-ACT	TIR	
5.75	-0.0024	-0.0002	0.00041	2.542	0.0008	0.0012	0.00044	4.894
4.75	0.0001	-0.0001	0.00014	2.857	0.0015	0.0025	0.00247	4.871
3.75	0.0015	-0.0004	0.00170	3.727	-0.0014	0.0018	0.00223	4.705
3.25	0.0004	-0.0033	0.00312	3.611	-0.0014	0.0018	0.00229	4.889
2.75	-0.0021	-0.0067	0.00718	2.474	-0.0015	0.0018	0.00214	4.441
2.25	-0.0	-0.0060	0.00600	2.290	-0.0008	0.0029	0.00301	4.778
1.75	0.0005	-0.0056	0.00562	2.847	-0.0011	0.0020	0.00228	4.777
1.25	0.0041	-0.0116	0.01230	2.600	-0.0007	0.0021	0.00221	4.734
73	X-ACT	Y-ACT	TIR					
1.00	0.0017	-0.0017	0.00040					
7.00	0.0247	-0.0067	0.02570					

BASE THICKNESS (IN) 1.501

PROJECTILE LENGTH (IN) 16.655

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

73 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

GUN PROJECTILE INSPECTION DATA

5/39 MK 66-0 LOT 79 PROJECTILE 85

INSPECTION DATE 10/20/70

(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)				
Z1	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA
1.90	-0.0025	0.0127	0.01294	3.017	-0.0003	0.0002	0.00036	4.994
2.90	0.0002	0.0055	0.00550	3.384	-0.0048	-0.0018	0.00512	5.123
3.90	-0.0032	0.0079	0.00852	3.496	-0.0053	-0.0006	0.00533	5.126
4.90	-0.0072	0.0034	0.00859	3.614	-0.0022	-0.0001	0.00220	4.992
5.90	-0.0042	0.0007	0.00474	3.733	-0.0011	-0.0007	0.00130	4.954
6.90	-0.0052	0.0003	0.00521	3.857	-0.0013	-0.0009	0.00159	4.958
7.90	-0.0015	-0.0007	0.00164	3.930	-0.0004	-0.0005	0.00054	4.954
8.90	-0.0022	-0.0021	0.000304	3.944	-0.0014	-0.0011	0.00179	4.954
9.90	-0.0021	-0.0024	0.000224	3.949	-0.0005	-0.0011	0.00121	4.952

(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)				
Z2	X-ACT	Y-ACT	TIP	DIA	X-ACT	Y-ACT	TIP	DIA
5.75	0.0008	-0.0014	0.00141	3.956	-0.0018	-0.0007	0.00193	4.932
4.75	0.0027	0.0004	0.00273	3.919	-0.0007	-0.0003	0.00076	4.920
3.75	0.0005	0.0062	0.00668	3.764	-0.0007	-0.0001	0.00071	4.703
2.75	0.0056	0.0071	0.00504	3.653	-0.0009	-0.0001	0.00041	4.579
2.75	0.0120	0.0077	0.01425	3.521	-0.0011	-0.0002	0.00112	4.427
2.25	0.0151	0.0109	0.01254	3.329	-0.0002	0.0003	0.00036	4.278
1.75	0.0143	0.0140	0.02149	2.957	-0.0003	-0.0	0.00030	4.096
1.25	0.0154	0.0057	0.01837	2.765	0.0002	0.0002	0.00028	3.902

Z3 X-ACT Y-ACT TIP

1.00	0.0048	-0.0027	0.00551
7.00	0.0080	-0.0084	0.01160

BASE THICKNESS (IN) 1.545

PROJECTILE LENGTH (IN) 16.655

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LCT 80 PROJECTILE R1

INSPECTION DATE 10/26/70

Z1	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
1.90	-0.0110	0.0106	0.01528	3.057	0.0014	-0.0002	0.00141	4.984
2.90	-0.0109	0.0069	0.01290	3.381	0.0018	-0.0004	0.00184	5.124
3.90	-0.0104	0.0065	0.01226	3.497	0.0058	0.0001	0.00580	5.124
4.90	-0.0079	0.0046	0.00014	3.614	-0.0001	-0.0007	0.00071	4.984
5.90	-0.0042	0.0043	0.00601	3.724	0.0020	-0.0002	0.00201	4.960
6.90	-0.0049	0.0026	0.00555	3.842	0.0026	0.0008	0.00272	4.964
7.90	-0.0046	0.0017	0.00490	3.973	0.0025	0.0002	0.00251	4.963
8.90	-0.0011	-0.0001	0.00110	3.924	0.0012	0.0010	0.00156	4.961
9.90	0.0027	-0.0003	0.00272	3.927	0.0	0.0005	0.00050	4.963

Z2	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
5.75	0.0039	-0.0027	0.00538	3.930	0.0028	0.0003	0.00282	4.983
4.75	0.0024	-0.0052	0.00621	3.891	0.0005	-0.0017	0.00177	4.895
3.75	-0.0021	0.0069	0.00721	3.735	0.0018	0.0013	0.00222	4.706
3.25	-0.0025	0.0143	0.01452	3.616	0.0017	0.0007	0.00184	4.584
2.75	0.0025	0.0129	0.01433	3.475	0.0016	0.0011	0.00194	4.441
2.25	0.0083	0.0062	0.01036	3.277	0.0017	0.0007	0.00184	4.279
1.75	0.0110	-0.0	0.01100	2.933	0.0040	0.0005	0.00403	4.097
1.25	0.0022	-0.0009	0.00232	2.605	0.0027	0.0012	0.00295	3.895

Z3 X-ACT Y-ACT TIR

1.00	0.0000	0.0012	0.00150
7.00	0.0238	-0.0050	0.02432

BASE THICKNESS (IN) 1.453

PROJECTILE LENGTH (IN) 16.603

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LCT 80 PROJECTILE R2

INSPECTION DATE 10/20/70

Z1	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
1.90	-0.0010	-0.0056	0.00549	3.020	-0.0002	-0.0004	0.00045	4.981
2.90	-0.0065	0.0002	0.00660	3.378	-0.0	-0.0017	0.00170	5.125
3.90	-0.0061	0.0003	0.00611	3.496	-0.0017	-0.0010	0.00197	5.124
4.90	-0.0050	-0.0001	0.00600	3.610	-0.0004	-0.0004	0.00057	4.982
5.90	-0.0056	0.0004	0.00561	3.726	0.0005	-0.0	0.00050	4.956
6.90	-0.0059	-0.0009	0.00597	3.842	0.0003	-0.0013	0.00133	4.955
7.90	-0.0047	-0.0003	0.00471	3.927	-0.0005	-0.0008	0.00100	4.957
8.90	-0.0067	-0.0013	0.00682	3.930	0.0002	-0.0010	0.00102	4.954
9.90	-0.0054	-0.0001	0.00540	3.936	-0.0002	-0.0011	0.00112	4.955
Z2	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
5.75	-0.0041	0.0020	0.00454	3.641	0.0006	-0.0010	0.00117	4.983
4.75	-0.0024	0.0025	0.00347	3.603	-0.0003	-0.0019	0.00192	4.889
3.75	-0.0011	0.0012	0.00163	3.771	-0.0	-0.0016	0.00160	4.702
3.25	-0.0030	0.0015	0.00335	3.446	0.0001	-0.0012	0.00120	4.579
2.75	-0.0029	-0.0009	0.00291	3.482	-0.0008	-0.0011	0.00136	4.438
2.25	0.0010	-0.0023	0.00345	3.230	-0.0009	-0.0017	0.00132	4.276
1.75	0.0029	-0.0056	0.00508	2.848	0.0002	-0.0020	0.00201	4.095
1.25	-0.0131	-0.0062	0.01454	2.575	0.0004	-0.0017	0.00175	3.895
Z3	X-ACT	Y-ACT	TIR					
1.00	-0.0045	0.0002	0.00450					
7.00	-0.0038	0.0213	0.02164					

BASE THICKNESS (IN) 1.531

PROJECTILE LENGTH (IN) 16.456

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-C LOT 80 PROJECTILE B3

INSPECTION DATE 10/22/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	0.0034	0.0154	0.01577	2.990	0.0018	0.0013	0.00222	4.977
2.90	0.0007	0.0127	0.01272	3.376	0.0002	-0.0035	0.00351	5.122
3.90	-0.0017	0.0129	0.01301	3.492	-0.0016	-0.0018	0.00241	5.124
4.90	0.0013	0.0137	0.01376	3.612	-0.0011	0.0004	0.00117	4.983
5.90	-0.0038	0.0101	0.01079	3.721	-0.0020	-0.0001	0.00200	4.957
6.90	-0.0052	0.0049	0.01118	3.838	-0.0028	0.0007	0.00289	4.959
7.90	-0.0050	0.0056	0.01109	3.922	-0.0009	0.0007	0.00106	4.957
8.90	-0.0051	0.0083	0.00974	3.925	-0.0027	0.0016	0.00314	4.955
9.90	-0.0051	0.0066	0.00858	3.930	-0.0024	0.0009	0.00256	4.957
Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0022	0.0055	0.00592	3.943	-0.0029	0.0011	0.00310	4.994
4.75	-0.0066	0.0064	0.00643	3.905	-0.0010	0.0018	0.00206	4.888
3.75	-0.0002	0.0106	0.01060	3.711	-0.0032	0.0009	0.00332	4.699
3.25	0.0044	0.0086	0.00966	3.583	-0.0019	0.0015	0.00242	4.577
2.75	0.0021	0.0067	0.00702	3.445	-0.0021	0.0013	0.00247	4.436
2.25	0.0033	0.0084	0.00902	3.266	-0.0023	0.0017	0.00286	4.273
1.75	-0.0021	0.0131	0.01327	2.936	-0.0020	0.0003	0.00207	4.091
1.25	0.0060	0.0075	0.00960	2.598	-0.0019	0.0002	0.00181	3.889
Z3	X-ACT	Y-ACT	TIR					
1.00	-0.0047	0.0022	0.00516					
7.00	-0.0068	0.0056	0.00881					

BASE THICKNESS (IN) 1.495

PROJECTILE LENGTH (IN) 16.655

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GIJN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 80 PROJECTILE B4

INSPECTION DATE 10/19/70

(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)				
Z1	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA

1.90	-0.0218	-0.0066	0.02344	2.934	0.0021	-0.0011	0.00237	4.985
2.90	-0.0112	-0.0110	0.01570	3.370	0.0001	-0.0043	0.00430	5.124
3.90	-0.0113	-0.0126	0.01692	3.486	-0.0016	-0.0040	0.00431	5.126
4.90	-0.0044	-0.0033	0.00550	3.642	-0.0031	-0.0018	0.00358	4.982
5.90	-0.0021	0.0021	0.00297	3.782	-0.0026	-0.0026	0.00368	4.956
6.90	-0.0030	-0.0061	0.00690	3.870	-0.0014	-0.0031	0.00340	4.957
7.90	-0.0063	-0.0191	0.02011	3.932	-0.0018	-0.0030	0.00350	4.955
8.90	-0.0089	-0.0228	0.02448	3.931	-0.0023	-0.0021	0.00391	4.956
9.90	-0.0122	-0.0298	0.03220	3.925	-0.0026	-0.0016	0.00305	4.957

(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)				
Z2	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA

5.75	-0.0112	-0.0328	0.03561	3.929	-0.0016	-0.0009	0.00184	4.983
4.75	-0.0107	-0.0293	0.03119	3.893	-0.0030	-0.0005	0.00304	4.886
3.75	-0.0109	-0.0225	0.02600	3.702	-0.0030	-0.0	0.00300	4.700
3.25	-0.0052	-0.0245	0.02505	3.575	-0.0021	-0.0003	0.00212	4.575
2.75	-0.0029	-0.0221	0.02229	3.435	-0.0023	0.0001	0.00230	4.432
2.25	-0.0009	-0.0166	0.01842	3.254	-0.0021	0.0006	0.00218	4.271
1.75	-0.0008	-0.0184	0.01842	2.949	-0.0024	0.0004	0.00243	4.098
1.25	-0.0014	-0.0145	0.01457	2.576	-0.0021	0.0002	0.00211	3.896

Z3	X-ACT	Y-ACT	TIR
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1.00	-0.0050	-0.0024	0.00555
7.00	-0.0034	0.0001	0.00740

BASE THICKNESS (IN) 1.546

PROJECTILE LENGTH (IN) 16.657

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LCT 80 PROJECTILE R5

INSPECTION DATE 10/26/70

Z1	(- - - - INSIDE - - - -)			(- - - - OUTSIDE - - - -)			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
1.90	-0.0027	-0.0079	0.00835	3.002	-0.0027	0.0003	0.00272	4.985
2.90	0.0009	-0.0108	0.01084	3.381	-0.0016	0.0001	0.00160	5.125
3.90	-0.0015	-0.0113	0.01140	3.497	-0.0007	0.0015	0.00166	5.123
4.90	-0.0030	-0.0108	0.01121	3.616	-0.0025	0.0002	0.00251	4.986
5.90	-0.0007	-0.0110	0.01102	3.728	-0.0009	0.0005	0.00109	4.955
6.90	0.0001	-0.0108	0.01090	3.843	-0.0023	-0.0006	0.00239	4.952
7.90	0.0034	-0.0106	0.01112	3.922	-0.0006	-0.0004	0.00072	4.952
8.90	-0.0007	-0.0117	0.01170	3.921	-0.0026	0.0001	0.00260	4.953
9.90	0.0024	-0.0104	0.01067	3.925	-0.0017	-0.0003	0.00173	4.952
Z2	(- - - - INSIDE - - - -)			(- - - - OUTSIDE - - - -)			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
5.75	0.0005	-0.0095	0.00951	3.928	-0.0015	-0.0002	0.00151	4.984
4.75	0.0037	-0.0073	0.00819	3.882	0.0020	0.0015	0.00250	4.887
3.75	0.0052	-0.0089	0.01031	3.750	-0.0017	0.0009	0.00192	4.699
3.25	0.0040	-0.0129	0.01251	3.624	-0.0020	0.0005	0.00206	4.576
2.75	0.0034	-0.0154	0.01577	3.455	-0.0030	0.0001	0.00300	4.434
2.25	0.0073	-0.0170	0.01850	3.227	-0.0029	0.0002	0.00291	4.274
1.75	0.0065	-0.0157	0.01695	2.844	-0.0027	0.0006	0.00277	4.093
1.25	0.0007	-0.0137	0.01372	2.570	-0.0023	0.0008	0.00244	3.892
Z3	X-ACT	Y-ACT	TIR					
1.00	-0.0063	-0.0001	0.00630					
7.00	-0.0286	0.0054	0.02911					

BASE THICKNESS (IN) 1.543

PROJECTILE LENGTH (IN) 16.657

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/29 MK 66-0 LCT 91 PROJECTILE B1

INSPECTION DATE 10/21/70

Z1	INSIDE				OUTSIDE				DIA
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR		
1.90	0.0198	0.0002	0.01980	2.890	0.0015	-0.0005	0.00158	4.980	
2.90	0.0259	0.0012	0.02582	3.371	0.0001	-0.0009	0.00091	5.120	
3.90	0.0235	0.0004	0.02350	3.489	-0.0012	-0.0009	0.00150	5.120	
4.90	0.0071	-0.0005	0.01108	3.639	-0.0011	-0.0011	0.00156	4.982	
5.90	-0.0117	-0.0184	0.02180	3.807	-0.0023	-0.0027	0.00355	4.960	
6.90	-0.0028	-0.0172	0.01743	3.897	-0.0015	-0.0025	0.00292	4.960	
7.90	0.0108	-0.0105	0.01506	3.950	-0.0018	-0.0031	0.00358	4.957	
8.90	0.0152	-0.0073	0.01486	3.946	-0.0024	-0.0028	0.00369	4.955	
9.90	0.0141	-0.0059	0.01528	3.954	-0.0023	-0.0029	0.00370	4.956	

Z2	INSIDE				OUTSIDE				DIA
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR		
5.75	0.0283	0.0018	0.02836	3.940	0.0002	-0.0016	0.00161	4.984	
4.75	0.0257	0.0051	0.02620	3.909	-0.0015	-0.0024	0.00283	4.894	
3.75	0.0207	0.0112	0.02154	3.731	-0.0021	-0.0025	0.00326	4.705	
3.25	0.0215	0.0054	0.02347	3.612	-0.0022	-0.0026	0.00341	4.582	
2.75	0.0224	0.0064	0.02330	3.483	-0.0028	-0.0018	0.00333	4.440	
2.25	0.0213	0.0063	0.02221	3.311	-0.0020	-0.0031	0.00359	4.277	
1.75	0.0195	0.0066	0.02059	3.007	-0.0023	-0.0022	0.00318	4.095	
1.25	0.0171	0.0055	0.01956	2.637	-0.0009	-0.0025	0.00266	3.891	

Z3	X-ACT	Y-ACT	TIR
1.00	-0.0013	0.0017	0.00214
7.00	-0.0033	0.0029	0.00439

BASE THICKNESS (IN) 1.598

PROJECTILE LENGTH (IN) 16.680

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LCT 81 PROJECTILE B2

INSPECTION DATE 10/20/70

Z1	INSIDE				OUTSIDE			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0032	0.0029	0.00432	2.895	0.0022	0.0001	0.00220	4.984
2.90	0.0192	0.0053	0.01592	3.376	0.0021	0.0003	0.00212	5.124
3.90	0.0107	0.0036	0.01129	3.490	0.0023	-0.0004	0.00233	5.121
4.90	0.0069	0.0028	0.00745	3.602	0.0019	-0.0006	0.00199	4.985
5.90	0.0028	0.0017	0.00323	3.718	0.0015	-0.0008	0.00170	4.958
6.90	0.0020	0.0001	0.00200	3.834	0.0007	-0.0012	0.00139	4.957
7.90	0.0008	-0.0020	0.00215	3.920	0.0013	-0.0010	0.00164	4.956
8.90	-0.0015	-0.0025	0.00292	3.924	0.0015	-0.0005	0.00158	4.959
9.90	-0.0051	-0.0039	0.00642	3.930	0.0007	-0.0011	0.00130	4.958
Z2	INSIDE				OUTSIDE			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0075	-0.0025	0.00701	2.942	0.0011	-0.0008	0.00136	4.984
6.75	-0.0081	-0.0035	0.00882	3.911	0.0022	-0.0002	0.00221	4.885
3.75	-0.0116	-0.0016	0.01171	3.732	0.0029	0.0001	0.00290	4.699
3.25	-0.0103	0.0018	0.01046	3.610	0.0012	-0.0006	0.00134	4.577
2.75	-0.0096	0.0051	0.01000	3.475	0.0010	-0.0001	0.00100	4.437
2.25	-0.0070	0.0047	0.00842	3.291	0.0001	-0.0004	0.00041	4.272
1.75	-0.0074	0.0029	0.00795	2.972	0.0010	-0.0011	0.00149	4.091
1.25	-0.0065	0.0021	0.00720	2.614	0.0014	-0.0015	0.00205	3.890
Z3	X-ACT	Y-ACT	TIR					
1.00	0.0001	-0.0001	0.00014					
7.00	-0.0099	0.0116	0.01462					

BASE THICKNESS (IN) 1.591

PROJECTILE LENGTH (IN) 16.658

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 1 CT 81 PROJECTILE P3

INSPECTION DATE 11/22/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)				CIA
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
1.90	-0.0083	0.0155	0.02028	2.982	0.0013	0.0004	0.00136	4.984	
2.90	-0.0057	0.0156	0.02041	3.378	0.0001	0.0013	0.00130	5.024	
3.90	-0.0075	0.0172	0.01876	3.492	-0.0005	0.0027	0.00275	5.123	
4.90	-0.0022	0.0135	0.01368	3.609	0.0002	0.0004	0.00045	4.984	
5.90	0.0014	0.0105	0.01059	3.725	0.0005	0.0015	0.00158	4.957	
6.90	0.0043	0.0080	0.00688	3.841	0.0009	0.0011	0.00142	4.957	
7.90	0.0053	0.0065	0.01002	3.927	0.0002	0.0013	0.00132	4.955	
8.90	0.0043	0.0054	0.00771	3.932	0.0004	0.0014	0.00146	4.954	
9.90	0.0079	0.0040	0.00677	3.936	0.0005	0.0021	0.00216	4.956	
Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)				DIA
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
5.75	0.0102	0.0061	0.01020	3.539	-0.0005	0.0004	0.00064	4.984	
4.75	0.0107	-0.0004	0.01071	3.904	0.0006	0.0017	0.00180	4.889	
3.75	0.0092	0.0031	0.00971	3.772	-0.0008	0.0013	0.00153	4.702	
3.25	0.0122	0.0027	0.01250	3.651	-0.0011	0.0015	0.00186	4.578	
2.75	0.0129	0.0018	0.01302	3.492	0.0004	0.0016	0.00165	4.437	
2.25	0.0053	0.0010	0.00535	3.249	0.0001	0.0016	0.00160	4.278	
1.75	0.0051	-0.0015	0.00532	2.875	0.0002	0.0019	0.00191	4.095	
1.25	0.0092	-0.0072	0.01169	2.579	0.0001	0.0013	0.00130	3.896	
Z3	X-ACT	Y-ACT	TIR						
1.00	-0.0017	0.0016	0.00232						
7.00	-0.0162	-0.0109	0.01047						

BASE THICKNESS (IN) 1.521

PROJECTILE LENGTH (IN) 16.656

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-C LCT 81 PROJECTILE R4

INSPECTION DATE 10/15/70

(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)				
Z1	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA

1.50	0.0119	0.0032	0.0122	3.045	0.0038	0.0005	0.00282	4.996
2.50	0.0020	0.0063	0.0061	3.375	0.0034	-0.0010	0.00354	5.122
3.50	0.0039	0.0040	0.0055	3.464	0.0025	-0.0007	0.00264	5.122
4.50	0.0066	0.0025	0.00706	3.610	0.0020	0.0012	0.00236	4.993
5.50	0.0089	0.0012	0.0099	3.725	0.0025	0.0003	0.00252	4.960
6.50	0.0087	0.0019	0.00891	3.840	0.0049	0.0006	0.00404	4.961
7.50	0.0067	0.0010	0.00675	3.922	0.0026	-0.0001	0.00360	4.959
8.50	0.0065	-0.0002	0.00650	3.926	0.0021	0.0003	0.00212	4.959
9.50	0.0047	-0.0026	0.00527	3.924	0.0026	0.0007	0.00260	4.961

(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)				
Z2	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA

5.75	0.0079	-0.0037	0.00872	3.220	0.0033	-0.0	0.00330	4.983
4.75	0.0063	-0.0033	0.00711	3.512	0.0025	0.0003	0.00252	4.889
3.75	0.0071	-0.0007	0.00513	3.801	0.0018	0.0007	0.00193	4.703
3.25	0.0060	-0.0007	0.00604	3.698	0.0010	0.0011	0.00140	4.581
2.75	0.0074	-0.0032	0.00805	3.522	0.0006	0.0017	0.00180	4.441
2.25	0.0050	-0.0016	0.00614	3.265	0.0012	0.0010	0.00156	4.276
1.75	0.0080	0.0028	0.00824	2.901	0.0024	0.0008	0.00349	4.096
1.25	0.0073	0.0042	0.00847	2.641	0.0020	0.0008	0.00215	3.895

Z3	X-ACT	Y-ACT	TIR
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1.00	-0.0044	-0.0014	0.00442
7.00	-0.0088	0.0017	0.00886

BASE THICKNESS (IN) 1.497

PROJECTILE LENGTH (IN) 16.544

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 81 PROJECTILE 85

INSPECTION DATE 10/29/70

Z1	INSIDE			OUTSIDE			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
1.90	0.0138	0.0047	0.01458	3.027	0.0021	0.0008	0.00225	4.986
2.90	0.0122	0.0067	0.01392	3.384	0.0014	-0.0002	0.00141	5.127
3.90	0.0122	0.0	0.01220	3.498	0.0013	0.0012	0.00177	5.125
4.90	0.0133	-0.0024	0.01351	3.609	-0.0005	-0.0003	0.00058	4.983
5.90	0.0107	-0.0050	0.01181	3.722	0.0003	-0.0005	0.00058	4.959
6.90	0.0141	-0.0052	0.01503	3.835	0.0023	0.0	0.00230	4.959
7.90	0.0133	-0.0044	0.01401	3.915	0.0016	-0.0006	0.00171	4.958
8.90	0.0122	-0.0049	0.01315	3.917	0.0002	-0.0001	0.00022	4.958
9.90	0.0125	-0.0077	0.01468	3.924	0.0002	-0.0	0.00020	4.957

Z2	INSIDE			OUTSIDE			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
5.75	0.0140	-0.0059	0.01515	3.928	0.0010	0.0006	0.00117	4.984
4.75	0.0132	-0.0050	0.01412	3.905	0.0012	0.0008	0.00144	4.886
3.75	0.0101	-0.0058	0.01165	3.788	0.0001	0.0005	0.00051	4.697
3.25	0.0061	-0.0056	0.00828	3.671	0.0009	0.0015	0.00175	4.576
2.75	0.0052	-0.0047	0.00701	3.508	0.0009	0.0016	0.00184	4.433
2.25	0.0066	-0.0047	0.00810	3.244	-0.0002	0.0015	0.00151	4.273
1.75	0.0098	-0.0066	0.01182	2.876	0.0001	0.0015	0.00150	4.091
1.25	0.0134	-0.0084	0.01582	2.614	0.0003	0.0017	0.00173	3.889

Z3 X-ACT Y-ACT TIR

1.00	-0.0011	-0.0	0.00110
7.00	0.0177	-0.0075	0.01422

BASE THICKNESS (IN) 1.503

PROJECTILE LENGTH (IN) 16.664

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 82 PROJECTILE B1

INSPECTION DATE 10/2 /70

(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)				
Z1	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA

1.90	-0.0121	0.0055	0.0132 <sup>a</sup>	2.928	0.0002	-0.0007	0.00073	4.983
2.90	-0.0114	-0.0037	0.01199	3.367	0.0018	-0.0015	0.00234	5.123
3.90	-0.0147	-0.0012	0.01475	3.483	0.0010	-0.0023	0.00251	5.127
4.90	-0.0143	0.0004	0.01431	3.599	-0.0	0.0002	0.00020	4.986
5.90	-0.0141	0.0012	0.01415	3.716	-0.0002	-0.0006	0.00063	4.958
6.90	-0.0135	0.0011	0.01354	3.834	0.0012	-0.0004	0.00126	4.956
7.90	-0.0130	0.0021	0.01336	3.925	0.0010	-0.0006	0.00117	4.956
8.90	-0.0152	0.0029	0.01547	3.929	-0.0012	-0.0006	0.00134	4.954
9.90	-0.0153	0.0020	0.01543	3.937	0.0033	0.0003	0.00331	4.956

(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)				
Z2	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA

5.75	-0.0139	0.0019	0.01403	3.943	0.0034	0.0008	0.00349	4.983
4.75	-0.0058	-0.0004	0.00981	3.909	0.0034	0.0005	0.00344	4.885
3.75	-0.0063	-0.0036	0.00726	3.761	0.0021	0.0009	0.00228	4.697
3.25	-0.0084	-0.0044	0.00548	3.649	0.0031	0.0010	0.00326	4.572
2.75	-0.0107	-0.0030	0.01111	3.513	-0.0009	0.0006	0.00108	4.434
2.25	-0.0135	-0.0013	0.01356	3.335	-0.0022	-0.0006	0.00228	4.274
1.75	-0.0142	0.0002	0.01420	3.013	0.0032	0.0008	0.00330	4.089
1.25	-0.0081	-0.0038	0.00895	2.654	0.0039	0.0013	0.00411	3.887

Z3	X-ACT	Y-ACT	TIR
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1.00	0.0021	0.0029	0.00350
7.00	0.0052	0.0073	0.008 <sup>c</sup> b

BASE THICKNESS (IN) 1.583

PROJECTILE LENGTH (IN) 16.662

Z1 IS DISTANCE FROM BASE (IN) .

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## JUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 82 PROJECTILE R2

INSPECTION DATE 10/20/70

Z1	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
1.90	0.0010	0.0073	0.00737	2.778	-0.0030	-0.0010	0.00316	4.982
2.90	0.0029	0.0089	0.00936	3.371	0.0014	-0.0012	0.00184	5.125
3.90	0.0023	0.0089	0.00933	3.489	0.0003	-0.0003	0.00042	5.125
4.90	0.0037	0.0084	0.00918	3.610	-0.0029	-0.0	0.00290	4.983
5.90	0.0061	0.0083	0.01030	3.726	-0.0011	-0.0005	0.00121	4.957
6.90	0.0094	0.0087	0.01281	3.845	-0.0019	-0.0006	0.00199	4.950
7.90	0.0110	0.0088	0.01409	3.938	-0.0023	-0.0005	0.00235	4.951
8.90	0.0090	0.0060	0.01082	3.942	-0.0030	-0.0004	0.00303	4.951
9.90	0.0113	0.0032	0.01174	3.949	-0.0034	-0.0004	0.00342	4.952
Z2	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)			DIA	
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	
5.75	0.0108	-0.0024	0.01106	3.555	-0.0018	-0.0	0.00180	4.982
6.75	0.0115	-0.0029	0.01171	3.507	-0.0028	0.0001	0.00280	4.889
3.75	0.0096	0.0088	0.01302	3.721	-0.0027	0.0004	0.00273	4.699
3.25	0.0091	0.0096	0.01323	3.591	-0.0035	0.0	0.00350	4.576
2.75	0.0069	0.0117	0.01258	3.457	-0.0029	0.0003	0.00292	4.434
2.25	0.0065	0.0205	0.02151	2.280	-0.0026	0.0002	0.00261	4.275
1.75	0.0061	0.0210	0.03159	2.962	-0.0030	-0.0006	0.00306	4.093
1.25	0.0104	0.0231	0.02533	2.623	-0.0021	0.0003	0.00212	3.804
Z3	X-ACT	Y-ACT	TIR					
1.00	-0.0065	0.0066	0.00653					
7.00	-0.0064	-0.0041	0.00760					

BASE THICKNESS (IN) 1.609

PROJECTILE LENGTH (IN) 16.706

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT #2 PROJECTILE #3

INSPECTION DATE 10/21/70

Z1	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)			CIA	
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	
1.90	-0.0028	0.0003	0.00282	2.953	0.0005	-0.0	0.00050	4.980
2.90	-0.0050	-0.0163	0.01770	3.376	0.0058	-0.0015	0.00599	5.120
3.90	-0.0021	-0.0130	0.01336	3.490	0.0013	-0.0024	0.00273	5.120
4.90	-0.0028	-0.0058	0.01019	3.605	-0.0005	0.0012	0.00130	4.983
5.90	-0.0015	-0.0074	0.00755	3.720	-0.0009	0.0004	0.00098	4.956
6.90	-0.0017	-0.0061	0.00633	3.839	-0.0007	0.0011	0.00130	4.959
7.90	-0.0	-0.0028	0.00280	3.923	-0.0010	0.0011	0.00149	4.957
8.90	0.0006	-0.0026	0.00267	3.926	-0.0019	0.0016	0.00248	4.954
9.90	0.0006	-0.0021	0.00316	3.927	-0.0018	0.0015	0.00234	4.956
Z2	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)			CIA	
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	
5.75	0.0023	-0.0027	0.00355	3.931	0.0	0.0015	0.00150	4.986
4.75	0.0004	-0.0010	0.00108	3.896	-0.0007	0.0032	0.00328	4.889
3.75	-0.0035	0.0029	0.00455	3.711	-0.0035	0.0027	0.00442	4.702
3.25	-0.0009	0.0068	0.00686	3.581	-0.0029	0.0040	0.00488	4.580
2.75	-0.0019	0.0096	0.00979	3.447	-0.0030	0.0040	0.00500	4.438
2.25	-0.0027	0.0092	0.00992	3.268	-0.0028	0.0031	0.00418	4.276
1.75	-0.0045	0.0090	0.01006	2.959	-0.0021	0.0038	0.00434	4.094
1.25	0.0014	0.0073	0.00743	2.601	-0.0023	0.0039	0.00453	3.892
Z3	X-ACT	Y-ACT	TIR					
1.00	-0.0074	0.0057	0.00934					
7.00	-0.0260	0.0163	0.03327					

BASE THICKNESS (IN) 1.531

PROJECTILE LENGTH (IN) 16.668

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 82 PROJECTILE B4

INSPECTION DATE 10/21/70

Z1	INSIDE			OUTSIDE			CIA	
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT		TIR
1.90	-0.0052	0.0066	0.00840	2.976	0.0022	-0.0004	0.00224	4.983
2.90	-0.0	0.0056	0.00960	3.376	0.0008	-0.0023	0.00244	5.125
3.90	-0.0061	0.0078	0.00940	3.486	-0.0005	-0.0020	0.00206	5.125
4.90	-0.0065	0.0065	0.00916	3.604	0.0020	0.0005	0.00206	4.982
5.90	-0.0069	0.0055	0.00882	3.721	0.0017	0.0002	0.00171	4.952
6.90	-0.0069	0.0052	0.00864	3.841	0.0023	0.0003	0.00232	4.946
7.90	-0.0077	0.0047	0.00902	3.921	0.0022	0.0007	0.00231	4.951
8.90	-0.0086	0.0045	0.00971	3.922	0.0011	-0.0002	0.00112	4.946
9.90	-0.0083	0.0047	0.00954	3.926	0.0024	0.0006	0.00247	4.950

Z2	INSIDE			OUTSIDE			CIA	
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT		TIR
5.75	-0.0030	0.0040	0.00500	3.931	0.0018	0.0010	0.00206	4.982
4.75	-0.0014	0.0013	0.00191	3.887	0.0024	0.0007	0.00250	4.883
3.75	-0.0011	-0.0019	0.00211	3.691	0.0016	0.0007	0.00175	4.698
3.25	-0.0036	-0.0055	0.00657	3.556	0.0011	0.0004	0.00117	4.578
2.75	-0.0079	-0.0073	0.01076	3.417	0.0000	-0.0006	0.00108	4.436
2.25	-0.0088	-0.0058	0.01054	3.236	0.0020	0.0005	0.00206	4.277
1.75	-0.0076	-0.0052	0.00921	2.924	0.0033	0.0013	0.00355	4.095
1.25	0.0070	0.0063	0.00942	2.577	0.0016	0.0006	0.00171	3.895

Z3 X-ACT Y-ACT TIP

1.00	-0.0057	0.0020	0.00604
7.00	-0.0037	0.0041	0.0055?

BASE THICKNESS (IN) 1.526

PROJECTILE LENGTH (IN) 16.654

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

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GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 82 PROJECTILE R5

INSPECTION DATE 10/27/70

Z1	INSIDE				OUTSIDE			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0051	-0.0009	0.00518	2.962	0.0007	0.0007	0.00099	4.984
2.90	-0.0020	0.0021	0.00790	3.371	0.0035	0.0042	0.00547	5.125
3.90	-0.0033	0.0037	0.00465	3.487	0.0011	0.0030	0.00320	5.126
4.90	-0.0062	0.0034	0.00707	3.603	0.0013	0.0010	0.00164	4.985
5.90	-0.0046	0.0042	0.00423	3.718	0.0007	0.0014	0.00157	4.949
6.90	-0.0017	0.0067	0.00691	3.835	0.0013	0.0009	0.00158	4.949
7.90	-0.0032	0.0085	0.00609	3.923	0.0007	0.0011	0.00130	4.949
8.90	-0.0028	0.0095	0.00590	3.926	-0.0020	0.0010	0.00224	4.949
9.90	-0.0013	0.0091	0.00919	3.937	-0.0012	0.0008	0.00144	4.949
Z2	INSIDE				OUTSIDE			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0022	0.0065	0.00686	3.638	0.0001	0.0012	0.00120	4.984
4.75	0.0023	0.0065	0.00689	3.605	0.0014	0.0011	0.00178	4.883
3.75	-0.0026	0.0045	0.00520	3.725	-0.0015	0.0012	0.00192	4.696
3.25	-0.0071	0.0053	0.00984	3.596	-0.0006	0.0014	0.00152	4.574
2.75	-0.0103	0.0080	0.01304	3.458	-0.0020	0.0010	0.00224	4.433
2.25	-0.0112	0.0071	0.01324	3.278	-0.0019	0.0012	0.00225	4.272
1.75	-0.0105	0.0057	0.01165	2.960	-0.0019	0.0011	0.00211	4.090
1.25	-0.0128	0.0088	0.01553	2.600	-0.0009	0.0009	0.00127	3.890
Z3	X-ACT	Y-ACT	TIP					
1.00	0.0003	-0.0024	0.00241					
7.00	0.0074	-0.0044	0.00241					

BASE THICKNESS (IN) 1.540

PROJECTILE LENGTH (IN) 16.471

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66--0 LOT 83 PROJECTILE RI

INSPECTION DATE 10/19/70

Z1	INSIDE				OUTSIDE			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0064	0.0058	0.00864	2.983	0.0019	0.0008	0.00206	4.983
2.90	-0.0010	0.0078	0.00786	3.367	-0.0006	0.0014	0.00152	5.125
3.90	-0.0041	0.0067	0.00785	3.488	0.0014	0.0014	0.00198	5.125
4.90	-0.0051	0.0066	0.00834	3.610	0.0007	0.0011	0.00130	4.984
5.90	-0.0053	0.0039	0.00658	3.717	0.0010	0.0010	0.00141	4.955
6.90	-0.0083	0.0063	0.01042	3.834	0.0017	0.0005	0.00177	4.954
7.90	-0.0039	0.0062	0.00732	3.920	0.0007	0.0015	0.00166	4.954
8.90	-0.0042	0.0073	0.00842	3.923	-0.0001	0.0006	0.00061	4.954
9.90	-0.0023	0.0052	0.00548	3.932	0.0006	0.0011	0.00125	4.953
Z2	INSIDE				OUTSIDE			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0013	0.0059	0.00498	2.939	0.0001	0.0016	0.00160	4.984
4.75	0.0005	0.0107	0.01071	3.894	0.0004	0.0021	0.00214	4.886
3.75	0.0072	0.0119	0.01291	3.694	-0.0007	0.0015	0.00166	4.701
3.25	0.0100	0.0111	0.01494	3.567	-0.0007	0.0016	0.00175	4.576
2.75	0.0138	0.0092	0.01664	3.434	-0.0013	0.0009	0.00158	4.434
2.25	0.0094	0.0110	0.01447	3.252	-0.0004	0.0012	0.00126	4.274
1.75	0.0088	0.0110	0.01409	2.914	-0.0004	0.0009	0.00098	4.092
1.25	-0.0066	0.0121	0.01378	2.586	-0.0009	0.0020	0.00210	3.891
Z3	X-ACT	Y-ACT	TIR					
1.00	-0.0018	-0.0011	0.00211					
7.00	-0.0060	-0.0024	0.00646					

BASE THICKNESS (IN) 1.521

PROJECTILE LENGTH (IN) 16.663

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

**GUN PROJECTILE INSPECTION DATA**

**3/38 MK 66-0 LOT 83 PROJECTILE B2**

**INSPECTION DATE 10/19/70**

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA

1.90	0.0067	-0.0019	0.00696	2.891	0.0039	0.0008	0.00398	4.984
2.90	0.0058	0.0001	0.00580	3.368	0.0022	0.0025	0.00333	5.124
3.90	0.0055	0.0003	0.00551	3.488	0.0027	0.0032	0.00419	5.122
4.90	0.0096	0.0025	0.00992	3.615	0.0016	0.0003	0.00163	4.986
5.90	0.0050	0.0008	0.00506	3.725	0.0036	0.0007	0.00367	4.951
6.90	0.0001	0.0007	0.00071	3.835	0.0041	0.0012	0.00427	4.950
7.90	-0.0007	0.0012	0.00139	3.924	0.0037	0.0011	0.00386	4.950
8.90	-0.0002	0.0003	0.00036	3.929	0.0032	0.0011	0.00334	4.949
9.90	-0.0008	-0.0018	0.00197	3.932	0.0032	0.0013	0.00345	4.951

Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA

5.75	-0.0010	-0.0054	0.00549	3.942	0.0034	0.0024	0.00416	4.983
4.75	-0.0017	-0.0051	0.00538	3.909	0.0055	0.0027	0.00613	4.882
3.75	-0.0026	-0.0027	0.00375	3.721	0.0040	0.0023	0.00461	4.696
3.25	-0.0054	0.0008	0.00546	3.592	0.0032	0.0019	0.00372	4.574
2.75	-0.0040	0.0037	0.00545	3.459	0.0038	0.0020	0.00429	4.432
2.25	-0.0036	0.0078	0.00859	3.286	0.0037	0.0031	0.00483	4.273
1.75	0.0027	0.0156	0.01583	2.973	0.0040	0.0022	0.00457	4.092
1.25	0.0050	0.0211	0.02168	2.611	0.0046	0.0032	0.00560	3.891

Z3 X-ACT Y-ACT TIR

1.00	0.0018	-0.0020	0.00269
7.00	-0.0046	-0.0022	0.00510

BASE THICKNESS (IN) 1.525

PROJECTILE LENGTH (IN) 16.657

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 46-0 LCT 83 PROJECTILE 83.

INSPECTION DATE 10/20/70

Z1	(- - - - INSIDE - - - -)			(- - - - OUTSIDE - - - -)			CIA	
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	
1.90	0.0073	-0.0258	0.03083	2.952	0.0001	0.0008	0.00081	4.984
2.90	0.0054	-0.0198	0.02052	3.367	-0.0002	-0.0008	0.00082	5.124
3.90	0.0043	-0.0237	0.02452	3.485	0.0002	0.0	0.00020	5.121
4.90	-0.0037	-0.0142	0.01467	3.632	0.0	-0.0003	0.00030	4.985
5.90	-0.0101	0.0023	0.01036	3.798	0.0006	0.0009	0.00108	4.960
6.90	-0.0049	-0.0051	0.00707	3.896	-0.0004	0.0002	0.00045	4.956
7.90	-0.0019	-0.0135	0.01363	3.947	-0.0007	0.0007	0.00099	4.958
8.90	-0.0023	-0.0148	0.01516	3.954	-0.0015	-0.0001	0.00150	4.957
9.90	0.0061	-0.0240	0.02476	3.939	-0.0011	0.0005	0.00121	4.956
Z2	(- - - - INSIDE - - - -)			(- - - - OUTSIDE - - - -)			DIA	
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	
5.75	0.0158	-0.0383	0.04312	3.913	0.0005	0.0008	0.00094	4.982
6.75	0.0194	-0.0224	0.03776	3.865	-0.0010	0.0008	0.00128	4.887
3.75	0.0162	-0.0125	0.02046	3.662	-0.0016	0.0012	0.00200	4.701
3.25	0.0172	-0.0022	0.01734	3.538	-0.0030	0.0008	0.00310	4.581
2.75	0.0159	0.0023	0.01607	3.404	-0.0032	0.0002	0.00321	4.438
2.25	0.0147	0.0093	0.01739	3.221	-0.0024	0.0005	0.00245	4.278
1.75	0.0099	0.0177	0.02028	2.895	-0.0020	0.0003	0.00202	4.097
1.25	0.0009	0.0182	0.01822	2.579	-0.0014	0.0004	0.00146	3.897
Z3	X-ACT	Y-ACT	TIR					
1.00	-0.0030	-0.0027	0.00404					
7.00	-0.0027	-0.0278	0.02793					

BASE THICKNESS (IN) 1.532

PROJECTILE LENGTH (IN) 16.670

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 83 PROJECTILE B4

INSPECTION DATE 10/22/70

Z1	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)			CIA	
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	
1.90	-0.0276	0.0053	0.02810	2.986	-0.0003	0.0005	0.00058	4.983
2.90	-0.0327	0.0032	0.03286	3.377	0.0006	0.0003	0.00067	5.122
3.90	-0.0274	0.0013	0.02743	3.494	-0.0021	0.0007	0.00221	5.120
4.90	-0.0255	0.0010	0.02552	3.621	-0.0031	0.0012	0.00332	4.983
5.90	-0.0167	0.0024	0.01687	3.762	-0.0020	0.0002	0.00201	4.960
6.90	-0.0139	0.0028	0.01418	3.907	0.0002	0.0004	0.00045	4.962
7.90	-0.0174	0.0028	0.01762	3.955	-0.0014	0.0001	0.00140	4.960
8.90	-0.0164	0.0037	0.01681	3.961	-0.0020	0.0003	0.00202	4.959
9.90	-0.0144	0.0035	0.01482	3.969	-0.0027	0.0010	0.00288	4.951
Z2	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)			CIA	
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	
5.75	-0.0242	0.0018	0.02427	3.926	-0.0019	0.0009	0.00210	4.985
4.75	-0.0206	0.0024	0.02074	3.890	-0.0015	0.0011	0.00186	4.892
3.75	-0.0054	0.0061	0.01121	3.713	-0.0017	0.0015	0.00227	4.704
3.25	-0.0010	0.0049	0.00500	3.590	-0.0026	0.0016	0.00305	4.581
2.75	0.0056	0.0028	0.00626	3.450	-0.0017	0.0013	0.00214	4.439
2.25	0.0106	0.0017	0.01074	3.274	-0.0022	0.0023	0.00318	4.277
1.75	0.0159	0.0011	0.01594	2.962	-0.0015	0.0018	0.00234	4.095
1.25	0.0200	0.0076	0.02140	2.504	-0.0032	0.0018	0.00367	3.894
Z3	X-ACT	Y-ACT	TIR					
1.00	-0.0020	0.0022	0.00297					
7.00	-0.0185	-0.0103	0.02117					

BASE THICKNESS (IN) 1.544

PROJECTILE LENGTH (IN) 16.663

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 83 PROJECTILE B5

INSPECTION DATE 10/26/70

Z1	INSIDE				OUTSIDE				DIA
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR		
1.90	-0.0111	-0.0050	0.01217	2.941	0.0015	0.0003	0.00153	4.986	
2.90	-0.0104	0.0027	0.01074	3.370	0.0029	0.0031	0.00424	5.122	
3.90	-0.0091	0.0030	0.00958	3.485	0.0026	0.0045	0.00520	5.121	
4.90	-0.0072	0.0045	0.00849	3.605	0.0007	-0.0002	0.00073	4.984	
5.90	-0.0060	0.0071	0.00930	3.720	0.0017	0.0018	0.00248	4.958	
6.90	-0.0043	0.0064	0.00771	3.842	0.0007	0.0005	0.00086	4.962	
7.90	-0.0036	0.0082	0.00896	3.925	0.0002	-0.0001	0.00022	4.959	
8.90	-0.0043	0.0097	0.01061	3.930	0.0015	0.0016	0.00219	4.958	
9.90	-0.0077	0.0098	0.01246	3.932	-0.0005	0.0010	0.00112	4.958	

Z2	INSIDE				OUTSIDE				DIA
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR		
5.75	-0.0069	0.0056	0.01182	3.937	0.0007	0.0015	0.00166	4.985	
4.75	-0.0020	0.0081	0.00834	3.895	0.0019	0.0013	0.00230	4.888	
3.75	0.0074	0.0065	0.00985	3.753	-0.0	0.0021	0.00210	4.702	
3.25	0.0119	0.0028	0.01222	3.628	-0.0001	0.0018	0.00180	4.579	
2.75	0.0133	0.0014	0.01337	3.471	-0.0	0.0011	0.00110	4.436	
2.25	0.0149	0.0020	0.01520	3.225	-0.0003	0.0021	0.00212	4.273	
1.75	0.0176	0.0056	0.01847	2.845	0.0013	0.0018	0.00222	4.092	
1.25	0.0160	0.0083	0.01802	2.573	0.0015	0.0017	0.00227	3.889	

Z3 X-ACT Y-ACT TIR

1.00	-0.0014	0.0027	0.00304
7.00	0.0017	0.0043	0.00462

BASE THICKNESS (IN) 1.548

PROJECTILE LENGTH (IN) 16.648

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LCT 84 PROJECTILE A1

INSPECTION DATE 10/23/70

Z1	(- - - - - INSIDE - - - - -)			DIA	(- - - - - OUTSIDE - - - - -)			DIA
	X-ACT	Y-ACT	TIR		X-ACT	Y-ACT	TIR	
1.90	0.0022	-0.0003	0.00222	2.977	-0.0008	-0.0008	0.00113	4.985
2.90	0.0047	-0.0164	0.01141	3.376	0.0019	-0.0001	0.00190	5.127
3.90	0.0045	-0.0057	0.01065	3.489	0.0006	-0.0002	0.00063	5.124
4.90	0.0051	-0.0052	0.01052	3.606	-0.0014	0.0001	0.00140	4.986
5.90	0.0074	-0.0066	0.01135	3.722	-0.0011	-0.0004	0.00117	4.955
6.90	0.0068	-0.0073	0.00998	3.840	-0.0019	-0.0002	0.00191	4.955
7.90	0.0041	-0.0068	0.00794	3.922	-0.0011	-0.0002	0.00112	4.953
8.90	0.0030	-0.0056	0.00635	3.921	-0.0020	0.0004	0.00204	4.953
9.90	0.0030	-0.0042	0.00516	3.923	-0.0018	0.0002	0.00181	4.954
Z2	(- - - - - INSIDE - - - - -)			DIA	(- - - - - OUTSIDE - - - - -)			DIA
	X-ACT	Y-ACT	TIR		X-ACT	Y-ACT	TIR	
5.75	0.0046	-0.0025	0.00524	3.931	-0.0012	0.0004	0.00126	4.985
4.75	0.0025	-0.0014	0.00377	3.988	-0.0010	0.0006	0.00117	4.883
3.75	-0.0012	-0.0005	0.00130	3.696	-0.0007	0.0010	0.00122	4.698
3.25	-0.0019	-0.0021	0.00282	3.566	-0.0016	0.0010	0.00189	4.575
2.75	-0.0016	-0.0053	0.00554	3.428	-0.0022	0.0013	0.00256	4.434
2.25	-0.0050	-0.0043	0.00659	3.244	-0.0030	0.0016	0.00340	4.270
1.75	-0.0092	-0.0030	0.00968	2.922	-0.0017	0.0010	0.00197	4.099
1.25	-0.0160	-0.0069	0.01742	2.587	-0.0015	0.0010	0.00180	3.886
Z3	X-ACT	Y-ACT	TIR					
1.00	-0.0055	0.0036	0.00657					
7.00	-0.0019	0.0269	0.02697					

BASE THICKNESS (IN) 1.524

PROJECTILE LENGTH (IN) 16.668

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LCT A4 PROJECTILE R2

INSPECTION DATE 10/30/70

Z1	INSIDE			OUTSIDE			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
1.90	0.0024	0.0060	0.00646	2.975	-0.0007	0.0011	0.00130	4.984
2.90	-0.0020	0.0089	0.00912	3.381	0.0006	0.0001	0.00061	5.123
3.90	-0.0	0.0062	0.00620	3.498	0.0008	0.0006	0.00100	5.123
4.90	0.0049	0.0027	0.00559	3.614	0.0019	0.0003	0.00192	4.986
5.90	0.0075	0.0025	0.00791	3.728	0.0008	0.0001	0.00081	4.956
6.90	0.0077	0.0005	0.00772	3.845	0.0013	-0.0014	0.00191	4.959
7.90	0.0084	0.0020	0.00863	3.925	0.0023	-0.0002	0.00231	4.958
8.90	0.0089	0.0013	0.00890	3.926	-0.0002	0.0003	0.00036	4.958
9.90	0.0089	0.0014	0.00901	3.934	0.0003	-0.0004	0.00050	4.958
Z2	INSIDE			OUTSIDE			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
5.75	0.0060	0.0010	0.00608	3.942	0.0007	0.0003	0.00076	4.985
4.75	0.0043	0.0002	0.00430	3.898	0.0019	-0.0005	0.00196	4.890
3.75	0.0014	-0.0016	0.00213	3.774	0.0018	-0.0006	0.00190	4.704
3.25	-0.0033	-0.0018	0.00376	3.657	-0.0001	-0.0006	0.00061	4.581
2.75	-0.0067	-0.0022	0.00705	3.500	-0.0014	-0.0005	0.00149	4.438
2.25	-0.0079	-0.0034	0.00851	3.271	0.0001	-0.0005	0.00051	4.277
1.75	-0.0068	-0.0051	0.00850	2.889	0.0005	-0.0006	0.00078	4.096
1.25	-0.0063	-0.0154	0.01664	2.581	0.0028	0.0008	0.00291	3.893
Z3	X-ACT	Y-ACT	TIR					
1.00	-0.0042	-0.0015	0.00446					
7.00	-0.0183	-0.0170	0.02498					

BASE THICKNESS (IN) 1.550

PROJECTILE LENGTH (IN) 16.462

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 84 PROJECTILE #3

INSPECTION DATE 10/19/70

Z1	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	0.0050	-0.0162	0.01495	2.954	0.0014	0.0005	0.00149	4.984
2.90	0.0016	-0.0206	0.02066	3.357	0.0045	0.0018	0.00485	5.123
3.90	0.0045	-0.0213	0.02177	3.474	0.0041	0.0018	0.00449	5.125
4.90	0.0060	-0.0209	0.02174	3.598	0.0043	0.0003	0.00431	4.983
5.90	0.0006	-0.0127	0.01271	3.731	0.0022	-0.0001	0.00220	4.958
6.90	0.0014	-0.0089	0.00901	3.853	0.0010	0.0012	0.00156	4.960
7.90	0.0023	-0.0151	0.01546	3.926	0.0037	-0.0001	0.00370	4.956
8.90	0.0040	-0.0147	0.01523	3.931	0.0029	0.0001	0.00290	4.954
9.90	0.0028	-0.0179	0.01812	3.935	0.0031	-0.0004	0.00313	4.959
Z2	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0094	-0.0287	0.03020	3.926	0.0027	-0.0009	0.00285	4.983
4.75	0.0072	-0.0273	0.02823	3.894	0.0039	-0.0009	0.00400	4.891
3.75	-0.0008	-0.0231	0.02311	3.722	0.0037	-0.0008	0.00379	4.705
3.25	-0.0011	-0.0186	0.01863	3.605	0.0019	-0.0009	0.00210	4.582
2.75	-0.0023	-0.0109	0.01114	3.480	0.0023	-0.0003	0.00232	4.440
2.25	-0.0041	-0.0053	0.00670	3.308	0.0032	-0.0002	0.00321	4.279
1.75	-0.0019	0.0013	0.00230	2.995	0.0039	-0.0011	0.00396	4.095
1.25	-0.0022	0.0060	0.00639	2.659	0.0027	-0.0013	0.00300	3.893
Z3	X-ACT	Y-ACT	TIR					
1.00	-0.0027	-0.0011	0.00292					
7.00	-0.0232	0.0051	0.02375					

BASE THICKNESS (IN) 1.520

PROJECTILE LENGTH (IN) 16.667

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 60-0 LCT 84 PROJECTILE B4

INSPECTION DATE 10/26/70

(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)				
Z1	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0214	-0.0400	0.04536	2.932	0.0017	-0.0023	0.00286	4.983
2.90	-0.0009	-0.0169	0.01692	3.351	0.0011	-0.0010	0.00149	5.123
3.90	-0.0018	-0.0242	0.02427	3.470	0.0026	-0.0013	0.00291	5.126
4.90	-0.0069	-0.0153	0.01678	2.603	0.0017	-0.0018	0.00248	4.984
5.90	-0.0137	0.0129	0.01882	3.824	0.0024	-0.0010	0.00260	4.966
6.90	-0.0104	0.0004	0.01041	3.883	0.0035	-0.0017	0.00389	4.966
7.90	-0.0070	-0.0200	0.02119	3.940	0.0038	-0.0007	0.00386	4.965
8.90	-0.0062	-0.0211	0.02199	3.945	0.0016	-0.0018	0.00241	4.967
9.90	-0.0034	-0.0246	0.02483	3.948	0.0018	-0.0022	0.00284	4.965
(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)				
Z2	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0013	-0.0249	0.02493	3.951	0.0035	-0.0022	0.00413	4.985
4.75	0.0006	-0.0124	0.01241	3.923	0.0047	-0.0010	0.00481	4.898
3.75	0.0006	-0.0355	0.03551	3.594	0.0027	-0.0024	0.00361	4.710
3.25	-0.0054	-0.0355	0.03591	3.561	0.0020	-0.0028	0.00344	4.589
2.75	-0.0113	-0.0329	0.03479	3.429	0.0030	-0.0022	0.00372	4.448
2.25	-0.0179	-0.0299	0.02997	3.255	0.0024	-0.0032	0.00400	4.285
1.75	-0.0228	-0.0236	0.02281	2.960	0.0050	-0.0032	0.00594	4.103
1.25	-0.0137	-0.0209	0.02491	2.611	0.0042	-0.0023	0.00479	3.902
Z3	X-ACT	Y-ACT	TIR					
1.00	0.0021	-0.0013	0.00247					
7.00	-0.0050	0.0142	0.01691					

BASE THICKNESS (IN) 1.532

PROJECTILE LENGTH (IN) 16.654

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/29 MK 66-0 LCT 84 PROJECTILE R5

INSPECTION DATE 10/30/70

71	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)				DIA
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
1.90	-0.0096	0.0041	0.00953	2.944	0.0016	-0.0001	0.00160	4.985	
2.90	-0.0055	0.0070	0.01180	3.380	0.0042	0.0016	0.00449	5.125	
3.90	-0.0066	0.0032	0.00737	3.493	0.0012	0.0011	0.00163	5.120	
4.90	-0.0125	0.0036	0.01301	3.614	0.0011	0.0007	0.00130	4.985	
5.90	-0.0127	0.0041	0.01335	3.728	0.0006	0.0004	0.00072	4.959	
6.90	-0.0143	0.0046	0.01502	3.843	0.0008	0.0008	0.00113	4.959	
7.90	-0.0122	0.0052	0.01326	3.924	0.0016	0.0011	0.00194	4.960	
8.90	-0.0150	0.0042	0.01559	3.926	0.0006	0.0012	0.00134	4.959	
9.90	-0.0137	0.0040	0.01427	3.932	-0.0002	0.0009	0.00092	4.961	
72	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)				DIA
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
5.75	-0.0110	0.0020	0.01140	3.935	0.0032	0.0011	0.00338	4.985	
4.75	-0.0068	0.0014	0.00490	3.846	0.0019	0.0010	0.00215	4.991	
3.75	-0.0042	0.0009	0.00430	3.752	0.0012	0.0007	0.00139	4.705	
3.25	-0.0003	0.0027	0.00272	3.626	-0.0002	0.0010	0.00102	4.593	
2.75	0.0062	0.0052	0.00800	3.468	0.0012	0.0012	0.00170	4.441	
2.25	0.0053	0.0064	0.00931	3.134	-0.0002	0.0011	0.00112	4.280	
1.75	0.0057	0.0083	0.01007	2.856	0.0013	0.0009	0.00201	4.093	
1.25	0.0018	-0.0131	0.01322	2.572	0.0022	0.0010	0.00242	2.896	
23	X-ACT	Y-ACT	TIR						
1.00	0.0021	0.0032	0.00383						
7.00	0.0104	0.0255	0.02754						

BASE THICKNESS (IN) 1.540

PROJECTILE LENGTH (IN) 16.659

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN), FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT E5 PROJECTILE B2

INSPECTION DATE 11/25/70

Z1	(- - - - INSIDE - - - -)			(- - - - OUTSIDE - - - -)			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
1.90	-0.0030	0.0024	0.00384	3.032	0.0011	-0.0006	0.00125	4.987
2.90	0.0044	0.0041	0.00601	3.375	0.0019	0.0007	0.00202	5.127
3.90	-0.0003	0.0023	0.00232	3.494	0.0018	0.0006	0.00190	5.126
4.90	-0.0047	-0.0007	0.00475	3.606	-0.0014	-0.0008	0.00161	4.984
5.90	-0.0078	-0.0015	0.00794	3.720	0.0016	0.0003	0.00163	4.959
6.90	-0.0074	-0.0022	0.00772	3.835	0.0012	0.0006	0.00134	4.960
7.90	-0.0084	-0.0018	0.00859	3.919	0.0022	-0.0	0.00220	4.959
8.90	-0.0115	-0.0006	0.01152	3.921	0.0006	0.0003	0.00067	4.959
9.90	-0.0116	-0.0024	0.01185	3.927	0.0006	0.0009	0.00108	4.960
Z2	(- - - - INSIDE - - - -)			(- - - - OUTSIDE - - - -)			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
5.75	-0.0141	-0.0032	0.01446	3.938	0.0017	0.0	0.00170	4.985
4.75	-0.0100	-0.0047	0.01105	3.893	0.0019	0.0001	0.00190	4.887
3.75	-0.0090	-0.0061	0.01087	3.704	0.0005	-0.0001	0.00051	4.700
3.25	-0.0099	-0.0062	0.01168	3.578	0.0004	0.0006	0.00072	4.578
2.75	-0.0109	-0.0061	0.01249	3.435	0.0007	0.0006	0.00092	4.436
2.25	-0.0092	-0.0034	0.00981	3.249	-0.0013	0.0006	0.00143	4.277
1.75	-0.0011	0.0054	0.00551	2.915	0.0002	0.0	0.00020	4.093
1.25	-0.0034	0.0120	0.01344	2.590	0.0018	0.0010	0.00206	3.893
Z3	X-ACT	Y-ACT	TIR					
1.00	0.0020	0.0026	0.00352					
7.00	-0.0020	-0.0150	0.01513					

BASE THICKNESS (IN) 1.451

PROJECTILE LENGTH (IN) 16.665

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 85 PROJECTILE B3

INSPECTION DATE 11/17/70

(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)				
Z1	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA

1.90	-0.0526	-0.0036	0.05272	2.860	-0.0004	-0.0006	0.00072	4.984
2.90	-0.0208	0.0035	0.02109	3.357	-0.0001	0.0026	0.00260	5.124
3.90	-0.0261	0.0018	0.02616	3.474	-0.0016	0.0030	0.00340	5.126
4.90	-0.0245	0.0024	0.02462	3.600	-0.0012	-0.0004	0.00126	4.985
5.90	0.0070	0.0142	0.01583	3.792	0.0002	0.0002	0.00028	4.950
6.90	-0.0002	0.0111	0.01110	3.883	-0.0002	-0.0001	0.00022	4.950
7.90	-0.0199	0.0001	0.01590	3.942	-0.0021	-0.0003	0.00212	4.948
8.90	-0.0212	-0.0008	0.02122	3.947	-0.0034	-0.0011	0.00357	4.950
9.90	-0.0225	-0.0021	0.02260	3.950	-0.0033	-0.0009	0.00342	4.949

(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)				
Z2	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA

5.75	-0.0252	-0.0134	0.03213	3.934	-0.0021	-0.0012	0.00242	4.985
4.75	-0.0251	-0.0129	0.02822	3.886	-0.0033	-0.0012	0.00351	4.882
3.75	-0.0225	-0.0110	0.02504	3.698	-0.0029	-0.0006	0.00296	4.694
3.25	-0.0232	-0.0147	0.02747	3.582	-0.0051	-0.0019	0.00544	4.568
2.75	-0.0254	-0.0164	0.03023	3.459	-0.0055	-0.0013	0.00565	4.426
2.25	-0.0279	-0.0159	0.03211	3.296	-0.0047	-0.0015	0.00493	4.266
1.75	-0.0277	-0.0155	0.03174	2.998	-0.0050	-0.0018	0.00531	4.082
1.25	-0.0255	-0.0142	0.02919	2.662	-0.0055	-0.0021	0.00589	3.881

Z3	X-ACT	Y-ACT	TIR
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1.00	-0.0092	-0.0051	0.01052
7.00	-0.0067	-0.0054	0.00861

BASE THICKNESS (IN) 1.515

PROJECTILE LENGTH (IN) 16.659

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 85 PROJECTILE B5

INSPECTION DATE 11/13/70

Z1	INSIDE				OUTSIDE			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	0.0111	0.0109	0.01556	2.936	-0.0010	0.0	0.00100	4.981
2.90	0.0008	0.0078	0.00784	3.378	0.0039	-0.0017	0.00425	5.124
3.90	0.0036	0.0079	0.00868	3.495	0.0013	-0.0017	0.00214	5.126
4.90	0.0044	0.0082	0.00931	3.611	0.0018	-0.0001	0.00180	4.983
5.90	0.0064	0.0075	0.00986	3.727	0.0015	-0.0008	0.00170	4.952
6.90	0.0096	0.0057	0.01365	3.843	0.0024	-0.0006	0.00247	4.951
7.90	0.0106	0.0064	0.01352	3.926	0.0024	0.0001	0.00240	4.951
8.90	0.0101	0.0087	0.01333	3.933	0.0013	-0.0007	0.00148	4.951
9.90	0.0088	0.0075	0.01156	3.940	0.0005	0.0001	0.00051	4.951
Z2	INSIDE				OUTSIDE			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0077	0.0082	0.01125	3.948	0.0021	0.0001	0.00210	4.985
4.75	0.0056	0.0053	0.00771	3.894	0.0025	0.0005	0.00255	4.885
3.75	0.0025	0.0037	0.00447	3.757	0.0020	0.0007	0.00212	4.698
3.25	0.0013	0.0016	0.00206	3.637	0.0010	0.0003	0.00104	4.574
2.75	-0.0019	-0.0020	0.00276	3.484	0.0002	0.0003	0.00036	4.434
2.25	-0.0020	-0.0037	0.00421	3.250	0.0017	0.0013	0.00214	4.274
1.75	0.0001	-0.0050	0.00500	2.883	0.0014	0.0008	0.00161	4.091
1.25	0.0087	0.0070	0.01117	2.575	0.0027	0.0012	0.00295	3.892
Z3	X-ACT	Y-ACT	TIR					
1.00	-0.0006	-0.0008	0.00100					
7.00	0.0167	-0.0139	0.02173					

BASE THICKNESS (IN) 1.585

PROJECTILE LENGTH (IN) 16.686

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 86 PROJECTILE B1

INSPECTION DATE 11/17/70

(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)				
Z1	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA

1.90	-0.0127	-0.0302	0.03276	2.980	0.0005	0.0007	0.00086	4.985
2.90	-0.0116	-0.0180	0.02141	3.360	0.0026	0.0041	0.00485	5.124
3.90	-0.0117	-0.0227	0.02554	3.480	0.0001	0.0032	0.00320	5.122
4.90	-0.0112	-0.0096	0.01475	3.614	-0.0001	0.0002	0.00022	4.984
5.90	-1.0058	0.0228	0.02353	3.834	0.0004	0.0017	0.00175	4.953
6.90	-0.0055	0.0217	0.02239	3.944	0.0017	0.0011	0.00202	4.951
7.90	-0.0040	0.0112	0.01189	3.976	0.0022	0.0011	0.00246	4.952
8.90	-0.0063	0.0102	0.01199	3.977	0.0015	0.0013	0.00198	4.949
9.90	-0.0075	0.0057	0.00942	3.963	0.0013	0.0003	0.00133	4.949

(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)				
Z2	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA

5.75	-0.0037	-0.0195	0.01985	3.919	0.0030	0.0012	0.00323	4.986
4.75	-0.0025	-0.0148	0.01501	3.856	0.0010	0.0002	0.00102	4.882
3.75	0.0072	-0.0149	0.01655	3.653	0.0017	0.0005	0.00177	4.694
3.25	0.0074	-0.0140	0.01584	3.528	0.0019	0.0004	0.00194	4.569
2.75	0.0079	-0.0117	0.01412	3.390	0.0018	-0.0002	0.00181	4.428
2.25	0.0091	-0.0115	0.01466	3.206	0.0021	0.0003	0.00212	4.226
1.75	0.0124	-0.0100	0.01593	2.880	0.0015	-0.0004	0.00155	4.085
1.25	0.0071	-0.0133	0.01508	2.571	0.0033	-0.0005	0.00334	3.884

Z3	X-ACT	Y-ACT	TIR
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1.00	0.0069	0.0	0.00590
7.00	0.0026	-0.0061	0.00663

BASE THICKNESS (IN) 1.479

PROJECTILE LENGTH (IN) 16.659

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 86-0 LOT 86 PROJECTILE 83

INSPECTION DATE 11/20/70

(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)				
Z1	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	CIA

1.90	-0.0068	-0.0139	0.01547	2.988	-0.0003	0.0	0.00030	4.986
2.90	-0.0070	-0.0110	0.01304	3.376	0.0024	0.0011	0.00264	5.123
3.90	-0.0054	-0.0137	0.01473	3.493	-0.0013	0.0002	0.00132	5.121
4.90	-0.0132	-0.0166	0.02121	3.612	-0.0010	0.0003	0.00104	4.983
5.90	-0.0125	-0.0160	0.02030	3.727	-0.0018	0.0006	0.00190	4.953
6.90	-0.0100	-0.0164	0.01921	3.843	0.0006	-0.0002	0.00063	4.952
7.90	-0.0083	-0.0141	0.01636	3.925	-0.0008	0.0010	0.00128	4.952
8.90	-0.0078	-0.0157	0.01753	3.928	-0.0023	-0.0004	0.00233	4.951
9.90	-0.0083	-0.0160	0.01802	3.931	0.0001	-0.0002	0.00022	4.951

(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)				
Z2	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	CIA

5.75	-0.0050	-0.0168	0.01753	3.935	-0.0026	-0.0006	0.00267	4.985
4.75	-0.0034	-0.0130	0.01344	3.886	-0.0010	-0.0	0.00100	4.887
3.75	-0.0006	-0.0110	0.01102	3.747	-0.0016	-0.0001	0.00160	4.702
3.25	0.0006	-0.0118	0.01182	3.622	-0.0011	0.0002	0.00112	4.578
2.75	-0.0005	-0.0112	0.01121	3.463	0.0022	0.0016	0.00272	4.443
2.25	0.0016	-0.0079	0.00806	3.223	-0.0026	-0.0003	0.00262	4.278
1.75	-0.0020	-0.0057	0.00604	2.863	-0.0018	-0.0001	0.00180	4.098
1.25	-0.0128	0.0039	0.01338	2.571	-0.0017	0.0001	0.00170	3.898

Z3	X-ACT	Y-ACT	TIR
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1.00	-0.0028	0.0018	0.00333
7.00	-0.0040	0.0216	0.02197

BASE THICKNESS (IN) 1.514

PROJECTILE LENGTH (IN) 16.644

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-O LCT 86 PROJECTILE B4

INSPECTION DATE 11/25/70

(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)				
Z1	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA

1.90	-0.0134	-0.0034	0.01382	2.998	0.0015	0.0009	0.00175	4.983
2.90	-0.0079	0.0011	0.00798	3.378	-0.0003	-0.0004	0.00050	5.123
3.90	-0.0072	0.0004	0.00721	3.497	0.0002	0.0009	0.00092	5.126
4.90	-0.0074	0.0017	0.00759	3.612	-0.0004	0.0005	0.00064	4.982
5.90	-0.0045	0.0016	0.00478	3.726	-0.0004	-0.0006	0.00072	4.960
6.90	0.0006	0.0028	0.00286	3.845	0.0011	-0.0004	0.00117	4.958
7.90	0.0020	0.0027	0.00336	3.928	-0.0002	0.0001	0.00022	4.960
8.90	0.0045	0.0042	0.00616	3.933	-0.0004	-0.0003	0.00050	4.960
9.90	0.0047	0.0050	0.00686	3.942	-0.0013	-0.0	0.00130	4.960

(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)				
Z2	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA

5.75	0.0078	0.0072	0.01062	3.949	0.0005	0.0	0.00050	4.985
4.75	0.0086	0.0070	0.01109	3.906	0.0006	0.0012	0.00134	4.888
3.75	0.0059	0.0002	0.00590	3.707	-0.0007	0.0004	0.00081	4.702
3.25	0.0015	0.0008	0.00170	3.577	-0.0015	0.0007	0.00166	4.581
2.75	-0.0011	0.0017	0.00202	3.442	-0.0019	0.0002	0.00191	4.439
2.25	-0.0032	-0.0006	0.00335	3.261	-0.0004	0.0004	0.00057	4.275
1.75	-0.0058	-0.0041	0.00710	2.931	-0.0016	0.0005	0.00168	4.096
1.25	-0.0075	0.0012	0.00760	2.599	-0.0014	0.0004	0.00146	3.891

Z3	X-ACT	Y-ACT	TIR
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1.00	-0.0021	-0.0010	0.00233
7.00	0.0161	-0.0167	0.02320

BASE THICKNESS (IN) 1.518

PROJECTILE LENGTH (IN) 16.658

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LCT 86 PROJECTILE B5

INSPECTION DATE 11/19/70

(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)				
Z1	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0333	-0.0265	0.04256	2.876	-0.0004	-0.0002	0.00045	4.986
2.90	-0.0400	-0.0236	0.04644	3.359	0.0010	-0.0009	0.00135	5.128
3.90	-0.0190	-0.0021	0.01925	3.523	0.0026	-0.0005	0.00265	5.125
4.90	-0.0066	0.0064	0.00919	3.689	-0.0005	-0.0006	0.00078	4.985
5.90	0.0058	0.0087	0.01046	3.847	0.0012	0.0005	0.00130	4.957
6.90	-0.0028	0.0066	0.00717	3.921	0.0018	-0.0002	0.00181	4.959
7.90	-0.0098	0.0013	0.00989	3.974	0.0011	-0.0005	0.00121	4.956
8.90	-0.0091	0.0014	0.00921	3.972	0.0014	-0.0004	0.00146	4.956
9.90	-0.0182	-0.0034	0.01851	3.948	-0.0006	-0.0	0.00060	4.958

(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)				
Z2	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0245	-0.0185	0.03070	3.935	0.0023	0.0006	0.00238	4.987
4.75	-0.0206	-0.0167	0.02652	3.910	0.0019	0.0013	0.00230	4.890
3.75	-0.0130	-0.0128	0.02286	3.748	0.0010	0.0009	0.00135	4.703
3.25	-0.0147	-0.0125	0.02363	3.634	0.0002	0.0004	0.00045	4.576
2.75	-0.0172	-0.0170	0.02418	3.502	0.0004	0.0006	0.00072	4.434
2.25	-0.0194	-0.0158	0.02502	3.330	-0.0002	0.0001	0.00022	4.271
1.75	-0.0137	-0.0250	0.02851	3.020	0.0014	0.0004	0.00146	4.089
1.25	-0.0015	-0.0256	0.02564	2.651	0.0015	0.0002	0.00151	3.886

Z3	X-ACT	Y-ACT	TIR
1.00	-0.0003	0.0051	0.00511
7.00	0.0012	0.0145	0.01455

BASE THICKNESS (IN) 1.591

PROJECTILE LENGTH (IN) 16.726

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/39 MK 66-0 LCT 27 PROJECTILE #1

INSPECTION DATE 11/16/70

Z1	(- - - - INSIDE - - - - )			(- - - - OUTSIDE - - - - )			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR

1.90	-0.0145	-0.0028	0.C1477	2.939	0.0008	0.0019	0.00206	4.984
2.90	0.0045	0.0015	0.C0962	3.374	C.0C07	0.0023	0.00240	5.122
3.90	-0.0001	0.0008	0.00081	3.497	0.0C13	0.0016	0.00206	5.123
4.90	-0.0100	-0.0008	0.01C03	3.619	0.0007	0.0005	0.00086	4.984
5.90	-0.01C5	0.0018	0.C1065	3.734	-0.0012	0.0009	0.00150	4.955
6.90	-0.0035	-0.00C9	0.00361	3.852	0.0010	0.0018	0.00206	4.958
7.90	-0.0086	-0.0021	0.00885	3.947	0.0019	0.0014	0.00236	4.956
8.90	-0.0117	-0.0049	0.C1268	3.949	0.0017	0.0013	0.00214	4.956
9.90	-0.0142	-0.01C7	0.01778	3.960	0.0017	0.0008	0.00188	4.958

Z2	(- - - - INSIDE - - - - )			(- - - - OUTSIDE - - - - )			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR

5.75	-0.0173	-C.01E7	0.C2548	3.965	0.0C15	0.0	0.00150	4.985
4.75	-0.0184	-0.02C2	0.C2732	3.919	0.0011	0.0	0.00110	4.886
3.75	-0.0228	-0.00E4	0.02466	3.756	C.0C15	0.0002	0.00151	4.697
3.25	-0.0147	-0.0028	0.C0C06	3.647	0.0C06	-0.0	0.00060	4.575
2.75	-0.0142	0.00C1	0.C1420	3.523	0.0C09	-0.0002	0.00092	4.432
2.25	-0.0145	0.0079	0.C1651	3.353	C.0C06	-0.0005	0.00078	4.270
1.75	-0.0118	0.01S1	0.C2245	3.041	0.0C15	-0.0	0.00150	4.087
1.25	-0.0139	0.0217	0.02577	2.696	0.0020	0.0001	0.00200	3.884

Z3	X-ACT	Y-ACT	TIR
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1.00	-0.0030	0.0020	0.CC361
7.00	0.0027	-0.0045	0.00583

BASE THICKNESS (IN) 1.541

PROJECTILE LENGTH (IN) 16.649

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 87 PROJECTILE B2

INSPECTION DATE 11/25/70

(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)				
Z1	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0007	0.0073	0.00733	2.999	-0.0002	-0.0003	0.00036	4.986
2.90	0.0113	0.0043	0.01209	3.382	0.0	0.0018	0.00180	5.126
3.90	0.0050	0.0017	0.00528	3.501	-0.0012	0.0010	0.00156	5.125
4.90	-0.0004	-0.0012	0.00126	3.619	-0.0001	0.0008	0.00081	4.986
5.90	-0.0018	-0.0041	0.00448	3.736	-0.0014	0.0002	0.00141	4.956
6.90	-0.0007	-0.0064	0.00644	3.849	-0.0012	0.0006	0.00134	4.956
7.90	-0.0022	-0.0086	0.00888	3.928	-0.0031	-0.0002	0.00311	4.955
8.90	-0.0023	-0.0088	0.00910	3.932	-0.0025	-0.0002	0.00251	4.953
9.90	-0.0032	-0.0102	0.01069	3.936	-0.0036	-0.0003	0.00361	4.953

(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)				
Z2	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0005	-0.0080	0.00902	3.939	0.0004	0.0005	0.00064	4.985
4.75	-0.0009	-0.0072	0.00726	3.888	-0.0010	0.0013	0.00164	4.884
3.75	-0.0030	-0.0069	0.00752	3.683	-0.0025	0.0018	0.00308	4.700
2.25	0.0006	-0.0037	0.00375	3.550	-0.0026	0.0016	0.00305	4.577
2.75	0.0013	-0.0027	0.00300	3.405	-0.0	0.0026	0.00260	4.438
2.25	0.0012	-0.0050	0.00514	3.233	-0.0031	0.0013	0.00336	4.276
1.75	-0.0028	-0.0059	0.01029	2.912	-0.0034	0.0014	0.00368	4.096
1.25	0.0067	0.0060	0.00899	2.577	-0.0043	0.0019	0.00470	3.895

Z3 X-ACT Y-ACT TIR

1.00	-0.0094	0.0043	C. C1C34
7.00	-0.0086	0.0124	C. C150C

BASE THICKNESS (IN) 1.536

PROJECTILE LENGTH (IN) 16.666

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT F7 PROJECTILE B4

INSPECTION DATE 11/19/70

71	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)			DIA
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR	

1.90	-0.0078	-0.0078	0.01103	2.874	0.0012	-0.0013	0.00177	4.985
2.90	-0.0030	0.0058	0.00652	3.391	0.0016	-0.0014	0.00236	5.126
3.90	-0.0002	0.0038	0.00381	3.494	0.0040	-0.0023	0.00461	5.124
4.90	-0.0010	0.0011	0.00149	3.609	-0.0005	-0.0003	0.00058	4.987
5.90	0.0025	0.0040	0.00472	3.716	-0.0008	-0.0012	0.00144	4.961
6.90	0.0023	0.0026	0.00488	3.837	-0.0012	-0.0012	0.00170	4.959
7.90	0.0054	-0.0005	0.00542	3.920	0.0001	-0.0016	0.00160	4.958
8.90	0.0043	-0.0029	0.00519	3.924	-0.0006	-0.0010	0.00135	4.958
9.90	0.0034	-0.0051	0.00613	3.928	-0.0020	-0.0018	0.00269	4.958

72	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)			DIA
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR	

5.75	0.0049	-0.0080	0.00938	3.932	-0.0008	-0.0011	0.00136	4.983
4.75	0.0026	-0.0050	0.00616	3.891	-0.0006	-0.0008	0.00100	4.888
3.75	0.0012	-0.0031	0.00232	3.752	-0.0018	-0.0002	0.00181	4.702
3.25	0.0020	-0.0010	0.00307	3.628	-0.0019	-0.0007	0.00202	4.579
2.75	0.0007	0.0019	0.00202	3.472	-0.0020	-0.0011	0.00228	4.437
2.25	-0.0009	0.0009	0.00127	3.233	-0.0017	-0.0012	0.00208	4.276
1.75	-0.0021	0.0027	0.00483	2.861	-0.0004	-0.0017	0.00175	4.096
1.25	0.0102	-0.0018	0.01036	2.576	-0.0006	-0.0018	0.00190	3.894

73	X-ACT Y-ACT TIR		
	X-ACT	Y-ACT	TIR

1.00	-0.0064	0.0007	0.00644
7.00	-0.0260	0.0124	0.02891

BASE THICKNESS (IN) 1.520

PROJECTILE LENGTH (IN) 14.673

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

73 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 87 PROJECTILE 85

INSPECTION DATE 11/12/70

Z1	(- - - - INSIDE - - - - )			(- - - - OUTSIDE - - - - )			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
1.90	-0.0024	-0.0020	0.00312	2.903	-0.0026	0.0004	0.00263	4.982
2.90	-0.0025	0.0020	0.00320	3.365	-0.0042	-0.0034	0.00540	5.124
3.90	0.0009	C.0007	0.00114	3.487	-0.0047	-0.0016	0.00496	5.124
4.90	-0.0015	-0.0007	0.00166	3.601	-0.0021	-0.0001	0.00210	4.986
5.90	0.0024	-0.0021	0.00319	3.718	-0.0	-0.0	0.0	4.953
6.90	0.0013	-0.0018	0.00222	3.834	-0.0002	-0.0008	0.00082	4.952
7.90	0.0034	-0.0011	0.00357	3.925	-0.0018	-0.0002	0.00181	4.952
8.90	0.0029	C.0001	0.00290	3.923	-0.0028	-0.0008	0.00291	4.952
9.90	0.0046	0.0027	0.00533	3.932	-0.0033	-0.0005	0.00334	4.952

Z2	(- - - - INSIDE - - - - )			(- - - - OUTSIDE - - - - )			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
5.75	0.0058	0.0038	0.00693	3.941	-0.0031	-0.0002	0.00311	4.986
4.75	0.0087	0.0055	C.C1C29	3.906	-0.0028	-0.0007	0.00289	4.888
3.75	0.0027	0.0060	0.00658	3.714	-0.0029	-0.0003	0.00292	4.702
3.25	0.0009	0.0020	0.00219	3.590	-0.0036	0.0003	0.00361	4.579
2.75	-0.0032	-0.0013	0.00345	3.454	-0.0040	-0.0	0.00400	4.437
2.25	-0.0036	-0.0020	0.00412	3.273	-0.0040	0.0002	0.00400	4.280
1.75	-0.0044	-0.0062	0.00760	2.928	-0.0038	0.0003	0.00381	4.097
1.25	-0.0075	-0.0142	0.01606	2.584	-0.0036	0.0005	0.00363	3.896

Z3 X-ACT Y-ACT TIR

1.00	-0.0008	-0.0014	C.00161
7.00	0.0223	0.0043	0.02271

BASE THICKNESS (IN) 1.567

PROJECTILE LENGTH (IN) 16.666

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 88 PROJECTILE B1

INSPECTION DATE 11/13/70

Z1	(- - - - - INSIDE - - - - -)			DIA	(- - - - - OUTSIDE - - - - -)			DIA
	X-ACT	Y-ACT	TIR		X-ACT	Y-ACT	TIR	
1.90	0.0057	0.0156	0.01661	2.958	0.0024	-0.0013	0.00273	4.986
2.90	-0.0005	0.0156	0.01561	3.378	0.0021	0.0017	0.00270	5.126
3.90	0.0044	0.0144	0.01506	3.492	0.0057	0.0050	0.00758	5.124
4.90	0.0066	0.0152	0.01657	3.608	0.0014	-0.0002	0.00141	4.987
5.90	0.0073	0.0148	0.01650	3.720	0.0017	-0.0003	0.00173	4.955
6.90	0.0078	0.0134	0.01550	3.839	0.0024	0.0002	0.00241	4.957
7.90	0.0065	0.0141	0.01553	3.928	0.0042	0.0010	0.00432	4.956
8.90	0.0060	0.0137	0.01496	3.931	0.0029	0.0002	0.00291	4.958
9.90	0.0051	0.0141	0.01499	3.937	0.0028	0.0004	0.00283	4.955
Z2	(- - - - - INSIDE - - - - -)			DIA	(- - - - - OUTSIDE - - - - -)			DIA
	X-ACT	Y-ACT	TIR		X-ACT	Y-ACT	TIR	
5.75	0.0071	0.0173	0.01870	3.940	0.0033	0.0009	0.00342	4.986
4.75	0.0123	0.0147	0.01917	3.899	0.0035	0.0001	0.00350	4.888
3.75	0.0183	0.0083	0.02009	3.706	0.0034	-0.0	0.00340	4.701
3.25	0.0176	0.0022	0.01774	3.584	0.0017	0.0003	0.00173	4.579
2.75	0.0151	-0.0066	0.01511	3.449	0.0023	0.0012	0.00259	4.437
2.25	0.0126	-0.0069	0.01262	3.276	0.0027	0.0001	0.00270	4.275
1.75	0.0115	-0.0025	0.01177	2.958	0.0026	0.0009	0.00275	4.094
1.25	0.0085	0.0035	0.00919	2.612	0.0038	0.0003	0.00381	3.891
Z3	X-ACT	Y-ACT	TIR					
1.00	0.0043	0.0045	0.00622					
7.00	0.0028	0.0063	0.00689					

BASE THICKNESS (IN) 1.563

PROJECTILE LENGTH (IN) 16.667

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 88 PROJECTILE B2

INSPECTION DATE 11/16/70

Z1	(- - - - INSIDE - - - - )				(- - - - OUTSIDE - - - - )			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	0.0129	0.0055	0.01602	2.978	-0.0007	0.0004	0.00081	4.982
2.90	0.0044	0.0074	0.00861	3.278	0.0027	0.0026	0.00375	5.123
3.90	0.0034	0.0082	0.00888	3.496	-0.0017	0.0028	0.00328	5.127
4.90	0.0013	0.0079	0.00801	3.614	-0.0035	0.0005	0.00354	4.986
5.90	0.0018	0.0078	0.00800	3.727	-0.0017	0.0	0.00170	4.955
6.90	0.0028	0.0051	0.00552	3.842	0.0005	0.0001	0.00051	4.958
7.90	0.0015	0.0053	0.00843	3.927	0.0009	-0.0012	0.00150	4.954
8.90	0.0020	0.0073	0.00757	3.929	-0.0015	-0.0009	0.00175	4.955
9.90	-0.0000 <sup>a</sup>	0.0061	0.00617	3.935	-0.0018	-0.0008	0.00197	4.958
Z2	(- - - - INSIDE - - - - )				(- - - - OUTSIDE - - - - )			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0012	0.0066	0.00671	3.944	-0.0012	-0.0004	0.00126	4.986
4.75	0.0	0.0066	0.00660	3.907	-0.0010	-0.0005	0.00112	4.887
3.75	0.0012	0.0052	0.00534	3.710	-0.0019	-0.0016	0.00248	4.702
3.25	0.0023	0.0003	0.00232	3.578	-0.0021	-0.0012	0.00242	4.579
2.75	0.0017	-0.0031	0.00354	3.436	-0.0026	-0.0017	0.00311	4.437
2.25	0.0012	-0.0035	0.00370	3.255	-0.0019	-0.0013	0.00230	4.275
1.75	0.0022	-0.0033	0.00397	2.933	-0.0010	-0.0018	0.00206	4.093
1.25	0.0086	0.0007	0.00863	2.577	-0.0010	-0.0015	0.00180	3.891
Z3	X-ACT	Y-ACT	TIR					
1.00	-0.0014	0.0012	0.00184					
7.00	0.0193	-0.0067	0.02043					

BASE THICKNESS (IN) 1.556

PROJECTILE LENGTH (IN) 16.664

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LCT 88 PROJECTILE B4

INSPECTION DATE 11/12/70

Z1	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
1.90	-0.0050	0.0082	0.01010	2.970	0.0014	-0.0006	0.00152	4.982
2.90	-0.0062	0.0043	0.00755	3.379	0.0034	0.0018	0.00385	5.125
3.90	-0.0063	0.0039	0.00741	3.496	0.0023	-0.0	0.00230	5.125
4.90	-0.0086	0.0032	0.00918	3.612	0.0010	0.0006	0.00117	4.983
5.90	-0.0078	0.0028	0.00829	3.728	0.0038	0.0012	0.00398	4.961
6.90	-0.0076	0.0039	0.00854	3.848	0.0052	0.0016	0.00544	4.958
7.90	-0.0065	0.0035	0.00738	3.928	0.0040	0.0013	0.00421	4.958
8.90	-0.0072	0.0017	0.00740	3.927	0.0032	0.0012	0.00342	4.959
9.90	-0.0063	0.0013	0.00643	3.930	0.0043	0.0024	0.00492	4.958
Z2	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
5.75	-0.0004	0.0022	0.00224	3.932	0.0039	0.0012	0.00408	4.984
4.75	0.0022	0.0009	0.00238	3.893	0.0061	0.0011	0.00620	4.888
3.75	0.0028	-0.0013	0.00309	3.770	0.0048	0.0022	0.00528	4.700
3.25	0.0012	-0.0037	0.00389	3.646	0.0055	0.0017	0.00576	4.579
2.75	-0.0022	-0.0041	0.00465	3.487	0.0044	0.0014	0.00462	4.438
2.25	0.0021	-0.0041	0.00461	3.237	0.0057	0.0016	0.00592	4.273
1.75	0.0065	0.0034	0.00734	2.856	0.0029	0.0001	0.00290	4.096
1.25	0.0198	-0.0012	0.01984	2.577	0.0065	0.0023	0.00689	3.892
Z3	X-ACT	Y-ACT	TIR					
1.00	0.0043	0.0011	0.00444					
7.00	0.0023	0.0046	0.00514					

BASE THICKNESS (IN) 1.557

PROJECTILE LENGTH (IN) 16.655

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LCT 89 PROJECTILE R2

INSPECTION DATE 11/23/70

(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)				
71	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0133	-0.0096	0.01640	3.08F	-0.0002	-0.0010	0.00102	4.983
2.90	-0.0089	-0.0025	0.01231	3.368	-0.0005	-0.0016	0.00168	5.121
3.90	-0.0108	-0.0043	0.01162	3.486	-0.0015	-0.0003	0.00153	5.121
4.90	-0.0165	0.0002	0.01650	3.605	-0.0012	-0.0007	0.00139	4.983
5.90	-0.0150	0.0018	0.01511	3.717	-0.0011	-0.0011	0.00156	4.955
6.90	-0.0142	0.0029	0.01449	3.832	-0.0013	-0.0008	0.00153	4.955
7.90	-0.0141	0.0032	0.01446	3.917	-0.0007	-0.0008	0.00106	4.953
8.90	-0.0137	0.0039	0.01424	3.917	-0.0025	-0.0009	0.00266	4.951
9.90	-0.0110	0.0064	0.01272	3.918	-0.0023	-0.0007	0.00240	4.953
(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)				
22	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0120	0.0051	0.01304	3.932	-0.0024	-0.0014	0.00278	4.985
4.75	-0.0103	0.0043	0.01116	3.898	-0.0032	-0.0016	0.00358	4.885
3.75	-0.0089	0.0042	0.00984	3.710	-0.0031	-0.0007	0.00318	4.697
3.25	-0.0089	0.0058	0.01062	3.585	-0.0032	-0.0010	0.00335	4.572
2.75	-0.0074	0.0072	0.01032	3.447	-0.0042	-0.0011	0.00434	4.432
2.25	-0.0061	0.0062	0.00870	3.251	-0.0032	-0.0008	0.00330	4.270
1.75	-0.0035	0.0045	0.00570	2.902	-0.0039	-0.0011	0.00405	4.085
1.25	-0.0057	-0.0054	0.00785	2.593	-0.0034	-0.0006	0.00345	3.883
23	X-ACT	Y-ACT	TIR					
1.00	-0.0038	-0.0003	0.00381					
7.00	0.0205	-0.0007	0.02051					

BASE THICKNESS (IN) 1.45

PROJECTILE LENGTH (IN) 16.653

21 IS DISTANCE FROM BASE (IN)

22 IS DISTANCE FROM NOSE (IN)

23 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LCT 89 PROJECTILE B3

INSPECTION DATE 11/20/70

Z1	INSIDE				OUTSIDE				DIA
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR		
1.90	0.0057	1.0080	0.00982	2.980	-0.0005	-0.0007	0.00086	4.984	
2.90	0.0022	0.0026	0.00341	3.359	0.0022	0.0016	0.00272	5.125	
3.90	0.0085	0.0007	0.00852	3.479	0.0012	-0.0004	0.00126	5.128	
4.90	0.0120	-0.0004	0.01201	3.590	-0.0019	0.0001	0.00190	4.986	
5.90	0.0135	-0.0023	0.01369	3.706	0.0008	0.0003	0.00085	4.955	
6.90	0.0147	-0.0021	0.01485	3.822	0.0027	-0.0004	0.00273	4.952	
7.90	0.0157	-0.0021	0.01584	3.918	0.0007	0.0004	0.00081	4.952	
8.90	0.0155	-0.0035	0.01589	3.921	0.0001	0.0003	0.00032	4.952	
9.90	0.0148	-0.0043	0.01541	3.924	0.0006	0.0001	0.00061	4.952	

Z2	INSIDE				OUTSIDE				DIA
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR		
5.75	0.0150	-0.0042	0.01558	3.928	0.0015	0.0006	0.00162	4.984	
4.75	0.0123	-0.0039	0.01290	3.904	0.0017	0.0007	0.00184	4.882	
3.75	0.0084	-0.0017	0.00857	3.802	0.0004	0.0013	0.00136	4.696	
3.25	0.0062	0.0012	0.00632	3.682	-0.0001	0.0009	0.00091	4.573	
2.75	0.0064	0.0043	0.00771	3.518	-0.0009	0.0007	0.00114	4.431	
2.25	0.0057	0.0053	0.00778	3.264	0.0006	0.0005	0.00078	4.271	
1.75	0.0048	0.0049	0.00686	2.894	0.0013	0.0006	0.00143	4.089	
1.25	0.0019	0.0038	0.00425	2.604	0.0013	0.0008	0.00153	3.889	

Z3 X-ACT Y-ACT TIR

1.00	-0.0035	0.0031	0.00468
7.00	-0.0253	0.0088	0.02679

BASE THICKNESS (IN) 1.501

PROJECTILE LENGTH (IN) 16.680

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 89 PROJECTILE B4

INSPECTION DATE 11/20/70

Z1	INSIDE			OUTSIDE			DIA	
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT		TIR
1.90	0.0046	-0.0035	0.00578	3.030	-0.0014	-0.0002	0.00141	4.983
2.90	0.0059	-0.0085	0.01035	3.362	0.0	-0.0	0.0	5.125
3.90	0.0072	-0.0039	0.00819	3.480	-0.0003	-0.0005	0.00058	5.126
4.90	0.0086	0.0013	0.00870	3.596	-0.0010	0.0005	0.00112	4.986
5.90	0.0110	0.0045	0.01188	3.710	-0.0051	0.0005	0.00512	4.965
6.90	0.0115	0.0065	0.01321	3.824	-0.0010	-0.0005	0.00112	4.961
7.90	0.0121	0.0083	0.01467	3.913	-0.0010	0.0002	0.00102	4.962
8.90	0.0108	0.0089	0.01399	3.914	-0.0022	-0.0003	0.00222	4.961
9.90	0.0101	0.0054	0.01380	3.922	-0.0032	-0.0004	0.00322	4.963

Z2	INSIDE			OUTSIDE			DIA	
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT		TIR
5.75	0.0120	0.0075	0.01415	3.929	-0.0015	-0.0004	0.00155	4.982
4.75	0.0057	0.0052	0.01101	3.905	-0.0015	-0.0005	0.00158	4.886
3.75	0.0060	0.0032	0.00680	3.809	-0.0021	-0.0010	0.00233	4.699
2.25	0.0047	-0.0020	0.00511	3.694	-0.0018	-0.0007	0.00193	4.576
2.75	0.0013	-0.0074	0.00751	3.525	-0.0017	-0.0005	0.00177	4.435
2.25	-0.0050	-0.0138	0.01468	3.266	-0.0027	-0.0006	0.00277	4.272
1.75	-0.0123	-0.0150	0.02263	2.892	-0.0015	-0.0010	0.00180	4.090
1.25	-0.0099	-0.0171	0.01976	2.612	-0.0022	-0.0005	0.00226	3.888

Z3 X-ACT Y-ACT TIR

1.00	-0.0067	0.0020	0.00699
7.00	-0.0063	0.0026	0.00682

BASE THICKNESS (IN) 1.509

PROJECTILE LENGTH (IN) 16.659

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 89 PROJECTILE R5

INSPECTION DATE 11/17/70

Z1	(- - - - INSIDE - - - - )				(- - - - OUTSIDE - - - - )			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	0.0104	0.0080	0.01212	3.006	0.0012	-0.0002	0.00122	4.985
2.90	0.0054	0.0021	0.00963	3.366	0.0006	-0.0002	0.00063	5.120
3.90	0.0123	0.0038	0.01287	3.483	0.0006	0.0	0.00060	5.125
4.90	0.0122	0.0041	0.01287	3.596	0.0013	-0.0	0.00130	4.982
5.90	0.0134	0.0036	0.01388	3.712	0.0008	-0.0001	0.00081	4.955
6.90	0.0132	0.0032	0.01258	3.827	0.0021	-0.0001	0.00210	4.953
7.90	0.0138	0.0042	0.01442	3.913	0.0015	-0.0004	0.00155	4.953
8.90	0.0109	0.0030	0.01131	3.914	0.0009	-0.0001	0.00091	4.954
9.90	0.0120	0.0030	0.01217	3.918	0.0008	-0.0004	0.00089	4.954
Z2	(- - - - INSIDE - - - - )				(- - - - OUTSIDE - - - - )			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	0.0153	0.0041	0.01584	3.926	0.0007	-0.0005	0.00086	4.985
4.75	0.0133	0.0046	0.01407	3.894	0.0019	0.0	0.00190	4.886
3.75	0.0105	0.0068	0.01052	3.740	0.0013	-0.0007	0.00148	4.700
3.25	0.0102	-0.0039	0.01088	3.610	0.0026	-0.0003	0.00262	4.580
2.75	0.0089	-0.0083	0.01217	3.476	0.0010	-0.0009	0.00135	4.439
2.25	0.0066	+0.0118	0.01252	3.287	0.0006	-0.0008	0.00100	4.278
1.75	0.0020	-0.0147	0.01484	2.954	0.0014	-0.0003	0.00143	4.099
1.25	-0.0017	-0.0085	0.00867	2.606	0.0018	-0.0002	0.00181	3.898
Z3	X-ACT	Y-ACT	TIR					
1.00	0.0013	0.0030	0.00327					
7.00	0.0225	0.0144	0.02671					

BASE THICKNESS (IN) 1.532

PROJECTILE LENGTH (IN) 16.648

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LCT 90 PROJECTILE 84

INSPECTION DATE 11/23/70

Z1	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)			DIA	
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT		TIR
1.90	-0.0031	-0.0150	0.01532	3.008	-0.0013	0.0002	0.00132	4.984
2.90	0.0099	-0.0116	0.01525	3.368	-0.0006	0.0016	0.00171	5.124
3.90	0.0045	-0.0127	0.01347	3.484	-0.0006	0.0010	0.00117	5.123
4.90	0.0032	-0.0103	0.01079	3.599	-0.0005	0.0005	0.00071	4.985
5.90	0.0003	-0.0073	0.00731	3.714	-0.0006	0.0013	0.00143	4.953
6.90	-0.0015	-0.0053	0.00551	3.829	-0.0005	0.0001	0.00051	4.951
7.90	-0.0016	-0.0051	0.00535	3.915	0.0001	0.0005	0.00051	4.950
8.90	-0.0036	-0.0023	0.00427	3.917	-0.0004	0.0005	0.00064	4.950
9.90	-0.0050	-0.0013	0.00517	3.919	-0.0008	0.0003	0.00085	4.950

Z2	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)			DIA	
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT		TIR
5.75	-0.0079	-0.0004	0.00791	3.927	0.0008	0.0005	0.00094	4.983
4.75	-0.0069	-0.0005	0.00692	3.888	0.0010	0.0003	0.00104	4.883
3.75	-0.0064	0.0003	0.00641	3.763	0.0002	0.0005	0.00054	4.697
3.25	-0.0104	-0.0002	0.01040	3.639	-0.0013	0.0002	0.00132	4.578
2.75	-0.0111	-0.0012	0.01116	3.469	-0.0009	0.0005	0.00103	4.436
2.25	-0.0093	-0.0004	0.00931	3.208	-0.0008	-0.0	0.00080	4.276
1.75	-0.0143	0.0035	0.01472	2.839	-0.0005	0.0001	0.00051	4.095
1.25	0.0035	0.0152	0.01560	2.566	0.0006	0.0002	0.00063	3.895

Z3	X-ACT	Y-ACT	TIR
1.00	-0.0003	-0.0009	0.00095
7.00	0.0055	-0.0028	0.00669

BASE THICKNESS (IN) 1.494

PROJECTILE LENGTH (IN) 16.652

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LCT SI PROJECTILE #1

INSPECTION DATE 11/13/70

Z1	INSIDE				OUTSIDE				DIA
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
1.90	-0.0065	0.0064	0.00912	2.980	-0.0005	-0.0014	0.00149	4.983	
2.90	0.0020	0.0018	0.00269	3.370	-0.0023	-0.0009	0.00247	5.123	
3.90	0.0006	0.0042	0.00424	3.486	-0.0029	0.0009	0.00304	5.127	
4.90	-0.0055	0.0063	0.00836	3.601	-0.0018	-0.0002	0.00181	4.985	
5.90	-0.0058	0.0077	0.00964	3.714	-0.0012	0.0004	0.00126	4.958	
6.90	-0.0058	0.0072	0.00925	3.826	-0.0014	0.0003	0.00143	4.954	
7.90	-0.0060	0.0071	0.00990	3.920	-0.0006	0.0005	0.00078	4.954	
8.90	-0.0070	0.0067	0.00969	3.920	-0.0018	0.0008	0.00197	4.954	
9.90	-0.0078	0.0058	0.00972	3.921	-0.0016	0.0007	0.00175	4.954	
Z2	INSIDE				OUTSIDE				DIA
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
5.75	-0.0067	0.0065	0.00933	3.924	-0.0005	0.0016	0.00168	4.982	
4.75	-0.0077	0.0065	0.01008	3.903	-0.0007	0.0020	0.00212	4.884	
3.75	-0.0046	0.0057	0.00732	3.800	-0.0009	0.0021	0.00228	4.697	
3.25	-0.0001	0.0058	0.00580	3.676	-0.0013	0.0018	0.00222	4.577	
2.75	0.0033	0.0064	0.00720	3.511	-0.0018	0.0015	0.00234	4.435	
2.25	0.0052	0.0054	0.00750	3.269	-0.0010	0.0022	0.00242	4.274	
1.75	0.0073	0.0037	0.00818	2.901	-0.0006	0.0021	0.00218	4.093	
1.25	0.0061	0.0108	0.01240	2.601	0.0001	0.0022	0.00220	3.891	
Z3	X-ACT	Y-ACT	TIR						
1.00	-0.0020	0.0050	0.00539						
7.00	0.0038	0.0008	0.00388						

BASE THICKNESS (IN) 1.503

PROJECTILE LENGTH (IN) 16.664

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LOT 91 PROJECTILE B4

INSPECTION DATE 11/23/70

(- - - - INSIDE - - - - )				(- - - - OUTSIDE - - - - )				
Z1	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA

1.90	0.0037	0.0053	0.00646	3.004	0.0010	0.0	0.00100	4.982
2.90	-0.0033	-0.0062	0.00702	3.368	-0.0009	-0.0	0.00090	5.123
3.90	-0.0047	-0.0084	0.00663	3.482	-0.0004	0.00099	0.00098	5.127
4.90	-0.0033	-0.0088	0.00640	3.594	-0.0005	0.0002	0.00054	4.985
5.90	-0.0012	-0.0104	0.01047	3.705	0.0C26	0.0004	0.00263	4.957
6.90	-0.0012	-0.0112	0.01126	3.824	0.0C22	0.0001	0.00220	4.956
7.90	-0.0024	-0.0119	0.01214	3.910	0.0C34	0.0004	0.00342	4.955
8.90	-0.0042	-0.0117	0.01243	3.916	0.0015	0.0003	0.00153	4.956
9.90	-0.0024	-0.0114	0.01165	3.917	0.0011	0.0006	0.00125	4.955

(- - - - INSIDE - - - - )				(- - - - OUTSIDE - - - - )				
Z2	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA

5.75	-0.0046	-0.0112	0.01211	3.919	0.0025	0.0005	0.00255	4.982
4.75	-0.0037	-0.0055	0.01020	3.901	0.0018	0.0009	0.00201	4.887
3.75	-0.0062	-0.0043	0.00755	3.796	0.0C29	0.0013	0.00318	4.702
3.25	-0.0073	-0.0077	0.00733	3.676	0.0020	0.0014	0.00244	4.580
2.75	-0.0086	0.0040	0.00648	3.508	0.0C19	0.0016	0.00248	4.441
2.25	-0.0067	0.0074	0.00598	3.256	0.0C24	0.0019	0.00306	4.279
1.75	-0.0035	0.0111	0.01164	2.886	0.0C25	0.0026	0.00361	4.098
1.25	0.0043	0.0112	0.01200	2.598	0.0031	0.0024	0.00392	3.897

Z3	X-ACT	Y-ACT	TIR
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1.00	0.0005	0.006	0.00078
7.00	-0.0006	0.0016	0.00171

BASE THICKNESS (IN) 1.509

PROJECTILE LENGTH (IN) 16.665

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LCT 91 PROJECTILE RS

INSPECTION DATE 11/16/70

Z1	INSIDE -----				OUTSIDE -----				DIA
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
1.90	0.0271	-0.0170	0.02180	3.039	0.0022	-0.0003	0.00222	4.982	
2.90	0.0152	-0.0109	0.02120	3.067	0.0034	-0.0010	0.00354	5.127	
3.90	0.0178	-0.0153	0.02247	3.080	0.0036	0.0001	0.00360	5.126	
4.90	0.0034	-0.0166	0.01694	3.018	0.0019	-0.0005	0.00187	4.995	
5.90	-0.0053	-0.0092	0.01208	3.092	0.0010	0.0006	0.00190	4.958	
6.90	-0.0012	-0.0119	0.01196	3.059	0.0028	0.0004	0.00283	4.956	
7.90	0.0054	-0.0122	0.01334	3.030	0.0014	-0.0012	0.00184	4.955	
8.90	0.0055	-0.0126	0.01375	3.034	0.0013	-0.0005	0.00139	4.955	
9.90	0.0050	-0.0118	0.01282	3.040	0.0017	-0.0006	0.00180	4.956	
Z2	INSIDE -----				OUTSIDE -----				DIA
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
5.75	0.0139	-0.0169	0.02180	3.032	0.0015	-0.0003	0.00153	4.982	
4.75	0.0121	-0.0142	0.01939	3.006	0.0021	-0.0004	0.00214	4.880	
3.75	0.0129	-0.0079	0.01507	3.091	0.0013	0.0002	0.00132	4.693	
3.25	0.0103	-0.0023	0.01055	3.056	0.0006	-0.0001	0.00061	4.570	
2.75	0.0105	0.0024	0.01077	3.077	0.0	0.0001	0.00010	4.420	
2.25	0.0105	0.0060	0.01120	3.177	0.0015	0.0003	0.00153	4.264	
1.75	0.0104	0.0059	0.01101	2.804	0.0029	0.0009	0.00304	4.083	
1.25	0.0203	0.0050	0.02114	2.570	0.0026	-0.0011	0.00282	3.881	
Z3	X-ACT	Y-ACT	TIR						
1.00	0.0003	-0.0010	0.00104						
7.00	-0.0026	0.0041	0.00502						

BASE THICKNESS (IN) 1.502

PROJECTILE LENGTH (IN) 16.800

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LCT GP PROJECTILE B1

INSPECTION DATE 11/13/70

71	--- INSIDE ---				--- OUTSIDE ---			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA

1.90	0.0109	-0.0006	C.01092	2.883	0.0012	-0.0002	0.00122	4.984
2.90	0.0200	-0.0025	C.02030	3.356	-0.0017	-0.0001	0.00170	5.127
3.90	0.0186	-0.0	C.01860	3.470	0.0036	0.0004	0.00362	5.124
4.90	0.0167	0.0019	C.01579	3.583	-0.0013	0.0001	0.00130	4.984
5.90	0.0220	0.0026	C.02215	3.695	-0.0004	0.0002	0.00045	4.957
6.90	0.0218	0.0041	C.02218	3.810	0.0006	-0.0003	0.00067	4.954
7.90	0.0232	0.0044	C.02361	3.912	0.0007	0.0002	0.00073	4.955
8.90	0.0190	0.0050	C.01965	3.918	-0.0018	-0.0007	0.00193	4.954
9.90	0.0167	0.0042	C.01722	3.926	0.0003	-0.0	0.00030	4.953

72	--- INSIDE ---				--- OUTSIDE ---			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA

5.75	0.0146	0.0057	0.01567	3.936	0.0007	0.0001	0.00071	4.986
4.75	0.0082	0.0063	C.01034	3.909	0.0	0.0001	0.00010	4.888
3.75	0.0055	0.0044	C.00704	3.804	0.0002	-0.0002	0.00028	4.700
3.25	0.0069	0.0029	C.00748	3.693	-0.0010	-0.0001	0.00100	4.576
2.75	0.0041	0.0029	C.00955	3.537	-0.0003	0.0002	0.00036	4.434
2.25	0.0114	0.0005	C.01141	3.302	-0.0005	-0.0	0.00050	4.275
1.75	0.0141	-0.0026	C.01434	2.941	0.0006	0.0001	0.00061	4.089
1.25	0.0168	-0.0033	C.01712	2.627	0.0003	0.0009	0.00095	3.886

23	X-ACT	Y-ACT	TIR
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1.00	-0.0009	-0.0006	C.00109
7.00	-0.0002	-0.0003	C.00030

BASE THICKNESS (IN) 1.501

PROJECTILE LENGTH (IN) 16.647

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

23 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-01 CT 92 PROJECTILE R3

INSPECTION DATE 11/25/70

71	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)				DIA
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
1.90	0.0037	0.0019	0.00416	2.986	0.0011	-0.0003	0.00114	4.987	
2.90	0.0149	0.0006	0.01491	3.364	-0.0023	-0.0003	0.00232	5.126	
3.90	0.0110	0.0046	0.01192	3.479	-0.0012	0.0011	0.00163	5.127	
4.90	0.0080	0.0083	0.01152	3.592	0.0006	0.0009	0.00108	4.985	
5.90	0.0083	0.0109	0.01370	3.707	0.0003	0.0002	0.00036	4.961	
6.90	0.0082	0.0108	0.01356	3.820	0.0030	0.0008	0.00310	4.960	
7.90	0.0072	0.0111	0.01323	3.913	0.0010	0.0009	0.00135	4.961	
8.90	0.0063	0.0118	0.01338	3.917	0.0011	0.0009	0.00142	4.961	
9.90	0.0038	0.0125	0.01402	3.922	0.0009	0.0015	0.00175	4.952	
22	(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)				DIA
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
5.75	0.0035	0.0157	0.01600	3.931	0.0020	0.0015	0.00250	4.984	
4.75	0.0051	0.0143	0.01518	3.903	0.0029	0.0016	0.00331	4.882	
3.75	0.0052	0.0081	0.00663	3.735	0.0036	0.0010	0.00374	4.696	
3.25	0.0047	0.0013	0.00498	3.608	0.0025	0.0015	0.00292	4.573	
2.75	0.0044	-0.0057	0.00720	3.468	0.0002	0.0009	0.00092	4.432	
2.25	0.0027	-0.0074	0.00788	3.286	0.0034	0.0024	0.00416	4.268	
1.75	0.0005	-0.0105	0.01051	2.964	0.0012	0.0030	0.00323	4.087	
1.25	-0.0002	-0.0110	0.01100	2.616	0.0019	0.0019	0.00269	3.885	
23	X-ACT	Y-ACT	TIR						
1.00	-0.0029	-0.0028	0.00478						
7.00	-0.0081	-0.0049	0.00947						

BASE THICKNESS (IN) 1.529

PROJECTILE LENGTH (IN) 16.598

71 IS DISTANCE FROM BASE (IN)

22 IS DISTANCE FROM NOSE (IN)

23 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/28 MK 46-0 LOT 92 PROJECTILE R4

INSPECTION DATE 11/19/70

71	INSIDE				OUTSIDE			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	-0.0059	0.0020	0.01010	2.994	0.0008	-0.0008	0.00113	4.984
2.90	-0.0027	-0.0031	0.00411	3.368	0.0012	-0.0012	0.00170	5.127
3.90	-0.0059	-0.0001	0.00590	3.483	0.0010	-0.0038	0.00393	5.127
4.90	-0.0060	0.0024	0.00690	3.596	-0.0001	0.0004	0.00041	4.986
5.90	-0.0053	0.0059	0.01101	3.709	0.0002	0.0001	0.00022	4.961
6.90	-0.0080	0.0087	0.01182	3.825	0.0010	-0.0005	0.00112	4.961
7.90	-0.0058	0.0058	0.01139	3.916	-0.0005	-0.0004	0.00064	4.959
8.90	-0.0103	0.0105	0.01471	3.919	-0.0010	-0.0005	0.00112	4.960
9.90	-0.0096	0.0121	0.01545	3.923	-0.0016	-0.0003	0.00163	4.961
72	INSIDE				OUTSIDE			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0070	0.0132	0.01503	3.924	-0.0020	-0.0004	0.00204	4.984
4.75	-0.0037	0.0103	0.01415	3.903	-0.0020	-0.0009	0.00219	4.889
3.75	-0.0146	0.0064	0.01594	3.751	-0.0016	-0.0007	0.00175	4.705
3.25	-0.0177	0.0060	0.01869	3.625	-0.0013	-0.0004	0.00136	4.584
2.75	-0.0184	0.0062	0.01945	3.483	-0.0035	-0.0011	0.00367	4.440
2.25	-0.0157	0.0071	0.01723	3.298	-0.0032	-0.0014	0.00349	4.280
1.75	-0.0052	0.0082	0.01232	2.872	-0.0017	-0.0008	0.00188	4.100
1.25	-0.0042	0.0079	0.00895	2.678	-0.0027	-0.0009	0.00285	3.899
73	X-ACT	Y-ACT	TIR					
1.00	0.0070	0.0045	0.00508					
7.00	0.0133	0.0034	0.03173					

BASE THICKNESS (IN) 1.509

PROJECTILE LENGTH (IN) 16.501

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

73 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 1 CT 92 PROJECTILE RS

INSPECTION DATE 11/24/70

71	INSIDE				OUTSIDE			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	0.0086	0.0058	C.01037	2.951	0.0018	0.0008	0.00197	4.984
2.90	-0.0076	0.0105	C.01204	3.367	0.0021	0.0002	0.00311	5.122
3.90	-0.0052	0.0073	0.00902	3.492	C.0019	0.0017	0.00255	5.124
4.90	-0.0029	0.0026	0.00462	3.592	0.0002	0.0003	0.00036	4.984
5.90	-0.0020	0.0022	0.00372	3.705	0.0006	0.0012	0.00134	4.960
6.90	-0.0019	0.0010	0.00205	3.820	0.0038	0.0005	0.00383	4.955
7.90	-0.0029	-0.0005	0.00392	3.914	0.0011	-0.0007	0.00130	4.957
8.90	-0.0042	0.0002	0.00420	3.919	0.0016	0.0002	0.00161	4.958
9.90	-0.0047	0.0003	C.00471	3.922	-0.0003	-0.0004	0.00050	4.957
72	INSIDE				OUTSIDE			
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0052	-0.0001	0.00520	3.828	0.0016	-0.0007	0.00175	4.985
4.75	-0.0046	-0.0003	0.00461	3.905	C.0007	0.0003	0.00076	4.886
3.75	-0.0052	-0.0002	0.00520	3.794	0.0007	0.0007	0.00099	4.698
3.25	-0.0039	-0.0024	0.00459	3.674	C.0006	0.0004	0.00072	4.576
2.75	-0.0048	-0.0023	0.00592	3.507	0.0011	0.0004	0.00117	4.431
2.25	-0.0045	-0.0022	0.00501	3.256	C.0009	-0.0	0.00090	4.272
1.75	-0.0024	0.0014	0.00305	2.882	C.0005	0.0003	0.00058	4.090
1.25	-0.0052	-0.0029	0.00505	2.565	0.0019	-0.0001	0.00190	3.887
73	X-ACT	Y-ACT	TIR					
1.00	-0.0010	-0.0040	C.00412					
7.00	-0.0145	-0.0172	C.02250					

BASE THICKNESS (IN) 1.542

PROJECTILE LENGTH (IN) 16.600

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

73 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## C/N PROJECTILE INSPECTION DATA

5/38 MK 56-0 LCT SP PROJECTILE R2

INSPECTION DATE 11/30/70

Z1	INSIDE				OUTSIDE				DIA
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
1.90	-0.0010	0.0072	0.00727	2.987	0.0016	0.0008	0.00179	4.987	
2.90	0.0107	0.0009	0.01074	3.365	0.0034	0.0038	0.00510	5.126	
3.90	0.0096	0.0064	0.01072	3.478	0.0034	0.0042	0.00540	5.125	
4.90	0.0081	0.0085	0.01174	3.594	-0.0005	0.0010	0.00112	4.988	
5.90	0.0087	0.0050	0.01252	3.707	0.0005	0.0007	0.00086	4.962	
6.90	0.0101	0.0088	0.01340	3.822	0.0034	0.0012	0.00361	4.960	
7.90	0.0104	0.0097	0.01256	3.917	0.0010	0.0002	0.00102	4.958	
8.90	0.0063	0.0087	0.01074	3.918	0.0013	0.0019	0.00230	4.960	
9.90	0.0064	0.0074	0.00878	3.922	0.0010	0.0008	0.00128	4.958	
Z2	INSIDE				OUTSIDE				DIA
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
5.75	0.0072	0.0068	0.00990	3.927	0.0013	0.0014	0.00191	4.984	
4.75	0.0085	0.0053	0.01002	3.900	0.0015	0.0016	0.00219	4.881	
3.75	0.0052	0.0027	0.00586	3.729	0.0011	0.0022	0.00246	4.696	
3.25	0.0017	0.0003	0.00172	3.601	-0.0003	0.0021	0.00212	4.574	
2.75	-0.0015	-0.0010	0.00180	3.455	-0.0006	0.0023	0.00238	4.432	
2.25	-0.0017	-0.0016	0.00232	3.261	0.0006	0.0021	0.00218	4.268	
1.75	-0.0017	-0.0014	0.00220	3.026	0.0019	0.0025	0.00314	4.086	
1.25	-0.0017	-0.0018	0.00248	2.600	0.0007	0.0030	0.00308	3.885	
Z3	X-ACT	Y-ACT	TIR						
1.00	0.0021	-0.0011	0.00237						
7.00	0.0023	-0.0229	0.02302						

BASE THICKNESS (IN) 1.536

PROJECTILE LENGTH (IN) 16.675

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-A 1 CT C2 PROJECTILE R3

INSPECTION DATE 11/25/70

71	INSIDE				OUTSIDE				DIA
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
1.90	-0.0182	0.0066	0.01524	2.873	0.0025	0.0009	0.00266	4.985	
2.90	-0.0057	0.0181	0.02054	3.360	0.0014	0.0005	0.00149	5.123	
3.90	-0.0102	0.0121	0.01664	3.475	-0.0006	0.0019	0.00190	5.127	
4.90	-0.0120	0.0104	0.01601	3.591	0.0012	0.0020	0.00233	4.983	
5.90	-0.0111	0.0084	0.01292	3.701	0.0013	0.0027	0.00300	4.963	
6.90	-0.0126	0.0067	0.01409	3.818	0.0023	0.0026	0.00347	4.961	
7.90	-0.0106	0.0060	0.01218	3.921	0.0019	0.0034	0.00389	4.960	
8.90	-0.0117	0.0049	0.01268	3.923	0.0013	0.0030	0.00327	4.961	
9.90	-0.0125	0.0042	0.01219	3.927	0.0023	0.0040	0.00461	4.964	
72	INSIDE				OUTSIDE				DIA
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
5.75	-0.0112	0.0022	0.01155	3.823	0.0012	0.0019	0.00225	4.983	
4.75	-0.0116	0.0042	0.01257	3.910	0.0022	0.0024	0.00326	4.888	
3.75	-0.0087	0.0029	0.00652	3.746	0.0010	0.0024	0.00260	4.699	
2.75	-0.0052	0.0015	0.00551	3.613	0.0009	0.0027	0.00285	4.579	
2.75	-0.0019	-0.0002	0.00191	3.471	-0.0001	0.0020	0.00200	4.437	
2.25	0.0017	-0.0014	0.00211	3.283	0.0007	0.0024	0.00250	4.273	
1.75	0.0022	-0.0049	0.00879	3.986	-0.0008	0.0029	0.00301	4.092	
1.25	0.0108	-0.0022	0.01126	3.626	0.0015	0.0021	0.00258	3.891	
73	X-ACT	Y-ACT	TIR						
1.00	-0.0000	0.0018	0.00181						
7.00	0.0081	0.0101	0.01205						

BASE THICKNESS (IN) 1.550

PROJECTILE LENGTH (IN) 16.408

71 TS DISTANCE FROM BASE (IN)

72 TS DISTANCE FROM NOSE (IN)

72 TS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 1 CT 93 PROJECTILE R4

INSPECTION DATE 11/19/70

Z1	INSIDE			OUTSIDE			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
1.90	0.0059	-0.0044	0.01043	2.965	0.0011	0.0006	0.00125	4.984
2.90	0.0054	-0.0067	0.00861	3.364	0.0017	-0.0007	0.00184	5.124
3.90	0.0069	-0.0055	0.01133	3.477	0.0006	-0.0003	0.00067	5.123
4.90	0.0111	-0.0046	0.01202	3.591	-0.0005	0.0003	0.00095	4.985
5.90	0.0113	-0.0042	0.01206	3.705	-0.0005	0.0002	0.00054	4.955
6.90	0.0122	-0.0046	0.01398	3.821	0.0012	-0.0	0.00120	4.954
7.90	0.0125	-0.0057	0.01465	3.918	0.0009	-0.0004	0.00098	4.954
8.90	0.0131	-0.0060	0.01441	3.920	0.0004	0.0004	0.00057	4.953
9.90	0.0130	-0.0063	0.01445	3.925	0.0002	0.0002	0.00028	4.953
Z2	INSIDE			OUTSIDE			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
5.75	0.0118	-0.0072	0.01392	3.934	0.0012	0.0	0.00120	4.984
4.75	0.0085	-0.0091	0.01245	3.913	0.0012	0.0003	0.00124	4.888
3.75	0.0045	-0.0061	0.00758	3.910	0.0009	-0.0	0.00080	4.702
2.75	0.0024	-0.0027	0.00441	3.695	0.0011	0.0004	0.00117	4.578
2.75	0.0012	-0.0023	0.00259	3.534	0.0	0.0002	0.00020	4.437
1.75	0.0020	-0.0011	0.00228	3.292	-0.0007	-0.0007	0.00099	4.277
1.25	0.0029	0.0004	0.00292	2.925	0.0014	0.0001	0.00140	4.091
1.25	0.0052	0.0013	0.00546	2.625	0.0015	0.0003	0.00153	3.890
Z3	X-ACT	Y-ACT	TIR					
1.00	-0.0023	-0.0020	0.00205					
7.00	-0.0046	-0.0233	0.02375					

BASE THICKNESS (IN) 1.550

PROJECTILE LENGTH (IN) 16.662

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LCT SP PROJECTILE B5

INSPECTION DATE 11/23/70

71	INSIDE			OUTSIDE			DIA
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR	

1.90	0.0021	0.0103	0.01051	3.067	0.0003	0.0018	0.00182	4.976
2.90	0.0050	0.0053	0.00729	3.367	0.0008	0.0009	0.00120	5.126
3.90	0.0050	0.0058	0.00827	3.48 <sup>a</sup>	-0.0001	0.0014	0.00140	5.127
4.90	0.0058	0.0078	0.00972	3.60 <sup>b</sup>	-0.0002	0.0005	0.00054	4.986
5.90	0.0054	0.0077	0.01215	3.715	-0.0016	0.0014	0.00213	4.957
6.90	0.0110	0.0059	0.01480	3.82 <sup>c</sup>	0.0003	0.0016	0.00163	4.957
7.90	0.0103	0.0102	0.01450	3.912	-0.0008	0.0019	0.00206	4.956
8.90	0.0121	0.0117	0.01683	3.912	-0.0022	0.0017	0.00278	4.955
9.90	0.0127	0.0127	0.01796	3.916	-0.0012	0.0015	0.00192	4.957

72	INSIDE			OUTSIDE			DIA
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR	

5.75	0.0160	0.0146	0.02156	3.925	-0.0007	0.0006	0.00092	4.984
4.75	0.0162	0.0140	0.02149	3.902	-0.0001	0.0018	0.00180	4.892
3.75	0.0126	0.0078	0.01482	3.741	-0.0007	0.0024	0.00250	4.705
3.25	0.0104	0.0028	0.01077	3.614	-0.0025	0.0018	0.00308	4.582
2.75	0.0102	-0.0038	0.01088	3.472	-0.0005	0.0016	0.00168	4.440
2.25	0.0070	-0.0058	0.01204	3.287	-0.0016	0.0017	0.00233	4.280
1.75	0.0035	-0.0163	0.01667	2.95 <sup>d</sup>	-0.0001	0.0017	0.00170	4.098
1.25	-0.0048	-0.0132	0.01405	2.623	-0.0006	0.0021	0.00218	3.896

73	INSIDE			OUTSIDE			DIA
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR	

1.00	-0.0052	0.0008	0.00526				
7.00	-0.0035	-0.0001	0.00350				

BASE THICKNESS (IN) 1.473

PROJECTILE LENGTH (IN) 16.587

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/18 MK 46-0 1 CT 94 PROJECTILE R2

INSPECTION DATE 11/12/70

(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)				
71	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
1.90	0.0175	0.0123	0.02198	2.986	0.0019	-0.0002	0.00191	4.983
2.90	0.0035	0.0078	0.00859	3.773	-0.0020	0.0034	0.00394	5.125
3.90	0.0046	0.0073	0.00862	3.486	-0.0009	0.0040	0.00410	5.126
4.90	0.0034	0.0053	0.00670	3.598	-0.0043	-0.0005	0.00433	4.986
5.90	0.0005	0.0030	0.00204	2.717	-0.0019	-0.0010	0.00215	4.962
6.90	0.0028	0.0028	0.00472	3.828	-0.0022	-0.0001	0.00220	4.963
7.90	0.0001	0.0032	0.00320	3.921	-0.0010	-0.0010	0.00141	4.962
8.90	-0.0020	0.0029	0.00492	3.925	-0.0013	0.0002	0.00132	4.962
9.90	-0.0064	0.0038	0.00744	3.929	-0.0004	0.0006	0.00072	4.962

(- - - - - INSIDE - - - - -)				(- - - - - OUTSIDE - - - - -)				
72	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA
5.75	-0.0076	0.0032	0.00854	3.938	-0.0005	0.0008	0.00094	4.984
4.75	-0.0064	0.0024	0.00725	3.915	-0.0020	0.0001	0.00200	4.886
3.75	-0.0068	0.0025	0.00724	3.812	-0.0025	0.0004	0.00253	4.698
3.25	-0.0069	-0.0	0.00680	3.696	-0.0021	0.0015	0.00258	4.575
2.75	-0.0062	-0.0025	0.00734	3.534	-0.0028	0.0008	0.00291	4.435
2.25	-0.0100	-0.0049	0.01114	3.293	-0.0025	0.0008	0.00262	4.270
1.75	-0.0101	-0.0026	0.01042	2.925	-0.0020	0.0002	0.00201	4.089
1.25	-0.0103	0.0036	0.01091	2.631	-0.0011	0.0005	0.00121	3.887

72 X-ACT Y-ACT TIR

1.00	-0.0	-0.0016	0.00160
7.00	-0.0022	-0.0026	0.00462

BASE THICKNESS (IN) 1.525

PROJECTILE LENGTH (IN) 16.656

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

72 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LCT S4 PROJECTILE R3

INSPECTION DATE 11/24/70

Z1	INSIDE				OUTSIDE				DIA
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR		

1.90	-0.0048	-0.0036	0.00600	2.952	0.0001	-0.0006	0.00061	4.984
2.90	0.0087	-0.0009	0.00875	3.250	0.0022	0.0037	0.00430	5.124
3.90	0.0042	-0.0052	0.00475	3.475	0.0015	0.0054	0.00560	5.121
4.90	0.0021	-0.0087	0.00895	3.588	-0.0011	0.0005	0.00121	4.986
5.90	0.0001	-0.0012	0.00130	3.704	0.0020	0.0019	0.00276	4.959
6.90	0.0011	-0.0107	0.01076	3.817	0.0008	0.0014	0.00161	4.955
7.90	0.0009	-0.0113	0.01132	3.919	0.0016	0.0017	0.00233	4.956
8.90	-0.0007	-0.0126	0.01262	3.921	0.0009	0.0011	0.00142	4.955
9.90	-0.0036	-0.0140	0.01446	3.924	0.0004	0.0009	0.00098	4.955

Z2	INSIDE				OUTSIDE				DIA
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR		

5.75	-0.0072	-0.0124	0.01281	3.935	0.0004	0.0019	0.00194	4.982
4.75	-0.0049	-0.0130	0.01385	3.910	0.0006	0.0018	0.00190	4.891
3.75	-0.0015	-0.0122	0.01220	3.802	-0.0008	0.0005	0.00094	4.702
2.75	0.0001	-0.0113	0.01130	3.484	-0.0013	0.0008	0.00153	4.579
2.75	0.0028	-0.0089	0.00933	3.521	-0.0015	0.0005	0.00158	4.438
2.25	0.0094	-0.0086	0.01216	3.279	-0.0004	0.0007	0.00081	4.277
1.75	0.0149	-0.0088	0.01730	2.914	-0.0009	0.0010	0.00135	4.092
1.25	0.0100	-0.0111	0.01494	2.625	0.0001	0.0016	0.00160	3.890

Z2	X-ACT	Y-ACT	TIR
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1.00	-0.0002	0.0011	0.00112
7.00	0.0099	0.0000	0.00895

BASE THICKNESS (IN) 1.541

PROJECTILE LENGTH (IN) 16.657

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

73 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 46-0 LOT 94 PROJECTILE B4

INSPECTION DATE 11/12/70

Z1	INSIDE			OUTSIDE			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
1.90	0.0060	-0.0072	0.00937	2.990	-0.0019	-0.0012	0.00225	4.983
2.90	0.0122	-0.0113	0.01663	3.367	-0.0008	-0.0007	0.00106	5.123
3.90	0.0074	-0.0028	0.00832	3.482	-0.0001	0.0001	0.00014	5.125
4.90	0.0056	-0.0022	0.00560	3.596	-0.0008	-0.0008	0.00113	4.983
5.90	0.0045	0.0017	0.00481	3.713	-0.0012	-0.0009	0.00150	4.954
6.90	0.0024	0.0033	0.00408	3.824	0.0005	-0.0005	0.00071	4.955
7.90	0.0027	0.0048	0.00551	3.921	0.0013	0.0	0.00130	4.955
8.90	0.0004	0.0048	0.00482	3.920	-0.0009	-0.0004	0.00098	4.945
9.90	-0.0013	0.0048	0.00497	3.924	0.0012	0.0006	0.00134	4.952

Z2	INSIDE			OUTSIDE			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
5.75	-0.0015	0.0048	0.00502	3.931	0.0021	0.0002	0.00211	4.985
4.75	-0.0009	0.0055	0.00556	3.905	0.0009	-0.0002	0.00092	4.886
3.75	-0.0042	0.0022	0.00528	3.732	0.0004	0.0004	0.00057	4.699
3.25	-0.0052	0.0002	0.00520	3.604	0.0012	0.0002	0.00122	4.576
2.75	-0.0070	-0.0020	0.00728	3.458	0.0012	0.0006	0.00134	4.434
2.25	-0.0073	-0.0028	0.00792	3.268	0.0014	-0.0002	0.00141	4.273
1.75	-0.0002	0.0	0.00520	2.928	0.0026	0.0003	0.00262	4.090
1.25	-0.0065	0.0030	0.00715	2.607	0.0031	0.0013	0.00326	3.889

Z3	X-ACT	Y-ACT	TIR
1.00	0.0030	0.0012	0.00323
7.00	0.0218	-0.0135	0.02564

BASE THICKNESS (IN) 1.478

PROJECTILE LENGTH (IN) 16.656

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/18 MK 66-0 LOT 94 PROJECTILE R5

INSPECTION DATE 11/20/70

Z1	INSIDE			OUTSIDE			DIA
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR	

1.90	0.0118	-0.0058	0.01534	3.041	-0.0023	-0.0008	0.00244	4.996
2.90	0.0149	-0.0073	0.01659	3.374	-0.0005	0.0025	0.00255	5.125
3.90	0.0041	-0.0102	0.01095	3.485	-0.0011	0.0006	0.00125	5.124
4.90	0.0003	-0.0105	0.01050	3.602	0.0002	0.0013	0.00132	4.989
5.90	-0.0024	-0.0081	0.00845	3.716	-0.0015	0.0008	0.00170	4.954
6.90	-0.0058	-0.0050	0.01071	3.832	0.0001	0.0009	0.00091	4.954
7.90	-0.0082	-0.0102	0.01309	3.944	-0.0012	0.0017	0.00208	4.954
8.90	-0.0075	-0.0083	0.01119	3.956	-0.0015	0.0013	0.00198	4.952
9.90	-0.0101	-0.0097	0.01400	3.968	-0.0018	0.0010	0.00206	4.952

Z2	INSIDE			OUTSIDE			DIA
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR	

5.75	-0.0100	-0.0058	0.01400	3.924	-0.0010	0.0015	0.00180	4.986
4.75	-0.0080	-0.0092	0.01210	3.887	-0.0014	0.0019	0.00236	4.884
3.75	-0.0061	-0.0072	0.00844	3.690	-0.0019	0.0015	0.00242	4.698
2.75	-0.0068	-0.0062	0.00827	3.555	-0.0028	0.0016	0.00322	4.575
2.75	-0.0074	-0.0039	0.00822	3.400	-0.0028	0.0017	0.00328	4.433
2.25	-0.0052	-0.0067	0.00535	3.210	-0.0019	0.0011	0.00220	4.249
1.75	-0.0026	0.0038	0.00460	2.984	-0.0021	0.0022	0.00304	4.088
1.25	0.0146	0.0042	0.01519	2.568	-0.0021	0.0016	0.00264	3.886

Z3	X-ACT	Y-ACT	TIR
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1.00	-0.0002	-0.0008	0.00082
7.00	0.0030	0.0026	0.00297

BASE THICKNESS (IN) 1.456

PROJECTILE LENGTH (IN) 16.641

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/29 MK 16-0 LCT SS PROJECTILE R1

INSPECTION DATE 11/10/70

71	INSIDE			OUTSIDE			DIA	
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	
1.00	0.0141	0.0125	0.01884	2.987	0.0002	-0.0005	0.00054	4.985
2.00	0.0100	0.0053	0.01212	2.767	-0.0006	-0.0021	0.00316	5.125
2.50	0.0053	0.0016	0.00563	3.480	-0.0001	-0.0018	0.00180	5.125
3.00	0.0021	-0.0002	0.00511	2.555	0.0001	0.0001	0.00014	4.985
3.50	0.0021	-0.0026	0.00475	2.709	-0.0019	-0.0006	0.00190	4.962
4.00	0.0020	-0.0049	0.00514	2.823	0.0004	0.0003	0.00050	4.964
5.00	0.0021	-0.0042	0.00470	3.720	0.0010	-0.0002	0.00102	4.963
6.00	0.0017	-0.0049	0.00508	2.919	-0.0008	0.0002	0.00082	4.962
7.00	0.0018	-0.0051	0.00544	2.721	-0.0001	-0.0004	0.00041	4.962

72	INSIDE			OUTSIDE			DIA	
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	
5.75	0.0032	-0.0055	0.00502	2.624	0.0016	0.0001	0.00160	4.982
4.75	0.0012	-0.0060	0.00612	2.805	0.0006	-0.0001	0.00061	4.894
3.75	-0.0025	-0.0024	0.00422	2.812	-0.0012	-0.0002	0.00122	4.704
2.75	-0.0041	-0.0013	0.00624	2.655	-0.0003	-0.0001	0.00032	4.578
1.75	-0.0080	0.0010	0.00804	2.571	-0.0002	0.0	0.00020	4.436
0.75	-0.0052	0.0028	0.00844	2.281	0.0005	0.0008	0.00120	4.275
1.75	-0.0046	0.0062	0.00904	2.910	0.0014	0.0008	0.00161	4.088
1.25	-0.0052	0.0112	0.01261	2.614	0.0001	0.0007	0.00071	3.986

73 X-ACT Y-ACT TIR

1.00	-0.0024	-0.0012	0.00272
2.00	0.0026	-0.0259	0.02615

BASE THICKNESS (IN) 1.480

PROJECTILE LENGTH (IN) 16.484

74 TS DISTANCE FROM BASE (IN)

75 TS DISTANCE FROM NOSE (IN)

76 TS DISTANCE FROM NOSE (IN) FOR THREAD TIP

## GUN PROJECTILE INSPECTION DATA

5/28 '78 46-0 LOT 95 PROJECTILE B3

INSPECTION DATE 11/17/70

71	INSIDE				OUTSIDE				DIA
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
1.90	0.0164	0.0096	0.01500	2.946	-0.0018	0.0010	0.00206	4.986	
2.90	0.0141	0.0150	0.02059	3.764	0.0014	-0.0020	0.00244	5.123	
3.90	0.0129	0.0129	0.01824	3.481	0.0025	-0.0013	0.00282	5.126	
4.90	0.0096	0.0092	0.01330	3.555	-0.0004	0.0013	0.00136	4.983	
5.90	0.0087	0.0071	0.01202	3.716	-0.0001	0.0020	0.00200	4.961	
6.90	0.0114	0.0094	0.01478	3.828	0.0013	0.0024	0.00273	4.959	
7.90	0.0061	0.0079	0.00990	3.921	0.0007	0.0020	0.00212	4.961	
8.90	0.0028	0.0046	0.00597	3.919	0.0003	0.0030	0.00301	4.959	
9.90	0.0027	0.0040	0.00614	3.922	-0.0006	0.0032	0.00326	4.959	
72	INSIDE				OUTSIDE				DIA
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	
5.75	0.0060	0.0064	0.00877	3.929	-0.0001	0.0033	0.00330	4.985	
4.75	0.0049	0.0062	0.00790	3.907	0.0009	0.0038	0.00391	4.894	
3.75	0.0048	0.0055	0.00730	3.747	0.0003	0.0048	0.00481	4.698	
3.25	0.0036	0.0040	0.00539	3.619	-0.0002	0.0046	0.00460	4.576	
2.75	0.0026	0.0017	0.00211	3.474	-0.0	0.0041	0.00410	4.435	
2.25	0.0006	0.0018	0.00190	3.289	-0.0013	0.0039	0.00411	4.271	
1.75	-0.0005	0.0037	0.00273	2.962	0.0012	0.0043	0.00446	4.080	
1.25	-0.0010	0.0039	0.00403	2.619	-0.0	0.0037	0.00370	3.880	
73	X-ACT	Y-ACT	TIR						
1.00	0.0016	0.0003	0.00163						
7.00	-0.0008	-0.0010	0.00128						

BASE THICKNESS (IN) 1.532

PROJECTILE LENGTH (IN) 16.657

Z1 IS DISTANCE FROM BASE (IN)

Z2 IS DISTANCE FROM NOSE (IN)

Z3 IS DISTANCE FROM NOSE (IN) FOR THREAD TIP

## GUN PROJECTILE INSPECTION DATA

5/38 MK 6A-0 LCT SF PROJECTILE 85

INSPECTION DATE 11/06/70

71	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)			DIA	
	X-ACT	Y-ACT	TIR	X-ACT	Y-ACT	TIR		
1.00	-0.0012	0.0066	0.00687	2.962	-0.0022	-0.0011	0.00246	4.983
2.00	-0.0029	-0.0066	0.00785	2.350	0.0029	-0.0006	0.00296	5.128
3.00	-0.0017	0.0026	0.00211	2.472	0.0017	-0.0010	0.00197	5.123
4.00	-0.0013	0.0044	0.00459	3.589	-0.0017	-0.0004	0.00175	4.983
5.00	-0.0017	0.0052	0.00547	2.704	-0.0015	-0.0004	0.00155	4.955
6.00	0.0017	0.0055	0.00576	2.810	-0.0015	-0.0019	0.00242	4.956
7.00	0.0024	0.0062	0.00707	2.914	0.0001	-0.0003	0.00032	4.955
8.00	0.0002	0.0071	0.00710	2.912	-0.0020	-0.0001	0.00200	4.955
9.00	0.0013	0.0072	0.00742	2.921	-0.0010	-0.0006	0.00117	4.954
72	(- - - - - INSIDE - - - - -)			(- - - - - OUTSIDE - - - - -)			DIA	
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	
5.75	0.0024	0.0084	0.00974	2.626	-0.0004	0.0007	0.00081	4.983
4.75	0.0018	0.0059	0.01006	2.501	-0.0007	0.0004	0.00081	4.890
3.75	0.0020	0.0053	0.00551	2.786	-0.0019	0.0003	0.00192	4.703
2.75	0.0024	0.0060	0.00646	2.670	-0.0009	0.0004	0.00098	4.580
1.75	0.0020	0.0024	0.00384	2.507	-0.0016	0.0007	0.00175	4.437
0.75	0.0047	-0.0002	0.00671	2.265	-0.0013	0.0001	0.00130	4.277
1.00	0.0080	-0.0018	0.00820	2.894	0.0017	0.0011	0.00202	4.098
1.25	-0.0	-0.0120	0.01200	2.590	-0.0001	0.0000	0.00001	3.993
73	X-ACT	Y-ACT	TIR					
1.00	-0.0010	-0.0068	0.00128					
2.00	0.0069	0.0069	0.00695					

BASE THICKNESS (IN) 1.510

PROJECTILE LENGTH (IN) 16.457

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

72 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 66-0 LCT 56 PROJECTILE R-4

INSPECTION DATE 11/26/70

71	INSIDE			DIA	OUTSIDE			DIA
	X-ACT	Y-ACT	TIR		X-ACT	Y-ACT	TIR	
1.90	-0.0055	0.0164	0.01720	2.000	-0.0008	-0.0014	0.00161	4.984
2.90	-0.0070	0.0152	0.01720	2.250	0.0044	-0.0006	0.00444	5.126
3.90	-0.0021	0.0165	0.01650	2.474	0.0036	-0.0011	0.00376	5.128
4.90	0.0029	0.0144	0.01450	2.501	0.0002	0.0003	0.00036	4.984
5.90	0.0041	0.0123	0.01207	2.704	0.0017	0.0005	0.00121	4.962
6.90	0.0080	0.0117	0.01417	2.810	0.0	0.0004	0.00040	4.960
7.90	0.0094	0.0108	0.01281	2.915	0.0010	0.0005	0.00112	4.961
8.90	0.0077	0.0059	0.01276	2.914	0.0009	0.0007	0.00106	4.959
9.90	0.0106	0.0085	0.01256	2.913	0.0001	-0.0001	0.00014	4.960
72	INSIDE			DIA	OUTSIDE			DIA
	X-ACT	Y-ACT	TIR		X-ACT	Y-ACT	TIR	
5.75	0.0172	0.0072	0.01425	2.622	0.0011	-0.0005	0.00121	4.985
6.75	0.0142	0.0078	0.01420	2.807	0.0015	-0.0005	0.00158	4.988
7.75	0.0082	0.0022	0.00980	2.705	-0.0010	-0.0002	0.00102	4.701
8.75	0.0042	0.0024	0.00484	2.565	-0.0009	0.0003	0.00095	4.580
9.75	-0.0004	0.0013	0.00143	2.410	-0.0025	0.0001	0.00250	4.440
1.25	-0.0012	0.0011	0.00163	2.238	-0.0020	-0.0006	0.00209	4.277
1.75	-0.0021	-0.0014	0.00240	2.028	-0.0017	-0.0009	0.00192	4.097
2.25	0.0004	0.0100	0.01001	2.574	-0.0004	-0.0005	0.00044	2.995
73	X-ACT	Y-ACT	TIR					
1.00	-0.0024	0.0010	0.00254					
7.00	0.0021	-0.0177	0.01787					

BASE THICKNESS (IN) 1.518

PROJECTILE LENGTH (IN) 16.508

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

73 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

5/38 MK 76-0 LOT 94 PROJECTILE #2

INSPECTION DATE 11/12/70

71	INSIDE			OUTSIDE			DIA	
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	
1.00	-0.0056	0.0020	0.00571	2.950	0.0005	-0.0002	0.00054	4.986
2.00	-0.0065	-0.0043	0.00433	3.265	0.0001	-0.0017	0.00170	5.125
3.00	-0.0023	-0.0004	0.00232	3.477	-0.0054	-0.0027	0.00604	5.128
4.00	-0.0043	0.0005	0.00433	3.591	-0.0018	0.0002	0.00381	4.987
5.00	-0.0042	0.0018	0.00457	3.705	-0.0032	0.0008	0.00330	4.951
6.00	-0.0040	0.0020	0.00553	3.919	-0.0024	0.0	0.00240	4.955
7.00	-0.0030	0.0045	0.00541	3.918	-0.0008	-0.0004	0.00099	4.955
8.00	-0.0051	0.0032	0.00603	3.920	-0.0070	-0.0001	0.00300	4.956
9.00	-0.0057	0.0037	0.00680	3.925	-1.0043	-0.0005	0.00433	4.956
72	INSIDE			OUTSIDE			DIA	
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	
5.75	-0.0050	0.0054	0.00725	2.971	-0.0016	0.0008	0.00172	4.984
6.75	-0.0057	0.0045	0.00726	3.006	-0.0025	-0.0002	0.00251	4.990
7.75	-0.0055	0.0018	0.00570	3.003	-0.0033	0.0002	0.00321	4.692
8.25	-0.0065	-0.0123	0.00480	3.487	-0.0024	0.0012	0.00268	4.571
9.75	-0.0050	-0.0066	0.00595	3.526	-0.0072	-0.0011	0.00330	4.470
9.25	-0.0080	-0.0066	0.01533	3.280	-0.0078	-0.0001	0.00290	4.265
11.75	-0.0112	-0.0051	0.01443	3.009	-0.0050	-0.0002	0.00500	4.096
11.25	-0.0136	-0.0129	0.01640	2.767	-0.0023	0.0017	0.00371	3.882
72	X-ACT	Y-ACT	TIR					
1.00	-0.0028	0.0001	0.00000					
7.00	-0.0004	-0.0060	0.00101					

BASE THICKNESS (IN) 1.520

PROJECTILE LENGTH (IN) 14.662

71 TS DISTANCE FROM BASE (IN)

72 TS DISTANCE FROM NUISE (IN)

72 TS DISTANCE FROM NUISE (IN) FOR THREAD TIR

## GUN PROJECTILE INSPECTION DATA

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5/38 MK 56-D LCT GUN PROJECTILE B7

INSPECTION DATE 11/10/70

71	INSIDE - - - - -				OUTSIDE - - - - -				CIA
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	

1.00	0.0115	-0.0055	0.01420	2.950	0.0013	-0.0002	0.00132	4.983
2.00	0.0165	-0.0055	0.01487	2.369	0.0027	0.0014	0.00304	5.122
3.00	0.0087	-0.0042	0.00970	2.484	0.0043	0.0025	0.00497	5.123
4.00	0.0047	-0.0054	0.00731	2.657	-0.0019	-0.0007	0.00202	4.986
5.00	0.0001	-0.0046	0.00490	2.714	-0.0012	0.0	0.00120	4.956
6.00	0.0012	-0.1044	0.00475	2.820	-0.0002	0.0001	0.00022	4.964
7.00	-0.0012	-0.0054	0.00552	2.820	0.0006	0.0002	0.00063	4.953
8.00	-0.0021	-0.0070	0.00746	2.820	-0.0016	0.0	0.00160	4.962
9.00	-0.0047	-0.0100	0.01105	2.827	-0.0011	-0.0002	0.00112	4.952

72	INSIDE - - - - -				OUTSIDE - - - - -				CIA
	X-ACT	Y-ACT	TIR	DIA	X-ACT	Y-ACT	TIR	DIA	

5.75	-0.0049	-0.0154	0.01414	2.940	0.0001	0.0004	0.00041	4.984
4.75	-0.0066	-0.0147	0.01411	2.800	-0.0012	-0.0001	0.00130	4.899
3.75	-0.0037	-0.0125	0.01404	2.917	-0.0021	-0.0002	0.00211	4.702
2.75	-0.0084	-0.0100	0.01206	2.768	-0.0010	0.0004	0.00109	4.590
2.75	-0.1052	-0.1057	0.01057	2.848	-0.0007	0.0001	0.00071	4.437
2.25	-0.0042	0.0002	0.00620	2.700	-0.0012	-0.0003	0.00192	4.273
1.75	-0.0053	0.0062	0.00801	2.672	0.0002	0.0002	0.00028	4.092
1.25	-0.0057	0.0074	0.00934	2.651	-0.0009	0.0003	0.00095	3.892

72	X-ACT	Y-ACT	TIR
----	-------	-------	-----

1.00	-0.0057	-0.0068	0.00574
7.00	-0.0139	-0.0059	0.01489

BASE THICKNESS (IN) 1.584

PROJECTILE LENGTH (IN) 16.487

71 IS DISTANCE FROM BASE (IN)

72 IS DISTANCE FROM NOSE (IN)

72 IS DISTANCE FROM NOSE (IN) FOR THREAD TIR

## **APPENDIX C**

### **Histograms and Statistics of Inspection Data**

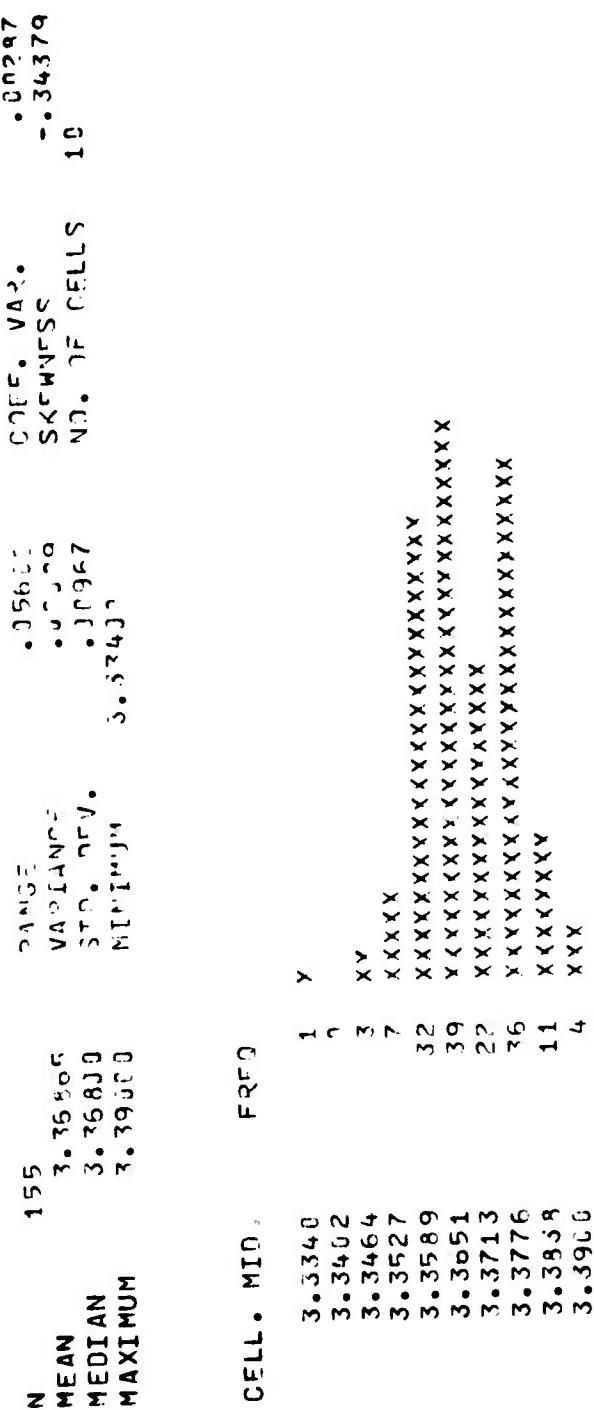
N	MEAN	STN. DEV.	VARIANCE	SUM F. VAR.	CNT F. VAR.
	2.96049			• 01249	• 01395
	2.97366			• 01249	
	3.11333			• 05968	
				2.07013	
CELL. MID.	FRQ				
2.7010	1	X			
2.7469	0				
2.7926	2	X			
2.8383	3	XX			
2.8941	75	XXXXXX			
2.9299	30	XXXXXXXX			
2.9757	57	XXXXXXXX			
3.0214	32	XXXXXXXX			
3.0572	6	XXXXX			
3.1130	1	X			

C-1

### HISTOGRAM AND STATISTICS OF INSIDE DIAMETER DATA

#### 1.9 Inches From Base

	MEAN	STDEV	VARIANCE	CELLS	MAXIMUM
N	155	1.5905	2.5302	156	3.3960
MEAN	3.3540	3.3402	3.3464	3.3464	3.3464
MEDIAN	3.3683	3.3589	3.3527	3.3527	3.3527
MAXIMUM	3.3950	3.3951	3.3951	3.3951	3.3951



N 155  
 MEAN 3.49615  
 MEDIAN 3.49633  
 MAXIMUM 3.52320

STDEV. .00210  
 STD. DEV. .00210  
 MIN. 3.49230  
 MAX. 3.52190  
 COUNTS 155  
 VARIANCE .00000  
 STDEV. .00210  
 MIN. 3.49230  
 MAX. 3.52190  
 COUNTS 155  
 MU. 3.49615  
 SIGMA .00210  
 COUNTS 155  
 MU. 3.49615  
 SIGMA .00210  
 COUNTS 155

CELL • MID.	COUNT
3.4625	3
3.4639	7
3.4750	21
3.4823	44
3.4891	33
3.4959	38
3.5027	7
3.5094	1
3.5162	2
3.5230	1

### HISTOGRAM AND STATISTICS OF INSIDE DIAMETER DATA

#### 3.9 Inches From Base

	MEAN	STDEV.	VARIANCE	ANGLE	DEF. VAR.
N	155	3.60481	3.60450	3.61351	3.60344
MEAN	3.60481	3.60450	3.61351	3.60344	3.60344
MEDIAN	3.60450	3.60450	3.61351	3.60344	3.60344
MAXIMUM	3.69953	3.69953	3.67639	3.67639	3.67639

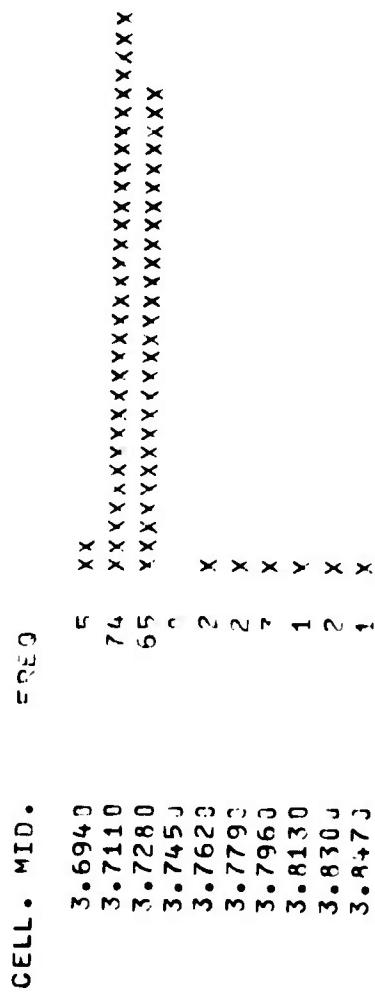
CELL • MID.	FREQ.
3.5760	1
3.5885	24
3.6011	75
3.6137	48
3.6262	3
3.6388	2
3.6513	1
3.6639	2
3.6764	1
3.6890	1

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### HISTOGRAM AND STATISTICS OF INSIDE DIAMETER DATA

#### 4.9 Inches From Base

	N	MEAN	STDEV	COEFF. VAR.
MEAN	155	3.72325	•15750	•00531
MEDIAN		3.71953	•05055	3.57455
MAXIMUM		3.94751	•J2340	3.12195
			2.60400	1.3



#### HISTOGRAM AND STATISTICS OF INSIDE DIAMETER DATA

##### 5.9 Inches From Base

N 155  
 MEAN 3.83994  
 MEDIAN 3.93570  
 MAXIMUM 3.99411  
 MINIMUM 3.8100  
 VARIANCE 0.00045  
 STDEV. 0.02225  
 MTFULLS 3.9100  
 CDF. 0.9999  
 SKEWNESS 3.69269  
 NJ. 0.05990  
 11

CELL. MIN.

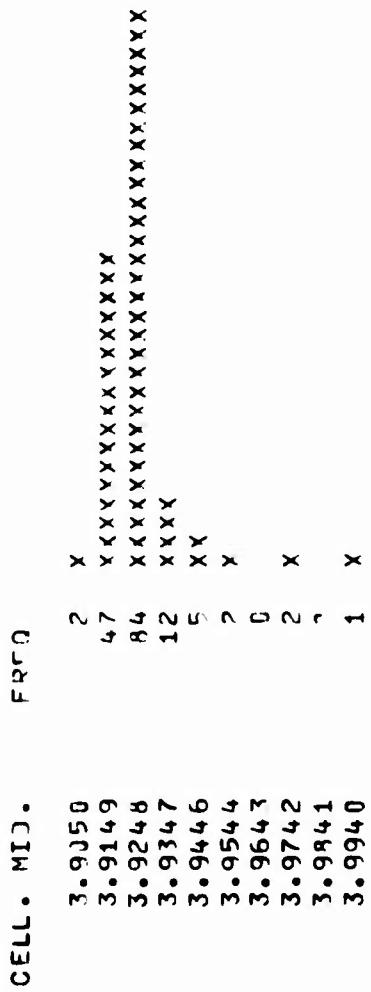
CELL.	MIN.	FREQ
3.8100	11	xxx
3.8304	96	xxxxxxxxxxxxxx
3.8509	38	xxxxxxxxxxxxxx
3.8713	2	x
3.8918	4	x
3.9122	2	x
3.9327	0	
3.9531	1	x
3.9736	0	
3.9940	1	x

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### HISTOGRAM AND STATISTICS OF INSIDE DIAMETER DATA

#### 6.9 Inches From Base

	MEAN	VARIANCE	COEFF. VAR.
MEAN	3.92461	0.0013	0.0200
MEDIAN	3.92332	0.01140	0.0795
MAXIMUM	3.99401	3.95900	11



### HISTOGRAM AND STATISTICS OF INSIDE DIAMETER DATA

7.9 Inches From Base

N	MEAN	STDEV.	MIN.	MAX.
155	3.92680	0.00700	3.91670	3.99490
MEAN	3.92500	0.00713	3.91700	3.99400
STD. DEV.	0.00357	0.00357	0.00357	0.00357
MINIMUM	3.91670	3.90730	3.91670	3.90730
MAXIMUM	3.99490	3.99730	3.99490	3.99730

CELL. MIN. FREQ

3.9070	2
3.9167	52
3.9263	57
3.9360	22
3.9457	7
3.9553	1
3.9650	1
3.9747	2
3.9847	1
3.9940	1

### HISTOGRAM AND STATISTICS OF INSIDE DIAMETER DATA

#### 8.9 Inches From Base

N	155	RANGE	• 0.3600
MEAN	3.93085	VARIANCE	• 0.0012
MEDIAN	3.92903	STO. DEVI.	• 0.0198
MAXIMUM	3.99433	MINIMUM	• 0.00933

CORFF. VAR.  
SKEWNESS  
NO. OF CELLS

• Jn279  
1.95727  
13

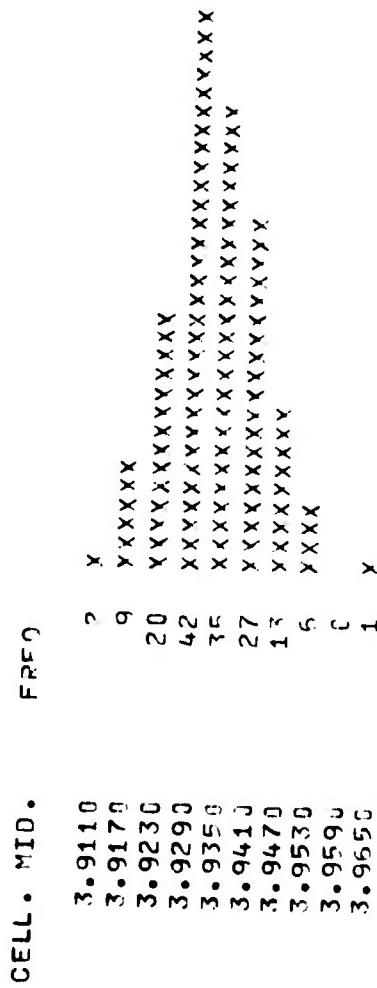
CELL. MIN.	FREQ
3.9080	1
3.9176	31
3.9271	58
3.9367	47
3.9462	12
3.9558	3
3.9653	2
3.9749	6
3.9844	5
3.9940	1

C9

## HISTOGRAM AND STATISTICS OF INSIDE DIAMETER DATA

### 9.9 Inches From Base

N	MEAN	15.5	RANGE	• 0.5401	CORR. VAR.	• 0.0235
	MEDIAN	3.93421	VARIANCE	• 3.1529	STDEVSS	• .27861
	MAXIMUM	3.93500	STD. DEVI.	• 3.1328	NO. CELLS	10
			MINIMUM	• 3.91111		

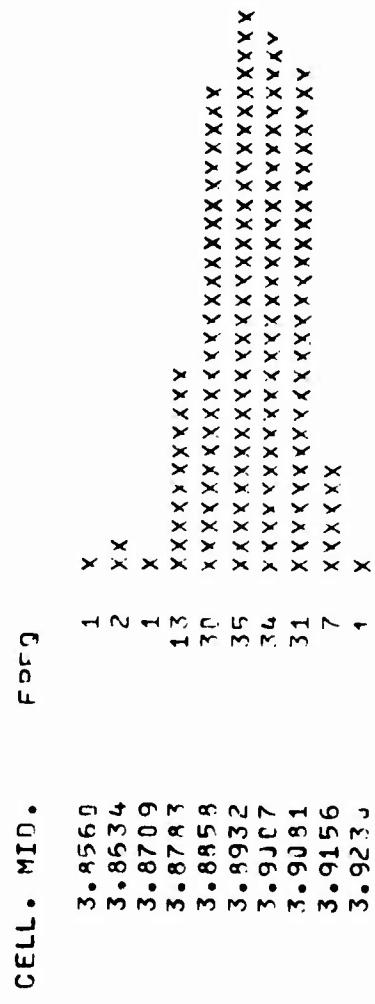


C-10

### HISTOGRAM AND STATISTICS OF INSIDE DIAMETER DATA

5.75 Inches From Nose

N	MEAN	RANGE	VARIANCE	SKEWNESS	CORR.
155	3.89557	0.5715	0.0294	-0.40332	
	3.8960	0.7113			
	3.9235	0.01143			
	3.9235	0.05603			



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### HISTOGRAM AND STATISTICS OF INSIDE DIAMETER DATA

4.75 Inches From Nose

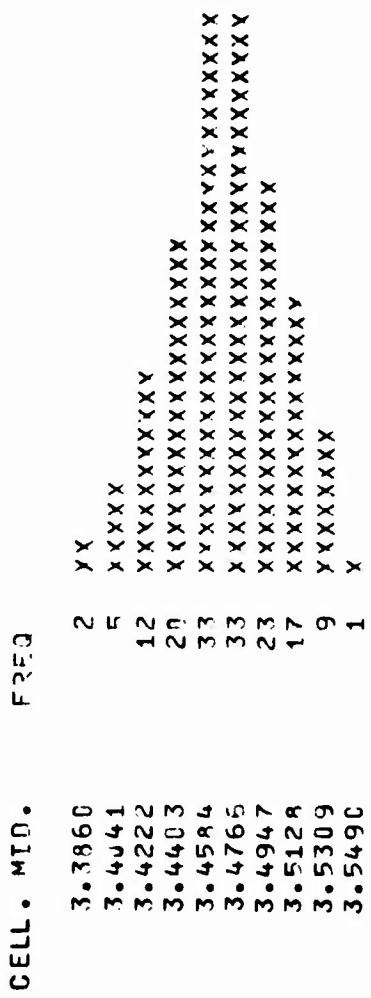
	N	MEAN	VARIANCE	SKEWNESS	CORR. VAR.
	155	3.73527	.016400	.00943	
MEAN		3.72962	.01124		
MEDIAN		3.81700	.03510	.37453	
MAXIMUM		3.81704	.65310	1.1	

CELL • MIN.	FREQ
3.6530	2
3.6712	3
3.6994	10
3.7077	31
3.7259	37
3.7441	25
3.7623	18
3.7806	9
3.7988	8
3.8170	5

#### HISTOGRAM AND STATISTICS OF INSIDE DIAMETER DATA

##### 3.75 Inches From Nose

N	MEAN	RANGE	COFF. VA <sup>2</sup>
155	3.46995	3.47105	.16368
	3.47110	ST. D-V.	.00115
	3.54930	MIN-MAX	-0.36819
			11 CELLS

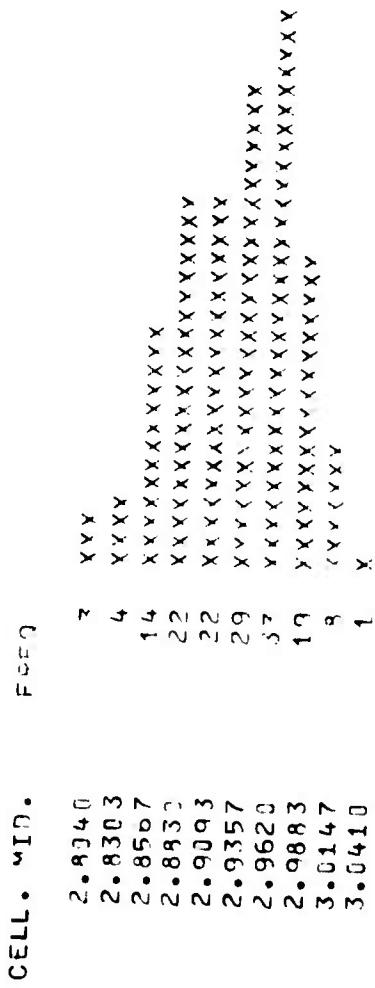


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### HISTOGRAM AND STATISTICS OF INSIDE DIAMETER DATA

2.75 Inches From Nose

N	MEAN	VARIANCE	Coeff. Var.
155	2.92939	• 237 "	• .01680
MEDIAN	2.93433	• 35742	• .01680
MAXIMUM	3.04400	• 34974	- .27312
SUMMARY	3.04400	• 31618	13

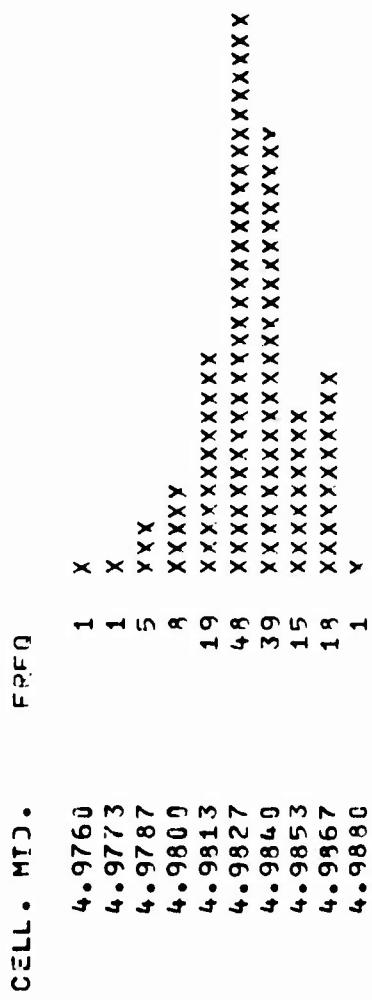


C-14

#### HISTOGRAM AND STATISTICS OF INSIDE DIAMETER DATA

##### 1.75 Inches From Nose

N	155	MEAN	4.98307	VARIANCE	.01206	Coeff. VAR.	.06042
MEAN		MEDIAN	4.98303	ST. DEV.	.00211	SKEWNESS	-38171
MAXIMUM		MAXIMUM	4.98960	MINIMUM	4.97600	NO. CELLS	15



C-15

### HISTOGRAM AND STATISTICS OF OUTSIDE DIAMETER DATA

#### 1.9 Inches From Base

N	155	RANGE	0.0006	0.0079
MEAN	5.12355	VARIANCE	• JCCUC	• J4174
MEDIAN	5.12430	STD. DEV.	• J727	
MAXIMUM	5.12900	MINIMUM	• 0.11900	1.0

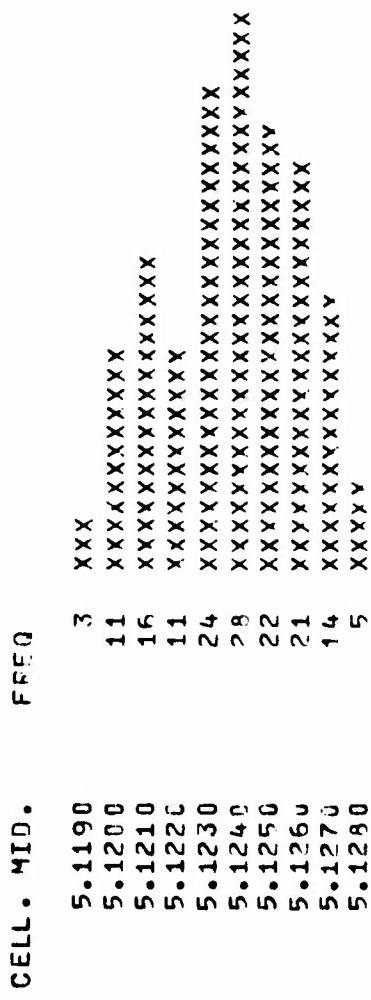
CELL • MID. = REF ?

5.1190	3	XVV
5.1200	5	XXXXX
5.1210	16	XXXXXV
5.1220	21	XXXXXXV
5.1230	31	XXXXXXX
5.1240	29	XXXXXXV
5.1250	27	XXXXXXV
5.1260	14	XXXXXXV
5.1270	8	XXXXXXV
5.1280	4	XXXXV

### HISTOGRAM AND STATISTICS OF OUTSIDE DIAMETER DATA

2.9 Inches From Base

	MEAN	STDEV	RANGE	CORR. VAR.	CORR. VARIANCE
MEAN	5.12393	0.0061	0.0046	0.19317	SKFWLSS
MEDIAN	5.12432	0.00224	0.00224	0.19317	40. 10 CELLS
MAXIMUM	5.12800	0.11990	0.11990		



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### HISTOGRAM AND STATISTICS OF OUTSIDE DIAMETER DATA

#### 3.9 Inches From Base

N	MEAN	155	MIN	MAX	CNT	CONF. JAD.	CONF. SKEWNESS	CONF. CELLS
	MEAN	4.99362	VARIANCE	STN. OF V.	STN. OF U.	• 311.0	• 10039	- • 15503
	MEDIAN	4.98401				• 315.0		
	MAXIMUM	4.99903				• 319.0		
CELL.	MIN.	FREQ.						
4.9780		1	X					
4.9792		3	XXX					
4.9804		15	XXXXX XXXXXXXXXX					
4.9817		23	XXXXX XXXXXXXXXX					
4.9829		33	XXXXX XXXXXXXXXX					
4.9841		28	XXXXX XXXXXXXXXX					
4.9853		25	XXXXX XXXXXXXXXX					
4.9866		25	XXXXX XXXXXXXXXX					
4.9878		1	X					
4.9990		1	X					

## HISTOGRAM AND STATISTICS OF OUTSIDE DIAMETER DATA

## 4.9 Inches From Base

N	155	RANGE	.11700	COFF. VAR.	.00972
MEAN	4.95701	VARIANCE	.00001	SKWNESS	-.01374
MEDIAN	4.95700	STD. DEV.	.00359	NO. OF CELLS	13
MAXIMUM	4.95600	MINIMUM	4.94900		

CELL.	MID.	FREQ
4.9490		3
4.9509		9
4.9528		14
4.9547		27
4.9566		28
4.9584		37
4.9603		23
4.9622		9
4.9641		2
4.9660		2

### HISTOGRAM AND STATISTICS OF OUTSIDE DIAMETER DATA

#### 5.9 Inches From Base

N	MEAN	4.95074	STDEV.	• .212
	MEDIAN	4.95700	SKEWNESS	• .179
	MAXIMUM	4.95601	KO. OF CELLS	- .24414
155				11

CELL • MID •	FREQ
4.9450	1
4.9473	1
4.9497	9
4.9520	18
4.9543	25
4.9567	32
4.9593	46
4.9613	13
4.9637	8
4.9661	2

### HISTOGRAM AND STATISTICS OF OUTSIDE DIAMETER DATA

#### 6.9 Inches From Base

N	155	21465	01262	00074
MEAN	4.95612	VAPTA, JCF	J0001	
MEDIAN	4.95660	STU. JEV	J0365	-0.12845
MAXIMUM	4.96573	4THNUM	J04610	

CELL • "10" •

155 21465 01262 00074  
 MEAN 4.95612 VAPTA, JCF J0001  
 MEDIAN 4.95660 STU. JEV J0365 -0.12845  
 MAXIMUM 4.96573 4THNUM J04610

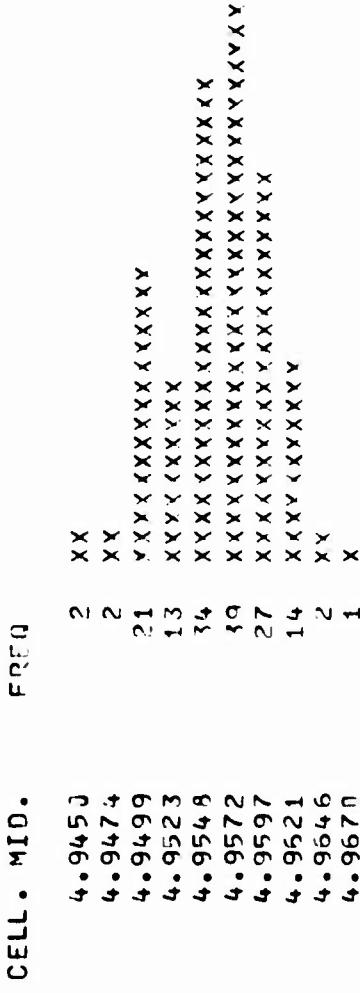
CELL • "10" •

4.9467 1 X  
 4.9491 4 X X X  
 4.9512 17 Y Y Y Y Y Y Y Y Y Y Y Y  
 4.9523 20 X  
 4.9544 24 X  
 4.9565 79 Y  
 4.9587 27 Y  
 4.9608 16 X  
 4.9629 9 X  
 4.9650 2 Y Y

### HISTOGRAM AND STATISTICS OF OUTSIDE DIAMETER DATA

#### 7.9 Inches From Base

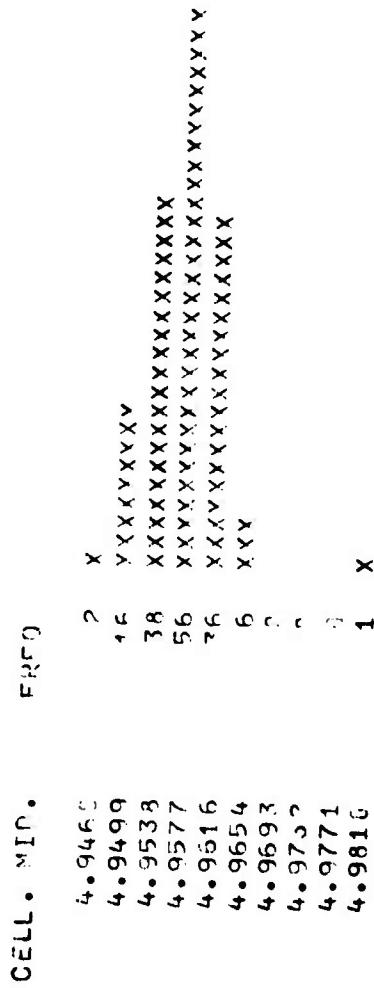
N	155	RANGE	.1220	SKEWNESS	.00082
MEAN	4.95632	VARIANCE	.00082	STDEV.	-.14167
MEDIAN	4.95600	STD. DEV.	.00086		
MAXIMUM	4.96701	MINIMUM	4.94500	NO. OF CELLS	17



### HISTOGRAM AND STATISTICS OF OUTSIDE DIAMETER DATA

#### 8.9 Inches From Base

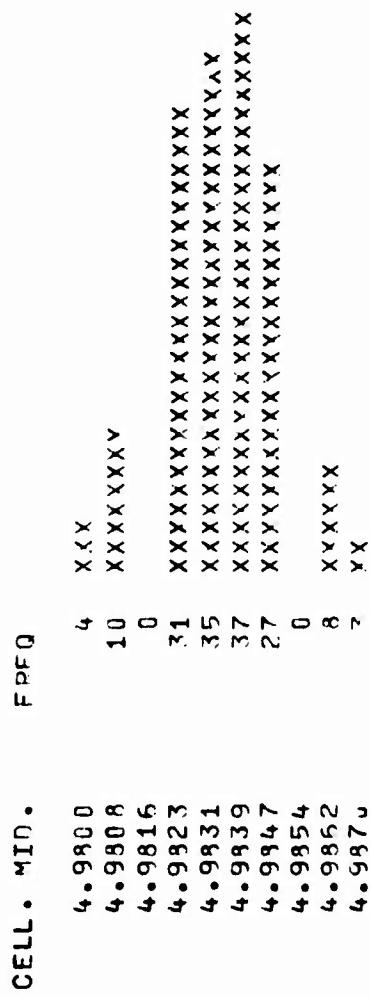
N	MEAN	RANGE	VARIANCE	STD. DEV.	COEF. VAR.	SKEWNESS	NO. OF CELLS
155	4.95697	•0.35~0	•0.0002	•0.0093			10
	4.95700						
	4.95130						
	4.94690						



### HISTOGRAM AND STATISTICS OF OUTSIDE DIAMETER DATA

9.9 Inches From Base

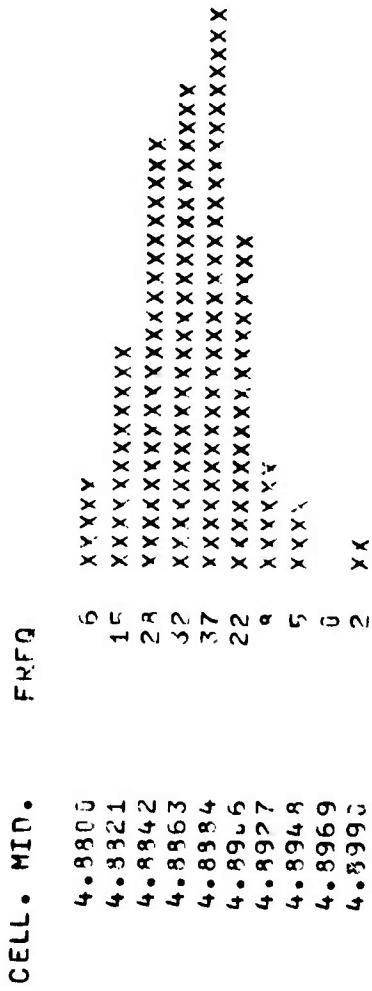
N	155	RANGE	.0070	Coeff. VAR.	.0030
MEAN	4.99341	VARIANCE	.0005	SKewness	
MEDIAN	4.99303	SUM		NO. OF CELLS	10
MAXIMUM	4.99700	MINIMUM	4.98366		



### HISTOGRAM AND STATISTICS OF OUTSIDE DIAMETER DATA

#### 5.75 Inches From Nose

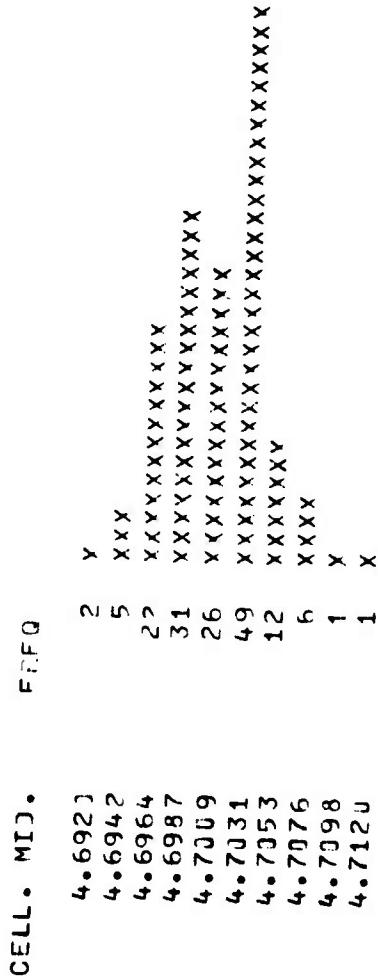
N	155	MEAN	4.88721	STDEV	.01960	COFF. VAR.	.00071
MEAN		VARIANCE		STDEV.	.0001	SKEWNESS	.38595
MEDIAN	4.83700	MINIMUM	4.89900	MAXIMUM	4.89946	NO. OF CELLS	13



### HISTOGRAM AND STATISTICS OF OUTSIDE DIAMETER DATA

#### 4.75 Inches From Nose

	N	MEAN	4.70671	VARIANCE	0.02060	CORR. VAR.	0.0074
		MEDIAN	4.70130	STD. DEV.	0.0401	SKEWNESS	
		MAXIMUM	4.71230	MINIMUM	4.69210	NO. OF CELLS	16309



### HISTOGRAM AND STATISTICS OF OUTSIDE DIAMETER DATA

#### 3.75 Inches From Nose

N	155	RANGE	* 0.2310
MEAN	4.43702	VARIANCE	* 00087
MEDIAN	4.43700	STD. DEV.	* 0.0001
MAXIMUM	4.44956	MINIMUM	* 0.42609

CELL • MID.	FREQ
4.4260	1
4.4286	2
4.4311	18
4.4337	19
4.4362	47
4.4388	42
4.4413	15
4.4439	7
4.4464	1
4.4490	3

### HISTOGRAM AND STATISTICS OF OUTSIDE DIAMETER DATA

2.75 Inches From Nose

	MEAN	4.059381	DIA. OF VALVE	• 0.27362
	MEDIAN	4.03473	SKFWNGS	• 0.01102
	MAXIMUM	4.10500	REV.	• 0.43512
N			4.11711	17

CELL. MJD.

FREQ.

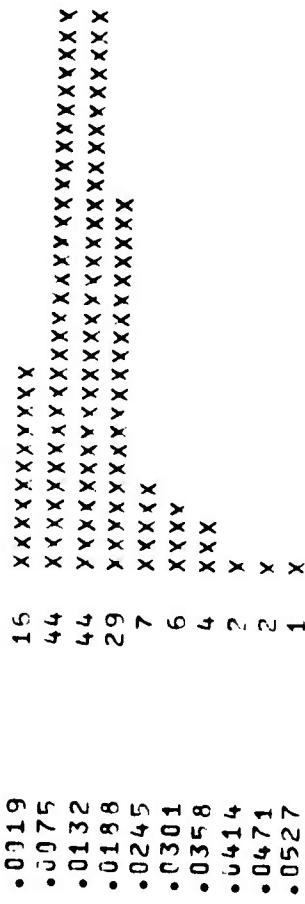
4.0820	2	X
4.0846	4	XXX
4.0871	11	XXXXXX
4.0897	20	XXXXXXXX
4.0922	33	XXXXXXXXX
4.0948	46	XXXXXXXXXX
4.0973	21	XXXXXXXXXXX
4.0999	9	XXXXXX
4.1024	7	XXXXY
4.1050	3	XX

### HISTOGRAM AND STATISTICS OF OUTSIDE DIAMETER DATA

#### 1.75 Inches From Nose

N	155	MEAN	.01451	STANDARD	.00180	CORR. VAR.	.05612
MEDIAN	.01263	STD. DEV.	.00052	SKEWNESS	.00079		
MAXIMUM	.05270	MINIMUM	.00197	NO. OF CELLS	13	1.50730	

CELL. MID. FREQ.



### HISTOGRAM AND STATISTICS OF INSIDE TIR DATA

#### 1.9 Indices From Base

N	MEAN	STDEV	VARIANCE	ST. DEVI.	MAXIMUM
	• 21293	• 36515	• 13654	• 21295	• 58594
	• 21151	• 21155	• 21155	• 21155	• 21155
	• 21151	• 21155	• 21155	• 21155	• 21155
	• 21151	• 21155	• 21155	• 21155	• 21155
	• 21151	• 21155	• 21155	• 21155	• 21155

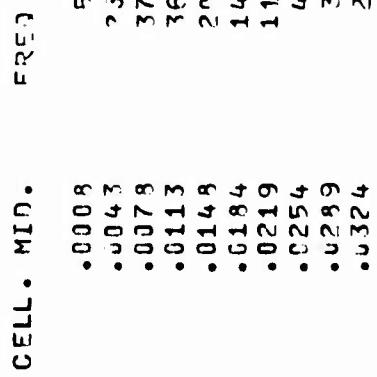
CELL. MID. SDDEV

• 0003	-	XX
• 00354	+1	XXXXX
• 0105	45	XXXXX
• 0157	33	XXXXX
• 0208	12	XXXXX
• 0259	4	XXX
• 0310	4	XX
• 0362	2	X
• 0413	1	X
• 0464	1	X

### HISTOGRAM AND STATISTICS OF INSIDE TIR DATA

#### 2.9 Inches From Base

	N	MEAN	STDEV.	VARIANCE	SKEWNESS	KURTOSIS
MEAN	155	.01195	.00085	.003165	.54999	.99597
MEDIAN		.01063	.00789	.000657	.96664	.99597
MAXIMUM		.03243	.01119	.001390	.00657	17



N	MEAN	155	STDEV	32460	VARIANCE	33297
	MEAN	• 01134	STDEV	• 03 - 04	SKEWNESS	• 01649
	MEDIAN	• 01157	STD. DEVI.	• 03622	NO. OF CELLS	19
	MAXIMUM	• 02933	MEAN	• 01121		

CELL • MID.	FREQUENCY
• 0112	3
• 0144	12
• 0176	35
• 0107	34
• 0139	27
• 0171	17
• 0203	6
• 0234	5
• 0266	3
• 0298	2

#### HISTOGRAM AND STATISTICS OF INSIDE TIR DATA

##### 4.9 Inches From Base

N	MEAN	RANGE	CORR.	CORR.
155	.01691	.02790	.53437	
	.01140	.02063	.68127	
MEDIAN	.02873	.00593		
MAXIMUM	.01194	.00993		

CELL.	MID.	FREQ.
*0068	6	XXXXX
*0039	26	XXXXXXXXXXXXXXXXXXXX
*0070	24	XXXXXXXXXXXXXXXXXX
*0101	36	XXXXXXXXXXXXXXXXXXXX
*0132	31	XXXXXXXXXXXXXXXXXXXX
*0163	13	XXXXXXXXXXXXXXXXXX
*0194	7	XXXXXX
*0225	8	XXXXXX
*0256	2	XX
*0287	2	XX

### HISTOGRAM AND STATISTICS OF INSIDE TIR DATA

#### 5.9 Inches From Base

N	MEAN	STDEV	VARIANCE	MIN	MAXIMUM
155	.31681	.01635	.000303	.00000	.12563
	MEDIAN	SUM	SUM	0.00000	0.00000
	MAXIMUM	12563	12563	0.00000	0.00000

CELL • MIN.	FREQ.
.0007	4
.035	19
.062	25
.091	27
.118	25
.145	51
.173	12
.201	3
.228	7
.256	2

CELL • MIN.	FREQ.
.0000	12
.0303	23
.0606	47
.0909	77
.1201	547
.1507	17

### HISTOGRAM AND STATISTICS OF INSIDE TIR DATA

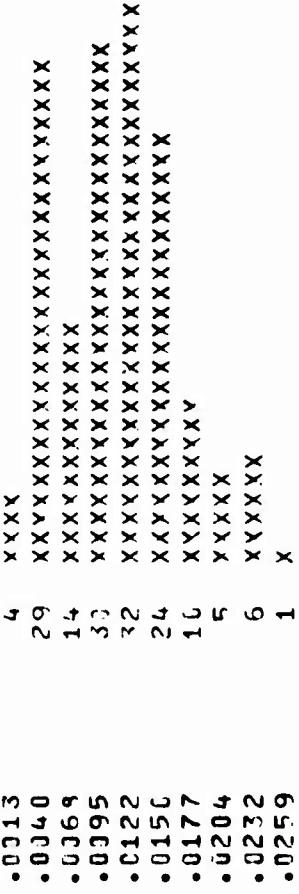
#### 6.9 Inches From Base

	15E	24NCE	COEFF. VAR.
N MEAN	.01692	YDISTANCE	.02460
MEDIAN	.01103	S17. DEVI.	.03031
MAXIMUM	.02590	MINIMUM	.0539

• 49325  
• 39177  
13

CELL. MIN.

FREQ



### HISTOGRAM AND STATISTICS OF INSIDE TIR DATA

#### 7.9 Inches From Base

N	155	RANGE	0.267	0.959
MEAN	0.1397	YIELDANCE	0.003	0.9555
MEDIAN	0.1650	STD. DEVI.	0.037	1.0
MAXIMUM	0.5250	MINIMUM	0.0033	

CELL.	MID.	F95%
	•0303	2
	•0330	16
	•0358	24
	•0385	32
	•0115	27
	•0140	24
	•0168	13
	•0195	8
	•0223	7
	•0255	2

## HISTOGRAM AND STATISTICS OF INSIDE TIR DATA

8.9 Inches From Base

N	155	RANGE	• 03170	CORF. YAD.	• 51260
MEAN	• 01161	VARIANCE	• 03-94	SKEWNESS	• 585*2
MEDIAN	• 01130	STD. DEV.	• 00595	NO. OF GRLLS	11
MAXIMUM	• 03220	MINIMUM	• 00390		
CELL . MID.		FREQ			
• 0009		4	XXXX		
• 0044		30	XXXXXXXXXXXXXX		
• 0179		28	XXXXXXXXXXXXXX		
• 0113		23	XXXXXXXXXXXXXX		
• 0148		29	XXXXXXXXXXXXXX		
• 0183		19	XXXXXXXXXXXXXX		
• 0218		6	XXXXX		
• 0252		4	XXX		
• 0287		1	X		
• 0322		1	X		

## HISTOGRAM AND STATISTICS OF INSIDE TIR DATA

## 9.9 Inches From Base

	N	MEAN	STDEV	COEF. VAR.
MEAN	155	.21299	.04150	.57970
MEDIAN		.21180	.04006	.57952
MAXIMUM		.24310	.05740	1.03132
			.01600	1.0

CELL • MIN.

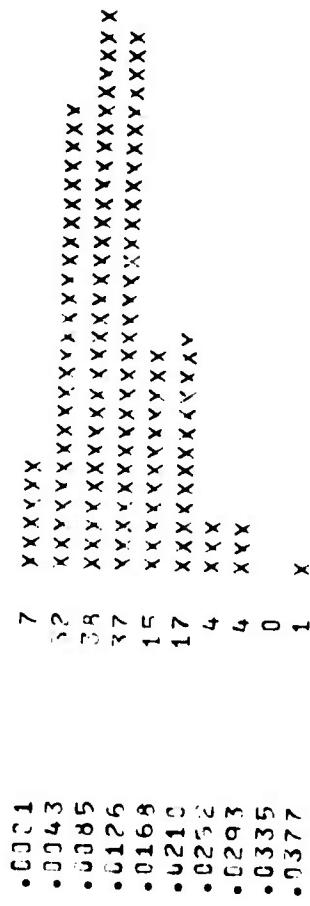
CELL • MIN.	EQNO
.0016	9
.0062	42
.0108	77
.0154	33
.0200	16
.0247	10
.0293	5
.0339	2
.0385	-
.0431	1

HISTOGRAM AND STATISTICS OF INSIDE TIR DATA

5.75 Inches From Nose

N	155	MEAN	.1149	VARIANCE	.3750	SQRT. VAR.	.6145
MEDIAN	.01570	STDEV.	.0570	SKEWNESS	.6945		
MAXIMUM	.03770	MINIMUM	.01168	NC. OF CELLS	13	9310	

CELL. MIN. FREQ



#### HISTOGRAM AND STATISTICS OF INSIDE TIR DATA

##### 4.75 Inches From Nose

N	155	CELLS	1347
MEAN	.01954	VARIANCE	.000755
MEDIAN	.01955	SKEWNESS	-1.27592
MAXIMUM	.03555	N <sub>0</sub> OF CELLS	10

#### CELL. MIN.

*.019	10
*.047	37
*.085	52
*.0124	75
*.0162	19
*.021	2
*.0239	6
*.0279	1
*.0316	0
*.0355	1

#### CELL. MAX.

*.019	10
*.047	37
*.085	52
*.0124	75
*.0162	19
*.021	2
*.0239	6
*.0279	1
*.0316	0
*.0355	1

C-40

#### HISTOGRAM AND STATISTICS OF INSIDE TIR DATA

##### 3.75 Inches From Nose

MEAN	• .01024	RANGE	• J 3370	CHEF. VAR.	• 56357
MEDIAN	• .00930	VARIANCE	• J 9663	SKEWNESS	1.1070q
MAXIMUM	• .03472	STD. DEV.	• J 9577	NO. OF CELLS	10
		MINIMUM	• JU 131		

CELL. MID.	FREQ.
• 0.016	12
• 0.047	27
• 0.085	52
• 0.122	29
• 0.160	19
• 0.197	11
• 0.235	7
• 0.272	1
• 0.311	1
• 0.347	1

### HISTOGRAM AND STATISTICS OF INSIDE TIR DATA

2.75 Inches From Nose

N	155	RANGE	• 0 34.30
MEAN	• 01313	VARIANCE	• 57015
MEDIAN	• 01172	STD. DEV.	• 0.006
MAXIMUM	• 03620	MINIMUM	• 00194

Coeff. Var.	• 57015
Skewness	1.01775
No. of Cells	10

CELL.	MID.	FREQ
• 0019		9
• 0057		26
• 0095		41
• 0133		31
• 0171		21
• 0210		12
• 0248		3
• 0286		4
• 0324		6
• 0362		2

### HISTOGRAM AND STATISTICS OF INSIDE TIR DATA

#### 1.75 Inches From Nose

N	156	RANGE	*1.9110	CORFF. VAR.	*J2418
MEAN	1.53226	VARIANCE	.03137	SKWNESS	-0.J2148
MEDIAN	1.53250	STD. DEV.	.03755	NO. OF CELLS	16
MAXIMUM	1.62691	MINIMUM	1.42500		

CELL. MID.	FREQ
1.4350	1
1.4562	7
1.4774	9
1.4987	23
1.5199	37
1.5411	79
1.5623	24
1.5836	13
1.6048	4
1.6260	3

N	156	RANGE	* 23340	Coeff. VAR.	* 00221
MEAN	16.64509	VARIANCE	* 00135	SKENNESS	-1.46794
MEDIAN	16.55700	STD. DEV.	* 03679	NO. OF CELLS	10
MAXIMUM	16.72600	MINIMUM	16.49300		

CELL.	MIN.	FREQ
16.4930		1
16.5189		2
16.5448		1
16.5707		6
16.5966		24
16.6224		0
16.6483		65
16.6742		52
16.7001		4
16.7260		1