

**(U) \*FT 155-AR-1, PART 1**

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**(U) ABRIDGED**

**(U) FIRING TABLES**

**(U) FOR**

**(U) CANNON, 155MM HOWITZER, M284**

**(U) ON**

**(U) HOWITZER, MEDIUM, SELF-PROPELLED, 155MM, M109A5**

**(U) FIRING**

**(U) PROJECTILE, HE, M795**

**(U) NOTE: THESE FIRING TABLES PERTAIN TO THE FOLLOWING CHARGES:  
3G, 4G, 5G, 4W, 5W, 6W, 7W, 7R**

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**HEADQUARTERS, DEPARTMENT OF THE ARMY  
18 JULY 2013**



(U) **\*FT 155-AR-1, PART 1**

(U) ABRIDGED HEADQUARTERS,  
DEPARTMENT OF THE ARMY  
WASHINGTON, DC, 18 JULY 2013

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## INTRODUCTION

### 1. (U) Symbols and Abbreviations

AD	Air Density
AT	Air Temperature
C	Centigrade (Celsius)
COMP	Complementary
CORR	Correction
COT	Cotangent
CS	Complementary Site
CAS	Complementary Angle of Site
CHG	Charge
CW	Cross Wind
D	Decrease, Deflection
DD	Difference in Density
DEC	Decrease
DEFL	Deflection
DEG	Degree
D ELEV	Change in Elevation
DEN	Air Density
DFS	Difference in Fuze Setting
DH	Difference in Height
DR	Difference in Range
DT	Difference in Temperature
DV	Difference in Muzzle Velocity
EFC	Equivalent Full Charge
EL, ELEV	Elevation
ET	Electronic Time
F	Fahrenheit
FS	Fuze Setting
GFT	Graphical Firing Table
H	Head Wind, Height
HB, HOB	Height of Burst
HE	High Explosive
I, INC	Increase
ICAO	International Civil Aviation Organization
IR	Infrared
L	Left
LB	Pound
M	Meter
MACS	Modular Artillery Charge System
MDP	Meteorological Datum Plane
MET	Meteorological
MO	Maximum Ordinate
MOFA	Multi-Option Fuze for Artillery
MPH	Miles Per Hour
M/S	Meters Per Second

MT	Mechanical Time
MTSQ	Mechanical Time and Superquick
MV	Muzzle Velocity
MVV	Muzzle Velocity Variation
N/A	Not Applicable
PCT	Percent
PD	Point Detonating
PROJ	Projectile
PROX	Proximity
PE	Probable Error
PT	Propellant Temperature
PW	Projectile Weight
QE	Quadrant Elevation
R	Range, Right, Rocket
RB	Range to Burst
RW	Range Wind
SP	Self-Propelled
SQ	Square
T	Tail Wind
TB	Time to Burst
TEMP	Air Temperature
TM	Technical Manual
TML VEL	Terminal Velocity
VE	Velocity Error
WT	Weight

## **2. (U) General Information**

(U) A. Projectile, HE, M795. The tables in Part 1 are based on range firings of projectile, HE, M795 conducted at Yuma Proving Ground, Arizona during the period of April 1998 to May 1998 as reported in Firing Record YPG # 98-050, Volume I of II, dated June 29, 2000. Trajectory computations were performed with a modified point mass trajectory model described in BRL Memorandum Report 1314. The aerodynamic data used in the reduction of the firing tables test results and the ballistic data obtained are recorded in FCI 155-AR-A, dated 27 August 2009. FT 155-AR-2, published separately, contains tables for charges 7R and the Modular Artillery Charge System.

(U) B. Howitzers. All firing table data for Projectile, HE M795 given in Part 1 of FT 155-AR-1 are applicable to Howitzer M109A5.

**3. (U//FOUO) Weapon Characteristics**

(U//FOUO) A. 155mm, Howitzer, Cannon: M284.

Character of rifling, right hand twist

1 turn in 20 calibers

(U//FOUO) B. Howitzer, Medium, Self-propelled, 155mm, M109A5.

(U//FOUO)

Howitzer			M109A5	
Cannon			M284	
Total Traverse – mils			6400	
Maximum Elevation – mils			1344	
Minimum Elevation – mils			-38	
Change in elevation for one turn of elevating handwheel – mils			5	
Change in traverse for one turn of traversing handwheel – mils			10	

(U//FOUO)



**4. (U//FOUO) Projectile/Fuze Combinations and Mean Weights**

(U//FOUO)

Projectile	Fuze		Fuze Weights	Weight of Fuzed Projectile (lb)		
	Type	Model		3 sq	4 sq	5 sq
HE, M795	PD <sup>(a)</sup>	M557	2.2	103.1	104.2	105.3
		M739	1.5	102.4	103.5	104.6
		M739A1	1.5	102.4	103.5	104.6
	MTSQ <sup>(b)</sup>	M582	1.5	102.4	103.5	104.6
		M582A1	1.5	102.4	103.5	104.6
		M564	2.1	103.0	104.1	105.2
	ET <sup>(b)</sup>	M767	1.1	102.0	103.1	104.2
		M767A1	1.1	102.0	103.1	104.2

(U//FOUO)

(U) (a) These fuzes have two modes: quick mode and delay mode.

(U) (b) These fuzes have a point detonating (PD) setting.

## 5. (U//FOUO) Equivalent Service Rounds

(U) The following may be used to compute the equivalent full charge fatigue and erosion effects for Projectile, HE, M795. The fatigue effects are used to determine the condemnation life for the M284 cannons. The erosion effects are used to compute the number of equivalent full charge service rounds to enter the table of approximate losses in muzzle velocity.

(U//FOUO)

Charge	Zone	Fatigue Life		Erosion Life	
		No. of rds equivalent in fatigue to one full chg	Equivalent fatigue effect in decimals	No. of rds equivalent in erosion to one full chg	Equivalent erosion effect in decimals
<b>Cannons, 155mm Howitzer,</b>					
<b>M284,<sup>(d)</sup></b>					
M119A2	7R	4.00	0.25	2.00	0.50
M4A2	7W	6.67	0.15	6.67	0.15
M4A2	6W	20.00	0.05	14.29	0.075
M4A2	5W	20.00	0.05	14.29	0.075
M4A2	4W	20.00	0.05	14.29	0.075
M4A2	3W	20.00	0.05	14.29	0.075
M3A1	5G	20.00	0.05	14.29	0.075
M3A1	4G	20.00	0.05	14.29	0.075
M3A1	3G	20.00	0.05	14.29	0.075

(U//FOUO)

(SEE FOOTNOTES ON NEXT PAGE)

## FOOTNOTES

(d) **(U//FOUO)** Cannon, M284 has a dual condemnation criteria of 2650 EFC (fatigue) rounds or 0.105 inches wear (6.205 inches bore diameter) taken at 41.75 inches forward of the rear face of the tube, whichever comes first.

### **6. (U) Fatigue**

(U)The process of metal fatigue is caused by the repeated application of firing pressures or high stresses from various charges and sustained tube temperatures. Each round of ammunition fired through a cannon reduces tube life due to metal degradation.

(U)For cannon tubes condemned based on metal fatigue, the effective full charge rounds fired will be used to determine remaining tube life and will be used as the foremost criteria in condemnation. However, all tubes should be constantly checked and possibly condemned based on the presence of cracks, defects and other damage which make the cannon unsafe to fire (as determined from borescope, comparison checks and visual inspection). Detailed information on fatigue and tube condemnation is contained in TM 9-1000-202-14. This applies to the following cannon M2:

### **7. (U) Erosion**

(U)The process of erosion removes metal from the bore surface of a cannon by the movement of hot gases and residues generated from the burning of the propellant as well as by the passing of the projectile through the bore. Detailed information on erosion is contained in TM 9-1000-202-14.

(U)For tubes exhibiting uniform wear, the loss in muzzle velocity may be estimated from measurements taken in accordance with instructions given in the publication referred to above. For tubes exhibiting irregular wear, as evidenced principally by stripped lands, the loss in muzzle velocity cannot be estimated reliably from wear measurements. The latter tubes will continue to fire accurately but their velocity levels should be inferred from registration firings or determined using a muzzle velocity measuring device.

FT 155-AR-1  
PART 1

(U) The following tables may be used as a guide in estimating muzzle velocity departures from the firing table standard due to uniform conditions:

**(U//FOUO) Approximate Losses in Muzzle Velocity**  
**155mm Howitzer, Cannons: M284 ; Charges: 3G, 4G and 5G**  
**(U//FOUO)**

<b>Number of equivalent full service rounds (erosion)</b>	<b>Wear measurement (inches)*</b>	<b>Muzzle Velocity Loss (m/s)</b>
0	6.100	0.0
100	6.107	0.2
200	6.114	0.4
300	6.121	0.4
400	6.127	0.5
500	6.134	0.6
600	6.141	0.6
700	6.147	0.7
800	6.154	0.7
900	6.160	0.8
1000	6.166	0.8
1100	6.171	0.9
1200	6.176	0.9
1300	6.180	1.0
1400	6.184	1.1
1500	6.188	1.2
1600	6.191	1.3
1700	6.194	1.4
1800	6.197	1.5
1900	6.199	1.7
2000	6.200	1.8
2100	6.201	2.1
2200	6.202	2.4
2300	6.203	2.8
2400	6.204	3.3
2500	6.205	4.1

(U//FOUO)

(U//FOUO)\* The wear measurement is taken 41.75 inches forward of the rear face of the tube.

**(U//FOUO) Approximate Losses in Muzzle Velocity****155mm Howitzer, Cannons: M284 ; Charges: 3W, 4W, 5W, 6W and 7W****(U//FOUO)**

<b>Number of equivalent full service rounds (erosion)</b>	<b>Wear measurement (inches)*</b>	<b>Muzzle Velocity Loss (m/s)</b>
0	6.100	0.0
100	6.107	0.3
200	6.114	0.5
300	6.121	0.7
400	6.127	0.8
500	6.134	0.9
600	6.141	1.1
700	6.147	1.2
800	6.154	1.3
900	6.160	1.4
1000	6.166	1.5
1100	6.171	1.6
1200	6.176	1.7
1300	6.180	1.9
1400	6.184	2.0
1500	6.188	2.1
1600	6.191	2.3
1700	6.194	2.5
1800	6.197	2.7
1900	6.199	2.9
2000	6.200	3.2
2100	6.201	3.5
2200	6.202	3.9
2300	6.203	4.4
2400	6.204	5.0
2500	6.205	5.8

**(U//FOUO)****(U//FOUO)**

\* The wear measurement is taken 41.75 inches forward of the rear face of the tube.

**(U//FOUO) Approximate Losses in Muzzle Velocity**

**155mm Howitzer, Cannons: M284 ; Charges: 7R**  
(U//FOUO)

<b>Number of equivalent full service rounds (erosion)</b>	<b>Wear measurement (inches)*</b>	<b>Muzzle Velocity Loss (m/s)</b>
0	6.100	0.0
100	6.107	0.4
200	6.114	0.8
300	6.121	1.2
400	6.127	1.5
500	6.134	1.9
600	6.141	2.3
700	6.147	2.7
800	6.154	3.1
900	6.160	3.5
1000	6.166	3.8
1100	6.171	4.1
1200	6.176	4.4
1300	6.180	4.7
1400	6.184	5.1
1500	6.188	5.6
1600	6.191	6.0
1700	6.194	6.4
1800	6.197	7.0
1900	6.199	7.3
2000	6.200	7.6
2100	6.201	7.8
2200	6.202	8.1
2300	6.203	8.3
2400	6.204	8.6
2500	6.205	9.0

(U//FOUO)

(U//FOUO)\* The wear measurement is taken 41.75 inches forward of the rear face of the tube.

## 8. (U) Explanation of Tables

(U) Firing tables contain data based on standard and nonstandard trajectories for a given weapon and combination of projectile, fuze and propelling charge. A standard trajectory fired at a given elevation is one theoretically existing under arbitrarily chosen conditions of weather and materiel. A nonstandard trajectory is one existing under conditions of weather and materiel differing from the arbitrarily chosen standard conditions. Standard firing data and the corrections needed to compensate for significant variations from standard conditions may be determined from the firing tables. The following variations from standard conditions were used in preparing the firing tables.

(U) Muzzle Velocity (decrease and increase)	10 m/s
Range Wind (head and tail)	50 knots
Cross Wind (left and right)	50 knots
Ballistic Air Temperature (decrease and increase)	10 percent
Ballistic Air Density (decrease and increase)	10 percent
Projectile Weight (decrease and increase)	1 square
Angle of Site (+ site and - site)	50 mils

(U) The ranges in the tables are distances along the surface of a sphere concentric with the earth and passing through the muzzle of the tube. The point at which the descending branch of the trajectory intersects this concentric sphere is designated the level point. Targets at zero height are at the level point. Other targets are considered to be directly above or below the level point.

(U) In general, plus signs are omitted from these tables. Therefore, numbers without signs are to be considered positive. Negative quantities are shown with a minus sign.

(U) A. The contents of these tables are described below.

### Table

(U) A Line Number of Meteorological Message – Digits which represent preselected standard heights. The height zones represented by the line numbers are given as a function of quadrant elevation. If quadrant elevation is known, or can be reasonably inferred, Table A should be used for line number. Otherwise, line number may be obtained from Table B as a function of range and height of target above gun.

(U) B Complementary Range Line Number – Range corrections corresponding to the complementary angle of site, and line numbers of the meteorological message. The range corrections are tabulated as a function of range and height of target above the gun. For a target at some height other than zero, the complementary range correction is added to the chart range to obtain a range to be used for entering Table F. The line number is tabulated in the margins of the table. Each particular line number is applicable to all target points lying between the heavy dividing lines containing that number.

## Table

- (U) C Components of a One Knot Wind – A wind of one knot, blowing from the chart direction, divided into two components; the cross wind, perpendicular to the plane of fire, and the range wind, parallel to the plane of fire. These components are to be multiplied by the wind speed from the appropriate line of the met message to obtain the total cross and range wind to be used in the particular fire problem.
- (U) D Air Temperature and Density Corrections – Corrections added to the ballistic air temperature and the ballistic air density to compensate for the difference in altitude between the firing battery and the meteorological station.
- (U) E Effects on Muzzle Velocity Due to Propellant Temperature – The changes in muzzle velocity produced by variations in the propellant temperature. Whenever possible, the temperature of the propellant itself should be measured, rather than assuming that it is the same as the air temperature. The velocity effect obtained from this table is converted to a range correction by use of column 10 or 11 in Table F.
- (U) F Basic Data and Correction Factors – A compilation of the basic data required for the solution of the gunnery problem. The data are arranged in 19 columns, each column of which is a function of the listed range. Since all of these quantities have been computed for a target at the level point, Table F applies primarily to targets at the same altitude as the gun. Sufficient information may be found to produce a graze burst on a target at the level point. For targets above or below the level point, Table F is entered with a range first determined from Table B.

(U) Following is an explanation of the content of each column of Table F.

(U) Column

(U) 1–9 Basic Data

(U) 1 Range – The distance, measured on the surface of a sphere concentric with the earth, from the muzzle to a target at the level point.

(U) 2 Elev (Elevation) – The angle of the gun in the vertical plane required to reach the range tabulated in column 1. The maximum elevation shown represents the highest angle at which predictable projectile flight is possible under standard conditions of met and materiel. This number varies with nonstandard conditions of met and materiel and is particularly sensitive to changes in range wind. Some of the elevations listed may exceed the maximum weapon elevation, but they can be achieved through modification of the weapon position.



Table Column

- F (U) 3 FS for Graze Burst – Numbers to be set on fuzes MTSQ, M582 and ET, M767 that will produce a graze burst at the level point when firing under standard conditions. This setting will produce a graze burst at the time of flight listed in column 7.
- (U) 4 DFS per 10 M Dec (Change in Fuze Setting for 10 Meters Decrease in Height of Burst) – The adjustment to fuze setting required to decrease the height of burst 10 meters. To increase the height of burst 10 meters, change the sign of the value given in the table.
- (U) 5 DR per 1 Mil D Elev (Change in Range for One Mil Change in Elevation) – Adjustment in range corresponding to a one mil change in the angle of elevation.
- (U) 6 Fork – The change in the angle of elevation necessary to produce a change in range at the level point equivalent to four probable errors in range.
- (U) 7 Time of Flight – The projectile travel time, under standard conditions, from the muzzle to the level point at the range in column 1. Time of flight is used as fuze setting for the following fuzes: MTSQ, M582 and ET, M767.
- (U) 8-9 Azimuth Corrections – The angular changes in the horizontal plane necessary to compensate for a departure of the projectile from the vertical plane of fire. Any deviation of the projectile from the vertical plane of fire is considered a deflection effect. The corrections tabulated in columns 8 and 9 are used in determining the change in traverse angle needed to offset the effects of drift and cross wind, two of the phenomena that create a deflection effect. Although drift exists in a standard trajectory, it is assumed, for simplicity, to be a deflection effect.
- (U) 8 Drift (Corr to L) – (Azimuth Corrections to Compensate for Drift) – Because of the right hand twist of the tube, the drift of the projectile is to the right of the vertical plane of fire. This drift must be compensated for by a correction to the left.
- (U) 9 CW of 1 Knot – (Azimuth Corrections to Compensate for a Cross Wind of 1 Knot) – Ballistic cross wind components may be from either the right or the left, and the weapon must be traversed into the cross wind to compensate for the deflection effect – to the right for a cross wind blowing from the right of the plane of fire, to the left for a cross wind blowing from the left. In the

- (U) wind components, Table C, the directions of the azimuth corrections, right and left, are indicated by the letters R and L.

Table	Column	
F	(U) 10-19	Range Correction Factors – Corrections to range to compensate for the effects of nonstandard conditions. Although the corrections given in columns 10 through 19 are tabulated for a unit decrease and a unit increase in the nonstandard conditions, they are actually mean values based on an expected decrease and increase in the nonstandard conditions. The columns of corrections for an increase in the nonstandard conditions are shaded to aid in identification. A tail wind is considered to be an increase in wind for this purpose.
	(U) 10-11	Muzzle Velocity 1 M/S (Range Corrections for a Decrease (Increase) of One Meter per Second in Muzzle Velocity) – Corrections to range to compensate for variations from the standard muzzle velocity that appears on the title page for each charge.
	(U) 12-13	Range Wind 1 Knot (Range Corrections for a Head Wind (Tail Wind) of 1 Knot). In computing a standard trajectory it is assumed that no wind is blowing. In the wind component's table, Table C, a head wind is designated by the symbol H and a tail wind, by T. If the symbol is H, enter column 12 and if T, enter column 13.
	(U) 14-15	Air Temp 1 Pct (Range Corrections for a Decrease (Increase) of One Percent in Air Temperature). Standard air temperature at sea level is 15.0 degrees Centigrade (59.0° F). On the absolute scale, the equivalent temperature is 288.2 degrees Kelvin. Standard air temperatures at finite heights above sea level have been established as part of the ICAO standard atmosphere (U.S. standard atmosphere, 1962). Temperature at any given height is recorded and transmitted as a percent of the standard absolute temperature for that height. The drag that a projectile encounters is a function of Mach number (ratio of the velocity of the projectile to the velocity of sound). The drag varies appreciably with Mach number, particularly near Mach one where the velocity of the projectile and the velocity of sound are equal. Since the velocity of sound is a function of air temperature, it follows that changes in air temperature will change the Mach number, thereby changing the drag and consequently the range. This effect is sometimes called the elasticity effect. It should not be confused with the distinctly separate effect which air temperature produces through its influence on air density.

Table	Column	
F	(U) 16-17	Air Density 1 Pct (Range Corrections for a Decrease (Increase) of 1 Percent in Air Density). Standard air density at sea level is 1225.0 grams per cubic meter. Standard air densities at finite heights above sea level have been established as part of the ICAO Standard Atmosphere (U.S. Standard Atmosphere, 1962). Air density at any given height is recorded and transmitted as a percent of the standard absolute density for that height. Air density affects the drag exerted upon the projectile. Therefore, changes in air density will change the drag and consequently the range.
	(U) 18-19	Proj Wt of 1 Sq (4 Sq Std) (Range Corrections for a Decrease (Increase) of 1 Square in Projectile Weight). The standard projectile weight for this table is 103.5 pounds. Correction should be made for difference in projectile weight as indicated by the number of squares. A decrease in projectile weight increases the muzzle velocity, the effect of which is to lengthen the range. But it also decreases the ballistic coefficient, the effect of which is to shorten the range. The combined effect may be either an increase or a decrease in range depending upon which individual effect is predominant. Under certain conditions these two effects tend to cancel each other.
(U) G	Supplementary Data – A table of supplementary data containing probable error information and certain trajectory elements.	
	Column	
	(U) 1	Range (See Table F)
	(U) 2	Elevation (See Table F)
	(U) 3–7	Probable Errors – These probable errors were computed from uncorrected firing data obtained from all available sources and are estimates of the average probable errors. On a given occasion the observed probable error may be greater or less than the average probable error in accordance with the laws of probability. The probable errors indicate the round-to-round variation of a single piece fired on a single occasion and do not reflect the variation of the mean of either a single piece fired on different occasions or different pieces fired on the same occasion.

Table	Column	
G	(U) 3	R (Probable Error in Range to Impact) – A value which when added to and subtracted from the expected range, will produce an interval, along the line of fire, that should contain 50 percent of the rounds fired. Variations in muzzle velocity, in angle of departure, and in total drag during flight all contribute to the probable error in range to impact. For those projectiles that are fired with rocket assist, variations in time to the delayed ignition and in thrust performance of the rocket motor are combined with those parameters mentioned above to produce the probable error in range.
	(U) 4	D (Probable Error in Deflection at Impact) – A value which, when added both to the right and to the left of the expected impact point, will produce an interval, perpendicular to the line of fire at the expected range, that should contain 50 percent of the rounds fired. Variations in angle of departure and various aerodynamic terms produce dispersion in deflection at impact.
	(U) 5	HB (Probable Error in Height of Burst) – A value which, when added to and subtracted from the expected height of burst, will produce a vertical interval that should contain 50 percent of the rounds fired. The factors that contribute to the probable error in height of burst are not only those that produce dispersion in range to impact, but also those factors attributed to variations in the functioning of the time fuze.
	(U) 6	TB (Probable Error in Time to Burst) – A value which, when added to and subtracted from the expected time to burst, will produce a time interval that should contain 50 percent of the rounds fired.
	(U) 7	RB (Probable Error in Range to Burst) – A value which, when added to and subtracted from the expected range to burst, will produce an interval, along the line of fire, that should contain 50 percent of the rounds fired. The factors that contribute to the probable error in range to burst are not only those that produce dispersion in range to impact, but also those factors attributed to variations in the functioning of the time fuze.
	(U) 8	Angle of Fall – The least angle measured clockwise from the horizontal to a line tangent to the trajectory at the level point.

Table	Column	
G	(U) 9	Cot Angle of Fall (Cotangent of Angle of Fall) – The trigonometric function of the angle of fall given in column 8.
	(U) 10	TML VEL (Terminal Velocity) – The speed of the projectile at the level point.
	(U) 11	MO (Maximum Ordinate) – The maximum height above the gun of the trajectory fired, under standard conditions, to the range in column 1.
	(U) 12-13	Comp Site for Angle of Site (Complementary Angle of Site for Each Mil Angle of Site) – The correction which must be added algebraically to each mil of actual angle of site to compensate for the nonrigidity of the trajectory. Use column 12 when the target is above the gun in altitude, column 13 when the target is below the gun.
(U) H		Rotation – Range (Corrections to Range, in Meters, to Compensate for the Rotation of the Earth) – Range corrections required to offset the effects on range produced by the rotation of the earth.
(U) I		Rotation – Azimuth (Corrections to Azimuth, in Mils, to Compensate for the Rotation of the Earth) – Azimuth corrections required to offset the effects on deflection produced by the rotation of the earth.
(U) J		Fuze Correction Factors – Corrections to fuze setting to compensate for the effects of nonstandard conditions. The data are arranged in 11 columns, each of which gives values for the various quantities as a function of the fuze setting tabulated in the first column. Since all of these quantities have been computed for a target at the level point, Table J applies primarily to targets at the same altitude as the gun. Sufficient information may be found to produce a graze burst on a target at the level point. For targets above or below the level point, Table J is entered with a fuze setting determined from Table F. The exact procedure to follow for either case is explained in the examples of problems in paragraph 11. Although the corrections given in columns 2 through 11 are tabulated for a unit decrease and a unit increase in the nonstandard conditions, they are actually mean values based on an expected decrease and increase in the nonstandard conditions. A tail wind is considered to be an increase in wind for this purpose.
(U)		Following is a listing of the contents of Table J. For a detailed explanation of columns 2 through 11, see the explanation of columns 10 through 19 in Table F. In these explanations, substitute fuze corrections for range corrections.

Table	Column	
J	(U) 1	FS (Fuze Setting)
	(U) 2-3	Muzzle Velocity 1 M/S (Fuze Corrections for a Decrease (Increase) of 1 Meter per Second in Muzzle Velocity)
	(U) 4-5	Range Wind 1 Knot (Fuze Corrections for a Head Wind (Tail Wind) of 1 Knot)
	(U) 6-7	Air Temp 1 Pct (Fuze Corrections for a Decrease (Increase) of 1 Percent in Air Temperature)
	(U) 8-9	Air Density 1 Pct (Fuze Corrections for a Decrease (Increase) of 1 Percent in Air Density)
	(U) 10-11	Proj Wt of 1 Sq (4 Sq Std) (Fuze Corrections for a Decrease (Increase) of 1 Square in Projectile Weight)
(U) K		Corrections to Fuze Setting – The amount to be added to or subtracted from the fuze setting of Fuze, MTSQ, M582 to obtain the fuze setting for Fuze, MTSQ, M564.

(U) B. Appendices. Appendix A through Appendix K follow the main body of the table. They contain trajectory charts for Projectile, HE, M795. Altitude in meters is plotted against range in meters for every 100 mils of elevation up to the maximum trailing angle. Time of flight, by five-second intervals, is marked on each trajectory.

**9. (U) Explanation of Meteorological Message**

- (U) A. Composition of Meteorological Message. The ballistic met message as described in STANAG 4061 (Edition No. 3), 19 May 1969, is divided into two parts – the introduction containing, primarily, identification information and the body of the message containing meteorological information. The introduction consists of two lines broken into four groups of letters and numbers and the body of the message consists of a sequence of up to sixteen lines, each broken into two groups of six digit numbers. The various parts of a met message are explained as follows:

**(U) Sample Meteorological Message**

(U)	METB31	344983	┌	— Introduction
(U)	121450	037013		
(U)	002109	945071	┌	— Body of message
(U)	012205	937079		
(U)	022318	933082		
(U)	032419	926084		
(U)	042620	941075		
(U)	052822	949065		
(U)	063123	960051		

**(U) (1) Introduction**

(U) (a) Group 1– METB31

(U) Met Indicates that the transmission is a meteorological message.

(U) B Indicates that the message is a ballistic met message.

(U) 3 Indicates that the message is for surface-to-surface fire.

(U) 1 Indicates the octant of the globe in which the meteorological message is applicable, and is numerically coded as follows:



FT 155-AR-1  
PART 1

(U)

Code Number	Octant
0	North Latitude, 0° to 90° West Longitude
1	North Latitude, 90° to 180° West Longitude
2	North Latitude, 180° to 90° East Longitude
3	North Latitude, 90° to 0° East Longitude
4	Not used
5	South Latitude, 0° to 90° West Longitude
6	South Latitude, 90° to 180° West Longitude
7	South Latitude, 180° to 90° East Longitude
8	South Latitude, 90° to 0° East Longitude
9	Used for coded identification

(U)

## (U)(b) Group 2 – 344983\*

- (U) 344 Indicates the latitude of the center of the area of applicability expressed to the nearest tenth of a degree.
- (U) 983 Indicates the longitude of the center of the area of applicability expressed to the nearest tenth of a degree. When the longitude is 100 degrees or greater (possible when in octant 1, 2, 6, or 7) the initial digit 1 is omitted.

## (U)(c) Group 3 – 121450

- (U) 12 Indicates the day of the month the period of the validity of the message begins.
- (U) 145 Indicates, to the nearest tenth of an hour in Greenwich Mean Time, the hour the period of validity begins.
- (U) 0 Indicates the duration of the period of validity in hours. For U.S. Armed Forces, the meteorological data are presumed valid until a later message is provided.

## (U)(d) Group 4 – 037013

- (U) 037 Indicates, in tens of meters, the altitude of the meteorological station or meteorological datum plane (MDP) above mean sea level.
- (U) 013 Indicates the atmospheric pressure at the MDP. This value is rounded to the nearest 0.1 percent of standard atmospheric pressure at sea level. When this value is 100 or greater, the initial digit 1 is omitted.

(U) \*When group 1 has code 9 for octant, group 2 identifies the area by name or code.

(U) Thus, the introduction to the sample message indicates that it is a ballistic meteorological message applicable to surface fire in octant 1 of the globe. Specifically, it is applicable to an area whose center is latitude 34.4 degrees north and whose longitude is 98.3 degrees west. The message is valid on the 12th of the month starting at 1430 Greenwich Mean Time. The atmospheric pressure at the MDP, which is 370 meters above mean sea level, is 101.3 percent of standard at sea level.

(U) (2) Body of the Message. All 16 lines of the body of the message have the same form. The initial line is identified by the first pair of digits (00) and deals with surface meteorological conditions. Each subsequent line furnishes information applicable to firings for which the maximum ordinate of the trajectory is equal to the standard height associated with the first pair of digits of the line. These two digits are the line number indicating the standard height relative to the MDP.

(U) Line Number	(U) Standard Height meters
00	0
01	200
02	500
03	1000
04	1500
05	2000
06	3000
07	4000
08	5000
09	6000
10	8000
11	10000
12	12000
13	14000
14	16000
15	18000

(U) Because all of the lines in the body of the message have the same form, a detailed explanation of one line will serve as a sample for any line. Assume that the appropriate line number is 05.

(U) (a) Group 1 – 052822

(U) 05 is the line number indicating the standard height relative to the MDP.

(U) 28 is the direction from which the ballistic wind is blowing, measured clockwise from geographic north, transmitted in hundreds of mils.

(U) 22 is the ballistic wind speed to the nearest knot.

(U) (b) Group 2 – 949065

(U) 949 is the ballistic air temperature to the nearest 0.1 percent of standard. When this value is 100 or greater, the initial digit 1 is omitted.

(U) 065 is the ballistic air density to the nearest 0.1 percent of standard. When this value is 100 or greater, the initial digit 1 is omitted.

(U) Thus, the applicable portion of the body of the meteorological message states that for a trajectory whose maximum ordinate is 2000 meters, the ballistic wind is blowing from 2800 mils at 22 knots, the ballistic air temperature is 94.9 percent of standard and the ballistic air density is 106.5 percent of standard.

(U) B. Ballistic Atmosphere. As indicated above, each line of the body of the meteorological message contains the ballistic wind, ballistic air temperature and ballistic air density for the indicated height. When this height is zero, these quantities are the actual wind, air temperature and air density at the MDP. For other heights, there are certain effective mean values of the actual atmospheric structure, which are used in conjunction with the data given in the firing table to determine the effects of the actual atmospheric structure. These mean values are computed, at the meteorological station, to apply to a trajectory having a maximum ordinate exactly equal to a particular standard height. For firings where the maximum ordinate is not equal to one of the standard heights, it is sufficient to use the ballistic wind, temperature and density computed for that standard height which is nearest to the maximum ordinate of the firing.

(U) A projectile following a trajectory whose maximum ordinate is equal to some particular standard height passes through layers of the atmosphere where winds are blowing in various directions and at various speeds. The ballistic wind for this standard height is that wind which is constant in speed and direction and which produces the same effect on the range, height and deflection of the projectile as the actual wind.

(U) Definitions of ballistic air temperature and ballistic air density are essentially the same as that of ballistic wind, but differ in that there are, in these cases, no deflection effects. Trajectories for standard conditions are computed for an atmospheric structure in which the air temperature and air density decrease with increasing height according to the laws defining the ICAO Standard Atmosphere (U. S. Standard Atmosphere, 1962). The ratio of the actual air temperature to the standard air temperature, expressed as a percentage, is called the relative air temperature. Corresponding to any actual temperature structure, there is a hypothetical temperature structure for which the relative air temperature is constant at all heights and which has the same effect on range as the actual structure. This constant relative air temperature is called the ballistic air temperature. Similarly, the ratio of the actual air density to the standard air density, expressed as a percentage, is called the relative air density. Corresponding to any actual density structure, there is a hypothetical density structure for which the relative air density is constant at all heights and which has the same effect on range as the actual structure. This constant relative air density is called the ballistic air density.

(U) C. Corrections to Temperature and Density. As stated, the heights referred to in the preceding discussion are heights above the MDP, which is the horizontal plane containing the meteorological station. Ballistic air temperature and ballistic air density must be corrected for the difference in altitude between the battery and the MDP. The necessary corrections are contained in Table D, Temperature and Density Corrections. The ballistic wind, however, is not corrected for the difference in altitude of the battery and MDP because, unlike air temperature and air density, wind does not follow a predictable variation with height.

(U) D. Types of Meteorological Message. Currently, two types of met messages (identified as 2 or 3) are in use. Each is adapted to a certain large class of guns and ammunition. The type 2 message is for surface-to-air firing, and the type 3 message is for surface-to-surface firing. For this firing table use type 3 message at all elevations of all charges.

## 10. (U) Problem

(U) A. General. Firing tables contain the data needed to determine the quadrant elevation and deflection that will produce detonation of the projectile at the target when firing under all conditions of weather and materiel. In the field, graphical equipment is utilized in conjunction with these tables to increase the speed of fire. The sample problem in paragraph 11 illustrates the numerical solution of the fire problem and thus does not incorporate the use of graphical equipment.

(U) B. Arithmetic Precision. In the computation of the problem that follows, certain rules and principles affecting the arithmetic precision of the solution are stated or implied. These are guidelines only. Greater arithmetic precision could be achieved by more stringent rules. However, the improvement in the effectiveness of fire would generally be negligible and certainly not justify the added complexity. The following list presents various rules and principles affecting the arithmetic precision.

- (U) • Interpolation in a given table cannot result in a value with more decimal places than the values listed in that table.
- (U) • Chart range to a target is normally determined to the nearest 10 meters and chart direction (deflection) to the nearest mil.
- (U) • The NATO met message describes wind to the nearest 100 mils of direction and to the nearest 1 knot of speed. Computed values of the chart direction of the wind, and the range and cross wind components, should be expressed to the nearest 100 mils and to the nearest knot.
- (U) • The expression and application of a velocity variation from standard should be to the nearest tenth of a meter per second.

### (U) C. Round-off Rules

(U) (1) General. When rounding off to the nearest whole number, round to the nearest even number when the value ends in 0.5; when rounding to the nearest tenth, round to the nearest even tenth when the value ends in 0.05. This same principle applies to rounding off to the nearest ten and to the nearest hundred. Round-off in the sample problem is expressed by  $\Rightarrow$ .

## (U) (2) Firing Table Data

Table	Argument		Extracted Value	
	Enter With	Expressed to the Nearest	Value Obtained	Expressed to the Nearest
A	Quadrant Elevation	As Given	Line Number	As Listed
B	Chart Range	100 m	Complementary Range	As Listed
	Vertical Interval	1 m (a)		
	Chart Range	100 m	Line Number	As Listed
	Vertical Interval	100 m		
C	Chart Direction of Wind	100 mils	Unit Cross Wind Comp	As Listed
D	DH	10 m	Unit Range Wind Comp	As Listed
			DT	As Listed
E	Propellant Temperature	1° F	DD	As Listed
F	Entry Range	100 m	Velocity Effect	0.1 m/s
	Corrected Entry Range	10 m	Range Corrections (b)	As Listed
			Azimuth Corrections (c)	As Listed
			Elevation	0.1 mil
G	Chart Range	100 m	Fuze Setting	0.1
			Time of Flight	0.1 sec
H	Entry Range	100 m	Supplementary Data	As Listed
I	Azimuth	As Listed	Range Correction for Rotation (d)	As Listed
	Latitude	10 °		
J	Latitude	10 °	Azimuth Correction for Rotation	As Listed
	Entry Range	As Listed		
K	Azimuth	As Listed		
	Fuze Setting	1	Fuze Correction	As Listed
	Fuze Setting	0.1	Corrections To Fuze Setting	As Listed

(U)

(U)(a) To determine an entry range for solution of a meteorological message, enter with the vertical interval to the nearest 100 meters.

(U)(b) The corrections to range for a single element, the unit correction multiplied by the variation from standard, should be retained to the nearest tenth of a meter. The algebraic sum of these corrections is rounded to the nearest meter.

(U)(c) The correction to the azimuth for a cross wind, the unit correction multiplied by the magnitude of the cross wind, should be retained to the nearest tenth of a mil. The azimuth correction to compensate for the drift of the projectile should be retained to the value listed in the tables.

(U)(d) Correction for latitude other than 0 degrees should be multiplied by the latitude factor.

(U)(3) Fire Commands. Information given in the fire commands to a firing battery is announced as follows.

(U)

Command	Expressed to the nearest
Time (Fuze Setting)	0.1
Deflection	1 mil
Quadrant	1 mil

(U)

## 12. (U) Supplementary Tables

### (U) Explanation of Components of a One Knot Wind

(U)The table of components of a one knot wind, Table C, resolves a wind of one knot, blowing from any chart direction, into its cross wind and range wind components. Chart direction is the azimuth of the wind direction (increased by 6400 when necessary) minus the azimuth of the direction of fire. There are two distinct problems which are solved with Table C. These are outlined below.

(U)A. Azimuth Correction for Ballistic Wind. Enter column 1 of Table C with the applicable chart direction and obtain from column 2 a cross wind component. This component will be preceded by an R or an L. The product of the observed wind, the component just determined, and the correction factor from column 9 of Table F is the azimuth correction to compensate for the ballistic wind. This correction is applied to the right if the component is preceded by an R, to the left, if by an L.

(U)B. Range Correction for Ballistic Wind. Enter column 1 of Table C with the applicable chart direction and obtain from column 3 a range wind component. This component will be preceded by an H or a T. If the wind component is preceded by an H, enter column 12 of Table F to obtain the correction factor; if by a T, enter column 13. The product of the observed wind, the component just obtained, and the correction factor from Table F is the correction to range to compensate for the ballistic wind.



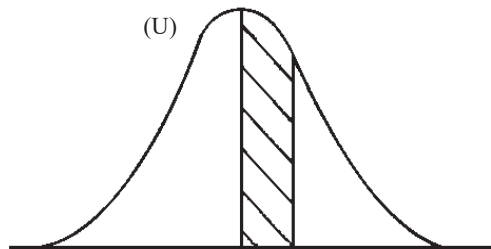
(U) Explanation of Probability Table

(U) A. The probability table consists of an argument, T, for entering the table and a body of figures representing areas under the normal probability curve.

(U) B. The first vertical column gives the value of T for entry to the nearest one-tenth of a probable error (PE). The top horizontal line permits entry using a value of T expressed to the nearest one-hundredth.

(U) Example 1. It is desired to locate the area under the normal curve that corresponds to 1.4 probable errors. Locate 1.4 in the first vertical column. Since the required number of probable errors is expressed only to the nearest one-tenth, read the answer .3275 in the horizontal column headed 0.00. Had the value of T been expressed as 1.44, the answer would appear as .3343 in the column headed 0.04.

(U) C. The figures in the body of the table represent areas under the normal probability curve. The entire area under this curve is assumed to be 1. Therefore, the probability that an event will occur within the given limits is represented by some corresponding area under the curve. Thus, the probability that an artillery round will fall somewhere between the true center of impact and a point one probable error beyond this center is represented by the hatched area in the figure below. This area, compared to the total area under the curve, is one fourth or 0.25.



(U) Therefore, each decimal fraction in the body of the table expresses the probability that the deviation, in one direction only, of the point of impact of a projectile from an adjusting point will not be greater than T probable errors.

(U) Example 2. An artillery piece registers upon an adjusting point. The probable error is 30 meters. One round is fired under the adjusted conditions. The probability that this round will fall beyond the adjusting point, a distance not to exceed 30 meters, is determined as follows. One probable error is equal to 30 meters. Enter the table using a value of T equal to 1.0. In the column headed 0.00 the probability is found to be 0.2500 for an impact beyond the target (over) not to exceed 30 meters. The same probability would be read for an impact short of the target (short) not to exceed 30 meters. The probability of a round falling on either side of the adjusting point within 30 meters cannot

(U) be read directly in the table. To express this condition, the probability for an over must be added to the probability for a short. In the previous example, this probability would be 0.5000.

(U) D. The probability of a round falling within any given distance of the target can be found in the table by first converting the given distance to probable errors.

(U) Example 3. With a probable error of 30 meters the probability that a single round will be over and will fall within 49 meters of the target is determined as follows: 49 meters equals 1.63 probable errors. Reading directly from the table the probability is 0.3642.

(U) E. The Probability Table permits the calculation of the probability of a round falling within limits that do not include the adjusting point.

(U) Example 4. Given a probable error of 26 meters, the probability of a round falling between 26 and 35 meters over the adjusting point is determined as follows: 26 meters equals 1.00 PE, 35 meters equals 1.35 PE. The probability of the round falling over the adjusting point a distance of 35 meters or less is 0.3187. The probability of the round falling over the adjusting point a distance of 26 meters or less is 0.2500. To find the probability of the round falling between the given limits, subtract 0.2500 from 0.3187. The result is a probability of 0.0687.

(U) F. The values in the table may be interpolated using direct proportion.

(U) Example 5. The probability that a round will fall short within a distance of 1.503 probable errors from the adjusting point is determined as follows. The probability corresponding to 1.50 equals 0.3442, and corresponding to 1.51 equals 0.3458. The probability for 1.503 PE occurs three-tenths of the way between 0.3442 and 0.3458, and therefore equals 0.3447.

(U) Probability Table

(U)

T	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.0	.0000	.0027	.0054	.0081	.0108	.0135	.0162	.0189	.0216	.0243
0.1	.0269	.0296	.0323	.0350	.0377	.0404	.0431	.0457	.0484	.0511
0.2	.0538	.0565	.0591	.0618	.0645	.0672	.0699	.0725	.0752	.0778
0.3	.0804	.0830	.0856	.0882	.0908	.0934	.0960	.0986	.1012	.1038
0.4	.1064	.1089	.1115	.1140	.1166	.1191	.1217	.1242	.1268	.1293
0.5	.1319	.1344	.1370	.1395	.1421	.1446	.1472	.1497	.1522	.1547
0.6	.1572	.1597	.1622	.1647	.1671	.1695	.1719	.1743	.1767	.1791
0.7	.1815	.1839	.1863	.1887	.1911	.1935	.1959	.1983	.2007	.2031
0.8	.2054	.2077	.2100	.2123	.2146	.2169	.2192	.2214	.2236	.2258
0.9	.2280	.2302	.2324	.2346	.2368	.2390	.2412	.2434	.2456	.2478
1.0	.2500	.2521	.2542	.2563	.2584	.2605	.2626	.2647	.2668	.2689
1.1	.2709	.2730	.2750	.2770	.2790	.2810	.2830	.2850	.2869	.2889
1.2	.2908	.2927	.2946	.2965	.2984	.3003	.3022	.3041	.3060	.3078
1.3	.3097	.3115	.3133	.3151	.3169	.3187	.3205	.3223	.3240	.3258
1.4	.3275	.3292	.3309	.3326	.3343	.3360	.3377	.3393	.3410	.3426
1.5	.3442	.3458	.3474	.3490	.3506	.3521	.3537	.3552	.3567	.3582
1.6	.3597	.3612	.3627	.3642	.3657	.3671	.3686	.3700	.3714	.3728
1.7	.3742	.3756	.3770	.3784	.3798	.3811	.3825	.3838	.3851	.3864
1.8	.3877	.3890	.3903	.3915	.3928	.3940	.3952	.3964	.3976	.3988
1.9	.4000	.4012	.4024	.4035	.4047	.4058	.4069	.4080	.4091	.4102
2.0	.4113	.4124	.4135	.4146	.4156	.4167	.4177	.4187	.4197	.4207
2.1	.4217	.4227	.4237	.4246	.4256	.4265	.4274	.4283	.4292	.4301
2.2	.4310	.4319	.4328	.4336	.4345	.4353	.4361	.4369	.4377	.4385
2.3	.4393	.4401	.4409	.4417	.4425	.4433	.4441	.4448	.4456	.4463
2.4	.4470	.4477	.4484	.4491	.4498	.4505	.4512	.4519	.4526	.4533
2.5	.4540	.4547	.4553	.4560	.4566	.4572	.4578	.4584	.4590	.4596
2.6	.4602	.4608	.4614	.4620	.4625	.4630	.4636	.4641	.4646	.4651
2.7	.4657	.4662	.4667	.4672	.4677	.4682	.4687	.4692	.4697	.4701
2.8	.4705	.4710	.4714	.4718	.4722	.4727	.4731	.4735	.4739	.4743
2.9	.4748	.4752	.4756	.4760	.4764	.4768	.4772	.4776	.4780	.4783
3.0	.4787	.4790	.4793	.4796	.4800	.4803	.4806	.4809	.4812	.4815

(U)

**(U) Probability Table (Cont.)**

(U)

<b>T</b>	<b>0.00</b>	<b>0.01</b>	<b>0.02</b>	<b>0.03</b>	<b>0.04</b>	<b>0.05</b>	<b>0.06</b>	<b>0.07</b>	<b>0.08</b>	<b>0.09</b>
<b>3.0</b>	.4787	.4970	.4793	.4796	.4800	.4803	.4806	.4809	.4812	.4815
<b>3.1</b>	.4818	.4821	.4824	.4827	.4830	.4833	.4836	.4839	.4842	.4845
<b>3.2</b>	.4848	.4851	.4853	.4855	.4857	.4859	.4862	.4864	.4866	.4868
<b>3.3</b>	.4870	.4873	.4875	.4877	.4879	.4881	.4883	.4885	.4886	.4888
<b>3.4</b>	.4890	.4892	.4893	.4895	.4897	.4899	.4901	.4902	.4904	.4906
<b>3.5</b>	.4908	.4909	.4911	.4913	.4915	.4916	.4917	.4919	.4921	.4922
<b>3.6</b>	.4923	.4924	.4926	.4927	.4928	.4929	.4931	.4933	.4934	.4935
<b>3.7</b>	.4936	.4938	.4939	.4940	.4941	.4942	.4944	.4945	.4946	.4947
<b>3.8</b>	.4948	.4949	.4950	.4951	.4952	.4953	.4953	.4954	.4955	.4956
<b>3.9</b>	.4957	.4958	.4959	.4960	.4960	.4961	.4962	.4963	.4964	.4965
<b>4.0</b>	.4965	.4966	.4967	.4967	.4968	.4969	.4969	.4970	.4971	.4972
<b>4.1</b>	.4972	.4973	.4973	.4974	.4974	.4975	.4975	.4976	.4976	.4977
<b>4.2</b>	.4978	.4978	.4979	.4979	.4980	.4980	.4980	.4981	.4981	.4981
<b>4.3</b>	.4982	.4982	.4982	.4983	.4983	.4983	.4983	.4984	.4984	.4985
<b>4.4</b>	.4985	.4985	.4986	.4986	.4986	.4987	.4987	.4987	.4988	.4988
<b>4.5</b>	.4988	.4989	.4989	.4989	.4989	.4990	.4990	.4990	.4990	.4991
<b>4.6</b>	.4991	.4991	.4991	.4991	.4992	.4992	.4992	.4992	.4992	.4992
<b>4.7</b>	.4993	.4993	.4993	.4993	.4993	.4993	.4994	.4994	.4994	.4994
<b>4.8</b>	.4994	.4994	.4994	.4995	.4995	.4995	.4995	.4995	.4995	.4995
<b>4.9</b>	.4995	.4996	.4996	.4996	.4996	.4996	.4996	.4996	.4996	.4996
<b>5.0</b>	.4996	.4996	.4997	.4997	.4997	.4997	.4997	.4997	.4997	.4997
<b>5.1</b>	.4997	.4997	.4997	.4997	.4998	.4998	.4998	.4998	.4998	.4998
<b>5.2</b>	.4998	.4998	.4998	.4998	.4998	.4998	.4998	.4998	.4998	.4998
<b>5.3</b>	.4998	.4998	.4998	.4998	.4998	.4998	.4999	.4999	.4999	.4999
<b>5.4</b>	.4999	.4999	.4999	.4999	.4999	.4999	.4999	.4999	.4999	.4999
<b>5.5</b>	.4999	.4999	.4999	.4999	.4999	.4999	.4999	.4999	.4999	.4999
<b>5.6</b>	.4999	.4999	.4999	.4999	.4999	.4999	.4999	.4999	.4999	.4999
<b>5.7</b>	.4999	.4999	.4999	.4999	.4999	.4999	.4999	.4999	.4999	.4999
<b>5.8</b>	.5000	.5000	.5000	.5000	.5000	.5000	.5000	.5000	.5000	.5000
<b>5.9</b>	.5000	.5000	.5000	.5000	.5000	.5000	.5000	.5000	.5000	.5000
<b>6.0</b>	.5000	.5000	.5000	.5000	.5000	.5000	.5000	.5000	.5000	.5000

(U)

## (U) Natural Trigonometric Functions

(U)

Mil	Sin	Cos	Tan	Cot	
0	.0000	1.0000	.0000		1600
10	.0098	1.0000	.0098	101.9	90
20	.0196	.9998	.0196	50.92	80
30	.0295	.9996	.0295	33.94	70
40	.0393	.9992	.0393	25.45	60
50	.0491	.9988	.0491	20.36	50
60	.0589	.9983	.0590	16.96	40
70	.0687	.9976	.0688	14.53	30
80	.0785	.9969	.0787	12.71	20
90	.0882	.9961	.0886	11.29	10
100	.0980	.9952	.0985	10.15	1500
10	.1078	.9942	.1084	9.224	90
20	.1175	.9931	.1184	8.449	80
30	.1273	.9919	.1283	7.793	70
40	.1370	.9906	.1383	7.230	60
50	.1467	.9892	.1483	6.741	50
60	.1564	.9877	.1584	6.314	40
70	.1661	.9861	.1685	5.936	30
80	.1758	.9844	.1786	5.600	20
90	.1855	.9827	.1887	5.299	10
200	.1951	.9808	.1989	5.027	1400
10	.2047	.9788	.2091	4.781	90
20	.2143	.9768	.2194	4.558	80
30	.2239	.9746	.2297	4.353	70
40	.2334	.9724	.2401	4.165	60
50	.2430	.9700	.2505	3.992	50
60	.2525	.9676	.2610	3.832	40
70	.2620	.9651	.2715	3.684	30
80	.2714	.9625	.2820	3.546	20
90	.2809	.9597	.2927	3.417	10
300	.2903	.9569	.3034	3.297	1300
10	.2997	.9540	.3141	3.184	90
20	.3090	.9511	.3249	3.078	80
30	.3183	.9480	.3358	2.978	70
40	.3276	.9448	.3468	2.884	60
50	.3369	.9415	.3578	2.795	50
60	.3461	.9382	.3689	2.711	40
70	.3553	.9348	.3801	2.631	30
80	.3645	.9312	.3914	2.555	20
90	.3736	.9276	.4028	2.483	10
400	.3827	.9239	.4142	2.414	1200
	Cos	Sin	Cot	Tan	Mil

(U)

(U)

Mil	Sin	Cos	Tan	Cot	
400	.3827	.9239	.4142	2.414	1200
10	.3917	.9201	.4258	2.349	90
20	.4008	.9162	.4374	2.286	80
30	.4097	.9122	.4492	2.226	70
40	.4187	.9081	.4610	2.169	60
50	.4276	.9040	.4730	2.114	50
60	.4364	.8998	.4850	2.062	40
70	.4452	.8954	.4972	2.011	30
80	.4540	.8910	.5095	1.963	20
90	.4627	.8865	.5220	1.916	10
500	.4714	.8819	.5345	1.871	1100
10	.4800	.8773	.5472	1.827	90
20	.4886	.8725	.5600	1.786	80
30	.4972	.8677	.5730	1.745	70
40	.5057	.8627	.5861	1.706	60
50	.5141	.8577	.5994	1.668	50
60	.5225	.8526	.6128	1.632	40
70	.5308	.8475	.6264	1.596	30
80	.5391	.8422	.6401	1.562	20
90	.5474	.8369	.6541	1.529	10
600	.5556	.8315	.6682	1.497	1000
10	.5637	.8260	.6825	1.465	90
20	.5718	.8204	.6970	1.435	80
30	.5798	.8148	.7116	1.405	70
40	.5878	.8090	.7265	1.376	60
50	.5957	.8032	.7416	1.348	50
60	.6036	.7973	.7570	1.321	40
70	.6114	.7914	.7725	1.294	30
80	.6191	.7853	.7883	1.268	20
90	.6268	.7792	.8044	1.243	10
700	.6344	.7730	.8207	1.219	900
10	.6420	.7668	.8372	1.194	90
20	.6494	.7604	.8541	1.171	80
30	.6569	.7540	.8712	1.148	70
40	.6643	.7475	.8886	1.125	60
50	.6716	.7410	.9064	1.103	50
60	.6788	.7343	.9244	1.082	40
70	.6860	.7276	.9428	1.061	30
80	.6931	.7208	.9615	1.040	20
90	.7001	.7140	.9806	1.020	10
800	.7071	.7071	1.000	1.000	800
	Cos	Sin	Cot	Tan	Mil

(U)

**(U//FOUO) Charge Selection Table****(U//FOUO) Probable Error In Range (Meters) Versus  
Range (Meters) And Charge**

(U//FOUO)

RANGE METERS	CHARGE								
	3G	4G	5G	4W	5W	6W	7W	7R	
0	2	3	5	4	6	8	11	16	
1000	6	5	5	6	6	8	11	16	
2000	11	8	6	9	8	8	10	16	
3000	16	12	7	12	10	9	10	16	
4000	21	15	8	15	12	11	10	17	
5000	25	19	10	19	14	13	11	18	
6000		23	12	23	16	14	13	20	
7000			15	19	16	14	22		
8000			18	21	18	16	24		
9000			25	20	18	27			
10000						22	19	29	
11000						25	21	31	
12000							23	33	
13000							25	35	
14000							27	37	
15000								39	
16000								40	
17000								42	

(U//FOUO) \*Highlighted areas represent the smallest PE for each entry range

**(U) Conversion Factors**

(U)

(U)

Multiply	By	To Obtain
yards	0.9144	meters
mph	0.8690	knots
degrees	17.7778	mils
minutes	0.2963	mils

Multiply	By	To Obtain
meters	1.0936	yards
knots	1.1508	mph
mils	0.05625	degrees
mils	3.375	minutes

(U)

(U)

(U) Percent of Standard Temperature

(U)  $100 + 0.1928 (\text{Air Temperature} - 59^{\circ} \text{F})$

(U//FOUO)

(U//FOUO) Part 1

(U//FOUO) Projectile, HE, M795

(U//FOUO) Fuze, PD, M739A1

(U//FOUO) Charge	(U//FOUO) Muzzle Velocity	(U//FOUO) Propelling Charge
	M/S	(U//FOUO) M3A1 (Green Bag)
(U//FOUO) 3G	247	Base and Increments 2 and 3
(U//FOUO) 4G	286	Base and Increments 2, 3, and 4
(U//FOUO) 5G	346	Base and Increments 2, 3, 4, and 5
		(U//FOUO) M4A2 (White Bag)
(U//FOUO) 4W	320	Base and Increment 4
(U//FOUO) 5W	380	Base and Increments 4 and 5
(U//FOUO) 6W	453	Base and Increments 4, 5, and 6
(U//FOUO) 7W	544	Base and Increments 4, 5, 6, and 7
		(U//FOUO) M119A2 (Red Bag)
(U//FOUO) 7R	659	Base Section 7

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**(U//FOUO)**

(U//FOUO) Part 1

(U//FOUO) Charge 3G

(U//FOUO) Projectile, HE, M795

(U//FOUO) Fuze, PD, M739A1

(U//FOUO) Muzzle Velocity – 247 M/S

(U//FOUO) Propelling Charge M3A1 - Base and Increments 2 and 3

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(U//FOUO)

LINE NUMBER OF METEOROLOGICAL MESSAGE

QUADRANT ELEVATION MILS	LINE NUMBER
0.0- 185.8	0
185.9- 357.0	1
357.1- 542.5	2
542.6- 735.0	3
735.1- 920.4	4
920.5- 1258.1	5
1258.2- 1280.0	6

(U//FOUO)

(U//FOUO) NOTE - WHEN THE PROJECTILE MUST HIT THE TARGET ON THE ASCENDING BRANCH OF ITS TRAJECTORY, USE HEIGHT OF TARGET IN METERS TO ENTER THE TABLE ON PAGE XL TO DETERMINE LINE NUMBER.

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

## LINE NUMBERS OF METEOROLOGICAL MESSAGE

LINE	RANGE	HEIGHT OF TARGET ABOVE GUN - METERS							
NO.	METERS	-400	-300	-200	-100	0	100	200	300
0	0					0			
	100					0	1	2	3
	200					0	2	4	6
	300					0	2	5	8
	400					0	3	7	11
	500					0	4	9	14
	600					0	5	10	16
	700					0	6	12	19
	800					0	6	13	21
	900					0	7	15	24
	1000					0	8	17	26
	1100					0	9	18	29
	1200				-9	0	10	20	31
	1300				-10	0	11	22	34
	1400				-11	0	11	23	36
	1500				-11	0	12	25	39
	1600			-24	-12	0	13	27	42
	1700			-25	-13	0	14	29	44
	1800			-27	-14	0	15	30	47
	1900		-42	-29	-15	0	16	32	50
	2000		-44	-30	-16	0	17	34	53
	2100		-47	-32	-16	0	18	36	56
	2200	-64	-49	-34	-17	0	18	38	58
	2300	-67	-52	-35	-18	0	19	40	61
	2400	-71	-54	-37	-19	0	20	42	64
	2500	-74	-57	-39	-20	0	21	44	68
	2600	-78	-60	-41	-21	0	22	46	71
	2700	-81	-63	-43	-22	0	23	48	74
	2800	-85	-65	-45	-23	0	24	50	77
	2900	-89	-68	-47	-24	0	25	52	81
	3000	-93	-71	-49	-25	0	27	55	84
	3100	-97	-74	-51	-26	0	28	57	88
	3200	-101	-77	-53	-27	0	29	59	91
	3300	-105	-81	-55	-28	0	30	62	95
	3400	-109	-84	-57	-29	0	31	64	99
1	3500	-113	-87	-60	-31	0	33	67	103
1							2		

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

LINE NUMBERS OF METEOROLOGICAL MESSAGE

HEIGHT OF TARGET ABOVE GUN - METERS							RANGE	L I N E
400	500	600	700	800	900	1000	METERS	NO.
							0	3
4							100	
8	11	13	16	19	22		200	
12	16	19	23	28	32	37	300	
15	20	25	30	36	42	48	400	
19	25	31	37	44	51	59	500	
22	29	36	44	52	61	70	600	
26	34	42	51	60	70	80	700	
29	38	47	57	68	79	91	800	
33	42	53	64	75	88	101	900	
36	47	58	70	83	97	111	1000	
39	51	64	77	91	106	121	1100	
43	56	69	83	98	115	132	1200	
46	60	75	90	106	124	142	1300	
50	65	80	97	114	133	153	1400	
54	69	86	103	122	142	163	1500	
57	74	92	110	130	151	174	1600	
61	79	97	117	138	161	185	1700	
65	83	103	124	147	171	196	1800	
68	88	109	131	155	180	207	1900	
72	93	115	139	164	190	219	2000	
76	98	121	146	173	201	231	2100	
80	103	128	154	182	211	243	2200	
84	109	134	162	191	222	255	2300	
88	114	141	170	200	233	268	2400	
93	119	148	178	210	244	281	2500	
97	125	155	186	220	256	294	2600	
101	131	162	195	230	268	308	2700	
106	137	169	204	240	280	323	2800	
111	143	177	213	251	293	338	2900	
116	149	184	222	263	306	354	3000	
120	155	192	232	275	320	370	3100	
126	162	201	242	287	335	388	3200	
131	169	210	253	300	351	406	3300	
136	176	219	264	314	367	426	3400	
142	184	228	276	328	385	447	3500	
2			3					

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

## LINE NUMBERS OF METEOROLOGICAL MESSAGE

LINE NO.	RANGE METERS	HEIGHT OF TARGET ABOVE GUN - METERS							
		-400	-300	-200	-100	0	100	200	300
1	3500	-113	-87	-60	-31	0	33	67	103
	3600	-118	-91	-62	-32	0	34	70	108
	3700	-122	-94	-64	-33	0	35	73	112
	3800	-127	-98	-67	-34	0	37	76	117
	3900	-132	-102	-70	-36	0	38	79	122
	4000	-137	-105	-72	-37	0	40	82	127
	4100	-142	-110	-75	-39	0	41	86	133
	4200	-148	-114	-78	-40	0	43	89	139
	4300	-154	-118	-81	-42	0	45	93	145
	4400	-160	-123	-85	-44	0	47	98	153
2	4500	-166	-128	-88	-46	0	49	102	161
	4600	-173	-134	-92	-48	0	52	108	170
	4700	-180	-139	-96	-50	0	54	114	180
	4800	-188	-146	-101	-52	0	57	121	193
	4900	-196	-152	-105	-55	0	61	129	210
	5000	-205	-160	-111	-58	0	65	141	238
	5100	-215	-168	-117	-62	0	71	161	
	5200	-226	-178	-125	-66	0	82		
	5300	-239	-189	-134	-73	0			
	*****								
5	5300	-538	-384	-241	-111	0			
	5200	-571	-409	-259	-122	0	99		
	5100	-602	-434	-276	-131	0	114	201	
	5000	-634	-458	-292	-140	0	124	230	304
	4900	-666	-481	-309	-148	0	133	250	346
	4800	-698	-505	-325	-156	0	142	269	377
	4700	-731	-530	-341	-164	0	150	286	405
	4600	-766	-555	-357	-172	0	158	302	431
	4500	-803	-582	-374	-181	0	167	319	456
	4400	-842	-609	-392	-189	0	175	336	481
	4300	-884	-639	-411	-198	0	184	352	506
	4200	-930	-670	-431	-208	0	192	370	531
	4100	-981	-704	-452	-217	0	202	387	557
	4000	-1040	-742	-474	-228	0	211	406	584
5									

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO) LINE NUMBERS OF METEOROLOGICAL MESSAGE

HEIGHT OF TARGET ABOVE GUN - METERS							RANGE	LINE
400	500	600	700	800	900	1000	METERS	NO.
142	184	228	276	328	385	447	3500	3
148	192	238	289	344	404	470	3600	
155	200	249	302	360	424	495	3700	
161	209	260	317	378	446	523	3800	
168	218	273	332	398	471	555	3900	
176	229	286	349	419	499	593	4000	4
184	239	300	368	444	532	640	4100	
193	251	316	389	473	573	705	4200	
202	265	335	414	508	628		4300	
213	280	356	444	555	738		4400	
225	297	381	484	640			4500	
239	318	415	553				4600	
256	346	472					4700	
278	393						4800	
315							4900	
							5000	
							5100	
							5200	
							5300	
*****	*****	*****	*****	*****	*****	*****	*****	
							5300	
							5200	
							5100	
							5000	
408							4900	
463	510						4800	
504	579						4700	
541	631	693					4600	
576	677	755	804				4500	5
610	720	811	877	909			4400	
643	763	863	942	994			4300	
677	805	914	1003	1069	1106		4200	
711	847	964	1063	1139	1191		4100	
745	889	1015	1121	1207	1269	1305	4000	
5								

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

## LINE NUMBERS OF METEOROLOGICAL MESSAGE

LINE NO.	RANGE METERS	HEIGHT OF TARGET ABOVE GUN - METERS							
		-400	-300	-200	-100	0	100	200	300
5	4000	-1040	-742	-474	-228	0	211	406	584
	3900		-784	-499	-239	0	221	425	612
	3800		-833	-526	-251	0	232	445	641
	3700			-557	-265	0	243	466	671
	3600			-592	-280	0	255	489	703
	3500				-296	0	268	512	736
	3400				-315	0	282	538	772
6	3300				-337	0	297	566	810
	3200					0	314	596	851
	3100					0	333	628	895
	3000					0	354	664	943
	2900					0	377	704	995
	2800								
	2700								
6									

(U//FOUO)



CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

LINE NUMBERS OF METEOROLOGICAL MESSAGE

HEIGHT OF TARGET ABOVE GUN - METERS							RANGE	L I N E
400	500	600	700	800	900	1000	METERS	NO.
745	889	1015	1121	1207	1269	1305	4000	5
781	933	1066	1180	1274	1346	1392	3900	
818	978	1119	1240	1341	1420	1477	3800	
857	1024	1172	1301	1409	1495	1559	3700	
897	1072	1228	1363	1477	1571	1641	3600	
939	1122	1285	1427	1548	1647	1724	3500	
984	1175	1345	1493	1620	1725	1807	3400	
1031	1231	1408	1563	1695	1805	1892	3300	
1082	1289	1473	1635	1773	1887	1979	3200	
1136	1351	1543	1710	1853	1973	2068	3100	
1193	1418	1616	1789	1938	2061	2159	3000	
1256	1488	1694	1873	2026	2153	2254	2900	
1323	1564	1777	1961	2118	2248	2351	2800	
				2216	2348	2452	2700	
6								

(U//FOUO)

## WIND COMPONENTS

PROJ, HE, M795  
FUZE, PD, M739A1

(U//FOUO) COMPONENTS OF A ONE KNOT WIND

CHART DIRECTION OF WIND	CROSS WIND	RANGE WIND	CHART DIRECTION OF WIND	CROSS WIND	RANGE WIND
MIL	KNOT	KNOT	MIL	KNOT	KNOT
0	0	H1.00	3200	0	T1.00
100	R. 10	H. 99	3300	L. 10	T. 99
200	R. 20	H. 98	3400	L. 20	T. 98
300	R. 29	H. 96	3500	L. 29	T. 96
400	R. 38	H. 92	3600	L. 38	T. 92
500	R. 47	H. 88	3700	L. 47	T. 88
600	R. 56	H. 83	3800	L. 56	T. 83
700	R. 63	H. 77	3900	L. 63	T. 77
800	R. 71	H. 71	4000	L. 71	T. 71
900	R. 77	H. 63	4100	L. 77	T. 63
1000	R. 83	H. 56	4200	L. 83	T. 56
1100	R. 88	H. 47	4300	L. 88	T. 47
1200	R. 92	H. 38	4400	L. 92	T. 38
1300	R. 96	H. 29	4500	L. 96	T. 29
1400	R. 98	H. 20	4600	L. 98	T. 20
1500	R. 99	H. 10	4700	L. 99	T. 10
1600	R1.00	0	4800	L1.00	0
1700	R. 99	T. 10	4900	L. 99	H. 10
1800	R. 98	T. 20	5000	L. 98	H. 20
1900	R. 96	T. 29	5100	L. 96	H. 29
2000	R. 92	T. 38	5200	L. 92	H. 38
2100	R. 88	T. 47	5300	L. 88	H. 47
2200	R. 83	T. 56	5400	L. 83	H. 56
2300	R. 77	T. 63	5500	L. 77	H. 63
2400	R. 71	T. 71	5600	L. 71	H. 71
2500	R. 63	T. 77	5700	L. 63	H. 77
2600	R. 56	T. 83	5800	L. 56	H. 83
2700	R. 47	T. 88	5900	L. 47	H. 88
2800	R. 38	T. 92	6000	L. 38	H. 92
2900	R. 29	T. 96	6100	L. 29	H. 96
3000	R. 20	T. 98	6200	L. 20	H. 98
3100	R. 10	T. 99	6300	L. 10	H. 99
3200	0	T1.00	6400	0	H1.00

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NOTE - FOR A COMPLETE EXPLANATION OF THE USE OF THIS TABLE, SEE PARAGRAPH 12, EXPLANATION OF COMPONENTS OF A ONE KNOT WIND.

CORRECTIONS TO TEMPERATURE (DT) AND DENSITY (DD), IN PERCENT,  
TO COMPENSATE FOR THE DIFFERENCE IN ALTITUDE,  
(U//FOUO) IN METERS, BETWEEN THE BATTERY AND THE MDP

DH		0	+10-	+20-	+30-	+40-	+50-	+60-	+70-	+80-	+90-
0	DT	0.0	0.0	0.0	-0.1+	-0.1+	-0.1+	-0.1+	-0.2+	-0.2+	-0.2+
	DD	0.0	-0.1+	-0.2+	-0.3+	-0.4+	-0.5+	-0.6+	-0.7+	-0.8+	-0.9+
+100-	DT	-0.2+	-0.2+	-0.2+	-0.3+	-0.3+	-0.3+	-0.3+	-0.4+	-0.4+	-0.4+
	DD	-1.0+	-1.1+	-1.2+	-1.3+	-1.4+	-1.5+	-1.6+	-1.7+	-1.8+	-1.9+
+200-	DT	-0.5+	-0.5+	-0.5+	-0.6+	-0.6+	-0.6+	-0.6+	-0.7+	-0.7+	-0.7+
	DD	-2.0+	-2.1+	-2.2+	-2.3+	-2.4+	-2.5+	-2.6+	-2.7+	-2.8+	-2.9+
+300-	DT	-0.7+	-0.7+	-0.7+	-0.8+	-0.8+	-0.8+	-0.8+	-0.9+	-0.9+	-0.9+
	DD	-3.0+	-3.1+	-3.2+	-3.3+	-3.4+	-3.5+	-3.6+	-3.7+	-3.8+	-3.9+

(U//FOUO)

- (U//FOUO)NOTES - 1. DH IS BATTERY HEIGHT ABOVE OR BELOW THE MDP.  
2. IF ABOVE THE MDP, USE THE SIGN BEFORE THE NUMBER.  
3. IF BELOW THE MDP, USE THE SIGN AFTER THE NUMBER.

(U//FOUO) TABLE E

PROPELLANT TEMPERATURE  
(U//FOUO)  
EFFECTS ON MUZZLE VELOCITY DUE TO PROPELLANT TEMPERATURE

TEMPERATURE OF PROPELLANT  DEGREES F	EFFECT ON VELOCITY  M/S	TEMPERATURE OF PROPELLANT  DEGREES C
-40 -30 -20 -10	-3.3 -3.0 -2.8 -2.5	-40.0 -34.4 -28.9 -23.3
0	-2.2	-17.8
10 20 30 40	-1.9 -1.6 -1.3 -1.0	-12.2 -6.7 -1.1 4.4
50	-0.6	10.0
60 70 80 90	-0.3 0.0 0.3 0.7	15.6 21.1 26.7 32.2
100	1.0	37.8
110 120 130	1.3 1.7 2.0	43.3 48.9 54.4

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1	2	3	4	5	6	7	8	9
R A N G E	E L E V	FS FOR GRAZE BURST	DFS PER 10 M DEC HOB	DR PER 1 MIL D ELEV	F O R K	TIME OF FLIGHT	AZIMUTH CORRECTIONS	
		FUZE M582					DRIFT (CORR TO L)	CW OF 1 KNOT
M	MIL			M	MIL	SEC	MIL	MIL
0	0.0			12	1	0.0	0.0	0.00
100	8.2			12	1	0.4	0.2	0.00
200	16.4			12	1	0.8	0.3	0.01
300	24.6			12	1	1.2	0.5	0.01
400	32.9	1.6	1.26	12	1	1.6	0.6	0.02
500	41.3	2.0	1.01	12	1	2.0	0.8	0.02
600	49.7	2.5	0.84	12	1	2.5	1.0	0.03
700	58.2	2.9	0.72	12	2	2.9	1.1	0.03
800	66.7	3.3	0.62	12	2	3.3	1.3	0.04
900	75.3	3.7	0.55	12	2	3.7	1.5	0.04
1000	84.0	4.2	0.50	11	2	4.2	1.6	0.05
1100	92.8	4.6	0.45	11	2	4.6	1.8	0.05
1200	101.6	5.0	0.41	11	2	5.0	2.0	0.06
1300	110.5	5.4	0.38	11	3	5.4	2.2	0.06
1400	119.5	5.9	0.35	11	3	5.9	2.3	0.07
1500	128.6	6.3	0.33	11	3	6.3	2.5	0.07
1600	137.8	6.8	0.31	11	3	6.8	2.7	0.07
1700	147.0	7.2	0.29	11	3	7.2	2.9	0.08
1800	156.4	7.7	0.27	11	4	7.7	3.1	0.08
1900	165.9	8.1	0.26	10	4	8.1	3.3	0.09
2000	175.5	8.6	0.24	10	4	8.6	3.5	0.09
2100	185.2	9.0	0.23	10	4	9.0	3.7	0.10
2200	195.1	9.5	0.22	10	5	9.5	3.9	0.10
2300	205.0	10.0	0.21	10	5	10.0	4.1	0.11
2400	215.2	10.5	0.20	10	5	10.5	4.3	0.11
2500	225.4	10.9	0.19	10	5	10.9	4.5	0.12
2600	235.8	11.4	0.18	10	6	11.4	4.8	0.12
2700	246.4	11.9	0.18	9	6	11.9	5.0	0.13
2800	257.2	12.4	0.17	9	6	12.4	5.2	0.13
2900	268.1	12.9	0.16	9	7	12.9	5.5	0.14
3000	279.3	13.4	0.16	9	7	13.4	5.7	0.15
3100	290.7	14.0	0.15	9	7	14.0	6.0	0.15
3200	302.3	14.5	0.14	9	8	14.5	6.3	0.16
3300	314.1	15.0	0.14	8	8	15.0	6.5	0.16
3400	326.2	15.6	0.13	8	9	15.6	6.8	0.17
3500	338.6	16.1	0.13	8	9	16.1	7.1	0.17

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1	10	11	12	13	14	15	16	17	18	19
R A N G E	RANGE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
	M	M	M	M	M	M	M	M	M	M
0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0
100	0.9	-0.8	0.0	0.0	0.0	0.0	0.0	0.0	-1	1
200	1.7	-1.5	0.0	0.0	0.0	0.0	0.0	0.0	-2	2
300	2.6	-2.3	0.0	0.0	0.0	0.0	0.0	0.0	-3	3
400	3.4	-3.0	0.0	0.0	0.0	0.0	0.0	0.0	-4	4
500	4.2	-3.8	0.1	0.0	0.0	0.0	-0.1	0.1	-5	5
600	5.1	-4.5	0.1	-0.1	0.0	0.0	-0.1	0.1	-6	6
700	5.9	-5.2	0.1	-0.1	0.0	0.0	-0.1	0.1	-7	7
800	6.7	-6.0	0.1	-0.1	0.0	0.0	-0.2	0.2	-8	8
900	7.5	-6.7	0.1	-0.1	0.0	0.0	-0.2	0.2	-9	9
1000	8.4	-7.4	0.2	-0.1	0.0	0.0	-0.3	0.3	-10	10
1100	9.2	-8.2	0.2	-0.2	0.0	0.0	-0.3	0.3	-11	11
1200	10.0	-8.9	0.2	-0.2	0.0	0.0	-0.4	0.4	-12	12
1300	10.8	-9.6	0.2	-0.2	0.0	0.0	-0.5	0.5	-12	13
1400	11.6	-10.3	0.3	-0.2	0.0	0.0	-0.5	0.5	-13	14
1500	12.4	-11.0	0.3	-0.3	0.0	0.0	-0.6	0.6	-14	15
1600	13.1	-11.7	0.3	-0.3	0.0	0.0	-0.7	0.7	-15	16
1700	13.9	-12.4	0.4	-0.3	0.0	0.0	-0.8	0.8	-16	16
1800	14.7	-13.1	0.4	-0.4	0.0	0.0	-0.9	0.9	-17	17
1900	15.5	-13.8	0.5	-0.4	0.0	0.0	-1.0	1.0	-18	18
2000	16.2	-14.5	0.5	-0.5	0.0	0.0	-1.1	1.1	-18	19
2100	17.0	-15.2	0.6	-0.5	0.0	0.0	-1.2	1.2	-19	20
2200	17.8	-15.9	0.6	-0.5	0.0	0.0	-1.3	1.3	-20	21
2300	18.5	-16.5	0.7	-0.6	0.0	0.0	-1.4	1.4	-21	21
2400	19.3	-17.2	0.7	-0.6	0.0	0.0	-1.5	1.6	-22	22
2500	20.0	-17.9	0.8	-0.7	0.0	0.0	-1.7	1.7	-22	23
2600	20.7	-18.6	0.8	-0.7	0.0	0.0	-1.8	1.8	-23	24
2700	21.5	-19.2	0.9	-0.8	0.0	0.0	-1.9	2.0	-24	25
2800	22.2	-19.9	0.9	-0.8	0.0	0.0	-2.1	2.1	-25	25
2900	22.9	-20.6	1.0	-0.9	0.0	0.0	-2.2	2.3	-25	26
3000	23.7	-21.2	1.1	-1.0	0.0	0.0	-2.4	2.4	-26	27
3100	24.4	-21.9	1.2	-1.0	0.0	0.0	-2.5	2.6	-27	28
3200	25.1	-22.5	1.2	-1.1	0.0	0.0	-2.7	2.7	-27	28
3300	25.8	-23.2	1.3	-1.1	0.0	0.0	-2.9	2.9	-28	29
3400	26.5	-23.8	1.4	-1.2	0.0	0.0	-3.0	3.1	-29	30
3500	27.2	-24.5	1.5	-1.3	0.0	0.0	-3.2	3.3	-29	30

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1	2	3	4	5	6	7	8	9
R A N G E	E L E V	FS FOR GRAZE BURST	DFS PER 10 M DEC HOB	DR PER 1 MIL D ELEV	F O R K	TIME OF FLIGHT	AZIMUTH CORRECTIONS	
		FUZE M582					DRIFT (CORR TO L)	CW OF 1 KNOT
M	MIL			M	MIL	SEC	MIL	MIL
3500	338.6	16.1	0.13	8	9	16.1	7.1	0.17
3600	351.4	16.7	0.13	8	10	16.7	7.4	0.18
3700	364.4	17.3	0.12	8	10	17.3	7.7	0.19
3800	377.9	17.9	0.12	7	11	17.9	8.1	0.19
3900	391.8	18.5	0.11	7	11	18.5	8.4	0.20
4000	406.1	19.1	0.11	7	12	19.1	8.8	0.20
4100	421.0	19.8	0.11	7	13	19.8	9.2	0.21
4200	436.4	20.4	0.10	6	14	20.4	9.6	0.22
4300	452.6	21.1	0.10	6	15	21.1	10.0	0.22
4400	469.5	21.8	0.10	6	16	21.8	10.5	0.23
4500	487.3	22.6	0.09	5	17	22.6	11.0	0.24
4600	506.2	23.4	0.09	5	18	23.4	11.6	0.25
4700	526.5	24.2	0.09	5	20	24.2	12.2	0.26
4800	548.4	25.1	0.08	4	23	25.1	12.9	0.27
4900	572.6	26.0	0.08	4	26	26.0	13.7	0.28
5000	599.9	27.1	0.08	3	30	27.1	14.6	0.29
5100	632.0	28.3	0.08	3	38	28.3	15.8	0.30
5200	673.1	29.9	0.07	2	61	29.9	17.4	0.32
5300	748.1	32.6	0.07			32.6	20.7	
*****								
5300	812.9	34.7	0.06			34.7	24.0	
5200	887.8	37.1	0.06	2	61	37.1	28.7	0.46
5100	928.8	38.3	0.06	3	38	38.3	31.7	0.48
5000	960.8	39.2	0.06	3	30	39.2	34.3	0.51
4900	987.9	39.9	0.05	4	26	39.9	36.7	0.53
4800	1011.9	40.6	0.05	4	22	40.6	39.1	0.56
4700	1033.7	41.1	0.05	5	20	41.1	41.4	0.58
4600	1053.8	41.6	0.05	5	18	41.6	43.8	0.60
4500	1072.5	42.1	0.05	6	17	42.1	46.2	0.63
4400	1090.1	42.5	0.05	6	15	42.5	48.7	0.65
4300	1106.7	42.9	0.05	6	14	42.9	51.2	0.68
4200	1122.6	43.2	0.05	6	13	43.2	53.9	0.71
4100	1137.7	43.6	0.05	7	12	43.6	56.7	0.74
4000	1152.2	43.9	0.05	7	12	43.9	59.6	0.78

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1	10	11	12	13	14	15	16	17	18	19
R A N G E	RANGE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
M	M	M	M	M	M	M	M	M	M	M
3500	27.2	-24.5	1.5	-1.3	0.0	0.0	-3.2	3.3	-29	30
3600	27.9	-25.1	1.5	-1.4	0.0	0.0	-3.4	3.4	-30	31
3700	28.6	-25.7	1.6	-1.4	0.0	0.0	-3.6	3.6	-31	32
3800	29.3	-26.4	1.7	-1.5	0.0	0.0	-3.8	3.8	-31	32
3900	30.0	-27.0	1.8	-1.6	0.0	0.0	-4.0	4.0	-32	33
4000	30.7	-27.6	1.9	-1.7	0.0	0.0	-4.2	4.2	-33	34
4100	31.4	-28.2	2.0	-1.7	0.0	0.0	-4.4	4.4	-33	34
4200	32.1	-28.9	2.1	-1.8	0.0	0.0	-4.6	4.7	-34	35
4300	32.7	-29.5	2.2	-1.9	0.0	0.0	-4.8	4.9	-35	36
4400	33.4	-30.1	2.4	-2.0	0.0	0.0	-5.0	5.1	-35	36
4500	34.1	-30.7	2.5	-2.1	0.0	0.0	-5.2	5.3	-36	37
4600	34.7	-31.3	2.6	-2.2	0.0	0.0	-5.5	5.6	-36	37
4700	35.4	-31.9	2.8	-2.3	0.0	0.0	-5.7	5.8	-37	38
4800	36.0	-32.5	2.9	-2.4	0.0	0.0	-6.0	6.1	-37	39
4900	36.6	-33.1	3.1	-2.5	0.0	0.0	-6.2	6.4	-38	39
5000		-33.7	3.3	-2.6	0.0	0.0	-6.5	6.7	-38	40
5100		-34.3	3.6	-2.8	0.0	0.0	-6.8	7.0	-39	40
5200		-34.9		-2.9	0.0	0.0	-7.1	7.4	-39	40
5300		-35.5		-3.0	0.0	0.0	-7.4		-40	
*****										
5300		-35.0		-3.6	0.0	0.0	-7.9		-39	
5200		-34.4		-3.5	0.0	0.0	-7.8	7.7	-38	40
5100		-33.7	3.9	-3.5	0.0	0.0	-7.7	7.6	-37	39
5000		-33.1	4.0	-3.4	0.0	0.0	-7.5	7.5	-36	38
4900	36.4	-32.4	4.0	-3.3	0.0	0.0	-7.4	7.4	-35	37
4800	35.7	-31.8	4.1	-3.2	0.0	0.0	-7.2	7.2	-35	36
4700	34.9	-31.2	4.0	-3.0	0.0	0.0	-7.0	7.1	-34	35
4600	34.2	-30.5	4.0	-2.9	0.0	0.0	-6.8	6.9	-33	35
4500	33.5	-29.9	4.0	-2.7	0.0	0.0	-6.6	6.7	-32	34
4400	32.8	-29.3	3.9	-2.5	0.0	0.0	-6.5	6.5	-32	33
4300	32.1	-28.7	3.9	-2.3	0.0	0.0	-6.2	6.4	-31	32
4200	31.3	-28.0	3.8	-2.0	0.0	0.0	-6.0	6.2	-30	31
4100	30.6	-27.4	3.7	-1.7	0.0	0.0	-5.8	6.0	-29	31
4000	29.9	-26.8	3.6	-1.3	0.0	0.0	-5.6	5.8	-28	30

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(U//FOUO)

1	2	3	4	5	6	7	8	9
R A N G E	E L E V	FS FOR GRAZE BURST  FUZE M582	DFS PER 10 M DEC HOB	DR PER 1 MIL D ELEV	F O R K	TIME OF FLIGHT	AZIMUTH CORRECTIONS	
							DRIFT (CORR TO L)	CW OF 1 KNOT
M	MIL			M	MIL	SEC	MIL	MIL
4000	1152.2	43.9	0.05	7	12	43.9	59.6	0.78
3900	1166.1	44.2	0.05	7	11	44.2	62.8	0.82
3800	1179.5	44.4	0.05	8	10	44.4	66.2	0.86
3700	1192.4	44.7	0.05	8	10	44.7	70.0	0.90
3600	1204.8	44.9	0.05	8	9	44.9	74.1	0.96
3500	1216.7	45.2	0.05	9	8	45.2	78.7	1.02
3400	1228.2	45.4	0.05	9	8	45.4	84.0	1.08
3300	1239.3	45.6	0.05	9	7	45.6	89.9	1.16
3200	1250.0	45.8	0.05	10	7	45.8	96.9	1.25
3100	1260.1	46.0	0.05	10		46.0	105.1	1.36
3000	1269.9	46.2	0.05	11		46.2	114.9	
2900	1279.1	46.5	0.05			46.5	126.7	
2890	1280.0							

(U//FOUO)



(U//FOUO)

1	10	11	12	13	14	15	16	17	18	19
R A N G E	RANGE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
	M	M	M	M	M	M	M	M	M	M
4000	29.9	-26.8	3.6	-1.3	0.0	0.0	-5.6	5.8	-28	30
3900	29.2	-26.2	3.5		0.0	0.0	-5.4	5.6	-28	29
3800	28.5	-25.6	3.4		0.0	0.0	-5.1	5.3	-27	28
3700	27.8	-25.0	3.3		0.0	0.0	-4.9	5.1	-26	27
3600	27.1	-24.4	3.1		0.0	0.0	-4.6	4.9	-25	27
3500	26.4	-23.8	3.0		0.0	0.0	-4.4	4.6	-24	26
3400	25.7	-23.2	2.8		0.0	0.0	-4.1	4.4	-23	25
3300	25.1	-22.7	2.6		0.0	0.0	-3.7	4.1	-23	24
3200	24.4	-22.1	2.3		0.0	0.0	-3.4	3.8	-22	23
3100	23.7		2.0		0.0	0.0		3.5	-21	22
3000	23.1		1.7		0.0	0.0		3.1	-20	21
2900	22.5		1.2		0.0	0.0		2.7		20

(U//FOUO)

## SUPPLEMENTARY DATA

PROJ, HE, M795  
FUZE, PD, M739A1

(U//FOUO)

1	2	3	4	5	6	7	8	9	10	11	12	13
R A N G E	E L E V	PROBABLE ERRORS					ANGLE OF FALL	COT ANGLE OF FALL	TML VEL	MO	COMP SITE	
		R	D	FUZE M582							+1 MIL SITE	-1 MIL SITE
				HB	TB	RB						
M	MIL	M	M	M	SEC	M	MIL		M/S	M	MIL	MIL
0	0.0	2	0				0		247	0	0.000	0.00
500	41.3	4	0	0	0.04	10	42	24.3	242	5	0.002	-0.002
1000	84.0	6	0	1	0.04	10	87	11.7	237	21	0.007	-0.006
1500	128.6	8	1	1	0.04	10	134	7.5	232	49	0.016	-0.015
2000	175.5	11	1	2	0.04	11	186	5.4	227	89	0.031	-0.030
2500	225.4	13	1	3	0.04	11	241	4.1	223	146	0.054	-0.051
3000	279.3	16	1	4	0.04	12	302	3.3	219	220	0.089	-0.082
3500	338.6	18	2	5	0.04	13	370	2.6	216	317	0.144	-0.129
4000	406.1	21	2	6	0.04	14	448	2.1	213	445	0.238	-0.205
4500	487.3	23	3	8	0.04	15	540	1.7	211	620	0.434	-0.346
5000	599.9	25	3	11	0.05	16	665	1.3	209	893	1.284	-0.715
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
5000	960.8	25	4	22	0.05	16	1031	0.6	214	1855	-2.296	1.72
4500	1072.5	23	4	25	0.06	14	1137	0.5	216	2129	-1.441	1.35
4000	1152.2	20	4	27	0.06	13	1213	0.4	217	2303	-1.240	1.20
3500	1216.7	18	4	28	0.06	11	1278	0.3	217	2429	-1.139	1.12
3000	1269.9		3	29	0.06	10	1338	0.3	217	2519	-1.076	1.07

(U//FOUO)

(U//FOUO) CORRECTIONS TO RANGE, IN METERS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 3200	200 3000	400 2800	600 2600	800 2400	1000 2200	1200 2000	1400 1800	1600 1600
500	0	0	-1+	-1+	-1+	-1+	-2+	-2+	-2+
1000	0	-1+	-1+	-2+	-2+	-3+	-3+	-3+	-4+
1500	0	-1+	-2+	-3+	-4+	-4+	-5+	-5+	-5+
2000	0	-1+	-3+	-4+	-5+	-5+	-6+	-6+	-7+
2500	0	-2+	-3+	-4+	-6+	-7+	-7+	-8+	-8+
3000	0	-2+	-3+	-5+	-6+	-8+	-8+	-9+	-9+
3500	0	-2+	-4+	-6+	-7+	-8+	-9+	-10+	-10+
4000	0	-2+	-4+	-6+	-8+	-9+	-10+	-11+	-11+
4500	0	-2+	-4+	-6+	-8+	-9+	-10+	-11+	-11+
5000	0	-2+	-4+	-6+	-7+	-9+	-10+	-10+	-11+
*****									
5000	0	-1+	-1+	-1+	-2+	-2+	-2+	-3+	-3+
4500	0	0	0	+1-	+1-	+1-	+1-	+1-	+1-
4000	0	+1-	+2-	+2-	+3-	+3-	+4-	+4-	+4-
3500	0	+1-	+3-	+4-	+5-	+6-	+6-	+7-	+7-
3000	0	+2-	+4-	+6-	+7-	+9-	+10-	+10-	+10-
	3200 6400	3400 6200	3600 6000	3800 5800	4000 5600	4200 5400	4400 5200	4600 5000	4800 4800
AZIMUTH OF TARGET - MILS									

(U//FOUO)

- (U//FOUO) NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
3. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.  
4. CORRECTIONS ARE FOR 0 DEGREES LATITUDE. FOR OTHER LATITUDES  
MULTIPLY CORRECTIONS BY THE FACTOR GIVEN BELOW.

(U//FOUO)

LATITUDE (DEG)	10	20	30	40	50	60	70
MULTIPLY BY	.98	.94	.87	.77	.64	.50	.34

(U//FOUO)

## ROTATION - AZIMUTH

PROJ, HE, M795  
FUZE, PD, M739A1CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

## 0 DEGREES LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2500	R0.1L	R0.1L	0.0	0.0	0.0	0.0	0.0	L0.1R	L0.1R
3000	R0.1L	R0.1L	R0.1L	0.0	0.0	0.0	L0.1R	L0.1R	L0.1R
3500	R0.1L	R0.1L	R0.1L	R0.1L	0.0	L0.1R	L0.1R	L0.1R	L0.1R
4000	R0.2L	R0.2L	R0.1L	R0.1L	0.0	L0.1R	L0.1R	L0.2R	L0.2R
4500	R0.3L	R0.3L	R0.2L	R0.1L	0.0	L0.1R	L0.2R	L0.3R	L0.3R
5000	R0.4L	R0.4L	R0.3L	R0.2L	0.0	L0.2R	L0.3R	L0.4R	L0.4R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
5000	R1.3L	R1.2L	R0.9L	R0.5L	0.0	L0.5R	L0.9R	L1.2R	L1.3R
4500	R1.7L	R1.6L	R1.2L	R0.7L	0.0	L0.7R	L1.2R	L1.6R	L1.7R
4000	R2.2L	R2.0L	R1.5L	R0.8L	0.0	L0.8R	L1.5R	L2.0R	L2.2R
3500	R2.6L	R2.4L	R1.9L	R1.0L	0.0	L1.0R	L1.9R	L2.4R	L2.6R
3000	R3.1L	R2.9L	R2.2L	R1.2L	0.0	L1.2R	L2.2R	L2.9R	L3.1R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
AZIMUTH OF TARGET - MILS									

(U//FOUO)

## 0 DEGREES LATITUDE

(U//FOUO)

- NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
 2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
 3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.  
 4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

10 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1000	0.0	0.0	0.0	0.0	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
1500	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
2000	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
2500	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.2R	L0.2R	L0.2R	L0.2R
3000	L0.1R	L0.1R	L0.1R	L0.1R	L0.2R	L0.2R	L0.2R	L0.3R	L0.3R
3500	L0.1R	L0.1R	L0.1R	L0.2R	L0.2R	L0.3R	L0.3R	L0.3R	L0.3R
4000	0.0	L0.1R	L0.1R	L0.2R	L0.2R	L0.3R	L0.4R	L0.4R	L0.4R
4500	0.0	0.0	L0.1R	L0.2R	L0.3R	L0.4R	L0.5R	L0.5R	L0.6R
5000	R0.1L	R0.1L	0.0	L0.2R	L0.3R	L0.5R	L0.6R	L0.7R	L0.8R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
5000	R0.8L	R0.7L	R0.4L	0.0	L0.5R	L1.0R	L1.4R	L1.6R	L1.7R
4500	R1.2L	R1.1L	R0.7L	R0.1L	L0.5R	L1.2R	L1.7R	L2.1R	L2.2R
4000	R1.6L	R1.4L	R1.0L	R0.3L	L0.5R	L1.3R	L2.0R	L2.5R	L2.7R
3500	R2.0L	R1.9L	R1.3L	R0.5L	L0.5R	L1.5R	L2.4R	L2.9R	L3.1R
3000	R2.5L	R2.3L	R1.6L	R0.6L	L0.5R	L1.7R	L2.7R	L3.4R	L3.6R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
	AZIMUTH OF TARGET - MILS								

(U//FOUO)

10 DEGREES SOUTH LATITUDE

- (U//FOUO) NOTES -
1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.
  2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.
  3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.
  4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

## 20 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
500	0.0	0.0	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
1000	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
1500	L0.1R	L0.1R	L0.1R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
2000	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
2500	L0.2R	L0.2R	L0.2R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R
3000	L0.2R	L0.3R	L0.3R	L0.3R	L0.3R	L0.4R	L0.4R	L0.4R	L0.4R
3500	L0.3R	L0.3R	L0.3R	L0.3R	L0.4R	L0.4R	L0.5R	L0.5R	L0.5R
4000	L0.3R	L0.3R	L0.3R	L0.4R	L0.5R	L0.5R	L0.6R	L0.6R	L0.6R
4500	L0.3R	L0.3R	L0.4R	L0.5R	L0.6R	L0.7R	L0.7R	L0.8R	L0.8R
5000	L0.3R	L0.3R	L0.4R	L0.5R	L0.7R	L0.8R	L0.9R	L1.0R	L1.1R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
5000	R0.2L	R0.2L	L0.1R	L0.5R	L0.9R	L1.4R	L1.8R	L2.0R	L2.1R
4500	R0.6L	R0.5L	R0.1L	L0.4R	L1.0R	L1.6R	L2.2R	L2.5R	L2.6R
4000	R1.0L	R0.8L	R0.4L	L0.3R	L1.0R	L1.8R	L2.5R	L2.9R	L3.1R
3500	R1.4L	R1.2L	R0.7L	L0.1R	L1.1R	L2.0R	L2.8R	L3.3R	L3.5R
3000	R1.8L	R1.6L	R1.0L	R0.1L	L1.1R	L2.2R	L3.1R	L3.8R	L4.0R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
	AZIMUTH OF TARGET - MILS								

(U//FOUO)

## 20 DEGREES SOUTH LATITUDE

(U//FOUO)

- NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
 2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
 3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.  
 4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

30 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
500	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
1000	L0.1R	L0.1R	L0.1R	L0.1R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
1500	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
2000	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R
2500	L0.3R	L0.3R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R
3000	L0.4R	L0.4R	L0.4R	L0.5R	L0.5R	L0.5R	L0.5R	L0.6R	L0.6R
3500	L0.5R	L0.5R	L0.5R	L0.5R	L0.6R	L0.6R	L0.7R	L0.7R	L0.7R
4000	L0.5R	L0.5R	L0.6R	L0.6R	L0.7R	L0.7R	L0.8R	L0.8R	L0.9R
4500	L0.6R	L0.6R	L0.6R	L0.7R	L0.8R	L0.9R	L1.0R	L1.0R	L1.0R
5000	L0.6R	L0.6R	L0.7R	L0.8R	L1.0R	L1.1R	L1.2R	L1.3R	L1.3R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
5000	L0.3R	L0.4R	L0.6R	L1.0R	L1.4R	L1.8R	L2.2R	L2.4R	L2.5R
4500	0.0	L0.1R	L0.4R	L0.9R	L1.5R	L2.0R	L2.5R	L2.9R	L3.0R
4000	R0.3L	R0.2L	L0.2R	L0.8R	L1.5R	L2.2R	L2.9R	L3.3R	L3.4R
3500	R0.7L	R0.5L	R0.1L	L0.7R	L1.6R	L2.4R	L3.2R	L3.7R	L3.8R
3000	R1.1L	R0.9L	R0.3L	L0.5R	L1.6R	L2.6R	L3.4R	L4.0R	L4.2R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
	AZIMUTH OF TARGET - MILS								

(U//FOUO)

30 DEGREES SOUTH LATITUDE

- (U//FOUO) NOTES -
1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.
  2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.
  3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.
  4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

## 40 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
500	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
1000	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
1500	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R
2000	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R
2500	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.6R	L0.6R
3000	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.7R	L0.7R	L0.7R	L0.7R
3500	L0.6R	L0.7R	L0.7R	L0.7R	L0.7R	L0.8R	L0.8R	L0.8R	L0.8R
4000	L0.7R	L0.7R	L0.8R	L0.8R	L0.9R	L0.9R	L1.0R	L1.0R	L1.0R
4500	L0.8R	L0.8R	L0.9R	L1.0R	L1.0R	L1.1R	L1.2R	L1.2R	L1.3R
5000	L0.9R	L0.9R	L1.0R	L1.1R	L1.2R	L1.4R	L1.5R	L1.5R	L1.6R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
5000	L0.8R	L0.9R	L1.1R	L1.4R	L1.8R	L2.1R	L2.5R	L2.7R	L2.7R
4500	L0.6R	L0.7R	L1.0R	L1.4R	L1.9R	L2.4R	L2.8R	L3.1R	L3.2R
4000	L0.3R	L0.4R	L0.8R	L1.3R	L2.0R	L2.6R	L3.1R	L3.5R	L3.6R
3500	0.0	L0.1R	L0.6R	L1.2R	L2.0R	L2.8R	L3.4R	L3.9R	L4.0R
3000	R0.4L	R0.2L	L0.3R	L1.1R	L2.0R	L2.9R	L3.7R	L4.2R	L4.4R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
	AZIMUTH OF TARGET - MILS								

(U//FOUO)

## 40 DEGREES SOUTH LATITUDE

(U//FOUO)

- NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
 2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
 3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.  
 4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.



CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

50 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
500	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
1000	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
1500	L0.3R	L0.3R	L0.3R	L0.3R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R
2000	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R
2500	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R
3000	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R	L0.8R	L0.8R	L0.8R	L0.8R
3500	L0.8R	L0.8R	L0.8R	L0.9R	L0.9R	L0.9R	L1.0R	L1.0R	L1.0R
4000	L0.9R	L0.9R	L1.0R	L1.0R	L1.1R	L1.1R	L1.1R	L1.2R	L1.2R
4500	L1.1R	L1.1R	L1.1R	L1.2R	L1.2R	L1.3R	L1.4R	L1.4R	L1.4R
5000	L1.2R	L1.2R	L1.3R	L1.4R	L1.5R	L1.6R	L1.7R	L1.7R	L1.8R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
5000	L1.3R	L1.4R	L1.5R	L1.8R	L2.1R	L2.4R	L2.7R	L2.9R	L2.9R
4500	L1.2R	L1.2R	L1.5R	L1.8R	L2.3R	L2.7R	L3.0R	L3.3R	L3.4R
4000	L0.9R	L1.1R	L1.4R	L1.8R	L2.3R	L2.9R	L3.3R	L3.6R	L3.7R
3500	L0.7R	L0.8R	L1.2R	L1.7R	L2.4R	L3.0R	L3.6R	L3.9R	L4.1R
3000	L0.4R	L0.5R	L1.0R	L1.6R	L2.4R	L3.1R	L3.8R	L4.2R	L4.4R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
	AZIMUTH OF TARGET - MILS								

(U//FOUO)

50 DEGREES SOUTH LATITUDE

- (U//FOUO) NOTES -
1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.
  2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.
  3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.
  4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

## 60 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
500	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
1000	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R
1500	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R
2000	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.6R	L0.6R	L0.6R
2500	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R
3000	L0.8R	L0.8R	L0.8R	L0.8R	L0.8R	L0.9R	L0.9R	L0.9R	L0.9R
3500	L0.9R	L0.9R	L1.0R	L1.0R	L1.0R	L1.0R	L1.1R	L1.1R	L1.1R
4000	L1.1R	L1.1R	L1.1R	L1.2R	L1.2R	L1.2R	L1.3R	L1.3R	L1.3R
4500	L1.3R	L1.3R	L1.3R	L1.3R	L1.4R	L1.5R	L1.5R	L1.5R	L1.5R
5000	L1.5R	L1.5R	L1.5R	L1.6R	L1.7R	L1.8R	L1.8R	L1.9R	L1.9R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
5000	L1.8R	L1.8R	L1.9R	L2.2R	L2.4R	L2.6R	L2.8R	L3.0R	L3.0R
4500	L1.7R	L1.8R	L1.9R	L2.2R	L2.6R	L2.9R	L3.2R	L3.4R	L3.4R
4000	L1.6R	L1.6R	L1.9R	L2.2R	L2.6R	L3.1R	L3.4R	L3.6R	L3.7R
3500	L1.4R	L1.5R	L1.8R	L2.2R	L2.7R	L3.2R	L3.6R	L3.9R	L4.0R
3000	L1.1R	L1.3R	L1.6R	L2.1R	L2.7R	L3.3R	L3.8R	L4.1R	L4.2R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
	AZIMUTH OF TARGET - MILS								

(U//FOUO)

## 60 DEGREES SOUTH LATITUDE

(U//FOUO)

- NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
 2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
 3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.  
 4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

70 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
500	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
1000	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R
1500	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R
2000	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R
2500	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R	L0.8R	L0.8R	L0.8R	L0.8R
3000	L0.9R	L0.9R	L0.9R	L0.9R	L0.9R	L0.9R	L0.9R	L0.9R	L0.9R
3500	L1.0R	L1.1R	L1.1R	L1.1R	L1.1R	L1.1R	L1.1R	L1.1R	L1.1R
4000	L1.2R	L1.2R	L1.2R	L1.3R	L1.3R	L1.3R	L1.3R	L1.4R	L1.4R
4500	L1.4R	L1.4R	L1.4R	L1.5R	L1.5R	L1.6R	L1.6R	L1.6R	L1.6R
5000	L1.7R	L1.7R	L1.7R	L1.8R	L1.8R	L1.9R	L1.9R	L1.9R	L2.0R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
5000	L2.2R	L2.2R	L2.3R	L2.4R	L2.6R	L2.8R	L2.9R	L3.0R	L3.0R
4500	L2.2R	L2.2R	L2.4R	L2.5R	L2.8R	L3.0R	L3.2R	L3.3R	L3.4R
4000	L2.1R	L2.2R	L2.3R	L2.6R	L2.9R	L3.2R	L3.4R	L3.6R	L3.6R
3500	L2.0R	L2.1R	L2.3R	L2.6R	L2.9R	L3.3R	L3.6R	L3.8R	L3.8R
3000	L1.9R	L1.9R	L2.2R	L2.5R	L2.9R	L3.3R	L3.7R	L3.9R	L4.0R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
	AZIMUTH OF TARGET - MILS								

(U//FOUO)

70 DEGREES SOUTH LATITUDE

- (U//FOUO) NOTES -
1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.
  2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.
  3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.
  4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

## FUZE CORRECTION FACTORS

PROJ, HE, M795  
FUZE, MTSQ, M582

(U//FOUO)

1	2	3	4	5	6	7	8	9	10	11
FS	FUZE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
0										
1										
2	-.008	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.010	-.010
3	-.012	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.016	-.016
4	-.016	0.016	0.000	0.000	0.000	0.000	0.000	0.000	0.021	-.021
5	-.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.026	-.026
6	-.024	0.024	0.000	0.000	0.000	0.000	0.001	-.001	0.030	-.030
7	-.028	0.028	0.000	0.000	0.000	0.000	0.001	-.001	0.035	-.035
8	-.032	0.031	-.001	0.001	0.000	0.000	0.001	-.001	0.040	-.040
9	-.035	0.035	-.001	0.001	0.000	0.000	0.001	-.001	0.045	-.045
10	-.039	0.039	-.001	0.001	0.000	0.000	0.002	-.002	0.049	-.050
11	-.043	0.043	-.001	0.001	0.000	0.000	0.002	-.002	0.054	-.054
12	-.047	0.047	-.001	0.001	0.000	0.000	0.002	-.002	0.059	-.059
13	-.051	0.050	-.001	0.001	0.000	0.000	0.003	-.003	0.063	-.063
14	-.054	0.054	-.001	0.001	0.000	0.000	0.003	-.003	0.067	-.068
15	-.058	0.058	-.001	0.001	0.000	0.000	0.004	-.003	0.072	-.072
16	-.062	0.061	-.001	0.001	0.000	0.000	0.004	-.004	0.076	-.077
17	-.066	0.065	-.001	0.002	0.000	0.000	0.004	-.004	0.081	-.081
18	-.069	0.069	-.002	0.002	0.000	0.000	0.005	-.005	0.085	-.085
19	-.073	0.072	-.002	0.002	0.000	0.000	0.005	-.005	0.089	-.090
20	-.077	0.076	-.002	0.002	0.000	0.000	0.006	-.006	0.093	-.094
21	-.080	0.080	-.002	0.002	0.000	0.000	0.007	-.006	0.097	-.098
22	-.084	0.083	-.002	0.002	0.000	0.000	0.007	-.007	0.102	-.102
23	-.087	0.087	-.002	0.002	0.000	0.000	0.008	-.008	0.106	-.106
24	-.091	0.090	-.002	0.003	0.000	0.000	0.008	-.008	0.110	-.111
25	-.095	0.094	-.003	0.003	0.000	0.000	0.009	-.009	0.114	-.115
26	-.098	0.098	-.003	0.003	0.000	0.000	0.009	-.009	0.118	-.119
27	-.102	0.101	-.003	0.003	0.000	0.000	0.010	-.010	0.122	-.123
28	-.106	0.105	-.003	0.003	0.000	0.000	0.011	-.011	0.126	-.127
29	-.109	0.108	-.003	0.003	0.000	0.000	0.011	-.011	0.130	-.131
30	-.113	0.112	-.003	0.004	0.000	0.000	0.012	-.012	0.134	-.135
31	-.116	0.115	-.003	0.004	0.000	0.000	0.013	-.013	0.138	-.139
32	-.120	0.119	-.004	0.004	0.000	0.000	0.013	-.013	0.142	-.143
33	-.123	0.122	-.004	0.004	0.000	0.000	0.014	-.014	0.146	-.147
34	-.127	0.126	-.004	0.004	0.000	0.000	0.015	-.015	0.150	-.152
35	-.131	0.129	-.004	0.004	0.000	0.000	0.015	-.015	0.154	-.156

(U//FOUO)

1	2	3	4	5	6	7	8	9	10	11
FS	FUZE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
35	<i>-.131</i>	0.129	<i>-.004</i>	0.004	0.000	0.000	0.015	<i>-.015</i>	0.154	<i>-.156</i>
36	<i>-.134</i>	0.133	<i>-.004</i>	0.005	0.000	0.000	0.016	<i>-.016</i>	0.158	<i>-.160</i>
37	<i>-.138</i>	0.137	<i>-.004</i>	0.005	0.000	0.000	0.017	<i>-.017</i>	0.162	<i>-.164</i>
38	<i>-.141</i>	0.140	<i>-.005</i>	0.005	0.000	0.000	0.018	<i>-.017</i>	0.166	<i>-.168</i>
39	<i>-.145</i>	0.144	<i>-.005</i>	0.005	0.000	0.000	0.018	<i>-.018</i>	0.171	<i>-.172</i>
40	<i>-.149</i>	0.147	<i>-.005</i>	0.005	0.000	0.000	0.019	<i>-.019</i>	0.175	<i>-.177</i>
41	<i>-.152</i>	0.151	<i>-.005</i>	0.006	0.000	0.000	0.020	<i>-.019</i>	0.179	<i>-.181</i>
42	<i>-.156</i>	0.154	<i>-.005</i>	0.006	0.000	0.000	0.020	<i>-.020</i>	0.184	<i>-.186</i>
43	<i>-.159</i>	0.158	<i>-.006</i>	0.007	0.000	0.000	0.021	<i>-.021</i>	0.188	<i>-.190</i>
44	<i>-.163</i>	0.162	<i>-.006</i>	0.010	0.000	0.000	0.022	<i>-.021</i>	0.193	<i>-.195</i>
45	<i>-.167</i>	0.165	<i>-.007</i>		0.000	0.000	0.023	<i>-.022</i>	0.199	<i>-.201</i>
46	<i>-.169</i>	0.168	<i>-.009</i>		0.000	0.000	0.025	<i>-.024</i>	0.207	<i>-.208</i>

(U//FOUO)

FUZE SETTING

CORRECTIONS TO FUZE SETTING OF FUZE, MTSQ, M582  
FOR FUZE, MTSQ, M564

(U//FOUO)

FUZE SETTING FUZE M582		CORRECTIONS
FROM	TO	
2.0	11.9	-0.1
12.0	25.1	-0.2
25.2	39.2	-0.3
39.3	46.5	-0.4

(U//FOUO)

(U//FOUO)

(U//FOUO) Part 1

(U//FOUO) Charge 4G

(U//FOUO) Projectile, HE, M795

(U//FOUO) Fuze, PD, M739A1

(U//FOUO) Muzzle Velocity – 286 M/S

(U//FOUO) Propelling Charge M3A1 - Base and Increments 2, 3, and 4

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(U//FOUO)

LINE NUMBER OF METEOROLOGICAL MESSAGE

QUADRANT ELEVATION MILS	LINE NUMBER
0.0- 160.8	0
160.9- 308.1	1
308.2- 465.1	2
465.2- 623.2	3
623.3- 767.0	4
767.1- 984.5	5
984.6- 1295.0	6

(U//FOUO)

(U//FOUO) NOTE - WHEN THE PROJECTILE MUST HIT THE TARGET ON THE ASCENDING BRANCH OF ITS TRAJECTORY, USE HEIGHT OF TARGET IN METERS TO ENTER THE TABLE ON PAGE XL TO DETERMINE LINE NUMBER.

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

## LINE NUMBERS OF METEOROLOGICAL MESSAGE

LINE NO.	RANGE METERS	HEIGHT OF TARGET ABOVE GUN - METERS							
		-400	-300	-200	-100	0	100	200	300
0	0					0			
	100					0	0	1	2
	200					0	1	3	4
	300					0	2	4	6
	400					0	2	5	8
	500					0	3	6	10
	600					0	3	7	12
	700					0	4	8	13
	800					0	5	10	15
	900					0	5	11	17
	1000					0	6	12	19
	1100					0	6	13	20
	1200					0	7	14	22
	1300				-7	0	7	15	24
	1400				-7	0	8	17	26
	1500				-8	0	9	18	27
	1600				-8	0	9	19	29
	1700				-9	0	10	20	31
	1800			-19	-10	0	10	21	33
	1900			-20	-10	0	11	23	35
	2000			-21	-11	0	12	24	37
	2100			-22	-11	0	12	25	39
	2200		-34	-23	-12	0	13	26	41
	2300		-36	-25	-13	0	13	28	42
	2400		-38	-26	-13	0	14	29	44
	2500	-52	-40	-27	-14	0	15	30	46
	2600	-54	-41	-28	-14	0	15	32	49
	2700	-56	-43	-30	-15	0	16	33	51
	2800	-59	-45	-31	-16	0	17	34	53
	2900	-61	-47	-32	-16	0	17	36	55
	3000	-64	-49	-33	-17	0	18	37	57
	3100	-66	-51	-35	-18	0	19	39	59
	3200	-69	-53	-36	-18	0	20	40	62
	3300	-72	-55	-37	-19	0	20	42	64
	3400	-74	-57	-39	-20	0	21	43	66
	3500	-77	-59	-40	-21	0	22	45	69
0				1				2	

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

LINE NUMBERS OF METEOROLOGICAL MESSAGE

HEIGHT OF TARGET ABOVE GUN - METERS							RANGE	LINE
400	500	600	700	800	900	1000	METERS	NO.
							0	3
3							100	
6	8	10	12	14	17		200	
9	12	15	18	21	24	27	300	
12	15	19	23	27	31	36	400	
14	18	23	28	33	38	43	500	
16	21	27	32	38	45	51	600	
19	24	31	37	44	51	58	700	
21	28	34	42	49	57	65	800	
23	31	38	46	54	63	72	900	
26	34	42	50	60	69	79	1000	
28	37	45	55	65	75	86	1100	
31	40	49	59	70	81	93	1200	
33	43	53	64	75	87	100	1300	
35	46	57	68	81	93	107	1400	
38	49	60	73	86	100	114	1500	
40	52	64	77	91	106	121	1600	
43	55	68	82	96	112	128	1700	
45	58	72	87	102	118	135	1800	
48	61	76	91	107	124	142	1900	
50	65	80	96	113	131	149	2000	
53	68	84	101	119	137	157	2100	
56	71	88	106	124	144	164	2200	
58	75	92	111	130	150	172	2300	
61	78	96	116	136	157	179	2400	
64	82	101	121	142	164	187	2500	
66	85	105	126	148	171	195	2600	
69	89	109	131	154	178	203	2700	
72	92	114	137	160	185	211	2800	
75	96	119	142	167	193	220	2900	
78	100	123	148	173	200	228	3000	
81	104	128	153	180	208	237	3100	
84	108	133	159	187	216	246	3200	
87	112	138	165	193	223	255	3300	
91	116	143	171	200	232	264	3400	
94	120	148	177	208	240	274	3500	
2				3				

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

## LINE NUMBERS OF METEOROLOGICAL MESSAGE

LINE NO.	RANGE METERS	HEIGHT OF TARGET ABOVE GUN - METERS							
		-400	-300	-200	-100	0	100	200	300
0	3500	-77	-59	-40	-21	0	22	45	69
	3600	-80	-61	-42	-21	0	23	46	71
	3700	-83	-63	-43	-22	0	24	48	74
	3800	-86	-66	-45	-23	0	24	50	76
1	3900	-89	-68	-46	-24	0	25	51	79
	4000	-92	-70	-48	-24	0	26	53	81
	4100	-95	-73	-50	-25	0	27	55	84
	4200	-98	-75	-51	-26	0	28	57	87
	4300	-101	-78	-53	-27	0	29	59	90
	4400	-105	-80	-55	-28	0	30	60	93
	4500	-108	-83	-56	-29	0	31	62	96
	4600	-112	-86	-58	-30	0	32	64	99
	4700	-115	-88	-60	-31	0	33	67	102
	4800	-119	-91	-62	-32	0	34	69	106
	4900	-123	-94	-64	-33	0	35	71	109
	5000	-127	-97	-66	-34	0	36	73	113
2	5100	-130	-100	-68	-35	0	37	76	117
	5200	-135	-103	-70	-36	0	38	78	121
	5300	-139	-107	-73	-37	0	39	81	125
	5400	-143	-110	-75	-38	0	41	84	129
	5500	-148	-114	-77	-40	0	42	87	134
	5600	-153	-117	-80	-41	0	44	90	139
	5700	-158	-121	-83	-42	0	45	93	144
	5800	-163	-125	-86	-44	0	47	97	150
	5900	-168	-129	-89	-45	0	49	100	156
	6000	-174	-134	-92	-47	0	51	105	163
	6100	-180	-139	-95	-49	0	53	109	170
	6200	-186	-144	-99	-51	0	55	114	179
3	6300	-193	-149	-103	-53	0	58	120	190
	6400	-201	-155	-107	-55	0	61	127	203
	6500	-209	-162	-112	-58	0	64	136	221
	6600	-218	-169	-117	-61	0	69	149	
	6700	-228	-177	-124	-65	0	76		
	6800	-239	-187	-131	-70	0			
5	*****	*****	*****	*****	*****	*****	*****	*****	*****
	6800	-514	-369	-234	-110	0			
	6700	-540	-390	-249	-118	0	102		
6	6600	-566	-410	-263	-126	0	112	207	
	6500	-591	-429	-276	-133	0	121	227	313

(U//FOUO)

UNCLASSIFIED//FOR OFFICIAL USE ONLY

COMPLEMENTARY RANGE  
LINE NUMBER

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

LINE NUMBERS OF METEOROLOGICAL MESSAGE

HEIGHT OF TARGET ABOVE GUN - METERS							RANGE	LINE
400	500	600	700	800	900	1000	METERS	NO.
94	120	148	177	208	240	274	3500	3
97	124	153	183	215	249	284	3600	
101	129	159	190	223	257	294	3700	
104	133	164	196	230	266	304	3800	
108	138	170	203	238	276	315	3900	
111	143	175	210	247	285	326	4000	
115	147	181	217	255	295	337	4100	
119	152	188	225	264	305	349	4200	
123	157	194	232	273	316	361	4300	
127	163	200	240	282	327	374	4400	
131	168	207	248	292	338	388	4500	4
135	174	214	257	302	350	402	4600	
140	180	221	266	313	363	416	4700	
145	186	229	275	324	376	432	4800	
149	192	237	285	336	390	448	4900	
154	198	245	295	348	405	466	5000	
160	205	254	306	361	421	485	5100	
165	213	263	317	375	438	506	5200	
171	220	273	329	390	456	529	5300	
177	229	284	343	407	477	555	5400	
184	237	295	357	425	500	584	5500	5
191	247	307	373	445	526	618	5600	
198	257	321	391	468	557	662	5700	
207	268	336	411	495	595	723	5800	
216	281	353	434	529	649		5900	
226	295	374	464	576			6000	
238	313	399	505				6100	
251	334	434					6200	
268	364						6300	
293							6400	
							6500	5
							6600	
							6700	
							6800	
*****	*****	*****	*****	*****	*****	*****	*****	
							6800	
							6700	
							6600	
							6500	
5								

(U//FOUO)

UNCLASSIFIED//FOR OFFICIAL USE ONLY

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

## LINE NUMBERS OF METEOROLOGICAL MESSAGE

LINE NO.	RANGE METERS	HEIGHT OF TARGET ABOVE GUN - METERS							
		-400	-300	-200	-100	0	100	200	300
6	6500	-591	-429	-276	-133	0	121	227	313
	6400	-615	-447	-288	-139	0	128	243	342
	6300	-640	-466	-301	-145	0	135	257	366
	6200	-664	-484	-313	-152	0	141	271	388
	6100	-689	-503	-326	-158	0	148	284	409
	6000	-715	-522	-338	-164	0	154	297	428
	5900	-741	-541	-351	-171	0	160	310	448
	5800	-768	-561	-364	-177	0	167	322	467
	5700	-796	-582	-378	-184	0	173	335	486
	5600	-825	-603	-391	-190	0	180	348	505
	5500	-856	-625	-406	-197	0	186	361	525
	5400	-888	-648	-420	-204	0	193	375	545
	5300	-922	-672	-436	-212	0	200	389	565
	5200	-959	-698	-452	-220	0	207	403	586
	5100	-998	-725	-469	-228	0	215	417	607
	5000	-1041	-754	-487	-236	0	223	432	629
	4900	-1090	-786	-506	-245	0	231	448	652
	4800	-1144	-820	-527	-255	0	239	464	676
	4700		-859	-550	-265	0	248	482	700
	4600		-903	-574	-276	0	258	500	726
	4500		-953	-602	-288	0	268	518	753
	4400			-632	-301	0	279	538	781
	4300			-668	-316	0	290	560	811
	4200				-332	0	302	582	843
	4100				-350	0	316	606	876
	4000				-371	0	330	632	912
	3900					0	346	660	950
	3800					0	363	690	991
	3700					0	382	723	1035
	3600					0	404	759	1082
	3500							799	1133
	3400								
	3300								

6

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

LINE NUMBERS OF METEOROLOGICAL MESSAGE

HEIGHT OF TARGET ABOVE GUN - METERS							RANGE	LINE
400	500	600	700	800	900	1000	METERS	NO.
							6500	5
420 459 491 520	528 576 616	636 693	742				6400 6300 6200 6100	
547	652	740	808	847			6000	
573 599 625 651	686 719 751 784	783 824 864 903	864 914 962 1009	923 986 1044 1099	948 1034 1106 1171	1143 1223	5900 5800 5700 5600	
677	816	942	1054	1152	1233	1296	5500	
703 729 757 784	848 881 915 949	981 1020 1059 1100	1100 1145 1191 1237	1204 1256 1308 1360	1293 1352 1410 1468	1365 1431 1496 1561	5400 5300 5200 5100	
813	983	1141	1284	1413	1527	1625	5000	
842 873 904 937	1019 1056 1094 1134	1182 1226 1270 1316	1332 1380 1431 1482	1466 1521 1576 1634	1586 1646 1707 1769	1690 1756 1822 1889	4900 4800 4700 4600	
972	1175	1363	1536	1692	1833	1958	4500	
1008 1045 1085 1126	1218 1263 1309 1359	1412 1464 1517 1573	1591 1648 1707 1769	1753 1816 1881 1948	1899 1967 2037 2109	2029 2101 2175 2252	4400 4300 4200 4100	
1171	1410	1631	1834	2018	2184	2331	4000	
1218 1268 1321 1378	1465 1523 1584 1650	1693 1758 1826 1899	1902 1973 2047 2126	2091 2167 2247 2331	2261 2342 2427 2515	2413 2498 2586 2677	3900 3800 3700 3600	
1439	1719	1976	2209	2419	2607	2772	3500	
		2057	2296	2511	2703	2872	3400	
6								

(U//FOUO)

## WIND COMPONENTS

PROJ, HE, M795  
FUZE, PD, M739A1

(U//FOUO) COMPONENTS OF A ONE KNOT WIND (U//FOUO)

CHART DIRECTION OF WIND	CROSS WIND	RANGE WIND	CHART DIRECTION OF WIND	CROSS WIND	RANGE WIND
MIL	KNOT	KNOT	MIL	KNOT	KNOT
0	0	H1.00	3200	0	T1.00
100	R. 10	H. 99	3300	L. 10	T. 99
200	R. 20	H. 98	3400	L. 20	T. 98
300	R. 29	H. 96	3500	L. 29	T. 96
400	R. 38	H. 92	3600	L. 38	T. 92
500	R. 47	H. 88	3700	L. 47	T. 88
600	R. 56	H. 83	3800	L. 56	T. 83
700	R. 63	H. 77	3900	L. 63	T. 77
800	R. 71	H. 71	4000	L. 71	T. 71
900	R. 77	H. 63	4100	L. 77	T. 63
1000	R. 83	H. 56	4200	L. 83	T. 56
1100	R. 88	H. 47	4300	L. 88	T. 47
1200	R. 92	H. 38	4400	L. 92	T. 38
1300	R. 96	H. 29	4500	L. 96	T. 29
1400	R. 98	H. 20	4600	L. 98	T. 20
1500	R. 99	H. 10	4700	L. 99	T. 10
1600	R1.00	0	4800	L1.00	0
1700	R. 99	T. 10	4900	L. 99	H. 10
1800	R. 98	T. 20	5000	L. 98	H. 20
1900	R. 96	T. 29	5100	L. 96	H. 29
2000	R. 92	T. 38	5200	L. 92	H. 38
2100	R. 88	T. 47	5300	L. 88	H. 47
2200	R. 83	T. 56	5400	L. 83	H. 56
2300	R. 77	T. 63	5500	L. 77	H. 63
2400	R. 71	T. 71	5600	L. 71	H. 71
2500	R. 63	T. 77	5700	L. 63	H. 77
2600	R. 56	T. 83	5800	L. 56	H. 83
2700	R. 47	T. 88	5900	L. 47	H. 88
2800	R. 38	T. 92	6000	L. 38	H. 92
2900	R. 29	T. 96	6100	L. 29	H. 96
3000	R. 20	T. 98	6200	L. 20	H. 98
3100	R. 10	T. 99	6300	L. 10	H. 99
3200	0	T1.00	6400	0	H1.00

(U//FOUO)

(U//FOUO)

NOTE - FOR A COMPLETE EXPLANATION OF THE USE OF THIS TABLE, SEE PARAGRAPH 12, EXPLANATION OF COMPONENTS OF A ONE KNOT WIND.



(U//FOUO) TABLE D  
TEMPERATURE  
AND DENSITY CORRECTIONS

CORRECTIONS TO TEMPERATURE (DT) AND DENSITY (DD), IN PERCENT,  
TO COMPENSATE FOR THE DIFFERENCE IN ALTITUDE,  
(U//FOUO) IN METERS, BETWEEN THE BATTERY AND THE MDP

DH		0	+10-	+20-	+30-	+40-	+50-	+60-	+70-	+80-	+90-
0	DT	0.0	0.0	0.0	-0.1+	-0.1+	-0.1+	-0.1+	-0.2+	-0.2+	-0.2+
	DD	0.0	-0.1+	-0.2+	-0.3+	-0.4+	-0.5+	-0.6+	-0.7+	-0.8+	-0.9+
+100-	DT	-0.2+	-0.2+	-0.2+	-0.3+	-0.3+	-0.3+	-0.3+	-0.4+	-0.4+	-0.4+
	DD	-1.0+	-1.1+	-1.2+	-1.3+	-1.4+	-1.5+	-1.6+	-1.7+	-1.8+	-1.9+
+200-	DT	-0.5+	-0.5+	-0.5+	-0.6+	-0.6+	-0.6+	-0.6+	-0.7+	-0.7+	-0.7+
	DD	-2.0+	-2.1+	-2.2+	-2.3+	-2.4+	-2.5+	-2.6+	-2.7+	-2.8+	-2.9+
+300-	DT	-0.7+	-0.7+	-0.7+	-0.8+	-0.8+	-0.8+	-0.8+	-0.9+	-0.9+	-0.9+
	DD	-3.0+	-3.1+	-3.2+	-3.3+	-3.4+	-3.5+	-3.6+	-3.7+	-3.8+	-3.9+

(U//FOUO)

- (U//FOUO) NOTES -
1. DH IS BATTERY HEIGHT ABOVE OR BELOW THE MDP.
  2. IF ABOVE THE MDP, USE THE SIGN BEFORE THE NUMBER.
  3. IF BELOW THE MDP, USE THE SIGN AFTER THE NUMBER.

(U//FOUO) TABLE E

(U//FOUO) PROPELLANT TEMPERATURE

EFFECTS ON MUZZLE VELOCITY DUE TO PROPELLANT TEMPERATURE

TEMPERATURE OF PROPELLANT  DEGREES F	EFFECT ON VELOCITY  M/S	TEMPERATURE OF PROPELLANT  DEGREES C
-40 -30 -20 -10	-4.4 -3.9 -3.5 -3.1	-40.0 -34.4 -28.9 -23.3
0	-2.7	-17.8
10 20 30 40	-2.3 -1.9 -1.5 -1.1	-12.2 -6.7 -1.1 4.4
50	-0.7	10.0
60 70 80 90	-0.4 0.0 0.4 0.7	15.6 21.1 26.7 32.2
100	1.0	37.8
110 120 130	1.4 1.7 2.0	43.3 48.9 54.4

(U//FOUO)

## BASIC DATA

PROJ, HE, M795  
FUZE, PD, M739A1

(U//FOUO)

1	2	3	4	5	6	7	8	9
R A N G E	E L E V	FS FOR GRAZE BURST  FUZE M582	DFS PER 10 M DEC HOB	DR PER 1 MIL D ELEV	F O R K	TIME OF FLIGHT	AZIMUTH CORRECTIONS	
							DRIFT (CORR TO L)	CW OF 1 KNOT
M	MIL			M	MIL	SEC	MIL	MIL
0	0.0			16	1	0.0	0.0	0.00
100	6.2			16	1	0.4	0.1	0.00
200	12.3			16	1	0.7	0.2	0.01
300	18.4			16	1	1.1	0.3	0.01
400	24.6			16	1	1.4	0.5	0.02
500	30.9	1.8	1.16	16	1	1.8	0.6	0.02
600	37.2	2.1	0.97	16	1	2.1	0.7	0.02
700	43.5	2.5	0.83	16	1	2.5	0.8	0.03
800	49.8	2.8	0.72	16	1	2.8	0.9	0.03
900	56.2	3.2	0.64	16	1	3.2	1.0	0.04
1000	62.7	3.6	0.58	15	1	3.6	1.2	0.04
1100	69.2	3.9	0.52	15	1	3.9	1.3	0.04
1200	75.7	4.3	0.48	15	1	4.3	1.4	0.05
1300	82.3	4.7	0.44	15	2	4.7	1.5	0.05
1400	88.9	5.1	0.41	15	2	5.1	1.7	0.05
1500	95.6	5.4	0.38	15	2	5.4	1.8	0.06
1600	102.4	5.8	0.36	15	2	5.8	1.9	0.06
1700	109.1	6.2	0.33	15	2	6.2	2.1	0.07
1800	116.0	6.6	0.32	15	2	6.6	2.2	0.07
1900	122.9	7.0	0.30	14	2	7.0	2.3	0.07
2000	129.9	7.3	0.28	14	2	7.3	2.5	0.08
2100	136.9	7.7	0.27	14	2	7.7	2.6	0.08
2200	144.0	8.1	0.26	14	3	8.1	2.8	0.09
2300	151.1	8.5	0.24	14	3	8.5	2.9	0.09
2400	158.3	8.9	0.23	14	3	8.9	3.1	0.09
2500	165.6	9.3	0.22	14	3	9.3	3.2	0.10
2600	173.0	9.7	0.21	14	3	9.7	3.4	0.10
2700	180.4	10.1	0.21	13	3	10.1	3.5	0.11
2800	187.9	10.5	0.20	13	3	10.5	3.7	0.11
2900	195.5	11.0	0.19	13	3	11.0	3.8	0.11
3000	203.2	11.4	0.18	13	4	11.4	4.0	0.12
3100	211.0	11.8	0.18	13	4	11.8	4.1	0.12
3200	218.8	12.2	0.17	13	4	12.2	4.3	0.13
3300	226.8	12.7	0.17	12	4	12.7	4.5	0.13
3400	234.8	13.1	0.16	12	4	13.1	4.7	0.14
3500	243.0	13.5	0.16	12	4	13.5	4.8	0.14

(U//FOUO)

CORRECTION FACTORS

(U//FOUO)

1	10	11	12	13	14	15	16	17	18	19
R A N G E	RANGE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
	M	M	M	M	M	M	M	M	M	M
0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0
100	0.7	-0.6	0.0	0.0	0.0	0.0	0.0	0.0	-1	1
200	1.4	-1.3	0.0	0.0	0.1	0.0	0.0	0.0	-2	2
300	2.2	-1.9	0.0	0.0	0.1	-0.1	0.0	0.0	-3	3
400	2.9	-2.6	0.1	-0.1	0.1	-0.1	0.0	0.0	-4	4
500	3.6	-3.2	0.1	-0.1	0.2	-0.1	-0.1	0.1	-5	5
600	4.3	-3.8	0.1	-0.1	0.2	-0.1	-0.1	0.1	-6	6
700	5.0	-4.5	0.2	-0.1	0.2	-0.1	-0.1	0.1	-7	7
800	5.6	-5.1	0.2	-0.1	0.3	-0.2	-0.2	0.2	-8	8
900	6.3	-5.7	0.2	-0.2	0.3	-0.2	-0.2	0.2	-9	9
1000	7.0	-6.3	0.3	-0.2	0.4	-0.2	-0.3	0.3	-10	10
1100	7.7	-6.9	0.3	-0.2	0.4	-0.2	-0.3	0.3	-10	11
1200	8.4	-7.5	0.4	-0.2	0.5	-0.2	-0.4	0.4	-11	12
1300	9.0	-8.1	0.4	-0.3	0.5	-0.3	-0.4	0.5	-12	13
1400	9.7	-8.7	0.5	-0.3	0.5	-0.3	-0.5	0.5	-13	13
1500	10.4	-9.3	0.5	-0.3	0.6	-0.3	-0.6	0.6	-14	14
1600	11.0	-9.9	0.6	-0.3	0.6	-0.3	-0.7	0.7	-15	15
1700	11.7	-10.5	0.6	-0.4	0.7	-0.3	-0.8	0.8	-16	16
1800	12.3	-11.1	0.7	-0.4	0.7	-0.4	-0.8	0.9	-16	17
1900	13.0	-11.7	0.8	-0.5	0.8	-0.4	-0.9	0.9	-17	18
2000	13.6	-12.2	0.8	-0.5	0.8	-0.4	-1.0	1.0	-18	19
2100	14.3	-12.8	0.9	-0.5	0.9	-0.4	-1.1	1.1	-19	19
2200	14.9	-13.4	0.9	-0.6	0.9	-0.4	-1.2	1.3	-20	20
2300	15.6	-14.0	1.0	-0.6	1.0	-0.4	-1.4	1.4	-20	21
2400	16.2	-14.5	1.1	-0.7	1.0	-0.4	-1.5	1.5	-21	22
2500	16.8	-15.1	1.2	-0.7	1.1	-0.5	-1.6	1.6	-22	23
2600	17.5	-15.7	1.2	-0.7	1.1	-0.5	-1.7	1.7	-23	23
2700	18.1	-16.2	1.3	-0.8	1.1	-0.5	-1.9	1.9	-23	24
2800	18.7	-16.8	1.4	-0.8	1.2	-0.5	-2.0	2.0	-24	25
2900	19.3	-17.4	1.4	-0.9	1.2	-0.5	-2.1	2.2	-25	26
3000	20.0	-17.9	1.5	-0.9	1.2	-0.5	-2.3	2.3	-25	26
3100	20.6	-18.5	1.6	-1.0	1.3	-0.5	-2.4	2.5	-26	27
3200	21.2	-19.0	1.7	-1.0	1.3	-0.5	-2.6	2.6	-27	28
3300	21.8	-19.6	1.7	-1.1	1.3	-0.5	-2.7	2.8	-28	29
3400	22.4	-20.1	1.8	-1.1	1.4	-0.5	-2.9	2.9	-28	29
3500	23.1	-20.7	1.9	-1.2	1.4	-0.5	-3.1	3.1	-29	30

(U//FOUO)

## BASIC DATA

PROJ, HE, M795  
FUZE, PD, M739A1

(U//FOUO)

1	2	3	4	5	6	7	8	9
R A N G E	E L E V	FS FOR GRAZE BURST  FUZE M582	DFS PER 10 M DEC HOB	DR PER 1 MIL D ELEV	F O R K	TIME OF FLIGHT	AZIMUTH CORRECTIONS	
							DRIFT (CORR TO L)	CW OF 1 KNOT
M	MIL			M	MIL	SEC	MIL	MIL
3500	243.0	13.5	0.16	12	4	13.5	4.8	0.14
3600	251.3	14.0	0.15	12	5	14.0	5.0	0.14
3700	259.7	14.4	0.15	12	5	14.4	5.2	0.15
3800	268.2	14.9	0.14	12	5	14.9	5.4	0.15
3900	276.8	15.3	0.14	11	5	15.3	5.6	0.16
4000	285.6	15.8	0.13	11	5	15.8	5.8	0.16
4100	294.5	16.3	0.13	11	6	16.3	6.0	0.17
4200	303.6	16.7	0.13	11	6	16.7	6.2	0.17
4300	312.9	17.2	0.12	11	6	17.2	6.4	0.18
4400	322.3	17.7	0.12	11	6	17.7	6.6	0.18
4500	331.9	18.2	0.12	10	7	18.2	6.8	0.19
4600	341.6	18.7	0.11	10	7	18.7	7.1	0.19
4700	351.6	19.2	0.11	10	7	19.2	7.3	0.19
4800	361.8	19.7	0.11	10	8	19.7	7.6	0.20
4900	372.3	20.3	0.10	9	8	20.3	7.8	0.21
5000	383.0	20.8	0.10	9	8	20.8	8.1	0.21
5100	394.0	21.3	0.10	9	9	21.3	8.4	0.22
5200	405.3	21.9	0.10	9	9	21.9	8.7	0.22
5300	416.9	22.5	0.09	8	9	22.5	9.0	0.23
5400	428.9	23.1	0.09	8	10	23.1	9.3	0.23
5500	441.3	23.7	0.09	8	11	23.7	9.6	0.24
5600	454.1	24.3	0.09	8	11	24.3	10.0	0.24
5700	467.5	25.0	0.09	7	12	25.0	10.3	0.25
5800	481.4	25.6	0.08	7	13	25.6	10.7	0.26
5900	496.0	26.3	0.08	7	13	26.3	11.2	0.26
6000	511.3	27.0	0.08	6	14	27.0	11.6	0.27
6100	527.6	27.8	0.08	6	16	27.8	12.1	0.28
6200	545.0	28.6	0.07	6	17	28.6	12.6	0.29
6300	563.7	29.4	0.07	5	19	29.4	13.3	0.29
6400	584.2	30.4	0.07	5	21	30.4	13.9	0.30
6500	607.1	31.4	0.07	4	25	31.4	14.7	0.31
6600	633.6	32.5	0.07	3	30	32.5	15.7	0.33
6700	666.2	33.9	0.06	2	41	33.9	16.9	0.34
6800	713.6	35.9	0.06			35.9	18.9	0.36
*****								
6800	839.7	40.7	0.05			40.7	25.4	0.46
6700	887.1	42.4	0.05	3	42	42.4	28.4	0.48
6600	919.6	43.5	0.05	3	30	43.5	30.7	0.50
6500	946.0	44.3	0.05	4	25	44.3	32.8	0.52

(U//FOUO)

UNCLASSIFIED//FOR OFFICIAL USE ONLY

CORRECTION FACTORS

(U//FOUO)

1	10	11	12	13	14	15	16	17	18	19
R A N G E	RANGE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
M	M	M	M	M	M	M	M	M	M	M
3500	23.1	-20.7	1.9	-1.2	1.4	-0.5	-3.1	3.1	-29	30
3600	23.7	-21.2	2.0	-1.2	1.4	-0.5	-3.2	3.3	-30	31
3700	24.3	-21.8	2.1	-1.3	1.4	-0.5	-3.4	3.5	-30	31
3800	24.9	-22.3	2.2	-1.4	1.5	-0.5	-3.6	3.7	-31	32
3900	25.5	-22.8	2.2	-1.4	1.5	-0.5	-3.8	3.9	-32	33
4000	26.1	-23.4	2.3	-1.5	1.5	-0.5	-4.0	4.0	-32	33
4100	26.7	-23.9	2.4	-1.6	1.5	-0.4	-4.2	4.2	-33	34
4200	27.3	-24.5	2.5	-1.6	1.5	-0.4	-4.4	4.5	-34	35
4300	27.9	-25.0	2.6	-1.7	1.5	-0.4	-4.6	4.7	-34	35
4400	28.4	-25.6	2.7	-1.8	1.5	-0.4	-4.8	4.9	-35	36
4500	29.0	-26.1	2.8	-1.8	1.5	-0.4	-5.0	5.1	-35	37
4600	29.6	-26.6	2.8	-1.9	1.5	-0.4	-5.2	5.3	-36	37
4700	30.2	-27.2	2.9	-2.0	1.5	-0.4	-5.4	5.5	-37	38
4800	30.8	-27.7	3.0	-2.1	1.5	-0.4	-5.7	5.8	-37	39
4900	31.3	-28.2	3.1	-2.1	1.5	-0.4	-5.9	6.0	-38	39
5000	31.9	-28.8	3.2	-2.2	1.5	-0.4	-6.1	6.3	-38	40
5100	32.5	-29.3	3.3	-2.3	1.5	-0.4	-6.4	6.5	-39	40
5200	33.1	-29.8	3.4	-2.4	1.4	-0.4	-6.6	6.7	-39	41
5300	33.6	-30.3	3.5	-2.5	1.4	-0.4	-6.9	7.0	-40	41
5400	34.2	-30.8	3.6	-2.6	1.4	-0.3	-7.1	7.3	-40	42
5500	34.7	-31.4	3.7	-2.6	1.4	-0.3	-7.4	7.5	-41	42
5600	35.3	-31.9	3.8	-2.7	1.4	-0.3	-7.6	7.8	-41	43
5700	35.9	-32.4	4.0	-2.8	1.4	-0.3	-7.9	8.1	-42	44
5800	36.4	-32.9	4.1	-2.9	1.4	-0.3	-8.2	8.4	-42	44
5900	37.0	-33.4	4.2	-3.0	1.3	-0.3	-8.5	8.7	-43	45
6000	37.5	-33.9	4.3	-3.1	1.3	-0.3	-8.8	9.0	-43	45
6100	38.0	-34.5	4.5	-3.2	1.3	-0.3	-9.0	9.3	-44	45
6200	38.6	-35.0	4.6	-3.3	1.3	-0.3	-9.3	9.6	-44	46
6300	39.1	-35.5	4.8	-3.5	1.3	-0.3	-9.7	9.9	-45	46
6400	39.6	-36.0	4.9	-3.6	1.2	-0.3	-10.0	10.3	-45	47
6500		-36.5	5.1	-3.7	1.2	-0.2	-10.3	10.6	-46	47
6600		-37.0		-3.8	1.2	-0.2	-10.6	11.0	-46	48
6700		-37.5		-4.0	1.1	-0.2	-11.0	11.6	-46	48
6800		-38.0		-4.1	1.1	-0.2	-11.4		-47	
*****										
6800		-37.6		-5.0	1.0	-0.1	-12.5		-45	
6700		-37.1		-5.0	0.9	-0.1	-12.3	12.0	-44	47
6600		-36.6		-5.0	0.9	-0.1	-12.2	12.0	-44	46
6500		-36.0	5.7	-4.9	0.8	-0.1	-12.0	11.9	-43	45

(U//FOUO)

(U//FOUO)

1	2	3	4	5	6	7	8	9
R A N G E	E L E V	FS FOR GRAZE BURST  FUZE M582	DFS PER 10 M DEC HOB	DR PER 1 MIL D ELEV	F O R K	TIME OF FLIGHT	AZIMUTH CORRECTIONS	
							DRIFT (CORR TO L)	CW OF 1 KNOT
M	MIL			M	MIL	SEC	MIL	MIL
6500	946.0	44.3	0.05	4	25	44.3	32.8	0.52
6400	968.9	45.0	0.05	5	22	45.0	34.7	0.54
6300	989.3	45.7	0.05	5	19	45.7	36.6	0.56
6200	1007.9	46.2	0.05	6	17	46.2	38.5	0.58
6100	1025.2	46.7	0.05	6	16	46.7	40.3	0.60
6000	1041.4	47.2	0.05	6	15	47.2	42.1	0.62
5900	1056.7	47.6	0.05	7	14	47.6	43.9	0.64
5800	1071.2	48.0	0.05	7	13	48.0	45.8	0.66
5700	1085.0	48.4	0.05	7	12	48.4	47.6	0.68
5600	1098.2	48.7	0.05	8	11	48.7	49.5	0.70
5500	1110.9	49.0	0.04	8	11	49.0	51.5	0.72
5400	1123.2	49.4	0.04	8	10	49.4	53.5	0.74
5300	1135.0	49.6	0.04	9	10	49.6	55.6	0.77
5200	1146.4	49.9	0.04	9	9	49.9	57.8	0.79
5100	1157.5	50.2	0.04	9	9	50.2	60.1	0.82
5000	1168.3	50.4	0.04	9	8	50.4	62.4	0.85
4900	1178.7	50.7	0.04	10	8	50.7	65.0	0.88
4800	1188.9	50.9	0.04	10	8	50.9	67.6	0.91
4700	1198.8	51.1	0.04	10	7	51.1	70.5	0.95
4600	1208.4	51.3	0.04	11	7	51.3	73.5	0.99
4500	1217.7	51.6	0.04	11	6	51.6	76.8	1.03
4400	1226.8	51.8	0.04	11	6	51.8	80.4	1.08
4300	1235.7	51.9	0.04	11	6	51.9	84.4	1.13
4200	1244.3	52.1	0.04	12	6	52.1	88.7	1.19
4100	1252.6	52.3	0.04	12	5	52.3	93.6	1.25
4000	1260.7	52.5	0.04	13	5	52.5	99.1	1.33
3900	1268.5	52.7	0.04	13	5	52.7	105.3	1.41
3800	1276.0	52.8	0.04	14		52.8	112.4	1.51
3700	1283.3	53.0	0.04	14		53.0	120.7	
3600	1290.2	53.2	0.04			53.2	130.2	
3529	1295.0							

(U//FOUO)

(U//FOUO)

1	10	11	12	13	14	15	16	17	18	19
R A N G E	RANGE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
	M	M	M	M	M	M	M	M	M	M
6500		-36.0	5.7	-4.9	0.8	-0.1	-12.0	11.9	-43	45
6400	39.5	-35.5	5.7	-4.8	0.8	-0.1	-11.8	11.8	-42	44
6300	38.8	-35.0	5.7	-4.8	0.8	-0.1	-11.7	11.6	-41	44
6200	38.2	-34.4	5.7	-4.7	0.8	-0.1	-11.5	11.5	-41	43
6100	37.6	-33.9	5.7	-4.6	0.7	-0.1	-11.3	11.3	-40	42
6000	37.0	-33.4	5.7	-4.5	0.7	0.0	-11.1	11.1	-39	41
5900	36.4	-32.8	5.7	-4.4	0.7	0.0	-10.9	10.9	-39	41
5800	35.8	-32.3	5.6	-4.3	0.7	0.0	-10.7	10.7	-38	40
5700	35.2	-31.8	5.6	-4.1	0.7	0.0	-10.4	10.5	-37	39
5600	34.6	-31.2	5.5	-4.0	0.6	0.0	-10.2	10.3	-36	39
5500	34.0	-30.7	5.5	-3.8	0.6	0.0	-10.0	10.1	-36	38
5400	33.4	-30.2	5.4	-3.6	0.6	0.0	-9.8	9.9	-35	37
5300	32.8	-29.6	5.3	-3.4	0.6	0.0	-9.5	9.7	-34	36
5200	32.2	-29.1	5.2	-3.1	0.6	0.0	-9.3	9.5	-34	36
5100	31.6	-28.6	5.2	-2.8	0.6	0.0	-9.1	9.2	-33	35
5000	31.0	-28.0	5.1	-2.5	0.6	0.0	-8.8	9.0	-32	34
4900	30.5	-27.5	5.0	-2.2	0.5	0.0	-8.6	8.8	-31	33
4800	29.9	-27.0	4.9		0.5	0.0	-8.3	8.5	-31	32
4700	29.3	-26.5	4.7		0.5	0.0	-8.0	8.3	-30	32
4600	28.7	-26.0	4.6		0.5	0.0	-7.8	8.0	-29	31
4500	28.1	-25.4	4.5		0.5	0.0	-7.5	7.8	-28	30
4400	27.5	-24.9	4.3		0.5	0.0	-7.2	7.5	-27	29
4300	26.9	-24.4	4.2		0.5	0.0	-6.9	7.2	-27	28
4200	26.4	-23.9	4.0		0.5	0.0	-6.5	6.9	-26	28
4100	25.8	-23.4	3.8		0.5	0.0	-6.2	6.6	-25	27
4000	25.2	-23.0	3.5		0.5	0.0	-5.8	6.3	-24	26
3900	24.7	-22.5	3.3		0.4	0.0	-5.4	6.0	-23	25
3800	24.1	-22.0	3.0		0.4	0.0		5.6	-22	24
3700	23.6		2.6		0.4	0.0		5.2	-21	23
3600	23.1		2.2		0.4	0.0		4.8	-20	21

(U//FOUO)

## SUPPLEMENTARY DATA

PROJ, HE, M795  
FUZE, PD, M739A1

(U//FOUO)

1	2	3	4	5	6	7	8	9	10	11	12	13
R A N G E	E L E V	PROBABLE ERRORS					ANGLE OF FALL	COT ANGLE OF FALL	TML VEL	MO	COMP SITE	
		R	D	FUZE M582							+1 MIL SITE	-1 MIL SITE
				HB	TB	RB						
M	MIL	M	M	M	SEC	M	MIL		M/S	M	MIL	MIL
0	0.0	3	0				0		286	0	0.000	0.00
500	30.9	4	0				31	32.5	280	4	0.001	-0.001
1000	62.7	5	0	1	0.04	11	65	15.8	274	16	0.004	-0.003
1500	95.6	7	1	1	0.04	11	100	10.2	269	36	0.008	-0.008
2000	129.9	8	1	2	0.04	11	137	7.4	264	66	0.016	-0.015
2500	165.6	10	1	2	0.04	12	177	5.7	259	106	0.027	-0.025
3000	203.2	12	1	3	0.04	12	220	4.6	254	158	0.042	-0.039
3500	243.0	13	2	3	0.04	12	266	3.7	250	223	0.063	-0.057
4000	285.6	15	2	4	0.04	13	316	3.1	246	303	0.092	-0.084
4500	331.9	17	2	5	0.04	14	370	2.6	242	403	0.135	-0.120
5000	383.0	19	3	6	0.04	14	431	2.2	239	526	0.199	-0.173
5500	441.3	21	3	7	0.04	15	499	1.9	237	682	0.307	-0.255
6000	511.3	23	3	9	0.05	16	580	1.6	235	888	0.528	-0.402
6500	607.1	25	4	12	0.05	17	688	1.2	234	1196	1.509	-0.755
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
6500	946.0	25	5	22	0.06	17	1031	0.6	239	2373	-2.530	1.77
6000	1041.4	23	5	24	0.06	16	1119	0.5	242	2681	-1.546	1.42
5500	1110.9	22	5	26	0.06	15	1183	0.4	243	2887	-1.320	1.27
5000	1168.3	20	5	28	0.07	13	1237	0.4	244	3042	-1.207	1.18
4500	1217.7	18	5	29	0.07	12	1285	0.3	244	3162	-1.137	1.12
4000	1260.7	16	4	30	0.07	11	1330	0.3	244	3257	-1.088	1.08

(U//FOUO)



ROTATION - RANGE

(U//FOUO) CORRECTIONS TO RANGE, IN METERS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 3200	200 3000	400 2800	600 2600	800 2400	1000 2200	1200 2000	1400 1800	1600 1600
500	0	0	-1+	-1+	-1+	-2+	-2+	-2+	-2+
1000	0	-1+	-2+	-2+	-3+	-3+	-4+	-4+	-4+
1500	0	-1+	-2+	-3+	-4+	-5+	-6+	-6+	-6+
2000	0	-2+	-3+	-4+	-5+	-6+	-7+	-8+	-8+
2500	0	-2+	-4+	-5+	-7+	-8+	-9+	-9+	-9+
3000	0	-2+	-4+	-6+	-8+	-9+	-10+	-11+	-11+
3500	0	-2+	-5+	-7+	-9+	-10+	-11+	-12+	-12+
4000	0	-3+	-5+	-8+	-10+	-11+	-13+	-13+	-14+
4500	0	-3+	-6+	-8+	-10+	-12+	-14+	-14+	-15+
5000	0	-3+	-6+	-9+	-11+	-13+	-14+	-15+	-15+
5500	0	-3+	-6+	-9+	-11+	-13+	-15+	-16+	-16+
6000	0	-3+	-6+	-9+	-11+	-13+	-15+	-16+	-16+
6500	0	-3+	-6+	-8+	-11+	-12+	-14+	-15+	-15+
*****									
6500	0	-1+	-2+	-2+	-3+	-4+	-4+	-4+	-4+
6000	0	0	0	0	0	0	0	0	0
5500	0	+1-	+1-	+2-	+2-	+3-	+3-	+3-	+3-
5000	0	+1-	+3-	+4-	+5-	+5-	+6-	+6-	+7-
4500	0	+2-	+4-	+5-	+7-	+8-	+9-	+9-	+10-
4000	0	+3-	+5-	+7-	+9-	+11-	+12-	+13-	+13-
	3200	3400	3600	3800	4000	4200	4400	4600	4800
	6400	6200	6000	5800	5600	5400	5200	5000	4800
AZIMUTH OF TARGET - MILS									

(U//FOUO)

- (U//FOUO) NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
3. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.  
4. CORRECTIONS ARE FOR 0 DEGREES LATITUDE. FOR OTHER LATITUDES  
MULTIPLY CORRECTIONS BY THE FACTOR GIVEN BELOW.

(U//FOUO)

LATITUDE (DEG)	10	20	30	40	50	60	70
MULTIPLY BY	.98	.94	.87	.77	.64	.50	.34

(U//FOUO)

## ROTATION - AZIMUTH

PROJ, HE, M795  
FUZE, PD, M739A1CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

## 0 DEGREES LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3000	R0.1L	R0.1L	0.0	0.0	0.0	0.0	0.0	L0.1R	L0.1R
3500	R0.1L	R0.1L	R0.1L	0.0	0.0	0.0	L0.1R	L0.1R	L0.1R
4000	R0.1L	R0.1L	R0.1L	0.0	0.0	0.0	L0.1R	L0.1R	L0.1R
4500	R0.1L	R0.1L	R0.1L	R0.1L	0.0	L0.1R	L0.1R	L0.1R	L0.1R
5000	R0.2L	R0.2L	R0.1L	R0.1L	0.0	L0.1R	L0.1R	L0.2R	L0.2R
5500	R0.3L	R0.2L	R0.2L	R0.1L	0.0	L0.1R	L0.2R	L0.2R	L0.3R
6000	R0.3L	R0.3L	R0.2L	R0.1L	0.0	L0.1R	L0.2R	L0.3R	L0.3R
6500	R0.5L	R0.5L	R0.4L	R0.2L	0.0	L0.2R	L0.4R	L0.5R	L0.5R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
6500	R1.4L	R1.3L	R1.0L	R0.5L	0.0	L0.5R	L1.0R	L1.3R	L1.4R
6000	R1.8L	R1.7L	R1.3L	R0.7L	0.0	L0.7R	L1.3R	L1.7R	L1.8R
5500	R2.2L	R2.0L	R1.5L	R0.8L	0.0	L0.8R	L1.5R	L2.0R	L2.2R
5000	R2.6L	R2.4L	R1.8L	R1.0L	0.0	L1.0R	L1.8R	L2.4R	L2.6R
4500	R3.0L	R2.8L	R2.1L	R1.1L	0.0	L1.1R	L2.1R	L2.8R	L3.0R
4000	R3.4L	R3.2L	R2.4L	R1.3L	0.0	L1.3R	L2.4R	L3.2R	L3.4R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
AZIMUTH OF TARGET - MILS									

(U//FOUO)

## 0 DEGREES LATITUDE

(U//FOUO)

- NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
 2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
 3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.  
 4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

10 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1500	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
2000	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
2500	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.2R	L0.2R
3000	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.2R	L0.2R	L0.2R	L0.2R
3500	L0.1R	L0.1R	L0.1R	L0.1R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
4000	L0.1R	L0.1R	L0.1R	L0.2R	L0.2R	L0.2R	L0.3R	L0.3R	L0.3R
4500	L0.1R	L0.1R	L0.1R	L0.2R	L0.2R	L0.3R	L0.3R	L0.4R	L0.4R
5000	L0.1R	L0.1R	L0.1R	L0.2R	L0.3R	L0.3R	L0.4R	L0.4R	L0.5R
5500	0.0	L0.1R	L0.1R	L0.2R	L0.3R	L0.4R	L0.5R	L0.5R	L0.5R
6000	0.0	0.0	L0.1R	L0.2R	L0.3R	L0.5R	L0.6R	L0.7R	L0.7R
6500	R0.1L	R0.1L	0.0	L0.2R	L0.4R	L0.6R	L0.7R	L0.8R	L0.9R
*****									
6500	R0.8L	R0.7L	R0.4L	0.0	L0.5R	L1.1R	L1.5R	L1.8R	L1.9R
6000	R1.2L	R1.1L	R0.7L	R0.1L	L0.6R	L1.2R	L1.8R	L2.2R	L2.3R
5500	R1.6L	R1.4L	R0.9L	R0.2L	L0.6R	L1.4R	L2.1R	L2.6R	L2.7R
5000	R1.9L	R1.7L	R1.2L	R0.4L	L0.6R	L1.6R	L2.4R	L2.9R	L3.1R
4500	R2.3L	R2.1L	R1.5L	R0.5L	L0.6R	L1.7R	L2.7R	L3.3R	L3.6R
4000	R2.8L	R2.5L	R1.8L	R0.7L	L0.6R	L1.9R	L3.0R	L3.7R	L4.0R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
	AZIMUTH OF TARGET - MILS								

(U//FOUO)

10 DEGREES SOUTH LATITUDE

- (U//FOUO) NOTES -
1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.
  2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.
  3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.
  4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

## ROTATION - AZIMUTH

PROJ, HE, M795  
FUZE, PD, M739A1CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

## 20 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1000	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
1500	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
2000	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
2500	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.3R	L0.3R	L0.3R
3000	L0.2R	L0.2R	L0.2R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R
3500	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.4R	L0.4R	L0.4R	L0.4R
4000	L0.3R	L0.3R	L0.3R	L0.3R	L0.4R	L0.4R	L0.5R	L0.5R	L0.5R
4500	L0.3R	L0.3R	L0.3R	L0.4R	L0.4R	L0.5R	L0.5R	L0.6R	L0.6R
5000	L0.3R	L0.3R	L0.4R	L0.4R	L0.5R	L0.6R	L0.6R	L0.7R	L0.7R
5500	L0.3R	L0.4R	L0.4R	L0.5R	L0.6R	L0.7R	L0.7R	L0.8R	L0.8R
6000	L0.3R	L0.4R	L0.4R	L0.5R	L0.7R	L0.8R	L0.9R	L1.0R	L1.0R
6500	L0.3R	L0.3R	L0.4R	L0.6R	L0.8R	L0.9R	L1.1R	L1.2R	L1.2R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
6500	R0.2L	R0.1L	L0.1R	L0.6R	L1.1R	L1.6R	L2.0R	L2.3R	L2.4R
6000	R0.6L	R0.4L	R0.1L	L0.5R	L1.1R	L1.8R	L2.3R	L2.7R	L2.8R
5500	R0.9L	R0.7L	R0.3L	L0.4R	L1.2R	L2.0R	L2.6R	L3.1R	L3.2R
5000	R1.2L	R1.0L	R0.5L	L0.3R	L1.2R	L2.1R	L2.9R	L3.4R	L3.6R
4500	R1.6L	R1.4L	R0.8L	L0.1R	L1.2R	L2.3R	L3.2R	L3.8R	L4.0R
4000	R2.0L	R1.8L	R1.1L	0.0	L1.2R	L2.4R	L3.5R	L4.2R	L4.4R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
	AZIMUTH OF TARGET - MILS								

(U//FOUO)

## 20 DEGREES SOUTH LATITUDE

(U//FOUO)

- NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
 2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
 3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.  
 4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

30 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
500	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
1000	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
1500	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
2000	L0.2R	L0.2R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R
2500	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.4R	L0.4R	L0.4R	L0.4R
3000	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.5R	L0.5R
3500	L0.4R	L0.4R	L0.4R	L0.5R	L0.5R	L0.5R	L0.5R	L0.6R	L0.6R
4000	L0.5R	L0.5R	L0.5R	L0.5R	L0.6R	L0.6R	L0.6R	L0.7R	L0.7R
4500	L0.5R	L0.5R	L0.6R	L0.6R	L0.7R	L0.7R	L0.7R	L0.8R	L0.8R
5000	L0.6R	L0.6R	L0.6R	L0.7R	L0.7R	L0.8R	L0.9R	L0.9R	L0.9R
5500	L0.6R	L0.6R	L0.7R	L0.8R	L0.8R	L0.9R	L1.0R	L1.1R	L1.1R
6000	L0.7R	L0.7R	L0.7R	L0.8R	L1.0R	L1.1R	L1.2R	L1.2R	L1.3R
6500	L0.7R	L0.7R	L0.8R	L0.9R	L1.1R	L1.3R	L1.4R	L1.5R	L1.5R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
6500	L0.4R	L0.4R	L0.7R	L1.1R	L1.6R	L2.0R	L2.4R	L2.7R	L2.7R
6000	L0.1R	L0.2R	L0.5R	L1.1R	L1.6R	L2.2R	L2.7R	L3.1R	L3.2R
5500	R0.2L	0.0	L0.4R	L1.0R	L1.7R	L2.4R	L3.0R	L3.4R	L3.6R
5000	R0.5L	R0.3L	L0.2R	L0.9R	L1.7R	L2.6R	L3.3R	L3.8R	L4.0R
4500	R0.8L	R0.6L	R0.1L	L0.8R	L1.8R	L2.8R	L3.6R	L4.2R	L4.4R
4000	R1.2L	R1.0L	R0.3L	L0.6R	L1.8R	L2.9R	L3.9R	L4.5R	L4.7R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
	AZIMUTH OF TARGET - MILS								

(U//FOUO)

30 DEGREES SOUTH LATITUDE

- (U//FOUO) NOTES -
1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.
  2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.
  3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.
  4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

## ROTATION - AZIMUTH

PROJ, HE, M795  
FUZE, PD, M739A1CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

## 40 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
500	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
1000	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
1500	L0.2R	L0.2R	L0.2R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R
2000	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.4R	L0.4R	L0.4R	L0.4R
2500	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.5R	L0.5R	L0.5R
3000	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.6R	L0.6R	L0.6R
3500	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.7R	L0.7R	L0.7R	L0.7R
4000	L0.6R	L0.7R	L0.7R	L0.7R	L0.7R	L0.8R	L0.8R	L0.8R	L0.8R
4500	L0.7R	L0.7R	L0.8R	L0.8R	L0.8R	L0.9R	L0.9R	L0.9R	L1.0R
5000	L0.8R	L0.8R	L0.8R	L0.9R	L1.0R	L1.0R	L1.1R	L1.1R	L1.1R
5500	L0.9R	L0.9R	L0.9R	L1.0R	L1.1R	L1.2R	L1.2R	L1.3R	L1.3R
6000	L1.0R	L1.0R	L1.0R	L1.1R	L1.2R	L1.3R	L1.4R	L1.5R	L1.5R
6500	L1.0R	L1.1R	L1.2R	L1.3R	L1.4R	L1.6R	L1.7R	L1.8R	L1.8R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
6500	L0.9R	L1.0R	L1.2R	L1.6R	L2.0R	L2.4R	L2.7R	L3.0R	L3.1R
6000	L0.7R	L0.8R	L1.1R	L1.6R	L2.1R	L2.6R	L3.1R	L3.4R	L3.5R
5500	L0.5R	L0.6R	L1.0R	L1.6R	L2.2R	L2.8R	L3.4R	L3.7R	L3.9R
5000	L0.3R	L0.4R	L0.8R	L1.5R	L2.2R	L3.0R	L3.6R	L4.1R	L4.2R
4500	0.0	L0.1R	L0.6R	L1.4R	L2.3R	L3.1R	L3.9R	L4.4R	L4.6R
4000	R0.3L	R0.1L	L0.4R	L1.3R	L2.3R	L3.3R	L4.1R	L4.7R	L4.9R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
	AZIMUTH OF TARGET - MILS								

(U//FOUO)

## 40 DEGREES SOUTH LATITUDE

(U//FOUO)

- NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
 2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
 3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.  
 4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

50 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
500	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
1000	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
1500	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R
2000	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R
2500	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R
3000	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.7R	L0.7R	L0.7R
3500	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R	L0.8R	L0.8R	L0.8R	L0.8R
4000	L0.8R	L0.8R	L0.8R	L0.8R	L0.9R	L0.9R	L0.9R	L0.9R	L0.9R
4500	L0.9R	L0.9R	L0.9R	L1.0R	L1.0R	L1.0R	L1.1R	L1.1R	L1.1R
5000	L1.0R	L1.0R	L1.0R	L1.1R	L1.1R	L1.2R	L1.2R	L1.3R	L1.3R
5500	L1.1R	L1.1R	L1.2R	L1.2R	L1.3R	L1.4R	L1.4R	L1.4R	L1.5R
6000	L1.2R	L1.3R	L1.3R	L1.4R	L1.5R	L1.6R	L1.6R	L1.7R	L1.7R
6500	L1.4R	L1.4R	L1.5R	L1.6R	L1.7R	L1.8R	L1.9R	L2.0R	L2.0R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
6500	L1.5R	L1.6R	L1.7R	L2.0R	L2.4R	L2.7R	L3.0R	L3.2R	L3.3R
6000	L1.4R	L1.5R	L1.7R	L2.1R	L2.5R	L3.0R	L3.3R	L3.6R	L3.7R
5500	L1.2R	L1.3R	L1.6R	L2.1R	L2.6R	L3.1R	L3.6R	L3.9R	L4.0R
5000	L1.0R	L1.1R	L1.5R	L2.0R	L2.7R	L3.3R	L3.8R	L4.2R	L4.3R
4500	L0.8R	L0.9R	L1.3R	L2.0R	L2.7R	L3.4R	L4.1R	L4.5R	L4.6R
4000	L0.5R	L0.7R	L1.2R	L1.9R	L2.7R	L3.5R	L4.3R	L4.7R	L4.9R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
	AZIMUTH OF TARGET - MILS								

(U//FOUO)

50 DEGREES SOUTH LATITUDE

(U//FOUO)

- NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.  
4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

## ROTATION - AZIMUTH

PROJ, HE, M795  
FUZE, PD, M739A1CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

## 60 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
500	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
1000	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
1500	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.4R	L0.4R
2000	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R
2500	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R
3000	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R
3500	L0.8R	L0.8R	L0.8R	L0.8R	L0.8R	L0.9R	L0.9R	L0.9R	L0.9R
4000	L0.9R	L0.9R	L0.9R	L1.0R	L1.0R	L1.0R	L1.0R	L1.0R	L1.0R
4500	L1.1R	L1.1R	L1.1R	L1.1R	L1.1R	L1.2R	L1.2R	L1.2R	L1.2R
5000	L1.2R	L1.2R	L1.2R	L1.2R	L1.3R	L1.3R	L1.4R	L1.4R	L1.4R
5500	L1.3R	L1.3R	L1.4R	L1.4R	L1.5R	L1.5R	L1.6R	L1.6R	L1.6R
6000	L1.5R	L1.5R	L1.5R	L1.6R	L1.7R	L1.7R	L1.8R	L1.8R	L1.8R
6500	L1.7R	L1.7R	L1.7R	L1.8R	L1.9R	L2.0R	L2.1R	L2.2R	L2.2R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
6500	L2.0R	L2.0R	L2.2R	L2.4R	L2.7R	L3.0R	L3.2R	L3.3R	L3.4R
6000	L2.0R	L2.0R	L2.2R	L2.5R	L2.9R	L3.2R	L3.5R	L3.7R	L3.7R
5500	L1.9R	L1.9R	L2.2R	L2.5R	L3.0R	L3.4R	L3.7R	L4.0R	L4.0R
5000	L1.7R	L1.8R	L2.1R	L2.5R	L3.0R	L3.5R	L3.9R	L4.2R	L4.3R
4500	L1.6R	L1.7R	L2.0R	L2.5R	L3.1R	L3.6R	L4.1R	L4.4R	L4.5R
4000	L1.4R	L1.5R	L1.9R	L2.4R	L3.1R	L3.7R	L4.3R	L4.6R	L4.8R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
	AZIMUTH OF TARGET - MILS								

(U//FOUO)

## 60 DEGREES SOUTH LATITUDE

(U//FOUO)

- NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
 2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
 3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.  
 4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.



CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

70 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
500	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
1000	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
1500	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R
2000	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R
2500	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.7R
3000	L0.8R	L0.8R	L0.8R	L0.8R	L0.8R	L0.8R	L0.8R	L0.8R	L0.8R
3500	L0.9R	L0.9R	L0.9R	L0.9R	L0.9R	L0.9R	L0.9R	L0.9R	L0.9R
4000	L1.0R	L1.0R	L1.0R	L1.1R	L1.1R	L1.1R	L1.1R	L1.1R	L1.1R
4500	L1.2R	L1.2R	L1.2R	L1.2R	L1.2R	L1.2R	L1.3R	L1.3R	L1.3R
5000	L1.3R	L1.3R	L1.3R	L1.4R	L1.4R	L1.4R	L1.4R	L1.5R	L1.5R
5500	L1.5R	L1.5R	L1.5R	L1.6R	L1.6R	L1.6R	L1.6R	L1.7R	L1.7R
6000	L1.7R	L1.7R	L1.7R	L1.8R	L1.8R	L1.8R	L1.9R	L1.9R	L1.9R
6500	L1.9R	L1.9R	L2.0R	L2.0R	L2.1R	L2.1R	L2.2R	L2.2R	L2.3R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
6500	L2.4R	L2.5R	L2.6R	L2.7R	L2.9R	L3.1R	L3.2R	L3.4R	L3.4R
6000	L2.5R	L2.5R	L2.7R	L2.9R	L3.1R	L3.3R	L3.5R	L3.7R	L3.7R
5500	L2.5R	L2.5R	L2.7R	L2.9R	L3.2R	L3.5R	L3.7R	L3.9R	L3.9R
5000	L2.4R	L2.5R	L2.6R	L2.9R	L3.3R	L3.6R	L3.9R	L4.1R	L4.2R
4500	L2.3R	L2.4R	L2.6R	L2.9R	L3.3R	L3.7R	L4.0R	L4.3R	L4.3R
4000	L2.2R	L2.2R	L2.5R	L2.9R	L3.3R	L3.8R	L4.1R	L4.4R	L4.5R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
	AZIMUTH OF TARGET - MILS								

(U//FOUO)

70 DEGREES SOUTH LATITUDE

- (U//FOUO) NOTES -
1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.
  2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.
  3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.
  4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

## FUZE CORRECTION FACTORS

PROJ, HE, M795  
FUZE, MTSQ, M582

(U//FOUO)

1	2	3	4	5	6	7	8	9	10	11
FS	FUZE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
0										
1										
2	-.007	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.010	-.010
3	-.010	0.010	0.000	0.000	-.001	0.001	0.000	0.000	0.015	-.015
4	-.013	0.013	0.000	0.000	-.001	0.001	0.000	0.000	0.020	-.020
5	-.017	0.016	-.001	0.001	-.001	0.001	0.000	0.000	0.024	-.024
6	-.020	0.020	-.001	0.001	-.002	0.001	0.001	-.001	0.029	-.029
7	-.023	0.023	-.001	0.001	-.002	0.001	0.001	-.001	0.033	-.034
8	-.026	0.026	-.001	0.001	-.002	0.001	0.001	-.001	0.038	-.038
9	-.029	0.029	-.001	0.001	-.003	0.002	0.001	-.001	0.042	-.043
10	-.033	0.032	-.002	0.001	-.003	0.002	0.002	-.002	0.047	-.047
11	-.036	0.035	-.002	0.001	-.003	0.002	0.002	-.002	0.051	-.052
12	-.039	0.038	-.002	0.001	-.004	0.002	0.002	-.002	0.055	-.056
13	-.042	0.041	-.002	0.001	-.004	0.002	0.003	-.003	0.060	-.060
14	-.045	0.044	-.002	0.001	-.004	0.002	0.003	-.003	0.064	-.065
15	-.049	0.048	-.003	0.002	-.004	0.002	0.004	-.004	0.068	-.069
16	-.052	0.051	-.003	0.002	-.004	0.002	0.004	-.004	0.073	-.073
17	-.055	0.054	-.003	0.002	-.004	0.002	0.005	-.005	0.077	-.078
18	-.058	0.057	-.003	0.002	-.004	0.002	0.005	-.005	0.081	-.082
19	-.061	0.060	-.003	0.002	-.004	0.002	0.006	-.006	0.085	-.086
20	-.064	0.063	-.004	0.002	-.004	0.002	0.007	-.007	0.089	-.090
21	-.068	0.066	-.004	0.002	-.004	0.002	0.007	-.007	0.093	-.094
22	-.071	0.069	-.004	0.002	-.004	0.001	0.008	-.008	0.097	-.098
23	-.074	0.072	-.004	0.003	-.004	0.001	0.009	-.008	0.101	-.103
24	-.077	0.075	-.004	0.003	-.004	0.001	0.009	-.009	0.105	-.107
25	-.080	0.078	-.004	0.003	-.004	0.001	0.010	-.010	0.109	-.111
26	-.083	0.081	-.004	0.003	-.004	0.001	0.011	-.011	0.113	-.114
27	-.086	0.084	-.004	0.003	-.004	0.001	0.011	-.011	0.117	-.118
28	-.089	0.087	-.005	0.003	-.004	0.001	0.012	-.012	0.121	-.122
29	-.092	0.091	-.005	0.003	-.004	0.001	0.013	-.013	0.125	-.126
30	-.095	0.094	-.005	0.004	-.004	0.001	0.014	-.013	0.128	-.130
31	-.098	0.097	-.005	0.004	-.004	0.001	0.014	-.014	0.132	-.134
32	-.101	0.100	-.005	0.004	-.004	0.001	0.015	-.015	0.136	-.138
33	-.105	0.103	-.005	0.004	-.004	0.001	0.016	-.016	0.140	-.142
34	-.108	0.106	-.005	0.004	-.004	0.001	0.017	-.017	0.144	-.146
35	-.111	0.109	-.005	0.004	-.004	0.001	0.018	-.017	0.147	-.149

(U//FOUO)

1	2	3	4	5	6	7	8	9	10	11
FS	FUZE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
35	<i>-.111</i>	0.109	<i>-.005</i>	0.004	<i>-.004</i>	0.001	0.018	<i>-.017</i>	0.147	<i>-.149</i>
36	<i>-.114</i>	0.112	<i>-.005</i>	0.005	<i>-.004</i>	0.001	0.019	<i>-.018</i>	0.151	<i>-.153</i>
37	<i>-.117</i>	0.115	<i>-.006</i>	0.005	<i>-.004</i>	0.001	0.019	<i>-.019</i>	0.155	<i>-.157</i>
38	<i>-.120</i>	0.118	<i>-.006</i>	0.005	<i>-.004</i>	0.001	0.020	<i>-.020</i>	0.159	<i>-.161</i>
39	<i>-.123</i>	0.121	<i>-.006</i>	0.005	<i>-.004</i>	0.001	0.021	<i>-.021</i>	0.162	<i>-.165</i>
40	<i>-.126</i>	0.124	<i>-.006</i>	0.005	<i>-.004</i>	0.001	0.022	<i>-.021</i>	0.166	<i>-.169</i>
41	<i>-.129</i>	0.127	<i>-.006</i>	0.005	<i>-.004</i>	0.001	0.023	<i>-.022</i>	0.170	<i>-.173</i>
42	<i>-.132</i>	0.130	<i>-.006</i>	0.006	<i>-.004</i>	0.001	0.024	<i>-.023</i>	0.174	<i>-.177</i>
43	<i>-.135</i>	0.133	<i>-.006</i>	0.006	<i>-.004</i>	0.001	0.025	<i>-.024</i>	0.178	<i>-.181</i>
44	<i>-.138</i>	0.136	<i>-.006</i>	0.006	<i>-.004</i>	0.001	0.025	<i>-.025</i>	0.182	<i>-.185</i>
45	<i>-.141</i>	0.139	<i>-.006</i>	0.006	<i>-.004</i>	0.001	0.026	<i>-.026</i>	0.186	<i>-.189</i>
46	<i>-.144</i>	0.142	<i>-.007</i>	0.006	<i>-.004</i>	0.001	0.027	<i>-.027</i>	0.190	<i>-.193</i>
47	<i>-.147</i>	0.145	<i>-.007</i>	0.007	<i>-.004</i>	0.001	0.028	<i>-.027</i>	0.194	<i>-.197</i>
48	<i>-.150</i>	0.148	<i>-.007</i>	0.007	<i>-.004</i>	0.001	0.029	<i>-.028</i>	0.198	<i>-.201</i>
49	<i>-.153</i>	0.151	<i>-.007</i>	0.008	<i>-.004</i>	0.001	0.030	<i>-.029</i>	0.202	<i>-.205</i>
50	<i>-.156</i>	0.154	<i>-.007</i>	0.009	<i>-.004</i>	0.001	0.031	<i>-.030</i>	0.207	<i>-.210</i>
51	<i>-.159</i>	0.157	<i>-.008</i>	0.012	<i>-.004</i>	0.001	0.032	<i>-.031</i>	0.212	<i>-.215</i>
52	<i>-.162</i>	0.160	<i>-.009</i>		<i>-.004</i>	0.001	0.033	<i>-.032</i>	0.218	<i>-.221</i>
53		0.162	<i>-.012</i>		<i>-.003</i>	0.001		<i>-.035</i>	0.229	<i>-.230</i>

(U//FOUO)

FUZE SETTING

CORRECTIONS TO FUZE SETTING OF FUZE, MTSQ, M582  
FOR FUZE, MTSQ, M564

(U//FOUO)

FUZE SETTING FUZE M582		CORRECTIONS
FROM	TO	
1.8	15.3	-0.1
15.4	31.4	-0.2
31.5	49.0	-0.3
49.1	53.2	-0.4

(U//FOUO)

**(U//FOUO)**

(U//FOUO) Part 1

(U//FOUO) Charge 5G

(U//FOUO) Projectile, HE, M795

(U//FOUO) Fuze, PD, M739A1

(U//FOUO) Muzzle Velocity – 346 M/S

(U//FOUO) Propelling Charge M3A1 - Base and Increments 2, 3, 4, and 5

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(U//FOUO)

LINE NUMBER OF METEOROLOGICAL MESSAGE

QUADRANT ELEVATION MILS	LINE NUMBER
0.0- 135.7	0
135.8- 261.5	1
261.6- 394.3	2
394.4- 524.6	3
524.7- 638.6	4
638.7- 798.4	5
798.5- 1016.2	6
1016.3- 1300.0	7

(U//FOUO)

(U//FOUO) NOTE - WHEN THE PROJECTILE MUST HIT THE TARGET ON THE ASCENDING BRANCH OF ITS TRAJECTORY, USE HEIGHT OF TARGET IN METERS TO ENTER THE TABLE ON PAGE XL TO DETERMINE LINE NUMBER.

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

## LINE NUMBERS OF METEOROLOGICAL MESSAGE

LINE	RANGE	HEIGHT OF TARGET ABOVE GUN - METERS							
NO.	METERS	-400	-300	-200	-100	0	100	200	300
0	0					0			
	100					0	0	0	1
	200					0	1	2	4
	300					0	1	3	5
	400					0	1	3	6
	500					0	2	4	8
	600					0	2	5	8
	700					0	2	6	10
	800					0	3	6	10
	900					0	3	7	11
	1000					0	3	8	12
	1100					0	4	8	13
	1200					0	4	9	14
	1300					0	4	10	15
	1400					0	5	10	16
	1500					0	5	11	17
	1600				-5	0	5	11	18
	1700				-5	0	6	12	19
	1800				-5	0	6	13	20
	1900				-6	0	6	13	21
	2000				-6	0	7	14	22
	2100			-12	-6	0	7	14	23
	2200			-13	-7	0	7	15	24
	2300			-13	-7	0	8	16	25
	2400			-14	-7	0	8	16	25
	2500			-15	-8	0	8	17	26
	2600		-22	-15	-8	0	8	18	27
	2700		-23	-16	-8	0	9	18	28
	2800		-24	-17	-9	0	9	19	29
	2900		-25	-17	-9	0	9	20	30
	3000	-33	-26	-18	-9	0	10	20	31
	3100	-35	-27	-19	-10	0	10	21	33
	3200	-36	-28	-19	-10	0	10	22	34
	3300	-37	-29	-20	-10	0	11	22	35
	3400	-39	-30	-21	-11	0	11	23	36
	3500	-40	-31	-21	-11	0	12	24	37
0					1				2

(U//FOUO)



CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

LINE NUMBERS OF METEOROLOGICAL MESSAGE

HEIGHT OF TARGET ABOVE GUN - METERS							RANGE	LINE
400	500	600	700	800	900	1000	METERS	NO.
							0	3
2							100	
5	7	9	11	13	15		200	
7	10	13	15	18	21	24	300	
9	12	16	19	23	27	31	400	
11	15	19	23	27	32	36	500	
12	17	21	26	31	36	42	600	
14	19	24	29	35	40	46	700	
15	20	26	32	38	44	51	800	
16	22	28	34	41	48	55	900	
18	24	30	37	44	51	59	1000	
19	25	32	39	47	54	63	1100	
20	27	34	41	49	58	66	1200	
22	28	36	44	52	61	70	1300	
23	30	38	46	55	64	73	1400	
24	32	40	48	57	67	77	1500	
25	33	41	50	60	70	80	1600	
27	35	43	53	62	73	83	1700	
28	36	45	55	65	76	87	1800	
29	38	47	57	67	79	90	1900	
30	39	49	59	70	81	93	2000	
31	41	51	61	73	84	97	2100	
33	42	53	64	75	87	100	2200	
34	44	55	66	78	90	104	2300	
35	46	57	68	81	94	107	2400	
37	47	59	71	83	97	111	2500	
38	49	61	73	86	100	114	2600	
39	51	63	75	89	103	118	2700	
40	52	65	78	92	106	122	2800	
42	54	67	80	95	110	125	2900	
43	56	69	83	98	113	129	3000	
45	58	71	86	101	117	133	3100	
46	60	74	88	104	120	137	3200	
48	61	76	91	107	124	142	3300	
49	63	78	94	110	128	146	3400	
51	65	81	97	114	132	150	3500	
2				3				

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

## LINE NUMBERS OF METEOROLOGICAL MESSAGE

LINE NO.	RANGE METERS	HEIGHT OF TARGET ABOVE GUN - METERS							
		-400	-300	-200	-100	0	100	200	300
0	3500	-40	-31	-21	-11	0	12	24	37
	3600	-41	-32	-22	-11	0	12	25	38
	3700	-43	-33	-23	-12	0	12	26	40
	3800	-44	-34	-24	-12	0	13	26	41
	3900	-46	-36	-24	-13	0	13	27	42
	4000	-48	-37	-25	-13	0	14	28	43
	4100	-49	-38	-26	-13	0	14	29	45
	4200	-51	-39	-27	-14	0	15	30	46
	4300	-53	-41	-28	-14	0	15	31	48
	4400	-54	-42	-29	-15	0	16	32	49
1	4500	-56	-43	-30	-15	0	16	33	51
	4600	-58	-45	-31	-16	0	17	34	52
	4700	-60	-46	-32	-16	0	17	35	54
	4800	-62	-48	-33	-17	0	18	36	55
	4900	-64	-49	-34	-17	0	18	37	57
	5000	-66	-51	-35	-18	0	19	38	58
	5100	-68	-52	-36	-18	0	19	39	60
	5200	-70	-54	-37	-19	0	20	40	62
	5300	-72	-56	-38	-19	0	20	42	64
	5400	-74	-57	-39	-20	0	21	43	66
	5500	-77	-59	-40	-21	0	22	44	68
	5600	-79	-61	-41	-21	0	22	45	69
	5700	-81	-62	-43	-22	0	23	47	71
	5800	-84	-64	-44	-22	0	23	48	74
	5900	-86	-66	-45	-23	0	24	49	76
2	6000	-89	-68	-46	-24	0	25	51	78
	6100	-91	-70	-48	-24	0	26	52	80
	6200	-94	-72	-49	-25	0	26	54	83
	6300	-97	-74	-50	-26	0	27	55	85
	6400	-99	-76	-52	-26	0	28	57	88
	6500	-102	-78	-53	-27	0	29	59	90
	6600	-105	-81	-55	-28	0	30	61	93
	6700	-108	-83	-57	-29	0	31	62	96
	6800	-112	-86	-58	-30	0	31	64	99
	6900	-115	-88	-60	-31	0	32	66	102
	7000	-119	-91	-62	-32	0	33	68	105
		2			3				

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

LINE NUMBERS OF METEOROLOGICAL MESSAGE

HEIGHT OF TARGET ABOVE GUN - METERS							RANGE	L I N E
400	500	600	700	800	900	1000	METERS	N O .
51	65	81	97	114	132	150	3500	3
52	67	83	100	117	136	155	3600	
54	70	86	103	121	140	159	3700	
56	72	88	106	124	144	164	3800	
58	74	91	109	128	148	169	3900	
59	76	94	112	132	152	174	4000	
61	79	97	116	136	157	179	4100	
63	81	100	119	140	162	184	4200	
65	83	103	123	144	166	190	4300	
67	86	106	126	148	171	195	4400	
69	88	109	130	153	176	201	4500	
71	91	112	134	157	181	207	4600	
73	94	115	138	162	187	212	4700	
75	96	119	142	166	192	219	4800	
78	99	122	146	171	197	225	4900	
80	102	126	150	176	203	231	5000	
82	105	129	155	181	209	238	5100	
85	108	133	159	186	215	245	5200	
87	111	137	164	192	221	252	5300	
90	115	141	169	197	228	259	5400	
92	118	145	173	203	234	267	5500	
95	121	149	178	209	241	274	5600	
98	125	154	184	215	248	283	5700	
100	129	158	189	221	255	291	5800	
103	132	163	195	228	263	300	5900	
106	136	168	200	235	271	309	6000	4
110	140	173	206	242	279	318	6100	
113	145	178	212	249	287	328	6200	
116	149	183	219	257	296	338	6300	
120	153	188	225	264	305	349	6400	
123	158	194	232	273	315	360	6500	
127	163	200	240	281	325	371	6600	
131	168	206	247	290	335	383	6700	
135	173	213	255	299	346	396	6800	
139	178	220	263	309	358	410	6900	
143	184	227	272	320	370	424	7000	
3		4						

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

## LINE NUMBERS OF METEOROLOGICAL MESSAGE

LINE NO.	RANGE METERS	HEIGHT OF TARGET ABOVE GUN - METERS							
		-400	-300	-200	-100	0	100	200	300
2	7000	-119	-91	-62	-32	0	33	68	105
	7100	-122	-94	-64	-33	0	34	70	108
	7200	-126	-96	-66	-34	0	35	73	112
	7300	-129	-99	-68	-35	0	37	75	115
	7400	-133	-102	-70	-36	0	38	77	119
3	7500	-137	-105	-72	-37	0	39	80	123
	7600	-142	-109	-74	-38	0	40	83	127
	7700	-146	-112	-77	-39	0	42	86	132
	7800	-151	-116	-79	-41	0	43	89	137
	7900	-156	-120	-82	-42	0	45	92	142
	8000	-161	-124	-85	-43	0	46	95	148
	8100	-167	-128	-88	-45	0	48	99	154
	8200	-172	-133	-91	-47	0	50	103	161
	8300	-179	-138	-94	-49	0	52	108	168
	8400	-185	-143	-98	-51	0	54	113	177
4	8500	-192	-148	-102	-53	0	57	119	188
	8600	-200	-155	-107	-55	0	60	127	203
	8700	-208	-161	-112	-58	0	64	137	230
	8800	-218	-169	-117	-61	0	70	161	
	8900	-228	-178	-124	-66	0			
*****									
6	8900	-476	-344	-219	-104	0			
	8800	-499	-361	-232	-111	0		170	
	8700	-520	-378	-243	-117	0	106	199	267
	8600	-540	-393	-254	-123	0	113	215	303
	8500	-560	-409	-264	-128	0	119	228	325
7	8400	-580	-423	-275	-133	0	125	240	345
	8300	-599	-438	-285	-138	0	130	251	363
	8200	-619	-453	-294	-143	0	135	262	379
	8100	-638	-468	-304	-148	0	140	272	395
	8000	-658	-483	-314	-153	0	145	282	411
	7900	-678	-497	-324	-158	0	150	292	426
	7800	-698	-512	-334	-163	0	155	302	441
	7700	-719	-528	-344	-168	0	160	312	456
	7600	-739	-543	-354	-173	0	165	322	471
	7500	-761	-559	-365	-178	0	170	332	486

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(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

LINE NUMBERS OF METEOROLOGICAL MESSAGE

HEIGHT OF TARGET ABOVE GUN - METERS							RANGE	L I N E	
400	500	600	700	800	900	1000	METERS	N O .	
143	184	227	272	320	370	424	7000	4	
148	190	234	281	331	383	440	7100		
153	196	242	291	342	397	456	7200		
158	203	251	301	355	412	474	7300		
163	210	259	312	368	428	493	7400		
169	217	269	324	382	446	514	7500	5	
175	225	279	336	398	465	537	7600		
181	234	290	350	415	486	564	7700		
188	243	302	365	434	510	596	7800		
196	253	315	382	456	539	636	7900		
204	264	329	401	482	575	692	8000		
213	276	346	424	515	627		8100		
223	291	366	454	563			8200		
234	308	392	498				8300		
248	330	432					8400		
267	366						8500		
298							8600 8700 8800 8900		
*****									
366							8900 8800 8700 8600		6
408	465						8500		
437	514	566					8400		
463	551	622	667				8300		
486	582	665	730	769			8200		
508	611	702	779	839	870		8100		
530	639	737	822	894	947	970	8000		
550	665	769	863	943	1008	1054	7900		
570	691	801	901	989	1063	1122	7800		
590	716	832	938	1032	1114	1183	7700		
610	741	862	974	1074	1163	1240	7600		
630	766	892	1009	1115	1210	1294	7500	7	
7									

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

## LINE NUMBERS OF METEOROLOGICAL MESSAGE

LINE NO.	RANGE METERS	HEIGHT OF TARGET ABOVE GUN - METERS							
		-400	-300	-200	-100	0	100	200	300
7	7500	-761	-559	-365	-178	0	170	332	486
	7400	-783	-575	-375	-184	0	175	342	501
	7300	-805	-591	-386	-189	0	180	353	516
	7200	-828	-608	-397	-194	0	186	363	531
	7100	-852	-626	-408	-200	0	191	373	547
	7000	-877	-644	-420	-206	0	197	384	563
	6900	-903	-662	-432	-211	0	202	395	579
	6800	-930	-682	-445	-218	0	208	406	596
	6700	-958	-702	-458	-224	0	214	418	613
	6600	-988	-723	-471	-230	0	220	430	630
	6500	-1020	-746	-485	-237	0	226	442	648
	6400	-1054	-769	-500	-244	0	233	455	666
	6300	-1090	-794	-516	-251	0	239	468	685
	6200	-1130	-821	-532	-259	0	246	481	705
	6100	-1173	-849	-549	-267	0	254	495	725
	6000	-1220	-880	-568	-276	0	261	510	746
	5900	-1274	-914	-588	-285	0	269	525	768
	5800		-951	-610	-295	0	278	541	790
	5700		-993	-633	-305	0	286	557	814
	5600			-659	-316	0	296	575	839
	5500			-687	-329	0	306	593	865
	5400			-719	-342	0	316	612	892
	5300				-356	0	327	633	921
	5200				-373	0	339	655	951
	5100				-391	0	352	678	983
	5000					0	366	703	1017
	4900					0	381	729	1053
	4800					0	397	758	1091
	4700					0	415	788	1132
	4600						435	821	1175
	4500								
	4400								

7

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

LINE NUMBERS OF METEOROLOGICAL MESSAGE

HEIGHT OF TARGET ABOVE GUN - METERS							RANGE	LINE
400	500	600	700	800	900	1000	METERS	NO.
630	766	892	1009	1115	1210	1294	7500	7
650	791	922	1044	1156	1256	1346	7400	
671	816	952	1079	1196	1302	1397	7300	
691	841	983	1114	1236	1347	1447	7200	
712	867	1013	1149	1276	1392	1498	7100	
733	893	1044	1185	1316	1437	1548	7000	
754	919	1075	1221	1357	1482	1598	6900	
776	946	1106	1257	1398	1528	1648	6800	
798	973	1138	1294	1439	1574	1698	6700	
820	1001	1171	1331	1481	1621	1749	6600	
843	1029	1204	1369	1524	1668	1801	6500	
867	1058	1239	1408	1568	1716	1854	6400	
892	1088	1273	1448	1612	1765	1907	6300	
917	1119	1309	1489	1658	1815	1961	6200	
943	1150	1346	1531	1704	1866	2016	6100	
970	1183	1384	1574	1752	1918	2073	6000	
998	1216	1423	1618	1801	1972	2131	5900	
1027	1251	1463	1663	1851	2027	2190	5800	
1057	1288	1505	1710	1903	2083	2251	5700	
1089	1325	1548	1759	1956	2141	2313	5600	
1121	1364	1593	1809	2012	2201	2377	5500	
1156	1405	1640	1861	2069	2263	2444	5400	
1192	1447	1688	1915	2128	2327	2512	5300	
1229	1492	1739	1971	2189	2393	2582	5200	
1269	1538	1792	2030	2253	2461	2655	5100	
1311	1587	1847	2091	2319	2532	2730	5000	
1355	1639	1905	2155	2388	2606	2808	4900	
1402	1693	1966	2221	2460	2682	2888	4800	
1451	1750	2029	2291	2535	2762	2972	4700	
1504	1810	2097	2364	2614	2845	3059	4600	
		2167	2441	2695	2932	3150	4500	
						3244	4400	
7								

(U//FOUO)

## WIND COMPONENTS

PROJ, HE, M795  
FUZE, PD, M739A1

(U//FOUO) COMPONENTS OF A ONE KNOT WIND

CHART DIRECTION OF WIND	CROSS WIND	RANGE WIND	CHART DIRECTION OF WIND	CROSS WIND	RANGE WIND
MIL	KNOT	KNOT	MIL	KNOT	KNOT
0	0	H1.00	3200	0	T1.00
100	R. 10	H. 99	3300	L. 10	T. 99
200	R. 20	H. 98	3400	L. 20	T. 98
300	R. 29	H. 96	3500	L. 29	T. 96
400	R. 38	H. 92	3600	L. 38	T. 92
500	R. 47	H. 88	3700	L. 47	T. 88
600	R. 56	H. 83	3800	L. 56	T. 83
700	R. 63	H. 77	3900	L. 63	T. 77
800	R. 71	H. 71	4000	L. 71	T. 71
900	R. 77	H. 63	4100	L. 77	T. 63
1000	R. 83	H. 56	4200	L. 83	T. 56
1100	R. 88	H. 47	4300	L. 88	T. 47
1200	R. 92	H. 38	4400	L. 92	T. 38
1300	R. 96	H. 29	4500	L. 96	T. 29
1400	R. 98	H. 20	4600	L. 98	T. 20
1500	R. 99	H. 10	4700	L. 99	T. 10
1600	R1.00	0	4800	L1.00	0
1700	R. 99	T. 10	4900	L. 99	H. 10
1800	R. 98	T. 20	5000	L. 98	H. 20
1900	R. 96	T. 29	5100	L. 96	H. 29
2000	R. 92	T. 38	5200	L. 92	H. 38
2100	R. 88	T. 47	5300	L. 88	H. 47
2200	R. 83	T. 56	5400	L. 83	H. 56
2300	R. 77	T. 63	5500	L. 77	H. 63
2400	R. 71	T. 71	5600	L. 71	H. 71
2500	R. 63	T. 77	5700	L. 63	H. 77
2600	R. 56	T. 83	5800	L. 56	H. 83
2700	R. 47	T. 88	5900	L. 47	H. 88
2800	R. 38	T. 92	6000	L. 38	H. 92
2900	R. 29	T. 96	6100	L. 29	H. 96
3000	R. 20	T. 98	6200	L. 20	H. 98
3100	R. 10	T. 99	6300	L. 10	H. 99
3200	0	T1.00	6400	0	H1.00

(U//FOUO)

(U//FOUO)

NOTE - FOR A COMPLETE EXPLANATION OF THE USE OF THIS TABLE, SEE PARAGRAPH 12, EXPLANATION OF COMPONENTS OF A ONE KNOT WIND.



(U//FOUO) TABLE D  
TEMPERATURE  
AND DENSITY CORRECTIONS

CORRECTIONS TO TEMPERATURE (DT) AND DENSITY (DD), IN PERCENT,  
TO COMPENSATE FOR THE DIFFERENCE IN ALTITUDE,  
(U//FOUO) IN METERS, BETWEEN THE BATTERY AND THE MDP

DH		0	+10-	+20-	+30-	+40-	+50-	+60-	+70-	+80-	+90-
0	DT	0.0	0.0	0.0	-0.1+	-0.1+	-0.1+	-0.1+	-0.2+	-0.2+	-0.2+
	DD	0.0	-0.1+	-0.2+	-0.3+	-0.4+	-0.5+	-0.6+	-0.7+	-0.8+	-0.9+
+100-	DT	-0.2+	-0.2+	-0.2+	-0.3+	-0.3+	-0.3+	-0.3+	-0.4+	-0.4+	-0.4+
	DD	-1.0+	-1.1+	-1.2+	-1.3+	-1.4+	-1.5+	-1.6+	-1.7+	-1.8+	-1.9+
+200-	DT	-0.5+	-0.5+	-0.5+	-0.6+	-0.6+	-0.6+	-0.6+	-0.7+	-0.7+	-0.7+
	DD	-2.0+	-2.1+	-2.2+	-2.3+	-2.4+	-2.5+	-2.6+	-2.7+	-2.8+	-2.9+
+300-	DT	-0.7+	-0.7+	-0.7+	-0.8+	-0.8+	-0.8+	-0.8+	-0.9+	-0.9+	-0.9+
	DD	-3.0+	-3.1+	-3.2+	-3.3+	-3.4+	-3.5+	-3.6+	-3.7+	-3.8+	-3.9+

(U//FOUO)

- (U//FOUO) NOTES - 1. DH IS BATTERY HEIGHT ABOVE OR BELOW THE MDP.  
2. IF ABOVE THE MDP, USE THE SIGN BEFORE THE NUMBER.  
3. IF BELOW THE MDP, USE THE SIGN AFTER THE NUMBER.

(U//FOUO) TABLE E

(U//FOUO) PROPELLANT TEMPERATURE  
EFFECTS ON MUZZLE VELOCITY DUE TO PROPELLANT TEMPERATURE

TEMPERATURE OF PROPELLANT  DEGREES F	EFFECT ON VELOCITY  M/S	TEMPERATURE OF PROPELLANT  DEGREES C
-40 -30 -20 -10	-4.7 -4.2 -3.8 -3.4	-40.0 -34.4 -28.9 -23.3
0	-3.0	-17.8
10 20 30 40	-2.5 -2.1 -1.7 -1.3	-12.2 -6.7 -1.1 4.4
50	-0.8	10.0
60 70 80 90	-0.4 0.0 0.4 0.8	15.6 21.1 26.7 32.2
100	1.3	37.8
110 120 130	1.7 2.1 2.5	43.3 48.9 54.4

(U//FOUO)

(U//FOUO)

1	2	3	4	5	6	7	8	9
R A N G E	E L E V	FS FOR GRAZE BURST  FUZE M582	DFS PER 10 M DEC HOB	DR PER 1 MIL D ELEV	F O R K	TIME OF FLIGHT	AZIMUTH CORRECTIONS	
							DRIFT (CORR TO L)	CW OF 1 KNOT
M	MIL			M	MIL	SEC	MIL	MIL
0	0.0			23	1	0.0	0.0	0.00
100	4.3			23	1	0.3	0.1	0.01
200	8.5			23	1	0.6	0.2	0.01
300	12.8			23	1	0.9	0.2	0.02
400	17.1			23	1	1.2	0.3	0.02
500	21.5			23	1	1.5	0.4	0.03
600	25.9	1.8	1.15	22	1	1.8	0.5	0.04
700	30.4	2.1	0.98	22	1	2.1	0.6	0.04
800	34.9	2.4	0.86	22	1	2.4	0.7	0.05
900	39.5	2.7	0.76	22	1	2.7	0.8	0.05
1000	44.1	3.0	0.68	22	1	3.0	0.8	0.06
1100	48.7	3.3	0.62	21	1	3.3	0.9	0.06
1200	53.4	3.6	0.57	21	1	3.6	1.0	0.07
1300	58.1	3.9	0.52	21	1	3.9	1.1	0.07
1400	62.9	4.3	0.48	21	1	4.3	1.2	0.08
1500	67.7	4.6	0.45	21	1	4.6	1.3	0.08
1600	72.6	4.9	0.42	20	1	4.9	1.4	0.09
1700	77.5	5.2	0.39	20	1	5.2	1.5	0.09
1800	82.4	5.5	0.37	20	1	5.5	1.6	0.10
1900	87.4	5.9	0.35	20	1	5.9	1.6	0.10
2000	92.5	6.2	0.33	20	1	6.2	1.7	0.11
2100	97.5	6.5	0.32	20	1	6.5	1.8	0.11
2200	102.7	6.9	0.30	19	1	6.9	1.9	0.12
2300	107.8	7.2	0.29	19	1	7.2	2.0	0.12
2400	113.0	7.5	0.27	19	1	7.5	2.1	0.13
2500	118.3	7.9	0.26	19	1	7.9	2.2	0.13
2600	123.6	8.2	0.25	19	1	8.2	2.4	0.14
2700	128.9	8.6	0.24	19	1	8.6	2.5	0.14
2800	134.3	8.9	0.23	19	1	8.9	2.6	0.14
2900	139.7	9.2	0.22	18	2	9.2	2.7	0.15
3000	145.2	9.6	0.22	18	2	9.6	2.8	0.15
3100	150.7	9.9	0.21	18	2	9.9	2.9	0.16
3200	156.3	10.3	0.20	18	2	10.3	3.0	0.16
3300	161.9	10.7	0.19	18	2	10.7	3.1	0.16
3400	167.5	11.0	0.19	18	2	11.0	3.2	0.17
3500	173.2	11.4	0.18	17	2	11.4	3.4	0.17

(U//FOUO)

(U//FOUO)

1	10	11	12	13	14	15	16	17	18	19
R A N G E	RANGE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
	M	M	M	M	M	M	M	M	M	M
0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0
100	0.6	-0.6	0.0	0.0	0.0	0.0	0.0	0.0	-1	1
200	1.2	-1.1	0.0	0.0	0.0	-0.1	0.0	0.0	-2	2
300	1.7	-1.6	0.0	-0.1	0.1	-0.1	0.0	0.0	-3	3
400	2.2	-2.1	0.1	-0.1	0.1	-0.2	-0.1	0.1	-4	4
500	2.7	-2.6	0.1	-0.1	0.2	-0.3	-0.1	0.1	-5	5
600	3.3	-3.1	0.1	-0.2	0.3	-0.4	-0.2	0.2	-5	6
700	3.8	-3.5	0.2	-0.2	0.5	-0.5	-0.2	0.2	-6	6
800	4.2	-3.9	0.2	-0.3	0.6	-0.6	-0.3	0.3	-7	7
900	4.7	-4.4	0.3	-0.3	0.8	-0.8	-0.4	0.4	-8	8
1000	5.1	-4.8	0.4	-0.4	0.9	-0.9	-0.5	0.5	-8	9
1100	5.6	-5.2	0.5	-0.5	1.1	-1.1	-0.5	0.5	-9	9
1200	6.0	-5.6	0.6	-0.5	1.3	-1.3	-0.6	0.6	-10	10
1300	6.4	-6.0	0.7	-0.6	1.6	-1.5	-0.7	0.7	-10	11
1400	6.8	-6.4	0.8	-0.7	1.8	-1.7	-0.8	0.8	-11	11
1500	7.2	-6.7	0.9	-0.8	2.0	-1.9	-1.0	0.9	-11	12
1600	7.6	-7.1	1.0	-0.9	2.3	-2.1	-1.1	1.1	-12	12
1700	8.0	-7.5	1.1	-1.0	2.6	-2.3	-1.2	1.2	-12	13
1800	8.4	-7.8	1.2	-1.1	2.9	-2.6	-1.3	1.3	-13	13
1900	8.7	-8.1	1.4	-1.2	3.1	-2.8	-1.4	1.4	-13	14
2000	9.1	-8.5	1.5	-1.3	3.5	-3.1	-1.6	1.5	-14	14
2100	9.4	-8.8	1.6	-1.4	3.8	-3.4	-1.7	1.7	-14	15
2200	9.8	-9.1	1.8	-1.5	4.1	-3.6	-1.8	1.8	-15	15
2300	10.1	-9.4	1.9	-1.6	4.4	-3.9	-2.0	1.9	-15	16
2400	10.4	-9.7	2.1	-1.8	4.8	-4.2	-2.1	2.1	-16	16
2500	10.8	-10.0	2.2	-1.9	5.1	-4.5	-2.3	2.2	-16	17
2600	11.1	-10.3	2.4	-2.0	5.5	-4.8	-2.4	2.4	-16	17
2700	11.4	-10.6	2.6	-2.1	5.9	-5.0	-2.6	2.5	-17	17
2800	11.7	-10.9	2.7	-2.2	6.2	-5.3	-2.7	2.7	-17	18
2900	12.0	-11.1	2.9	-2.4	6.6	-5.6	-2.9	2.9	-17	18
3000	12.3	-11.4	3.1	-2.5	7.0	-5.9	-3.1	3.0	-18	18
3100	12.6	-11.7	3.2	-2.6	7.4	-6.2	-3.2	3.2	-18	19
3200	12.9	-11.9	3.4	-2.8	7.8	-6.5	-3.4	3.4	-18	19
3300	13.2	-12.2	3.6	-2.9	8.2	-6.8	-3.6	3.5	-19	20
3400	13.5	-12.5	3.8	-3.0	8.6	-7.1	-3.8	3.7	-19	20
3500	13.8	-12.7	4.0	-3.2	9.0	-7.4	-3.9	3.9	-19	20

(U//FOUO)

(U//FOUO)

1	2	3	4	5	6	7	8	9
R A N G E	E L E V	FS FOR GRAZE BURST  FUZE M582	DFS PER 10 M DEC HOB	DR PER 1 MIL D ELEV	F O R K	TIME OF FLIGHT	AZIMUTH CORRECTIONS	
							DRIFT (CORR TO L)	CW OF 1 KNOT
M	MIL			M	MIL	SEC	MIL	MIL
3500	173.2	11.4	0.18	17	2	11.4	3.4	0.17
3600	179.0	11.7	0.18	17	2	11.7	3.5	0.18
3700	184.8	12.1	0.17	17	2	12.1	3.6	0.18
3800	190.7	12.5	0.17	17	2	12.5	3.7	0.18
3900	196.6	12.8	0.16	17	2	12.8	3.9	0.19
4000	202.6	13.2	0.16	17	2	13.2	4.0	0.19
4100	208.6	13.6	0.15	16	2	13.6	4.1	0.20
4200	214.7	14.0	0.15	16	2	14.0	4.3	0.20
4300	220.9	14.3	0.15	16	2	14.3	4.4	0.20
4400	227.1	14.7	0.14	16	2	14.7	4.5	0.21
4500	233.4	15.1	0.14	16	2	15.1	4.7	0.21
4600	239.7	15.5	0.14	16	2	15.5	4.8	0.21
4700	246.1	15.9	0.13	16	3	15.9	5.0	0.22
4800	252.6	16.3	0.13	15	3	16.3	5.1	0.22
4900	259.2	16.7	0.13	15	3	16.7	5.3	0.23
5000	265.8	17.1	0.12	15	3	17.1	5.4	0.23
5100	272.5	17.5	0.12	15	3	17.5	5.6	0.23
5200	279.3	17.9	0.12	15	3	17.9	5.7	0.24
5300	286.2	18.3	0.11	14	3	18.3	5.9	0.24
5400	293.1	18.7	0.11	14	3	18.7	6.1	0.25
5500	300.2	19.2	0.11	14	3	19.2	6.2	0.25
5600	307.4	19.6	0.11	14	3	19.6	6.4	0.25
5700	314.6	20.0	0.11	14	3	20.0	6.6	0.26
5800	322.0	20.5	0.10	13	4	20.5	6.8	0.26
5900	329.4	20.9	0.10	13	4	20.9	7.0	0.27
6000	337.0	21.4	0.10	13	4	21.4	7.1	0.27
6100	344.7	21.8	0.10	13	4	21.8	7.3	0.27
6200	352.5	22.3	0.10	13	4	22.3	7.5	0.28
6300	360.5	22.7	0.09	12	4	22.7	7.8	0.28
6400	368.6	23.2	0.09	12	4	23.2	8.0	0.29
6500	376.8	23.7	0.09	12	5	23.7	8.2	0.29
6600	385.2	24.2	0.09	12	5	24.2	8.4	0.30
6700	393.8	24.7	0.09	12	5	24.7	8.6	0.30
6800	402.6	25.2	0.08	11	5	25.2	8.9	0.31
6900	411.5	25.7	0.08	11	5	25.7	9.1	0.31
7000	420.7	26.2	0.08	11	6	26.2	9.4	0.31

(U//FOUO)

CORRECTION FACTORS

(U//FOUO)

1	10	11	12	13	14	15	16	17	18	19
R A N G E	RANGE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
	M	M	M	M	M	M	M	M	M	M
3500	13.8	-12.7	4.0	-3.2	9.0	-7.4	-3.9	3.9	-19	20
3600	14.1	-13.0	4.2	-3.3	9.4	-7.7	-4.1	4.1	-19	20
3700	14.4	-13.2	4.4	-3.4	9.8	-8.0	-4.3	4.3	-20	21
3800	14.7	-13.5	4.6	-3.6	10.2	-8.3	-4.5	4.5	-20	21
3900	15.0	-13.7	4.7	-3.7	10.6	-8.6	-4.7	4.7	-20	21
4000	15.3	-14.0	4.9	-3.9	11.0	-8.9	-4.9	4.9	-20	22
4100	15.6	-14.2	5.1	-4.0	11.4	-9.2	-5.1	5.1	-21	22
4200	15.9	-14.5	5.3	-4.1	11.8	-9.5	-5.3	5.3	-21	22
4300	16.1	-14.7	5.5	-4.3	12.2	-9.7	-5.5	5.5	-21	23
4400	16.4	-15.0	5.7	-4.4	12.6	-10.0	-5.7	5.7	-21	23
4500	16.7	-15.2	5.9	-4.5	12.9	-10.3	-6.0	6.0	-22	23
4600	17.0	-15.4	6.1	-4.7	13.3	-10.5	-6.2	6.2	-22	23
4700	17.3	-15.7	6.3	-4.8	13.7	-10.8	-6.4	6.4	-22	24
4800	17.6	-15.9	6.5	-5.0	14.1	-11.1	-6.7	6.7	-22	24
4900	17.9	-16.2	6.7	-5.1	14.4	-11.3	-6.9	6.9	-23	24
5000	18.2	-16.4	6.9	-5.2	14.8	-11.6	-7.2	7.1	-23	24
5100	18.5	-16.7	7.1	-5.4	15.1	-11.8	-7.4	7.4	-23	24
5200	18.7	-16.9	7.3	-5.5	15.4	-12.1	-7.7	7.6	-23	25
5300	19.1	-17.2	7.5	-5.6	15.8	-12.3	-7.9	7.9	-23	25
5400	19.4	-17.4	7.7	-5.8	16.1	-12.5	-8.2	8.2	-24	25
5500	19.7	-17.7	7.9	-5.9	16.4	-12.7	-8.4	8.4	-24	25
5600	20.0	-17.9	8.1	-6.1	16.8	-13.0	-8.7	8.7	-24	26
5700	20.3	-18.2	8.3	-6.2	17.1	-13.2	-9.0	9.0	-24	26
5800	20.6	-18.4	8.4	-6.3	17.4	-13.4	-9.2	9.3	-24	26
5900	20.9	-18.7	8.6	-6.5	17.7	-13.6	-9.5	9.6	-25	26
6000	21.2	-18.9	8.8	-6.6	17.9	-13.8	-9.8	9.9	-25	27
6100	21.5	-19.2	9.0	-6.7	18.2	-14.0	-10.1	10.2	-25	27
6200	21.9	-19.4	9.2	-6.9	18.5	-14.1	-10.4	10.5	-25	27
6300	22.2	-19.7	9.4	-7.0	18.8	-14.3	-10.7	10.8	-25	27
6400	22.5	-19.9	9.6	-7.2	19.0	-14.5	-11.0	11.1	-25	28
6500	22.8	-20.2	9.8	-7.3	19.3	-14.7	-11.3	11.5	-25	28
6600	23.1	-20.5	9.9	-7.4	19.5	-14.8	-11.6	11.8	-26	28
6700	23.4	-20.7	10.1	-7.6	19.7	-15.0	-11.9	12.1	-26	28
6800	23.8	-21.0	10.3	-7.7	20.0	-15.1	-12.2	12.5	-26	29
6900	24.1	-21.3	10.5	-7.8	20.2	-15.3	-12.6	12.8	-26	29
7000	24.4	-21.6	10.7	-8.0	20.4	-15.4	-12.9	13.2	-26	29

(U//FOUO)

## BASIC DATA

PROJ, HE, M795  
FUZE, PD, M739A1

(U//FOUO)

1	2	3	4	5	6	7	8	9
R A N G E	E L E V	FS FOR GRAZE BURST	DFS PER 10 M DEC HOB	DR PER 1 MIL D ELEV	F O R K	TIME OF FLIGHT	AZIMUTH CORRECTIONS	
		FUZE M582					DRIFT (CORR TO L)	CW OF 1 KNOT
M	MIL			M	MIL	SEC	MIL	MIL
7000	420.7	26.2	0.08	11	6	26.2	9.4	0.31
7100	430.1	26.7	0.08	11	6	26.7	9.6	0.32
7200	439.7	27.3	0.08	10	6	27.3	9.9	0.32
7300	449.6	27.8	0.08	10	6	27.8	10.2	0.33
7400	459.8	28.4	0.08	10	7	28.4	10.5	0.33
7500	470.3	29.0	0.07	9	7	29.0	10.8	0.34
7600	481.2	29.6	0.07	9	7	29.6	11.1	0.35
7700	492.4	30.2	0.07	9	8	30.2	11.5	0.35
7800	504.1	30.8	0.07	8	8	30.8	11.9	0.36
7900	516.3	31.5	0.07	8	9	31.5	12.2	0.36
8000	529.1	32.2	0.07	8	9	32.2	12.7	0.37
8100	542.5	32.9	0.07	7	10	32.9	13.1	0.38
8200	556.7	33.6	0.06	7	11	33.6	13.6	0.38
8300	571.8	34.4	0.06	6	12	34.4	14.1	0.39
8400	588.1	35.3	0.06	6	13	35.3	14.7	0.40
8500	605.9	36.2	0.06	5	15	36.2	15.4	0.41
8600	625.7	37.2	0.06	5	17	37.2	16.1	0.42
8700	648.4	38.3	0.06	4	21	38.3	17.0	0.43
8800	675.7	39.6	0.05	3	27	39.6	18.1	0.44
8900	713.2	41.4	0.05			41.4	19.8	0.46
*****								
8900	847.8	47.4	0.05			47.4	27.1	0.56
8800	885.1	48.9	0.05	3	29	48.9	29.6	0.59
8700	912.2	50.0	0.04	4	22	50.0	31.7	0.61
8600	934.5	50.8	0.04	5	19	50.8	33.4	0.62
8500	954.1	51.6	0.04	5	16	51.6	35.1	0.64
8400	971.6	52.2	0.04	6	15	52.2	36.7	0.66
8300	987.6	52.8	0.04	6	13	52.8	38.3	0.67
8200	1002.5	53.3	0.04	7	12	53.3	39.8	0.69
8100	1016.5	53.8	0.04	7	12	53.8	41.3	0.71
8000	1029.7	54.2	0.04	8	11	54.2	42.8	0.72
7900	1042.2	54.6	0.04	8	10	54.6	44.3	0.74
7800	1054.1	55.0	0.04	9	10	55.0	45.8	0.75
7700	1065.6	55.4	0.04	9	9	55.4	47.3	0.77
7600	1076.6	55.7	0.04	9	9	55.7	48.8	0.79
7500	1087.2	56.1	0.04	10	8	56.1	50.3	0.80

(U//FOUO)

CORRECTION FACTORS

(U//FOUO)

1	10	11	12	13	14	15	16	17	18	19
R A N G E	RANGE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
M	M	M	M	M	M	M	M	M	M	M
7000	24.4	-21.6	10.7	-8.0	20.4	-15.4	-12.9	13.2	-26	29
7100	24.8	-21.8	10.8	-8.1	20.6	-15.5	-13.3	13.5	-27	29
7200	25.1	-22.1	11.0	-8.2	20.7	-15.7	-13.6	13.9	-27	29
7300	25.5	-22.4	11.2	-8.3	20.9	-15.8	-14.0	14.3	-27	29
7400	25.8	-22.7	11.3	-8.5	21.0	-15.9	-14.3	14.7	-27	30
7500	26.2	-23.0	11.5	-8.6	21.1	-15.9	-14.7	15.1	-27	30
7600	26.6	-23.3	11.7	-8.7	21.2	-16.0	-15.1	15.5	-28	30
7700	26.9	-23.6	11.8	-8.8	21.3	-16.1	-15.5	15.9	-28	30
7800	27.3	-23.9	12.0	-9.0	21.4	-16.2	-15.9	16.3	-28	31
7900	27.7	-24.2	12.1	-9.1	21.4	-16.2	-16.3	16.7	-28	31
8000	28.1	-24.5	12.3	-9.2	21.5	-16.3	-16.6	17.1	-28	31
8100	28.4	-24.8	12.5	-9.3	21.6	-16.3	-17.1	17.6	-28	31
8200	28.8	-25.1	12.6	-9.5	21.6	-16.4	-17.5	18.0	-29	32
8300	29.2	-25.5	12.8	-9.6	21.6	-16.4	-17.9	18.5	-29	32
8400	29.6	-25.8		-9.7	21.6	-16.4	-18.3	18.9	-29	32
8500	30.0	-26.1		-9.8	21.6	-16.5	-18.7	19.4	-29	32
8600	30.6	-26.5		-10.0	21.5	-16.5	-19.2	20.0	-29	32
8700		-26.8		-10.1	21.3	-16.5	-19.7	20.6	-29	33
8800		-27.2		-10.2		-16.4	-20.1		-30	33
8900		-27.5		-10.3		-16.4	-20.6		-30	33
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
8900		-28.6		-10.3		-14.6	-22.5		-29	33
8800		-28.3		-10.2		-14.3	-22.3		-29	33
8700		-28.1		-10.1	20.2	-14.1	-22.1	21.5	-29	33
8600	31.0	-27.8		-10.0	19.7	-13.8	-21.9	21.4	-28	32
8500	30.8	-27.6		-9.8	19.3	-13.6	-21.7	21.3	-28	32
8400	30.6	-27.3		-9.7	18.9	-13.4	-21.4	21.1	-28	32
8300	30.3	-27.0	12.7	-9.6	18.6	-13.2	-21.1	20.9	-27	31
8200	30.1	-26.7	12.6	-9.4	18.3	-13.0	-20.9	20.7	-27	31
8100	29.8	-26.4	12.4	-9.3	18.0	-12.8	-20.6	20.5	-27	31
8000	29.4	-26.1	12.3	-9.1	17.7	-12.6	-20.4	20.2	-27	30
7900	29.1	-25.8	12.1	-9.0	17.4	-12.5	-20.1	20.0	-26	30
7800	28.8	-25.6	12.0	-8.8	17.1	-12.3	-19.8	19.7	-26	30
7700	28.5	-25.3	11.8	-8.7	16.9	-12.1	-19.5	19.5	-26	29
7600	28.2	-25.0	11.7	-8.5	16.6	-11.9	-19.3	19.2	-25	29
7500	27.8	-24.7	11.5	-8.3	16.4	-11.8	-19.0	18.9	-25	28

(U//FOUO)

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1	2	3	4	5	6	7	8	9
R A N G E	E L E V	FS FOR GRAZE BURST	DFS PER 10 M DEC HOB	DR PER 1 MIL D ELEV	F O R K	TIME OF FLIGHT	AZIMUTH CORRECTIONS	
		FUZE M582					DRIFT (CORR TO L)	CW OF 1 KNOT
M	MIL			M	MIL	SEC	MIL	MIL
7500	1087.2	56.1	0.04	10	8	56.1	50.3	0.80
7400	1097.4	56.4	0.04	10	8	56.4	51.9	0.82
7300	1107.4	56.7	0.04	10	7	56.7	53.5	0.84
7200	1117.0	57.0	0.04	11	7	57.0	55.1	0.86
7100	1126.3	57.3	0.04	11	7	57.3	56.8	0.87
7000	1135.5	57.5	0.04	11	7	57.5	58.5	0.89
6900	1144.3	57.8	0.04	11	6	57.8	60.2	0.91
6800	1153.0	58.0	0.04	12	6	58.0	62.0	0.94
6700	1161.4	58.2	0.04	12	6	58.2	63.8	0.96
6600	1169.7	58.5	0.04	12	6	58.5	65.7	0.98
6500	1177.7	58.7	0.04	13	5	58.7	67.7	1.00
6400	1185.6	58.9	0.04	13	5	58.9	69.8	1.03
6300	1193.3	59.1	0.04	13	5	59.1	71.9	1.06
6200	1200.9	59.3	0.04	13	5	59.3	74.2	1.08
6100	1208.2	59.5	0.04	14	5	59.5	76.5	1.11
6000	1215.5	59.7	0.04	14	4	59.7	79.0	1.15
5900	1222.6	59.9	0.04	14	4	59.9	81.7	1.18
5800	1229.5	60.1	0.04	15	4	60.1	84.5	1.22
5700	1236.3	60.2	0.04	15	4	60.2	87.4	1.26
5600	1242.9	60.4	0.04	15	4	60.4	90.6	1.30
5500	1249.4	60.6	0.04	16	4	60.6	94.1	1.34
5400	1255.7	60.7	0.04	16	3	60.7	97.8	1.39
5300	1261.9	60.9	0.04	16	3	60.9	101.9	1.45
5200	1268.0	61.0	0.04	17	3	61.0	106.3	1.51
5100	1273.8	61.2	0.04	17	3	61.2	111.2	1.58
5000	1279.6	61.4	0.04	18		61.4	116.7	1.65
4900	1285.1	61.5	0.04	18		61.5	122.7	1.74
4800	1290.5	61.7	0.04	19		61.7	129.4	
4700	1295.7	61.8	0.04			61.8	137.0	
4615	1300.0							

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(U//FOUO)

1	10	11	12	13	14	15	16	17	18	19
R A N G E	RANGE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
	M	M	M	M	M	M	M	M	M	M
7500	27.8	-24.7	11.5	-8.3	16.4	-11.8	-19.0	18.9	-25	28
7400	27.5	-24.3	11.4	-8.1	16.2	-11.6	-18.7	18.7	-25	28
7300	27.2	-24.0	11.2	-8.0	15.9	-11.5	-18.4	18.4	-24	27
7200	26.8	-23.7	11.1	-7.8	15.7	-11.3	-18.1	18.1	-24	27
7100	26.5	-23.4	10.9	-7.5	15.5	-11.1	-17.8	17.8	-24	27
7000	26.1	-23.1	10.8	-7.3	15.2	-11.0	-17.5	17.6	-23	26
6900	25.8	-22.8	10.6	-7.1	15.0	-10.8	-17.2	17.3	-23	26
6800	25.4	-22.5	10.5	-6.8	14.8	-10.7	-16.9	17.0	-22	25
6700	25.1	-22.1	10.3	-6.6	14.6	-10.5	-16.6	16.7	-22	25
6600	24.7	-21.8	10.2	-6.3	14.4	-10.4	-16.3	16.4	-22	24
6500	24.4	-21.5	10.0	-6.0	14.2	-10.2	-15.9	16.1	-21	24
6400	24.0	-21.2	9.9	-5.6	14.0	-10.1	-15.6	15.8	-21	23
6300	23.6	-20.8	9.7	-5.3	13.8	-10.0	-15.3	15.5	-20	23
6200	23.3	-20.5	9.5	-4.9	13.6	-9.8	-15.0	15.2	-20	22
6100	22.9	-20.2	9.4		13.4	-9.7	-14.6	14.9	-19	22
6000	22.6	-19.8	9.2		13.2	-9.6	-14.3	14.6	-19	21
5900	22.2	-19.5	9.0		13.0	-9.4	-13.9	14.3	-18	21
5800	21.8	-19.2	8.8		12.8	-9.3	-13.6	13.9	-18	20
5700	21.5	-18.8	8.6		12.7	-9.2	-13.2	13.6	-17	19
5600	21.1	-18.5	8.4		12.5	-9.1	-12.8	13.3	-16	19
5500	20.7	-18.2	8.2		12.3	-9.0	-12.4	12.9	-16	18
5400	20.3	-17.8	8.0		12.2	-8.8	-12.0	12.6	-15	17
5300	20.0	-17.5	7.7		12.0	-8.7	-11.6	12.2	-14	17
5200	19.6	-17.1	7.5		11.9	-8.6	-11.2	11.8	-13	16
5100	19.2	-16.8	7.2		11.8	-8.6	-10.7	11.5	-13	15
5000	18.8	-16.4	6.9		11.6	-8.5		11.1	-12	14
4900	18.5	-16.1	6.6		11.5	-8.4		10.6	-11	13
4800	18.1	-15.7	6.2		11.4	-8.4		10.2	-10	12
4700	17.7		5.9		11.3	-8.3		9.7	-9	11

(U//FOUO)

## SUPPLEMENTARY DATA

PROJ, HE, M795  
FUZE, PD, M739A1

(U//FOUO)

1	2	3	4	5	6	7	8	9	10	11	12	13
R A N G E	E L E V	PROBABLE ERRORS					ANGLE OF FALL	COT ANGLE OF FALL	TML VEL	MO	COMP SITE	
		R	D	FUZE M582							+1 MIL SITE	-1 MIL SITE
				HB	TB	RB						
M	MIL	M	M	M	SEC	M	MIL		M/S	M	MIL	MIL
0	0.0	5	0				0		346	0	0.000	0.00
500	21.5	5	0				22	46.2	333	3	0.000	0.00
1000	44.1	5	0	1	0.04	13	46	22.0	322	11	0.002	-0.001
1500	67.7	5	1	1	0.04	13	72	14.0	313	26	0.004	-0.003
2000	92.5	6	1	1	0.04	12	100	10.1	306	47	0.007	-0.006
2500	118.3	6	1	2	0.04	12	130	7.8	299	77	0.011	-0.010
3000	145.2	7	1	2	0.04	12	161	6.3	294	114	0.016	-0.015
3500	173.2	8	2	2	0.04	12	195	5.2	288	160	0.024	-0.021
4000	202.6	8	2	3	0.04	12	230	4.4	284	216	0.033	-0.030
4500	233.4	9	2	3	0.04	12	267	3.7	279	282	0.046	-0.041
5000	265.8	10	2	4	0.04	12	306	3.2	275	361	0.063	-0.056
5500	300.2	11	3	4	0.04	13	348	2.8	271	453	0.086	-0.076
6000	337.0	12	3	5	0.04	13	393	2.5	268	562	0.117	-0.102
6500	376.8	14	3	6	0.04	14	442	2.2	265	690	0.162	-0.137
7000	420.7	15	4	6	0.04	14	496	1.9	262	844	0.229	-0.189
7500	470.3	16	4	7	0.05	15	555	1.6	260	1031	0.338	-0.267
8000	529.1	18	5	9	0.05	16	625	1.4	259	1269	0.551	-0.400
8500	605.9	20	5	11	0.05	17	713	1.2	259	1602	1.288	-0.681
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
8500	954.1	22	7	21	0.07	18	1060	0.6	270	3226	-2.334	1.73
8000	1029.7	21	7	23	0.07	17	1127	0.5	272	3558	-1.592	1.44
7500	1087.2	20	7	25	0.07	16	1177	0.4	274	3794	-1.375	1.30
7000	1135.5	18	7	26	0.08	15	1220	0.4	275	3979	-1.262	1.22
6500	1177.7	17	6	27	0.08	14	1258	0.3	276	4130	-1.189	1.16
6000	1215.5	15	6	28	0.08	12	1293	0.3	277	4255	-1.138	1.12
5500	1249.4	14	6	29	0.08	11	1326	0.3	278	4359	-1.100	1.09
5000	1279.6		6	30	0.08	10	1359	0.2	278	4444	-1.069	1.06

(U//FOUO)

ROTATION - RANGE

(U//FOUO) CORRECTIONS TO RANGE, IN METERS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 3200	200 3000	400 2800	600 2600	800 2400	1000 2200	1200 2000	1400 1800	1600 1600
500	0	0	-1+	-1+	-2+	-2+	-2+	-2+	-2+
1000	0	-1+	-2+	-3+	-3+	-4+	-4+	-5+	-5+
1500	0	-1+	-3+	-4+	-5+	-6+	-6+	-7+	-7+
2000	0	-2+	-3+	-5+	-6+	-7+	-8+	-9+	-9+
2500	0	-2+	-4+	-6+	-8+	-9+	-10+	-11+	-11+
3000	0	-2+	-5+	-7+	-9+	-11+	-12+	-13+	-13+
3500	0	-3+	-6+	-8+	-10+	-12+	-13+	-14+	-15+
4000	0	-3+	-6+	-9+	-11+	-13+	-15+	-16+	-16+
4500	0	-3+	-7+	-10+	-13+	-15+	-16+	-17+	-18+
5000	0	-4+	-7+	-11+	-13+	-16+	-18+	-19+	-19+
5500	0	-4+	-8+	-11+	-14+	-17+	-19+	-20+	-20+
6000	0	-4+	-8+	-12+	-15+	-18+	-20+	-21+	-21+
6500	0	-4+	-8+	-12+	-16+	-18+	-21+	-22+	-22+
7000	0	-4+	-9+	-13+	-16+	-19+	-21+	-22+	-23+
7500	0	-4+	-9+	-13+	-16+	-19+	-21+	-23+	-23+
8000	0	-4+	-9+	-13+	-16+	-19+	-21+	-22+	-23+
8500	0	-4+	-8+	-12+	-15+	-18+	-20+	-21+	-21+
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
8500	0	-1+	-2+	-3+	-4+	-5+	-5+	-5+	-6+
8000	0	0	0	0	0	0	0	-1+	-1+
7500	0	+1-	+1-	+2-	+3-	+3-	+3-	+4-	+4-
7000	0	+1-	+3-	+4-	+5-	+6-	+7-	+7-	+7-
6500	0	+2-	+4-	+6-	+8-	+9-	+10-	+11-	+11-
6000	0	+3-	+5-	+8-	+10-	+12-	+13-	+14-	+14-
5500	0	+4-	+7-	+10-	+13-	+15-	+17-	+18-	+18-
5000	0	+5-	+9-	+13-	+16-	+19-	+21-	+23-	+23-
	3200 6400	3400 6200	3600 6000	3800 5800	4000 5600	4200 5400	4400 5200	4600 5000	4800 4800
	AZIMUTH OF TARGET - MILS								

(U//FOUO)

- (U//FOUO) NOTES -
1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.
  2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.
  3. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.
  4. CORRECTIONS ARE FOR 0 DEGREES LATITUDE. FOR OTHER LATITUDES  
MULTIPLY CORRECTIONS BY THE FACTOR GIVEN BELOW.

(U//FOUO)

LATITUDE (DEG)	10	20	30	40	50	60	70
MULTIPLY BY	.98	.94	.87	.77	.64	.50	.34

(U//FOUO)

CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

0 DEGREES LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4000	R0.1L	R0.1L	0.0	0.0	0.0	0.0	0.0	L0.1R	L0.1R
4500	R0.1L	R0.1L	R0.1L	0.0	0.0	0.0	L0.1R	L0.1R	L0.1R
5000	R0.1L	R0.1L	R0.1L	0.0	0.0	0.0	L0.1R	L0.1R	L0.1R
5500	R0.1L	R0.1L	R0.1L	R0.1L	0.0	L0.1R	L0.1R	L0.1R	L0.1R
6000	R0.2L	R0.2L	R0.2L	R0.1L	0.0	L0.1R	L0.1R	L0.2R	L0.2R
6500	R0.2L	R0.2L	R0.2L	R0.1L	0.0	L0.1R	L0.2R	L0.2R	L0.2R
7000	R0.3L	R0.2L	R0.2L	R0.1L	0.0	L0.1R	L0.2R	L0.2R	L0.3R
7500	R0.3L	R0.3L	R0.2L	R0.1L	0.0	L0.1R	L0.2R	L0.3R	L0.3R
8000	R0.4L	R0.4L	R0.3L	R0.2L	0.0	L0.2R	L0.3R	L0.4R	L0.4R
8500	R0.6L	R0.5L	R0.4L	R0.2L	0.0	L0.2R	L0.4R	L0.5R	L0.6R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
8500	R1.6L	R1.5L	R1.1L	R0.6L	0.0	L0.6R	L1.1R	L1.5R	L1.6R
8000	R2.0L	R1.8L	R1.4L	R0.8L	0.0	L0.8R	L1.4R	L1.8R	L2.0R
7500	R2.3L	R2.2L	R1.7L	R0.9L	0.0	L0.9R	L1.7R	L2.2R	L2.3R
7000	R2.7L	R2.5L	R1.9L	R1.0L	0.0	L1.0R	L1.9R	L2.5R	L2.7R
6500	R3.0L	R2.8L	R2.2L	R1.2L	0.0	L1.2R	L2.2R	L2.8R	L3.0R
6000	R3.4L	R3.2L	R2.4L	R1.3L	0.0	L1.3R	L2.4R	L3.2R	L3.4R
5500	R3.8L	R3.5L	R2.7L	R1.5L	0.0	L1.5R	L2.7R	L3.5R	L3.8R
5000	R4.2L	R3.9L	R3.0L	R1.6L	0.0	L1.6R	L3.0R	L3.9R	L4.2R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
	AZIMUTH OF TARGET - MILS								

(U//FOUO)

0 DEGREES LATITUDE

(U//FOUO)

- NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
 2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
 3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.  
 4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

10 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1500	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
2000	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
2500	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
3000	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.2R	L0.2R
3500	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.2R	L0.2R	L0.2R	L0.2R
4000	L0.1R	L0.1R	L0.1R	L0.1R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
4500	L0.1R	L0.1R	L0.1R	L0.2R	L0.2R	L0.2R	L0.2R	L0.3R	L0.3R
5000	L0.1R	L0.1R	L0.1R	L0.2R	L0.2R	L0.3R	L0.3R	L0.3R	L0.3R
5500	L0.1R	L0.1R	L0.1R	L0.2R	L0.2R	L0.3R	L0.3R	L0.4R	L0.4R
6000	L0.1R	L0.1R	L0.1R	L0.2R	L0.3R	L0.3R	L0.4R	L0.4R	L0.4R
6500	L0.1R	L0.1R	L0.1R	L0.2R	L0.3R	L0.4R	L0.4R	L0.5R	L0.5R
7000	L0.1R	L0.1R	L0.1R	L0.2R	L0.3R	L0.4R	L0.5R	L0.6R	L0.6R
7500	0.0	0.0	L0.1R	L0.2R	L0.4R	L0.5R	L0.6R	L0.7R	L0.7R
8000	0.0	0.0	L0.1R	L0.2R	L0.4R	L0.6R	L0.7R	L0.8R	L0.8R
8500	R0.1L	R0.1L	0.0	L0.2R	L0.4R	L0.7R	L0.8R	L1.0R	L1.0R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
8500	R1.0L	R0.9L	R0.5L	0.0	L0.6R	L1.2R	L1.7R	L2.1R	L2.2R
8000	R1.3L	R1.2L	R0.7L	R0.1L	L0.7R	L1.4R	L2.0R	L2.5R	L2.6R
7500	R1.6L	R1.5L	R1.0L	R0.2L	L0.7R	L1.6R	L2.3R	L2.8R	L3.0R
7000	R2.0L	R1.8L	R1.2L	R0.3L	L0.7R	L1.7R	L2.6R	L3.1R	L3.3R
6500	R2.3L	R2.1L	R1.4L	R0.5L	L0.7R	L1.8R	L2.8R	L3.5R	L3.7R
6000	R2.7L	R2.4L	R1.7L	R0.6L	L0.7R	L2.0R	L3.1R	L3.8R	L4.1R
5500	R3.0L	R2.7L	R1.9L	R0.7L	L0.7R	L2.1R	L3.4R	L4.2R	L4.4R
5000	R3.4L	R3.1L	R2.2L	R0.9L	L0.7R	L2.3R	L3.6R	L4.5R	L4.8R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
	AZIMUTH OF TARGET - MILS								

(U//FOUO)

10 DEGREES SOUTH LATITUDE

- (U//FOUO) NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.  
4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

## 20 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1000	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
1500	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
2000	L0.1R	L0.1R	L0.1R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
2500	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
3000	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.3R	L0.3R	L0.3R	L0.3R
3500	L0.2R	L0.2R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R
4000	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.4R	L0.4R	L0.4R
4500	L0.3R	L0.3R	L0.3R	L0.3R	L0.4R	L0.4R	L0.4R	L0.4R	L0.5R
5000	L0.3R	L0.3R	L0.3R	L0.4R	L0.4R	L0.5R	L0.5R	L0.5R	L0.5R
5500	L0.3R	L0.3R	L0.4R	L0.4R	L0.5R	L0.5R	L0.6R	L0.6R	L0.6R
6000	L0.4R	L0.4R	L0.4R	L0.5R	L0.5R	L0.6R	L0.6R	L0.7R	L0.7R
6500	L0.4R	L0.4R	L0.4R	L0.5R	L0.6R	L0.7R	L0.7R	L0.8R	L0.8R
7000	L0.4R	L0.4R	L0.5R	L0.5R	L0.6R	L0.7R	L0.8R	L0.9R	L0.9R
7500	L0.4R	L0.4R	L0.5R	L0.6R	L0.7R	L0.8R	L0.9R	L1.0R	L1.0R
8000	L0.4R	L0.4R	L0.5R	L0.6R	L0.8R	L0.9R	L1.1R	L1.1R	L1.2R
8500	L0.3R	L0.4R	L0.5R	L0.7R	L0.9R	L1.1R	L1.2R	L1.4R	L1.4R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
8500	R0.3L	R0.2L	L0.1R	L0.6R	L1.2R	L1.8R	L2.3R	L2.6R	L2.7R
8000	R0.6L	R0.4L	0.0	L0.6R	L1.3R	L2.0R	L2.6R	L3.0R	L3.2R
7500	R0.9L	R0.7L	R0.2L	L0.5R	L1.3R	L2.2R	L2.9R	L3.4R	L3.5R
7000	R1.2L	R1.0L	R0.4L	L0.4R	L1.4R	L2.3R	L3.1R	L3.7R	L3.9R
6500	R1.5L	R1.3L	R0.7L	L0.3R	L1.4R	L2.5R	L3.4R	L4.0R	L4.2R
6000	R1.8L	R1.6L	R0.9L	L0.2R	L1.4R	L2.6R	L3.7R	L4.4R	L4.6R
5500	R2.2L	R1.9L	R1.1L	0.0	L1.4R	L2.8R	L3.9R	L4.7R	L5.0R
5000	R2.5L	R2.2L	R1.4L	R0.1L	L1.4R	L2.9R	L4.2R	L5.0R	L5.3R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
	AZIMUTH OF TARGET - MILS								

(U//FOUO)

## 20 DEGREES SOUTH LATITUDE

(U//FOUO)

- NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
 2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
 3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.  
 4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

30 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
500	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
1000	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
1500	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
2000	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
2500	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R
3000	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.4R	L0.4R	L0.4R	L0.4R
3500	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.5R
4000	L0.4R	L0.4R	L0.4R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R
4500	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.6R	L0.6R	L0.6R	L0.6R
5000	L0.5R	L0.5R	L0.5R	L0.6R	L0.6R	L0.6R	L0.7R	L0.7R	L0.7R
5500	L0.6R	L0.6R	L0.6R	L0.6R	L0.7R	L0.7R	L0.8R	L0.8R	L0.8R
6000	L0.6R	L0.6R	L0.7R	L0.7R	L0.8R	L0.8R	L0.9R	L0.9R	L0.9R
6500	L0.7R	L0.7R	L0.7R	L0.8R	L0.8R	L0.9R	L1.0R	L1.0R	L1.0R
7000	L0.7R	L0.7R	L0.8R	L0.8R	L0.9R	L1.0R	L1.1R	L1.1R	L1.2R
7500	L0.7R	L0.8R	L0.8R	L0.9R	L1.0R	L1.1R	L1.2R	L1.3R	L1.3R
8000	L0.8R	L0.8R	L0.9R	L1.0R	L1.1R	L1.3R	L1.4R	L1.5R	L1.5R
8500	L0.8R	L0.8R	L0.9R	L1.1R	L1.3R	L1.5R	L1.6R	L1.7R	L1.8R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
8500	L0.4R	L0.5R	L0.8R	L1.3R	L1.8R	L2.3R	L2.8R	L3.1R	L3.2R
8000	L0.1R	L0.3R	L0.7R	L1.2R	L1.9R	L2.5R	L3.1R	L3.5R	L3.6R
7500	R0.1L	L0.1R	L0.5R	L1.2R	L1.9R	L2.7R	L3.4R	L3.8R	L4.0R
7000	R0.4L	R0.2L	L0.3R	L1.1R	L2.0R	L2.9R	L3.6R	L4.1R	L4.3R
6500	R0.6L	R0.4L	L0.1R	L1.0R	L2.0R	L3.0R	L3.9R	L4.4R	L4.6R
6000	R0.9L	R0.7L	R0.1L	L0.9R	L2.0R	L3.2R	L4.1R	L4.8R	L5.0R
5500	R1.3L	R1.0L	R0.3L	L0.8R	L2.0R	L3.3R	L4.4R	L5.1R	L5.3R
5000	R1.6L	R1.3L	R0.5L	L0.6R	L2.0R	L3.4R	L4.6R	L5.4R	L5.6R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
	AZIMUTH OF TARGET - MILS								

(U//FOUO)

30 DEGREES SOUTH LATITUDE

- (U//FOUO) NOTES -
1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.
  2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.
  3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.
  4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

## ROTATION - AZIMUTH

PROJ, HE, M795  
FUZE, PD, M739A1CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

## 40 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
500	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
1000	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
1500	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
2000	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R
2500	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R
3000	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.5R	L0.5R	L0.5R	L0.5R
3500	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.6R	L0.6R	L0.6R
4000	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.7R	L0.7R
4500	L0.6R	L0.6R	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R	L0.8R	L0.8R
5000	L0.7R	L0.7R	L0.7R	L0.8R	L0.8R	L0.8R	L0.8R	L0.9R	L0.9R
5500	L0.8R	L0.8R	L0.8R	L0.8R	L0.9R	L0.9R	L1.0R	L1.0R	L1.0R
6000	L0.8R	L0.9R	L0.9R	L0.9R	L1.0R	L1.0R	L1.1R	L1.1R	L1.1R
6500	L0.9R	L0.9R	L1.0R	L1.0R	L1.1R	L1.1R	L1.2R	L1.2R	L1.2R
7000	L1.0R	L1.0R	L1.0R	L1.1R	L1.2R	L1.3R	L1.3R	L1.4R	L1.4R
7500	L1.1R	L1.1R	L1.1R	L1.2R	L1.3R	L1.4R	L1.5R	L1.6R	L1.6R
8000	L1.1R	L1.1R	L1.2R	L1.3R	L1.5R	L1.6R	L1.7R	L1.8R	L1.8R
8500	L1.2R	L1.2R	L1.3R	L1.5R	L1.6R	L1.8R	L1.9R	L2.0R	L2.1R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
8500	L1.1R	L1.2R	L1.4R	L1.8R	L2.3R	L2.8R	L3.2R	L3.4R	L3.5R
8000	L0.9R	L1.0R	L1.3R	L1.8R	L2.4R	L3.0R	L3.5R	L3.8R	L3.9R
7500	L0.7R	L0.8R	L1.2R	L1.8R	L2.5R	L3.2R	L3.8R	L4.1R	L4.3R
7000	L0.5R	L0.6R	L1.1R	L1.8R	L2.5R	L3.3R	L4.0R	L4.4R	L4.6R
6500	L0.2R	L0.4R	L0.9R	L1.7R	L2.6R	L3.5R	L4.2R	L4.7R	L4.9R
6000	0.0	L0.2R	L0.8R	L1.6R	L2.6R	L3.6R	L4.5R	L5.0R	L5.2R
5500	R0.3L	R0.1L	L0.6R	L1.5R	L2.6R	L3.7R	L4.7R	L5.3R	L5.5R
5000	R0.6L	R0.3L	L0.3R	L1.4R	L2.6R	L3.8R	L4.9R	L5.6R	L5.8R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
	AZIMUTH OF TARGET - MILS								

(U//FOUO)

## 40 DEGREES SOUTH LATITUDE

(U//FOUO)

- NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
 2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
 3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.  
 4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.



CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

50 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
500	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
1000	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
1500	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R
2000	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.4R	L0.4R	L0.4R	L0.4R
2500	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.5R	L0.5R
3000	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.6R	L0.6R
3500	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.7R	L0.7R	L0.7R
4000	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R	L0.8R	L0.8R	L0.8R
4500	L0.8R	L0.8R	L0.8R	L0.8R	L0.8R	L0.9R	L0.9R	L0.9R	L0.9R
5000	L0.9R	L0.9R	L0.9R	L0.9R	L0.9R	L1.0R	L1.0R	L1.0R	L1.0R
5500	L1.0R	L1.0R	L1.0R	L1.0R	L1.0R	L1.1R	L1.1R	L1.1R	L1.1R
6000	L1.1R	L1.1R	L1.1R	L1.1R	L1.2R	L1.2R	L1.2R	L1.3R	L1.3R
6500	L1.1R	L1.2R	L1.2R	L1.2R	L1.3R	L1.3R	L1.4R	L1.4R	L1.4R
7000	L1.2R	L1.3R	L1.3R	L1.4R	L1.4R	L1.5R	L1.5R	L1.6R	L1.6R
7500	L1.3R	L1.4R	L1.4R	L1.5R	L1.6R	L1.6R	L1.7R	L1.8R	L1.8R
8000	L1.5R	L1.5R	L1.5R	L1.6R	L1.7R	L1.8R	L1.9R	L2.0R	L2.0R
8500	L1.6R	L1.6R	L1.7R	L1.8R	L1.9R	L2.1R	L2.2R	L2.3R	L2.3R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
8500	L1.7R	L1.8R	L2.0R	L2.3R	L2.7R	L3.1R	L3.5R	L3.7R	L3.8R
8000	L1.6R	L1.7R	L2.0R	L2.4R	L2.9R	L3.4R	L3.8R	L4.1R	L4.2R
7500	L1.5R	L1.6R	L1.9R	L2.4R	L3.0R	L3.5R	L4.0R	L4.4R	L4.5R
7000	L1.3R	L1.4R	L1.8R	L2.4R	L3.0R	L3.7R	L4.3R	L4.6R	L4.8R
6500	L1.1R	L1.3R	L1.7R	L2.3R	L3.1R	L3.8R	L4.5R	L4.9R	L5.0R
6000	L0.9R	L1.1R	L1.6R	L2.3R	L3.1R	L3.9R	L4.7R	L5.1R	L5.3R
5500	L0.7R	L0.9R	L1.4R	L2.2R	L3.1R	L4.1R	L4.8R	L5.4R	L5.6R
5000	L0.4R	L0.6R	L1.2R	L2.1R	L3.1R	L4.1R	L5.0R	L5.6R	L5.8R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
	AZIMUTH OF TARGET - MILS								

(U//FOUO)

50 DEGREES SOUTH LATITUDE

- (U//FOUO) NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.  
4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

## ROTATION - AZIMUTH

PROJ, HE, M795  
FUZE, PD, M739A1CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

## 60 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
500	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
1000	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
1500	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R
2000	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R
2500	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R
3000	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R
3500	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R
4000	L0.8R	L0.8R	L0.8R	L0.8R	L0.8R	L0.8R	L0.8R	L0.9R	L0.9R
4500	L0.9R	L0.9R	L0.9R	L0.9R	L0.9R	L1.0R	L1.0R	L1.0R	L1.0R
5000	L1.0R	L1.0R	L1.0R	L1.0R	L1.1R	L1.1R	L1.1R	L1.1R	L1.1R
5500	L1.1R	L1.1R	L1.1R	L1.2R	L1.2R	L1.2R	L1.2R	L1.3R	L1.3R
6000	L1.2R	L1.2R	L1.3R	L1.3R	L1.3R	L1.4R	L1.4R	L1.4R	L1.4R
6500	L1.3R	L1.4R	L1.4R	L1.4R	L1.5R	L1.5R	L1.5R	L1.6R	L1.6R
7000	L1.5R	L1.5R	L1.5R	L1.6R	L1.6R	L1.7R	L1.7R	L1.7R	L1.7R
7500	L1.6R	L1.6R	L1.6R	L1.7R	L1.8R	L1.8R	L1.9R	L1.9R	L1.9R
8000	L1.7R	L1.8R	L1.8R	L1.9R	L2.0R	L2.0R	L2.1R	L2.2R	L2.2R
8500	L1.9R	L1.9R	L2.0R	L2.1R	L2.2R	L2.3R	L2.4R	L2.5R	L2.5R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
8500	L2.3R	L2.3R	L2.5R	L2.8R	L3.1R	L3.4R	L3.7R	L3.8R	L3.9R
8000	L2.3R	L2.3R	L2.5R	L2.9R	L3.2R	L3.6R	L4.0R	L4.2R	L4.2R
7500	L2.2R	L2.3R	L2.5R	L2.9R	L3.4R	L3.8R	L4.2R	L4.4R	L4.5R
7000	L2.1R	L2.2R	L2.5R	L2.9R	L3.4R	L3.9R	L4.4R	L4.7R	L4.8R
6500	L2.0R	L2.1R	L2.4R	L2.9R	L3.5R	L4.1R	L4.6R	L4.9R	L5.0R
6000	L1.8R	L1.9R	L2.3R	L2.9R	L3.5R	L4.2R	L4.7R	L5.1R	L5.2R
5500	L1.6R	L1.8R	L2.2R	L2.8R	L3.5R	L4.3R	L4.9R	L5.3R	L5.4R
5000	L1.4R	L1.6R	L2.0R	L2.7R	L3.5R	L4.3R	L5.0R	L5.4R	L5.6R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
	AZIMUTH OF TARGET - MILS								

(U//FOUO)

## 60 DEGREES SOUTH LATITUDE

(U//FOUO)

- NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
 2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
 3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.  
 4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

70 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
500	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
1000	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
1500	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R
2000	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R
2500	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R
3000	L0.6R	L0.6R	L0.6R	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R
3500	L0.8R	L0.8R	L0.8R	L0.8R	L0.8R	L0.8R	L0.8R	L0.8R	L0.8R
4000	L0.9R	L0.9R	L0.9R	L0.9R	L0.9R	L0.9R	L0.9R	L0.9R	L0.9R
4500	L1.0R	L1.0R	L1.0R	L1.0R	L1.0R	L1.0R	L1.0R	L1.0R	L1.1R
5000	L1.1R	L1.1R	L1.1R	L1.1R	L1.2R	L1.2R	L1.2R	L1.2R	L1.2R
5500	L1.2R	L1.2R	L1.3R	L1.3R	L1.3R	L1.3R	L1.3R	L1.3R	L1.3R
6000	L1.4R	L1.4R	L1.4R	L1.4R	L1.4R	L1.5R	L1.5R	L1.5R	L1.5R
6500	L1.5R	L1.5R	L1.5R	L1.6R	L1.6R	L1.6R	L1.6R	L1.6R	L1.7R
7000	L1.6R	L1.7R	L1.7R	L1.7R	L1.7R	L1.8R	L1.8R	L1.8R	L1.8R
7500	L1.8R	L1.8R	L1.8R	L1.9R	L1.9R	L2.0R	L2.0R	L2.0R	L2.0R
8000	L2.0R	L2.0R	L2.0R	L2.1R	L2.1R	L2.2R	L2.2R	L2.3R	L2.3R
8500	L2.2R	L2.2R	L2.2R	L2.3R	L2.4R	L2.5R	L2.5R	L2.6R	L2.6R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
8500	L2.8R	L2.8R	L3.0R	L3.1R	L3.4R	L3.6R	L3.8R	L3.9R	L3.9R
8000	L2.8R	L2.9R	L3.0R	L3.3R	L3.5R	L3.8R	L4.0R	L4.2R	L4.2R
7500	L2.8R	L2.9R	L3.1R	L3.3R	L3.6R	L3.9R	L4.2R	L4.4R	L4.4R
7000	L2.8R	L2.9R	L3.1R	L3.4R	L3.7R	L4.1R	L4.4R	L4.6R	L4.6R
6500	L2.7R	L2.8R	L3.0R	L3.4R	L3.8R	L4.2R	L4.5R	L4.7R	L4.8R
6000	L2.6R	L2.7R	L3.0R	L3.4R	L3.8R	L4.3R	L4.6R	L4.9R	L5.0R
5500	L2.5R	L2.6R	L2.9R	L3.3R	L3.8R	L4.3R	L4.7R	L5.0R	L5.1R
5000	L2.4R	L2.5R	L2.8R	L3.3R	L3.8R	L4.4R	L4.8R	L5.1R	L5.2R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
	AZIMUTH OF TARGET - MILS								

(U//FOUO)

70 DEGREES SOUTH LATITUDE

- (U//FOUO) NOTES -
1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.
  2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.
  3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.
  4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

## FUZE CORRECTION FACTORS

PROJ, HE, M795  
FUZE, MTSQ, M582

(U//FOUO)

1	2	3	4	5	6	7	8	9	10	11
FS	FUZE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
0										
1										
2	-.005	0.005	0.000	0.000	0.000	0.001	0.000	0.000	0.009	-.009
3	-.008	0.008	0.000	0.000	-.001	0.001	0.000	0.000	0.014	-.014
4	-.010	0.010	0.000	0.001	-.002	0.002	0.001	-.001	0.017	-.018
5	-.012	0.012	-.001	0.001	-.002	0.003	0.001	-.001	0.021	-.021
6	-.015	0.014	-.001	0.001	-.003	0.003	0.001	-.001	0.024	-.025
7	-.017	0.016	-.001	0.002	-.004	0.005	0.002	-.002	0.027	-.028
8	-.019	0.018	-.002	0.002	-.006	0.006	0.002	-.002	0.030	-.031
9	-.020	0.020	-.002	0.003	-.007	0.007	0.003	-.003	0.033	-.034
10	-.022	0.022	-.003	0.003	-.009	0.008	0.003	-.003	0.036	-.036
11	-.024	0.023	-.003	0.004	-.010	0.010	0.004	-.004	0.038	-.039
12	-.026	0.025	-.004	0.004	-.012	0.011	0.005	-.004	0.040	-.041
13	-.027	0.027	-.004	0.005	-.014	0.013	0.005	-.005	0.042	-.044
14	-.029	0.028	-.005	0.005	-.016	0.014	0.006	-.005	0.045	-.046
15	-.031	0.030	-.006	0.006	-.018	0.016	0.006	-.006	0.047	-.048
16	-.032	0.031	-.006	0.006	-.019	0.018	0.007	-.007	0.049	-.051
17	-.034	0.032	-.007	0.007	-.021	0.019	0.008	-.007	0.051	-.053
18	-.035	0.034	-.008	0.008	-.023	0.020	0.008	-.008	0.053	-.055
19	-.037	0.035	-.008	0.008	-.025	0.022	0.009	-.009	0.055	-.057
20	-.039	0.037	-.009	0.009	-.027	0.023	0.010	-.009	0.057	-.059
21	-.040	0.038	-.010	0.009	-.029	0.025	0.011	-.010	0.059	-.061
22	-.042	0.040	-.010	0.010	-.031	0.026	0.011	-.011	0.061	-.064
23	-.044	0.041	-.011	0.010	-.033	0.027	0.012	-.012	0.063	-.066
24	-.045	0.043	-.011	0.011	-.034	0.028	0.013	-.013	0.065	-.068
25	-.047	0.044	-.012	0.011	-.036	0.029	0.014	-.013	0.067	-.071
26	-.049	0.046	-.013	0.011	-.038	0.030	0.015	-.014	0.069	-.073
27	-.051	0.047	-.013	0.012	-.039	0.031	0.016	-.015	0.071	-.075
28	-.052	0.049	-.014	0.012	-.041	0.032	0.017	-.016	0.074	-.077
29	-.054	0.051	-.014	0.012	-.042	0.033	0.018	-.017	0.076	-.079
30	-.056	0.053	-.015	0.013	-.043	0.033	0.019	-.018	0.078	-.082
31	-.058	0.054	-.015	0.013	-.044	0.034	0.020	-.019	0.080	-.084
32	-.060	0.056	-.015	0.013	-.045	0.035	0.021	-.020	0.082	-.087
33	-.062	0.058	-.016	0.014	-.046	0.035	0.022	-.022	0.084	-.089
34	-.064	0.060	-.016	0.014	-.047	0.036	0.024	-.023	0.087	-.092
35	-.066	0.061	-.016	0.014	-.047	0.037	0.025	-.024	0.089	-.094

(U//FOUO)

1	2	3	4	5	6	7	8	9	10	11
FS	FUZE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
35	<i>-.066</i>	0.061	<i>-.016</i>	0.014	<i>-.047</i>	0.037	0.025	<i>-.024</i>	0.089	<i>-.094</i>
36	<i>-.068</i>	0.063	<i>-.017</i>	0.014	<i>-.048</i>	0.037	0.026	<i>-.025</i>	0.091	<i>-.096</i>
37	<i>-.070</i>	0.065	<i>-.017</i>	0.014	<i>-.049</i>	0.038	0.027	<i>-.026</i>	0.094	<i>-.099</i>
38	<i>-.072</i>	0.067	<i>-.017</i>	0.015	<i>-.050</i>	0.038	0.028	<i>-.027</i>	0.096	<i>-.101</i>
39	<i>-.074</i>	0.069	<i>-.017</i>	0.015	<i>-.051</i>	0.039	0.029	<i>-.028</i>	0.098	<i>-.104</i>
40	<i>-.076</i>	0.071	<i>-.018</i>	0.015	<i>-.052</i>	0.039	0.031	<i>-.029</i>	0.101	<i>-.106</i>
41	<i>-.078</i>	0.072	<i>-.018</i>	0.015	<i>-.052</i>	0.040	0.032	<i>-.031</i>	0.103	<i>-.109</i>
42	<i>-.080</i>	0.074	<i>-.018</i>	0.015	<i>-.053</i>	0.040	0.033	<i>-.032</i>	0.105	<i>-.112</i>
43	<i>-.082</i>	0.076	<i>-.018</i>	0.015	<i>-.054</i>	0.041	0.034	<i>-.033</i>	0.108	<i>-.114</i>
44	<i>-.084</i>	0.078	<i>-.018</i>	0.016	<i>-.055</i>	0.041	0.035	<i>-.034</i>	0.110	<i>-.117</i>
45	<i>-.086</i>	0.080	<i>-.018</i>	0.016	<i>-.055</i>	0.042	0.037	<i>-.035</i>	0.113	<i>-.120</i>
46	<i>-.088</i>	0.082	<i>-.019</i>	0.016	<i>-.056</i>	0.042	0.038	<i>-.036</i>	0.115	<i>-.123</i>
47	<i>-.090</i>	0.084	<i>-.019</i>	0.016	<i>-.057</i>	0.043	0.039	<i>-.037</i>	0.118	<i>-.126</i>
48	<i>-.092</i>	0.086	<i>-.019</i>	0.016	<i>-.057</i>	0.043	0.040	<i>-.038</i>	0.120	<i>-.129</i>
49	<i>-.094</i>	0.088	<i>-.019</i>	0.016	<i>-.058</i>	0.044	0.041	<i>-.040</i>	0.123	<i>-.132</i>
50	<i>-.097</i>	0.090	<i>-.019</i>	0.016	<i>-.058</i>	0.044	0.042	<i>-.041</i>	0.125	<i>-.135</i>
51	<i>-.099</i>	0.092	<i>-.018</i>	0.016	<i>-.059</i>	0.044	0.044	<i>-.042</i>	0.128	<i>-.138</i>
52	<i>-.101</i>	0.094	<i>-.018</i>	0.016	<i>-.060</i>	0.045	0.045	<i>-.043</i>	0.131	<i>-.141</i>
53	<i>-.103</i>	0.096	<i>-.018</i>	0.016	<i>-.060</i>	0.045	0.046	<i>-.044</i>	0.135	<i>-.144</i>
54	<i>-.105</i>	0.098	<i>-.018</i>	0.016	<i>-.061</i>	0.046	0.047	<i>-.045</i>	0.138	<i>-.148</i>
55	<i>-.107</i>	0.100	<i>-.018</i>	0.016	<i>-.061</i>	0.046	0.048	<i>-.046</i>	0.141	<i>-.151</i>
56	<i>-.110</i>	0.102	<i>-.018</i>	0.016	<i>-.062</i>	0.047	0.049	<i>-.047</i>	0.145	<i>-.154</i>
57	<i>-.112</i>	0.105	<i>-.017</i>	0.016	<i>-.062</i>	0.047	0.051	<i>-.049</i>	0.149	<i>-.158</i>
58	<i>-.114</i>	0.107	<i>-.017</i>	0.016	<i>-.063</i>	0.047	0.052	<i>-.050</i>	0.154	<i>-.161</i>
59	<i>-.116</i>	0.109	<i>-.017</i>	0.017	<i>-.063</i>	0.047	0.053	<i>-.051</i>	0.159	<i>-.166</i>
60	<i>-.119</i>	0.111	<i>-.017</i>		<i>-.063</i>	0.048	0.054	<i>-.052</i>	0.165	<i>-.171</i>
61	<i>-.121</i>	0.114	<i>-.018</i>		<i>-.063</i>	0.047	0.057	<i>-.054</i>	0.173	<i>-.179</i>

(U//FOUO)

FUZE SETTING

CORRECTIONS TO FUZE SETTING OF FUZE, MTSQ, M582  
FOR FUZE, MTSQ, M564

(U//FOUO)

FUZE SETTING FUZE M582		CORRECTIONS
FROM	TO	
1.8	27.3	-0.1
27.4	58.0	-0.2
58.1	61.8	-0.3

(U//FOUO)

**(U//FOUO)**

(U//FOUO) Part 1

(U//FOUO) Charge 4W

(U//FOUO) Projectile, HE, M795

(U//FOUO) Fuze, PD, M739A1

(U//FOUO) Muzzle Velocity – 320 M/S

(U//FOUO) Propelling Charge M4A2 - Base and Increment 4

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(U//FOUO)

LINE NUMBER OF METEOROLOGICAL MESSAGE

QUADRANT ELEVATION MILS	LINE NUMBER
0.0- 145.0	0
145.1- 278.0	1
278.1- 418.5	2
418.6- 557.5	3
557.6- 680.9	4
681.0- 857.6	5
857.7- 1114.9	6
1115.0- 1300.0	7

(U//FOUO)

(U//FOUO) NOTE - WHEN THE PROJECTILE MUST HIT THE TARGET ON THE ASCENDING BRANCH OF ITS TRAJECTORY, USE HEIGHT OF TARGET IN METERS TO ENTER THE TABLE ON PAGE XL TO DETERMINE LINE NUMBER.

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

## LINE NUMBERS OF METEOROLOGICAL MESSAGE

LINE NO.	RANGE METERS	HEIGHT OF TARGET ABOVE GUN - METERS							
		-400	-300	-200	-100	0	100	200	300
0	0					0			
	100					0	0	0	1
	200					0	1	2	4
	300					0	1	3	5
	400					0	2	4	7
	500					0	2	5	8
	600					0	2	6	9
	700					0	3	6	10
	800					0	3	7	12
	900					0	4	8	13
	1000					0	4	9	14
	1100					0	4	9	15
	1200					0	5	10	16
	1300					0	5	11	17
	1400					0	6	12	19
	1500				-5	0	6	13	20
	1600				-6	0	6	13	21
	1700				-6	0	7	14	22
	1800				-7	0	7	15	23
	1900				-7	0	8	16	25
	2000			-14	-7	0	8	17	26
	2100			-15	-8	0	8	18	27
	2200			-16	-8	0	9	18	29
	2300			-17	-9	0	9	19	30
	2400		-25	-17	-9	0	10	20	31
	2500		-26	-18	-9	0	10	21	33
	2600		-28	-19	-10	0	11	22	34
	2700		-29	-20	-10	0	11	23	35
	2800	-39	-30	-21	-11	0	12	24	37
	2900	-41	-32	-22	-11	0	12	25	38
	3000	-43	-33	-23	-12	0	13	26	40
	3100	-45	-35	-24	-12	0	13	27	41
	3200	-47	-36	-25	-13	0	14	28	43
	3300	-48	-37	-26	-13	0	14	29	44
	3400	-50	-39	-27	-14	0	15	30	46
	3500	-52	-40	-28	-14	0	15	31	48
0					1				2

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

LINE NUMBERS OF METEOROLOGICAL MESSAGE

HEIGHT OF TARGET ABOVE GUN - METERS							RANGE	LINE
400	500	600	700	800	900	1000	METERS	NO.
							0	3
2							100	
5	7	9	11	13	14		200	
7	10	12	15	18	21	24	300	
10	13	16	19	23	27	30	400	
11	15	19	23	28	32	37	500	
13	17	22	27	32	37	42	600	
15	20	25	30	36	42	48	700	
16	22	27	33	40	46	53	800	
18	24	30	36	43	50	58	900	
20	26	32	39	47	55	63	1000	
21	28	35	42	50	59	67	1100	
23	30	37	45	54	63	72	1200	
24	32	40	48	57	67	77	1300	
26	34	42	51	61	71	81	1400	
28	36	45	54	64	75	86	1500	
29	38	47	57	68	79	90	1600	
31	40	50	60	71	83	95	1700	
32	42	52	63	75	87	100	1800	
34	44	55	66	78	91	104	1900	
36	46	58	70	82	95	109	2000	
38	49	60	73	86	100	114	2100	
39	51	63	76	90	104	119	2200	
41	53	66	79	93	108	124	2300	
43	55	69	83	97	113	129	2400	
45	58	71	86	101	117	134	2500	
47	60	74	89	105	122	139	2600	
49	63	77	93	109	126	144	2700	
51	65	80	96	113	131	150	2800	
53	68	83	100	118	136	155	2900	
55	70	86	104	122	141	161	3000	
57	73	90	107	126	146	166	3100	
59	75	93	111	131	151	172	3200	
61	78	96	115	135	156	178	3300	
63	81	99	119	140	161	184	3400	
65	84	103	123	144	167	190	3500	
2				3				

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

## LINE NUMBERS OF METEOROLOGICAL MESSAGE

LINE NO.	RANGE METERS	HEIGHT OF TARGET ABOVE GUN - METERS							
		-400	-300	-200	-100	0	100	200	300
0	3500	-52	-40	-28	-14	0	15	31	48
	3600	-54	-42	-29	-15	0	16	32	49
	3700	-56	-44	-30	-15	0	16	33	51
	3800	-59	-45	-31	-16	0	17	34	53
	3900	-61	-47	-32	-16	0	17	35	54
	4000	-63	-48	-33	-17	0	18	37	56
	4100	-65	-50	-34	-17	0	18	38	58
	4200	-67	-52	-35	-18	0	19	39	60
	4300	-70	-53	-36	-19	0	20	40	62
	4400	-72	-55	-38	-19	0	20	41	64
1	4500	-74	-57	-39	-20	0	21	43	66
	4600	-77	-59	-40	-20	0	22	44	68
	4700	-79	-61	-41	-21	0	22	45	70
	4800	-82	-63	-43	-22	0	23	47	72
	4900	-84	-64	-44	-22	0	24	48	74
	5000	-87	-66	-45	-23	0	24	50	76
	5100	-89	-68	-47	-24	0	25	51	78
	5200	-92	-70	-48	-24	0	26	53	81
	5300	-95	-73	-49	-25	0	27	54	83
	5400	-98	-75	-51	-26	0	27	56	86
	5500	-100	-77	-52	-27	0	28	58	88
	5600	-103	-79	-54	-27	0	29	59	91
	5700	-106	-81	-55	-28	0	30	61	94
	5800	-109	-84	-57	-29	0	31	63	97
2	5900	-112	-86	-59	-30	0	32	65	100
	6000	-116	-89	-60	-31	0	33	67	103
	6100	-119	-91	-62	-32	0	34	69	106
	6200	-123	-94	-64	-33	0	35	71	109
	6300	-127	-97	-66	-34	0	36	73	113
	6400	-131	-100	-69	-35	0	37	76	116
	6500	-135	-103	-71	-36	0	38	78	120
	6600	-139	-107	-73	-37	0	39	81	124
	6700	-143	-110	-75	-38	0	41	83	128
	6800	-148	-113	-77	-40	0	42	86	132
	6900	-152	-117	-80	-41	0	43	89	137
	7000	-157	-121	-82	-42	0	45	92	142
	2	3							

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

LINE NUMBERS OF METEOROLOGICAL MESSAGE

HEIGHT OF TARGET ABOVE GUN - METERS							RANGE	LINE
400	500	600	700	800	900	1000	METERS	NO.
65	84	103	123	144	167	190	3500	3
67	86	106	127	149	172	196	3600	
70	89	110	131	154	178	203	3700	
72	92	113	136	159	184	209	3800	
74	95	117	140	164	189	216	3900	
77	98	121	145	169	195	223	4000	
79	101	125	149	175	202	230	4100	
82	105	129	154	180	208	237	4200	
84	108	133	159	186	214	244	4300	
87	111	137	163	192	221	252	4400	
89	115	141	168	197	228	260	4500	
92	118	145	174	203	235	268	4600	
95	122	150	179	210	242	276	4700	
98	125	154	184	216	249	284	4800	
101	129	159	190	223	257	293	4900	
104	133	164	196	230	265	302	5000	
107	137	169	202	237	273	311	5100	
110	141	174	208	244	282	321	5200	
114	146	179	215	251	290	331	5300	
117	150	185	221	259	299	342	5400	
121	155	191	228	267	309	353	5500	
125	160	197	235	276	319	364	5600	
129	165	203	242	284	329	375	5700	
133	170	209	250	293	339	388	5800	
137	175	215	258	303	350	400	5900	
141	180	222	266	313	362	414	6000	
145	186	229	275	323	374	428	6100	
150	192	236	284	333	387	443	6200	
154	198	244	293	345	400	459	6300	
159	204	252	303	357	415	477	6400	
164	211	261	314	370	430	495	6500	
170	218	270	325	384	447	516	6600	
176	226	280	337	399	465	538	6700	
182	234	290	350	415	486	564	6800	
188	243	301	365	433	509	593	6900	
195	252	314	381	454	535	628	7000	
4					5			

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

## LINE NUMBERS OF METEOROLOGICAL MESSAGE

LINE NO.	RANGE METERS	HEIGHT OF TARGET ABOVE GUN - METERS							
		-400	-300	-200	-100	0	100	200	300
2	7000	-157	-121	-82	-42	0	45	92	142
3	7100	-162	-124	-85	-44	0	46	95	147
	7200	-167	-128	-88	-45	0	48	99	153
	7300	-173	-133	-91	-47	0	50	103	160
	7400	-178	-137	-94	-48	0	52	107	167
	7500	-184	-142	-97	-50	0	54	112	175
	7600	-191	-147	-101	-52	0	56	117	184
	7700	-198	-153	-105	-54	0	59	124	196
	7800	-206	-159	-110	-57	0	62	132	211
	7900	-214	-166	-115	-60	0	66	143	245
	*****								
4	8000	-224	-174	-121	-63	0	72		
	8100	-235	-183	-128	-68	0			
6	8100	-493	-356	-226	-107	0			
	8000	-516	-374	-239	-114	0	101		
	7900	-538	-391	-252	-121	0	110	204	
	7800	-560	-408	-263	-127	0	117	221	310
	7700	-581	-424	-274	-133	0	123	235	334
	7600	-602	-440	-285	-138	0	129	248	355
	7500	-623	-456	-296	-144	0	135	259	374
	7400	-644	-471	-306	-149	0	140	271	391
	7300	-665	-487	-317	-154	0	145	282	408
	7200	-687	-503	-327	-160	0	151	293	425
	7100	-708	-519	-338	-165	0	156	303	441
	7000	-730	-536	-349	-170	0	162	314	457
	6900	-753	-552	-360	-176	0	167	325	474
	6800	-776	-569	-371	-181	0	172	336	490
	6700	-800	-587	-383	-187	0	178	347	506
	6600	-825	-605	-394	-193	0	183	358	523
7	6500	-850	-624	-406	-199	0	189	369	539
	6400	-877	-643	-419	-205	0	195	381	556
	6300	-905	-663	-432	-211	0	201	392	574
	6200	-934	-684	-445	-217	0	207	404	591
	6100	-965	-706	-459	-224	0	213	417	610
	6000	-998	-729	-474	-231	0	220	429	628
	7								

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

LINE NUMBERS OF METEOROLOGICAL MESSAGE

HEIGHT OF TARGET ABOVE GUN - METERS							RANGE	LINE
400	500	600	700	800	900	1000	METERS	NO.
195	252	314	381	454	535	628	7000	5
203	263	328	399	477	567	674	7100	
211	274	343	420	506	608	746	7200	
221	288	361	445	543	673		7300	
231	303	383	477	602			7400	
244	321	412	531				7500	
259	346	460					7600	
279	388						7700	
317							7800	
							7900	
							8000	
							8100	
*****	*****	*****	*****	*****	*****	*****	*****	
							8100	
							8000	
367							7900	6
416	467						7800	
449	524	567					7700	
							7600	
476	564	633					7500	
501	598	680	741				7400	
524	629	720	795	849			7300	
547	658	757	842	911	956		7200	
569	686	792	885	964	1025	1062	7100	
591	714	826	926	1013	1085	1138	7000	
613	741	859	966	1060	1141	1205	6900	
634	769	892	1005	1106	1193	1267	6800	
656	796	925	1043	1150	1244	1325	6700	
678	823	958	1081	1194	1294	1382	6600	
700	850	990	1119	1237	1343	1437	6500	
722	878	1023	1158	1281	1392	1492	6400	7
745	906	1057	1196	1325	1441	1546	6300	
768	935	1090	1235	1369	1491	1601	6200	
792	964	1125	1275	1413	1540	1655	6100	
816	994	1160	1315	1458	1590	1710	6000	

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

## LINE NUMBERS OF METEOROLOGICAL MESSAGE

LINE NO.	RANGE METERS	HEIGHT OF TARGET ABOVE GUN - METERS							
		-400	-300	-200	-100	0	100	200	300
7	6000	-998	-729	-474	-231	0	220	429	628
	5900	-1033	-753	-489	-239	0	227	443	647
	5800	-1071	-779	-505	-246	0	234	456	667
	5700	-1112	-807	-522	-254	0	241	470	688
	5600	-1157	-837	-541	-263	0	249	485	709
	5500	-1208	-869	-560	-272	0	257	500	731
	5400		-905	-581	-281	0	265	516	754
	5300		-945	-604	-292	0	274	533	777
	5200		-991	-629	-303	0	283	550	802
	5100			-657	-315	0	293	569	828
	5000			-688	-328	0	303	588	856
	4900			-724	-342	0	315	609	885
	4800				-358	0	327	631	915
	4700				-376	0	340	654	948
	4600				-396	0	354	679	982
	4500					0	369	706	1018
	4400					0	385	735	1057
	4300					0	404	766	1099
	4200					0	424	800	1144
	4100								1192
	4000								

7

(U//FOUO)



CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

LINE NUMBERS OF METEOROLOGICAL MESSAGE

HEIGHT OF TARGET ABOVE GUN - METERS							RANGE	L I N E
400	500	600	700	800	900	1000	METERS	NO.
816	994	1160	1315	1458	1590	1710	6000	7
841	1024	1196	1356	1504	1641	1766	5900	
867	1055	1232	1398	1551	1693	1822	5800	
893	1087	1270	1440	1599	1745	1879	5700	
921	1120	1308	1484	1648	1799	1937	5600	
949	1155	1348	1529	1698	1854	1997	5500	
978	1190	1389	1575	1749	1910	2057	5400	
1009	1227	1431	1623	1802	1967	2119	5300	
1040	1265	1475	1673	1856	2027	2183	5200	
1074	1304	1521	1724	1913	2088	2248	5100	
1108	1345	1568	1777	1971	2150	2316	5000	
1145	1389	1618	1832	2031	2215	2385	4900	
1183	1434	1669	1889	2093	2283	2457	4800	
1223	1481	1723	1948	2158	2352	2531	4700	
1265	1531	1779	2011	2226	2424	2607	4600	
1310	1583	1838	2076	2296	2500	2686	4500	
1358	1638	1900	2144	2369	2578	2768	4400	
1409	1697	1965	2215	2446	2659	2854	4300	
1462	1759	2034	2290	2526	2744	2943	4200	
1520	1824	2107	2369	2611	2833	3035	4100	
			2452	2699	2925	3132	4000	
7								

(U//FOUO)

## WIND COMPONENTS

PROJ, HE, M795  
FUZE, PD, M739A1

(U//FOUO) COMPONENTS OF A ONE KNOT WIND

CHART DIRECTION OF WIND	CROSS WIND	RANGE WIND	CHART DIRECTION OF WIND	CROSS WIND	RANGE WIND
MIL	KNOT	KNOT	MIL	KNOT	KNOT
0	0	H1.00	3200	0	T1.00
100	R. 10	H. 99	3300	L. 10	T. 99
200	R. 20	H. 98	3400	L. 20	T. 98
300	R. 29	H. 96	3500	L. 29	T. 96
400	R. 38	H. 92	3600	L. 38	T. 92
500	R. 47	H. 88	3700	L. 47	T. 88
600	R. 56	H. 83	3800	L. 56	T. 83
700	R. 63	H. 77	3900	L. 63	T. 77
800	R. 71	H. 71	4000	L. 71	T. 71
900	R. 77	H. 63	4100	L. 77	T. 63
1000	R. 83	H. 56	4200	L. 83	T. 56
1100	R. 88	H. 47	4300	L. 88	T. 47
1200	R. 92	H. 38	4400	L. 92	T. 38
1300	R. 96	H. 29	4500	L. 96	T. 29
1400	R. 98	H. 20	4600	L. 98	T. 20
1500	R. 99	H. 10	4700	L. 99	T. 10
1600	R1.00	0	4800	L1.00	0
1700	R. 99	T. 10	4900	L. 99	H. 10
1800	R. 98	T. 20	5000	L. 98	H. 20
1900	R. 96	T. 29	5100	L. 96	H. 29
2000	R. 92	T. 38	5200	L. 92	H. 38
2100	R. 88	T. 47	5300	L. 88	H. 47
2200	R. 83	T. 56	5400	L. 83	H. 56
2300	R. 77	T. 63	5500	L. 77	H. 63
2400	R. 71	T. 71	5600	L. 71	H. 71
2500	R. 63	T. 77	5700	L. 63	H. 77
2600	R. 56	T. 83	5800	L. 56	H. 83
2700	R. 47	T. 88	5900	L. 47	H. 88
2800	R. 38	T. 92	6000	L. 38	H. 92
2900	R. 29	T. 96	6100	L. 29	H. 96
3000	R. 20	T. 98	6200	L. 20	H. 98
3100	R. 10	T. 99	6300	L. 10	H. 99
3200	0	T1.00	6400	0	H1.00

(U//FOUO)

(U//FOUO)

NOTE - FOR A COMPLETE EXPLANATION OF THE USE OF THIS TABLE, SEE PARAGRAPH 12, EXPLANATION OF COMPONENTS OF A ONE KNOT WIND.

CORRECTIONS TO TEMPERATURE (DT) AND DENSITY (DD), IN PERCENT,  
TO COMPENSATE FOR THE DIFFERENCE IN ALTITUDE,  
(U//FOUO) IN METERS, BETWEEN THE BATTERY AND THE MDP

DH		0	+10-	+20-	+30-	+40-	+50-	+60-	+70-	+80-	+90-
0	DT	0.0	0.0	0.0	-0.1+	-0.1+	-0.1+	-0.1+	-0.2+	-0.2+	-0.2+
	DD	0.0	-0.1+	-0.2+	-0.3+	-0.4+	-0.5+	-0.6+	-0.7+	-0.8+	-0.9+
+100-	DT	-0.2+	-0.2+	-0.2+	-0.3+	-0.3+	-0.3+	-0.3+	-0.4+	-0.4+	-0.4+
	DD	-1.0+	-1.1+	-1.2+	-1.3+	-1.4+	-1.5+	-1.6+	-1.7+	-1.8+	-1.9+
+200-	DT	-0.5+	-0.5+	-0.5+	-0.6+	-0.6+	-0.6+	-0.6+	-0.7+	-0.7+	-0.7+
	DD	-2.0+	-2.1+	-2.2+	-2.3+	-2.4+	-2.5+	-2.6+	-2.7+	-2.8+	-2.9+
+300-	DT	-0.7+	-0.7+	-0.7+	-0.8+	-0.8+	-0.8+	-0.8+	-0.9+	-0.9+	-0.9+
	DD	-3.0+	-3.1+	-3.2+	-3.3+	-3.4+	-3.5+	-3.6+	-3.7+	-3.8+	-3.9+

(U//FOUO)

- (U//FOUO) NOTES - 1. DH IS BATTERY HEIGHT ABOVE OR BELOW THE MDP.  
2. IF ABOVE THE MDP, USE THE SIGN BEFORE THE NUMBER.  
3. IF BELOW THE MDP, USE THE SIGN AFTER THE NUMBER.

(U//FOUO) TABLE E

(U//FOUO) PROPELLANT TEMPERATURE  
EFFECTS ON MUZZLE VELOCITY DUE TO PROPELLANT TEMPERATURE

TEMPERATURE OF PROPELLANT  DEGREES F	EFFECT ON VELOCITY  M/S	TEMPERATURE OF PROPELLANT  DEGREES C
-40 -30 -20 -10	-4.8 -4.4 -4.0 -3.6	-40.0 -34.4 -28.9 -23.3
0	-3.1	-17.8
10 20 30 40	-2.7 -2.3 -1.8 -1.4	-12.2 -6.7 -1.1 4.4
50	-0.9	10.0
60 70 80 90	-0.5 0.0 0.5 1.0	15.6 21.1 26.7 32.2
100	1.5	37.8
110 120 130	2.0 2.5 3.0	43.3 48.9 54.4

(U//FOUO)

## BASIC DATA

PROJ, HE, M795  
FUZE, PD, M739A1

(U//FOUO)

1	2	3	4	5	6	7	8	9
R A N G E	E L E V	FS FOR GRAZE BURST	DFS PER 10 M DEC HOB	DR PER 1 MIL D ELEV	F O R K	TIME OF FLIGHT	AZIMUTH CORRECTIONS	
		FUZE M582					DRIFT (CORR TO L)	CW OF 1 KNOT
M	MIL			M	MIL	SEC	MIL	MIL
0	0.0			20	1	0.0	0.0	0.00
100	5.0			20	1	0.3	0.1	0.01
200	9.9			20	1	0.6	0.2	0.01
300	14.9			20	1	0.9	0.2	0.02
400	19.9			20	1	1.3	0.3	0.02
500	24.9			20	1	1.6	0.4	0.02
600	30.0	1.9	1.07	20	1	1.9	0.5	0.03
700	35.1	2.2	0.92	19	1	2.2	0.6	0.03
800	40.3	2.6	0.80	19	1	2.6	0.7	0.04
900	45.5	2.9	0.71	19	1	2.9	0.8	0.04
1000	50.7	3.2	0.64	19	1	3.2	0.9	0.05
1100	56.0	3.5	0.58	19	1	3.5	1.0	0.05
1200	61.3	3.9	0.53	19	1	3.9	1.1	0.06
1300	66.7	4.2	0.49	19	1	4.2	1.2	0.06
1400	72.1	4.6	0.45	18	2	4.6	1.3	0.06
1500	77.5	4.9	0.42	18	2	4.9	1.4	0.07
1600	83.0	5.2	0.39	18	2	5.2	1.5	0.07
1700	88.5	5.6	0.37	18	2	5.6	1.6	0.08
1800	94.0	5.9	0.35	18	2	5.9	1.7	0.08
1900	99.6	6.3	0.33	18	2	6.3	1.8	0.08
2000	105.3	6.6	0.31	18	2	6.6	1.9	0.09
2100	111.0	7.0	0.30	18	2	7.0	2.0	0.09
2200	116.7	7.3	0.28	17	2	7.3	2.1	0.09
2300	122.5	7.7	0.27	17	2	7.7	2.2	0.10
2400	128.3	8.0	0.26	17	2	8.0	2.3	0.10
2500	134.2	8.4	0.25	17	2	8.4	2.4	0.11
2600	140.1	8.7	0.24	17	3	8.7	2.5	0.11
2700	146.0	9.1	0.23	17	3	9.1	2.7	0.11
2800	152.1	9.5	0.22	17	3	9.5	2.8	0.12
2900	158.1	9.8	0.21	16	3	9.8	2.9	0.12
3000	164.2	10.2	0.20	16	3	10.2	3.0	0.12
3100	170.4	10.6	0.20	16	3	10.6	3.2	0.13
3200	176.6	10.9	0.19	16	3	10.9	3.3	0.13
3300	182.9	11.3	0.18	16	3	11.3	3.4	0.14
3400	189.3	11.7	0.18	16	3	11.7	3.5	0.14
3500	195.7	12.1	0.17	16	4	12.1	3.7	0.14

(U//FOUO)

(U//FOUO)

1	10	11	12	13	14	15	16	17	18	19
R A N G E	RANGE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
	M	M	M	M	M	M	M	M	M	M
0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0
100	0.6	-0.6	0.0	0.0	0.0	0.0	0.0	0.0	-1	1
200	1.3	-1.1	0.0	0.0	0.1	-0.1	0.0	0.0	-2	2
300	1.9	-1.7	0.1	-0.1	0.1	-0.1	0.0	0.0	-2	3
400	2.4	-2.2	0.1	-0.1	0.2	-0.2	-0.1	0.1	-3	3
500	3.0	-2.7	0.1	-0.1	0.3	-0.3	-0.1	0.1	-4	4
600	3.6	-3.3	0.2	-0.1	0.4	-0.4	-0.1	0.1	-5	5
700	4.1	-3.8	0.2	-0.2	0.6	-0.5	-0.2	0.2	-5	6
800	4.7	-4.3	0.3	-0.2	0.7	-0.6	-0.2	0.2	-6	6
900	5.2	-4.8	0.4	-0.3	0.9	-0.7	-0.3	0.3	-7	7
1000	5.7	-5.2	0.4	-0.3	1.0	-0.8	-0.3	0.3	-7	8
1100	6.2	-5.7	0.5	-0.4	1.2	-0.9	-0.4	0.4	-8	8
1200	6.7	-6.1	0.6	-0.4	1.4	-1.1	-0.5	0.5	-8	9
1300	7.2	-6.6	0.7	-0.5	1.6	-1.2	-0.6	0.6	-9	9
1400	7.7	-7.0	0.8	-0.5	1.8	-1.4	-0.6	0.6	-10	10
1500	8.2	-7.4	0.9	-0.6	2.1	-1.5	-0.7	0.7	-10	11
1600	8.7	-7.9	1.0	-0.7	2.3	-1.7	-0.8	0.8	-11	11
1700	9.2	-8.3	1.1	-0.7	2.6	-1.8	-0.9	0.9	-11	12
1800	9.6	-8.7	1.3	-0.8	2.8	-2.0	-1.0	1.0	-12	12
1900	10.1	-9.1	1.4	-0.9	3.1	-2.1	-1.1	1.1	-12	13
2000	10.5	-9.5	1.5	-0.9	3.3	-2.3	-1.2	1.2	-13	13
2100	11.0	-9.9	1.6	-1.0	3.6	-2.5	-1.3	1.3	-13	14
2200	11.5	-10.2	1.8	-1.1	3.9	-2.6	-1.4	1.4	-14	14
2300	11.9	-10.6	1.9	-1.2	4.2	-2.8	-1.6	1.5	-14	15
2400	12.4	-11.0	2.0	-1.2	4.5	-2.9	-1.7	1.7	-14	15
2500	12.8	-11.4	2.2	-1.3	4.7	-3.1	-1.8	1.8	-15	16
2600	13.3	-11.8	2.3	-1.4	5.0	-3.2	-1.9	1.9	-15	16
2700	13.7	-12.1	2.5	-1.5	5.3	-3.4	-2.1	2.1	-16	17
2800	14.1	-12.5	2.6	-1.6	5.6	-3.5	-2.2	2.2	-16	17
2900	14.6	-12.9	2.8	-1.6	5.9	-3.7	-2.4	2.4	-17	17
3000	15.0	-13.2	2.9	-1.7	6.2	-3.8	-2.5	2.5	-17	18
3100	15.5	-13.6	3.1	-1.8	6.4	-4.0	-2.7	2.7	-17	18
3200	15.9	-14.0	3.2	-1.9	6.7	-4.1	-2.8	2.8	-18	19
3300	16.4	-14.3	3.4	-2.0	7.0	-4.3	-3.0	3.0	-18	19
3400	16.8	-14.7	3.5	-2.0	7.3	-4.4	-3.1	3.2	-19	19
3500	17.2	-15.0	3.7	-2.1	7.5	-4.5	-3.3	3.3	-19	20

(U//FOUO)

## BASIC DATA

PROJ, HE, M795  
FUZE, PD, M739A1

(U//FOUO)

1	2	3	4	5	6	7	8	9
R A N G E	E L E V	FS FOR GRAZE BURST	DFS PER 10 M DEC HOB	DR PER 1 MIL D ELEV	F O R K	TIME OF FLIGHT	AZIMUTH CORRECTIONS	
		FUZE M582					DRIFT (CORR TO L)	CW OF 1 KNOT
M	MIL			M	MIL	SEC	MIL	MIL
3500	195.7	12.1	0.17	16	4	12.1	3.7	0.14
3600	202.1	12.5	0.17	15	4	12.5	3.8	0.15
3700	208.7	12.9	0.16	15	4	12.9	3.9	0.15
3800	215.3	13.3	0.16	15	4	13.3	4.1	0.15
3900	222.0	13.7	0.15	15	4	13.7	4.2	0.16
4000	228.7	14.0	0.15	15	4	14.0	4.4	0.16
4100	235.5	14.4	0.15	15	4	14.4	4.5	0.17
4200	242.4	14.9	0.14	14	4	14.9	4.7	0.17
4300	249.4	15.3	0.14	14	5	15.3	4.8	0.17
4400	256.5	15.7	0.13	14	5	15.7	5.0	0.18
4500	263.6	16.1	0.13	14	5	16.1	5.1	0.18
4600	270.8	16.5	0.13	14	5	16.5	5.3	0.19
4700	278.2	16.9	0.12	14	5	16.9	5.5	0.19
4800	285.6	17.4	0.12	13	5	17.4	5.6	0.19
4900	293.1	17.8	0.12	13	6	17.8	5.8	0.20
5000	300.8	18.2	0.12	13	6	18.2	6.0	0.20
5100	308.5	18.7	0.11	13	6	18.7	6.2	0.21
5200	316.4	19.1	0.11	13	6	19.1	6.3	0.21
5300	324.4	19.6	0.11	12	6	19.6	6.5	0.21
5400	332.5	20.0	0.11	12	7	20.0	6.7	0.22
5500	340.8	20.5	0.10	12	7	20.5	6.9	0.22
5600	349.2	21.0	0.10	12	7	21.0	7.1	0.23
5700	357.8	21.5	0.10	12	7	21.5	7.3	0.23
5800	366.5	22.0	0.10	11	8	22.0	7.6	0.24
5900	375.4	22.4	0.09	11	8	22.4	7.8	0.24
6000	384.5	23.0	0.09	11	8	23.0	8.0	0.24
6100	393.8	23.5	0.09	11	9	23.5	8.2	0.25
6200	403.4	24.0	0.09	10	9	24.0	8.5	0.25
6300	413.1	24.5	0.09	10	9	24.5	8.7	0.26
6400	423.1	25.1	0.09	10	10	25.1	9.0	0.26
6500	433.4	25.6	0.08	10	10	25.6	9.3	0.27
6600	444.0	26.2	0.08	9	11	26.2	9.6	0.27
6700	455.0	26.8	0.08	9	11	26.8	9.9	0.28
6800	466.3	27.4	0.08	9	12	27.4	10.2	0.29
6900	478.0	28.0	0.08	8	13	28.0	10.5	0.29
7000	490.2	28.6	0.08	8	13	28.6	10.9	0.30

(U//FOUO)

CORRECTION FACTORS

(U//FOUO)

1	10	11	12	13	14	15	16	17	18	19
R A N G E	RANGE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
	M	M	M	M	M	M	M	M	M	M
3500	17.2	-15.0	3.7	-2.1	7.5	-4.5	-3.3	3.3	-19	20
3600	17.7	-15.4	3.8	-2.2	7.8	-4.7	-3.5	3.5	-19	20
3700	18.1	-15.8	4.0	-2.3	8.0	-4.8	-3.7	3.7	-20	21
3800	18.5	-16.1	4.1	-2.4	8.3	-4.9	-3.9	3.9	-20	21
3900	19.0	-16.5	4.3	-2.5	8.5	-5.1	-4.0	4.1	-20	21
4000	19.4	-16.9	4.4	-2.6	8.8	-5.2	-4.2	4.3	-21	22
4100	19.9	-17.2	4.6	-2.7	9.0	-5.3	-4.4	4.5	-21	22
4200	20.3	-17.6	4.7	-2.8	9.3	-5.4	-4.6	4.7	-21	23
4300	20.7	-17.9	4.9	-2.8	9.5	-5.5	-4.8	4.9	-22	23
4400	21.2	-18.3	5.0	-2.9	9.7	-5.6	-5.0	5.1	-22	23
4500	21.6	-18.7	5.2	-3.0	9.9	-5.7	-5.2	5.3	-22	24
4600	22.0	-19.0	5.4	-3.1	10.1	-5.9	-5.5	5.5	-23	24
4700	22.5	-19.4	5.5	-3.2	10.3	-6.0	-5.7	5.7	-23	24
4800	22.9	-19.8	5.7	-3.3	10.5	-6.1	-5.9	5.9	-23	25
4900	23.4	-20.1	5.8	-3.4	10.7	-6.1	-6.1	6.2	-24	25
5000	23.8	-20.5	6.0	-3.5	10.9	-6.2	-6.4	6.4	-24	25
5100	24.2	-20.9	6.1	-3.6	11.1	-6.3	-6.6	6.7	-24	26
5200	24.7	-21.2	6.3	-3.7	11.3	-6.4	-6.8	6.9	-25	26
5300	25.1	-21.6	6.4	-3.8	11.5	-6.5	-7.1	7.2	-25	27
5400	25.6	-22.0	6.5	-3.9	11.6	-6.5	-7.3	7.4	-25	27
5500	26.0	-22.3	6.7	-4.0	11.8	-6.6	-7.6	7.7	-25	27
5600	26.5	-22.7	6.8	-4.0	11.9	-6.6	-7.8	8.0	-26	28
5700	26.9	-23.1	7.0	-4.1	12.1	-6.7	-8.1	8.3	-26	28
5800	27.4	-23.4	7.1	-4.2	12.2	-6.7	-8.4	8.6	-26	28
5900	27.8	-23.8	7.3	-4.3	12.3	-6.8	-8.6	8.8	-26	29
6000	28.3	-24.2	7.4	-4.4	12.4	-6.8	-8.9	9.1	-27	29
6100	28.8	-24.5	7.5	-4.5	12.5	-6.8	-9.2	9.4	-27	29
6200	29.2	-24.9	7.7	-4.6	12.6	-6.9	-9.5	9.7	-27	30
6300	29.7	-25.3	7.8	-4.7	12.7	-6.9	-9.8	10.0	-28	30
6400	30.1	-25.7	7.9	-4.8	12.8	-6.9	-10.1	10.3	-28	30
6500	30.6	-26.1	8.1	-4.9	12.8	-6.9	-10.4	10.7	-28	30
6600	31.0	-26.5	8.2	-5.0	12.9	-7.0	-10.7	11.0	-29	31
6700	31.5	-26.9	8.3	-5.1	12.9	-7.0	-11.1	11.3	-29	31
6800	32.0	-27.3	8.5	-5.2	12.9	-7.0	-11.4	11.6	-29	31
6900	32.4	-27.7	8.6	-5.3	13.0	-7.0	-11.7	12.0	-29	32
7000	32.9	-28.1	8.7	-5.4	13.0	-7.0	-12.0	12.3	-30	32

(U//FOUO)

## BASIC DATA

PROJ, HE, M795  
FUZE, PD, M739A1

(U//FOUO)

1	2	3	4	5	6	7	8	9
R A N G E	E L E V	FS FOR GRAZE BURST	DFS PER 10 M DEC HOB	DR PER 1 MIL D ELEV	F O R K	TIME OF FLIGHT	AZIMUTH CORRECTIONS	
		FUZE M582					DRIFT (CORR TO L)	CW OF 1 KNOT
M	MIL			M	MIL	SEC	MIL	MIL
7000	490.2	28.6	0.08	8	13	28.6	10.9	0.30
7100	502.8	29.3	0.07	8	14	29.3	11.3	0.30
7200	516.1	30.0	0.07	7	15	30.0	11.7	0.31
7300	530.1	30.7	0.07	7	16	30.7	12.1	0.32
7400	544.9	31.4	0.07	7	18	31.4	12.6	0.32
7500	560.6	32.2	0.07	6	19	32.2	13.1	0.33
7600	577.6	33.1	0.07	6	21	33.1	13.6	0.34
7700	596.2	34.0	0.06	5	24	34.0	14.3	0.35
7800	616.8	35.0	0.06	5	27	35.0	15.0	0.36
7900	640.4	36.1	0.06	4	33	36.1	15.9	0.37
8000	669.1	37.4	0.06	3	44	37.4	17.0	0.38
8100	708.8	39.2	0.06			39.2	18.7	0.40
*****								
8100	845.4	45.0	0.05			45.0	25.7	0.50
8000	884.9	46.5	0.05	3	45	46.5	28.2	0.52
7900	913.4	47.5	0.05	4	34	47.5	30.2	0.54
7800	936.9	48.4	0.05	5	29	48.4	32.0	0.56
7700	957.4	49.1	0.04	5	25	49.1	33.7	0.58
7600	975.8	49.7	0.04	6	23	49.7	35.4	0.59
7500	992.7	50.3	0.04	6	21	50.3	36.9	0.61
7400	1008.3	50.8	0.04	7	19	50.8	38.5	0.63
7300	1023.0	51.3	0.04	7	18	51.3	40.0	0.64
7200	1036.8	51.7	0.04	7	16	51.7	41.6	0.66
7100	1050.0	52.1	0.04	8	15	52.1	43.1	0.67
7000	1062.5	52.5	0.04	8	15	52.5	44.7	0.69
6900	1074.5	52.9	0.04	8	14	52.9	46.3	0.71
6800	1086.1	53.2	0.04	9	13	53.2	47.8	0.73
6700	1097.3	53.5	0.04	9	12	53.5	49.5	0.74
6600	1108.1	53.8	0.04	9	12	53.8	51.1	0.76
6500	1118.5	54.1	0.04	10	11	54.1	52.8	0.78
6400	1128.6	54.4	0.04	10	11	54.4	54.5	0.80
6300	1138.5	54.7	0.04	10	10	54.7	56.3	0.82
6200	1148.1	54.9	0.04	11	10	54.9	58.1	0.84
6100	1157.4	55.2	0.04	11	10	55.2	60.0	0.87
6000	1166.5	55.4	0.04	11	9	55.4	62.0	0.89

(U//FOUO)



(U//FOUO)

1	10	11	12	13	14	15	16	17	18	19
R A N G E	RANGE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
M	M	M	M	M	M	M	M	M	M	M
7000	32.9	-28.1	8.7	-5.4	13.0	-7.0	-12.0	12.3	-30	32
7100	33.4	-28.5	8.9	-5.5	13.0	-7.0	-12.4	12.7	-30	32
7200	33.9	-28.9	9.0	-5.6	13.0	-7.0	-12.7	13.0	-30	33
7300	34.4	-29.3	9.1	-5.8	13.0	-7.0	-13.0	13.4	-30	33
7400	34.8	-29.7	9.3	-5.9	13.0	-7.0	-13.4	13.8	-31	33
7500	35.3	-30.1	9.4	-6.0	13.0	-6.9	-13.7	14.2	-31	33
7600	35.8	-30.5	9.5	-6.1	13.0	-6.9	-14.1	14.6	-31	34
7700	36.3	-30.9		-6.2	13.0	-6.9	-14.5	15.0	-31	34
7800		-31.3		-6.3	12.9	-6.8	-14.9	15.5	-31	34
7900		-31.8		-6.5	12.7	-6.8	-15.3	16.0	-32	34
8000		-32.2		-6.6	12.5	-6.7	-15.7		-32	35
8100		-32.6		-6.7		-6.7	-16.1		-32	
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
8100		-33.5		-7.5		-5.9	-17.7		-31	
8000		-33.1		-7.5	11.7	-5.7	-17.5		-31	34
7900		-32.8		-7.4	11.3	-5.6	-17.3	17.0	-30	34
7800		-32.4		-7.3	11.0	-5.5	-17.2	16.9	-30	33
7700	36.7	-32.0		-7.2	10.8	-5.4	-17.0	16.8	-30	33
7600	36.3	-31.7	9.6	-7.1	10.5	-5.3	-16.7	16.6	-29	32
7500	35.8	-31.3	9.5	-7.0	10.3	-5.2	-16.5	16.4	-29	32
7400	35.4	-30.9	9.4	-6.9	10.1	-5.1	-16.3	16.2	-29	32
7300	35.0	-30.5	9.3	-6.8	10.0	-5.0	-16.1	16.0	-28	31
7200	34.5	-30.1	9.2	-6.7	9.8	-4.9	-15.9	15.8	-28	31
7100	34.1	-29.7	9.1	-6.6	9.6	-4.8	-15.6	15.6	-27	30
7000	33.7	-29.3	9.0	-6.5	9.4	-4.7	-15.4	15.4	-27	30
6900	33.2	-28.9	8.9	-6.3	9.3	-4.7	-15.1	15.1	-27	29
6800	32.8	-28.5	8.8	-6.2	9.1	-4.6	-14.9	14.9	-26	29
6700	32.3	-28.1	8.7	-6.0	9.0	-4.5	-14.6	14.7	-26	28
6600	31.8	-27.7	8.6	-5.9	8.8	-4.4	-14.4	14.5	-25	28
6500	31.4	-27.3	8.4	-5.7	8.7	-4.4	-14.1	14.2	-25	27
6400	30.9	-26.9	8.3	-5.5	8.6	-4.3	-13.9	14.0	-24	27
6300	30.5	-26.5	8.2	-5.3	8.4	-4.2	-13.6	13.7	-24	26
6200	30.0	-26.1	8.1	-5.1	8.3	-4.2	-13.3	13.5	-24	26
6100	29.5	-25.7	8.0	-4.8	8.2	-4.1	-13.1	13.2	-23	25
6000	29.1	-25.3	7.8	-4.6	8.0	-4.0	-12.8	13.0	-23	25

(U//FOUO)

## BASIC DATA

PROJ, HE, M795  
FUZE, PD, M739A1

(U//FOUO)

1	2	3	4	5	6	7	8	9
R A N G E	E L E V	FS FOR GRAZE BURST  FUZE M582	DFS PER 10 M DEC HOB	DR PER 1 MIL D ELEV	F O R K	TIME OF FLIGHT	AZIMUTH CORRECTIONS	
							DRIFT (CORR TO L)	CW OF 1 KNOT
M	MIL			M	MIL	SEC	MIL	MIL
6000	1166.5	55.4	0.04	11	9	55.4	62.0	0.89
5900	1175.4	55.6	0.04	11	9	55.6	64.0	0.91
5800	1184.0	55.8	0.04	12	8	55.8	66.2	0.94
5700	1192.5	56.1	0.04	12	8	56.1	68.4	0.97
5600	1200.8	56.3	0.04	12	8	56.3	70.8	1.00
5500	1208.9	56.5	0.04	13	7	56.5	73.3	1.03
5400	1216.8	56.6	0.04	13	7	56.6	75.9	1.07
5300	1224.5	56.8	0.04	13	7	56.8	78.8	1.10
5200	1232.0	57.0	0.04	13	7	57.0	81.8	1.14
5100	1239.4	57.2	0.04	14	6	57.2	85.1	1.19
5000	1246.6	57.3	0.04	14	6	57.3	88.6	1.23
4900	1253.6	57.5	0.04	14	6	57.5	92.5	1.29
4800	1260.5	57.7	0.04	15	5	57.7	96.8	1.34
4700	1267.2	57.8	0.04	15	5	57.8	101.5	1.41
4600	1273.6	58.0	0.04	16	5	58.0	106.7	1.48
4500	1279.9	58.2	0.04	16		58.2	112.6	1.56
4400	1286.0	58.3	0.04	17		58.3	119.2	1.66
4300	1291.9	58.5	0.04			58.5	126.8	
4200	1297.6	58.7	0.04			58.7	135.3	
4156	1300.0							

(U//FOUO)

(U//FOUO)

1	10	11	12	13	14	15	16	17	18	19
R A N G E	RANGE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
	M	M	M	M	M	M	M	M	M	M
6000	29.1	-25.3	7.8	-4.6	8.0	-4.0	-12.8	13.0	-23	25
5900	28.6	-24.9	7.7	-4.3	7.9	-4.0	-12.5	12.7	-22	24
5800	28.2	-24.5	7.6	-3.9	7.8	-3.9	-12.2	12.4	-22	24
5700	27.7	-24.1	7.4		7.6	-3.8	-11.9	12.2	-21	23
5600	27.2	-23.7	7.3		7.5	-3.8	-11.6	11.9	-21	23
5500	26.8	-23.3	7.1		7.4	-3.7	-11.3	11.6	-20	22
5400	26.3	-22.9	7.0		7.3	-3.7	-11.0	11.3	-20	21
5300	25.8	-22.5	6.8		7.2	-3.6	-10.7	11.1	-19	21
5200	25.4	-22.1	6.6		7.1	-3.6	-10.4	10.8	-18	20
5100	24.9	-21.6	6.5		7.0	-3.5	-10.0	10.5	-18	20
5000	24.5	-21.2	6.3		6.9	-3.5	-9.7	10.1	-17	19
4900	24.0	-20.8	6.1		6.8	-3.4	-9.3	9.8	-16	18
4800	23.5	-20.4	5.8		6.7	-3.4	-8.9	9.5	-16	18
4700	23.1	-20.0	5.6		6.6	-3.3	-8.5	9.2	-15	17
4600	22.6	-19.6	5.3		6.5	-3.3	-8.1	8.8	-14	16
4500	22.2	-19.2	5.0		6.4	-3.3		8.4	-13	15
4400	21.7	-18.8	4.7		6.4	-3.2		8.0	-12	14
4300	21.3		4.3		6.3	-3.2		7.6	-11	13
4200	20.8		3.9		6.3	-3.2		7.1	-10	12

(U//FOUO)

## SUPPLEMENTARY DATA

PROJ, HE, M795  
FUZE, PD, M739A1

(U//FOUO)

1	2	3	4	5	6	7	8	9	10	11	12	13
R A N G E	E L E V	PROBABLE ERRORS					ANGLE OF FALL	COT ANGLE OF FALL	TML VEL	MO	COMP SITE	
		R	D	FUZE M582							+1 MIL SITE	-1 MIL SITE
				HB	TB	RB						
M	MIL	M	M	M	SEC	M	MIL		M/S	M	MIL	MIL
0	0.0	4	0				0		320	0	0.000	0.00
500	24.9	5	0				25	40.1	311	3	0.000	0.00
1000	50.7	6	0	1	0.04	12	53	19.4	304	13	0.002	-0.002
1500	77.5	7	1	1	0.04	12	81	12.5	297	29	0.005	-0.004
2000	105.3	9	1	1	0.04	12	112	9.0	291	54	0.009	-0.008
2500	134.2	11	1	2	0.04	13	145	7.0	286	86	0.015	-0.014
3000	164.2	12	1	2	0.04	13	179	5.6	280	127	0.023	-0.021
3500	195.7	14	2	3	0.04	13	216	4.7	276	179	0.034	-0.031
4000	228.7	15	2	3	0.04	14	254	3.9	271	241	0.049	-0.044
4500	263.6	17	2	4	0.04	14	296	3.3	267	317	0.068	-0.061
5000	300.8	19	3	5	0.04	15	341	2.9	263	406	0.095	-0.085
5500	340.8	21	3	6	0.04	16	389	2.5	259	513	0.133	-0.116
6000	384.5	23	3	7	0.04	17	442	2.2	256	642	0.188	-0.159
6500	433.4	25	4	8	0.04	18	501	1.9	254	799	0.273	-0.226
7000	490.2	27	4	10	0.05	19	568	1.6	252	997	0.424	-0.331
7500	560.6	29	4	12	0.05	20	650	1.3	251	1262	0.793	-0.528
8000	669.1	32	5	16	0.05	22	769	1.1	251	1701		-1.136
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
8000	884.9	33	6	24	0.06	22	986	0.7	257	2614		2.17
7500	992.7	32	6	29	0.07	21	1085	0.6	260	3052	-1.826	1.56
7000	1062.5	30	6	31	0.07	20	1148	0.5	262	3316	-1.454	1.36
6500	1118.5	28	6	33	0.07	19	1198	0.4	263	3512	-1.298	1.25
6000	1166.5	25	6	35	0.07	17	1242	0.4	264	3668	-1.207	1.18
5500	1208.9	23	6	36	0.08	16	1282	0.3	265	3794	-1.147	1.13
5000	1246.6	21	5	37	0.08	14	1319	0.3	265	3896	-1.103	1.09
4500	1279.9		5	38	0.08	13	1356	0.2	265	3978	-1.069	1.06

(U//FOUO)

ROTATION - RANGE

(U//FOUO) CORRECTIONS TO RANGE, IN METERS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 3200	200 3000	400 2800	600 2600	800 2400	1000 2200	1200 2000	1400 1800	1600 1600
500	0	0	-1+	-1+	-2+	-2+	-2+	-2+	-2+
1000	0	-1+	-2+	-3+	-3+	-4+	-4+	-4+	-5+
1500	0	-1+	-3+	-4+	-5+	-5+	-6+	-6+	-7+
2000	0	-2+	-3+	-5+	-6+	-7+	-8+	-8+	-9+
2500	0	-2+	-4+	-6+	-7+	-9+	-10+	-10+	-10+
3000	0	-2+	-5+	-7+	-9+	-10+	-11+	-12+	-12+
3500	0	-3+	-5+	-8+	-10+	-12+	-13+	-14+	-14+
4000	0	-3+	-6+	-9+	-11+	-13+	-14+	-15+	-15+
4500	0	-3+	-6+	-9+	-12+	-14+	-15+	-16+	-17+
5000	0	-4+	-7+	-10+	-13+	-15+	-17+	-18+	-18+
5500	0	-4+	-7+	-11+	-13+	-16+	-18+	-19+	-19+
6000	0	-4+	-8+	-11+	-14+	-16+	-18+	-19+	-20+
6500	0	-4+	-8+	-11+	-14+	-17+	-19+	-20+	-20+
7000	0	-4+	-8+	-11+	-14+	-17+	-19+	-20+	-20+
7500	0	-4+	-8+	-11+	-14+	-16+	-18+	-19+	-20+
8000	0	-3+	-7+	-10+	-12+	-15+	-16+	-17+	-18+
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
8000	0	-2+	-3+	-5+	-6+	-7+	-8+	-8+	-9+
7500	0	-1+	-1+	-2+	-2+	-2+	-3+	-3+	-3+
7000	0	0	+1-	+1-	+1-	+1-	+1-	+1-	+1-
6500	0	+1-	+2-	+3-	+4-	+4-	+5-	+5-	+5-
6000	0	+2-	+3-	+5-	+6-	+7-	+8-	+8-	+8-
5500	0	+2-	+4-	+6-	+8-	+10-	+11-	+11-	+12-
5000	0	+3-	+6-	+8-	+11-	+13-	+14-	+15-	+15-
4500	0	+4-	+8-	+11-	+14-	+17-	+18-	+19-	+20-
	3200 6400	3400 6200	3600 6000	3800 5800	4000 5600	4200 5400	4400 5200	4600 5000	4800 4800
AZIMUTH OF TARGET - MILS									

(U//FOUO)

- (U//FOUO) NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
3. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.  
4. CORRECTIONS ARE FOR 0 DEGREES LATITUDE. FOR OTHER LATITUDES  
MULTIPLY CORRECTIONS BY THE FACTOR GIVEN BELOW.

(U//FOUO)

LATITUDE (DEG)	10	20	30	40	50	60	70
MULTIPLY BY	.98	.94	.87	.77	.64	.50	.34

(U//FOUO)

CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

0 DEGREES LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3500	R0.1L	R0.1L	0.0	0.0	0.0	0.0	0.0	L0.1R	L0.1R
4000	R0.1L	R0.1L	R0.1L	0.0	0.0	0.0	L0.1R	L0.1R	L0.1R
4500	R0.1L	R0.1L	R0.1L	0.0	0.0	0.0	L0.1R	L0.1R	L0.1R
5000	R0.1L	R0.1L	R0.1L	R0.1L	0.0	L0.1R	L0.1R	L0.1R	L0.1R
5500	R0.2L	R0.2L	R0.1L	R0.1L	0.0	L0.1R	L0.1R	L0.2R	L0.2R
6000	R0.2L	R0.2L	R0.2L	R0.1L	0.0	L0.1R	L0.2R	L0.2R	L0.2R
6500	R0.3L	R0.3L	R0.2L	R0.1L	0.0	L0.1R	L0.2R	L0.3R	L0.3R
7000	R0.4L	R0.3L	R0.2L	R0.1L	0.0	L0.1R	L0.2R	L0.3R	L0.4R
7500	R0.5L	R0.4L	R0.3L	R0.2L	0.0	L0.2R	L0.3R	L0.4R	L0.5R
8000	R0.7L	R0.6L	R0.5L	R0.3L	0.0	L0.3R	L0.5R	L0.6R	L0.7R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
8000	R1.3L	R1.2L	R0.9L	R0.5L	0.0	L0.5R	L0.9R	L1.2R	L1.3R
7500	R1.7L	R1.6L	R1.2L	R0.7L	0.0	L0.7R	L1.2R	L1.6R	L1.7R
7000	R2.1L	R1.9L	R1.5L	R0.8L	0.0	L0.8R	L1.5R	L1.9R	L2.1R
6500	R2.4L	R2.3L	R1.7L	R0.9L	0.0	L0.9R	L1.7R	L2.3R	L2.4R
6000	R2.8L	R2.6L	R2.0L	R1.1L	0.0	L1.1R	L2.0R	L2.6R	L2.8R
5500	R3.2L	R2.9L	R2.3L	R1.2L	0.0	L1.2R	L2.3R	L2.9R	L3.2R
5000	R3.6L	R3.3L	R2.5L	R1.4L	0.0	L1.4R	L2.5R	L3.3R	L3.6R
4500	R4.0L	R3.7L	R2.8L	R1.5L	0.0	L1.5R	L2.8R	L3.7R	L4.0R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
	AZIMUTH OF TARGET - MILS								

(U//FOUO)

0 DEGREES LATITUDE

(U//FOUO)

- NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
 2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
 3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.  
 4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

10 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1500	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
2000	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
2500	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
3000	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.2R	L0.2R	L0.2R
3500	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.2R	L0.2R	L0.2R	L0.2R
4000	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.2R	L0.2R	L0.2R	L0.3R
4500	L0.1R	L0.1R	L0.1R	L0.2R	L0.2R	L0.2R	L0.3R	L0.3R	L0.3R
5000	L0.1R	L0.1R	L0.1R	L0.2R	L0.2R	L0.3R	L0.3R	L0.3R	L0.4R
5500	L0.1R	L0.1R	L0.1R	L0.2R	L0.3R	L0.3R	L0.4R	L0.4R	L0.4R
6000	L0.1R	L0.1R	L0.1R	L0.2R	L0.3R	L0.4R	L0.4R	L0.5R	L0.5R
6500	0.0	L0.1R	L0.1R	L0.2R	L0.3R	L0.4R	L0.5R	L0.6R	L0.6R
7000	0.0	0.0	L0.1R	L0.2R	L0.4R	L0.5R	L0.6R	L0.7R	L0.7R
7500	R0.1L	0.0	L0.1R	L0.2R	L0.4R	L0.6R	L0.7R	L0.8R	L0.8R
8000	R0.2L	R0.2L	0.0	L0.2R	L0.5R	L0.7R	L0.9R	L1.1R	L1.1R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
8000	R0.7L	R0.6L	R0.3L	L0.1R	L0.6R	L1.0R	L1.4R	L1.7R	L1.8R
7500	R1.1L	R1.0L	R0.6L	0.0	L0.6R	L1.3R	L1.8R	L2.2R	L2.3R
7000	R1.4L	R1.3L	R0.8L	R0.2L	L0.6R	L1.4R	L2.1R	L2.5R	L2.7R
6500	R1.8L	R1.6L	R1.0L	R0.3L	L0.6R	L1.6R	L2.3R	L2.9R	L3.0R
6000	R2.1L	R1.9L	R1.3L	R0.4L	L0.7R	L1.7R	L2.6R	L3.2R	L3.4R
5500	R2.5L	R2.2L	R1.5L	R0.5L	L0.7R	L1.9R	L2.9R	L3.6R	L3.8R
5000	R2.9L	R2.6L	R1.8L	R0.7L	L0.7R	L2.0R	L3.2R	L3.9R	L4.2R
4500	R3.2L	R2.9L	R2.1L	R0.8L	L0.7R	L2.2R	L3.4R	L4.3R	L4.6R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
	AZIMUTH OF TARGET - MILS								

(U//FOUO)

10 DEGREES SOUTH LATITUDE

- (U//FOUO) NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.  
4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

## 20 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1000	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
1500	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
2000	L0.1R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
2500	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
3000	L0.2R	L0.2R	L0.2R	L0.2R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R
3500	L0.2R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.4R
4000	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.4R	L0.4R	L0.4R	L0.4R
4500	L0.3R	L0.3R	L0.3R	L0.4R	L0.4R	L0.4R	L0.5R	L0.5R	L0.5R
5000	L0.3R	L0.3R	L0.4R	L0.4R	L0.4R	L0.5R	L0.5R	L0.6R	L0.6R
5500	L0.3R	L0.4R	L0.4R	L0.4R	L0.5R	L0.6R	L0.6R	L0.6R	L0.7R
6000	L0.4R	L0.4R	L0.4R	L0.5R	L0.6R	L0.6R	L0.7R	L0.7R	L0.8R
6500	L0.4R	L0.4R	L0.4R	L0.5R	L0.6R	L0.7R	L0.8R	L0.9R	L0.9R
7000	L0.4R	L0.4R	L0.5R	L0.6R	L0.7R	L0.8R	L0.9R	L1.0R	L1.0R
7500	L0.3R	L0.4R	L0.5R	L0.6R	L0.8R	L0.9R	L1.1R	L1.2R	L1.2R
8000	L0.3R	L0.3R	L0.5R	L0.7R	L0.9R	L1.1R	L1.3R	L1.5R	L1.5R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
8000	R0.1L	0.0	L0.3R	L0.6R	L1.1R	L1.6R	L2.0R	L2.2R	L2.3R
7500	R0.4L	R0.3L	L0.1R	L0.6R	L1.2R	L1.8R	L2.3R	L2.7R	L2.8R
7000	R0.7L	R0.6L	R0.1L	L0.5R	L1.2R	L2.0R	L2.6R	L3.1R	L3.2R
6500	R1.0L	R0.8L	R0.3L	L0.4R	L1.3R	L2.2R	L2.9R	L3.4R	L3.6R
6000	R1.3L	R1.1L	R0.6L	L0.3R	L1.3R	L2.3R	L3.2R	L3.7R	L3.9R
5500	R1.7L	R1.4L	R0.8L	L0.2R	L1.3R	L2.5R	L3.4R	L4.1R	L4.3R
5000	R2.0L	R1.8L	R1.1L	0.0	L1.3R	L2.6R	L3.7R	L4.4R	L4.7R
4500	R2.4L	R2.1L	R1.3L	R0.1L	L1.3R	L2.7R	L4.0R	L4.8R	L5.1R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
	AZIMUTH OF TARGET - MILS								

(U//FOUO)

## 20 DEGREES SOUTH LATITUDE

(U//FOUO)

- NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
 2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
 3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.  
 4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.



ROTATION - AZIMUTH

CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

30 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
500	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
1000	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
1500	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
2000	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.3R	L0.3R	L0.3R
2500	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R
3000	L0.3R	L0.3R	L0.3R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R
3500	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.5R	L0.5R	L0.5R	L0.5R
4000	L0.4R	L0.4R	L0.5R	L0.5R	L0.5R	L0.5R	L0.6R	L0.6R	L0.6R
4500	L0.5R	L0.5R	L0.5R	L0.5R	L0.6R	L0.6R	L0.6R	L0.7R	L0.7R
5000	L0.5R	L0.5R	L0.6R	L0.6R	L0.7R	L0.7R	L0.7R	L0.8R	L0.8R
5500	L0.6R	L0.6R	L0.6R	L0.7R	L0.7R	L0.8R	L0.8R	L0.9R	L0.9R
6000	L0.6R	L0.6R	L0.7R	L0.7R	L0.8R	L0.9R	L0.9R	L1.0R	L1.0R
6500	L0.7R	L0.7R	L0.7R	L0.8R	L0.8R	L1.0R	L1.1R	L1.1R	L1.1R
7000	L0.7R	L0.7R	L0.8R	L0.9R	L1.0R	L1.1R	L1.2R	L1.3R	L1.3R
7500	L0.7R	L0.8R	L0.8R	L1.0R	L1.1R	L1.3R	L1.4R	L1.5R	L1.5R
8000	L0.7R	L0.8R	L0.9R	L1.1R	L1.3R	L1.5R	L1.7R	L1.8R	L1.9R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
8000	L0.5R	L0.6R	L0.8R	L1.2R	L1.6R	L2.0R	L2.4R	L2.6R	L2.7R
7500	L0.3R	L0.4R	L0.7R	L1.2R	L1.7R	L2.3R	L2.8R	L3.1R	L3.2R
7000	0.0	L0.2R	L0.5R	L1.1R	L1.8R	L2.5R	L3.1R	L3.5R	L3.6R
6500	R0.2L	R0.1L	L0.4R	L1.1R	L1.9R	L2.7R	L3.4R	L3.8R	L4.0R
6000	R0.5L	R0.3L	L0.2R	L1.0R	L1.9R	L2.8R	L3.6R	L4.1R	L4.3R
5500	R0.8L	R0.6L	0.0	L0.9R	L1.9R	L3.0R	L3.9R	L4.5R	L4.7R
5000	R1.2L	R0.9L	R0.3L	L0.7R	L1.9R	L3.1R	L4.1R	L4.8R	L5.0R
4500	R1.5L	R1.3L	R0.5L	L0.6R	L1.9R	L3.2R	L4.4R	L5.1R	L5.4R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
	AZIMUTH OF TARGET - MILS								

(U//FOUO)

30 DEGREES SOUTH LATITUDE

- (U//FOUO) NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.  
4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

## 40 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
500	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
1000	L0.1R	L0.1R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
1500	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
2000	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R
2500	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R
3000	L0.4R	L0.4R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R
3500	L0.5R	L0.5R	L0.5R	L0.5R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R
4000	L0.6R	L0.6R	L0.6R	L0.6R	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R
4500	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R	L0.8R	L0.8R	L0.8R	L0.8R
5000	L0.7R	L0.7R	L0.8R	L0.8R	L0.8R	L0.9R	L0.9R	L0.9R	L0.9R
5500	L0.8R	L0.8R	L0.8R	L0.9R	L0.9R	L1.0R	L1.0R	L1.1R	L1.1R
6000	L0.9R	L0.9R	L0.9R	L1.0R	L1.0R	L1.1R	L1.2R	L1.2R	L1.2R
6500	L1.0R	L1.0R	L1.0R	L1.1R	L1.1R	L1.2R	L1.3R	L1.4R	L1.4R
7000	L1.0R	L1.1R	L1.1R	L1.2R	L1.3R	L1.4R	L1.5R	L1.5R	L1.6R
7500	L1.1R	L1.1R	L1.2R	L1.3R	L1.5R	L1.6R	L1.7R	L1.8R	L1.8R
8000	L1.2R	L1.2R	L1.3R	L1.5R	L1.7R	L1.9R	L2.0R	L2.2R	L2.2R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
8000	L1.1R	L1.2R	L1.4R	L1.7R	L2.1R	L2.5R	L2.8R	L3.0R	L3.1R
7500	L0.9R	L1.0R	L1.3R	L1.7R	L2.2R	L2.7R	L3.2R	L3.5R	L3.6R
7000	L0.7R	L0.9R	L1.2R	L1.7R	L2.3R	L2.9R	L3.5R	L3.8R	L3.9R
6500	L0.5R	L0.7R	L1.1R	L1.7R	L2.4R	L3.1R	L3.7R	L4.1R	L4.3R
6000	L0.3R	L0.5R	L0.9R	L1.6R	L2.4R	L3.3R	L4.0R	L4.4R	L4.6R
5500	0.0	L0.2R	L0.7R	L1.5R	L2.5R	L3.4R	L4.2R	L4.7R	L4.9R
5000	R0.3L	0.0	L0.5R	L1.4R	L2.5R	L3.5R	L4.4R	L5.0R	L5.2R
4500	R0.6L	R0.3L	L0.3R	L1.3R	L2.5R	L3.6R	L4.6R	L5.3R	L5.5R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
	AZIMUTH OF TARGET - MILS								

(U//FOUO)

## 40 DEGREES SOUTH LATITUDE

(U//FOUO)

- NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
 2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
 3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.  
 4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

50 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
500	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
1000	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
1500	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R
2000	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R
2500	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R
3000	L0.5R	L0.5R	L0.5R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R
3500	L0.6R	L0.6R	L0.6R	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R
4000	L0.7R	L0.7R	L0.7R	L0.8R	L0.8R	L0.8R	L0.8R	L0.8R	L0.8R
4500	L0.8R	L0.8R	L0.8R	L0.9R	L0.9R	L0.9R	L0.9R	L0.9R	L1.0R
5000	L0.9R	L0.9R	L0.9R	L1.0R	L1.0R	L1.0R	L1.1R	L1.1R	L1.1R
5500	L1.0R	L1.0R	L1.0R	L1.1R	L1.1R	L1.2R	L1.2R	L1.2R	L1.2R
6000	L1.1R	L1.1R	L1.2R	L1.2R	L1.3R	L1.3R	L1.3R	L1.4R	L1.4R
6500	L1.2R	L1.2R	L1.3R	L1.3R	L1.4R	L1.5R	L1.5R	L1.6R	L1.6R
7000	L1.3R	L1.3R	L1.4R	L1.5R	L1.5R	L1.6R	L1.7R	L1.8R	L1.8R
7500	L1.4R	L1.5R	L1.5R	L1.6R	L1.7R	L1.8R	L1.9R	L2.0R	L2.0R
8000	L1.6R	L1.6R	L1.7R	L1.8R	L2.0R	L2.2R	L2.3R	L2.4R	L2.4R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
8000	L1.7R	L1.7R	L1.9R	L2.2R	L2.5R	L2.8R	L3.1R	L3.2R	L3.3R
7500	L1.6R	L1.7R	L1.9R	L2.3R	L2.7R	L3.1R	L3.5R	L3.7R	L3.8R
7000	L1.4R	L1.6R	L1.8R	L2.3R	L2.8R	L3.3R	L3.7R	L4.0R	L4.1R
6500	L1.3R	L1.4R	L1.8R	L2.3R	L2.9R	L3.5R	L4.0R	L4.3R	L4.4R
6000	L1.1R	L1.3R	L1.6R	L2.2R	L2.9R	L3.6R	L4.2R	L4.6R	L4.7R
5500	L0.9R	L1.1R	L1.5R	L2.2R	L2.9R	L3.7R	L4.4R	L4.8R	L5.0R
5000	L0.7R	L0.8R	L1.3R	L2.1R	L3.0R	L3.8R	L4.6R	L5.1R	L5.3R
4500	L0.4R	L0.6R	L1.1R	L2.0R	L3.0R	L3.9R	L4.8R	L5.3R	L5.5R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
	AZIMUTH OF TARGET - MILS								

(U//FOUO)

50 DEGREES SOUTH LATITUDE

- (U//FOUO) NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.  
4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

## ROTATION - AZIMUTH

PROJ, HE, M795  
FUZE, PD, M739A1CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

## 60 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
500	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
1000	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
1500	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R
2000	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R
2500	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R
3000	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.7R	L0.7R	L0.7R
3500	L0.7R	L0.7R	L0.7R	L0.7R	L0.8R	L0.8R	L0.8R	L0.8R	L0.8R
4000	L0.8R	L0.8R	L0.9R	L0.9R	L0.9R	L0.9R	L0.9R	L0.9R	L0.9R
4500	L1.0R	L1.0R	L1.0R	L1.0R	L1.0R	L1.0R	L1.0R	L1.0R	L1.1R
5000	L1.1R	L1.1R	L1.1R	L1.1R	L1.1R	L1.2R	L1.2R	L1.2R	L1.2R
5500	L1.2R	L1.2R	L1.2R	L1.2R	L1.3R	L1.3R	L1.3R	L1.3R	L1.4R
6000	L1.3R	L1.3R	L1.3R	L1.4R	L1.4R	L1.5R	L1.5R	L1.5R	L1.5R
6500	L1.4R	L1.4R	L1.5R	L1.5R	L1.6R	L1.6R	L1.7R	L1.7R	L1.7R
7000	L1.6R	L1.6R	L1.6R	L1.7R	L1.8R	L1.8R	L1.9R	L1.9R	L1.9R
7500	L1.7R	L1.7R	L1.8R	L1.9R	L2.0R	L2.1R	L2.1R	L2.2R	L2.2R
8000	L1.9R	L2.0R	L2.0R	L2.1R	L2.3R	L2.4R	L2.5R	L2.6R	L2.6R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
8000	L2.2R	L2.2R	L2.4R	L2.6R	L2.8R	L3.0R	L3.3R	L3.4R	L3.4R
7500	L2.2R	L2.2R	L2.4R	L2.7R	L3.0R	L3.4R	L3.6R	L3.8R	L3.9R
7000	L2.1R	L2.2R	L2.4R	L2.8R	L3.2R	L3.5R	L3.9R	L4.1R	L4.2R
6500	L2.0R	L2.1R	L2.4R	L2.8R	L3.2R	L3.7R	L4.1R	L4.4R	L4.5R
6000	L1.9R	L2.0R	L2.3R	L2.8R	L3.3R	L3.8R	L4.3R	L4.6R	L4.7R
5500	L1.7R	L1.9R	L2.2R	L2.7R	L3.3R	L3.9R	L4.5R	L4.8R	L4.9R
5000	L1.6R	L1.7R	L2.1R	L2.7R	L3.4R	L4.0R	L4.6R	L5.0R	L5.1R
4500	L1.4R	L1.5R	L1.9R	L2.6R	L3.3R	L4.1R	L4.7R	L5.2R	L5.3R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
	AZIMUTH OF TARGET - MILS								

(U//FOUO)

## 60 DEGREES SOUTH LATITUDE

(U//FOUO)

- NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
 2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
 3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.  
 4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

70 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
500	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
1000	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
1500	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R
2000	L0.4R	L0.4R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R
2500	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R
3000	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R
3500	L0.8R	L0.8R	L0.8R	L0.8R	L0.8R	L0.8R	L0.8R	L0.8R	L0.8R
4000	L0.9R	L0.9R	L0.9R	L0.9R	L1.0R	L1.0R	L1.0R	L1.0R	L1.0R
4500	L1.1R	L1.1R	L1.1R	L1.1R	L1.1R	L1.1R	L1.1R	L1.1R	L1.1R
5000	L1.2R	L1.2R	L1.2R	L1.2R	L1.2R	L1.2R	L1.3R	L1.3R	L1.3R
5500	L1.3R	L1.3R	L1.3R	L1.4R	L1.4R	L1.4R	L1.4R	L1.4R	L1.4R
6000	L1.5R	L1.5R	L1.5R	L1.5R	L1.5R	L1.6R	L1.6R	L1.6R	L1.6R
6500	L1.6R	L1.6R	L1.6R	L1.7R	L1.7R	L1.7R	L1.8R	L1.8R	L1.8R
7000	L1.8R	L1.8R	L1.8R	L1.9R	L1.9R	L1.9R	L2.0R	L2.0R	L2.0R
7500	L2.0R	L2.0R	L2.0R	L2.1R	L2.1R	L2.2R	L2.2R	L2.3R	L2.3R
8000	L2.2R	L2.3R	L2.3R	L2.4R	L2.5R	L2.6R	L2.6R	L2.7R	L2.7R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
8000	L2.6R	L2.6R	L2.7R	L2.9R	L3.0R	L3.2R	L3.4R	L3.4R	L3.5R
7500	L2.7R	L2.7R	L2.9R	L3.1R	L3.3R	L3.5R	L3.7R	L3.8R	L3.9R
7000	L2.7R	L2.8R	L2.9R	L3.1R	L3.4R	L3.7R	L3.9R	L4.1R	L4.1R
6500	L2.7R	L2.7R	L2.9R	L3.2R	L3.5R	L3.8R	L4.1R	L4.3R	L4.3R
6000	L2.6R	L2.7R	L2.9R	L3.2R	L3.6R	L3.9R	L4.3R	L4.5R	L4.5R
5500	L2.5R	L2.6R	L2.8R	L3.2R	L3.6R	L4.0R	L4.4R	L4.6R	L4.7R
5000	L2.4R	L2.5R	L2.8R	L3.2R	L3.6R	L4.1R	L4.5R	L4.8R	L4.9R
4500	L2.3R	L2.4R	L2.7R	L3.1R	L3.6R	L4.1R	L4.6R	L4.9R	L5.0R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
AZIMUTH OF TARGET - MILS									

(U//FOUO)

70 DEGREES SOUTH LATITUDE

- (U//FOUO) NOTES -
1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.
  2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.
  3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.
  4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

## FUZE CORRECTION FACTORS

PROJ, HE, M795  
FUZE, MTSQ, M582

(U//FOUO)

1	2	3	4	5	6	7	8	9	10	11
FS	FUZE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
0										
1										
2	-.006	0.006	0.000	0.000	-.001	0.001	0.000	0.000	0.008	-.008
3	-.009	0.008	0.000	0.000	-.001	0.001	0.000	0.000	0.012	-.012
4	-.011	0.011	-.001	0.001	-.002	0.002	0.000	0.000	0.015	-.015
5	-.014	0.014	-.001	0.001	-.003	0.002	0.001	-.001	0.019	-.019
6	-.016	0.016	-.001	0.001	-.004	0.003	0.001	-.001	0.022	-.022
7	-.019	0.018	-.002	0.001	-.005	0.004	0.001	-.001	0.025	-.025
8	-.021	0.020	-.002	0.002	-.006	0.005	0.002	-.002	0.028	-.028
9	-.023	0.023	-.002	0.002	-.007	0.005	0.002	-.002	0.030	-.031
10	-.026	0.025	-.003	0.002	-.008	0.006	0.002	-.002	0.033	-.034
11	-.028	0.027	-.003	0.003	-.010	0.007	0.003	-.003	0.036	-.037
12	-.030	0.029	-.004	0.003	-.011	0.008	0.003	-.003	0.038	-.039
13	-.033	0.031	-.004	0.003	-.013	0.009	0.004	-.004	0.041	-.042
14	-.035	0.033	-.005	0.004	-.014	0.010	0.004	-.004	0.044	-.045
15	-.037	0.035	-.006	0.004	-.015	0.010	0.005	-.005	0.046	-.047
16	-.039	0.037	-.006	0.004	-.017	0.011	0.005	-.005	0.049	-.050
17	-.042	0.039	-.007	0.004	-.018	0.012	0.006	-.006	0.051	-.053
18	-.044	0.041	-.007	0.005	-.019	0.012	0.006	-.006	0.054	-.055
19	-.046	0.043	-.008	0.005	-.021	0.013	0.007	-.007	0.056	-.058
20	-.049	0.045	-.008	0.005	-.022	0.014	0.008	-.007	0.058	-.061
21	-.051	0.047	-.008	0.005	-.023	0.014	0.008	-.008	0.061	-.063
22	-.053	0.049	-.009	0.006	-.024	0.014	0.009	-.009	0.063	-.066
23	-.056	0.051	-.009	0.006	-.025	0.015	0.010	-.010	0.066	-.069
24	-.058	0.054	-.010	0.006	-.026	0.015	0.011	-.011	0.068	-.072
25	-.061	0.056	-.010	0.006	-.027	0.015	0.012	-.011	0.071	-.074
26	-.063	0.058	-.011	0.007	-.027	0.015	0.012	-.012	0.074	-.077
27	-.066	0.061	-.011	0.007	-.028	0.016	0.013	-.013	0.076	-.079
28	-.068	0.063	-.011	0.007	-.028	0.016	0.014	-.014	0.079	-.082
29	-.071	0.065	-.011	0.007	-.029	0.016	0.015	-.015	0.081	-.085
30	-.073	0.067	-.012	0.007	-.029	0.016	0.016	-.016	0.084	-.088
31	-.076	0.070	-.012	0.008	-.030	0.017	0.017	-.016	0.086	-.090
32	-.078	0.072	-.012	0.008	-.030	0.017	0.018	-.017	0.088	-.093
33	-.081	0.074	-.012	0.008	-.031	0.017	0.019	-.018	0.091	-.096
34	-.083	0.077	-.013	0.008	-.031	0.017	0.020	-.019	0.093	-.098
35	-.086	0.079	-.013	0.008	-.032	0.017	0.021	-.020	0.096	-.101

(U//FOUO)

FUZE CORRECTION FACTORS

1	2	3	4	5	6	7	8	9	10	11
FS	FUZE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
35	-.086	0.079	-.013	0.008	-.032	0.017	0.021	-.020	0.096	-.101
36	-.088	0.081	-.013	0.008	-.032	0.017	0.022	-.021	0.099	-.104
37	-.091	0.084	-.013	0.009	-.032	0.017	0.023	-.022	0.101	-.107
38	-.093	0.086	-.013	0.009	-.033	0.018	0.024	-.023	0.104	-.109
39	-.096	0.089	-.013	0.009	-.033	0.018	0.025	-.024	0.107	-.112
40	-.098	0.091	-.013	0.009	-.033	0.018	0.026	-.025	0.109	-.115
41	-.101	0.093	-.014	0.009	-.034	0.018	0.027	-.026	0.112	-.118
42	-.103	0.096	-.014	0.009	-.034	0.018	0.028	-.027	0.114	-.120
43	-.106	0.098	-.014	0.010	-.034	0.018	0.029	-.028	0.117	-.123
44	-.109	0.100	-.014	0.010	-.035	0.018	0.030	-.029	0.119	-.126
45	-.111	0.103	-.014	0.010	-.035	0.019	0.031	-.030	0.122	-.129
46	-.114	0.105	-.014	0.010	-.035	0.019	0.032	-.031	0.125	-.132
47	-.116	0.108	-.014	0.010	-.036	0.019	0.033	-.032	0.128	-.135
48	-.119	0.110	-.014	0.010	-.036	0.019	0.034	-.033	0.131	-.138
49	-.121	0.113	-.014	0.010	-.036	0.019	0.035	-.034	0.134	-.141
50	-.124	0.115	-.014	0.010	-.036	0.019	0.036	-.035	0.137	-.144
51	-.127	0.118	-.013	0.011	-.037	0.019	0.037	-.036	0.140	-.147
52	-.129	0.120	-.013	0.011	-.037	0.019	0.038	-.037	0.143	-.150
53	-.132	0.123	-.013	0.011	-.037	0.019	0.039	-.038	0.147	-.153
54	-.134	0.125	-.013	0.011	-.037	0.020	0.040	-.039	0.150	-.157
55	-.137	0.128	-.013	0.012	-.038	0.020	0.041	-.040	0.154	-.160
56	-.139	0.130	-.013	0.014	-.038	0.020	0.042	-.041	0.159	-.164
57	-.142	0.133	-.013		-.038	0.020	0.044	-.042	0.164	-.169
58	-.144	0.135	-.015		-.038	0.020	0.047	-.045	0.172	-.177

(U//FOUO)

FUZE SETTING

CORRECTIONS TO FUZE SETTING OF FUZE, MTSQ, M582  
FOR FUZE, MTSQ, M564

(U//FOUO)

FUZE SETTING FUZE M582		CORRECTIONS
FROM	TO	
1.9	20.0	-0.1
20.1	39.2	-0.2
39.3	58.7	-0.3

(U//FOUO)



**(U//FOUO)**

(U//FOUO) Part 1

(U//FOUO) Charge 5W

(U//FOUO) Projectile, HE, M795

(U//FOUO) Fuze, PD, M739A1

(U//FOUO) Muzzle Velocity – 380 M/S

(U//FOUO) Propelling Charge M4A2 - Base and Increments 4 and 5

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LINE NUMBER

(U//FOUO)

LINE NUMBER OF METEOROLOGICAL MESSAGE

QUADRANT ELEVATION MILS	LINE NUMBER
0.0- 125.3	0
125.4- 243.5	1
243.6- 368.8	2
368.9- 491.0	3
491.1- 596.7	4
596.8- 741.9	5
742.0- 931.4	6
931.5- 1144.3	7
1144.4- 1300.0	8

(U//FOUO)

(U//FOUO) NOTE - WHEN THE PROJECTILE MUST HIT THE TARGET ON THE ASCENDING BRANCH OF ITS TRAJECTORY, USE HEIGHT OF TARGET IN METERS TO ENTER THE TABLE ON PAGE XL TO DETERMINE LINE NUMBER.

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

## LINE NUMBERS OF METEOROLOGICAL MESSAGE

LINE NO.	RANGE METERS	HEIGHT OF TARGET ABOVE GUN - METERS							
		-400	-300	-200	-100	0	100	200	300
0	0					0			
	100					0	0	0	1
	200					0	0	2	4
	300					0	1	2	5
	400					0	1	3	6
	500					0	1	4	7
	600					0	2	4	8
	700					0	2	5	9
	800					0	2	6	10
	900					0	3	6	10
	1000					0	3	7	11
	1100					0	3	7	12
	1200					0	3	8	13
	1300					0	4	8	13
	1400					0	4	9	14
	1500					0	4	9	15
	1600					0	4	10	15
	1700				-4	0	5	10	16
	1800				-4	0	5	10	17
	1900				-5	0	5	11	17
	2000				-5	0	5	11	18
	2100				-5	0	5	12	19
	2200				-5	0	6	12	20
	2300			-10	-6	0	6	13	20
	2400			-11	-6	0	6	13	21
	2500			-11	-6	0	6	14	22
	2600			-12	-6	0	7	14	22
	2700			-12	-7	0	7	15	23
	2800		-18	-13	-7	0	7	15	24
	2900		-19	-13	-7	0	7	16	24
	3000		-20	-14	-7	0	8	16	25
	3100		-20	-14	-8	0	8	16	26
	3200	-27	-21	-15	-8	0	8	17	27
	3300	-28	-22	-15	-8	0	8	17	27
	3400	-29	-23	-16	-8	0	9	18	28
	3500	-30	-23	-16	-9	0	9	18	29
0						1			

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

LINE NUMBERS OF METEOROLOGICAL MESSAGE

HEIGHT OF TARGET ABOVE GUN - METERS							RANGE	LINE
400	500	600	700	800	900	1000	METERS	
							0	3
2							100	
6	8	10	12	14	16		200	
7	10	13	16	19	23	26	300	
9	13	17	20	24	29	33	400	
11	15	19	24	28	33	38	500	
12	17	21	27	32	38	43	600	
13	18	24	29	35	41	48	700	
14	20	25	31	38	45	52	800	
15	21	27	34	41	48	55	900	
16	22	29	36	43	51	59	1000	
17	24	30	37	45	53	62	1100	
18	25	32	39	47	56	65	1200	
19	26	33	41	49	58	67	1300	
20	27	35	43	51	60	70	1400	
21	28	36	44	53	63	72	1500	
22	29	37	46	55	65	75	1600	
23	31	39	48	57	67	77	1700	
24	32	40	49	59	69	80	1800	
25	33	41	51	61	71	82	1900	
26	34	43	52	62	73	84	2000	
27	35	44	54	64	75	87	2100	
28	36	45	55	66	77	89	2200	
28	37	47	57	68	79	91	2300	
29	38	48	58	70	81	93	2400	
30	40	49	60	71	83	96	2500	
31	41	51	62	73	85	98	2600	
32	42	52	63	75	87	100	2700	
33	43	54	65	77	89	103	2800	
34	44	55	67	79	92	105	2900	
35	45	56	68	81	94	108	3000	
36	47	58	70	83	96	110	3100	
37	48	59	72	85	98	113	3200	
38	49	61	73	87	100	115	3300	
39	50	62	75	89	103	118	3400	
40	52	64	77	91	105	120	3500	
2				3				

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

## LINE NUMBERS OF METEOROLOGICAL MESSAGE

LINE NO.	RANGE METERS	HEIGHT OF TARGET ABOVE GUN - METERS							
		-400	-300	-200	-100	0	100	200	300
0	3500	-30	-23	-16	-9	0	9	18	29
	3600	-31	-24	-17	-9	0	9	19	30
	3700	-32	-25	-17	-9	0	9	20	30
	3800	-33	-26	-18	-9	0	10	20	31
	3900	-34	-27	-18	-10	0	10	21	32
	4000	-35	-27	-19	-10	0	10	21	33
	4100	-36	-28	-20	-10	0	10	22	34
	4200	-37	-29	-20	-10	0	11	22	35
	4300	-39	-30	-21	-11	0	11	23	36
	4400	-40	-31	-21	-11	0	11	24	36
	4500	-41	-32	-22	-11	0	12	24	37
	4600	-42	-33	-23	-12	0	12	25	38
	4700	-43	-34	-23	-12	0	12	26	39
	4800	-45	-35	-24	-12	0	13	26	41
	4900	-46	-36	-24	-13	0	13	27	42
1	5000	-47	-37	-25	-13	0	13	28	43
	5100	-49	-38	-26	-13	0	14	28	44
	5200	-50	-39	-27	-14	0	14	29	45
	5300	-52	-40	-27	-14	0	15	30	46
	5400	-53	-41	-28	-15	0	15	31	48
	5500	-55	-42	-29	-15	0	15	32	49
	5600	-56	-43	-30	-15	0	16	33	50
	5700	-58	-45	-31	-16	0	16	34	52
	5800	-60	-46	-32	-16	0	17	35	53
	5900	-62	-47	-32	-17	0	17	36	55
	6000	-63	-49	-33	-17	0	18	37	56
	6100	-65	-50	-34	-18	0	18	38	58
	6200	-67	-52	-35	-18	0	19	39	60
	6300	-69	-53	-36	-19	0	19	40	61
	6400	-71	-55	-37	-19	0	20	41	63
2	6500	-73	-56	-39	-20	0	21	42	65
	6600	-76	-58	-40	-20	0	21	43	67
	6700	-78	-60	-41	-21	0	22	45	68
	6800	-80	-62	-42	-22	0	22	46	70
	6900	-83	-63	-43	-22	0	23	47	72
	7000	-85	-65	-44	-23	0	24	49	75
		2					3		

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

LINE NUMBERS OF METEOROLOGICAL MESSAGE

HEIGHT OF TARGET ABOVE GUN - METERS							RANGE	LINE
400	500	600	700	800	900	1000	METERS	NO.
40	52	64	77	91	105	120	3500	3
41	53	65	79	93	108	123	3600	
42	54	67	81	95	110	126	3700	
43	56	69	83	97	113	129	3800	
44	57	70	85	100	115	132	3900	
45	58	72	87	102	118	135	4000	
46	60	74	89	105	121	138	4100	
48	61	76	91	107	124	141	4200	
49	63	78	93	110	127	145	4300	
50	65	80	96	112	130	148	4400	
51	66	82	98	115	133	152	4500	
53	68	84	101	118	137	156	4600	
54	70	86	103	121	140	160	4700	
56	72	88	106	124	143	164	4800	
57	73	91	109	127	147	168	4900	
59	75	93	111	131	151	172	5000	
60	77	95	114	134	155	176	5100	
62	80	98	117	138	159	181	5200	
64	82	101	120	141	163	186	5300	
65	84	103	124	145	167	191	5400	
67	86	106	127	149	172	196	5500	
69	89	109	130	153	176	201	5600	
71	91	112	134	157	181	206	5700	
73	94	115	138	161	186	212	5800	
75	96	118	141	165	191	217	5900	
77	99	121	145	170	196	223	6000	
79	101	125	149	175	201	229	6100	4
81	104	128	153	179	207	236	6200	
84	107	132	157	184	213	242	6300	
86	110	135	162	189	219	249	6400	
88	113	139	166	195	225	256	6500	
91	116	143	171	200	231	263	6600	
93	120	147	176	206	238	271	6700	
96	123	151	181	212	244	278	6800	
99	127	156	186	218	252	287	6900	
102	130	160	192	224	259	295	7000	
3				4				

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

## LINE NUMBERS OF METEOROLOGICAL MESSAGE

LINE NO.	RANGE METERS	HEIGHT OF TARGET ABOVE GUN - METERS							
		-400	-300	-200	-100	0	100	200	300
2	7000	-85	-65	-44	-23	0	24	49	75
	7100	-87	-67	-46	-23	0	24	50	77
	7200	-90	-69	-47	-24	0	25	51	79
	7300	-93	-71	-48	-25	0	26	53	81
	7400	-95	-73	-50	-25	0	27	54	84
	7500	-98	-75	-51	-26	0	27	56	86
	7600	-101	-77	-53	-27	0	28	58	89
	7700	-104	-80	-54	-28	0	29	60	92
	7800	-107	-82	-56	-28	0	30	61	95
	7900	-110	-84	-58	-29	0	31	63	98
3	8000	-113	-87	-59	-30	0	32	65	101
	8100	-117	-90	-61	-31	0	33	68	104
	8200	-120	-93	-63	-32	0	34	70	107
	8300	-124	-96	-65	-33	0	35	72	110
	8400	-129	-99	-67	-34	0	36	74	114
	8500	-133	-102	-69	-35	0	37	77	118
	8600	-137	-105	-71	-37	0	39	79	123
	8700	-141	-108	-74	-38	0	40	83	128
	8800	-145	-112	-76	-39	0	42	86	133
	8900	-150	-115	-79	-41	0	43	89	138
4	9000	-155	-120	-82	-42	0	45	93	144
	9100	-161	-124	-85	-44	0	47	97	150
	9200	-167	-129	-89	-46	0	49	101	157
	9300	-174	-134	-92	-48	0	51	106	166
	9400	-181	-140	-96	-50	0	54	112	175
	9500	-188	-146	-100	-52	0	56	118	187
	9600	-197	-152	-105	-55	0	60	127	205
	9700	-206	-160	-111	-58	0	64	140	
	9800	-216	-168	-117	-61	0	72		
	9900	-227	-178	-125	-67	0			
5	*****								
6	9900	-448	-322	-204	-96	0			
	9800	-470	-340	-217	-104	0	89		
7	9700	-490	-356	-229	-110	0	99	183	
	9600	-510	-371	-240	-116	0	106	201	280
	9500	-529	-386	-250	-121	0	112	215	305
7							6		

(U//FOUO)



CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

LINE NUMBERS OF METEOROLOGICAL MESSAGE

HEIGHT OF TARGET ABOVE GUN - METERS							RANGE	LINE
400	500	600	700	800	900	1000	METERS	NO.
102	130	160	192	224	259	295	7000	4
105	134	165	197	231	266	304	7100	
108	138	170	203	238	274	313	7200	
111	142	175	209	245	283	323	7300	
114	147	180	215	253	292	333	7400	
118	151	186	222	260	301	344	7500	
122	156	191	229	269	310	355	7600	
125	160	197	236	277	321	367	7700	
129	165	204	244	286	331	379	7800	
133	171	210	252	296	343	392	7900	
137	176	217	260	306	355	407	8000	5
142	182	224	269	317	368	422	8100	
146	188	232	279	329	382	439	8200	
151	194	240	289	341	397	457	8300	
157	202	250	301	355	413	476	8400	
162	209	259	313	370	431	497	8500	
169	218	270	326	386	450	521	8600	
175	227	281	340	403	472	549	8700	
183	236	293	355	423	497	581	8800	
190	246	307	373	445	527	623	8900	
199	258	322	393	472	566	686	9000	6
208	271	340	417	508	626		9100	
219	286	361	450	566			9200	
231	304	391	506				9300	
246	330	446					9400	
269							9500	
							9600	
							9700	
							9800	
							9900	
*****								6
							9900	
							9800	
							9700	
							9600	
379							9500	
6								

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

## LINE NUMBERS OF METEOROLOGICAL MESSAGE

LINE NO.	RANGE METERS	HEIGHT OF TARGET ABOVE GUN - METERS							
		-400	-300	-200	-100	0	100	200	300
7	9500	-529	-386	-250	-121	0	112	215	305
	9400	-548	-400	-259	-126	0	118	227	325
	9300	-566	-414	-269	-131	0	123	237	342
	9200	-584	-428	-278	-135	0	128	248	359
	9100	-602	-442	-287	-140	0	133	257	374
	9000	-621	-455	-296	-145	0	137	267	388
	8900	-639	-469	-306	-149	0	142	276	403
	8800	-657	-483	-315	-154	0	147	286	417
	8700	-676	-496	-324	-158	0	151	295	431
	8600	-694	-510	-333	-163	0	156	304	445
	8500	-713	-525	-343	-168	0	160	313	458
	8400	-733	-539	-352	-172	0	165	322	472
	8300	-752	-553	-362	-177	0	170	332	486
	8200	-773	-568	-371	-182	0	174	341	500
	8100	-793	-583	-381	-187	0	179	350	514
8	8000	-814	-599	-391	-192	0	184	360	528
	7900	-836	-615	-402	-197	0	189	370	543
	7800	-858	-631	-412	-202	0	194	380	557
	7700	-882	-648	-423	-207	0	199	390	572
	7600	-906	-665	-435	-213	0	204	400	587
	7500	-931	-683	-446	-219	0	209	410	603
	7400	-957	-702	-458	-224	0	215	421	618
	7300	-984	-722	-471	-230	0	221	432	635
	7200	-1013	-742	-484	-237	0	226	444	651
	7100	-1043	-763	-497	-243	0	232	455	668
	7000	-1076	-786	-511	-250	0	239	467	686
	6900	-1111	-810	-526	-257	0	245	480	704
	6800	-1148	-835	-542	-264	0	252	492	722
	6700	-1189	-862	-559	-272	0	259	506	742
	6600	-1233	-892	-576	-280	0	266	520	761
	6500	-1282	-923	-595	-289	0	274	534	782
	6400		-958	-615	-298	0	281	549	804
	6300		-996	-637	-308	0	290	565	826
	6200		-1038	-661	-318	0	298	581	849
	6100			-687	-329	0	308	598	874
	6000			-716	-342	0	317	616	899

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(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

LINE NUMBERS OF METEOROLOGICAL MESSAGE

HEIGHT OF TARGET ABOVE GUN - METERS							RANGE	LINE
400	500	600	700	800	900	1000	METERS	NO.
379							9500	6
411	480						9400	
437	518	583					9300	
460	550	627	687				9200	
481	578	664	737	791			9100	
501	605	698	780	847	896		9000	
521	630	730	819	895	958	1001	8900	7
540	654	760	855	939	1011	1068	8800	
559	678	789	890	981	1060	1127	8700	
577	701	817	924	1021	1107	1181	8600	
596	725	845	957	1059	1151	1233	8500	
614	748	873	989	1097	1194	1282	8400	
632	771	900	1022	1134	1237	1330	8300	
651	794	928	1054	1171	1279	1377	8200	
669	817	956	1086	1208	1320	1423	8100	
688	840	983	1118	1244	1361	1469	8000	
707	863	1011	1151	1281	1403	1515	7900	
726	887	1040	1183	1318	1444	1560	7800	
746	911	1068	1216	1355	1486	1606	7700	
766	936	1097	1250	1393	1527	1653	7600	
786	961	1127	1283	1431	1570	1699	7500	8
807	986	1157	1318	1470	1613	1746	7400	
828	1012	1187	1353	1509	1656	1794	7300	
849	1038	1218	1388	1549	1700	1842	7200	
872	1065	1250	1425	1590	1745	1891	7100	
894	1093	1282	1462	1631	1791	1940	7000	
918	1122	1315	1499	1673	1837	1991	6900	
942	1151	1350	1538	1717	1885	2043	6800	
966	1181	1385	1578	1761	1933	2095	6700	
992	1212	1421	1619	1806	1983	2149	6600	
1019	1244	1458	1661	1853	2034	2204	6500	8
1046	1277	1496	1704	1900	2086	2260	6400	
1074	1311	1535	1748	1950	2139	2318	6300	
1104	1346	1576	1794	2000	2195	2377	6200	
1135	1383	1618	1842	2053	2251	2438	6100	
1167	1421	1662	1891	2106	2310	2500	6000	
8								

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

## LINE NUMBERS OF METEOROLOGICAL MESSAGE

LINE NO.	RANGE METERS	HEIGHT OF TARGET ABOVE GUN - METERS							
		-400	-300	-200	-100	0	100	200	300
8	6000			-716	-342	0	317	616	899
	5900			-748	-355	0	328	635	926
	5800				-369	0	339	656	954
	5700				-386	0	351	677	984
	5600				-404	0	363	700	1015
	5500					0	377	724	1048
	5400					0	392	750	1083
	5300					0	408	778	1120
	5200					0	425	807	1160
	5100						444	839	1202
	5000								
	4900								
8									

(U//FOUO)

CHANGE IN RANGE, IN METERS  
 TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

LINE NUMBERS OF METEOROLOGICAL MESSAGE

HEIGHT OF TARGET ABOVE GUN - METERS							RANGE	L I N E
400	500	600	700	800	900	1000	METERS	NO.
1167	1421	1662	1891	2106	2310	2500	6000	8
1201	1461	1708	1942	2162	2370	2565	5900	
1236	1503	1755	1994	2220	2432	2631	5800	
1273	1546	1805	2049	2279	2496	2700	5700	
1311	1591	1856	2106	2341	2563	2771	5600	
1352	1639	1910	2165	2406	2632	2844	5500	
1395	1689	1966	2227	2473	2703	2919	5400	
1440	1741	2025	2291	2542	2778	2998	5300	
1488	1796	2086	2359	2615	2855	3079	5200	
1539	1855	2151	2429	2691	2935	3164	5100	
		2219	2503	2770	3019	3252	5000	
						3343	4900	
8								

(U//FOUO)

## WIND COMPONENTS

PROJ, HE, M795  
FUZE, PD, M739A1

(U//FOUO) COMPONENTS OF A ONE KNOT WIND

CHART DIRECTION OF WIND	CROSS WIND	RANGE WIND	CHART DIRECTION OF WIND	CROSS WIND	RANGE WIND
MIL	KNOT	KNOT	MIL	KNOT	KNOT
0	0	H1.00	3200	0	T1.00
100	R. 10	H. 99	3300	L. 10	T. 99
200	R. 20	H. 98	3400	L. 20	T. 98
300	R. 29	H. 96	3500	L. 29	T. 96
400	R. 38	H. 92	3600	L. 38	T. 92
500	R. 47	H. 88	3700	L. 47	T. 88
600	R. 56	H. 83	3800	L. 56	T. 83
700	R. 63	H. 77	3900	L. 63	T. 77
800	R. 71	H. 71	4000	L. 71	T. 71
900	R. 77	H. 63	4100	L. 77	T. 63
1000	R. 83	H. 56	4200	L. 83	T. 56
1100	R. 88	H. 47	4300	L. 88	T. 47
1200	R. 92	H. 38	4400	L. 92	T. 38
1300	R. 96	H. 29	4500	L. 96	T. 29
1400	R. 98	H. 20	4600	L. 98	T. 20
1500	R. 99	H. 10	4700	L. 99	T. 10
1600	R1.00	0	4800	L1.00	0
1700	R. 99	T. 10	4900	L. 99	H. 10
1800	R. 98	T. 20	5000	L. 98	H. 20
1900	R. 96	T. 29	5100	L. 96	H. 29
2000	R. 92	T. 38	5200	L. 92	H. 38
2100	R. 88	T. 47	5300	L. 88	H. 47
2200	R. 83	T. 56	5400	L. 83	H. 56
2300	R. 77	T. 63	5500	L. 77	H. 63
2400	R. 71	T. 71	5600	L. 71	H. 71
2500	R. 63	T. 77	5700	L. 63	H. 77
2600	R. 56	T. 83	5800	L. 56	H. 83
2700	R. 47	T. 88	5900	L. 47	H. 88
2800	R. 38	T. 92	6000	L. 38	H. 92
2900	R. 29	T. 96	6100	L. 29	H. 96
3000	R. 20	T. 98	6200	L. 20	H. 98
3100	R. 10	T. 99	6300	L. 10	H. 99
3200	0	T1.00	6400	0	H1.00

(U//FOUO)

(U//FOUO)

NOTE - FOR A COMPLETE EXPLANATION OF THE USE OF THIS TABLE, SEE PARAGRAPH 12, EXPLANATION OF COMPONENTS OF A ONE KNOT WIND.

(U//FOUO) TABLE D  
TEMPERATURE  
AND DENSITY CORRECTIONS

CORRECTIONS TO TEMPERATURE (DT) AND DENSITY (DD), IN PERCENT,  
TO COMPENSATE FOR THE DIFFERENCE IN ALTITUDE,  
(U//FOUO) IN METERS, BETWEEN THE BATTERY AND THE MDP

DH		0	+10-	+20-	+30-	+40-	+50-	+60-	+70-	+80-	+90-
0	DT	0.0	0.0	0.0	-0.1+	-0.1+	-0.1+	-0.1+	-0.2+	-0.2+	-0.2+
	DD	0.0	-0.1+	-0.2+	-0.3+	-0.4+	-0.5+	-0.6+	-0.7+	-0.8+	-0.9+
+100-	DT	-0.2+	-0.2+	-0.2+	-0.3+	-0.3+	-0.3+	-0.3+	-0.4+	-0.4+	-0.4+
	DD	-1.0+	-1.1+	-1.2+	-1.3+	-1.4+	-1.5+	-1.6+	-1.7+	-1.8+	-1.9+
+200-	DT	-0.5+	-0.5+	-0.5+	-0.6+	-0.6+	-0.6+	-0.6+	-0.7+	-0.7+	-0.7+
	DD	-2.0+	-2.1+	-2.2+	-2.3+	-2.4+	-2.5+	-2.6+	-2.7+	-2.8+	-2.9+
+300-	DT	-0.7+	-0.7+	-0.7+	-0.8+	-0.8+	-0.8+	-0.8+	-0.9+	-0.9+	-0.9+
	DD	-3.0+	-3.1+	-3.2+	-3.3+	-3.4+	-3.5+	-3.6+	-3.7+	-3.8+	-3.9+

(U//FOUO)

- (U//FOUO) NOTES - 1. DH IS BATTERY HEIGHT ABOVE OR BELOW THE MDP.  
2. IF ABOVE THE MDP, USE THE SIGN BEFORE THE NUMBER.  
3. IF BELOW THE MDP, USE THE SIGN AFTER THE NUMBER.

(U//FOUO) TABLE E

PROPELLANT TEMPERATURE  
(U//FOUO)  
EFFECTS ON MUZZLE VELOCITY DUE TO PROPELLANT TEMPERATURE

TEMPERATURE OF PROPELLANT  DEGREES F	EFFECT ON VELOCITY  M/S	TEMPERATURE OF PROPELLANT  DEGREES C
-40 -30 -20 -10	-7.3 -6.8 -6.2 -5.5	-40.0 -34.4 -28.9 -23.3
0	-4.9	-17.8
10 20 30 40	-4.3 -3.6 -2.9 -2.2	-12.2 -6.7 -1.1 4.4
50	-1.5	10.0
60 70 80 90	-0.8 0.0 0.8 1.6	15.6 21.1 26.7 32.2
100	2.4	37.8
110 120 130	3.2 4.0 4.9	43.3 48.9 54.4

(U//FOUO)

(U//FOUO)

1	2	3	4	5	6	7	8	9
R A N G E	E L E V	FS FOR GRAZE BURST	DFS PER 10 M DEC HOB	DR PER 1 MIL D ELEV	F O R K	TIME OF FLIGHT	AZIMUTH CORRECTIONS	
		FUZE M582					DRIFT (CORR TO L)	CW OF 1 KNOT
M	MIL			M	MIL	SEC	MIL	MIL
0	0.0			28	1	0.0	0.0	0.00
100	3.6			28	1	0.3	0.1	0.01
200	7.1			28	1	0.5	0.1	0.01
300	10.6			28	1	0.8	0.2	0.02
400	14.3			27	1	1.1	0.3	0.03
500	17.9			27	1	1.3	0.4	0.03
600	21.7			27	1	1.6	0.4	0.04
700	25.4	1.9	1.08	26	1	1.9	0.5	0.05
800	29.3	2.2	0.94	26	1	2.2	0.6	0.05
900	33.1	2.5	0.83	26	1	2.5	0.7	0.06
1000	37.0	2.8	0.74	25	1	2.8	0.8	0.07
1100	41.0	3.0	0.67	25	1	3.0	0.8	0.07
1200	45.0	3.3	0.62	25	1	3.3	0.9	0.08
1300	49.1	3.6	0.57	24	1	3.6	1.0	0.09
1400	53.2	3.9	0.52	24	1	3.9	1.1	0.09
1500	57.4	4.2	0.49	24	1	4.2	1.2	0.10
1600	61.6	4.5	0.45	24	1	4.5	1.3	0.11
1700	65.8	4.8	0.43	23	1	4.8	1.4	0.11
1800	70.1	5.1	0.40	23	1	5.1	1.5	0.12
1900	74.5	5.4	0.38	23	1	5.4	1.5	0.12
2000	78.8	5.8	0.36	23	1	5.8	1.6	0.13
2100	83.3	6.1	0.34	22	1	6.1	1.7	0.13
2200	87.8	6.4	0.32	22	2	6.4	1.8	0.14
2300	92.3	6.7	0.31	22	2	6.7	1.9	0.15
2400	96.9	7.0	0.29	22	2	7.0	2.0	0.15
2500	101.5	7.3	0.28	22	2	7.3	2.1	0.16
2600	106.2	7.7	0.27	21	2	7.7	2.2	0.16
2700	110.9	8.0	0.26	21	2	8.0	2.3	0.17
2800	115.6	8.3	0.25	21	2	8.3	2.4	0.17
2900	120.4	8.6	0.24	21	2	8.6	2.5	0.18
3000	125.3	9.0	0.23	21	2	9.0	2.6	0.18
3100	130.2	9.3	0.22	20	2	9.3	2.7	0.19
3200	135.1	9.6	0.22	20	2	9.6	2.8	0.19
3300	140.1	10.0	0.21	20	2	10.0	2.9	0.20
3400	145.1	10.3	0.20	20	2	10.3	3.0	0.20
3500	150.2	10.7	0.19	20	2	10.7	3.1	0.21

(U//FOUO)



(U//FOUO)

1	10	11	12	13	14	15	16	17	18	19
R A N G E	RANGE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
	M	M	M	M	M	M	M	M	M	M
0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0
100	0.6	-0.5	0.0	0.0	0.0	0.0	0.0	0.0	-1	1
200	1.1	-1.0	0.0	0.0	0.0	0.0	0.0	0.0	-2	2
300	1.6	-1.5	0.0	0.0	0.0	0.0	0.0	0.1	-3	3
400	2.1	-2.0	0.0	0.0	0.0	0.0	-0.1	0.1	-3	3
500	2.6	-2.5	0.0	-0.1	0.0	-0.1	-0.2	0.2	-4	4
600	3.1	-2.9	0.0	-0.1	0.0	-0.1	-0.2	0.2	-5	5
700	3.6	-3.4	0.1	-0.1	0.0	-0.2	-0.3	0.3	-6	6
800	4.0	-3.8	0.1	-0.2	0.0	-0.3	-0.4	0.4	-6	6
900	4.5	-4.3	0.1	-0.2	0.0	-0.4	-0.5	0.5	-7	7
1000	4.9	-4.7	0.2	-0.3	0.1	-0.5	-0.6	0.6	-7	8
1100	5.3	-5.1	0.2	-0.3	0.1	-0.6	-0.7	0.7	-8	8
1200	5.7	-5.5	0.3	-0.4	0.2	-0.8	-0.8	0.8	-8	9
1300	6.1	-5.9	0.3	-0.5	0.2	-0.9	-1.0	1.0	-9	9
1400	6.5	-6.3	0.4	-0.6	0.3	-1.1	-1.1	1.1	-10	10
1500	6.9	-6.7	0.4	-0.6	0.4	-1.3	-1.3	1.2	-10	10
1600	7.2	-7.1	0.5	-0.7	0.6	-1.5	-1.4	1.4	-10	11
1700	7.6	-7.4	0.6	-0.8	0.7	-1.7	-1.6	1.5	-11	11
1800	7.9	-7.8	0.7	-0.9	0.9	-1.9	-1.7	1.7	-11	12
1900	8.3	-8.1	0.8	-1.0	1.0	-2.1	-1.9	1.9	-12	12
2000	8.6	-8.4	0.9	-1.1	1.2	-2.4	-2.0	2.0	-12	12
2100	8.9	-8.7	1.0	-1.3	1.4	-2.6	-2.2	2.2	-12	13
2200	9.2	-9.0	1.1	-1.4	1.6	-2.9	-2.4	2.4	-13	13
2300	9.5	-9.3	1.2	-1.5	1.9	-3.2	-2.6	2.5	-13	13
2400	9.8	-9.6	1.3	-1.6	2.1	-3.4	-2.8	2.7	-13	14
2500	10.0	-9.9	1.5	-1.7	2.4	-3.7	-3.0	2.9	-13	14
2600	10.3	-10.2	1.6	-1.9	2.6	-4.0	-3.1	3.1	-14	14
2700	10.6	-10.5	1.7	-2.0	2.9	-4.3	-3.3	3.3	-14	14
2800	10.8	-10.7	1.9	-2.1	3.2	-4.6	-3.5	3.5	-14	15
2900	11.1	-11.0	2.0	-2.3	3.5	-5.0	-3.7	3.7	-14	15
3000	11.3	-11.2	2.2	-2.4	3.8	-5.3	-3.9	3.9	-15	15
3100	11.6	-11.5	2.3	-2.6	4.2	-5.6	-4.2	4.1	-15	15
3200	11.8	-11.7	2.5	-2.7	4.5	-6.0	-4.4	4.3	-15	16
3300	12.0	-11.9	2.7	-2.9	4.9	-6.3	-4.6	4.5	-15	16
3400	12.3	-12.2	2.8	-3.0	5.2	-6.7	-4.8	4.7	-15	16
3500	12.5	-12.4	3.0	-3.2	5.6	-7.0	-5.0	4.9	-15	16

(U//FOUO)

## BASIC DATA

PROJ, HE, M795  
FUZE, PD, M739A1

(U//FOUO)

1	2	3	4	5	6	7	8	9
R A N G E	E L E V	FS FOR GRAZE BURST  FUZE M582	DFS PER 10 M DEC HOB	DR PER 1 MIL D ELEV	F O R K	TIME OF FLIGHT	AZIMUTH CORRECTIONS	
							DRIFT (CORR TO L)	CW OF 1 KNOT
M	MIL			M	MIL	SEC	MIL	MIL
3500	150.2	10.7	0.19	20	2	10.7	3.1	0.21
3600	155.3	11.0	0.19	19	2	11.0	3.2	0.21
3700	160.5	11.3	0.18	19	2	11.3	3.3	0.22
3800	165.7	11.7	0.18	19	2	11.7	3.4	0.22
3900	171.0	12.0	0.17	19	2	12.0	3.5	0.22
4000	176.3	12.4	0.17	19	3	12.4	3.7	0.23
4100	181.6	12.7	0.16	19	3	12.7	3.8	0.23
4200	187.0	13.1	0.16	18	3	13.1	3.9	0.24
4300	192.5	13.5	0.15	18	3	13.5	4.0	0.24
4400	198.0	13.8	0.15	18	3	13.8	4.1	0.25
4500	203.5	14.2	0.15	18	3	14.2	4.3	0.25
4600	209.2	14.5	0.14	18	3	14.5	4.4	0.25
4700	214.8	14.9	0.14	18	3	14.9	4.5	0.26
4800	220.5	15.3	0.14	17	3	15.3	4.6	0.26
4900	226.3	15.7	0.13	17	3	15.7	4.8	0.27
5000	232.1	16.0	0.13	17	3	16.0	4.9	0.27
5100	238.0	16.4	0.13	17	3	16.4	5.0	0.27
5200	243.9	16.8	0.12	17	3	16.8	5.2	0.28
5300	249.9	17.2	0.12	17	3	17.2	5.3	0.28
5400	256.0	17.6	0.12	16	4	17.6	5.5	0.29
5500	262.1	17.9	0.12	16	4	17.9	5.6	0.29
5600	268.3	18.3	0.11	16	4	18.3	5.8	0.29
5700	274.6	18.7	0.11	16	4	18.7	5.9	0.30
5800	280.9	19.1	0.11	16	4	19.1	6.1	0.30
5900	287.3	19.5	0.11	16	4	19.5	6.2	0.31
6000	293.7	19.9	0.11	15	4	19.9	6.4	0.31
6100	300.3	20.4	0.10	15	4	20.4	6.5	0.31
6200	306.9	20.8	0.10	15	4	20.8	6.7	0.32
6300	313.6	21.2	0.10	15	5	21.2	6.9	0.32
6400	320.4	21.6	0.10	15	5	21.6	7.0	0.33
6500	327.3	22.0	0.10	14	5	22.0	7.2	0.33
6600	334.3	22.5	0.09	14	5	22.5	7.4	0.33
6700	341.4	22.9	0.09	14	5	22.9	7.6	0.34
6800	348.6	23.3	0.09	14	5	23.3	7.8	0.34
6900	355.9	23.8	0.09	14	5	23.8	8.0	0.35
7000	363.3	24.2	0.09	13	6	24.2	8.2	0.35

(U//FOUO)

CORRECTION FACTORS

(U//FOUO)

1	10	11	12	13	14	15	16	17	18	19
R A N G E	RANGE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
	M	M	M	M	M	M	M	M	M	M
3500	12.5	-12.4	3.0	-3.2	5.6	-7.0	-5.0	4.9	-15	16
3600	12.7	-12.6	3.2	-3.3	6.0	-7.4	-5.2	5.1	-15	16
3700	12.9	-12.8	3.4	-3.5	6.4	-7.7	-5.4	5.3	-16	16
3800	13.1	-13.0	3.6	-3.6	6.8	-8.1	-5.6	5.5	-16	17
3900	13.4	-13.3	3.7	-3.8	7.2	-8.5	-5.9	5.7	-16	17
4000	13.6	-13.5	3.9	-4.0	7.6	-8.9	-6.1	5.9	-16	17
4100	13.8	-13.7	4.1	-4.1	8.0	-9.2	-6.3	6.1	-16	17
4200	14.0	-13.9	4.3	-4.3	8.4	-9.6	-6.5	6.4	-16	17
4300	14.2	-14.1	4.5	-4.4	8.8	-10.0	-6.8	6.6	-16	17
4400	14.4	-14.2	4.7	-4.6	9.3	-10.4	-7.0	6.8	-16	17
4500	14.6	-14.4	4.9	-4.8	9.7	-10.8	-7.2	7.0	-16	17
4600	14.8	-14.6	5.1	-5.0	10.1	-11.1	-7.5	7.3	-16	17
4700	15.0	-14.8	5.4	-5.1	10.6	-11.5	-7.7	7.5	-16	17
4800	15.2	-15.0	5.6	-5.3	11.0	-11.9	-7.9	7.8	-17	18
4900	15.3	-15.2	5.8	-5.5	11.4	-12.3	-8.2	8.0	-17	18
5000	15.5	-15.4	6.0	-5.6	11.9	-12.6	-8.4	8.3	-17	18
5100	15.7	-15.5	6.2	-5.8	12.3	-13.0	-8.7	8.5	-17	18
5200	15.9	-15.7	6.4	-6.0	12.8	-13.4	-8.9	8.8	-17	18
5300	16.1	-15.9	6.6	-6.2	13.2	-13.7	-9.2	9.0	-17	18
5400	16.3	-16.1	6.9	-6.3	13.6	-14.1	-9.4	9.3	-17	18
5500	16.5	-16.2	7.1	-6.5	14.1	-14.5	-9.7	9.6	-17	18
5600	16.7	-16.4	7.3	-6.7	14.5	-14.8	-10.0	9.9	-17	18
5700	16.9	-16.6	7.5	-6.9	14.9	-15.2	-10.2	10.1	-17	18
5800	17.1	-16.8	7.7	-7.0	15.3	-15.5	-10.5	10.4	-17	18
5900	17.3	-16.9	7.9	-7.2	15.7	-15.8	-10.8	10.7	-17	18
6000	17.5	-17.1	8.2	-7.4	16.1	-16.2	-11.1	11.0	-17	18
6100	17.7	-17.3	8.4	-7.6	16.5	-16.5	-11.4	11.3	-17	18
6200	17.9	-17.5	8.6	-7.7	16.9	-16.9	-11.7	11.6	-17	18
6300	18.1	-17.7	8.8	-7.9	17.3	-17.2	-12.0	11.9	-17	18
6400	18.3	-17.8	9.0	-8.1	17.7	-17.5	-12.3	12.2	-17	18
6500	18.5	-18.0	9.3	-8.2	18.1	-17.8	-12.6	12.5	-17	18
6600	18.7	-18.2	9.5	-8.4	18.4	-18.1	-12.9	12.8	-17	18
6700	18.9	-18.4	9.7	-8.6	18.8	-18.5	-13.2	13.2	-17	18
6800	19.1	-18.6	9.9	-8.8	19.1	-18.8	-13.6	13.5	-17	18
6900	19.3	-18.7	10.1	-8.9	19.5	-19.1	-13.9	13.8	-17	18
7000	19.5	-18.9	10.4	-9.1	19.8	-19.4	-14.2	14.2	-17	18

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1	2	3	4	5	6	7	8	9
R A N G E	E L E V	FS FOR GRAZE BURST	DFS PER 10 M DEC HOB	DR PER 1 MIL D ELEV	F O R K	TIME OF FLIGHT	AZIMUTH CORRECTIONS	
		FUZE M582					DRIFT (CORR TO L)	CW OF 1 KNOT
M	MIL			M	MIL	SEC	MIL	MIL
7000	363.3	24.2	0.09	13	6	24.2	8.2	0.35
7100	370.8	24.7	0.09	13	6	24.7	8.4	0.35
7200	378.4	25.2	0.08	13	6	25.2	8.6	0.36
7300	386.2	25.6	0.08	13	6	25.6	8.8	0.36
7400	394.1	26.1	0.08	13	6	26.1	9.0	0.37
7500	402.2	26.6	0.08	12	6	26.6	9.3	0.37
7600	410.4	27.1	0.08	12	7	27.1	9.5	0.38
7700	418.8	27.6	0.08	12	7	27.6	9.7	0.38
7800	427.3	28.1	0.08	12	7	28.1	10.0	0.38
7900	436.1	28.6	0.07	11	7	28.6	10.2	0.39
8000	445.1	29.1	0.07	11	8	29.1	10.5	0.39
8100	454.3	29.7	0.07	11	8	29.7	10.8	0.40
8200	463.7	30.2	0.07	10	8	30.2	11.1	0.40
8300	473.4	30.8	0.07	10	9	30.8	11.4	0.41
8400	483.4	31.4	0.07	10	9	31.4	11.7	0.41
8500	493.7	32.0	0.07	10	10	32.0	12.0	0.42
8600	504.3	32.6	0.07	9	10	32.6	12.4	0.42
8700	515.3	33.2	0.06	9	11	33.2	12.7	0.43
8800	526.8	33.9	0.06	9	11	33.9	13.1	0.44
8900	538.8	34.5	0.06	8	12	34.5	13.5	0.44
9000	551.4	35.2	0.06	8	13	35.2	13.9	0.45
9100	564.6	36.0	0.06	7	14	36.0	14.4	0.46
9200	578.7	36.8	0.06	7	15	36.8	14.9	0.46
9300	593.9	37.6	0.06	6	17	37.6	15.5	0.47
9400	610.2	38.5	0.06	6	18	38.5	16.1	0.48
9500	628.3	39.4	0.06	5	21	39.4	16.8	0.49
9600	648.6	40.5	0.05	5	24	40.5	17.7	0.50
9700	672.5	41.7	0.05	4	30	41.7	18.7	0.51
9800	702.9	43.3	0.05	2	48	43.3	20.0	0.53
9900	756.3	45.9	0.05			45.9	22.7	
*****	*****	*****	*****	*****	*****	*****	*****	*****
9900	812.9	48.5	0.05			48.5	25.8	
9800	865.8	50.9	0.04	2	51	50.9	29.3	0.65
9700	895.8	52.2	0.04	4	33	52.2	31.4	0.67
9600	919.3	53.2	0.04	5	26	53.2	33.3	0.69
9500	939.2	54.0	0.04	5	22	54.0	34.9	0.71

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CORRECTION FACTORS

(U//FOUO)

1	10	11	12	13	14	15	16	17	18	19
R A N G E	RANGE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
M	M	M	M	M	M	M	M	M	M	M
7000	19.5	-18.9	10.4	-9.1	19.8	-19.4	-14.2	14.2	-17	18
7100	19.7	-19.1	10.6	-9.3	20.2	-19.7	-14.5	14.5	-17	18
7200	19.9	-19.3	10.8	-9.5	20.5	-19.9	-14.9	14.9	-17	18
7300	20.1	-19.5	11.0	-9.6	20.8	-20.2	-15.2	15.3	-16	18
7400	20.3	-19.7	11.2	-9.8	21.1	-20.5	-15.6	15.7	-16	18
7500	20.6	-19.8	11.4	-10.0	21.4	-20.7	-15.9	16.0	-16	18
7600	20.8	-20.0	11.7	-10.1	21.7	-21.0	-16.3	16.4	-16	18
7700	21.0	-20.2	11.9	-10.3	22.0	-21.2	-16.6	16.8	-16	18
7800	21.3	-20.4	12.1	-10.5	22.3	-21.5	-17.0	17.2	-16	18
7900	21.5	-20.6	12.3	-10.6	22.6	-21.7	-17.4	17.6	-16	18
8000	21.7	-20.8	12.5	-10.8	22.8	-21.9	-17.7	18.0	-16	18
8100	22.0	-21.0	12.7	-11.0	23.0	-22.1	-18.1	18.4	-16	18
8200	22.2	-21.2	12.9	-11.1	23.3	-22.3	-18.5	18.8	-16	18
8300	22.4	-21.5	13.1	-11.3	23.5	-22.6	-18.9	19.2	-16	18
8400	22.7	-21.7	13.3	-11.4	23.7	-22.8	-19.3	19.7	-16	18
8500	23.0	-21.9	13.5	-11.6	23.9	-23.0	-19.8	20.2	-16	18
8600	23.2	-22.1	13.7	-11.8	24.1	-23.1	-20.2	20.7	-16	18
8700	23.5	-22.3	13.9	-11.9	24.2	-23.3	-20.6	21.1	-16	18
8800	23.8	-22.5	14.1	-12.1	24.3	-23.4	-21.1	21.7	-16	18
8900	24.1	-22.8	14.3	-12.2	24.4	-23.6	-21.5	22.2	-16	18
9000	24.4	-23.0	14.5	-12.4	24.5	-23.7	-21.9	22.7	-16	18
9100	24.7	-23.2	14.7	-12.5	24.5	-23.8	-22.4	23.2	-16	18
9200	25.0	-23.5		-12.7	24.6	-23.9	-22.9	23.7	-15	18
9300	25.3	-23.8		-12.8	24.6	-24.0	-23.4	24.2	-15	18
9400	25.6	-24.0		-13.0	24.6	-24.0	-23.9	24.8	-15	18
9500	25.9	-24.3		-13.1	24.6	-24.1	-24.4	25.5	-15	18
9600	26.4	-24.6		-13.2	24.5	-24.2	-25.0	26.3	-15	18
9700		-24.8		-13.4		-24.3	-25.5		-15	18
9800		-25.1		-13.5		-24.3	-26.1		-15	18
9900		-25.4		-13.7		-24.3	-26.6		-15	18
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
9900	26.8	-26.2		-13.3	23.3	-22.4	-29.0	27.2	-15	17
9800		-26.0		-13.1		-22.0	-28.8		-14	
9700		-25.8		-13.0		-21.7	-28.5		-14	
9600		-25.6		-12.8		-21.4	-28.3		-14	
9500	26.6	-25.4		-12.7	22.8	-21.2	-28.0	27.2	-14	17

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1	2	3	4	5	6	7	8	9
R A N G E	E L E V	FS FOR GRAZE BURST  FUZE M582	DFS PER 10 M DEC HOB	DR PER 1 MIL D ELEV	F O R K	TIME OF FLIGHT	AZIMUTH CORRECTIONS	
							DRIFT (CORR TO L)	CW OF 1 KNOT
M	MIL			M	MIL	SEC	MIL	MIL
9500	939.2	54.0	0.04	5	22	54.0	34.9	0.71
9400	956.9	54.7	0.04	6	20	54.7	36.5	0.73
9300	972.8	55.3	0.04	7	18	55.3	38.0	0.75
9200	987.5	55.8	0.04	7	16	55.8	39.5	0.76
9100	1001.3	56.4	0.04	8	15	56.4	40.9	0.78
9000	1014.1	56.8	0.04	8	14	56.8	42.3	0.79
8900	1026.4	57.3	0.04	8	13	57.3	43.7	0.81
8800	1038.0	57.7	0.04	9	13	57.7	45.1	0.83
8700	1049.1	58.1	0.04	9	12	58.1	46.5	0.84
8600	1059.7	58.4	0.04	10	11	58.4	47.9	0.86
8500	1070.0	58.8	0.04	10	11	58.8	49.4	0.87
8400	1079.9	59.1	0.04	10	10	59.1	50.8	0.89
8300	1089.4	59.4	0.04	11	10	59.4	52.2	0.91
8200	1098.7	59.7	0.04	11	9	59.7	53.7	0.92
8100	1107.7	60.0	0.04	11	9	60.0	55.2	0.94
8000	1116.4	60.3	0.04	12	9	60.3	56.7	0.96
7900	1124.9	60.6	0.04	12	8	60.6	58.3	0.98
7800	1133.2	60.8	0.04	12	8	60.8	59.9	1.00
7700	1141.3	61.1	0.04	13	8	61.1	61.5	1.02
7600	1149.2	61.3	0.04	13	7	61.3	63.2	1.04
7500	1156.9	61.6	0.04	13	7	61.6	64.9	1.06
7400	1164.5	61.8	0.04	13	7	61.8	66.6	1.08
7300	1171.9	62.0	0.04	14	7	62.0	68.4	1.10
7200	1179.1	62.2	0.04	14	6	62.2	70.3	1.13
7100	1186.2	62.4	0.04	14	6	62.4	72.2	1.15
7000	1193.2	62.6	0.04	15	6	62.6	74.2	1.18
6900	1200.0	62.8	0.04	15	6	62.8	76.3	1.21
6800	1206.7	63.0	0.04	15	6	63.0	78.5	1.23
6700	1213.2	63.2	0.04	15	5	63.2	80.8	1.26
6600	1219.6	63.4	0.04	16	5	63.4	83.2	1.30
6500	1225.9	63.5	0.04	16	5	63.5	85.7	1.33
6400	1232.1	63.7	0.04	16	5	63.7	88.4	1.37
6300	1238.1	63.9	0.04	17	5	63.9	91.2	1.40
6200	1244.1	64.0	0.04	17	4	64.0	94.2	1.45
6100	1249.9	64.2	0.04	17	4	64.2	97.5	1.49
6000	1255.5	64.4	0.04	18	4	64.4	101.0	1.54

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CORRECTION FACTORS

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1	10	11	12	13	14	15	16	17	18	19
R A N G E	RANGE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
	M	M	M	M	M	M	M	M	M	M
9500	26.6	-25.4		-12.7	22.8	-21.2	-28.0	27.2	-14	17
9400	26.5	-25.2		-12.5	22.4	-20.9	-27.7	27.0	-14	17
9300	26.3	-25.0		-12.3	22.0	-20.6	-27.4	26.9	-14	16
9200	26.1	-24.7		-12.2	21.7	-20.3	-27.2	26.6	-14	16
9100	25.8	-24.5	14.9	-12.0	21.4	-20.1	-26.9	26.4	-14	16
9000	25.6	-24.3	14.8	-11.9	21.1	-19.8	-26.6	26.1	-13	16
8900	25.4	-24.0	14.7	-11.7	20.8	-19.6	-26.3	25.9	-13	15
8800	25.1	-23.8	14.5	-11.5	20.5	-19.3	-25.9	25.6	-13	15
8700	24.9	-23.5	14.4	-11.4	20.2	-19.1	-25.6	25.3	-13	15
8600	24.7	-23.3	14.2	-11.2	20.0	-18.8	-25.3	25.0	-13	15
8500	24.4	-23.0	14.1	-11.0	19.7	-18.6	-25.0	24.8	-12	15
8400	24.1	-22.8	14.0	-10.8	19.5	-18.4	-24.7	24.5	-12	14
8300	23.9	-22.5	13.8	-10.7	19.2	-18.2	-24.4	24.2	-12	14
8200	23.6	-22.3	13.7	-10.5	19.0	-17.9	-24.0	23.9	-12	14
8100	23.4	-22.0	13.5	-10.3	18.7	-17.7	-23.7	23.6	-11	14
8000	23.1	-21.8	13.4	-10.1	18.5	-17.5	-23.4	23.3	-11	13
7900	22.8	-21.5	13.2	-9.8	18.2	-17.3	-23.0	22.9	-11	13
7800	22.6	-21.2	13.1	-9.6	18.0	-17.1	-22.7	22.6	-11	13
7700	22.3	-21.0	13.0	-9.4	17.8	-16.9	-22.4	22.3	-10	13
7600	22.0	-20.7	12.8	-9.1	17.5	-16.7	-22.0	22.0	-10	13
7500	21.7	-20.4	12.7	-8.9	17.3	-16.4	-21.7	21.7	-10	12
7400	21.5	-20.2	12.5	-8.6	17.1	-16.2	-21.3	21.3	-10	12
7300	21.2	-19.9	12.4	-8.3	16.9	-16.0	-21.0	21.0	-9	12
7200	20.9	-19.6	12.2	-8.0	16.7	-15.9	-20.6	20.7	-9	11
7100	20.6	-19.3	12.0	-7.6	16.5	-15.7	-20.3	20.3	-9	11
7000	20.3	-19.1	11.9	-7.3	16.3	-15.5	-19.9	20.0	-8	11
6900	20.0	-18.8	11.7		16.1	-15.3	-19.5	19.7	-8	11
6800	19.7	-18.5	11.6		15.9	-15.1	-19.1	19.3	-8	10
6700	19.5	-18.2	11.4		15.7	-14.9	-18.8	19.0	-7	10
6600	19.2	-17.9	11.2		15.5	-14.7	-18.4	18.6	-7	9
6500	18.9	-17.6	11.0		15.3	-14.6	-18.0	18.3	-6	9
6400	18.6	-17.3	10.8		15.1	-14.4	-17.6	17.9	-6	9
6300	18.3	-17.1	10.7		14.9	-14.2	-17.2	17.5	-5	8
6200	18.0	-16.8	10.5		14.8	-14.1	-16.8	17.2	-5	8
6100	17.7	-16.5	10.2		14.6	-13.9	-16.3	16.8	-4	7
6000	17.3	-16.2	10.0		14.4	-13.8	-15.9	16.4	-4	7

(U//FOUO)

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1	2	3	4	5	6	7	8	9
R A N G E	E L E V	FS FOR GRAZE BURST	DFS PER 10 M DEC HOB	DR PER 1 MIL D ELEV	F O R K	TIME OF FLIGHT	AZIMUTH CORRECTIONS	
		FUZE M582					DRIFT (CORR TO L)	CW OF 1 KNOT
M	MIL			M	MIL	SEC	MIL	MIL
6000	1255.5	64.4	0.04	18	4	64.4	101.0	1.54
5900	1261.1	64.5	0.04	18	4	64.5	104.8	1.59
5800	1266.5	64.7	0.04	19	4	64.7	108.8	1.65
5700	1271.8	64.8	0.04	19	4	64.8	113.3	1.71
5600	1277.0	65.0	0.04	20		65.0	118.1	1.78
5500	1282.0	65.1	0.04	20		65.1	123.5	1.86
5400	1286.9	65.3	0.04	21		65.3	129.4	
5300	1291.6	65.4	0.04	21		65.4	135.9	
5200	1296.2	65.6	0.04			65.6	143.1	
5115	1300.0							

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1	10	11	12	13	14	15	16	17	18	19
R A N G E	RANGE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
	M	M	M	M	M	M	M	M	M	M
6000	17.3	-16.2	10.0		14.4	-13.8	-15.9	16.4	-4	7
5900	17.0	-15.8	9.8		14.3	-13.7	-15.4	16.0	-3	6
5800	16.7	-15.5	9.5		14.1	-13.5	-15.0	15.6	-3	6
5700	16.4	-15.2	9.3		14.0	-13.4	-14.5	15.2	-2	5
5600	16.1	-14.9	9.0		13.9	-13.3		14.8	-1	4
5500	15.8	-14.6	8.7		13.8	-13.3		14.3	0	3
5400	15.4	-14.3	8.4		13.7	-13.2		13.9	1	2
5300	15.1	-13.9	8.0		13.6	-13.1		13.4	2	1
5200	14.7		7.7		13.5			12.9	3	0

(U//FOUO)

## SUPPLEMENTARY DATA

PROJ, HE, M795  
FUZE, PD, M739A1

(U//FOUO)

1	2	3	4	5	6	7	8	9	10	11	12	13
R A N G E	E L E V	PROBABLE ERRORS					ANGLE OF FALL	COT ANGLE OF FALL	TML VEL	MO	COMP SITE	
		R	D	FUZE M582							+1 MIL SITE	-1 MIL SITE
				HB	TB	RB						
M	MIL	M	M	M	SEC	M	MIL		M/S	M	MIL	MIL
0	0.0	6	0				0		380	0	0.000	0.00
500	17.9	6	0				19	55.0	362	2	0.000	0.00
1000	37.0	6	0	1	0.04	14	39	25.8	347	9	0.001	-0.001
1500	57.4	7	1	1	0.04	14	63	16.2	334	22	0.003	-0.002
2000	78.8	8	1	1	0.04	13	88	11.6	323	41	0.005	-0.004
2500	101.5	9	1	2	0.04	13	115	8.8	315	67	0.008	-0.007
3000	125.3	10	1	2	0.04	13	144	7.0	307	100	0.011	-0.010
3500	150.2	11	2	2	0.04	13	175	5.8	301	141	0.016	-0.014
4000	176.3	12	2	3	0.04	13	207	4.9	296	191	0.022	-0.020
4500	203.5	13	2	3	0.04	13	240	4.2	291	251	0.030	-0.027
5000	232.1	14	2	4	0.04	14	276	3.6	287	320	0.041	-0.035
5500	262.1	15	3	4	0.04	14	313	3.2	283	401	0.054	-0.047
6000	293.7	16	3	5	0.04	14	352	2.8	280	495	0.072	-0.062
6500	327.3	17	3	6	0.04	15	394	2.5	277	604	0.097	-0.082
7000	363.3	19	4	6	0.04	16	439	2.2	274	730	0.130	-0.110
7500	402.2	20	4	7	0.05	16	486	1.9	272	877	0.177	-0.147
8000	445.1	21	4	8	0.05	17	539	1.7	270	1051	0.249	-0.200
8500	493.7	23	5	10	0.05	18	597	1.5	269	1262	0.367	-0.282
9000	551.4	25	5	11	0.05	20	664	1.3	268	1529	0.615	-0.421
9500	628.3	27	6	14	0.05	21	751	1.1	269	1908	1.787	-0.737
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
9500	939.2	30	7	25	0.07	22	1056	0.6	281	3540	-2.852	1.80
9000	1014.1	28	8	28	0.08	21	1121	0.5	284	3914	-1.676	1.49
8500	1070.0	27	7	31	0.08	20	1170	0.4	286	4177	-1.424	1.34
8000	1116.4	25	7	32	0.08	19	1210	0.4	288	4383	-1.298	1.25
7500	1156.9	24	7	34	0.08	18	1245	0.4	289	4551	-1.219	1.19
7000	1193.2	22	7	35	0.09	17	1277	0.3	290	4692	-1.164	1.14
6500	1225.9	20	7	36	0.09	15	1308	0.3	291	4811	-1.123	1.11
6000	1255.5	18	6	37	0.09	14	1337	0.3	291	4911	-1.091	1.08
5500	1282.0	6	6	38	0.09	12	1367	0.2	291	4993	-1.064	1.05

(U//FOUO)

ROTATION - RANGE

(U//FOUO) CORRECTIONS TO RANGE, IN METERS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 3200	200 3000	400 2800	600 2600	800 2400	1000 2200	1200 2000	1400 1800	1600 1600
500	0	-1+	-1+	-2+	-2+	-2+	-3+	-3+	-3+
1000	0	-1+	-2+	-3+	-4+	-4+	-5+	-5+	-5+
1500	0	-1+	-3+	-4+	-5+	-6+	-7+	-7+	-7+
2000	0	-2+	-4+	-5+	-7+	-8+	-9+	-9+	-10+
2500	0	-2+	-4+	-6+	-8+	-10+	-11+	-11+	-12+
3000	0	-3+	-5+	-7+	-9+	-11+	-12+	-13+	-13+
3500	0	-3+	-6+	-8+	-11+	-13+	-14+	-15+	-15+
4000	0	-3+	-6+	-9+	-12+	-14+	-16+	-17+	-17+
4500	0	-4+	-7+	-10+	-13+	-15+	-17+	-18+	-19+
5000	0	-4+	-8+	-11+	-14+	-17+	-19+	-20+	-20+
5500	0	-4+	-8+	-12+	-15+	-18+	-20+	-21+	-21+
6000	0	-4+	-9+	-13+	-16+	-19+	-21+	-22+	-23+
6500	0	-5+	-9+	-13+	-17+	-20+	-22+	-23+	-24+
7000	0	-5+	-9+	-14+	-18+	-21+	-23+	-24+	-25+
7500	0	-5+	-10+	-14+	-18+	-21+	-24+	-25+	-26+
8000	0	-5+	-10+	-14+	-18+	-22+	-24+	-25+	-26+
8500	0	-5+	-10+	-14+	-18+	-22+	-24+	-25+	-26+
9000	0	-5+	-10+	-14+	-18+	-21+	-24+	-25+	-25+
9500	0	-5+	-9+	-13+	-17+	-20+	-22+	-23+	-24+
*****									
9500	0	-1+	-3+	-4+	-5+	-6+	-7+	-7+	-7+
9000	0	0	-1+	-1+	-1+	-1+	-2+	-2+	-2+
8500	0	+1-	+1-	+2-	+2-	+2-	+3-	+3-	+3-
8000	0	+1-	+3-	+4-	+5-	+6-	+6-	+7-	+7-
7500	0	+2-	+4-	+6-	+8-	+9-	+10-	+10-	+11-
7000	0	+3-	+5-	+8-	+10-	+12-	+13-	+14-	+14-
6500	0	+4-	+7-	+10-	+13-	+15-	+17-	+18-	+18-
6000	0	+4-	+9-	+13-	+16-	+19-	+21-	+22-	+23-
5500	0	+6-	+11-	+16-	+20-	+24-	+26-	+28-	+28-
AZIMUTH OF TARGET - MILS									
	3200 6400	3400 6200	3600 6000	3800 5800	4000 5600	4200 5400	4400 5200	4600 5000	4800 4800

(U//FOUO)

- (U//FOUO) NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
3. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.  
4. CORRECTIONS ARE FOR 0 DEGREES LATITUDE. FOR OTHER LATITUDES  
MULTIPLY CORRECTIONS BY THE FACTOR GIVEN BELOW.

(U//FOUO)

LATITUDE (DEG)	10	20	30	40	50	60	70
MULTIPLY BY	.98	.94	.87	.77	.64	.50	.34

(U//FOUO)

CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

0 DEGREES LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS									
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200	
500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
1000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
1500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
3000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
3500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
4000	R0.1L	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	L0.1R
4500	R0.1L	R0.1L	0.0	0.0	0.0	0.0	0.0	L0.1R	L0.1R	L0.1R
5000	R0.1L	R0.1L	R0.1L	0.0	0.0	0.0	L0.1R	L0.1R	L0.1R	L0.1R
5500	R0.1L	R0.1L	R0.1L	0.0	0.0	0.0	L0.1R	L0.1R	L0.1R	L0.1R
6000	R0.1L	R0.1L	R0.1L	R0.1L	0.0	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
6500	R0.2L	R0.2L	R0.1L	R0.1L	0.0	L0.1R	L0.1R	L0.2R	L0.2R	L0.2R
7000	R0.2L	R0.2L	R0.1L	R0.1L	0.0	L0.1R	L0.1R	L0.2R	L0.2R	L0.2R
7500	R0.3L	R0.2L	R0.2L	R0.1L	0.0	L0.1R	L0.2R	L0.2R	L0.2R	L0.3R
8000	R0.3L	R0.3L	R0.2L	R0.1L	0.0	L0.1R	L0.2R	L0.3R	L0.3R	L0.3R
8500	R0.4L	R0.4L	R0.3L	R0.1L	0.0	L0.1R	L0.3R	L0.4R	L0.4R	L0.4R
9000	R0.5L	R0.5L	R0.3L	R0.2L	0.0	L0.2R	L0.3R	L0.5R	L0.5R	L0.5R
9500	R0.6L	R0.6L	R0.5L	R0.2L	0.0	L0.2R	L0.5R	L0.6R	L0.6R	L0.6R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
9500	R1.6L	R1.5L	R1.2L	R0.6L	0.0	L0.6R	L1.2R	L1.5R	L1.6R	L1.6R
9000	R2.0L	R1.9L	R1.4L	R0.8L	0.0	L0.8R	L1.4R	L1.9R	L2.0R	L2.0R
8500	R2.3L	R2.2L	R1.7L	R0.9L	0.0	L0.9R	L1.7R	L2.2R	L2.3R	L2.3R
8000	R2.7L	R2.5L	R1.9L	R1.0L	0.0	L1.0R	L1.9R	L2.5R	L2.7R	L2.7R
7500	R3.0L	R2.8L	R2.1L	R1.2L	0.0	L1.2R	L2.1R	L2.8R	L3.0R	L3.0R
7000	R3.4L	R3.1L	R2.4L	R1.3L	0.0	L1.3R	L2.4R	L3.1R	L3.4R	L3.4R
6500	R3.7L	R3.4L	R2.6L	R1.4L	0.0	L1.4R	L2.6R	L3.4R	L3.7R	L3.7R
6000	R4.1L	R3.8L	R2.9L	R1.6L	0.0	L1.6R	L2.9R	L3.8R	L4.1R	L4.1R
5500	R4.4L	R4.1L	R3.1L	R1.7L	0.0	L1.7R	L3.1R	L4.1R	L4.4R	L4.4R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400	
	AZIMUTH OF TARGET - MILS									

(U//FOUO)

0 DEGREES LATITUDE

(U//FOUO)

- NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
 2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
 3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.  
 4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

10 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1500	0.0	0.0	0.0	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
2000	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
2500	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
3000	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
3500	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.2R	L0.2R	L0.2R
4000	L0.1R	L0.1R	L0.1R	L0.1R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
4500	L0.1R	L0.1R	L0.1R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
5000	L0.1R	L0.1R	L0.1R	L0.2R	L0.2R	L0.2R	L0.3R	L0.3R	L0.3R
5500	L0.1R	L0.1R	L0.1R	L0.2R	L0.2R	L0.3R	L0.3R	L0.3R	L0.3R
6000	L0.1R	L0.1R	L0.1R	L0.2R	L0.2R	L0.3R	L0.3R	L0.4R	L0.4R
6500	L0.1R	L0.1R	L0.2R	L0.2R	L0.3R	L0.3R	L0.4R	L0.4R	L0.4R
7000	L0.1R	L0.1R	L0.1R	L0.2R	L0.3R	L0.4R	L0.4R	L0.5R	L0.5R
7500	L0.1R	L0.1R	L0.1R	L0.2R	L0.3R	L0.4R	L0.5R	L0.6R	L0.6R
8000	0.0	L0.1R	L0.1R	L0.2R	L0.4R	L0.5R	L0.6R	L0.6R	L0.7R
8500	0.0	0.0	L0.1R	L0.2R	L0.4R	L0.5R	L0.7R	L0.7R	L0.8R
9000	R0.1L	0.0	L0.1R	L0.2R	L0.4R	L0.6R	L0.8R	L0.9R	L0.9R
9500	R0.2L	R0.1L	0.0	L0.2R	L0.5R	L0.7R	L0.9R	L1.1R	L1.1R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
9500	R1.0L	R0.8L	R0.5L	0.0	L0.6R	L1.3R	L1.8R	L2.1R	L2.3R
9000	R1.3L	R1.1L	R0.7L	R0.1L	L0.7R	L1.4R	L2.1R	L2.5R	L2.7R
8500	R1.6L	R1.4L	R0.9L	R0.2L	L0.7R	L1.6R	L2.3R	L2.8R	L3.0R
8000	R1.9L	R1.7L	R1.1L	R0.3L	L0.7R	L1.7R	L2.6R	L3.2R	L3.4R
7500	R2.2L	R2.0L	R1.4L	R0.4L	L0.7R	L1.9R	L2.8R	L3.5R	L3.7R
7000	R2.6L	R2.3L	R1.6L	R0.5L	L0.7R	L2.0R	L3.1R	L3.8R	L4.0R
6500	R2.9L	R2.6L	R1.8L	R0.7L	L0.7R	L2.1R	L3.3R	L4.1R	L4.4R
6000	R3.3L	R3.0L	R2.1L	R0.8L	L0.7R	L2.3R	L3.6R	L4.5R	L4.8R
5500	R3.6L	R3.3L	R2.3L	R0.9L	L0.7R	L2.4R	L3.8R	L4.8R	L5.1R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
	AZIMUTH OF TARGET - MILS								

(U//FOUO)

10 DEGREES SOUTH LATITUDE

(U//FOUO)

- NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.  
4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

## ROTATION - AZIMUTH

PROJ, HE, M795  
FUZE, PD, M739A1CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

## 20 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1000	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
1500	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
2000	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.2R	L0.2R	L0.2R
2500	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
3000	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
3500	L0.2R	L0.2R	L0.2R	L0.2R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R
4000	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.4R
4500	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.4R	L0.4R	L0.4R	L0.4R
5000	L0.3R	L0.3R	L0.3R	L0.4R	L0.4R	L0.4R	L0.4R	L0.5R	L0.5R
5500	L0.3R	L0.3R	L0.4R	L0.4R	L0.4R	L0.5R	L0.5R	L0.5R	L0.5R
6000	L0.4R	L0.4R	L0.4R	L0.4R	L0.5R	L0.5R	L0.6R	L0.6R	L0.6R
6500	L0.4R	L0.4R	L0.4R	L0.5R	L0.5R	L0.6R	L0.6R	L0.7R	L0.7R
7000	L0.4R	L0.4R	L0.4R	L0.5R	L0.6R	L0.7R	L0.7R	L0.8R	L0.8R
7500	L0.4R	L0.4R	L0.5R	L0.5R	L0.6R	L0.7R	L0.8R	L0.9R	L0.9R
8000	L0.4R	L0.4R	L0.5R	L0.6R	L0.7R	L0.8R	L0.9R	L1.0R	L1.0R
8500	L0.4R	L0.4R	L0.5R	L0.6R	L0.8R	L0.9R	L1.0R	L1.1R	L1.1R
9000	L0.4R	L0.4R	L0.5R	L0.7R	L0.8R	L1.0R	L1.2R	L1.3R	L1.3R
9500	L0.3R	L0.4R	L0.5R	L0.7R	L0.9R	L1.2R	L1.4R	L1.5R	L1.5R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
9500	R0.3L	R0.1L	L0.2R	L0.7R	L1.3R	L1.9R	L2.4R	L2.7R	L2.8R
9000	R0.5L	R0.4L	0.0	L0.6R	L1.3R	L2.1R	L2.7R	L3.1R	L3.2R
8500	R0.8L	R0.7L	R0.2L	L0.5R	L1.4R	L2.2R	L2.9R	L3.4R	L3.6R
8000	R1.1L	R0.9L	R0.4L	L0.4R	L1.4R	L2.4R	L3.2R	L3.7R	L3.9R
7500	R1.4L	R1.2L	R0.6L	L0.4R	L1.4R	L2.5R	L3.4R	L4.1R	L4.3R
7000	R1.7L	R1.5L	R0.8L	L0.2R	L1.5R	L2.7R	L3.7R	L4.4R	L4.6R
6500	R2.0L	R1.8L	R1.0L	L0.1R	L1.5R	L2.8R	L3.9R	L4.7R	L5.0R
6000	R2.4L	R2.1L	R1.2L	0.0	L1.5R	L2.9R	L4.2R	L5.0R	L5.3R
5500	R2.7L	R2.4L	R1.5L	R0.1L	L1.5R	L3.1R	L4.4R	L5.3R	L5.6R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
	AZIMUTH OF TARGET - MILS								

(U//FOUO)

## 20 DEGREES SOUTH LATITUDE

(U//FOUO)

- NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
 2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
 3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.  
 4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

30 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
500	0.0	0.0	0.0	0.0	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
1000	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
1500	L0.1R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
2000	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
2500	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R
3000	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R
3500	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R
4000	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.5R	L0.5R	L0.5R	L0.5R
4500	L0.4R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.6R	L0.6R
5000	L0.5R	L0.5R	L0.5R	L0.5R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R
5500	L0.5R	L0.5R	L0.6R	L0.6R	L0.6R	L0.7R	L0.7R	L0.7R	L0.7R
6000	L0.6R	L0.6R	L0.6R	L0.7R	L0.7R	L0.8R	L0.8R	L0.8R	L0.8R
6500	L0.6R	L0.6R	L0.7R	L0.7R	L0.8R	L0.8R	L0.9R	L0.9R	L0.9R
7000	L0.7R	L0.7R	L0.7R	L0.8R	L0.9R	L0.9R	L1.0R	L1.0R	L1.0R
7500	L0.7R	L0.7R	L0.8R	L0.8R	L0.9R	L1.0R	L1.1R	L1.1R	L1.2R
8000	L0.7R	L0.8R	L0.8R	L0.9R	L1.0R	L1.1R	L1.2R	L1.3R	L1.3R
8500	L0.8R	L0.8R	L0.9R	L1.0R	L1.1R	L1.2R	L1.4R	L1.4R	L1.5R
9000	L0.8R	L0.8R	L0.9R	L1.1R	L1.2R	L1.4R	L1.5R	L1.6R	L1.7R
9500	L0.8R	L0.9R	L1.0R	L1.2R	L1.4R	L1.6R	L1.8R	L1.9R	L1.9R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
9500	L0.4R	L0.6R	L0.9R	L1.3R	L1.9R	L2.4R	L2.9R	L3.2R	L3.3R
9000	L0.2R	L0.3R	L0.7R	L1.3R	L2.0R	L2.6R	L3.2R	L3.6R	L3.7R
8500	0.0	L0.1R	L0.6R	L1.2R	L2.0R	L2.8R	L3.5R	L3.9R	L4.1R
8000	R0.3L	R0.1L	L0.4R	L1.2R	L2.1R	L3.0R	L3.7R	L4.2R	L4.4R
7500	R0.5L	R0.3L	L0.3R	L1.1R	L2.1R	L3.1R	L3.9R	L4.5R	L4.7R
7000	R0.8L	R0.6L	L0.1R	L1.0R	L2.1R	L3.2R	L4.2R	L4.8R	L5.0R
6500	R1.1L	R0.8L	R0.1L	L0.9R	L2.1R	L3.4R	L4.4R	L5.1R	L5.4R
6000	R1.4L	R1.1L	R0.4L	L0.8R	L2.1R	L3.5R	L4.6R	L5.4R	L5.7R
5500	R1.7L	R1.4L	R0.6L	L0.7R	L2.1R	L3.6R	L4.8R	L5.7R	L6.0R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
	AZIMUTH OF TARGET - MILS								

(U//FOUO)

30 DEGREES SOUTH LATITUDE

(U//FOUO)

- NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.  
4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

## 40 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
500	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
1000	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
1500	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
2000	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R
2500	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.4R	L0.4R	L0.4R
3000	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R
3500	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R
4000	L0.5R	L0.5R	L0.5R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R
4500	L0.6R	L0.6R	L0.6R	L0.6R	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R
5000	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R	L0.8R	L0.8R	L0.8R	L0.8R
5500	L0.7R	L0.7R	L0.8R	L0.8R	L0.8R	L0.9R	L0.9R	L0.9R	L0.9R
6000	L0.8R	L0.8R	L0.8R	L0.9R	L0.9R	L0.9R	L1.0R	L1.0R	L1.0R
6500	L0.9R	L0.9R	L0.9R	L1.0R	L1.0R	L1.1R	L1.1R	L1.1R	L1.1R
7000	L0.9R	L0.9R	L1.0R	L1.0R	L1.1R	L1.2R	L1.2R	L1.2R	L1.3R
7500	L1.0R	L1.0R	L1.1R	L1.1R	L1.2R	L1.3R	L1.3R	L1.4R	L1.4R
8000	L1.1R	L1.1R	L1.1R	L1.2R	L1.3R	L1.4R	L1.5R	L1.5R	L1.6R
8500	L1.1R	L1.2R	L1.2R	L1.3R	L1.4R	L1.6R	L1.6R	L1.7R	L1.7R
9000	L1.2R	L1.2R	L1.3R	L1.4R	L1.6R	L1.7R	L1.8R	L1.9R	L2.0R
9500	L1.3R	L1.3R	L1.4R	L1.6R	L1.8R	L1.9R	L2.1R	L2.2R	L2.3R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
9500	L1.1R	L1.2R	L1.5R	L1.9R	L2.4R	L2.9R	L3.3R	L3.5R	L3.6R
9000	L1.0R	L1.1R	L1.4R	L1.9R	L2.5R	L3.1R	L3.6R	L3.9R	L4.1R
8500	L0.8R	L0.9R	L1.3R	L1.9R	L2.6R	L3.3R	L3.9R	L4.3R	L4.4R
8000	L0.6R	L0.8R	L1.2R	L1.9R	L2.7R	L3.4R	L4.1R	L4.5R	L4.7R
7500	L0.4R	L0.6R	L1.1R	L1.8R	L2.7R	L3.6R	L4.3R	L4.8R	L5.0R
7000	L0.2R	L0.4R	L0.9R	L1.7R	L2.7R	L3.7R	L4.5R	L5.1R	L5.3R
6500	R0.1L	R0.1R	L0.7R	L1.7R	L2.7R	L3.8R	L4.8R	L5.4R	L5.6R
6000	R0.4L	R0.1L	L0.5R	L1.6R	L2.8R	L3.9R	L5.0R	L5.6R	L5.9R
5500	R0.7L	R0.4L	L0.3R	L1.4R	L2.7R	L4.0R	L5.1R	L5.9R	L6.1R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
	AZIMUTH OF TARGET - MILS								

(U//FOUO)

## 40 DEGREES SOUTH LATITUDE

(U//FOUO)

- NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
 2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
 3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.  
 4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.



CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

50 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
500	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
1000	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
1500	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
2000	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R
2500	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R
3000	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R
3500	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R
4000	L0.6R	L0.6R	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R
4500	L0.7R	L0.7R	L0.7R	L0.8R	L0.8R	L0.8R	L0.8R	L0.8R	L0.8R
5000	L0.8R	L0.8R	L0.8R	L0.9R	L0.9R	L0.9R	L0.9R	L0.9R	L0.9R
5500	L0.9R	L0.9R	L0.9R	L0.9R	L1.0R	L1.0R	L1.0R	L1.0R	L1.0R
6000	L1.0R	L1.0R	L1.0R	L1.0R	L1.1R	L1.1R	L1.1R	L1.1R	L1.1R
6500	L1.1R	L1.1R	L1.1R	L1.1R	L1.2R	L1.2R	L1.2R	L1.2R	L1.2R
7000	L1.2R	L1.2R	L1.2R	L1.3R	L1.3R	L1.4R	L1.4R	L1.4R	L1.4R
7500	L1.3R	L1.3R	L1.3R	L1.4R	L1.4R	L1.5R	L1.6R	L1.6R	L1.6R
8000	L1.4R	L1.4R	L1.4R	L1.5R	L1.6R	L1.6R	L1.7R	L1.8R	L1.8R
8500	L1.5R	L1.5R	L1.5R	L1.6R	L1.7R	L1.8R	L1.9R	L1.9R	L2.0R
9000	L1.6R	L1.6R	L1.7R	L1.8R	L1.9R	L2.0R	L2.1R	L2.2R	L2.2R
9500	L1.7R	L1.7R	L1.8R	L1.9R	L2.1R	L2.3R	L2.4R	L2.5R	L2.5R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
9500	L1.8R	L1.9R	L2.1R	L2.4R	L2.9R	L3.3R	L3.6R	L3.8R	L3.9R
9000	L1.7R	L1.8R	L2.1R	L2.5R	L3.0R	L3.5R	L3.9R	L4.2R	L4.3R
8500	L1.6R	L1.7R	L2.0R	L2.5R	L3.1R	L3.7R	L4.2R	L4.5R	L4.6R
8000	L1.4R	L1.6R	L1.9R	L2.5R	L3.2R	L3.8R	L4.4R	L4.8R	L4.9R
7500	L1.3R	L1.4R	L1.8R	L2.5R	L3.2R	L4.0R	L4.6R	L5.0R	L5.2R
7000	L1.1R	L1.3R	L1.7R	L2.4R	L3.3R	L4.1R	L4.8R	L5.2R	L5.4R
6500	L0.9R	L1.1R	L1.6R	L2.4R	L3.3R	L4.2R	L5.0R	L5.5R	L5.7R
6000	L0.7R	L0.9R	L1.4R	L2.3R	L3.3R	L4.3R	L5.1R	L5.7R	L5.9R
5500	L0.4R	L0.6R	L1.3R	L2.2R	L3.3R	L4.4R	L5.3R	L5.9R	L6.1R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
	AZIMUTH OF TARGET - MILS								

(U//FOUO)

50 DEGREES SOUTH LATITUDE

- (U//FOUO) NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.  
4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

## ROTATION - AZIMUTH

PROJ, HE, M795  
FUZE, PD, M739A1CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

## 60 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
500	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
1000	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
1500	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R
2000	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R
2500	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R
3000	L0.5R	L0.5R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R
3500	L0.6R	L0.6R	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R
4000	L0.7R	L0.7R	L0.8R	L0.8R	L0.8R	L0.8R	L0.8R	L0.8R	L0.8R
4500	L0.8R	L0.8R	L0.9R	L0.9R	L0.9R	L0.9R	L0.9R	L0.9R	L0.9R
5000	L0.9R	L0.9R	L1.0R	L1.0R	L1.0R	L1.0R	L1.0R	L1.0R	L1.0R
5500	L1.0R	L1.1R	L1.1R	L1.1R	L1.1R	L1.1R	L1.1R	L1.2R	L1.2R
6000	L1.2R	L1.2R	L1.2R	L1.2R	L1.2R	L1.3R	L1.3R	L1.3R	L1.3R
6500	L1.3R	L1.3R	L1.3R	L1.3R	L1.3R	L1.4R	L1.4R	L1.4R	L1.4R
7000	L1.4R	L1.4R	L1.4R	L1.4R	L1.5R	L1.5R	L1.6R	L1.6R	L1.6R
7500	L1.5R	L1.5R	L1.5R	L1.6R	L1.6R	L1.7R	L1.7R	L1.7R	L1.7R
8000	L1.6R	L1.6R	L1.7R	L1.7R	L1.8R	L1.8R	L1.9R	L1.9R	L1.9R
8500	L1.7R	L1.8R	L1.8R	L1.9R	L1.9R	L2.0R	L2.1R	L2.1R	L2.1R
9000	L1.9R	L1.9R	L2.0R	L2.0R	L2.1R	L2.2R	L2.3R	L2.4R	L2.4R
9500	L2.0R	L2.1R	L2.1R	L2.2R	L2.4R	L2.5R	L2.6R	L2.7R	L2.7R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
9500	L2.4R	L2.5R	L2.6R	L2.9R	L3.2R	L3.5R	L3.8R	L4.0R	L4.0R
9000	L2.4R	L2.5R	L2.7R	L3.0R	L3.4R	L3.8R	L4.1R	L4.3R	L4.4R
8500	L2.3R	L2.4R	L2.7R	L3.0R	L3.5R	L3.9R	L4.3R	L4.6R	L4.7R
8000	L2.2R	L2.3R	L2.6R	L3.1R	L3.6R	L4.1R	L4.5R	L4.8R	L4.9R
7500	L2.1R	L2.2R	L2.6R	L3.1R	L3.6R	L4.2R	L4.7R	L5.0R	L5.1R
7000	L2.0R	L2.1R	L2.5R	L3.0R	L3.7R	L4.3R	L4.9R	L5.2R	L5.4R
6500	L1.8R	L2.0R	L2.4R	L3.0R	L3.7R	L4.4R	L5.0R	L5.4R	L5.6R
6000	L1.7R	L1.8R	L2.3R	L2.9R	L3.7R	L4.5R	L5.1R	L5.6R	L5.7R
5500	L1.5R	L1.6R	L2.1R	L2.8R	L3.7R	L4.5R	L5.3R	L5.7R	L5.9R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
	AZIMUTH OF TARGET - MILS								

(U//FOUO)

## 60 DEGREES SOUTH LATITUDE

(U//FOUO)

- NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
 2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
 3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.  
 4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

70 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
500	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
1000	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
1500	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R
2000	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R
2500	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R
3000	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R
3500	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R
4000	L0.8R	L0.8R	L0.8R	L0.8R	L0.8R	L0.8R	L0.8R	L0.9R	L0.9R
4500	L0.9R	L0.9R	L0.9R	L0.9R	L1.0R	L1.0R	L1.0R	L1.0R	L1.0R
5000	L1.0R	L1.0R	L1.1R	L1.1R	L1.1R	L1.1R	L1.1R	L1.1R	L1.1R
5500	L1.2R	L1.2R	L1.2R	L1.2R	L1.2R	L1.2R	L1.2R	L1.2R	L1.2R
6000	L1.3R	L1.3R	L1.3R	L1.3R	L1.3R	L1.3R	L1.4R	L1.4R	L1.4R
6500	L1.4R	L1.4R	L1.4R	L1.4R	L1.5R	L1.5R	L1.5R	L1.5R	L1.5R
7000	L1.5R	L1.5R	L1.6R	L1.6R	L1.6R	L1.6R	L1.7R	L1.7R	L1.7R
7500	L1.7R	L1.7R	L1.7R	L1.7R	L1.8R	L1.8R	L1.8R	L1.8R	L1.8R
8000	L1.8R	L1.8R	L1.8R	L1.9R	L1.9R	L2.0R	L2.0R	L2.0R	L2.0R
8500	L2.0R	L2.0R	L2.0R	L2.1R	L2.1R	L2.2R	L2.2R	L2.2R	L2.2R
9000	L2.1R	L2.2R	L2.2R	L2.2R	L2.3R	L2.4R	L2.4R	L2.5R	L2.5R
9500	L2.4R	L2.4R	L2.4R	L2.5R	L2.6R	L2.7R	L2.7R	L2.8R	L2.8R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
9500	L2.9R	L3.0R	L3.1R	L3.3R	L3.5R	L3.7R	L3.9R	L4.0R	L4.1R
9000	L3.0R	L3.0R	L3.2R	L3.4R	L3.7R	L3.9R	L4.2R	L4.3R	L4.4R
8500	L3.0R	L3.1R	L3.2R	L3.5R	L3.8R	L4.1R	L4.4R	L4.5R	L4.6R
8000	L3.0R	L3.0R	L3.2R	L3.5R	L3.9R	L4.2R	L4.5R	L4.7R	L4.8R
7500	L2.9R	L3.0R	L3.2R	L3.5R	L3.9R	L4.3R	L4.7R	L4.9R	L5.0R
7000	L2.8R	L2.9R	L3.2R	L3.5R	L4.0R	L4.4R	L4.8R	L5.1R	L5.1R
6500	L2.7R	L2.8R	L3.1R	L3.5R	L4.0R	L4.5R	L4.9R	L5.2R	L5.3R
6000	L2.6R	L2.7R	L3.0R	L3.5R	L4.0R	L4.6R	L5.0R	L5.3R	L5.4R
5500	L2.5R	L2.6R	L2.9R	L3.4R	L4.0R	L4.6R	L5.1R	L5.4R	L5.5R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
	AZIMUTH OF TARGET - MILS								

(U//FOUO)

70 DEGREES SOUTH LATITUDE

(U//FOUO)

- NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.  
4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

## FUZE CORRECTION FACTORS

PROJ, HE, M795  
FUZE, MTSQ, M582

(U//FOUO)

1	2	3	4	5	6	7	8	9	10	11
FS	FUZE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
0										
1										
2	-.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.008	-.008
3	-.008	0.008	0.000	0.000	0.000	0.000	0.001	-.001	0.012	-.012
4	-.010	0.010	0.000	0.000	0.000	0.001	0.001	-.001	0.016	-.016
5	-.012	0.012	0.000	0.001	0.000	0.001	0.002	-.001	0.019	-.019
6	-.014	0.014	0.000	0.001	0.000	0.002	0.002	-.002	0.021	-.022
7	-.016	0.016	0.000	0.001	-.001	0.003	0.003	-.003	0.024	-.024
8	-.018	0.018	-.001	0.002	-.001	0.004	0.003	-.003	0.026	-.027
9	-.019	0.020	-.001	0.002	-.002	0.005	0.004	-.004	0.028	-.029
10	-.021	0.022	-.001	0.003	-.003	0.006	0.005	-.005	0.030	-.031
11	-.022	0.023	-.002	0.003	-.004	0.008	0.006	-.006	0.032	-.033
12	-.024	0.025	-.002	0.004	-.005	0.009	0.007	-.006	0.033	-.034
13	-.025	0.026	-.003	0.004	-.007	0.011	0.008	-.007	0.035	-.036
14	-.027	0.027	-.003	0.005	-.008	0.013	0.008	-.008	0.036	-.037
15	-.028	0.029	-.004	0.006	-.010	0.015	0.009	-.009	0.037	-.039
16	-.029	0.030	-.004	0.006	-.012	0.017	0.010	-.009	0.038	-.040
17	-.030	0.031	-.005	0.007	-.014	0.019	0.011	-.010	0.040	-.041
18	-.032	0.032	-.005	0.008	-.016	0.021	0.012	-.011	0.041	-.043
19	-.033	0.033	-.006	0.008	-.018	0.023	0.012	-.012	0.042	-.044
20	-.034	0.034	-.007	0.009	-.020	0.024	0.013	-.012	0.043	-.045
21	-.035	0.036	-.007	0.010	-.022	0.026	0.014	-.013	0.044	-.046
22	-.036	0.037	-.008	0.010	-.024	0.028	0.015	-.014	0.045	-.047
23	-.037	0.038	-.009	0.011	-.026	0.030	0.016	-.015	0.046	-.049
24	-.039	0.039	-.009	0.012	-.028	0.032	0.017	-.016	0.047	-.050
25	-.040	0.040	-.010	0.012	-.030	0.034	0.018	-.017	0.048	-.051
26	-.041	0.041	-.011	0.013	-.032	0.035	0.019	-.018	0.049	-.052
27	-.042	0.042	-.011	0.013	-.034	0.037	0.020	-.019	0.050	-.053
28	-.043	0.043	-.012	0.014	-.036	0.039	0.021	-.020	0.051	-.055
29	-.045	0.045	-.012	0.015	-.038	0.040	0.022	-.021	0.052	-.056
30	-.046	0.046	-.013	0.015	-.040	0.042	0.023	-.022	0.054	-.057
31	-.047	0.047	-.014	0.016	-.041	0.043	0.024	-.023	0.055	-.058
32	-.048	0.048	-.014	0.016	-.043	0.044	0.025	-.024	0.056	-.060
33	-.050	0.050	-.015	0.016	-.045	0.045	0.026	-.025	0.057	-.061
34	-.051	0.051	-.015	0.017	-.046	0.047	0.027	-.026	0.058	-.062
35	-.053	0.052	-.016	0.017	-.047	0.048	0.029	-.028	0.059	-.063

(U//FOUO)

FUZE CORRECTION FACTORS

1	2	3	4	5	6	7	8	9	10	11
FS	FUZE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
35	-.053	0.052	-.016	0.017	-.047	0.048	0.029	-.028	0.059	-.063
36	-.054	0.054	-.016	0.018	-.049	0.049	0.030	-.029	0.060	-.065
37	-.056	0.055	-.017	0.018	-.049	0.050	0.032	-.030	0.062	-.066
38	-.057	0.057	-.017	0.018	-.050	0.051	0.033	-.032	0.063	-.067
39	-.059	0.058	-.017	0.018	-.051	0.052	0.035	-.033	0.064	-.068
40	-.060	0.060	-.018	0.019	-.052	0.053	0.036	-.034	0.065	-.070
41	-.062	0.061	-.018	0.019	-.053	0.053	0.038	-.036	0.067	-.071
42	-.063	0.063	-.018	0.019	-.054	0.054	0.039	-.037	0.068	-.073
43	-.065	0.064	-.019	0.019	-.055	0.055	0.040	-.038	0.069	-.075
44	-.066	0.066	-.019	0.020	-.056	0.056	0.042	-.040	0.070	-.076
45	-.068	0.067	-.019	0.020	-.057	0.057	0.043	-.041	0.072	-.078
46	-.070	0.069	-.019	0.020	-.058	0.058	0.045	-.042	0.073	-.079
47	-.071	0.070	-.019	0.020	-.059	0.059	0.046	-.044	0.075	-.081
48	-.073	0.072	-.020	0.020	-.059	0.059	0.048	-.045	0.076	-.082
49	-.075	0.073	-.020	0.020	-.060	0.060	0.049	-.046	0.078	-.084
50	-.076	0.075	-.020	0.020	-.061	0.061	0.050	-.048	0.080	-.086
51	-.078	0.077	-.020	0.020	-.062	0.062	0.052	-.049	0.081	-.088
52	-.080	0.078	-.020	0.020	-.063	0.062	0.053	-.050	0.083	-.089
53	-.081	0.080	-.020	0.020	-.063	0.063	0.055	-.052	0.085	-.091
54	-.083	0.082	-.020	0.020	-.064	0.064	0.056	-.053	0.087	-.093
55	-.085	0.083	-.020	0.020	-.065	0.065	0.058	-.054	0.089	-.094
56	-.086	0.085	-.020	0.020	-.065	0.065	0.059	-.056	0.091	-.096
57	-.088	0.087	-.020	0.019	-.066	0.066	0.060	-.057	0.093	-.098
58	-.090	0.089	-.019	0.019	-.067	0.067	0.062	-.058	0.095	-.100
59	-.092	0.090	-.019	0.019	-.067	0.067	0.063	-.060	0.097	-.103
60	-.094	0.092	-.019	0.019	-.068	0.068	0.064	-.061	0.100	-.106
61	-.095	0.094	-.019	0.019	-.068	0.068	0.066	-.062	0.102	-.109
62	-.097	0.096	-.019	0.019	-.069	0.069	0.067	-.064	0.106	-.112
63	-.099	0.098	-.019	0.021	-.069	0.069	0.069	-.065	0.110	-.117
64	-.101	0.100	-.019		-.069	0.069	0.070	-.066	0.115	-.123
65	-.104	0.102	-.021		-.068	0.068	0.074	-.069	0.126	-.134

(U//FOUO)

CHARGE  
5W

(U//FOUO) TABLE K

FT 155-AR-1  
PART 1  
PROJ, HE, M795  
FUZE, MTSQ, M582

FUZE SETTING

CORRECTIONS TO FUZE SETTING OF FUZE, MTSQ, M582  
FOR FUZE, MTSQ, M564

(U//FOUO)

FUZE SETTING FUZE M582		CORRECTIONS
FROM	TO	
1.9	57.7	-0.1
57.8	65.6	-0.2

(U//FOUO)

**(U//FOUO)**

(U//FOUO) Part 1

(U//FOUO) Charge 6W

(U//FOUO) Projectile, HE, M795

(U//FOUO) Fuze, PD, M739A1

(U//FOUO) Muzzle Velocity – 453 M/S

(U//FOUO) Propelling Charge M4A2 - Base and Increments 4, 5, and 6

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LINE NUMBER

(U//FOUO)

LINE NUMBER OF METEOROLOGICAL MESSAGE

QUADRANT ELEVATION MILS	LINE NUMBER
0.0- 106.1	0
106.2- 208.8	1
208.9- 319.9	2
320.0- 429.0	3
429.1- 522.6	4
522.7- 648.1	5
648.2- 803.2	6
803.3- 958.7	7
958.8- 1132.9	8
1133.0- 1295.0	9

(U//FOUO)

(U//FOUO) NOTE - WHEN THE PROJECTILE MUST HIT THE TARGET ON THE ASCENDING BRANCH OF ITS TRAJECTORY, USE HEIGHT OF TARGET IN METERS TO ENTER THE TABLE ON PAGE XL TO DETERMINE LINE NUMBER.

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

## LINE NUMBERS OF METEOROLOGICAL MESSAGE

LINE NO.	RANGE METERS	HEIGHT OF TARGET ABOVE GUN - METERS							
		-400	-300	-200	-100	0	100	200	300
0	0					0			
	100					0	0	0	0
	200					0	0	1	3
	300					0	0	1	3
	400					0	1	2	4
	500					0	1	3	5
	600					0	1	3	5
	700					0	1	3	6
	800					0	1	4	7
	900					0	1	4	7
	1000					0	2	4	7
	1100					0	2	4	8
	1200					0	2	5	8
	1300					0	2	5	9
	1400					0	2	5	9
	1500					0	2	5	9
	1600					0	2	6	10
	1700					0	2	6	10
	1800					0	3	6	11
	1900					0	3	7	11
	2000				-2	0	3	7	12
	2100				-2	0	3	7	12
	2200				-3	0	3	7	12
	2300				-3	0	3	8	13
	2400				-3	0	3	8	13
	2500				-3	0	3	8	14
	2600				-4	0	4	9	14
	2700			-6	-4	0	4	9	15
	2800			-6	-4	0	4	9	15
	2900			-7	-4	0	4	9	15
	3000			-7	-4	0	4	10	16
	3100			-7	-4	0	4	10	16
	3200		-10	-8	-5	0	4	10	17
	3300		-10	-8	-5	0	5	10	17
	3400		-11	-8	-5	0	5	11	18
	3500		-11	-9	-5	0	5	11	18
0						1			

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

LINE NUMBERS OF METEOROLOGICAL MESSAGE

HEIGHT OF TARGET ABOVE GUN - METERS							RANGE	LINE
400	500	600	700	800	900	1000	METERS	NO.
							0	3
0							100	
4	6	8	10	12	14		200	
6	8	11	13	16	19	22	300	
7	10	13	17	20	24	28	400	
8	12	16	20	24	28	33	500	
9	13	17	22	26	31	37	600	
10	14	18	23	29	35	40	700	
10	15	20	25	31	37	43	800	
11	16	21	26	33	39	46	900	
12	16	22	28	34	41	49	1000	
12	17	23	29	36	43	51	1100	
13	18	24	30	37	45	53	1200	
13	19	25	32	39	47	55	1300	
14	19	26	33	40	49	57	1400	
14	20	27	34	42	50	59	1500	
15	21	27	35	43	52	61	1600	
16	22	28	36	44	53	63	1700	
16	22	29	37	46	55	64	1800	
17	23	30	38	47	56	66	1900	
17	24	31	39	48	58	68	2000	
18	25	32	40	49	59	69	2100	
18	25	33	41	50	60	71	2200	
19	26	34	42	52	62	73	2300	
20	27	35	43	53	63	74	2400	
20	27	35	44	54	64	76	2500	
21	28	36	45	55	66	77	2600	
21	29	37	46	56	67	78	2700	
22	30	38	47	57	68	80	2800	
22	30	39	48	58	69	81	2900	
23	31	40	49	60	71	82	3000	
24	32	40	50	61	72	84	3100	
24	32	41	51	62	73	85	3200	
25	33	42	52	63	74	86	3300	
25	34	43	53	64	75	88	3400	
26	34	44	54	65	76	89	3500	
2				3				

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

## LINE NUMBERS OF METEOROLOGICAL MESSAGE

LINE NO.	RANGE METERS	HEIGHT OF TARGET ABOVE GUN - METERS							
		-400	-300	-200	-100	0	100	200	300
0	3500		-11	-9	-5	0	5	11	18
	3600		-12	-9	-5	0	5	11	18
	3700	-14	-13	-9	-5	0	5	12	19
	3800	-15	-13	-10	-6	0	5	12	19
	3900	-16	-14	-10	-6	0	5	12	20
	4000	-17	-14	-10	-6	0	6	12	20
	4100	-18	-15	-11	-6	0	6	13	21
	4200	-18	-15	-11	-6	0	6	13	21
	4300	-19	-16	-11	-6	0	6	13	21
	4400	-20	-16	-12	-7	0	6	14	22
	4500	-21	-17	-12	-7	0	6	14	22
	4600	-21	-17	-12	-7	0	6	14	23
	4700	-22	-18	-13	-7	0	7	15	23
	4800	-23	-18	-13	-7	0	7	15	24
	4900	-24	-19	-14	-7	0	7	15	24
1	5000	-24	-19	-14	-8	0	7	16	25
	5100	-25	-20	-14	-8	0	7	16	25
	5200	-26	-21	-15	-8	0	8	16	26
	5300	-27	-21	-15	-8	0	8	17	27
	5400	-27	-22	-15	-8	0	8	17	27
	5500	-28	-22	-16	-9	0	8	18	28
	5600	-29	-23	-16	-9	0	8	18	28
	5700	-30	-24	-17	-9	0	9	18	29
	5800	-31	-24	-17	-9	0	9	19	30
	5900	-32	-25	-18	-9	0	9	19	30
	6000	-33	-26	-18	-10	0	9	20	31
	6100	-33	-26	-18	-10	0	9	20	32
	6200	-34	-27	-19	-10	0	10	21	32
	6300	-35	-28	-19	-10	0	10	21	33
	6400	-36	-28	-20	-11	0	10	22	34
2	6500	-37	-29	-20	-11	0	10	22	34
	6600	-38	-30	-21	-11	0	11	23	35
	6700	-39	-31	-21	-11	0	11	23	36
	6800	-40	-31	-22	-12	0	11	24	37
	6900	-42	-32	-22	-12	0	12	24	38
	7000	-43	-33	-23	-12	0	12	25	39
	2								3

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

LINE NUMBERS OF METEOROLOGICAL MESSAGE

HEIGHT OF TARGET ABOVE GUN - METERS							RANGE	L I N E
400	500	600	700	800	900	1000	METERS	N O .
26	34	44	54	65	76	89	3500	3
26	35	44	55	66	78	90	3600	
27	36	45	56	67	79	91	3700	
27	36	46	57	68	80	93	3800	
28	37	47	58	69	81	94	3900	
29	38	48	59	70	82	95	4000	
29	39	49	60	71	84	97	4100	
30	39	49	60	72	85	98	4200	
30	40	50	62	73	86	99	4300	
31	41	51	63	75	87	101	4400	
32	41	52	64	76	89	102	4500	
32	42	53	65	77	90	104	4600	
33	43	54	66	78	91	105	4700	
33	44	55	67	79	93	107	4800	
34	45	56	68	81	94	108	4900	
35	46	57	69	82	96	110	5000	
36	46	58	70	83	97	112	5100	
36	47	59	72	85	99	114	5200	
37	48	60	73	86	100	115	5300	
38	49	61	74	88	102	117	5400	
39	50	62	76	89	104	119	5500	
39	51	64	77	91	106	121	5600	
40	52	65	78	92	107	123	5700	
41	53	66	80	94	109	125	5800	
42	54	67	81	96	111	127	5900	
43	55	69	83	98	113	130	6000	
44	57	70	84	100	115	132	6100	
45	58	72	86	101	118	135	6200	
46	59	73	88	103	120	137	6300	
47	60	75	90	106	122	140	6400	
48	61	76	92	108	125	143	6500	
49	63	78	93	110	127	145	6600	
50	64	79	95	112	130	148	6700	
51	66	81	97	115	133	151	6800	
52	67	83	100	117	135	155	6900	
53	69	85	102	120	138	158	7000	
3								

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

## LINE NUMBERS OF METEOROLOGICAL MESSAGE

LINE NO.	RANGE METERS	HEIGHT OF TARGET ABOVE GUN - METERS							
		-400	-300	-200	-100	0	100	200	300
2	7000	-43	-33	-23	-12	0	12	25	39
	7100	-44	-34	-24	-12	0	12	26	40
	7200	-45	-35	-24	-13	0	13	26	41
	7300	-46	-36	-25	-13	0	13	27	42
	7400	-48	-37	-25	-13	0	13	28	43
	7500	-49	-38	-26	-14	0	14	28	44
	7600	-50	-39	-27	-14	0	14	29	45
	7700	-52	-40	-28	-14	0	14	30	46
	7800	-53	-41	-28	-15	0	15	31	47
	7900	-55	-42	-29	-15	0	15	31	49
	8000	-56	-43	-30	-15	0	16	32	50
	8100	-58	-45	-31	-16	0	16	33	51
	8200	-59	-46	-31	-16	0	16	34	53
3	8300	-61	-47	-32	-17	0	17	35	54
	8400	-63	-48	-33	-17	0	17	36	56
	8500	-65	-50	-34	-18	0	18	37	57
	8600	-67	-51	-35	-18	0	18	38	59
	8700	-69	-53	-36	-19	0	19	39	61
	8800	-71	-54	-37	-19	0	20	41	62
	8900	-73	-56	-38	-20	0	20	42	64
	9000	-75	-58	-39	-20	0	21	43	66
	9100	-77	-59	-41	-21	0	21	44	68
	9200	-80	-61	-42	-22	0	22	46	70
	9300	-82	-63	-43	-22	0	23	47	72
	9400	-85	-65	-44	-23	0	24	48	74
	9500	-87	-67	-46	-23	0	24	50	77
4	9600	-90	-69	-47	-24	0	25	51	79
	9700	-93	-71	-49	-25	0	26	53	81
	9800	-96	-73	-50	-26	0	27	55	84
	9900	-99	-76	-52	-27	0	27	56	87
	10000	-102	-78	-53	-27	0	28	58	90
	10100	-105	-80	-55	-28	0	29	60	93
	10200	-108	-83	-57	-29	0	30	62	96
	10300	-112	-86	-58	-30	0	31	64	99
	10400	-115	-88	-60	-31	0	32	67	103
	10500	-119	-91	-62	-32	0	34	69	107
4						5			

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

LINE NUMBERS OF METEOROLOGICAL MESSAGE

HEIGHT OF TARGET ABOVE GUN - METERS							RANGE	L I N E
400	500	600	700	800	900	1000	METERS	N O .
53	69	85	102	120	138	158	7000	3
55	70	87	104	122	141	161	7100	
56	72	89	107	125	145	165	7200	
57	74	91	109	128	148	169	7300	
59	75	93	112	131	151	173	7400	
60	77	95	114	134	155	177	7500	4
62	79	98	117	137	159	181	7600	
63	81	100	120	141	163	185	7700	
65	83	103	123	144	167	190	7800	
67	86	105	126	148	171	195	7900	
68	88	108	130	152	175	200	8000	
70	90	111	133	156	180	205	8100	
72	93	114	137	160	185	210	8200	
74	95	117	140	164	190	216	8300	
76	98	120	144	169	195	222	8400	
78	101	124	148	173	200	228	8500	5
81	103	127	152	178	206	234	8600	
83	106	131	156	183	211	241	8700	
85	109	135	161	188	217	247	8800	
88	112	138	165	194	223	254	8900	
90	116	142	170	199	230	262	9000	6
93	119	147	175	205	237	270	9100	
96	123	151	180	211	244	278	9200	
99	126	155	186	218	251	286	9300	
102	130	160	191	224	259	295	9400	
105	134	165	197	231	267	305	9500	7
108	138	170	203	239	276	315	9600	
111	143	175	210	246	285	325	9700	
115	147	181	217	255	295	337	9800	
119	152	187	225	264	305	349	9900	
123	157	194	232	273	316	361	10000	8
127	163	201	241	283	327	375	10100	
131	169	208	250	293	340	389	10200	
136	175	216	259	305	353	405	10300	
141	181	224	269	316	368	423	10400	
147	188	233	279	330	384	443	10500	9
5					6			

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

## LINE NUMBERS OF METEOROLOGICAL MESSAGE

LINE NO.	RANGE METERS	HEIGHT OF TARGET ABOVE GUN - METERS							
		-400	-300	-200	-100	0	100	200	300
4	10500	-119	-91	-62	-32	0	34	69	107
	10600	-123	-95	-65	-33	0	35	72	111
	10700	-127	-98	-67	-34	0	36	75	115
	10800	-132	-102	-70	-36	0	38	78	120
	10900	-137	-106	-72	-37	0	39	81	125
5	11000	-142	-110	-75	-39	0	41	84	130
	11100	-148	-114	-78	-40	0	42	88	136
	11200	-154	-119	-81	-42	0	44	92	144
	11300	-160	-123	-84	-44	0	47	97	153
	11400	-166	-128	-88	-45	0	50	104	163
	11500	-173	-134	-93	-48	0	53	111	176
	11600	-182	-141	-98	-51	0	57	120	197
	11700	-192	-150	-104	-55	0	62	137	
	11800	-203	-159	-111	-59	0			
*****									
7	11800	-431	-311	-198	-94	0			
	11700	-450	-327	-210	-101	0	90	163	
	11600	-469	-341	-220	-106	0	98	184	254
8	11500	-487	-355	-230	-111	0	103	198	281
	11400	-504	-368	-239	-116	0	109	209	300
	11300	-521	-381	-248	-121	0	114	220	317
	11200	-538	-394	-256	-125	0	118	229	332
	11100	-554	-406	-265	-129	0	123	238	346
	11000	-570	-419	-273	-133	0	127	247	360
	10900	-586	-431	-281	-137	0	131	255	373
	10800	-602	-443	-289	-141	0	135	264	385
	10700	-618	-455	-297	-146	0	139	272	398
	10600	-634	-467	-305	-150	0	143	280	410
	10500	-651	-479	-313	-154	0	147	288	422
	10400	-667	-491	-321	-158	0	151	296	434
	10300	-684	-503	-329	-162	0	155	304	446
	10200	-700	-516	-338	-166	0	159	312	458
	10100	-717	-528	-346	-170	0	163	320	470
	10000	-734	-541	-354	-174	0	167	328	483
8									

(U//FOUO)



CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

LINE NUMBERS OF METEOROLOGICAL MESSAGE

HEIGHT OF TARGET ABOVE GUN - METERS							RANGE	L LINE
400	500	600	700	800	900	1000	METERS	NO.
147	188	233	279	330	384	443	10500	6
152	196	242	291	344	402	466	10600	
158	203	252	304	361	423	492	10700	
164	212	263	319	380	448	523	10800	
171	222	277	337	403	477	562	10900	
179	233	292	358	431	514	617	11000	
189	247	311	382	465	568		11100	
201	263	333	414	518			11200	
214	282	362	469				11300	
230	309	423					11400	
254							11500	7
							11600	
							11700	
							11800	
*****								
							11800	
							11700	
							11600	
348							11500	
380	444						11400	
405	481	542					11300	
427	511	584	642	672			11200	
446	538	619	689	743	772		11100	
465	562	650	728	794	845	872	11000	8
483	585	679	764	839	901	948	10900	
500	607	707	798	879	950	1009	10800	
517	629	733	829	917	994	1062	10700	
533	650	758	860	952	1036	1110	10600	
550	670	783	889	987	1076	1157	10500	
566	690	808	918	1020	1115	1201	10400	
582	711	832	947	1053	1152	1243	10300	
598	731	856	975	1086	1189	1285	10200	
614	751	880	1003	1118	1226	1326	10100	
630	771	904	1031	1150	1262	1366	10000	8
8								

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

## LINE NUMBERS OF METEOROLOGICAL MESSAGE

LINE NO.	RANGE METERS	HEIGHT OF TARGET ABOVE GUN - METERS							
		-400	-300	-200	-100	0	100	200	300
8	10000	-734	-541	-354	-174	0	167	328	483
	9900	-752	-554	-363	-178	0	171	336	495
	9800	-769	-567	-371	-182	0	176	345	507
	9700	-787	-580	-380	-187	0	180	353	519
	9600	-806	-594	-389	-191	0	184	361	532
9	9500	-825	-608	-398	-196	0	188	370	544
	9400	-844	-622	-407	-200	0	193	379	557
	9300	-864	-637	-417	-205	0	197	387	570
	9200	-884	-651	-427	-210	0	202	396	583
	9100	-905	-667	-437	-214	0	206	405	597
	9000	-927	-682	-447	-219	0	211	415	610
	8900	-949	-699	-457	-224	0	216	424	624
	8800	-973	-715	-468	-230	0	221	434	639
	8700	-997	-733	-479	-235	0	226	444	653
	8600	-1023	-751	-490	-241	0	231	454	668
	8500	-1049	-770	-503	-246	0	237	464	683
	8400	-1077	-790	-515	-252	0	242	475	699
	8300	-1107	-810	-528	-259	0	248	486	715
	8200	-1139	-832	-542	-265	0	254	497	731
	8100	-1172	-855	-556	-272	0	260	509	748
	8000	-1208	-879	-571	-279	0	266	521	766
	7900	-1247	-905	-587	-286	0	272	534	784
	7800	-1289	-933	-604	-294	0	279	546	802
	7700	-1336	-963	-621	-302	0	286	560	822
	7600		-996	-640	-311	0	294	574	842
	7500		-1031	-661	-320	0	302	589	862
	7400		-1069	-683	-329	0	310	604	884
	7300			-707	-340	0	318	620	907
	7200			-733	-351	0	327	637	930
	7100			-761	-363	0	337	654	955
	7000				-376	0	347	673	980
	6900				-390	0	358	692	1007
	6800				-406	0	369	713	1036
	6700				-423	0	381	734	1065
	6600					0	394	757	1097
	6500					0	408	782	1130

9

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

LINE NUMBERS OF METEOROLOGICAL MESSAGE

HEIGHT OF TARGET ABOVE GUN - METERS							RANGE	LINE
400	500	600	700	800	900	1000	METERS	NO.
630	771	904	1031	1150	1262	1366	10000	8
646	791	928	1059	1182	1298	1406	9900	
662	811	952	1087	1214	1334	1446	9800	
679	831	977	1115	1246	1369	1486	9700	
695	852	1001	1143	1278	1405	1525	9600	
712	872	1025	1171	1310	1441	1565	9500	
729	893	1050	1200	1342	1477	1605	9400	
746	914	1075	1229	1375	1514	1645	9300	
763	936	1100	1258	1408	1550	1685	9200	
781	957	1126	1287	1441	1587	1726	9100	
799	979	1152	1317	1475	1625	1767	9000	9
817	1002	1179	1348	1509	1663	1808	8900	
836	1024	1205	1379	1544	1701	1850	8800	
854	1048	1233	1410	1579	1740	1893	8700	
874	1071	1261	1442	1615	1780	1936	8600	
894	1096	1289	1474	1651	1820	1980	8500	
914	1120	1318	1507	1688	1861	2024	8400	
935	1146	1348	1541	1726	1902	2070	8300	
956	1171	1378	1576	1765	1945	2116	8200	
978	1198	1409	1611	1804	1988	2163	8100	
1000	1225	1441	1647	1844	2032	2211	8000	
1023	1253	1474	1684	1885	2077	2260	7900	
1047	1282	1507	1722	1927	2123	2310	7800	
1072	1312	1542	1761	1971	2171	2361	7700	
1098	1343	1577	1801	2015	2219	2413	7600	
1124	1374	1614	1842	2061	2269	2466	7500	
1152	1407	1652	1885	2107	2320	2521	7400	
1180	1441	1691	1929	2156	2372	2578	7300	
1210	1476	1731	1974	2205	2426	2636	7200	
1240	1513	1773	2021	2257	2481	2695	7100	
1273	1551	1816	2069	2310	2539	2756	7000	
1306	1590	1861	2119	2364	2598	2819	6900	
1341	1632	1908	2171	2421	2658	2884	6800	
1378	1675	1956	2224	2479	2721	2951	6700	
1416	1719	2007	2280	2540	2786	3020	6600	
1457	1766	2060	2338	2603	2853	3091	6500	
9								

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO) LINE NUMBERS OF METEOROLOGICAL MESSAGE

LINE NO.	RANGE METERS	HEIGHT OF TARGET ABOVE GUN - METERS							
		-400	-300	-200	-100	0	100	200	300
9	6500					0	408	782	1130
	6400					0	423	808	1165
	6300					0	439	835	1202
	6200							865	1241
	6100								

(U//FOUO)

CHANGE IN RANGE, IN METERS  
 TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

LINE NUMBERS OF METEOROLOGICAL MESSAGE

HEIGHT OF TARGET ABOVE GUN - METERS							RANGE	LINE
400	500	600	700	800	900	1000	METERS	NO.
1457	1766	2060	2338	2603	2853	3091	6500	9
1500	1816	2115	2399	2668	2923	3165	6400	
1544	1867	2172	2461	2736	2995	3241	6300	
1591	1921	2232	2527	2806	3070	3320	6200	
			2595	2879	3148	3402	6100	

(U//FOUO)

## WIND COMPONENTS

PROJ, HE, M795  
FUZE, PD, M739A1

(U//FOUO)

(U//FOUO)  
COMPONENTS OF A ONE KNOT WIND

CHART DIRECTION OF WIND	CROSS WIND	RANGE WIND
MIL	KNOT	KNOT
0	0	H1.00
100	R. 10	H. 99
200	R. 20	H. 98
300	R. 29	H. 96
400	R. 38	H. 92
500	R. 47	H. 88
600	R. 56	H. 83
700	R. 63	H. 77
800	R. 71	H. 71
900	R. 77	H. 63
1000	R. 83	H. 56
1100	R. 88	H. 47
1200	R. 92	H. 38
1300	R. 96	H. 29
1400	R. 98	H. 20
1500	R. 99	H. 10
1600	R1.00	0
1700	R. 99	T. 10
1800	R. 98	T. 20
1900	R. 96	T. 29
2000	R. 92	T. 38
2100	R. 88	T. 47
2200	R. 83	T. 56
2300	R. 77	T. 63
2400	R. 71	T. 71
2500	R. 63	T. 77
2600	R. 56	T. 83
2700	R. 47	T. 88
2800	R. 38	T. 92
2900	R. 29	T. 96
3000	R. 20	T. 98
3100	R. 10	T. 99
3200	0	T1.00

(U//FOUO)

CHART DIRECTION OF WIND	CROSS WIND	RANGE WIND
MIL	KNOT	KNOT
3200	0	T1.00
3300	L. 10	T. 99
3400	L. 20	T. 98
3500	L. 29	T. 96
3600	L. 38	T. 92
3700	L. 47	T. 88
3800	L. 56	T. 83
3900	L. 63	T. 77
4000	L. 71	T. 71
4100	L. 77	T. 63
4200	L. 83	T. 56
4300	L. 88	T. 47
4400	L. 92	T. 38
4500	L. 96	T. 29
4600	L. 98	T. 20
4700	L. 99	T. 10
4800	L1.00	0
4900	L. 99	H. 10
5000	L. 98	H. 20
5100	L. 96	H. 29
5200	L. 92	H. 38
5300	L. 88	H. 47
5400	L. 83	H. 56
5500	L. 77	H. 63
5600	L. 71	H. 71
5700	L. 63	H. 77
5800	L. 56	H. 83
5900	L. 47	H. 88
6000	L. 38	H. 92
6100	L. 29	H. 96
6200	L. 20	H. 98
6300	L. 10	H. 99
6400	0	H1.00

(U//FOUO)

NOTE - FOR A COMPLETE EXPLANATION OF THE USE OF THIS TABLE, SEE PARAGRAPH 12, EXPLANATION OF COMPONENTS OF A ONE KNOT WIND.

(U//FOUO) TABLE D  
TEMPERATURE  
AND DENSITY CORRECTIONS

CORRECTIONS TO TEMPERATURE (DT) AND DENSITY (DD), IN PERCENT,  
TO COMPENSATE FOR THE DIFFERENCE IN ALTITUDE,  
(U//FOUO) IN METERS, BETWEEN THE BATTERY AND THE MDP

DH		0	+10-	+20-	+30-	+40-	+50-	+60-	+70-	+80-	+90-
0	DT	0.0	0.0	0.0	-0.1+	-0.1+	-0.1+	-0.1+	-0.2+	-0.2+	-0.2+
	DD	0.0	-0.1+	-0.2+	-0.3+	-0.4+	-0.5+	-0.6+	-0.7+	-0.8+	-0.9+
+100-	DT	-0.2+	-0.2+	-0.2+	-0.3+	-0.3+	-0.3+	-0.3+	-0.4+	-0.4+	-0.4+
	DD	-1.0+	-1.1+	-1.2+	-1.3+	-1.4+	-1.5+	-1.6+	-1.7+	-1.8+	-1.9+
+200-	DT	-0.5+	-0.5+	-0.5+	-0.6+	-0.6+	-0.6+	-0.6+	-0.7+	-0.7+	-0.7+
	DD	-2.0+	-2.1+	-2.2+	-2.3+	-2.4+	-2.5+	-2.6+	-2.7+	-2.8+	-2.9+
+300-	DT	-0.7+	-0.7+	-0.7+	-0.8+	-0.8+	-0.8+	-0.8+	-0.9+	-0.9+	-0.9+
	DD	-3.0+	-3.1+	-3.2+	-3.3+	-3.4+	-3.5+	-3.6+	-3.7+	-3.8+	-3.9+

(U//FOUO)

- (U//FOUO) NOTES - 1. DH IS BATTERY HEIGHT ABOVE OR BELOW THE MDP.  
2. IF ABOVE THE MDP, USE THE SIGN BEFORE THE NUMBER.  
3. IF BELOW THE MDP, USE THE SIGN AFTER THE NUMBER.

(U//FOUO) TABLE E

(U//FOUO) PROPELLANT TEMPERATURE  
EFFECTS ON MUZZLE VELOCITY DUE TO PROPELLANT TEMPERATURE

TEMPERATURE OF PROPELLANT  DEGREES F	EFFECT ON VELOCITY  M/S	TEMPERATURE OF PROPELLANT  DEGREES C
-40 -30 -20 -10	-11.0 -10.0 -9.0 -8.0	-40.0 -34.4 -28.9 -23.3
0	-7.0	-17.8
10 20 30 40	-6.0 -5.0 -4.0 -3.0	-12.2 -6.7 -1.1 4.4
50	-2.0	10.0
60 70 80 90	-1.0 0.0 1.0 2.0	15.6 21.1 26.7 32.2
100	3.0	37.8
110 120 130	4.0 4.9 5.9	43.3 48.9 54.4

(U//FOUO)

(U//FOUO)

1	2	3	4	5	6	7	8	9
R A N G E	E L E V	FS FOR GRAZE BURST  FUZE M582	DFS PER 10 M DEC HOB	DR PER 1 MIL D ELEV	F O R K	TIME OF FLIGHT	AZIMUTH CORRECTIONS	
							DRIFT (CORR TO L)	CW OF 1 KNOT
M	MIL			M	MIL	SEC	MIL	MIL
0	0.0			40	1	0.0	0.0	0.00
100	2.5			40	1	0.2	0.1	0.01
200	5.0			40	1	0.4	0.1	0.01
300	7.5			40	1	0.7	0.2	0.02
400	10.0			39	1	0.9	0.2	0.02
500	12.6			39	1	1.1	0.3	0.03
600	15.2			38	1	1.4	0.4	0.03
700	17.9			38	1	1.6	0.4	0.04
800	20.6	1.8	1.12	37	1	1.8	0.5	0.05
900	23.3	2.1	0.99	37	1	2.1	0.5	0.05
1000	26.0	2.3	0.89	36	1	2.3	0.6	0.06
1100	28.8	2.6	0.81	36	1	2.6	0.7	0.06
1200	31.6	2.8	0.74	35	1	2.8	0.7	0.07
1300	34.5	3.0	0.68	35	1	3.0	0.8	0.08
1400	37.4	3.3	0.63	34	1	3.3	0.9	0.08
1500	40.4	3.6	0.58	34	1	3.6	0.9	0.09
1600	43.4	3.8	0.54	33	1	3.8	1.0	0.09
1700	46.4	4.1	0.51	33	1	4.1	1.1	0.10
1800	49.5	4.3	0.48	32	1	4.3	1.2	0.11
1900	52.6	4.6	0.45	32	1	4.6	1.2	0.11
2000	55.7	4.9	0.43	31	1	4.9	1.3	0.12
2100	58.9	5.1	0.41	31	1	5.1	1.4	0.13
2200	62.2	5.4	0.39	31	1	5.4	1.5	0.13
2300	65.5	5.7	0.37	30	1	5.7	1.5	0.14
2400	68.8	5.9	0.35	30	1	5.9	1.6	0.14
2500	72.2	6.2	0.34	29	1	6.2	1.7	0.15
2600	75.6	6.5	0.32	29	1	6.5	1.8	0.16
2700	79.1	6.8	0.31	29	1	6.8	1.9	0.16
2800	82.6	7.1	0.30	28	1	7.1	1.9	0.17
2900	86.2	7.4	0.28	28	1	7.4	2.0	0.18
3000	89.8	7.7	0.27	27	1	7.7	2.1	0.18
3100	93.5	8.0	0.26	27	1	8.0	2.2	0.19
3200	97.2	8.3	0.25	27	1	8.3	2.3	0.20
3300	101.0	8.6	0.24	26	1	8.6	2.4	0.20
3400	104.8	8.9	0.24	26	2	8.9	2.5	0.21
3500	108.7	9.2	0.23	26	2	9.2	2.6	0.22

(U//FOUO)



CORRECTION FACTORS

(U//FOUO)

1	10	11	12	13	14	15	16	17	18	19
R A N G E	RANGE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
	M	M	M	M	M	M	M	M	M	M
0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0
100	0.5	-0.4	0.0	0.0	0.0	0.0	0.0	0.0	-1	1
200	0.9	-0.9	0.0	0.0	0.0	0.0	0.0	0.0	-2	2
300	1.4	-1.3	0.0	0.0	0.0	0.0	0.0	0.0	-3	3
400	1.8	-1.7	0.0	0.0	0.0	0.0	-0.1	0.1	-3	3
500	2.2	-2.1	0.0	0.0	0.0	0.0	-0.1	0.1	-4	4
600	2.7	-2.5	0.0	0.0	0.0	0.0	-0.2	0.2	-5	5
700	3.1	-2.9	0.0	0.0	-0.1	0.1	-0.3	0.3	-6	6
800	3.5	-3.3	0.1	-0.1	-0.1	0.1	-0.4	0.4	-6	7
900	3.9	-3.7	0.1	-0.1	-0.1	0.1	-0.5	0.5	-7	7
1000	4.3	-4.1	0.1	-0.1	-0.1	0.1	-0.6	0.6	-8	8
1100	4.7	-4.5	0.1	-0.1	-0.2	0.1	-0.7	0.7	-8	9
1200	5.2	-4.9	0.1	-0.1	-0.2	0.2	-0.9	0.9	-9	9
1300	5.6	-5.2	0.2	-0.2	-0.2	0.2	-1.0	1.1	-10	10
1400	5.9	-5.6	0.2	-0.2	-0.3	0.2	-1.2	1.2	-10	10
1500	6.3	-6.0	0.2	-0.2	-0.3	0.2	-1.4	1.4	-11	11
1600	6.7	-6.3	0.2	-0.2	-0.3	0.3	-1.6	1.6	-11	12
1700	7.1	-6.7	0.3	-0.3	-0.4	0.3	-1.8	1.8	-12	12
1800	7.5	-7.1	0.3	-0.3	-0.4	0.3	-2.0	2.0	-12	13
1900	7.8	-7.4	0.4	-0.3	-0.5	0.4	-2.2	2.2	-13	13
2000	8.2	-7.8	0.4	-0.4	-0.5	0.4	-2.4	2.5	-13	14
2100	8.6	-8.1	0.4	-0.4	-0.6	0.4	-2.6	2.7	-14	14
2200	8.9	-8.5	0.5	-0.5	-0.6	0.5	-2.9	3.0	-14	15
2300	9.3	-8.8	0.5	-0.5	-0.6	0.5	-3.2	3.2	-15	15
2400	9.6	-9.1	0.6	-0.6	-0.7	0.5	-3.4	3.5	-15	15
2500	10.0	-9.5	0.6	-0.6	-0.7	0.5	-3.7	3.8	-15	16
2600	10.3	-9.8	0.7	-0.7	-0.8	0.5	-4.0	4.1	-16	16
2700	10.6	-10.1	0.8	-0.8	-0.8	0.5	-4.3	4.4	-16	17
2800	10.9	-10.4	0.8	-0.8	-0.9	0.4	-4.6	4.7	-16	17
2900	11.2	-10.7	0.9	-0.9	-0.9	0.4	-4.9	5.0	-17	17
3000	11.5	-11.0	1.0	-1.0	-0.9	0.3	-5.2	5.3	-17	17
3100	11.8	-11.3	1.1	-1.1	-0.9	0.2	-5.5	5.6	-17	18
3200	12.1	-11.6	1.1	-1.1	-0.9	0.2	-5.8	5.9	-17	18
3300	12.4	-11.9	1.2	-1.2	-0.9	0.1	-6.2	6.2	-17	18
3400	12.6	-12.2	1.3	-1.3	-0.9	-0.1	-6.5	6.5	-18	18
3500	12.9	-12.4	1.4	-1.4	-0.9	-0.2	-6.8	6.8	-18	19

(U//FOUO)

## BASIC DATA

PROJ, HE, M795  
FUZE, PD, M739A1

(U//FOUO)

1	2	3	4	5	6	7	8	9
R A N G E	E L E V	FS FOR GRAZE BURST	DFS PER 10 M DEC HOB	DR PER 1 MIL D ELEV	F O R K	TIME OF FLIGHT	AZIMUTH CORRECTIONS	
		FUZE M582					DRIFT (CORR TO L)	CW OF 1 KNOT
M	MIL			M	MIL	SEC	MIL	MIL
3500	108.7	9.2	0.23	26	2	9.2	2.6	0.22
3600	112.6	9.5	0.22	25	2	9.5	2.7	0.22
3700	116.6	9.8	0.21	25	2	9.8	2.8	0.23
3800	120.6	10.1	0.21	25	2	10.1	2.9	0.23
3900	124.7	10.4	0.20	24	2	10.4	3.0	0.24
4000	128.8	10.7	0.20	24	2	10.7	3.1	0.25
4100	132.9	11.0	0.19	24	2	11.0	3.2	0.25
4200	137.1	11.4	0.18	24	2	11.4	3.3	0.26
4300	141.4	11.7	0.18	23	2	11.7	3.4	0.26
4400	145.7	12.0	0.17	23	2	12.0	3.5	0.27
4500	150.1	12.3	0.17	23	2	12.3	3.6	0.27
4600	154.4	12.7	0.17	23	2	12.7	3.7	0.28
4700	158.9	13.0	0.16	22	2	13.0	3.8	0.28
4800	163.4	13.3	0.16	22	2	13.3	3.9	0.29
4900	167.9	13.7	0.15	22	2	13.7	4.0	0.30
5000	172.5	14.0	0.15	22	2	14.0	4.1	0.30
5100	177.1	14.3	0.15	21	2	14.3	4.2	0.31
5200	181.8	14.7	0.14	21	2	14.7	4.3	0.31
5300	186.6	15.0	0.14	21	2	15.0	4.4	0.32
5400	191.3	15.4	0.14	21	3	15.4	4.6	0.32
5500	196.2	15.7	0.13	21	3	15.7	4.7	0.33
5600	201.0	16.1	0.13	20	3	16.1	4.8	0.33
5700	206.0	16.4	0.13	20	3	16.4	4.9	0.34
5800	210.9	16.8	0.12	20	3	16.8	5.0	0.34
5900	215.9	17.1	0.12	20	3	17.1	5.2	0.35
6000	221.0	17.5	0.12	20	3	17.5	5.3	0.35
6100	226.1	17.9	0.12	19	3	17.9	5.4	0.35
6200	231.3	18.2	0.11	19	3	18.2	5.5	0.36
6300	236.5	18.6	0.11	19	3	18.6	5.7	0.36
6400	241.8	19.0	0.11	19	3	19.0	5.8	0.37
6500	247.1	19.3	0.11	19	3	19.3	5.9	0.37
6600	252.5	19.7	0.11	19	3	19.7	6.1	0.38
6700	257.9	20.1	0.10	18	3	20.1	6.2	0.38
6800	263.4	20.4	0.10	18	3	20.4	6.4	0.39
6900	268.9	20.8	0.10	18	4	20.8	6.5	0.39
7000	274.5	21.2	0.10	18	4	21.2	6.7	0.39

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1	10	11	12	13	14	15	16	17	18	19
R A N G E	RANGE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
	M	M	M	M	M	M	M	M	M	M
3500	12.9	-12.4	1.4	-1.4	-0.9	-0.2	-6.8	6.8	-18	19
3600	13.1	-12.7	1.5	-1.5	-0.8	-0.3	-7.1	7.1	-18	19
3700	13.4	-12.9	1.6	-1.6	-0.7	-0.5	-7.5	7.4	-18	19
3800	13.6	-13.2	1.7	-1.7	-0.7	-0.6	-7.8	7.7	-18	19
3900	13.9	-13.4	1.9	-1.8	-0.6	-0.8	-8.1	8.1	-18	19
4000	14.1	-13.7	2.0	-2.0	-0.5	-1.0	-8.5	8.4	-19	19
4100	14.3	-13.9	2.1	-2.1	-0.3	-1.2	-8.8	8.7	-19	20
4200	14.5	-14.1	2.2	-2.2	-0.2	-1.4	-9.1	9.0	-19	20
4300	14.8	-14.4	2.4	-2.3	0.0	-1.6	-9.5	9.3	-19	20
4400	15.0	-14.6	2.5	-2.4	0.1	-1.8	-9.8	9.6	-19	20
4500	15.2	-14.8	2.7	-2.6	0.3	-2.1	-10.1	9.9	-19	20
4600	15.4	-15.0	2.8	-2.7	0.5	-2.3	-10.5	10.2	-19	20
4700	15.6	-15.2	3.0	-2.8	0.7	-2.6	-10.8	10.6	-19	20
4800	15.8	-15.4	3.1	-3.0	0.9	-2.8	-11.1	10.9	-19	20
4900	15.9	-15.6	3.3	-3.1	1.2	-3.1	-11.5	11.2	-19	20
5000	16.1	-15.8	3.4	-3.3	1.4	-3.4	-11.8	11.5	-19	20
5100	16.3	-16.0	3.6	-3.4	1.7	-3.7	-12.1	11.8	-19	20
5200	16.5	-16.1	3.8	-3.6	1.9	-4.0	-12.4	12.1	-19	20
5300	16.7	-16.3	4.0	-3.7	2.2	-4.3	-12.8	12.4	-19	20
5400	16.8	-16.5	4.1	-3.9	2.5	-4.6	-13.1	12.7	-19	20
5500	17.0	-16.7	4.3	-4.0	2.8	-4.9	-13.4	13.0	-19	20
5600	17.2	-16.8	4.5	-4.2	3.1	-5.2	-13.7	13.3	-19	20
5700	17.3	-17.0	4.7	-4.4	3.4	-5.6	-14.1	13.6	-19	20
5800	17.5	-17.2	4.9	-4.5	3.8	-5.9	-14.4	13.9	-19	20
5900	17.6	-17.3	5.1	-4.7	4.1	-6.2	-14.7	14.2	-19	20
6000	17.8	-17.5	5.3	-4.8	4.5	-6.6	-15.0	14.5	-19	20
6100	17.9	-17.6	5.5	-5.0	4.8	-6.9	-15.4	14.8	-19	20
6200	18.1	-17.8	5.7	-5.2	5.2	-7.3	-15.7	15.2	-19	20
6300	18.2	-17.9	5.9	-5.4	5.6	-7.7	-16.0	15.5	-19	20
6400	18.4	-18.1	6.1	-5.5	6.0	-8.0	-16.3	15.8	-19	20
6500	18.5	-18.2	6.3	-5.7	6.4	-8.4	-16.7	16.1	-19	20
6600	18.6	-18.4	6.5	-5.9	6.8	-8.7	-17.0	16.4	-19	20
6700	18.8	-18.5	6.7	-6.1	7.2	-9.1	-17.3	16.7	-19	20
6800	18.9	-18.6	6.9	-6.2	7.6	-9.5	-17.6	17.0	-19	20
6900	19.1	-18.8	7.2	-6.4	8.0	-9.8	-17.9	17.4	-19	20
7000	19.2	-18.9	7.4	-6.6	8.4	-10.2	-18.3	17.7	-19	20

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1	2	3	4	5	6	7	8	9
R A N G E	E L E V	FS FOR GRAZE BURST	DFS PER 10 M DEC HOB	DR PER 1 MIL D ELEV	F O R K	TIME OF FLIGHT	AZIMUTH CORRECTIONS	
		FUZE M582					DRIFT (CORR TO L)	CW OF 1 KNOT
M	MIL			M	MIL	SEC	MIL	MIL
7000	274.5	21.2	0.10	18	4	21.2	6.7	0.39
7100	280.1	21.6	0.10	18	4	21.6	6.8	0.40
7200	285.8	22.0	0.10	17	4	22.0	7.0	0.40
7300	291.6	22.4	0.09	17	4	22.4	7.1	0.41
7400	297.4	22.8	0.09	17	4	22.8	7.3	0.41
7500	303.3	23.2	0.09	17	4	23.2	7.4	0.42
7600	309.3	23.6	0.09	17	4	23.6	7.6	0.42
7700	315.3	24.0	0.09	17	4	24.0	7.7	0.42
7800	321.4	24.4	0.09	16	4	24.4	7.9	0.43
7900	327.5	24.8	0.08	16	4	24.8	8.1	0.43
8000	333.7	25.2	0.08	16	5	25.2	8.3	0.44
8100	340.0	25.6	0.08	16	5	25.6	8.4	0.44
8200	346.4	26.0	0.08	16	5	26.0	8.6	0.44
8300	352.8	26.5	0.08	15	5	26.5	8.8	0.45
8400	359.4	26.9	0.08	15	5	26.9	9.0	0.45
8500	366.0	27.3	0.08	15	5	27.3	9.2	0.46
8600	372.7	27.8	0.08	15	5	27.8	9.4	0.46
8700	379.5	28.2	0.08	15	5	28.2	9.6	0.46
8800	386.4	28.7	0.07	14	5	28.7	9.8	0.47
8900	393.4	29.1	0.07	14	6	29.1	10.0	0.47
9000	400.5	29.6	0.07	14	6	29.6	10.2	0.48
9100	407.8	30.1	0.07	14	6	30.1	10.4	0.48
9200	415.1	30.5	0.07	14	6	30.5	10.6	0.49
9300	422.6	31.0	0.07	13	6	31.0	10.9	0.49
9400	430.2	31.5	0.07	13	6	31.5	11.1	0.49
9500	437.9	32.0	0.07	13	7	32.0	11.4	0.50
9600	445.8	32.5	0.07	13	7	32.5	11.6	0.50
9700	453.9	33.0	0.06	12	7	33.0	11.9	0.51
9800	462.1	33.5	0.06	12	7	33.5	12.1	0.51
9900	470.5	34.0	0.06	12	8	34.0	12.4	0.52
10000	479.1	34.6	0.06	12	8	34.6	12.7	0.52
10100	487.9	35.1	0.06	11	8	35.1	13.0	0.53
10200	496.9	35.7	0.06	11	8	35.7	13.3	0.53
10300	506.2	36.3	0.06	11	9	36.3	13.6	0.54
10400	515.7	36.9	0.06	10	9	36.9	14.0	0.54
10500	525.6	37.5	0.06	10	10	37.5	14.3	0.55

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1	10	11	12	13	14	15	16	17	18	19
R A N G E	RANGE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
	M	M	M	M	M	M	M	M	M	M
7000	19.2	-18.9	7.4	-6.6	8.4	-10.2	-18.3	17.7	-19	20
7100	19.3	-19.0	7.6	-6.8	8.8	-10.6	-18.6	18.0	-18	20
7200	19.5	-19.2	7.8	-7.0	9.2	-10.9	-18.9	18.3	-18	20
7300	19.6	-19.3	8.1	-7.1	9.7	-11.3	-19.2	18.7	-18	20
7400	19.7	-19.4	8.3	-7.3	10.1	-11.7	-19.6	19.0	-18	20
7500	19.9	-19.6	8.5	-7.5	10.5	-12.0	-19.9	19.4	-18	20
7600	20.0	-19.7	8.8	-7.7	10.9	-12.4	-20.2	19.7	-18	20
7700	20.1	-19.8	9.0	-7.9	11.4	-12.8	-20.6	20.1	-18	20
7800	20.3	-19.9	9.2	-8.1	11.8	-13.1	-20.9	20.4	-18	20
7900	20.4	-20.1	9.5	-8.3	12.2	-13.5	-21.3	20.8	-18	19
8000	20.5	-20.2	9.7	-8.5	12.6	-13.8	-21.6	21.1	-18	19
8100	20.7	-20.3	9.9	-8.7	13.0	-14.2	-22.0	21.5	-17	19
8200	20.8	-20.4	10.2	-8.8	13.5	-14.5	-22.3	21.9	-17	19
8300	20.9	-20.6	10.4	-9.0	13.9	-14.9	-22.7	22.3	-17	19
8400	21.1	-20.7	10.7	-9.2	14.3	-15.2	-23.0	22.7	-17	19
8500	21.2	-20.8	10.9	-9.4	14.7	-15.5	-23.4	23.1	-17	19
8600	21.3	-20.9	11.1	-9.6	15.1	-15.9	-23.7	23.5	-17	19
8700	21.5	-21.1	11.4	-9.8	15.5	-16.2	-24.1	23.9	-17	19
8800	21.6	-21.2	11.6	-10.0	15.8	-16.5	-24.5	24.3	-16	19
8900	21.7	-21.3	11.9	-10.2	16.2	-16.8	-24.9	24.7	-16	18
9000	21.9	-21.5	12.1	-10.4	16.5	-17.2	-25.3	25.1	-16	18
9100	22.0	-21.6	12.4	-10.6	16.9	-17.5	-25.7	25.5	-16	18
9200	22.2	-21.7	12.6	-10.8	17.2	-17.8	-26.1	25.9	-16	18
9300	22.3	-21.8	12.9	-11.0	17.6	-18.1	-26.5	26.4	-16	18
9400	22.5	-22.0	13.1	-11.1	17.9	-18.4	-26.9	26.8	-16	18
9500	22.6	-22.1	13.4	-11.3	18.2	-18.7	-27.3	27.3	-15	18
9600	22.8	-22.2	13.6	-11.5	18.6	-19.0	-27.8	27.7	-15	18
9700	22.9	-22.4	13.9	-11.7	18.9	-19.3	-28.2	28.2	-15	17
9800	23.1	-22.5	14.1	-11.9	19.2	-19.6	-28.6	28.7	-15	17
9900	23.2	-22.7	14.4	-12.1	19.5	-19.8	-29.1	29.2	-15	17
10000	23.4	-22.8	14.6	-12.3	19.8	-20.1	-29.5	29.7	-15	17
10100	23.5	-22.9	14.9	-12.5	20.1	-20.4	-30.0	30.2	-14	17
10200	23.7	-23.1	15.1	-12.7	20.4	-20.6	-30.4	30.7	-14	16
10300	23.9	-23.2	15.4	-12.9	20.6	-20.8	-30.9	31.3	-14	16
10400	24.0	-23.4	15.7	-13.1	20.9	-21.1	-31.4	31.8	-14	16
10500	24.2	-23.5	16.0	-13.3	21.1	-21.3	-31.8	32.3	-14	16

(U//FOUO)

## BASIC DATA

PROJ, HE, M795  
FUZE, PD, M739A1

(U//FOUO)

1	2	3	4	5	6	7	8	9
R A N G E	E L E V	FS FOR GRAZE BURST  FUZE M582	DFS PER 10 M DEC HOB	DR PER 1 MIL D ELEV	F O R K	TIME OF FLIGHT	AZIMUTH CORRECTIONS	
							DRIFT (CORR TO L)	CW OF 1 KNOT
M	MIL			M	MIL	SEC	MIL	MIL
10500	525.6	37.5	0.06	10	10	37.5	14.3	0.55
10600	535.7	38.1	0.06	10	10	38.1	14.7	0.55
10700	546.3	38.7	0.06	9	11	38.7	15.1	0.56
10800	557.3	39.4	0.05	9	11	39.4	15.5	0.56
10900	568.8	40.1	0.05	8	12	40.1	15.9	0.57
11000	580.8	40.8	0.05	8	13	40.8	16.4	0.58
11100	593.5	41.6	0.05	8	13	41.6	16.9	0.58
11200	607.0	42.4	0.05	7	14	42.4	17.5	0.59
11300	621.4	43.2	0.05	7	16	43.2	18.1	0.60
11400	637.1	44.1	0.05	6	18	44.1	18.7	0.61
11500	654.6	45.2	0.05	5	20	45.2	19.5	0.62
11600	674.5	46.3	0.05	5	24	46.3	20.4	0.63
11700	698.6	47.6	0.05	4	31	47.6	21.5	0.64
11800	731.3	49.4	0.04			49.4	23.2	0.66
*****	*****	*****	*****	*****	*****	*****	*****	*****
11800	850.7	55.6	0.04			55.6	30.4	0.77
11700	882.8	57.2	0.04	4	34	57.2	32.8	0.80
11600	906.1	58.2	0.04	5	26	58.2	34.6	0.82
11500	925.4	59.1	0.04	6	22	59.1	36.3	0.84
11400	942.2	59.9	0.04	6	19	59.9	37.8	0.85
11300	957.3	60.6	0.04	7	17	60.6	39.2	0.87
11200	971.0	61.2	0.04	8	16	61.2	40.6	0.89
11100	983.8	61.7	0.04	8	14	61.7	41.9	0.90
11000	995.8	62.2	0.04	9	13	62.2	43.2	0.92
10900	1007.1	62.7	0.04	9	13	62.7	44.5	0.93
10800	1017.8	63.1	0.04	10	12	63.1	45.8	0.95
10700	1028.0	63.5	0.04	10	11	63.5	47.0	0.96
10600	1037.8	63.9	0.04	10	11	63.9	48.3	0.98
10500	1047.2	64.3	0.04	11	10	64.3	49.6	0.99
10400	1056.3	64.6	0.04	11	10	64.6	50.8	1.01
10300	1065.0	65.0	0.04	12	9	65.0	52.1	1.02
10200	1073.5	65.3	0.04	12	9	65.3	53.4	1.04
10100	1081.7	65.6	0.03	12	9	65.6	54.7	1.06
10000	1089.7	65.9	0.03	13	8	65.9	56.0	1.07

(U//FOUO)

(U//FOUO)

1	10	11	12	13	14	15	16	17	18	19
R A N G E	RANGE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
M	M	M	M	M	M	M	M	M	M	M
10500	24.2	-23.5	16.0	-13.3	21.1	-21.3	-31.8	32.3	-14	16
10600	24.4	-23.7	16.3	-13.5	21.3	-21.5	-32.3	32.8	-13	16
10700	24.6	-23.8	16.5	-13.7	21.5	-21.7	-32.8	33.4	-13	16
10800	24.8	-24.0	16.8	-13.9	21.7	-21.9	-33.3	34.0	-13	16
10900	24.9	-24.1	17.1	-14.0	21.9	-22.1	-33.8	34.7	-13	15
11000	25.1	-24.3		-14.2	22.1	-22.3	-34.3	35.4	-13	15
11100	25.4	-24.5		-14.4	22.2	-22.5	-34.9	36.2	-13	15
11200	25.6	-24.6		-14.6	22.3	-22.7	-35.4	36.9	-13	15
11300	25.9	-24.8		-14.8	22.4	-22.8	-36.0	37.7	-12	14
11400	26.1	-25.0		-15.0	22.3	-22.9	-36.5	38.7	-12	14
11500	26.4	-25.2		-15.2	22.0	-22.9	-37.1		-12	14
11600	26.8	-25.4		-15.4	21.8	-22.9	-37.7		-11	13
11700		-25.6		-15.6		-22.9	-38.3		-11	13
11800		-25.9		-15.8		-22.9	-38.9		-11	13
*****										
11800		-26.7		-16.6		-21.2	-43.5		-10	12
11700		-26.5		-16.4		-21.0	-43.2		-10	11
11600	26.9	-26.4		-16.3	20.9	-20.7	-42.9		-9	11
11500	26.8	-26.2		-16.2	20.4	-20.4	-42.6		-9	11
11400	26.7	-26.0		-16.1	20.1	-20.2	-42.3	40.3	-9	11
11300	26.6	-25.8		-15.9	19.8	-20.0	-41.9	40.3	-9	10
11200	26.4	-25.6		-15.8	19.5	-19.7	-41.6	40.1	-9	10
11100	26.2	-25.4		-15.7	19.3	-19.5	-41.2	39.9	-9	10
11000	26.1	-25.2		-15.6	19.0	-19.3	-40.9	39.7	-8	10
10900	25.9	-25.0	17.7	-15.4	18.8	-19.1	-40.5	39.4	-8	10
10800	25.7	-24.8	17.7	-15.3	18.6	-18.9	-40.2	39.1	-8	10
10700	25.5	-24.6	17.6	-15.1	18.4	-18.7	-39.8	38.8	-8	10
10600	25.3	-24.4	17.6	-15.0	18.2	-18.5	-39.4	38.5	-8	10
10500	25.1	-24.2	17.5	-14.9	18.0	-18.3	-39.1	38.2	-7	10
10400	24.9	-23.9	17.4	-14.7	17.8	-18.2	-38.7	37.9	-7	10
10300	24.7	-23.7	17.3	-14.6	17.6	-18.0	-38.3	37.6	-7	9
10200	24.5	-23.5	17.2	-14.4	17.4	-17.8	-38.0	37.2	-7	9
10100	24.2	-23.3	17.1	-14.2	17.2	-17.6	-37.6	36.9	-7	9
10000	24.0	-23.1	17.0	-14.1	17.0	-17.4	-37.2	36.5	-7	9

(U//FOUO)

(U//FOUO)

1	2	3	4	5	6	7	8	9
R A N G E	E L E V	FS FOR GRAZE BURST  FUZE M582	DFS PER 10 M DEC HOB	DR PER 1 MIL D ELEV	F O R K	TIME OF FLIGHT	AZIMUTH CORRECTIONS	
							DRIFT (CORR TO L)	CW OF 1 KNOT
M	MIL			M	MIL	SEC	MIL	MIL
10000	1089.7	65.9	0.03	13	8	65.9	56.0	1.07
9900	1097.4	66.2	0.03	13	8	66.2	57.3	1.09
9800	1105.0	66.5	0.03	13	8	66.5	58.6	1.11
9700	1112.3	66.7	0.03	14	7	66.7	59.9	1.12
9600	1119.5	67.0	0.03	14	7	67.0	61.3	1.14
9500	1126.5	67.2	0.03	14	7	67.2	62.7	1.16
9400	1133.4	67.5	0.03	15	7	67.5	64.1	1.18
9300	1140.1	67.7	0.03	15	7	67.7	65.6	1.20
9200	1146.7	67.9	0.03	15	6	67.9	67.1	1.21
9100	1153.2	68.1	0.03	16	6	68.1	68.6	1.23
9000	1159.5	68.4	0.03	16	6	68.4	70.2	1.26
8900	1165.7	68.6	0.03	16	6	68.6	71.8	1.28
8800	1171.8	68.8	0.03	17	6	68.8	73.4	1.30
8700	1177.7	69.0	0.03	17	5	69.0	75.1	1.32
8600	1183.6	69.2	0.03	17	5	69.2	76.8	1.34
8500	1189.4	69.3	0.03	18	5	69.3	78.6	1.37
8400	1195.0	69.5	0.03	18	5	69.5	80.4	1.39
8300	1200.6	69.7	0.03	18	5	69.7	82.3	1.42
8200	1206.1	69.9	0.03	18	5	69.9	84.3	1.45
8100	1211.4	70.0	0.03	19	4	70.0	86.4	1.47
8000	1216.7	70.2	0.03	19	4	70.2	88.5	1.50
7900	1221.9	70.4	0.03	19	4	70.4	90.7	1.54
7800	1227.0	70.5	0.03	20	4	70.5	93.1	1.57
7700	1232.0	70.7	0.03	20	4	70.7	95.6	1.60
7600	1236.9	70.9	0.03	21	4	70.9	98.2	1.64
7500	1241.8	71.0	0.03	21	4	71.0	100.9	1.68
7400	1246.5	71.2	0.03	21	4	71.2	103.8	1.72
7300	1251.2	71.3	0.03	22	3	71.3	106.9	1.76
7200	1255.7	71.5	0.03	22	3	71.5	110.2	1.81
7100	1260.2	71.6	0.03	23	3	71.6	113.7	1.86
7000	1264.6	71.7	0.03	23	3	71.7	117.4	1.91
6900	1268.9	71.9	0.03	24		71.9	121.5	1.97
6800	1273.0	72.0	0.03	24		72.0	125.8	2.03
6700	1277.1	72.2	0.03	25		72.2	130.5	2.10
6600	1281.1	72.3	0.03	25		72.3	135.7	2.18
6500	1285.0	72.5	0.03	26		72.5	141.2	

(U//FOUO)



CORRECTION FACTORS

(U//FOUO)

1	10	11	12	13	14	15	16	17	18	19
R A N G E	RANGE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
	M	M	M	M	M	M	M	M	M	M
10000	24.0	-23.1	17.0	-14.1	17.0	-17.4	-37.2	36.5	-7	9
9900	23.8	-22.9	16.9	-13.9	16.8	-17.3	-36.8	36.2	-6	9
9800	23.6	-22.6	16.8	-13.7	16.6	-17.1	-36.4	35.8	-6	9
9700	23.3	-22.4	16.7	-13.6	16.4	-16.9	-36.0	35.5	-6	9
9600	23.1	-22.2	16.6	-13.4	16.3	-16.8	-35.6	35.1	-6	8
9500	22.9	-21.9	16.5	-13.2	16.1	-16.6	-35.2	34.7	-6	8
9400	22.6	-21.7	16.4	-13.0	15.9	-16.5	-34.8	34.4	-6	8
9300	22.4	-21.5	16.3	-12.8	15.7	-16.3	-34.4	34.0	-5	8
9200	22.2	-21.3	16.2	-12.6	15.6	-16.1	-34.0	33.6	-5	7
9100	21.9	-21.0	16.1	-12.3	15.4	-16.0	-33.6	33.2	-5	7
9000	21.7	-20.8	15.9	-12.1	15.3	-15.8	-33.2	32.9	-5	7
8900	21.4	-20.6	15.8	-11.8	15.1	-15.7	-32.7	32.5	-5	7
8800	21.2	-20.3	15.7	-11.6	14.9	-15.6	-32.3	32.1	-4	6
8700	21.0	-20.1	15.6	-11.3	14.8	-15.4	-31.9	31.7	-4	6
8600	20.7	-19.8	15.4	-11.0	14.6	-15.3	-31.4	31.3	-4	6
8500	20.5	-19.6	15.3	-10.7	14.5	-15.1	-31.0	30.9	-4	5
8400	20.2	-19.3	15.1	-10.3	14.4	-15.0	-30.6	30.5	-3	5
8300	20.0	-19.1	15.0	-9.9	14.2	-14.8	-30.1	30.1	-3	5
8200	19.7	-18.8	14.9	-9.5	14.1	-14.7	-29.7	29.7	-3	4
8100	19.4	-18.6	14.7	-9.1	14.0	-14.6	-29.2	29.2	-2	4
8000	19.2	-18.3	14.6		13.8	-14.4	-28.7	28.8	-2	4
7900	18.9	-18.1	14.4		13.7	-14.3	-28.3	28.4	-1	3
7800	18.7	-17.8	14.2		13.6	-14.2	-27.8	28.0	-1	3
7700	18.4	-17.6	14.1		13.5	-14.1	-27.3	27.5	-1	2
7600	18.2	-17.3	13.9		13.3	-14.0	-26.8	27.1	0	2
7500	17.9	-17.0	13.7		13.2	-13.9	-26.3	26.7	0	1
7400	17.6	-16.8	13.6		13.1	-13.8	-25.8	26.2	1	1
7300	17.3	-16.5	13.4		13.0	-13.7	-25.3	25.8	2	0
7200	17.1	-16.2	13.2		12.9	-13.6	-24.8	25.3	2	0
7100	16.8	-15.9	13.0		12.8	-13.5	-24.2	24.8	3	-1
7000	16.5	-15.6	12.7		12.8	-13.4	-23.7	24.4	4	-2
6900	16.2	-15.3	12.5		12.7	-13.3		23.9	5	-2
6800	15.9	-15.1	12.2		12.6	-13.3		23.4	5	-3
6700	15.6	-14.8	12.0		12.6	-13.3		22.9		-4
6600	15.3	-14.5	11.7			-13.2		22.4		-5
6500	15.0	-14.1	11.4			-13.2		21.8		-6

(U//FOUO)

CHARGE  
6W

(U//FOUO) TABLE F  
BASIC DATA

FT 155-AR-1  
PART 1  
PROJ, HE, M795  
FUZE, PD, M739A1

(U//FOUO)

1	2	3	4	5	6	7	8	9
R A N G E	E L E V	FS FOR GRAZE BURST  FUZE M582	DFS PER 10 M DEC HOB	DR PER 1 MIL D ELEV	F O R K	TIME OF FLIGHT	AZIMUTH CORRECTIONS	
							DRIFT (CORR TO L)	CW OF 1 KNOT
M	MIL			M	MIL	SEC	MIL	MIL
6500	1285.0	72.5	0.03	26		72.5	141.2	
6400 6300	1288.8 1292.4	72.7 72.8	0.03 0.03	27		72.7 72.8	147.2 153.7	
6227	1295.0							

(U//FOUO)

(U//FOUO)

1	10	11	12	13	14	15	16	17	18	19
R A N G E	RANGE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
	M	M	M	M	M	M	M	M	M	M
6500	15.0	-14.1	11.4			-13.2		21.8		-6
6400	14.7	-13.8	11.1			-13.2		21.3		-8
6300	14.3		10.7					20.7		-9

(U//FOUO)

## SUPPLEMENTARY DATA

PROJ, HE, M795  
FUZE, PD, M739A1

(U//FOUO)

1	2	3	4	5	6	7	8	9	10	11	12	13
R A N G E	E L E V	PROBABLE ERRORS					ANGLE OF FALL	COT ANGLE OF FALL	TML VEL	MO	COMP SITE	
		R	D	FUZE M582							+1 MIL SITE	-1 MIL SITE
				HB	TB	RB						
M	MIL	M	M	M	SEC	M	MIL		M/S	M	MIL	MIL
0	0.0	8	0				0		453	0	0.000	0.00
500	12.6	8	0				13	78.2	432	2	0.000	0.00
1000	26.0	8	0	0	0.04	17	28	36.6	412	7	0.000	0.00
1500	40.4	8	1	1	0.04	16	45	22.8	392	16	0.001	-0.001
2000	55.7	8	1	1	0.04	15	64	16.0	373	29	0.002	-0.001
2500	72.2	8	1	1	0.04	15	85	11.9	357	48	0.003	-0.002
3000	89.8	9	1	2	0.04	14	109	9.3	342	73	0.005	-0.004
3500	108.7	10	2	2	0.04	14	135	7.5	331	105	0.008	-0.006
4000	128.8	11	2	2	0.04	14	163	6.2	321	144	0.011	-0.008
4500	150.1	12	2	3	0.04	14	193	5.2	314	191	0.014	-0.011
5000	172.5	13	2	3	0.04	14	224	4.5	308	247	0.019	-0.015
5500	196.2	13	3	4	0.04	14	256	3.9	302	313	0.024	-0.019
6000	221.0	14	3	4	0.04	14	290	3.4	298	388	0.031	-0.025
6500	247.1	15	3	5	0.04	15	325	3.0	295	474	0.040	-0.032
7000	274.5	16	3	5	0.04	15	361	2.7	292	572	0.051	-0.041
7500	303.3	17	4	6	0.04	15	398	2.4	289	683	0.066	-0.053
8000	333.7	18	4	7	0.04	16	438	2.2	287	808	0.085	-0.068
8500	366.0	19	4	7	0.05	16	478	2.0	286	949	0.111	-0.089
9000	400.5	20	5	8	0.05	17	521	1.8	284	1110	0.146	-0.116
9500	437.9	21	5	9	0.05	18	567	1.6	284	1295	0.197	-0.155
10000	479.1	22	6	10	0.05	19	616	1.4	284	1510	0.273	-0.209
10500	525.6	24	6	12	0.05	20	670	1.3	284	1767	0.405	-0.292
11000	580.8	25	7	13	0.05	21	732	1.1	285	2089	0.684	-0.438
11500	654.6	27	7	16	0.06	22	810	1.0	288	2541		-0.762
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
11500	925.4	30	9	28	0.08	24	1065	0.6	303	4291		1.88
11000	995.8	29	9	31	0.09	23	1125	0.5	306	4728	-1.789	1.54
10500	1047.2	28	9	33	0.09	22	1167	0.4	309	5032	-1.493	1.38
10000	1089.7	26	9	35	0.09	21	1202	0.4	310	5271	-1.351	1.29
9500	1126.5	25	9	37	0.10	20	1233	0.4	311	5467	-1.264	1.22
9000	1159.5	24	9	38	0.10	19	1261	0.3	312	5633	-1.204	1.17
8500	1189.4	22	8	39	0.10	18	1287	0.3	313	5776	-1.160	1.14
8000	1216.7	21	8	41	0.10	17	1312	0.3	313	5898	-1.126	1.11
7500	1241.8	19	8	42	0.11	16	1336	0.3	314	6003	-1.098	1.08
7000	1264.6	18	8	43	0.11	15	1360	0.2	314	6093	-1.074	1.06
6500	1285.0		7	44	0.11	14	1383	0.2	314	6169	-1.054	1.05

(U//FOUO)

ROTATION - RANGE

(U//FOUO) CORRECTIONS TO RANGE, IN METERS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 3200	200 3000	400 2800	600 2600	800 2400	1000 2200	1200 2000	1400 1800	1600 1600
500	0	-1+	-1+	-2+	-2+	-3+	-3+	-3+	-3+
1000	0	-1+	-2+	-3+	-4+	-5+	-6+	-6+	-6+
1500	0	-2+	-3+	-5+	-6+	-7+	-8+	-9+	-9+
2000	0	-2+	-4+	-6+	-8+	-9+	-10+	-11+	-11+
2500	0	-3+	-5+	-7+	-9+	-11+	-12+	-13+	-13+
3000	0	-3+	-6+	-8+	-11+	-12+	-14+	-15+	-15+
3500	0	-3+	-6+	-9+	-12+	-14+	-15+	-16+	-17+
4000	0	-4+	-7+	-10+	-13+	-15+	-17+	-18+	-18+
4500	0	-4+	-8+	-11+	-14+	-17+	-18+	-20+	-20+
5000	0	-4+	-8+	-12+	-15+	-18+	-20+	-21+	-21+
5500	0	-4+	-9+	-13+	-16+	-19+	-21+	-23+	-23+
6000	0	-5+	-9+	-14+	-17+	-20+	-23+	-24+	-24+
6500	0	-5+	-10+	-14+	-18+	-21+	-24+	-25+	-26+
7000	0	-5+	-10+	-15+	-19+	-23+	-25+	-27+	-27+
7500	0	-6+	-11+	-16+	-20+	-24+	-26+	-28+	-28+
8000	0	-6+	-11+	-16+	-21+	-24+	-27+	-29+	-29+
8500	0	-6+	-12+	-17+	-21+	-25+	-28+	-30+	-30+
9000	0	-6+	-12+	-17+	-22+	-26+	-29+	-31+	-31+
9500	0	-6+	-12+	-18+	-22+	-26+	-29+	-31+	-32+
10000	0	-6+	-12+	-18+	-23+	-27+	-30+	-31+	-32+
10500	0	-6+	-12+	-18+	-23+	-26+	-29+	-31+	-32+
11000	0	-6+	-12+	-17+	-22+	-26+	-29+	-30+	-31+
11500	0	-6+	-11+	-16+	-20+	-24+	-27+	-28+	-29+
*****									
11500	0	-2+	-4+	-6+	-7+	-9+	-10+	-10+	-11+
11000	0	-1+	-2+	-2+	-3+	-3+	-4+	-4+	-4+
10500	0	0	+1-	+1-	+1-	+1-	+1-	+1-	+1-
10000	0	+1-	+2-	+3-	+4-	+5-	+6-	+6-	+6-
9500	0	+2-	+4-	+6-	+8-	+9-	+10-	+10-	+11-
9000	0	+3-	+6-	+8-	+11-	+12-	+14-	+15-	+15-
8500	0	+4-	+7-	+11-	+13-	+16-	+18-	+19-	+19-
8000	0	+5-	+9-	+13-	+17-	+19-	+22-	+23-	+23-
7500	0	+6-	+11-	+16-	+20-	+23-	+26-	+28-	+28-
7000	0	+7-	+13-	+19-	+24-	+28-	+32-	+33-	+34-
6500	0	+8-	+16-	+23-	+30-	+35-	+39-	+41-	+42-
	3200	3400	3600	3800	4000	4200	4400	4600	4800
	6400	6200	6000	5800	5600	5400	5200	5000	4800
AZIMUTH OF TARGET - MILS									

(U//FOUO)

- (U//FOUO) NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
3. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.  
4. CORRECTIONS ARE FOR 0 DEGREES LATITUDE. FOR OTHER LATITUDES  
MULTIPLY CORRECTIONS BY THE FACTOR GIVEN BELOW.

(U//FOUO)

LATITUDE (DEG)	10	20	30	40	50	60	70
MULTIPLY BY	.98	.94	.87	.77	.64	.50	.34

(U//FOUO) UNCLASSIFIED//FOR OFFICIAL USE ONLY

CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

0 DEGREES LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5000	R0.1L	R0.1L	0.0	0.0	0.0	0.0	0.0	L0.1R	L0.1R
5500	R0.1L	R0.1L	0.0	0.0	0.0	0.0	0.0	L0.1R	L0.1R
6000	R0.1L	R0.1L	R0.1L	0.0	0.0	0.0	L0.1R	L0.1R	L0.1R
6500	R0.1L	R0.1L	R0.1L	0.0	0.0	0.0	L0.1R	L0.1R	L0.1R
7000	R0.1L	R0.1L	R0.1L	R0.1L	0.0	L0.1R	L0.1R	L0.1R	L0.1R
7500	R0.2L	R0.1L	R0.1L	R0.1L	0.0	L0.1R	L0.1R	L0.1R	L0.2R
8000	R0.2L	R0.2L	R0.1L	R0.1L	0.0	L0.1R	L0.1R	L0.2R	L0.2R
8500	R0.2L	R0.2L	R0.2L	R0.1L	0.0	L0.1R	L0.2R	L0.2R	L0.2R
9000	R0.3L	R0.3L	R0.2L	R0.1L	0.0	L0.1R	L0.2R	L0.3R	L0.3R
9500	R0.3L	R0.3L	R0.2L	R0.1L	0.0	L0.1R	L0.2R	L0.3R	L0.3R
10000	R0.4L	R0.4L	R0.3L	R0.2L	0.0	L0.2R	L0.3R	L0.4R	L0.4R
10500	R0.5L	R0.4L	R0.3L	R0.2L	0.0	L0.2R	L0.3R	L0.4R	L0.5R
11000	R0.6L	R0.5L	R0.4L	R0.2L	0.0	L0.2R	L0.4R	L0.5R	L0.6R
11500	R0.8L	R0.7L	R0.5L	R0.3L	0.0	L0.3R	L0.5R	L0.7R	L0.8R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
11500	R1.7L	R1.6L	R1.2L	R0.7L	0.0	L0.7R	L1.2R	L1.6R	L1.7R
11000	R2.1L	R1.9L	R1.5L	R0.8L	0.0	L0.8R	L1.5R	L1.9R	L2.1R
10500	R2.4L	R2.2L	R1.7L	R0.9L	0.0	L0.9R	L1.7R	L2.2R	L2.4R
10000	R2.7L	R2.5L	R1.9L	R1.0L	0.0	L1.0R	L1.9R	L2.5R	L2.7R
9500	R3.0L	R2.8L	R2.1L	R1.2L	0.0	L1.2R	L2.1R	L2.8R	L3.0R
9000	R3.3L	R3.1L	R2.3L	R1.3L	0.0	L1.3R	L2.3R	L3.1R	L3.3R
8500	R3.6L	R3.4L	R2.6L	R1.4L	0.0	L1.4R	L2.6R	L3.4R	L3.6R
8000	R3.9L	R3.6L	R2.8L	R1.5L	0.0	L1.5R	L2.8R	L3.6R	L3.9R
7500	R4.3L	R3.9L	R3.0L	R1.6L	0.0	L1.6R	L3.0R	L3.9R	L4.3R
7000	R4.6L	R4.2L	R3.2L	R1.7L	0.0	L1.7R	L3.2R	L4.2R	L4.6R
6500	R4.9L	R4.5L	R3.4L	R1.9L	0.0	L1.9R	L3.4R	L4.5R	L4.9R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
	AZIMUTH OF TARGET - MILS								

(U//FOUO)

0 DEGREES LATITUDE

(U//FOUO)

- NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
 2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
 3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.  
 4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

10 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2000	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
2500	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
3000	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
3500	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
4000	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.2R	L0.2R	L0.2R
4500	L0.1R	L0.1R	L0.1R	L0.1R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
5000	L0.1R	L0.1R	L0.1R	L0.1R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
5500	L0.1R	L0.1R	L0.1R	L0.2R	L0.2R	L0.2R	L0.2R	L0.3R	L0.3R
6000	L0.1R	L0.1R	L0.1R	L0.2R	L0.2R	L0.2R	L0.3R	L0.3R	L0.3R
6500	L0.1R	L0.1R	L0.2R	L0.2R	L0.2R	L0.3R	L0.3R	L0.3R	L0.3R
7000	L0.1R	L0.1R	L0.2R	L0.2R	L0.3R	L0.3R	L0.3R	L0.4R	L0.4R
7500	L0.1R	L0.1R	L0.2R	L0.2R	L0.3R	L0.3R	L0.4R	L0.4R	L0.4R
8000	L0.1R	L0.1R	L0.2R	L0.2R	L0.3R	L0.4R	L0.4R	L0.5R	L0.5R
8500	L0.1R	L0.1R	L0.2R	L0.2R	L0.3R	L0.4R	L0.5R	L0.5R	L0.6R
9000	L0.1R	L0.1R	L0.2R	L0.2R	L0.4R	L0.5R	L0.5R	L0.6R	L0.6R
9500	L0.1R	L0.1R	L0.2R	L0.3R	L0.4R	L0.5R	L0.6R	L0.7R	L0.7R
10000	0.0	L0.1R	L0.1R	L0.3R	L0.4R	L0.6R	L0.7R	L0.8R	L0.8R
10500	0.0	0.0	L0.1R	L0.3R	L0.4R	L0.6R	L0.8R	L0.9R	L0.9R
11000	R0.1L	R0.1L	L0.1R	L0.3R	L0.5R	L0.7R	L0.9R	L1.0R	L1.1R
11500	R0.2L	R0.2L	0.0	L0.3R	L0.5R	L0.8R	L1.1R	L1.2R	L1.3R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
11500	R1.0L	R0.9L	R0.5L	L0.1R	L0.7R	L1.3R	L1.9R	L2.3R	L2.4R
11000	R1.3L	R1.2L	R0.7L	R0.1L	L0.7R	L1.5R	L2.2R	L2.6R	L2.8R
10500	R1.6L	R1.4L	R0.9L	R0.1L	L0.8R	L1.7R	L2.4R	L2.9R	L3.1R
10000	R1.9L	R1.7L	R1.1L	R0.2L	L0.8R	L1.8R	L2.7R	L3.2R	L3.4R
9500	R2.2L	R2.0L	R1.3L	R0.3L	L0.8R	L1.9R	L2.9R	L3.5R	L3.8R
9000	R2.5L	R2.2L	R1.5L	R0.5L	L0.8R	L2.0R	L3.1R	L3.8R	L4.1R
8500	R2.8L	R2.5L	R1.7L	R0.6L	L0.8R	L2.2R	L3.3R	L4.1R	L4.4R
8000	R3.1L	R2.8L	R1.9L	R0.7L	L0.8R	L2.3R	L3.6R	L4.4R	L4.7R
7500	R3.4L	R3.1L	R2.2L	R0.8L	L0.8R	L2.4R	L3.8R	L4.7R	L5.0R
7000	R3.7L	R3.3L	R2.4L	R0.9L	L0.8R	L2.5R	L4.0R	L5.0R	L5.3R
6500	R4.0L	R3.6L	R2.6L	R1.0L	L0.8R	L2.6R	L4.2R	L5.2R	L5.6R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
	AZIMUTH OF TARGET - MILS								

(U//FOUO)

10 DEGREES SOUTH LATITUDE

- (U//FOUO) NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.  
4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

## 20 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1000	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
1500	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
2000	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
2500	L0.1R	L0.1R	L0.1R	L0.1R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
3000	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
3500	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
4000	L0.2R	L0.2R	L0.2R	L0.2R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R
4500	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R
5000	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.4R	L0.4R	L0.4R	L0.4R
5500	L0.3R	L0.3R	L0.3R	L0.3R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R
6000	L0.3R	L0.3R	L0.4R	L0.4R	L0.4R	L0.4R	L0.5R	L0.5R	L0.5R
6500	L0.4R	L0.4R	L0.4R	L0.4R	L0.5R	L0.5R	L0.5R	L0.6R	L0.6R
7000	L0.4R	L0.4R	L0.4R	L0.5R	L0.5R	L0.6R	L0.6R	L0.6R	L0.6R
7500	L0.4R	L0.4R	L0.4R	L0.5R	L0.5R	L0.6R	L0.7R	L0.7R	L0.7R
8000	L0.4R	L0.4R	L0.5R	L0.5R	L0.6R	L0.7R	L0.7R	L0.8R	L0.8R
8500	L0.4R	L0.4R	L0.5R	L0.6R	L0.6R	L0.7R	L0.8R	L0.8R	L0.9R
9000	L0.4R	L0.5R	L0.5R	L0.6R	L0.7R	L0.8R	L0.9R	L0.9R	L1.0R
9500	L0.4R	L0.5R	L0.5R	L0.6R	L0.8R	L0.9R	L1.0R	L1.0R	L1.1R
10000	L0.4R	L0.5R	L0.5R	L0.7R	L0.8R	L1.0R	L1.1R	L1.2R	L1.2R
10500	L0.4R	L0.5R	L0.6R	L0.7R	L0.9R	L1.1R	L1.2R	L1.3R	L1.3R
11000	L0.4R	L0.4R	L0.6R	L0.7R	L1.0R	L1.2R	L1.3R	L1.5R	L1.5R
11500	L0.3R	L0.4R	L0.5R	L0.8R	L1.1R	L1.3R	L1.6R	L1.7R	L1.8R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
11500	R0.2L	R0.1L	L0.2R	L0.8R	L1.4R	L2.0R	L2.5R	L2.9R	L3.0R
11000	R0.5L	R0.4L	L0.1R	L0.7R	L1.4R	L2.2R	L2.8R	L3.3R	L3.4R
10500	R0.8L	R0.6L	R0.1L	L0.6R	L1.5R	L2.4R	L3.1R	L3.6R	L3.8R
10000	R1.0L	R0.8L	R0.3L	L0.6R	L1.5R	L2.5R	L3.3R	L3.9R	L4.1R
9500	R1.3L	R1.1L	R0.5L	L0.5R	L1.6R	L2.6R	L3.6R	L4.2R	L4.4R
9000	R1.5L	R1.3L	R0.6L	L0.4R	L1.6R	L2.8R	L3.8R	L4.5R	L4.7R
8500	R1.8L	R1.6L	R0.8L	L0.3R	L1.6R	L2.9R	L4.0R	L4.7R	L5.0R
8000	R2.1L	R1.8L	R1.0L	L0.2R	L1.6R	L3.0R	L4.2R	L5.0R	L5.3R
7500	R2.4L	R2.1L	R1.2L	L0.1R	L1.6R	L3.1R	L4.4R	L5.3R	L5.6R
7000	R2.7L	R2.4L	R1.4L	0.0	L1.6R	L3.2R	L4.6R	L5.6R	L5.9R
6500	R3.0L	R2.6L	R1.6L	R0.2L	L1.6R	L3.3R	L4.8R	L5.8R	L6.1R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
	AZIMUTH OF TARGET - MILS								

(U//FOUO)

## 20 DEGREES SOUTH LATITUDE

(U//FOUO)

- NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
 2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
 3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.  
 4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.



CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

30 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1000	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
1500	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
2000	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
2500	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
3000	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R
3500	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R
4000	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R
4500	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.5R	L0.5R	L0.5R
5000	L0.4R	L0.4R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R
5500	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.6R	L0.6R	L0.6R	L0.6R
6000	L0.5R	L0.5R	L0.6R	L0.6R	L0.6R	L0.6R	L0.7R	L0.7R	L0.7R
6500	L0.6R	L0.6R	L0.6R	L0.6R	L0.7R	L0.7R	L0.7R	L0.8R	L0.8R
7000	L0.6R	L0.6R	L0.7R	L0.7R	L0.7R	L0.8R	L0.8R	L0.8R	L0.9R
7500	L0.7R	L0.7R	L0.7R	L0.7R	L0.8R	L0.9R	L0.9R	L0.9R	L0.9R
8000	L0.7R	L0.7R	L0.8R	L0.8R	L0.9R	L0.9R	L1.0R	L1.0R	L1.0R
8500	L0.7R	L0.8R	L0.8R	L0.9R	L0.9R	L1.0R	L1.1R	L1.1R	L1.1R
9000	L0.8R	L0.8R	L0.8R	L0.9R	L1.0R	L1.1R	L1.2R	L1.2R	L1.3R
9500	L0.8R	L0.8R	L0.9R	L1.0R	L1.1R	L1.2R	L1.3R	L1.4R	L1.4R
10000	L0.8R	L0.9R	L0.9R	L1.1R	L1.2R	L1.3R	L1.4R	L1.5R	L1.5R
10500	L0.9R	L0.9R	L1.0R	L1.1R	L1.3R	L1.4R	L1.6R	L1.7R	L1.7R
11000	L0.9R	L0.9R	L1.0R	L1.2R	L1.4R	L1.6R	L1.8R	L1.9R	L1.9R
11500	L0.9R	L0.9R	L1.1R	L1.3R	L1.5R	L1.8R	L2.0R	L2.2R	L2.2R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
11500	L0.5R	L0.6R	L1.0R	L1.4R	L2.0R	L2.6R	L3.1R	L3.4R	L3.5R
11000	L0.3R	L0.4R	L0.8R	L1.4R	L2.1R	L2.8R	L3.4R	L3.8R	L3.9R
10500	L0.1R	L0.3R	L0.7R	L1.4R	L2.2R	L3.0R	L3.7R	L4.1R	L4.3R
10000	R0.1L	L0.1R	L0.6R	L1.3R	L2.2R	L3.1R	L3.9R	L4.4R	L4.6R
9500	R0.3L	R0.1L	L0.4R	L1.3R	L2.3R	L3.3R	L4.1R	L4.7R	L4.9R
9000	R0.6L	R0.4L	L0.3R	L1.2R	L2.3R	L3.4R	L4.3R	L5.0R	L5.2R
8500	R0.8L	R0.6L	L0.1R	L1.1R	L2.3R	L3.5R	L4.5R	L5.2R	L5.5R
8000	R1.1L	R0.8L	R0.1L	L1.0R	L2.3R	L3.6R	L4.7R	L5.5R	L5.7R
7500	R1.4L	R1.1L	R0.3L	L0.9R	L2.3R	L3.7R	L4.9R	L5.7R	L6.0R
7000	R1.6L	R1.3L	R0.5L	L0.8R	L2.3R	L3.8R	L5.1R	L6.0R	L6.3R
6500	R1.9L	R1.6L	R0.7L	L0.7R	L2.3R	L3.9R	L5.3R	L6.2R	L6.5R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
	AZIMUTH OF TARGET - MILS								

(U//FOUO)

30 DEGREES SOUTH LATITUDE

- (U//FOUO) NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.  
4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

## 40 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
500	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
1000	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
1500	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
2000	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
2500	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R
3000	L0.3R	L0.3R	L0.3R	L0.3R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R
3500	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R
4000	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R
4500	L0.5R	L0.5R	L0.5R	L0.5R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R
5000	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.7R	L0.7R	L0.7R
5500	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R	L0.8R	L0.8R
6000	L0.7R	L0.7R	L0.7R	L0.8R	L0.8R	L0.8R	L0.8R	L0.8R	L0.8R
6500	L0.8R	L0.8R	L0.8R	L0.8R	L0.9R	L0.9R	L0.9R	L0.9R	L0.9R
7000	L0.8R	L0.8R	L0.9R	L0.9R	L0.9R	L1.0R	L1.0R	L1.0R	L1.0R
7500	L0.9R	L0.9R	L0.9R	L1.0R	L1.0R	L1.1R	L1.1R	L1.1R	L1.2R
8000	L1.0R	L1.0R	L1.0R	L1.1R	L1.1R	L1.2R	L1.2R	L1.3R	L1.3R
8500	L1.0R	L1.0R	L1.1R	L1.1R	L1.2R	L1.3R	L1.3R	L1.4R	L1.4R
9000	L1.1R	L1.1R	L1.2R	L1.2R	L1.3R	L1.4R	L1.5R	L1.5R	L1.5R
9500	L1.2R	L1.2R	L1.2R	L1.3R	L1.4R	L1.5R	L1.6R	L1.6R	L1.7R
10000	L1.2R	L1.2R	L1.3R	L1.4R	L1.5R	L1.6R	L1.7R	L1.8R	L1.8R
10500	L1.3R	L1.3R	L1.4R	L1.5R	L1.7R	L1.8R	L1.9R	L2.0R	L2.0R
11000	L1.3R	L1.4R	L1.5R	L1.6R	L1.8R	L2.0R	L2.1R	L2.2R	L2.3R
11500	L1.4R	L1.4R	L1.6R	L1.8R	L2.0R	L2.2R	L2.4R	L2.5R	L2.6R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
11500	L1.3R	L1.4R	L1.7R	L2.1R	L2.6R	L3.1R	L3.5R	L3.8R	L3.9R
11000	L1.1R	L1.2R	L1.6R	L2.1R	L2.7R	L3.3R	L3.8R	L4.2R	L4.3R
10500	L1.0R	L1.1R	L1.5R	L2.1R	L2.8R	L3.5R	L4.1R	L4.5R	L4.6R
10000	L0.8R	L1.0R	L1.4R	L2.1R	L2.9R	L3.7R	L4.3R	L4.8R	L4.9R
9500	L0.6R	L0.8R	L1.3R	L2.0R	L2.9R	L3.8R	L4.6R	L5.1R	L5.2R
9000	L0.4R	L0.6R	L1.2R	L2.0R	L3.0R	L3.9R	L4.8R	L5.3R	L5.5R
8500	L0.2R	L0.4R	L1.0R	L1.9R	L3.0R	L4.0R	L4.9R	L5.5R	L5.8R
8000	0.0	L0.2R	L0.9R	L1.8R	L3.0R	L4.2R	L5.1R	L5.8R	L6.0R
7500	R0.3L	0.0	L0.7R	L1.8R	L3.0R	L4.3R	L5.3R	L6.0R	L6.3R
7000	R0.5L	R0.2L	L0.5R	L1.7R	L3.0R	L4.3R	L5.5R	L6.2R	L6.5R
6500	R0.7L	R0.5L	L0.3R	L1.6R	L3.0R	L4.4R	L5.6R	L6.4R	L6.7R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
	AZIMUTH OF TARGET - MILS								

(U//FOUO)

## 40 DEGREES SOUTH LATITUDE

(U//FOUO)

- NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
 2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
 3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.  
 4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

50 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
500	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
1000	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
1500	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
2000	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R
2500	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.4R
3000	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R
3500	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R
4000	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R
4500	L0.6R	L0.6R	L0.6R	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R
5000	L0.7R	L0.7R	L0.7R	L0.7R	L0.8R	L0.8R	L0.8R	L0.8R	L0.8R
5500	L0.8R	L0.8R	L0.8R	L0.8R	L0.8R	L0.9R	L0.9R	L0.9R	L0.9R
6000	L0.9R	L0.9R	L0.9R	L0.9R	L0.9R	L1.0R	L1.0R	L1.0R	L1.0R
6500	L1.0R	L1.0R	L1.0R	L1.0R	L1.0R	L1.1R	L1.1R	L1.1R	L1.1R
7000	L1.0R	L1.0R	L1.1R	L1.1R	L1.1R	L1.2R	L1.2R	L1.2R	L1.2R
7500	L1.1R	L1.1R	L1.2R	L1.2R	L1.2R	L1.3R	L1.3R	L1.3R	L1.3R
8000	L1.2R	L1.2R	L1.2R	L1.3R	L1.3R	L1.4R	L1.4R	L1.4R	L1.5R
8500	L1.3R	L1.3R	L1.3R	L1.4R	L1.4R	L1.5R	L1.6R	L1.6R	L1.6R
9000	L1.4R	L1.4R	L1.4R	L1.5R	L1.6R	L1.6R	L1.7R	L1.7R	L1.7R
9500	L1.5R	L1.5R	L1.5R	L1.6R	L1.7R	L1.8R	L1.8R	L1.9R	L1.9R
10000	L1.6R	L1.6R	L1.6R	L1.7R	L1.8R	L1.9R	L2.0R	L2.1R	L2.1R
10500	L1.7R	L1.7R	L1.8R	L1.9R	L2.0R	L2.1R	L2.2R	L2.3R	L2.3R
11000	L1.8R	L1.8R	L1.9R	L2.0R	L2.1R	L2.3R	L2.4R	L2.5R	L2.5R
11500	L1.9R	L1.9R	L2.0R	L2.2R	L2.4R	L2.6R	L2.7R	L2.8R	L2.9R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
11500	L2.0R	L2.1R	L2.3R	L2.7R	L3.1R	L3.5R	L3.9R	L4.1R	L4.2R
11000	L1.9R	L2.0R	L2.3R	L2.7R	L3.2R	L3.8R	L4.2R	L4.5R	L4.6R
10500	L1.8R	L1.9R	L2.3R	L2.8R	L3.3R	L3.9R	L4.4R	L4.8R	L4.9R
10000	L1.7R	L1.8R	L2.2R	L2.8R	L3.4R	L4.1R	L4.7R	L5.0R	L5.2R
9500	L1.5R	L1.7R	L2.1R	L2.7R	L3.5R	L4.2R	L4.8R	L5.3R	L5.4R
9000	L1.4R	L1.6R	L2.0R	L2.7R	L3.5R	L4.3R	L5.0R	L5.5R	L5.7R
8500	L1.2R	L1.4R	L1.9R	L2.7R	L3.6R	L4.4R	L5.2R	L5.7R	L5.9R
8000	L1.0R	L1.2R	L1.8R	L2.6R	L3.6R	L4.5R	L5.4R	L5.9R	L6.1R
7500	L0.8R	L1.1R	L1.6R	L2.5R	L3.6R	L4.6R	L5.5R	L6.1R	L6.3R
7000	L0.6R	L0.9R	L1.5R	L2.4R	L3.6R	L4.7R	L5.6R	L6.3R	L6.5R
6500	L0.4R	L0.7R	L1.3R	L2.4R	L3.5R	L4.7R	L5.8R	L6.4R	L6.7R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
	AZIMUTH OF TARGET - MILS								

(U//FOUO)

50 DEGREES SOUTH LATITUDE

- (U//FOUO) NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.  
4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

## 60 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
500	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
1000	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
1500	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
2000	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R
2500	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R
3000	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R
3500	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R
4000	L0.6R	L0.6R	L0.6R	L0.6R	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R
4500	L0.7R	L0.7R	L0.7R	L0.7R	L0.8R	L0.8R	L0.8R	L0.8R	L0.8R
5000	L0.8R	L0.8R	L0.8R	L0.8R	L0.8R	L0.9R	L0.9R	L0.9R	L0.9R
5500	L0.9R	L0.9R	L0.9R	L0.9R	L0.9R	L1.0R	L1.0R	L1.0R	L1.0R
6000	L1.0R	L1.0R	L1.0R	L1.0R	L1.1R	L1.1R	L1.1R	L1.1R	L1.1R
6500	L1.1R	L1.1R	L1.1R	L1.1R	L1.2R	L1.2R	L1.2R	L1.2R	L1.2R
7000	L1.2R	L1.2R	L1.2R	L1.2R	L1.3R	L1.3R	L1.3R	L1.3R	L1.3R
7500	L1.3R	L1.3R	L1.3R	L1.4R	L1.4R	L1.4R	L1.4R	L1.5R	L1.5R
8000	L1.4R	L1.4R	L1.4R	L1.5R	L1.5R	L1.5R	L1.6R	L1.6R	L1.6R
8500	L1.5R	L1.5R	L1.6R	L1.6R	L1.6R	L1.7R	L1.7R	L1.7R	L1.7R
9000	L1.6R	L1.6R	L1.7R	L1.7R	L1.8R	L1.8R	L1.9R	L1.9R	L1.9R
9500	L1.7R	L1.8R	L1.8R	L1.8R	L1.9R	L2.0R	L2.0R	L2.1R	L2.1R
10000	L1.9R	L1.9R	L1.9R	L2.0R	L2.1R	L2.1R	L2.2R	L2.2R	L2.3R
10500	L2.0R	L2.0R	L2.1R	L2.1R	L2.2R	L2.3R	L2.4R	L2.4R	L2.5R
11000	L2.1R	L2.1R	L2.2R	L2.3R	L2.4R	L2.5R	L2.6R	L2.7R	L2.7R
11500	L2.3R	L2.3R	L2.4R	L2.5R	L2.7R	L2.8R	L2.9R	L3.0R	L3.1R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
11500	L2.6R	L2.7R	L2.9R	L3.2R	L3.5R	L3.8R	L4.1R	L4.3R	L4.3R
11000	L2.6R	L2.7R	L2.9R	L3.3R	L3.7R	L4.1R	L4.4R	L4.6R	L4.7R
10500	L2.6R	L2.7R	L2.9R	L3.3R	L3.8R	L4.2R	L4.6R	L4.9R	L5.0R
10000	L2.5R	L2.6R	L2.9R	L3.3R	L3.9R	L4.4R	L4.8R	L5.1R	L5.2R
9500	L2.4R	L2.5R	L2.9R	L3.4R	L3.9R	L4.5R	L5.0R	L5.3R	L5.4R
9000	L2.3R	L2.4R	L2.8R	L3.3R	L4.0R	L4.6R	L5.2R	L5.5R	L5.6R
8500	L2.2R	L2.3R	L2.7R	L3.3R	L4.0R	L4.7R	L5.3R	L5.7R	L5.8R
8000	L2.1R	L2.2R	L2.6R	L3.3R	L4.0R	L4.8R	L5.4R	L5.9R	L6.0R
7500	L1.9R	L2.1R	L2.5R	L3.2R	L4.0R	L4.9R	L5.6R	L6.0R	L6.2R
7000	L1.8R	L1.9R	L2.4R	L3.2R	L4.0R	L4.9R	L5.7R	L6.1R	L6.3R
6500	L1.6R	L1.8R	L2.3R	L3.1R	L4.0R	L4.9R	L5.7R	L6.3R	L6.4R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
	AZIMUTH OF TARGET - MILS								

(U//FOUO)

## 60 DEGREES SOUTH LATITUDE

(U//FOUO)

- NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
 2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
 3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.  
 4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

70 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
500	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
1000	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
1500	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
2000	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R
2500	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R
3000	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R
3500	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R
4000	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R
4500	L0.8R	L0.8R	L0.8R	L0.8R	L0.8R	L0.8R	L0.8R	L0.8R	L0.8R
5000	L0.9R	L0.9R	L0.9R	L0.9R	L0.9R	L0.9R	L0.9R	L0.9R	L0.9R
5500	L1.0R	L1.0R	L1.0R	L1.0R	L1.0R	L1.0R	L1.0R	L1.1R	L1.1R
6000	L1.1R	L1.1R	L1.1R	L1.1R	L1.1R	L1.2R	L1.2R	L1.2R	L1.2R
6500	L1.2R	L1.2R	L1.2R	L1.2R	L1.3R	L1.3R	L1.3R	L1.3R	L1.3R
7000	L1.3R	L1.3R	L1.3R	L1.4R	L1.4R	L1.4R	L1.4R	L1.4R	L1.4R
7500	L1.5R	L1.5R	L1.5R	L1.5R	L1.5R	L1.5R	L1.5R	L1.6R	L1.6R
8000	L1.6R	L1.6R	L1.6R	L1.6R	L1.6R	L1.7R	L1.7R	L1.7R	L1.7R
8500	L1.7R	L1.7R	L1.7R	L1.7R	L1.8R	L1.8R	L1.8R	L1.8R	L1.9R
9000	L1.8R	L1.8R	L1.8R	L1.9R	L1.9R	L2.0R	L2.0R	L2.0R	L2.0R
9500	L2.0R	L2.0R	L2.0R	L2.0R	L2.1R	L2.1R	L2.1R	L2.2R	L2.2R
10000	L2.1R	L2.1R	L2.1R	L2.2R	L2.2R	L2.3R	L2.3R	L2.4R	L2.4R
10500	L2.3R	L2.3R	L2.3R	L2.4R	L2.4R	L2.5R	L2.5R	L2.6R	L2.6R
11000	L2.4R	L2.4R	L2.5R	L2.5R	L2.6R	L2.7R	L2.8R	L2.8R	L2.8R
11500	L2.6R	L2.7R	L2.7R	L2.8R	L2.9R	L3.0R	L3.1R	L3.1R	L3.2R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
11500	L3.2R	L3.2R	L3.4R	L3.6R	L3.8R	L4.0R	L4.2R	L4.3R	L4.4R
11000	L3.3R	L3.3R	L3.5R	L3.7R	L4.0R	L4.2R	L4.5R	L4.6R	L4.7R
10500	L3.3R	L3.3R	L3.5R	L3.8R	L4.1R	L4.4R	L4.7R	L4.9R	L4.9R
10000	L3.3R	L3.3R	L3.5R	L3.8R	L4.2R	L4.5R	L4.9R	L5.1R	L5.1R
9500	L3.2R	L3.3R	L3.5R	L3.9R	L4.3R	L4.7R	L5.0R	L5.2R	L5.3R
9000	L3.2R	L3.3R	L3.5R	L3.9R	L4.3R	L4.8R	L5.1R	L5.4R	L5.5R
8500	L3.1R	L3.2R	L3.5R	L3.9R	L4.4R	L4.8R	L5.2R	L5.5R	L5.6R
8000	L3.0R	L3.1R	L3.4R	L3.9R	L4.4R	L4.9R	L5.3R	L5.6R	L5.7R
7500	L2.9R	L3.0R	L3.4R	L3.8R	L4.4R	L4.9R	L5.4R	L5.7R	L5.8R
7000	L2.8R	L2.9R	L3.3R	L3.8R	L4.4R	L5.0R	L5.5R	L5.8R	L5.9R
6500	L2.7R	L2.8R	L3.2R	L3.7R	L4.4R	L5.0R	L5.5R	L5.9R	L6.0R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
	AZIMUTH OF TARGET - MILS								

(U//FOUO)

70 DEGREES SOUTH LATITUDE

(U//FOUO)

- NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.  
4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

## FUZE CORRECTION FACTORS

PROJ, HE, M795  
FUZE, MTSQ, M582

(U//FOUO)

1	2	3	4	5	6	7	8	9	10	11
FS	FUZE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
0										
1										
2	-.004	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.008	-.008
3	-.006	0.006	0.000	0.000	0.000	0.000	0.001	-.001	0.012	-.012
4	-.009	0.008	0.000	0.000	0.000	0.000	0.001	-.001	0.016	-.016
5	-.011	0.010	0.000	0.000	0.000	0.000	0.002	-.002	0.019	-.019
6	-.013	0.013	0.000	0.000	0.001	-.001	0.002	-.002	0.022	-.023
7	-.015	0.015	0.000	0.000	0.001	-.001	0.003	-.003	0.025	-.026
8	-.017	0.016	0.000	0.000	0.002	-.002	0.005	-.005	0.028	-.028
9	-.018	0.018	0.000	0.000	0.002	-.002	0.006	-.006	0.030	-.031
10	-.020	0.020	0.000	0.000	0.003	-.002	0.007	-.007	0.033	-.033
11	-.022	0.022	0.000	0.000	0.004	-.002	0.009	-.008	0.034	-.035
12	-.024	0.024	0.000	0.001	0.004	-.002	0.010	-.010	0.036	-.037
13	-.025	0.025	0.000	0.001	0.004	-.002	0.012	-.011	0.038	-.039
14	-.027	0.027	0.000	0.001	0.004	-.002	0.013	-.013	0.039	-.040
15	-.028	0.028	-.001	0.001	0.004	-.001	0.015	-.014	0.040	-.042
16	-.029	0.030	-.001	0.002	0.004	0.000	0.016	-.015	0.041	-.043
17	-.031	0.031	-.001	0.002	0.004	0.001	0.018	-.017	0.042	-.044
18	-.032	0.032	-.002	0.002	0.003	0.002	0.019	-.018	0.043	-.045
19	-.033	0.033	-.002	0.003	0.002	0.003	0.021	-.019	0.044	-.046
20	-.034	0.034	-.002	0.003	0.001	0.004	0.022	-.020	0.045	-.047
21	-.035	0.035	-.003	0.004	0.000	0.006	0.024	-.022	0.046	-.048
22	-.036	0.037	-.003	0.004	-.001	0.008	0.025	-.023	0.047	-.049
23	-.037	0.038	-.004	0.005	-.003	0.009	0.026	-.024	0.048	-.050
24	-.038	0.039	-.004	0.006	-.004	0.011	0.027	-.025	0.048	-.051
25	-.039	0.040	-.005	0.006	-.006	0.013	0.029	-.026	0.049	-.052
26	-.040	0.040	-.005	0.007	-.008	0.015	0.030	-.027	0.050	-.053
27	-.041	0.041	-.006	0.007	-.009	0.016	0.031	-.028	0.051	-.054
28	-.042	0.042	-.006	0.008	-.011	0.018	0.032	-.029	0.052	-.055
29	-.043	0.043	-.007	0.009	-.013	0.020	0.033	-.030	0.052	-.056
30	-.044	0.044	-.007	0.009	-.015	0.022	0.034	-.031	0.053	-.056
31	-.045	0.045	-.008	0.010	-.017	0.024	0.035	-.032	0.054	-.057
32	-.046	0.046	-.008	0.010	-.019	0.025	0.037	-.034	0.055	-.058
33	-.047	0.047	-.009	0.011	-.021	0.027	0.038	-.035	0.055	-.059
34	-.048	0.048	-.010	0.012	-.023	0.029	0.039	-.036	0.056	-.060
35	-.049	0.049	-.010	0.012	-.025	0.030	0.040	-.037	0.057	-.060

(U//FOUO)

FUZE CORRECTION FACTORS

1	2	3	4	5	6	7	8	9	10	11
FS	FUZE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
35	-.049	0.049	-.010	0.012	-.025	0.030	0.040	-.037	0.057	-.060
36	-.050	0.050	-.011	0.013	-.026	0.032	0.042	-.038	0.058	-.061
37	-.051	0.051	-.011	0.013	-.028	0.034	0.043	-.040	0.058	-.062
38	-.052	0.051	-.012	0.014	-.030	0.035	0.044	-.041	0.059	-.063
39	-.053	0.052	-.012	0.014	-.032	0.037	0.046	-.042	0.060	-.064
40	-.054	0.053	-.013	0.015	-.033	0.038	0.047	-.043	0.061	-.065
41	-.055	0.054	-.013	0.015	-.035	0.039	0.048	-.045	0.062	-.066
42	-.056	0.055	-.014	0.016	-.036	0.040	0.050	-.046	0.063	-.066
43	-.057	0.056	-.014	0.016	-.038	0.041	0.051	-.048	0.064	-.067
44	-.058	0.058	-.015	0.016	-.039	0.042	0.053	-.050	0.064	-.068
45	-.059	0.059	-.015	0.017	-.040	0.042	0.055	-.052	0.065	-.069
46	-.060	0.060	-.016	0.017	-.041	0.043	0.057	-.054	0.066	-.069
47	-.062	0.061	-.016	0.017	-.041	0.044	0.059	-.055	0.067	-.070
48	-.063	0.063	-.016	0.017	-.041	0.045	0.061	-.057	0.068	-.071
49	-.064	0.064	-.016	0.018	-.042	0.045	0.063	-.059	0.069	-.072
50	-.065	0.065	-.017	0.018	-.042	0.046	0.065	-.061	0.070	-.073
51	-.067	0.066	-.017	0.018	-.043	0.047	0.067	-.062	0.071	-.074
52	-.068	0.068	-.017	0.018	-.044	0.048	0.069	-.064	0.072	-.074
53	-.069	0.069	-.017	0.018	-.044	0.048	0.071	-.066	0.073	-.076
54	-.071	0.070	-.018	0.019	-.045	0.049	0.073	-.068	0.074	-.077
55	-.072	0.072	-.018	0.019	-.045	0.050	0.075	-.069	0.075	-.078
56	-.073	0.073	-.018	0.019	-.045	0.050	0.077	-.071	0.077	-.079
57	-.075	0.075	-.018	0.019	-.046	0.051	0.079	-.073	0.078	-.080
58	-.076	0.076	-.018	0.019	-.046	0.051	0.080	-.074	0.079	-.081
59	-.077	0.077	-.018	0.019	-.047	0.052	0.082	-.076	0.080	-.082
60	-.079	0.079	-.018	0.019	-.047	0.052	0.084	-.078	0.082	-.084
61	-.080	0.080	-.018	0.019	-.047	0.053	0.086	-.080	0.083	-.086
62	-.082	0.082	-.018	0.019	-.048	0.053	0.088	-.081	0.084	-.087
63	-.083	0.083	-.018	0.019	-.048	0.054	0.090	-.083	0.086	-.089
64	-.085	0.085	-.018	0.019	-.048	0.054	0.092	-.085	0.087	-.092
65	-.086	0.086	-.018	0.018	-.048	0.055	0.094	-.087	0.089	-.094
66	-.088	0.088	-.018	0.018	-.049	0.055	0.096	-.089	0.091	-.096
67	-.089	0.089	-.018	0.018	-.049	0.055	0.097	-.090	0.094	-.099
68	-.091	0.091	-.018	0.019	-.049	0.056	0.099	-.092	0.098	-.102
69	-.093	0.092	-.018	0.019	-.049	0.056	0.101	-.094	0.102	-.105
70	-.094	0.094	-.018	0.021	-.049	0.056	0.103	-.096	0.107	-.110

(U//FOUO)

## FUZE CORRECTION FACTORS

PROJ, HE, M795  
FUZE, MTSQ, M582

(U//FOUO)

1	2	3	4	5	6	7	8	9	10	11
FS	FUZE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
70	<i>-.094</i>	0.094	<i>-.018</i>	0.021	<i>-.049</i>	0.056	0.103	<i>-.096</i>	0.107	<i>-.110</i>
71	<i>-.096</i>	0.096	<i>-.019</i>		<i>-.049</i>	0.056	0.105	<i>-.098</i>	0.114	<i>-.116</i>
72	<i>-.099</i>	0.098	<i>-.022</i>		<i>-.047</i>	0.055	0.109	<i>-.100</i>	0.128	<i>-.128</i>

(U//FOUO)



CORRECTIONS TO FUZE SETTING OF FUZE, MTSQ, M582

FOR FUZE, MTSQ, M564

(U//FOUO)

FUZE SETTING FUZE M582		CORRECTIONS
FROM	TO	
1.8	3.3	-0.1
3.4	40.8	0.0
40.9	72.8	0.1

(U//FOUO)

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**(U//FOUO)**

(U//FOUO) Part 1

(U//FOUO) Charge 7W

(U//FOUO) Projectile, HE, M795

(U//FOUO) Fuze, PD, M739A1

(U//FOUO) Muzzle Velocity – 544 M/S

(U//FOUO) Propelling Charge M4A2 – Base and Increments 4, 5, 6 and 7

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LINE NUMBER

(U//FOUO)

LINE NUMBER OF METEOROLOGICAL MESSAGE

QUADRANT ELEVATION MILS	LINE NUMBER
0.0- 88.7	0
88.8- 175.1	1
175.2- 269.7	2
269.8- 363.8	3
363.9- 445.2	4
445.3- 554.0	5
554.1- 685.1	6
685.2- 808.8	7
808.9- 932.4	8
932.5- 1138.5	9
1138.6- 1285.0	10

(U//FOUO)

(U//FOUO) NOTE - WHEN THE PROJECTILE MUST HIT THE TARGET ON THE ASCENDING BRANCH OF ITS TRAJECTORY, USE HEIGHT OF TARGET IN METERS TO ENTER THE TABLE ON PAGE XL TO DETERMINE LINE NUMBER.

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

## LINE NUMBERS OF METEOROLOGICAL MESSAGE

LINE NO.	RANGE METERS	HEIGHT OF TARGET ABOVE GUN - METERS							
		-400	-300	-200	-100	0	100	200	300
0	0					0			
	100					0	0	0	0
	200					0	0	0	2
	300					0	0	0	3
	400					0	0	1	3
	500					0	0	2	4
	600					0	0	2	4
	700					0	0	2	4
	800					0	1	2	5
	900					0	1	2	5
	1000					0	1	2	5
	1100					0	1	3	5
	1200					0	1	3	5
	1300					0	1	3	6
	1400					0	1	3	6
	1500					0	1	3	6
	1600					0	1	3	6
	1700					0	1	3	6
	1800					0	1	3	6
	1900					0	1	3	7
	2000					0	1	4	7
	2100					0	1	4	7
	2200					0	1	4	7
	2300				-1	0	1	4	7
	2400				-1	0	1	4	7
	2500				-1	0	1	4	7
	2600				-1	0	1	4	8
	2700				-1	0	1	4	8
	2800				-2	0	1	4	8
	2900				-2	0	2	4	8
	3000				-2	0	2	5	8
	3100				-2	0	2	5	8
	3200			-2	-2	0	2	5	9
	3300			-2	-2	0	2	5	9
	3400			-3	-2	0	2	5	9
	3500			-3	-2	0	2	5	9
0						1			

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

LINE NUMBERS OF METEOROLOGICAL MESSAGE

HEIGHT OF TARGET ABOVE GUN - METERS							RANGE	LINE
400	500	600	700	800	900	1000	METERS	NO.
							0	3
0							100	
3	4	6	7	9	11		200	
5	7	9	12	14	16	19	300	
5	8	11	13	16	20	23	400	
6	9	12	16	19	23	27	500	
7	10	14	18	22	26	30	600	
7	11	14	19	23	28	32	700	
8	11	15	20	24	30	35	800	
8	12	16	21	26	31	37	900	
8	12	16	21	27	32	38	1000	
8	12	17	22	28	34	40	1100	
9	13	18	23	28	35	41	1200	
9	13	18	23	29	35	42	1300	
9	13	18	24	30	36	43	1400	
10	14	19	24	30	37	44	1500	
10	14	19	25	31	38	45	1600	
10	14	19	25	32	39	46	1700	
10	15	20	26	32	39	47	1800	
10	15	20	26	33	40	48	1900	
11	15	21	27	33	41	48	2000	
11	16	21	27	34	41	49	2100	
11	16	21	27	34	42	50	2200	
11	16	22	28	35	42	51	2300	
12	16	22	28	35	43	51	2400	
12	17	22	29	36	43	52	2500	
12	17	23	29	36	44	53	2600	
12	17	23	29	37	45	53	2700	
12	18	23	30	37	45	54	2800	
13	18	24	30	38	46	54	2900	
13	18	24	31	38	46	55	3000	
13	18	24	31	39	47	56	3100	
13	19	25	32	39	47	56	3200	
13	19	25	32	40	48	57	3300	
14	19	26	32	40	49	58	3400	
14	20	26	33	41	49	58	3500	
2				3				

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

## LINE NUMBERS OF METEOROLOGICAL MESSAGE

LINE NO.	RANGE METERS	HEIGHT OF TARGET ABOVE GUN - METERS							
		-400	-300	-200	-100	0	100	200	300
0	3500			-3	-2	0	2	5	9
	3600			-3	-3	0	2	5	9
	3700			-3	-3	0	2	5	10
	3800		-3	-4	-3	0	2	5	10
	3900		-4	-4	-3	0	2	6	10
	4000		-4	-4	-3	0	2	6	10
	4100		-4	-4	-3	0	2	6	10
	4200		-5	-4	-3	0	2	6	10
	4300	-4	-5	-5	-3	0	2	6	11
	4400	-5	-5	-5	-3	0	2	6	11
	4500	-5	-6	-5	-3	0	2	6	11
	4600	-6	-6	-5	-3	0	2	7	11
	4700	-6	-6	-5	-4	0	3	7	12
	4800	-7	-7	-6	-4	0	3	7	12
	4900	-7	-7	-6	-4	0	3	7	12
	5000	-8	-7	-6	-4	0	3	7	12
	5100	-8	-7	-6	-4	0	3	7	13
	5200	-8	-8	-6	-4	0	3	7	13
	5300	-9	-8	-6	-4	0	3	8	13
	5400	-9	-8	-7	-4	0	3	8	13
	5500	-10	-9	-7	-4	0	3	8	14
	5600	-10	-9	-7	-4	0	3	8	14
	5700	-11	-9	-7	-4	0	3	8	14
	5800	-11	-10	-7	-5	0	3	9	14
	5900	-11	-10	-8	-5	0	4	9	15
	6000	-12	-10	-8	-5	0	4	9	15
1	6100	-12	-11	-8	-5	0	4	9	15
	6200	-13	-11	-8	-5	0	4	9	16
	6300	-13	-11	-9	-5	0	4	10	16
	6400	-14	-12	-9	-5	0	4	10	16
	6500	-14	-12	-9	-5	0	4	10	17
	6600	-15	-13	-9	-6	0	4	10	17
	6700	-16	-13	-10	-6	0	4	11	18
	6800	-16	-13	-10	-6	0	5	11	18
	6900	-17	-14	-10	-6	0	5	11	18
	7000	-17	-14	-11	-6	0	5	11	19
1						2			

(U//FOUO)



CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

LINE NUMBERS OF METEOROLOGICAL MESSAGE

HEIGHT OF TARGET ABOVE GUN - METERS							RANGE	LINE NO.
400	500	600	700	800	900	1000	METERS	
14	20	26	33	41	49	58	3500	3
14	20	26	33	41	50	59	3600	
14	20	27	34	42	50	60	3700	
15	21	27	34	42	51	60	3800	
15	21	27	35	43	52	61	3900	
15	21	28	35	43	52	62	4000	
16	22	28	36	44	53	63	4100	
16	22	29	36	45	54	63	4200	
16	22	29	37	45	54	64	4300	
16	23	30	37	46	55	65	4400	
17	23	30	38	46	56	66	4500	
17	23	30	38	47	56	66	4600	
17	24	31	39	48	57	67	4700	
18	24	31	39	48	58	68	4800	
18	24	32	40	49	58	69	4900	
18	25	32	41	49	59	70	5000	
19	25	33	41	50	60	70	5100	
19	26	33	42	51	61	71	5200	
19	26	34	42	51	61	72	5300	
20	27	34	43	52	62	73	5400	
20	27	35	44	53	63	74	5500	
20	28	35	44	54	64	75	5600	
21	28	36	45	54	65	76	5700	
21	28	37	45	55	65	76	5800	
22	29	37	46	56	66	77	5900	
22	29	38	47	57	67	78	6000	
22	30	38	48	57	68	79	6100	
23	31	39	48	58	69	80	6200	
23	31	40	49	59	70	81	6300	
24	32	40	50	60	71	82	6400	
24	32	41	51	61	72	84	6500	
25	33	42	51	62	73	85	6600	
25	33	42	52	63	74	86	6700	
26	34	43	53	64	75	87	6800	
26	35	44	54	65	76	88	6900	
27	35	45	55	66	77	90	7000	
2		3						

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

## LINE NUMBERS OF METEOROLOGICAL MESSAGE

LINE NO.	RANGE METERS	HEIGHT OF TARGET ABOVE GUN - METERS							
		-400	-300	-200	-100	0	100	200	300
1	7000	-17	-14	-11	-6	0	5	11	19
	7100	-18	-15	-11	-6	0	5	12	19
	7200	-19	-15	-11	-6	0	5	12	20
	7300	-19	-16	-11	-7	0	5	12	20
	7400	-20	-16	-12	-7	0	5	13	20
	7500	-20	-17	-12	-7	0	6	13	21
	7600	-21	-17	-12	-7	0	6	13	21
	7700	-22	-18	-13	-7	0	6	14	22
	7800	-23	-18	-13	-7	0	6	14	22
	7900	-23	-19	-13	-8	0	6	14	23
2	8000	-24	-19	-14	-8	0	7	15	23
	8100	-25	-20	-14	-8	0	7	15	24
	8200	-25	-20	-15	-8	0	7	15	25
	8300	-26	-21	-15	-8	0	7	16	25
	8400	-27	-21	-15	-8	0	7	16	26
	8500	-28	-22	-16	-9	0	8	17	26
	8600	-29	-23	-16	-9	0	8	17	27
	8700	-30	-23	-17	-9	0	8	17	28
	8800	-30	-24	-17	-9	0	8	18	28
	8900	-31	-25	-17	-9	0	8	18	29
	9000	-32	-25	-18	-10	0	9	19	30
	9100	-33	-26	-18	-10	0	9	19	30
	9200	-34	-27	-19	-10	0	9	20	31
	9300	-35	-27	-19	-10	0	9	20	32
	9400	-36	-28	-20	-11	0	10	21	33
3	9500	-37	-29	-20	-11	0	10	21	33
	9600	-38	-30	-21	-11	0	10	22	34
	9700	-39	-30	-21	-11	0	10	22	35
	9800	-40	-31	-22	-12	0	11	23	36
	9900	-41	-32	-22	-12	0	11	23	37
	10000	-42	-33	-23	-12	0	11	24	38
	10100	-44	-34	-23	-12	0	12	25	39
	10200	-45	-35	-24	-13	0	12	25	40
	10300	-46	-36	-25	-13	0	12	26	41
	10400	-47	-37	-25	-13	0	13	27	42
4	10500	-49	-38	-26	-14	0	13	28	43

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

LINE NUMBERS OF METEOROLOGICAL MESSAGE

HEIGHT OF TARGET ABOVE GUN - METERS							RANGE	LINE
400	500	600	700	800	900	1000	METERS	NO.
27	35	45	55	66	77	90	7000	3
27	36	46	56	67	78	91	7100	
28	37	46	57	68	80	92	7200	
28	37	47	58	69	81	94	7300	
29	38	48	59	70	82	95	7400	
30	39	49	60	71	84	97	7500	
30	40	50	61	73	85	98	7600	
31	41	51	62	74	86	100	7700	
32	41	52	63	75	88	101	7800	
32	42	53	64	77	89	103	7900	
33	43	54	66	78	91	105	8000	4
34	44	55	67	79	92	106	8100	
34	45	56	68	81	94	108	8200	
35	46	57	69	82	96	110	8300	
36	47	58	71	84	98	112	8400	
37	48	60	72	85	99	114	8500	
38	49	61	74	87	101	116	8600	
38	50	62	75	89	103	118	8700	
39	51	63	77	90	105	120	8800	
40	52	65	78	92	107	123	8900	
41	53	66	80	94	109	125	9000	
42	54	68	81	96	111	127	9100	
43	56	69	83	98	114	130	9200	
44	57	71	85	100	116	132	9300	
45	58	72	87	102	118	135	9400	
46	59	74	89	104	121	138	9500	
47	61	75	91	107	123	141	9600	
48	62	77	93	109	126	144	9700	
49	64	79	95	111	129	147	9800	
51	65	81	97	114	131	150	9900	
52	67	83	99	116	134	153	10000	
53	68	84	101	119	137	157	10100	
54	70	87	104	122	141	160	10200	
56	72	89	106	125	144	164	10300	
57	74	91	109	128	147	168	10400	
59	76	93	111	131	151	172	10500	
4				5				

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

## LINE NUMBERS OF METEOROLOGICAL MESSAGE

LINE NO.	RANGE METERS	HEIGHT OF TARGET ABOVE GUN - METERS							
		-400	-300	-200	-100	0	100	200	300
3	10500	-49	-38	-26	-14	0	13	28	43
	10600	-50	-39	-27	-14	0	13	28	44
	10700	-51	-40	-27	-14	0	14	29	45
	10800	-53	-41	-28	-15	0	14	30	46
	10900	-54	-42	-29	-15	0	15	31	48
	11000	-56	-43	-30	-16	0	15	32	49
4	11100	-57	-44	-30	-16	0	16	32	50
	11200	-59	-46	-31	-16	0	16	33	51
	11300	-61	-47	-32	-17	0	16	34	53
	11400	-63	-48	-33	-17	0	17	35	54
	11500	-64	-50	-34	-18	0	17	36	56
	11600	-66	-51	-35	-18	0	18	37	57
	11700	-68	-52	-36	-19	0	18	38	59
	11800	-70	-54	-37	-19	0	19	39	61
	11900	-72	-55	-38	-20	0	20	41	63
	12000	-74	-57	-39	-20	0	20	42	65
	12100	-76	-59	-40	-21	0	21	43	67
	12200	-79	-60	-41	-21	0	22	45	69
5	12300	-81	-62	-43	-22	0	22	46	72
	12400	-84	-65	-44	-23	0	23	48	74
	12500	-87	-67	-46	-24	0	24	50	77
	12600	-90	-69	-47	-24	0	25	51	79
	12700	-93	-72	-49	-25	0	26	53	82
	12800	-96	-74	-51	-26	0	27	55	85
	12900	-100	-77	-52	-27	0	28	57	88
	13000	-103	-79	-54	-28	0	29	59	91
	13100	-107	-82	-56	-29	0	30	61	94
	13200	-111	-85	-58	-30	0	31	64	98
	13300	-115	-88	-60	-31	0	32	66	102
	13400	-119	-91	-62	-32	0	33	69	106
6	13500	-123	-95	-65	-33	0	35	72	111
	13600	-128	-98	-67	-35	0	36	75	116
	13700	-133	-102	-70	-36	0	38	78	121
	13800	-138	-107	-73	-38	0	40	82	128
	13900	-144	-111	-76	-39	0	42	87	135
	14000	-151	-116	-80	-41	0	44	92	143
6								7	

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

LINE NUMBERS OF METEOROLOGICAL MESSAGE

HEIGHT OF TARGET ABOVE GUN - METERS							RANGE	LINE
400	500	600	700	800	900	1000	METERS	NO.
59	76	93	111	131	151	172	10500	5
60	77	95	114	134	154	176	10600	
62	79	98	117	137	158	180	10700	
63	81	100	120	140	162	184	10800	
65	84	103	123	144	166	189	10900	
67	86	105	126	148	170	194	11000	
69	88	108	129	152	175	199	11100	
70	90	111	133	156	179	204	11200	
72	93	114	136	160	184	210	11300	
74	95	117	140	164	190	216	11400	
76	98	121	144	169	195	222	11500	
79	101	124	148	174	201	229	11600	
81	104	128	153	179	207	236	11700	
83	107	132	158	185	213	243	11800	
86	110	136	163	191	220	250	11900	
89	114	140	168	197	227	258	12000	6
92	118	145	173	203	234	267	12100	
95	122	150	179	210	242	276	12200	
98	126	154	185	217	250	285	12300	
101	130	160	191	224	258	294	12400	
105	134	165	197	231	267	305	12500	
108	139	171	204	240	277	316	12600	
112	144	177	212	248	287	328	12700	
116	149	183	219	257	298	340	12800	
120	154	190	228	267	309	354	12900	
125	160	197	236	278	322	369	13000	
129	166	205	246	289	336	385	13100	
134	173	213	256	302	351	404	13200	
140	180	222	268	316	368	424	13300	
146	188	233	280	332	387	448	13400	
152	197	244	295	350	409	476	13500	7
159	206	257	311	370	436	511	13600	
168	217	271	330	396	471	567	13700	
177	230	288	354	430	531		13800	
187	245	310	388	501			13900	
201	266	344					14000	
7								

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

## LINE NUMBERS OF METEOROLOGICAL MESSAGE

LINE NO.	RANGE METERS	HEIGHT OF TARGET ABOVE GUN - METERS							
		-400	-300	-200	-100	0	100	200	300
6	14000	-151	-116	-80	-41	0	44	92	143
	14100	-158	-122	-84	-44	0	47	98	154
	14200	-166	-128	-89	-46	0	50	106	169
	14300	-175	-136	-94	-49	0	54	118	
	14400	-185	-144	-100	-53	0	63		
*****									
8	14400	-398	-288	-184	-88	0	75		
	14300	-417	-303	-195	-94	0	85	157	
9	14200	-434	-316	-205	-99	0	92	174	244
	14100	-451	-329	-213	-103	0	97	186	266
	14000	-466	-341	-222	-108	0	102	196	283
	13900	-482	-353	-230	-112	0	106	205	298
	13800	-496	-364	-237	-116	0	110	214	311
	13700	-511	-375	-245	-120	0	114	222	324
	13600	-526	-386	-252	-123	0	118	230	336
	13500	-540	-397	-260	-127	0	122	238	348
	13400	-554	-408	-267	-131	0	125	245	359
	13300	-568	-418	-274	-134	0	129	252	370
	13200	-582	-429	-281	-138	0	133	259	381
	13100	-596	-439	-288	-141	0	136	267	392
	13000	-610	-450	-295	-145	0	140	274	402
	12900	-624	-460	-302	-148	0	143	281	413
	12800	-638	-471	-309	-152	0	146	287	423
	12700	-652	-481	-315	-155	0	150	294	433
	12600	-666	-492	-322	-159	0	153	301	444
	12500	-680	-502	-330	-162	0	157	308	454
	12400	-695	-513	-337	-166	0	160	315	464
	12300	-710	-524	-344	-169	0	164	322	475
	12200	-724	-535	-351	-173	0	167	329	485
	12100	-740	-546	-358	-176	0	171	336	496
10	12000	-755	-558	-366	-180	0	174	343	506
	11900	-770	-569	-374	-184	0	178	350	517
	11800	-786	-581	-381	-188	0	182	357	527
	11700	-802	-592	-389	-191	0	185	365	538
	11600	-819	-605	-397	-195	0	189	372	549
10	11500	-836	-617	-405	-199	0	193	380	561
		10				9			

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

LINE NUMBERS OF METEOROLOGICAL MESSAGE

HEIGHT OF TARGET ABOVE GUN - METERS							RANGE	L I N E
400	500	600	700	800	900	1000	METERS	NO.
201	266	344					14000	7
219 261	301						14100 14200 14300 14400	
*****								
333	381						14400 14300 14200 14100	8
360	426	475					14000	
382	458	521	569				13900	
401	484	557	619	665			13800	
419	507	587	658	717	763	785	13700	
436	529	614	692	760	818	862	13600	
452	549	640	723	798	864	920	13500	9
467	569	664	753	833	906	970	13400	
482	588	688	781	866	945	1015	13300	
497	606	710	807	898	981	1057	13200	
511	624	732	834	928	1016	1097	13100	
525	642	754	859	958	1050	1136	13000	
539	660	775	884	987	1083	1173	12900	
553	677	796	909	1015	1116	1210	12800	
567	695	817	933	1043	1148	1245	12700	
581	712	838	957	1071	1179	1280	12600	
594	729	858	981	1099	1210	1315	12500	9
608	746	879	1005	1126	1241	1349	12400	
622	763	899	1029	1153	1271	1384	12300	
636	781	920	1053	1181	1302	1417	12200	
649	798	940	1077	1208	1333	1451	12100	
663	815	961	1101	1235	1363	1485	12000	
677	832	982	1125	1262	1394	1519	11900	
692	850	1002	1149	1290	1424	1553	11800	
706	868	1024	1173	1317	1455	1587	11700	9
721	886	1045	1198	1345	1486	1621	11600	
735	904	1066	1223	1373	1517	1655	11500	
9								

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

## LINE NUMBERS OF METEOROLOGICAL MESSAGE

LINE NO.	RANGE METERS	HEIGHT OF TARGET ABOVE GUN - METERS							
		-400	-300	-200	-100	0	100	200	300
10	11500	-836	-617	-405	-199	0	193	380	561
	11400	-853	-630	-413	-203	0	197	387	572
	11300	-870	-642	-422	-207	0	201	395	583
	11200	-889	-656	-430	-212	0	205	403	595
	11100	-907	-669	-439	-216	0	209	411	607
	11000	-926	-683	-448	-220	0	213	419	619
	10900	-946	-697	-457	-225	0	217	428	631
	10800	-966	-712	-466	-229	0	222	436	643
	10700	-987	-727	-476	-234	0	226	445	656
	10600	-1008	-742	-486	-239	0	231	454	669
	10500	-1030	-758	-496	-244	0	235	463	682
	10400	-1054	-775	-507	-249	0	240	472	696
	10300	-1078	-792	-518	-254	0	245	481	710
	10200	-1103	-810	-529	-260	0	250	491	724
	10100	-1129	-828	-541	-265	0	255	501	738
	10000	-1157	-848	-553	-271	0	261	512	754
	9900	-1187	-868	-566	-277	0	266	522	769
	9800	-1218	-890	-579	-283	0	272	533	785
	9700	-1251	-912	-593	-290	0	277	544	801
	9600	-1286	-936	-607	-296	0	283	556	817
	9500	-1324	-961	-623	-304	0	290	568	835
	9400	-1365	-988	-639	-311	0	296	580	852
	9300		-1017	-656	-319	0	303	592	870
	9200		-1048	-674	-327	0	310	606	889
	9100		-1081	-694	-336	0	317	620	909
	9000			-715	-345	0	325	634	929
	8900			-737	-355	0	333	649	950
	8800			-761	-365	0	341	665	972
	8700			-786	-376	0	350	681	995
	8600				-388	0	360	698	1019
	8500				-401	0	370	716	1044
	8400				-415	0	380	735	1070
	8300					0	391	755	1097
	8200					0	403	776	1126
	8100					0	415	798	1156
	8000					0	428	821	1187

10

(U//FOUO)



CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

LINE NUMBERS OF METEOROLOGICAL MESSAGE

HEIGHT OF TARGET ABOVE GUN - METERS							RANGE	L I N E
400	500	600	700	800	900	1000	METERS	N O .
735	904	1066	1223	1373	1517	1655	11500	9
750	922	1088	1248	1401	1549	1690	11400	
765	941	1110	1273	1430	1581	1725	11300	
780	959	1132	1299	1459	1613	1760	11200	
796	978	1155	1324	1488	1645	1796	11100	
811	998	1177	1351	1517	1678	1831	11000	
827	1017	1201	1377	1547	1711	1868	10900	10
844	1037	1224	1404	1578	1744	1905	10800	
860	1058	1248	1432	1608	1778	1942	10700	
877	1078	1272	1459	1640	1813	1980	10600	
895	1099	1297	1488	1671	1848	2018	10500	
912	1121	1322	1517	1704	1884	2057	10400	
930	1143	1348	1546	1737	1920	2096	10300	
949	1165	1374	1576	1770	1957	2136	10200	
967	1188	1401	1607	1804	1995	2177	10100	
987	1212	1429	1638	1839	2033	2219	10000	
1007	1236	1457	1670	1875	2072	2261	9900	
1027	1260	1485	1702	1911	2112	2304	9800	
1048	1286	1515	1735	1948	2152	2348	9700	
1069	1311	1545	1769	1986	2193	2393	9600	
1091	1338	1576	1804	2024	2236	2439	9500	
1114	1365	1607	1840	2064	2279	2485	9400	
1137	1393	1640	1877	2104	2323	2533	9300	
1161	1422	1673	1914	2146	2368	2582	9200	
1186	1452	1707	1953	2188	2415	2632	9100	
1212	1483	1743	1993	2232	2462	2683	9000	
1238	1514	1779	2033	2277	2511	2736	8900	
1266	1547	1817	2075	2323	2561	2789	8800	
1294	1581	1855	2119	2371	2613	2844	8700	
1324	1616	1896	2163	2420	2665	2901	8600	
1356	1653	1937	2210	2470	2720	2959	8500	
1388	1691	1980	2257	2522	2776	3019	8400	
1421	1730	2025	2306	2576	2834	3080	8300	
1457	1771	2071	2357	2631	2893	3144	8200	
1493	1813	2119	2410	2688	2954	3209	8100	
1531	1858	2168	2465	2747	3018	3276	8000	
10								

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO) LINE NUMBERS OF METEOROLOGICAL MESSAGE

LINE	RANGE	HEIGHT OF TARGET ABOVE GUN - METERS							
NO.	METERS	-400	-300	-200	-100	0	100	200	300
10	8000					0	428	821	1187
	7900						443	846	1220
	7800								
10									

(U//FOUO)

FT 155-AR-1  
 PART 1  
 PROJ, HE, M795  
 FUZE, PD, M739A1

(U//FOUO) TABLE B

CHARGE  
 7W

COMPLEMENTARY RANGE  
 LINE NUMBER

CHANGE IN RANGE, IN METERS  
 TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO) LINE NUMBERS OF METEOROLOGICAL MESSAGE

HEIGHT OF TARGET ABOVE GUN - METERS							RANGE	L I N E
400	500	600	700	800	900	1000	METERS	NO.
1531	1858	2168	2465	2747	3018	3276	8000	10
1571	1903	2220 2274	2521 2580	2808 2872	3083 3150	3345 3416	7900 7800	
10								

(U//FOUO)

## WIND COMPONENTS

PROJ, HE, M795  
FUZE, PD, M739A1

(U//FOUO) COMPONENTS OF A ONE KNOT WIND (U//FOUO)

CHART DIRECTION OF WIND	CROSS WIND	RANGE WIND	CHART DIRECTION OF WIND	CROSS WIND	RANGE WIND
MIL	KNOT	KNOT	MIL	KNOT	KNOT
0	0	H1.00	3200	0	T1.00
100	R. 10	H. 99	3300	L. 10	T. 99
200	R. 20	H. 98	3400	L. 20	T. 98
300	R. 29	H. 96	3500	L. 29	T. 96
400	R. 38	H. 92	3600	L. 38	T. 92
500	R. 47	H. 88	3700	L. 47	T. 88
600	R. 56	H. 83	3800	L. 56	T. 83
700	R. 63	H. 77	3900	L. 63	T. 77
800	R. 71	H. 71	4000	L. 71	T. 71
900	R. 77	H. 63	4100	L. 77	T. 63
1000	R. 83	H. 56	4200	L. 83	T. 56
1100	R. 88	H. 47	4300	L. 88	T. 47
1200	R. 92	H. 38	4400	L. 92	T. 38
1300	R. 96	H. 29	4500	L. 96	T. 29
1400	R. 98	H. 20	4600	L. 98	T. 20
1500	R. 99	H. 10	4700	L. 99	T. 10
1600	R1.00	0	4800	L1.00	0
1700	R. 99	T. 10	4900	L. 99	H. 10
1800	R. 98	T. 20	5000	L. 98	H. 20
1900	R. 96	T. 29	5100	L. 96	H. 29
2000	R. 92	T. 38	5200	L. 92	H. 38
2100	R. 88	T. 47	5300	L. 88	H. 47
2200	R. 83	T. 56	5400	L. 83	H. 56
2300	R. 77	T. 63	5500	L. 77	H. 63
2400	R. 71	T. 71	5600	L. 71	H. 71
2500	R. 63	T. 77	5700	L. 63	H. 77
2600	R. 56	T. 83	5800	L. 56	H. 83
2700	R. 47	T. 88	5900	L. 47	H. 88
2800	R. 38	T. 92	6000	L. 38	H. 92
2900	R. 29	T. 96	6100	L. 29	H. 96
3000	R. 20	T. 98	6200	L. 20	H. 98
3100	R. 10	T. 99	6300	L. 10	H. 99
3200	0	T1.00	6400	0	H1.00

(U//FOUO)

(U//FOUO)

NOTE - FOR A COMPLETE EXPLANATION OF THE USE OF THIS TABLE, SEE PARAGRAPH 12, EXPLANATION OF COMPONENTS OF A ONE KNOT WIND.

CORRECTIONS TO TEMPERATURE (DT) AND DENSITY (DD), IN PERCENT,  
TO COMPENSATE FOR THE DIFFERENCE IN ALTITUDE,  
(U//FOUO) IN METERS, BETWEEN THE BATTERY AND THE MDP

DH		0	+10-	+20-	+30-	+40-	+50-	+60-	+70-	+80-	+90-
0	DT	0.0	0.0	0.0	-0.1+	-0.1+	-0.1+	-0.1+	-0.2+	-0.2+	-0.2+
	DD	0.0	-0.1+	-0.2+	-0.3+	-0.4+	-0.5+	-0.6+	-0.7+	-0.8+	-0.9+
+100-	DT	-0.2+	-0.2+	-0.2+	-0.3+	-0.3+	-0.3+	-0.3+	-0.4+	-0.4+	-0.4+
	DD	-1.0+	-1.1+	-1.2+	-1.3+	-1.4+	-1.5+	-1.6+	-1.7+	-1.8+	-1.9+
+200-	DT	-0.5+	-0.5+	-0.5+	-0.6+	-0.6+	-0.6+	-0.6+	-0.7+	-0.7+	-0.7+
	DD	-2.0+	-2.1+	-2.2+	-2.3+	-2.4+	-2.5+	-2.6+	-2.7+	-2.8+	-2.9+
+300-	DT	-0.7+	-0.7+	-0.7+	-0.8+	-0.8+	-0.8+	-0.8+	-0.9+	-0.9+	-0.9+
	DD	-3.0+	-3.1+	-3.2+	-3.3+	-3.4+	-3.5+	-3.6+	-3.7+	-3.8+	-3.9+

(U//FOUO)

- (U//FOUO) NOTES - 1. DH IS BATTERY HEIGHT ABOVE OR BELOW THE MDP.  
2. IF ABOVE THE MDP, USE THE SIGN BEFORE THE NUMBER.  
3. IF BELOW THE MDP, USE THE SIGN AFTER THE NUMBER.

(U//FOUO) TABLE E

PROPELLANT TEMPERATURE  
(U//FOUO)  
EFFECTS ON MUZZLE VELOCITY DUE TO PROPELLANT TEMPERATURE

TEMPERATURE OF PROPELLANT  DEGREES F	EFFECT ON VELOCITY  M/S	TEMPERATURE OF PROPELLANT  DEGREES C
-40 -30 -20 -10	-12.3 -11.2 -10.0 -8.9	-40.0 -34.4 -28.9 -23.3
0	-7.7	-17.8
10 20 30 40	-6.6 -5.5 -4.4 -3.3	-12.2 -6.7 -1.1 4.4
50	-2.2	10.0
60 70 80 90	-1.1 0.0 1.1 2.2	15.6 21.1 26.7 32.2
100	3.2	37.8
110 120 130	4.3 5.3 6.4	43.3 48.9 54.4

(U//FOUO)

(U//FOUO)

1	2	3	4	5	6	7	8	9
R A N G E	E L E V	FS FOR GRAZE BURST  FUZE M582	DFS PER 10 M DEC HOB	DR PER 1 MIL D ELEV	F O R K	TIME OF FLIGHT	AZIMUTH CORRECTIONS	
							DRIFT (CORR TO L)	CW OF 1 KNOT
M	MIL			M	MIL	SEC	MIL	MIL
0	0.0			59	1	0.0	0.0	0.00
100	1.8			59	1	0.2	0.0	0.00
200	3.5			58	1	0.4	0.1	0.01
300	5.2			57	1	0.6	0.1	0.01
400	6.9			56	1	0.7	0.2	0.02
500	8.7			56	1	0.9	0.2	0.02
600	10.5			55	1	1.1	0.3	0.03
700	12.3			55	1	1.3	0.3	0.03
800	14.2			54	1	1.5	0.4	0.03
900	16.0			53	1	1.7	0.4	0.04
1000	17.9	1.9	1.07	53	1	1.9	0.5	0.04
1100	19.8	2.1	0.97	52	1	2.1	0.5	0.05
1200	21.7	2.3	0.89	52	1	2.3	0.6	0.05
1300	23.7	2.5	0.82	51	1	2.5	0.6	0.06
1400	25.7	2.7	0.75	50	1	2.7	0.7	0.06
1500	27.7	2.9	0.70	50	1	2.9	0.7	0.07
1600	29.7	3.2	0.66	49	1	3.2	0.8	0.07
1700	31.8	3.4	0.62	48	1	3.4	0.8	0.07
1800	33.8	3.6	0.58	48	1	3.6	0.9	0.08
1900	35.9	3.8	0.55	47	1	3.8	1.0	0.08
2000	38.1	4.0	0.52	47	1	4.0	1.0	0.09
2100	40.2	4.2	0.49	46	1	4.2	1.1	0.09
2200	42.4	4.5	0.47	46	1	4.5	1.1	0.10
2300	44.6	4.7	0.45	45	1	4.7	1.2	0.10
2400	46.9	4.9	0.43	44	1	4.9	1.3	0.11
2500	49.1	5.1	0.41	44	1	5.1	1.3	0.11
2600	51.4	5.4	0.39	43	1	5.4	1.4	0.12
2700	53.7	5.6	0.38	43	1	5.6	1.5	0.12
2800	56.1	5.8	0.36	42	1	5.8	1.5	0.13
2900	58.5	6.1	0.35	42	1	6.1	1.6	0.13
3000	60.9	6.3	0.33	41	1	6.3	1.6	0.14
3100	63.4	6.5	0.32	41	1	6.5	1.7	0.14
3200	65.8	6.8	0.31	40	1	6.8	1.8	0.15
3300	68.4	7.0	0.30	39	1	7.0	1.9	0.15
3400	70.9	7.3	0.29	39	1	7.3	1.9	0.16
3500	73.5	7.5	0.28	38	1	7.5	2.0	0.17

(U//FOUO)

(U//FOUO)

1	10	11	12	13	14	15	16	17	18	19
R A N G E	RANGE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
	M	M	M	M	M	M	M	M	M	M
0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0
100	0.4	-0.4	0.0	0.0	0.0	0.0	0.0	0.0	-1	1
200	0.8	-0.7	0.0	0.0	0.0	0.0	0.0	0.0	-2	2
300	1.1	-1.1	0.0	0.0	0.0	0.0	0.0	0.0	-3	3
400	1.5	-1.4	0.0	0.0	0.0	0.0	-0.1	0.1	-3	4
500	1.9	-1.8	0.0	0.0	0.0	0.0	-0.1	0.1	-4	4
600	2.2	-2.1	0.0	0.0	0.0	0.0	-0.2	0.2	-5	5
700	2.6	-2.4	0.0	0.0	-0.1	0.1	-0.3	0.3	-6	6
800	2.9	-2.8	0.0	0.0	-0.1	0.1	-0.3	0.3	-6	7
900	3.3	-3.1	0.1	-0.1	-0.1	0.1	-0.5	0.4	-7	7
1000	3.6	-3.4	0.1	-0.1	-0.1	0.1	-0.6	0.6	-8	8
1100	4.0	-3.8	0.1	-0.1	-0.2	0.1	-0.7	0.7	-9	9
1200	4.3	-4.1	0.1	-0.1	-0.2	0.2	-0.8	0.8	-9	9
1300	4.7	-4.4	0.1	-0.1	-0.2	0.2	-0.9	1.0	-10	10
1400	5.0	-4.7	0.1	-0.1	-0.3	0.2	-1.1	1.1	-10	11
1500	5.3	-5.1	0.2	-0.1	-0.3	0.3	-1.2	1.3	-11	11
1600	5.6	-5.4	0.2	-0.2	-0.3	0.3	-1.4	1.4	-12	12
1700	6.0	-5.7	0.2	-0.2	-0.4	0.3	-1.6	1.6	-12	13
1800	6.3	-6.0	0.2	-0.2	-0.4	0.4	-1.8	1.8	-13	13
1900	6.6	-6.3	0.3	-0.2	-0.5	0.4	-2.0	2.0	-13	14
2000	6.9	-6.6	0.3	-0.3	-0.5	0.5	-2.2	2.2	-14	14
2100	7.2	-6.9	0.3	-0.3	-0.6	0.5	-2.4	2.5	-14	15
2200	7.5	-7.2	0.3	-0.3	-0.6	0.6	-2.7	2.7	-15	15
2300	7.8	-7.5	0.4	-0.4	-0.7	0.6	-2.9	3.0	-15	16
2400	8.1	-7.8	0.4	-0.4	-0.8	0.7	-3.1	3.2	-16	16
2500	8.4	-8.1	0.5	-0.4	-0.8	0.7	-3.4	3.5	-16	16
2600	8.7	-8.3	0.5	-0.5	-0.9	0.8	-3.7	3.8	-16	17
2700	9.0	-8.6	0.5	-0.5	-0.9	0.9	-4.0	4.1	-17	17
2800	9.3	-8.9	0.6	-0.5	-1.0	0.9	-4.3	4.4	-17	18
2900	9.6	-9.2	0.6	-0.6	-1.1	1.0	-4.6	4.7	-17	18
3000	9.9	-9.5	0.7	-0.6	-1.2	1.0	-4.9	5.0	-18	18
3100	10.2	-9.7	0.7	-0.7	-1.2	1.1	-5.2	5.3	-18	19
3200	10.4	-10.0	0.8	-0.7	-1.3	1.2	-5.5	5.7	-18	19
3300	10.7	-10.3	0.8	-0.8	-1.4	1.3	-5.9	6.0	-19	19
3400	11.0	-10.5	0.9	-0.8	-1.5	1.3	-6.2	6.4	-19	20
3500	11.2	-10.8	0.9	-0.9	-1.5	1.4	-6.6	6.8	-19	20

(U//FOUO)

## BASIC DATA

PROJ, HE, M795  
FUZE, PD, M739A1

(U//FOUO)

1	2	3	4	5	6	7	8	9
R A N G E	E L E V	FS FOR GRAZE BURST	DFS PER 10 M DEC HOB	DR PER 1 MIL D ELEV	F O R K	TIME OF FLIGHT	AZIMUTH CORRECTIONS	
		FUZE M582					DRIFT (CORR TO L)	CW OF 1 KNOT
M	MIL			M	MIL	SEC	MIL	MIL
3500	73.5	7.5	0.28	38	1	7.5	2.0	0.17
3600	76.1	7.8	0.27	38	1	7.8	2.1	0.17
3700	78.8	8.1	0.26	37	1	8.1	2.1	0.18
3800	81.5	8.3	0.26	37	1	8.3	2.2	0.18
3900	84.2	8.6	0.25	36	1	8.6	2.3	0.19
4000	86.9	8.8	0.24	36	1	8.8	2.4	0.19
4100	89.7	9.1	0.23	35	1	9.1	2.5	0.20
4200	92.6	9.4	0.23	35	1	9.4	2.5	0.20
4300	95.5	9.6	0.22	34	1	9.6	2.6	0.21
4400	98.4	9.9	0.22	34	1	9.9	2.7	0.22
4500	101.4	10.2	0.21	34	1	10.2	2.8	0.22
4600	104.4	10.5	0.21	33	1	10.5	2.9	0.23
4700	107.4	10.8	0.20	33	1	10.8	3.0	0.23
4800	110.5	11.0	0.19	32	1	11.0	3.0	0.24
4900	113.6	11.3	0.19	32	1	11.3	3.1	0.24
5000	116.8	11.6	0.19	31	1	11.6	3.2	0.25
5100	120.0	11.9	0.18	31	1	11.9	3.3	0.26
5200	123.3	12.2	0.18	30	2	12.2	3.4	0.26
5300	126.6	12.5	0.17	30	2	12.5	3.5	0.27
5400	129.9	12.8	0.17	30	2	12.8	3.6	0.27
5500	133.3	13.1	0.16	29	2	13.1	3.7	0.28
5600	136.7	13.4	0.16	29	2	13.4	3.8	0.29
5700	140.2	13.7	0.16	29	2	13.7	3.9	0.29
5800	143.8	14.0	0.15	28	2	14.0	4.0	0.30
5900	147.3	14.3	0.15	28	2	14.3	4.1	0.30
6000	150.9	14.7	0.15	27	2	14.7	4.2	0.31
6100	154.6	15.0	0.14	27	2	15.0	4.3	0.31
6200	158.3	15.3	0.14	27	2	15.3	4.4	0.32
6300	162.1	15.6	0.14	26	2	15.6	4.5	0.33
6400	165.9	15.9	0.13	26	2	15.9	4.6	0.33
6500	169.7	16.3	0.13	26	2	16.3	4.7	0.34
6600	173.6	16.6	0.13	26	2	16.6	4.8	0.34
6700	177.5	16.9	0.13	25	2	16.9	5.0	0.35
6800	181.5	17.2	0.12	25	2	17.2	5.1	0.35
6900	185.5	17.6	0.12	25	2	17.6	5.2	0.36
7000	189.6	17.9	0.12	24	2	17.9	5.3	0.36

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1	10	11	12	13	14	15	16	17	18	19
R A N G E	RANGE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
	M	M	M	M	M	M	M	M	M	M
3500	11.2	-10.8	0.9	-0.9	-1.5	1.4	-6.6	6.8	-19	20
3600	11.5	-11.0	1.0	-0.9	-1.6	1.5	-6.9	7.2	-19	20
3700	11.8	-11.3	1.0	-1.0	-1.7	1.5	-7.3	7.5	-20	20
3800	12.0	-11.5	1.1	-1.0	-1.8	1.6	-7.7	7.9	-20	21
3900	12.3	-11.8	1.2	-1.1	-1.9	1.7	-8.1	8.4	-20	21
4000	12.5	-12.0	1.2	-1.2	-2.0	1.8	-8.5	8.8	-20	21
4100	12.8	-12.3	1.3	-1.2	-2.1	1.9	-8.9	9.2	-20	21
4200	13.0	-12.5	1.4	-1.3	-2.2	1.9	-9.3	9.6	-20	21
4300	13.3	-12.8	1.4	-1.3	-2.3	2.0	-9.7	10.1	-20	21
4400	13.5	-13.0	1.5	-1.4	-2.4	2.1	-10.2	10.5	-21	21
4500	13.8	-13.2	1.6	-1.5	-2.5	2.1	-10.6	11.0	-21	22
4600	14.0	-13.5	1.7	-1.6	-2.6	2.2	-11.1	11.5	-21	22
4700	14.2	-13.7	1.8	-1.6	-2.7	2.3	-11.5	11.9	-21	22
4800	14.5	-13.9	1.8	-1.7	-2.7	2.3	-12.0	12.4	-21	22
4900	14.7	-14.1	1.9	-1.8	-2.8	2.3	-12.4	12.9	-21	22
5000	14.9	-14.4	2.0	-1.9	-2.9	2.4	-12.9	13.3	-21	22
5100	15.1	-14.6	2.1	-1.9	-3.0	2.4	-13.4	13.8	-21	22
5200	15.3	-14.8	2.2	-2.0	-3.1	2.4	-13.9	14.3	-21	22
5300	15.5	-15.0	2.3	-2.1	-3.2	2.4	-14.4	14.8	-21	22
5400	15.7	-15.2	2.4	-2.2	-3.2	2.4	-14.9	15.2	-21	22
5500	15.9	-15.4	2.5	-2.3	-3.3	2.4	-15.4	15.7	-21	22
5600	16.1	-15.6	2.6	-2.4	-3.4	2.3	-15.8	16.2	-21	22
5700	16.3	-15.8	2.7	-2.5	-3.4	2.3	-16.3	16.6	-21	22
5800	16.5	-16.0	2.9	-2.6	-3.4	2.2	-16.8	17.1	-21	22
5900	16.7	-16.2	3.0	-2.7	-3.5	2.1	-17.3	17.5	-21	22
6000	16.9	-16.4	3.1	-2.8	-3.5	2.0	-17.8	18.0	-20	22
6100	17.1	-16.6	3.2	-2.9	-3.5	2.0	-18.3	18.4	-20	22
6200	17.2	-16.7	3.4	-3.0	-3.4	1.8	-18.8	18.9	-20	22
6300	17.4	-16.9	3.5	-3.2	-3.4	1.7	-19.3	19.3	-20	22
6400	17.6	-17.1	3.6	-3.3	-3.4	1.6	-19.8	19.8	-20	21
6500	17.8	-17.3	3.8	-3.4	-3.3	1.5	-20.3	20.2	-20	21
6600	17.9	-17.4	3.9	-3.5	-3.2	1.3	-20.8	20.7	-20	21
6700	18.1	-17.6	4.1	-3.7	-3.2	1.2	-21.2	21.1	-20	21
6800	18.2	-17.8	4.2	-3.8	-3.1	1.0	-21.7	21.5	-20	21
6900	18.4	-17.9	4.4	-3.9	-3.0	0.8	-22.2	22.0	-20	21
7000	18.6	-18.1	4.5	-4.0	-2.8	0.6	-22.7	22.4	-19	21

(U//FOUO)

## BASIC DATA

PROJ, HE, M795  
FUZE, PD, M739A1

(U//FOUO)

1	2	3	4	5	6	7	8	9
R A N G E	E L E V	FS FOR GRAZE BURST  FUZE M582	DFS PER 10 M DEC HOB	DR PER 1 MIL D ELEV	F O R K	TIME OF FLIGHT	AZIMUTH CORRECTIONS	
							DRIFT (CORR TO L)	CW OF 1 KNOT
M	MIL			M	MIL	SEC	MIL	MIL
7000	189.6	17.9	0.12	24	2	17.9	5.3	0.36
7100	193.7	18.2	0.12	24	2	18.2	5.4	0.37
7200	197.9	18.6	0.11	24	2	18.6	5.5	0.37
7300	202.1	18.9	0.11	24	3	18.9	5.7	0.38
7400	206.3	19.3	0.11	23	3	19.3	5.8	0.38
7500	210.6	19.6	0.11	23	3	19.6	5.9	0.39
7600	215.0	20.0	0.11	23	3	20.0	6.0	0.39
7700	219.4	20.3	0.10	23	3	20.3	6.2	0.40
7800	223.8	20.7	0.10	22	3	20.7	6.3	0.40
7900	228.3	21.0	0.10	22	3	21.0	6.4	0.41
8000	232.8	21.4	0.10	22	3	21.4	6.5	0.41
8100	237.4	21.7	0.10	22	3	21.7	6.7	0.42
8200	242.0	22.1	0.10	22	3	22.1	6.8	0.42
8300	246.7	22.5	0.09	21	3	22.5	7.0	0.43
8400	251.4	22.8	0.09	21	3	22.8	7.1	0.43
8500	256.2	23.2	0.09	21	3	23.2	7.2	0.44
8600	261.0	23.6	0.09	21	3	23.6	7.4	0.44
8700	265.9	23.9	0.09	20	3	23.9	7.5	0.45
8800	270.8	24.3	0.09	20	3	24.3	7.7	0.45
8900	275.8	24.7	0.09	20	4	24.7	7.8	0.46
9000	280.8	25.1	0.08	20	4	25.1	8.0	0.46
9100	285.8	25.4	0.08	20	4	25.4	8.1	0.47
9200	291.0	25.8	0.08	19	4	25.8	8.3	0.47
9300	296.1	26.2	0.08	19	4	26.2	8.4	0.47
9400	301.4	26.6	0.08	19	4	26.6	8.6	0.48
9500	306.6	27.0	0.08	19	4	27.0	8.8	0.48
9600	312.0	27.4	0.08	19	4	27.4	8.9	0.49
9700	317.4	27.8	0.08	18	4	27.8	9.1	0.49
9800	322.8	28.2	0.08	18	4	28.2	9.3	0.50
9900	328.3	28.6	0.07	18	4	28.6	9.4	0.50
10000	333.9	29.0	0.07	18	4	29.0	9.6	0.50
10100	339.5	29.4	0.07	18	4	29.4	9.8	0.51
10200	345.2	29.8	0.07	17	5	29.8	10.0	0.51
10300	351.0	30.2	0.07	17	5	30.2	10.1	0.52
10400	356.8	30.6	0.07	17	5	30.6	10.3	0.52
10500	362.7	31.1	0.07	17	5	31.1	10.5	0.53

(U//FOUO)

(U//FOUO)

1	10	11	12	13	14	15	16	17	18	19
R A N G E	RANGE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
	M	M	M	M	M	M	M	M	M	M
7000	18.6	-18.1	4.5	-4.0	-2.8	0.6	-22.7	22.4	-19	21
7100	18.7	-18.2	4.7	-4.2	-2.7	0.5	-23.1	22.8	-19	21
7200	18.9	-18.4	4.9	-4.3	-2.6	0.3	-23.6	23.2	-19	21
7300	19.0	-18.5	5.0	-4.5	-2.4	0.0	-24.1	23.7	-19	21
7400	19.1	-18.7	5.2	-4.6	-2.3	-0.2	-24.5	24.1	-19	21
7500	19.3	-18.8	5.4	-4.7	-2.1	-0.4	-25.0	24.5	-19	20
7600	19.4	-19.0	5.6	-4.9	-1.9	-0.6	-25.4	24.9	-19	20
7700	19.6	-19.1	5.7	-5.0	-1.7	-0.9	-25.9	25.3	-18	20
7800	19.7	-19.2	5.9	-5.2	-1.5	-1.1	-26.3	25.7	-18	20
7900	19.8	-19.4	6.1	-5.3	-1.3	-1.4	-26.8	26.1	-18	20
8000	20.0	-19.5	6.3	-5.5	-1.0	-1.7	-27.2	26.5	-18	20
8100	20.1	-19.6	6.5	-5.7	-0.8	-1.9	-27.7	26.9	-18	20
8200	20.2	-19.8	6.7	-5.8	-0.5	-2.2	-28.1	27.3	-18	20
8300	20.3	-19.9	6.9	-6.0	-0.3	-2.5	-28.6	27.7	-18	20
8400	20.5	-20.0	7.1	-6.1	0.0	-2.8	-29.0	28.1	-17	19
8500	20.6	-20.1	7.3	-6.3	0.3	-3.1	-29.4	28.5	-17	19
8600	20.7	-20.3	7.5	-6.5	0.6	-3.4	-29.9	28.9	-17	19
8700	20.8	-20.4	7.7	-6.6	0.9	-3.7	-30.3	29.2	-17	19
8800	20.9	-20.5	7.9	-6.8	1.2	-4.0	-30.7	29.6	-17	19
8900	21.1	-20.6	8.1	-7.0	1.5	-4.4	-31.1	30.0	-17	19
9000	21.2	-20.7	8.3	-7.1	1.9	-4.7	-31.5	30.4	-17	19
9100	21.3	-20.9	8.5	-7.3	2.2	-5.0	-32.0	30.8	-16	19
9200	21.4	-21.0	8.7	-7.5	2.6	-5.3	-32.4	31.2	-16	18
9300	21.5	-21.1	9.0	-7.7	2.9	-5.7	-32.8	31.6	-16	18
9400	21.6	-21.2	9.2	-7.8	3.3	-6.0	-33.2	31.9	-16	18
9500	21.7	-21.3	9.4	-8.0	3.7	-6.4	-33.6	32.3	-16	18
9600	21.8	-21.4	9.6	-8.2	4.0	-6.7	-34.0	32.7	-16	18
9700	22.0	-21.5	9.9	-8.4	4.4	-7.0	-34.4	33.1	-15	18
9800	22.1	-21.6	10.1	-8.6	4.8	-7.4	-34.8	33.5	-15	18
9900	22.2	-21.8	10.3	-8.7	5.2	-7.7	-35.2	33.9	-15	17
10000	22.3	-21.9	10.6	-8.9	5.6	-8.1	-35.6	34.3	-15	17
10100	22.4	-22.0	10.8	-9.1	6.0	-8.4	-36.0	34.7	-15	17
10200	22.5	-22.1	11.1	-9.3	6.4	-8.8	-36.4	35.1	-15	17
10300	22.6	-22.2	11.3	-9.5	6.8	-9.2	-36.8	35.5	-14	17
10400	22.7	-22.3	11.5	-9.7	7.3	-9.5	-37.2	35.9	-14	17
10500	22.8	-22.4	11.8	-9.9	7.7	-9.9	-37.6	36.4	-14	16

(U//FOUO)

## BASIC DATA

PROJ, HE, M795  
FUZE, PD, M739A1

(U//FOUO)

1	2	3	4	5	6	7	8	9
R A N G E	E L E V	FS FOR GRAZE BURST  FUZE M582	DFS PER 10 M DEC HOB	DR PER 1 MIL D ELEV	F O R K	TIME OF FLIGHT	AZIMUTH CORRECTIONS	
							DRIFT (CORR TO L)	CW OF 1 KNOT
M	MIL			M	MIL	SEC	MIL	MIL
10500	362.7	31.1	0.07	17	5	31.1	10.5	0.53
10600	368.6	31.5	0.07	17	5	31.5	10.7	0.53
10700	374.7	31.9	0.07	16	5	31.9	10.9	0.53
10800	380.8	32.4	0.07	16	5	32.4	11.1	0.54
10900	386.9	32.8	0.06	16	5	32.8	11.3	0.54
11000	393.2	33.2	0.06	16	5	33.2	11.5	0.55
11100	399.5	33.7	0.06	16	5	33.7	11.7	0.55
11200	405.9	34.1	0.06	15	6	34.1	11.9	0.55
11300	412.5	34.6	0.06	15	6	34.6	12.2	0.56
11400	419.0	35.0	0.06	15	6	35.0	12.4	0.56
11500	425.7	35.5	0.06	15	6	35.5	12.6	0.57
11600	432.5	36.0	0.06	15	6	36.0	12.9	0.57
11700	439.4	36.5	0.06	14	6	36.5	13.1	0.58
11800	446.4	36.9	0.06	14	6	36.9	13.3	0.58
11900	453.5	37.4	0.06	14	6	37.4	13.6	0.58
12000	460.8	37.9	0.06	14	7	37.9	13.9	0.59
12100	468.1	38.4	0.06	13	7	38.4	14.1	0.59
12200	475.6	38.9	0.06	13	7	38.9	14.4	0.60
12300	483.3	39.5	0.05	13	7	39.5	14.7	0.60
12400	491.1	40.0	0.05	13	7	40.0	15.0	0.61
12500	499.1	40.5	0.05	12	8	40.5	15.3	0.61
12600	507.2	41.1	0.05	12	8	41.1	15.6	0.61
12700	515.6	41.6	0.05	12	8	41.6	15.9	0.62
12800	524.2	42.2	0.05	12	8	42.2	16.2	0.62
12900	533.0	42.8	0.05	11	9	42.8	16.6	0.63
13000	542.0	43.4	0.05	11	9	43.4	16.9	0.63
13100	551.3	44.0	0.05	11	9	44.0	17.3	0.64
13200	561.0	44.7	0.05	10	10	44.7	17.7	0.64
13300	571.0	45.3	0.05	10	10	45.3	18.1	0.65
13400	581.3	46.0	0.05	9	11	46.0	18.6	0.66
13500	592.1	46.7	0.05	9	11	46.7	19.1	0.66
13600	603.5	47.4	0.05	9	12	47.4	19.6	0.67
13700	615.4	48.2	0.05	8	13	48.2	20.1	0.67
13800	628.0	49.0	0.04	8	14	49.0	20.7	0.68
13900	641.6	49.9	0.04	7	15	49.9	21.4	0.69
14000	656.2	50.8	0.04	6	17	50.8	22.1	0.70

(U//FOUO)

CORRECTION FACTORS

(U//FOUO)

1	10	11	12	13	14	15	16	17	18	19
R A N G E	RANGE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
M	M	M	M	M	M	M	M	M	M	M
10500	22.8	-22.4	11.8	-9.9	7.7	-9.9	-37.6	36.4	-14	16
10600	22.9	-22.5	12.0	-10.1	8.1	-10.2	-38.0	36.8	-14	16
10700	23.0	-22.6	12.3	-10.3	8.5	-10.6	-38.4	37.2	-14	16
10800	23.1	-22.7	12.5	-10.5	9.0	-10.9	-38.8	37.6	-13	16
10900	23.2	-22.8	12.8	-10.6	9.4	-11.3	-39.2	38.1	-13	16
11000	23.3	-22.9	13.1	-10.8	9.8	-11.6	-39.6	38.5	-13	16
11100	23.4	-23.0	13.3	-11.0	10.3	-11.9	-40.0	38.9	-13	15
11200	23.5	-23.1	13.6	-11.2	10.7	-12.3	-40.4	39.4	-13	15
11300	23.6	-23.2	13.8	-11.4	11.1	-12.6	-40.8	39.9	-12	15
11400	23.7	-23.3	14.1	-11.6	11.5	-13.0	-41.2	40.4	-12	15
11500	23.8	-23.4	14.4	-11.8	12.0	-13.3	-41.7	40.8	-12	15
11600	24.0	-23.5	14.6	-12.0	12.4	-13.6	-42.1	41.4	-12	14
11700	24.1	-23.6	14.9	-12.2	12.8	-13.9	-42.5	41.9	-12	14
11800	24.2	-23.7	15.2	-12.5	13.2	-14.3	-42.9	42.4	-11	14
11900	24.3	-23.8	15.5	-12.7	13.6	-14.6	-43.3	42.9	-11	14
12000	24.4	-23.9	15.7	-12.9	14.0	-14.9	-43.8	43.5	-11	14
12100	24.5	-24.0	16.0	-13.1	14.4	-15.1	-44.2	44.0	-11	14
12200	24.7	-24.1	16.3	-13.3	14.8	-15.4	-44.7	44.5	-10	13
12300	24.8	-24.2	16.6	-13.5	15.1	-15.7	-45.1	45.1	-10	13
12400	24.9	-24.3	16.8	-13.7	15.5	-16.0	-45.6	45.6	-10	13
12500	25.0	-24.4	17.1	-13.9	15.8	-16.2	-46.1	46.2	-10	13
12600	25.2	-24.6	17.4	-14.1	16.1	-16.5	-46.5	46.8	-9	12
12700	25.3	-24.7	17.7	-14.3	16.4	-16.8	-47.0	47.4	-9	12
12800	25.4	-24.8	18.0	-14.5	16.7	-17.0	-47.5	48.0	-9	12
12900	25.6	-24.9	18.4	-14.7	17.0	-17.3	-48.0	48.6	-8	12
13000	25.7	-25.1	18.7	-14.9	17.2	-17.5	-48.5	49.2	-8	11
13100	25.9	-25.2	19.0	-15.1	17.5	-17.8	-49.0	49.8	-8	11
13200	26.0	-25.3	19.4	-15.3	17.7	-18.0	-49.5	50.5	-8	11
13300	26.1	-25.4	19.8	-15.5	17.9	-18.3	-50.1	51.2	-7	11
13400	26.3	-25.6	20.3	-15.8	18.1	-18.5	-50.7	52.0	-7	10
13500	26.4	-25.7		-16.0	18.3	-18.7	-51.2	52.8	-7	10
13600	26.6	-25.8		-16.2	18.5	-18.9	-51.9	53.6	-7	10
13700	26.8	-25.9		-16.4	18.7	-19.1	-52.5	54.4	-6	10
13800	27.0	-26.1		-16.6	18.9	-19.3	-53.1	55.6	-6	9
13900	27.2	-26.2		-16.8	19.1	-19.5	-53.7	57.7	-6	9
14000	27.4	-26.4		-17.0	19.2	-19.6	-54.3		-5	9

(U//FOUO)

## BASIC DATA

PROJ, HE, M795  
FUZE, PD, M739A1

(U//FOUO)

1	2	3	4	5	6	7	8	9
R A N G E	E L E V	FS FOR GRAZE BURST  FUZE M582	DFS PER 10 M DEC HOB	DR PER 1 MIL D ELEV	F O R K	TIME OF FLIGHT	AZIMUTH CORRECTIONS	
							DRIFT (CORR TO L)	CW OF 1 KNOT
M	MIL			M	MIL	SEC	MIL	MIL
14000	656.2	50.8	0.04	6	17	50.8	22.1	0.70
14100	672.4	51.8	0.04	6	19	51.8	22.9	0.71
14200	690.7	53.0	0.04	5	22	53.0	23.8	0.72
14300	712.3	54.3	0.04	4	28	54.3	25.0	0.73
14400	740.7	56.1	0.04			56.1	26.6	0.74
*****								
14400	857.9	62.9	0.04			62.9	34.4	0.87
14300	885.4	64.4	0.04	4	30	64.4	36.6	0.89
14200	905.9	65.4	0.04	5	23	65.4	38.4	0.91
14100	922.9	66.3	0.04	6	20	66.3	39.9	0.92
14000	937.8	67.1	0.03	7	17	67.1	41.4	0.94
13900	951.2	67.8	0.03	8	16	67.8	42.7	0.95
13800	963.5	68.4	0.03	8	14	68.4	44.0	0.97
13700	974.9	68.9	0.03	9	13	68.9	45.3	0.98
13600	985.6	69.5	0.03	10	12	69.5	46.5	1.00
13500	995.6	69.9	0.03	10	12	69.9	47.7	1.01
13400	1005.2	70.4	0.03	11	11	70.4	48.9	1.02
13300	1014.3	70.8	0.03	11	10	70.8	50.0	1.04
13200	1023.0	71.2	0.03	12	10	71.2	51.2	1.05
13100	1031.4	71.6	0.03	12	9	71.6	52.3	1.07
13000	1039.5	72.0	0.03	13	9	72.0	53.5	1.08
12900	1047.2	72.3	0.03	13	9	72.3	54.6	1.09
12800	1054.8	72.7	0.03	13	8	72.7	55.8	1.11
12700	1062.1	73.0	0.03	14	8	73.0	56.9	1.12
12600	1069.2	73.3	0.03	14	8	73.3	58.1	1.13
12500	1076.1	73.6	0.03	15	8	73.6	59.2	1.15
12400	1082.8	73.9	0.03	15	7	73.9	60.4	1.16
12300	1089.4	74.2	0.03	15	7	74.2	61.6	1.18
12200	1095.8	74.4	0.03	16	7	74.4	62.8	1.19
12100	1102.1	74.7	0.03	16	7	74.7	64.0	1.21
12000	1108.2	75.0	0.03	17	6	75.0	65.2	1.22
11900	1114.2	75.2	0.03	17	6	75.2	66.4	1.24
11800	1120.1	75.4	0.03	17	6	75.4	67.6	1.25
11700	1125.8	75.7	0.03	18	6	75.7	68.9	1.27
11600	1131.5	75.9	0.03	18	6	75.9	70.2	1.29
11500	1137.0	76.1	0.03	18	6	76.1	71.5	1.30

(U//FOUO)

CORRECTION FACTORS

(U//FOUO)

1	10	11	12	13	14	15	16	17	18	19
R A N G E	RANGE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
M	M	M	M	M	M	M	M	M	M	M
14000	27.4	-26.4		-17.0	19.2	-19.6	-54.3		-5	9
14100	27.5	-26.5		-17.3	19.2	-19.8	-55.0		-5	9
14200	28.1	-26.7		-17.5	19.2	-19.9	-55.6		-5	8
14300		-26.9		-17.7	18.4	-20.0	-56.3		-4	8
14400		-27.1		-17.9		-20.1	-56.9		-4	8
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
14400		-28.3		-20.3		-17.6	-64.6		-3	6
14300		-28.1		-20.2	17.8	-17.3	-64.3		-2	6
14200	28.2	-28.0		-20.1	16.8	-17.1	-63.9		-3	5
14100	28.2	-27.9		-20.0	16.4	-16.9	-63.5		-3	5
14000	28.2	-27.8		-19.9	16.0	-16.7	-63.2		-2	5
13900	28.0	-27.6		-19.8	15.7	-16.5	-62.8	58.3	-2	5
13800	27.9	-27.5		-19.7	15.4	-16.3	-62.4	59.0	-2	5
13700	27.8	-27.3		-19.6	15.2	-16.1	-62.0	59.0	-2	4
13600	27.6	-27.2		-19.5	14.9	-15.9	-61.6	58.9	-2	4
13500	27.5	-27.0		-19.4	14.7	-15.8	-61.2	58.7	-2	4
13400	27.3	-26.8	21.0	-19.3	14.6	-15.6	-60.8	58.4	-2	4
13300	27.2	-26.7	21.1	-19.2	14.4	-15.4	-60.4	58.2	-2	4
13200	27.0	-26.5	21.1	-19.1	14.2	-15.3	-59.9	57.9	-2	4
13100	26.9	-26.3	21.1	-19.0	14.0	-15.1	-59.5	57.5	-2	4
13000	26.7	-26.2	21.1	-18.8	13.9	-15.0	-59.1	57.2	-1	4
12900	26.5	-26.0	21.0	-18.7	13.7	-14.8	-58.6	56.9	-1	4
12800	26.4	-25.8	21.0	-18.6	13.5	-14.7	-58.2	56.5	-1	4
12700	26.2	-25.6	20.9	-18.5	13.4	-14.5	-57.7	56.2	-1	3
12600	26.0	-25.4	20.9	-18.3	13.2	-14.4	-57.3	55.8	-1	3
12500	25.9	-25.2	20.8	-18.2	13.1	-14.3	-56.8	55.4	-1	3
12400	25.7	-25.0	20.8	-18.1	13.0	-14.1	-56.4	55.0	-1	3
12300	25.5	-24.8	20.7	-17.9	12.8	-14.0	-55.9	54.6	0	3
12200	25.3	-24.6	20.6	-17.8	12.7	-13.9	-55.4	54.2	0	3
12100	25.2	-24.4	20.6	-17.6	12.6	-13.7	-55.0	53.8	0	3
12000	25.0	-24.2	20.5	-17.5	12.4	-13.6	-54.5	53.4	0	3
11900	24.8	-24.0	20.4	-17.3	12.3	-13.5	-54.1	53.0	0	3
11800	24.6	-23.8	20.3	-17.1	12.2	-13.4	-53.6	52.5	1	2
11700	24.4	-23.6	20.2	-17.0	12.0	-13.3	-53.1	52.1	1	2
11600	24.2	-23.4	20.2	-16.8	11.9	-13.1	-52.7	51.7	1	2
11500	24.0	-23.2	20.1	-16.6	11.8	-13.0	-52.2	51.3	1	2

(U//FOUO)

## BASIC DATA

PROJ, HE, M795  
FUZE, PD, M739A1

(U//FOUO)

1	2	3	4	5	6	7	8	9
R A N G E	E L E V	FS FOR GRAZE BURST  FUZE M582	DFS PER 10 M DEC HOB	DR PER 1 MIL D ELEV	F O R K	TIME OF FLIGHT	AZIMUTH CORRECTIONS	
							DRIFT (CORR TO L)	CW OF 1 KNOT
M	MIL			M	MIL	SEC	MIL	MIL
11500	1137.0	76.1	0.03	18	6	76.1	71.5	1.30
11400	1142.4	76.3	0.03	19	5	76.3	72.8	1.32
11300	1147.7	76.6	0.03	19	5	76.6	74.2	1.34
11200	1153.0	76.8	0.03	19	5	76.8	75.5	1.35
11100	1158.1	77.0	0.03	20	5	77.0	77.0	1.37
11000	1163.2	77.2	0.03	20	5	77.2	78.4	1.39
10900	1168.2	77.3	0.03	20	5	77.3	79.9	1.41
10800	1173.1	77.5	0.03	21	5	77.5	81.4	1.43
10700	1177.9	77.7	0.03	21	5	77.7	82.9	1.45
10600	1182.6	77.9	0.03	21	4	77.9	84.5	1.47
10500	1187.3	78.1	0.03	22	4	78.1	86.2	1.49
10400	1191.9	78.2	0.03	22	4	78.2	87.9	1.51
10300	1196.4	78.4	0.03	22	4	78.4	89.6	1.54
10200	1200.9	78.6	0.03	23	4	78.6	91.4	1.56
10100	1205.3	78.7	0.03	23	4	78.7	93.3	1.58
10000	1209.6	78.9	0.03	23	4	78.9	95.2	1.61
9900	1213.8	79.1	0.03	24	4	79.1	97.2	1.64
9800	1218.0	79.2	0.03	24	4	79.2	99.2	1.66
9700	1222.1	79.4	0.03	24	3	79.4	101.4	1.69
9600	1226.2	79.5	0.03	25	3	79.5	103.6	1.72
9500	1230.2	79.7	0.03	25	3	79.7	105.9	1.75
9400	1234.1	79.8	0.03	26	3	79.8	108.3	1.78
9300	1238.0	80.0	0.03	26	3	80.0	110.9	1.82
9200	1241.8	80.1	0.03	26	3	80.1	113.5	1.85
9100	1245.5	80.3	0.03	27	3	80.3	116.3	1.89
9000	1249.2	80.4	0.03	27	3	80.4	119.3	1.93
8900	1252.8	80.5	0.03	28		80.5	122.4	1.97
8800	1256.4	80.7	0.03	28		80.7	125.7	2.02
8700	1259.9	80.8	0.03	29		80.8	129.1	2.06
8600	1263.3	81.0	0.03	30		81.0	132.8	2.11
8500	1266.6	81.1	0.03	30		81.1	136.8	2.17
8400	1269.9	81.3	0.03	31		81.3	141.0	2.23
8300	1273.1	81.4	0.03	32		81.4	145.4	
8200	1276.2	81.6	0.03	32		81.6	150.2	
8100	1279.3	81.7	0.03	33		81.7	155.3	
8000	1282.3	81.9	0.03			81.9	160.7	

(U//FOUO)



(U//FOUO)

1	10	11	12	13	14	15	16	17	18	19
R A N G E	RANGE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
	M	M	M	M	M	M	M	M	M	M
11500	24.0	-23.2	20.1	-16.6	11.8	-13.0	-52.2	51.3	1	2
11400	23.8	-23.0	20.0	-16.4	11.7	-12.9	-51.7	50.9	1	2
11300	23.6	-22.8	19.9	-16.2	11.6	-12.8	-51.2	50.4	2	2
11200	23.4	-22.6	19.8	-16.0	11.5	-12.7	-50.7	50.0	2	1
11100	23.2	-22.4	19.7	-15.8	11.3	-12.6	-50.3	49.5	2	1
11000	23.0	-22.2	19.6	-15.6	11.2	-12.5	-49.8	49.1	2	1
10900	22.8	-22.0	19.5	-15.3	11.1	-12.4	-49.3	48.7	2	1
10800	22.6	-21.8	19.4	-15.1	11.0	-12.3	-48.8	48.2	3	1
10700	22.4	-21.5	19.3	-14.8	10.9	-12.2	-48.3	47.8	3	0
10600	22.1	-21.3	19.2	-14.6	10.8	-12.1	-47.8	47.3	3	0
10500	21.9	-21.1	19.1	-14.3	10.7	-12.0	-47.2	46.8	4	0
10400	21.7	-20.9	19.0	-14.0	10.6	-11.9	-46.7	46.4	4	-1
10300	21.5	-20.7	18.8	-13.6	10.5	-11.8	-46.2	45.9	4	-1
10200	21.2	-20.4	18.7		10.4	-11.8	-45.6	45.4	4	-1
10100	21.0	-20.2	18.6		10.3	-11.7	-45.1	45.0	5	-2
10000	20.8	-20.0	18.5		10.3	-11.6	-44.6	44.5	5	-2
9900	20.6	-19.8	18.3		10.2	-11.5	-44.0	44.0	6	-2
9800	20.3	-19.5	18.2		10.1	-11.5	-43.4	43.5	6	-3
9700	20.1	-19.3	18.1		10.0	-11.4	-42.9	43.0	6	-3
9600	19.8	-19.1	17.9		10.0	-11.3	-42.3	42.5	7	-4
9500	19.6	-18.8	17.8		9.9	-11.3	-41.7	42.0	7	-4
9400	19.4	-18.6	17.6		9.9	-11.2	-41.2	41.4	8	-5
9300	19.1	-18.3	17.5		9.8	-11.1	-40.6	40.9	8	-5
9200	18.9	-18.1	17.3		9.8	-11.1	-40.0	40.4	9	-6
9100	18.6	-17.8	17.1		9.7	-11.0	-39.4	39.9	10	-7
9000	18.4	-17.6	16.9		9.7	-11.0	-38.7	39.3	10	-7
8900	18.1	-17.3	16.8		9.6	-10.9		38.8	11	-8
8800	17.9	-17.0	16.6		9.6	-10.9		38.3	12	-9
8700	17.6	-16.8	16.4		9.6	-10.9		37.7	13	-10
8600	17.3	-16.5	16.1		9.6	-10.9		37.2	14	-10
8500	17.1	-16.3	15.9		9.5	-10.9		36.6	14	-11
8400	16.8	-16.0	15.7		9.5	-10.9		36.0	15	-13
8300	16.5	-15.7	15.4		9.5	-10.9		35.4	16	-14
8200	16.2	-15.4	15.2		9.5	-10.9		34.8	17	-15
8100	15.9	-15.1	14.9		9.5	-10.9		34.2	19	-16
8000	15.6		14.6		9.5			33.6	20	-17

(U//FOUO)

CHARGE  
7W

(U//FOUO) TABLE F  
BASIC DATA

FT 155-AR-1  
PART 1  
PROJ, HE, M795  
FUZE, PD, M739A1

(U//FOUO)

1	2	3	4	5	6	7	8	9
R A N G E	E L E V	FS FOR GRAZE BURST  FUZE M582	DFS PER 10 M DEC HOB	DR PER 1 MIL D ELEV	F O R K	TIME OF FLIGHT	AZIMUTH CORRECTIONS	
							DRIFT (CORR TO L)	CW OF 1 KNOT
M	MIL			M	MIL	SEC	MIL	MIL
8000	1282.3	81.9	0.03			81.9	160.7	
7907	1285.0							

(U//FOUO)

CORRECTION FACTORS

(U//FOUO)

1	10	11	12	13	14	15	16	17	18	19
R A N G E	RANGE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
	M	M	M	M	M	M	M	M	M	M
8000	15.6		14.6		9.5			33.6	20	-17
7907										

(U//FOUO)

## SUPPLEMENTARY DATA

PROJ, HE, M795  
FUZE, PD, M739A1

(U//FOUO)

1	2	3	4	5	6	7	8	9	10	11	12	13
R A N G E	E L E V	PROBABLE ERRORS					ANGLE OF FALL	COT ANGLE OF FALL	TML VEL	MO	COMP SITE	
		R	D	FUZE M582							+1 MIL SITE	-1 MIL SITE
				HB	TB	RB						
M	MIL	M	M	M	SEC	M	MIL		M/S	M	MIL	MIL
0	0.0	11	0				0		544	0	0.000	0.00
1000	17.9	11	0				19	53.4	499	5	0.000	0.00
2000	38.1	10	1	1	0.04	18	43	23.6	456	20	0.001	0.00
3000	60.9	10	1	1	0.04	17	73	13.9	416	49	0.002	-0.001
4000	86.9	10	2	2	0.04	16	111	9.1	380	96	0.003	-0.002
5000	116.8	11	2	2	0.04	15	158	6.4	349	167	0.007	-0.004
6000	150.9	13	3	3	0.04	15	214	4.7	328	267	0.011	-0.007
7000	189.6	14	3	4	0.04	15	276	3.6	314	403	0.019	-0.012
8000	232.8	16	4	5	0.04	16	343	2.9	305	580	0.030	-0.021
9000	280.8	18	4	6	0.04	16	413	2.3	300	804	0.047	-0.034
10000	333.9	19	5	8	0.05	17	487	1.9	298	1081	0.074	-0.055
11000	393.2	21	6	9	0.05	18	563	1.6	297	1424	0.119	-0.090
12000	460.8	23	7	12	0.05	19	645	1.4	299	1852	0.204	-0.151
13000	542.0	25	8	14	0.06	21	736	1.1	302	2413	0.403	-0.278
14000	656.2	27	9	19	0.07	23	854	0.9	308	3273		-0.666
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
14000	937.8	31	11	34	0.10	26	1103	0.5	324	5543		1.79
13000	1039.5	29	11	40	0.11	25	1183	0.4	327	6319	-1.507	1.39
12000	1108.2	27	11	44	0.12	23	1238	0.4	330	6802	-1.290	1.24
11000	1163.2	24	11	47	0.12	22	1282	0.3	331	7154	-1.187	1.16
10000	1209.6	22	10	49	0.13	20	1322	0.3	332	7424	-1.124	1.11
9000	1249.2	20	10	52	0.13	18	1359	0.2	332	7632	-1.081	1.07
8000	1282.3		9				1396	0.2	332	7788		1.04

(U//FOUO)

ROTATION - RANGE

CORRECTIONS TO RANGE, IN METERS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 3200	200 3000	400 2800	600 2600	800 2400	1000 2200	1200 2000	1400 1800	1600 1600
1000	0	-1+	-3+	-4+	-5+	-6+	-7+	-7+	-7+
2000	0	-3+	-5+	-8+	-10+	-11+	-13+	-13+	-14+
3000	0	-4+	-7+	-10+	-13+	-15+	-17+	-18+	-19+
4000	0	-4+	-9+	-12+	-16+	-19+	-21+	-22+	-22+
5000	0	-5+	-10+	-14+	-18+	-21+	-23+	-25+	-25+
6000	0	-5+	-11+	-15+	-20+	-23+	-26+	-27+	-28+
7000	0	-6+	-11+	-17+	-21+	-25+	-28+	-29+	-30+
8000	0	-6+	-12+	-18+	-23+	-27+	-30+	-32+	-32+
9000	0	-7+	-13+	-19+	-24+	-29+	-32+	-34+	-34+
10000	0	-7+	-14+	-20+	-26+	-30+	-34+	-36+	-37+
11000	0	-7+	-15+	-21+	-27+	-32+	-35+	-38+	-38+
12000	0	-8+	-15+	-22+	-28+	-33+	-37+	-39+	-40+
13000	0	-8+	-15+	-22+	-28+	-33+	-37+	-39+	-40+
14000	0	-7+	-14+	-21+	-26+	-31+	-34+	-36+	-37+
*****									
14000	0	-2+	-5+	-7+	-9+	-10+	-12+	-12+	-13+
13000	0	0	0	0	+1-	+1-	+1-	+1-	+1-
12000	0	+2-	+4-	+6-	+8-	+10-	+11-	+11-	+12-
11000	0	+4-	+8-	+12-	+15-	+18-	+20-	+21-	+21-
10000	0	+6-	+12-	+17-	+22-	+26-	+29-	+31-	+31-
9000	0	+8-	+17-	+24-	+31-	+36-	+40-	+43-	+44-
8000	0	+12-	+24-	+35-	+44-	+52-	+57-	+61-	+62-
	3200 6400	3400 6200	3600 6000	3800 5800	4000 5600	4200 5400	4400 5200	4600 5000	4800 4800
AZIMUTH OF TARGET - MILS									

(U//FOUO)

- (U//FOUO) NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
3. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.  
4. CORRECTIONS ARE FOR 0 DEGREES LATITUDE. FOR OTHER LATITUDES  
MULTIPLY CORRECTIONS BY THE FACTOR GIVEN BELOW.

(U//FOUO)

LATITUDE (DEG)	10	20	30	40	50	60	70
MULTIPLY BY	.98	.94	.87	.77	.64	.50	.34

(U//FOUO)

## ROTATION - AZIMUTH

PROJ, HE, M795  
FUZE, PD, M739A1CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

## 0 DEGREES LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS									
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200	
1000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
3000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
4000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
5000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
6000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
7000	R0.1L	R0.1L	R0.1L	0.0	0.0	0.0	L0.1R	L0.1R	L0.1R	
8000	R0.1L	R0.1L	R0.1L	0.0	0.0	0.0	L0.1R	L0.1R	L0.1R	
9000	R0.2L	R0.1L	R0.1L	R0.1L	0.0	L0.1R	L0.1R	L0.1R	L0.2R	
10000	R0.2L	R0.2L	R0.2L	R0.1L	0.0	L0.1R	L0.2R	L0.2R	L0.2R	
11000	R0.3L	R0.3L	R0.2L	R0.1L	0.0	L0.1R	L0.2R	L0.3R	L0.3R	
12000	R0.4L	R0.4L	R0.3L	R0.2L	0.0	L0.2R	L0.3R	L0.4R	L0.4R	
13000	R0.6L	R0.5L	R0.4L	R0.2L	0.0	L0.2R	L0.4R	L0.5R	L0.6R	
14000	R0.8L	R0.8L	R0.6L	R0.3L	0.0	L0.3R	L0.6R	L0.8R	L0.8R	
*****										
14000	R1.9L	R1.8L	R1.4L	R0.7L	0.0	L0.7R	L1.4R	L1.8R	L1.9R	
13000	R2.6L	R2.4L	R1.8L	R1.0L	0.0	L1.0R	L1.8R	L2.4R	L2.6R	
12000	R3.1L	R2.9L	R2.2L	R1.2L	0.0	L1.2R	L2.2R	L2.9R	L3.1R	
11000	R3.7L	R3.4L	R2.6L	R1.4L	0.0	L1.4R	L2.6R	L3.4R	L3.7R	
10000	R4.2L	R3.9L	R3.0L	R1.6L	0.0	L1.6R	L3.0R	L3.9R	L4.2R	
9000	R4.8L	R4.4L	R3.4L	R1.8L	0.0	L1.8R	L3.4R	L4.4R	L4.8R	
8000	R5.3L	R4.9L	R3.7L	R2.0L	0.0	L2.0R	L3.7R	L4.9R	L5.3R	
	3200	2800	2400	2000	1600	1200	800	400	0	
	3200	3600	4000	4400	4800	5200	5600	6000	6400	
AZIMUTH OF TARGET - MILS										

(U//FOUO)

## 0 DEGREES LATITUDE

(U//FOUO)

- NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
 2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
 3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.  
 4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

10 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
1000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2000	0.0	0.0	0.0	0.0	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
3000	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
4000	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
5000	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.2R	L0.2R	L0.2R	L0.2R
6000	L0.1R	L0.1R	L0.1R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
7000	L0.1R	L0.1R	L0.2R	L0.2R	L0.2R	L0.2R	L0.3R	L0.3R	L0.3R
8000	L0.1R	L0.2R	L0.2R	L0.2R	L0.2R	L0.3R	L0.3R	L0.3R	L0.4R
9000	L0.1R	L0.2R	L0.2R	L0.2R	L0.3R	L0.3R	L0.4R	L0.4R	L0.4R
10000	L0.1R	L0.1R	L0.2R	L0.3R	L0.3R	L0.4R	L0.5R	L0.5R	L0.5R
11000	L0.1R	L0.1R	L0.2R	L0.3R	L0.4R	L0.5R	L0.6R	L0.7R	L0.7R
12000	0.0	L0.1R	L0.2R	L0.3R	L0.4R	L0.6R	L0.7R	L0.8R	L0.8R
13000	0.0	0.0	L0.1R	L0.3R	L0.5R	L0.7R	L0.9R	L1.0R	L1.1R
14000	R0.2L	R0.2L	0.0	L0.3R	L0.6R	L0.9R	L1.2R	L1.3R	L1.4R
*****									
14000	R1.1L	R1.0L	R0.6L	0.0	L0.8R	L1.5R	L2.1R	L2.5R	L2.7R
13000	R1.7L	R1.5L	R1.0L	R0.1L	L0.8R	L1.8R	L2.6R	L3.2R	L3.4R
12000	R2.2L	R2.0L	R1.3L	R0.3L	L0.9R	L2.1R	L3.1R	L3.7R	L4.0R
11000	R2.8L	R2.5L	R1.7L	R0.5L	L0.9R	L2.3R	L3.5R	L4.2R	L4.5R
10000	R3.3L	R3.0L	R2.1L	R0.7L	L0.9R	L2.5R	L3.8R	L4.8R	L5.1R
9000	R3.8L	R3.5L	R2.4L	R0.9L	L0.9R	L2.7R	L4.2R	L5.2R	L5.6R
8000	R4.3L	R3.9L	R2.8L	R1.1L	L0.9R	L2.9R	L4.6R	L5.7R	L6.1R
	3200	2800	2400	2000	1600	1200	800	400	0
	3200	3600	4000	4400	4800	5200	5600	6000	6400
AZIMUTH OF TARGET - MILS									

(U//FOUO)

10 DEGREES SOUTH LATITUDE

(U//FOUO)

- NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.  
4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

## ROTATION - AZIMUTH

PROJ, HE, M795  
FUZE, PD, M739A1CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

## 20 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
1000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2000	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
3000	L0.1R	L0.1R	L0.1R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
4000	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
5000	L0.2R	L0.2R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R
6000	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.4R	L0.4R	L0.4R	L0.4R
7000	L0.3R	L0.3R	L0.4R	L0.4R	L0.4R	L0.4R	L0.5R	L0.5R	L0.5R
8000	L0.4R	L0.4R	L0.4R	L0.5R	L0.5R	L0.5R	L0.6R	L0.6R	L0.6R
9000	L0.4R	L0.4R	L0.5R	L0.5R	L0.6R	L0.6R	L0.7R	L0.7R	L0.7R
10000	L0.5R	L0.5R	L0.5R	L0.6R	L0.7R	L0.7R	L0.8R	L0.8R	L0.9R
11000	L0.5R	L0.5R	L0.6R	L0.7R	L0.8R	L0.9R	L1.0R	L1.0R	L1.0R
12000	L0.5R	L0.5R	L0.6R	L0.7R	L0.9R	L1.0R	L1.1R	L1.2R	L1.2R
13000	L0.5R	L0.5R	L0.6R	L0.8R	L1.0R	L1.2R	L1.4R	L1.5R	L1.5R
14000	L0.4R	L0.4R	L0.6R	L0.9R	L1.2R	L1.5R	L1.7R	L1.9R	L1.9R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
14000	R0.3L	R0.2L	L0.2R	L0.8R	L1.5R	L2.2R	L2.8R	L3.2R	L3.4R
13000	R0.8L	R0.6L	R0.1L	L0.7R	L1.6R	L2.6R	L3.4R	L3.9R	L4.1R
12000	R1.3L	R1.0L	R0.4L	L0.6R	L1.7R	L2.8R	L3.8R	L4.4R	L4.7R
11000	R1.7L	R1.5L	R0.7L	L0.4R	L1.7R	L3.1R	L4.2R	L4.9R	L5.2R
10000	R2.2L	R1.9L	R1.1L	L0.2R	L1.8R	L3.3R	L4.6R	L5.4R	L5.7R
9000	R2.7L	R2.4L	R1.4L	0.0	L1.8R	L3.5R	L4.9R	L5.9R	L6.3R
8000	R3.2L	R2.8L	R1.8L	R0.2L	L1.7R	L3.6R	L5.2R	L6.3R	L6.7R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
	AZIMUTH OF TARGET - MILS								

(U//FOUO)

## 20 DEGREES SOUTH LATITUDE

(U//FOUO)

- NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
 2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
 3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.  
 4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.



CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

30 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
1000	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
2000	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
3000	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
4000	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R
5000	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R
6000	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R
7000	L0.5R	L0.5R	L0.6R	L0.6R	L0.6R	L0.6R	L0.7R	L0.7R	L0.7R
8000	L0.6R	L0.6R	L0.7R	L0.7R	L0.7R	L0.8R	L0.8R	L0.8R	L0.8R
9000	L0.7R	L0.7R	L0.7R	L0.8R	L0.8R	L0.9R	L0.9R	L1.0R	L1.0R
10000	L0.8R	L0.8R	L0.8R	L0.9R	L1.0R	L1.0R	L1.1R	L1.1R	L1.2R
11000	L0.9R	L0.9R	L0.9R	L1.0R	L1.1R	L1.2R	L1.3R	L1.3R	L1.4R
12000	L0.9R	L0.9R	L1.0R	L1.1R	L1.3R	L1.4R	L1.5R	L1.6R	L1.6R
13000	L1.0R	L1.0R	L1.1R	L1.3R	L1.4R	L1.6R	L1.8R	L1.9R	L1.9R
14000	L1.0R	L1.0R	L1.2R	L1.4R	L1.7R	L2.0R	L2.2R	L2.4R	L2.4R
*****									
14000	L0.6R	L0.7R	L1.1R	L1.6R	L2.2R	L2.9R	L3.4R	L3.8R	L3.9R
13000	L0.2R	L0.3R	L0.8R	L1.5R	L2.4R	L3.3R	L4.0R	L4.5R	L4.6R
12000	R0.2L	0.0	L0.6R	L1.4R	L2.5R	L3.5R	L4.4R	L5.0R	L5.2R
11000	R0.7L	R0.4L	L0.3R	L1.3R	L2.5R	L3.8R	L4.8R	L5.5R	L5.7R
10000	R1.1L	R0.8L	0.0	L1.2R	L2.6R	L4.0R	L5.2R	L6.0R	L6.2R
9000	R1.6L	R1.3L	R0.4L	L1.0R	L2.6R	L4.2R	L5.5R	L6.4R	L6.7R
8000	R2.0L	R1.7L	R0.7L	L0.8R	L2.5R	L4.3R	L5.8R	L6.8R	L7.1R
	3200	2800	2400	2000	1600	1200	800	400	0
	3200	3600	4000	4400	4800	5200	5600	6000	6400
AZIMUTH OF TARGET - MILS									

(U//FOUO)

30 DEGREES SOUTH LATITUDE

(U//FOUO)

- NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.  
4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

## ROTATION - AZIMUTH

PROJ, HE, M795  
FUZE, PD, M739A1CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

## 40 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
1000	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
2000	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
3000	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R
4000	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R
5000	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R
6000	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.7R	L0.7R	L0.7R	L0.7R
7000	L0.7R	L0.7R	L0.7R	L0.8R	L0.8R	L0.8R	L0.8R	L0.8R	L0.8R
8000	L0.8R	L0.8R	L0.9R	L0.9R	L0.9R	L1.0R	L1.0R	L1.0R	L1.0R
9000	L1.0R	L1.0R	L1.0R	L1.0R	L1.1R	L1.1R	L1.2R	L1.2R	L1.2R
10000	L1.1R	L1.1R	L1.1R	L1.2R	L1.2R	L1.3R	L1.4R	L1.4R	L1.4R
11000	L1.2R	L1.2R	L1.3R	L1.3R	L1.4R	L1.5R	L1.6R	L1.6R	L1.6R
12000	L1.3R	L1.3R	L1.4R	L1.5R	L1.6R	L1.7R	L1.8R	L1.9R	L1.9R
13000	L1.4R	L1.5R	L1.6R	L1.7R	L1.9R	L2.0R	L2.2R	L2.3R	L2.3R
14000	L1.5R	L1.6R	L1.7R	L1.9R	L2.2R	L2.4R	L2.6R	L2.8R	L2.8R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
14000	L1.4R	L1.5R	L1.8R	L2.3R	L2.9R	L3.5R	L3.9R	L4.3R	L4.4R
13000	L1.1R	L1.3R	L1.7R	L2.3R	L3.1R	L3.8R	L4.5R	L4.9R	L5.1R
12000	L0.8R	L1.0R	L1.5R	L2.3R	L3.2R	L4.1R	L4.9R	L5.4R	L5.6R
11000	L0.4R	L0.7R	L1.3R	L2.2R	L3.3R	L4.4R	L5.3R	L5.9R	L6.1R
10000	L0.1R	L0.3R	L1.0R	L2.1R	L3.3R	L4.5R	L5.6R	L6.3R	L6.6R
9000	R0.4L	R0.1L	L0.7R	L1.9R	L3.3R	L4.7R	L5.9R	L6.7R	L7.0R
8000	R0.8L	R0.5L	L0.4R	L1.7R	L3.3R	L4.8R	L6.1R	L7.0R	L7.3R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
	AZIMUTH OF TARGET - MILS								

(U//FOUO)

## 40 DEGREES SOUTH LATITUDE

(U//FOUO)

- NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
 2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
 3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.  
 4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

50 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
1000	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
2000	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
3000	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.4R	L0.4R
4000	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R
5000	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R
6000	L0.7R	L0.7R	L0.7R	L0.8R	L0.8R	L0.8R	L0.8R	L0.8R	L0.8R
7000	L0.9R	L0.9R	L0.9R	L0.9R	L0.9R	L0.9R	L1.0R	L1.0R	L1.0R
8000	L1.0R	L1.0R	L1.1R	L1.1R	L1.1R	L1.1R	L1.1R	L1.2R	L1.2R
9000	L1.2R	L1.2R	L1.2R	L1.2R	L1.3R	L1.3R	L1.4R	L1.4R	L1.4R
10000	L1.3R	L1.4R	L1.4R	L1.4R	L1.5R	L1.5R	L1.6R	L1.6R	L1.6R
11000	L1.5R	L1.5R	L1.6R	L1.6R	L1.7R	L1.8R	L1.8R	L1.9R	L1.9R
12000	L1.7R	L1.7R	L1.8R	L1.8R	L1.9R	L2.0R	L2.1R	L2.2R	L2.2R
13000	L1.9R	L1.9R	L2.0R	L2.1R	L2.2R	L2.4R	L2.5R	L2.5R	L2.6R
14000	L2.1R	L2.1R	L2.2R	L2.4R	L2.6R	L2.8R	L3.0R	L3.1R	L3.1R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
14000	L2.2R	L2.3R	L2.6R	L3.0R	L3.4R	L3.9R	L4.3R	L4.6R	L4.7R
13000	L2.0R	L2.1R	L2.5R	L3.0R	L3.7R	L4.3R	L4.9R	L5.2R	L5.3R
12000	L1.8R	L1.9R	L2.4R	L3.0R	L3.8R	L4.6R	L5.2R	L5.7R	L5.8R
11000	L1.5R	L1.7R	L2.2R	L3.0R	L3.9R	L4.8R	L5.6R	L6.1R	L6.3R
10000	L1.2R	L1.4R	L2.0R	L2.9R	L3.9R	L5.0R	L5.9R	L6.5R	L6.7R
9000	L0.9R	L1.1R	L1.8R	L2.8R	L3.9R	L5.1R	L6.1R	L6.8R	L7.0R
8000	L0.5R	L0.8R	L1.5R	L2.6R	L3.9R	L5.2R	L6.3R	L7.0R	L7.3R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
	AZIMUTH OF TARGET - MILS								

(U//FOUO)

50 DEGREES SOUTH LATITUDE

(U//FOUO)

- NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.  
4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

## ROTATION - AZIMUTH

PROJ, HE, M795  
FUZE, PD, M739A1CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

## 60 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
1000	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
2000	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R
3000	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R
4000	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R
5000	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R
6000	L0.8R	L0.8R	L0.8R	L0.9R	L0.9R	L0.9R	L0.9R	L0.9R	L0.9R
7000	L1.0R	L1.0R	L1.0R	L1.0R	L1.0R	L1.1R	L1.1R	L1.1R	L1.1R
8000	L1.2R	L1.2R	L1.2R	L1.2R	L1.2R	L1.3R	L1.3R	L1.3R	L1.3R
9000	L1.4R	L1.4R	L1.4R	L1.4R	L1.5R	L1.5R	L1.5R	L1.5R	L1.5R
10000	L1.6R	L1.6R	L1.6R	L1.6R	L1.7R	L1.7R	L1.8R	L1.8R	L1.8R
11000	L1.8R	L1.8R	L1.8R	L1.9R	L1.9R	L2.0R	L2.0R	L2.1R	L2.1R
12000	L2.0R	L2.0R	L2.0R	L2.1R	L2.2R	L2.3R	L2.3R	L2.4R	L2.4R
13000	L2.2R	L2.3R	L2.3R	L2.4R	L2.5R	L2.6R	L2.7R	L2.8R	L2.8R
14000	L2.5R	L2.6R	L2.6R	L2.8R	L2.9R	L3.1R	L3.2R	L3.3R	L3.4R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
14000	L2.9R	L3.0R	L3.2R	L3.5R	L3.9R	L4.3R	L4.6R	L4.8R	L4.9R
13000	L2.9R	L3.0R	L3.2R	L3.7R	L4.2R	L4.7R	L5.1R	L5.4R	L5.5R
12000	L2.7R	L2.9R	L3.2R	L3.7R	L4.3R	L4.9R	L5.4R	L5.8R	L5.9R
11000	L2.6R	L2.7R	L3.1R	L3.7R	L4.4R	L5.1R	L5.7R	L6.1R	L6.3R
10000	L2.3R	L2.5R	L3.0R	L3.6R	L4.5R	L5.3R	L6.0R	L6.4R	L6.6R
9000	L2.1R	L2.2R	L2.8R	L3.5R	L4.5R	L5.4R	L6.1R	L6.7R	L6.8R
8000	L1.8R	L2.0R	L2.5R	L3.4R	L4.4R	L5.4R	L6.3R	L6.8R	L7.0R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
	AZIMUTH OF TARGET - MILS								

(U//FOUO)

## 60 DEGREES SOUTH LATITUDE

(U//FOUO)

- NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
 2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
 3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.  
 4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

70 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
1000	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
2000	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R
3000	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R
4000	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R
5000	L0.7R	L0.7R	L0.7R	L0.8R	L0.8R	L0.8R	L0.8R	L0.8R	L0.8R
6000	L0.9R	L0.9R	L0.9R	L0.9R	L0.9R	L0.9R	L1.0R	L1.0R	L1.0R
7000	L1.1R	L1.1R	L1.1R	L1.1R	L1.1R	L1.1R	L1.2R	L1.2R	L1.2R
8000	L1.3R	L1.3R	L1.3R	L1.3R	L1.3R	L1.4R	L1.4R	L1.4R	L1.4R
9000	L1.5R	L1.5R	L1.5R	L1.6R	L1.6R	L1.6R	L1.6R	L1.6R	L1.6R
10000	L1.7R	L1.8R	L1.8R	L1.8R	L1.8R	L1.8R	L1.9R	L1.9R	L1.9R
11000	L2.0R	L2.0R	L2.0R	L2.0R	L2.1R	L2.1R	L2.2R	L2.2R	L2.2R
12000	L2.2R	L2.3R	L2.3R	L2.3R	L2.4R	L2.4R	L2.5R	L2.5R	L2.5R
13000	L2.5R	L2.5R	L2.6R	L2.7R	L2.7R	L2.8R	L2.9R	L2.9R	L2.9R
14000	L2.9R	L2.9R	L3.0R	L3.1R	L3.2R	L3.3R	L3.4R	L3.5R	L3.5R
*****									
14000	L3.5R	L3.6R	L3.7R	L4.0R	L4.2R	L4.5R	L4.7R	L4.8R	L4.9R
13000	L3.6R	L3.7R	L3.9R	L4.2R	L4.5R	L4.8R	L5.1R	L5.3R	L5.4R
12000	L3.6R	L3.7R	L3.9R	L4.3R	L4.7R	L5.1R	L5.4R	L5.7R	L5.8R
11000	L3.5R	L3.6R	L3.9R	L4.3R	L4.8R	L5.3R	L5.7R	L5.9R	L6.0R
10000	L3.4R	L3.5R	L3.8R	L4.3R	L4.8R	L5.4R	L5.9R	L6.2R	L6.3R
9000	L3.2R	L3.3R	L3.7R	L4.2R	L4.8R	L5.5R	L6.0R	L6.3R	L6.5R
8000	L3.0R	L3.1R	L3.5R	L4.1R	L4.8R	L5.5R	L6.1R	L6.4R	L6.6R
	3200	2800	2400	2000	1600	1200	800	400	0
	3200	3600	4000	4400	4800	5200	5600	6000	6400
AZIMUTH OF TARGET - MILS									

(U//FOUO)

70 DEGREES SOUTH LATITUDE

(U//FOUO)

- NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.  
4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

## FUZE CORRECTION FACTORS

PROJ, HE, M795  
FUZE, MTSQ, M582

(U//FOUO)

1	2	3	4	5	6	7	8	9	10	11
FS	FUZE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
0										
1										
2	-.004	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.008	-.008
3	-.005	0.005	0.000	0.000	0.000	0.000	0.001	-.001	0.012	-.012
4	-.007	0.007	0.000	0.000	0.000	0.000	0.001	-.001	0.016	-.016
5	-.009	0.009	0.000	0.000	0.000	0.000	0.002	-.002	0.019	-.019
6	-.010	0.010	0.000	0.000	0.001	-.001	0.003	-.003	0.022	-.022
7	-.012	0.012	0.000	0.000	0.001	-.001	0.004	-.003	0.025	-.025
8	-.014	0.014	0.000	0.000	0.001	-.001	0.005	-.004	0.028	-.028
9	-.015	0.015	0.000	0.000	0.001	-.001	0.006	-.006	0.030	-.031
10	-.017	0.017	0.000	0.000	0.002	-.002	0.007	-.007	0.032	-.033
11	-.018	0.018	0.000	0.000	0.002	-.003	0.008	-.008	0.034	-.035
12	-.020	0.020	0.000	0.000	0.003	-.004	0.010	-.010	0.036	-.037
13	-.021	0.021	0.000	0.000	0.004	-.005	0.012	-.012	0.037	-.038
14	-.023	0.023	0.000	0.000	0.005	-.006	0.014	-.014	0.039	-.040
15	-.024	0.024	0.000	0.000	0.006	-.006	0.017	-.016	0.040	-.041
16	-.026	0.025	0.000	0.000	0.008	-.007	0.019	-.019	0.040	-.042
17	-.027	0.027	0.000	0.000	0.009	-.008	0.021	-.021	0.041	-.043
18	-.028	0.028	0.000	0.000	0.010	-.008	0.024	-.023	0.042	-.044
19	-.029	0.029	0.000	0.001	0.010	-.008	0.026	-.025	0.042	-.044
20	-.031	0.031	-.001	0.001	0.011	-.009	0.029	-.027	0.043	-.045
21	-.032	0.032	-.001	0.001	0.012	-.009	0.031	-.029	0.043	-.045
22	-.033	0.033	-.001	0.001	0.012	-.008	0.033	-.031	0.043	-.046
23	-.034	0.034	-.001	0.001	0.012	-.008	0.036	-.033	0.044	-.046
24	-.035	0.035	-.001	0.002	0.013	-.008	0.038	-.035	0.044	-.047
25	-.036	0.036	-.001	0.002	0.013	-.007	0.040	-.037	0.044	-.047
26	-.037	0.037	-.002	0.002	0.012	-.007	0.042	-.039	0.045	-.048
27	-.038	0.038	-.002	0.003	0.012	-.006	0.044	-.040	0.045	-.048
28	-.039	0.039	-.002	0.003	0.012	-.005	0.046	-.042	0.045	-.049
29	-.040	0.040	-.003	0.003	0.011	-.004	0.048	-.044	0.046	-.049
30	-.041	0.041	-.003	0.004	0.010	-.002	0.050	-.045	0.046	-.050
31	-.042	0.042	-.003	0.004	0.009	-.001	0.052	-.047	0.047	-.050
32	-.043	0.043	-.004	0.005	0.008	0.000	0.054	-.048	0.047	-.051
33	-.044	0.044	-.004	0.005	0.007	0.002	0.056	-.050	0.048	-.051
34	-.045	0.044	-.004	0.006	0.006	0.003	0.057	-.051	0.048	-.052
35	-.045	0.045	-.005	0.006	0.005	0.005	0.059	-.052	0.048	-.052

(U//FOUO)

1	2	3	4	5	6	7	8	9	10	11
FS	FUZE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
35	-.045	0.045	-.005	0.006	0.005	0.005	0.059	-.052	0.048	-.052
36	-.046	0.046	-.005	0.006	0.004	0.006	0.061	-.054	0.049	-.053
37	-.047	0.047	-.006	0.007	0.002	0.008	0.062	-.055	0.049	-.053
38	-.048	0.048	-.006	0.008	0.001	0.010	0.064	-.056	0.050	-.054
39	-.049	0.049	-.007	0.008	-.001	0.011	0.065	-.057	0.050	-.054
40	-.049	0.049	-.007	0.009	-.002	0.013	0.067	-.059	0.051	-.055
41	-.050	0.050	-.008	0.009	-.004	0.015	0.068	-.060	0.052	-.056
42	-.051	0.051	-.008	0.010	-.006	0.016	0.070	-.062	0.052	-.057
43	-.052	0.052	-.009	0.010	-.007	0.017	0.071	-.063	0.053	-.057
44	-.053	0.052	-.009	0.011	-.009	0.019	0.073	-.065	0.053	-.058
45	-.054	0.053	-.010	0.011	-.010	0.020	0.074	-.066	0.054	-.059
46	-.054	0.054	-.010	0.012	-.012	0.022	0.076	-.068	0.054	-.059
47	-.055	0.055	-.011	0.012	-.013	0.023	0.077	-.069	0.055	-.060
48	-.056	0.056	-.011	0.013	-.015	0.024	0.079	-.071	0.056	-.061
49	-.057	0.057	-.011	0.013	-.016	0.026	0.081	-.072	0.056	-.062
50	-.058	0.058	-.012	0.013	-.017	0.027	0.083	-.074	0.057	-.062
51	-.059	0.058	-.012	0.014	-.018	0.028	0.084	-.076	0.058	-.063
52	-.060	0.059	-.013	0.014	-.019	0.029	0.086	-.077	0.058	-.064
53	-.061	0.060	-.013	0.015	-.021	0.030	0.088	-.079	0.059	-.065
54	-.062	0.061	-.014	0.015	-.022	0.030	0.090	-.081	0.060	-.066
55	-.063	0.062	-.014	0.015	-.022	0.031	0.092	-.083	0.061	-.067
56	-.064	0.063	-.015	0.016	-.023	0.030	0.094	-.086	0.063	-.068
57	-.065	0.064	-.015	0.016	-.024	0.030	0.096	-.089	0.063	-.069
58	-.066	0.066	-.015	0.016	-.024	0.030	0.099	-.091	0.063	-.069
59	-.068	0.067	-.015	0.016	-.023	0.030	0.102	-.094	0.064	-.070
60	-.069	0.069	-.015	0.016	-.022	0.030	0.105	-.096	0.065	-.071
61	-.070	0.070	-.016	0.016	-.022	0.030	0.108	-.099	0.066	-.071
62	-.071	0.071	-.016	0.016	-.021	0.030	0.111	-.101	0.067	-.072
63	-.073	0.073	-.016	0.017	-.021	0.030	0.113	-.103	0.068	-.073
64	-.074	0.074	-.016	0.017	-.020	0.029	0.116	-.106	0.069	-.074
65	-.075	0.075	-.016	0.017	-.020	0.029	0.119	-.108	0.070	-.075
66	-.076	0.077	-.016	0.017	-.020	0.029	0.121	-.110	0.072	-.076
67	-.078	0.078	-.016	0.017	-.019	0.029	0.124	-.113	0.073	-.078
68	-.079	0.080	-.016	0.017	-.019	0.029	0.126	-.115	0.075	-.079
69	-.080	0.081	-.016	0.017	-.019	0.029	0.129	-.117	0.076	-.080
70	-.082	0.082	-.017	0.017	-.018	0.029	0.131	-.120	0.078	-.082

(U//FOUO)

## FUZE CORRECTION FACTORS

PROJ, HE, M795  
FUZE, MTSQ, M582

(U//FOUO)

1	2	3	4	5	6	7	8	9	10	11
FS	FUZE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
70	<i>-.082</i>	0.082	<i>-.017</i>	0.017	<i>-.018</i>	0.029	0.131	<i>-.120</i>	0.078	<i>-.082</i>
71	<i>-.083</i>	0.084	<i>-.017</i>	0.017	<i>-.018</i>	0.029	0.134	<i>-.122</i>	0.079	<i>-.083</i>
72	<i>-.085</i>	0.085	<i>-.017</i>	0.017	<i>-.018</i>	0.028	0.136	<i>-.124</i>	0.081	<i>-.085</i>
73	<i>-.086</i>	0.087	<i>-.017</i>	0.017	<i>-.017</i>	0.028	0.139	<i>-.126</i>	0.083	<i>-.087</i>
74	<i>-.088</i>	0.088	<i>-.017</i>	0.017	<i>-.017</i>	0.028	0.141	<i>-.129</i>	0.084	<i>-.090</i>
75	<i>-.089</i>	0.089	<i>-.017</i>	0.017	<i>-.017</i>	0.028	0.143	<i>-.131</i>	0.086	<i>-.093</i>
76	<i>-.091</i>	0.091	<i>-.017</i>	0.017	<i>-.017</i>	0.028	0.145	<i>-.133</i>	0.089	<i>-.096</i>
77	<i>-.092</i>	0.092	<i>-.017</i>	0.018	<i>-.016</i>	0.027	0.148	<i>-.135</i>	0.093	<i>-.100</i>
78	<i>-.094</i>	0.094	<i>-.017</i>	0.019	<i>-.016</i>	0.027	0.150	<i>-.137</i>	0.098	<i>-.104</i>
79	<i>-.095</i>	0.095	<i>-.018</i>	0.021	<i>-.015</i>	0.027	0.152	<i>-.140</i>	0.104	<i>-.110</i>
80	<i>-.097</i>	0.097	<i>-.019</i>		<i>-.015</i>	0.026	0.155	<i>-.142</i>	0.113	<i>-.118</i>
81	<i>-.099</i>	0.100	<i>-.022</i>		<i>-.013</i>	0.025	0.159	<i>-.145</i>	0.130	<i>-.133</i>
82	<i>-.103</i>	0.103	<i>-.027</i>		<i>-.010</i>	0.023		<i>-.150</i>	0.165	<i>-.160</i>

(U//FOUO)



PROJ, HE, M795

FUZE SETTING

FUZE, MTSQ, M582

CORRECTIONS TO FUZE SETTING OF FUZE, MTSQ, M582  
FOR FUZE, MTSQ, M564

(U//FOUO)

FUZE SETTING FUZE M582		CORRECTIONS
FROM	TO	
1.9	12.2	0.0
12.3	23.2	0.1
23.3	34.6	0.2
34.7	45.3	0.3
45.4	56.1	0.4
56.2	67.8	0.5
67.9	79.4	0.6
79.5	81.9	0.7

(U//FOUO)

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(U//FOUO) Part 1

(U//FOUO) Charge 7R

(U//FOUO) Projectile, HE, M795

(U//FOUO) Fuze, PD, M739A1

(U//FOUO) Muzzle Velocity – 659 M/S

(U//FOUO) Propelling Charge M119A2 - Base Section 7

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LINE NUMBER

(U//FOUO)

LINE NUMBER OF METEOROLOGICAL MESSAGE

QUADRANT ELEVATION MILS	LINE NUMBER
0.0- 73.4	0
73.5- 145.3	1
145.4- 224.2	2
224.3- 302.9	3
303.0- 371.2	4
371.3- 463.1	5
463.2- 573.8	6
573.9- 676.5	7
676.6- 774.7	8
774.8- 919.9	9
920.0- 1130.7	10
1130.8- 1270.0	11

(U//FOUO)

(U//FOUO) NOTE - WHEN THE PROJECTILE MUST HIT THE TARGET ON THE ASCENDING BRANCH OF ITS TRAJECTORY, USE HEIGHT OF TARGET IN METERS TO ENTER THE TABLE ON PAGE XL TO DETERMINE LINE NUMBER.

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

## LINE NUMBERS OF METEOROLOGICAL MESSAGE

LINE NO.	RANGE METERS	HEIGHT OF TARGET ABOVE GUN - METERS							
		-400	-300	-200	-100	0	100	200	300
0	0					0			
	100					0	0	0	0
	200					0	0	0	1
	300					0	0	1	2
	400					0	0	1	2
	500					0	0	1	3
	600					0	0	2	4
	700					0	1	2	4
	800					0	1	2	4
	900					0	1	2	4
	1000					0	1	2	5
	1100					0	1	3	5
	1200					0	1	3	5
	1300					0	1	3	5
	1400					0	1	3	5
	1500					0	1	3	5
	1600					0	1	3	5
	1700					0	1	3	6
	1800					0	1	3	6
	1900					0	1	3	6
	2000					0	1	3	6
	2100					0	1	3	6
	2200					0	1	3	6
	2300					0	1	3	6
	2400					0	1	3	7
	2500					0	1	4	7
	2600					0	1	4	7
	2700					0	1	4	7
	2800				-1	0	1	4	7
	2900				-1	0	1	4	7
	3000				-1	0	1	4	7
	3100				-2	0	1	4	7
	3200				-2	0	1	4	7
	3300				-2	0	1	4	7
	3400				-2	0	1	4	7
	3500				-2	0	1	4	8
0							1		

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

LINE NUMBERS OF METEOROLOGICAL MESSAGE

HEIGHT OF TARGET ABOVE GUN - METERS							RANGE	LINE
400	500	600	700	800	900	1000	METERS	NO.
							0	3
0							100	
2	3	4	6	7	8		200	
4	6	8	10	12	14	16	300	
4	7	9	11	14	16	19	400	
5	8	11	14	17	20	23	500	
6	9	12	15	19	22	26	600	
7	10	13	17	21	25	29	700	
7	10	13	17	22	26	30	800	
7	10	14	18	23	27	32	900	
7	11	15	19	24	29	34	1000	
8	11	15	20	24	30	35	1100	
8	11	15	20	25	30	36	1200	
8	12	16	21	26	31	37	1300	
8	12	16	21	26	32	38	1400	
9	12	17	21	27	32	39	1500	
9	13	17	22	27	33	39	1600	
9	13	17	22	28	34	40	1700	
9	13	18	23	28	34	41	1800	
9	13	18	23	28	35	41	1900	
9	13	18	23	29	35	42	2000	
10	14	18	24	29	36	42	2100	
10	14	19	24	30	36	43	2200	
10	14	19	24	30	36	43	2300	
10	14	19	24	30	37	44	2400	
10	15	19	25	31	37	44	2500	
10	15	20	25	31	37	45	2600	
11	15	20	25	31	38	45	2700	
11	15	20	26	32	38	45	2800	
11	15	20	26	32	39	46	2900	
11	15	20	26	32	39	46	3000	
11	15	21	26	32	39	47	3100	
11	16	21	27	33	40	47	3200	
11	16	21	27	33	40	47	3300	
11	16	21	27	33	40	48	3400	
12	16	21	27	34	40	48	3500	
2				3				

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

## LINE NUMBERS OF METEOROLOGICAL MESSAGE

LINE NO.	RANGE METERS	HEIGHT OF TARGET ABOVE GUN - METERS							
		-400	-300	-200	-100	0	100	200	300
0	3500				-2	0	1	4	8
	3600				-2	0	1	4	8
	3700				-2	0	1	4	8
	3800				-2	0	1	4	8
	3900			-3	-2	0	1	4	8
	4000			-3	-2	0	1	4	8
	4100			-3	-2	0	1	4	8
	4200			-3	-3	0	1	4	8
	4300			-3	-3	0	1	4	8
	4400			-3	-3	0	1	4	8
	4500			-4	-3	0	1	4	8
	4600		-3	-4	-3	0	1	5	8
	4700		-4	-4	-3	0	1	5	8
	4800		-4	-4	-3	0	1	5	8
	4900		-4	-4	-3	0	1	5	8
	5000		-4	-4	-3	0	1	5	9
	5100		-5	-4	-3	0	1	5	9
	5200	-4	-5	-5	-3	0	1	5	9
	5300	-4	-5	-5	-3	0	1	5	9
	5400	-5	-5	-5	-3	0	1	5	9
	5500	-5	-5	-5	-3	0	1	5	9
	5600	-5	-5	-5	-4	0	1	5	9
	5700	-5	-6	-5	-4	0	1	5	9
	5800	-6	-6	-5	-4	0	1	5	9
	5900	-6	-6	-5	-4	0	1	5	9
	6000	-6	-6	-5	-4	0	2	5	9
	6100	-6	-6	-5	-4	0	2	5	9
	6200	-6	-6	-5	-4	0	2	5	9
	6300	-7	-6	-5	-4	0	2	5	9
	6400	-7	-7	-6	-4	0	2	5	9
	6500	-7	-7	-6	-4	0	2	5	9
	6600	-7	-7	-6	-4	0	2	5	9
	6700	-7	-7	-6	-4	0	2	5	10
	6800	-8	-7	-6	-4	0	2	5	10
	6900	-8	-7	-6	-4	0	2	5	10
	7000	-8	-7	-6	-4	0	2	5	10
0		1						2	

(U//FOUO)



CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

LINE NUMBERS OF METEOROLOGICAL MESSAGE

HEIGHT OF TARGET ABOVE GUN - METERS							RANGE	LINE
400	500	600	700	800	900	1000	METERS	
12	16	21	27	34	40	48	3500	3
12	16	21	27	34	41	48	3600	
12	16	22	27	34	41	49	3700	
12	17	22	28	34	41	49	3800	
12	17	22	28	34	41	49	3900	
12	17	22	28	35	42	49	4000	
12	17	22	28	35	42	50	4100	
12	17	22	28	35	42	50	4200	
12	17	23	29	35	42	50	4300	
12	17	23	29	35	43	50	4400	
13	17	23	29	36	43	51	4500	
13	18	23	29	36	43	51	4600	
13	18	23	29	36	43	51	4700	
13	18	23	29	36	43	51	4800	
13	18	23	30	36	44	52	4900	
13	18	23	30	36	44	52	5000	
13	18	24	30	37	44	52	5100	
13	18	24	30	37	44	52	5200	
13	18	24	30	37	44	53	5300	
13	18	24	30	37	45	53	5400	
13	18	24	30	37	45	53	5500	
13	19	24	31	37	45	53	5600	
14	19	24	31	38	45	53	5700	
14	19	24	31	38	45	54	5800	
14	19	25	31	38	46	54	5900	
14	19	25	31	38	46	54	6000	
14	19	25	31	38	46	54	6100	
14	19	25	31	38	46	54	6200	
14	19	25	32	39	46	55	6300	
14	19	25	32	39	47	55	6400	
14	19	25	32	39	47	55	6500	
14	20	25	32	39	47	55	6600	
14	20	26	32	39	47	56	6700	
14	20	26	32	40	47	56	6800	
14	20	26	32	40	48	56	6900	
15	20	26	33	40	48	56	7000	
2				3				

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

## LINE NUMBERS OF METEOROLOGICAL MESSAGE

LINE NO.	RANGE METERS	HEIGHT OF TARGET ABOVE GUN - METERS							
		-400	-300	-200	-100	0	100	200	300
0	7000	-8	-7	-6	-4	0	2	5	10
	7100	-8	-7	-6	-4	0	2	6	10
	7200	-8	-7	-6	-4	0	2	6	10
	7300	-8	-7	-6	-4	0	2	6	10
1	7400	-8	-8	-6	-4	0	2	6	10
	7500	-9	-8	-6	-4	0	2	6	10
	7600	-9	-8	-6	-4	0	2	6	10
	7700	-9	-8	-6	-4	0	2	6	10
	7800	-9	-8	-6	-4	0	2	6	10
	7900	-9	-8	-6	-4	0	2	6	10
	8000	-9	-8	-6	-4	0	2	6	11
	8100	-9	-8	-7	-4	0	2	6	11
	8200	-10	-8	-7	-4	0	2	6	11
	8300	-10	-8	-7	-4	0	2	6	11
	8400	-10	-9	-7	-4	0	2	6	11
	8500	-10	-9	-7	-4	0	2	6	11
	8600	-10	-9	-7	-4	0	2	6	11
	8700	-10	-9	-7	-5	0	2	7	11
	8800	-11	-9	-7	-5	0	2	7	12
	8900	-11	-9	-7	-5	0	2	7	12
	9000	-11	-10	-8	-5	0	2	7	12
	9100	-12	-10	-8	-5	0	2	7	12
	9200	-12	-10	-8	-5	0	3	7	13
	9300	-12	-10	-8	-5	0	3	7	13
2	9400	-13	-11	-8	-5	0	3	8	13
	9500	-13	-11	-8	-5	0	3	8	13
	9600	-13	-11	-9	-5	0	3	8	14
	9700	-14	-12	-9	-6	0	3	8	14
	9800	-14	-12	-9	-6	0	3	8	14
	9900	-15	-12	-9	-6	0	3	9	14
	10000	-15	-13	-10	-6	0	3	9	15
	10100	-16	-13	-10	-6	0	3	9	15
	10200	-16	-13	-10	-6	0	4	9	15
	10300	-17	-14	-10	-6	0	4	9	16
	10400	-17	-14	-10	-6	0	4	10	16
	10500	-18	-14	-11	-6	0	4	10	17
2						3			

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

LINE NUMBERS OF METEOROLOGICAL MESSAGE

HEIGHT OF TARGET ABOVE GUN - METERS							RANGE	L I N E
400	500	600	700	800	900	1000	METERS	NO.
15	20	26	33	40	48	56	7000	3
15	20	26	33	40	48	57	7100	
15	20	26	33	40	48	57	7200	
15	20	26	33	41	49	57	7300	
15	20	27	33	41	49	58	7400	
15	21	27	34	41	49	58	7500	
15	21	27	34	41	50	58	7600	
15	21	27	34	42	50	59	7700	
15	21	27	34	42	50	59	7800	
16	21	28	35	42	51	59	7900	
16	21	28	35	43	51	60	8000	
16	22	28	35	43	51	60	8100	
16	22	28	36	43	52	61	8200	
16	22	29	36	44	52	61	8300	
16	22	29	36	44	53	62	8400	
17	23	29	37	45	53	62	8500	
17	23	30	37	45	53	63	8600	
17	23	30	37	45	54	63	8700	
17	24	30	38	46	55	64	8800	
18	24	31	38	46	55	64	8900	
18	24	31	39	47	56	65	9000	
18	25	32	39	47	56	66	9100	
18	25	32	40	48	57	66	9200	
19	25	33	40	49	58	67	9300	
19	26	33	41	49	58	68	9400	
19	26	34	41	50	59	69	9500	
20	27	34	42	51	60	70	9600	
20	27	35	43	51	61	70	9700	
21	28	35	43	52	61	71	9800	
21	28	36	44	53	62	72	9900	
21	29	36	45	54	63	73	10000	
22	29	37	45	54	64	74	10100	
22	30	38	46	55	65	75	10200	
23	30	38	47	56	66	76	10300	
23	31	39	48	57	67	77	10400	
24	31	40	48	58	68	79	10500	
3			4					

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

## LINE NUMBERS OF METEOROLOGICAL MESSAGE

LINE NO.	RANGE METERS	HEIGHT OF TARGET ABOVE GUN - METERS							
		-400	-300	-200	-100	0	100	200	300
2	10500	-18	-14	-11	-6	0	4	10	17
	10600	-18	-15	-11	-6	0	4	10	17
	10700	-19	-15	-11	-7	0	4	10	17
	10800	-19	-16	-11	-7	0	4	11	18
	10900	-20	-16	-12	-7	0	5	11	18
	11000	-20	-16	-12	-7	0	5	11	19
3	11100	-21	-17	-12	-7	0	5	12	19
	11200	-21	-17	-12	-7	0	5	12	19
	11300	-22	-18	-13	-7	0	5	12	20
	11400	-23	-18	-13	-7	0	5	13	20
	11500	-23	-18	-13	-8	0	5	13	21
	11600	-24	-19	-14	-8	0	6	13	21
	11700	-24	-19	-14	-8	0	6	14	22
	11800	-25	-20	-14	-8	0	6	14	22
	11900	-26	-20	-15	-8	0	6	14	23
	12000	-26	-21	-15	-8	0	6	15	23
	12100	-27	-22	-15	-9	0	7	15	24
	12200	-28	-22	-16	-9	0	7	15	25
	12300	-29	-23	-16	-9	0	7	16	25
	12400	-30	-23	-17	-9	0	7	16	26
	12500	-30	-24	-17	-9	0	7	17	26
4	12600	-31	-25	-17	-10	0	8	17	27
	12700	-32	-25	-18	-10	0	8	18	28
	12800	-33	-26	-18	-10	0	8	18	29
	12900	-34	-27	-19	-10	0	8	19	29
	13000	-35	-27	-19	-10	0	9	19	30
	13100	-36	-28	-20	-11	0	9	20	31
	13200	-37	-29	-20	-11	0	9	20	32
	13300	-38	-29	-21	-11	0	9	21	32
	13400	-39	-30	-21	-11	0	10	21	33
	13500	-40	-31	-22	-12	0	10	22	34
	13600	-41	-32	-22	-12	0	10	22	35
	13700	-42	-33	-23	-12	0	11	23	36
5	13800	-43	-33	-23	-12	0	11	24	37
	13900	-44	-34	-24	-13	0	11	24	38
	14000	-45	-35	-24	-13	0	12	25	39

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

LINE NUMBERS OF METEOROLOGICAL MESSAGE

HEIGHT OF TARGET ABOVE GUN - METERS							RANGE	L I N E	
400	500	600	700	800	900	1000	METERS	N O .	
24	31	40	48	58	68	79	10500	4	
24	32	40	49	59	69	80	10600		
25	33	41	50	60	70	81	10700		
25	33	42	51	61	71	82	10800		
26	34	43	52	62	73	84	10900		
26	35	43	53	63	74	85	11000		
27	35	44	54	64	75	87	11100		
27	36	45	55	65	76	88	11200		
28	37	46	56	67	78	90	11300		
29	38	47	57	68	79	91	11400		
29	38	48	58	69	81	93	11500	5	
30	39	49	59	71	82	94	11600		
31	40	50	61	72	84	96	11700		
31	41	51	62	73	85	98	11800		
32	42	52	63	75	87	100	11900		
33	43	53	65	76	89	102	12000		
34	44	55	66	78	91	104	12100		
34	45	56	67	80	92	106	12200		
35	46	57	69	81	94	108	12300		
36	47	58	70	83	96	110	12400		
37	48	60	72	85	98	112	12500	6	
38	49	61	73	86	100	114	12600		
39	50	62	75	88	102	117	12700		
40	51	64	77	90	104	119	12800		
41	53	65	78	92	107	122	12900		
42	54	67	80	94	109	124	13000		
43	55	68	82	96	111	127	13100		
44	56	70	84	98	114	129	13200		
45	58	71	86	101	116	132	13300		
46	59	73	88	103	119	135	13400		
47	61	75	90	105	121	138	13500	7	
48	62	77	92	108	124	141	13600		
49	64	78	94	110	127	144	13700		
51	65	80	96	113	130	148	13800		
52	67	82	98	115	133	151	13900		
53	68	84	101	118	136	154	14000		
5				6					

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

LINE NUMBERS OF METEOROLOGICAL MESSAGE

LINE NO.	RANGE METERS	HEIGHT OF TARGET ABOVE GUN - METERS							
		-400	-300	-200	-100	0	100	200	300
4	14000	-45	-35	-24	-13	0	12	25	39
5	14100	-47	-36	-25	-13	0	12	26	40
	14200	-48	-37	-26	-14	0	12	26	41
	14300	-49	-38	-26	-14	0	13	27	42
	14400	-51	-39	-27	-14	0	13	28	43
	14500	-52	-40	-28	-15	0	13	28	44
	14600	-53	-41	-28	-15	0	14	29	45
	14700	-55	-42	-29	-15	0	14	30	46
	14800	-56	-43	-30	-16	0	15	31	48
	14900	-58	-44	-31	-16	0	15	32	49
	15000	-59	-46	-31	-16	0	15	32	50
	15100	-61	-47	-32	-17	0	16	33	52
	15200	-63	-48	-33	-17	0	16	34	53
	15300	-65	-50	-34	-18	0	17	35	55
	15400	-66	-51	-35	-18	0	17	36	56
6	15500	-68	-52	-36	-19	0	18	37	58
	15600	-70	-54	-37	-19	0	19	39	59
	15700	-72	-55	-38	-20	0	19	40	61
	15800	-74	-57	-39	-20	0	20	41	63
	15900	-76	-59	-40	-21	0	20	42	65
	16000	-79	-60	-41	-21	0	21	43	67
	16100	-81	-62	-42	-22	0	22	45	69
	16200	-83	-64	-43	-22	0	22	46	71
	16300	-86	-66	-45	-23	0	23	48	74
	16400	-88	-68	-46	-24	0	24	50	77
	16500	-91	-70	-48	-25	0	25	52	80
	16600	-95	-73	-50	-26	0	26	54	83
	16700	-98	-76	-52	-27	0	27	56	86
	16800	-102	-79	-54	-28	0	28	58	90
	16900	-106	-82	-56	-29	0	29	61	94
7	17000	-110	-85	-58	-30	0	31	63	98
	17100	-115	-88	-60	-31	0	32	66	102
	17200	-120	-92	-63	-32	0	34	70	109
	17300	-125	-96	-66	-34	0	36	74	115
	17400	-130	-100	-69	-36	0	38	79	123
	17500	-136	-106	-73	-38	0	40	84	132
7					8				

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

LINE NUMBERS OF METEOROLOGICAL MESSAGE

HEIGHT OF TARGET ABOVE GUN - METERS							RANGE	LINE
400	500	600	700	800	900	1000	METERS	NO.
53	68	84	101	118	136	154	14000	6
55	70	86	103	121	139	158	14100	
56	72	88	106	124	142	162	14200	
57	74	91	108	126	146	165	14300	
59	75	93	111	130	149	169	14400	
60	77	95	114	133	153	174	14500	
62	79	97	116	136	157	178	14600	
64	81	100	119	140	161	182	14700	
65	84	103	122	143	165	187	14800	
67	86	105	126	147	169	192	14900	
69	88	108	129	151	173	196	15000	
71	90	111	132	155	178	202	15100	
73	93	114	136	159	182	207	15200	
75	95	117	140	163	187	213	15300	
77	98	120	143	167	192	219	15400	
79	101	124	147	172	198	225	15500	7
81	104	127	152	177	204	232	15600	
83	107	131	156	182	210	239	15700	
86	110	135	161	188	217	247	15800	
88	113	139	166	194	224	255	15900	
91	117	144	172	201	232	264	16000	
94	121	149	178	208	240	274	16100	
98	125	154	185	216	249	284	16200	
101	130	160	191	224	259	295	16300	
105	135	166	199	233	269	307	16400	
109	140	173	207	242	280	320	16500	8
114	146	179	215	252	292	334	16600	
118	152	187	224	263	306	351	16700	
123	158	195	234	276	322	371	16800	
128	165	204	246	292	341	394	16900	
134	173	215	261	310	363	421	17000	
141	183	229	277	330	389	454	17100	9
150	195	244	296	355	422	504	17200	
160	208	261	321	389	480		17300	
171	224	284	356				17400	
185	247	325					17500	
		9						

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

## LINE NUMBERS OF METEOROLOGICAL MESSAGE

LINE NO.	RANGE METERS	HEIGHT OF TARGET ABOVE GUN - METERS							
		-400	-300	-200	-100	0	100	200	300
7	17500	-136	-106	-73	-38	0	40	84	132
	17600	-144	-112	-78	-40	0	43	91	144
	17700	-154	-119	-83	-43	0	47	101	168
8	17800	-163	-127	-89	-47	0	53		
*****									
9	17800	-358	-258	-165	-79	0	68		
10	17700	-376	-273	-176	-85	0	77	143	194
	17600	-392	-286	-185	-90	0	83	158	223
	17500	-407	-298	-194	-94	0	88	170	244
	17400	-422	-309	-201	-98	0	93	179	260
	17300	-437	-320	-209	-102	0	97	188	273
	17200	-451	-331	-216	-105	0	101	196	286
	17100	-464	-341	-223	-109	0	104	203	298
	17000	-477	-351	-230	-113	0	108	211	308
	16900	-490	-361	-236	-116	0	111	218	319
	16800	-503	-370	-243	-119	0	115	225	329
	16700	-515	-380	-249	-122	0	118	231	340
	16600	-528	-390	-255	-125	0	121	237	349
	16500	-540	-399	-262	-129	0	124	244	359
	16400	-553	-408	-268	-132	0	127	250	368
	16300	-565	-417	-274	-135	0	130	256	377
	16200	-577	-426	-280	-138	0	134	262	387
	16100	-589	-435	-286	-141	0	136	269	396
	16000	-602	-445	-292	-144	0	140	275	405
	15900	-614	-454	-298	-147	0	142	281	414
	15800	-627	-463	-304	-150	0	146	287	423
	15700	-639	-473	-311	-153	0	148	293	432
	15600	-651	-482	-317	-156	0	152	298	441
	15500	-664	-491	-323	-159	0	155	305	450
	15400	-677	-500	-329	-162	0	158	311	459
	15300	-689	-510	-335	-165	0	161	317	468
	15200	-702	-520	-342	-168	0	164	323	477
	15100	-715	-529	-348	-172	0	167	329	486
	15000	-729	-539	-354	-175	0	170	335	495
10									

(U//FOUO)



CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO) LINE NUMBERS OF METEOROLOGICAL MESSAGE

HEIGHT OF TARGET ABOVE GUN - METERS							RANGE	LINE
400	500	600	700	800	900	1000	METERS	NO.
185	247	325					17500	9
207							17600 17700 17800	
*****	*****	*****	*****	*****	*****	*****	*****	
277							17800 17700 17600	
308	361	395					17500	
332	396	448	487				17400	
352	424	486	538	578			17300	
370	447	517	579	630	671	694	17200	
386	469	545	613	674	724	765	17100	
401	488	569	644	711	771	820	17000	10
415	507	592	672	745	811	869	16900	
429	524	614	698	776	848	912	16800	
443	542	635	723	806	882	952	16700	
456	558	655	747	834	915	989	16600	
469	575	675	771	861	946	1025	16500	
482	591	695	793	887	976	1059	16400	
494	606	713	816	913	1005	1092	16300	
506	622	732	838	938	1034	1124	16200	
519	637	750	859	963	1062	1156	16100	
531	652	769	881	988	1090	1187	16000	
543	667	787	902	1012	1117	1217	15900	
555	682	805	923	1036	1144	1248	15800	
567	697	823	944	1060	1171	1278	15700	
579	712	841	964	1083	1198	1307	15600	
591	727	858	985	1107	1224	1337	15500	
603	742	876	1006	1131	1251	1366	15400	
615	757	894	1026	1154	1277	1395	15300	
627	772	912	1047	1178	1304	1424	15200	
639	787	930	1068	1201	1330	1454	15100	
651	802	948	1089	1225	1356	1483	15000	
10								

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

## LINE NUMBERS OF METEOROLOGICAL MESSAGE

LINE NO.	RANGE METERS	HEIGHT OF TARGET ABOVE GUN - METERS							
		-400	-300	-200	-100	0	100	200	300
10	15000	-729	-539	-354	-175	0	170	335	495
	14900	-742	-549	-361	-178	0	173	341	505
	14800	-756	-559	-368	-181	0	176	348	514
	14700	-770	-569	-374	-185	0	179	354	523
	14600	-784	-580	-381	-188	0	183	360	533
11	14500	-798	-590	-388	-191	0	186	367	542
	14400	-812	-601	-395	-195	0	189	373	552
	14300	-827	-612	-402	-198	0	193	380	562
	14200	-842	-623	-409	-202	0	196	387	572
	14100	-858	-634	-416	-205	0	200	394	582
	14000	-873	-646	-424	-209	0	203	401	592
	13900	-889	-657	-432	-213	0	207	407	603
	13800	-906	-669	-439	-216	0	210	415	613
	13700	-923	-682	-448	-220	0	214	422	624
	13600	-940	-694	-456	-224	0	218	429	634
	13500	-958	-707	-464	-228	0	222	437	645
	13400	-977	-720	-472	-232	0	226	445	657
	13300	-996	-734	-481	-237	0	230	452	668
	13200	-1015	-748	-490	-241	0	234	460	680
	13100	-1035	-762	-499	-245	0	238	468	692
	13000	-1056	-778	-509	-250	0	242	477	704
	12900	-1078	-793	-519	-255	0	247	485	716
	12800	-1101	-809	-529	-260	0	251	494	729
	12700	-1125	-826	-540	-265	0	256	503	742
	12600	-1149	-843	-551	-270	0	261	512	755
	12500	-1174	-861	-562	-275	0	265	522	769
	12400	-1201	-880	-573	-281	0	271	531	783
	12300	-1229	-899	-586	-287	0	276	541	798
	12200	-1258	-919	-599	-293	0	281	552	812
	12100	-1288	-940	-611	-298	0	287	562	827
	12000	-1321	-962	-625	-305	0	293	573	843
	11900	-1355	-986	-640	-312	0	299	585	859
	11800		-1010	-654	-319	0	305	596	876
	11700		-1035	-669	-325	0	311	608	893
	11600		-1062	-685	-333	0	318	621	911
	11500			-702	-340	0	325	634	929
11									

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

LINE NUMBERS OF METEOROLOGICAL MESSAGE

HEIGHT OF TARGET ABOVE GUN - METERS							RANGE	LINE
400	500	600	700	800	900	1000	METERS	NO.
651	802	948	1089	1225	1356	1483	15000	10
663	817	966	1110	1249	1383	1512	14900	
676	832	984	1130	1272	1409	1542	14800	
688	848	1002	1152	1296	1436	1571	14700	
700	863	1021	1173	1320	1463	1601	14600	
713	878	1039	1194	1345	1490	1630	14500	
726	894	1058	1216	1369	1517	1660	14400	
739	910	1076	1238	1394	1544	1690	14300	
752	926	1096	1260	1419	1572	1721	14200	
765	942	1115	1282	1444	1600	1751	14100	
778	959	1134	1304	1469	1628	1782	14000	11
792	976	1154	1327	1494	1657	1813	13900	
806	993	1174	1350	1520	1685	1845	13800	
820	1010	1194	1373	1546	1714	1877	13700	
834	1027	1215	1397	1573	1743	1909	13600	
848	1045	1236	1420	1600	1773	1941	13500	
863	1063	1257	1445	1627	1803	1974	13400	
878	1081	1278	1469	1654	1834	2007	13300	
893	1100	1300	1494	1682	1865	2041	13200	
908	1118	1322	1520	1711	1896	2075	13100	
924	1138	1345	1545	1740	1928	2110	13000	
940	1157	1368	1572	1769	1960	2145	12900	
957	1177	1391	1598	1799	1993	2181	12800	
974	1198	1415	1625	1829	2026	2217	12700	
991	1219	1439	1653	1860	2060	2254	12600	
1008	1240	1464	1681	1892	2095	2292	12500	
1026	1262	1490	1710	1924	2130	2330	12400	
1045	1284	1516	1740	1956	2166	2369	12300	
1064	1307	1542	1770	1990	2203	2409	12200	
1083	1330	1570	1801	2024	2240	2449	12100	
1103	1355	1597	1832	2059	2278	2490	12000	
1124	1380	1626	1864	2095	2317	2532	11900	
1145	1405	1655	1897	2131	2357	2575	11800	
1167	1431	1685	1931	2168	2397	2619	11700	
1189	1458	1716	1966	2206	2439	2663	11600	
1213	1485	1748	2001	2246	2482	2709	11500	
11								

(U//FOUO)

COMPLEMENTARY RANGE  
LINE NUMBERCHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO)

## LINE NUMBERS OF METEOROLOGICAL MESSAGE

LINE	RANGE	HEIGHT OF TARGET ABOVE GUN - METERS							
NO.	METERS	-400	-300	-200	-100	0	100	200	300
11	11500			-702	-340	0	325	634	929
	11400			-721	-349	0	332	647	948
	11300			-740	-357	0	339	660	967
	11200			-760	-366	0	347	675	987
	11100				-375	0	355	689	1008
	11000				-386	0	363	705	1029
	10900				-396	0	372	720	1051
	10800					0	381	737	1075
	10700					0	391	755	1099
	10600					0	401	773	1124
	10500					0	411	792	1149
	10400						423	812	1176
	10300								
	11								

(U//FOUO)

CHANGE IN RANGE, IN METERS  
TO CORRECT FOR COMPLEMENTARY ANGLE OF SITE

(U//FOUO) LINE NUMBERS OF METEOROLOGICAL MESSAGE

HEIGHT OF TARGET ABOVE GUN - METERS							RANGE	L I N E
400	500	600	700	800	900	1000	METERS	NO.
1213	1485	1748	2001	2246	2482	2709	11500	11
1236	1514	1780	2038	2286	2525	2756	11400	
1261	1543	1814	2075	2327	2570	2804	11300	
1286	1573	1848	2113	2369	2615	2853	11200	
1312	1604	1883	2153	2412	2662	2903	11100	
1339	1635	1920	2193	2456	2710	2954	11000	
1367	1668	1957	2234	2501	2759	3006	10900	
1395	1702	1995	2277	2548	2809	3060	10800	
1425	1737	2035	2321	2596	2860	3115	10700	
1456	1773	2076	2366	2645	2913	3171	10600	
1488	1811	2118	2413	2696	2968	3229	10500	
1521	1849	2162	2461	2748	3023	3288	10400	
		2207	2511	2801	3081	3349	10300	
11								

(U//FOUO)

## WIND COMPONENTS

PROJ, HE, M795  
FUZE, PD, M739A1

(U//FOUO) COMPONENTS OF A ONE KNOT WIND

CHART DIRECTION OF WIND	CROSS WIND	RANGE WIND	CHART DIRECTION OF WIND	CROSS WIND	RANGE WIND
MIL	KNOT	KNOT	MIL	KNOT	KNOT
0	0	H1.00	3200	0	T1.00
100	R. 10	H. 99	3300	L. 10	T. 99
200	R. 20	H. 98	3400	L. 20	T. 98
300	R. 29	H. 96	3500	L. 29	T. 96
400	R. 38	H. 92	3600	L. 38	T. 92
500	R. 47	H. 88	3700	L. 47	T. 88
600	R. 56	H. 83	3800	L. 56	T. 83
700	R. 63	H. 77	3900	L. 63	T. 77
800	R. 71	H. 71	4000	L. 71	T. 71
900	R. 77	H. 63	4100	L. 77	T. 63
1000	R. 83	H. 56	4200	L. 83	T. 56
1100	R. 88	H. 47	4300	L. 88	T. 47
1200	R. 92	H. 38	4400	L. 92	T. 38
1300	R. 96	H. 29	4500	L. 96	T. 29
1400	R. 98	H. 20	4600	L. 98	T. 20
1500	R. 99	H. 10	4700	L. 99	T. 10
1600	R1.00	0	4800	L1.00	0
1700	R. 99	T. 10	4900	L. 99	H. 10
1800	R. 98	T. 20	5000	L. 98	H. 20
1900	R. 96	T. 29	5100	L. 96	H. 29
2000	R. 92	T. 38	5200	L. 92	H. 38
2100	R. 88	T. 47	5300	L. 88	H. 47
2200	R. 83	T. 56	5400	L. 83	H. 56
2300	R. 77	T. 63	5500	L. 77	H. 63
2400	R. 71	T. 71	5600	L. 71	H. 71
2500	R. 63	T. 77	5700	L. 63	H. 77
2600	R. 56	T. 83	5800	L. 56	H. 83
2700	R. 47	T. 88	5900	L. 47	H. 88
2800	R. 38	T. 92	6000	L. 38	H. 92
2900	R. 29	T. 96	6100	L. 29	H. 96
3000	R. 20	T. 98	6200	L. 20	H. 98
3100	R. 10	T. 99	6300	L. 10	H. 99
3200	0	T1.00	6400	0	H1.00

(U//FOUO)

(U//FOUO)

NOTE - FOR A COMPLETE EXPLANATION OF THE USE OF THIS TABLE, SEE PARAGRAPH 12, EXPLANATION OF COMPONENTS OF A ONE KNOT WIND.

CORRECTIONS TO TEMPERATURE (DT) AND DENSITY (DD), IN PERCENT,  
TO COMPENSATE FOR THE DIFFERENCE IN ALTITUDE,  
(U//FOUO) IN METERS, BETWEEN THE BATTERY AND THE MDP

DH		0	+10-	+20-	+30-	+40-	+50-	+60-	+70-	+80-	+90-
0	DT	0.0	0.0	0.0	-0.1+	-0.1+	-0.1+	-0.1+	-0.2+	-0.2+	-0.2+
	DD	0.0	-0.1+	-0.2+	-0.3+	-0.4+	-0.5+	-0.6+	-0.7+	-0.8+	-0.9+
+100-	DT	-0.2+	-0.2+	-0.2+	-0.3+	-0.3+	-0.3+	-0.3+	-0.4+	-0.4+	-0.4+
	DD	-1.0+	-1.1+	-1.2+	-1.3+	-1.4+	-1.5+	-1.6+	-1.7+	-1.8+	-1.9+
+200-	DT	-0.5+	-0.5+	-0.5+	-0.6+	-0.6+	-0.6+	-0.6+	-0.7+	-0.7+	-0.7+
	DD	-2.0+	-2.1+	-2.2+	-2.3+	-2.4+	-2.5+	-2.6+	-2.7+	-2.8+	-2.9+
+300-	DT	-0.7+	-0.7+	-0.7+	-0.8+	-0.8+	-0.8+	-0.8+	-0.9+	-0.9+	-0.9+
	DD	-3.0+	-3.1+	-3.2+	-3.3+	-3.4+	-3.5+	-3.6+	-3.7+	-3.8+	-3.9+

(U//FOUO)

- (U//FOUO) NOTES - 1. DH IS BATTERY HEIGHT ABOVE OR BELOW THE MDP.  
2. IF ABOVE THE MDP, USE THE SIGN BEFORE THE NUMBER.  
3. IF BELOW THE MDP, USE THE SIGN AFTER THE NUMBER.

(U//FOUO) TABLE E

PROPELLANT TEMPERATURE  
(U//FOUO)  
EFFECTS ON MUZZLE VELOCITY DUE TO PROPELLANT TEMPERATURE

TEMPERATURE OF PROPELLANT  DEGREES F	EFFECT ON VELOCITY  M/S	TEMPERATURE OF PROPELLANT  DEGREES C
-40 -30 -20 -10	-19.7 -18.0 -16.3 -14.5	-40.0 -34.4 -28.9 -23.3
0	-12.8	-17.8
10 20 30 40	-11.0 -9.2 -7.4 -5.6	-12.2 -6.7 -1.1 4.4
50	-3.8	10.0
60 70 80 90	-1.9 0.0 1.9 3.8	15.6 21.1 26.7 32.2
100	5.8	37.8
110 120 130	7.8 9.7 11.8	43.3 48.9 54.4

(U//FOUO)

(U//FOUO)

1	2	3	4	5	6	7	8	9
R A N G E	E L E V	FS FOR GRAZE BURST  FUZE M582	DFS PER 10 M DEC HOB	DR PER 1 MIL D ELEV	F O R K	TIME OF FLIGHT	AZIMUTH CORRECTIONS	
							DRIFT (CORR TO L)	CW OF 1 KNOT
M	MIL			M	MIL	SEC	MIL	MIL
0	0.0			86	1	0.0	0.0	0.00
100	1.2			86	1	0.2	0.0	0.00
200	2.4			86	1	0.3	0.1	0.01
300	3.5			85	1	0.5	0.1	0.01
400	4.7			84	1	0.6	0.1	0.01
500	5.9			83	1	0.8	0.2	0.02
600	7.1			82	1	0.9	0.2	0.02
700	8.3			82	1	1.1	0.2	0.02
800	9.6			80	1	1.3	0.3	0.02
900	10.8			80	1	1.4	0.3	0.03
1000	12.1			79	1	1.6	0.3	0.03
1100	13.4			78	1	1.7	0.4	0.03
1200	14.7	1.9	1.08	77	1	1.9	0.4	0.04
1300	16.0	2.1	0.99	76	1	2.1	0.5	0.04
1400	17.3	2.2	0.92	76	1	2.2	0.5	0.04
1500	18.6	2.4	0.85	75	1	2.4	0.5	0.05
1600	19.9	2.6	0.80	74	1	2.6	0.6	0.05
1700	21.3	2.8	0.75	73	1	2.8	0.6	0.05
1800	22.7	2.9	0.71	72	1	2.9	0.7	0.06
1900	24.1	3.1	0.67	72	1	3.1	0.7	0.06
2000	25.5	3.3	0.63	71	1	3.3	0.7	0.06
2100	26.9	3.5	0.60	70	1	3.5	0.8	0.07
2200	28.3	3.6	0.57	69	1	3.6	0.8	0.07
2300	29.8	3.8	0.55	69	1	3.8	0.9	0.07
2400	31.2	4.0	0.52	68	1	4.0	0.9	0.08
2500	32.7	4.2	0.50	67	1	4.2	1.0	0.08
2600	34.2	4.4	0.48	66	1	4.4	1.0	0.08
2700	35.7	4.6	0.46	66	1	4.6	1.0	0.09
2800	37.2	4.7	0.44	65	1	4.7	1.1	0.09
2900	38.8	4.9	0.43	64	1	4.9	1.1	0.09
3000	40.3	5.1	0.41	64	1	5.1	1.2	0.10
3100	41.9	5.3	0.40	63	1	5.3	1.2	0.10
3200	43.5	5.5	0.38	62	1	5.5	1.3	0.11
3300	45.1	5.7	0.37	61	1	5.7	1.3	0.11
3400	46.8	5.9	0.36	61	1	5.9	1.4	0.11
3500	48.4	6.1	0.35	60	1	6.1	1.4	0.12

(U//FOUO)



CORRECTION FACTORS

(U//FOUO)

1	10	11	12	13	14	15	16	17	18	19
R A N G E	RANGE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
	M	M	M	M	M	M	M	M	M	M
0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0
100	0.3	-0.3	0.0	0.0	0.0	0.0	0.0	0.0	-1	1
200	0.6	-0.6	0.0	0.0	0.0	0.0	0.0	0.0	-1	1
300	0.9	-0.9	0.0	0.0	0.0	0.0	0.0	0.0	-2	2
400	1.2	-1.2	0.0	0.0	0.0	0.0	0.0	0.1	-3	3
500	1.5	-1.5	0.0	0.0	0.0	0.0	-0.1	0.1	-3	3
600	1.8	-1.8	0.0	0.0	0.0	0.0	-0.1	0.2	-4	4
700	2.1	-2.0	0.0	0.0	-0.1	0.0	-0.2	0.3	-4	4
800	2.4	-2.3	0.0	0.0	-0.1	0.1	-0.3	0.3	-5	5
900	2.7	-2.6	0.0	0.0	-0.1	0.1	-0.4	0.4	-5	6
1000	3.0	-2.9	0.0	0.0	-0.1	0.1	-0.5	0.5	-6	6
1100	3.3	-3.2	0.1	-0.1	-0.1	0.1	-0.6	0.6	-7	7
1200	3.6	-3.4	0.1	-0.1	-0.2	0.1	-0.7	0.7	-7	7
1300	3.9	-3.7	0.1	-0.1	-0.2	0.2	-0.8	0.8	-7	8
1400	4.1	-4.0	0.1	-0.1	-0.2	0.2	-0.9	0.9	-8	8
1500	4.4	-4.2	0.1	-0.1	-0.3	0.2	-1.1	1.1	-8	9
1600	4.7	-4.5	0.1	-0.1	-0.3	0.3	-1.2	1.2	-9	9
1700	5.0	-4.8	0.1	-0.1	-0.3	0.3	-1.4	1.4	-9	9
1800	5.2	-5.0	0.2	-0.2	-0.4	0.3	-1.6	1.6	-10	10
1900	5.5	-5.3	0.2	-0.2	-0.4	0.4	-1.7	1.8	-10	10
2000	5.8	-5.5	0.2	-0.2	-0.5	0.4	-1.9	1.9	-10	11
2100	6.0	-5.8	0.2	-0.2	-0.5	0.5	-2.1	2.1	-11	11
2200	6.3	-6.0	0.2	-0.2	-0.6	0.5	-2.3	2.4	-11	11
2300	6.5	-6.3	0.3	-0.3	-0.6	0.5	-2.5	2.6	-11	12
2400	6.8	-6.5	0.3	-0.3	-0.7	0.6	-2.8	2.8	-12	12
2500	7.1	-6.8	0.3	-0.3	-0.7	0.6	-3.0	3.0	-12	12
2600	7.3	-7.0	0.3	-0.3	-0.8	0.7	-3.2	3.3	-12	13
2700	7.6	-7.3	0.4	-0.4	-0.8	0.7	-3.5	3.5	-13	13
2800	7.8	-7.5	0.4	-0.4	-0.9	0.8	-3.7	3.8	-13	13
2900	8.0	-7.8	0.4	-0.4	-1.0	0.9	-4.0	4.1	-13	14
3000	8.3	-8.0	0.5	-0.5	-1.0	0.9	-4.3	4.4	-13	14
3100	8.5	-8.2	0.5	-0.5	-1.1	1.0	-4.6	4.7	-14	14
3200	8.8	-8.5	0.5	-0.5	-1.2	1.0	-4.8	5.0	-14	14
3300	9.0	-8.7	0.6	-0.6	-1.2	1.1	-5.1	5.3	-14	14
3400	9.2	-8.9	0.6	-0.6	-1.3	1.2	-5.5	5.6	-14	15
3500	9.5	-9.1	0.7	-0.6	-1.4	1.2	-5.8	5.9	-14	15

(U//FOUO)

## BASIC DATA

PROJ, HE, M795  
FUZE, PD, M739A1

(U//FOUO)

1	2	3	4	5	6	7	8	9
R A N G E	E L E V	FS FOR GRAZE BURST	DFS PER 10 M DEC HOB	DR PER 1 MIL D ELEV	F O R K	TIME OF FLIGHT	AZIMUTH CORRECTIONS	
		FUZE M582					DRIFT (CORR TO L)	CW OF 1 KNOT
M	MIL			M	MIL	SEC	MIL	MIL
3500	48.4	6.1	0.35	60	1	6.1	1.4	0.12
3600	50.1	6.3	0.34	59	1	6.3	1.5	0.12
3700	51.8	6.5	0.33	59	1	6.5	1.5	0.12
3800	53.5	6.7	0.32	58	1	6.7	1.6	0.13
3900	55.2	6.9	0.31	57	1	6.9	1.6	0.13
4000	57.0	7.1	0.30	57	1	7.1	1.7	0.14
4100	58.8	7.3	0.29	56	1	7.3	1.8	0.14
4200	60.6	7.6	0.28	55	1	7.6	1.8	0.14
4300	62.4	7.8	0.27	55	1	7.8	1.9	0.15
4400	64.2	8.0	0.27	54	1	8.0	1.9	0.15
4500	66.1	8.2	0.26	53	1	8.2	2.0	0.16
4600	68.0	8.4	0.25	53	1	8.4	2.0	0.16
4700	69.9	8.6	0.25	52	1	8.6	2.1	0.16
4800	71.8	8.9	0.24	52	1	8.9	2.2	0.17
4900	73.7	9.1	0.24	51	1	9.1	2.2	0.17
5000	75.7	9.3	0.23	50	1	9.3	2.3	0.18
5100	77.7	9.5	0.23	50	1	9.5	2.3	0.18
5200	79.7	9.8	0.22	49	2	9.8	2.4	0.19
5300	81.8	10.0	0.22	49	2	10.0	2.5	0.19
5400	83.9	10.2	0.21	48	2	10.2	2.5	0.19
5500	85.9	10.5	0.21	47	2	10.5	2.6	0.20
5600	88.1	10.7	0.20	47	2	10.7	2.7	0.20
5700	90.2	11.0	0.20	46	2	11.0	2.7	0.21
5800	92.4	11.2	0.19	46	2	11.2	2.8	0.21
5900	94.6	11.5	0.19	45	2	11.5	2.9	0.22
6000	96.8	11.7	0.19	45	2	11.7	3.0	0.22
6100	99.1	11.9	0.18	44	2	11.9	3.0	0.22
6200	101.4	12.2	0.18	43	2	12.2	3.1	0.23
6300	103.7	12.5	0.18	43	2	12.5	3.2	0.23
6400	106.1	12.7	0.17	42	2	12.7	3.3	0.24
6500	108.4	13.0	0.17	42	2	13.0	3.3	0.24
6600	110.8	13.2	0.17	41	2	13.2	3.4	0.25
6700	113.3	13.5	0.16	41	2	13.5	3.5	0.25
6800	115.8	13.8	0.16	40	2	13.8	3.6	0.26
6900	118.3	14.0	0.16	40	2	14.0	3.6	0.26
7000	120.8	14.3	0.15	39	2	14.3	3.7	0.27

(U//FOUO)

(U//FOUO)

1	10	11	12	13	14	15	16	17	18	19
R A N G E	RANGE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
M	M	M	M	M	M	M	M	M	M	M
3500	9.5	-9.1	0.7	-0.6	-1.4	1.2	-5.8	5.9	-14	15
3600	9.7	-9.4	0.7	-0.7	-1.5	1.3	-6.1	6.3	-14	15
3700	9.9	-9.6	0.7	-0.7	-1.5	1.4	-6.4	6.6	-15	15
3800	10.2	-9.8	0.8	-0.7	-1.6	1.5	-6.8	7.0	-15	15
3900	10.4	-10.0	0.8	-0.8	-1.7	1.6	-7.1	7.4	-15	15
4000	10.6	-10.2	0.9	-0.8	-1.8	1.6	-7.5	7.7	-15	15
4100	10.8	-10.4	0.9	-0.9	-1.9	1.7	-7.8	8.1	-15	15
4200	11.0	-10.7	1.0	-0.9	-2.0	1.8	-8.2	8.5	-15	16
4300	11.2	-10.9	1.0	-1.0	-2.1	1.9	-8.6	8.9	-15	16
4400	11.5	-11.1	1.1	-1.0	-2.2	2.0	-9.0	9.3	-15	16
4500	11.7	-11.3	1.1	-1.1	-2.3	2.0	-9.4	9.7	-15	16
4600	11.9	-11.5	1.2	-1.1	-2.4	2.1	-9.8	10.2	-15	16
4700	12.1	-11.7	1.2	-1.2	-2.5	2.2	-10.2	10.6	-15	16
4800	12.3	-11.9	1.3	-1.2	-2.6	2.3	-10.6	11.1	-15	16
4900	12.5	-12.1	1.3	-1.3	-2.7	2.4	-11.1	11.5	-15	16
5000	12.7	-12.3	1.4	-1.3	-2.8	2.5	-11.5	12.0	-15	16
5100	12.9	-12.5	1.5	-1.4	-2.9	2.6	-12.0	12.5	-15	16
5200	13.1	-12.7	1.5	-1.4	-3.0	2.7	-12.4	12.9	-15	16
5300	13.3	-12.9	1.6	-1.5	-3.1	2.8	-12.9	13.4	-15	16
5400	13.5	-13.1	1.6	-1.5	-3.2	2.9	-13.3	13.9	-15	15
5500	13.7	-13.2	1.7	-1.6	-3.3	3.0	-13.8	14.4	-15	15
5600	13.9	-13.4	1.8	-1.7	-3.4	3.1	-14.3	15.0	-14	15
5700	14.1	-13.6	1.9	-1.7	-3.6	3.2	-14.8	15.5	-14	15
5800	14.2	-13.8	1.9	-1.8	-3.7	3.3	-15.3	16.0	-14	15
5900	14.4	-14.0	2.0	-1.9	-3.8	3.5	-15.8	16.6	-14	15
6000	14.6	-14.2	2.1	-1.9	-3.9	3.6	-16.3	17.1	-14	15
6100	14.8	-14.3	2.2	-2.0	-4.0	3.7	-16.8	17.7	-14	15
6200	15.0	-14.5	2.2	-2.1	-4.2	3.8	-17.4	18.2	-13	14
6300	15.1	-14.7	2.3	-2.1	-4.3	3.9	-17.9	18.8	-13	14
6400	15.3	-14.9	2.4	-2.2	-4.4	4.0	-18.4	19.4	-13	14
6500	15.5	-15.0	2.5	-2.3	-4.5	4.1	-19.0	20.0	-13	14
6600	15.7	-15.2	2.6	-2.4	-4.7	4.3	-19.5	20.6	-12	14
6700	15.8	-15.4	2.6	-2.4	-4.8	4.4	-20.1	21.2	-12	13
6800	16.0	-15.6	2.7	-2.5	-4.9	4.5	-20.7	21.8	-12	13
6900	16.2	-15.7	2.8	-2.6	-5.1	4.6	-21.3	22.4	-12	13
7000	16.4	-15.9	2.9	-2.7	-5.2	4.7	-21.8	23.0	-11	13

(U//FOUO)

## BASIC DATA

PROJ, HE, M795  
FUZE, PD, M739A1

(U//FOUO)

1	2	3	4	5	6	7	8	9
R A N G E	E L E V	FS FOR GRAZE BURST  FUZE M582	DFS PER 10 M DEC HOB	DR PER 1 MIL D ELEV	F O R K	TIME OF FLIGHT	AZIMUTH CORRECTIONS	
							DRIFT (CORR TO L)	CW OF 1 KNOT
M	MIL			M	MIL	SEC	MIL	MIL
7000	120.8	14.3	0.15	39	2	14.3	3.7	0.27
7100	123.4	14.6	0.15	39	2	14.6	3.8	0.27
7200	126.0	14.9	0.15	38	2	14.9	3.9	0.28
7300	128.6	15.1	0.15	38	2	15.1	4.0	0.28
7400	131.3	15.4	0.14	37	2	15.4	4.1	0.29
7500	134.0	15.7	0.14	37	3	15.7	4.2	0.29
7600	136.7	16.0	0.14	36	3	16.0	4.3	0.30
7700	139.5	16.3	0.14	36	3	16.3	4.3	0.30
7800	142.3	16.6	0.13	35	3	16.6	4.4	0.31
7900	145.2	16.9	0.13	35	3	16.9	4.5	0.31
8000	148.1	17.2	0.13	34	3	17.2	4.6	0.32
8100	151.0	17.5	0.13	34	3	17.5	4.7	0.32
8200	154.0	17.8	0.12	33	3	17.8	4.8	0.33
8300	157.0	18.1	0.12	33	3	18.1	4.9	0.33
8400	160.1	18.4	0.12	33	3	18.4	5.0	0.34
8500	163.1	18.7	0.12	32	3	18.7	5.1	0.34
8600	166.3	19.0	0.12	32	3	19.0	5.2	0.35
8700	169.4	19.3	0.11	31	3	19.3	5.3	0.35
8800	172.6	19.6	0.11	31	3	19.6	5.4	0.36
8900	175.9	19.9	0.11	31	3	19.9	5.5	0.36
9000	179.2	20.3	0.11	30	4	20.3	5.7	0.37
9100	182.5	20.6	0.11	30	4	20.6	5.8	0.37
9200	185.9	20.9	0.11	30	4	20.9	5.9	0.38
9300	189.3	21.2	0.10	29	4	21.2	6.0	0.38
9400	192.7	21.6	0.10	29	4	21.6	6.1	0.39
9500	196.2	21.9	0.10	28	4	21.9	6.2	0.39
9600	199.7	22.2	0.10	28	4	22.2	6.3	0.40
9700	203.3	22.6	0.10	28	4	22.6	6.5	0.40
9800	206.9	22.9	0.10	28	4	22.9	6.6	0.41
9900	210.6	23.2	0.09	27	4	23.2	6.7	0.41
10000	214.3	23.6	0.09	27	4	23.6	6.8	0.42
10100	218.0	23.9	0.09	27	4	23.9	7.0	0.42
10200	221.8	24.3	0.09	26	4	24.3	7.1	0.43
10300	225.6	24.6	0.09	26	5	24.6	7.2	0.43
10400	229.5	25.0	0.09	26	5	25.0	7.3	0.44
10500	233.4	25.3	0.09	25	5	25.3	7.5	0.44

(U//FOUO)

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1	10	11	12	13	14	15	16	17	18	19
R A N G E	RANGE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
M	M	M	M	M	M	M	M	M	M	M
7000	16.4	-15.9	2.9	-2.7	-5.2	4.7	-21.8	23.0	-11	13
7100	16.5	-16.0	3.0	-2.7	-5.3	4.8	-22.4	23.6	-11	12
7200	16.7	-16.2	3.1	-2.8	-5.5	5.0	-23.0	24.2	-11	12
7300	16.8	-16.4	3.2	-2.9	-5.6	5.1	-23.6	24.9	-10	12
7400	17.0	-16.5	3.3	-3.0	-5.8	5.2	-24.2	25.5	-10	12
7500	17.2	-16.7	3.4	-3.1	-5.9	5.3	-24.9	26.1	-10	11
7600	17.3	-16.8	3.5	-3.2	-6.0	5.4	-25.5	26.8	-9	11
7700	17.5	-17.0	3.6	-3.3	-6.2	5.5	-26.1	27.4	-9	11
7800	17.6	-17.2	3.7	-3.4	-6.3	5.5	-26.7	28.1	-9	10
7900	17.8	-17.3	3.8	-3.5	-6.5	5.6	-27.4	28.7	-8	10
8000	17.9	-17.5	4.0	-3.6	-6.6	5.7	-28.0	29.3	-8	10
8100	18.1	-17.6	4.1	-3.7	-6.7	5.7	-28.6	29.9	-8	9
8200	18.2	-17.8	4.2	-3.8	-6.9	5.8	-29.3	30.6	-7	9
8300	18.4	-17.9	4.3	-3.9	-7.0	5.8	-30.0	31.2	-7	9
8400	18.5	-18.0	4.4	-4.0	-7.1	5.9	-30.6	31.8	-6	8
8500	18.7	-18.2	4.6	-4.1	-7.2	5.9	-31.3	32.4	-6	8
8600	18.8	-18.3	4.7	-4.2	-7.3	5.9	-31.9	33.0	-6	7
8700	18.9	-18.5	4.8	-4.3	-7.4	5.9	-32.6	33.6	-5	7
8800	19.1	-18.6	5.0	-4.4	-7.5	5.9	-33.2	34.2	-5	7
8900	19.2	-18.7	5.1	-4.5	-7.6	5.9	-33.9	34.8	-5	6
9000	19.3	-18.9	5.2	-4.6	-7.7	5.8	-34.5	35.4	-4	6
9100	19.5	-19.0	5.4	-4.7	-7.7	5.8	-35.2	36.0	-4	6
9200	19.6	-19.1	5.5	-4.9	-7.8	5.8	-35.9	36.6	-3	5
9300	19.7	-19.3	5.7	-5.0	-7.8	5.7	-36.5	37.1	-3	5
9400	19.9	-19.4	5.8	-5.1	-7.9	5.6	-37.2	37.7	-3	5
9500	20.0	-19.5	6.0	-5.2	-7.9	5.6	-37.8	38.3	-2	4
9600	20.1	-19.7	6.1	-5.4	-7.9	5.5	-38.5	38.9	-2	4
9700	20.2	-19.8	6.3	-5.5	-7.9	5.4	-39.1	39.4	-1	4
9800	20.3	-19.9	6.4	-5.6	-7.9	5.3	-39.7	40.0	-1	3
9900	20.5	-20.0	6.6	-5.7	-7.9	5.2	-40.4	40.5	-1	3
10000	20.6	-20.2	6.8	-5.9	-7.8	5.0	-41.0	41.1	0	2
10100	20.7	-20.3	6.9	-6.0	-7.8	4.9	-41.6	41.6	0	2
10200	20.8	-20.4	7.1	-6.2	-7.7	4.8	-42.3	42.1	0	2
10300	20.9	-20.5	7.3	-6.3	-7.7	4.6	-42.9	42.7	1	1
10400	21.0	-20.6	7.4	-6.4	-7.6	4.5	-43.5	43.2	1	1
10500	21.1	-20.8	7.6	-6.6	-7.5	4.3	-44.1	43.7	1	1

(U//FOUO)

## BASIC DATA

PROJ, HE, M795  
FUZE, PD, M739A1

(U//FOUO)

1	2	3	4	5	6	7	8	9
R A N G E	E L E V	FS FOR GRAZE BURST	DFS PER 10 M DEC HOB	DR PER 1 MIL D ELEV	F O R K	TIME OF FLIGHT	AZIMUTH CORRECTIONS	
		FUZE M582					DRIFT (CORR TO L)	CW OF 1 KNOT
M	MIL			M	MIL	SEC	MIL	MIL
10500	233.4	25.3	0.09	25	5	25.3	7.5	0.44
10600	237.3	25.7	0.08	25	5	25.7	7.6	0.45
10700	241.3	26.0	0.08	25	5	26.0	7.7	0.45
10800	245.4	26.4	0.08	25	5	26.4	7.9	0.46
10900	249.4	26.7	0.08	24	5	26.7	8.0	0.46
11000	253.6	27.1	0.08	24	5	27.1	8.1	0.47
11100	257.7	27.5	0.08	24	5	27.5	8.3	0.47
11200	261.9	27.8	0.08	24	5	27.8	8.4	0.48
11300	266.2	28.2	0.08	23	5	28.2	8.6	0.48
11400	270.5	28.6	0.08	23	5	28.6	8.7	0.49
11500	274.8	28.9	0.07	23	6	28.9	8.9	0.49
11600	279.2	29.3	0.07	23	6	29.3	9.0	0.49
11700	283.7	29.7	0.07	22	6	29.7	9.2	0.50
11800	288.2	30.1	0.07	22	6	30.1	9.3	0.50
11900	292.7	30.5	0.07	22	6	30.5	9.5	0.51
12000	297.3	30.8	0.07	22	6	30.8	9.6	0.51
12100	301.9	31.2	0.07	21	6	31.2	9.8	0.52
12200	306.6	31.6	0.07	21	6	31.6	9.9	0.52
12300	311.3	32.0	0.07	21	6	32.0	10.1	0.53
12400	316.1	32.4	0.07	21	6	32.4	10.3	0.53
12500	320.9	32.8	0.07	21	7	32.8	10.4	0.53
12600	325.8	33.2	0.07	20	7	33.2	10.6	0.54
12700	330.7	33.6	0.06	20	7	33.6	10.8	0.54
12800	335.7	34.0	0.06	20	7	34.0	11.0	0.55
12900	340.7	34.4	0.06	20	7	34.4	11.1	0.55
13000	345.8	34.8	0.06	20	7	34.8	11.3	0.56
13100	351.0	35.2	0.06	19	7	35.2	11.5	0.56
13200	356.2	35.7	0.06	19	7	35.7	11.7	0.56
13300	361.5	36.1	0.06	19	8	36.1	11.9	0.57
13400	366.8	36.5	0.06	19	8	36.5	12.1	0.57
13500	372.2	36.9	0.06	18	8	36.9	12.3	0.58
13600	377.6	37.4	0.06	18	8	37.4	12.5	0.58
13700	383.1	37.8	0.06	18	8	37.8	12.7	0.59
13800	388.7	38.2	0.06	18	8	38.2	12.9	0.59
13900	394.4	38.7	0.06	18	8	38.7	13.1	0.59
14000	400.1	39.1	0.06	17	8	39.1	13.3	0.60

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1	10	11	12	13	14	15	16	17	18	19
R A N G E	RANGE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
M	M	M	M	M	M	M	M	M	M	M
10500	21.1	-20.8	7.6	-6.6	-7.5	4.3	-44.1	43.7	1	1
10600	21.3	-20.9	7.8	-6.7	-7.4	4.2	-44.7	44.3	2	0
10700	21.4	-21.0	8.0	-6.9	-7.3	4.0	-45.3	44.8	2	0
10800	21.5	-21.1	8.2	-7.0	-7.2	3.8	-45.9	45.3	3	0
10900	21.6	-21.2	8.4	-7.2	-7.1	3.6	-46.5	45.8	3	-1
11000	21.7	-21.3	8.5	-7.3	-6.9	3.4	-47.1	46.3	3	-1
11100	21.8	-21.4	8.7	-7.5	-6.8	3.2	-47.7	46.8	4	-1
11200	21.9	-21.6	8.9	-7.6	-6.6	3.0	-48.3	47.3	4	-2
11300	22.0	-21.7	9.1	-7.8	-6.5	2.8	-48.9	47.8	4	-2
11400	22.1	-21.8	9.3	-7.9	-6.3	2.5	-49.5	48.3	5	-2
11500	22.2	-21.9	9.5	-8.1	-6.1	2.3	-50.0	48.8	5	-3
11600	22.3	-22.0	9.7	-8.3	-5.9	2.1	-50.6	49.3	5	-3
11700	22.4	-22.1	9.9	-8.4	-5.7	1.8	-51.2	49.8	6	-3
11800	22.5	-22.2	10.1	-8.6	-5.5	1.6	-51.8	50.3	6	-4
11900	22.6	-22.3	10.3	-8.7	-5.3	1.3	-52.3	50.8	6	-4
12000	22.7	-22.4	10.6	-8.9	-5.0	1.0	-52.9	51.2	7	-4
12100	22.8	-22.5	10.8	-9.1	-4.8	0.8	-53.4	51.7	7	-4
12200	22.9	-22.6	11.0	-9.2	-4.5	0.5	-54.0	52.2	7	-5
12300	23.0	-22.7	11.2	-9.4	-4.3	0.2	-54.5	52.7	7	-5
12400	23.1	-22.8	11.4	-9.6	-4.0	-0.1	-55.1	53.1	8	-5
12500	23.2	-22.9	11.6	-9.8	-3.7	-0.4	-55.6	53.6	8	-6
12600	23.3	-23.0	11.9	-9.9	-3.4	-0.7	-56.1	54.1	8	-6
12700	23.4	-23.1	12.1	-10.1	-3.1	-1.0	-56.7	54.6	9	-6
12800	23.5	-23.2	12.3	-10.3	-2.8	-1.3	-57.2	55.0	9	-6
12900	23.6	-23.3	12.6	-10.5	-2.5	-1.6	-57.7	55.5	9	-7
13000	23.7	-23.4	12.8	-10.6	-2.2	-1.9	-58.3	56.0	10	-7
13100	23.8	-23.5	13.0	-10.8	-1.8	-2.2	-58.8	56.4	10	-7
13200	23.9	-23.5	13.3	-11.0	-1.5	-2.5	-59.3	56.9	10	-8
13300	24.0	-23.6	13.5	-11.2	-1.1	-2.9	-59.8	57.4	11	-8
13400	24.1	-23.7	13.8	-11.4	-0.8	-3.2	-60.3	57.8	11	-8
13500	24.2	-23.8	14.0	-11.5	-0.4	-3.5	-60.8	58.3	11	-8
13600	24.3	-23.9	14.3	-11.7	0.0	-3.9	-61.3	58.8	12	-9
13700	24.4	-24.0	14.5	-11.9	0.3	-4.2	-61.8	59.2	12	-9
13800	24.5	-24.1	14.8	-12.1	0.7	-4.6	-62.3	59.7	12	-9
13900	24.6	-24.2	15.1	-12.3	1.1	-4.9	-62.8	60.1	12	-9
14000	24.7	-24.3	15.3	-12.5	1.6	-5.3	-63.3	60.6	13	-10

(U//FOUO)

## BASIC DATA

PROJ, HE, M795  
FUZE, PD, M739A1

(U//FOUO)

1	2	3	4	5	6	7	8	9
R A N G E	E L E V	FS FOR GRAZE BURST	DFS PER 10 M DEC HOB	DR PER 1 MIL D ELEV	F O R K	TIME OF FLIGHT	AZIMUTH CORRECTIONS	
		FUZE M582					DRIFT (CORR TO L)	CW OF 1 KNOT
M	MIL			M	MIL	SEC	MIL	MIL
14000	400.1	39.1	0.06	17	8	39.1	13.3	0.60
14100	405.9	39.6	0.05	17	9	39.6	13.5	0.60
14200	411.7	40.0	0.05	17	9	40.0	13.7	0.61
14300	417.6	40.5	0.05	17	9	40.5	13.9	0.61
14400	423.7	40.9	0.05	17	9	40.9	14.2	0.62
14500	429.7	41.4	0.05	16	9	41.4	14.4	0.62
14600	435.9	41.9	0.05	16	9	41.9	14.6	0.62
14700	442.2	42.4	0.05	16	10	42.4	14.9	0.63
14800	448.5	42.8	0.05	16	10	42.8	15.1	0.63
14900	455.0	43.3	0.05	15	10	43.3	15.4	0.64
15000	461.5	43.8	0.05	15	10	43.8	15.6	0.64
15100	468.2	44.3	0.05	15	10	44.3	15.9	0.65
15200	474.9	44.8	0.05	15	11	44.8	16.2	0.65
15300	481.8	45.4	0.05	14	11	45.4	16.4	0.65
15400	488.7	45.9	0.05	14	11	45.9	16.7	0.66
15500	495.8	46.4	0.05	14	11	46.4	17.0	0.66
15600	503.0	46.9	0.05	14	12	46.9	17.3	0.67
15700	510.4	47.5	0.05	13	12	47.5	17.6	0.67
15800	517.9	48.0	0.05	13	12	48.0	17.9	0.68
15900	525.6	48.6	0.05	13	12	48.6	18.2	0.68
16000	533.4	49.2	0.05	13	13	49.2	18.6	0.69
16100	541.4	49.8	0.04	12	13	49.8	18.9	0.69
16200	549.6	50.4	0.04	12	13	50.4	19.2	0.70
16300	557.9	51.0	0.04	12	14	51.0	19.6	0.70
16400	566.6	51.6	0.04	11	14	51.6	20.0	0.70
16500	575.4	52.2	0.04	11	15	52.2	20.4	0.71
16600	584.6	52.9	0.04	11	15	52.9	20.8	0.71
16700	594.1	53.6	0.04	10	16	53.6	21.2	0.72
16800	603.9	54.3	0.04	10	17	54.3	21.7	0.73
16900	614.2	55.0	0.04	10	18	55.0	22.2	0.73
17000	624.9	55.8	0.04	9	19	55.8	22.7	0.74
17100	636.1	56.6	0.04	9	20	56.6	23.3	0.74
17200	648.0	57.4	0.04	8	21	57.4	23.9	0.75
17300	660.6	58.3	0.04	8	23	58.3	24.5	0.76
17400	674.3	59.3	0.04	7	25	59.3	25.2	0.76
17500	689.4	60.3	0.04	6	28	60.3	26.1	0.77

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1	10	11	12	13	14	15	16	17	18	19
R A N G E	RANGE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
	M	M	M	M	M	M	M	M	M	M
14000	24.7	-24.3	15.3	-12.5	1.6	-5.3	-63.3	60.6	13	-10
14100	24.8	-24.4	15.6	-12.7	2.0	-5.7	-63.8	61.1	13	-10
14200	24.9	-24.4	15.9	-12.9	2.4	-6.0	-64.3	61.5	13	-10
14300	25.0	-24.5	16.1	-13.1	2.8	-6.4	-64.8	62.0	14	-11
14400	25.0	-24.6	16.4	-13.3	3.3	-6.8	-65.3	62.5	14	-11
14500	25.1	-24.7	16.7	-13.5	3.7	-7.1	-65.7	63.0	14	-11
14600	25.2	-24.8	17.0	-13.7	4.2	-7.5	-66.2	63.5	15	-11
14700	25.3	-24.9	17.3	-13.9	4.6	-7.9	-66.7	63.9	15	-12
14800	25.4	-25.0	17.6	-14.1	5.1	-8.3	-67.2	64.4	15	-12
14900	25.5	-25.1	17.9	-14.3	5.6	-8.6	-67.6	65.0	16	-12
15000	25.6	-25.2	18.2	-14.5	6.1	-9.0	-68.1	65.5	16	-13
15100	25.7	-25.2	18.5	-14.7	6.6	-9.4	-68.6	66.0	16	-13
15200	25.8	-25.3	18.8	-14.9	7.1	-9.8	-69.0	66.5	16	-13
15300	25.9	-25.4	19.1	-15.1	7.6	-10.1	-69.5	67.1	17	-13
15400	26.0	-25.5	19.4	-15.3	8.1	-10.5	-70.0	67.7	17	-14
15500	26.0	-25.6	19.8	-15.5	8.6	-10.9	-70.4	68.3	17	-14
15600	26.1	-25.7	20.1	-15.8	9.1	-11.3	-70.9	68.9	18	-14
15700	26.2	-25.8	20.4	-16.0	9.6	-11.6	-71.4	69.5	18	-15
15800	26.3	-25.9	20.8	-16.2	10.1	-12.0	-71.8	70.1	18	-15
15900	26.4	-26.0	21.1	-16.4	10.7	-12.3	-72.3	70.8	18	-15
16000	26.5	-26.0	21.5	-16.6	11.2	-12.7	-72.8	71.5	19	-15
16100	26.6	-26.1	21.8	-16.9	11.7	-13.0	-73.2	72.2	19	-16
16200	26.8	-26.2	22.2	-17.1	12.2	-13.4	-73.7	72.9	19	-16
16300	26.9	-26.3	22.6	-17.3	12.8	-13.7	-74.2	73.7	20	-16
16400	27.0	-26.4	23.0	-17.5	13.2	-14.0	-74.6	74.6	20	-16
16500	27.1	-26.5	23.5	-17.8	13.7	-14.3	-75.1	75.5	21	-17
16600	27.3	-26.6	24.1	-18.0	14.2	-14.6	-75.6	76.5	21	-17
16700	27.4	-26.7		-18.2	14.6	-14.8	-76.1	77.5	22	-18
16800	27.5	-26.8		-18.5	15.1	-15.1	-76.6	78.5	22	-18
16900	27.6	-26.9		-18.7	15.5	-15.3	-77.0	79.5	22	-19
17000	27.8	-27.1		-18.9	15.9	-15.6	-77.5	80.9	23	-19
17100	28.0	-27.2		-19.2	16.2	-15.8	-78.0		23	-19
17200	28.2	-27.3		-19.4	16.5	-15.9	-78.6		24	-20
17300	28.4	-27.4		-19.6	16.6	-16.1	-79.1		24	-20
17400	28.6	-27.6		-19.9	16.7	-16.2	-79.6		25	-21
17500	28.9	-27.7		-20.1	16.7	-16.2	-80.2		26	-21

(U//FOUO)

## BASIC DATA

PROJ, HE, M795  
FUZE, PD, M739A1

(U//FOUO)

1	2	3	4	5	6	7	8	9
R A N G E	E L E V	FS FOR GRAZE BURST  FUZE M582	DFS PER 10 M DEC HOB	DR PER 1 MIL D ELEV	F O R K	TIME OF FLIGHT	AZIMUTH CORRECTIONS	
							DRIFT (CORR TO L)	CW OF 1 KNOT
M	MIL			M	MIL	SEC	MIL	MIL
17500	689.4	60.3	0.04	6	28	60.3	26.1	0.77
17600	706.5	61.5	0.04	5	33	61.5	27.0	0.78
17700	726.7	62.9	0.04	4	41	62.9	28.2	0.79
17800	752.8	64.7	0.04			64.7	29.8	0.80
*****								
17800	870.6	72.4	0.03			72.4	38.5	0.95
17700	894.6	74.0	0.03	5	41	74.0	40.6	0.96
17600	912.4	75.1	0.03	6	32	75.1	42.2	0.98
17500	927.3	76.0	0.03	7	27	76.0	43.7	0.99
17400	940.3	76.8	0.03	8	24	76.8	45.0	1.00
17300	952.1	77.5	0.03	9	22	77.5	46.3	1.02
17200	962.9	78.1	0.03	10	20	78.1	47.5	1.03
17100	972.9	78.7	0.03	10	19	78.7	48.6	1.04
17000	982.2	79.2	0.03	11	17	79.2	49.7	1.06
16900	991.1	79.7	0.03	12	16	79.7	50.8	1.07
16800	999.5	80.2	0.03	12	16	80.2	51.9	1.08
16700	1007.5	80.6	0.03	13	15	80.6	52.9	1.09
16600	1015.1	81.1	0.03	13	14	81.1	54.0	1.10
16500	1022.5	81.5	0.03	14	14	81.5	55.0	1.11
16400	1029.6	81.8	0.03	14	13	81.8	56.0	1.13
16300	1036.4	82.2	0.03	15	13	82.2	57.0	1.14
16200	1043.0	82.6	0.03	15	12	82.6	58.1	1.15
16100	1049.5	82.9	0.03	16	12	82.9	59.1	1.16
16000	1055.7	83.2	0.03	16	11	83.2	60.1	1.17
15900	1061.8	83.6	0.03	17	11	83.6	61.1	1.19
15800	1067.7	83.9	0.03	17	11	83.9	62.1	1.20
15700	1073.4	84.2	0.03	18	10	84.2	63.1	1.21
15600	1079.0	84.4	0.03	18	10	84.4	64.1	1.22
15500	1084.5	84.7	0.03	18	10	84.7	65.2	1.23
15400	1089.9	85.0	0.03	19	9	85.0	66.2	1.25
15300	1095.1	85.3	0.03	19	9	85.3	67.2	1.26
15200	1100.3	85.5	0.03	20	9	85.5	68.3	1.27
15100	1105.3	85.8	0.03	20	9	85.8	69.3	1.28
15000	1110.3	86.0	0.03	20	8	86.0	70.4	1.30

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1	10	11	12	13	14	15	16	17	18	19
R A N G E	RANGE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
	M	M	M	M	M	M	M	M	M	M
17500	28.9	-27.7		-20.1	16.7	-16.2	-80.2		26	-21
17600	29.3	-27.8		-20.4	16.5	-16.3	-80.8		26	-22
17700		-28.1		-20.6	16.2	-16.5	-81.4		27	-22
17800		-28.3		-20.9		-16.6	-82.0		28	-23
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
17800		-30.2		-24.9		-13.4	-95.5		28	-26
17700		-30.2		-24.9	15.2	-12.9	-95.2		29	-26
17600	29.4	-30.2		-24.8	14.5	-12.6	-94.9		29	-26
17500	29.6	-30.1		-24.7	13.6	-12.2	-94.5		30	-26
17400	29.8	-30.0		-24.6	12.5	-11.9	-94.2		30	-26
17300	29.9	-29.9		-24.6	11.6	-11.6	-93.8		30	-26
17200	29.9	-29.8		-24.5	11.1	-11.3	-93.4		30	-26
17100	29.9	-29.8		-24.4	10.6	-11.1	-93.0		30	-26
17000	29.9	-29.6		-24.3	10.3	-10.9	-92.6	84.2	30	-26
16900	29.8	-29.5		-24.2	9.9	-10.7	-92.2	85.2	30	-26
16800	29.8	-29.4		-24.1	9.6	-10.5	-91.7	85.6	30	-26
16700	29.7	-29.3		-24.0	9.3	-10.3	-91.3	85.7	30	-26
16600	29.6	-29.2	25.4	-23.9	9.0	-10.1	-90.8	85.7	30	-26
16500	29.5	-29.1	25.7	-23.8	8.8	-9.9	-90.3	85.6	30	-26
16400	29.4	-28.9	25.8	-23.7	8.5	-9.8	-89.9	85.5	30	-26
16300	29.3	-28.8	25.8	-23.6	8.3	-9.6	-89.4	85.3	30	-26
16200	29.2	-28.7	25.7	-23.5	8.1	-9.5	-88.9	85.1	30	-26
16100	29.1	-28.5	25.7	-23.4	7.8	-9.3	-88.5	84.8	30	-26
16000	29.0	-28.4	25.7	-23.3	7.6	-9.2	-88.0	84.5	30	-26
15900	28.8	-28.2	25.7	-23.2	7.5	-9.1	-87.5	84.2	30	-26
15800	28.7	-28.1	25.6	-23.1	7.3	-8.9	-87.0	83.8	30	-26
15700	28.6	-27.9	25.6	-23.0	7.1	-8.8	-86.5	83.5	30	-26
15600	28.4	-27.8	25.5	-22.9	7.0	-8.7	-86.0	83.1	30	-26
15500	28.3	-27.6	25.5	-22.7	6.8	-8.6	-85.4	82.7	30	-26
15400	28.2	-27.5	25.4	-22.6	6.7	-8.4	-84.9	82.3	30	-26
15300	28.0	-27.3	25.4	-22.5	6.5	-8.3	-84.4	81.9	30	-26
15200	27.9	-27.1	25.3	-22.3	6.4	-8.2	-83.9	81.5	30	-26
15100	27.7	-27.0	25.3	-22.2	6.2	-8.1	-83.4	81.1	30	-25
15000	27.6	-26.8	25.2	-22.1	6.1	-8.0	-82.8	80.6	30	-25

(U//FOUO)

## BASIC DATA

PROJ, HE, M795  
FUZE, PD, M739A1

(U//FOUO)

1	2	3	4	5	6	7	8	9
R A N G E	E L E V	FS FOR GRAZE BURST  FUZE M582	DFS PER 10 M DEC HOB	DR PER 1 MIL D ELEV	F O R K	TIME OF FLIGHT	AZIMUTH CORRECTIONS	
							DRIFT (CORR TO L)	CW OF 1 KNOT
M	MIL			M	MIL	SEC	MIL	MIL
15000	1110.3	86.0	0.03	20	8	86.0	70.4	1.30
14900	1115.1	86.2	0.03	21	8	86.2	71.5	1.31
14800	1119.9	86.5	0.03	21	8	86.5	72.6	1.32
14700	1124.6	86.7	0.03	22	8	86.7	73.7	1.34
14600	1129.2	86.9	0.03	22	8	86.9	74.8	1.35
14500	1133.7	87.1	0.03	22	8	87.1	76.0	1.36
14400	1138.1	87.3	0.03	23	7	87.3	77.1	1.38
14300	1142.5	87.6	0.03	23	7	87.6	78.3	1.39
14200	1146.8	87.8	0.03	23	7	87.8	79.5	1.41
14100	1151.0	88.0	0.03	24	7	88.0	80.7	1.42
14000	1155.2	88.2	0.03	24	7	88.2	81.9	1.44
13900	1159.3	88.3	0.03	25	7	88.3	83.2	1.45
13800	1163.3	88.5	0.03	25	6	88.5	84.5	1.47
13700	1167.3	88.7	0.03	25	6	88.7	85.8	1.48
13600	1171.2	88.9	0.03	26	6	88.9	87.1	1.50
13500	1175.1	89.1	0.03	26	6	89.1	88.5	1.52
13400	1178.9	89.2	0.03	26	6	89.2	89.9	1.53
13300	1182.6	89.4	0.03	27	6	89.4	91.3	1.55
13200	1186.3	89.6	0.03	27	6	89.6	92.8	1.57
13100	1190.0	89.7	0.03	28	5	89.7	94.3	1.59
13000	1193.6	89.9	0.03	28	5	89.9	95.9	1.61
12900	1197.1	90.1	0.03	28	5	90.1	97.5	1.63
12800	1200.6	90.2	0.03	29	5	90.2	99.2	1.65
12700	1204.1	90.4	0.03	29	5	90.4	100.9	1.67
12600	1207.5	90.5	0.03	30	5	90.5	102.6	1.69
12500	1210.8	90.7	0.03	30	5	90.7	104.5	1.71
12400	1214.1	90.8	0.03	31	5	90.8	106.4	1.74
12300	1217.4	91.0	0.03	31	5	91.0	108.3	1.76
12200	1220.6	91.1	0.03	31	4	91.1	110.3	1.79
12100	1223.7	91.3	0.03	32	4	91.3	112.4	1.81
12000	1226.8	91.4	0.03	32	4	91.4	114.6	1.84
11900	1229.9	91.6	0.03	33	4	91.6	116.9	1.87
11800	1232.9	91.7	0.03	33		91.7	119.3	1.90
11700	1235.9	91.9	0.03	34		91.9	121.8	1.93
11600	1238.8	92.0	0.03	34		92.0	124.3	1.96
11500	1241.7	92.2	0.03	35		92.2	127.0	1.99

(U//FOUO)

(U//FOUO)

1	10	11	12	13	14	15	16	17	18	19
R A N G E	RANGE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
M	M	M	M	M	M	M	M	M	M	M
15000	27.6	-26.8	25.2	-22.1	6.1	-8.0	-82.8	80.6	30	-25
14900	27.4	-26.6	25.1	-21.9	6.0	-7.9	-82.3	80.2	30	-25
14800	27.2	-26.5	25.1	-21.7	5.9	-7.8	-81.7	79.8	30	-25
14700	27.1	-26.3	25.0	-21.6	5.7	-7.7	-81.2	79.3	30	-25
14600	26.9	-26.1	24.9	-21.4	5.6	-7.6	-80.6	78.8	30	-26
14500	26.8	-25.9	24.9	-21.2	5.5	-7.5	-80.1	78.4	30	-26
14400	26.6	-25.8	24.8	-21.1	5.4	-7.4	-79.5	77.9	30	-26
14300	26.4	-25.6	24.7	-20.9	5.3	-7.3	-79.0	77.4	30	-26
14200	26.3	-25.4	24.6	-20.7	5.2	-7.3	-78.4	76.9	30	-26
14100	26.1	-25.2	24.6	-20.5	5.1	-7.2	-77.8	76.5	30	-26
14000	25.9	-25.0	24.5	-20.3	5.0	-7.1	-77.3	76.0	30	-26
13900	25.7	-24.9	24.4	-20.1	4.9	-7.0	-76.7	75.5	30	-26
13800	25.5	-24.7	24.3	-19.8	4.8	-6.9	-76.1	75.0	30	-26
13700	25.4	-24.5	24.2	-19.6	4.7	-6.9	-75.5	74.5	30	-26
13600	25.2	-24.3	24.1	-19.4	4.6	-6.8	-74.9	73.9	30	-26
13500	25.0	-24.1	24.1	-19.1	4.6	-6.7	-74.3	73.4	30	-26
13400	24.8	-23.9	24.0	-18.8	4.5	-6.6	-73.7	72.9	30	-27
13300	24.6	-23.7	23.9	-18.6	4.4	-6.6	-73.1	72.4	31	-27
13200	24.4	-23.5	23.8	-18.3	4.3	-6.5	-72.5	71.9	31	-27
13100	24.2	-23.3	23.7	-18.0	4.2	-6.4	-71.9	71.3	31	-27
13000	24.0	-23.1	23.6	-17.7	4.2	-6.4	-71.3	70.8	31	-27
12900	23.8	-22.9	23.5	-17.3	4.1	-6.3	-70.7	70.2	31	-27
12800	23.6	-22.7	23.3	-17.0	4.0	-6.2	-70.1	69.7	32	-28
12700	23.4	-22.5	23.2		4.0	-6.2	-69.4	69.1	32	-28
12600	23.2	-22.3	23.1		3.9	-6.1	-68.8	68.6	32	-28
12500	23.0	-22.1	23.0		3.8	-6.1	-68.1	68.0	32	-29
12400	22.8	-21.9	22.9		3.8	-6.0	-67.5	67.5	33	-29
12300	22.6	-21.7	22.7		3.7	-6.0	-66.8	66.9	33	-29
12200	22.3	-21.5	22.6		3.6	-5.9	-66.1	66.3	33	-30
12100	22.1	-21.3	22.5		3.6	-5.9	-65.4	65.7	34	-30
12000	21.9	-21.0	22.3		3.5	-5.8	-64.7	65.1	34	-31
11900	21.7	-20.8	22.2		3.5	-5.8	-64.0	64.5	35	-31
11800	21.4	-20.6	22.0		3.4	-5.8		63.9	35	-32
11700	21.2	-20.3	21.9		3.4	-5.8		63.3	36	-32
11600	21.0	-20.1	21.7		3.4	-5.7		62.7	36	-33
11500	20.7	-19.9	21.5		3.4	-5.7		62.1	37	-33

(U//FOUO)

(U//FOUO)

1	2	3	4	5	6	7	8	9
R A N G E	E L E V	FS FOR GRAZE BURST  FUZE M582	DFS PER 10 M DEC HOB	DR PER 1 MIL D ELEV	F O R K	TIME OF FLIGHT	AZIMUTH CORRECTIONS	
							DRIFT (CORR TO L)	CW OF 1 KNOT
M	MIL			M	MIL	SEC	MIL	MIL
11500	1241.7	92.2	0.03	35		92.2	127.0	1.99
11400	1244.5	92.3	0.03	36		92.3	129.9	2.03
11300	1247.3	92.4	0.03	36		92.4	132.8	2.06
11200	1250.1	92.6	0.03	37		92.6	135.9	2.10
11100	1252.8	92.7	0.03	37		92.7	139.2	2.14
11000	1255.4	92.9	0.03	38		92.9	142.6	2.18
10900	1258.0	93.0	0.03	39		93.0	146.2	2.23
10800	1260.6	93.2	0.03	40		93.2	149.9	
10700	1263.1	93.3	0.03	40		93.3	153.8	
10600	1265.5	93.5	0.03	41		93.5	158.0	
10500	1267.9	93.6	0.03			93.6	162.3	
10412	1270.0							

(U//FOUO)

(U//FOUO)

1	10	11	12	13	14	15	16	17	18	19
R A N G E	RANGE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
	M	M	M	M	M	M	M	M	M	M
11500	20.7	-19.9	21.5		3.4	-5.7		62.1	37	-33
11400	20.5	-19.6	21.4		3.3	-5.7		61.5	38	-34
11300	20.3	-19.4	21.2		3.3	-5.7		60.9	38	-35
11200	20.0	-19.1	21.0		3.3	-5.8		60.2	39	-36
11100	19.8	-18.9	20.8		3.3	-5.8		59.6	40	-36
11000	19.5	-18.6	20.6		3.3	-5.8		58.9	40	-37
10900	19.2	-18.4	20.4		3.3	-5.9		58.2	41	-38
10800	18.9	-18.1	20.1		3.3	-5.9		57.5	42	-39
10700	18.7	-17.8	19.9		3.3	-5.9		56.8	43	-40
10600	18.4	-17.5	19.6		3.3	-5.9		56.1	44	-41
10500	18.1		19.4		3.4	-5.9		55.4	45	-42

(U//FOUO)

## SUPPLEMENTARY DATA

PROJ, HE, M795  
FUZE, PD, M739A1

(U//FOUO)

1	2	3	4	5	6	7	8	9	10	11	12	13
R A N G E	E L E V	PROBABLE ERRORS					ANGLE OF FALL	COT ANGLE OF FALL	TML VEL	MO	COMP SITE	
		FUZE M582									FOR	
		R	D	HB	TB	RB					+1 MIL SITE	-1 MIL SITE
M	MIL	M	M	M	SEC	M	MIL		M/S	M	MIL	MIL
0	0.0	16	0				0		659	0	0.000	0.00
1000	12.1	16	0				13	79.5	611	3	0.000	0.00
2000	25.5	16	1	1	0.04	23	28	35.8	566	13	0.000	0.00
3000	40.3	16	1	1	0.04	22	48	21.4	523	32	0.001	-0.001
4000	57.0	17	2	2	0.04	21	71	14.3	482	62	0.002	-0.001
5000	75.7	18	2	2	0.04	20	99	10.2	443	106	0.003	-0.001
6000	96.8	20	3	3	0.04	20	134	7.5	408	167	0.004	-0.002
7000	120.8	22	3	3	0.04	20	177	5.7	375	251	0.007	-0.003
8000	148.1	24	4	4	0.04	20	229	4.4	348	362	0.010	-0.004
9000	179.2	27	4	5	0.04	21	288	3.4	330	508	0.015	-0.007
10000	214.3	29	5	7	0.04	22	352	2.8	318	694	0.022	-0.011
11000	253.6	31	5	8	0.05	23	421	2.3	311	926	0.033	-0.019
12000	297.3	33	6	10	0.05	24	491	1.9	308	1212	0.049	-0.031
13000	345.8	35	7	12	0.05	25	563	1.6	307	1558	0.075	-0.051
14000	400.1	37	7	15	0.05	26	637	1.4	308	1977	0.115	-0.081
15000	461.5	39	8	18	0.06	27	713	1.2	311	2486	0.183	-0.131
16000	533.4	40	9	22	0.06	29	793	1.0	315	3124	0.319	-0.221
17000	624.9	42	10	27	0.07	31	884	0.8	321	3990	0.789	-0.433
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
17000	982.2	48	14	55	0.13	37	1175	0.4	339	7629	-1.893	1.56
16000	1055.7	46	14	62	0.14	36	1229	0.4	341	8335	-1.420	1.33
15000	1110.3	43	14	66	0.15	35	1269	0.3	342	8826	-1.266	1.22
14000	1155.2	41	13	70	0.16	33	1302	0.3	343	9202	-1.183	1.15
13000	1193.6	38	13	74	0.17	31	1333	0.3	344	9500	-1.130	1.11
12000	1226.8	34	12	77	0.18	28	1361	0.2	344	9739	-1.091	1.08
11000	1255.4		12	80	0.18	26	1389	0.2	344	9929	-1.062	1.05

(U//FOUO)



ROTATION - RANGE

CORRECTIONS TO RANGE, IN METERS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 3200	200 3000	400 2800	600 2600	800 2400	1000 2200	1200 2000	1400 1800	1600 1600
1000	0	-2+	-4+	-5+	-7+	-8+	-8+	-9+	-9+
2000	0	-3+	-6+	-9+	-12+	-14+	-16+	-17+	-17+
3000	0	-5+	-9+	-13+	-17+	-19+	-22+	-23+	-23+
4000	0	-6+	-11+	-16+	-20+	-24+	-26+	-28+	-29+
5000	0	-6+	-13+	-18+	-23+	-27+	-30+	-32+	-33+
6000	0	-7+	-14+	-20+	-25+	-30+	-33+	-35+	-36+
7000	0	-7+	-15+	-21+	-27+	-32+	-35+	-37+	-38+
8000	0	-8+	-15+	-22+	-28+	-33+	-36+	-39+	-39+
9000	0	-8+	-16+	-23+	-29+	-34+	-38+	-40+	-41+
10000	0	-8+	-16+	-23+	-30+	-35+	-39+	-41+	-42+
11000	0	-8+	-17+	-24+	-31+	-36+	-40+	-42+	-43+
12000	0	-9+	-17+	-25+	-32+	-37+	-41+	-44+	-45+
13000	0	-9+	-18+	-26+	-33+	-39+	-43+	-46+	-46+
14000	0	-9+	-18+	-27+	-34+	-40+	-44+	-47+	-48+
15000	0	-10+	-19+	-27+	-35+	-41+	-46+	-49+	-49+
16000	0	-10+	-19+	-28+	-36+	-42+	-47+	-49+	-50+
17000	0	-10+	-19+	-27+	-35+	-41+	-46+	-48+	-49+
*****									
17000	0	-2+	-4+	-6+	-8+	-9+	-10+	-11+	-11+
16000	0	+1-	+1-	+2-	+3-	+3-	+4-	+4-	+4-
15000	0	+3-	+6-	+9-	+12-	+14-	+15-	+16-	+16-
14000	0	+5-	+11-	+16-	+20-	+23-	+26-	+28-	+28-
13000	0	+8-	+16-	+23-	+29-	+34-	+37-	+40-	+41-
12000	0	+11-	+21-	+30-	+39-	+46-	+51-	+54-	+55-
11000	0	+14-	+28-	+41-	+52-	+61-	+68-	+72-	+73-
	3200	3400	3600	3800	4000	4200	4400	4600	4800
	6400	6200	6000	5800	5600	5400	5200	5000	4800
AZIMUTH OF TARGET - MILS									

(U//FOUO)

- (U//FOUO) NOTES -
1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.
  2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.
  3. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.
  4. CORRECTIONS ARE FOR 0 DEGREES LATITUDE. FOR OTHER LATITUDES MULTIPLY CORRECTIONS BY THE FACTOR GIVEN BELOW.

(U//FOUO)

LATITUDE (DEG)	10	20	30	40	50	60	70
MULTIPLY BY	.98	.94	.87	.77	.64	.50	.34

(U//FOUO)

## ROTATION - AZIMUTH

PROJ, HE, M795  
FUZE, PD, M739A1CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

0 DEGREES LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
1000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8000	R0.1L	R0.1L	0.0	0.0	0.0	0.0	0.0	L0.1R	L0.1R
9000	R0.1L	R0.1L	R0.1L	0.0	0.0	0.0	L0.1R	L0.1R	L0.1R
10000	R0.1L	R0.1L	R0.1L	0.0	0.0	0.0	L0.1R	L0.1R	L0.1R
11000	R0.1L	R0.1L	R0.1L	R0.1L	0.0	L0.1R	L0.1R	L0.1R	L0.1R
12000	R0.2L	R0.2L	R0.1L	R0.1L	0.0	L0.1R	L0.1R	L0.2R	L0.2R
13000	R0.3L	R0.2L	R0.2L	R0.1L	0.0	L0.1R	L0.2R	L0.2R	L0.3R
14000	R0.3L	R0.3L	R0.2L	R0.1L	0.0	L0.1R	L0.2R	L0.3R	L0.3R
15000	R0.4L	R0.4L	R0.3L	R0.2L	0.0	L0.2R	L0.3R	L0.4R	L0.4R
16000	R0.6L	R0.5L	R0.4L	R0.2L	0.0	L0.2R	L0.4R	L0.5R	L0.6R
17000	R0.8L	R0.8L	R0.6L	R0.3L	0.0	L0.3R	L0.6R	L0.8R	L0.8R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
17000	R2.4L	R2.2L	R1.7L	R0.9L	0.0	L0.9R	L1.7R	L2.2R	L2.4R
16000	R3.0L	R2.8L	R2.1L	R1.1L	0.0	L1.1R	L2.1R	L2.8R	L3.0R
15000	R3.5L	R3.2L	R2.5L	R1.3L	0.0	L1.3R	L2.5R	L3.2R	L3.5R
14000	R4.0L	R3.7L	R2.8L	R1.5L	0.0	L1.5R	L2.8R	L3.7R	L4.0R
13000	R4.5L	R4.1L	R3.2L	R1.7L	0.0	L1.7R	L3.2R	L4.1R	L4.5R
12000	R5.0L	R4.6L	R3.5L	R1.9L	0.0	L1.9R	L3.5R	L4.6R	L5.0R
11000	R5.4L	R5.0L	R3.8L	R2.1L	0.0	L2.1R	L3.8R	L5.0R	L5.4R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
	AZIMUTH OF TARGET - MILS								

(U//FOUO)

0 DEGREES LATITUDE

(U//FOUO)

- NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
 2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
 3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.  
 4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

10 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
1000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3000	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
4000	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
5000	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
6000	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.2R	L0.2R	L0.2R
7000	L0.1R	L0.1R	L0.1R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
8000	L0.1R	L0.1R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.3R
9000	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.3R	L0.3R	L0.3R	L0.3R
10000	L0.2R	L0.2R	L0.2R	L0.2R	L0.3R	L0.3R	L0.3R	L0.4R	L0.4R
11000	L0.2R	L0.2R	L0.2R	L0.2R	L0.3R	L0.4R	L0.4R	L0.4R	L0.4R
12000	L0.2R	L0.2R	L0.2R	L0.3R	L0.3R	L0.4R	L0.5R	L0.5R	L0.5R
13000	L0.1R	L0.2R	L0.2R	L0.3R	L0.4R	L0.5R	L0.6R	L0.6R	L0.6R
14000	L0.1R	L0.1R	L0.2R	L0.3R	L0.4R	L0.6R	L0.7R	L0.7R	L0.8R
15000	L0.1R	L0.1R	L0.2R	L0.3R	L0.5R	L0.7R	L0.8R	L0.9R	L0.9R
16000	0.0	0.0	L0.1R	L0.3R	L0.5R	L0.8R	L1.0R	L1.1R	L1.1R
17000	R0.2L	R0.1L	L0.1R	L0.3R	L0.6R	L0.9R	L1.2R	L1.4R	L1.4R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
17000	R1.5L	R1.3L	R0.8L	0.0	L0.9R	L1.8R	L2.6R	L3.1R	L3.3R
16000	R2.0L	R1.8L	R1.2L	R0.2L	L0.9R	L2.1R	L3.0R	L3.7R	L3.9R
15000	R2.5L	R2.2L	R1.5L	R0.4L	L1.0R	L2.3R	L3.4R	L4.2R	L4.4R
14000	R3.0L	R2.7L	R1.8L	R0.5L	L1.0R	L2.5R	L3.8R	L4.6R	L4.9R
13000	R3.4L	R3.1L	R2.1L	R0.7L	L1.0R	L2.7R	L4.1R	L5.1R	L5.4R
12000	R3.9L	R3.5L	R2.5L	R0.9L	L1.0R	L2.9R	L4.4R	L5.5R	L5.9R
11000	R4.3L	R3.9L	R2.8L	R1.0L	L1.0R	L3.0R	L4.7R	L5.9R	L6.3R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
AZIMUTH OF TARGET - MILS									

(U//FOUO)

10 DEGREES SOUTH LATITUDE

- (U//FOUO) NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.  
4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

## ROTATION - AZIMUTH

PROJ, HE, M795  
FUZE, PD, M739A1CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

## 20 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS									
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200	
1000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2000	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	
3000	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	
4000	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	
5000	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	
6000	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	
7000	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.4R	L0.4R	L0.4R	
8000	L0.3R	L0.3R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	
9000	L0.4R	L0.4R	L0.4R	L0.4R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	
10000	L0.4R	L0.4R	L0.5R	L0.5R	L0.5R	L0.6R	L0.6R	L0.6R	L0.6R	
11000	L0.5R	L0.5R	L0.5R	L0.5R	L0.6R	L0.6R	L0.7R	L0.7R	L0.7R	
12000	L0.5R	L0.5R	L0.5R	L0.6R	L0.7R	L0.7R	L0.8R	L0.8R	L0.9R	
13000	L0.5R	L0.5R	L0.6R	L0.7R	L0.8R	L0.9R	L0.9R	L1.0R	L1.0R	
14000	L0.5R	L0.6R	L0.6R	L0.7R	L0.9R	L1.0R	L1.1R	L1.1R	L1.2R	
15000	L0.5R	L0.6R	L0.7R	L0.8R	L1.0R	L1.1R	L1.2R	L1.3R	L1.4R	
16000	L0.5R	L0.6R	L0.7R	L0.9R	L1.1R	L1.3R	L1.5R	L1.6R	L1.6R	
17000	L0.5R	L0.5R	L0.7R	L0.9R	L1.2R	L1.5R	L1.8R	L1.9R	L2.0R	
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	
17000	R0.5L	R0.3L	L0.1R	L0.9R	L1.8R	L2.6R	L3.4R	L3.9R	L4.0R	
16000	R1.0L	R0.8L	R0.1L	L0.8R	L1.8R	L2.9R	L3.8R	L4.4R	L4.7R	
15000	R1.4L	R1.1L	R0.4L	L0.6R	L1.9R	L3.2R	L4.2R	L4.9R	L5.2R	
14000	R1.8L	R1.5L	R0.7L	L0.5R	L1.9R	L3.4R	L4.6R	L5.4R	L5.7R	
13000	R2.3L	R1.9L	R1.0L	L0.3R	L2.0R	L3.6R	L4.9R	L5.8R	L6.2R	
12000	R2.7L	R2.3L	R1.3L	L0.2R	L2.0R	L3.7R	L5.3R	L6.3R	L6.6R	
11000	R3.1L	R2.7L	R1.6L	0.0	L2.0R	L3.9R	L5.5R	L6.6R	L7.0R	
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400	
	AZIMUTH OF TARGET - MILS									

(U//FOUO)

## 20 DEGREES SOUTH LATITUDE

(U//FOUO)

- NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
 2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
 3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.  
 4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

30 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
1000	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
2000	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
3000	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
4000	L0.2R	L0.2R	L0.2R	L0.2R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R
5000	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R
6000	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R
7000	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R
8000	L0.5R	L0.5R	L0.5R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R
9000	L0.6R	L0.6R	L0.6R	L0.6R	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R
10000	L0.7R	L0.7R	L0.7R	L0.7R	L0.8R	L0.8R	L0.8R	L0.8R	L0.9R
11000	L0.7R	L0.8R	L0.8R	L0.8R	L0.9R	L0.9R	L1.0R	L1.0R	L1.0R
12000	L0.8R	L0.8R	L0.9R	L0.9R	L1.0R	L1.1R	L1.1R	L1.1R	L1.2R
13000	L0.9R	L0.9R	L1.0R	L1.0R	L1.1R	L1.2R	L1.3R	L1.3R	L1.3R
14000	L1.0R	L1.0R	L1.0R	L1.1R	L1.3R	L1.4R	L1.5R	L1.5R	L1.5R
15000	L1.0R	L1.1R	L1.1R	L1.3R	L1.4R	L1.5R	L1.7R	L1.8R	L1.8R
16000	L1.1R	L1.1R	L1.2R	L1.4R	L1.6R	L1.8R	L1.9R	L2.0R	L2.1R
17000	L1.1R	L1.1R	L1.3R	L1.5R	L1.8R	L2.1R	L2.3R	L2.4R	L2.5R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
17000	L0.5R	L0.6R	L1.1R	L1.8R	L2.6R	L3.4R	L4.1R	L4.5R	L4.7R
16000	L0.1R	L0.3R	L0.9R	L1.7R	L2.7R	L3.7R	L4.5R	L5.1R	L5.3R
15000	R0.3L	0.0	L0.6R	L1.6R	L2.8R	L3.9R	L4.9R	L5.6R	L5.8R
14000	R0.6L	R0.4L	L0.4R	L1.5R	L2.8R	L4.2R	L5.3R	L6.0R	L6.3R
13000	R1.0L	R0.7L	L0.1R	L1.4R	L2.9R	L4.3R	L5.6R	L6.4R	L6.7R
12000	R1.4L	R1.1L	R0.2L	L1.2R	L2.9R	L4.5R	L5.9R	L6.8R	L7.2R
11000	R1.8L	R1.5L	R0.4L	L1.1R	L2.9R	L4.6R	L6.2R	L7.2R	L7.5R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
AZIMUTH OF TARGET - MILS									

(U//FOUO)

30 DEGREES SOUTH LATITUDE

- (U//FOUO) NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.  
4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

## 40 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
1000	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
2000	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
3000	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
4000	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R
5000	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R
6000	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R
7000	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R
8000	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R	L0.8R	L0.8R	L0.8R
9000	L0.8R	L0.8R	L0.8R	L0.8R	L0.9R	L0.9R	L0.9R	L0.9R	L0.9R
10000	L0.9R	L0.9R	L0.9R	L1.0R	L1.0R	L1.0R	L1.0R	L1.1R	L1.1R
11000	L1.0R	L1.0R	L1.0R	L1.1R	L1.1R	L1.2R	L1.2R	L1.2R	L1.2R
12000	L1.1R	L1.1R	L1.2R	L1.2R	L1.3R	L1.3R	L1.4R	L1.4R	L1.4R
13000	L1.2R	L1.3R	L1.3R	L1.4R	L1.4R	L1.5R	L1.6R	L1.6R	L1.6R
14000	L1.4R	L1.4R	L1.4R	L1.5R	L1.6R	L1.7R	L1.8R	L1.8R	L1.9R
15000	L1.5R	L1.5R	L1.6R	L1.7R	L1.8R	L1.9R	L2.0R	L2.1R	L2.1R
16000	L1.6R	L1.6R	L1.7R	L1.9R	L2.0R	L2.2R	L2.3R	L2.4R	L2.5R
17000	L1.7R	L1.7R	L1.9R	L2.1R	L2.3R	L2.5R	L2.8R	L2.9R	L2.9R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
17000	L1.4R	L1.6R	L2.0R	L2.6R	L3.3R	L4.0R	L4.6R	L5.0R	L5.2R
16000	L1.2R	L1.3R	L1.8R	L2.6R	L3.5R	L4.3R	L5.1R	L5.6R	L5.8R
15000	L0.9R	L1.1R	L1.7R	L2.5R	L3.6R	L4.6R	L5.5R	L6.1R	L6.3R
14000	L0.6R	L0.8R	L1.5R	L2.5R	L3.6R	L4.8R	L5.8R	L6.5R	L6.7R
13000	L0.2R	L0.5R	L1.2R	L2.4R	L3.7R	L5.0R	L6.1R	L6.8R	L7.1R
12000	R0.1L	L0.2R	L1.0R	L2.2R	L3.7R	L5.1R	L6.4R	L7.2R	L7.5R
11000	R0.5L	R0.1L	L0.7R	L2.1R	L3.7R	L5.2R	L6.6R	L7.5R	L7.8R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
	AZIMUTH OF TARGET - MILS								

(U//FOUO)

## 40 DEGREES SOUTH LATITUDE

(U//FOUO)

- NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
 2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
 3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.  
 4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

50 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
1000	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
2000	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
3000	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R
4000	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R
5000	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R
6000	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R
7000	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R	L0.8R	L0.8R	L0.8R
8000	L0.8R	L0.8R	L0.8R	L0.9R	L0.9R	L0.9R	L0.9R	L0.9R	L0.9R
9000	L1.0R	L1.0R	L1.0R	L1.0R	L1.0R	L1.0R	L1.1R	L1.1R	L1.1R
10000	L1.1R	L1.1R	L1.1R	L1.1R	L1.2R	L1.2R	L1.2R	L1.2R	L1.2R
11000	L1.2R	L1.3R	L1.3R	L1.3R	L1.3R	L1.4R	L1.4R	L1.4R	L1.4R
12000	L1.4R	L1.4R	L1.4R	L1.5R	L1.5R	L1.6R	L1.6R	L1.6R	L1.6R
13000	L1.5R	L1.6R	L1.6R	L1.6R	L1.7R	L1.8R	L1.8R	L1.9R	L1.9R
14000	L1.7R	L1.7R	L1.8R	L1.8R	L1.9R	L2.0R	L2.1R	L2.1R	L2.1R
15000	L1.9R	L1.9R	L2.0R	L2.0R	L2.1R	L2.3R	L2.3R	L2.4R	L2.4R
16000	L2.0R	L2.1R	L2.2R	L2.3R	L2.4R	L2.6R	L2.7R	L2.8R	L2.8R
17000	L2.2R	L2.3R	L2.4R	L2.6R	L2.8R	L3.0R	L3.1R	L3.2R	L3.3R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
17000	L2.4R	L2.5R	L2.8R	L3.3R	L3.9R	L4.5R	L5.0R	L5.4R	L5.5R
16000	L2.2R	L2.4R	L2.8R	L3.4R	L4.1R	L4.9R	L5.5R	L5.9R	L6.1R
15000	L2.0R	L2.2R	L2.7R	L3.4R	L4.3R	L5.1R	L5.9R	L6.3R	L6.5R
14000	L1.8R	L2.0R	L2.5R	L3.3R	L4.3R	L5.3R	L6.2R	L6.7R	L6.9R
13000	L1.5R	L1.7R	L2.3R	L3.3R	L4.4R	L5.5R	L6.4R	L7.0R	L7.3R
12000	L1.2R	L1.4R	L2.1R	L3.2R	L4.4R	L5.6R	L6.6R	L7.3R	L7.6R
11000	L0.9R	L1.2R	L1.9R	L3.0R	L4.4R	L5.7R	L6.8R	L7.6R	L7.8R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
AZIMUTH OF TARGET - MILS									

(U//FOUO)

50 DEGREES SOUTH LATITUDE

(U//FOUO)

- NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.  
4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

## ROTATION - AZIMUTH

PROJ, HE, M795  
FUZE, PD, M739A1CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

## 60 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
1000	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
2000	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
3000	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R
4000	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R	L0.4R
5000	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R
6000	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R	L0.7R
7000	L0.8R	L0.8R	L0.8R	L0.8R	L0.8R	L0.8R	L0.9R	L0.9R	L0.9R
8000	L1.0R	L1.0R	L1.0R	L1.0R	L1.0R	L1.0R	L1.0R	L1.0R	L1.0R
9000	L1.1R	L1.1R	L1.1R	L1.1R	L1.2R	L1.2R	L1.2R	L1.2R	L1.2R
10000	L1.3R	L1.3R	L1.3R	L1.3R	L1.3R	L1.3R	L1.4R	L1.4R	L1.4R
11000	L1.4R	L1.4R	L1.5R	L1.5R	L1.5R	L1.5R	L1.6R	L1.6R	L1.6R
12000	L1.6R	L1.6R	L1.6R	L1.7R	L1.7R	L1.7R	L1.8R	L1.8R	L1.8R
13000	L1.8R	L1.8R	L1.8R	L1.9R	L1.9R	L2.0R	L2.0R	L2.0R	L2.1R
14000	L2.0R	L2.0R	L2.0R	L2.1R	L2.2R	L2.2R	L2.3R	L2.3R	L2.3R
15000	L2.2R	L2.2R	L2.3R	L2.3R	L2.4R	L2.5R	L2.6R	L2.6R	L2.6R
16000	L2.4R	L2.5R	L2.5R	L2.6R	L2.7R	L2.8R	L2.9R	L3.0R	L3.0R
17000	L2.7R	L2.7R	L2.8R	L3.0R	L3.1R	L3.3R	L3.4R	L3.5R	L3.5R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
17000	L3.2R	L3.3R	L3.6R	L4.0R	L4.5R	L4.9R	L5.3R	L5.6R	L5.7R
16000	L3.2R	L3.3R	L3.6R	L4.1R	L4.7R	L5.2R	L5.7R	L6.1R	L6.2R
15000	L3.1R	L3.2R	L3.6R	L4.1R	L4.8R	L5.5R	L6.1R	L6.4R	L6.6R
14000	L2.9R	L3.0R	L3.5R	L4.1R	L4.9R	L5.7R	L6.3R	L6.7R	L6.9R
13000	L2.7R	L2.9R	L3.4R	L4.1R	L4.9R	L5.8R	L6.5R	L7.0R	L7.2R
12000	L2.5R	L2.7R	L3.2R	L4.0R	L5.0R	L5.9R	L6.7R	L7.3R	L7.4R
11000	L2.2R	L2.5R	L3.0R	L3.9R	L4.9R	L6.0R	L6.8R	L7.4R	L7.6R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
	AZIMUTH OF TARGET - MILS								

(U//FOUO)

## 60 DEGREES SOUTH LATITUDE

(U//FOUO)

- NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
 2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
 3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.  
 4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.



CORRECTIONS TO AZIMUTH, IN MILS, TO COMPENSATE  
FOR THE ROTATION OF THE EARTH

(U//FOUO)

70 DEGREES NORTH LATITUDE

RANGE METERS	AZIMUTH OF TARGET - MILS								
	0 6400	400 6000	800 5600	1200 5200	1600 4800	2000 4400	2400 4000	2800 3600	3200 3200
1000	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R	L0.1R
2000	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R	L0.2R
3000	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R	L0.3R
4000	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R	L0.5R
5000	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R	L0.6R
6000	L0.7R	L0.7R	L0.7R	L0.8R	L0.8R	L0.8R	L0.8R	L0.8R	L0.8R
7000	L0.9R	L0.9R	L0.9R	L0.9R	L0.9R	L0.9R	L0.9R	L0.9R	L0.9R
8000	L1.1R	L1.1R	L1.1R	L1.1R	L1.1R	L1.1R	L1.1R	L1.1R	L1.1R
9000	L1.2R	L1.2R	L1.2R	L1.2R	L1.2R	L1.3R	L1.3R	L1.3R	L1.3R
10000	L1.4R	L1.4R	L1.4R	L1.4R	L1.4R	L1.5R	L1.5R	L1.5R	L1.5R
11000	L1.6R	L1.6R	L1.6R	L1.6R	L1.6R	L1.7R	L1.7R	L1.7R	L1.7R
12000	L1.8R	L1.8R	L1.8R	L1.8R	L1.9R	L1.9R	L1.9R	L1.9R	L1.9R
13000	L2.0R	L2.0R	L2.0R	L2.1R	L2.1R	L2.1R	L2.2R	L2.2R	L2.2R
14000	L2.2R	L2.2R	L2.3R	L2.3R	L2.3R	L2.4R	L2.4R	L2.5R	L2.5R
15000	L2.5R	L2.5R	L2.5R	L2.6R	L2.6R	L2.7R	L2.7R	L2.8R	L2.8R
16000	L2.8R	L2.8R	L2.8R	L2.9R	L3.0R	L3.0R	L3.1R	L3.1R	L3.2R
17000	L3.1R	L3.1R	L3.2R	L3.3R	L3.4R	L3.5R	L3.6R	L3.6R	L3.7R
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
17000	L4.0R	L4.1R	L4.3R	L4.5R	L4.8R	L5.2R	L5.4R	L5.6R	L5.7R
16000	L4.0R	L4.1R	L4.3R	L4.7R	L5.1R	L5.5R	L5.8R	L6.0R	L6.1R
15000	L4.0R	L4.1R	L4.4R	L4.8R	L5.2R	L5.7R	L6.1R	L6.3R	L6.4R
14000	L3.9R	L4.1R	L4.3R	L4.8R	L5.3R	L5.8R	L6.3R	L6.6R	L6.7R
13000	L3.8R	L4.0R	L4.3R	L4.8R	L5.4R	L6.0R	L6.5R	L6.8R	L6.9R
12000	L3.7R	L3.8R	L4.2R	L4.7R	L5.4R	L6.0R	L6.6R	L7.0R	L7.1R
11000	L3.5R	L3.7R	L4.1R	L4.7R	L5.4R	L6.1R	L6.7R	L7.1R	L7.2R
	3200 3200	2800 3600	2400 4000	2000 4400	1600 4800	1200 5200	800 5600	400 6000	0 6400
AZIMUTH OF TARGET - MILS									

(U//FOUO)

70 DEGREES SOUTH LATITUDE

- (U//FOUO)
- NOTES - 1. WHEN ENTERING FROM THE TOP USE THE SIGN BEFORE THE NUMBER.  
2. WHEN ENTERING FROM THE BOTTOM USE THE SIGN AFTER THE NUMBER.  
3. R DENOTES CORRECTION TO THE RIGHT, L TO THE LEFT.  
4. AZIMUTH IS MEASURED CLOCKWISE FROM NORTH.

## FUZE CORRECTION FACTORS

PROJ, HE, M795  
FUZE, MTSQ, M582

(U//FOUO)

1	2	3	4	5	6	7	8	9	10	11
FS	FUZE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
0										
1										
2	-.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.006	-.006
3	-.004	0.004	0.000	0.000	0.000	0.000	0.001	-.001	0.009	-.009
4	-.006	0.006	0.000	0.000	0.000	0.000	0.001	-.001	0.012	-.012
5	-.007	0.007	0.000	0.000	0.000	0.000	0.002	-.002	0.014	-.014
6	-.009	0.009	0.000	0.000	0.001	-.001	0.003	-.003	0.016	-.016
7	-.010	0.010	0.000	0.000	0.001	-.001	0.004	-.004	0.018	-.018
8	-.011	0.011	0.000	0.000	0.001	-.001	0.005	-.005	0.020	-.020
9	-.012	0.012	0.000	0.000	0.001	-.001	0.006	-.006	0.021	-.022
10	-.014	0.014	0.000	0.000	0.002	-.002	0.007	-.007	0.022	-.023
11	-.015	0.015	0.000	0.000	0.002	-.002	0.009	-.008	0.024	-.024
12	-.016	0.016	0.000	0.000	0.002	-.002	0.010	-.010	0.025	-.025
13	-.017	0.017	0.000	0.000	0.003	-.003	0.012	-.011	0.025	-.026
14	-.018	0.018	0.000	0.000	0.003	-.003	0.013	-.013	0.026	-.027
15	-.020	0.019	-.001	0.001	0.004	-.004	0.015	-.015	0.027	-.028
16	-.021	0.021	-.001	0.001	0.004	-.005	0.017	-.017	0.027	-.028
17	-.022	0.022	-.001	0.001	0.005	-.006	0.020	-.020	0.027	-.028
18	-.023	0.023	-.001	0.001	0.006	-.007	0.022	-.022	0.026	-.028
19	-.024	0.024	-.001	0.001	0.008	-.009	0.025	-.025	0.025	-.027
20	-.025	0.025	-.001	0.001	0.009	-.010	0.028	-.028	0.024	-.027
21	-.026	0.026	-.001	0.001	0.011	-.011	0.031	-.031	0.024	-.026
22	-.027	0.027	-.001	0.001	0.013	-.012	0.035	-.034	0.022	-.025
23	-.029	0.028	-.001	0.001	0.014	-.014	0.038	-.037	0.021	-.024
24	-.030	0.029	-.001	0.001	0.016	-.015	0.041	-.040	0.020	-.023
25	-.031	0.030	-.001	0.001	0.017	-.015	0.045	-.043	0.019	-.022
26	-.032	0.031	-.001	0.001	0.018	-.016	0.048	-.045	0.018	-.021
27	-.033	0.032	-.001	0.001	0.020	-.017	0.051	-.048	0.017	-.020
28	-.033	0.033	-.001	0.001	0.021	-.018	0.054	-.051	0.015	-.019
29	-.034	0.034	-.001	0.001	0.022	-.018	0.058	-.054	0.014	-.018
30	-.035	0.035	-.001	0.001	0.023	-.018	0.061	-.057	0.013	-.017
31	-.036	0.036	-.001	0.002	0.024	-.019	0.064	-.059	0.012	-.016
32	-.037	0.037	-.001	0.002	0.024	-.019	0.067	-.062	0.011	-.015
33	-.038	0.038	-.002	0.002	0.025	-.019	0.070	-.064	0.010	-.014
34	-.039	0.039	-.002	0.002	0.025	-.019	0.073	-.067	0.009	-.013
35	-.040	0.040	-.002	0.002	0.026	-.019	0.076	-.069	0.008	-.012

(U//FOUO)

1	2	3	4	5	6	7	8	9	10	11
FS	FUZE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
35	-.040	0.040	-.002	0.002	0.026	-.019	0.076	-.069	0.008	-.012
36	-.041	0.041	-.002	0.003	0.026	-.019	0.079	-.072	0.007	-.011
37	-.042	0.041	-.002	0.003	0.027	-.018	0.082	-.074	0.006	-.010
38	-.042	0.042	-.003	0.003	0.027	-.018	0.085	-.076	0.006	-.009
39	-.043	0.043	-.003	0.003	0.027	-.017	0.088	-.079	0.005	-.009
40	-.044	0.044	-.003	0.004	0.027	-.017	0.091	-.081	0.004	-.008
41	-.045	0.045	-.003	0.004	0.027	-.016	0.094	-.083	0.003	-.008
42	-.046	0.046	-.004	0.004	0.027	-.016	0.096	-.085	0.003	-.007
43	-.047	0.046	-.004	0.005	0.027	-.015	0.099	-.088	0.002	-.007
44	-.047	0.047	-.004	0.005	0.026	-.014	0.102	-.090	0.001	-.006
45	-.048	0.048	-.004	0.005	0.026	-.013	0.104	-.092	0.001	-.006
46	-.049	0.049	-.005	0.006	0.025	-.013	0.107	-.094	0.000	-.005
47	-.050	0.050	-.005	0.006	0.025	-.012	0.109	-.096	0.000	-.005
48	-.051	0.051	-.005	0.006	0.024	-.011	0.111	-.098	-.001	-.004
49	-.052	0.052	-.006	0.007	0.024	-.010	0.114	-.100	-.002	-.004
50	-.053	0.052	-.006	0.007	0.023	-.009	0.116	-.102	-.002	-.003
51	-.053	0.053	-.006	0.007	0.023	-.008	0.118	-.104	-.002	-.003
52	-.054	0.054	-.007	0.008	0.022	-.007	0.121	-.106	-.002	-.003
53	-.055	0.055	-.007	0.008	0.021	-.006	0.123	-.108	-.002	-.003
54	-.056	0.056	-.008	0.009	0.020	-.005	0.125	-.110	-.003	-.003
55	-.057	0.057	-.008	0.009	0.020	-.004	0.127	-.112	-.003	-.003
56	-.057	0.057	-.008	0.009	0.019	-.004	0.129	-.114	-.003	-.003
57	-.058	0.058	-.009	0.010	0.018	-.003	0.132	-.115	-.003	-.002
58	-.059	0.059	-.009	0.010	0.017	-.002	0.134	-.117	-.003	-.002
59	-.060	0.060	-.009	0.011	0.016	-.001	0.136	-.119	-.003	-.003
60	-.061	0.061	-.010	0.011	0.015	0.000	0.138	-.121	-.003	-.003
61	-.062	0.062	-.010	0.012	0.014	0.001	0.140	-.123	-.003	-.003
62	-.063	0.063	-.011	0.012	0.013	0.001	0.142	-.125	-.003	-.003
63	-.064	0.064	-.011	0.012	0.013	0.002	0.144	-.127	-.002	-.004
64	-.064	0.064	-.012	0.013	0.012	0.003	0.146	-.129	-.002	-.004
65	-.065	0.065	-.012	0.013	0.011	0.003	0.148	-.131	-.002	-.005
66	-.066	0.066	-.012	0.014	0.010	0.004	0.150	-.133	-.001	-.005
67	-.067	0.067	-.013	0.014	0.009	0.004	0.152	-.135	-.001	-.006
68	-.068	0.068	-.013	0.015	0.009	0.005	0.154	-.137	0.000	-.006
69	-.069	0.069	-.014	0.015	0.008	0.005	0.156	-.139	0.001	-.007
70	-.070	0.070	-.014	0.015	0.007	0.005	0.158	-.141	0.002	-.007

(U//FOUO)

## FUZE CORRECTION FACTORS

PROJ, HE, M795  
FUZE, MTSQ, M582

(U//FOUO)

1	2	3	4	5	6	7	8	9	10	11
FS	FUZE CORRECTIONS FOR									
	MUZZLE VELOCITY 1 M/S		RANGE WIND 1 KNOT		AIR TEMP 1 PCT		AIR DENSITY 1 PCT		PROJ WT OF 1 SQ (4 SQ STD)	
	DEC	INC	HEAD	TAIL	DEC	INC	DEC	INC	DEC	INC
70	-.070	0.070	-.014	0.015	0.007	0.005	0.158	-.141	0.002	-.007
71	-.071	0.071	-.014	0.016	0.007	0.005	0.161	-.144	0.003	-.008
72	-.072	0.072	-.015	0.016	0.006	0.003	0.163	-.148	0.004	-.009
73	-.074	0.074	-.015	0.015	0.006	0.001	0.165	-.152	0.004	-.010
74	-.075	0.076	-.015	0.015	0.007	0.000	0.168	-.156	0.003	-.009
75	-.077	0.077	-.015	0.015	0.009	-.002	0.173	-.159	0.003	-.009
76	-.078	0.079	-.015	0.015	0.012	-.003	0.178	-.163	0.003	-.009
77	-.080	0.080	-.015	0.015	0.014	-.004	0.182	-.166	0.003	-.009
78	-.081	0.082	-.015	0.015	0.016	-.005	0.186	-.169	0.003	-.010
79	-.083	0.083	-.015	0.016	0.018	-.006	0.189	-.172	0.003	-.011
80	-.084	0.084	-.015	0.016	0.019	-.007	0.193	-.175	0.004	-.012
81	-.086	0.086	-.015	0.016	0.020	-.007	0.196	-.178	0.005	-.013
82	-.087	0.087	-.015	0.016	0.022	-.008	0.199	-.181	0.006	-.014
83	-.088	0.089	-.015	0.016	0.023	-.009	0.202	-.184	0.007	-.015
84	-.090	0.090	-.015	0.016	0.024	-.010	0.205	-.187	0.009	-.017
85	-.091	0.091	-.015	0.016	0.025	-.011	0.208	-.190	0.010	-.019
86	-.093	0.093	-.016	0.016	0.026	-.012	0.211	-.192	0.012	-.021
87	-.094	0.094	-.016	0.016	0.028	-.012	0.214	-.195	0.015	-.023
88	-.096	0.096	-.016	0.017	0.029	-.013	0.217	-.198	0.018	-.027
89	-.097	0.097	-.016	0.018	0.030	-.014	0.220	-.200	0.022	-.031
90	-.099	0.099	-.017	0.019	0.031	-.014	0.223	-.203	0.028	-.036
91	-.100	0.100	-.018	0.023	0.031	-.015	0.226	-.205	0.036	-.043
92	-.102	0.102	-.020		0.032	-.016	0.230	-.208	0.048	-.055
93	-.105	0.106	-.023		0.034	-.018		-.212	0.073	-.071

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FUZE SETTING

CORRECTIONS TO FUZE SETTING OF FUZE, MTSQ, M582  
 FOR FUZE, MTSQ, M564

(U//FOUO)

FUZE SETTING FUZE M582		CORRECTIONS
FROM	TO	
1.9	5.7	0.0
5.8	11.2	0.1
11.3	16.6	0.2
16.7	21.9	0.3
22.0	27.5	0.4
27.6	32.8	0.5
32.9	38.2	0.6
38.3	43.3	0.7
43.4	48.6	0.8
48.7	54.3	0.9
54.4	59.3	1.0
59.4	64.7	1.1
64.8	76.0	1.3
76.1	81.5	1.4
81.6	86.7	1.5
86.8	92.2	1.6
92.3	93.6	1.7

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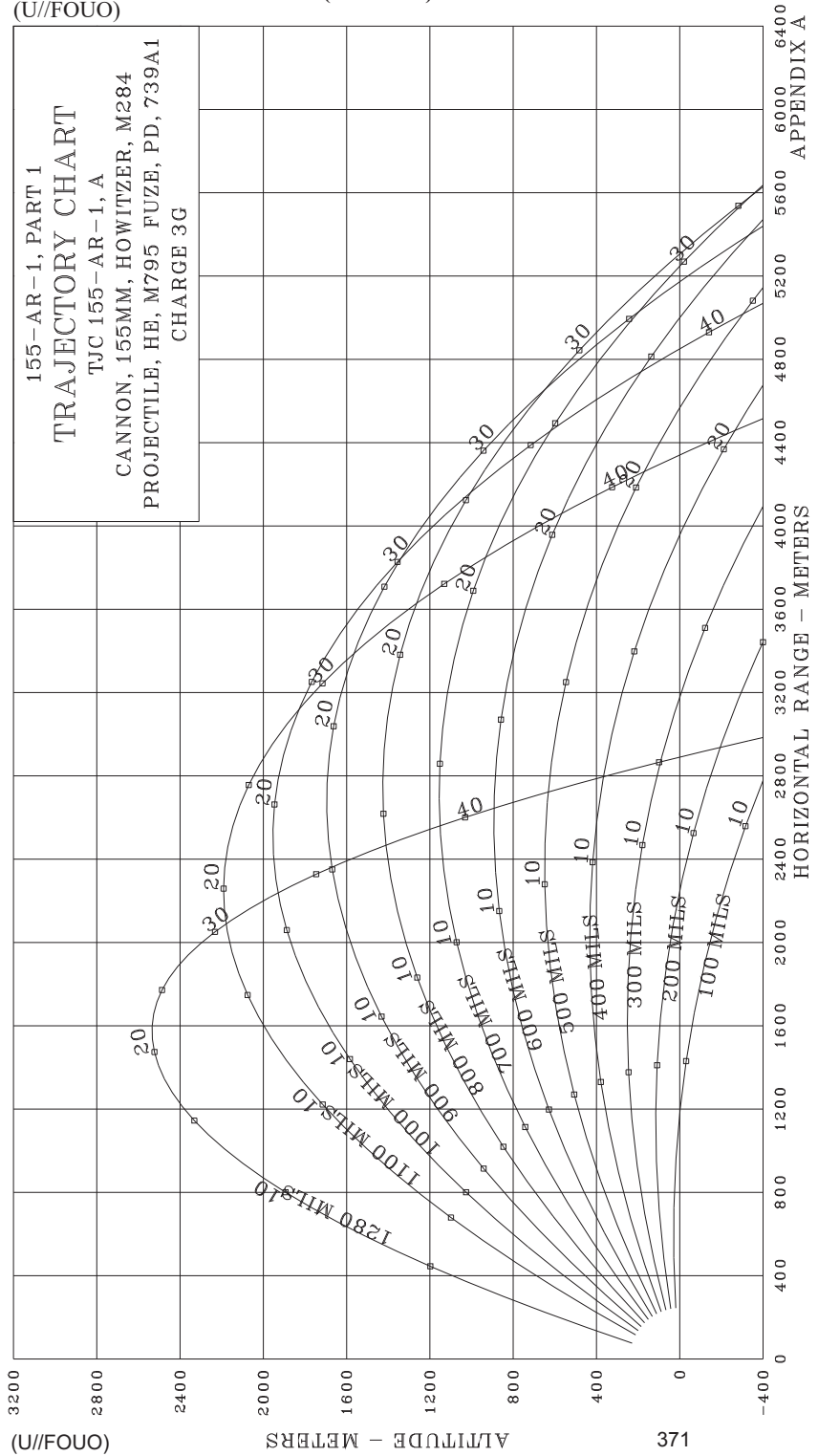
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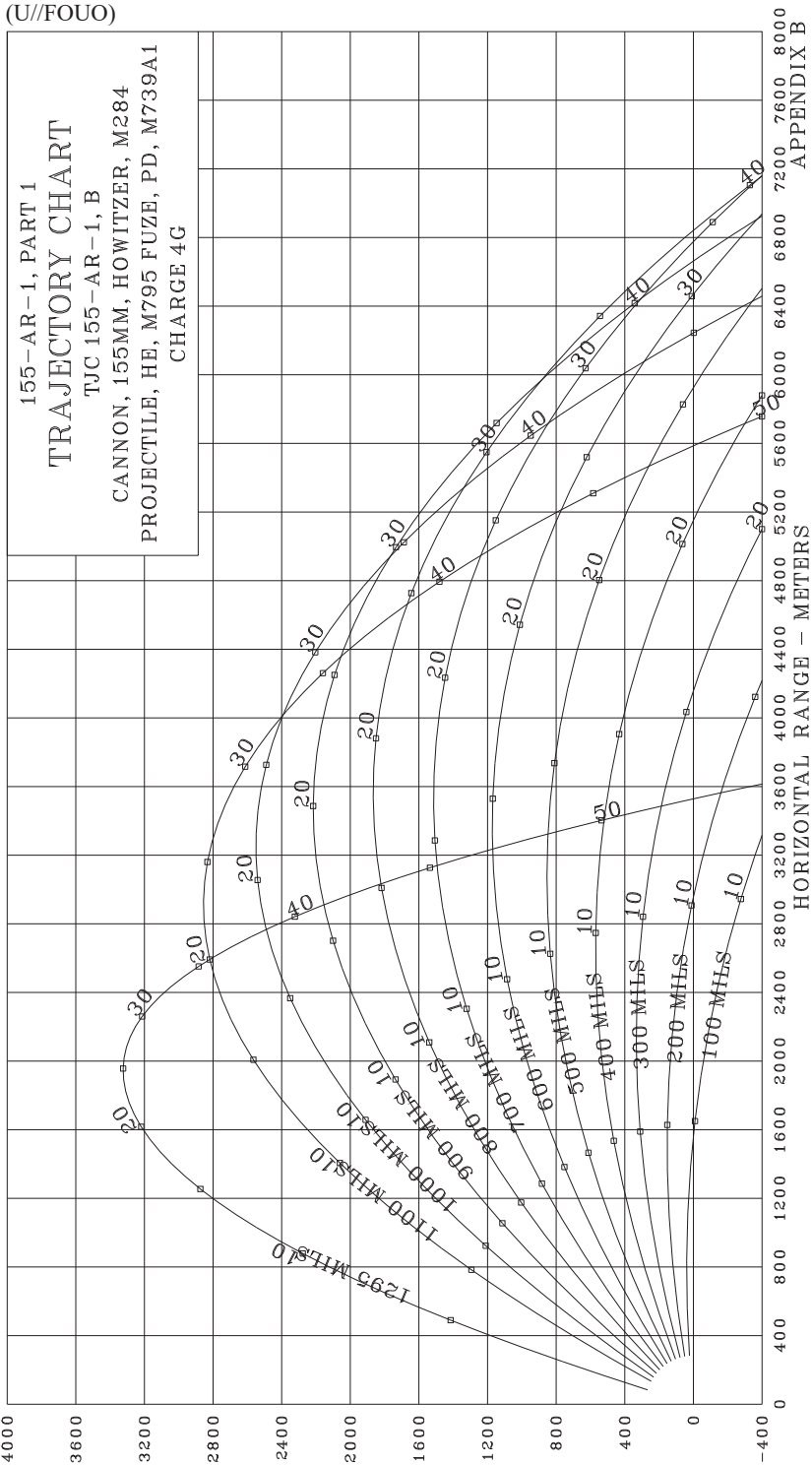
**(U//FOUO)**

APPENDICES

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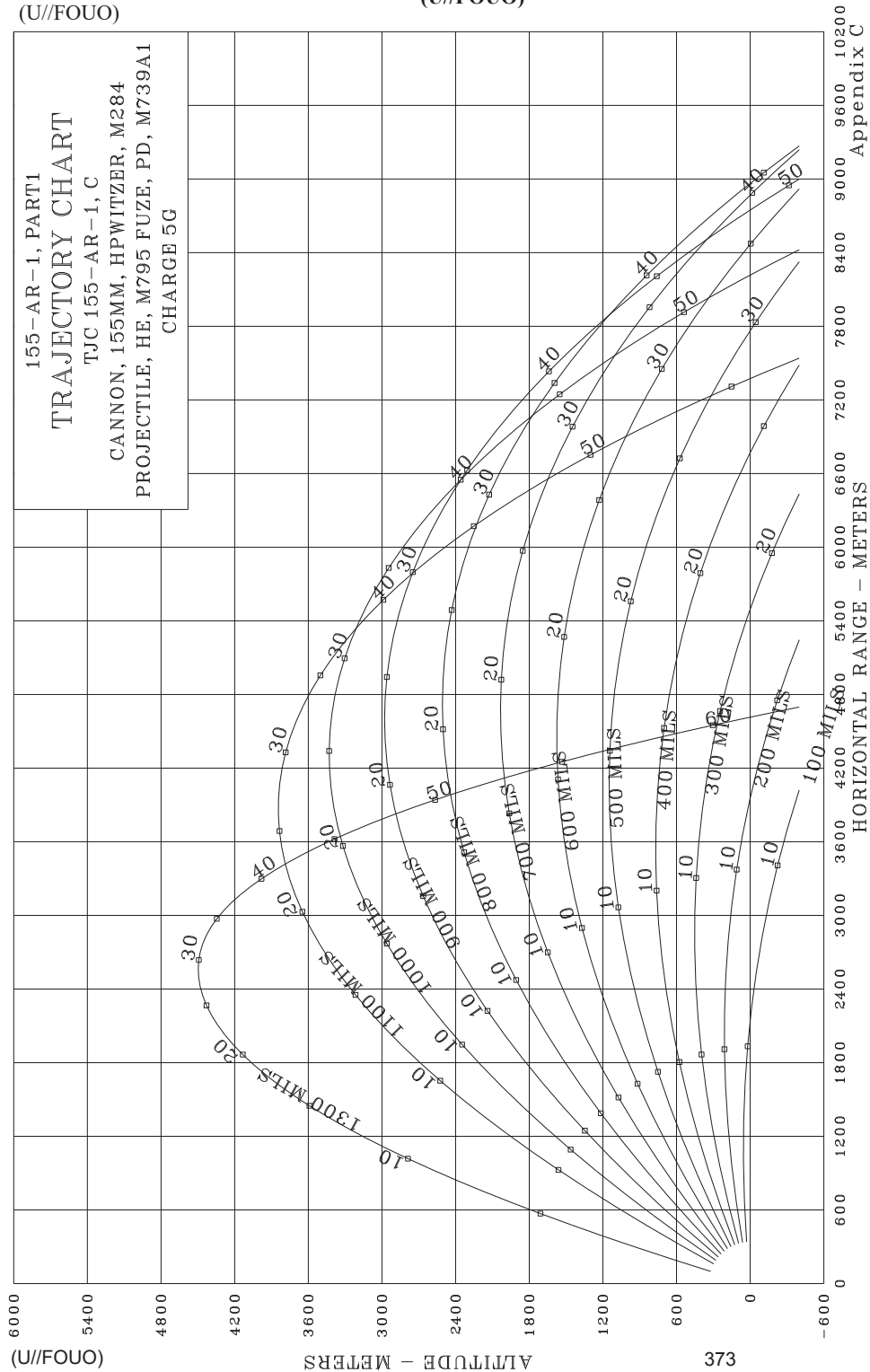






APPENDIX B

155-AR-1, PART1  
TRAJECTORY CHART  
TJC 155-AR-1, C  
CANNON, 155MM, HPWITZER, M284  
PROJECTILE, HE, M795 FUZE, PD, M739A1  
CHARGE 5G



HORIZONTAL RANGE - METERS

Appendix C

155-AR-1, PART 1

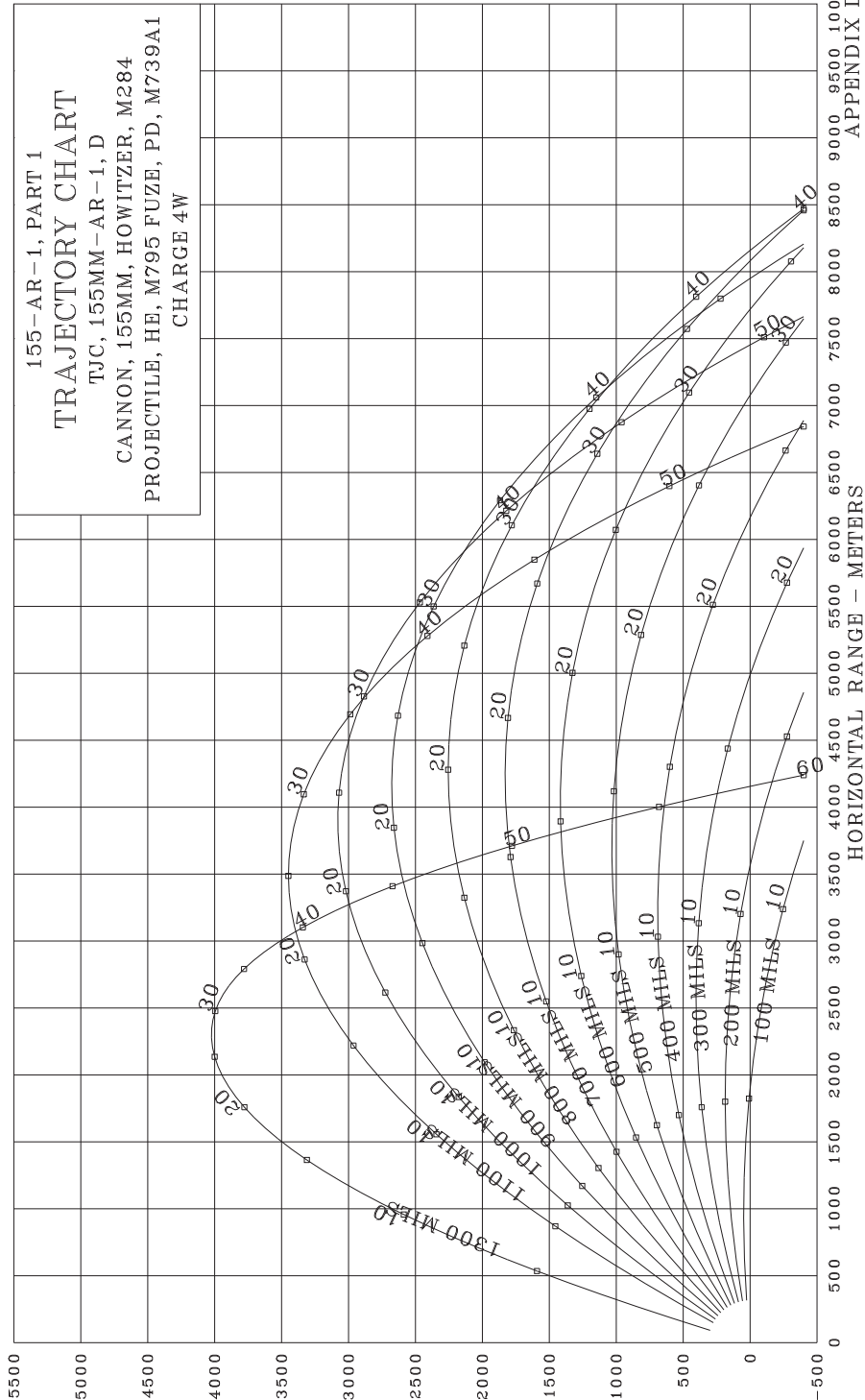
# TRAJECTORY CHART

TJC, 155MM-AR-1, D

CANNON, 155MM, HOWITZER, M284

PROJECTILE, HE, M795 FUZE, PD, M739A1

CHARGE 4W



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155-AR-1, PART 1

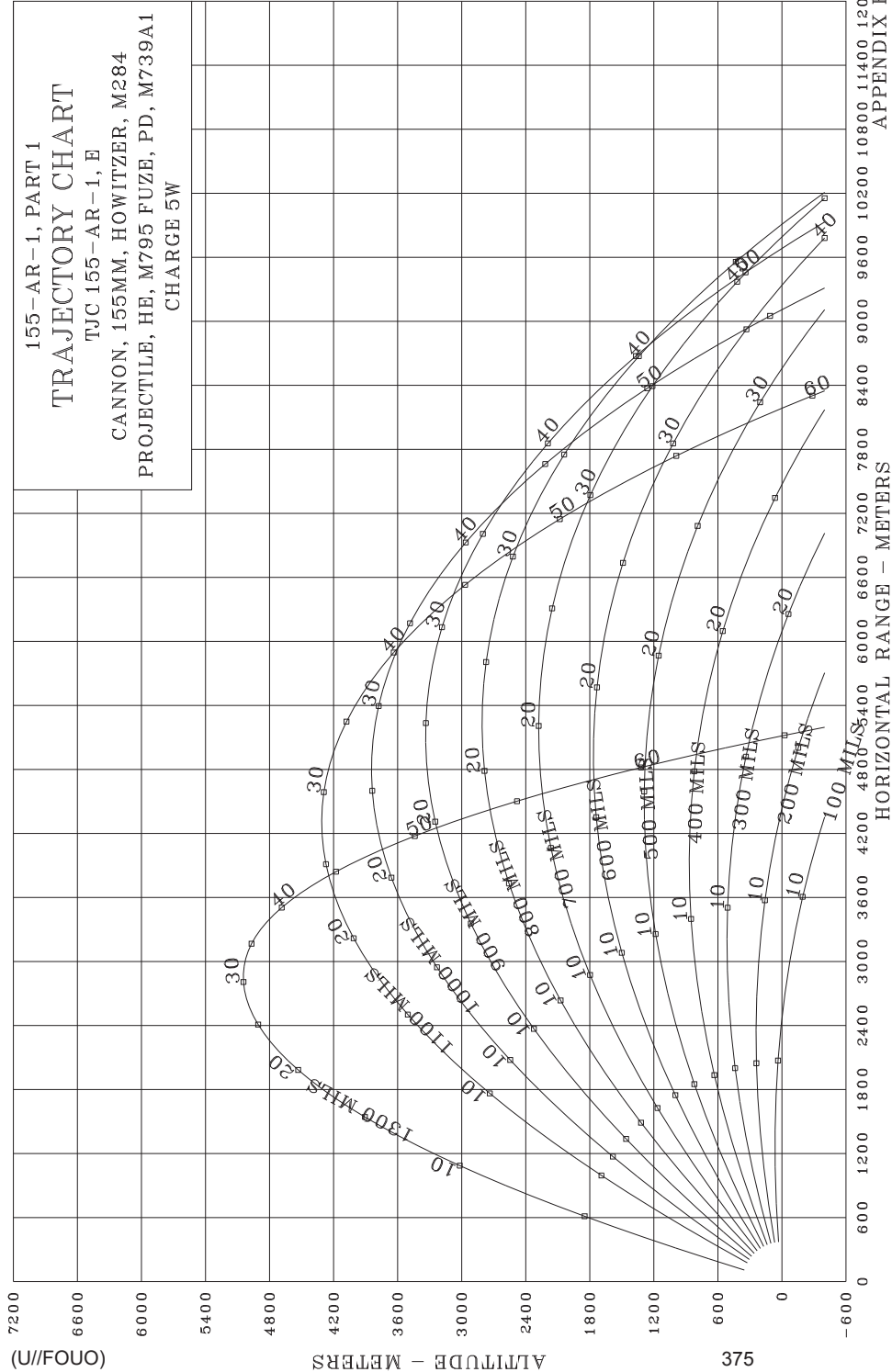
# TRAJECTORY CHART

TJC 155-AR-1, E

CANNON, 155MM, HOWITZER, M284

PROJECTILE, HE, M795 FUZE, PD, M739A1

CHARGE 5W

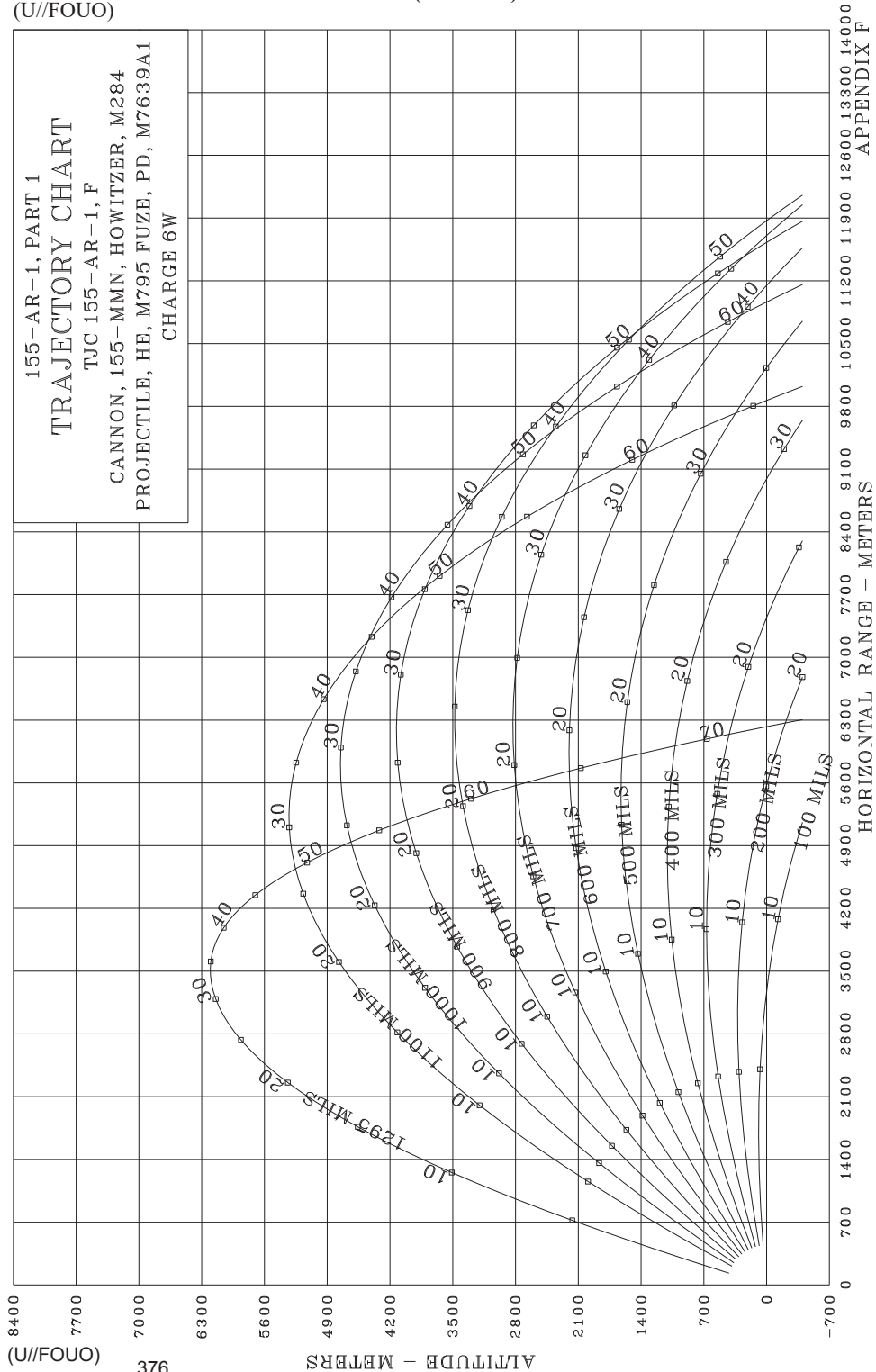


APPENDIX E

(U//FOUO)

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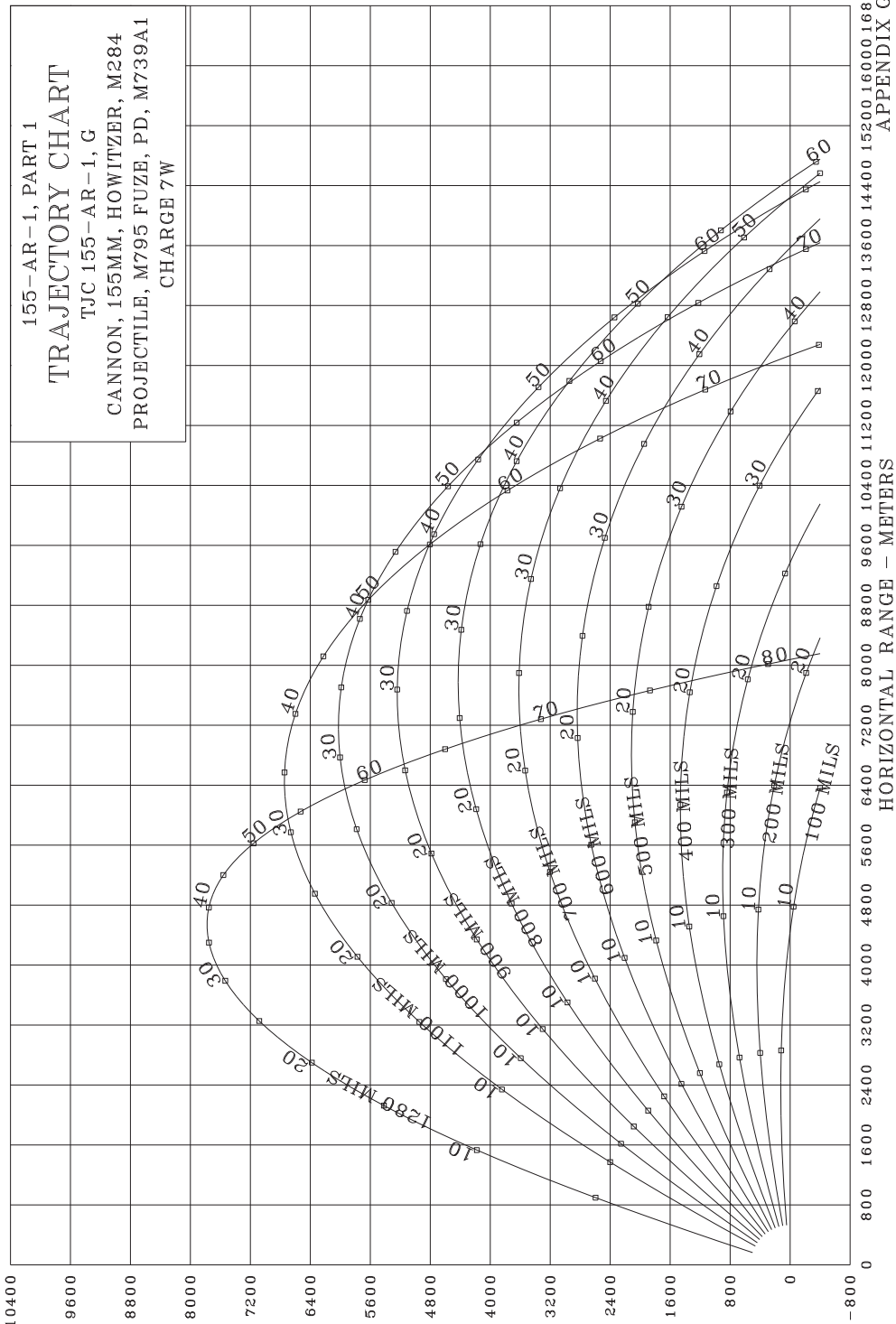
155-AR-1, PART 1  
TRAJECTORY CHART  
TJC 155-AR-1, F  
CANNON, 155-MMN, HOWITZER, M284  
PROJECTILE, HE, M795 FUZE, PD, M7639A1  
CHARGE 6W



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155-AR-1, PART 1

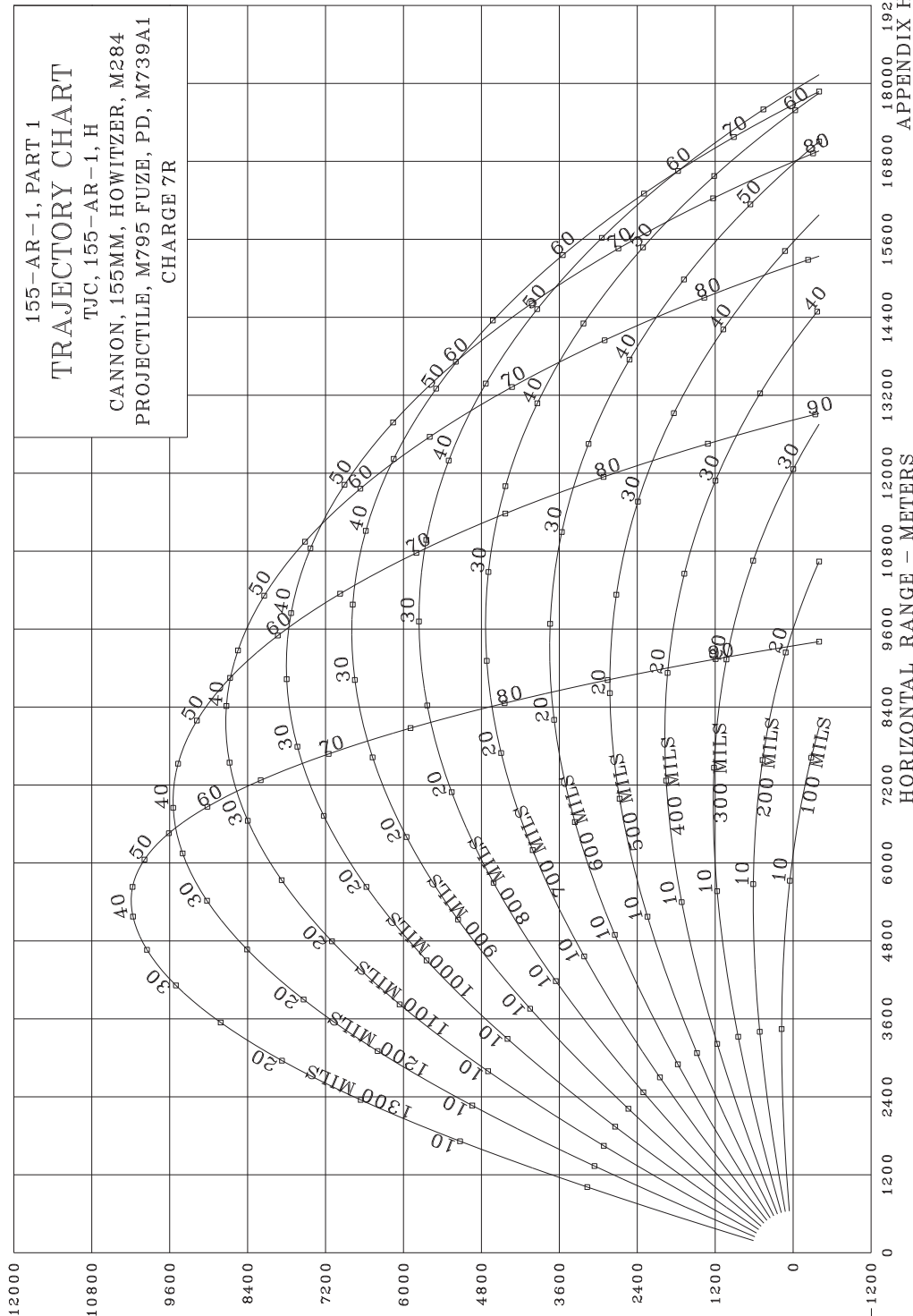
# TRAJECTORY CHART

TJC, 155-AR-1, H

CANNON, 155MM, HOWITZER, M284

PROJECTILE, M795 FUZE, PD, M739A1

CHARGE 7R



HORIZONTAL RANGE - METERS

APPENDIX H

(U//FOUO)

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**FT 155-AR-1, PART 1**

By Order of the Secretary of the Army:

Official:

A handwritten signature in dark ink, appearing to read "Gerald B. O'Keefe", is written over the printed name.

GERALD B. O'KEEFE  
*Acting Administrative Assistant  
to the Secretary of the Army*

1319101

RAYMOND T. ODIERNO  
*General, United States Army  
Chief of Staff*

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