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Joint Technical Coordinating Group

for

Munitions Effectiveness

AIR-TO-AIR ENGAGEMENT TABLES

JMEM AIR-TO-AIR WORKING GROUP

FINAL REPORT

**Joint Technical Coordinating Group
for
Munitions Effectiveness**

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ENGAGEMENT TABLES**

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FOREWORD

The Gun Effectiveness Analysis Team composed of Mr. G. Solomon, Dr. M. J. Caluda, Jr., and Capt B. H. Bazerque of the Weapon Systems Analysis Division in the Air Force Armament Laboratory, Eglin AFB, FL, have documented in this report a first effort to provide air-to-air gunnery engagement data for use in training and preparing back-up sight settings. This effort was in support of Project 2543, Weapons Effectiveness Methodology, directed by Mr. Roy C. Compton of the Weapon Systems Analysis Division.

ABSTRACT

This publication describes a simple computer program that was written for use in calculating air-to-air gunnery parameters, such as time of flight, lead angle, gravity drop, and prediction bias for various air-to-air engagement conditions. The engagement conditions are specified as range to target, angle-off, load factor, airspeed, and altitude. The computer program is primarily extracted from a current air-to-air gunnery effectiveness model and has been modified to provide a tabular output of the engagement parameters. The program is used to generate air-to-air engagement parameters for the 20mm high explosive projectile as fired from the M61 cannon.

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SECTION I

INTRODUCTION

The current air-to-air gunnery tables used for gunnery training purposes do not provide adequate information in the proper format. The tables being used have been modified from those presented in Reference 1 and are limited to 1g engagements. The original output (Reference 1) reflected air-to-ground range parameters that were modified to reflect air-to-air parameters.

The tables in this report represent a first attempt to provide additional data on the air-to-air gunnery engagement, and a format is postulated that can be improved on with proper feed-back from the users. Additional parameters could be provided easily since much of the methodology exists in a current air-to-air effectiveness computer program (Reference 2).

References:

1. Solomon, G., Air-to-Air Trajectory Tables for 7.65mm, Cal .50, and 20mm Projectiles, AMR 65-30, Air Force Armament Laboratory, August 1965.
2. Watt, G. W.; Caluda, M. J.; Smith, H. E., Dynamic Air-to-Air Model (DATAM 1), AFATL-TR-73-38, Air Force Armament Laboratory, February 1973.

SECTION II

METHODOLOGY

Most of the methodology presented in this report is taken from DATAM 1 (Reference 2). It assumes that at the initiation of fire the target and attacker maneuvers are confined to the same plane and that during the time of flight of the projectile the target maintains a constant load factor. The target and attacker have a constant velocity but not necessarily the same velocity. Lead prediction is linear. The engagement parameters under these assumptions are as shown in Figure 1

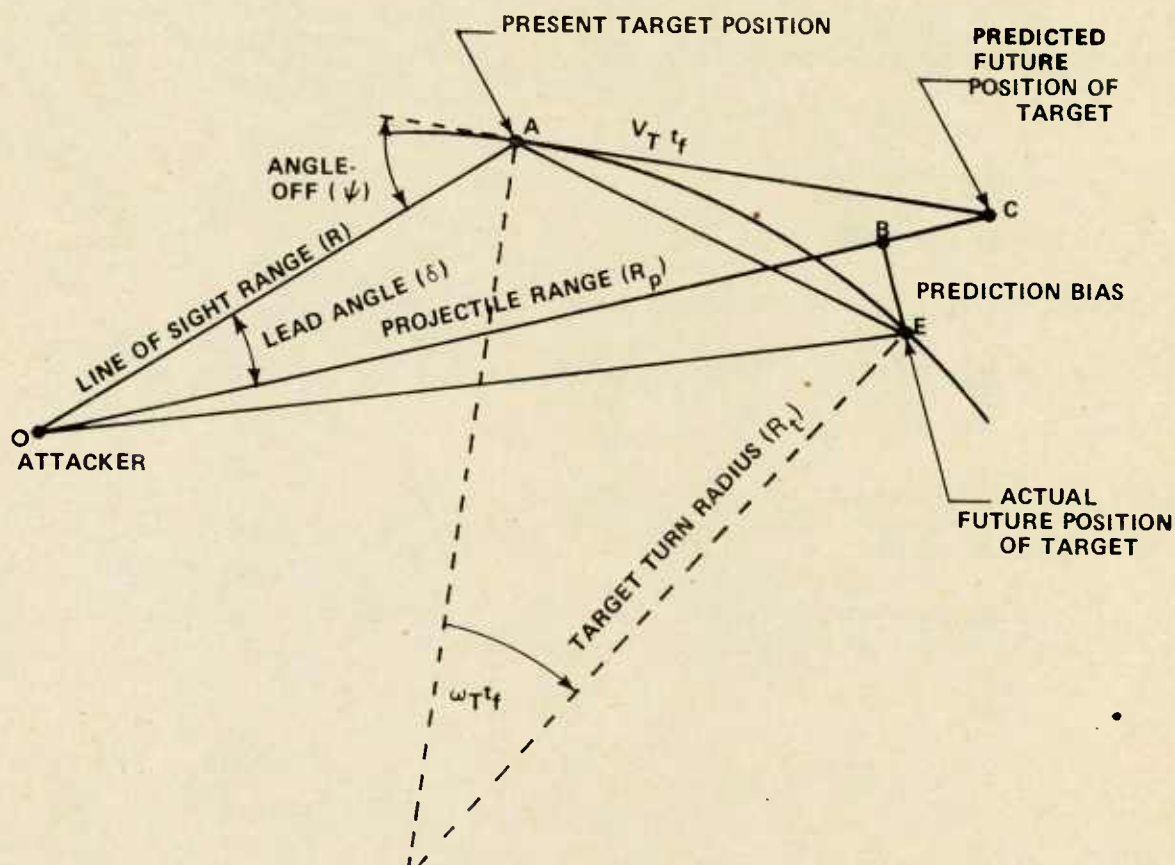


Figure 1. Air-to-Air Engagement Geometry

1. LEAD ANGLE

The lead angle (δ) is predicted from triangle AOC, using the law of sines, that is,

$$\frac{V_T t_f}{\sin \delta} = \frac{R_p}{\sin \psi} \quad (1)$$

or

$$\delta = \sin^{-1} \left[\frac{V_T t_f \sin \psi}{R_p} \right] \quad (2)$$

Where

V_T is the target velocity

t_f is the projectile time of flight

R_p is the projectile range

ψ is the angle-off

2. PROJECTILE RANGE

Also from triangle AOC, the projectile range (R_p) is given by

$$R_p^2 = R^2 + (V_T t_f)^2 + 2R V_T t_f \cos \psi \quad (3)$$

Where

R is the line-of-sight range to the target.

3. TIME-OF-FLIGHT

The projectile time of flight is a function of R_p and the total initial projectile velocity. The equation for time of flight developed in Reference 2 is:

$$t_f = \frac{1}{KC_2} \left\{ \ln \left[\frac{C_1 V_p}{(C_1 V_p + C_2) \exp(-KC_1 R_p) - C_2} \right] - KC_1 R_p \right\} \quad (4)$$

Where:

C_1 and C_2 are constants which are estimated from a least squares fit of the equation to the projectile C_D versus Mach number data.

$$C_D = C_1 + \frac{C_2}{V_p(t)} \quad (5)$$

and

$$K = \frac{\pi g \rho d^2}{8W_p} \quad (6)$$

Where:

g is the gravitational acceleration

ρ is the air density

d is the projectile diameter

W_p is the weight of the projectile

Equations for t_f and R_p are solved iteratively until two successive values of R_p are less than 1 foot.

4. PROJECTILE VELOCITY

The equation used to determine the projectile velocity relative to earth fixed coordinates at range R_p is

$$V_{pE} = \frac{1}{C_1} [(C_1 V_o + C_2) \exp (-KC_1 R_p) - C_2] \quad (7)$$

Where V_o is the sum of muzzle velocity and aircraft velocity.

Projectile velocity relative to the target is approximated by

$$V_{pT} = V_{pE} - V_T \cos (\psi - \delta) \quad (8)$$

5. GRAVITY DROP

Gravity drop (D) in mils is approximated by

$$D = \frac{500 g t^2}{R_p} \quad (9)$$

6. PREDICTION BIAS

Under the assumption of linear lead prediction, the point in front of the target at which the projectile is fired is determined by a linear projection of the target position at a time of flight in the future. However, the target turns, and its position is not as predicted. The projectile misses the target by some amount referred to as prediction bias, which is the miss distance of an ideal projectile, that is, one with no dispersion.

Numerous approaches may be used to determine prediction bias. Several have been investigated and found to vary little in results. In Figure 1, point A is the present position of the target, point C is its future prediction position, and point E is its actual future position. The projectile is fired along line OC toward the predicted position of the target. The miss distance BE is the prediction bias and may be calculated from triangle OBE given a known side and angle.

The side OE is determined from triangle OAE.

$$(OE)^2 = (OA)^2 + (AE)^2 + 2(OA)(AE) \cos \theta \quad (10)$$

OA is the range between the attacker and target, and AE is the chord of the circular segment traveled by the target during the projectile time of flight (t_f). This gives

$$(OE)^2 = R^2 + \left[2R_T \sin \left(\frac{\omega_T t_f}{2} \right) \right]^2 - 4 R R_T \sin \left(\frac{\omega_T t_f}{2} \right) \cos \left(\psi + \frac{T t_f}{2} \right) \quad (11)$$

R_T is the target radius of turn, and ω_T is its turn rate. Thus

$$\omega_T = \frac{g \sqrt{n^2 - 1}}{V_T} \quad (12)$$

Where n is the target load factor and

$$R_T = \frac{V_T}{\omega_T} \quad (13)$$

It can be shown that

$$\theta = \pi - \left(\psi + \frac{\omega_T t_f}{2} \right) \quad (14)$$

From triangle OAE, using the law of sines gives

$$\frac{OE}{\sin \theta} = \frac{AE}{\sin (\delta + \Delta \delta)} \quad (15)$$

or

$$\Delta\delta = \sin^{-1} \left[\frac{2R_T \sin \left(\frac{\omega T_{tf}}{2} \right) \sin \left(\psi + \frac{\omega T_{tf}}{2} \right)}{OE} \right] - \delta \quad (16)$$

The prediction bias (BE) is given by

$$BE = OE \sin (\Delta\delta) \quad (17)$$

Equation (17) is not valid for a target load (factor of $n = .1$). In this case, $\Delta\delta$ is zero, the target is in linear flight, and the prediction bias is zero. The equation is not valid for $n < 1$, and this case is omitted in the tables.

SECTION III

PROGRAM DESCRIPTION

The simple algorithm used as the primary part of this program is a portion of the air-to-air gunnery effectiveness simulation presently used by the Air Force Armament Laboratory (Reference 2). The flow charts in Figure 2 can be easily referenced to determine the function of each portion of the program listed in Table 1.

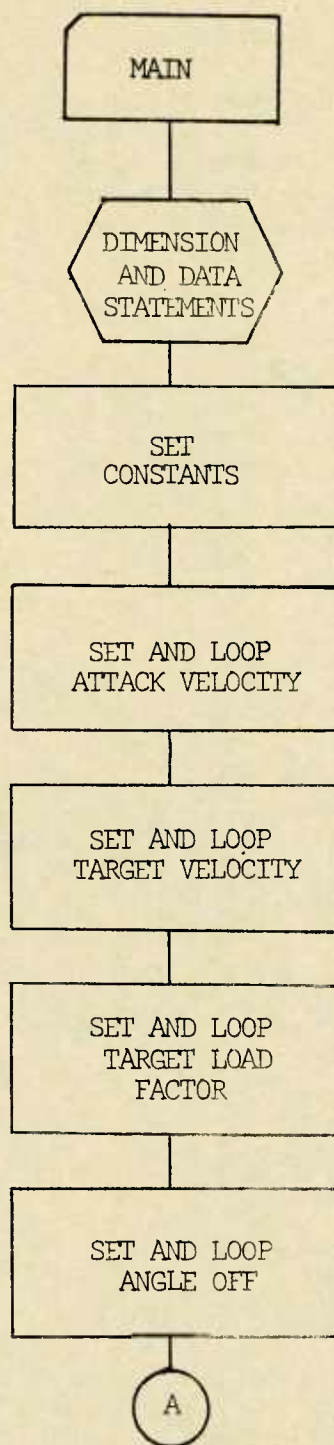


Figure 1. Air-to-Air Gunnery Effectiveness Simulation Program Flow Charts

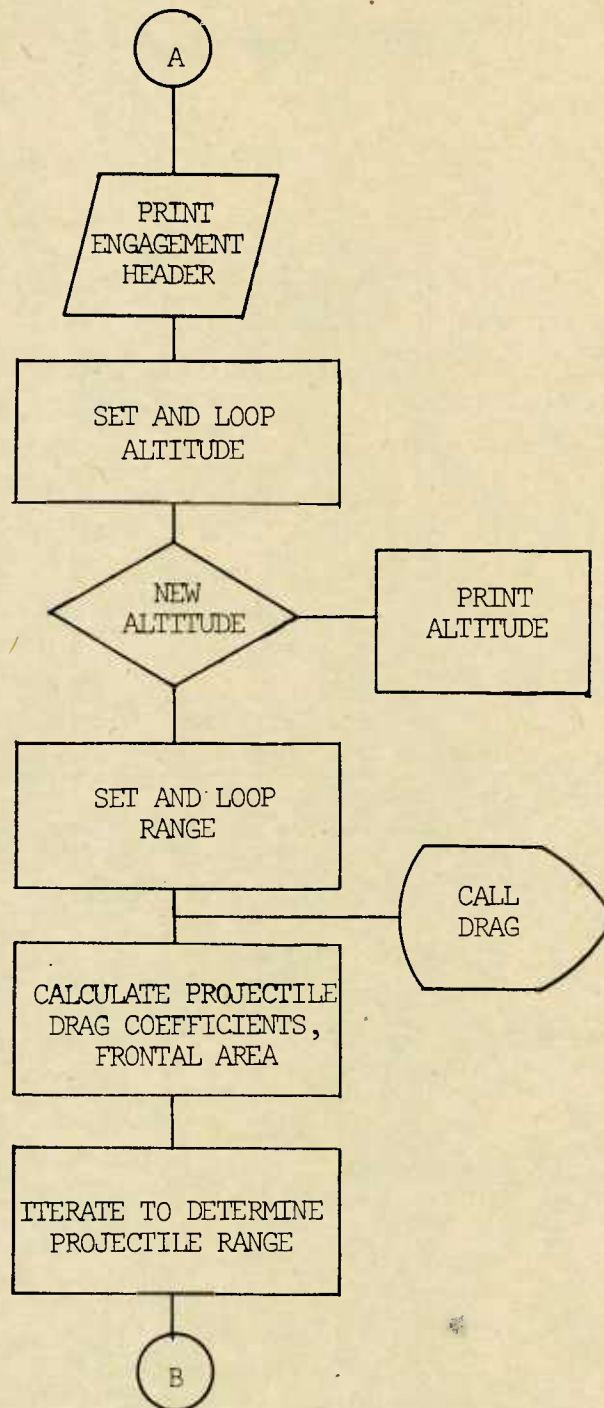


Figure 1. Continued

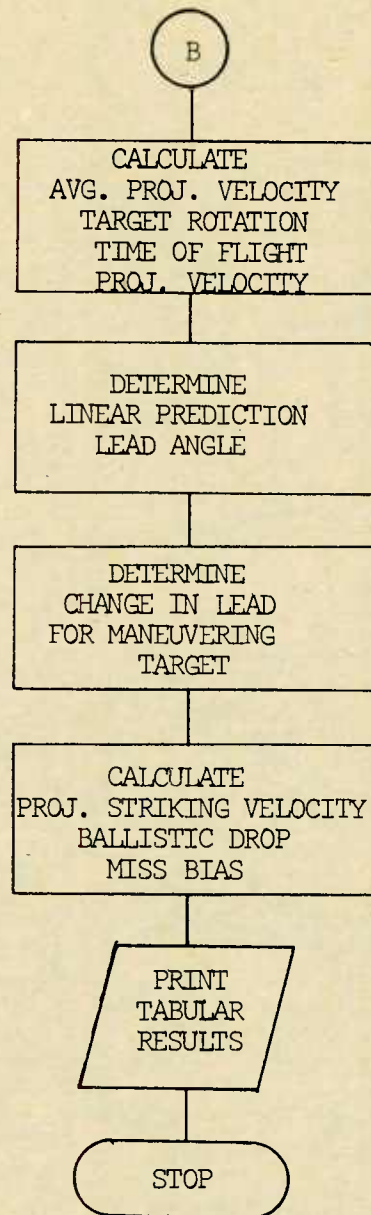


Figure 1. Continued

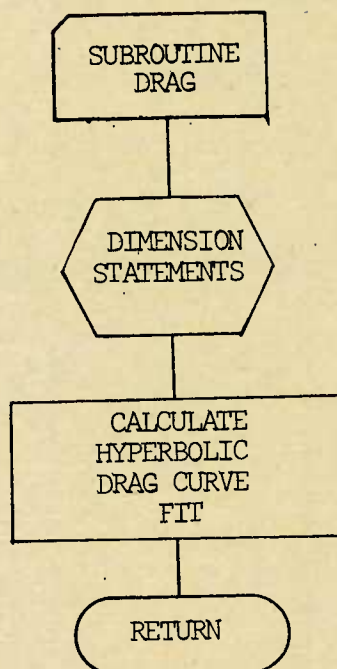


Figure 1. Concluded

TABLE 1. AIR TO AIR GUNNERY EFFECTIVENESS SIMULATION
PROGRAM LISTING

```

PROGRAM P1653(INPUT,OUTPUT,TAPE5=INPUT,TAPE6=OUTPUT,FILMPL)
DIMENSION PMACH(5),PCD(5)
DATA CKTF/1.6878/
DATA IPRNT/0/
PI=3.14159265358979
DTR=.0174532925
RTD=1.0/.0174532925
G=32.174
***** VARIABLE DRAG COEFFICIENT *****
C *****
10 CONTINUE
C ***** READ GUN SYSTEM VARIABLES *****
READ(5,1000) VMM,POIAM,WP
READ(5,2000) PMACH,PCD
VIK=300.
DO 100 IVA =1,3
VIK=VIK + 100.
VI=VIK*CKTF
VTK=300.
DO 100 IVT =1,3
VTK=VTK + 100.
VT=VTK*CKTF
ETATGT=0.0
DO 100 IG =1,6
ETATGT = ETATGT + 1.0
PSID=-10.
DO 100 IA =1,6
PSID=PSID + 10.
PSI=PSID*DTR
PALT=0.0
ALT=10000.
IPRNT=IPRNT+1
IF(IPRNT.EQ. 1) WRITE(6,6000)
IF(IPRNT.EQ. 2) IPRNT=0
WRITE(6,3000) POIAM,VMM, ALT,ETATGT,PSID,VT,VI
DO 100 IALT=1,3
PALT=PALT + 10000.0
IF(IALT.NE. 1) WRITE(6,5000) PALT
R=0.0

```


TABLE 1. CONTINUED

```

DO 100 IR =1,7
R=R+500.
C
VSONIC=1117. - .004*PALT
CALL DRAG(PMACH,PCD,CDH1,CDH2)
CDH2=CDH2*VSONIC
ETA2=G*SQRT(ETATGT*ETATGT-1.)
SP=PDIAM *PDIAM *.03937*.03937*.785*.0069444
DELTAO=(1.-(.0035662/518.688)*PALT)**4.2561
RHOA=.07647*DELTAO
UO=VMM+VI
C
IF(ETA2.NE.0.) GO TO 4899
RT=1.E50
GO TO 4900
4899 RT=VT*VT/ETA2
C ***** PROJECTILE RANGE *****
4900 RP=1.5*R
DELRP=100.
FRPL = 0.
ACOE1=3499.96*RHOA*SP/WP
4925 $ FRAC=VT*(ALOG(CDH1*UO/((CDH1*UO + CDH2)*EXP(-ACOE1*CDH1*RP)-CDH2
) ) - ACOE1*CDH1*RP)/(ACOE1*CDH2)
FRP=RP*RP-R*R-2.*R*COS(PSI)*FRAC-FRAC*FRAC
IF(DELRP.LT.1.0) GO TO 4990
IF(FRP.LT.0.) GO TO 4950
IF(FRPL.GT.0.) GO TO 4935
DELRP = DELRP/2.
RP = RP-DELRP
FRPL = FRP
GO TO 4925
4935 RP = RP-DELRP
IF(FRP.LT.FRPL) GO TO 4945
PRINT 4965
PRINT 4940, RP,R,DELRP,FRAC,FRP,ACOE1,FRPL,UO,PSI
4940 FORMAT(1X,9E15.7)
GO TO 20000

```

TABLE 1. CONTINUED

```

4945 FRPL=FRP
      GO TO 4925
4950 IF(FRPL.LT.0.) GO TO 4960
      DELRP = DELRP/2.
      RP = RP + DELRP
      FRPL = FRP
      GO TO 4925
4960 RP = RP + DELRP
      IF(FRP.GT.FRPL) GO TO 4975
      PRINT 4965
4965 FORMAT(1H0,*FUNCTION FOR RP IS UNSTABLE.*)
      PRINT 4940, RP,R,DELRP,FRAC,FRP,ACOE1,FRPL,U0,PSI
      GO TO 20000
4975 FRPL=FRP
      GO TO 4925
4990 UBAR=(1./((CDH1*RP))*((CDH1*U0 + CDH2)/(ACOE1*CDH1))*(1.0-
      $EXP(-ACOE1*CDH1*RP))-CDH2*RP)
C
C
C      ***** BALLISTIV TRIANGLE FOR NON-MANEUVERING TARGET *****
      WT=ETA2/VT
      TF=RP/UBAR
      UP=((CDH1*U0 + CDH2)*EXP(-ACOE1*CDH1*RP) - CDH2)/CDH1
      DELTA=ARSIN(VT/UBAR*SIN(PSI))
      THETA=PSI-DELTA
C
      DELTL =DELTA*RTD
      DELTA=DELTA
C
C
C      **** BALLISTICS TRIANGLE FOR MANEUVERING TGT *****

      IF(ETA2 .EQ. 0.) GO TO 9999
      THETA3=PI/2. - ETA2*TF/VT
      THETA4=PSI + .5* ETA2 * TF/VT
      AL2 = .5 * ETA2 * TF**2.
      DELRP1=AL2* COS( THETA3 - THETA)
      RP=RP - DELRP1

```

TABLE 1. CONTINUED

```

DDELTA=AL2 * SIN(THETA3 - THETA) / RP
DELTA= DELTA + DDELTA
THETA = THETA4 - DELTA
9999 CONTINUE
USK=UP - VT*COS(THETA)
DROP=(0.5*G*TF**2)*(1000./RP)
RAT=SQRT(R**2+(2.*RT*SIN(0.5*WT*TF))**2+4.*R*RT*SIN(0.5*WT*TF)
$ *COS(PSI+0.5*WT*TF))
DDDEL=ARSIN((2.*RT*SIN(0.5*WT*TF)*SIN(PSI+0.5*WT*TF))/RAT)-DELTAL
SAN=0.0
IF(ETA2.NE.0.0) SAN=RAT*SIN(DDDEL)
SAM=SAN*1000./RP
WRITE(6,4000) R,DELT,RP,TF,DROP,SAM,UP,USK
100 CONTINUE
GO TO 10
20000 CONTINUE
STOP
1000 FORMAT(8F10.0)
2000 FORMAT(5F5.0/5F5.0)
3000 FORMAT(13X,F6.1,*MM PROJECTILE*///13X,*MUZZLE VEL*,F6.0,* FT./S
$ EC.*,3X,*ALT.*,4X,F7.0,* FT.*,8X,*TGT. GEES*,F3.1/13X,
$ *ANGLE OFF*,F6.1,* DEG.*,7X,*TGT. VEL*,F7.0,* FT./SEC.*,3X,
$ *ATK. VEL*,F6.0,* FT./SEC.*///
$ 13X,*SIGHT*,6X,*LEAD*,5X,*PROJ.*,7X,*TIME*,4X,*GRAVITY
$ PRED. PROJ. STRIKE*/13X,*RANGE ANGLE RANGE
$ OF FLIGHT DROP BIAS VELOCITY VELOCITY*
$/15X,*FT.*,6X,*DEG.*,7X,*FT.*,7X,*SEC.*,5X,*MILS.*,4X,*MILS.*,5X,
$ *FT./SEC. FT./SEC.*)
4000 FORMAT(14X,F5.0,F8.1,2X,F10.0,F10.3,F8.0,2X,F8.1,3X,2F10.0,15X,
$ *,*)
5000 FORMAT(/40X,*ALT. *,F7.0/)
6000 FORMAT(1H1.///)
END

```

TABLE 1. CONCLUDED

```

C      SUBROUTINE DRAG(PMACH,PCD,CDH1,CDH2)
C      ***** CD = CDH1 + CDH2/VELOCITY *****
C      ***** HYPERBOLIC DRAG CURVE FIT *****
C
C      DIMENSION PMACH(5 ),PCD(5 )
C      PMACHI=0.
C      PMACH2=0.
C      DO 10 I=1,5
C      PMACHI=PMACHI + (1.0/PMACH(I))
10    PMACH2=PMACH2 + (1.0/PMACH(I))**2
C      D=1.0/(( 5.*PMACH2) - (PMACHI**2))
C      CDRA1=0.
C      CDRA2=0.
C      DO 20 I=1,5
C      CDRA1=CDRA1 + ((PMACH2-(PMACHI/PMACH(I)))*PCD(I))
20    CDRA2=CDRA2 + ((( 5./PMACH(I)) - PMACHI)*PCD(I))
C      CDH1 = D*CDRA1
C      CDH2 = D*CDRA2
C      RETURN
C      END

```


SECTION IV
AIR-TO-AIR TABLES

The engagement tables presented in this section were generated for a 20mm M56 high explosive incendiary (HEI) projectile. Six variables were parameterized in order to generate these tables:

a. Altitude	10,000 to 30,000 feet
b. Target Load Factor	1 to 6g
c. Angle-Off	0 to 50 degrees
d. Target Velocity	400 to 600 knots
e. Attacker Velocity	400 to 600 knots
f. Line of Sight Range	500 to 3500 feet

Seven output variables resulted from this parameterization. These variables were:

- Lead Angle (degrees)
- Projectile Range (feet)
- Time of Flight (seconds)
- Gravity drop (mils)
- Prediction Bias (mils)
- Projectile Velocity (ft/sec)
- Striking Velocity (ft/sec)

Each tabular page shows the complete parameterization of line of sight, range, and altitude, while the other four variables have a fixed value. For example, the first table shows all of the output variables as a function of range and altitude for a 1g target, 0.0 degrees angle-off, and co-speed at 400 knots (675 ft/sec). At 20,000 foot altitude and 2,000 foot line of sight range, typical values would be:

Variable	Value
Lead Angle	0.0 degree
Projectile Range	2473 feet
Time of Flight	0.697 second
Gravity Drop	3.0 mils
Prediction Bias	0.0 mil
Projectile Velocity	3095 ft/sec
Striking Velocity	2420 ft/sec

Each succeeding table has a variation of one of the remaining four variables. The order of variation is angle off, load factor, target velocity, attack velocity.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 1.0
 ANGLE OFF 0.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	0.0	605.	.157	1.	0.0	3689.	3014.
1000.	0.0	1224.	.332	1.	0.0	3362.	2687.
1500.	0.0	1859.	.528	2.	0.0	3045.	2370.
2000.	0.0	2512.	.748	4.	0.0	2736.	2061.
2500.	0.0	3188.	.998	5.	0.0	2433.	1758.
3000.	0.0	3899.	1.288	7.	0.0	2133.	1458.
3500.	0.0	4659.	1.631	9.	0.0	1832.	1157.

ALT. 20000.

500.	0.0	604.	.155	1.	0.0	3785.	3110.
1000.	0.0	1218.	.322	1.	0.0	3550.	2874.
1500.	0.0	1840.	.502	2.	0.0	3320.	2645.
2000.	0.0	2473.	.697	3.	0.0	3095.	2420.
2500.	0.0	3120.	.909	4.	0.0	2875.	2200.
3000.	0.0	3780.	1.140	6.	0.0	2658.	1983.
3500.	0.0	4462.	1.395	7.	0.0	2444.	1768.

ALT. 30000.

500.	0.0	604.	.153	1.	0.0	3858.	3183.
1000.	0.0	1212.	.314	1.	0.0	3694.	3019.
1500.	0.0	1827.	.484	2.	0.0	3533.	2858.
2000.	0.0	2449.	.663	3.	0.0	3374.	2699.
2500.	0.0	3077.	.852	4.	0.0	3217.	2542.
3000.	0.0	3715.	1.052	5.	0.0	3063.	2388.
3500.	0.0	4360.	1.264	6.	0.0	2911.	2236.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 1.0
ANGLE OFF 10.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	1.7	604.	.157	1.	0.0	3690.	3021.
1000.	1.8	1221.	.331	1.	0.0	3364.	2696.
1500.	1.9	1852.	.526	2.	0.0	3048.	2380.
2000.	2.0	2502.	.745	4.	0.0	2740.	2072.
2500.	2.1	3177.	.994	5.	0.0	2438.	1769.
3000.	2.2	3884.	1.281	7.	0.0	2140.	1471.
3500.	2.3	4637.	1.620	9.	0.0	1841.	1172.

ALT. 20000.

500.	1.7	602.	.154	1.	0.0	3785.	3117.
1000.	1.8	1215.	.321	1.	0.0	3551.	2883.
1500.	1.8	1835.	.500	2.	0.0	3322.	2654.
2000.	1.9	2466.	.695	3.	0.0	3098.	2429.
2500.	2.0	3110.	.906	4.	0.0	2878.	2209.
3000.	2.0	3768.	1.136	6.	0.0	2662.	1993.
3500.	2.1	4446.	1.389	7.	0.0	2448.	1780.

ALT. 30000.

500.	1.7	602.	.153	1.	0.0	3858.	3190.
1000.	1.7	1209.	.313	1.	0.0	3695.	3027.
1500.	1.8	1823.	.483	2.	0.0	3534.	2866.
2000.	1.8	2441.	.661	3.	0.0	3376.	2707.
2500.	1.9	3068.	.849	4.	0.0	3220.	2551.
3000.	1.9	3704.	1.048	5.	0.0	3066.	2397.
3500.	1.9	4348.	1.259	6.	0.0	2914.	2246.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 1.0
 ANGLE OFF 20.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	3.4	599.	.155	1.	0.0	3692.	3045.
1000.	3.6	1212.	.328	1.	0.0	3369.	2721.
1500.	3.8	1837.	.521	2.	0.0	3056.	2408.
2000.	3.9	2479.	.737	4.	0.0	2751.	2102.
2500.	4.1	3145.	.982	5.	0.0	2452.	1803.
3000.	4.4	3838.	1.262	7.	0.0	2158.	1508.
3500.	4.6	4577.	1.592	9.	0.0	1864.	1213.

ALT. 20000.

500.	3.4	598.	.153	1.	0.0	3787.	3140.
1000.	3.5	1204.	.318	1.	0.0	3555.	2908.
1500.	3.6	1820.	.496	2.	0.0	3327.	2680.
2000.	3.7	2445.	.688	3.	0.0	3105.	2457.
2500.	3.9	3080.	.896	4.	0.0	2888.	2239.
3000.	4.0	3732.	1.123	5.	0.0	2673.	2025.
3500.	4.1	4399.	1.371	7.	0.0	2463.	1813.

ALT. 30000.

500.	3.4	598.	.152	1.	0.0	3860.	3213.
1000.	3.4	1199.	.311	1.	0.0	3698.	3050.
1500.	3.5	1807.	.478	2.	0.0	3538.	2891.
2000.	3.6	2421.	.655	3.	0.0	3381.	2733.
2500.	3.7	3041.	.841	4.	0.0	3226.	2578.
3000.	3.7	3670.	1.037	5.	0.0	3074.	2426.
3500.	3.8	4307.	1.246	6.	0.0	2923.	2275.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 1.0
ANGLE OFF 30.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	5.0	591.	.153	1.	0.0	3696.	3084.
1000.	5.2	1195.	.323	1.	0.0	3378.	2764.
1500.	5.5	1810.	.512	2.	0.0	3069.	2454.
2000.	5.7	2440.	.723	3.	0.0	2769.	2154.
2500.	6.0	3091.	.961	5.	0.0	2475.	1859.
3000.	6.3	3768.	1.233	6.	0.0	2187.	1569.
3500.	6.7	4480.	1.547	9.	0.0	1901.	1281.

ALT. 20000.

500.	5.0	590.	.151	1.	0.0	3790.	3179.
1000.	5.1	1188.	.314	1.	0.0	3561.	2948.
1500.	5.3	1795.	.488	2.	0.0	3337.	2723.
2000.	5.4	2409.	.677	3.	0.0	3118.	2504.
2500.	5.6	3034.	.880	4.	0.0	2903.	2289.
3000.	5.8	3673.	1.102	5.	0.0	2693.	2077.
3500.	6.0	4324.	1.342	7.	0.0	2486.	1869.

ALT. 30000.

500.	4.9	590.	.150	1.	0.0	3862.	3250.
1000.	5.0	1184.	.306	1.	0.0	3702.	3090.
1500.	5.1	1784.	.472	2.	0.0	3544.	2931.
2000.	5.2	2388.	.645	3.	0.0	3389.	2776.
2500.	5.3	2999.	.828	4.	0.0	3237.	2623.
3000.	5.5	3616.	1.021	5.	0.0	3087.	2472.
3500.	5.6	4241.	1.224	6.	0.0	2939.	2324.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC.
ANGLE OFF 40.0 DEG.

ALT. 10000. FT.
TGT. VEL 675. FT./SEC.

TGT. GEES 1.0
ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	6.5	582.	.151	1.	0.0	3701.	3139.
1000.	6.7	1173.	.317	1.	0.0	3389.	2824.
1500.	7.0	1774.	.501	2.	0.0	3086.	2520.
2000.	7.4	2388.	.705	3.	0.0	2793.	2224.
2500.	7.7	3021.	.934	5.	0.0	2506.	1936.
3000.	8.1	3674.	1.193	6.	0.0	2226.	1653.
3500.	8.5	4357.	1.490	8.	0.0	1950.	1374.

ALT. 20000.

500.	6.4	580.	.148	1.	0.0	3794.	3232.
1000.	6.6	1166.	.307	1.	0.0	3569.	3006.
1500.	6.8	1760.	.478	2.	0.0	3349.	2784.
2000.	7.0	2362.	.662	3.	0.0	3134.	2568.
2500.	7.2	2973.	.860	4.	0.0	2924.	2356.
3000.	7.4	3593.	1.073	5.	0.0	2719.	2149.
3500.	7.7	4227.	1.305	6.	0.0	2516.	1946.

ALT. 30000.

500.	6.3	579.	.147	1.	0.0	3865.	3303.
1000.	6.4	1163.	.301	1.	0.0	3707.	3144.
1500.	6.6	1751.	.462	2.	0.0	3552.	2989.
2000.	6.7	2345.	.632	3.	0.0	3400.	2836.
2500.	6.9	2941.	.810	4.	0.0	3251.	2686.
3000.	7.0	3546.	.998	5.	0.0	3103.	2537.
3500.	7.2	4157.	1.196	6.	0.0	2958.	2391.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 1.0
ANGLE OFF 50.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	7.7	570.	.147	1.	0.0	3708.	3209.
1000.	8.0	1146.	.309	1.	0.0	3403.	2901.
1500.	8.4	1730.	.487	2.	0.0	3108.	2603.
2000.	8.7	2327.	.684	3.	0.0	2821.	2314.
2500.	9.1	2937.	.903	4.	0.0	2544.	2033.
3000.	9.6	3565.	1.148	6.	0.0	2272.	1758.
3500.	10.1	4215.	1.426	8.	0.0	2006.	1488.

ALT. 20000.

500.	7.6	568.	.145	1.	0.0	3799.	3300.
1000.	7.8	1141.	.300	1.	0.0	3578.	3078.
1500.	8.1	1720.	.466	2.	0.0	3364.	2862.
2000.	8.3	2305.	.644	3.	0.0	3154.	2650.
2500.	8.6	2898.	.835	4.	0.0	2949.	2443.
3000.	8.8	3499.	1.040	5.	0.0	2749.	2241.
3500.	9.1	4112.	1.262	6.	0.0	2553.	2042.

ALT. 30000.

500.	7.5	568.	.144	1.	0.0	3868.	3370.
1000.	7.7	1138.	.294	1.	0.0	3714.	3215.
1500.	7.8	1712.	.452	2.	0.0	3563.	3062.
2000.	8.0	2291.	.617	3.	0.0	3414.	2912.
2500.	8.2	2873.	.789	3.	0.0	3268.	2765.
3000.	8.3	3460.	.971	4.	0.0	3124.	2620.
3500.	8.5	4054.	1.162	5.	0.0	2983.	2477.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC.
ANGLE OFF 0.0 DEG.

ALT. 10000. FT.
TGT. VEL 675. FT./SEC.

TGT. GEES 2.0
ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	0.0	605.	.157	1.	1.1	3689.	3014.
1000.	0.0	1224.	.332	1.	2.5	3362.	2687.
1500.	0.0	1858.	.528	2.	4.2	3045.	2370.
2000.	0.0	2511.	.748	4.	6.2	2736.	2061.
2500.	0.0	3186.	.998	5.	8.7	2433.	1758.
3000.	0.0	3894.	1.288	7.	11.9	2133.	1459.
3500.	0.0	4649.	1.631	9.	15.9	1832.	1158.

ALT. 20000.

500.	0.0	604.	.155	1.	1.1	3785.	3110.
1000.	0.0	1218.	.322	1.	2.4	3550.	2874.
1500.	0.0	1840.	.502	2.	3.8	3320.	2645.
2000.	0.0	2472.	.697	3.	5.5	3095.	2421.
2500.	0.0	3118.	.909	4.	7.4	2875.	2200.
3000.	0.0	3777.	1.140	6.	9.6	2658.	1983.
3500.	0.0	4455.	1.395	7.	12.2	2444.	1769.

ALT. 30000.

500.	0.0	604.	.153	1.	1.1	3858.	3183.
1000.	0.0	1212.	.314	1.	2.3	3694.	3019.
1500.	0.0	1827.	.484	2.	3.6	3533.	2858.
2000.	0.0	2449.	.663	3.	5.0	3374.	2699.
2500.	0.0	3076.	.852	4.	6.6	3217.	2543.
3000.	0.0	3712.	1.052	5.	8.3	3063.	2388.
3500.	0.0	4356.	1.264	6.	10.2	2911.	2237.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 2.0
ANGLE OFF 10.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	1.7	604.	.157	1.	1.1	3690.	3022.
1000.	1.8	1221.	.331	1.	2.5	3364.	2697.
1500.	1.9	1851.	.526	2.	4.1	3048.	2381.
2000.	2.0	2499.	.745	4.	6.2	2740.	2074.
2500.	2.1	3171.	.994	5.	8.7	2438.	1773.
3000.	2.2	3873.	1.281	7.	11.9	2140.	1475.
3500.	2.3	4617.	1.620	9.	16.1	1841.	1177.

ALT. 20000.

500.	1.7	602.	.154	1.	1.1	3785.	3118.
1000.	1.8	1214.	.321	1.	2.4	3551.	2884.
1500.	1.8	1834.	.500	2.	3.8	3322.	2655.
2000.	1.9	2464.	.695	3.	5.4	3098.	2432.
2500.	2.0	3105.	.906	4.	7.3	2878.	2212.
3000.	2.0	3760.	1.136	6.	9.5	2662.	1997.
3500.	2.1	4433.	1.389	7.	12.1	2448.	1785.

ALT. 30000.

500.	1.7	602.	.153	1.	1.1	3858.	3191.
1000.	1.7	1208.	.313	1.	2.2	3695.	3028.
1500.	1.8	1821.	.483	2.	3.5	3534.	2867.
2000.	1.8	2439.	.661	3.	4.9	3376.	2710.
2500.	1.9	3064.	.849	4.	6.5	3220.	2554.
3000.	1.9	3697.	1.048	5.	8.2	3066.	2401.
3500.	1.9	4337.	1.259	6.	10.1	2914.	2250.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 2.0
 ANGLE OFF 20.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	3.4	599.	.155	1.	1.0	3692.	3046.
1000.	3.6	1211.	.328	1.	2.4	3369.	2723.
1500.	3.8	1834.	.521	2.	4.0	3056.	2411.
2000.	3.9	2474.	.737	4.	6.0	2751.	2107.
2500.	4.1	3135.	.982	5.	8.5	2452.	1809.
3000.	4.4	3822.	1.262	7.	11.6	2158.	1516.
3500.	4.6	4550.	1.592	9.	15.7	1864.	1223.

ALT. 20000.

500.	3.4	597.	.153	1.	1.0	3787.	3141.
1000.	3.5	1203.	.318	1.	2.2	3555.	2910.
1500.	3.6	1817.	.496	2.	3.6	3327.	2683.
2000.	3.7	2440.	.688	3.	5.2	3105.	2462.
2500.	3.9	3073.	.896	4.	7.1	2888.	2245.
3000.	4.0	3719.	1.123	5.	9.2	2673.	2032.
3500.	4.1	4379.	1.371	7.	11.7	2463.	1823.

ALT. 30000.

500.	3.4	597.	.152	1.	1.1	3860.	3214.
1000.	3.4	1198.	.311	1.	2.1	3698.	3053.
1500.	3.5	1805.	.478	2.	3.4	3538.	2894.
2000.	3.6	2417.	.655	3.	4.7	3381.	2738.
2500.	3.7	3035.	.841	4.	6.2	3226.	2584.
3000.	3.7	3659.	1.037	5.	7.9	3074.	2433.
3500.	3.8	4291.	1.246	6.	9.7	2923.	2284.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 2.0
ANGLE OFF 30.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	5.0	591.	.153	1.	.9	3696.	3086.
1000.	5.2	1193.	.323	1.	2.2	3378.	2768.
1500.	5.5	1807.	.512	2.	3.8	3069.	2459.
2000.	5.7	2433.	.723	3.	5.6	2769.	2160.
2500.	6.0	3079.	.961	5.	8.0	2475.	1868.
3000.	6.3	3747.	1.233	7.	10.9	2187.	1581.
3500.	6.7	4446.	1.547	9.	14.7	1901.	1296.

ALT. 20000.

500.	5.0	590.	.151	1.	.9	3790.	3180.
1000.	5.1	1187.	.314	1.	2.1	3561.	2951.
1500.	5.3	1792.	.488	2.	3.4	3337.	2728.
2000.	5.4	2403.	.677	3.	4.9	3118.	2510.
2500.	5.6	3023.	.880	4.	6.6	2903.	2297.
3000.	5.8	3656.	1.102	5.	8.6	2693.	2088.
3500.	6.0	4299.	1.342	7.	10.9	2486.	1882.

ALT. 30000.

500.	4.9	590.	.150	1.	1.0	3862.	3252.
1000.	5.0	1182.	.306	1.	2.0	3702.	3093.
1500.	5.1	1781.	.472	2.	3.2	3544.	2936.
2000.	5.2	2383.	.645	3.	4.4	3389.	2783.
2500.	5.3	2990.	.828	4.	5.8	3237.	2631.
3000.	5.5	3602.	1.021	5.	7.3	3087.	2483.
3500.	5.6	4220.	1.224	6.	9.0	2939.	2336.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 2.0
 ANGLE OFF 40.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	6.5	582.	.151	1.	1.0	3701.	3141.
1000.	6.7	1171.	.317	1.	2.1	3389.	2829.
1500.	7.0	1770.	.501	2.	3.4	3086.	2526.
2000.	7.4	2380.	.705	3.	5.1	2793.	2233.
2500.	7.7	3007.	.934	5.	7.2	2506.	1947.
3000.	8.1	3650.	1.193	6.	9.8	2226.	1668.
3500.	8.5	4318.	1.490	8.	13.2	1950.	1392.

ALT. 20000.

500.	6.4	580.	.148	1.	.9	3794.	3234.
1000.	6.6	1165.	.307	1.	1.9	3569.	3010.
1500.	6.8	1756.	.478	2.	3.0	3349.	2791.
2000.	7.0	2355.	.662	3.	4.4	3134.	2577.
2500.	7.2	2960.	.860	4.	5.9	2924.	2368.
3000.	7.4	3573.	1.073	5.	7.7	2719.	2163.
3500.	7.7	4198.	1.305	7.	9.8	2516.	1962.

ALT. 30000.

500.	6.3	579.	.147	1.	.8	3865.	3305.
1000.	6.4	1162.	.301	1.	1.8	3707.	3149.
1500.	6.6	1747.	.462	2.	2.8	3552.	2995.
2000.	6.7	2338.	.632	3.	4.0	3400.	2847.
2500.	6.9	2930.	.810	4.	5.2	3251.	2696.
3000.	7.0	3529.	.998	5.	6.6	3103.	2550.
3500.	7.2	4132.	1.196	6.	8.1	2958.	2407.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 2.0
ANGLE OFF 50.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	7.7	569.	.147	1.	.9	3708.	3211.
1000.	8.0	1144.	.309	1.	1.8	3403.	2906.
1500.	8.4	1726.	.487	2.	2.9	3108.	2611.
2000.	8.7	2318.	.684	3.	4.4	2821.	2325.
2500.	9.1	2921.	.903	4.	6.2	2544.	2047.
3000.	9.6	3538.	1.148	6.	8.5	2272.	1776.
3500.	10.1	4174.	1.426	8.	11.4	2006.	1510.

ALT. 20000.

500.	7.6	568.	.145	1.	.8	3799.	3303.
1000.	7.8	1140.	.300	1.	1.7	3578.	3083.
1500.	8.1	1715.	.466	2.	2.6	3364.	2869.
2000.	8.3	2297.	.644	3.	3.8	3154.	2660.
2500.	8.6	2884.	.835	4.	5.1	2949.	2457.
3000.	8.8	3478.	1.040	5.	6.6	2749.	2258.
3500.	9.1	4079.	1.262	6.	8.4	2553.	2062.

ALT. 30000.

500.	7.5	568.	.144	1.	.9	3868.	3372.
1000.	7.7	1137.	.294	1.	1.6	3714.	3219.
1500.	7.8	1708.	.452	2.	2.4	3563.	3070.
2000.	8.0	2284.	.617	3.	3.5	3414.	2922.
2500.	8.2	2860.	.789	4.	4.5	3268.	2778.
3000.	8.3	3441.	.971	4.	5.7	3124.	2636.
3500.	8.5	4026.	1.162	5.	7.0	2983.	2496.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 3.0
 ANGLE OFF 0.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	0.0	605.	.157	1.	1.9	3689.	3014.
1000.	0.0	1224.	.332	1.	4.1	3362.	2687.
1500.	0.0	1858.	.528	2.	6.8	3045.	2370.
2000.	0.0	2509.	.748	4.	10.1	2736.	2061.
2500.	0.0	3182.	.998	5.	14.2	2433.	1759.
3000.	0.0	3886.	1.288	7.	19.4	2133.	1460.
3500.	0.0	4632.	1.631	9.	26.0	1832.	1160.

ALT. 20000.

500.	0.0	604.	.155	1.	1.8	3785.	3110.
1000.	0.0	1218.	.322	1.	3.9	3550.	2875.
1500.	0.0	1839.	.502	2.	6.2	3320.	2645.
2000.	0.0	2471.	.697	3.	8.9	3095.	2421.
2500.	0.0	3115.	.909	4.	12.1	2875.	2200.
3000.	0.0	3771.	1.140	6.	15.7	2658.	1984.
3500.	0.0	4445.	1.395	7.	19.9	2444.	1770.

ALT. 30000.

500.	0.0	604.	.153	1.	1.8	3858.	3183.
1000.	0.0	1212.	.314	1.	3.7	3694.	3019.
1500.	0.0	1827.	.484	2.	5.8	3533.	2858.
2000.	0.0	2447.	.663	3.	8.2	3374.	2699.
2500.	0.0	3074.	.852	4.	10.7	3217.	2543.
3000.	0.0	3708.	1.052	5.	13.6	3063.	2389.
3500.	0.0	4348.	1.264	6.	16.7	2911.	2238.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 3.0
ANGLE OFF 10.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	1.7	604.	.157	1.	1.8	3690.	3022.
1000.	1.8	1220.	.331	1.	4.0	3364.	2698.
1500.	1.9	1850.	.526	2.	6.7	3048.	2383.
2000.	2.0	2496.	.745	4.	10.0	2740.	2076.
2500.	2.1	3165.	.994	5.	14.1	2438.	1775.
3000.	2.2	3861.	1.281	7.	19.3	2140.	1479.
3500.	2.3	4596.	1.620	9.	25.9	1841.	1182.

ALT. 20000.

500.	1.7	602.	.154	1.	1.8	3785.	3118.
1000.	1.8	1214.	.321	1.	3.8	3551.	2884.
1500.	1.8	1833.	.500	2.	6.2	3322.	2656.
2000.	1.9	2461.	.695	3.	8.8	3098.	2433.
2500.	2.0	3100.	.906	4.	11.9	2878.	2215.
3000.	2.0	3751.	1.136	6.	15.5	2662.	2000.
3500.	2.1	4418.	1.389	7.	19.6	2448.	1788.

ALT. 30000.

500.	1.7	602.	.153	1.	1.8	3858.	3191.
1000.	1.7	1208.	.313	1.	3.6	3695.	3029.
1500.	1.8	1820.	.483	2.	5.8	3534.	2868.
2000.	1.8	2437.	.661	3.	8.0	3376.	2711.
2500.	1.9	3060.	.849	4.	10.6	3220.	2557.
3000.	1.9	3690.	1.048	5.	13.4	3066.	2404.
3500.	1.9	4326.	1.259	6.	16.4	2914.	2254.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 3.0
 ANGLE OFF 20.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	3.4	599.	.155	1.	1.7	3692.	3047.
1000.	3.6	1210.	.328	1.	3.9	3369.	2725.
1500.	3.8	1832.	.521	2.	6.5	3056.	2413.
2000.	3.9	2470.	.737	4.	9.7	2751.	2110.
2500.	4.1	3127.	.982	5.	13.6	2452.	1814.
3000.	4.4	3807.	1.262	7.	18.5	2158.	1522.
3500.	4.6	4524.	1.592	9.	24.9	1864.	1230.

ALT. 20000.

500.	3.4	597.	.153	1.	1.7	3787.	3142.
1000.	3.5	1202.	.318	1.	3.7	3555.	2911.
1500.	3.6	1816.	.496	2.	5.9	3327.	2685.
2000.	3.7	2437.	.688	3.	8.5	3105.	2465.
2500.	3.9	3066.	.896	4.	11.4	2888.	2249.
3000.	4.0	3708.	1.123	5.	14.8	2673.	2037.
3500.	4.1	4361.	1.371	7.	18.8	2463.	1829.

ALT. 30000.

500.	3.4	597.	.152	1.	1.7	3860.	3215.
1000.	3.4	1198.	.311	1.	3.5	3698.	3054.
1500.	3.5	1803.	.478	2.	5.5	3538.	2896.
2000.	3.6	2414.	.655	3.	7.7	3381.	2741.
2500.	3.7	3029.	.841	4.	10.1	3226.	2588.
3000.	3.7	3649.	1.037	5.	12.8	3074.	2438.
3500.	3.8	4276.	1.246	6.	15.7	2923.	2290.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 3.0
ANGLE OFF 30.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	5.0	591.	.153	1.	1.6	3696.	3087.
1000.	5.2	1192.	.323	1.	3.6	3378.	2770.
1500.	5.5	1804.	.512	2.	6.1	3069.	2463.
2000.	5.7	2428.	.723	3.	9.0	2769.	2165.
2500.	6.0	3070.	.961	5.	12.7	2475.	1874.
3000.	6.3	3730.	1.233	7.	17.2	2187.	1582.
3500.	6.7	4418.	1.547	9.	23.1	1901.	1306.

ALT. 20000.

500.	5.0	589.	.151	1.	1.5	3790.	3181.
1000.	5.1	1186.	.314	1.	3.4	3561.	2953.
1500.	5.3	1789.	.488	2.	5.5	3337.	2731.
2000.	5.4	2398.	.677	3.	7.9	3118.	2515.
2500.	5.6	3015.	.880	4.	10.6	2903.	2303.
3000.	5.8	3643.	1.102	5.	13.8	2693.	2095.
3500.	6.0	4278.	1.342	7.	17.4	2486.	1891.

ALT. 30000.

500.	4.9	589.	.150	1.	1.6	3862.	3253.
1000.	5.0	1182.	.306	1.	3.2	3702.	3095.
1500.	5.1	1779.	.472	2.	5.1	3544.	2939.
2000.	5.2	2379.	.645	3.	7.2	3389.	2787.
2500.	5.3	2983.	.828	4.	9.4	3237.	2637.
3000.	5.5	3591.	1.021	5.	11.8	3087.	2490.
3500.	5.6	4203.	1.224	6.	14.5	2939.	2345.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 3.0
 ANGLE OFF 40.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	6.5	581.	.151	1.	1.6	3701.	3142.
1000.	6.7	1170.	.317	1.	3.3	3389.	2831.
1500.	7.0	1767.	.501	2.	5.5	3086.	2531.
2000.	7.4	2374.	.705	3.	8.1	2793.	2239.
2500.	7.7	2996.	.934	5.	11.4	2506.	1955.
3000.	8.1	3632.	1.193	6.	15.4	2226.	1678.
3500.	8.5	4288.	1.490	8.	20.5	1950.	1405.

ALT. 20000.

500.	6.4	580.	.148	1.	1.4	3794.	3235.
1000.	6.6	1164.	.307	1.	3.0	3569.	3012.
1500.	6.8	1754.	.478	2.	4.9	3349.	2795.
2000.	7.0	2349.	.662	3.	7.1	3134.	2582.
2500.	7.2	2951.	.860	4.	9.5	2924.	2375.
3000.	7.4	3559.	1.073	5.	12.3	2719.	2173.
3500.	7.7	4175.	1.305	7.	15.5	2516.	1974.

ALT. 30000.

500.	6.3	578.	.147	1.	1.3	3865.	3306.
1000.	6.4	1161.	.301	1.	3.0	3707.	3151.
1500.	6.6	1745.	.462	2.	4.6	3552.	2999.
2000.	6.7	2333.	.632	3.	6.5	3400.	2850.
2500.	6.9	2922.	.810	4.	8.4	3251.	2703.
3000.	7.0	3517.	.998	5.	10.6	3103.	2559.
3500.	7.2	4113.	1.196	6.	13.0	2958.	2418.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 3.0
ANGLE OFF 50.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	7.7	569.	.147	1.	1.4	3708.	3213.
1000.	8.0	1143.	.309	1.	2.9	3403.	2909.
1500.	8.4	1723.	.487	2.	4.7	3108.	2616.
2000.	8.7	2312.	.684	3.	7.0	2821.	2332.
2500.	9.1	2909.	.903	5.	9.7	2544.	2057.
3000.	9.6	3519.	1.148	6.	13.2	2272.	1788.
3500.	10.1	4143.	1.426	8.	17.5	2006.	1525.

ALT. 20000.

500.	7.6	567.	.145	1.	1.2	3799.	3304.
1000.	7.8	1139.	.300	1.	2.7	3578.	3086.
1500.	8.1	1712.	.466	2.	4.2	3364.	2874.
2000.	8.3	2292.	.644	3.	6.1	3154.	2667.
2500.	8.6	2874.	.835	4.	8.1	2949.	2466.
3000.	8.8	3462.	1.040	5.	10.5	2749.	2269.
3500.	9.1	4056.	1.262	6.	13.3	2553.	2076.

ALT. 30000.

500.	7.5	567.	.144	1.	1.4	3868.	3374.
1000.	7.7	1136.	.294	1.	2.6	3714.	3223.
1500.	7.8	1705.	.452	2.	3.9	3563.	3074.
2000.	8.0	2279.	.617	3.	5.6	3414.	2929.
2500.	8.2	2852.	.789	4.	7.2	3268.	2786.
3000.	8.3	3428.	.971	4.	9.1	3124.	2646.
3500.	8.5	4007.	1.162	5.	11.1	2983.	2509.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 4.0
 ANGLE OFF 0.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	0.0	605.	.157	1.	2.5	3689.	3014.
1000.	0.0	1224.	.332	1.	5.6	3362.	2687.
1500.	0.0	1857.	.528	2.	9.3	3045.	2370.
2000.	0.0	2507.	.748	4.	13.9	2736.	2062.
2500.	0.0	3177.	.998	5.	19.5	2433.	1760.
3000.	0.0	3875.	1.288	7.	26.6	2133.	1461.
3500.	0.0	4609.	1.631	9.	35.7	1832.	1162.

ALT. 20000.

500.	0.0	604.	.155	1.	2.5	3785.	3110.
1000.	0.0	1218.	.322	1.	5.3	3550.	2875.
1500.	0.0	1838.	.502	2.	8.5	3320.	2645.
2000.	0.0	2469.	.697	3.	12.2	3095.	2421.
2500.	0.0	3111.	.909	4.	16.5	2875.	2201.
3000.	0.0	3764.	1.140	6.	21.4	2658.	1985.
3500.	0.0	4431.	1.395	7.	27.2	2444.	1772.

ALT. 30000.

500.	0.0	604.	.153	1.	2.4	3858.	3183.
1000.	0.0	1211.	.314	1.	5.1	3694.	3019.
1500.	0.0	1826.	.484	2.	8.0	3533.	2858.
2000.	0.0	2446.	.663	3.	11.2	3374.	2699.
2500.	0.0	3070.	.852	4.	14.7	3217.	2544.
3000.	0.0	3702.	1.052	5.	18.6	3063.	2390.
3500.	0.0	4337.	1.264	6.	22.8	2911.	2239.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 4.0
ANGLE OFF 10.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	1.7	604.	.157	1.	2.5	3690.	3023.
1000.	1.8	1220.	.331	1.	5.5	3364.	2698.
1500.	1.9	1848.	.526	2.	9.2	3048.	2384.
2000.	2.0	2493.	.745	4.	13.7	2740.	2078.
2500.	2.1	3158.	.994	5.	19.3	2438.	1778.
3000.	2.2	3846.	1.281	7.	26.2	2140.	1482.
3500.	2.3	4568.	1.620	9.	35.3	1841.	1187.

ALT. 20000.

500.	1.7	602.	.154	1.	2.4	3785.	3119.
1000.	1.8	1214.	.321	1.	5.2	3551.	2885.
1500.	1.8	1832.	.500	2.	8.4	3322.	2658.
2000.	1.9	2458.	.695	3.	12.1	3098.	2435.
2500.	2.0	3095.	.906	4.	16.3	2878.	2217.
3000.	2.0	3740.	1.136	6.	21.1	2662.	2004.
3500.	2.1	4400.	1.389	7.	26.8	2448.	1793.

ALT. 30000.

500.	1.7	602.	.153	1.	2.4	3858.	3192.
1000.	1.7	1207.	.313	1.	5.0	3695.	3029.
1500.	1.8	1819.	.483	2.	7.9	3534.	2870.
2000.	1.8	2434.	.661	3.	11.0	3376.	2713.
2500.	1.9	3055.	.849	4.	14.4	3220.	2559.
3000.	1.9	3681.	1.048	5.	18.2	3066.	2407.
3500.	1.9	4312.	1.259	6.	22.4	2914.	2257.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 4.0
 ANGLE OFF 20.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	3.4	599.	.155	1.	2.4	3692.	3047.
1000.	3.6	1209.	.328	1.	5.3	3369.	2726.
1500.	3.8	1830.	.521	2.	8.9	3056.	2415.
2000.	3.9	2465.	.737	4.	13.1	2751.	2114.
2500.	4.1	3118.	.982	5.	18.5	2452.	1818.
3000.	4.4	3790.	1.262	7.	25.1	2158.	1528.
3500.	4.6	4493.	1.592	9.	33.7	1864.	1238.

ALT. 20000.

500.	3.4	597.	.153	1.	2.3	3787.	3143.
1000.	3.5	1202.	.318	1.	5.0	3555.	2912.
1500.	3.6	1814.	.496	2.	8.1	3327.	2687.
2000.	3.7	2433.	.688	3.	11.6	3105.	2468.
2500.	3.9	3059.	.896	4.	15.5	2888.	2253.
3000.	4.0	3695.	1.123	5.	20.2	2673.	2043.
3500.	4.1	4340.	1.371	7.	25.5	2463.	1836.

ALT. 30000.

500.	3.4	597.	.152	1.	2.3	3860.	3215.
1000.	3.4	1197.	.311	1.	4.8	3698.	3055.
1500.	3.5	1802.	.478	2.	7.5	3538.	2898.
2000.	3.6	2411.	.655	3.	10.5	3381.	2744.
2500.	3.7	3023.	.841	4.	13.8	3226.	2592.
3000.	3.7	3639.	1.037	5.	17.4	3074.	2443.
3500.	3.8	4260.	1.246	6.	21.3	2923.	2296.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 4.0
ANGLE OFF 30.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	5.0	591.	.153	1.	2.2	3696.	3088.
1000.	5.2	1191.	.323	1.	5.0	3378.	2772.
1500.	5.5	1802.	.512	2.	8.3	3069.	2466.
2000.	5.7	2423.	.723	3.	12.2	2769.	2170.
2500.	6.0	3059.	.961	5.	17.1	2475.	1880.
3000.	6.3	3711.	1.233	7.	23.2	2187.	1597.
3500.	6.7	4385.	1.547	9.	31.0	1901.	1316.

ALT. 20000.

500.	5.0	589.	.151	1.	2.1	3790.	3182.
1000.	5.1	1185.	.314	1.	4.7	3561.	2955.
1500.	5.3	1787.	.488	2.	7.5	3337.	2734.
2000.	5.4	2394.	.677	3.	10.7	3118.	2519.
2500.	5.6	3007.	.880	4.	14.4	2903.	2309.
3000.	5.8	3628.	1.102	5.	18.6	2693.	2102.
3500.	6.0	4255.	1.342	7.	23.5	2486.	1901.

ALT. 30000.

500.	4.9	589.	.150	1.	2.2	3862.	3254.
1000.	5.0	1181.	.306	1.	4.4	3702.	3097.
1500.	5.1	1777.	.472	2.	7.0	3544.	2942.
2000.	5.2	2375.	.645	3.	9.8	3389.	2791.
2500.	5.3	2976.	.828	4.	12.8	3237.	2642.
3000.	5.5	3579.	1.021	5.	16.1	3087.	2497.
3500.	5.6	4185.	1.224	6.	19.7	2939.	2353.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 4.0
 ANGLE OFF 40.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	6.5	581.	.151	1.	2.1	3701.	3143.
1000.	6.7	1169.	.317	1.	4.5	3389.	2834.
1500.	7.0	1765.	.501	2.	7.4	3086.	2535.
2000.	7.4	2368.	.705	3.	10.9	2793.	2245.
2500.	7.7	2985.	.934	5.	15.3	2506.	1963.
3000.	8.1	3612.	1.193	6.	20.6	2226.	1688.
3500.	8.5	4255.	1.490	8.	27.3	1950.	1418.

ALT. 20000.

500.	6.4	580.	.148	1.	2.0	3794.	3236.
1000.	6.6	1163.	.307	1.	4.1	3569.	3015.
1500.	6.8	1751.	.478	2.	6.7	3349.	2799.
2000.	7.0	2344.	.662	3.	9.6	3134.	2588.
2500.	7.2	2942.	.860	4.	12.9	2924.	2382.
3000.	7.4	3543.	1.073	5.	16.6	2719.	2182.
3500.	7.7	4151.	1.305	7.	20.9	2516.	1986.

ALT. 30000.

500.	6.3	578.	.147	1.	1.8	3865.	3308.
1000.	6.4	1160.	.301	1.	4.0	3707.	3154.
1500.	6.6	1743.	.462	2.	6.3	3552.	3003.
2000.	6.7	2329.	.632	3.	8.8	3400.	2855.
2500.	6.9	2914.	.810	4.	11.4	3251.	2710.
3000.	7.0	3503.	.998	5.	14.3	3103.	2568.
3500.	7.2	4093.	1.196	6.	17.5	2958.	2428.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 4.0
ANGLE OFF 50.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	7.7	569.	.147	1.	1.9	3708.	3214.
1000.	8.0	1142.	.309	1.	3.9	3403.	2912.
1500.	8.4	1720.	.487	2.	6.3	3108.	2621.
2000.	8.7	2306.	.684	3.	9.4	2821.	2339.
2500.	9.1	2898.	.903	5.	13.0	2544.	2066.
3000.	9.6	3500.	1.148	6.	17.5	2272.	1800.
3500.	10.1	4111.	1.426	8.	23.1	2006.	1541.

ALT. 20000.

500.	7.6	567.	.145	1.	1.7	3799.	3306.
1000.	7.8	1137.	.300	1.	3.7	3578.	3089.
1500.	8.1	1710.	.466	2.	5.8	3364.	2879.
2000.	8.3	2286.	.644	3.	8.2	3154.	2674.
2500.	8.6	2864.	.835	4.	11.0	2949.	2474.
3000.	8.8	3446.	1.040	5.	14.1	2749.	2280.
3500.	9.1	4031.	1.262	6.	17.8	2553.	2090.

ALT. 30000.

500.	7.5	567.	.144	1.	1.8	3868.	3375.
1000.	7.7	1134.	.294	1.	3.5	3714.	3226.
1500.	7.8	1702.	.452	2.	5.4	3563.	3079.
2000.	8.0	2274.	.617	3.	7.6	3414.	2935.
2500.	8.2	2843.	.789	4.	9.8	3268.	2795.
3000.	8.3	3414.	.971	4.	12.2	3124.	2657.
3500.	8.5	3986.	1.162	5.	14.9	2983.	2521.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 5.0
 ANGLE OFF 0.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	0.0	605.	.157	1.	3.2	3689.	3014.
1000.	0.0	1224.	.332	1.	7.1	3362.	2688.
1500.	0.0	1856.	.528	2.	11.8	3045.	2371.
2000.	0.0	2504.	.748	4.	17.6	2736.	2062.
2500.	0.0	3170.	.998	5.	24.7	2433.	1761.
3000.	0.0	3860.	1.288	7.	33.6	2133.	1463.
3500.	0.0	4581.	1.631	9.	45.2	1832.	1165.

ALT. 20000.

500.	0.0	604.	.155	1.	3.1	3785.	3110.
1000.	0.0	1217.	.322	1.	6.7	3550.	2875.
1500.	0.0	1838.	.502	2.	10.8	3320.	2646.
2000.	0.0	2466.	.697	3.	15.5	3095.	2422.
2500.	0.0	3106.	.909	4.	20.9	2875.	2202.
3000.	0.0	3754.	1.140	6.	27.1	2658.	1987.
3500.	0.0	4413.	1.395	7.	34.5	2444.	1774.

ALT. 30000.

500.	0.0	604.	.153	1.	3.1	3858.	3183.
1000.	0.0	1211.	.314	1.	6.4	3694.	3019.
1500.	0.0	1825.	.484	2.	10.1	3533.	2858.
2000.	0.0	2444.	.663	3.	14.2	3374.	2700.
2500.	0.0	3066.	.852	4.	18.6	3217.	2544.
3000.	0.0	3694.	1.052	5.	23.5	3063.	2391.
3500.	0.0	4324.	1.264	6.	28.9	2911.	2241.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 5.0
ANGLE OFF 10.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	1.7	604.	.157	1.	3.1	3690.	3023.
1000.	1.8	1219.	.331	1.	7.0	3364.	2699.
1500.	1.9	1847.	.526	2.	11.6	3048.	2385.
2000.	2.0	2489.	.745	4.	17.3	2740.	2080.
2500.	2.1	3149.	.994	5.	24.3	2438.	1781.
3000.	2.2	3829.	1.281	7.	33.1	2140.	1486.
3500.	2.3	4535.	1.620	9.	44.4	1841.	1193.

ALT. 20000.

500.	1.7	602.	.154	1.	3.1	3785.	3119.
1000.	1.8	1213.	.321	1.	6.6	3551.	2886.
1500.	1.8	1830.	.500	2.	10.6	3322.	2659.
2000.	1.9	2455.	.695	3.	15.2	3098.	2437.
2500.	2.0	3088.	.906	4.	20.5	2878.	2220.
3000.	2.0	3728.	1.136	6.	26.6	2662.	2007.
3500.	2.1	4378.	1.389	7.	33.7	2448.	1798.

ALT. 30000.

500.	1.7	602.	.153	1.	3.0	3858.	3192.
1000.	1.7	1207.	.313	1.	6.3	3695.	3030.
1500.	1.8	1818.	.483	2.	9.9	3534.	2871.
2000.	1.8	2431.	.661	3.	13.9	3376.	2715.
2500.	1.9	3049.	.849	4.	18.2	3220.	2561.
3000.	1.9	3671.	1.048	5.	23.0	3066.	2410.
3500.	1.9	4295.	1.259	6.	28.3	2914.	2262.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 5.0
 ANGLE OFF 20.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	3.4	599.	.155	1.	3.0	3692.	3048.
1000.	3.6	1209.	.328	1.	6.7	3369.	2727.
1500.	3.8	1828.	.521	2.	11.2	3056.	2418.
2000.	3.9	2460.	.737	4.	16.5	2751.	2117.
2500.	4.1	3108.	.982	5.	23.2	2452.	1823.
3000.	4.4	3771.	1.262	7.	31.5	2158.	1534.
3500.	4.6	4458.	1.592	9.	42.2	1864.	1247.

ALT. 20000.

500.	3.4	597.	.153	1.	2.9	3787.	3143.
1000.	3.5	1201.	.318	1.	6.3	3555.	2914.
1500.	3.6	1812.	.496	2.	10.2	3327.	2690.
2000.	3.7	2428.	.688	3.	14.6	3105.	2471.
2500.	3.9	3051.	.896	4.	19.6	2888.	2258.
3000.	4.0	3681.	1.123	6.	25.4	2673.	2048.
3500.	4.1	4316.	1.371	7.	32.0	2463.	1843.

ALT. 30000.

500.	3.4	597.	.152	1.	2.9	3860.	3216.
1000.	3.4	1197.	.311	1.	6.0	3698.	3057.
1500.	3.5	1800.	.478	2.	9.5	3538.	2900.
2000.	3.6	2407.	.655	3.	13.3	3381.	2747.
2500.	3.7	3016.	.841	4.	17.4	3226.	2596.
3000.	3.7	3627.	1.037	5.	21.9	3074.	2448.
3500.	3.8	4241.	1.246	6.	26.8	2923.	2303.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 5.0
ANGLE OFF 30.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	5.0	591.	.153	1.	2.8	3696.	3089.
1000.	5.2	1191.	.323	1.	6.2	3378.	2774.
1500.	5.5	1799.	.512	2.	10.4	3069.	2469.
2000.	5.7	2417.	.723	3.	15.3	2769.	2174.
2500.	6.0	3048.	.961	5.	21.4	2475.	1887.
3000.	6.3	3691.	1.233	7.	29.0	2187.	1605.
3500.	6.7	4349.	1.547	9.	38.6	1901.	1328.

ALT. 20000.

500.	5.0	589.	.151	1.	2.7	3790.	3183.
1000.	5.1	1185.	.314	1.	5.9	3561.	2957.
1500.	5.3	1785.	.488	2.	9.5	3337.	2738.
2000.	5.4	2389.	.677	3.	13.5	3118.	2524.
2500.	5.6	2998.	.880	4.	18.1	2903.	2315.
3000.	5.8	3613.	1.102	5.	23.4	2693.	2110.
3500.	6.0	4229.	1.342	7.	29.4	2486.	1911.

ALT. 30000.

500.	4.9	589.	.150	1.	2.7	3862.	3255.
1000.	5.0	1180.	.306	1.	5.6	3702.	3099.
1500.	5.1	1775.	.472	2.	8.8	3544.	2945.
2000.	5.2	2370.	.645	3.	12.3	3389.	2795.
2500.	5.3	2968.	.828	4.	16.1	3237.	2648.
3000.	5.5	3566.	1.021	5.	20.2	3087.	2504.
3500.	5.6	4164.	1.224	6.	24.7	2939.	2362.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 5.0
 ANGLE OFF 40.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	6.5	581.	.151	1.	2.6	3701.	3144.
1000.	6.7	1168.	.317	1.	5.6	3389.	2836.
1500.	7.0	1762.	.501	2.	9.3	3086.	2539.
2000.	7.4	2362.	.705	3.	13.7	2793.	2251.
2500.	7.7	2973.	.934	5.	19.1	2506.	1971.
3000.	8.1	3591.	1.193	6.	25.6	2226.	1699.
3500.	8.5	4220.	1.490	8.	33.9	1950.	1432.

ALT. 20000.

500.	6.4	579.	.148	1.	2.5	3794.	3238.
1000.	6.6	1162.	.307	1.	5.2	3569.	3017.
1500.	6.8	1749.	.478	2.	8.4	3349.	2803.
2000.	7.0	2339.	.662	3.	12.0	3134.	2594.
2500.	7.2	2932.	.860	4.	16.1	2924.	2390.
3000.	7.4	3527.	1.073	5.	20.7	2719.	2192.
3500.	7.7	4125.	1.305	7.	26.0	2516.	1998.

ALT. 30000.

500.	6.3	578.	.147	1.	2.3	3865.	3309.
1000.	6.4	1159.	.301	1.	5.1	3707.	3156.
1500.	6.6	1740.	.462	2.	7.9	3552.	3007.
2000.	6.7	2324.	.632	3.	11.0	3400.	2860.
2500.	6.9	2905.	.810	4.	14.3	3251.	2718.
3000.	7.0	3489.	.998	5.	18.0	3103.	2577.
3500.	7.2	4072.	1.196	6.	21.9	2958.	2440.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 5.0
ANGLE OFF 50.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	7.7	568.	.147	1.	2.3	3708.	3216.
1000.	8.0	1141.	.309	1.	4.9	3403.	2915.
1500.	8.4	1717.	.487	2.	7.9	3108.	2626.
2000.	8.7	2299.	.684	3.	11.7	2821.	2346.
2500.	9.1	2885.	.903	5.	16.2	2544.	2076.
3000.	9.6	3479.	1.148	6.	21.7	2272.	1813.
3500.	10.1	4077.	1.426	8.	28.4	2006.	1557.

ALT. 20000.

500.	7.6	567.	.145	1.	2.1	3799.	3307.
1000.	7.8	1136.	.300	1.	4.6	3578.	3092.
1500.	8.1	1707.	.466	2.	7.2	3364.	2884.
2000.	8.3	2280.	.644	3.	10.3	3154.	2681.
2500.	8.6	2854.	.835	4.	13.7	2949.	2483.
3000.	8.8	3429.	1.040	5.	17.6	2749.	2291.
3500.	9.1	4006.	1.262	6.	22.0	2553.	2104.

ALT. 30000.

500.	7.5	567.	.144	1.	2.2	3868.	3377.
1000.	7.7	1133.	.294	1.	4.4	3714.	3229.
1500.	7.8	1700.	.452	2.	6.8	3563.	3084.
2000.	8.0	2268.	.617	3.	9.5	3414.	2942.
2500.	8.2	2834.	.789	4.	12.2	3268.	2803.
3000.	8.3	3400.	.971	4.	15.3	3124.	2667.
3500.	8.5	3965.	1.162	5.	18.6	2983.	2535.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 6.0
 ANGLE OFF 0.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	0.0	605.	.157	1.	3.9	3689.	3014.
1000.	0.0	1223.	.332	1.	8.6	3362.	2688.
1500.	0.0	1855.	.528	2.	14.3	3045.	2371.
2000.	0.0	2501.	.748	4.	21.2	2736.	2063.
2500.	0.0	3162.	.998	5.	29.8	2433.	1762.
3000.	0.0	3843.	1.288	7.	40.6	2133.	1465.
3500.	0.0	4546.	1.631	9.	54.7	1832.	1168.

ALT. 20000.

500.	0.0	604.	.155	1.	3.8	3785.	3110.
1000.	0.0	1217.	.322	1.	8.1	3550.	2875.
1500.	0.0	1836.	.502	2.	13.0	3320.	2646.
2000.	0.0	2464.	.697	3.	18.7	3095.	2422.
2500.	0.0	3100.	.909	4.	25.2	2875.	2203.
3000.	0.0	3741.	1.140	6.	32.8	2658.	1988.
3500.	0.0	4391.	1.395	7.	41.6	2444.	1777.

ALT. 30000.

500.	0.0	604.	.153	1.	3.7	3858.	3183.
1000.	0.0	1211.	.314	1.	7.7	3694.	3020.
1500.	0.0	1824.	.484	2.	12.2	3533.	2859.
2000.	0.0	2441.	.663	3.	17.1	3374.	2701.
2500.	0.0	3061.	.852	4.	22.5	3217.	2546.
3000.	0.0	3684.	1.052	5.	28.4	3063.	2393.
3500.	0.0	4307.	1.264	6.	34.9	2911.	2243.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 6.0
ANGLE OFF 10.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	1.7	603.	.157	1.	3.8	3690.	3023.
1000.	1.8	1219.	.331	1.	8.4	3364.	2700.
1500.	1.9	1845.	.526	2.	14.0	3048.	2387.
2000.	2.0	2484.	.745	4.	20.8	2740.	2082.
2500.	2.1	3139.	.994	5.	29.3	2438.	1784.
3000.	2.2	3809.	1.281	7.	39.8	2140.	1491.
3500.	2.3	4498.	1.620	9.	53.5	1841.	1199.

ALT. 20000.

500.	1.7	602.	.154	1.	3.7	3785.	3119.
1000.	1.8	1213.	.321	1.	8.0	3551.	2887.
1500.	1.8	1828.	.500	2.	12.8	3322.	2660.
2000.	1.9	2451.	.695	3.	18.4	3098.	2439.
2500.	2.0	3080.	.906	4.	24.7	2878.	2223.
3000.	2.0	3714.	1.136	6.	32.1	2662.	2011.
3500.	2.1	4353.	1.389	7.	40.7	2448.	1803.

ALT. 30000.

500.	1.7	602.	.153	1.	3.7	3858.	3192.
1000.	1.7	1206.	.313	1.	7.6	3695.	3031.
1500.	1.8	1817.	.483	2.	12.0	3534.	2872.
2000.	1.8	2428.	.661	3.	16.8	3376.	2717.
2500.	1.9	3042.	.849	4.	22.0	3220.	2564.
3000.	1.9	3660.	1.048	5.	27.7	3066.	2414.
3500.	1.9	4276.	1.259	6.	34.1	2914.	2266.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 6.0
 ANGLE OFF 20.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	3.4	598.	.155	1.	3.6	3692.	3049.
1000.	3.6	1208.	.328	1.	8.1	3369.	2729.
1500.	3.8	1826.	.521	2.	13.4	3056.	2420.
2000.	3.9	2455.	.737	4.	19.9	2751.	2120.
2500.	4.1	3096.	.982	5.	27.9	2452.	1828.
3000.	4.4	3749.	1.262	7.	37.8	2158.	1541.
3500.	4.6	4419.	1.592	9.	50.6	1864.	1256.

ALT. 20000.

500.	3.4	597.	.153	1.	3.5	3787.	3144.
1000.	3.5	1200.	.318	1.	7.6	3555.	2915.
1500.	3.6	1810.	.496	2.	12.3	3327.	2692.
2000.	3.7	2424.	.688	3.	17.5	3105.	2474.
2500.	3.9	3042.	.896	4.	23.5	2888.	2262.
3000.	4.0	3665.	1.123	6.	30.5	2673.	2055.
3500.	4.1	4289.	1.371	7.	38.5	2463.	1851.

ALT. 30000.

500.	3.4	597.	.152	1.	3.5	3860.	3216.
1000.	3.4	1196.	.311	1.	7.3	3698.	3058.
1500.	3.5	1798.	.478	2.	11.4	3538.	2902.
2000.	3.6	2403.	.655	3.	16.0	3381.	2750.
2500.	3.7	3008.	.841	4.	20.9	3226.	2600.
3000.	3.7	3614.	1.037	5.	26.3	3074.	2454.
3500.	3.8	4220.	1.246	6.	32.3	2923.	2310.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 6.0
ANGLE OFF 30.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	5.0	590.	.153	1.	3.3	3696.	3090.
1000.	5.2	1190.	.323	1.	7.5	3378.	2776.
1500.	5.5	1797.	.512	2.	12.5	3069.	2472.
2000.	5.7	2411.	.723	3.	18.4	2769.	2179.
2500.	6.0	3035.	.961	5.	25.7	2475.	1893.
3000.	6.3	3668.	1.233	7.	34.6	2187.	1615.
3500.	6.7	4310.	1.547	9.	46.0	1901.	1340.

ALT. 20000.

500.	5.0	589.	.151	1.	3.2	3790.	3184.
1000.	5.1	1184.	.314	1.	7.1	3561.	2959.
1500.	5.3	1782.	.488	2.	11.4	3337.	2741.
2000.	5.4	2383.	.677	3.	16.2	3118.	2528.
2500.	5.6	2988.	.880	4.	21.7	2903.	2321.
3000.	5.8	3595.	1.102	5.	28.0	2693.	2118.
3500.	6.0	4202.	1.342	7.	35.2	2486.	1921.

ALT. 30000.

500.	4.9	589.	.150	1.	3.3	3862.	3256.
1000.	5.0	1179.	.306	1.	6.8	3702.	3101.
1500.	5.1	1772.	.472	2.	10.6	3544.	2948.
2000.	5.2	2365.	.645	3.	14.8	3389.	2800.
2500.	5.3	2959.	.828	4.	19.3	3237.	2654.
3000.	5.5	3551.	1.021	5.	24.2	3087.	2511.
3500.	5.6	4142.	1.224	6.	29.5	2939.	2372.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 6.0
 ANGLE OFF 40.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	6.5	581.	.151	1.	3.2	3701.	3146.
1000.	6.7	1167.	.317	1.	6.8	3389.	2839.
1500.	7.0	1759.	.501	2.	11.2	3086.	2543.
2000.	7.4	2355.	.705	3.	16.4	2793.	2257.
2500.	7.7	2960.	.934	5.	22.8	2506.	1980.
3000.	8.1	3569.	1.193	6.	30.5	2226.	1710.
3500.	8.5	4183.	1.490	9.	40.2	1950.	1447.

ALT. 20000.

500.	6.4	579.	.148	1.	3.0	3794.	3239.
1000.	6.6	1161.	.307	1.	6.3	3569.	3020.
1500.	6.8	1746.	.478	2.	10.1	3349.	2807.
2000.	7.0	2333.	.662	3.	14.4	3134.	2599.
2500.	7.2	2921.	.860	4.	19.3	2924.	2398.
3000.	7.4	3509.	1.073	5.	24.7	2719.	2202.
3500.	7.7	4097.	1.305	7.	31.0	2516.	2011.

ALT. 30000.

500.	6.3	578.	.147	1.	2.8	3865.	3310.
1000.	6.4	1158.	.301	1.	6.1	3707.	3159.
1500.	6.6	1737.	.462	2.	9.5	3552.	3011.
2000.	6.7	2318.	.632	3.	13.2	3400.	2866.
2500.	6.9	2896.	.810	4.	17.1	3251.	2725.
3000.	7.0	3474.	.998	5.	21.5	3103.	2586.
3500.	7.2	4050.	1.196	6.	26.1	2958.	2451.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 6.0
ANGLE OFF 50.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	7.7	568.	.147	1.	2.8	3708.	3217.
1000.	8.0	1139.	.309	1.	5.9	3403.	2918.
1500.	8.4	1713.	.487	2.	9.5	3108.	2631.
2000.	8.7	2292.	.684	3.	14.0	2821.	2353.
2500.	9.1	2873.	.903	5.	19.2	2544.	2086.
3000.	9.6	3457.	1.148	6.	25.7	2272.	1826.
3500.	10.1	4042.	1.426	8.	33.5	2006.	1574.

ALT. 20000.

500.	7.6	567.	.145	1.	2.6	3799.	3309.
1000.	7.8	1135.	.300	1.	5.5	3578.	3095.
1500.	8.1	1704.	.466	2.	8.7	3364.	2889.
2000.	8.3	2274.	.644	3.	12.3	3154.	2687.
2500.	8.6	2843.	.835	4.	16.4	2949.	2492.
3000.	8.8	3412.	1.040	5.	20.9	2749.	2303.
3500.	9.1	3979.	1.262	6.	26.0	2553.	2119.

ALT. 30000.

500.	7.5	567.	.144	1.	2.7	3868.	3378.
1000.	7.7	1132.	.294	1.	5.3	3714.	3232.
1500.	7.8	1697.	.452	2.	8.1	3563.	3088.
2000.	8.0	2263.	.617	3.	11.3	3414.	2948.
2500.	8.2	2824.	.789	4.	14.6	3268.	2812.
3000.	8.3	3385.	.971	4.	18.2	3124.	2678.
3500.	8.5	3942.	1.162	6.	22.0	2983.	2548.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC.
ANGLE OFF 0.0 DEG.

ALT. 10000. FT.
TGT. VEL 844. FT./SEC.

TGT. GEES 1.0
ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	0.0	641.	.167	1.	0.0	3669.	2825.
1000.	0.0	1301.	.355	2.	0.0	3323.	2479.
1500.	0.0	1984.	.568	3.	0.0	2985.	2141.
2000.	0.0	2698.	.815	4.	0.0	2651.	1807.
2500.	0.0	3455.	1.104	6.	0.0	2318.	1474.
3000.	0.0	4280.	1.456	8.	0.0	1980.	1136.
3500.	0.0	5226.	1.912	11.	0.0	1620.	776.

ALT. 20000.

500.	0.0	638.	.164	1.	0.0	3771.	2928.
1000.	0.0	1288.	.342	1.	0.0	3523.	2679.
1500.	0.0	1954.	.536	2.	0.0	3279.	2435.
2000.	0.0	2637.	.749	3.	0.0	3039.	2195.
2500.	0.0	3340.	.985	5.	0.0	2801.	1958.
3000.	0.0	4070.	1.246	6.	0.0	2566.	1722.
3500.	0.0	4834.	1.541	8.	0.0	2330.	1486.

ALT. 30000.

500.	0.0	637.	.162	1.	0.0	3849.	3005.
1000.	0.0	1280.	.333	1.	0.0	3676.	2832.
1500.	0.0	1935.	.514	2.	0.0	3505.	2661.
2000.	0.0	2599.	.707	3.	0.0	3336.	2492.
2500.	0.0	3274.	.913	4.	0.0	3169.	2325.
3000.	0.0	3962.	1.132	5.	0.0	3004.	2161.
3500.	0.0	4665.	1.367	6.	0.0	2841.	1997.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 1.0
ANGLE OFF 10.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	2.2	638.	.166	1.	0.0	3671.	2835.
1000.	2.3	1296.	.353	2.	0.0	3325.	2489.
1500.	2.4	1976.	.566	3.	0.0	2988.	2152.
2000.	2.5	2685.	.810	4.	0.0	2657.	1820.
2500.	2.7	3438.	1.097	6.	0.0	2326.	1489.
3000.	2.9	4257.	1.445	8.	0.0	1989.	1152.
3500.	3.1	5190.	1.893	11.	0.0	1633.	795.

ALT. 20000.

500.	2.2	637.	.163	1.	0.0	3772.	2936.
1000.	2.2	1285.	.341	1.	0.0	3524.	2688.
1500.	2.3	1948.	.534	2.	0.0	3281.	2445.
2000.	2.4	2626.	.746	3.	0.0	3042.	2206.
2500.	2.5	3326.	.980	5.	0.0	2806.	1969.
3000.	2.6	4052.	1.240	6.	0.0	2571.	1734.
3500.	2.7	4810.	1.532	8.	0.0	2337.	1500.

ALT. 30000.

500.	2.1	634.	.161	1.	0.0	3850.	3014.
1000.	2.2	1277.	.332	1.	0.0	3677.	2841.
1500.	2.2	1927.	.512	2.	0.0	3507.	2671.
2000.	2.3	2590.	.705	3.	0.0	3338.	2502.
2500.	2.3	3262.	.909	4.	0.0	3172.	2336.
3000.	2.4	3946.	1.127	5.	0.0	3008.	2172.
3500.	2.5	4646.	1.360	6.	0.0	2845.	2008.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 1.0
 ANGLE OFF 20.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	4.3	632.	.164	1.	0.0	3674.	2862.
1000.	4.5	1282.	.349	2.	0.0	3333.	2519.
1500.	4.7	1952.	.558	3.	0.0	3000.	2185.
2000.	5.0	2652.	.798	4.	0.0	2671.	1856.
2500.	5.3	3391.	1.078	6.	0.0	2346.	1529.
3000.	5.6	4188.	1.414	8.	0.0	2016.	1199.
3500.	6.0	5085.	1.840	11.	0.0	1672.	853.

ALT. 20000.

500.	4.2	630.	.162	1.	0.0	3775.	2962.
1000.	4.4	1271.	.337	1.	0.0	3530.	2717.
1500.	4.5	1926.	.528	2.	0.0	3289.	2476.
2000.	4.7	2596.	.736	3.	0.0	3053.	2239.
2500.	4.9	3287.	.966	5.	0.0	2819.	2004.
3000.	5.1	3999.	1.220	6.	0.0	2588.	1773.
3500.	5.3	4743.	1.505	8.	0.0	2358.	1542.

ALT. 30000.

500.	4.2	629.	.160	1.	0.0	3851.	3039.
1000.	4.3	1263.	.328	1.	0.0	3681.	2868.
1500.	4.4	1909.	.507	2.	0.0	3512.	2699.
2000.	4.5	2562.	.696	3.	0.0	3345.	2532.
2500.	4.6	3226.	.898	4.	0.0	3181.	2367.
3000.	4.7	3901.	1.112	5.	0.0	3019.	2205.
3500.	4.8	4591.	1.342	6.	0.0	2858.	2043.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 1.0
ANGLE OFF 30.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	6.3	621.	.161	1.	0.0	3680.	2908.
1000.	6.6	1259.	.342	1.	0.0	3345.	2570.
1500.	6.9	1916.	.546	3.	0.0	3017.	2241.
2000.	7.3	2598.	.779	4.	0.0	2696.	1918.
2500.	7.7	3315.	1.048	5.	0.0	2378.	1598.
3000.	8.1	4080.	1.367	7.	0.0	2060.	1277.
3500.	8.7	4927.	1.761	10.	0.0	1730.	944.

ALT. 20000.

500.	6.2	620.	.159	1.	0.0	3779.	3007.
1000.	6.4	1249.	.331	1.	0.0	3538.	2764.
1500.	6.6	1893.	.518	2.	0.0	3301.	2526.
2000.	6.9	2549.	.721	3.	0.0	3069.	2293.
2500.	7.1	3223.	.944	4.	0.0	2840.	2063.
3000.	7.4	3916.	1.190	6.	0.0	2614.	1836.
3500.	7.7	4637.	1.463	7.	0.0	2390.	1609.

ALT. 30000.

500.	6.1	618.	.157	1.	0.0	3854.	3082.
1000.	6.3	1243.	.323	1.	0.0	3686.	2913.
1500.	6.4	1876.	.498	2.	0.0	3520.	2747.
2000.	6.6	2518.	.683	3.	0.0	3356.	2582.
2500.	6.7	3168.	.880	4.	0.0	3195.	2420.
3000.	6.9	3829.	1.089	5.	0.0	3036.	2260.
3500.	7.1	4502.	1.311	6.	0.0	2878.	2101.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 1.0
 ANGLE OFF 40.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	8.1	609.	.158	1.	0.0	3687.	2971.
1000.	8.5	1229.	.333	1.	0.0	3360.	2641.
1500.	8.9	1868.	.531	2.	0.0	3040.	2318.
2000.	9.3	2527.	.754	4.	0.0	2729.	2003.
2500.	9.8	3215.	1.009	5.	0.0	2422.	1692.
3000.	10.4	3943.	1.307	7.	0.0	2115.	1382.
3500.	11.0	4732.	1.666	9.	0.0	1804.	1066.

ALT. 20000.

500.	8.0	607.	.156	1.	0.0	3784.	3068.
1000.	8.2	1221.	.323	1.	0.0	3548.	2831.
1500.	8.5	1848.	.504	2.	0.0	3317.	2598.
2000.	8.8	2485.	.701	3.	0.0	3091.	2369.
2500.	9.1	3138.	.915	4.	0.0	2868.	2144.
3000.	9.4	3807.	1.150	6.	0.0	2649.	1923.
3500.	9.8	4499.	1.410	7.	0.0	2432.	1703.

ALT. 30000.

500.	7.9	605.	.154	1.	0.0	3858.	3143.
1000.	8.1	1216.	.315	1.	0.0	3693.	2977.
1500.	8.3	1834.	.486	2.	0.0	3531.	2813.
2000.	8.4	2459.	.666	3.	0.0	3371.	2652.
2500.	8.6	3091.	.856	4.	0.0	3214.	2493.
3000.	8.8	3734.	1.058	5.	0.0	3059.	2336.
3500.	9.1	4385.	1.272	6.	0.0	2905.	2182.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 1.0
ANGLE OFF 50.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	9.6	591.	.153	1.	0.0	3696.	3053.
1000.	10.1	1195.	.323	1.	0.0	3378.	2730.
1500.	10.5	1810.	.512	2.	0.0	3069.	2417.
2000.	11.0	2445.	.724	3.	0.0	2767.	2111.
2500.	11.6	3099.	.964	5.	0.0	2472.	1811.
3000.	12.2	3785.	1.240	7.	0.0	2180.	1513.
3500.	12.9	4515.	1.563	9.	0.0	1888.	1214.

ALT. 20000.

500.	9.5	590.	.151	1.	0.0	3790.	3148.
1000.	9.8	1188.	.314	1.	0.0	3561.	2916.
1500.	10.1	1793.	.488	2.	0.0	3337.	2689.
2000.	10.5	2410.	.677	3.	0.0	3117.	2466.
2500.	10.8	3037.	.881	4.	0.0	2902.	2248.
3000.	11.2	3679.	1.104	5.	0.0	2691.	2033.
3500.	11.6	4337.	1.347	7.	0.0	2482.	1821.

ALT. 30000.

500.	9.4	588.	.149	1.	0.0	3862.	3221.
1000.	9.6	1184.	.306	1.	0.0	3702.	3059.
1500.	9.8	1782.	.471	2.	0.0	3544.	2899.
2000.	10.1	2388.	.645	3.	0.0	3389.	2742.
2500.	10.3	2999.	.828	4.	0.0	3237.	2587.
3000.	10.5	3618.	1.021	5.	0.0	3086.	2435.
3500.	10.8	4246.	1.225	6.	0.0	2938.	2284.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 2.0
 ANGLE OFF 0.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	0.0	641.	.167	1.	1.2	3669.	2825.
1000.	0.0	1301.	.355	2.	2.7	3323.	2479.
1500.	0.0	1983.	.568	3.	4.5	2985.	2141.
2000.	0.0	2697.	.815	4.	6.9	2651.	1807.
2500.	0.0	3453.	1.104	6.	9.8	2318.	1475.
3000.	0.0	4275.	1.456	8.	13.8	1980.	1136.
3500.	0.0	5213.	1.912	11.	19.5	1620.	777.

ALT. 20000.

500.	0.0	638.	.164	1.	1.2	3771.	2928.
1000.	0.0	1288.	.342	1.	2.5	3523.	2679.
1500.	0.0	1954.	.536	2.	4.1	3279.	2435.
2000.	0.0	2636.	.749	3.	5.9	3039.	2195.
2500.	0.0	3338.	.985	5.	8.1	2801.	1958.
3000.	0.0	4066.	1.246	6.	10.6	2566.	1722.
3500.	0.0	4827.	1.541	8.	13.7	2330.	1487.

ALT. 30000.

500.	0.0	637.	.162	1.	1.1	3849.	3005.
1000.	0.0	1280.	.333	1.	2.4	3676.	2832.
1500.	0.0	1935.	.514	2.	3.8	3505.	2661.
2000.	0.0	2599.	.707	3.	5.4	3336.	2492.
2500.	0.0	3273.	.913	4.	7.1	3169.	2326.
3000.	0.0	3959.	1.132	5.	9.0	3004.	2161.
3500.	0.0	4660.	1.367	6.	11.2	2841.	1997.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT.
ANGLE OFF 10.0 DEG. TGT. VEL 844. FT./SEC. TGT. GEES 2.0
ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	2.2	638.	.166	1.	1.2	3671.	2835.
1000.	2.3	1296.	.353	2.	2.7	3325.	2490.
1500.	2.4	1974.	.566	3.	4.6	2988.	2153.
2000.	2.5	2682.	.810	4.	6.9	2657.	1822.
2500.	2.7	3432.	1.097	6.	10.0	2326.	1492.
3000.	2.9	4244.	1.445	8.	14.1	1989.	1156.
3500.	3.1	5166.	1.893	11.	20.2	1633.	801.

ALT. 20000.

500.	2.2	637.	.163	1.	1.2	3772.	2937.
1000.	2.2	1285.	.341	1.	2.5	3524.	2689.
1500.	2.3	1946.	.534	2.	4.1	3281.	2447.
2000.	2.4	2623.	.746	3.	5.9	3042.	2208.
2500.	2.5	3321.	.980	5.	8.1	2806.	1972.
3000.	2.6	4043.	1.240	6.	10.7	2571.	1738.
3500.	2.7	4795.	1.532	8.	13.8	2337.	1505.

ALT. 30000.

500.	2.1	633.	.161	1.	1.1	3850.	3014.
1000.	2.2	1277.	.332	1.	2.4	3677.	2842.
1500.	2.2	1926.	.512	2.	3.8	3507.	2672.
2000.	2.3	2587.	.705	3.	5.3	3338.	2504.
2500.	2.3	3257.	.909	4.	7.0	3172.	2339.
3000.	2.4	3939.	1.127	5.	8.9	3008.	2175.
3500.	2.5	4635.	1.360	6.	11.1	2845.	2013.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 2.0
 ANGLE OFF 20.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	4.3	632.	.164	1.	1.1	3674.	2863.
1000.	4.5	1281.	.349	2.	2.6	3333.	2521.
1500.	4.7	1950.	.558	3.	4.4	3000.	2189.
2000.	5.0	2647.	.798	4.	6.8	2671.	1861.
2500.	5.3	3381.	1.078	6.	9.8	2346.	1535.
3000.	5.6	4169.	1.414	8.	13.9	2016.	1207.
3500.	6.0	5051.	1.840	11.	19.9	1672.	863.

ALT. 20000.

500.	4.2	630.	.162	1.	1.2	3775.	2963.
1000.	4.4	1270.	.337	1.	2.4	3530.	2719.
1500.	4.5	1923.	.528	2.	3.9	3289.	2479.
2000.	4.7	2591.	.736	3.	5.7	3053.	2243.
2500.	4.9	3278.	.966	5.	7.8	2819.	2010.
3000.	5.1	3985.	1.220	6.	10.3	2588.	1780.
3500.	5.3	4721.	1.505	8.	13.4	2358.	1550.

ALT. 30000.

500.	4.2	629.	.160	1.	1.2	3851.	3040.
1000.	4.3	1262.	.328	1.	2.3	3681.	2870.
1500.	4.4	1906.	.507	2.	3.6	3512.	2702.
2000.	4.5	2558.	.696	3.	5.1	3345.	2536.
2500.	4.6	3219.	.898	4.	6.8	3181.	2373.
3000.	4.7	3889.	1.112	5.	8.6	3019.	2211.
3500.	4.8	4574.	1.342	6.	10.7	2858.	2051.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 2.0
ANGLE OFF 30.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	6.3	621.	.161	1.	1.0	3680.	2909.
1000.	6.6	1257.	.342	1.	2.4	3345.	2573.
1500.	6.9	1913.	.546	3.	4.2	3017.	2245.
2000.	7.3	2590.	.779	4.	6.3	2696.	1925.
2500.	7.7	3301.	1.048	5.	9.3	2378.	1606.
3000.	8.1	4057.	1.367	7.	13.2	2060.	1288.
3500.	8.7	4887.	1.761	10.	18.8	1730.	958.

ALT. 20000.

500.	6.2	619.	.159	1.	1.0	3779.	3008.
1000.	6.4	1248.	.331	1.	2.2	3538.	2767.
1500.	6.6	1890.	.518	2.	3.7	3301.	2531.
2000.	6.9	2543.	.721	3.	5.4	3069.	2299.
2500.	7.1	3212.	.944	4.	7.4	2840.	2071.
3000.	7.4	3898.	1.190	6.	9.7	2614.	1846.
3500.	7.7	4609.	1.463	7.	12.6	2390.	1622.

ALT. 30000.

500.	6.1	618.	.157	1.	1.0	3854.	3084.
1000.	6.3	1242.	.323	1.	2.1	3686.	2916.
1500.	6.4	1873.	.498	2.	3.4	3520.	2751.
2000.	6.6	2512.	.683	3.	4.8	3356.	2588.
2500.	6.7	3158.	.880	4.	6.3	3195.	2428.
3000.	6.9	3814.	1.089	5.	8.1	3036.	2269.
3500.	7.1	4480.	1.311	6.	10.0	2878.	2113.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 2.0
 ANGLE OFF 40.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	8.1	608.	.158	1.	1.1	3687.	2973.
1000.	8.5	1227.	.333	1.	2.1	3360.	2645.
1500.	8.9	1864.	.531	2.	3.8	3040.	2324.
2000.	9.3	2519.	.754	4.	5.8	2729.	2012.
2500.	9.8	3199.	1.009	5.	8.4	2422.	1703.
3000.	10.4	3916.	1.307	7.	11.9	2115.	1396.
3500.	11.0	4687.	1.666	10.	16.9	1804.	1084.

ALT. 20000.

500.	8.0	607.	.156	1.	1.1	3784.	3070.
1000.	8.2	1220.	.323	1.	2.0	3548.	2835.
1500.	8.5	1844.	.504	2.	3.4	3317.	2604.
2000.	8.8	2478.	.701	3.	4.9	3091.	2377.
2500.	9.1	3125.	.915	4.	6.7	2868.	2155.
3000.	9.4	3786.	1.150	6.	8.8	2649.	1936.
3500.	9.8	4467.	1.410	7.	11.4	2432.	1719.

ALT. 30000.

500.	7.9	605.	.154	1.	1.0	3858.	3145.
1000.	8.1	1215.	.315	1.	2.0	3693.	2980.
1500.	8.3	1830.	.486	2.	3.1	3531.	2819.
2000.	8.4	2452.	.666	3.	4.3	3371.	2660.
2500.	8.6	3080.	.856	4.	5.7	3214.	2504.
3000.	8.8	3716.	1.058	5.	7.3	3059.	2349.
3500.	9.1	4359.	1.272	6.	9.0	2905.	2197.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 2.0
 ANGLE OFF 50.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	9.6	591.	.153	1.	.8	3696.	3056.
1000.	10.1	1193.	.323	1.	2.0	3378.	2735.
1500.	10.5	1805.	.512	2.	3.3	3069.	2425.
2000.	11.0	2435.	.724	3.	5.1	2767.	2121.
2500.	11.6	3082.	.964	5.	7.3	2472.	1824.
3000.	12.2	3756.	1.240	7.	10.3	2180.	1530.
3500.	12.9	4468.	1.563	9.	14.5	1888.	1236.

ALT. 20000.

500.	9.5	589.	.151	1.	.8	3790.	3151.
1000.	9.8	1186.	.314	1.	1.9	3561.	2921.
1500.	10.1	1789.	.488	2.	2.9	3337.	2697.
2000.	10.5	2402.	.677	3.	4.3	3117.	2476.
2500.	10.8	3022.	.881	4.	5.8	2902.	2261.
3000.	11.2	3656.	1.104	5.	7.6	2691.	2049.
3500.	11.6	4302.	1.347	7.	9.8	2482.	1840.

ALT. 30000.

500.	9.4	588.	.149	1.	.6	3862.	3223.
1000.	9.6	1182.	.306	1.	1.8	3702.	3063.
1500.	9.8	1778.	.471	2.	2.7	3544.	2907.
2000.	10.1	2380.	.645	3.	3.8	3389.	2752.
2500.	10.3	2986.	.828	4.	5.0	3237.	2600.
3000.	10.5	3598.	1.021	5.	6.3	3086.	2450.
3500.	10.8	4217.	1.225	6.	7.8	2938.	2302.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC.
ANGLE OFF 0.0 DEG.

ALT. 10000. FT.
TGT. VEL 844. FT./SEC.

TGT. GEES 3.0
ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	0.0	641.	.167	1.	2.0	3669.	2825.
1000.	0.0	1301.	.355	2.	4.4	3323.	2479.
1500.	0.0	1983.	.568	3.	7.4	2985.	2141.
2000.	0.0	2695.	.815	4.	11.2	2651.	1807.
2500.	0.0	3449.	1.104	6.	16.1	2318.	1475.
3000.	0.0	4265.	1.456	8.	22.6	1980.	1137.
3500.	0.0	5192.	1.912	11.	31.9	1620.	778.

ALT. 20000.

500.	0.0	638.	.164	1.	1.9	3771.	2928.
1000.	0.0	1288.	.342	1.	4.1	3523.	2679.
1500.	0.0	1953.	.536	2.	6.7	3279.	2435.
2000.	0.0	2635.	.749	3.	9.7	3039.	2195.
2500.	0.0	3335.	.985	5.	13.2	2801.	1958.
3000.	0.0	4060.	1.246	6.	17.4	2566.	1723.
3500.	0.0	4816.	1.541	8.	22.4	2330.	1488.

ALT. 30000.

500.	0.0	637.	.162	1.	1.9	3849.	3005.
1000.	0.0	1280.	.333	1.	3.9	3676.	2832.
1500.	0.0	1934.	.514	2.	6.2	3505.	2661.
2000.	0.0	2597.	.707	3.	8.8	3336.	2492.
2500.	0.0	3270.	.913	4.	11.6	3169.	2326.
3000.	0.0	3955.	1.132	5.	14.7	3004.	2161.
3500.	0.0	4652.	1.367	6.	18.2	2841.	1998.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 3.0
ANGLE OFF 10.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	2.2	638.	.166	1.	1.9	3671.	2836.
1000.	2.3	1295.	.353	2.	4.4	3325.	2491.
1500.	2.4	1973.	.566	3.	7.4	2988.	2155.
2000.	2.5	2679.	.810	4.	11.2	2657.	1824.
2500.	2.7	3425.	1.097	6.	16.1	2326.	1494.
3000.	2.9	4231.	1.445	8.	22.7	1989.	1159.
3500.	3.1	5138.	1.893	11.	32.3	1633.	805.

ALT. 20000.

500.	2.2	637.	.163	1.	1.9	3772.	2937.
1000.	2.2	1284.	.341	1.	4.1	3524.	2690.
1500.	2.3	1945.	.534	2.	6.6	3281.	2448.
2000.	2.4	2620.	.746	3.	9.6	3042.	2210.
2500.	2.5	3316.	.980	5.	13.1	2806.	1975.
3000.	2.6	4034.	1.240	6.	17.3	2571.	1741.
3500.	2.7	4779.	1.532	8.	22.3	2337.	1508.

ALT. 30000.

500.	2.1	633.	.161	1.	1.8	3850.	3015.
1000.	2.2	1276.	.332	1.	3.9	3677.	2842.
1500.	2.2	1925.	.512	2.	6.1	3507.	2673.
2000.	2.3	2585.	.705	3.	8.7	3338.	2506.
2500.	2.3	3253.	.909	4.	11.4	3172.	2341.
3000.	2.4	3932.	1.127	5.	14.5	3008.	2178.
3500.	2.5	4623.	1.360	6.	18.0	2845.	2016.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 3.0
 ANGLE OFF 20.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	4.3	632.	.164	1.	1.9	3674.	2863.
1000.	4.5	1280.	.349	2.	4.2	3333.	2523.
1500.	4.7	1948.	.558	3.	7.1	3000.	2191.
2000.	5.0	2642.	.798	4.	10.8	2671.	1864.
2500.	5.3	3372.	1.078	6.	15.6	2346.	1540.
3000.	5.6	4153.	1.414	8.	22.0	2016.	1212.
3500.	6.0	5019.	1.840	11.	31.2	1672.	870.

ALT. 20000.

500.	4.2	630.	.162	1.	1.9	3775.	2964.
1000.	4.4	1270.	.337	1.	3.9	3530.	2720.
1500.	4.5	1922.	.528	2.	6.4	3289.	2481.
2000.	4.7	2588.	.736	3.	9.2	3053.	2246.
2500.	4.9	3271.	.966	5.	12.6	2819.	2014.
3000.	5.1	3973.	1.220	6.	16.6	2588.	1785.
3500.	5.3	4701.	1.505	8.	21.4	2358.	1556.

ALT. 30000.

500.	4.2	629.	.160	1.	1.8	3851.	3041.
1000.	4.3	1262.	.328	1.	3.7	3681.	2871.
1500.	4.4	1905.	.507	2.	5.9	3512.	2704.
2000.	4.5	2554.	.696	3.	8.3	3345.	2539.
2500.	4.6	3213.	.898	4.	11.0	3181.	2376.
3000.	4.7	3880.	1.112	5.	13.9	3019.	2216.
3500.	4.8	4559.	1.342	6.	17.3	2858.	2057.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 3.0
ANGLE OFF 30.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	6.3	621.	.161	1.	1.7	3680.	2910.
1000.	6.6	1256.	.342	1.	3.9	3345.	2575.
1500.	6.9	1910.	.546	3.	6.7	3017.	2249.
2000.	7.3	2585.	.779	4.	10.1	2696.	1929.
2500.	7.7	3291.	1.048	5.	14.6	2378.	1612.
3000.	8.1	4038.	1.367	7.	20.5	2060.	1295.
3500.	8.7	4852.	1.761	10.	29.0	1730.	968.

ALT. 20000.

500.	6.2	619.	.159	1.	1.7	3779.	3009.
1000.	6.4	1247.	.331	1.	3.6	3538.	2769.
1500.	6.6	1888.	.518	2.	6.0	3301.	2534.
2000.	6.9	2538.	.721	3.	8.7	3069.	2303.
2500.	7.1	3203.	.944	4.	11.8	2840.	2077.
3000.	7.4	3884.	1.190	6.	15.5	2614.	1853.
3500.	7.7	4586.	1.463	8.	19.9	2390.	1630.

ALT. 30000.

500.	6.1	617.	.157	1.	1.6	3854.	3085.
1000.	6.3	1241.	.323	1.	3.5	3686.	2918.
1500.	6.4	1871.	.498	2.	5.5	3520.	2754.
2000.	6.6	2508.	.683	3.	7.8	3356.	2592.
2500.	6.7	3151.	.880	4.	10.2	3195.	2433.
3000.	6.9	3802.	1.089	5.	13.0	3036.	2276.
3500.	7.1	4462.	1.311	6.	16.1	2878.	2121.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC.
ANGLE OFF 40.0 DEG.

ALT. 10000. FT.
TGT. VEL 844. FT./SEC.

TGT. GEES 3.0
ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	8.1	608.	.158	1.	1.7	3687.	2974.
1000.	8.5	1226.	.333	1.	3.5	3360.	2647.
1500.	8.9	1861.	.531	2.	6.0	3040.	2328.
2000.	9.3	2512.	.754	4.	9.1	2729.	2017.
2500.	9.8	3187.	1.009	5.	13.1	2422.	1711.
3000.	10.4	3895.	1.307	7.	18.4	2115.	1406.
3500.	11.0	4652.	1.666	10.	25.7	1804.	1096.

ALT. 20000.

500.	8.0	606.	.156	1.	1.7	3784.	3071.
1000.	8.2	1218.	.323	1.	3.3	3548.	2837.
1500.	8.5	1841.	.504	2.	5.4	3317.	2608.
2000.	8.8	2472.	.701	3.	7.8	3091.	2383.
2500.	9.1	3116.	.915	4.	10.6	2868.	2162.
3000.	9.4	3770.	1.150	6.	13.9	2649.	1945.
3500.	9.8	4442.	1.410	7.	17.9	2432.	1730.

ALT. 30000.

500.	7.9	605.	.154	1.	1.6	3858.	3146.
1000.	8.1	1214.	.315	1.	3.2	3693.	2983.
1500.	8.3	1827.	.486	2.	5.0	3531.	2823.
2000.	8.4	2447.	.666	3.	7.0	3371.	2665.
2500.	8.6	3071.	.856	4.	9.2	3214.	2510.
3000.	8.8	3702.	1.058	5.	11.7	3059.	2357.
3500.	9.1	4339.	1.272	6.	14.4	2905.	2207.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 3.0
ANGLE OFF 50.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	9.6	591.	.153	1.	1.4	3696.	3057.
1000.	10.1	1191.	.323	1.	3.1	3378.	2738.
1500.	10.5	1802.	.512	2.	5.2	3069.	2429.
2000.	11.0	2428.	.724	3.	8.0	2767.	2128.
2500.	11.6	3070.	.964	5.	11.3	2472.	1833.
3000.	12.2	3735.	1.240	7.	15.8	2180.	1542.
3500.	12.9	4434.	1.563	9.	21.8	1888.	1250.

ALT. 20000.

500.	9.5	589.	.151	1.	1.3	3790.	3152.
1000.	9.8	1185.	.314	1.	3.0	3561.	2924.
1500.	10.1	1786.	.488	2.	4.6	3337.	2701.
2000.	10.5	2396.	.677	3.	6.8	3117.	2483.
2500.	10.8	3012.	.881	4.	9.2	2902.	2270.
3000.	11.2	3639.	1.104	5.	12.0	2691.	2060.
3500.	11.6	4277.	1.347	7.	15.4	2482.	1853.

ALT. 30000.

500.	9.4	588.	.149	1.	1.1	3862.	3225.
1000.	9.6	1181.	.306	1.	2.8	3702.	3066.
1500.	9.8	1775.	.471	2.	4.3	3544.	2911.
2000.	10.1	2375.	.645	3.	6.1	3389.	2758.
2500.	10.3	2977.	.828	4.	8.0	3237.	2608.
3000.	10.5	3584.	1.021	5.	10.1	3086.	2460.
3500.	10.8	4196.	1.225	6.	12.4	2938.	2314.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 4.0
 ANGLE OFF 0.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	0.0	641.	.167	1.	2.7	3669.	2825.
1000.	0.0	1300.	.355	2.	6.0	3323.	2479.
1500.	0.0	1982.	.568	3.	10.1	2985.	2141.
2000.	0.0	2693.	.815	4.	15.3	2651.	1808.
2500.	0.0	3443.	1.104	6.	22.0	2318.	1476.
3000.	0.0	4252.	1.456	8.	30.9	1980.	1138.
3500.	0.0	5162.	1.912	11.	43.8	1620.	780.

ALT. 20000.

500.	0.0	638.	.164	1.	2.6	3771.	2928.
1000.	0.0	1288.	.342	1.	5.6	3523.	2679.
1500.	0.0	1952.	.536	2.	9.2	3279.	2435.
2000.	0.0	2633.	.749	3.	13.3	3039.	2195.
2500.	0.0	3331.	.985	5.	18.1	2801.	1959.
3000.	0.0	4052.	1.246	6.	23.8	2566.	1724.
3500.	0.0	4800.	1.541	8.	30.7	2330.	1489.

ALT. 30000.

500.	0.0	637.	.162	1.	2.6	3849.	3005.
1000.	0.0	1280.	.333	1.	5.4	3676.	2832.
1500.	0.0	1934.	.514	2.	8.5	3505.	2661.
2000.	0.0	2596.	.707	3.	12.0	3336.	2493.
2500.	0.0	3267.	.913	4.	15.9	3169.	2327.
3000.	0.0	3948.	1.132	5.	20.2	3004.	2162.
3500.	0.0	4642.	1.367	6.	25.0	2841.	1999.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 4.0
ANGLE OFF 10.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	2.2	638.	.166	1.	2.7	3671.	2836.
1000.	2.3	1295.	.353	2.	6.0	3325.	2492.
1500.	2.4	1972.	.566	3.	10.1	2988.	2156.
2000.	2.5	2675.	.810	4.	15.2	2657.	1826.
2500.	2.7	3417.	1.097	6.	21.9	2326.	1497.
3000.	2.9	4214.	1.445	8.	30.8	1989.	1162.
3500.	3.1	5103.	1.893	11.	43.8	1633.	810.

ALT. 20000.

500.	2.2	636.	.163	1.	2.6	3772.	2937.
1000.	2.2	1284.	.341	1.	5.6	3524.	2691.
1500.	2.3	1944.	.534	2.	9.1	3281.	2449.
2000.	2.4	2617.	.746	3.	13.1	3042.	2211.
2500.	2.5	3309.	.980	5.	17.9	2806.	1977.
3000.	2.6	4023.	1.240	6.	23.6	2571.	1744.
3500.	2.7	4759.	1.532	8.	30.4	2337.	1512.

ALT. 30000.

500.	2.1	633.	.161	1.	2.5	3850.	3015.
1000.	2.2	1276.	.332	1.	5.3	3677.	2843.
1500.	2.2	1924.	.512	2.	8.4	3507.	2674.
2000.	2.3	2583.	.705	3.	11.8	3338.	2507.
2500.	2.3	3248.	.909	4.	15.6	3172.	2343.
3000.	2.4	3923.	1.127	5.	19.9	3008.	2180.
3500.	2.5	4608.	1.360	6.	24.6	2845.	2019.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 4.0
 ANGLE OFF 20.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	4.3	632.	.164	1.	2.6	3674.	2864.
1000.	4.5	1280.	.349	2.	5.8	3333.	2524.
1500.	4.7	1946.	.558	3.	9.7	3000.	2193.
2000.	5.0	2638.	.798	4.	14.7	2671.	1867.
2500.	5.3	3362.	1.078	6.	21.1	2346.	1544.
3000.	5.6	4133.	1.414	8.	29.7	2016.	1218.
3500.	6.0	4981.	1.840	11.	42.0	1672.	877.

ALT. 20000.

500.	4.2	630.	.162	1.	2.5	3775.	2965.
1000.	4.4	1269.	.337	1.	5.4	3530.	2721.
1500.	4.5	1920.	.528	2.	8.7	3289.	2483.
2000.	4.7	2584.	.736	3.	12.6	3053.	2249.
2500.	4.9	3264.	.966	5.	17.2	2819.	2018.
3000.	5.1	3960.	1.220	6.	22.6	2588.	1790.
3500.	5.3	4678.	1.505	8.	29.1	2358.	1563.

ALT. 30000.

500.	4.2	628.	.160	1.	2.5	3851.	3041.
1000.	4.3	1261.	.328	1.	5.1	3681.	2873.
1500.	4.4	1903.	.507	2.	8.1	3512.	2706.
2000.	4.5	2551.	.696	3.	11.3	3345.	2542.
2500.	4.6	3206.	.898	4.	15.0	3181.	2380.
3000.	4.7	3869.	1.112	5.	19.0	3019.	2221.
3500.	4.8	4541.	1.342	6.	23.5	2858.	2062.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 4.0
ANGLE OFF 30.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	6.3	620.	.161	1.	2.3	3680.	2911.
1000.	6.6	1255.	.342	1.	5.3	3345.	2577.
1500.	6.9	1908.	.546	3.	9.1	3017.	2252.
2000.	7.3	2579.	.779	4.	13.7	2696.	1933.
2500.	7.7	3279.	1.048	5.	19.6	2378.	1618.
3000.	8.1	4016.	1.367	7.	27.5	2060.	1303.
3500.	8.7	4813.	1.761	10.	38.6	1730.	978.

ALT. 20000.

500.	6.2	619.	.159	1.	2.3	3779.	3010.
1000.	6.4	1246.	.331	1.	5.0	3538.	2771.
1500.	6.6	1885.	.518	2.	8.2	3301.	2537.
2000.	6.9	2533.	.721	3.	11.8	3069.	2308.
2500.	7.1	3194.	.944	4.	16.0	2840.	2082.
3000.	7.4	3869.	1.190	6.	21.0	2614.	1860.
3500.	7.7	4561.	1.463	8.	26.9	2390.	1639.

ALT. 30000.

500.	6.1	617.	.157	1.	2.2	3854.	3086.
1000.	6.3	1240.	.323	1.	4.7	3686.	2920.
1500.	6.4	1869.	.498	2.	7.5	3520.	2757.
2000.	6.6	2504.	.683	3.	10.6	3356.	2596.
2500.	6.7	3143.	.880	4.	13.9	3195.	2438.
3000.	6.9	3789.	1.089	5.	17.7	3036.	2282.
3500.	7.1	4442.	1.311	6.	21.8	2878.	2129.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 4.0
 ANGLE OFF 40.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	8.1	608.	.158	1.	2.3	3687.	2975.
1000.	8.5	1225.	.333	1.	4.8	3360.	2650.
1500.	8.9	1858.	.531	2.	8.2	3040.	2332.
2000.	9.3	2506.	.754	4.	12.3	2729.	2023.
2500.	9.8	3175.	1.009	5.	17.6	2422.	1718.
3000.	10.4	3874.	1.307	7.	24.5	2115.	1416.
3500.	11.0	4614.	1.666	10.	33.9	1804.	1109.

ALT. 20000.

500.	8.0	606.	.156	1.	2.2	3784.	3072.
1000.	8.2	1217.	.323	1.	4.5	3548.	2840.
1500.	8.5	1838.	.504	2.	7.3	3317.	2611.
2000.	8.8	2467.	.701	3.	10.6	3091.	2388.
2500.	9.1	3106.	.915	4.	14.4	2868.	2169.
3000.	9.4	3754.	1.150	6.	18.8	2649.	1954.
3500.	9.8	4416.	1.410	7.	24.0	2432.	1741.

ALT. 30000.

500.	7.9	605.	.154	1.	2.1	3858.	3147.
1000.	8.1	1213.	.315	1.	4.3	3693.	2985.
1500.	8.3	1825.	.486	2.	6.8	3531.	2827.
2000.	8.4	2442.	.666	3.	9.5	3371.	2670.
2500.	8.6	3063.	.856	4.	12.5	3214.	2517.
3000.	8.8	3689.	1.058	5.	15.9	3059.	2366.
3500.	9.1	4318.	1.272	6.	19.5	2905.	2217.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 4.0
ANGLE OFF 50.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	9.6	590.	.153	1.	1.9	3696.	3058.
1000.	10.1	1190.	.323	1.	4.3	3378.	2741.
1500.	10.5	1799.	.512	2.	7.0	3069.	2434.
2000.	11.0	2421.	.724	3.	10.7	2767.	2135.
2500.	11.6	3057.	.964	5.	15.1	2472.	1842.
3000.	12.2	3714.	1.240	7.	20.9	2180.	1553.
3500.	12.9	4398.	1.563	9.	28.6	1888.	1265.

ALT. 20000.

500.	9.5	589.	.151	1.	1.8	3790.	3154.
1000.	9.8	1184.	.314	1.	4.0	3561.	2927.
1500.	10.1	1783.	.488	2.	6.3	3337.	2706.
2000.	10.5	2390.	.677	3.	9.2	3117.	2489.
2500.	10.8	3002.	.881	4.	12.3	2902.	2278.
3000.	11.2	3622.	1.104	5.	16.1	2691.	2070.
3500.	11.6	4250.	1.347	7.	20.5	2482.	1866.

ALT. 30000.

500.	9.4	587.	.149	1.	1.6	3862.	3226.
1000.	9.6	1180.	.306	1.	3.8	3702.	3069.
1500.	9.8	1772.	.471	2.	5.9	3544.	2916.
2000.	10.1	2370.	.645	3.	8.3	3389.	2764.
2500.	10.3	2968.	.828	4.	10.8	3237.	2616.
3000.	10.5	3570.	1.021	5.	13.6	3086.	2470.
3500.	10.8	4175.	1.225	6.	16.8	2938.	2326.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 5.0
 ANGLE OFF 0.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	0.0	641.	.167	1.	3.4	3669.	2825.
1000.	0.0	1300.	.355	2.	7.6	3323.	2479.
1500.	0.0	1981.	.568	3.	12.8	2985.	2141.
2000.	0.0	2690.	.815	4.	19.4	2651.	1808.
2500.	0.0	3436.	1.104	6.	27.9	2318.	1477.
3000.	0.0	4236.	1.456	8.	39.2	1980.	1140.
3500.	0.0	5125.	1.912	11.	55.6	1620.	783.

ALT. 20000.

500.	0.0	638.	.164	1.	3.3	3771.	2928.
1000.	0.0	1288.	.342	1.	7.1	3523.	2680.
1500.	0.0	1952.	.536	2.	11.6	3279.	2436.
2000.	0.0	2631.	.749	3.	16.8	3039.	2196.
2500.	0.0	3326.	.985	5.	22.9	2801.	1960.
3000.	0.0	4041.	1.246	6.	30.2	2566.	1725.
3500.	0.0	4780.	1.541	8.	38.9	2330.	1491.

ALT. 30000.

500.	0.0	637.	.162	1.	3.2	3849.	3005.
1000.	0.0	1280.	.333	1.	6.8	3676.	2832.
1500.	0.0	1933.	.514	2.	10.8	3505.	2661.
2000.	0.0	2594.	.707	3.	15.2	3336.	2493.
2500.	0.0	3263.	.913	4.	20.1	3169.	2327.
3000.	0.0	3941.	1.132	5.	25.5	3004.	2163.
3500.	0.0	4628.	1.367	6.	31.6	2841.	2001.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 5.0
ANGLE OFF 10.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	2.2	638.	.166	1.	3.4	3671.	2836.
1000.	2.3	1294.	.353	2.	7.6	3325.	2492.
1500.	2.4	1970.	.566	3.	12.7	2988.	2157.
2000.	2.5	2671.	.810	4.	19.2	2657.	1827.
2500.	2.7	3407.	1.097	6.	27.6	2326.	1499.
3000.	2.9	4194.	1.445	8.	38.9	1989.	1166.
3500.	3.1	5061.	1.893	11.	55.2	1633.	815.

ALT. 20000.

500.	2.2	636.	.163	1.	3.3	3772.	2938.
1000.	2.2	1283.	.341	1.	7.1	3524.	2691.
1500.	2.3	1942.	.534	2.	11.5	3281.	2450.
2000.	2.4	2614.	.746	3.	16.6	3042.	2213.
2500.	2.5	3302.	.980	5.	22.6	2806.	1979.
3000.	2.6	4010.	1.240	6.	29.7	2571.	1747.
3500.	2.7	4736.	1.532	8.	38.3	2337.	1517.

ALT. 30000.

500.	2.1	633.	.161	1.	3.2	3850.	3015.
1000.	2.2	1276.	.332	1.	6.7	3677.	2844.
1500.	2.2	1923.	.512	2.	10.6	3507.	2675.
2000.	2.3	2580.	.705	3.	15.0	3338.	2509.
2500.	2.3	3242.	.909	4.	19.7	3172.	2345.
3000.	2.4	3912.	1.127	5.	25.1	3008.	2183.
3500.	2.5	4591.	1.360	6.	31.1	2845.	2023.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 5.0
 ANGLE OFF 20.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PRCJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	4.3	631.	.164	1.	3.2	3674.	2865.
1000.	4.5	1279.	.349	2.	7.3	3333.	2525.
1500.	4.7	1943.	.558	3.	12.2	3000.	2195.
2000.	5.0	2632.	.798	4.	18.5	2671.	1870.
2500.	5.3	3351.	1.078	6.	26.5	2346.	1548.
3000.	5.6	4111.	1.414	8.	37.2	2016.	1224.
3500.	6.0	4937.	1.840	11.	52.5	1672.	885.

ALT. 20000.

500.	4.2	630.	.162	1.	3.2	3775.	2965.
1000.	4.4	1268.	.337	1.	6.8	3530.	2723.
1500.	4.5	1918.	.528	2.	11.0	3289.	2485.
2000.	4.7	2579.	.736	3.	15.9	3053.	2252.
2500.	4.9	3255.	.966	5.	21.6	2819.	2022.
3000.	5.1	3944.	1.220	6.	28.4	2588.	1795.
3500.	5.3	4651.	1.505	8.	36.5	2358.	1569.

ALT. 30000.

500.	4.2	628.	.160	1.	3.1	3851.	3042.
1000.	4.3	1260.	.328	1.	6.4	3681.	2874.
1500.	4.4	1901.	.507	2.	10.2	3512.	2708.
2000.	4.5	2547.	.696	3.	14.3	3345.	2545.
2500.	4.6	3199.	.898	4.	18.9	3181.	2384.
3000.	4.7	3856.	1.112	5.	24.0	3019.	2226.
3500.	4.8	4522.	1.342	6.	29.6	2858.	2069.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 5.0
ANGLE OFF 30.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY ORCP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	6.3	620.	.161	1.	2.9	3680.	2912.
1000.	6.6	1254.	.342	2.	6.7	3345.	2579.
1500.	6.9	1905.	.546	3.	11.4	3017.	2255.
2000.	7.3	2573.	.779	4.	17.1	2696.	1938.
2500.	7.7	3267.	1.048	5.	24.6	2378.	1624.
3000.	8.1	3993.	1.367	8.	34.3	2060.	1311.
3500.	8.7	4770.	1.761	10.	47.9	1730.	989.

ALT. 20000.

500.	6.2	619.	.159	1.	2.9	3779.	3011.
1000.	6.4	1245.	.331	1.	6.3	3538.	2773.
1500.	6.6	1883.	.518	2.	10.3	3301.	2540.
2000.	6.9	2528.	.721	3.	14.8	3069.	2312.
2500.	7.1	3184.	.944	5.	20.1	2840.	2088.
3000.	7.4	3852.	1.190	6.	26.3	2614.	1867.
3500.	7.7	4533.	1.463	8.	33.7	2390.	1648.

ALT. 30000.

500.	6.1	617.	.157	1.	2.8	3854.	3086.
1000.	6.3	1239.	.323	1.	6.0	3686.	2922.
1500.	6.4	1866.	.498	2.	9.5	3520.	2760.
2000.	6.6	2499.	.683	3.	13.3	3356.	2600.
2500.	6.7	3135.	.880	4.	17.5	3195.	2444.
3000.	6.9	3776.	1.089	5.	22.2	3036.	2289.
3500.	7.1	4421.	1.311	6.	27.4	2878.	2137.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 5.0
 ANGLE OFF 40.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	8.1	608.	.158	1.	2.8	3687.	2976.
1000.	8.5	1224.	.333	1.	6.0	3360.	2652.
1500.	8.9	1855.	.531	2.	10.2	3040.	2336.
2000.	9.3	2499.	.754	4.	15.4	2729.	2028.
2500.	9.8	3162.	1.009	5.	21.9	2422.	1726.
3000.	10.4	3850.	1.307	7.	30.4	2115.	1426.
3500.	11.0	4573.	1.666	10.	42.0	1804.	1122.

ALT. 20000.

500.	8.0	606.	.156	1.	2.9	3784.	3073.
1000.	8.2	1216.	.323	1.	5.6	3548.	2842.
1500.	8.5	1836.	.504	2.	9.2	3317.	2615.
2000.	8.8	2461.	.701	3.	13.3	3091.	2394.
2500.	9.1	3095.	.915	4.	18.0	2868.	2176.
3000.	9.4	3736.	1.150	6.	23.4	2649.	1963.
3500.	9.8	4388.	1.410	7.	30.0	2432.	1752.

ALT. 30000.

500.	7.9	604.	.154	1.	2.7	3858.	3148.
1000.	8.1	1212.	.315	1.	5.5	3693.	2988.
1500.	8.3	1822.	.486	2.	8.6	3531.	2830.
2000.	8.4	2437.	.666	3.	12.0	3371.	2676.
2500.	8.6	3054.	.856	4.	15.7	3214.	2524.
3000.	8.8	3674.	1.058	5.	19.9	3059.	2374.
3500.	9.1	4296.	1.272	6.	24.4	2905.	2227.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 5.0
ANGLE OFF 50.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	9.6	590.	.153	1.	2.3	3696.	3060.
1000.	10.1	1189.	.323	1.	5.3	3378.	2744.
1500.	10.5	1796.	.512	2.	8.8	3069.	2439.
2000.	11.0	2414.	.724	3.	13.3	2767.	2141.
2500.	11.6	3044.	.964	5.	18.8	2472.	1851.
3000.	12.2	3691.	1.240	7.	25.8	2180.	1565.
3500.	12.9	4359.	1.563	9.	35.1	1888.	1280.

ALT. 20000.

500.	9.5	589.	.151	1.	2.3	3790.	3155.
1000.	9.8	1183.	.314	1.	5.0	3561.	2930.
1500.	10.1	1780.	.488	2.	7.9	3337.	2710.
2000.	10.5	2384.	.677	3.	11.5	3117.	2496.
2500.	10.8	2991.	.881	4.	15.4	2902.	2287.
3000.	11.2	3605.	1.104	5.	20.1	2691.	2081.
3500.	11.6	4223.	1.347	7.	25.5	2482.	1880.

ALT. 30000.

500.	9.4	587.	.149	1.	2.1	3862.	3228.
1000.	9.6	1178.	.306	1.	4.8	3702.	3072.
1500.	9.8	1770.	.471	2.	7.4	3544.	2920.
2000.	10.1	2364.	.645	3.	10.4	3389.	2770.
2500.	10.3	2959.	.828	4.	13.5	3237.	2624.
3000.	10.5	3555.	1.021	5.	17.0	3086.	2480.
3500.	10.8	4152.	1.225	6.	20.9	2938.	2339.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 6.0
 ANGLE OFF 0.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	0.0	641.	.167	1.	4.1	3669.	2825.
1000.	0.0	1300.	.355	2.	9.2	3323.	2480.
1500.	0.0	1980.	.568	3.	15.5	2985.	2142.
2000.	0.0	2686.	.815	4.	23.4	2651.	1809.
2500.	0.0	3427.	1.104	6.	33.7	2318.	1478.
3000.	0.0	4215.	1.456	8.	47.4	1980.	1142.
3500.	0.0	5080.	1.912	12.	67.4	1620.	786.

ALT. 20000.

500.	0.0	638.	.164	1.	4.0	3771.	2928.
1000.	0.0	1287.	.342	1.	8.6	3523.	2680.
1500.	0.0	1951.	.536	2.	14.0	3279.	2436.
2000.	0.0	2628.	.749	3.	20.3	3039.	2196.
2500.	0.0	3320.	.985	5.	27.7	2801.	1960.
3000.	0.0	4029.	1.246	6.	36.5	2566.	1727.
3500.	0.0	4757.	1.541	8.	47.1	2330.	1493.

ALT. 30000.

500.	0.0	637.	.162	1.	3.9	3849.	3005.
1000.	0.0	1280.	.333	1.	8.2	3676.	2832.
1500.	0.0	1932.	.514	2.	13.0	3505.	2662.
2000.	0.0	2592.	.707	3.	19.3	3336.	2494.
2500.	0.0	3258.	.913	4.	24.3	3169.	2328.
3000.	0.0	3931.	1.132	5.	30.8	3004.	2165.
3500.	0.0	4611.	1.367	7.	38.3	2841.	2003.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 6.0
ANGLE OFF 10.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	2.2	638.	.166	1.	4.1	3671.	2837.
1000.	2.3	1294.	.353	2.	9.1	3325.	2493.
1500.	2.4	1968.	.566	3.	15.3	2988.	2158.
2000.	2.5	2666.	.810	4.	23.1	2657.	1829.
2500.	2.7	3396.	1.097	6.	33.2	2326.	1502.
3000.	2.9	4170.	1.445	8.	46.8	1989.	1170.
3500.	3.1	5012.	1.893	12.	66.5	1633.	821.

ALT. 20000.

500.	2.2	636.	.163	1.	4.0	3772.	2938.
1000.	2.2	1283.	.341	1.	8.5	3524.	2692.
1500.	2.3	1941.	.534	2.	13.8	3281.	2451.
2000.	2.4	2610.	.746	3.	20.0	3042.	2215.
2500.	2.5	3294.	.990	5.	27.2	2806.	1982.
3000.	2.6	3994.	1.240	6.	35.9	2571.	1751.
3500.	2.7	4708.	1.532	8.	46.2	2337.	1521.

ALT. 30000.

500.	2.1	633.	.161	1.	3.8	3850.	3016.
1000.	2.2	1275.	.332	1.	8.1	3677.	2844.
1500.	2.2	1921.	.512	2.	12.8	3507.	2677.
2000.	2.3	2576.	.705	3.	18.0	3338.	2511.
2500.	2.3	3236.	.909	4.	23.3	3172.	2348.
3000.	2.4	3901.	1.127	5.	30.3	3008.	2187.
3500.	2.5	4571.	1.360	7.	37.5	2845.	2027.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 6.0
 ANGLE OFF 20.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PRCJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	4.3	631.	.164	1.	3.9	3674.	2865.
1000.	4.5	1278.	.349	2.	8.8	3333.	2527.
1500.	4.7	1941.	.558	3.	14.7	3000.	2197.
2000.	5.0	2626.	.798	4.	22.2	2671.	1873.
2500.	5.3	3338.	1.078	6.	31.8	2346.	1553.
3000.	5.6	4085.	1.414	8.	44.6	2016.	1230.
3500.	6.0	4888.	1.840	11.	63.0	1672.	894.

ALT. 20000.

500.	4.2	630.	.162	1.	3.8	3775.	2966.
1000.	4.4	1267.	.337	1.	8.2	3530.	2724.
1500.	4.5	1916.	.528	2.	13.2	3289.	2487.
2000.	4.7	2574.	.736	3.	19.1	3053.	2255.
2500.	4.9	3246.	.966	5.	26.0	2819.	2026.
3000.	5.1	3927.	1.220	6.	34.2	2588.	1801.
3500.	5.3	4622.	1.505	8.	43.9	2358.	1577.

ALT. 30000.

500.	4.2	628.	.160	1.	3.8	3851.	3043.
1000.	4.3	1260.	.328	1.	7.7	3681.	2875.
1500.	4.4	1899.	.507	2.	12.3	3512.	2710.
2000.	4.5	2543.	.696	3.	17.2	3345.	2548.
2500.	4.6	3191.	.898	4.	22.8	3181.	2388.
3000.	4.7	3843.	1.112	5.	28.8	3019.	2231.
3500.	4.8	4499.	1.342	6.	35.7	2858.	2075.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 6.0
ANGLE OFF 30.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	6.3	620.	.161	1.	3.5	3680.	2913.
1000.	6.6	1253.	.342	2.	8.1	3345.	2581.
1500.	6.9	1902.	.546	3.	13.7	3017.	2258.
2000.	7.3	2566.	.779	4.	20.6	2696.	1942.
2500.	7.7	3254.	1.048	5.	29.4	2378.	1631.
3000.	8.1	3967.	1.367	8.	41.0	2060.	1320.
3500.	8.7	4722.	1.761	11.	57.2	1730.	1001.

ALT. 20000.

500.	6.2	618.	.159	1.	3.5	3779.	3012.
1000.	6.4	1244.	.331	1.	7.6	3538.	2775.
1500.	6.6	1880.	.518	2.	12.4	3301.	2543.
2000.	6.9	2523.	.721	3.	17.8	3069.	2316.
2500.	7.1	3174.	.944	5.	24.1	2840.	2093.
3000.	7.4	3833.	1.190	6.	31.5	2614.	1874.
3500.	7.7	4502.	1.463	8.	40.4	2390.	1658.

ALT. 30000.

500.	6.1	617.	.157	1.	3.4	3854.	3087.
1000.	6.3	1238.	.323	1.	7.2	3686.	2924.
1500.	6.4	1864.	.498	2.	11.4	3520.	2763.
2000.	6.6	2494.	.683	3.	16.0	3356.	2604.
2500.	6.7	3126.	.880	4.	21.1	3195.	2449.
3000.	6.9	3761.	1.089	5.	26.7	3036.	2296.
3500.	7.1	4397.	1.311	6.	32.9	2878.	2146.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 6.0
ANGLE OFF 40.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	8.1	607.	.158	1.	3.4	3687.	2977.
1000.	8.5	1223.	.333	1.	7.3	3360.	2654.
1500.	8.9	1851.	.531	2.	12.3	3040.	2340.
2000.	9.3	2492.	.754	4.	18.4	2729.	2034.
2500.	9.8	3148.	1.009	5.	26.2	2422.	1734.
3000.	10.4	3825.	1.307	7.	36.2	2115.	1436.
3500.	11.0	4528.	1.666	10.	49.8	1804.	1136.

ALT. 20000.

500.	8.0	606.	.156	1.	3.3	3784.	3075.
1000.	8.2	1215.	.323	1.	6.8	3548.	2844.
1500.	8.5	1833.	.504	2.	11.1	3317.	2619.
2000.	8.8	2455.	.701	3.	15.9	3091.	2399.
2500.	9.1	3084.	.915	4.	21.6	2868.	2183.
3000.	9.4	3717.	1.150	6.	28.0	2649.	1972.
3500.	9.8	4358.	1.410	7.	35.8	2432.	1764.

ALT. 30000.

500.	7.9	604.	.154	1.	3.2	3858.	3149.
1000.	8.1	1211.	.315	1.	6.6	3693.	2990.
1500.	8.3	1820.	.486	2.	10.3	3531.	2834.
2000.	8.4	2431.	.666	3.	14.4	3371.	2681.
2500.	8.6	3044.	.856	4.	18.9	3214.	2531.
3000.	8.8	3658.	1.058	5.	23.8	3059.	2383.
3500.	9.1	4272.	1.272	6.	29.2	2905.	2238.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 6.0
ANGLE OFF 50.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	9.6	590.	.153	1.	2.8	3696.	3061.
1000.	10.1	1188.	.323	1.	6.4	3378.	2747.
1500.	10.5	1792.	.512	2.	10.6	3069.	2444.
2000.	11.0	2407.	.724	4.	15.9	2767.	2148.
2500.	11.6	3031.	.964	5.	22.3	2472.	1861.
3000.	12.2	3667.	1.240	7.	30.6	2180.	1578.
3500.	12.9	4319.	1.563	9.	41.4	1888.	1296.

ALT. 20000.

500.	9.5	588.	.151	1.	2.7	3790.	3156.
1000.	9.8	1182.	.314	1.	6.0	3561.	2932.
1500.	10.1	1777.	.488	2.	9.5	3337.	2715.
2000.	10.5	2378.	.677	3.	13.7	3117.	2502.
2500.	10.8	2980.	.881	4.	18.4	2902.	2295.
3000.	11.2	3586.	1.104	5.	23.9	2691.	2092.
3500.	11.6	4194.	1.347	7.	30.3	2482.	1894.

ALT. 30000.

500.	9.4	587.	.149	1.	2.5	3862.	3229.
1000.	9.6	1177.	.306	1.	5.8	3702.	3075.
1500.	9.8	1767.	.471	2.	8.9	3544.	2924.
2000.	10.1	2359.	.645	3.	12.5	3389.	2777.
2500.	10.3	2949.	.828	4.	16.2	3237.	2632.
3000.	10.5	3539.	1.021	5.	20.4	3086.	2491.
3500.	10.8	4129.	1.225	6.	24.9	2938.	2352.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 1.0
 ANGLE OFF 0.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	0.0	679.	.177	1.	0.0	3649.	2636.
1000.	0.0	1387.	.380	2.	0.0	3279.	2267.
1500.	0.0	2130.	.617	3.	0.0	2914.	1902.
2000.	0.0	2926.	.899	4.	0.0	2548.	1536.
2500.	0.0	3804.	1.248	7.	0.0	2172.	1160.
3000.	0.0	4840.	1.718	10.	0.0	1763.	751.
3500.	0.0	6524.	2.645	17.	0.0	1171.	158.

ALT. 20000.

500.	0.0	676.	.174	1.	0.0	3757.	2744.
1000.	0.0	1370.	.365	2.	0.0	3493.	2480.
1500.	0.0	2085.	.576	3.	0.0	3232.	2219.
2000.	0.0	2829.	.812	4.	0.0	2973.	1960.
2500.	0.0	3605.	1.078	5.	0.0	2714.	1702.
3000.	0.0	4429.	1.382	7.	0.0	2454.	1441.
3500.	0.0	5316.	1.740	9.	0.0	2187.	1174.

ALT. 30000.

500.	0.0	674.	.171	1.	0.0	3839.	2826.
1000.	0.0	1359.	.354	1.	0.0	3655.	2643.
1500.	0.0	2057.	.549	2.	0.0	3473.	2461.
2000.	0.0	2771.	.759	3.	0.0	3293.	2280.
2500.	0.0	3502.	.984	4.	0.0	3114.	2101.
3000.	0.0	4254.	1.228	6.	0.0	2936.	1923.
3500.	0.0	5030.	1.493	7.	0.0	2758.	1745.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 1.0
ANGLE OFF 10.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	2.6	677.	.177	1.	0.0	3650.	2646.
1000.	2.8	1380.	.379	2.	0.0	3283.	2278.
1500.	2.9	2120.	.613	3.	0.0	2919.	1914.
2000.	3.1	2910.	.893	4.	0.0	2555.	1550.
2500.	3.3	3779.	1.237	7.	0.0	2183.	1177.
3000.	3.6	4799.	1.698	10.	0.0	1779.	772.
3500.	4.0	6368.	2.550	16.	0.0	1222.	215.

ALT. 20000.

500.	2.6	673.	.173	1.	0.0	3758.	2754.
1000.	2.7	1365.	.363	2.	0.0	3495.	2490.
1500.	2.8	2077.	.574	3.	0.0	3235.	2230.
2000.	2.9	2815.	.807	4.	0.0	2978.	1973.
2500.	3.0	3587.	1.071	5.	0.0	2721.	1715.
3000.	3.1	4404.	1.373	7.	0.0	2461.	1456.
3500.	3.3	5284.	1.726	9.	0.0	2197.	1191.

ALT. 30000.

500.	2.6	671.	.171	1.	0.0	3840.	2836.
1000.	2.6	1354.	.353	1.	0.0	3657.	2652.
1500.	2.7	2049.	.547	2.	0.0	3475.	2471.
2000.	2.8	2759.	.755	3.	0.0	3296.	2292.
2500.	2.8	3487.	.979	4.	0.0	3118.	2113.
3000.	2.9	4234.	1.221	6.	0.0	2941.	1936.
3500.	3.0	5005.	1.485	7.	0.0	2763.	1758.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 1.0
 ANGLE OFF 20.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	5.2	668.	.174	1.	0.0	3655.	2676.
1000.	5.4	1362.	.373	2.	0.0	3292.	2312.
1500.	5.7	2090.	.603	3.	0.0	2934.	1952.
2000.	6.1	2863.	.875	4.	0.0	2576.	1593.
2500.	6.5	3709.	1.208	6.	0.0	2212.	1227.
3000.	7.0	4685.	1.644	9.	0.0	1822.	836.
3500.	7.8	6041.	2.357	15.	0.0	1332.	342.

ALT. 20000.

500.	5.1	665.	.171	1.	0.0	3761.	2782.
1000.	5.3	1348.	.358	2.	0.0	3501.	2522.
1500.	5.5	2049.	.565	3.	0.0	3245.	2264.
2000.	5.7	2776.	.795	4.	0.0	2991.	2010.
2500.	5.9	3532.	1.052	5.	0.0	2738.	1756.
3000.	6.2	4330.	1.345	7.	0.0	2484.	1501.
3500.	6.5	5185.	1.685	9.	0.0	2225.	1241.

ALT. 30000.

500.	5.1	663.	.169	1.	0.0	3842.	2863.
1000.	5.2	1337.	.348	1.	0.0	3661.	2682.
1500.	5.3	2023.	.539	2.	0.0	3482.	2503.
2000.	5.4	2723.	.744	3.	0.0	3305.	2325.
2500.	5.6	3438.	.964	4.	0.0	3129.	2149.
3000.	5.7	4174.	1.202	6.	0.0	2954.	1973.
3500.	5.9	4930.	1.458	7.	0.0	2780.	1798.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 1.0
ANGLE OFF 30.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	7.6	655.	.171	1.	0.0	3662.	2726.
1000.	8.0	1334.	.364	2.	0.0	3306.	2368.
1500.	8.4	2041.	.587	3.	0.0	2957.	2015.
2000.	8.9	2790.	.848	4.	0.0	2609.	1665.
2500.	9.4	3599.	1.162	6.	0.0	2258.	1310.
3000.	10.1	4513.	1.562	9.	0.0	1888.	936.
3500.	11.1	5673.	2.149	13.	0.0	1460.	502.

ALT. 20000.

500.	7.5	652.	.167	1.	0.0	3766.	2831.
1000.	7.7	1320.	.350	1.	0.0	3511.	2574.
1500.	8.0	2005.	.552	2.	0.0	3260.	2321.
2000.	8.3	2712.	.774	4.	0.0	3013.	2072.
2500.	8.6	3446.	1.021	5.	0.0	2766.	1823.
3000.	9.0	4216.	1.301	6.	0.0	2520.	1574.
3500.	9.4	5034.	1.622	8.	0.0	2270.	1322.

ALT. 30000.

500.	7.4	651.	.165	1.	0.0	3845.	2910.
1000.	7.6	1310.	.341	1.	0.0	3668.	2732.
1500.	7.7	1982.	.528	2.	0.0	3493.	2555.
2000.	7.9	2665.	.727	3.	0.0	3320.	2381.
2500.	8.1	3363.	.941	4.	0.0	3148.	2208.
3000.	8.4	4077.	1.170	5.	0.0	2977.	2036.
3500.	8.6	4812.	1.417	7.	0.0	2807.	1865.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 1.0
 ANGLE OFF 40.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	9.7	638.	.166	1.	0.0	3671.	2796.
1000.	10.2	1296.	.353	2.	0.0	3325.	2447.
1500.	10.7	1977.	.566	3.	0.0	2988.	2104.
2000.	11.3	2695.	.813	4.	0.0	2652.	1764.
2500.	12.0	3459.	1.105	6.	0.0	2317.	1423.
3000.	12.8	4302.	1.466	8.	0.0	1971.	1070.
3500.	13.9	5299.	1.950	12.	0.0	1593.	684.

ALT. 20000.

500.	9.6	635.	.163	1.	0.0	3773.	2899.
1000.	9.9	1284.	.340	1.	0.0	3525.	2648.
1500.	10.3	1948.	.534	2.	0.0	3281.	2402.
2000.	10.7	2629.	.747	3.	0.0	3041.	2159.
2500.	11.1	3334.	.982	5.	0.0	2803.	1917.
3000.	11.5	4066.	1.245	6.	0.0	2567.	1677.
3500.	12.0	4838.	1.543	8.	0.0	2329.	1435.

ALT. 30000.

500.	9.5	634.	.161	1.	0.0	3850.	2977.
1000.	9.7	1276.	.331	1.	0.0	3677.	2803.
1500.	10.0	1927.	.512	2.	0.0	3507.	2630.
2000.	10.2	2590.	.705	3.	0.0	3338.	2460.
2500.	10.5	3263.	.909	4.	0.0	3172.	2291.
3000.	10.7	3951.	1.128	5.	0.0	3007.	2124.
3500.	11.0	4655.	1.364	6.	0.0	2843.	1957.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 1.0
ANGLE OFF 50.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	11.6	616.	.160	1.	0.0	3683.	2889.
1000.	12.2	1249.	.339	1.	0.0	3349.	2550.
1500.	12.8	1902.	.542	2.	0.0	3024.	2218.
2000.	13.4	2582.	.773	4.	0.0	2704.	1890.
2500.	14.2	3299.	1.042	5.	0.0	2385.	1564.
3000.	15.0	4071.	1.363	7.	0.0	2063.	1233.
3500.	16.1	4937.	1.766	10.	0.0	1727.	886.

ALT. 20000.

500.	11.5	615.	.158	1.	0.0	3781.	2988.
1000.	11.8	1240.	.328	1.	0.0	3541.	2745.
1500.	12.2	1879.	.514	2.	0.0	3306.	2505.
2000.	12.7	2530.	.715	3.	0.0	3075.	2270.
2500.	13.1	3201.	.937	4.	0.0	2848.	2037.
3000.	13.6	3895.	1.182	6.	0.0	2621.	1806.
3500.	14.2	4615.	1.455	7.	0.0	2397.	1576.

ALT. 30000.

500.	11.4	613.	.156	1.	0.0	3855.	3065.
1000.	11.6	1234.	.320	1.	0.0	3688.	2895.
1500.	11.9	1862.	.494	2.	0.0	3524.	2727.
2000.	12.1	2499.	.678	3.	0.0	3361.	2561.
2500.	12.4	3145.	.873	4.	0.0	3201.	2398.
3000.	12.7	3802.	1.080	5.	0.0	3042.	2236.
3500.	13.0	4473.	1.301	6.	0.0	2885.	2076.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 2.0
 ANGLE OFF 0.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	0.0	679.	.177	1.	1.3	3649.	2636.
1000.	0.0	1387.	.380	2.	2.9	3279.	2267.
1500.	0.0	2130.	.617	3.	5.0	2914.	1902.
2000.	0.0	2925.	.899	4.	7.7	2548.	1536.
2500.	0.0	3801.	1.248	7.	11.4	2172.	1160.
3000.	0.0	4832.	1.718	10.	17.0	1763.	751.
3500.	0.0	6496.	2.645	17.	30.0	1171.	159.

ALT. 20000.

500.	0.0	676.	.174	1.	1.2	3757.	2744.
1000.	0.0	1369.	.365	2.	2.7	3493.	2480.
1500.	0.0	2085.	.576	3.	4.4	3232.	2219.
2000.	0.0	2828.	.812	4.	6.5	2973.	1960.
2500.	0.0	3604.	1.078	5.	9.0	2714.	1702.
3000.	0.0	4425.	1.382	7.	12.0	2454.	1441.
3500.	0.0	5308.	1.740	9.	15.9	2187.	1175.

ALT. 30000.

500.	0.0	674.	.171	1.	1.2	3839.	2826.
1000.	0.0	1359.	.354	1.	2.6	3655.	2643.
1500.	0.0	2057.	.549	2.	4.1	3473.	2461.
2000.	0.0	2770.	.759	3.	5.8	3293.	2280.
2500.	0.0	3501.	.984	4.	7.7	3114.	2102.
3000.	0.0	4251.	1.228	6.	9.9	2936.	1923.
3500.	0.0	5025.	1.493	7.	12.4	2758.	1745.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 2.0
ANGLE OFF 10.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	2.6	677.	.177	1.	1.3	3650.	2646.
1000.	2.8	1380.	.379	2.	2.9	3283.	2279.
1500.	2.9	2118.	.613	3.	5.0	2919.	1916.
2000.	3.1	2906.	.893	4.	7.9	2555.	1552.
2500.	3.3	3771.	1.237	7.	11.8	2183.	1180.
3000.	3.6	4783.	1.698	10.	17.9	1779.	776.
3500.	4.0	6324.	2.550	17.	31.7	1222.	220.

ALT. 20000.

500.	2.6	673.	.173	1.	1.2	3758.	2754.
1000.	2.7	1364.	.363	2.	2.7	3495.	2491.
1500.	2.8	2076.	.574	3.	4.4	3235.	2232.
2000.	2.9	2812.	.807	4.	6.5	2978.	1975.
2500.	3.0	3581.	1.071	5.	9.0	2721.	1718.
3000.	3.1	4394.	1.373	7.	12.2	2461.	1459.
3500.	3.3	5266.	1.726	9.	16.2	2197.	1195.

ALT. 30000.

500.	2.6	671.	.171	1.	1.2	3840.	2836.
1000.	2.6	1353.	.353	1.	2.6	3657.	2653.
1500.	2.7	2048.	.547	2.	4.1	3475.	2472.
2000.	2.8	2756.	.755	3.	5.7	3296.	2294.
2500.	2.8	3482.	.979	4.	7.7	3118.	2116.
3000.	2.9	4226.	1.221	6.	9.9	2941.	1939.
3500.	3.0	4993.	1.485	7.	12.3	2763.	1762.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 2.0
 ANGLE OFF 20.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	5.2	668.	.174	1.	1.2	3655.	2677.
1000.	5.4	1361.	.373	2.	2.8	3292.	2314.
1500.	5.7	2087.	.603	3.	4.9	2934.	1955.
2000.	6.1	2857.	.875	4.	7.8	2576.	1598.
2500.	6.5	3696.	1.208	6.	11.7	2212.	1233.
3000.	7.0	4662.	1.644	9.	17.9	1822.	843.
3500.	7.8	5989.	2.357	15.	30.5	1332.	352.

ALT. 20000.

500.	5.1	665.	.171	1.	1.1	3761.	2783.
1000.	5.3	1347.	.358	2.	2.6	3501.	2523.
1500.	5.5	2047.	.565	3.	4.3	3245.	2267.
2000.	5.7	2771.	.795	4.	6.3	2991.	2014.
2500.	5.9	3523.	1.052	5.	8.8	2738.	1761.
3000.	6.2	4315.	1.345	7.	11.9	2484.	1507.
3500.	6.5	5160.	1.685	9.	15.8	2225.	1249.

ALT. 30000.

500.	5.1	663.	.169	1.	1.2	3842.	2864.
1000.	5.2	1336.	.348	1.	2.4	3661.	2684.
1500.	5.3	2020.	.539	2.	3.9	3482.	2506.
2000.	5.4	2718.	.744	3.	5.6	3305.	2329.
2500.	5.6	3431.	.964	4.	7.4	3129.	2154.
3000.	5.7	4162.	1.202	6.	9.6	2954.	1979.
3500.	5.9	4911.	1.458	7.	12.0	2780.	1806.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 2.0
ANGLE OFF 30.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	7.6	655.	.171	1.	1.2	3662.	2727.
1000.	8.0	1332.	.364	2.	2.7	3306.	2371.
1500.	8.4	2038.	.587	3.	4.7	2957.	2020.
2000.	8.9	2782.	.848	4.	7.4	2609.	1671.
2500.	9.4	3584.	1.162	6.	11.2	2258.	1318.
3000.	10.1	4485.	1.562	9.	17.0	1888.	947.
3500.	11.1	5617.	2.149	13.	27.6	1460.	515.

ALT. 20000.

500.	7.5	652.	.167	1.	1.1	3766.	2832.
1000.	7.7	1318.	.350	1.	2.4	3511.	2577.
1500.	8.0	2002.	.552	2.	4.1	3260.	2326.
2000.	8.3	2705.	.774	4.	5.9	3013.	2078.
2500.	8.6	3434.	1.021	5.	8.3	2766.	1831.
3000.	9.0	4196.	1.301	6.	11.3	2520.	1584.
3500.	9.4	5002.	1.622	8.	15.0	2270.	1334.

ALT. 30000.

500.	7.4	650.	.165	1.	1.1	3845.	2912.
1000.	7.6	1309.	.341	1.	2.3	3668.	2735.
1500.	7.7	1979.	.528	2.	3.7	3493.	2560.
2000.	7.9	2659.	.727	3.	5.2	3320.	2387.
2500.	8.1	3353.	.941	4.	7.0	3148.	2215.
3000.	8.4	4061.	1.170	5.	8.9	2977.	2045.
3500.	8.6	4787.	1.417	7.	11.2	2807.	1875.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 2.0
 ANGLE OFF 40.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	9.7	638.	.166	1.	1.1	3671.	2798.
1000.	10.2	1294.	.353	2.	2.5	3325.	2450.
1500.	10.7	1973.	.566	3.	4.2	2988.	2110.
2000.	11.3	2685.	.813	4.	6.8	2652.	1772.
2500.	12.0	3441.	1.105	6.	10.2	2317.	1433.
3000.	12.8	4271.	1.466	8.	15.3	1971.	1084.
3500.	13.9	5243.	1.950	12.	23.9	1593.	701.

ALT. 20000.

500.	9.6	635.	.163	1.	1.0	3773.	2901.
1000.	9.9	1282.	.340	1.	2.2	3525.	2652.
1500.	10.3	1944.	.534	2.	3.7	3281.	2407.
2000.	10.7	2621.	.747	3.	5.4	3041.	2166.
2500.	11.1	3319.	.982	5.	7.6	2803.	1927.
3000.	11.5	4043.	1.245	6.	10.2	2567.	1689.
3500.	12.0	4802.	1.543	8.	13.5	2329.	1450.

ALT. 30000.

500.	9.5	633.	.161	1.	1.0	3850.	2979.
1000.	9.7	1274.	.331	1.	2.1	3677.	2806.
1500.	10.0	1924.	.512	2.	3.4	3507.	2636.
2000.	10.2	2583.	.705	3.	4.8	3338.	2467.
2500.	10.5	3251.	.909	4.	6.3	3172.	2301.
3000.	10.7	3932.	1.128	5.	8.1	3007.	2136.
3500.	11.0	4627.	1.364	6.	10.2	2843.	1971.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 2.0
ANGLE OFF 50.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	11.6	616.	.160	1.	.8	3683.	2891.
1000.	12.2	1247.	.339	1.	2.1	3349.	2554.
1500.	12.8	1897.	.542	2.	3.7	3024.	2225.
2000.	13.4	2572.	.773	4.	5.9	2704.	1900.
2500.	14.2	3280.	1.042	5.	8.9	2385.	1577.
3000.	15.0	4038.	1.363	7.	13.2	2063.	1250.
3500.	16.1	4882.	1.766	10.	19.8	1727.	907.

ALT. 20000.

500.	11.5	614.	.158	1.	.9	3781.	2991.
1000.	11.8	1238.	.328	1.	1.9	3541.	2750.
1500.	12.2	1874.	.514	2.	3.3	3306.	2512.
2000.	12.7	2521.	.715	3.	4.7	3075.	2280.
2500.	13.1	3185.	.937	4.	6.6	2848.	2050.
3000.	13.6	3869.	1.182	6.	8.9	2621.	1821.
3500.	14.2	4577.	1.455	7.	11.7	2397.	1594.

ALT. 30000.

500.	11.4	613.	.156	1.	.8	3855.	3067.
1000.	11.6	1232.	.320	1.	1.8	3688.	2899.
1500.	11.9	1857.	.494	2.	2.9	3524.	2734.
2000.	12.1	2491.	.678	3.	4.2	3361.	2571.
2500.	12.4	3131.	.873	4.	5.5	3201.	2410.
3000.	12.7	3781.	1.080	5.	7.1	3042.	2251.
3500.	13.0	4442.	1.301	6.	8.8	2885.	2093.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 3.0
 ANGLE OFF 0.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PRCJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	0.0	679.	.177	1.	2.1	3649.	2636.
1000.	0.0	1386.	.380	2.	4.7	3279.	2267.
1500.	0.0	2130.	.617	3.	8.1	2914.	1902.
2000.	0.0	2923.	.899	4.	12.6	2548.	1536.
2500.	0.0	3796.	1.248	7.	18.6	2172.	1160.
3000.	0.0	4819.	1.718	10.	27.8	1763.	752.
3500.	0.0	6449.	2.645	17.	49.1	1171.	161.

ALT. 20000.

500.	0.0	676.	.174	1.	2.0	3757.	2744.
1000.	0.0	1369.	.365	2.	4.4	3493.	2480.
1500.	0.0	2084.	.576	3.	7.2	3232.	2219.
2000.	0.0	2827.	.812	4.	10.6	2973.	1960.
2500.	0.0	3600.	1.078	5.	14.7	2714.	1702.
3000.	0.0	4418.	1.382	7.	19.7	2454.	1442.
3500.	0.0	5295.	1.740	9.	26.0	2187.	1176.

ALT. 30000.

500.	0.0	674.	.171	1.	2.0	3839.	2826.
1000.	0.0	1358.	.354	1.	4.2	3655.	2643.
1500.	0.0	2056.	.549	2.	6.7	3473.	2461.
2000.	0.0	2769.	.759	3.	9.5	3293.	2281.
2500.	0.0	3498.	.984	4.	12.6	3114.	2102.
3000.	0.0	4246.	1.228	6.	16.1	2936.	1924.
3500.	0.0	5017.	1.493	7.	20.2	2758.	1746.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 3.0
ANGLE OFF 10.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	2.6	677.	.177	1.	2.1	3650.	2646.
1000.	2.8	1379.	.379	2.	4.7	3283.	2280.
1500.	2.9	2116.	.613	3.	8.1	2919.	1917.
2000.	3.1	2903.	.893	4.	12.6	2555.	1554.
2500.	3.3	3763.	1.237	7.	18.9	2183.	1182.
3000.	3.6	4765.	1.698	10.	28.4	1779.	779.
3500.	4.0	6271.	2.550	17.	49.8	1222.	225.

ALT. 20000.

500.	2.6	672.	.173	1.	2.0	3758.	2755.
1000.	2.7	1364.	.363	2.	4.4	3495.	2492.
1500.	2.8	2075.	.574	3.	7.2	3235.	2233.
2000.	2.9	2809.	.807	4.	10.6	2978.	1976.
2500.	3.0	3575.	1.071	5.	14.6	2721.	1720.
3000.	3.1	4383.	1.373	7.	19.7	2461.	1462.
3500.	3.3	5247.	1.726	9.	26.0	2197.	1198.

ALT. 30000.

500.	2.6	671.	.171	1.	2.0	3840.	2836.
1000.	2.6	1353.	.353	1.	4.2	3657.	2654.
1500.	2.7	2047.	.547	2.	6.6	3475.	2473.
2000.	2.8	2754.	.755	3.	9.4	3296.	2295.
2500.	2.8	3477.	.979	4.	12.5	3118.	2118.
3000.	2.9	4218.	1.221	6.	16.0	2941.	1941.
3500.	3.0	4980.	1.485	7.	20.0	2763.	1765.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 3.0
 ANGLE OFF 20.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	5.2	668.	.174	1.	1.9	3655.	2677.
1000.	5.4	1360.	.373	2.	4.5	3292.	2315.
1500.	5.7	2085.	.603	3.	7.9	2934.	1957.
2000.	6.1	2852.	.875	4.	12.3	2576.	1601.
2500.	6.5	3686.	1.208	6.	18.4	2212.	1237.
3000.	7.0	4640.	1.644	9.	27.7	1822.	848.
3500.	7.8	5937.	2.357	15.	46.3	1332.	359.

ALT. 20000.

500.	5.1	664.	.171	1.	1.9	3761.	2784.
1000.	5.3	1346.	.358	2.	4.2	3501.	2525.
1500.	5.5	2045.	.565	3.	6.9	3245.	2269.
2000.	5.7	2767.	.795	4.	10.2	2991.	2016.
2500.	5.9	3515.	1.052	5.	14.1	2738.	1765.
3000.	6.2	4301.	1.345	7.	19.0	2484.	1512.
3500.	6.5	5136.	1.685	9.	25.2	2225.	1255.

ALT. 30000.

500.	5.1	663.	.169	1.	1.9	3842.	2865.
1000.	5.2	1335.	.348	1.	4.0	3661.	2685.
1500.	5.3	2019.	.539	2.	6.3	3482.	2507.
2000.	5.4	2715.	.744	3.	9.0	3305.	2332.
2500.	5.6	3424.	.964	4.	12.0	3129.	2157.
3000.	5.7	4151.	1.202	6.	15.4	2954.	1984.
3500.	5.9	4895.	1.458	7.	19.3	2780.	1811.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 3.0
ANGLE OFF 30.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	7.6	655.	.171	1.	1.9	3662.	2728.
1000.	8.0	1331.	.364	2.	4.3	3306.	2372.
1500.	8.4	2035.	.587	3.	7.4	2957.	2023.
2000.	8.9	2776.	.848	4.	11.6	2609.	1675.
2500.	9.4	3572.	1.162	6.	17.3	2258.	1323.
3000.	10.1	4461.	1.562	9.	25.8	1888.	954.
3500.	11.1	5568.	2.149	13.	41.1	1460.	525.

ALT. 20000.

500.	7.5	652.	.167	1.	1.8	3766.	2833.
1000.	7.7	1317.	.350	2.	3.9	3511.	2579.
1500.	8.0	2000.	.552	2.	6.5	3260.	2329.
2000.	8.3	2700.	.774	4.	9.5	3013.	2082.
2500.	8.6	3425.	1.021	5.	13.2	2766.	1836.
3000.	9.0	4181.	1.301	7.	17.8	2520.	1590.
3500.	9.4	4976.	1.622	9.	23.5	2270.	1342.

ALT. 30000.

500.	7.4	650.	.165	1.	1.8	3845.	2913.
1000.	7.6	1308.	.341	1.	3.7	3668.	2737.
1500.	7.7	1977.	.528	2.	6.0	3493.	2562.
2000.	7.9	2654.	.727	3.	8.4	3320.	2391.
2500.	8.1	3345.	.941	4.	11.2	3148.	2220.
3000.	8.4	4048.	1.170	5.	14.4	2977.	2051.
3500.	8.6	4768.	1.417	7.	18.0	2807.	1883.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 3.0
 ANGLE OFF 40.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	9.7	638.	.166	1.	1.8	3671.	2799.
1000.	10.2	1293.	.353	2.	4.0	3325.	2453.
1500.	10.7	1970.	.566	3.	6.7	2988.	2114.
2000.	11.3	2678.	.813	4.	10.5	2652.	1777.
2500.	12.0	3428.	1.105	6.	15.6	2317.	1441.
3000.	12.8	4247.	1.466	8.	23.0	1971.	1093.
3500.	13.9	5197.	1.950	12.	35.1	1593.	713.

ALT. 20000.

500.	9.6	635.	.163	1.	1.6	3773.	2902.
1000.	9.9	1281.	.340	1.	3.6	3525.	2655.
1500.	10.3	1941.	.534	2.	5.9	3281.	2411.
2000.	10.7	2615.	.747	3.	8.6	3041.	2171.
2500.	11.1	3309.	.982	5.	12.0	2803.	1934.
3000.	11.5	4026.	1.245	6.	16.0	2567.	1698.
3500.	12.0	4775.	1.543	8.	21.1	2329.	1460.

ALT. 30000.

500.	9.5	633.	.161	1.	1.6	3850.	2980.
1000.	9.7	1273.	.331	1.	3.4	3677.	2809.
1500.	10.0	1921.	.512	2.	5.4	3507.	2639.
2000.	10.2	2577.	.705	3.	7.7	3338.	2472.
2500.	10.5	3242.	.909	4.	10.1	3172.	2307.
3000.	10.7	3917.	1.128	5.	13.0	3007.	2144.
3500.	11.0	4606.	1.364	6.	16.2	2843.	1981.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 3.0
ANGLE OFF 50.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	11.6	616.	.160	1.	1.4	3683.	2893.
1000.	12.2	1246.	.339	1.	3.3	3349.	2557.
1500.	12.8	1894.	.542	2.	5.9	3024.	2229.
2000.	13.4	2564.	.773	4.	9.1	2704.	1907.
2500.	14.2	3267.	1.042	5.	13.5	2385.	1585.
3000.	15.0	4015.	1.363	7.	19.6	2063.	1261.
3500.	16.1	4840.	1.766	10.	28.8	1727.	920.

ALT. 20000.

500.	11.5	614.	.158	1.	1.4	3781.	2992.
1000.	11.8	1237.	.328	1.	3.1	3541.	2752.
1500.	12.2	1871.	.514	2.	5.2	3306.	2517.
2000.	12.7	2515.	.715	3.	7.5	3075.	2286.
2500.	13.1	3174.	.937	4.	10.4	2848.	2058.
3000.	13.6	3852.	1.182	6.	13.9	2621.	1831.
3500.	14.2	4549.	1.455	7.	18.1	2397.	1606.

ALT. 30000.

500.	11.4	613.	.156	1.	1.4	3855.	3068.
1000.	11.6	1231.	.320	1.	3.0	3688.	2902.
1500.	11.9	1854.	.494	2.	4.7	3524.	2738.
2000.	12.1	2485.	.678	3.	6.7	3361.	2577.
2500.	12.4	3121.	.873	4.	8.8	3201.	2418.
3000.	12.7	3766.	1.080	5.	11.3	3042.	2260.
3500.	13.0	4419.	1.301	6.	14.0	2885.	2105.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC.
ANGLE OFF 0.0 DEG.

ALT. 10000. FT.
TGT. VEL 1013. FT./SEC.

TGT. GEES 4.0
ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	0.0	679.	.177	1.	2.9	3649.	2636.
1000.	0.0	1386.	.380	2.	6.5	3279.	2267.
1500.	0.0	2129.	.617	3.	11.1	2914.	1902.
2000.	0.0	2920.	.899	4.	17.2	2548.	1537.
2500.	0.0	3789.	1.248	7.	25.5	2172.	1161.
3000.	0.0	4801.	1.718	10.	38.2	1763.	753.
3500.	0.0	6385.	2.645	18.	67.7	1171.	163.

ALT. 20000.

500.	0.0	676.	.174	1.	2.8	3757.	2744.
1000.	0.0	1369.	.365	2.	6.1	3493.	2480.
1500.	0.0	2084.	.576	3.	9.9	3232.	2220.
2000.	0.0	2825.	.812	4.	14.5	2973.	1961.
2500.	0.0	3596.	1.078	5.	20.1	2714.	1703.
3000.	0.0	4409.	1.382	7.	26.9	2454.	1443.
3500.	0.0	5276.	1.740	9.	35.6	2187.	1177.

ALT. 30000.

500.	0.0	674.	.171	1.	2.7	3839.	2826.
1000.	0.0	1358.	.354	1.	5.7	3655.	2643.
1500.	0.0	2056.	.549	2.	9.1	3473.	2461.
2000.	0.0	2768.	.759	3.	13.0	3293.	2281.
2500.	0.0	3495.	.984	4.	17.3	3114.	2102.
3000.	0.0	4240.	1.228	6.	22.1	2936.	1925.
3500.	0.0	5005.	1.493	7.	27.7	2758.	1747.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 4.0
ANGLE OFF 10.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	2.6	677.	.177	1.	2.9	3650.	2647.
1000.	2.8	1379.	.379	2.	6.5	3283.	2280.
1500.	2.9	2115.	.613	3.	11.1	2919.	1918.
2000.	3.1	2899.	.893	4.	17.2	2555.	1556.
2500.	3.3	3754.	1.237	7.	25.6	2183.	1184.
3000.	3.6	4742.	1.698	10.	38.5	1779.	783.
3500.	4.0	6204.	2.550	17.	67.2	1222.	230.

ALT. 20000.

500.	2.6	672.	.173	1.	2.7	3758.	2755.
1000.	2.7	1363.	.363	2.	6.0	3495.	2492.
1500.	2.8	2073.	.574	3.	9.8	3235.	2234.
2000.	2.9	2806.	.807	4.	14.4	2978.	1978.
2500.	3.0	3569.	1.071	5.	19.9	2721.	1722.
3000.	3.1	4370.	1.373	7.	26.8	2461.	1465.
3500.	3.3	5224.	1.726	9.	35.4	2197.	1202.

ALT. 30000.

500.	2.6	671.	.171	1.	2.7	3840.	2837.
1000.	2.6	1353.	.353	1.	5.7	3657.	2654.
1500.	2.7	2046.	.547	2.	9.0	3475.	2474.
2000.	2.8	2751.	.755	3.	12.8	3296.	2296.
2500.	2.8	3472.	.979	4.	17.1	3118.	2119.
3000.	2.9	4208.	1.221	6.	21.9	2941.	1944.
3500.	3.0	4964.	1.485	7.	27.4	2763.	1768.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 4.0
 ANGLE OFF 20.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	5.2	667.	.174	1.	2.7	3655.	2678.
1000.	5.4	1359.	.373	2.	6.2	3292.	2316.
1500.	5.7	2083.	.603	3.	10.7	2934.	1959.
2000.	6.1	2847.	.875	4.	16.6	2576.	1603.
2500.	6.5	3674.	1.208	6.	24.8	2212.	1241.
3000.	7.0	4615.	1.644	9.	37.1	1822.	853.
3500.	7.8	5874.	2.357	15.	61.6	1332.	367.

ALT. 20000.

500.	5.1	664.	.171	1.	2.6	3761.	2785.
1000.	5.3	1345.	.358	2.	5.8	3501.	2526.
1500.	5.5	2043.	.565	3.	9.5	3245.	2271.
2000.	5.7	2762.	.795	4.	13.9	2991.	2019.
2500.	5.9	3507.	1.052	5.	19.2	2738.	1769.
3000.	6.2	4286.	1.345	7.	25.8	2484.	1517.
3500.	6.5	5109.	1.685	9.	34.1	2225.	1261.

ALT. 30000.

500.	5.1	663.	.169	1.	2.6	3842.	2866.
1000.	5.2	1334.	.348	1.	5.5	3661.	2686.
1500.	5.3	2017.	.539	2.	8.7	3482.	2509.
2000.	5.4	2711.	.744	3.	12.3	3305.	2334.
2500.	5.6	3417.	.964	4.	16.4	3129.	2161.
3000.	5.7	4139.	1.202	6.	21.0	2954.	1988.
3500.	5.9	4876.	1.458	7.	26.2	2780.	1816.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 4.0
ANGLE OFF 30.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	7.6	655.	.171	1.	2.6	3662.	2729.
1000.	8.0	1330.	.364	2.	5.8	3306.	2374.
1500.	8.4	2032.	.587	3.	10.1	2957.	2026.
2000.	8.9	2769.	.848	4.	15.6	2609.	1679.
2500.	9.4	3559.	1.162	6.	23.2	2258.	1329.
3000.	10.1	4435.	1.562	9.	34.3	1888.	961.
3500.	11.1	5511.	2.149	13.	54.0	1460.	535.

ALT. 20000.

500.	7.5	652.	.167	1.	2.5	3766.	2834.
1000.	7.7	1316.	.350	2.	5.4	3511.	2581.
1500.	8.0	1997.	.552	2.	8.9	3260.	2331.
2000.	8.3	2695.	.774	4.	12.9	3013.	2086.
2500.	8.6	3415.	1.021	5.	17.9	2766.	1841.
3000.	9.0	4163.	1.301	7.	24.0	2520.	1597.
3500.	9.4	4947.	1.622	9.	31.6	2270.	1350.

ALT. 30000.

500.	7.4	650.	.165	1.	2.5	3845.	2913.
1000.	7.6	1307.	.341	1.	5.1	3668.	2738.
1500.	7.7	1974.	.528	2.	8.1	3493.	2565.
2000.	7.9	2650.	.727	3.	11.5	3320.	2394.
2500.	8.1	3337.	.941	4.	15.3	3148.	2225.
3000.	8.4	4035.	1.170	5.	19.5	2977.	2057.
3500.	8.6	4746.	1.417	7.	24.4	2807.	1890.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 4.0
 ANGLE OFF 40.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	9.7	637.	.166	1.	2.4	3671.	2800.
1000.	10.2	1292.	.353	2.	5.4	3325.	2455.
1500.	10.7	1966.	.566	3.	9.1	2988.	2117.
2000.	11.3	2671.	.813	4.	14.1	2652.	1782.
2500.	12.0	3414.	1.105	6.	20.7	2317.	1448.
3000.	12.8	4221.	1.466	8.	30.3	1971.	1102.
3500.	13.9	5147.	1.950	12.	45.7	1593.	725.

ALT. 20000.

500.	9.6	634.	.163	1.	2.2	3773.	2903.
1000.	9.9	1280.	.340	1.	4.9	3525.	2657.
1500.	10.3	1938.	.534	2.	8.0	3281.	2415.
2000.	10.7	2609.	.747	3.	11.7	3041.	2176.
2500.	11.1	3298.	.982	5.	16.1	2803.	1941.
3000.	11.5	4008.	1.245	6.	21.5	2567.	1706.
3500.	12.0	4745.	1.543	8.	28.2	2329.	1471.

ALT. 30000.

500.	9.5	633.	.161	1.	2.2	3850.	2981.
1000.	9.7	1272.	.331	1.	4.7	3677.	2811.
1500.	10.0	1918.	.512	2.	7.4	3507.	2643.
2000.	10.2	2572.	.705	3.	10.4	3338.	2477.
2500.	10.5	3233.	.909	4.	13.9	3172.	2313.
3000.	10.7	3903.	1.128	5.	17.6	3007.	2151.
3500.	11.0	4583.	1.364	7.	21.9	2843.	1991.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 4.0
ANGLE OFF 50.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	11.6	615.	.160	1.	1.9	3683.	2894.
1000.	12.2	1245.	.339	1.	4.5	3349.	2560.
1500.	12.8	1890.	.542	2.	7.9	3024.	2234.
2000.	13.4	2557.	.773	4.	12.2	2704.	1913.
2500.	14.2	3253.	1.042	5.	17.9	2385.	1594.
3000.	15.0	3990.	1.363	7.	25.7	2063.	1272.
3500.	16.1	4796.	1.766	10.	37.3	1727.	935.

ALT. 20000.

500.	11.5	614.	.158	1.	2.0	3781.	2993.
1000.	11.8	1235.	.328	1.	4.2	3541.	2755.
1500.	12.2	1868.	.514	2.	7.1	3306.	2521.
2000.	12.7	2509.	.715	3.	10.2	3075.	2292.
2500.	13.1	3163.	.937	4.	13.9	2848.	2066.
3000.	13.6	3833.	1.182	6.	18.6	2621.	1841.
3500.	14.2	4520.	1.455	8.	24.1	2397.	1619.

ALT. 30000.

500.	11.4	612.	.156	1.	1.9	3855.	3069.
1000.	11.6	1229.	.320	1.	4.0	3688.	2905.
1500.	11.9	1852.	.494	2.	6.4	3524.	2743.
2000.	12.1	2480.	.678	3.	9.1	3361.	2583.
2500.	12.4	3112.	.873	4.	11.9	3201.	2425.
3000.	12.7	3751.	1.080	5.	15.2	3042.	2270.
3500.	13.0	4397.	1.301	6.	18.9	2885.	2116.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 5.0
 ANGLE OFF 0.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	0.0	679.	.177	1.	3.6	3649.	2636.
1000.	0.0	1386.	.380	2.	8.2	3279.	2267.
1500.	0.0	2128.	.617	3.	14.1	2914.	1902.
2000.	0.0	2917.	.899	4.	21.8	2548.	1537.
2500.	0.0	3780.	1.248	7.	32.4	2172.	1162.
3000.	0.0	4778.	1.718	10.	48.4	1763.	755.
3500.	0.0	6304.	2.645	18.	86.2	1171.	166.

ALT. 20000.

500.	0.0	676.	.174	1.	3.5	3757.	2744.
1000.	0.0	1369.	.365	2.	7.7	3493.	2480.
1500.	0.0	2083.	.576	3.	12.5	3232.	2220.
2000.	0.0	2822.	.812	4.	18.4	2973.	1961.
2500.	0.0	3590.	1.078	5.	25.4	2714.	1704.
3000.	0.0	4397.	1.382	7.	34.1	2454.	1444.
3500.	0.0	5253.	1.740	9.	45.1	2187.	1179.

ALT. 30000.

500.	0.0	674.	.171	1.	3.4	3839.	2826.
1000.	0.0	1358.	.354	1.	7.3	3655.	2643.
1500.	0.0	2055.	.549	2.	11.6	3473.	2461.
2000.	0.0	2766.	.759	3.	16.4	3293.	2281.
2500.	0.0	3491.	.984	4.	21.8	3114.	2103.
3000.	0.0	4231.	1.228	6.	28.0	2936.	1925.
3500.	0.0	4990.	1.493	7.	35.1	2758.	1748.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 5.0
ANGLE OFF 10.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	2.6	677.	.177	1.	3.6	3650.	2647.
1000.	2.8	1378.	.379	2.	8.2	3283.	2281.
1500.	2.9	2113.	.613	3.	14.0	2919.	1919.
2000.	3.1	2894.	.893	4.	21.7	2555.	1557.
2500.	3.3	3742.	1.237	7.	32.3	2183.	1187.
3000.	3.6	4716.	1.698	10.	48.4	1779.	786.
3500.	4.0	6122.	2.550	17.	84.6	1222.	236.

ALT. 20000.

500.	2.6	672.	.173	1.	3.4	3758.	2755.
1000.	2.7	1363.	.363	2.	7.6	3495.	2493.
1500.	2.8	2072.	.574	3.	12.4	3235.	2235.
2000.	2.9	2802.	.807	4.	18.2	2978.	1979.
2500.	3.0	3561.	1.071	5.	25.2	2721.	1724.
3000.	3.1	4355.	1.373	7.	33.8	2461.	1468.
3500.	3.3	5195.	1.726	9.	44.7	2197.	1206.

ALT. 30000.

500.	2.6	671.	.171	1.	3.4	3840.	2837.
1000.	2.6	1352.	.353	1.	7.2	3657.	2655.
1500.	2.7	2044.	.547	2.	11.4	3475.	2475.
2000.	2.8	2748.	.755	3.	16.2	3296.	2298.
2500.	2.8	3466.	.979	4.	21.5	3118.	2122.
3000.	2.9	4197.	1.221	6.	27.6	2941.	1947.
3500.	3.0	4945.	1.485	7.	34.6	2763.	1772.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 5.0
 ANGLE OFF 20.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	5.2	667.	.174	1.	3.4	3655.	2679.
1000.	5.4	1358.	.373	2.	7.8	3292.	2318.
1500.	5.7	2080.	.603	3.	13.5	2934.	1961.
2000.	6.1	2841.	.875	4.	20.9	2576.	1606.
2500.	6.5	3661.	1.208	6.	31.1	2212.	1245.
3000.	7.0	4586.	1.644	9.	46.4	1822.	859.
3500.	7.8	5801.	2.357	15.	76.6	1332.	375.

ALT. 20000.

500.	5.1	664.	.171	1.	3.3	3761.	2785.
1000.	5.3	1345.	.358	2.	7.3	3501.	2527.
1500.	5.5	2041.	.565	3.	11.9	3245.	2273.
2000.	5.7	2758.	.795	4.	17.5	2991.	2022.
2500.	5.9	3497.	1.052	5.	24.2	2738.	1772.
3000.	6.2	4268.	1.345	7.	32.4	2484.	1522.
3500.	6.5	5078.	1.685	9.	42.8	2225.	1267.

ALT. 30000.

500.	5.1	663.	.169	1.	3.3	3842.	2866.
1000.	5.2	1334.	.348	1.	6.9	3661.	2688.
1500.	5.3	2015.	.539	2.	11.0	3482.	2511.
2000.	5.4	2707.	.744	3.	15.5	3305.	2337.
2500.	5.6	3410.	.964	4.	20.6	3129.	2164.
3000.	5.7	4126.	1.202	6.	26.5	2954.	1992.
3500.	5.9	4854.	1.458	7.	33.1	2780.	1822.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 5.0
ANGLE OFF 30.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	7.6	655.	.171	1.	3.3	3662.	2729.
1000.	8.0	1329.	.364	2.	7.4	3306.	2376.
1500.	8.4	2029.	.587	3.	12.6	2957.	2028.
2000.	8.9	2753.	.848	4.	19.5	2609.	1683.
2500.	9.4	3544.	1.162	6.	28.9	2258.	1335.
3000.	10.1	4406.	1.562	9.	42.6	1888.	969.
3500.	11.1	5448.	2.149	14.	66.6	1460.	546.

ALT. 20000.

500.	7.5	651.	.167	1.	3.1	3766.	2834.
1000.	7.7	1315.	.350	2.	6.8	3511.	2582.
1500.	8.0	1995.	.552	2.	11.2	3260.	2334.
2000.	8.3	2689.	.774	4.	16.3	3013.	2090.
2500.	8.6	3404.	1.021	5.	22.5	2766.	1847.
3000.	9.0	4144.	1.301	7.	30.1	2520.	1604.
3500.	9.4	4914.	1.622	9.	39.5	2270.	1359.

ALT. 30000.

500.	7.4	650.	.165	1.	3.1	3845.	2914.
1000.	7.6	1306.	.341	1.	6.4	3668.	2740.
1500.	7.7	1972.	.528	2.	10.3	3493.	2568.
2000.	7.9	2645.	.727	3.	14.4	3320.	2398.
2500.	8.1	3328.	.941	4.	19.2	3148.	2230.
3000.	8.4	4020.	1.170	5.	24.6	2977.	2064.
3500.	8.6	4723.	1.417	7.	30.6	2807.	1898.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 5.0
 ANGLE OFF 40.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	9.7	637.	.166	1.	3.0	3671.	2801.
1000.	10.2	1291.	.353	2.	6.7	3325.	2457.
1500.	10.7	1963.	.566	3.	11.4	2988.	2121.
2000.	11.3	2664.	.813	4.	17.6	2652.	1788.
2500.	12.0	3400.	1.105	6.	25.7	2317.	1455.
3000.	12.8	4193.	1.466	8.	37.4	1971.	1112.
3500.	13.9	5093.	1.950	12.	56.0	1593.	738.

ALT. 20000.

500.	9.6	634.	.163	1.	2.8	3773.	2904.
1000.	9.9	1279.	.340	1.	6.2	3525.	2659.
1500.	10.3	1935.	.534	2.	10.1	3281.	2418.
2000.	10.7	2603.	.747	3.	14.7	3041.	2181.
2500.	11.1	3287.	.982	5.	20.2	2803.	1947.
3000.	11.5	3989.	1.245	6.	26.8	2567.	1715.
3500.	12.0	4713.	1.543	8.	35.1	2329.	1481.

ALT. 30000.

500.	9.5	633.	.161	1.	2.8	3850.	2982.
1000.	9.7	1271.	.331	1.	5.9	3677.	2813.
1500.	10.0	1916.	.512	2.	9.3	3507.	2646.
2000.	10.2	2567.	.705	3.	13.1	3338.	2482.
2500.	10.5	3223.	.909	4.	17.3	3172.	2320.
3000.	10.7	3887.	1.128	5.	22.0	3007.	2159.
3500.	11.0	4559.	1.364	7.	27.4	2843.	2000.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 5.0
ANGLE OFF 50.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	11.6	615.	.160	1.	2.4	3683.	2895.
1000.	12.2	1243.	.339	1.	5.7	3349.	2563.
1500.	12.8	1887.	.542	3.	9.9	3024.	2238.
2000.	13.4	2550.	.773	4.	15.1	2704.	1919.
2500.	14.2	3239.	1.042	5.	22.1	2385.	1603.
3000.	15.0	3964.	1.363	8.	31.6	2063.	1283.
3500.	16.1	4749.	1.766	11.	45.5	1727.	949.

ALT. 20000.

500.	11.5	614.	.158	1.	2.5	3781.	2995.
1000.	11.8	1234.	.328	1.	5.3	3541.	2758.
1500.	12.2	1865.	.514	2.	8.8	3306.	2525.
2000.	12.7	2503.	.715	3.	12.7	3075.	2298.
2500.	13.1	3152.	.937	4.	17.4	2848.	2074.
3000.	13.6	3814.	1.182	6.	23.1	2621.	1852.
3500.	14.2	4489.	1.455	8.	29.9	2397.	1631.

ALT. 30000.

500.	11.4	612.	.156	1.	2.4	3855.	3071.
1000.	11.6	1228.	.320	1.	5.1	3688.	2907.
1500.	11.9	1849.	.494	2.	8.1	3524.	2747.
2000.	12.1	2474.	.678	3.	11.4	3361.	2588.
2500.	12.4	3102.	.873	4.	15.0	3201.	2433.
3000.	12.7	3735.	1.080	5.	19.0	3042.	2279.
3500.	13.0	4373.	1.301	6.	23.6	2885.	2128.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT.
 ANGLE OFF 0.0 DEG. TGT. VEL 1013. FT./SEC. TGT. GEES 6.0
 ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	0.0	679.	.177	1.	4.4	3649.	2636.
1000.	0.0	1386.	.380	2.	9.9	3279.	2267.
1500.	0.0	2126.	.617	3.	17.0	2914.	1902.
2000.	0.0	2913.	.899	4.	26.3	2548.	1538.
2500.	0.0	3769.	1.248	7.	39.1	2172.	1163.
3000.	0.0	4751.	1.718	10.	58.6	1763.	756.
3500.	0.0	6207.	2.645	18.	105.1	1171.	170.

ALT. 20000.

500.	0.0	676.	.174	1.	4.3	3757.	2744.
1000.	0.0	1369.	.365	2.	9.2	3493.	2480.
1500.	0.0	2082.	.576	3.	15.2	3232.	2220.
2000.	0.0	2819.	.812	4.	22.2	2973.	1962.
2500.	0.0	3583.	1.078	5.	30.7	2714.	1704.
3000.	0.0	4382.	1.382	7.	41.3	2454.	1445.
3500.	0.0	5224.	1.740	9.	54.6	2187.	1181.

ALT. 30000.

500.	0.0	674.	.171	1.	4.2	3839.	2826.
1000.	0.0	1358.	.354	1.	8.8	3655.	2643.
1500.	0.0	2054.	.549	2.	14.0	3473.	2461.
2000.	0.0	2763.	.759	3.	19.8	3293.	2282.
2500.	0.0	3485.	.984	4.	26.4	3114.	2104.
3000.	0.0	4221.	1.228	6.	33.9	2936.	1927.
3500.	0.0	4972.	1.493	7.	42.4	2758.	1750.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 6.0
ANGLE OFF 10.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	2.6	677.	.177	1.	4.4	3650.	2647.
1000.	2.8	1378.	.379	2.	9.8	3283.	2282.
1500.	2.9	2111.	.613	3.	16.9	2919.	1920.
2000.	3.1	2889.	.893	4.	26.1	2555.	1559.
2500.	3.3	3729.	1.237	7.	38.9	2183.	1190.
3000.	3.6	4684.	1.698	10.	58.3	1779.	790.
3500.	4.0	6027.	2.550	17.	102.1	1222.	243.

ALT. 20000.

500.	2.6	672.	.173	1.	4.2	3758.	2756.
1000.	2.7	1362.	.363	2.	9.2	3495.	2494.
1500.	2.8	2070.	.574	3.	15.0	3235.	2236.
2000.	2.9	2798.	.807	4.	21.9	2978.	1981.
2500.	3.0	3552.	1.071	5.	30.4	2721.	1727.
3000.	3.1	4338.	1.373	7.	40.8	2461.	1471.
3500.	3.3	5162.	1.726	9.	54.0	2197.	1210.

ALT. 30000.

500.	2.6	671.	.171	1.	4.1	3840.	2837.
1000.	2.6	1352.	.353	1.	8.7	3657.	2656.
1500.	2.7	2043.	.547	2.	13.8	3475.	2477.
2000.	2.8	2744.	.755	3.	19.5	3296.	2300.
2500.	2.8	3459.	.979	4.	26.0	3118.	2124.
3000.	2.9	4184.	1.221	6.	33.3	2941.	1949.
3500.	3.0	4924.	1.485	7.	41.7	2763.	1776.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 6.0
 ANGLE OFF 20.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	5.2	667.	.174	1.	4.1	3655.	2679.
1000.	5.4	1358.	.373	2.	9.4	3292.	2319.
1500.	5.7	2078.	.603	3.	16.2	2934.	1963.
2000.	6.1	2834.	.875	4.	25.1	2576.	1609.
2500.	6.5	3647.	1.208	6.	37.3	2212.	1249.
3000.	7.0	4554.	1.644	10.	55.6	1822.	865.
3500.	7.8	5719.	2.357	16.	91.7	1332.	385.

ALT. 20000.

500.	5.1	664.	.171	1.	4.0	3761.	2786.
1000.	5.3	1344.	.358	2.	8.8	3501.	2528.
1500.	5.5	2039.	.565	3.	14.4	3245.	2275.
2000.	5.7	2752.	.795	4.	21.1	2991.	2025.
2500.	5.9	3487.	1.052	5.	29.1	2738.	1776.
3000.	6.2	4249.	1.345	7.	39.0	2484.	1527.
3500.	6.5	5043.	1.685	9.	51.4	2225.	1274.

ALT. 30000.

500.	5.1	663.	.169	1.	4.0	3842.	2867.
1000.	5.2	1333.	.348	1.	8.3	3661.	2689.
1500.	5.3	2013.	.539	2.	13.2	3482.	2513.
2000.	5.4	2702.	.744	3.	18.7	3305.	2340.
2500.	5.6	3401.	.964	4.	24.9	3129.	2168.
3000.	5.7	4111.	1.202	6.	31.9	2954.	1997.
3500.	5.9	4830.	1.458	7.	39.8	2780.	1828.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 6.0
ANGLE OFF 30.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	7.6	654.	.171	1.	3.9	3662.	2730.
1000.	8.0	1328.	.364	2.	8.9	3306.	2378.
1500.	8.4	2026.	.587	3.	15.2	2957.	2031.
2000.	8.9	2755.	.848	4.	23.4	2609.	1688.
2500.	9.4	3529.	1.162	6.	34.5	2258.	1341.
3000.	10.1	4374.	1.562	9.	50.8	1888.	977.
3500.	11.1	5378.	2.149	14.	79.2	1460.	558.

ALT. 20000.

500.	7.5	651.	.167	1.	3.8	3766.	2835.
1000.	7.7	1314.	.350	2.	8.2	3511.	2584.
1500.	8.0	1992.	.552	2.	13.4	3260.	2337.
2000.	8.3	2683.	.774	4.	19.6	3013.	2094.
2500.	8.6	3393.	1.021	5.	27.0	2766.	1852.
3000.	9.0	4124.	1.301	7.	36.0	2520.	1611.
3500.	9.4	4879.	1.622	9.	47.3	2270.	1368.

ALT. 30000.

500.	7.4	650.	.165	1.	3.7	3845.	2915.
1000.	7.6	1305.	.341	1.	7.7	3668.	2742.
1500.	7.7	1970.	.528	2.	12.4	3493.	2571.
2000.	7.9	2640.	.727	3.	17.4	3320.	2402.
2500.	8.1	3319.	.941	4.	23.1	3148.	2235.
3000.	8.4	4004.	1.170	5.	29.5	2977.	2070.
3500.	8.6	4698.	1.417	7.	36.8	2807.	1906.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 6.0
 ANGLE OFF 40.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	9.7	637.	.166	1.	3.6	3671.	2802.
1000.	10.2	1290.	.353	2.	8.1	3325.	2460.
1500.	10.7	1960.	.566	3.	13.6	2988.	2125.
2000.	11.3	2656.	.813	4.	21.0	2652.	1793.
2500.	12.0	3384.	1.105	6.	30.7	2317.	1462.
3000.	12.8	4163.	1.466	8.	44.5	1971.	1122.
3500.	13.9	5034.	1.950	12.	66.3	1593.	752.

ALT. 20000.

500.	9.6	634.	.163	1.	3.4	3773.	2905.
1000.	9.9	1277.	.340	1.	7.4	3525.	2661.
1500.	10.3	1932.	.534	2.	12.1	3281.	2422.
2000.	10.7	2597.	.747	3.	17.6	3041.	2187.
2500.	11.1	3275.	.982	5.	24.2	2803.	1954.
3000.	11.5	3968.	1.245	6.	32.1	2567.	1724.
3500.	12.0	4679.	1.543	8.	41.9	2329.	1493.

ALT. 30000.

500.	9.5	632.	.161	1.	3.3	3850.	2983.
1000.	9.7	1270.	.331	1.	7.1	3677.	2815.
1500.	10.0	1913.	.512	2.	11.2	3507.	2650.
2000.	10.2	2561.	.705	3.	15.7	3338.	2487.
2500.	10.5	3213.	.909	4.	20.8	3172.	2326.
3000.	10.7	3871.	1.128	5.	26.4	3007.	2168.
3500.	11.0	4533.	1.364	7.	32.9	2843.	2011.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 6.0
ANGLE OFF 50.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 675. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	11.6	615.	.160	1.	3.0	3683.	2897.
1000.	12.2	1242.	.339	1.	6.9	3349.	2566.
1500.	12.8	1883.	.542	3.	11.8	3024.	2243.
2000.	13.4	2542.	.773	4.	18.0	2704.	1926.
2500.	14.2	3224.	1.042	5.	26.2	2385.	1611.
3000.	15.0	3936.	1.363	8.	37.3	2063.	1295.
3500.	16.1	4700.	1.766	11.	53.6	1727.	965.

ALT. 20000.

500.	11.5	613.	.158	1.	3.0	3781.	2996.
1000.	11.8	1233.	.328	1.	6.4	3541.	2761.
1500.	12.2	1862.	.514	2.	10.6	3306.	2530.
2000.	12.7	2496.	.715	3.	15.2	3075.	2304.
2500.	13.1	3140.	.937	4.	20.8	2848.	2082.
3000.	13.6	3794.	1.182	6.	27.5	2621.	1862.
3500.	14.2	4457.	1.455	8.	35.5	2397.	1645.

ALT. 30000.

500.	11.4	612.	.156	1.	2.9	3855.	3072.
1000.	11.6	1227.	.320	1.	6.1	3688.	2910.
1500.	11.9	1846.	.494	2.	9.7	3524.	2751.
2000.	12.1	2468.	.678	3.	13.7	3361.	2594.
2500.	12.4	3092.	.873	4.	18.0	3201.	2441.
3000.	12.7	3719.	1.080	5.	22.8	3042.	2289.
3500.	13.0	4347.	1.301	6.	28.2	2885.	2140.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 1.0
 ANGLE OFF 0.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	0.0	601.	.149	1.	0.0	3852.	3176.
1000.	0.0	1213.	.315	1.	0.0	3520.	2845.
1500.	0.0	1840.	.500	2.	0.0	3198.	2523.
2000.	0.0	2482.	.706	3.	0.0	2886.	2211.
2500.	0.0	3146.	.939	5.	0.0	2581.	1905.
3000.	0.0	3840.	1.206	6.	0.0	2279.	1604.
3500.	0.0	4573.	1.517	8.	0.0	1980.	1305.

ALT. 20000.

500.	0.0	599.	.147	1.	0.0	3949.	3274.
1000.	0.0	1207.	.306	1.	0.0	3710.	3035.
1500.	0.0	1823.	.476	2.	0.0	3477.	2802.
2000.	0.0	2448.	.660	3.	0.0	3249.	2574.
2500.	0.0	3085.	.859	4.	0.0	3026.	2351.
3000.	0.0	3735.	1.075	5.	0.0	2807.	2132.
3500.	0.0	4402.	1.312	6.	0.0	2591.	1916.

ALT. 30000.

500.	0.0	598.	.145	1.	0.0	4024.	3349.
1000.	0.0	1202.	.299	1.	0.0	3857.	3182.
1500.	0.0	1810.	.459	2.	0.0	3693.	3018.
2000.	0.0	2426.	.629	3.	0.0	3532.	2856.
2500.	0.0	3048.	.807	3.	0.0	3373.	2698.
3000.	0.0	3676.	.996	4.	0.0	3216.	2541.
3500.	0.0	4313.	1.195	5.	0.0	3062.	2387.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 1.0
ANGLE OFF 10.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	1.7	599.	.149	1.	0.0	3852.	3184.
1000.	1.7	1210.	.314	1.	0.0	3522.	2854.
1500.	1.8	1834.	.498	2.	0.0	3202.	2533.
2000.	1.9	2474.	.703	3.	0.0	2890.	2221.
2500.	2.0	3135.	.935	4.	0.0	2586.	1917.
3000.	2.1	3826.	1.200	6.	0.0	2285.	1617.
3500.	2.2	4554.	1.508	8.	0.0	1987.	1318.

ALT. 20000.

500.	1.7	598.	.147	1.	0.0	3950.	3282.
1000.	1.7	1204.	.305	1.	0.0	3712.	3044.
1500.	1.8	1818.	.475	2.	0.0	3479.	2811.
2000.	1.8	2441.	.658	3.	0.0	3252.	2583.
2500.	1.9	3076.	.856	4.	0.0	3029.	2361.
3000.	1.9	3724.	1.071	5.	0.0	2810.	2142.
3500.	2.0	4388.	1.307	6.	0.0	2595.	1927.

ALT. 30000.

500.	1.6	596.	.145	1.	0.0	4025.	3357.
1000.	1.7	1199.	.298	1.	0.0	3858.	3190.
1500.	1.7	1805.	.458	2.	0.0	3694.	3026.
2000.	1.7	2420.	.627	3.	0.0	3533.	2865.
2500.	1.8	3038.	.805	3.	0.0	3375.	2707.
3000.	1.8	3665.	.992	4.	0.0	3219.	2551.
3500.	1.9	4301.	1.191	5.	0.0	3065.	2397.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 1.0
 ANGLE OFF 20.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	3.3	595.	.148	1.	0.0	3855.	3208.
1000.	3.4	1201.	.312	1.	0.0	3527.	2880.
1500.	3.6	1818.	.493	2.	0.0	3209.	2562.
2000.	3.8	2452.	.696	3.	0.0	2900.	2252.
2500.	3.9	3105.	.924	4.	0.0	2599.	1950.
3000.	4.1	3784.	1.183	6.	0.0	2303.	1654.
3500.	4.4	4498.	1.483	8.	0.0	2010.	1360.

ALT. 20000.

500.	3.3	593.	.146	1.	0.0	3952.	3305.
1000.	3.3	1195.	.302	1.	0.0	3715.	3068.
1500.	3.5	1802.	.470	2.	0.0	3485.	2838.
2000.	3.6	2420.	.651	3.	0.0	3259.	2612.
2500.	3.7	3049.	.847	4.	0.0	3038.	2390.
3000.	3.8	3690.	1.060	5.	0.0	2822.	2173.
3500.	3.9	4345.	1.291	6.	0.0	2609.	1960.

ALT. 30000.

500.	3.2	593.	.144	1.	0.0	4026.	3379.
1000.	3.3	1190.	.296	1.	0.0	3860.	3214.
1500.	3.4	1791.	.454	2.	0.0	3698.	3051.
2000.	3.4	2399.	.621	3.	0.0	3538.	2891.
2500.	3.5	3013.	.797	3.	0.0	3381.	2734.
3000.	3.6	3634.	.983	4.	0.0	3227.	2579.
3500.	3.7	4262.	1.178	5.	0.0	3074.	2427.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 1.0
ANGLE OFF 30.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PRCJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	4.8	587.	.146	1.	0.0	3859.	3248.
1000.	5.0	1185.	.307	1.	0.0	3535.	2923.
1500.	5.2	1793.	.485	2.	0.0	3222.	2609.
2000.	5.5	2415.	.683	3.	0.0	2918.	2304.
2500.	5.7	3055.	.906	4.	0.0	2621.	2006.
3000.	6.0	3718.	1.157	6.	0.0	2331.	1714.
3500.	6.4	4412.	1.446	8.	0.0	2044.	1426.

ALT. 20000.

500.	4.8	587.	.144	1.	0.0	3954.	3344.
1000.	4.9	1179.	.298	1.	0.0	3721.	3110.
1500.	5.0	1779.	.464	2.	0.0	3494.	2881.
2000.	5.2	2387.	.641	3.	0.0	3271.	2658.
2500.	5.4	3004.	.833	4.	0.0	3054.	2440.
3000.	5.5	3634.	1.041	5.	0.0	2840.	2226.
3500.	5.7	4276.	1.266	6.	0.0	2631.	2016.

ALT. 30000.

500.	4.7	585.	.142	1.	0.0	4028.	3417.
1000.	4.8	1174.	.292	1.	0.0	3865.	3254.
1500.	4.9	1770.	.448	2.	0.0	3704.	3093.
2000.	5.0	2368.	.613	3.	0.0	3547.	2935.
2500.	5.1	2973.	.786	3.	0.0	3392.	2779.
3000.	5.2	3584.	.967	4.	0.0	3239.	2626.
3500.	5.3	4201.	1.159	5.	0.0	3089.	2475.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 1.0
 ANGLE OFF 40.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	6.2	577.	.143	1.	0.0	3865.	3304.
1000.	6.4	1163.	.301	1.	0.0	3547.	2984.
1500.	6.7	1759.	.475	2.	0.0	3239.	2675.
2000.	7.0	2366.	.667	3.	0.0	2941.	2375.
2500.	7.4	2990.	.882	4.	0.0	2651.	2082.
3000.	7.7	3630.	1.123	6.	0.0	2368.	1798.
3500.	8.1	4298.	1.396	7.	0.0	2090.	1517.

ALT. 20000.

500.	6.1	576.	.141	1.	0.0	3959.	3398.
1000.	6.3	1159.	.293	1.	0.0	3729.	3167.
1500.	6.5	1748.	.455	2.	0.0	3505.	2942.
2000.	6.7	2343.	.628	3.	0.0	3287.	2723.
2500.	6.9	2946.	.815	4.	0.0	3074.	2508.
3000.	7.1	3560.	1.016	5.	0.0	2865.	2298.
3500.	7.3	4184.	1.232	6.	0.0	2661.	2092.

ALT. 30000.

500.	6.1	576.	.140	1.	0.0	4030.	3470.
1000.	6.2	1155.	.287	1.	0.0	3870.	3309.
1500.	6.3	1738.	.440	2.	0.0	3712.	3151.
2000.	6.4	2326.	.601	2.	0.0	3558.	2995.
2500.	6.6	2920.	.770	3.	0.0	3405.	2842.
3000.	6.7	3516.	.947	4.	0.0	3256.	2691.
3500.	6.9	4121.	1.134	5.	0.0	3108.	2543.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 1.0
ANGLE OFF 50.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	7.4	565.	.140	1.	0.0	3872.	3375.
1000.	7.7	1138.	.294	1.	0.0	3560.	3061.
1500.	8.0	1718.	.462	2.	0.0	3260.	2758.
2000.	8.3	2309.	.648	3.	0.0	2969.	2464.
2500.	8.7	2912.	.854	4.	0.0	2686.	2179.
3000.	9.1	3529.	1.083	5.	0.0	2412.	1902.
3500.	9.6	4166.	1.340	7.	0.0	2144.	1630.

ALT. 20000.

500.	7.3	565.	.139	1.	0.0	3963.	3467.
1000.	7.5	1134.	.286	1.	0.0	3739.	3241.
1500.	7.7	1709.	.444	2.	0.0	3520.	3020.
2000.	7.9	2290.	.612	3.	0.0	3306.	2805.
2500.	8.2	2876.	.792	4.	0.0	3098.	2595.
3000.	8.4	3471.	.986	5.	0.0	2895.	2389.
3500.	8.7	4076.	1.194	6.	0.0	2695.	2188.

ALT. 30000.

500.	7.2	563.	.137	1.	0.0	4034.	3538.
1000.	7.4	1130.	.280	1.	0.0	3877.	3380.
1500.	7.5	1701.	.430	2.	0.0	3722.	3224.
2000.	7.7	2276.	.587	2.	0.0	3571.	3072.
2500.	7.8	2854.	.751	3.	0.0	3422.	2921.
3000.	8.0	3437.	.923	4.	0.0	3275.	2774.
3500.	8.2	4023.	1.103	5.	0.0	3132.	2629.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 2.0
 ANGLE OFF 0.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	0.0	601.	.149	1.	1.0	3852.	3176.
1000.	0.0	1213.	.315	1.	2.3	3520.	2845.
1500.	0.0	1840.	.500	2.	3.8	3198.	2523.
2000.	0.0	2481.	.706	3.	5.6	2886.	2211.
2500.	0.0	3144.	.939	5.	7.8	2581.	1906.
3000.	0.0	3836.	1.206	6.	10.6	2279.	1605.
3500.	0.0	4565.	1.517	8.	14.0	1980.	1306.

ALT. 20000.

500.	0.0	599.	.147	1.	1.0	3949.	3274.
1000.	0.0	1207.	.306	1.	2.2	3710.	3035.
1500.	0.0	1822.	.476	2.	3.5	3477.	2802.
2000.	0.0	2447.	.660	3.	5.0	3249.	2574.
2500.	0.0	3084.	.859	4.	6.7	3026.	2351.
3000.	0.0	3732.	1.075	5.	8.6	2807.	2132.
3500.	0.0	4397.	1.312	6.	10.9	2591.	1916.

ALT. 30000.

500.	0.0	598.	.145	1.	1.0	4024.	3349.
1000.	0.0	1202.	.299	1.	2.1	3857.	3182.
1500.	0.0	1810.	.459	2.	3.2	3693.	3018.
2000.	0.0	2425.	.629	3.	4.5	3532.	2857.
2500.	0.0	3046.	.807	3.	6.0	3373.	2698.
3000.	0.0	3674.	.996	4.	7.5	3216.	2542.
3500.	0.0	4309.	1.195	5.	9.2	3062.	2388.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 2.0
ANGLE OFF 10.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	1.7	599.	.149	1.	1.0	3852.	3185.
1000.	1.7	1210.	.314	1.	2.3	3522.	2855.
1500.	1.8	1832.	.498	2.	3.8	3202.	2535.
2000.	1.9	2471.	.703	3.	5.6	2890.	2224.
2500.	2.0	3130.	.935	4.	7.8	2586.	1920.
3000.	2.1	3816.	1.200	6.	10.6	2285.	1621.
3500.	2.2	4538.	1.508	8.	14.2	1987.	1324.

ALT. 20000.

500.	1.7	598.	.147	1.	1.0	3950.	3283.
1000.	1.7	1203.	.305	1.	2.1	3712.	3045.
1500.	1.8	1817.	.475	2.	3.4	3479.	2813.
2000.	1.8	2439.	.658	3.	4.9	3252.	2586.
2500.	1.9	3071.	.856	4.	6.6	3029.	2364.
3000.	1.9	3717.	1.071	5.	8.6	2810.	2146.
3500.	2.0	4377.	1.307	6.	10.8	2595.	1931.

ALT. 30000.

500.	1.6	596.	.145	1.	.9	4025.	3357.
1000.	1.7	1199.	.298	1.	2.1	3858.	3191.
1500.	1.7	1804.	.458	2.	3.2	3694.	3028.
2000.	1.7	2417.	.627	3.	4.5	3533.	2867.
2500.	1.8	3035.	.805	3.	5.9	3375.	2710.
3000.	1.8	3659.	.992	4.	7.4	3219.	2554.
3500.	1.9	4291.	1.191	5.	9.1	3065.	2401.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 2.0
 ANGLE OFF 20.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 84. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	3.3	594.	.148	1.	1.0	3855.	3209.
1000.	3.4	1200.	.312	1.	2.2	3527.	2882.
1500.	3.6	1816.	.493	2.	3.6	3209.	2565.
2000.	3.8	2448.	.696	3.	5.4	2900.	2257.
2500.	3.9	3097.	.924	4.	7.6	2599.	1956.
3000.	4.1	3769.	1.183	6.	10.3	2303.	1661.
3500.	4.4	4474.	1.483	8.	13.8	2010.	1369.

ALT. 20000.

500.	3.3	593.	.146	1.	.9	3952.	3306.
1000.	3.3	1194.	.302	1.	2.1	3715.	3070.
1500.	3.5	1800.	.470	2.	3.3	3485.	2841.
2000.	3.6	2416.	.651	3.	4.7	3259.	2616.
2500.	3.7	3042.	.847	4.	6.4	3038.	2396.
3000.	3.8	3679.	1.060	5.	8.3	2822.	2181.
3500.	3.9	4327.	1.291	6.	10.4	2609.	1969.

ALT. 30000.

500.	3.2	593.	.144	1.	1.0	4026.	3380.
1000.	3.3	1189.	.296	1.	2.0	3860.	3216.
1500.	3.4	1790.	.454	2.	3.1	3698.	3054.
2000.	3.4	2396.	.621	3.	4.3	3538.	2896.
2500.	3.5	3007.	.797	3.	5.6	3381.	2740.
3000.	3.6	3624.	.983	4.	7.1	3227.	2586.
3500.	3.7	4247.	1.178	5.	8.7	3074.	2435.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 2.0
ANGLE OFF 30.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	4.8	586.	.146	1.	.8	3859.	3250.
1000.	5.0	1184.	.307	1.	2.1	3535.	2926.
1500.	5.2	1790.	.485	2.	3.4	3222.	2614.
2000.	5.5	2409.	.683	3.	5.0	2918.	2311.
2500.	5.7	3045.	.906	4.	7.1	2621.	2015.
3000.	6.0	3700.	1.157	6.	9.7	2331.	1725.
3500.	6.4	4382.	1.446	8.	12.9	2044.	1439.

ALT. 20000.

500.	4.8	586.	.144	1.	1.0	3954.	3345.
1000.	4.9	1178.	.298	1.	1.9	3721.	3113.
1500.	5.0	1776.	.464	2.	3.1	3494.	2886.
2000.	5.2	2381.	.641	3.	4.4	3271.	2665.
2500.	5.4	2995.	.833	4.	5.9	3054.	2448.
3000.	5.5	3619.	1.041	5.	7.7	2840.	2236.
3500.	5.7	4253.	1.266	6.	9.7	2631.	2028.

ALT. 30000.

500.	4.7	585.	.142	1.	.9	4028.	3419.
1000.	4.8	1173.	.292	1.	1.8	3865.	3257.
1500.	4.9	1767.	.448	2.	2.9	3704.	3097.
2000.	5.0	2363.	.613	3.	4.0	3547.	2941.
2500.	5.1	2964.	.786	3.	5.3	3392.	2787.
3000.	5.2	3571.	.967	4.	6.6	3239.	2636.
3500.	5.3	4182.	1.159	5.	8.1	3089.	2487.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 2.0
 ANGLE OFF 40.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	6.2	577.	.143	1.	.8	3865.	3306.
1000.	6.4	1162.	.301	1.	1.8	3547.	2988.
1500.	6.7	1755.	.475	2.	3.0	3239.	2681.
2000.	7.0	2359.	.667	3.	4.5	2941.	2383.
2500.	7.4	2977.	.882	4.	6.4	2651.	2094.
3000.	7.7	3609.	1.123	6.	8.7	2368.	1812.
3500.	8.1	4264.	1.396	7.	11.6	2090.	1535.

ALT. 20000.

500.	6.1	575.	.141	1.	.7	3959.	3400.
1000.	6.3	1157.	.293	1.	1.7	3729.	3171.
1500.	6.5	1744.	.455	2.	2.8	3505.	2948.
2000.	6.7	2336.	.628	3.	4.0	3287.	2731.
2500.	6.9	2935.	.815	4.	5.3	3074.	2519.
3000.	7.1	3543.	1.016	5.	6.9	2865.	2311.
3500.	7.3	4157.	1.232	6.	8.7	2661.	2108.

ALT. 30000.

500.	6.1	575.	.140	1.	.8	4030.	3472.
1000.	6.2	1154.	.287	1.	1.7	3870.	3313.
1500.	6.3	1735.	.440	2.	2.6	3712.	3157.
2000.	6.4	2320.	.601	3.	3.6	3558.	3003.
2500.	6.6	2910.	.770	3.	4.8	3405.	2852.
3000.	6.7	3501.	.947	4.	5.9	3256.	2704.
3500.	6.9	4099.	1.134	5.	7.3	3108.	2558.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 2.0
ANGLE OFF 50.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	7.4	564.	.140	1.	.6	3872.	3377.
1000.	7.7	1137.	.294	1.	1.6	3560.	3065.
1500.	8.0	1714.	.462	2.	2.6	3260.	2766.
2000.	8.3	2300.	.648	3.	3.9	2969.	2475.
2500.	8.7	2897.	.854	4.	5.5	2686.	2193.
3000.	9.1	3505.	1.083	5.	7.5	2412.	1919.
3500.	9.6	4130.	1.340	7.	10.0	2144.	1651.

ALT. 20000.

500.	7.3	564.	.139	1.	.7	3963.	3469.
1000.	7.5	1132.	.286	1.	1.4	3739.	3246.
1500.	7.7	1705.	.444	2.	2.4	3520.	3028.
2000.	7.9	2282.	.612	3.	3.5	3306.	2815.
2500.	8.2	2863.	.792	4.	4.6	3098.	2608.
3000.	8.4	3452.	.986	5.	6.0	2895.	2406.
3500.	8.7	4047.	1.194	6.	7.6	2695.	2207.

ALT. 30000.

500.	7.2	563.	.137	1.	.5	4034.	3541.
1000.	7.4	1129.	.280	1.	1.4	3877.	3385.
1500.	7.5	1697.	.430	2.	2.2	3722.	3232.
2000.	7.7	2269.	.587	2.	3.1	3571.	3081.
2500.	7.8	2843.	.751	3.	4.1	3422.	2934.
3000.	8.0	3420.	.923	4.	5.2	3275.	2789.
3500.	8.2	3998.	1.103	5.	6.3	3132.	2647.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 3.0
 ANGLE OFF 0.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	0.0	601.	.149	1.	1.7	3852.	3176.
1000.	0.0	1213.	.315	1.	3.7	3520.	2845.
1500.	0.0	1839.	.500	2.	6.2	3198.	2524.
2000.	0.0	2480.	.706	3.	9.1	2886.	2212.
2500.	0.0	3141.	.939	5.	12.7	2581.	1906.
3000.	0.0	3829.	1.206	6.	17.2	2279.	1606.
3500.	0.0	4551.	1.517	8.	22.9	1980.	1307.

ALT. 20000.

500.	0.0	599.	.147	1.	1.6	3949.	3274.
1000.	0.0	1207.	.306	1.	3.5	3710.	3035.
1500.	0.0	1822.	.476	2.	5.7	3477.	2802.
2000.	0.0	2446.	.660	3.	8.1	3249.	2575.
2500.	0.0	3081.	.859	4.	10.9	3026.	2351.
3000.	0.0	3728.	1.075	5.	14.1	2807.	2133.
3500.	0.0	4389.	1.312	6.	17.8	2591.	1917.

ALT. 30000.

500.	0.0	598.	.145	1.	1.6	4024.	3349.
1000.	0.0	1202.	.299	1.	3.4	3857.	3182.
1500.	0.0	1810.	.459	2.	5.3	3693.	3018.
2000.	0.0	2424.	.629	3.	7.4	3532.	2857.
2500.	0.0	3044.	.807	3.	9.7	3373.	2698.
3000.	0.0	3670.	.996	4.	12.3	3216.	2542.
3500.	0.0	4303.	1.195	5.	15.1	3062.	2388.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 3.0
ANGLE OFF 10.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	1.7	599.	.149	1.	1.7	3852.	3185.
1000.	1.7	1209.	.314	1.	3.7	3522.	2855.
1500.	1.8	1831.	.498	2.	6.1	3202.	2536.
2000.	1.9	2469.	.703	3.	9.0	2890.	2226.
2500.	2.0	3125.	.935	4.	12.6	2586.	1923.
3000.	2.1	3806.	1.200	6.	17.1	2285.	1624.
3500.	2.2	4519.	1.508	8.	22.8	1987.	1328.

ALT. 20000.

500.	1.7	597.	.147	1.	1.6	3950.	3283.
1000.	1.7	1203.	.305	1.	3.5	3712.	3045.
1500.	1.8	1816.	.475	2.	5.6	3479.	2814.
2000.	1.8	2437.	.658	3.	8.0	3252.	2587.
2500.	1.9	3067.	.856	4.	10.7	3029.	2366.
3000.	1.9	3710.	1.071	5.	13.9	2810.	2149.
3500.	2.0	4364.	1.307	6.	17.6	2595.	1935.

ALT. 30000.

500.	1.6	596.	.145	1.	1.6	4025.	3358.
1000.	1.7	1198.	.298	1.	3.3	3858.	3192.
1500.	1.7	1804.	.458	2.	5.2	3694.	3029.
2000.	1.7	2415.	.627	3.	7.3	3533.	2869.
2500.	1.8	3031.	.805	3.	9.6	3375.	2712.
3000.	1.8	3653.	.992	4.	12.1	3219.	2557.
3500.	1.9	4282.	1.191	5.	14.8	3065.	2405.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 3.0
 ANGLE OFF 20.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	3.3	594.	.148	1.	1.6	3855.	3210.
1000.	3.4	1199.	.312	1.	3.6	3527.	2883.
1500.	3.6	1814.	.493	2.	5.9	3209.	2567.
2000.	3.8	2444.	.696	3.	8.7	2900.	2260.
2500.	3.9	3090.	.924	4.	12.2	2599.	1960.
3000.	4.1	3757.	1.183	6.	16.5	2303.	1667.
3500.	4.4	4452.	1.483	8.	21.9	2010.	1376.

ALT. 20000.

500.	3.3	593.	.146	1.	1.5	3952.	3307.
1000.	3.3	1193.	.302	1.	3.4	3715.	3072.
1500.	3.5	1799.	.470	2.	5.4	3485.	2843.
2000.	3.6	2412.	.651	3.	7.6	3259.	2619.
2500.	3.7	3037.	.847	4.	10.3	3038.	2400.
3000.	3.8	3669.	1.060	5.	13.3	2822.	2186.
3500.	3.9	4311.	1.291	6.	16.8	2609.	1975.

ALT. 30000.

500.	3.2	593.	.144	1.	1.6	4026.	3381.
1000.	3.3	1189.	.296	1.	3.2	3860.	3217.
1500.	3.4	1788.	.454	2.	5.0	3698.	3057.
2000.	3.4	2393.	.621	3.	7.0	3538.	2899.
2500.	3.5	3002.	.797	3.	9.2	3381.	2743.
3000.	3.6	3616.	.983	4.	11.5	3227.	2591.
3500.	3.7	4235.	1.178	5.	14.1	3074.	2441.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 3.0
 ANGLE OFF 30.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	4.8	586.	.146	1.	1.4	3859.	3251.
1000.	5.0	1183.	.307	1.	3.3	3535.	2928.
1500.	5.2	1788.	.485	2.	5.5	3222.	2617.
2000.	5.5	2404.	.683	3.	8.1	2918.	2315.
2500.	5.7	3036.	.906	4.	11.3	2621.	2021.
3000.	6.0	3685.	1.157	6.	15.3	2331.	1733.
3500.	6.4	4357.	1.446	8.	20.4	2044.	1449.

ALT. 20000.

500.	4.8	586.	.144	1.	1.5	3954.	3346.
1000.	4.9	1177.	.298	1.	3.1	3721.	3115.
1500.	5.0	1774.	.464	2.	5.0	3494.	2889.
2000.	5.2	2377.	.641	3.	7.1	3271.	2669.
2500.	5.4	2988.	.833	4.	9.5	3054.	2454.
3000.	5.5	3607.	1.041	5.	12.4	2840.	2243.
3500.	5.7	4235.	1.266	6.	15.6	2631.	2037.

ALT. 30000.

500.	4.7	585.	.142	1.	1.4	4028.	3420.
1000.	4.8	1172.	.292	1.	2.9	3865.	3259.
1500.	4.9	1765.	.448	2.	4.7	3704.	3100.
2000.	5.0	2359.	.613	3.	6.5	3547.	2945.
2500.	5.1	2958.	.786	3.	8.5	3392.	2793.
3000.	5.2	3561.	.967	4.	10.7	3239.	2643.
3500.	5.3	4167.	1.159	5.	13.1	3089.	2495.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 3.0
 ANGLE OFF 40.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	6.2	577.	.143	1.	1.3	3865.	3307.
1000.	6.4	1161.	.301	1.	3.0	3547.	2990.
1500.	6.7	1752.	.475	2.	4.9	3239.	2685.
2000.	7.0	2354.	.667	3.	7.3	2941.	2389.
2500.	7.4	2967.	.882	4.	10.2	2651.	2101.
3000.	7.7	3593.	1.123	6.	13.7	2368.	1822.
3500.	8.1	4238.	1.396	7.	18.1	2090.	1547.

ALT. 20000.

500.	6.1	575.	.141	1.	1.2	3959.	3401.
1000.	6.3	1156.	.293	1.	2.8	3729.	3174.
1500.	6.5	1742.	.455	2.	4.5	3505.	2952.
2000.	6.7	2332.	.628	3.	6.4	3287.	2737.
2500.	6.9	2927.	.815	4.	8.6	3074.	2526.
3000.	7.1	3530.	1.016	5.	11.1	2865.	2320.
3500.	7.3	4137.	1.232	6.	13.9	2661.	2119.

ALT. 30000.

500.	6.1	575.	.140	1.	1.3	4030.	3473.
1000.	6.2	1153.	.287	1.	2.7	3870.	3315.
1500.	6.3	1733.	.440	2.	4.2	3712.	3160.
2000.	6.4	2316.	.601	3.	5.8	3558.	3008.
2500.	6.6	2902.	.770	3.	7.7	3405.	2859.
3000.	6.7	3490.	.947	4.	9.6	3256.	2713.
3500.	6.9	4082.	1.134	5.	11.7	3108.	2568.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 3.0
ANGLE OFF 50.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	7.4	564.	.140	1.	1.0	3872.	3379.
1000.	7.7	1136.	.294	1.	2.6	3560.	3069.
1500.	8.0	1711.	.462	2.	4.2	3260.	2770.
2000.	8.3	2295.	.648	3.	6.2	2969.	2482.
2500.	8.7	2887.	.854	4.	8.7	2686.	2202.
3000.	9.1	3488.	1.083	5.	11.7	2412.	1930.
3500.	9.6	4103.	1.340	7.	15.4	2144.	1665.

ALT. 20000.

500.	7.3	564.	.139	1.	1.2	3963.	3471.
1000.	7.5	1131.	.286	1.	2.4	3739.	3249.
1500.	7.7	1702.	.444	2.	3.9	3520.	3032.
2000.	7.9	2277.	.612	3.	5.5	3306.	2821.
2500.	8.2	2855.	.792	4.	7.3	3098.	2617.
3000.	8.4	3438.	.986	5.	9.5	2895.	2416.
3500.	8.7	4026.	1.194	6.	11.9	2695.	2220.

ALT. 30000.

500.	7.2	563.	.137	1.	1.0	4034.	3542.
1000.	7.4	1128.	.280	1.	2.2	3877.	3388.
1500.	7.5	1695.	.430	2.	3.6	3722.	3236.
2000.	7.7	2264.	.587	2.	5.0	3571.	3088.
2500.	7.8	2835.	.751	3.	6.6	3422.	2942.
3000.	8.0	3407.	.923	4.	8.2	3275.	2799.
3500.	8.2	3980.	1.103	5.	10.0	3132.	2660.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 4.0
 ANGLE OFF 0.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	0.0	601.	.149	1.	2.3	3852.	3177.
1000.	0.0	1213.	.315	1.	5.1	3520.	2845.
1500.	0.0	1838.	.500	2.	8.5	3198.	2524.
2000.	0.0	2478.	.706	3.	12.5	2886.	2212.
2500.	0.0	3137.	.939	5.	17.5	2581.	1907.
3000.	0.0	3820.	1.206	6.	23.6	2279.	1607.
3500.	0.0	4533.	1.517	8.	31.4	1980.	1309.

ALT. 20000.

500.	0.0	599.	.147	1.	2.3	3949.	3274.
1000.	0.0	1207.	.306	1.	4.8	3710.	3035.
1500.	0.0	1821.	.476	2.	7.7	3477.	2803.
2000.	0.0	2444.	.660	3.	11.1	3249.	2575.
2500.	0.0	3078.	.859	4.	14.9	3026.	2352.
3000.	0.0	3721.	1.075	5.	19.3	2807.	2134.
3500.	0.0	4377.	1.312	6.	24.4	2591.	1919.

ALT. 30000.

500.	0.0	598.	.145	1.	2.2	4024.	3349.
1000.	0.0	1202.	.299	1.	4.6	3857.	3182.
1500.	0.0	1809.	.459	2.	7.3	3693.	3018.
2000.	0.0	2423.	.629	3.	10.2	3532.	2857.
2500.	0.0	3042.	.807	3.	13.3	3373.	2699.
3000.	0.0	3664.	.996	4.	16.8	3216.	2543.
3500.	0.0	4294.	1.195	5.	20.6	3062.	2390.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 4.0
ANGLE OFF 10.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	1.7	599.	.149	1.	2.3	3852.	3186.
1000.	1.7	1209.	.314	1.	5.0	3522.	2856.
1500.	1.8	1830.	.498	2.	8.3	3202.	2537.
2000.	1.9	2466.	.703	3.	12.3	2890.	2227.
2500.	2.0	3118.	.935	5.	17.2	2586.	1925.
3000.	2.1	3794.	1.200	6.	23.3	2285.	1627.
3500.	2.2	4497.	1.508	8.	31.0	1987.	1332.

ALT. 20000.

500.	1.7	597.	.147	1.	2.2	3950.	3283.
1000.	1.7	1203.	.305	1.	4.8	3712.	3046.
1500.	1.8	1815.	.475	2.	7.6	3479.	2815.
2000.	1.8	2434.	.658	3.	10.9	3252.	2589.
2500.	1.9	3062.	.856	4.	14.7	3029.	2368.
3000.	1.9	3700.	1.071	5.	19.0	2810.	2152.
3500.	2.0	4349.	1.307	6.	24.0	2595.	1939.

ALT. 30000.

500.	1.6	596.	.145	1.	2.1	4025.	3358.
1000.	1.7	1198.	.298	1.	4.6	3858.	3192.
1500.	1.7	1802.	.458	2.	7.1	3694.	3030.
2000.	1.7	2413.	.627	3.	10.0	3533.	2871.
2500.	1.8	3027.	.805	3.	13.1	3375.	2714.
3000.	1.8	3645.	.992	4.	16.5	3219.	2560.
3500.	1.9	4270.	1.191	5.	20.2	3065.	2408.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC.
ANGLE OFF 20.0 DEG.

ALT. 10000. FT.
TGT. VEL 675. FT./SEC.

TGT. GEES 4.0
ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	3.3	594.	.148	1.	2.2	3855.	3211.
1000.	3.4	1199.	.312	1.	4.9	3527.	2884.
1500.	3.6	1812.	.493	2.	8.0	3209.	2569.
2000.	3.8	2440.	.696	3.	11.9	2900.	2263.
2500.	3.9	3082.	.924	4.	16.5	2599.	1965.
3000.	4.1	3742.	1.183	6.	22.3	2303.	1673.
3500.	4.4	4426.	1.483	8.	29.6	2010.	1384.

ALT. 20000.

500.	3.3	593.	.146	1.	2.1	3952.	3308.
1000.	3.3	1193.	.302	1.	4.6	3715.	3073.
1500.	3.5	1797.	.470	2.	7.3	3485.	2845.
2000.	3.6	2409.	.651	3.	10.4	3259.	2622.
2500.	3.7	3030.	.847	4.	14.0	3038.	2404.
3000.	3.8	3658.	1.060	5.	18.1	2822.	2191.
3500.	3.9	4293.	1.291	6.	22.8	2609.	1982.

ALT. 30000.

500.	3.2	593.	.144	1.	2.1	4026.	3381.
1000.	3.3	1188.	.296	1.	4.4	3860.	3218.
1500.	3.4	1787.	.454	2.	6.8	3698.	3059.
2000.	3.4	2390.	.621	3.	9.5	3538.	2901.
2500.	3.5	2997.	.797	3.	12.5	3381.	2747.
3000.	3.6	3606.	.983	4.	15.7	3227.	2596.
3500.	3.7	4220.	1.178	5.	19.3	3074.	2446.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 4.0
 ANGLE OFF 30.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	4.8	586.	.146	1.	2.0	3859.	3252.
1000.	5.0	1182.	.307	1.	4.5	3535.	2930.
1500.	5.2	1786.	.485	2.	7.4	3222.	2620.
2000.	5.5	2400.	.683	3.	11.0	2918.	2319.
2500.	5.7	3027.	.906	4.	15.3	2621.	2027.
3000.	6.0	3669.	1.157	6.	20.6	2331.	1741.
3500.	6.4	4330.	1.446	8.	27.3	2044.	1459.

ALT. 20000.

500.	4.8	586.	.144	1.	2.1	3954.	3347.
1000.	4.9	1176.	.298	1.	4.2	3721.	3117.
1500.	5.0	1772.	.464	2.	6.8	3494.	2892.
2000.	5.2	2373.	.641	3.	9.7	3271.	2673.
2500.	5.4	2980.	.833	4.	13.0	3054.	2460.
3000.	5.5	3594.	1.041	5.	16.8	2840.	2250.
3500.	5.7	4215.	1.266	6.	21.1	2631.	2046.

ALT. 30000.

500.	4.7	585.	.142	1.	1.9	4028.	3421.
1000.	4.8	1172.	.292	1.	4.0	3865.	3261.
1500.	4.9	1763.	.448	2.	6.4	3704.	3103.
2000.	5.0	2356.	.613	3.	8.9	3547.	2949.
2500.	5.1	2952.	.786	3.	11.6	3392.	2798.
3000.	5.2	3550.	.967	4.	14.5	3239.	2649.
3500.	5.3	4151.	1.159	5.	17.8	3089.	2504.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 4.0
 ANGLE OFF 40.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	6.2	577.	.143	1.	1.8	3865.	3308.
1000.	6.4	1160.	.301	1.	4.0	3547.	2993.
1500.	6.7	1750.	.475	2.	6.6	3239.	2689.
2000.	7.0	2349.	.667	3.	9.8	2941.	2395.
2500.	7.4	2957.	.882	4.	13.7	2651.	2109.
3000.	7.7	3576.	1.123	6.	18.3	2368.	1832.
3500.	8.1	4209.	1.396	7.	24.2	2090.	1559.

ALT. 20000.

500.	6.1	575.	.141	1.	1.7	3959.	3403.
1000.	6.3	1155.	.293	1.	3.8	3729.	3176.
1500.	6.5	1740.	.455	2.	6.1	3505.	2956.
2000.	6.7	2327.	.628	3.	8.7	3287.	2742.
2500.	6.9	2919.	.815	4.	11.6	3074.	2533.
3000.	7.1	3516.	1.016	5.	15.0	2865.	2329.
3500.	7.3	4116.	1.232	6.	18.7	2661.	2130.

ALT. 30000.

500.	6.1	575.	.140	1.	1.8	4030.	3475.
1000.	6.2	1152.	.287	1.	3.7	3870.	3318.
1500.	6.3	1731.	.440	2.	5.7	3712.	3164.
2000.	6.4	2311.	.601	3.	7.9	3558.	3014.
2500.	6.6	2895.	.770	3.	10.4	3405.	2866.
3000.	6.7	3478.	.947	4.	13.0	3256.	2721.
3500.	6.9	4064.	1.134	5.	15.8	3108.	2579.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 4.0
ANGLE OFF 50.0 DEG. TGT: VEL 675. FT./SEC. ATK: VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	7.4	564.	.140	1.	1.4	3872.	3380.
1000.	7.7	1134.	.294	1.	3.5	3560.	3072.
1500.	8.0	1708.	.462	2.	5.7	3260.	2775.
2000.	8.3	2289.	.648	3.	8.4	2969.	2488.
2500.	8.7	2877.	.854	4.	11.7	2686.	2211.
3000.	9.1	3471.	1.083	5.	15.6	2412.	1942.
3500.	9.6	4075.	1.340	7.	20.4	2144.	1680.

ALT. 20000.

500.	7.3	564.	.139	1.	1.6	3963.	3472.
1000.	7.5	1130.	.286	1.	3.2	3739.	3252.
1500.	7.7	1700.	.444	2.	5.2	3520.	3037.
2000.	7.9	2272.	.612	3.	7.5	3306.	2828.
2500.	8.2	2846.	.792	4.	9.9	3098.	2625.
3000.	8.4	3423.	.986	5.	12.7	2895.	2427.
3500.	8.7	4004.	1.194	6.	15.9	2695.	2234.

ALT. 30000.

500.	7.2	562.	.137	1.	1.4	4034.	3543.
1000.	7.4	1127.	.280	1.	3.1	3877.	3391.
1500.	7.5	1692.	.430	2.	4.9	3722.	3241.
2000.	7.7	2260.	.587	2.	6.8	3571.	3094.
2500.	7.8	2827.	.751	3.	8.9	3422.	2950.
3000.	8.0	3395.	.923	4.	11.1	3275.	2809.
3500.	8.2	3962.	1.103	5.	13.5	3132.	2672.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 5.0
 ANGLE OFF 0.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	0.0	601.	.149	1.	2.9	3852.	3177.
1000.	0.0	1213.	.315	1.	6.4	3520.	2845.
1500.	0.0	1838.	.500	2.	10.7	3198.	2524.
2000.	0.0	2476.	.706	3.	15.8	2886.	2213.
2500.	0.0	3131.	.939	5.	22.1	2581.	1908.
3000.	0.0	3808.	1.206	6.	29.9	2279.	1608.
3500.	0.0	4510.	1.517	8.	39.8	1980.	1311.

ALT. 20000.

500.	0.0	599.	.147	1.	2.8	3949.	3274.
1000.	0.0	1207.	.306	1.	6.1	3710.	3036.
1500.	0.0	1821.	.476	2.	9.8	3477.	2803.
2000.	0.0	2442.	.660	3.	14.0	3249.	2576.
2500.	0.0	3074.	.859	4.	18.9	3026.	2353.
3000.	0.0	3713.	1.075	5.	24.4	2807.	2135.
3500.	0.0	4361.	1.312	6.	30.8	2591.	1921.

ALT. 30000.

500.	0.0	598.	.145	1.	2.8	4024.	3349.
1000.	0.0	1202.	.299	1.	5.9	3857.	3182.
1500.	0.0	1808.	.459	2.	9.2	3693.	3019.
2000.	0.0	2421.	.629	3.	12.9	3532.	2858.
2500.	0.0	3038.	.807	3.	16.9	3373.	2700.
3000.	0.0	3658.	.996	4.	21.3	3216.	2544.
3500.	0.0	4282.	1.195	5.	26.1	3062.	2391.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 5.0
ANGLE OFF 10.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	1.7	599.	.149	1.	2.9	3852.	3186.
1000.	1.7	1208.	.314	1.	6.4	3522.	2857.
1500.	1.8	1829.	.498	2.	10.5	3202.	2539.
2000.	1.9	2463.	.703	3.	15.6	2890.	2229.
2500.	2.0	3111.	.935	5.	21.7	2586.	1928.
3000.	2.1	3780.	1.200	6.	29.4	2285.	1631.
3500.	2.2	4470.	1.508	8.	39.1	1987.	1338.

ALT. 20000.

500.	1.7	597.	.147	1.	2.8	3950.	3284.
1000.	1.7	1202.	.305	1.	6.0	3712.	3047.
1500.	1.8	1813.	.475	2.	9.7	3479.	2816.
2000.	1.8	2431.	.658	3.	13.8	3252.	2591.
2500.	1.9	3056.	.856	4.	18.5	3029.	2371.
3000.	1.9	3690.	1.071	5.	24.0	2810.	2155.
3500.	2.0	4330.	1.307	6.	30.2	2595.	1943.

ALT. 30000.

500.	1.6	596.	.145	1.	2.7	4025.	3358.
1000.	1.7	1198.	.298	1.	5.8	3858.	3193.
1500.	1.7	1801.	.458	2.	9.0	3694.	3031.
2000.	1.7	2411.	.627	3.	12.6	3533.	2872.
2500.	1.8	3022.	.805	3.	16.5	3375.	2716.
3000.	1.8	3636.	.992	4.	20.8	3219.	2563.
3500.	1.9	4255.	1.191	5.	25.5	3065.	2412.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 5.0
 ANGLE OFF 20.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	3.3	594.	.148	1.	2.7	3855.	3211.
1000.	3.4	1198.	.312	1.	6.1	3527.	2886.
1500.	3.6	1810.	.493	2.	10.1	3209.	2572.
2000.	3.8	2436.	.696	3.	14.9	2900.	2266.
2500.	3.9	3073.	.924	4.	20.8	2599.	1969.
3000.	4.1	3726.	1.183	6.	28.0	2303.	1679.
3500.	4.4	4397.	1.483	8.	37.1	2010.	1392.

ALT. 20000.

500.	3.3	592.	.146	1.	2.7	3952.	3308.
1000.	3.3	1192.	.302	1.	5.8	3715.	3074.
1500.	3.5	1796.	.470	2.	9.2	3485.	2847.
2000.	3.6	2405.	.651	3.	13.1	3259.	2625.
2500.	3.7	3023.	.847	4.	17.7	3038.	2408.
3000.	3.8	3645.	1.060	5.	22.8	2822.	2196.
3500.	3.9	4272.	1.291	6.	28.7	2609.	1989.

ALT. 30000.

500.	3.2	592.	.144	1.	2.7	4026.	3382.
1000.	3.3	1187.	.296	1.	5.5	3860.	3220.
1500.	3.4	1785.	.454	2.	8.6	3698.	3061.
2000.	3.4	2386.	.621	3.	12.0	3538.	2904.
2500.	3.5	2990.	.797	3.	15.8	3381.	2751.
3000.	3.6	3596.	.983	4.	19.8	3227.	2601.
3500.	3.7	4204.	1.178	5.	24.2	3074.	2453.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 5.0
ANGLE OFF 30.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	4.8	586.	.146	1.	2.5	3859.	3253.
1000.	5.0	1182.	.307	1.	5.7	3535.	2932.
1500.	5.2	1783.	.485	2.	9.4	3222.	2623.
2000.	5.5	2394.	.683	3.	13.8	2918.	2324.
2500.	5.7	3017.	.906	4.	19.2	2621.	2033.
3000.	6.0	3651.	1.157	6.	25.8	2331.	1749.
3500.	6.4	4299.	1.446	8.	34.1	2044.	1470.

ALT. 20000.

500.	4.8	586.	.144	1.	2.6	3954.	3348.
1000.	4.9	1176.	.298	1.	5.4	3721.	3119.
1500.	5.0	1770.	.464	2.	8.6	3494.	2895.
2000.	5.2	2369.	.641	3.	12.2	3271.	2678.
2500.	5.4	2972.	.833	4.	16.3	3054.	2465.
3000.	5.5	3581.	1.041	5.	21.0	2840.	2258.
3500.	5.7	4193.	1.266	6.	26.4	2631.	2055.

ALT. 30000.

500.	4.7	584.	.142	1.	2.5	4028.	3421.
1000.	4.8	1171.	.292	1.	5.1	3865.	3262.
1500.	4.9	1761.	.448	2.	8.0	3704.	3106.
2000.	5.0	2352.	.613	3.	11.2	3547.	2953.
2500.	5.1	2944.	.786	3.	14.6	3392.	2803.
3000.	5.2	3538.	.967	4.	18.3	3239.	2656.
3500.	5.3	4133.	1.159	5.	22.3	3089.	2512.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 5.0
 ANGLE OFF 40.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	6.2	576.	.143	1.	2.3	3865.	3309.
1000.	6.4	1159.	.301	1.	5.1	3547.	2995.
1500.	6.7	1747.	.475	2.	8.3	3239.	2693.
2000.	7.0	2343.	.667	3.	12.3	2941.	2401.
2500.	7.4	2947.	.882	4.	17.1	2651.	2117.
3000.	7.7	3557.	1.123	6.	22.8	2368.	1842.
3500.	8.1	4179.	1.396	8.	29.9	2090.	1572.

ALT. 20000.

500.	6.1	575.	.141	1.	2.2	3959.	3404.
1000.	6.3	1154.	.293	1.	4.8	3729.	3179.
1500.	6.5	1737.	.455	2.	7.7	3505.	2960.
2000.	6.7	2322.	.628	3.	10.9	3287.	2747.
2500.	6.9	2910.	.815	4.	14.5	3074.	2541.
3000.	7.1	3501.	1.016	5.	18.7	2865.	2338.
3500.	7.3	4093.	1.232	6.	23.3	2661.	2142.

ALT. 30000.

500.	6.1	575.	.140	1.	2.2	4030.	3476.
1000.	6.2	1152.	.287	1.	4.6	3870.	3320.
1500.	6.3	1729.	.440	2.	7.2	3712.	3168.
2000.	6.4	2307.	.601	3.	10.0	3558.	3019.
2500.	6.6	2887.	.770	3.	13.0	3405.	2872.
3000.	6.7	3466.	.947	4.	16.2	3256.	2730.
3500.	6.9	4045.	1.134	5.	19.8	3108.	2589.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 5.0
ANGLE OFF 50.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	7.4	564.	.140	1.	1.9	3872.	3381.
1000.	7.7	1133.	.294	1.	4.4	3560.	3075.
1500.	8.0	1705.	.462	2.	7.1	3260.	2780.
2000.	8.3	2283.	.648	3.	10.5	2969.	2495.
2500.	8.7	2866.	.854	4.	14.5	2686.	2220.
3000.	9.1	3453.	1.083	5.	19.3	2412.	1954.
3500.	9.6	4046.	1.340	7.	25.2	2144.	1695.

ALT. 20000.

500.	7.3	564.	.139	1.	2.0	3963.	3474.
1000.	7.5	1129.	.286	1.	4.1	3739.	3255.
1500.	7.7	1697.	.444	2.	6.6	3520.	3042.
2000.	7.9	2267.	.612	3.	9.4	3306.	2834.
2500.	8.2	2837.	.792	4.	12.4	3098.	2634.
3000.	8.4	3409.	.986	5.	15.8	2895.	2438.
3500.	8.7	3981.	1.194	6.	19.7	2695.	2247.

ALT. 30000.

500.	7.2	562.	.137	1.	1.8	4034.	3545.
1000.	7.4	1126.	.280	1.	3.9	3877.	3393.
1500.	7.5	1690.	.430	2.	6.1	3722.	3245.
2000.	7.7	2255.	.587	2.	8.6	3571.	3100.
2500.	7.8	2819.	.751	3.	11.1	3422.	2958.
3000.	8.0	3382.	.923	4.	13.9	3275.	2820.
3500.	8.2	3943.	1.103	5.	16.7	3132.	2684.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 6.0
 ANGLE OFF 0.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	0.0	601.	.149	1.	3.5	3852.	3177.
1000.	0.0	1212.	.315	1.	7.8	3520.	2845.
1500.	0.0	1837.	.500	2.	12.9	3198.	2524.
2000.	0.0	2473.	.706	3.	19.1	2886.	2213.
2500.	0.0	3124.	.939	5.	26.7	2581.	1909.
3000.	0.0	3794.	1.206	6.	36.1	2279.	1610.
3500.	0.0	4482.	1.517	8.	48.1	1980.	1314.

ALT. 20000.

500.	0.0	599.	.147	1.	3.4	3949.	3274.
1000.	0.0	1206.	.306	1.	7.4	3710.	3036.
1500.	0.0	1820.	.476	2.	11.8	3477.	2803.
2000.	0.0	2440.	.660	3.	16.9	3249.	2576.
2500.	0.0	3068.	.859	4.	22.8	3026.	2354.
3000.	0.0	3702.	1.075	5.	29.5	2807.	2137.
3500.	0.0	4343.	1.312	6.	37.3	2591.	1923.

ALT. 30000.

500.	0.0	598.	.145	1.	3.4	4024.	3349.
1000.	0.0	1202.	.299	1.	7.1	3857.	3182.
1500.	0.0	1808.	.459	2.	11.1	3693.	3019.
2000.	0.0	2419.	.629	3.	15.5	3532.	2858.
2500.	0.0	3034.	.807	3.	20.4	3373.	2701.
3000.	0.0	3650.	.996	4.	25.7	3216.	2546.
3500.	0.0	4268.	1.195	5.	31.5	3062.	2393.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 6.0
ANGLE OFF 10.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	1.7	599.	.149	1.	3.5	3852.	3186.
1000.	1.7	1208.	.314	1.	7.7	3522.	2858.
1500.	1.8	1827.	.498	2.	12.7	3202.	2540.
2000.	1.9	2459.	.703	3.	18.8	2890.	2231.
2500.	2.0	3103.	.935	5.	26.2	2586.	1931.
3000.	2.1	3763.	1.200	6.	35.4	2285.	1635.
3500.	2.2	4439.	1.508	8.	47.1	1987.	1344.

ALT. 20000.

500.	1.7	597.	.147	1.	3.4	3950.	3284.
1000.	1.7	1202.	.305	1.	7.3	3712.	3047.
1500.	1.8	1812.	.475	2.	11.6	3479.	2817.
2000.	1.8	2428.	.658	3.	16.6	3252.	2593.
2500.	1.9	3050.	.856	4.	22.3	3029.	2373.
3000.	1.9	3677.	1.071	5.	28.9	2810.	2159.
3500.	2.0	4309.	1.307	6.	36.4	2595.	1948.

ALT. 30000.

500.	1.6	596.	.145	1.	3.3	4025.	3359.
1000.	1.7	1197.	.298	1.	7.0	3858.	3194.
1500.	1.7	1800.	.458	2.	10.9	3694.	3033.
2000.	1.7	2408.	.627	3.	15.2	3533.	2874.
2500.	1.8	3016.	.805	3.	19.9	3375.	2719.
3000.	1.8	3626.	.992	4.	25.1	3219.	2567.
3500.	1.9	4239.	1.191	5.	30.8	3065.	2417.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 6.0
 ANGLE OFF 20.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	3.3	594.	.148	1.	3.3	3855.	3212.
1000.	3.4	1197.	.312	1.	7.4	3527.	2887.
1500.	3.6	1808.	.493	2.	12.1	3209.	2574.
2000.	3.8	2431.	.696	3.	17.9	2900.	2270.
2500.	3.9	3064.	.924	4.	25.0	2599.	1974.
3000.	4.1	3707.	1.183	6.	33.6	2303.	1685.
3500.	4.4	4364.	1.483	8.	44.5	2010.	1400.

ALT. 20000.

500.	3.3	592.	.146	1.	3.2	3952.	3309.
1000.	3.3	1191.	.302	1.	7.0	3715.	3076.
1500.	3.5	1794.	.470	2.	11.1	3485.	2849.
2000.	3.6	2401.	.651	3.	15.8	3259.	2628.
2500.	3.7	3015.	.847	4.	21.3	3038.	2412.
3000.	3.8	3631.	1.060	5.	27.4	2822.	2202.
3500.	3.9	4249.	1.291	6.	34.5	2609.	1996.

ALT. 30000.

500.	3.2	592.	.144	1.	3.2	4026.	3383.
1000.	3.3	1187.	.296	1.	6.7	3860.	3221.
1500.	3.4	1783.	.454	2.	10.4	3698.	3063.
2000.	3.4	2383.	.621	3.	14.5	3538.	2907.
2500.	3.5	2984.	.797	3.	19.0	3381.	2755.
3000.	3.6	3584.	.983	4.	23.8	3227.	2606.
3500.	3.7	4185.	1.178	5.	29.1	3074.	2460.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 6.0
ANGLE OFF 30.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	4.8	586.	.146	1.	3.0	3859.	3254.
1000.	5.0	1181.	.307	1.	6.9	3535.	2934.
1500.	5.2	1781.	.485	2.	11.3	3222.	2626.
2000.	5.5	2389.	.683	3.	16.5	2918.	2329.
2500.	5.7	3006.	.906	4.	23.0	2621.	2039.
3000.	6.0	3632.	1.157	6.	30.8	2331.	1757.
3500.	6.4	4266.	1.446	8.	40.6	2044.	1481.

ALT. 20000.

500.	4.8	586.	.144	1.	3.1	3954.	3349.
1000.	4.9	1175.	.298	1.	6.5	3721.	3121.
1500.	5.0	1768.	.464	2.	10.3	3494.	2898.
2000.	5.2	2364.	.641	3.	14.6	3271.	2682.
2500.	5.4	2963.	.833	4.	19.6	3054.	2471.
3000.	5.5	3566.	1.041	5.	25.2	2840.	2265.
3500.	5.7	4169.	1.266	6.	31.6	2631.	2065.

ALT. 30000.

500.	4.7	584.	.142	1.	3.0	4028.	3422.
1000.	4.8	1170.	.292	1.	6.1	3865.	3264.
1500.	4.9	1759.	.448	2.	9.7	3704.	3109.
2000.	5.0	2348.	.613	3.	13.4	3547.	2957.
2500.	5.1	2937.	.786	3.	17.5	3392.	2809.
3000.	5.2	3526.	.967	4.	21.9	3239.	2663.
3500.	5.3	4113.	1.159	5.	26.7	3089.	2521.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 6.0
 ANGLE OFF 40.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	6.2	576.	.143	1.	2.8	3865.	3310.
1000.	6.4	1158.	.301	1.	6.1	3547.	2998.
1500.	6.7	1745.	.475	2.	10.0	3239.	2697.
2000.	7.0	2337.	.667	3.	14.7	2941.	2406.
2500.	7.4	2936.	.882	4.	20.4	2651.	2125.
3000.	7.7	3538.	1.123	6.	27.2	2368.	1852.
3500.	8.1	4147.	1.396	8.	35.5	2090.	1586.

ALT. 20000.

500.	6.1	575.	.141	1.	2.6	3959.	3405.
1000.	6.3	1154.	.293	1.	5.8	3729.	3181.
1500.	6.5	1735.	.455	2.	9.3	3505.	2964.
2000.	6.7	2317.	.628	3.	13.1	3287.	2753.
2500.	6.9	2900.	.815	4.	17.4	3074.	2548.
3000.	7.1	3486.	1.016	5.	22.3	2865.	2348.
3500.	7.3	4069.	1.232	6.	27.8	2661.	2154.

ALT. 30000.

500.	6.1	575.	.140	1.	2.7	4030.	3477.
1000.	6.2	1151.	.287	1.	5.6	3870.	3322.
1500.	6.3	1726.	.440	2.	8.6	3712.	3172.
2000.	6.4	2302.	.601	3.	12.0	3558.	3024.
2500.	6.6	2879.	.770	3.	15.6	3405.	2879.
3000.	6.7	3452.	.947	4.	19.4	3256.	2739.
3500.	6.9	4025.	1.134	5.	23.6	3108.	2600.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 6.0
ANGLE OFF 50.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	7.4	564.	.140	1.	2.3	3872.	3383.
1000.	7.7	1132.	.294	1.	5.3	3560.	3078.
1500.	8.0	1703.	.462	2.	8.6	3260.	2785.
2000.	8.3	2277.	.648	3.	12.6	2969.	2502.
2500.	8.7	2855.	.854	4.	17.3	2686.	2229.
3000.	9.1	3434.	1.083	5.	22.9	2412.	1966.
3500.	9.6	4015.	1.340	7.	29.7	2144.	1711.

ALT. 20000.

500.	7.3	564.	.139	1.	2.4	3963.	3475.
1000.	7.5	1128.	.286	1.	4.9	3739.	3258.
1500.	7.7	1694.	.444	2.	7.9	3520.	3046.
2000.	7.9	2262.	.612	3.	11.2	3306.	2841.
2500.	8.2	2827.	.792	4.	14.8	3098.	2642.
3000.	8.4	3393.	.986	5.	18.8	2895.	2449.
3500.	8.7	3958.	1.194	6.	23.4	2695.	2261.

ALT. 30000.

500.	7.2	562.	.137	1.	2.2	4034.	3546.
1000.	7.4	1125.	.280	1.	4.7	3877.	3396.
1500.	7.5	1687.	.430	2.	7.4	3722.	3250.
2000.	7.7	2250.	.587	2.	10.3	3571.	3106.
2500.	7.8	2810.	.751	3.	13.3	3422.	2967.
3000.	8.0	3369.	.923	4.	16.5	3275.	2830.
3500.	8.2	3923.	1.103	5.	19.9	3132.	2697.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 1.0
 ANGLE OFF 0.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	0.0	634.	.158	1.	0.0	3833.	2989.
1000.	0.0	1284.	.335	1.	0.0	3483.	2639.
1500.	0.0	1955.	.535	2.	0.0	3141.	2297.
2000.	0.0	2654.	.764	4.	0.0	2805.	1962.
2500.	0.0	3388.	1.029	5.	0.0	2473.	1630.
3000.	0.0	4179.	1.346	7.	0.0	2138.	1295.
3500.	0.0	5057.	1.740	10.	0.0	1792.	948.

ALT. 20000.

500.	0.0	630.	.155	1.	0.0	3937.	3093.
1000.	0.0	1273.	.323	1.	0.0	3685.	2841.
1500.	0.0	1929.	.506	2.	0.0	3438.	2594.
2000.	0.0	2599.	.706	3.	0.0	3195.	2352.
2500.	0.0	3288.	.925	4.	0.0	2956.	2112.
3000.	0.0	4001.	1.168	5.	0.0	2720.	1876.
3500.	0.0	4741.	1.438	7.	0.0	2484.	1640.

ALT. 30000.

500.	0.0	629.	.153	1.	0.0	4015.	3172.
1000.	0.0	1266.	.315	1.	0.0	3840.	2996.
1500.	0.0	1912.	.487	2.	0.0	3666.	2822.
2000.	0.0	2566.	.669	3.	0.0	3495.	2651.
2500.	0.0	3230.	.861	4.	0.0	3327.	2483.
3000.	0.0	3905.	1.066	5.	0.0	3160.	2316.
3500.	0.0	4595.	1.285	6.	0.0	2995.	2151.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 1.0
ANGLE OFF 10.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	2.1	630.	.157	1.	0.0	3835.	2999.
1000.	2.2	1279.	.334	1.	0.0	3486.	2650.
1500.	2.3	1948.	.533	2.	0.0	3145.	2309.
2000.	2.4	2643.	.760	4.	0.0	2811.	1974.
2500.	2.5	3374.	1.024	5.	0.0	2480.	1643.
3000.	2.7	4157.	1.336	7.	0.0	2147.	1310.
3500.	2.9	5027.	1.725	10.	0.0	1803.	966.

ALT. 20000.

500.	2.1	629.	.155	1.	0.0	3938.	3102.
1000.	2.1	1270.	.322	1.	0.0	3686.	2850.
1500.	2.2	1923.	.505	2.	0.0	3440.	2604.
2000.	2.3	2590.	.703	3.	0.0	3199.	2363.
2500.	2.4	3276.	.921	4.	0.0	2961.	2124.
3000.	2.4	3984.	1.162	5.	0.0	2725.	1889.
3500.	2.5	4720.	1.430	7.	0.0	2491.	1654.

ALT. 30000.

500.	2.0	627.	.153	1.	0.0	4016.	3180.
1000.	2.1	1262.	.314	1.	0.0	3841.	3005.
1500.	2.1	1905.	.485	2.	0.0	3668.	2832.
2000.	2.2	2557.	.666	3.	0.0	3498.	2662.
2500.	2.2	3218.	.858	4.	0.0	3330.	2494.
3000.	2.3	3891.	1.062	5.	0.0	3164.	2327.
3500.	2.3	4577.	1.280	6.	0.0	2999.	2163.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 1.0
 ANGLE OFF 20.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	4.1	626.	.156	1.	0.0	3838.	3026.
1000.	4.3	1266.	.330	1.	0.0	3492.	2680.
1500.	4.5	1926.	.526	2.	0.0	3156.	2342.
2000.	4.8	2612.	.750	3.	0.0	2825.	2011.
2500.	5.0	3330.	1.007	5.	0.0	2499.	1684.
3000.	5.3	4096.	1.311	7.	0.0	2172.	1356.
3500.	5.6	4938.	1.684	9.	0.0	1837.	1020.

ALT. 20000.

500.	4.1	623.	.153	1.	0.0	3940.	3129.
1000.	4.2	1257.	.319	1.	0.0	3691.	2879.
1500.	4.3	1902.	.499	2.	0.0	3448.	2635.
2000.	4.5	2562.	.695	3.	0.0	3209.	2396.
2500.	4.6	3238.	.909	4.	0.0	2973.	2160.
3000.	4.8	3935.	1.145	5.	0.0	2741.	1927.
3500.	5.0	4659.	1.407	7.	0.0	2510.	1695.

ALT. 30000.

500.	4.0	621.	.151	1.	0.0	4018.	3206.
1000.	4.1	1251.	.311	1.	0.0	3844.	3032.
1500.	4.2	1887.	.480	2.	0.0	3673.	2861.
2000.	4.3	2530.	.658	3.	0.0	3505.	2692.
2500.	4.4	3185.	.848	4.	0.0	3338.	2525.
3000.	4.5	3849.	1.049	5.	0.0	3174.	2361.
3500.	4.6	4526.	1.263	6.	0.0	3012.	2198.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 1.0
ANGLE OFF 30.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	6.0	615.	.153	1.	0.0	3844.	3073.
1000.	6.3	1245.	.324	1.	0.0	3504.	2731.
1500.	6.6	1891.	.515	2.	0.0	3173.	2398.
2000.	6.9	2562.	.733	3.	0.0	2849.	2072.
2500.	7.3	3260.	.981	5.	0.0	2530.	1751.
3000.	7.7	3999.	1.271	6.	0.0	2213.	1432.
3500.	8.2	4801.	1.620	9.	0.0	1890.	1107.

ALT. 20000.

500.	6.0	613.	.151	1.	0.0	3944.	3173.
1000.	6.1	1237.	.314	1.	0.0	3699.	2927.
1500.	6.3	1871.	.490	2.	0.0	3459.	2686.
2000.	6.6	2516.	.681	3.	0.0	3225.	2451.
2500.	6.8	3179.	.889	4.	0.0	2994.	2218.
3000.	7.0	3859.	1.118	5.	0.0	2766.	1989.
3500.	7.3	4560.	1.370	7.	0.0	2541.	1762.

ALT. 30000.

500.	5.9	612.	.149	1.	0.0	4020.	3250.
1000.	6.0	1230.	.306	1.	0.0	3849.	3078.
1500.	6.2	1855.	.472	2.	0.0	3681.	2909.
2000.	6.3	2488.	.647	3.	0.0	3515.	2743.
2500.	6.4	3130.	.832	4.	0.0	3352.	2578.
3000.	6.6	3780.	1.028	4.	0.0	3191.	2416.
3500.	6.7	4443.	1.236	6.	0.0	3031.	2256.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 1.0
 ANGLE OFF 40.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	7.8	602.	.150	1.	0.0	3851.	3137.
1000.	8.1	1216.	.316	1.	0.0	3518.	2802.
1500.	8.5	1846.	.501	2.	0.0	3195.	2476.
2000.	8.9	2495.	.710	3.	0.0	2880.	2158.
2500.	9.3	3168.	.947	5.	0.0	2571.	1845.
3000.	9.8	3874.	1.220	6.	0.0	2265.	1535.
3500.	10.4	4629.	1.542	8.	0.0	1958.	1224.

ALT. 20000.

500.	7.7	601.	.148	1.	0.0	3949.	3236.
1000.	7.9	1210.	.306	1.	0.0	3709.	2994.
1500.	8.1	1829.	.478	2.	0.0	3475.	2758.
2000.	8.4	2457.	.663	3.	0.0	3246.	2527.
2500.	8.7	3099.	.864	4.	0.0	3021.	2300.
3000.	9.0	3757.	1.083	5.	0.0	2799.	2076.
3500.	9.3	4434.	1.323	6.	0.0	2581.	1855.

ALT. 30000.

500.	7.6	599.	.146	1.	0.0	4024.	3311.
1000.	7.7	1204.	.299	1.	0.0	3857.	3143.
1500.	7.9	1816.	.461	2.	0.0	3692.	2977.
2000.	8.1	2434.	.631	3.	0.0	3530.	2813.
2500.	8.3	3059.	.811	3.	0.0	3370.	2652.
3000.	8.5	3691.	1.000	4.	0.0	3213.	2493.
3500.	8.6	4334.	1.201	5.	0.0	3057.	2337.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 1.0
ANGLE OFF 50.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	9.2	587.	.146	1.	0.0	3859.	3220.
1000.	9.6	1184.	.307	1.	0.0	3536.	2893.
1500.	10.1	1793.	.485	2.	0.0	3222.	2575.
2000.	10.5	2416.	.684	3.	0.0	2917.	2266.
2500.	11.1	3060.	.907	4.	0.0	2619.	1963.
3000.	11.6	3729.	1.161	6.	0.0	2326.	1665.
3500.	12.2	4434.	1.455	8.	0.0	2035.	1368.

ALT. 20000.

500.	9.1	585.	.144	1.	0.0	3955.	3317.
1000.	9.4	1177.	.298	1.	0.0	3722.	3081.
1500.	9.7	1777.	.463	2.	0.0	3494.	2851.
2000.	10.0	2387.	.641	3.	0.0	3271.	2625.
2500.	10.3	3005.	.833	4.	0.0	3053.	2404.
3000.	10.7	3637.	1.042	5.	0.0	2839.	2187.
3500.	11.0	4282.	1.268	6.	0.0	2629.	1973.

ALT. 30000.

500.	9.0	585.	.142	1.	0.0	4028.	3390.
1000.	9.2	1173.	.291	1.	0.0	3865.	3226.
1500.	9.4	1766.	.448	2.	0.0	3705.	3064.
2000.	9.6	2366.	.612	3.	0.0	3547.	2904.
2500.	9.8	2971.	.785	3.	0.0	3392.	2747.
3000.	10.1	3584.	.967	4.	0.0	3239.	2592.
3500.	10.3	4202.	1.159	5.	0.0	3089.	2440.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 2.0
 ANGLE OFF 0.0 DEG. TGT: VEL 844. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	0.0	634.	.158	1.	1.1	3833.	2989.
1000.	0.0	1284.	.335	1.	2.4	3483.	2639.
1500.	0.0	1955.	.535	2.	4.1	3141.	2297.
2000.	0.0	2653.	.764	4.	6.1	2805.	1962.
2500.	0.0	3386.	1.029	5.	8.7	2473.	1630.
3000.	0.0	4174.	1.346	7.	12.1	2138.	1295.
3500.	0.0	5047.	1.740	10.	16.7	1792.	949.

ALT. 20000.

500.	0.0	630.	.155	1.	1.1	3937.	3093.
1000.	0.0	1273.	.323	1.	2.3	3685.	2841.
1500.	0.0	1929.	.506	2.	3.7	3438.	2594.
2000.	0.0	2599.	.706	3.	5.3	3195.	2352.
2500.	0.0	3287.	.925	4.	7.3	2956.	2113.
3000.	0.0	3998.	1.168	5.	9.5	2720.	1876.
3500.	0.0	4736.	1.438	7.	12.2	2484.	1641.

ALT. 30000.

500.	0.0	629.	.153	1.	1.0	4015.	3172.
1000.	0.0	1266.	.315	1.	2.2	3840.	2996.
1500.	0.0	1912.	.487	2.	3.5	3666.	2822.
2000.	0.0	2566.	.669	3.	4.9	3495.	2652.
2500.	0.0	3229.	.861	4.	6.4	3327.	2483.
3000.	0.0	3903.	1.066	5.	8.1	3160.	2317.
3500.	0.0	4591.	1.285	6.	10.0	2995.	2152.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT.
ANGLE OFF 10.0 DEG. TGT. VEL 844. FT./SEC. TGT. GEES 2.0
ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	2.1	630.	.157	1.	1.0	3835.	3000.
1000.	2.2	1278.	.334	1.	2.4	3486.	2651.
1500.	2.3	1946.	.533	2.	4.1	3145.	2310.
2000.	2.4	2640.	.760	4.	6.2	2811.	1976.
2500.	2.5	3368.	1.024	5.	8.8	2480.	1646.
3000.	2.7	4146.	1.336	7.	12.3	2147.	1314.
3500.	2.9	5008.	1.725	10.	17.2	1803.	971.

ALT. 20000.

500.	2.1	629.	.155	1.	1.0	3938.	3102.
1000.	2.1	1269.	.322	1.	2.3	3686.	2851.
1500.	2.2	1921.	.505	2.	3.7	3440.	2606.
2000.	2.3	2587.	.703	3.	5.3	3199.	2365.
2500.	2.4	3271.	.921	4.	7.2	2961.	2127.
3000.	2.4	3976.	1.162	5.	9.5	2725.	1892.
3500.	2.5	4707.	1.430	7.	12.2	2491.	1659.

ALT. 30000.

500.	2.0	627.	.153	1.	1.0	4016.	3181.
1000.	2.1	1261.	.314	1.	2.2	3841.	3006.
1500.	2.1	1904.	.485	2.	3.4	3668.	2833.
2000.	2.2	2555.	.666	3.	4.8	3498.	2664.
2500.	2.2	3214.	.858	4.	6.3	3330.	2496.
3000.	2.3	3885.	1.062	5.	8.0	3164.	2331.
3500.	2.3	4567.	1.280	6.	9.9	2999.	2167.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC.
ANGLE OFF 20.0 DEG.

ALT. 10000. FT.
TGT. VEL 844. FT./SEC.

TGT. GEES 2.0
ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	4.1	626.	.156	1.	1.1	3838.	3027.
1000.	4.3	1266.	.330	1.	2.4	3492.	2682.
1500.	4.5	1923.	.526	2.	4.0	3156.	2346.
2000.	4.8	2607.	.750	3.	6.0	2825.	2015.
2500.	5.0	3321.	1.007	5.	8.7	2499.	1689.
3000.	5.3	4080.	1.311	7.	12.1	2172.	1364.
3500.	5.6	4910.	1.684	9.	17.0	1837.	1029.

ALT. 20000.

500.	4.1	622.	.153	1.	1.0	3940.	3129.
1000.	4.2	1256.	.319	1.	2.2	3691.	2881.
1500.	4.3	1900.	.499	2.	3.6	3448.	2638.
2000.	4.5	2558.	.695	3.	5.1	3209.	2400.
2500.	4.6	3231.	.909	4.	7.0	2973.	2165.
3000.	4.8	3923.	1.145	5.	9.2	2741.	1933.
3500.	5.0	4639.	1.407	7.	11.9	2510.	1703.

ALT. 30000.

500.	4.0	621.	.151	1.	.9	4018.	3207.
1000.	4.1	1250.	.311	1.	2.1	3844.	3034.
1500.	4.2	1885.	.480	2.	3.3	3673.	2864.
2000.	4.3	2527.	.658	3.	4.6	3505.	2696.
2500.	4.4	3179.	.848	4.	6.1	3338.	2530.
3000.	4.5	3839.	1.049	5.	7.8	3174.	2367.
3500.	4.6	4510.	1.263	6.	9.6	3012.	2206.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 2.0
ANGLE OFF 30.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	6.0	615.	.153	1.	.9	3844.	3074.
1000.	6.3	1243.	.324	1.	2.2	3504.	2734.
1500.	6.6	1888.	.515	2.	3.7	3173.	2403.
2000.	6.9	2555.	.733	3.	5.7	2849.	2079.
2500.	7.3	3248.	.981	5.	8.2	2530.	1760.
3000.	7.7	3979.	1.271	7.	11.5	2213.	1442.
3500.	8.2	4767.	1.620	9.	16.1	1890.	1120.

ALT. 20000.

500.	6.0	613.	.151	1.	.9	3944.	3174.
1000.	6.1	1236.	.314	1.	2.1	3699.	2930.
1500.	6.3	1868.	.490	2.	3.4	3459.	2691.
2000.	6.6	2511.	.681	3.	4.8	3225.	2457.
2500.	6.8	3169.	.889	4.	6.6	2994.	2226.
3000.	7.0	3843.	1.118	5.	8.7	2766.	1999.
3500.	7.3	4536.	1.370	7.	11.1	2541.	1774.

ALT. 30000.

500.	5.9	611.	.149	1.	.9	4020.	3251.
1000.	6.0	1229.	.306	1.	1.9	3849.	3081.
1500.	6.2	1853.	.472	2.	3.0	3681.	2914.
2000.	6.3	2483.	.647	3.	4.3	3515.	2749.
2500.	6.4	3122.	.832	4.	5.7	3352.	2586.
3000.	6.6	3767.	1.028	5.	7.2	3191.	2426.
3500.	6.7	4423.	1.236	6.	9.0	3031.	2267.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 2.0
 ANGLE OFF 40.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	7.8	602.	.150	1.	.9	3851.	3139.
1000.	8.1	1215.	.316	1.	1.9	3518.	2806.
1500.	8.5	1842.	.501	2.	3.4	3195.	2482.
2000.	8.9	2487.	.710	3.	5.1	2880.	2166.
2500.	9.3	3154.	.947	5.	7.4	2571.	1856.
3000.	9.8	3851.	1.220	6.	10.4	2265.	1549.
3500.	10.4	4591.	1.542	8.	14.5	1958.	1241.

ALT. 20000.

500.	7.7	600.	.148	1.	.9	3949.	3238.
1000.	7.9	1209.	.306	1.	1.9	3709.	2998.
1500.	8.1	1825.	.478	2.	3.1	3475.	2764.
2000.	8.4	2450.	.663	3.	4.3	3246.	2535.
2500.	8.7	3087.	.864	4.	5.9	3021.	2310.
3000.	9.0	3738.	1.083	5.	7.8	2799.	2089.
3500.	9.3	4405.	1.323	6.	10.1	2581.	1870.

ALT. 30000.

500.	7.6	599.	.146	1.	.8	4024.	3313.
1000.	7.7	1203.	.299	1.	1.7	3857.	3147.
1500.	7.9	1813.	.461	2.	2.8	3692.	2982.
2000.	8.1	2427.	.631	3.	3.9	3530.	2821.
2500.	8.3	3048.	.811	3.	5.2	3370.	2662.
3000.	8.5	3675.	1.000	4.	6.6	3213.	2506.
3500.	8.6	4310.	1.201	5.	8.1	3057.	2351.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 2.0
ANGLE OFF 50.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	9.2	586.	.146	1.	.8	3859.	3222.
1000.	9.6	1182.	.307	1.	1.8	3536.	2897.
1500.	10.1	1789.	.485	2.	3.0	3222.	2582.
2000.	10.5	2408.	.684	3.	4.5	2917.	2276.
2500.	11.1	3045.	.907	4.	6.5	2619.	1976.
3000.	11.6	3703.	1.161	6.	9.0	2326.	1681.
3500.	12.2	4393.	1.455	8.	12.4	2035.	1388.

ALT. 20000.

500.	9.1	585.	.144	1.	.7	3955.	3319.
1000.	9.4	1176.	.298	1.	1.6	3722.	3086.
1500.	9.7	1773.	.463	2.	2.6	3494.	2858.
2000.	10.0	2379.	.641	3.	3.8	3271.	2634.
2500.	10.3	2992.	.833	4.	5.2	3053.	2416.
3000.	10.7	3616.	1.042	5.	6.8	2839.	2202.
3500.	11.0	4251.	1.268	6.	8.7	2629.	1991.

ALT. 30000.

500.	9.0	585.	.142	1.	.9	4028.	3393.
1000.	9.2	1171.	.291	1.	1.5	3865.	3230.
1500.	9.4	1763.	.448	2.	2.4	3705.	3071.
2000.	9.6	2359.	.612	3.	3.4	3547.	2913.
2500.	9.8	2959.	.785	3.	4.5	3392.	2759.
3000.	10.1	3566.	.967	4.	5.7	3239.	2607.
3500.	10.3	4176.	1.159	5.	7.0	3089.	2457.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 3.0
 ANGLE OFF 0.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	0.0	634.	.158	1.	1.8	3833.	2989.
1000.	0.0	1283.	.335	1.	4.0	3483.	2639.
1500.	0.0	1955.	.535	2.	6.7	3141.	2297.
2000.	0.0	2652.	.764	4.	10.0	2805.	1962.
2500.	0.0	3383.	1.029	5.	14.2	2473.	1630.
3000.	0.0	4167.	1.346	7.	19.7	2138.	1296.
3500.	0.0	5031.	1.740	10.	27.3	1792.	950.

ALT. 20000.

500.	0.0	630.	.155	1.	1.7	3937.	3093.
1000.	0.0	1272.	.323	1.	3.7	3685.	2841.
1500.	0.0	1928.	.506	2.	6.1	3438.	2594.
2000.	0.0	2597.	.706	3.	8.7	3195.	2352.
2500.	0.0	3284.	.925	4.	11.8	2956.	2113.
3000.	0.0	3993.	1.168	5.	15.5	2720.	1877.
3500.	0.0	4727.	1.438	7.	19.9	2484.	1642.

ALT. 30000.

500.	0.0	629.	.153	1.	1.7	4015.	3172.
1000.	0.0	1266.	.315	1.	3.6	3840.	2996.
1500.	0.0	1911.	.487	2.	5.6	3666.	2823.
2000.	0.0	2565.	.669	3.	7.9	3495.	2652.
2500.	0.0	3227.	.861	4.	10.5	3327.	2483.
3000.	0.0	3900.	1.066	5.	13.3	3160.	2317.
3500.	0.0	4584.	1.285	6.	16.4	2995.	2153.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 3.0
ANGLE OFF 10.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	2.1	630.	.157	1.	1.7	3835.	3000.
1000.	2.2	1278.	.334	1.	3.9	3486.	2651.
1500.	2.3	1945.	.533	2.	6.6	3145.	2311.
2000.	2.4	2637.	.760	4.	10.0	2811.	1978.
2500.	2.5	3363.	1.024	5.	14.2	2480.	1648.
3000.	2.7	4135.	1.336	7.	19.8	2147.	1317.
3500.	2.9	4986.	1.725	10.	27.6	1803.	975.

ALT. 20000.

500.	2.1	629.	.155	1.	1.7	3938.	3102.
1000.	2.1	1269.	.322	1.	3.7	3686.	2852.
1500.	2.2	1920.	.505	2.	6.0	3440.	2607.
2000.	2.3	2585.	.703	3.	8.6	3199.	2366.
2500.	2.4	3267.	.921	4.	11.7	2961.	2129.
3000.	2.4	3968.	1.162	5.	15.4	2725.	1895.
3500.	2.5	4693.	1.430	7.	19.7	2491.	1662.

ALT. 30000.

500.	2.0	627.	.153	1.	1.7	4016.	3181.
1000.	2.1	1261.	.314	1.	3.5	3841.	3007.
1500.	2.1	1903.	.485	2.	5.6	3668.	2834.
2000.	2.2	2553.	.666	3.	7.8	3498.	2665.
2500.	2.2	3210.	.858	4.	10.3	3330.	2498.
3000.	2.3	3879.	1.062	5.	13.1	3164.	2333.
3500.	2.3	4557.	1.280	6.	16.2	2999.	2170.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 3.0
 ANGLE OFF 20.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	4.1	625.	.156	1.	1.8	3838.	3028.
1000.	4.3	1265.	.330	1.	3.8	3492.	2683.
1500.	4.5	1922.	.526	2.	6.4	3156.	2348.
2000.	4.8	2603.	.750	3.	9.7	2825.	2018.
2500.	5.0	3314.	1.007	5.	13.8	2499.	1693.
3000.	5.3	4066.	1.311	7.	19.2	2172.	1369.
3500.	5.6	4884.	1.684	9.	26.7	1837.	1035.

ALT. 20000.

500.	4.1	622.	.153	1.	1.6	3940.	3130.
1000.	4.2	1256.	.319	1.	3.6	3691.	2882.
1500.	4.3	1899.	.499	2.	5.8	3448.	2640.
2000.	4.5	2554.	.695	3.	8.3	3209.	2403.
2500.	4.6	3225.	.909	4.	11.3	2973.	2169.
3000.	4.8	3913.	1.145	5.	14.8	2741.	1938.
3500.	5.0	4622.	1.407	7.	19.0	2510.	1709.

ALT. 30000.

500.	4.0	621.	.151	1.	1.6	4018.	3208.
1000.	4.1	1249.	.311	1.	3.4	3844.	3035.
1500.	4.2	1883.	.480	2.	5.4	3673.	2866.
2000.	4.3	2524.	.658	3.	7.5	3505.	2699.
2500.	4.4	3174.	.848	4.	9.9	3338.	2534.
3000.	4.5	3830.	1.049	5.	12.6	3174.	2372.
3500.	4.6	4497.	1.263	6.	15.5	3012.	2211.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 3.0
ANGLE OFF 30.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	6.0	614.	.153	1.	1.5	3844.	3075.
1000.	6.3	1242.	.324	1.	3.5	3504.	2736.
1500.	6.6	1886.	.515	2.	6.0	3173.	2406.
2000.	6.9	2550.	.733	3.	9.1	2849.	2083.
2500.	7.3	3239.	.981	5.	12.9	2530.	1765.
3000.	7.7	3962.	1.271	7.	18.0	2213.	1450.
3500.	8.2	4738.	1.620	9.	24.8	1890.	1129.

ALT. 20000.

500.	6.0	613.	.151	1.	1.5	3944.	3175.
1000.	6.1	1235.	.314	1.	3.3	3699.	2932.
1500.	6.3	1866.	.490	2.	5.4	3459.	2694.
2000.	6.6	2507.	.681	3.	7.7	3225.	2461.
2500.	6.8	3162.	.889	4.	10.6	2994.	2231.
3000.	7.0	3830.	1.118	5.	13.8	2766.	2006.
3500.	7.3	4516.	1.370	7.	17.7	2541.	1783.

ALT. 30000.

500.	5.9	611.	.149	1.	1.4	4020.	3252.
1000.	6.0	1229.	.306	1.	3.2	3849.	3083.
1500.	6.2	1851.	.472	2.	5.0	3681.	2916.
2000.	6.3	2479.	.647	3.	7.0	3515.	2753.
2500.	6.4	3115.	.832	4.	9.2	3352.	2591.
3000.	6.6	3757.	1.028	5.	11.7	3191.	2432.
3500.	6.7	4407.	1.236	6.	14.4	3031.	2275.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC.
ANGLE OFF 40.0 DEG.

ALT. 10000. FT.
TGT. VEL 844. FT./SEC.

TGT. GEES 3.0
ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	7.8	602.	.150	1.	1.4	3851.	3140.
1000.	8.1	1214.	.316	1.	3.2	3518.	2808.
1500.	8.5	1840.	.501	2.	5.4	3195.	2486.
2000.	8.9	2481.	.710	3.	8.1	2880.	2172.
2500.	9.3	3144.	.947	5.	11.6	2571.	1863.
3000.	9.8	3833.	1.220	6.	16.1	2265.	1558.
3500.	10.4	4561.	1.542	8.	22.1	1958.	1252.

ALT. 20000.

500.	7.7	600.	.148	1.	1.4	3949.	3239.
1000.	7.9	1208.	.306	1.	3.0	3709.	3000.
1500.	8.1	1823.	.478	2.	4.9	3475.	2768.
2000.	8.4	2445.	.663	3.	7.0	3246.	2540.
2500.	8.7	3079.	.864	4.	9.5	3021.	2317.
3000.	9.0	3724.	1.083	5.	12.4	2799.	2097.
3500.	9.3	4384.	1.323	6.	15.9	2581.	1881.

ALT. 30000.

500.	7.6	599.	.146	1.	1.3	4024.	3314.
1000.	7.7	1202.	.299	1.	2.8	3857.	3149.
1500.	7.9	1811.	.461	2.	4.6	3692.	2986.
2000.	8.1	2423.	.631	3.	6.3	3530.	2826.
2500.	8.3	3041.	.811	3.	8.3	3370.	2669.
3000.	8.5	3664.	1.000	4.	10.5	3213.	2514.
3500.	8.6	4292.	1.201	5.	13.0	3057.	2361.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 3.0
ANGLE OFF 50.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	9.2	586.	.146	1.	1.3	3859.	3224.
1000.	9.6	1181.	.307	1.	2.8	3536.	2900.
1500.	10.1	1786.	.485	2.	4.7	3222.	2587.
2000.	10.5	2402.	.684	3.	7.1	2917.	2282.
2500.	11.1	3034.	.907	4.	10.0	2619.	1985.
3000.	11.6	3685.	1.161	6.	13.8	2326.	1692.
3500.	12.2	4363.	1.455	8.	18.8	2035.	1402.

ALT. 20000.

500.	9.1	585.	.144	1.	1.2	3955.	3320.
1000.	9.4	1175.	.298	1.	2.6	3722.	3089.
1500.	9.7	1771.	.463	2.	4.2	3494.	2862.
2000.	10.0	2374.	.641	3.	6.1	3271.	2641.
2500.	10.3	2983.	.833	4.	8.2	3053.	2424.
3000.	10.7	3601.	1.042	5.	10.7	2839.	2212.
3500.	11.0	4229.	1.268	6.	13.6	2629.	2004.

ALT. 30000.

500.	9.0	585.	.142	1.	1.4	4028.	3394.
1000.	9.2	1170.	.291	1.	2.4	3865.	3233.
1500.	9.4	1760.	.448	2.	3.9	3705.	3075.
2000.	9.6	2355.	.612	3.	5.5	3547.	2920.
2500.	9.8	2951.	.785	3.	7.2	3392.	2767.
3000.	10.1	3553.	.967	4.	9.1	3239.	2617.
3500.	10.3	4158.	1.159	5.	11.2	3089.	2469.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 4.0
 ANGLE OFF 0.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	0.0	634.	.158	1.	2.5	3833.	2990.
1000.	0.0	1283.	.335	1.	5.4	3483.	2639.
1500.	0.0	1954.	.535	2.	9.1	3141.	2297.
2000.	0.0	2650.	.764	4.	13.7	2805.	1962.
2500.	0.0	3378.	1.029	5.	19.5	2473.	1631.
3000.	0.0	4157.	1.346	7.	27.1	2138.	1297.
3500.	0.0	5009.	1.740	10.	37.4	1792.	952.

ALT. 20000.

500.	0.0	630.	.155	1.	2.4	3937.	3093.
1000.	0.0	1272.	.323	1.	5.1	3685.	2841.
1500.	0.0	1928.	.506	2.	8.3	3438.	2594.
2000.	0.0	2596.	.706	3.	12.0	3195.	2352.
2500.	0.0	3281.	.925	4.	16.2	2956.	2114.
3000.	0.0	3986.	1.168	6.	21.3	2720.	1878.
3500.	0.0	4714.	1.438	7.	27.2	2484.	1643.

ALT. 30000.

500.	0.0	629.	.153	1.	2.3	4015.	3172.
1000.	0.0	1266.	.315	1.	4.9	3840.	2996.
1500.	0.0	1911.	.487	2.	7.7	3666.	2823.
2000.	0.0	2564.	.669	3.	10.9	3495.	2652.
2500.	0.0	3225.	.861	4.	14.3	3327.	2484.
3000.	0.0	3894.	1.066	5.	18.2	3160.	2318.
3500.	0.0	4575.	1.285	6.	22.4	2995.	2154.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 4.0
ANGLE OFF 10.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PRCJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	2.1	630.	.157	1.	2.4	3835.	3000.
1000.	2.2	1278.	.334	1.	5.4	3486.	2652.
1500.	2.3	1944.	.533	2.	9.0	3145.	2312.
2000.	2.4	2634.	.760	4.	13.6	2811.	1980.
2500.	2.5	3356.	1.024	5.	19.4	2480.	1650.
3000.	2.7	4122.	1.336	7.	26.9	2147.	1320.
3500.	2.9	4959.	1.725	10.	37.4	1803.	979.

ALT. 20000.

500.	2.1	629.	.155	1.	2.3	3938.	3103.
1000.	2.1	1268.	.322	1.	5.1	3686.	2853.
1500.	2.2	1919.	.505	2.	8.2	3440.	2608.
2000.	2.3	2583.	.703	3.	11.8	3199.	2368.
2500.	2.4	3262.	.921	4.	16.0	2961.	2131.
3000.	2.4	3958.	1.162	5.	21.0	2725.	1898.
3500.	2.5	4677.	1.430	7.	26.9	2491.	1666.

ALT. 30000.

500.	2.0	627.	.153	1.	2.3	4016.	3181.
1000.	2.1	1261.	.314	1.	4.8	3841.	3007.
1500.	2.1	1902.	.485	2.	7.6	3668.	2836.
2000.	2.2	2551.	.666	3.	10.7	3498.	2667.
2500.	2.2	3206.	.858	4.	14.1	3330.	2500.
3000.	2.3	3871.	1.062	5.	17.9	3164.	2336.
3500.	2.3	4545.	1.280	6.	22.1	2999.	2174.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC.
ANGLE OFF 20.0 DEG.

ALT. 10000. FT.
TGT. VEL 844. FT./SEC.

TGT. GEES 4.0
ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	4.1	625.	.156	1.	2.4	3838.	3028.
1000.	4.3	1264.	.330	1.	5.2	3492.	2684.
1500.	4.5	1920.	.526	2.	8.7	3156.	2350.
2000.	4.8	2599.	.750	3.	13.1	2825.	2021.
2500.	5.0	3305.	1.007	5.	18.7	2499.	1697.
3000.	5.3	4050.	1.311	7.	26.0	2172.	1374.
3500.	5.6	4854.	1.684	9.	35.9	1837.	1042.

ALT. 20000.

500.	4.1	622.	.153	1.	2.2	3940.	3131.
1000.	4.2	1255.	.319	1.	4.9	3691.	2884.
1500.	4.3	1897.	.499	2.	7.9	3448.	2642.
2000.	4.5	2551.	.695	3.	11.3	3209.	2405.
2500.	4.6	3218.	.909	4.	15.4	2973.	2172.
3000.	4.8	3901.	1.145	5.	20.1	2741.	1943.
3500.	5.0	4603.	1.407	7.	25.8	2510.	1715.

ALT. 30000.

500.	4.0	621.	.151	1.	2.2	4018.	3208.
1000.	4.1	1249.	.311	1.	4.7	3844.	3036.
1500.	4.2	1882.	.480	2.	7.3	3673.	2868.
2000.	4.3	2521.	.658	3.	10.2	3505.	2702.
2500.	4.4	3168.	.848	4.	13.5	3338.	2538.
3000.	4.5	3821.	1.049	5.	17.1	3174.	2376.
3500.	4.6	4482.	1.263	6.	21.1	3012.	2217.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 4.0
ANGLE OFF 30.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	6.0	614.	.153	1.	2.1	3844.	3076.
1000.	6.3	1242.	.324	1.	4.8	3504.	2738.
1500.	6.6	1884.	.515	2.	8.1	3173.	2409.
2000.	6.9	2545.	.733	3.	12.2	2849.	2087.
2500.	7.3	3229.	.981	5.	17.4	2530.	1771.
3000.	7.7	3944.	1.271	7.	24.1	2213.	1457.
3500.	8.2	4706.	1.620	9.	33.1	1890.	1139.

ALT. 20000.

500.	6.0	613.	.151	1.	2.1	3944.	3176.
1000.	6.1	1234.	.314	1.	4.5	3699.	2934.
1500.	6.3	1864.	.490	2.	7.4	3459.	2696.
2000.	6.6	2502.	.681	3.	10.5	3225.	2465.
2500.	6.8	3154.	.889	4.	14.3	2994.	2237.
3000.	7.0	3817.	1.118	5.	18.7	2766.	2012.
3500.	7.3	4494.	1.370	7.	23.9	2541.	1791.

ALT. 30000.

500.	5.9	611.	.149	1.	2.0	4020.	3253.
1000.	6.0	1228.	.306	1.	4.3	3849.	3085.
1500.	6.2	1849.	.472	2.	6.8	3681.	2919.
2000.	6.3	2476.	.647	3.	9.5	3515.	2756.
2500.	6.4	3109.	.832	4.	12.6	3352.	2596.
3000.	6.6	3745.	1.028	5.	15.9	3191.	2438.
3500.	6.7	4390.	1.236	6.	19.6	3031.	2282.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 4.0
 ANGLE OFF 40.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	7.8	602.	.150	1.	2.0	3851.	3141.
1000.	8.1	1213.	.316	1.	4.3	3518.	2811.
1500.	8.5	1837.	.501	2.	7.3	3195.	2490.
2000.	8.9	2476.	.710	3.	11.0	2880.	2177.
2500.	9.3	3133.	.947	5.	15.6	2571.	1870.
3000.	9.8	3814.	1.220	6.	21.5	2265.	1567.
3500.	10.4	4529.	1.542	8.	29.3	1958.	1264.

ALT. 20000.

500.	7.7	600.	.148	1.	1.9	3949.	3240.
1000.	7.9	1207.	.306	1.	4.1	3709.	3003.
1500.	8.1	1821.	.478	2.	6.7	3475.	2771.
2000.	8.4	2440.	.663	3.	9.5	3246.	2545.
2500.	8.7	3070.	.864	4.	12.8	3021.	2324.
3000.	9.0	3710.	1.083	5.	16.8	2799.	2106.
3500.	9.3	4361.	1.323	6.	21.3	2581.	1891.

ALT. 30000.

500.	7.6	598.	.146	1.	1.8	4024.	3315.
1000.	7.7	1201.	.299	1.	3.8	3857.	3151.
1500.	7.9	1809.	.461	2.	6.2	3692.	2989.
2000.	8.1	2419.	.631	3.	8.6	3530.	2831.
2500.	8.3	3033.	.811	3.	11.3	3370.	2675.
3000.	8.5	3651.	1.000	4.	14.3	3213.	2522.
3500.	8.6	4274.	1.201	5.	17.5	3057.	2371.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT.
ANGLE OFF 50.0 DEG. TGT. VEL 844. FT./SEC. TGT. GEES 4.0
ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	9.2	586.	.146	1.	1.7	3859.	3225.
1000.	9.6	1180.	.307	1.	3.8	3536.	2903.
1500.	10.1	1783.	.485	2.	6.4	3222.	2591.
2000.	10.5	2396.	.684	3.	9.5	2917.	2289.
2500.	11.1	3023.	.907	4.	13.4	2619.	1993.
3000.	11.6	3666.	1.161	6.	18.3	2326.	1703.
3500.	12.2	4332.	1.455	8.	24.8	2035.	1416.

ALT. 20000.

500.	9.1	584.	.144	1.	1.6	3955.	3322.
1000.	9.4	1174.	.298	1.	3.5	3722.	3091.
1500.	9.7	1768.	.463	2.	5.7	3494.	2866.
2000.	10.0	2368.	.641	3.	8.2	3271.	2647.
2500.	10.3	2974.	.833	4.	11.1	3053.	2432.
3000.	10.7	3586.	1.042	5.	14.4	2839.	2222.
3500.	11.0	4206.	1.268	6.	18.2	2629.	2016.

ALT. 30000.

500.	9.0	584.	.142	1.	1.8	4028.	3395.
1000.	9.2	1169.	.291	1.	3.3	3865.	3236.
1500.	9.4	1758.	.448	2.	5.3	3705.	3079.
2000.	9.6	2350.	.612	3.	7.4	3547.	2925.
2500.	9.8	2943.	.785	3.	9.7	3392.	2775.
3000.	10.1	3540.	.967	4.	12.3	3239.	2626.
3500.	10.3	4139.	1.159	5.	15.0	3089.	2480.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 5.0
 ANGLE OFF 0.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	0.0	634.	.158	1.	3.1	3833.	2990.
1000.	0.0	1283.	.335	1.	6.9	3483.	2640.
1500.	0.0	1953.	.535	2.	11.6	3141.	2298.
2000.	0.0	2647.	.764	4.	17.3	2805.	1963.
2500.	0.0	3372.	1.029	5.	24.7	2473.	1632.
3000.	0.0	4143.	1.346	7.	34.3	2138.	1298.
3500.	0.0	4981.	1.740	10.	47.5	1792.	954.

ALT. 20000.

500.	0.0	630.	.155	1.	3.0	3937.	3093.
1000.	0.0	1272.	.323	1.	6.5	3685.	2841.
1500.	0.0	1927.	.506	2.	10.5	3438.	2595.
2000.	0.0	2594.	.706	3.	15.1	3195.	2353.
2500.	0.0	3277.	.925	4.	20.5	2956.	2114.
3000.	0.0	3978.	1.168	6.	26.9	2720.	1879.
3500.	0.0	4698.	1.438	7.	34.5	2484.	1645.

ALT. 30000.

500.	0.0	629.	.153	1.	2.9	4015.	3172.
1000.	0.0	1266.	.315	1.	6.2	3840.	2996.
1500.	0.0	1910.	.487	2.	9.8	3666.	2823.
2000.	0.0	2562.	.669	3.	13.7	3495.	2652.
2500.	0.0	3221.	.861	4.	18.1	3327.	2485.
3000.	0.0	3888.	1.066	5.	23.0	3160.	2319.
3500.	0.0	4564.	1.285	6.	28.4	2995.	2155.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 5.0
ANGLE OFF 10.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	2.1	630.	.157	1.	3.0	3835.	3001.
1000.	2.2	1277.	.334	1.	6.8	3486.	2653.
1500.	2.3	1942.	.533	2.	11.4	3145.	2314.
2000.	2.4	2631.	.760	4.	17.2	2811.	1981.
2500.	2.5	3348.	1.024	5.	24.5	2480.	1653.
3000.	2.7	4105.	1.336	7.	34.0	2147.	1324.
3500.	2.9	4926.	1.725	10.	47.1	1803.	984.

ALT. 20000.

500.	2.1	629.	.155	1.	3.0	3938.	3103.
1000.	2.1	1268.	.322	1.	6.4	3686.	2853.
1500.	2.2	1918.	.505	2.	10.4	3440.	2609.
2000.	2.3	2580.	.703	3.	14.9	3199.	2369.
2500.	2.4	3256.	.921	4.	20.2	2961.	2134.
3000.	2.4	3947.	1.162	5.	26.5	2725.	1901.
3500.	2.5	4657.	1.430	7.	33.9	2491.	1670.

ALT. 30000.

500.	2.0	627.	.153	1.	2.9	4016.	3182.
1000.	2.1	1260.	.314	1.	6.1	3841.	3008.
1500.	2.1	1901.	.485	2.	9.6	3668.	2837.
2000.	2.2	2548.	.666	3.	13.5	3498.	2668.
2500.	2.2	3201.	.858	4.	17.8	3330.	2503.
3000.	2.3	3862.	1.062	5.	22.6	3164.	2339.
3500.	2.3	4530.	1.280	6.	27.9	2999.	2177.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC.
ANGLE OFF 20.0 DEG.

ALT. 10000. FT.
TGT. VEL 844. FT./SEC.

TGT. GEES 5.0
ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	4.1	625.	.156	1.	3.0	3838.	3029.
1000.	4.3	1264.	.330	1.	6.6	3492.	2686.
1500.	4.5	1918.	.526	2.	11.0	3156.	2352.
2000.	4.8	2594.	.750	3.	16.5	2825.	2024.
2500.	5.0	3296.	1.007	5.	23.5	2499.	1702.
3000.	5.3	4031.	1.311	7.	32.5	2172.	1380.
3500.	5.6	4819.	1.684	9.	45.0	1837.	1050.

ALT. 20000.

500.	4.1	622.	.153	1.	2.8	3940.	3131.
1000.	4.2	1254.	.319	1.	6.2	3691.	2885.
1500.	4.3	1895.	.499	2.	9.9	3448.	2644.
2000.	4.5	2547.	.695	3.	14.3	3209.	2408.
2500.	4.6	3211.	.909	4.	19.4	2973.	2176.
3000.	4.8	3888.	1.145	5.	25.3	2741.	1948.
3500.	5.0	4581.	1.407	7.	32.4	2510.	1721.

ALT. 30000.

500.	4.0	621.	.151	1.	2.7	4018.	3209.
1000.	4.1	1248.	.311	1.	5.9	3844.	3038.
1500.	4.2	1880.	.480	2.	9.2	3673.	2870.
2000.	4.3	2517.	.658	3.	12.9	3505.	2704.
2500.	4.4	3162.	.848	4.	17.1	3338.	2541.
3000.	4.5	3810.	1.049	5.	21.6	3174.	2381.
3500.	4.6	4465.	1.263	6.	26.6	3012.	2222.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 5.0
ANGLE OFF 30.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	6.0	614.	.153	1.	2.7	3844.	3077.
1000.	6.3	1241.	.324	1.	6.1	3504.	2739.
1500.	6.6	1881.	.515	2.	10.2	3173.	2412.
2000.	6.9	2540.	.733	3.	15.4	2849.	2091.
2500.	7.3	3219.	.981	5.	21.8	2530.	1777.
3000.	7.7	3925.	1.271	7.	30.1	2213.	1465.
3500.	8.2	4670.	1.620	9.	41.2	1890.	1149.

ALT. 20000.

500.	6.0	613.	.151	1.	2.6	3944.	3177.
1000.	6.1	1233.	.314	1.	5.7	3699.	2935.
1500.	6.3	1862.	.490	2.	9.3	3459.	2699.
2000.	6.6	2498.	.681	3.	13.3	3225.	2469.
2500.	6.8	3145.	.889	4.	18.0	2994.	2242.
3000.	7.0	3802.	1.118	5.	23.5	2766.	2019.
3500.	7.3	4470.	1.370	7.	29.9	2541.	1800.

ALT. 30000.

500.	5.9	611.	.149	1.	2.5	4020.	3254.
1000.	6.0	1227.	.306	1.	5.4	3849.	3086.
1500.	6.2	1847.	.472	2.	8.6	3681.	2922.
2000.	6.3	2471.	.647	3.	12.0	3515.	2760.
2500.	6.4	3101.	.832	4.	15.8	3352.	2601.
3000.	6.6	3733.	1.028	5.	20.0	3191.	2445.
3500.	6.7	4371.	1.236	6.	24.6	3031.	2290.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 5.0
 ANGLE OFF 40.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	7.8	601.	.150	1.	2.5	3851.	3142.
1000.	8.1	1212.	.316	1.	5.4	3518.	2813.
1500.	8.5	1834.	.501	2.	9.2	3195.	2493.
2000.	8.9	2470.	.710	3.	13.7	2880.	2182.
2500.	9.3	3122.	.947	5.	19.5	2571.	1877.
3000.	9.8	3794.	1.220	6.	26.7	2265.	1577.
3500.	10.4	4494.	1.542	9.	36.3	1958.	1276.

ALT. 20000.

500.	7.7	600.	.148	1.	2.4	3949.	3241.
1000.	7.9	1206.	.306	1.	5.2	3709.	3005.
1500.	8.1	1818.	.478	2.	8.4	3475.	2775.
2000.	8.4	2435.	.663	3.	11.9	3246.	2551.
2500.	8.7	3061.	.864	4.	16.1	3021.	2330.
3000.	9.0	3695.	1.083	5.	21.0	2799.	2115.
3500.	9.3	4336.	1.323	6.	26.6	2581.	1902.

ALT. 30000.

500.	7.6	598.	.146	1.	2.3	4024.	3317.
1000.	7.7	1200.	.299	1.	4.9	3857.	3153.
1500.	7.9	1806.	.461	2.	7.8	3692.	2993.
2000.	8.1	2414.	.631	3.	10.8	3530.	2836.
2500.	8.3	3025.	.811	3.	14.2	3370.	2681.
3000.	8.5	3638.	1.000	4.	17.9	3213.	2530.
3500.	8.6	4254.	1.201	5.	22.0	3057.	2380.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 5.0
ANGLE OFF 50.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	9.2	586.	.146	1.	2.2	3859.	3227.
1000.	9.6	1178.	.307	1.	4.8	3536.	2906.
1500.	10.1	1780.	.485	2.	8.0	3222.	2596.
2000.	10.5	2390.	.684	3.	11.8	2917.	2295.
2500.	11.1	3011.	.907	4.	16.7	2619.	2002.
3000.	11.6	3647.	1.161	6.	22.7	2326.	1715.
3500.	12.2	4300.	1.455	8.	30.5	2035.	1430.

ALT. 20000.

500.	9.1	584.	.144	1.	2.0	3955.	3323.
1000.	9.4	1173.	.298	1.	4.5	3722.	3094.
1500.	9.7	1765.	.463	2.	7.2	3494.	2871.
2000.	10.0	2363.	.641	3.	10.3	3271.	2653.
2500.	10.3	2964.	.833	4.	13.9	3053.	2440.
3000.	10.7	3571.	1.042	5.	17.9	2839.	2233.
3500.	11.0	4181.	1.268	6.	22.6	2629.	2029.

ALT. 30000.

500.	9.0	584.	.142	1.	2.2	4028.	3397.
1000.	9.2	1168.	.291	1.	4.2	3865.	3239.
1500.	9.4	1755.	.448	2.	6.6	3705.	3084.
2000.	9.6	2345.	.612	3.	9.3	3547.	2931.
2500.	9.8	2935.	.785	3.	12.2	3392.	2782.
3000.	10.1	3527.	.967	4.	15.4	3239.	2636.
3500.	10.3	4119.	1.159	5.	18.8	3089.	2492.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 6.0
 ANGLE OFF 0.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	0.0	634.	.158	1.	3.7	3833.	2990.
1000.	0.0	1283.	.335	1.	8.3	3483.	2640.
1500.	0.0	1952.	.535	2.	14.0	3141.	2298.
2000.	0.0	2644.	.764	4.	21.0	2805.	1963.
2500.	0.0	3365.	1.029	5.	29.8	2473.	1633.
3000.	0.0	4127.	1.346	7.	41.4	2138.	1300.
3500.	0.0	4947.	1.740	10.	57.5	1792.	957.

ALT. 20000.

500.	0.0	630.	.155	1.	3.6	3937.	3093.
1000.	0.0	1272.	.323	1.	7.8	3685.	2842.
1500.	0.0	1926.	.506	2.	12.7	3438.	2595.
2000.	0.0	2592.	.706	3.	18.3	3195.	2353.
2500.	0.0	3271.	.925	4.	24.8	2956.	2115.
3000.	0.0	3967.	1.168	6.	32.5	2720.	1880.
3500.	0.0	4679.	1.438	7.	41.7	2484.	1647.

ALT. 30000.

500.	0.0	629.	.153	1.	3.6	4015.	3172.
1000.	0.0	1266.	.315	1.	7.5	3840.	2996.
1500.	0.0	1909.	.487	2.	11.8	3666.	2823.
2000.	0.0	2560.	.669	3.	16.6	3495.	2653.
2500.	0.0	3217.	.861	4.	21.9	3327.	2485.
3000.	0.0	3880.	1.066	5.	27.3	3160.	2320.
3500.	0.0	4550.	1.285	6.	34.3	2995.	2157.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 6.0
ANGLE OFF 10.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	2.1	630.	.157	1.	3.7	3835.	3001.
1000.	2.2	1277.	.334	1.	8.2	3486.	2653.
1500.	2.3	1941.	.533	2.	13.8	3145.	2315.
2000.	2.4	2627.	.760	4.	20.7	2811.	1983.
2500.	2.5	3339.	1.024	5.	29.5	2480.	1656.
3000.	2.7	4086.	1.336	7.	40.9	2147.	1328.
3500.	2.9	4888.	1.725	10.	56.8	1803.	989.

ALT. 20000.

500.	2.1	629.	.155	1.	3.6	3938.	3103.
1000.	2.1	1267.	.322	1.	7.7	3686.	2854.
1500.	2.2	1917.	.505	2.	12.5	3440.	2610.
2000.	2.3	2576.	.703	3.	18.0	3199.	2371.
2500.	2.4	3249.	.921	4.	24.4	2961.	2136.
3000.	2.4	3934.	1.162	6.	32.0	2725.	1904.
3500.	2.5	4634.	1.430	7.	40.9	2491.	1674.

ALT. 30000.

500.	2.0	627.	.153	1.	3.5	4016.	3182.
1000.	2.1	1260.	.314	1.	7.4	3841.	3009.
1500.	2.1	1900.	.485	2.	11.6	3668.	2838.
2000.	2.2	2545.	.666	3.	16.3	3498.	2670.
2500.	2.2	3195.	.858	4.	21.5	3330.	2505.
3000.	2.3	3852.	1.062	5.	27.2	3164.	2342.
3500.	2.3	4513.	1.280	6.	33.6	2999.	2181.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 6.0
 ANGLE OFF 20.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	4.1	625.	.156	1.	3.6	3838.	3029.
1000.	4.3	1263.	.330	1.	7.9	3492.	2687.
1500.	4.5	1916.	.526	2.	13.2	3156.	2354.
2000.	4.8	2589.	.750	3.	19.8	2825.	2027.
2500.	5.0	3285.	1.007	5.	28.2	2499.	1706.
3000.	5.3	4010.	1.311	7.	39.0	2172.	1386.
3500.	5.6	4779.	1.684	10.	53.9	1837.	1058.

ALT. 20000.

500.	4.1	622.	.153	1.	3.4	3940.	3132.
1000.	4.2	1254.	.319	1.	7.4	3691.	2886.
1500.	4.3	1893.	.499	2.	12.0	3448.	2646.
2000.	4.5	2543.	.695	3.	17.2	3209.	2411.
2500.	4.6	3202.	.909	4.	23.3	2973.	2180.
3000.	4.8	3873.	1.145	5.	30.5	2741.	1953.
3500.	5.0	4556.	1.407	7.	39.0	2510.	1728.

ALT. 30000.

500.	4.0	620.	.151	1.	3.3	4018.	3210.
1000.	4.1	1248.	.311	1.	7.1	3844.	3039.
1500.	4.2	1879.	.480	2.	11.1	3673.	2872.
2000.	4.3	2514.	.658	3.	15.6	3505.	2707.
2500.	4.4	3155.	.848	4.	20.5	3338.	2545.
3000.	4.5	3798.	1.049	5.	26.0	3174.	2386.
3500.	4.6	4446.	1.263	6.	32.0	3012.	2228.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 6.0
ANGLE OFF 30.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	6.0	614.	.153	1.	3.2	3844.	3078.
1000.	6.3	1240.	.324	1.	7.3	3504.	2741.
1500.	6.6	1879.	.515	2.	12.3	3173.	2415.
2000.	6.9	2534.	.733	3.	18.4	2849.	2096.
2500.	7.3	3207.	.981	5.	26.1	2530.	1783.
3000.	7.7	3903.	1.271	7.	35.9	2213.	1473.
3500.	8.2	4631.	1.620	9.	49.2	1890.	1160.

ALT. 20000.

500.	6.0	612.	.151	1.	3.2	3944.	3178.
1000.	6.1	1232.	.314	1.	6.9	3699.	2937.
1500.	6.3	1860.	.490	2.	11.2	3459.	2702.
2000.	6.6	2493.	.681	3.	16.0	3225.	2473.
2500.	6.8	3136.	.889	4.	21.6	2994.	2247.
3000.	7.0	3786.	1.118	5.	28.1	2766.	2026.
3500.	7.3	4444.	1.370	7.	35.8	2541.	1809.

ALT. 30000.

500.	5.9	611.	.149	1.	3.1	4020.	3255.
1000.	6.0	1226.	.306	1.	6.6	3849.	3088.
1500.	6.2	1845.	.472	2.	10.3	3681.	2925.
2000.	6.3	2467.	.647	3.	14.5	3515.	2764.
2500.	6.4	3093.	.832	4.	19.0	3352.	2606.
3000.	6.6	3720.	1.028	5.	24.0	3191.	2451.
3500.	6.7	4351.	1.236	6.	29.5	3031.	2299.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 6.0
 ANGLE OFF 40.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	7.8	601.	.150	1.	3.0	3851.	3143.
1000.	8.1	1211.	.316	1.	6.6	3518.	2815.
1500.	8.5	1831.	.501	2.	11.0	3195.	2497.
2000.	8.9	2464.	.710	3.	16.5	2880.	2188.
2500.	9.3	3110.	.947	5.	23.2	2571.	1885.
3000.	9.8	3773.	1.220	6.	31.8	2265.	1587.
3500.	10.4	4457.	1.542	9.	43.1	1958.	1290.

ALT. 20000.

500.	7.7	600.	.148	1.	2.9	3949.	3242.
1000.	7.9	1205.	.306	1.	6.3	3709.	3007.
1500.	8.1	1816.	.478	2.	10.1	3475.	2779.
2000.	8.4	2430.	.663	3.	14.3	3246.	2556.
2500.	8.7	3051.	.864	4.	19.3	3021.	2337.
3000.	9.0	3678.	1.083	5.	25.1	2799.	2123.
3500.	9.3	4310.	1.323	7.	31.8	2581.	1913.

ALT. 30000.

500.	7.6	598.	.146	1.	2.8	4024.	3318.
1000.	7.7	1199.	.299	1.	5.9	3857.	3156.
1500.	7.9	1804.	.461	2.	9.4	3692.	2997.
2000.	8.1	2409.	.631	3.	13.0	3530.	2841.
2500.	8.3	3017.	.811	4.	17.1	3370.	2688.
3000.	8.5	3625.	1.000	4.	21.5	3213.	2538.
3500.	8.6	4233.	1.201	5.	26.3	3057.	2391.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 6.0
ANGLE OFF 50.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	9.2	585.	.146	1.	2.6	3859.	3228.
1000.	9.6	1177.	.307	1.	5.8	3536.	2909.
1500.	10.1	1777.	.485	2.	9.6	3222.	2600.
2000.	10.5	2383.	.684	3.	14.1	2917.	2302.
2500.	11.1	3000.	.907	4.	19.8	2619.	2011.
3000.	11.6	3626.	1.161	6.	26.9	2326.	1726.
3500.	12.2	4265.	1.455	8.	36.0	2035.	1445.

ALT. 20000.

500.	9.1	584.	.144	1.	2.5	3955.	3325.
1000.	9.4	1171.	.298	1.	5.4	3722.	3097.
1500.	9.7	1763.	.463	2.	8.6	3494.	2875.
2000.	10.0	2357.	.641	3.	12.4	3271.	2659.
2500.	10.3	2954.	.833	4.	16.6	3053.	2449.
3000.	10.7	3554.	1.042	5.	21.4	2839.	2243.
3500.	11.0	4156.	1.268	6.	26.9	2629.	2042.

ALT. 30000.

500.	9.0	584.	.142	1.	2.6	4028.	3398.
1000.	9.2	1167.	.291	1.	5.1	3865.	3242.
1500.	9.4	1753.	.446	2.	8.0	3705.	3088.
2000.	9.6	2340.	.612	3.	11.2	3547.	2937.
2500.	9.8	2926.	.785	3.	14.6	3392.	2790.
3000.	10.1	3513.	.967	4.	18.4	3239.	2646.
3500.	10.3	4098.	1.159	5.	22.4	3089.	2504.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 1.0
 ANGLE OFF 0.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	0.0	670.	.167	1.	0.0	3814.	2801.
1000.	0.0	1363.	.358	2.	0.0	3442.	2429.
1500.	0.0	2090.	.578	3.	0.0	3075.	2062.
2000.	0.0	2860.	.836	4.	0.0	2710.	1697.
2500.	0.0	3696.	1.148	6.	0.0	2340.	1328.
3000.	0.0	4646.	1.549	8.	0.0	1951.	938.
3500.	0.0	5876.	2.152	13.	0.0	1491.	479.

ALT. 20000.

500.	0.0	666.	.164	1.	0.0	3923.	2910.
1000.	0.0	1349.	.344	1.	0.0	3656.	2643.
1500.	0.0	2051.	.542	2.	0.0	3393.	2380.
2000.	0.0	2776.	.761	3.	0.0	3133.	2121.
2500.	0.0	3530.	1.006	5.	0.0	2875.	1862.
3000.	0.0	4323.	1.283	6.	0.0	2616.	1603.
3500.	0.0	5168.	1.602	8.	0.0	2353.	1341.

ALT. 30000.

500.	0.0	665.	.162	1.	0.0	4005.	2993.
1000.	0.0	1338.	.334	1.	0.0	3820.	2807.
1500.	0.0	2026.	.518	2.	0.0	3636.	2623.
2000.	0.0	2726.	.714	3.	0.0	3454.	2442.
2500.	0.0	3441.	.924	4.	0.0	3274.	2262.
3000.	0.0	4174.	1.150	5.	0.0	3095.	2083.
3500.	0.0	4927.	1.395	6.	0.0	2917.	1905.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 1.0
ANGLE OFF 10.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	2.5	666.	.166	1.	0.0	3815.	2811.
1000.	2.6	1359.	.356	2.	0.0	3444.	2440.
1500.	2.8	2080.	.575	3.	0.0	3079.	2075.
2000.	2.9	2845.	.830	4.	0.0	2717.	1712.
2500.	3.1	3674.	1.140	6.	0.0	2350.	1344.
3000.	3.4	4613.	1.535	8.	0.0	1964.	958.
3500.	3.7	5810.	2.117	12.	0.0	1515.	508.

ALT. 20000.

500.	2.5	663.	.163	1.	0.0	3924.	2920.
1000.	2.6	1343.	.342	1.	0.0	3658.	2654.
1500.	2.7	2041.	.539	2.	0.0	3396.	2392.
2000.	2.8	2763.	.757	3.	0.0	3138.	2133.
2500.	2.9	3513.	1.000	5.	0.0	2881.	1876.
3000.	3.0	4301.	1.275	6.	0.0	2623.	1618.
3500.	3.1	5138.	1.591	8.	0.0	2362.	1357.

ALT. 30000.

500.	2.5	662.	.161	1.	0.0	4006.	3002.
1000.	2.5	1334.	.333	1.	0.0	3821.	2817.
1500.	2.6	2016.	.515	2.	0.0	3639.	2634.
2000.	2.6	2713.	.711	3.	0.0	3458.	2453.
2500.	2.7	3426.	.920	4.	0.0	3278.	2274.
3000.	2.8	4155.	1.145	5.	0.0	3100.	2095.
3500.	2.9	4904.	1.387	6.	0.0	2923.	1918.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 1.0
 ANGLE OFF 20.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	5.0	659.	.164	1.	0.0	3820.	2842.
1000.	5.2	1341.	.351	1.	0.0	3453.	2474.
1500.	5.5	2052.	.566	3.	0.0	3093.	2113.
2000.	5.8	2802.	.816	4.	0.0	2737.	1755.
2500.	6.1	3612.	1.115	6.	0.0	2376.	1393.
3000.	6.6	4518.	1.492	8.	0.0	2002.	1017.
3500.	7.2	5634.	2.025	12.	0.0	1578.	591.

ALT. 20000.

500.	4.9	657.	.162	1.	0.0	3926.	2949.
1000.	5.1	1327.	.338	1.	0.0	3664.	2686.
1500.	5.2	2016.	.532	2.	0.0	3406.	2426.
2000.	5.4	2727.	.746	3.	0.0	3150.	2170.
2500.	5.6	3463.	.983	4.	0.0	2897.	1916.
3000.	5.9	4235.	1.251	6.	0.0	2644.	1662.
3500.	6.1	5051.	1.557	8.	0.0	2389.	1406.

ALT. 30000.

500.	4.8	654.	.159	1.	0.0	4008.	3031.
1000.	5.0	1318.	.329	1.	0.0	3825.	2848.
1500.	5.1	1993.	.509	2.	0.0	3645.	2666.
2000.	5.2	2680.	.701	3.	0.0	3466.	2487.
2500.	5.3	3382.	.907	4.	0.0	3289.	2309.
3000.	5.5	4099.	1.127	5.	0.0	3113.	2133.
3500.	5.6	4835.	1.364	6.	0.0	2939.	1958.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 1.0
ANGLE OFF 30.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	7.3	646.	.161	1.	0.0	3826.	2893.
1000.	7.6	1313.	.343	1.	0.0	3468.	2531.
1500.	8.0	2007.	.551	2.	0.0	3116.	2177.
2000.	8.4	2735.	.792	4.	0.0	2768.	1826.
2500.	8.9	3513.	1.077	5.	0.0	2419.	1474.
3000.	9.5	4371.	1.428	8.	0.0	2060.	1112.
3500.	10.3	5384.	1.899	11.	0.0	1669.	716.

ALT. 20000.

500.	7.2	645.	.159	1.	0.0	3931.	2998.
1000.	7.4	1302.	.331	1.	0.0	3674.	2739.
1500.	7.7	1976.	.520	2.	0.0	3421.	2484.
2000.	7.9	2668.	.727	3.	0.0	3171.	2233.
2500.	8.2	3384.	.957	4.	0.0	2924.	1984.
3000.	8.6	4129.	1.213	6.	0.0	2678.	1736.
3500.	8.9	4913.	1.503	7.	0.0	2431.	1486.

ALT. 30000.

500.	7.1	643.	.157	1.	0.0	4012.	3079.
1000.	7.3	1293.	.322	1.	0.0	3832.	2898.
1500.	7.4	1954.	.498	2.	0.0	3655.	2720.
2000.	7.6	2626.	.686	3.	0.0	3480.	2544.
2500.	7.8	3310.	.885	4.	0.0	3307.	2369.
3000.	8.0	4010.	1.099	5.	0.0	3135.	2196.
3500.	8.2	4726.	1.328	6.	0.0	2965.	2024.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 1.0
 ANGLE OFF 40.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	9.3	630.	.157	1.	0.0	3835.	2964.
1000.	9.8	1277.	.333	1.	0.0	3486.	2611.
1500.	10.3	1948.	.533	2.	0.0	3145.	2266.
2000.	10.8	2648.	.762	4.	0.0	2808.	1924.
2500.	11.4	3387.	1.029	5.	0.0	2474.	1585.
3000.	12.1	4187.	1.349	7.	0.0	2135.	1240.
3500.	13.0	5095.	1.757	10.	0.0	1778.	876.

ALT. 20000.

500.	9.2	627.	.154	1.	0.0	3938.	3068.
1000.	9.5	1268.	.322	1.	0.0	3687.	2814.
1500.	9.8	1921.	.504	2.	0.0	3441.	2565.
2000.	10.2	2590.	.703	3.	0.0	3199.	2320.
2500.	10.5	3279.	.922	4.	0.0	2960.	2078.
3000.	10.9	3993.	1.165	5.	0.0	2722.	1837.
3500.	11.4	4737.	1.436	7.	0.0	2486.	1597.

ALT. 30000.

500.	9.1	626.	.152	1.	0.0	4016.	3147.
1000.	9.3	1260.	.314	1.	0.0	3841.	2970.
1500.	9.5	1902.	.484	2.	0.0	3669.	2796.
2000.	9.8	2555.	.666	3.	0.0	3498.	2623.
2500.	10.0	3218.	.858	4.	0.0	3330.	2453.
3000.	10.2	3893.	1.062	5.	0.0	3163.	2284.
3500.	10.5	4580.	1.281	6.	0.0	2999.	2117.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 1.0
ANGLE OFF 50.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	11.1	610.	.152	1.	0.0	3846.	3058.
1000.	11.6	1235.	.321	1.	0.0	3509.	2715.
1500.	12.2	1877.	.511	2.	0.0	3180.	2380.
2000.	12.8	2543.	.726	3.	0.0	2857.	2051.
2500.	13.5	3240.	.973	5.	0.0	2539.	1725.
3000.	14.3	3982.	1.264	6.	0.0	2220.	1398.
3500.	15.2	4793.	1.616	9.	0.0	1893.	1062.

ALT. 20000.

500.	11.0	609.	.150	1.	0.0	3946.	3159.
1000.	11.3	1227.	.311	1.	0.0	3703.	2912.
1500.	11.7	1855.	.485	2.	0.0	3465.	2670.
2000.	12.1	2498.	.675	3.	0.0	3232.	2432.
2500.	12.5	3155.	.882	4.	0.0	3002.	2198.
3000.	13.0	3832.	1.109	5.	0.0	2775.	1966.
3500.	13.5	4534.	1.360	7.	0.0	2549.	1736.

ALT. 30000.

500.	10.9	607.	.148	1.	0.0	4022.	3236.
1000.	11.1	1221.	.304	1.	0.0	3852.	3064.
1500.	11.4	1841.	.468	2.	0.0	3685.	2894.
2000.	11.6	2470.	.641	3.	0.0	3520.	2726.
2500.	11.9	3105.	.824	4.	0.0	3358.	2561.
3000.	12.2	3752.	1.019	4.	0.0	3198.	2398.
3500.	12.5	4410.	1.226	5.	0.0	3039.	2236.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC.
ANGLE OFF 0.0 DEG.

ALT. 10000. FT.
TGT. VEL 1013. FT./SEC.

TGT. GEES 2.0
ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	0.0	670.	.167	1.	1.2	3814.	2801.
1000.	0.0	1363.	.358	2.	2.6	3442.	2429.
1500.	0.0	2090.	.578	3.	4.4	3075.	2062.
2000.	0.0	2859.	.836	4.	6.8	2710.	1698.
2500.	0.0	3694.	1.148	6.	9.9	2340.	1328.
3000.	0.0	4640.	1.549	8.	14.4	1951.	939.
3500.	0.0	5861.	2.152	13.	22.0	1491.	479.

ALT. 20000.

500.	0.0	666.	.164	1.	1.1	3923.	2910.
1000.	0.0	1349.	.344	1.	2.4	3656.	2643.
1500.	0.0	2051.	.542	2.	4.0	3393.	2380.
2000.	0.0	2775.	.761	3.	5.8	3133.	2121.
2500.	0.0	3529.	1.006	5.	8.0	2875.	1862.
3000.	0.0	4319.	1.283	6.	10.6	2616.	1604.
3500.	0.0	5162.	1.602	8.	13.9	2353.	1341.

ALT. 30000.

500.	0.0	665.	.162	1.	1.1	4005.	2993.
1000.	0.0	1338.	.334	1.	2.3	3820.	2807.
1500.	0.0	2026.	.518	2.	3.7	3636.	2623.
2000.	0.0	2725.	.714	3.	5.2	3454.	2442.
2500.	0.0	3440.	.924	4.	6.9	3274.	2262.
3000.	0.0	4172.	1.150	5.	8.8	3095.	2083.
3500.	0.0	4923.	1.395	6.	11.0	2917.	1905.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 2.0
ANGLE OFF 10.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	2.5	666.	.166	1.	1.1	3815.	2812.
1000.	2.6	1358.	.356	2.	2.6	3444.	2441.
1500.	2.8	2079.	.575	3.	4.5	3079.	2076.
2000.	2.9	2841.	.830	4.	6.9	2717.	1714.
2500.	3.1	3668.	1.140	6.	10.2	2350.	1347.
3000.	3.4	4600.	1.535	8.	15.1	1964.	962.
3500.	3.7	5782.	2.117	12.	23.4	1515.	513.

ALT. 20000.

500.	2.5	663.	.163	1.	1.1	3924.	2920.
1000.	2.6	1342.	.342	1.	2.4	3658.	2655.
1500.	2.7	2040.	.539	2.	4.0	3396.	2394.
2000.	2.8	2761.	.757	3.	5.8	3138.	2135.
2500.	2.9	3508.	1.000	5.	8.0	2881.	1878.
3000.	3.0	4292.	1.275	6.	10.7	2623.	1621.
3500.	3.1	5124.	1.591	8.	14.1	2362.	1361.

ALT. 30000.

500.	2.5	662.	.161	1.	1.1	4006.	3003.
1000.	2.5	1333.	.333	1.	2.3	3821.	2818.
1500.	2.6	2015.	.515	2.	3.6	3639.	2636.
2000.	2.6	2711.	.711	3.	5.2	3458.	2455.
2500.	2.7	3422.	.920	4.	6.9	3278.	2276.
3000.	2.8	4149.	1.145	5.	8.8	3100.	2098.
3500.	2.9	4893.	1.387	6.	11.0	2923.	1922.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 2.0
 ANGLE OFF 20.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	5.0	658.	.164	1.	1.1	3820.	2842.
1000.	5.2	1340.	.351	1.	2.6	3453.	2476.
1500.	5.5	2050.	.566	3.	4.4	3093.	2116.
2000.	5.8	2797.	.816	4.	6.8	2737.	1759.
2500.	6.1	3601.	1.115	6.	10.2	2376.	1399.
3000.	6.6	4499.	1.492	8.	15.1	2002.	1024.
3500.	7.2	5596.	2.025	12.	23.3	1578.	600.

ALT. 20000.

500.	4.9	657.	.162	1.	1.2	3926.	2949.
1000.	5.1	1326.	.338	1.	2.3	3664.	2688.
1500.	5.2	2014.	.532	2.	3.9	3406.	2429.
2000.	5.4	2723.	.746	3.	5.7	3150.	2174.
2500.	5.6	3455.	.983	5.	7.8	2897.	1921.
3000.	5.9	4222.	1.251	6.	10.5	2644.	1668.
3500.	6.1	5029.	1.557	8.	13.8	2389.	1414.

ALT. 30000.

500.	4.8	654.	.159	1.	1.0	4008.	3032.
1000.	5.0	1317.	.329	1.	2.2	3825.	2849.
1500.	5.1	1991.	.509	2.	3.5	3645.	2669.
2000.	5.2	2676.	.701	3.	5.0	3466.	2491.
2500.	5.3	3375.	.907	4.	6.7	3289.	2314.
3000.	5.5	4088.	1.127	5.	8.5	3113.	2139.
3500.	5.6	4819.	1.364	6.	10.6	2939.	1965.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 2.0
ANGLE OFF 30.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	7.3	646.	.161	1.	.9	3826.	2894.
1000.	7.6	1312.	.343	1.	2.4	3468.	2534.
1500.	8.0	2004.	.551	2.	4.2	3116.	2181.
2000.	8.4	2728.	.792	4.	6.5	2768.	1832.
2500.	8.9	3500.	1.077	5.	9.7	2419.	1482.
3000.	9.5	4347.	1.428	8.	14.3	2060.	1122.
3500.	10.3	5340.	1.899	11.	21.9	1669.	729.

ALT. 20000.

500.	7.2	644.	.159	1.	1.1	3931.	2999.
1000.	7.4	1301.	.331	1.	2.3	3674.	2742.
1500.	7.7	1973.	.520	2.	3.7	3421.	2488.
2000.	7.9	2662.	.727	3.	5.3	3171.	2238.
2500.	8.2	3373.	.957	4.	7.4	2924.	1991.
3000.	8.6	4111.	1.213	6.	9.9	2678.	1745.
3500.	8.9	4886.	1.503	7.	13.0	2431.	1498.

ALT. 30000.

500.	7.1	643.	.157	1.	1.1	4012.	3080.
1000.	7.3	1292.	.322	1.	2.1	3832.	2901.
1500.	7.4	1951.	.498	2.	3.3	3655.	2724.
2000.	7.6	2620.	.686	3.	4.7	3480.	2549.
2500.	7.8	3301.	.885	4.	6.2	3307.	2377.
3000.	8.0	3996.	1.099	5.	8.0	3135.	2205.
3500.	8.2	4704.	1.328	6.	10.0	2965.	2035.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 2.0
 ANGLE OFF 40.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	9.3	630.	.157	1.	1.0	3835.	2966.
1000.	9.8	1276.	.333	1.	2.1	3486.	2615.
1500.	10.3	1944.	.533	2.	3.8	3145.	2271.
2000.	10.8	2639.	.762	4.	6.0	2808.	1932.
2500.	11.4	3371.	1.029	5.	8.9	2474.	1595.
3000.	12.1	4160.	1.349	7.	13.0	2135.	1253.
3500.	13.0	5048.	1.757	10.	19.4	1778.	892.

ALT. 20000.

500.	9.2	627.	.154	1.	.8	3938.	3070.
1000.	9.5	1266.	.322	1.	2.0	3687.	2818.
1500.	9.8	1917.	.504	2.	3.3	3441.	2571.
2000.	10.2	2583.	.703	3.	4.8	3199.	2328.
2500.	10.5	3266.	.922	4.	6.7	2960.	2088.
3000.	10.9	3973.	1.165	5.	9.0	2722.	1849.
3500.	11.4	4705.	1.436	7.	11.8	2486.	1611.

ALT. 30000.

500.	9.1	625.	.152	1.	.8	4016.	3149.
1000.	9.3	1259.	.314	1.	1.9	3841.	2974.
1500.	9.5	1899.	.484	2.	3.0	3669.	2801.
2000.	9.8	2549.	.666	3.	4.3	3498.	2631.
2500.	10.0	3207.	.858	4.	5.7	3330.	2462.
3000.	10.2	3876.	1.062	5.	7.3	3163.	2296.
3500.	10.5	4555.	1.281	6.	9.0	2999.	2131.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 2.0
ANGLE OFF 50.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	11.1	610.	.152	1.	.8	3846.	3060.
1000.	11.6	1233.	.321	1.	1.9	3509.	2719.
1500.	12.2	1873.	.511	2.	3.3	3180.	2387.
2000.	12.8	2534.	.726	3.	5.2	2857.	2060.
2500.	13.5	3223.	.973	5.	7.7	2539.	1738.
3000.	14.3	3954.	1.264	6.	11.3	2220.	1414.
3500.	15.2	4746.	1.616	9.	16.4	1893.	1082.

ALT. 20000.

500.	11.0	608.	.150	1.	.8	3946.	3161.
1000.	11.3	1226.	.311	1.	1.9	3703.	2916.
1500.	11.7	1851.	.485	2.	2.9	3465.	2677.
2000.	12.1	2489.	.675	3.	4.2	3232.	2442.
2500.	12.5	3141.	.882	4.	5.8	3002.	2210.
3000.	13.0	3810.	1.109	5.	7.8	2775.	1981.
3500.	13.5	4500.	1.360	7.	10.3	2549.	1753.

ALT. 30000.

500.	10.9	607.	.148	1.	.7	4022.	3238.
1000.	11.1	1219.	.304	1.	1.7	3852.	3068.
1500.	11.4	1837.	.468	2.	2.7	3685.	2900.
2000.	11.6	2462.	.641	3.	3.7	3520.	2735.
2500.	11.9	3093.	.824	4.	4.9	3358.	2573.
3000.	12.2	3733.	1.019	4.	6.3	3198.	2412.
3500.	12.5	4382.	1.226	6.	7.9	3039.	2253.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 3.0
 ANGLE OFF 0.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	0.0	670.	.167	1.	1.9	3814.	2801.
1000.	0.0	1363.	.358	2.	4.3	3442.	2429.
1500.	0.0	2089.	.578	3.	7.3	3075.	2062.
2000.	0.0	2858.	.836	4.	11.1	2710.	1698.
2500.	0.0	3690.	1.148	6.	16.2	2340.	1328.
3000.	0.0	4631.	1.549	8.	23.5	1951.	939.
3500.	0.0	5835.	2.152	13.	36.0	1491.	481.

ALT. 20000.

500.	0.0	666.	.164	1.	1.8	3923.	2910.
1000.	0.0	1349.	.344	1.	4.0	3656.	2643.
1500.	0.0	2050.	.542	2.	6.5	3393.	2381.
2000.	0.0	2774.	.761	3.	9.5	3133.	2121.
2500.	0.0	3526.	1.006	5.	13.0	2875.	1863.
3000.	0.0	4314.	1.283	6.	17.3	2616.	1604.
3500.	0.0	5151.	1.602	8.	22.6	2353.	1342.

ALT. 30000.

500.	0.0	665.	.162	1.	1.8	4005.	2993.
1000.	0.0	1338.	.334	1.	3.8	3820.	2807.
1500.	0.0	2025.	.518	2.	6.0	3636.	2624.
2000.	0.0	2724.	.714	3.	8.5	3454.	2442.
2500.	0.0	3438.	.924	4.	11.3	3274.	2262.
3000.	0.0	4168.	1.150	5.	14.4	3095.	2083.
3500.	0.0	4916.	1.395	6.	18.0	2917.	1906.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 3.0
ANGLE OFF 10.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	2.5	666.	.166	1.	1.9	3815.	2812.
1000.	2.6	1358.	.356	2.	4.3	3444.	2441.
1500.	2.8	2078.	.575	3.	7.3	3079.	2077.
2000.	2.9	2838.	.830	4.	11.2	2717.	1716.
2500.	3.1	3661.	1.140	6.	16.4	2350.	1349.
3000.	3.4	4586.	1.535	8.	24.0	1964.	964.
3500.	3.7	5750.	2.117	13.	37.0	1515.	517.

ALT. 20000.

500.	2.5	663.	.163	1.	1.8	3924.	2921.
1000.	2.6	1342.	.342	1.	3.9	3658.	2656.
1500.	2.7	2039.	.539	2.	6.5	3396.	2395.
2000.	2.8	2758.	.757	3.	9.4	3138.	2136.
2500.	2.9	3504.	1.000	5.	13.0	2881.	1880.
3000.	3.0	4283.	1.275	6.	17.3	2623.	1624.
3500.	3.1	5108.	1.591	8.	22.7	2362.	1364.

ALT. 30000.

500.	2.5	662.	.161	1.	1.8	4006.	3003.
1000.	2.5	1333.	.333	1.	3.8	3821.	2819.
1500.	2.6	2014.	.515	2.	5.9	3639.	2637.
2000.	2.6	2709.	.711	3.	8.4	3458.	2457.
2500.	2.7	3418.	.920	4.	11.2	3278.	2278.
3000.	2.8	4142.	1.145	5.	14.3	3100.	2101.
3500.	2.9	4882.	1.387	6.	17.8	2923.	1925.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 3.0
 ANGLE OFF 20.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	5.0	658.	.164	1.	1.8	3820.	2843.
1000.	5.2	1340.	.351	1.	4.1	3453.	2477.
1500.	5.5	2048.	.566	3.	7.1	3093.	2118.
2000.	5.8	2793.	.816	4.	10.9	2737.	1762.
2500.	6.1	3593.	1.115	6.	16.0	2376.	1402.
3000.	6.6	4481.	1.492	8.	23.5	2002.	1028.
3500.	7.2	5560.	2.025	12.	35.8	1578.	606.

ALT. 20000.

500.	4.9	657.	.162	1.	1.8	3926.	2950.
1000.	5.1	1326.	.338	1.	3.8	3664.	2689.
1500.	5.2	2013.	.532	2.	6.2	3406.	2431.
2000.	5.4	2719.	.746	3.	9.1	3150.	2177.
2500.	5.6	3449.	.983	5.	12.6	2897.	1925.
3000.	5.9	4210.	1.251	6.	16.8	2644.	1673.
3500.	6.1	5010.	1.557	8.	22.0	2389.	1419.

ALT. 30000.

500.	4.8	654.	.159	1.	1.7	4008.	3032.
1000.	5.0	1317.	.329	1.	3.6	3825.	2851.
1500.	5.1	1989.	.509	2.	5.7	3645.	2671.
2000.	5.2	2673.	.701	3.	8.1	3466.	2493.
2500.	5.3	3370.	.907	4.	10.8	3289.	2318.
3000.	5.5	4079.	1.127	5.	13.8	3113.	2143.
3500.	5.6	4804.	1.364	6.	17.2	2939.	1970.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 3.0
ANGLE OFF 30.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	7.3	646.	.161	1.	1.6	3826.	2895.
1000.	7.6	1311.	.343	1.	3.8	3468.	2536.
1500.	8.0	2001.	.551	2.	6.6	3116.	2184.
2000.	8.4	2723.	.792	4.	10.2	2768.	1836.
2500.	8.9	3490.	1.077	5.	15.1	2419.	1487.
3000.	9.5	4328.	1.428	8.	22.8	2060.	1129.
3500.	10.3	5303.	1.899	11.	32.9	1669.	738.

ALT. 20000.

500.	7.2	644.	.159	1.	1.7	3931.	3000.
1000.	7.4	1300.	.331	1.	3.6	3674.	2743.
1500.	7.7	1971.	.520	2.	5.9	3421.	2491.
2000.	7.9	2657.	.727	3.	8.6	3171.	2242.
2500.	8.2	3365.	.957	4.	11.8	2924.	1996.
3000.	8.6	4098.	1.213	6.	15.7	2678.	1751.
3500.	8.9	4864.	1.503	7.	20.5	2431.	1505.

ALT. 30000.

500.	7.1	643.	.157	1.	1.7	4012.	3081.
1000.	7.3	1291.	.322	1.	3.4	3832.	2903.
1500.	7.4	1949.	.498	2.	5.4	3655.	2727.
2000.	7.6	2616.	.686	3.	7.6	3480.	2553.
2500.	7.8	3294.	.885	4.	10.0	3307.	2381.
3000.	8.0	3985.	1.099	5.	12.9	3135.	2211.
3500.	8.2	4687.	1.328	6.	16.0	2965.	2042.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 3.0
 ANGLE OFF 40.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	9.3	630.	.157	1.	1.6	3835.	2967.
1000.	9.8	1275.	.333	1.	3.4	3486.	2617.
1500.	10.3	1941.	.533	2.	6.0	3145.	2275.
2000.	10.8	2633.	.762	4.	9.3	2808.	1937.
2500.	11.4	3360.	1.029	5.	13.7	2474.	1602.
3000.	12.1	4139.	1.349	7.	19.7	2135.	1262.
3500.	13.0	5012.	1.757	10.	28.8	1778.	903.

ALT. 20000.

500.	9.2	627.	.154	1.	1.4	3938.	3071.
1000.	9.5	1265.	.322	1.	3.3	3687.	2820.
1500.	9.8	1915.	.504	2.	5.3	3441.	2574.
2000.	10.2	2577.	.703	3.	7.7	3199.	2333.
2500.	10.5	3257.	.922	4.	10.6	2960.	2094.
3000.	10.9	3958.	1.165	6.	14.2	2722.	1857.
3500.	11.4	4682.	1.436	7.	18.4	2486.	1621.

ALT. 30000.

500.	9.1	625.	.152	1.	1.3	4016.	3150.
1000.	9.3	1258.	.314	1.	3.1	3841.	2976.
1500.	9.5	1897.	.484	2.	4.8	3669.	2805.
2000.	9.8	2544.	.666	3.	6.9	3498.	2635.
2500.	10.0	3199.	.858	4.	9.1	3330.	2469.
3000.	10.2	3863.	1.062	5.	11.6	3163.	2303.
3500.	10.5	4536.	1.281	6.	14.4	2999.	2140.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 3.0
ANGLE OFF 50.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	11.1	609.	.152	1.	1.3	3846.	3061.
1000.	11.6	1232.	.321	1.	3.1	3509.	2722.
1500.	12.2	1870.	.511	2.	5.2	3180.	2391.
2000.	12.8	2527.	.726	3.	8.1	2857.	2067.
2500.	13.5	3211.	.973	5.	11.8	2539.	1746.
3000.	14.3	3933.	1.264	7.	16.9	2220.	1424.
3500.	15.2	4712.	1.616	9.	24.1	1893.	1095.

ALT. 20000.

500.	11.0	608.	.150	1.	1.3	3946.	3162.
1000.	11.3	1224.	.311	1.	2.9	3703.	2919.
1500.	11.7	1848.	.485	2.	4.6	3465.	2681.
2000.	12.1	2484.	.675	3.	6.7	3232.	2448.
2500.	12.5	3132.	.882	4.	9.2	3002.	2218.
3000.	13.0	3794.	1.109	5.	12.2	2775.	1991.
3500.	13.5	4476.	1.360	7.	15.9	2549.	1765.

ALT. 30000.

500.	10.9	606.	.148	1.	1.2	4022.	3239.
1000.	11.1	1218.	.304	1.	2.7	3852.	3071.
1500.	11.4	1835.	.468	2.	4.3	3685.	2905.
2000.	11.6	2457.	.641	3.	6.0	3520.	2741.
2500.	11.9	3085.	.824	4.	7.9	3358.	2580.
3000.	12.2	3720.	1.019	4.	10.1	3198.	2421.
3500.	12.5	4363.	1.226	6.	12.5	3039.	2264.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 4.0
 ANGLE OFF 0.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	0.0	669.	.167	1.	2.6	3814.	2801.
1000.	0.0	1363.	.358	2.	5.9	3442.	2429.
1500.	0.0	2088.	.578	3.	10.0	3075.	2063.
2000.	0.0	2856.	.836	4.	15.2	2710.	1698.
2500.	0.0	3685.	1.148	6.	22.3	2340.	1329.
3000.	0.0	4618.	1.549	8.	32.3	1951.	940.
3500.	0.0	5800.	2.152	13.	49.5	1491.	482.

ALT. 20000.

500.	0.0	666.	.164	1.	2.5	3923.	2910.
1000.	0.0	1349.	.344	1.	5.5	3656.	2643.
1500.	0.0	2050.	.542	2.	8.9	3393.	2381.
2000.	0.0	2772.	.761	3.	13.0	3133.	2121.
2500.	0.0	3523.	1.006	5.	17.9	2875.	1863.
3000.	0.0	4307.	1.283	6.	23.8	2616.	1605.
3500.	0.0	5137.	1.602	8.	31.0	2353.	1343.

ALT. 30000.

500.	0.0	665.	.162	1.	2.5	4005.	2993.
1000.	0.0	1338.	.334	1.	5.2	3820.	2807.
1500.	0.0	2025.	.518	2.	8.3	3636.	2624.
2000.	0.0	2723.	.714	3.	11.7	3454.	2442.
2500.	0.0	3435.	.924	4.	15.5	3274.	2262.
3000.	0.0	4163.	1.150	5.	19.8	3095.	2084.
3500.	0.0	4907.	1.395	6.	24.6	2917.	1907.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 4.0
ANGLE OFF 10.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	2.5	666.	.166	1.	2.5	3815.	2812.
1000.	2.6	1357.	.356	2.	5.8	3444.	2442.
1500.	2.8	2076.	.575	3.	9.9	3079.	2078.
2000.	2.9	2835.	.830	4.	15.2	2717.	1717.
2500.	3.1	3653.	1.140	6.	22.3	2350.	1351.
3000.	3.4	4569.	1.535	8.	32.5	1964.	967.
3500.	3.7	5709.	2.117	13.	50.0	1515.	521.

ALT. 20000.

500.	2.5	663.	.163	1.	2.5	3924.	2921.
1000.	2.6	1342.	.342	1.	5.4	3658.	2656.
1500.	2.7	2038.	.539	2.	8.8	3396.	2396.
2000.	2.8	2756.	.757	3.	12.9	3138.	2138.
2500.	2.9	3498.	1.000	5.	17.7	2881.	1882.
3000.	3.0	4273.	1.275	6.	23.6	2623.	1626.
3500.	3.1	5089.	1.591	8.	30.9	2362.	1368.

ALT. 30000.

500.	2.5	661.	.161	1.	2.4	4006.	3003.
1000.	2.5	1332.	.333	1.	5.1	3821.	2819.
1500.	2.6	2013.	.515	2.	8.1	3639.	2638.
2000.	2.6	2707.	.711	3.	11.5	3458.	2458.
2500.	2.7	3413.	.920	4.	15.3	3278.	2280.
3000.	2.8	4134.	1.145	5.	19.5	3100.	2103.
3500.	2.9	4869.	1.387	6.	24.3	2923.	1928.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 4.0
 ANGLE OFF 20.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	5.0	658.	.164	1.	2.4	3820.	2844.
1000.	5.2	1339.	.351	1.	5.6	3453.	2478.
1500.	5.5	2046.	.566	3.	9.6	3093.	2120.
2000.	5.8	2788.	.816	4.	14.7	2737.	1765.
2500.	6.1	3583.	1.115	6.	21.6	2376.	1406.
3000.	6.6	4462.	1.492	8.	31.5	2002.	1033.
3500.	7.2	5517.	2.025	12.	47.7	1578.	613.

ALT. 20000.

500.	4.9	657.	.162	1.	2.5	3926.	2951.
1000.	5.1	1325.	.338	1.	5.2	3664.	2690.
1500.	5.2	2011.	.532	2.	8.5	3406.	2433.
2000.	5.4	2716.	.746	3.	12.4	3150.	2179.
2500.	5.6	3441.	.983	5.	17.1	2897.	1928.
3000.	5.9	4197.	1.251	6.	22.7	2644.	1677.
3500.	6.1	4987.	1.557	8.	29.7	2389.	1425.

ALT. 30000.

500.	4.8	653.	.159	1.	2.3	4008.	3033.
1000.	5.0	1316.	.329	1.	4.9	3825.	2852.
1500.	5.1	1988.	.509	2.	7.8	3645.	2673.
2000.	5.2	2670.	.701	3.	11.1	3466.	2496.
2500.	5.3	3364.	.907	4.	14.7	3289.	2321.
3000.	5.5	4069.	1.127	5.	18.8	3113.	2148.
3500.	5.6	4788.	1.364	6.	23.3	2939.	1975.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 4.0
ANGLE OFF 30.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	7.3	645.	.161	1.	2.2	3826.	2896.
1000.	7.6	1310.	.343	1.	5.2	3468.	2538.
1500.	8.0	1999.	.551	2.	9.0	3116.	2187.
2000.	8.4	2717.	.792	4.	13.8	2768.	1840.
2500.	8.9	3479.	1.077	5.	20.2	2419.	1493.
3000.	9.5	4307.	1.428	8.	29.2	2060.	1136.
3500.	10.3	5261.	1.899	11.	43.4	1669.	747.

ALT. 20000.

500.	7.2	644.	.159	1.	2.3	3931.	3001.
1000.	7.4	1299.	.331	1.	4.9	3674.	2745.
1500.	7.7	1968.	.520	2.	8.0	3421.	2494.
2000.	7.9	2653.	.727	3.	11.6	3171.	2246.
2500.	8.2	3356.	.957	4.	15.9	2924.	2001.
3000.	8.6	4083.	1.213	6.	21.1	2678.	1757.
3500.	8.9	4839.	1.503	8.	27.6	2431.	1513.

ALT. 30000.

500.	7.1	642.	.157	1.	2.3	4012.	3082.
1000.	7.3	1290.	.322	1.	4.6	3832.	2904.
1500.	7.4	1947.	.498	2.	7.3	3655.	2729.
2000.	7.6	2612.	.686	3.	10.3	3480.	2557.
2500.	7.8	3287.	.885	4.	13.7	3307.	2386.
3000.	8.0	3973.	1.099	5.	17.5	3135.	2217.
3500.	8.2	4669.	1.328	6.	21.7	2965.	2049.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC.
ANGLE OFF 40.0 DEG.

ALT. 10000. FT.
TGT. VEL 1013. FT./SEC.

TGT. GEES 4.0
ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	9.3	630.	.157	1.	2.2	3835.	2968.
1000.	9.8	1274.	.333	1.	4.7	3486.	2620.
1500.	10.3	1938.	.533	2.	8.1	3145.	2278.
2000.	10.8	2627.	.762	4.	12.5	2808.	1942.
2500.	11.4	3348.	1.029	5.	18.2	2474.	1609.
3000.	12.1	4119.	1.349	7.	26.0	2135.	1271.
3500.	13.0	4972.	1.757	10.	37.6	1778.	914.

ALT. 20000.

500.	9.2	627.	.154	1.	1.9	3938.	3072.
1000.	9.5	1264.	.322	1.	4.5	3687.	2822.
1500.	9.8	1912.	.504	2.	7.2	3441.	2578.
2000.	10.2	2572.	.703	3.	10.5	3199.	2337.
2500.	10.5	3248.	.922	4.	14.3	2960.	2100.
3000.	10.9	3942.	1.165	6.	19.0	2722.	1865.
3500.	11.4	4656.	1.436	7.	24.6	2486.	1631.

ALT. 30000.

500.	9.1	625.	.152	1.	1.9	4016.	3151.
1000.	9.3	1257.	.314	1.	4.2	3841.	2978.
1500.	9.5	1894.	.484	2.	6.6	3669.	2808.
2000.	9.8	2540.	.666	3.	9.4	3498.	2640.
2500.	10.0	3191.	.858	4.	12.4	3330.	2475.
3000.	10.2	3850.	1.062	5.	15.8	3163.	2311.
3500.	10.5	4517.	1.281	6.	19.5	2999.	2150.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 4.0
ANGLE OFF 50.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	11.1	609.	.152	1.	1.8	3846.	3063.
1000.	11.6	1231.	.321	1.	4.2	3509.	2725.
1500.	12.2	1867.	.511	2.	7.0	3180.	2395.
2000.	12.8	2521.	.726	3.	10.8	2857.	2073.
2500.	13.5	3199.	.973	5.	15.6	2539.	1754.
3000.	14.3	3912.	1.264	7.	22.2	2220.	1435.
3500.	15.2	4675.	1.616	9.	31.3	1893.	1108.

ALT. 20000.

500.	11.0	608.	.150	1.	1.8	3946.	3164.
1000.	11.3	1223.	.311	1.	3.9	3703.	2922.
1500.	11.7	1846.	.485	2.	6.2	3465.	2685.
2000.	12.1	2478.	.675	3.	9.1	3232.	2453.
2500.	12.5	3122.	.882	4.	12.4	3002.	2225.
3000.	13.0	3778.	1.109	5.	16.4	2775.	2000.
3500.	13.5	4451.	1.360	7.	21.1	2549.	1777.

ALT. 30000.

500.	10.9	606.	.148	1.	1.7	4022.	3241.
1000.	11.1	1217.	.304	1.	3.7	3852.	3073.
1500.	11.4	1832.	.468	2.	5.8	3685.	2909.
2000.	11.6	2452.	.641	3.	8.1	3520.	2747.
2500.	11.9	3076.	.824	4.	10.7	3358.	2588.
3000.	12.2	3707.	1.019	5.	13.6	3198.	2430.
3500.	12.5	4343.	1.226	6.	16.8	3039.	2275.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 5.0
 ANGLE OFF 0.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	0.0	669.	.167	1.	3.3	3814.	2801.
1000.	0.0	1363.	.358	2.	7.4	3442.	2429.
1500.	0.0	2087.	.578	3.	12.6	3075.	2063.
2000.	0.0	2853.	.836	4.	19.3	2710.	1698.
2500.	0.0	3678.	1.148	6.	28.2	2340.	1330.
3000.	0.0	4601.	1.549	8.	40.9	1951.	941.
3500.	0.0	5756.	2.152	13.	62.8	1491.	484.

ALT. 20000.

500.	0.0	666.	.164	1.	3.2	3923.	2910.
1000.	0.0	1349.	.344	1.	6.9	3656.	2643.
1500.	0.0	2049.	.542	2.	11.3	3393.	2381.
2000.	0.0	2770.	.761	3.	16.4	3133.	2121.
2500.	0.0	3518.	1.006	5.	22.6	2875.	1864.
3000.	0.0	4297.	1.283	6.	30.1	2616.	1606.
3500.	0.0	5118.	1.602	8.	39.3	2353.	1345.

ALT. 30000.

500.	0.0	665.	.162	1.	3.1	4005.	2993.
1000.	0.0	1338.	.334	1.	6.6	3820.	2807.
1500.	0.0	2024.	.518	2.	10.4	3636.	2624.
2000.	0.0	2721.	.714	3.	14.8	3454.	2443.
2500.	0.0	3432.	.924	4.	19.6	3274.	2263.
3000.	0.0	4156.	1.150	5.	25.0	3095.	2085.
3500.	0.0	4894.	1.395	6.	31.2	2917.	1908.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 5.0
ANGLE OFF 10.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PRCJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	2.5	666.	.166	1.	3.2	3815.	2813.
1000.	2.6	1357.	.356	2.	7.4	3444.	2443.
1500.	2.8	2075.	.575	3.	12.5	3079.	2079.
2000.	2.9	2831.	.830	4.	19.1	2717.	1719.
2500.	3.1	3644.	1.140	6.	28.1	2350.	1354.
3000.	3.4	4549.	1.535	8.	40.9	1964.	971.
3500.	3.7	5660.	2.117	13.	62.8	1515.	526.

ALT. 20000.

500.	2.5	663.	.163	1.	3.1	3924.	2921.
1000.	2.6	1341.	.342	1.	6.8	3658.	2657.
1500.	2.7	2037.	.539	2.	11.1	3396.	2397.
2000.	2.8	2752.	.757	3.	16.3	3138.	2139.
2500.	2.9	3491.	1.000	5.	22.4	2881.	1884.
3000.	3.0	4260.	1.275	6.	29.8	2623.	1629.
3500.	3.1	5067.	1.591	8.	39.0	2362.	1371.

ALT. 30000.

500.	2.5	661.	.161	1.	3.1	4006.	3004.
1000.	2.5	1332.	.333	1.	6.5	3821.	2820.
1500.	2.6	2012.	.515	2.	10.3	3639.	2639.
2000.	2.6	2704.	.711	3.	14.5	3458.	2459.
2500.	2.7	3408.	.920	4.	19.3	3278.	2282.
3000.	2.8	4125.	1.145	5.	24.7	3100.	2106.
3500.	2.9	4853.	1.387	6.	30.7	2923.	1931.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 5.0
 ANGLE OFF 20.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	5.0	658.	.164	1.	3.1	3820.	2844.
1000.	5.2	1338.	.351	1.	7.1	3453.	2479.
1500.	5.5	2044.	.566	3.	12.1	3093.	2122.
2000.	5.8	2783.	.816	4.	18.5	2737.	1767.
2500.	6.1	3572.	1.115	6.	27.1	2376.	1410.
3000.	6.6	4439.	1.492	8.	39.3	2002.	1039.
3500.	7.2	5468.	2.025	12.	59.5	1578.	620.

ALT. 20000.

500.	4.9	656.	.162	1.	3.1	3926.	2951.
1000.	5.1	1325.	.338	1.	6.6	3664.	2691.
1500.	5.2	2009.	.532	2.	10.7	3406.	2435.
2000.	5.4	2711.	.746	3.	15.7	3150.	2182.
2500.	5.6	3433.	.983	5.	21.5	2897.	1932.
3000.	5.9	4182.	1.251	6.	28.6	2644.	1682.
3500.	6.1	4962.	1.557	8.	37.3	2389.	1431.

ALT. 30000.

500.	4.8	653.	.159	1.	2.9	4008.	3034.
1000.	5.0	1315.	.329	1.	6.2	3825.	2853.
1500.	5.1	1986.	.509	2.	9.9	3645.	2674.
2000.	5.2	2667.	.701	3.	14.0	3466.	2498.
2500.	5.3	3357.	.907	4.	18.5	3289.	2324.
3000.	5.5	4058.	1.127	5.	23.6	3113.	2152.
3500.	5.6	4770.	1.364	6.	29.4	2939.	1981.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 5.0
ANGLE OFF 30.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	7.3	645.	.161	1.	2.8	3826.	2896.
1000.	7.6	1309.	.343	1.	6.6	3468.	2539.
1500.	8.0	1996.	.551	2.	11.3	3116.	2189.
2000.	8.4	2711.	.792	4.	17.3	2768.	1844.
2500.	8.9	3467.	1.077	5.	25.2	2419.	1498.
3000.	9.5	4283.	1.428	8.	36.3	2060.	1143.
3500.	10.3	5214.	1.899	11.	53.6	1669.	757.

ALT. 20000.

500.	7.2	644.	.159	1.	2.9	3931.	3002.
1000.	7.4	1299.	.331	1.	6.2	3674.	2747.
1500.	7.7	1966.	.520	2.	10.1	3421.	2496.
2000.	7.9	2648.	.727	3.	14.6	3171.	2250.
2500.	8.2	3347.	.957	4.	20.0	2924.	2006.
3000.	8.6	4067.	1.213	6.	26.5	2678.	1764.
3500.	8.9	4812.	1.503	8.	34.5	2431.	1521.

ALT. 30000.

500.	7.1	642.	.157	1.	2.9	4012.	3083.
1000.	7.3	1289.	.322	1.	5.8	3832.	2906.
1500.	7.4	1945.	.498	2.	9.2	3655.	2732.
2000.	7.6	2608.	.686	3.	13.0	3480.	2560.
2500.	7.8	3279.	.885	4.	17.2	3307.	2391.
3000.	8.0	3960.	1.099	5.	22.0	3135.	2223.
3500.	8.2	4649.	1.323	6.	27.3	2965.	2057.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 5.0
 ANGLE OFF 40.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	9.3	629.	.157	1.	2.7	3835.	2969.
1000.	9.8	1273.	.333	1.	5.9	3486.	2622.
1500.	10.3	1935.	.533	2.	10.2	3145.	2282.
2000.	10.8	2621.	.762	4.	15.6	2808.	1948.
2500.	11.4	3336.	1.029	5.	22.6	2474.	1616.
3000.	12.1	4095.	1.349	7.	32.1	2135.	1280.
3500.	13.0	4929.	1.757	10.	46.3	1778.	926.

ALT. 20000.

500.	9.2	626.	.154	1.	2.4	3938.	3073.
1000.	9.5	1263.	.322	1.	5.6	3687.	2824.
1500.	9.8	1910.	.504	2.	9.1	3441.	2581.
2000.	10.2	2567.	.703	3.	13.1	3199.	2342.
2500.	10.5	3238.	.922	4.	18.0	2960.	2107.
3000.	10.9	3925.	1.165	6.	23.8	2722.	1873.
3500.	11.4	4629.	1.436	7.	30.7	2486.	1641.

ALT. 30000.

500.	9.1	625.	.152	1.	2.4	4016.	3152.
1000.	9.3	1256.	.314	1.	5.3	3841.	2980.
1500.	9.5	1892.	.484	2.	8.3	3669.	2811.
2000.	9.8	2535.	.666	3.	11.8	3498.	2645.
2500.	10.0	3183.	.858	4.	15.6	3330.	2481.
3000.	10.2	3837.	1.062	5.	19.8	3163.	2319.
3500.	10.5	4496.	1.281	6.	24.4	2999.	2159.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 5.0
ANGLE OFF 50.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	11.1	609.	.152	1.	2.3	3846.	3064.
1000.	11.6	1230.	.321	1.	5.2	3509.	2727.
1500.	12.2	1863.	.511	2.	8.8	3180.	2400.
2000.	12.8	2514.	.726	3.	13.4	2857.	2079.
2500.	13.5	3187.	.973	5.	19.3	2539.	1762.
3000.	14.3	3890.	1.264	7.	27.3	2220.	1445.
3500.	15.2	4637.	1.616	9.	38.3	1893.	1122.

ALT. 20000.

500.	11.0	607.	.150	1.	2.3	3946.	3165.
1000.	11.3	1222.	.311	1.	4.9	3703.	2924.
1500.	11.7	1843.	.485	2.	7.8	3465.	2690.
2000.	12.1	2473.	.675	3.	11.4	3232.	2459.
2500.	12.5	3112.	.882	4.	15.5	3002.	2233.
3000.	13.0	3761.	1.109	5.	20.4	2775.	2010.
3500.	13.5	4424.	1.360	7.	26.2	2549.	1789.

ALT. 30000.

500.	10.9	606.	.148	1.	2.2	4022.	3242.
1000.	11.1	1216.	.304	1.	4.7	3852.	3076.
1500.	11.4	1830.	.468	2.	7.3	3685.	2913.
2000.	11.6	2447.	.641	3.	10.2	3520.	2752.
2500.	11.9	3067.	.824	4.	13.4	3358.	2595.
3000.	12.2	3693.	1.019	5.	17.0	3198.	2439.
3500.	12.5	4322.	1.226	6.	21.0	3039.	2286.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 6.0
 ANGLE OFF 0.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	0.0	669.	.167	1.	4.0	3814.	2801.
1000.	0.0	1362.	.358	2.	8.9	3442.	2429.
1500.	0.0	2086.	.578	3.	15.2	3075.	2063.
2000.	0.0	2850.	.836	4.	23.3	2710.	1699.
2500.	0.0	3669.	1.148	6.	34.1	2340.	1330.
3000.	0.0	4580.	1.549	8.	49.5	1951.	943.
3500.	0.0	5702.	2.152	13.	76.2	1491.	487.

ALT. 20000.

500.	0.0	666.	.164	1.	3.9	3923.	2910.
1000.	0.0	1348.	.344	1.	8.4	3656.	2643.
1500.	0.0	2048.	.542	2.	13.6	3393.	2381.
2000.	0.0	2768.	.761	3.	19.9	3133.	2122.
2500.	0.0	3512.	1.006	5.	27.3	2875.	1864.
3000.	0.0	4285.	1.283	6.	36.4	2616.	1607.
3500.	0.0	5095.	1.602	8.	47.6	2353.	1346.

ALT. 30000.

500.	0.0	665.	.162	1.	3.8	4005.	2993.
1000.	0.0	1338.	.334	1.	7.9	3820.	2808.
1500.	0.0	2023.	.518	2.	12.6	3636.	2624.
2000.	0.0	2719.	.714	3.	17.8	3454.	2443.
2500.	0.0	3427.	.924	4.	23.7	3274.	2264.
3000.	0.0	4147.	1.150	5.	30.3	3095.	2086.
3500.	0.0	4879.	1.395	6.	37.7	2917.	1909.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 6.0
ANGLE OFF 10.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	2.5	666.	.166	1.	3.9	3815.	2813.
1000.	2.6	1356.	.356	2.	8.9	3444.	2443.
1500.	2.8	2073.	.575	3.	15.1	3079.	2081.
2000.	2.9	2826.	.830	4.	23.1	2717.	1721.
2500.	3.1	3634.	1.140	6.	33.8	2350.	1356.
3000.	3.4	4525.	1.535	8.	49.3	1964.	974.
3500.	3.7	5603.	2.117	13.	75.7	1515.	532.

ALT. 20000.

500.	2.5	663.	.163	1.	3.8	3924.	2921.
1000.	2.6	1341.	.342	1.	8.2	3658.	2657.
1500.	2.7	2035.	.539	2.	13.4	3396.	2398.
2000.	2.8	2749.	.757	3.	19.6	3138.	2141.
2500.	2.9	3484.	1.000	5.	27.0	2881.	1887.
3000.	3.0	4246.	1.275	6.	35.9	2623.	1632.
3500.	3.1	5040.	1.591	8.	47.0	2362.	1376.

ALT. 30000.

500.	2.5	661.	.161	1.	3.7	4006.	3004.
1000.	2.5	1332.	.333	1.	7.8	3821.	2821.
1500.	2.6	2011.	.515	2.	12.4	3639.	2640.
2000.	2.6	2701.	.711	3.	17.5	3458.	2461.
2500.	2.7	3402.	.920	4.	23.3	3278.	2284.
3000.	2.8	4114.	1.145	5.	29.8	3100.	2108.
3500.	2.9	4835.	1.387	6.	37.1	2923.	1935.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 6.0
 ANGLE OFF 20.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	5.0	658.	.164	1.	3.7	3820.	2845.
1000.	5.2	1338.	.351	1.	8.5	3453.	2481.
1500.	5.5	2042.	.566	3.	14.5	3093.	2124.
2000.	5.8	2778.	.816	4.	22.2	2737.	1770.
2500.	6.1	3560.	1.115	6.	32.5	2376.	1414.
3000.	6.6	4414.	1.492	8.	47.1	2002.	1044.
3500.	7.2	5412.	2.025	12.	71.2	1578.	629.

ALT. 20000.

500.	4.9	656.	.162	1.	3.7	3926.	2952.
1000.	5.1	1324.	.338	1.	7.9	3664.	2692.
1500.	5.2	2007.	.532	2.	12.9	3406.	2437.
2000.	5.4	2707.	.746	3.	18.9	3150.	2185.
2500.	5.6	3424.	.983	5.	25.9	2897.	1936.
3000.	5.9	4166.	1.251	6.	34.4	2644.	1687.
3500.	6.1	4933.	1.557	8.	44.8	2389.	1437.

ALT. 30000.

500.	4.8	653.	.159	1.	3.5	4008.	3034.
1000.	5.0	1315.	.329	1.	7.5	3825.	2854.
1500.	5.1	1984.	.509	2.	11.9	3645.	2676.
2000.	5.2	2663.	.701	3.	16.8	3466.	2501.
2500.	5.3	3350.	.907	4.	22.3	3289.	2328.
3000.	5.5	4045.	1.127	5.	28.5	3113.	2156.
3500.	5.6	4749.	1.364	6.	35.4	2939.	1987.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 6.0
ANGLE OFF 30.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PRCJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	7.3	645.	.161	1.	3.4	3826.	2897.
1000.	7.6	1308.	.343	1.	7.9	3468.	2541.
1500.	8.0	1993.	.551	2.	13.5	3116.	2192.
2000.	8.4	2705.	.792	4.	20.7	2768.	1848.
2500.	8.9	3454.	1.077	5.	30.1	2419.	1504.
3000.	9.5	4257.	1.428	8.	43.3	2060.	1151.
3500.	10.3	5162.	1.899	11.	63.8	1669.	767.

ALT. 20000.

500.	7.2	644.	.159	1.	3.5	3931.	3003.
1000.	7.4	1298.	.331	1.	7.5	3674.	2748.
1500.	7.7	1964.	.520	2.	12.1	3421.	2499.
2000.	7.9	2643.	.727	3.	17.5	3171.	2254.
2500.	8.2	3337.	.957	4.	24.0	2924.	2011.
3000.	8.6	4050.	1.213	6.	31.8	2678.	1771.
3500.	8.9	4783.	1.503	8.	41.3	2431.	1530.

ALT. 30000.

500.	7.1	642.	.157	1.	3.5	4012.	3083.
1000.	7.3	1289.	.322	1.	7.0	3832.	2908.
1500.	7.4	1943.	.498	2.	11.1	3655.	2735.
2000.	7.6	2604.	.686	3.	15.7	3480.	2564.
2500.	7.8	3271.	.885	4.	20.7	3307.	2396.
3000.	8.0	3946.	1.099	5.	26.4	3135.	2229.
3500.	8.2	4627.	1.328	6.	32.8	2965.	2065.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC.
ANGLE OFF 40.0 DEG.

ALT. 10000. FT.
TGT. VEL 1013. FT./SEC.

TGT. GEES 6.0
ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	9.3	629.	.157	1.	3.3	3835.	2970.
1000.	9.8	1271.	.333	1.	7.1	3486.	2624.
1500.	10.3	1932.	.533	2.	12.2	3145.	2286.
2000.	10.8	2614.	.762	4.	18.6	2808.	1953.
2500.	11.4	3322.	1.029	5.	26.9	2474.	1623.
3000.	12.1	4070.	1.349	7.	38.2	2135.	1289.
3500.	13.0	4883.	1.757	10.	54.8	1778.	939.

ALT. 20000.

500.	9.2	626.	.154	1.	3.0	3938.	3074.
1000.	9.5	1262.	.322	1.	6.7	3687.	2827.
1500.	9.8	1907.	.504	2.	10.9	3441.	2585.
2000.	10.2	2561.	.703	3.	15.8	3199.	2347.
2500.	10.5	3228.	.922	4.	21.5	2960.	2113.
3000.	10.9	3907.	1.165	6.	28.4	2722.	1882.
3500.	11.4	4600.	1.436	7.	36.7	2486.	1652.

ALT. 30000.

500.	9.1	625.	.152	1.	2.9	4016.	3153.
1000.	9.3	1255.	.314	1.	6.4	3841.	2982.
1500.	9.5	1889.	.484	2.	10.0	3669.	2815.
2000.	9.8	2530.	.666	3.	14.2	3498.	2649.
2500.	10.0	3174.	.858	4.	18.7	3330.	2487.
3000.	10.2	3822.	1.062	5.	23.7	3163.	2327.
3500.	10.5	4473.	1.281	6.	29.3	2999.	2169.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 6.0
ANGLE OFF 50.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 844. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	11.1	609.	.152	1.	2.7	3846.	3065.
1000.	11.6	1229.	.321	1.	6.3	3509.	2730.
1500.	12.2	1860.	.511	2.	10.6	3180.	2404.
2000.	12.8	2507.	.726	3.	16.0	2857.	2085.
2500.	13.5	3174.	.973	5.	23.0	2539.	1771.
3000.	14.3	3867.	1.264	7.	32.3	2220.	1456.
3500.	15.2	4596.	1.616	9.	45.2	1893.	1137.

ALT. 20000.

500.	11.0	607.	.150	1.	2.7	3946.	3166.
1000.	11.3	1221.	.311	1.	5.9	3703.	2927.
1500.	11.7	1840.	.485	2.	9.4	3465.	2694.
2000.	12.1	2467.	.675	3.	13.6	3232.	2465.
2500.	12.5	3101.	.882	4.	18.5	3002.	2241.
3000.	13.0	3744.	1.109	5.	24.3	2775.	2020.
3500.	13.5	4396.	1.360	7.	31.2	2549.	1802.

ALT. 30000.

500.	10.9	606.	.148	1.	2.6	4022.	3243.
1000.	11.1	1215.	.304	1.	5.6	3852.	3078.
1500.	11.4	1827.	.468	2.	8.8	3685.	2917.
2000.	11.6	2442.	.641	3.	12.3	3520.	2758.
2500.	11.9	3058.	.824	4.	16.1	3358.	2602.
3000.	12.2	3678.	1.019	5.	20.4	3198.	2449.
3500.	12.5	4299.	1.226	6.	25.1	3039.	2298.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 1.0
 ANGLE OFF 0.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	0.0	596.	.142	1.	0.0	4015.	3339.
1000.	0.0	1202.	.299	1.	0.0	3678.	3003.
1500.	0.0	1821.	.474	2.	0.0	3352.	2677.
2000.	0.0	2455.	.668	3.	0.0	3036.	2361.
2500.	0.0	3109.	.886	4.	0.0	2727.	2052.
3000.	0.0	3787.	1.133	5.	0.0	2424.	1749.
3500.	0.0	4499.	1.418	7.	0.0	2124.	1449.

ALT. 20000.

500.	0.0	595.	.140	1.	0.0	4114.	3439.
1000.	0.0	1196.	.291	1.	0.0	3871.	3196.
1500.	0.0	1807.	.453	2.	0.0	3634.	2959.
2000.	0.0	2426.	.627	3.	0.0	3403.	2728.
2500.	0.0	3054.	.814	3.	0.0	3176.	2501.
3000.	0.0	3696.	1.018	5.	0.0	2954.	2279.
3500.	0.0	4351.	1.238	6.	0.0	2736.	2061.

ALT. 30000.

500.	0.0	595.	.139	1.	0.0	4190.	3515.
1000.	0.0	1193.	.285	1.	0.0	4020.	3345.
1500.	0.0	1796.	.438	2.	0.0	3853.	3178.
2000.	0.0	2405.	.598	2.	0.0	3689.	3014.
2500.	0.0	3020.	.767	3.	0.0	3528.	2853.
3000.	0.0	3641.	.945	4.	0.0	3369.	2694.
3500.	0.0	4271.	1.133	5.	0.0	3213.	2537.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 1.0
ANGLE OFF 10.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	1.6	595.	.142	1.	0.0	4016.	3348.
1000.	1.7	1199.	.299	1.	0.0	3680.	3012.
1500.	1.7	1816.	.472	2.	0.0	3355.	2687.
2000.	1.8	2449.	.666	3.	0.0	3039.	2370.
2500.	1.9	3099.	.883	4.	0.0	2731.	2063.
3000.	2.0	3774.	1.129	5.	0.0	2430.	1761.
3500.	2.1	4482.	1.411	7.	0.0	2131.	1462.

ALT. 20000.

500.	1.6	593.	.140	1.	0.0	4115.	3447.
1000.	1.6	1193.	.290	1.	0.0	3873.	3205.
1500.	1.7	1802.	.451	2.	0.0	3636.	2968.
2000.	1.7	2418.	.624	3.	0.0	3406.	2737.
2500.	1.8	3046.	.812	3.	0.0	3179.	2511.
3000.	1.8	3685.	1.014	4.	0.0	2958.	2290.
3500.	1.9	4338.	1.234	6.	0.0	2740.	2072.

ALT. 30000.

500.	1.6	593.	.139	1.	0.0	4190.	3522.
1000.	1.6	1190.	.284	1.	0.0	4021.	3353.
1500.	1.6	1791.	.436	2.	0.0	3854.	3186.
2000.	1.7	2399.	.597	2.	0.0	3691.	3023.
2500.	1.7	3012.	.765	3.	0.0	3530.	2862.
3000.	1.7	3632.	.942	4.	0.0	3372.	2703.
3500.	1.8	4259.	1.129	5.	0.0	3216.	2547.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 1.0
 ANGLE OFF 40.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	5.9	574.	.137	1.	0.0	4027.	3468.
1000.	6.2	1155.	.287	1.	0.0	3704.	3143.
1500.	6.4	1746.	.452	2.	0.0	3391.	2828.
2000.	6.7	2348.	.634	3.	0.0	3088.	2524.
2500.	7.0	2962.	.835	4.	0.0	2795.	2229.
3000.	7.4	3593.	1.060	5.	0.0	2509.	1940.
3500.	7.7	4248.	1.315	7.	0.0	2228.	1657.

ALT. 20000.

500.	5.9	573.	.135	1.	0.0	4123.	3564.
1000.	6.0	1151.	.279	1.	0.0	3889.	3329.
1500.	6.2	1735.	.433	2.	0.0	3662.	3100.
2000.	6.4	2326.	.598	2.	0.0	3439.	2877.
2500.	6.6	2923.	.774	3.	0.0	3223.	2659.
3000.	6.8	3529.	.964	4.	0.0	3011.	2446.
3500.	7.0	4146.	1.168	5.	0.0	2803.	2237.

ALT. 30000.

500.	5.8	573.	.134	1.	0.0	4196.	3637.
1000.	5.9	1148.	.273	1.	0.0	4033.	3473.
1500.	6.1	1727.	.420	2.	0.0	3872.	3312.
2000.	6.2	2310.	.573	2.	0.0	3714.	3154.
2500.	6.3	2898.	.733	3.	0.0	3560.	2998.
3000.	6.4	3491.	.901	4.	0.0	3407.	2845.
3500.	6.6	4088.	1.078	5.	0.0	3258.	2694.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 1.0
ANGLE OFF 50.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	7.1	562.	.134	1.	0.0	4034.	3540.
1000.	7.4	1132.	.281	1.	0.0	3716.	3220.
1500.	7.7	1707.	.440	2.	0.0	3411.	2912.
2000.	8.0	2293.	.617	3.	0.0	3115.	2614.
2500.	8.3	2888.	.810	4.	0.0	2829.	2325.
3000.	8.7	3498.	1.025	5.	0.0	2551.	2044.
3500.	9.1	4124.	1.265	6.	0.0	2280.	1769.

ALT. 20000.

500.	7.0	562.	.132	1.	0.0	4127.	3634.
1000.	7.2	1127.	.273	1.	0.0	3899.	3403.
1500.	7.4	1698.	.423	2.	0.0	3676.	3179.
2000.	7.6	2274.	.583	2.	0.0	3459.	2960.
2500.	7.8	2857.	.754	3.	0.0	3246.	2746.
3000.	8.1	3446.	.937	4.	0.0	3040.	2537.
3500.	8.3	4043.	1.133	5.	0.0	2838.	2333.

ALT. 30000.

500.	6.9	562.	.131	0.	0.0	4199.	3706.
1000.	7.1	1124.	.268	1.	0.0	4039.	3545.
1500.	7.2	1691.	.411	2.	0.0	3882.	3386.
2000.	7.4	2262.	.560	2.	0.0	3727.	3231.
2500.	7.5	2837.	.716	3.	0.0	3575.	3078.
3000.	7.7	3415.	.879	4.	0.0	3427.	2928.
3500.	7.8	3996.	1.050	4.	0.0	3280.	2780.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 2.0
 ANGLE OFF 20.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	3.2	590.	.141	1.	.9	4018.	3373.
1000.	3.3	1189.	.296	1.	2.0	3685.	3040.
1500.	3.4	1800.	.468	2.	3.3	3362.	2718.
2000.	3.6	2423.	.659	3.	4.9	3049.	2406.
2500.	3.8	3064.	.873	4.	6.8	2744.	2102.
3000.	3.9	3723.	1.114	5.	9.2	2447.	1805.
3500.	4.2	4411.	1.390	7.	12.2	2152.	1511.

ALT. 20000.

500.	3.1	590.	.139	1.	.9	4116.	3471.
1000.	3.2	1184.	.288	1.	1.9	3876.	3231.
1500.	3.3	1786.	.448	2.	3.0	3641.	2998.
2000.	3.4	2396.	.619	3.	4.3	3412.	2770.
2500.	3.5	3013.	.804	3.	5.8	3189.	2547.
3000.	3.6	3642.	1.003	4.	7.5	2969.	2328.
3500.	3.8	4282.	1.220	6.	9.4	2754.	2114.

ALT. 30000.

500.	3.1	588.	.138	1.	.9	4191.	3546.
1000.	3.2	1180.	.282	1.	1.8	4023.	3379.
1500.	3.2	1776.	.433	2.	2.8	3858.	3215.
2000.	3.3	2377.	.592	2.	3.9	3696.	3053.
2500.	3.4	2983.	.758	3.	5.2	3536.	2895.
3000.	3.4	3594.	.934	4.	6.5	3379.	2738.
3500.	3.5	4210.	1.118	5.	7.9	3224.	2585.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 2.0
ANGLE OFF 30.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	4.6	583.	.139	1.	.9	4022.	3413.
1000.	4.8	1175.	.292	1.	1.9	3693.	3085.
1500.	5.0	1775.	.461	2.	3.1	3375.	2768.
2000.	5.2	2388.	.648	3.	4.6	3066.	2460.
2500.	5.5	3014.	.857	4.	6.4	2766.	2160.
3000.	5.8	3658.	1.091	5.	8.6	2473.	1868.
3500.	6.0	4325.	1.357	7.	11.5	2185.	1581.

ALT. 20000.

500.	4.6	582.	.137	1.	.8	4119.	3511.
1000.	4.7	1169.	.284	1.	1.7	3882.	3275.
1500.	4.8	1762.	.441	2.	2.8	3650.	3044.
2000.	5.0	2363.	.610	3.	4.0	3424.	2818.
2500.	5.1	2971.	.791	3.	5.4	3203.	2598.
3000.	5.3	3586.	.986	4.	7.0	2987.	2384.
3500.	5.5	4212.	1.197	5.	8.8	2775.	2173.

ALT. 30000.

500.	4.5	582.	.136	1.	.9	4193.	3585.
1000.	4.6	1165.	.278	1.	1.7	4027.	3420.
1500.	4.7	1753.	.427	2.	2.6	3864.	3258.
2000.	4.8	2346.	.584	2.	3.7	3704.	3099.
2500.	4.9	2942.	.747	3.	4.8	3546.	2942.
3000.	5.0	3542.	.920	4.	6.0	3391.	2789.
3500.	5.1	4148.	1.101	5.	7.4	3239.	2638.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 3.0
 ANGLE OFF 0.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	0.0	596.	.142	1.	1.5	4015.	3340.
1000.	0.0	1202.	.299	1.	3.4	3678.	3003.
1500.	0.0	1820.	.474	2.	5.6	3352.	2678.
2000.	0.0	2454.	.668	3.	8.3	3036.	2361.
2500.	0.0	3104.	.886	4.	11.5	2727.	2053.
3000.	0.0	3778.	1.133	5.	15.4	2424.	1750.
3500.	0.0	4482.	1.418	7.	20.4	2124.	1451.

ALT. 20000.

500.	0.0	595.	.140	1.	1.5	4114.	3439.
1000.	0.0	1196.	.291	1.	3.2	3871.	3196.
1500.	0.0	1806.	.453	2.	5.2	3634.	2959.
2000.	0.0	2424.	.627	3.	7.4	3403.	2728.
2500.	0.0	3051.	.814	3.	9.9	3176.	2502.
3000.	0.0	3690.	1.018	5.	12.8	2954.	2280.
3500.	0.0	4339.	1.238	6.	16.0	2736.	2063.

ALT. 30000.

500.	0.0	595.	.139	1.	1.5	4190.	3515.
1000.	0.0	1193.	.285	1.	3.1	4020.	3345.
1500.	0.0	1796.	.438	2.	4.9	3853.	3178.
2000.	0.0	2404.	.598	2.	6.8	3689.	3014.
2500.	0.0	3017.	.767	3.	8.9	3528.	2853.
3000.	0.0	3636.	.945	4.	11.2	3369.	2695.
3500.	0.0	4262.	1.133	5.	13.7	3213.	2539.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 3.0
ANGLE OFF 10.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	1.6	594.	.142	1.	1.5	4016.	3348.
1000.	1.7	1198.	.299	1.	3.3	3680.	3014.
1500.	1.7	1814.	.472	2.	5.5	3355.	2689.
2000.	1.8	2445.	.666	3.	8.2	3039.	2374.
2500.	1.9	3090.	.883	4.	11.4	2731.	2068.
3000.	2.0	3758.	1.129	5.	15.3	2430.	1768.
3500.	2.1	4453.	1.411	7.	20.3	2131.	1471.

ALT. 20000.

500.	1.6	593.	.140	1.	1.5	4115.	3448.
1000.	1.6	1192.	.290	1.	3.2	3873.	3206.
1500.	1.7	1800.	.451	2.	5.1	3636.	2971.
2000.	1.7	2414.	.624	3.	7.3	3406.	2741.
2500.	1.8	3039.	.812	3.	9.8	3179.	2516.
3000.	1.8	3672.	1.014	5.	12.6	2958.	2296.
3500.	1.9	4317.	1.234	6.	15.8	2740.	2080.

ALT. 30000.

500.	1.6	593.	.139	1.	1.5	4190.	3523.
1000.	1.6	1189.	.284	1.	3.1	4021.	3355.
1500.	1.6	1790.	.436	2.	4.8	3854.	3189.
2000.	1.7	2396.	.597	2.	6.7	3691.	3026.
2500.	1.7	3005.	.765	3.	8.7	3530.	2867.
3000.	1.7	3621.	.942	4.	11.0	3372.	2709.
3500.	1.8	4242.	1.129	5.	13.5	3216.	2555.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 3.0
 ANGLE OFF 40.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	5.9	574.	.137	1.	1.3	4027.	3471.
1000.	6.2	1153.	.287	1.	2.7	3704.	3149.
1500.	6.4	1740.	.452	2.	4.5	3391.	2838.
2000.	6.7	2336.	.634	3.	6.6	3088.	2538.
2500.	7.0	2942.	.835	4.	9.1	2795.	2247.
3000.	7.4	3560.	1.060	5.	12.3	2509.	1963.
3500.	7.7	4195.	1.315	7.	16.2	2228.	1686.

ALT. 20000.

500.	5.9	572.	.135	1.	1.2	4123.	3567.
1000.	6.0	1149.	.279	1.	2.5	3889.	3336.
1500.	6.2	1730.	.433	2.	4.1	3662.	3110.
2000.	6.4	2316.	.598	2.	5.8	3439.	2890.
2500.	6.6	2905.	.774	3.	7.8	3223.	2677.
3000.	6.8	3501.	.964	4.	10.0	3011.	2468.
3500.	7.0	4105.	1.168	5.	12.6	2803.	2263.

ALT. 30000.

500.	5.8	572.	.134	1.	1.3	4196.	3640.
1000.	5.9	1146.	.273	1.	2.4	4033.	3479.
1500.	6.1	1722.	.420	2.	3.8	3872.	3321.
2000.	6.2	2301.	.573	2.	5.3	3714.	3166.
2500.	6.3	2882.	.733	3.	6.9	3560.	3014.
3000.	6.4	3467.	.901	4.	8.7	3407.	2865.
3500.	6.6	4053.	1.078	5.	10.6	3258.	2719.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 3.0
ANGLE OFF 50.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	7.1	561.	.134	1.	.9	4034.	3544.
1000.	7.4	1130.	.281	1.	2.4	3716.	3227.
1500.	7.7	1701.	.440	2.	3.8	3411.	2924.
2000.	8.0	2280.	.617	3.	5.7	3115.	2630.
2500.	8.3	2866.	.810	4.	7.8	2829.	2347.
3000.	8.7	3461.	1.025	5.	10.5	2551.	2071.
3500.	9.1	4068.	1.265	6.	13.7	2280.	1803.

ALT. 20000.

500.	7.0	561.	.132	1.	1.1	4127.	3637.
1000.	7.2	1125.	.273	1.	2.2	3899.	3411.
1500.	7.4	1692.	.423	2.	3.5	3676.	3191.
2000.	7.6	2263.	.583	2.	5.0	3459.	2976.
2500.	7.8	2838.	.754	3.	6.7	3246.	2767.
3000.	8.1	3416.	.937	4.	8.6	3040.	2563.
3500.	8.3	3998.	1.133	5.	10.7	2838.	2364.

ALT. 30000.

500.	6.9	561.	.131	0.	1.2	4199.	3709.
1000.	7.1	1122.	.268	1.	2.0	4039.	3552.
1500.	7.2	1686.	.411	2.	3.3	3882.	3398.
2000.	7.4	2251.	.560	2.	4.6	3727.	3246.
2500.	7.5	2819.	.716	3.	6.0	3575.	3098.
3000.	7.7	3388.	.879	4.	7.5	3427.	2952.
3500.	7.8	3958.	1.050	4.	9.1	3280.	2810.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC.
ANGLE OFF 0.0 DEG.

ALT. 10000. FT.
TGT. VEL 675. FT./SEC.

TGT. GEES 4.0
ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	0.0	596.	.142	1.	2.1	4015.	3340.
1000.	0.0	1202.	.299	1.	4.6	3678.	3003.
1500.	0.0	1820.	.474	2.	7.7	3352.	2678.
2000.	0.0	2452.	.668	3.	11.3	3036.	2361.
2500.	0.0	3101.	.886	4.	15.7	2727.	2053.
3000.	0.0	3770.	1.133	5.	21.1	2424.	1751.
3500.	0.0	4467.	1.418	7.	27.9	2124.	1453.

ALT. 20000.

500.	0.0	594.	.140	1.	2.1	4114.	3439.
1000.	0.0	1196.	.291	1.	4.4	3871.	3196.
1500.	0.0	1806.	.453	2.	7.1	3634.	2959.
2000.	0.0	2423.	.627	3.	10.1	3403.	2728.
2500.	0.0	3048.	.814	3.	13.5	3176.	2503.
3000.	0.0	3684.	1.018	5.	17.5	2954.	2281.
3500.	0.0	4329.	1.238	6.	22.0	2736.	2064.

ALT. 30000.

500.	0.0	595.	.139	1.	2.0	4190.	3515.
1000.	0.0	1193.	.285	1.	4.2	4020.	3345.
1500.	0.0	1795.	.438	2.	6.6	3853.	3178.
2000.	0.0	2403.	.598	2.	9.3	3689.	3015.
2500.	0.0	3014.	.767	3.	12.1	3528.	2854.
3000.	0.0	3632.	.945	4.	15.3	3369.	2696.
3500.	0.0	4254.	1.133	5.	18.7	3213.	2540.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 4.0
ANGLE OFF 10.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	1.6	594.	.142	1.	2.1	4016.	3349.
1000.	1.7	1198.	.299	1.	4.6	3680.	3014.
1500.	1.7	1813.	.472	2.	7.6	3355.	2691.
2000.	1.8	2442.	.666	3.	11.2	3039.	2376.
2500.	1.9	3085.	.883	4.	15.5	2731.	2071.
3000.	2.0	3747.	1.129	5.	20.9	2430.	1771.
3500.	2.1	4434.	1.411	7.	27.6	2131.	1476.

ALT. 20000.

500.	1.6	593.	.140	1.	2.0	4115.	3448.
1000.	1.6	1192.	.290	1.	4.3	3873.	3207.
1500.	1.7	1799.	.451	2.	7.0	3636.	2972.
2000.	1.7	2412.	.624	3.	9.9	3406.	2743.
2500.	1.8	3034.	.812	3.	13.3	3179.	2518.
3000.	1.8	3664.	1.014	5.	17.2	2958.	2299.
3500.	1.9	4304.	1.234	6.	21.6	2740.	2084.

ALT. 30000.

500.	1.6	593.	.139	1.	2.0	4190.	3523.
1000.	1.6	1189.	.284	1.	4.2	4021.	3355.
1500.	1.6	1789.	.436	2.	6.5	3854.	3190.
2000.	1.7	2394.	.597	2.	9.1	3691.	3028.
2500.	1.7	3001.	.765	3.	11.9	3530.	2869.
3000.	1.7	3615.	.942	4.	15.0	3372.	2712.
3500.	1.8	4231.	1.129	5.	18.4	3216.	2558.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 4.0
 ANGLE OFF 20.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	3.2	589.	.141	1.	2.0	4018.	3374.
1000.	3.3	1188.	.296	1.	4.4	3685.	3043.
1500.	3.4	1797.	.468	2.	7.3	3362.	2722.
2000.	3.6	2417.	.659	3.	10.7	3049.	2412.
2500.	3.8	3051.	.873	4.	14.9	2744.	2110.
3000.	3.9	3699.	1.114	5.	20.0	2447.	1816.
3500.	4.2	4371.	1.390	7.	26.4	2152.	1525.

ALT. 20000.

500.	3.1	589.	.139	1.	2.0	4116.	3472.
1000.	3.2	1183.	.288	1.	4.2	3876.	3234.
1500.	3.3	1784.	.448	2.	6.7	3641.	3002.
2000.	3.4	2390.	.619	3.	9.5	3412.	2775.
2500.	3.5	3003.	.804	3.	12.7	3189.	2554.
3000.	3.6	3624.	1.003	4.	16.4	2969.	2338.
3500.	3.8	4252.	1.220	6.	20.6	2754.	2126.

ALT. 30000.

500.	3.1	588.	.138	1.	1.9	4191.	3548.
1000.	3.2	1179.	.282	1.	4.0	4023.	3382.
1500.	3.2	1773.	.433	2.	6.2	3858.	3219.
2000.	3.3	2372.	.592	2.	8.7	3696.	3059.
2500.	3.4	2973.	.758	3.	11.4	3536.	2902.
3000.	3.4	3578.	.934	4.	14.3	3379.	2748.
3500.	3.5	4186.	1.118	5.	17.5	3224.	2596.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 4.0
ANGLE OFF 30.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PRCJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	4.6	583.	.139	1.	1.9	4022.	3415.
1000.	4.8	1173.	.292	1.	4.1	3693.	3088.
1500.	5.0	1771.	.461	2.	6.7	3375.	2774.
2000.	5.2	2379.	.648	3.	9.9	3066.	2468.
2500.	5.5	2999.	.857	4.	13.8	2766.	2172.
3000.	5.8	3631.	1.091	5.	18.5	2473.	1883.
3500.	6.0	4280.	1.357	7.	24.3	2185.	1600.

ALT. 20000.

500.	4.6	582.	.137	1.	1.8	4119.	3513.
1000.	4.7	1167.	.284	1.	3.8	3882.	3278.
1500.	4.8	1759.	.441	2.	6.2	3650.	3049.
2000.	5.0	2356.	.610	3.	8.8	3424.	2826.
2500.	5.1	2958.	.791	3.	11.8	3203.	2609.
3000.	5.3	3564.	.986	4.	15.2	2987.	2397.
3500.	5.5	4178.	1.197	6.	19.0	2775.	2190.

ALT. 30000.

500.	4.5	582.	.136	1.	1.9	4193.	3587.
1000.	4.6	1164.	.278	1.	3.7	4027.	3424.
1500.	4.7	1750.	.427	2.	5.8	3864.	3264.
2000.	4.8	2340.	.584	2.	8.1	3704.	3107.
2500.	4.9	2930.	.747	3.	10.5	3546.	2953.
3000.	5.0	3524.	.920	4.	13.2	3391.	2802.
3500.	5.1	4120.	1.101	5.	16.1	3239.	2653.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 4.0
 ANGLE OFF 40.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PRCJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	5.9	574.	.137	1.	1.7	4027.	3472.
1000.	6.2	1152.	.287	1.	3.7	3704.	3151.
1500.	6.4	1738.	.452	2.	6.1	3391.	2842.
2000.	6.7	2332.	.634	3.	8.9	3088.	2543.
2500.	7.0	2933.	.835	4.	12.3	2795.	2254.
3000.	7.4	3544.	1.060	5.	16.4	2509.	1973.
3500.	7.7	4170.	1.315	7.	21.6	2228.	1697.

ALT. 20000.

500.	5.9	572.	.135	1.	1.6	4123.	3568.
1000.	6.0	1148.	.279	1.	3.5	3889.	3338.
1500.	6.2	1728.	.433	2.	5.6	3662.	3114.
2000.	6.4	2311.	.598	2.	7.9	3439.	2896.
2500.	6.6	2898.	.774	3.	10.5	3223.	2683.
3000.	6.8	3489.	.964	4.	13.5	3011.	2476.
3500.	7.0	4086.	1.168	5.	16.9	2803.	2274.

ALT. 30000.

500.	5.8	572.	.134	1.	1.7	4196.	3642.
1000.	5.9	1145.	.273	1.	3.3	4033.	3482.
1500.	6.1	1721.	.420	2.	5.2	3872.	3325.
2000.	6.2	2297.	.573	2.	7.2	3714.	3171.
2500.	6.3	2875.	.733	3.	9.4	3560.	3021.
3000.	6.4	3457.	.901	4.	11.8	3407.	2873.
3500.	6.6	4037.	1.078	5.	14.4	3258.	2729.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 4.0
ANGLE OFF 50.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	7.1	561.	.134	1.	1.3	4034.	3545.
1000.	7.4	1129.	.281	1.	3.3	3716.	3230.
1500.	7.7	1698.	.440	2.	5.2	3411.	2929.
2000.	8.0	2275.	.617	3.	7.7	3115.	2637.
2500.	8.3	2857.	.810	4.	10.5	2829.	2355.
3000.	8.7	3446.	1.025	5.	14.0	2551.	2082.
3500.	9.1	4043.	1.265	6.	18.2	2280.	1817.

ALT. 20000.

500.	7.0	561.	.132	1.	1.4	4127.	3639.
1000.	7.2	1124.	.273	1.	3.0	3899.	3414.
1500.	7.4	1689.	.423	2.	4.7	3676.	3195.
2000.	7.6	2258.	.583	2.	6.8	3459.	2982.
2500.	7.8	2830.	.754	3.	9.0	3246.	2775.
3000.	8.1	3403.	.937	4.	11.5	3040.	2573.
3500.	8.3	3979.	1.133	5.	14.3	2838.	2377.

ALT. 30000.

500.	6.9	561.	.131	0.	1.5	4199.	3711.
1000.	7.1	1121.	.268	1.	2.8	4039.	3555.
1500.	7.2	1684.	.411	2.	4.5	3882.	3402.
2000.	7.4	2247.	.560	2.	6.2	3727.	3252.
2500.	7.5	2812.	.716	3.	8.1	3575.	3105.
3000.	7.7	3377.	.879	4.	10.1	3427.	2962.
3500.	7.8	3941.	1.050	4.	12.2	3280.	2821.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 5.0
 ANGLE OFF 0.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	0.0	596.	.142	1.	2.7	4015.	3340.
1000.	0.0	1202.	.299	1.	5.9	3678.	3003.
1500.	0.0	1819.	.474	2.	9.7	3352.	2678.
2000.	0.0	2450.	.668	3.	14.3	3036.	2362.
2500.	0.0	3096.	.886	4.	19.9	2727.	2054.
3000.	0.0	3760.	1.133	5.	26.8	2424.	1753.
3500.	0.0	4448.	1.418	7.	35.3	2124.	1455.

ALT. 20000.

500.	0.0	594.	.140	1.	2.6	4114.	3439.
1000.	0.0	1196.	.291	1.	5.6	3871.	3197.
1500.	0.0	1805.	.453	2.	8.9	3634.	2960.
2000.	0.0	2421.	.627	3.	12.8	3403.	2729.
2500.	0.0	3044.	.814	4.	17.1	3176.	2503.
3000.	0.0	3677.	1.018	5.	22.1	2954.	2282.
3500.	0.0	4316.	1.238	6.	27.8	2736.	2066.

ALT. 30000.

500.	0.0	594.	.139	1.	2.6	4190.	3515.
1000.	0.0	1193.	.285	1.	5.4	4020.	3345.
1500.	0.0	1795.	.438	2.	8.4	3853.	3179.
2000.	0.0	2402.	.598	2.	11.7	3689.	3015.
2500.	0.0	3011.	.767	3.	15.4	3528.	2855.
3000.	0.0	3626.	.945	4.	19.3	3369.	2697.
3500.	0.0	4245.	1.133	5.	23.7	3213.	2542.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 5.0
ANGLE OFF 10.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PREO. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	1.6	594.	.142	1.	2.6	4016.	3349.
1000.	1.7	1198.	.299	1.	5.8	3680.	3015.
1500.	1.7	1812.	.472	2.	9.6	3355.	2692.
2000.	1.8	2439.	.666	3.	14.1	3039.	2378.
2500.	1.9	3078.	.883	4.	19.6	2731.	2073.
3000.	2.0	3735.	1.129	5.	26.3	2430.	1775.
3500.	2.1	4411.	1.411	7.	34.7	2131.	1481.

ALT. 20000.

500.	1.6	593.	.140	1.	2.6	4115.	3448.
1000.	1.6	1192.	.290	1.	5.5	3873.	3208.
1500.	1.7	1798.	.451	2.	8.8	3636.	2973.
2000.	1.7	2409.	.624	3.	12.5	3406.	2745.
2500.	1.8	3029.	.812	3.	16.8	3179.	2521.
3000.	1.8	3655.	1.014	5.	21.7	2958.	2302.
3500.	1.9	4288.	1.234	6.	27.3	2740.	2088.

ALT. 30000.

500.	1.6	593.	.139	1.	2.6	4190.	3524.
1000.	1.6	1189.	.284	1.	5.3	4021.	3356.
1500.	1.6	1788.	.436	2.	8.3	3854.	3191.
2000.	1.7	2391.	.597	2.	11.5	3691.	3030.
2500.	1.7	2997.	.765	3.	15.1	3530.	2871.
3000.	1.7	3607.	.942	4.	19.0	3372.	2715.
3500.	1.8	4219.	1.129	5.	23.2	3216.	2562.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 5.0
 ANGLE OFF 20.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	3.2	589.	.141	1.	2.5	4018.	3375.
1000.	3.3	1187.	.296	1.	5.5	3685.	3044.
1500.	3.4	1796.	.468	2.	9.2	3362.	2724.
2000.	3.6	2413.	.659	3.	13.5	3049.	2415.
2500.	3.8	3043.	.873	4.	18.7	2744.	2114.
3000.	3.9	3685.	1.114	5.	25.1	2447.	1821.
3500.	4.2	4346.	1.390	7.	33.0	2152.	1532.

ALT. 20000.

500.	3.1	589.	.139	1.	2.5	4116.	3473.
1000.	3.2	1183.	.288	1.	5.3	3876.	3235.
1500.	3.3	1782.	.448	2.	8.4	3641.	3004.
2000.	3.4	2387.	.619	3.	12.0	3412.	2778.
2500.	3.5	2996.	.804	3.	16.0	3189.	2558.
3000.	3.6	3613.	1.003	4.	20.6	2969.	2343.
3500.	3.8	4235.	1.220	6.	25.9	2754.	2132.

ALT. 30000.

500.	3.1	588.	.138	1.	2.4	4191.	3548.
1000.	3.2	1178.	.282	1.	5.0	4023.	3383.
1500.	3.2	1772.	.433	2.	7.9	3858.	3221.
2000.	3.3	2369.	.592	2.	11.0	3696.	3062.
2500.	3.4	2968.	.758	3.	14.4	3536.	2905.
3000.	3.4	3569.	.934	4.	18.0	3379.	2752.
3500.	3.5	4171.	1.118	5.	22.0	3224.	2602.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 5.0
ANGLE OFF 30.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	4.6	583.	.139	1.	2.4	4022.	3416.
1000.	4.8	1173.	.292	1.	5.2	3693.	3090.
1500.	5.0	1769.	.461	2.	8.5	3375.	2777.
2000.	5.2	2375.	.648	3.	12.5	3066.	2472.
2500.	5.5	2990.	.857	4.	17.3	2766.	2177.
3000.	5.8	3615.	1.091	5.	23.1	2473.	1891.
3500.	6.0	4254.	1.357	7.	30.3	2185.	1610.

ALT. 20000.

500.	4.6	581.	.137	1.	2.3	4119.	3513.
1000.	4.7	1166.	.284	1.	4.8	3882.	3280.
1500.	4.8	1757.	.441	2.	7.8	3650.	3052.
2000.	5.0	2352.	.610	3.	11.1	3424.	2831.
2500.	5.1	2950.	.791	3.	14.8	3203.	2615.
3000.	5.3	3552.	.986	4.	19.0	2987.	2404.
3500.	5.5	4159.	1.197	6.	23.8	2775.	2199.

ALT. 30000.

500.	4.5	581.	.136	1.	2.3	4193.	3588.
1000.	4.6	1163.	.278	1.	4.7	4027.	3426.
1500.	4.7	1748.	.427	2.	7.3	3864.	3267.
2000.	4.8	2336.	.584	2.	10.2	3704.	3111.
2500.	4.9	2924.	.747	3.	13.3	3546.	2958.
3000.	5.0	3514.	.920	4.	16.6	3391.	2808.
3500.	5.1	4104.	1.101	5.	20.3	3239.	2661.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 5.0
 ANGLE OFF 40.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PRCJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	5.9	573.	.137	1.	2.2	4027.	3473.
1000.	6.2	1152.	.287	1.	4.6	3704.	3154.
1500.	6.4	1736.	.452	2.	7.6	3391.	2846.
2000.	6.7	2327.	.634	3.	11.2	3088.	2549.
2500.	7.0	2923.	.835	4.	15.4	2795.	2261.
3000.	7.4	3528.	1.060	5.	20.5	2509.	1982.
3500.	7.7	4144.	1.315	7.	26.7	2228.	1710.

ALT. 20000.

500.	5.9	572.	.135	1.	2.0	4123.	3569.
1000.	6.0	1147.	.279	1.	4.4	3889.	3340.
1500.	6.2	1726.	.433	2.	7.0	3662.	3117.
2000.	6.4	2307.	.598	2.	9.9	3439.	2901.
2500.	6.6	2890.	.774	3.	13.2	3223.	2690.
3000.	6.8	3476.	.964	4.	16.9	3011.	2485.
3500.	7.0	4065.	1.168	5.	21.1	2803.	2285.

ALT. 30000.

500.	5.8	572.	.134	1.	2.1	4196.	3643.
1000.	5.9	1144.	.273	1.	4.2	4033.	3484.
1500.	6.1	1718.	.420	2.	6.6	3872.	3328.
2000.	6.2	2293.	.573	2.	9.1	3714.	3176.
2500.	6.3	2869.	.733	3.	11.8	3560.	3027.
3000.	6.4	3446.	.901	4.	14.8	3407.	2881.
3500.	6.6	4020.	1.078	5.	18.0	3258.	2739.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 5.0
ANGLE OFF 50.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	7.1	561.	.134	1.	1.7	4034.	3546.
1000.	7.4	1128.	.281	1.	4.1	3716.	3233.
1500.	7.7	1696.	.440	2.	6.5	3411.	2933.
2000.	8.0	2270.	.617	3.	9.6	3115.	2643.
2500.	8.3	2847.	.810	4.	13.1	2829.	2364.
3000.	8.7	3430.	1.025	5.	17.3	2551.	2094.
3500.	9.1	4018.	1.265	6.	22.5	2280.	1831.

ALT. 20000.

500.	7.0	561.	.132	1.	1.8	4127.	3640.
1000.	7.2	1123.	.273	1.	3.8	3899.	3417.
1500.	7.4	1687.	.423	2.	6.0	3676.	3199.
2000.	7.6	2254.	.583	2.	8.5	3459.	2988.
2500.	7.8	2822.	.754	3.	11.3	3246.	2783.
3000.	8.1	3390.	.937	4.	14.4	3040.	2584.
3500.	8.3	3958.	1.133	5.	17.8	2838.	2390.

ALT. 30000.

500.	6.9	561.	.131	0.	1.9	4199.	3712.
1000.	7.1	1120.	.268	1.	3.6	4039.	3558.
1500.	7.2	1681.	.411	2.	5.6	3882.	3406.
2000.	7.4	2243.	.560	2.	7.8	3727.	3258.
2500.	7.5	2805.	.716	3.	10.1	3575.	3113.
3000.	7.7	3365.	.879	4.	12.6	3427.	2971.
3500.	7.8	3924.	1.050	5.	15.2	3280.	2833.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 6.0
 ANGLE OFF 0.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	0.0	596.	.142	1.	3.2	4015.	3340.
1000.	0.0	1202.	.299	1.	7.1	3678.	3004.
1500.	0.0	1818.	.474	2.	11.7	3352.	2678.
2000.	0.0	2448.	.668	3.	17.3	3036.	2363.
2500.	0.0	3090.	.886	4.	24.0	2727.	2055.
3000.	0.0	3748.	1.133	6.	32.3	2424.	1755.
3500.	0.0	4425.	1.418	7.	42.7	2124.	1458.

ALT. 20000.

500.	0.0	594.	.140	1.	3.2	4114.	3439.
1000.	0.0	1195.	.291	1.	6.7	3871.	3197.
1500.	0.0	1805.	.453	2.	10.8	3634.	2960.
2000.	0.0	2419.	.627	3.	15.4	3403.	2729.
2500.	0.0	3040.	.814	4.	20.7	3176.	2504.
3000.	0.0	3668.	1.018	5.	26.7	2954.	2284.
3500.	0.0	4301.	1.238	6.	33.6	2736.	2068.

ALT. 30000.

500.	0.0	594.	.139	1.	3.1	4190.	3515.
1000.	0.0	1192.	.285	1.	6.5	4020.	3345.
1500.	0.0	1794.	.438	2.	10.1	3853.	3179.
2000.	0.0	2400.	.598	2.	14.2	3689.	3016.
2500.	0.0	3008.	.767	3.	18.5	3528.	2856.
3000.	0.0	3619.	.945	4.	23.4	3369.	2698.
3500.	0.0	4233.	1.133	5.	28.6	3213.	2543.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 6.0
ANGLE OFF 10.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	1.6	594.	.142	1.	3.2	4016.	3349.
1000.	1.7	1197.	.299	1.	7.0	3680.	3016.
1500.	1.7	1811.	.472	2.	11.5	3355.	2693.
2000.	1.8	2436.	.666	3.	17.0	3039.	2380.
2500.	1.9	3071.	.883	4.	23.6	2731.	2076.
3000.	2.0	3721.	1.129	6.	31.7	2430.	1779.
3500.	2.1	4385.	1.411	7.	41.8	2131.	1486.

ALT. 20000.

500.	1.6	593.	.140	1.	3.1	4115.	3449.
1000.	1.6	1191.	.290	1.	6.6	3873.	3209.
1500.	1.7	1797.	.451	2.	10.6	3636.	2974.
2000.	1.7	2406.	.624	3.	15.1	3406.	2746.
2500.	1.8	3023.	.812	4.	20.3	3179.	2523.
3000.	1.8	3645.	1.014	5.	26.1	2958.	2306.
3500.	1.9	4270.	1.234	6.	32.8	2740.	2092.

ALT. 30000.

500.	1.6	593.	.139	1.	3.1	4190.	3524.
1000.	1.6	1188.	.284	1.	6.4	4021.	3357.
1500.	1.6	1787.	.436	2.	10.0	3854.	3192.
2000.	1.7	2389.	.597	2.	13.9	3691.	3031.
2500.	1.7	2992.	.765	3.	18.2	3530.	2873.
3000.	1.7	3598.	.942	4.	22.8	3372.	2718.
3500.	1.8	4205.	1.129	5.	27.9	3216.	2566.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 6.0
 ANGLE OFF 20.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	3.2	589.	.141	1.	3.0	4018.	3375.
1000.	3.3	1187.	.296	1.	6.7	3685.	3046.
1500.	3.4	1794.	.468	2.	11.1	3362.	2727.
2000.	3.6	2409.	.659	3.	16.2	3049.	2418.
2500.	3.8	3034.	.873	4.	22.5	2744.	2119.
3000.	3.9	3669.	1.114	5.	30.1	2447.	1827.
3500.	4.2	4318.	1.390	7.	39.6	2152.	1541.

ALT. 20000.

500.	3.1	589.	.139	1.	3.0	4116.	3473.
1000.	3.2	1182.	.288	1.	6.4	3876.	3236.
1500.	3.3	1781.	.448	2.	10.2	3641.	3006.
2000.	3.4	2383.	.619	3.	14.4	3412.	2781.
2500.	3.5	2989.	.804	3.	19.3	3189.	2562.
3000.	3.6	3601.	1.003	4.	24.8	2969.	2348.
3500.	3.8	4215.	1.220	6.	31.1	2754.	2139.

ALT. 30000.

500.	3.1	588.	.138	1.	2.9	4191.	3549.
1000.	3.2	1178.	.282	1.	6.1	4023.	3384.
1500.	3.2	1770.	.433	2.	9.5	3858.	3223.
2000.	3.3	2366.	.592	2.	13.3	3696.	3064.
2500.	3.4	2962.	.758	3.	17.3	3536.	2909.
3000.	3.4	3559.	.934	4.	21.7	3379.	2757.
3500.	3.5	4155.	1.118	5.	26.5	3224.	2609.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 6.0
ANGLE OFF 30.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	4.6	583.	.139	1.	2.9	4022.	3417.
1000.	4.8	1172.	.292	1.	6.2	3693.	3092.
1500.	5.0	1767.	.461	2.	10.2	3375.	2780.
2000.	5.2	2370.	.648	3.	15.0	3066.	2477.
2500.	5.5	2981.	.857	4.	20.7	2766.	2183.
3000.	5.8	3599.	1.091	5.	27.6	2473.	1899.
3500.	6.0	4225.	1.357	7.	36.1	2185.	1621.

ALT. 20000.

500.	4.6	581.	.137	1.	2.8	4119.	3514.
1000.	4.7	1166.	.284	1.	5.8	3882.	3282.
1500.	4.8	1755.	.441	2.	9.4	3650.	3055.
2000.	5.0	2348.	.610	3.	13.4	3424.	2835.
2500.	5.1	2943.	.791	3.	17.8	3203.	2620.
3000.	5.3	3539.	.986	4.	22.8	2987.	2412.
3500.	5.5	4137.	1.197	6.	28.5	2775.	2208.

ALT. 30000.

500.	4.5	581.	.136	1.	2.8	4193.	3589.
1000.	4.6	1163.	.278	1.	5.6	4027.	3427.
1500.	4.7	1746.	.427	2.	8.8	3864.	3270.
2000.	4.8	2332.	.584	2.	12.3	3704.	3115.
2500.	4.9	2917.	.747	3.	15.9	3546.	2963.
3000.	5.0	3502.	.920	4.	19.9	3391.	2815.
3500.	5.1	4087.	1.101	5.	24.3	3239.	2670.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC.
ANGLE OFF 40.0 DEG.

ALT. 10000. FT.
TGT. VEL 675. FT./SEC.

TGT. GEES 6.0
ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	5.9	573.	.137	1.	2.6	4027.	3474.
1000.	6.2	1151.	.287	1.	5.6	3704.	3156.
1500.	6.4	1733.	.452	2.	9.2	3391.	2850.
2000.	6.7	2321.	.634	3.	13.4	3088.	2554.
2500.	7.0	2914.	.835	4.	18.4	2795.	2269.
3000.	7.4	3511.	1.060	5.	24.4	2509.	1992.
3500.	7.7	4115.	1.315	7.	31.7	2228.	1723.

ALT. 20000.

500.	5.9	572.	.135	1.	2.5	4123.	3570.
1000.	6.0	1146.	.279	1.	5.3	3889.	3343.
1500.	6.2	1723.	.433	2.	8.4	3662.	3121.
2000.	6.4	2302.	.598	2.	11.9	3439.	2906.
2500.	6.6	2882.	.774	3.	15.8	3223.	2697.
3000.	6.8	3462.	.964	4.	20.2	3011.	2494.
3500.	7.0	4044.	1.168	5.	25.1	2803.	2296.

ALT. 30000.

500.	5.8	572.	.134	1.	2.5	4196.	3644.
1000.	5.9	1143.	.273	1.	5.1	4033.	3486.
1500.	6.1	1716.	.420	2.	7.9	3872.	3332.
2000.	6.2	2289.	.573	2.	10.9	3714.	3182.
2500.	6.3	2861.	.733	3.	14.2	3560.	3034.
3000.	6.4	3434.	.901	4.	17.7	3407.	2890.
3500.	6.6	4003.	1.078	5.	21.5	3258.	2749.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 6.0
ANGLE OFF 50.0 DEG. TGT. VEL 675. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	7.1	561.	.134	1.	2.1	4034.	3548.
1000.	7.4	1127.	.281	1.	4.9	3716.	3236.
1500.	7.7	1693.	.440	2.	7.8	3411.	2938.
2000.	8.0	2264.	.617	3.	11.4	3115.	2650.
2500.	8.3	2837.	.810	4.	15.6	2829.	2373.
3000.	8.7	3413.	1.025	5.	20.6	2551.	2105.
3500.	9.1	3991.	1.265	6.	26.5	2280.	1846.

ALT. 20000.

500.	7.0	561.	.132	1.	2.2	4127.	3641.
1000.	7.2	1122.	.273	1.	4.5	3899.	3419.
1500.	7.4	1685.	.423	2.	7.2	3676.	3204.
2000.	7.6	2249.	.583	2.	10.1	3459.	2994.
2500.	7.8	2813.	.754	3.	13.4	3246.	2791.
3000.	8.1	3376.	.937	4.	17.1	3040.	2594.
3500.	8.3	3937.	1.133	5.	21.1	2838.	2403.

ALT. 30000.

500.	6.9	561.	.131	0.	2.3	4199.	3713.
1000.	7.1	1119.	.268	1.	4.3	4039.	3561.
1500.	7.2	1679.	.411	2.	6.7	3882.	3411.
2000.	7.4	2238.	.560	2.	9.3	3727.	3264.
2500.	7.5	2797.	.716	3.	12.1	3575.	3121.
3000.	7.7	3353.	.879	4.	15.0	3427.	2981.
3500.	7.8	3906.	1.050	5.	18.1	3280.	2845.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC.
ANGLE OFF 0.0 DEG.

ALT. 10000. FT.
TGT. VEL 844. FT./SEC.

TGT. GEES 1.0
ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	0.0	627.	.150	1.	0.0	3997.	3153.
1000.	0.0	1268.	.317	1.	0.0	3643.	2799.
1500.	0.0	1929.	.506	2.	0.0	3297.	2453.
2000.	0.0	2615.	.719	3.	0.0	2959.	2115.
2500.	0.0	3332.	.965	4.	0.0	2625.	1781.
3000.	0.0	4095.	1.253	6.	0.0	2292.	1448.
3500.	0.0	4926.	1.602	8.	0.0	1953.	1109.

ALT. 20000.

500.	0.0	624.	.148	1.	0.0	4102.	3258.
1000.	0.0	1260.	.307	1.	0.0	3846.	3002.
1500.	0.0	1907.	.480	2.	0.0	3596.	2752.
2000.	0.0	2566.	.668	3.	0.0	3351.	2507.
2500.	0.0	3245.	.873	4.	0.0	3110.	2266.
3000.	0.0	3940.	1.098	5.	0.0	2872.	2028.
3500.	0.0	4662.	1.348	6.	0.0	2636.	1792.

ALT. 30000.

500.	0.0	623.	.146	1.	0.0	4182.	3338.
1000.	0.0	1252.	.300	1.	0.0	4003.	3159.
1500.	0.0	1890.	.462	2.	0.0	3828.	2984.
2000.	0.0	2537.	.634	3.	0.0	3654.	2810.
2500.	0.0	3191.	.816	3.	0.0	3484.	2640.
3000.	0.0	3857.	1.009	4.	0.0	3315.	2471.
3500.	0.0	4534.	1.214	5.	0.0	3149.	2305.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 1.0
ANGLE OFF 10.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PRCJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	2.0	624.	.149	1.	0.0	3999.	3163.
1000.	2.1	1265.	.316	1.	0.0	3645.	2809.
1500.	2.2	1923.	.504	2.	0.0	3301.	2464.
2000.	2.3	2605.	.716	3.	0.0	2963.	2127.
2500.	2.4	3318.	.960	4.	0.0	2632.	1795.
3000.	2.6	4074.	1.245	6.	0.0	2301.	1464.
3500.	2.7	4899.	1.591	8.	0.0	1964.	1126.

ALT. 20000.

500.	2.0	623.	.147	1.	0.0	4102.	3267.
1000.	2.0	1255.	.306	1.	0.0	3848.	3012.
1500.	2.1	1899.	.478	2.	0.0	3599.	2763.
2000.	2.2	2559.	.665	3.	0.0	3354.	2518.
2500.	2.3	3232.	.869	4.	0.0	3114.	2278.
3000.	2.3	3926.	1.094	5.	0.0	2877.	2040.
3500.	2.4	4643.	1.341	6.	0.0	2642.	1805.

ALT. 30000.

500.	2.0	621.	.145	1.	0.0	4182.	3346.
1000.	2.0	1249.	.299	1.	0.0	4004.	3168.
1500.	2.1	1885.	.461	2.	0.0	3829.	2993.
2000.	2.1	2527.	.631	3.	0.0	3657.	2821.
2500.	2.1	3180.	.812	3.	0.0	3486.	2650.
3000.	2.2	3843.	1.004	4.	0.0	3319.	2482.
3500.	2.2	4516.	1.208	5.	0.0	3153.	2317.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 1.0
 ANGLE OFF 20.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	4.0	620.	.148	1.	0.0	4001.	3190.
1000.	4.1	1252.	.313	1.	0.0	3651.	2840.
1500.	4.3	1902.	.498	2.	0.0	3311.	2498.
2000.	4.5	2576.	.707	3.	0.0	2978.	2164.
2500.	4.8	3277.	.945	4.	0.0	2650.	1836.
3000.	5.0	4020.	1.223	6.	0.0	2324.	1509.
3500.	5.3	4821.	1.556	8.	0.0	1994.	1178.

ALT. 20000.

500.	3.9	616.	.146	1.	0.0	4105.	3294.
1000.	4.0	1243.	.303	1.	0.0	3853.	3042.
1500.	4.2	1880.	.473	2.	0.0	3606.	2794.
2000.	4.3	2532.	.658	3.	0.0	3364.	2551.
2500.	4.4	3196.	.858	4.	0.0	3127.	2314.
3000.	4.6	3880.	1.078	5.	0.0	2892.	2078.
3500.	4.8	4585.	1.321	6.	0.0	2660.	1846.

ALT. 30000.

500.	3.9	616.	.144	1.	0.0	4183.	3373.
1000.	4.0	1238.	.296	1.	0.0	4007.	3196.
1500.	4.0	1866.	.456	2.	0.0	3834.	3023.
2000.	4.1	2504.	.625	3.	0.0	3663.	2851.
2500.	4.2	3148.	.803	3.	0.0	3495.	2683.
3000.	4.3	3802.	.992	4.	0.0	3329.	2516.
3500.	4.4	4468.	1.193	5.	0.0	3165.	2352.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 1.0
ANGLE OFF 30.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	5.8	610.	.146	1.	0.0	4007.	3237.
1000.	6.0	1232.	.308	1.	0.0	3662.	2891.
1500.	6.3	1871.	.488	2.	0.0	3327.	2554.
2000.	6.6	2529.	.692	3.	0.0	3000.	2225.
2500.	7.0	3212.	.922	4.	0.0	2680.	1903.
3000.	7.3	3930.	1.189	6.	0.0	2362.	1583.
3500.	7.8	4699.	1.503	8.	0.0	2043.	1262.

ALT. 20000.

500.	5.7	609.	.144	1.	0.0	4108.	3339.
1000.	5.9	1224.	.298	1.	0.0	3860.	3090.
1500.	6.1	1851.	.465	2.	0.0	3617.	2846.
2000.	6.3	2490.	.645	3.	0.0	3379.	2607.
2500.	6.5	3140.	.841	4.	0.0	3146.	2372.
3000.	6.7	3809.	1.055	5.	0.0	2916.	2141.
3500.	6.9	4495.	1.289	6.	0.0	2690.	1913.

ALT. 30000.

500.	5.7	607.	.142	1.	0.0	4186.	3417.
1000.	5.8	1220.	.291	1.	0.0	4012.	3243.
1500.	5.9	1838.	.449	2.	0.0	3842.	3071.
2000.	6.0	2463.	.614	2.	0.0	3674.	2903.
2500.	6.2	3098.	.789	3.	0.0	3508.	2736.
3000.	6.3	3738.	.973	4.	0.0	3345.	2572.
3500.	6.5	4390.	1.169	5.	0.0	3184.	2410.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC.
ANGLE OFF 40.0 DEG.

ALT. 10000. FT.
TGT. VEL 844. FT./SEC.

TGT. GEES 1.0
ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	7.4	598.	.143	1.	0.0	4014.	3302.
1000.	7.8	1205.	.300	1.	0.0	3677.	2963.
1500.	8.1	1827.	.476	2.	0.0	3349.	2633.
2000.	8.5	2466.	.671	3.	0.0	3030.	2311.
2500.	8.9	3127.	.892	4.	0.0	2718.	1996.
3000.	9.4	3815.	1.144	6.	0.0	2412.	1686.
3500.	9.9	4545.	1.437	7.	0.0	2106.	1376.

ALT. 20000.

500.	7.4	596.	.141	1.	0.0	4113.	3403.
1000.	7.6	1199.	.292	1.	0.0	3870.	3158.
1500.	7.8	1812.	.454	2.	0.0	3632.	2918.
2000.	8.1	2434.	.629	3.	0.0	3400.	2684.
2500.	8.3	3066.	.818	4.	0.0	3172.	2454.
3000.	8.6	3713.	1.023	5.	0.0	2948.	2228.
3500.	8.9	4376.	1.247	6.	0.0	2728.	2006.

ALT. 30000.

500.	7.3	595.	.139	1.	0.0	4190.	3480.
1000.	7.4	1195.	.285	1.	0.0	4019.	3308.
1500.	7.6	1799.	.438	2.	0.0	3852.	3140.
2000.	7.8	2410.	.600	2.	0.0	3688.	2974.
2500.	7.9	3029.	.770	3.	0.0	3526.	2810.
3000.	8.1	3654.	.949	4.	0.0	3366.	2650.
3500.	8.3	4287.	1.138	5.	0.0	3209.	2491.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 1.0
ANGLE OFF 50.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	8.9	582.	.139	1.	0.0	4023.	3387.
1000.	9.2	1174.	.292	1.	0.0	3693.	3054.
1500.	9.7	1777.	.461	2.	0.0	3375.	2732.
2000.	10.1	2393.	.648	3.	0.0	3066.	2419.
2500.	10.6	3026.	.857	4.	0.0	2765.	2113.
3000.	11.1	3682.	1.094	5.	0.0	2470.	1813.
3500.	11.6	4366.	1.363	7.	0.0	2179.	1517.

ALT. 20000.

500.	8.8	580.	.137	1.	0.0	4120.	3485.
1000.	9.0	1168.	.284	1.	0.0	3883.	3245.
1500.	9.3	1763.	.441	2.	0.0	3651.	3011.
2000.	9.6	2365.	.609	3.	0.0	3425.	2783.
2500.	9.9	2977.	.791	3.	0.0	3204.	2558.
3000.	10.2	3599.	.986	4.	0.0	2987.	2339.
3500.	10.5	4235.	1.198	5.	0.0	2774.	2123.

ALT. 30000.

500.	8.7	580.	.136	1.	0.0	4194.	3560.
1000.	8.9	1165.	.278	1.	0.0	4028.	3392.
1500.	9.0	1754.	.427	2.	0.0	3865.	3227.
2000.	9.2	2348.	.583	2.	0.0	3704.	3065.
2500.	9.4	2946.	.747	3.	0.0	3547.	2906.
3000.	9.6	3552.	.919	4.	0.0	3392.	2749.
3500.	9.8	4163.	1.100	5.	0.0	3239.	2594.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 2.0
 ANGLE OFF 0.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	0.0	627.	.150	1.	1.0	3997.	3153.
1000.	0.0	1268.	.317	1.	2.2	3643.	2799.
1500.	0.0	1929.	.506	2.	3.7	3297.	2454.
2000.	0.0	2614.	.719	3.	5.5	2959.	2115.
2500.	0.0	3330.	.965	4.	7.8	2625.	1782.
3000.	0.0	4091.	1.253	6.	10.7	2292.	1449.
3500.	0.0	4918.	1.602	8.	14.5	1953.	1110.

ALT. 20000.

500.	0.0	624.	.148	1.	1.0	4102.	3258.
1000.	0.0	1260.	.307	1.	2.1	3846.	3002.
1500.	0.0	1907.	.480	2.	3.4	3596.	2752.
2000.	0.0	2566.	.668	3.	4.8	3351.	2507.
2500.	0.0	3243.	.873	4.	6.5	3110.	2266.
3000.	0.0	3937.	1.098	5.	8.5	2872.	2028.
3500.	0.0	4657.	1.348	6.	10.9	2636.	1792.

ALT. 30000.

500.	0.0	623.	.146	1.	1.0	4182.	3338.
1000.	0.0	1252.	.300	1.	2.0	4003.	3159.
1500.	0.0	1890.	.462	2.	3.1	3828.	2984.
2000.	0.0	2536.	.634	3.	4.4	3654.	2810.
2500.	0.0	3190.	.816	3.	5.8	3484.	2640.
3000.	0.0	3855.	1.009	4.	7.3	3315.	2471.
3500.	0.0	4530.	1.214	5.	9.1	3149.	2305.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 2.0
ANGLE OFF 10.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	2.0	624.	.149	1.	1.0	3999.	3163.
1000.	2.1	1264.	.316	1.	2.2	3645.	2810.
1500.	2.2	1921.	.504	2.	3.7	3301.	2466.
2000.	2.3	2603.	.716	3.	5.6	2963.	2129.
2500.	2.4	3313.	.960	4.	7.9	2632.	1798.
3000.	2.6	4065.	1.245	6.	10.9	2301.	1468.
3500.	2.7	4883.	1.591	8.	14.9	1964.	1131.

ALT. 20000.

500.	2.0	623.	.147	1.	1.0	4102.	3267.
1000.	2.0	1255.	.306	1.	2.1	3848.	3013.
1500.	2.1	1898.	.478	2.	3.3	3599.	2765.
2000.	2.2	2556.	.665	3.	4.8	3354.	2520.
2500.	2.3	3228.	.869	4.	6.5	3114.	2280.
3000.	2.3	3919.	1.094	5.	8.5	2877.	2044.
3500.	2.4	4632.	1.341	6.	10.9	2642.	1810.

ALT. 30000.

500.	2.0	621.	.145	1.	.9	4182.	3347.
1000.	2.0	1249.	.299	1.	2.0	4004.	3169.
1500.	2.1	1884.	.461	2.	3.1	3829.	2995.
2000.	2.1	2525.	.631	3.	4.4	3657.	2823.
2500.	2.1	3177.	.812	3.	5.8	3486.	2653.
3000.	2.2	3837.	1.004	4.	7.3	3319.	2486.
3500.	2.2	4508.	1.208	5.	9.0	3153.	2321.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 2.0
 ANGLE OFF 20.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	4.0	619.	.148	1.	1.0	4001.	3191.
1000.	4.1	1252.	.313	1.	2.1	3651.	2841.
1500.	4.3	1900.	.498	2.	3.6	3311.	2501.
2000.	4.5	2571.	.707	3.	5.4	2978.	2168.
2500.	4.8	3269.	.945	4.	7.7	2650.	1841.
3000.	5.0	4006.	1.223	6.	10.7	2324.	1516.
3500.	5.3	4797.	1.556	8.	14.8	1994.	1187.

ALT. 20000.

500.	3.9	616.	.146	1.	.9	4105.	3295.
1000.	4.0	1242.	.303	1.	2.0	3853.	3043.
1500.	4.2	1879.	.473	2.	3.2	3606.	2797.
2000.	4.3	2528.	.658	3.	4.7	3364.	2555.
2500.	4.4	3189.	.858	4.	6.3	3127.	2319.
3000.	4.6	3870.	1.078	5.	8.3	2892.	2085.
3500.	4.8	4568.	1.321	6.	10.6	2660.	1854.

ALT. 30000.

500.	3.9	616.	.144	1.	1.0	4183.	3374.
1000.	4.0	1238.	.296	1.	1.9	4007.	3198.
1500.	4.0	1865.	.456	2.	3.0	3834.	3025.
2000.	4.1	2501.	.625	3.	4.2	3663.	2855.
2500.	4.2	3142.	.803	3.	5.5	3495.	2688.
3000.	4.3	3793.	.992	4.	7.0	3329.	2522.
3500.	4.4	4454.	1.193	5.	8.7	3165.	2359.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 2.0
ANGLE OFF 30.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	5.8	610.	.146	1.	1.0	4007.	3238.
1000.	6.0	1231.	.308	1.	2.0	3662.	2894.
1500.	6.3	1868.	.488	2.	3.4	3327.	2558.
2000.	6.6	2523.	.692	3.	5.1	3000.	2232.
2500.	7.0	3201.	.922	4.	7.3	2680.	1911.
3000.	7.3	3912.	1.189	6.	10.1	2362.	1594.
3500.	7.8	4670.	1.503	8.	14.0	2043.	1275.

ALT. 20000.

500.	5.7	608.	.144	1.	.9	4108.	3340.
1000.	5.9	1223.	.298	1.	1.8	3860.	3093.
1500.	6.1	1848.	.465	2.	3.0	3617.	2850.
2000.	6.3	2485.	.645	3.	4.4	3379.	2613.
2500.	6.5	3131.	.841	4.	5.9	3146.	2380.
3000.	6.7	3794.	1.055	5.	7.8	2916.	2150.
3500.	6.9	4473.	1.289	6.	9.9	2690.	1925.

ALT. 30000.

500.	5.7	607.	.142	1.	.9	4186.	3418.
1000.	5.8	1219.	.291	1.	1.8	4012.	3246.
1500.	5.9	1836.	.449	2.	2.8	3842.	3075.
2000.	6.0	2459.	.614	2.	3.9	3674.	2908.
2500.	6.2	3090.	.789	3.	5.2	3508.	2743.
3000.	6.3	3726.	.973	4.	6.5	3345.	2581.
3500.	6.5	4372.	1.169	5.	8.1	3184.	2421.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 2.0
 ANGLE OFF 40.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	7.4	597.	.143	1.	.9	4014.	3304.
1000.	7.8	1204.	.300	1.	1.8	3677.	2966.
1500.	8.1	1824.	.476	2.	3.0	3349.	2638.
2000.	8.5	2459.	.671	3.	4.6	3030.	2319.
2500.	8.9	3115.	.892	4.	6.7	2718.	2006.
3000.	9.4	3794.	1.144	6.	9.2	2412.	1699.
3500.	9.9	4511.	1.437	7.	12.7	2106.	1392.

ALT. 20000.

500.	7.4	596.	.141	1.	.8	4113.	3405.
1000.	7.6	1198.	.292	1.	1.7	3870.	3161.
1500.	7.8	1809.	.454	2.	2.8	3632.	2924.
2000.	8.1	2427.	.629	3.	4.0	3400.	2691.
2500.	8.3	3056.	.818	4.	5.4	3172.	2464.
3000.	8.6	3696.	1.023	5.	7.0	2948.	2240.
3500.	8.9	4350.	1.247	6.	9.0	2728.	2020.

ALT. 30000.

500.	7.3	594.	.139	1.	.7	4190.	3481.
1000.	7.4	1193.	.285	1.	1.6	4019.	3312.
1500.	7.6	1796.	.438	2.	2.5	3852.	3145.
2000.	7.8	2404.	.600	2.	3.5	3688.	2981.
2500.	7.9	3019.	.770	3.	4.7	3526.	2820.
3000.	8.1	3639.	.949	4.	5.9	3366.	2661.
3500.	8.3	4266.	1.138	5.	7.3	3209.	2505.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 2.0
ANGLE OFF 50.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	8.9	582.	.139	1.	.6	4023.	3389.
1000.	9.2	1173.	.292	1.	1.6	3693.	3059.
1500.	9.7	1773.	.461	2.	2.7	3375.	2739.
2000.	10.1	2385.	.648	3.	4.0	3066.	2429.
2500.	10.6	3012.	.857	4.	5.8	2765.	2126.
3000.	11.1	3659.	1.094	5.	8.0	2470.	1829.
3500.	11.6	4331.	1.363	7.	10.9	2179.	1536.

ALT. 20000.

500.	8.8	580.	.137	1.	.5	4120.	3487.
1000.	9.0	1166.	.284	1.	1.4	3883.	3250.
1500.	9.3	1760.	.441	2.	2.4	3651.	3018.
2000.	9.6	2358.	.609	3.	3.4	3425.	2792.
2500.	9.9	2965.	.791	3.	4.7	3204.	2570.
3000.	10.2	3581.	.986	4.	6.1	2987.	2354.
3500.	10.5	4207.	1.198	5.	7.8	2774.	2140.

ALT. 30000.

500.	8.7	580.	.136	1.	.7	4194.	3562.
1000.	8.9	1163.	.278	1.	1.4	4028.	3396.
1500.	9.0	1750.	.427	2.	2.2	3865.	3234.
2000.	9.2	2341.	.583	2.	3.1	3704.	3074.
2500.	9.4	2935.	.747	3.	4.0	3547.	2918.
3000.	9.6	3536.	.919	4.	5.2	3392.	2763.
3500.	9.8	4140.	1.100	5.	6.3	3239.	2611.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 3.0
 ANGLE OFF 0.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	0.0	627.	.150	1.	1.6	3997.	3153.
1000.	0.0	1268.	.317	1.	3.6	3643.	2799.
1500.	0.0	1928.	.506	2.	6.0	3297.	2454.
2000.	0.0	2613.	.719	3.	9.0	2959.	2115.
2500.	0.0	3328.	.965	5.	12.7	2625.	1782.
3000.	0.0	4085.	1.253	6.	17.5	2292.	1449.
3500.	0.0	4906.	1.602	8.	23.8	1953.	1111.

ALT. 20000.

500.	0.0	624.	.148	1.	1.6	4102.	3258.
1000.	0.0	1260.	.307	1.	3.4	3846.	3002.
1500.	0.0	1906.	.480	2.	5.5	3596.	2752.
2000.	0.0	2565.	.668	3.	7.9	3351.	2508.
2500.	0.0	3241.	.873	4.	10.7	3110.	2266.
3000.	0.0	3933.	1.098	5.	13.9	2872.	2029.
3500.	0.0	4650.	1.348	6.	17.8	2636.	1793.

ALT. 30000.

500.	0.0	623.	.146	1.	1.6	4182.	3338.
1000.	0.0	1252.	.300	1.	3.3	4003.	3159.
1500.	0.0	1889.	.462	2.	5.1	3828.	2984.
2000.	0.0	2535.	.634	3.	7.2	3654.	2811.
2500.	0.0	3189.	.816	3.	9.5	3484.	2640.
3000.	0.0	3852.	1.009	4.	12.0	3315.	2472.
3500.	0.0	4525.	1.214	5.	14.8	3149.	2306.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 3.0
ANGLE OFF 10.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	2.0	624.	.149	1.	1.6	3999.	3164.
1000.	2.1	1264.	.316	1.	3.6	3645.	2810.
1500.	2.2	1920.	.504	2.	6.0	3301.	2467.
2000.	2.3	2601.	.716	3.	9.0	2963.	2131.
2500.	2.4	3308.	.960	4.	12.7	2632.	1800.
3000.	2.6	4056.	1.245	6.	17.5	2301.	1471.
3500.	2.7	4865.	1.591	8.	23.9	1964.	1135.

ALT. 20000.

500.	2.0	623.	.147	1.	1.6	4102.	3268.
1000.	2.0	1255.	.306	1.	3.4	3848.	3014.
1500.	2.1	1897.	.478	2.	5.4	3599.	2766.
2000.	2.2	2554.	.665	3.	7.8	3354.	2522.
2500.	2.3	3224.	.869	4.	10.6	3114.	2282.
3000.	2.3	3912.	1.094	5.	13.8	2877.	2046.
3500.	2.4	4621.	1.341	6.	17.6	2642.	1813.

ALT. 30000.

500.	2.0	621.	.145	1.	1.5	4182.	3347.
1000.	2.0	1249.	.299	1.	3.2	4004.	3170.
1500.	2.1	1883.	.461	2.	5.1	3829.	2996.
2000.	2.1	2524.	.631	3.	7.1	3657.	2824.
2500.	2.1	3174.	.812	3.	9.4	3486.	2655.
3000.	2.2	3832.	1.004	4.	11.9	3319.	2488.
3500.	2.2	4499.	1.208	5.	14.6	3153.	2323.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 3.0
 ANGLE OFF 20.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	4.0	619.	.148	1.	1.6	4001.	3192.
1000.	4.1	1251.	.313	1.	3.5	3651.	2843.
1500.	4.3	1899.	.498	2.	5.8	3311.	2503.
2000.	4.5	2568.	.707	3.	8.7	2978.	2171.
2500.	4.8	3263.	.945	4.	12.3	2650.	1845.
3000.	5.0	3993.	1.223	6.	17.0	2324.	1521.
3500.	5.3	4776.	1.556	8.	23.2	1994.	1193.

ALT. 20000.

500.	3.9	616.	.146	1.	1.4	4105.	3296.
1000.	4.0	1242.	.303	1.	3.2	3853.	3045.
1500.	4.2	1877.	.473	2.	5.2	3606.	2799.
2000.	4.3	2525.	.658	3.	7.5	3364.	2558.
2500.	4.4	3184.	.858	4.	10.2	3127.	2322.
3000.	4.6	3861.	1.078	5.	13.3	2892.	2089.
3500.	4.8	4554.	1.321	6.	17.0	2660.	1860.

ALT. 30000.

500.	3.9	616.	.144	1.	1.5	4183.	3374.
1000.	4.0	1237.	.296	1.	3.1	4007.	3199.
1500.	4.0	1863.	.456	2.	4.9	3834.	3027.
2000.	4.1	2498.	.625	3.	6.8	3663.	2858.
2500.	4.2	3137.	.803	3.	9.0	3495.	2691.
3000.	4.3	3786.	.992	4.	11.4	3329.	2527.
3500.	4.4	4443.	1.193	5.	14.0	3165.	2364.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 3.0
ANGLE OFF 30.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	5.8	610.	.146	1.	1.5	4007.	3239.
1000.	6.0	1230.	.308	1.	3.2	3662.	2896.
1500.	6.3	1866.	.488	2.	5.4	3327.	2561.
2000.	6.6	2519.	.692	3.	8.1	3000.	2236.
2500.	7.0	3193.	.922	4.	11.5	2680.	1917.
3000.	7.3	3898.	1.189	6.	15.9	2362.	1601.
3500.	7.8	4645.	1.503	8.	21.7	2043.	1283.

ALT. 20000.

500.	5.7	608.	.144	1.	1.5	4108.	3341.
1000.	5.9	1222.	.298	1.	3.0	3860.	3095.
1500.	6.1	1846.	.465	2.	4.9	3617.	2853.
2000.	6.3	2481.	.645	3.	7.1	3379.	2616.
2500.	6.5	3124.	.841	4.	9.5	3146.	2385.
3000.	6.7	3783.	1.055	5.	12.4	2916.	2157.
3500.	6.9	4456.	1.289	6.	15.8	2690.	1932.

ALT. 30000.

500.	5.7	607.	.142	1.	1.4	4186.	3419.
1000.	5.8	1218.	.291	1.	2.9	4012.	3247.
1500.	5.9	1834.	.449	2.	4.6	3842.	3078.
2000.	6.0	2455.	.614	2.	6.4	3674.	2912.
2500.	6.2	3084.	.789	3.	8.4	3508.	2748.
3000.	6.3	3717.	.973	4.	10.6	3345.	2587.
3500.	6.5	4358.	1.169	5.	13.0	3184.	2428.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC.
ANGLE OFF 40.0 DEG.

ALT. 10000. FT.
TGT. VEL 844. FT./SEC.

TGT. GEES 3.0
ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	7.4	597.	.143	1.	1.4	4014.	3305.
1000.	7.8	1203.	.300	1.	2.9	3677.	2969.
1500.	8.1	1821.	.476	2.	4.9	3349.	2642.
2000.	8.5	2454.	.671	3.	7.3	3030.	2324.
2500.	8.9	3106.	.892	4.	10.4	2718.	2013.
3000.	9.4	3778.	1.144	6.	14.3	2412.	1708.
3500.	9.9	4485.	1.437	7.	19.4	2106.	1403.

ALT. 20000.

500.	7.4	596.	.141	1.	1.3	4113.	3406.
1000.	7.6	1197.	.292	1.	2.7	3870.	3164.
1500.	7.8	1806.	.454	2.	4.5	3632.	2927.
2000.	8.1	2423.	.629	3.	6.4	3400.	2696.
2500.	8.3	3048.	.818	4.	8.6	3172.	2470.
3000.	8.6	3684.	1.023	5.	11.2	2948.	2248.
3500.	8.9	4331.	1.247	6.	14.2	2728.	2030.

ALT. 30000.

500.	7.3	594.	.139	1.	1.2	4190.	3482.
1000.	7.4	1192.	.285	1.	2.6	4019.	3314.
1500.	7.6	1794.	.438	2.	4.1	3852.	3149.
2000.	7.8	2401.	.600	2.	5.7	3688.	2986.
2500.	7.9	3013.	.770	3.	7.6	3526.	2826.
3000.	8.1	3629.	.949	4.	9.5	3366.	2669.
3500.	8.3	4250.	1.138	5.	11.7	3209.	2514.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 3.0
ANGLE OFF 50.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	8.9	581.	.139	1.	1.1	4023.	3390.
1000.	9.2	1172.	.292	1.	2.6	3693.	3062.
1500.	9.7	1771.	.461	2.	4.3	3375.	2743.
2000.	10.1	2380.	.648	3.	6.4	3066.	2435.
2500.	10.6	3002.	.857	4.	9.0	2765.	2135.
3000.	11.1	3643.	1.094	5.	12.3	2470.	1840.
3500.	11.6	4305.	1.363	7.	16.5	2179.	1550.

ALT. 20000.

500.	8.8	580.	.137	1.	1.0	4120.	3489.
1000.	9.0	1165.	.284	1.	2.3	3883.	3253.
1500.	9.3	1757.	.441	2.	3.9	3651.	3022.
2000.	9.6	2353.	.609	3.	5.5	3425.	2798.
2500.	9.9	2957.	.791	3.	7.4	3204.	2578.
3000.	10.2	3567.	.986	4.	9.6	2987.	2363.
3500.	10.5	4187.	1.198	6.	12.2	2774.	2152.

ALT. 30000.

500.	8.7	580.	.136	1.	1.1	4194.	3563.
1000.	8.9	1162.	.278	1.	2.3	4028.	3399.
1500.	9.0	1748.	.427	2.	3.6	3865.	3238.
2000.	9.2	2337.	.583	2.	5.0	3704.	3080.
2500.	9.4	2928.	.747	3.	6.5	3547.	2925.
3000.	9.6	3525.	.919	4.	8.2	3392.	2772.
3500.	9.8	4123.	1.100	5.	10.1	3239.	2622.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 4.0
 ANGLE OFF 0.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PRGJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	0.0	627.	.150	1.	2.2	3997.	3153.
1000.	0.0	1268.	.317	1.	4.9	3643.	2799.
1500.	0.0	1928.	.506	2.	8.3	3297.	2454.
2000.	0.0	2611.	.719	3.	12.3	2959.	2116.
2500.	0.0	3324.	.965	5.	17.4	2625.	1783.
3000.	0.0	4077.	1.253	6.	23.9	2292.	1450.
3500.	0.0	4888.	1.602	8.	32.6	1953.	1112.

ALT. 20000.

500.	0.0	624.	.148	1.	2.2	4102.	3258.
1000.	0.0	1260.	.307	1.	4.7	3846.	3002.
1500.	0.0	1906.	.480	2.	7.5	3596.	2753.
2000.	0.0	2564.	.668	3.	10.8	3351.	2508.
2500.	0.0	3238.	.873	4.	14.7	3110.	2267.
3000.	0.0	3928.	1.098	5.	19.1	2872.	2030.
3500.	0.0	4639.	1.348	6.	24.3	2636.	1794.

ALT. 30000.

500.	0.0	623.	.146	1.	2.1	4182.	3338.
1000.	0.0	1252.	.300	1.	4.5	4003.	3159.
1500.	0.0	1889.	.462	2.	7.0	3828.	2984.
2000.	0.0	2534.	.634	3.	9.9	3654.	2811.
2500.	0.0	3186.	.816	3.	13.0	3484.	2641.
3000.	0.0	3848.	1.009	4.	16.4	3315.	2473.
3500.	0.0	4517.	1.214	5.	20.3	3149.	2307.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 4.0
ANGLE OFF 10.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	2.0	624.	.149	1.	2.2	3999.	3164.
1000.	2.1	1264.	.316	1.	4.9	3645.	2811.
1500.	2.2	1919.	.504	2.	8.2	3301.	2468.
2000.	2.3	2598.	.716	3.	12.3	2963.	2132.
2500.	2.4	3302.	.960	4.	17.3	2632.	1802.
3000.	2.6	4044.	1.245	6.	23.8	2301.	1474.
3500.	2.7	4843.	1.591	8.	32.5	1964.	1139.

ALT. 20000.

500.	2.0	622.	.147	1.	2.1	4102.	3268.
1000.	2.0	1254.	.306	1.	4.6	3848.	3014.
1500.	2.1	1896.	.473	2.	7.4	3599.	2767.
2000.	2.2	2552.	.665	3.	10.7	3354.	2523.
2500.	2.3	3220.	.869	4.	14.5	3114.	2284.
3000.	2.3	3904.	1.094	5.	18.9	2877.	2049.
3500.	2.4	4607.	1.341	6.	24.1	2642.	1816.

ALT. 30000.

500.	2.0	621.	.145	1.	2.1	4182.	3347.
1000.	2.0	1248.	.299	1.	4.4	4004.	3171.
1500.	2.1	1882.	.461	2.	7.0	3829.	2997.
2000.	2.1	2522.	.631	3.	9.7	3657.	2826.
2500.	2.1	3170.	.812	3.	12.8	3486.	2657.
3000.	2.2	3825.	1.004	4.	16.2	3319.	2491.
3500.	2.2	4488.	1.208	5.	19.9	3153.	2327.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 4.0
 ANGLE OFF 20.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	4.0	619.	.148	1.	2.2	4001.	3192.
1000.	4.1	1250.	.313	1.	4.7	3651.	2844.
1500.	4.3	1897.	.498	2.	7.9	3311.	2505.
2000.	4.5	2564.	.707	3.	11.8	2978.	2174.
2500.	4.8	3255.	.945	4.	16.7	2650.	1849.
3000.	5.0	3980.	1.223	6.	23.0	2324.	1526.
3500.	5.3	4751.	1.556	8.	31.3	1994.	1200.

ALT. 20000.

500.	3.9	616.	.146	1.	2.0	4105.	3296.
1000.	4.0	1241.	.303	1.	4.4	3853.	3046.
1500.	4.2	1876.	.473	2.	7.1	3606.	2801.
2000.	4.3	2522.	.658	3.	10.3	3364.	2561.
2500.	4.4	3178.	.858	4.	13.9	3127.	2326.
3000.	4.6	3850.	1.078	5.	18.1	2892.	2094.
3500.	4.8	4537.	1.321	6.	23.0	2660.	1865.

ALT. 30000.

500.	3.9	616.	.144	1.	2.1	4183.	3375.
1000.	4.0	1237.	.296	1.	4.3	4007.	3200.
1500.	4.0	1862.	.456	2.	6.7	3834.	3029.
2000.	4.1	2495.	.625	3.	9.3	3663.	2860.
2500.	4.2	3132.	.803	3.	12.2	3495.	2695.
3000.	4.3	3777.	.992	4.	15.5	3329.	2531.
3500.	4.4	4430.	1.193	5.	19.1	3165.	2369.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 4.0
ANGLE OFF 30.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	5.8	610.	.146	1.	2.1	4007.	3240.
1000.	6.0	1229.	.308	1.	4.4	3662.	2897.
1500.	6.3	1864.	.488	2.	7.4	3327.	2564.
2000.	6.6	2514.	.692	3.	11.0	3000.	2240.
2500.	7.0	3185.	.922	4.	15.5	2680.	1922.
3000.	7.3	3883.	1.189	6.	21.3	2362.	1608.
3500.	7.8	4619.	1.503	8.	28.9	2043.	1292.

ALT. 20000.

500.	5.7	608.	.144	1.	2.0	4108.	3342.
1000.	5.9	1222.	.298	1.	4.1	3860.	3096.
1500.	6.1	1844.	.465	2.	6.6	3617.	2856.
2000.	6.3	2477.	.645	3.	9.6	3379.	2620.
2500.	6.5	3117.	.841	4.	12.9	3146.	2390.
3000.	6.7	3772.	1.055	5.	16.8	2916.	2163.
3500.	6.9	4437.	1.289	6.	21.4	2690.	1940.

ALT. 30000.

500.	5.7	606.	.142	1.	1.9	4186.	3420.
1000.	5.8	1217.	.291	1.	4.0	4012.	3249.
1500.	5.9	1832.	.449	2.	6.2	3842.	3081.
2000.	6.0	2452.	.614	2.	8.7	3674.	2916.
2500.	6.2	3078.	.789	3.	11.4	3508.	2753.
3000.	6.3	3707.	.973	4.	14.4	3345.	2593.
3500.	6.5	4343.	1.169	5.	17.7	3184.	2435.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 4.0
 ANGLE OFF 40.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	7.4	597.	.143	1.	1.9	4014.	3306.
1000.	7.8	1202.	.300	1.	3.9	3677.	2971.
1500.	8.1	1819.	.476	2.	6.6	3349.	2646.
2000.	8.5	2449.	.671	3.	9.9	3030.	2329.
2500.	8.9	3096.	.892	4.	14.0	2718.	2020.
3000.	9.4	3762.	1.144	6.	19.0	2412.	1717.
3500.	9.9	4458.	1.437	7.	25.7	2106.	1414.

ALT. 20000.

500.	7.4	595.	.141	1.	1.8	4113.	3407.
1000.	7.6	1196.	.292	1.	3.7	3870.	3166.
1500.	7.8	1804.	.454	2.	6.0	3632.	2931.
2000.	8.1	2419.	.629	3.	8.6	3400.	2701.
2500.	8.3	3040.	.818	4.	11.6	3172.	2477.
3000.	8.6	3671.	1.023	5.	15.1	2948.	2257.
3500.	8.9	4311.	1.247	6.	19.1	2728.	2040.

ALT. 30000.

500.	7.3	594.	.139	1.	1.7	4190.	3484.
1000.	7.4	1192.	.285	1.	3.6	4019.	3316.
1500.	7.6	1792.	.438	2.	5.6	3852.	3152.
2000.	7.8	2397.	.600	2.	7.8	3688.	2991.
2500.	7.9	3006.	.770	3.	10.3	3526.	2832.
3000.	8.1	3618.	.949	4.	12.9	3366.	2677.
3500.	8.3	4233.	1.138	5.	15.8	3209.	2524.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 4.0
ANGLE OFF 50.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	8.9	581.	.139	1.	1.5	4023.	3392.
1000.	9.2	1171.	.292	1.	3.5	3693.	3064.
1500.	9.7	1768.	.461	2.	5.8	3375.	2748.
2000.	10.1	2374.	.648	3.	8.5	3066.	2441.
2500.	10.6	2992.	.857	4.	12.0	2765.	2143.
3000.	11.1	3626.	1.094	5.	16.3	2470.	1850.
3500.	11.6	4278.	1.363	7.	21.8	2179.	1563.

ALT. 20000.

500.	8.8	580.	.137	1.	1.4	4120.	3490.
1000.	9.0	1165.	.284	1.	3.2	3883.	3255.
1500.	9.3	1755.	.441	2.	5.2	3651.	3026.
2000.	9.6	2348.	.609	3.	7.4	3425.	2804.
2500.	9.9	2949.	.791	3.	10.0	3204.	2586.
3000.	10.2	3554.	.986	4.	12.9	2987.	2373.
3500.	10.5	4167.	1.198	6.	16.3	2774.	2164.

ALT. 30000.

500.	8.7	580.	.136	1.	1.5	4194.	3565.
1000.	8.9	1162.	.278	1.	3.1	4028.	3402.
1500.	9.0	1746.	.427	2.	4.9	3865.	3242.
2000.	9.2	2333.	.583	2.	6.8	3704.	3086.
2500.	9.4	2921.	.747	3.	8.8	3547.	2932.
3000.	9.6	3513.	.919	4.	11.1	3392.	2781.
3500.	9.8	4106.	1.100	5.	13.6	3239.	2633.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 5.0
 ANGLE OFF 0.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	0.0	627.	.150	1.	2.8	3997.	3153.
1000.	0.0	1267.	.317	1.	6.3	3643.	2799.
1500.	0.0	1927.	.506	2.	10.4	3297.	2454.
2000.	0.0	2609.	.719	3.	15.6	2959.	2116.
2500.	0.0	3319.	.965	5.	22.1	2625.	1783.
3000.	0.0	4066.	1.253	6.	30.3	2292.	1452.
3500.	0.0	4866.	1.602	8.	41.3	1953.	1114.

ALT. 20000.

500.	0.0	624.	.148	1.	2.7	4102.	3258.
1000.	0.0	1260.	.307	1.	5.9	3846.	3002.
1500.	0.0	1905.	.480	2.	9.5	3596.	2753.
2000.	0.0	2562.	.668	3.	13.7	3351.	2508.
2500.	0.0	3235.	.873	4.	18.5	3110.	2267.
3000.	0.0	3920.	1.098	5.	24.2	2872.	2031.
3500.	0.0	4626.	1.348	6.	30.8	2636.	1796.

ALT. 30000.

500.	0.0	623.	.146	1.	2.7	4182.	3338.
1000.	0.0	1252.	.300	1.	5.6	4003.	3160.
1500.	0.0	1888.	.462	2.	8.9	3828.	2984.
2000.	0.0	2533.	.634	3.	12.5	3654.	2811.
2500.	0.0	3183.	.816	3.	16.4	3484.	2641.
3000.	0.0	3842.	1.009	4.	20.8	3315.	2473.
3500.	0.0	4508.	1.214	5.	25.6	3149.	2308.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 5.0
ANGLE OFF 10.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	2.0	624.	.149	1.	2.8	3999.	3164.
1000.	2.1	1263.	.316	1.	6.2	3645.	2812.
1500.	2.2	1918.	.504	2.	10.3	3301.	2469.
2000.	2.3	2595.	.716	3.	15.5	2963.	2134.
2500.	2.4	3296.	.960	4.	21.8	2632.	1805.
3000.	2.6	4031.	1.245	6.	30.0	2301.	1477.
3500.	2.7	4817.	1.591	8.	41.0	1964.	1143.

ALT. 20000.

500.	2.0	622.	.147	1.	2.7	4102.	3268.
1000.	2.0	1254.	.306	1.	5.8	3848.	3015.
1500.	2.1	1895.	.478	2.	9.4	3599.	2768.
2000.	2.2	2550.	.665	3.	13.5	3354.	2525.
2500.	2.3	3215.	.869	4.	18.3	3114.	2287.
3000.	2.3	3895.	1.094	5.	23.8	2877.	2052.
3500.	2.4	4590.	1.341	6.	30.3	2642.	1820.

ALT. 30000.

500.	2.0	621.	.145	1.	2.6	4182.	3348.
1000.	2.0	1248.	.299	1.	5.6	4004.	3171.
1500.	2.1	1881.	.461	2.	8.8	3829.	2998.
2000.	2.1	2519.	.631	3.	12.3	3657.	2827.
2500.	2.1	3166.	.812	3.	16.2	3486.	2659.
3000.	2.2	3818.	1.004	4.	20.4	3319.	2493.
3500.	2.2	4476.	1.208	5.	25.2	3153.	2330.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 5.0
 ANGLE OFF 20.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	4.0	619.	.148	1.	2.7	4001.	3193.
1000.	4.1	1250.	.313	1.	6.0	3651.	2845.
1500.	4.3	1895.	.498	2.	9.9	3311.	2507.
2000.	4.5	2560.	.707	3.	14.8	2978.	2177.
2500.	4.8	3247.	.945	4.	21.0	2650.	1853.
3000.	5.0	3964.	1.223	6.	28.9	2324.	1531.
3500.	5.3	4722.	1.556	8.	39.1	1994.	1207.

ALT. 20000.

500.	3.9	616.	.146	1.	2.5	4105.	3297.
1000.	4.0	1241.	.303	1.	5.6	3853.	3047.
1500.	4.2	1874.	.473	2.	9.0	3606.	2803.
2000.	4.3	2519.	.658	3.	13.0	3364.	2564.
2500.	4.4	3172.	.858	4.	17.5	3127.	2330.
3000.	4.6	3839.	1.078	5.	22.8	2892.	2099.
3500.	4.8	4518.	1.321	6.	29.0	2660.	1871.

ALT. 30000.

500.	3.9	616.	.144	1.	2.6	4183.	3375.
1000.	4.0	1236.	.296	1.	5.4	4007.	3202.
1500.	4.0	1861.	.456	2.	8.4	3834.	3031.
2000.	4.1	2492.	.625	3.	11.8	3663.	2863.
2500.	4.2	3127.	.803	3.	15.4	3495.	2698.
3000.	4.3	3768.	.992	4.	19.5	3329.	2535.
3500.	4.4	4415.	1.193	5.	24.0	3165.	2375.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 5.0
ANGLE OFF 30.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	5.8	609.	.146	1.	2.6	4007.	3241.
1000.	6.0	1229.	.308	1.	5.5	3662.	2899.
1500.	6.3	1862.	.488	2.	9.3	3327.	2567.
2000.	6.6	2510.	.692	3.	13.8	3000.	2244.
2500.	7.0	3175.	.922	4.	19.4	2680.	1928.
3000.	7.3	3866.	1.189	6.	26.6	2362.	1615.
3500.	7.8	4589.	1.503	8.	36.0	2043.	1302.

ALT. 20000.

500.	5.7	608.	.144	1.	2.5	4108.	3343.
1000.	5.9	1221.	.298	1.	5.2	3860.	3098.
1500.	6.1	1843.	.465	2.	8.4	3617.	2859.
2000.	6.3	2473.	.645	3.	12.1	3379.	2624.
2500.	6.5	3110.	.841	4.	16.2	3146.	2395.
3000.	6.7	3759.	1.055	5.	21.1	2916.	2170.
3500.	6.9	4416.	1.289	6.	26.8	2690.	1949.

ALT. 30000.

500.	5.7	606.	.142	1.	2.4	4186.	3421.
1000.	5.8	1216.	.291	1.	5.0	4012.	3251.
1500.	5.9	1831.	.449	2.	7.8	3842.	3084.
2000.	6.0	2448.	.614	2.	10.9	3674.	2919.
2500.	6.2	3071.	.789	3.	14.4	3508.	2758.
3000.	6.3	3696.	.973	4.	18.1	3345.	2599.
3500.	6.5	4326.	1.169	5.	22.2	3184.	2443.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 5.0
 ANGLE OFF 40.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	7.4	597.	.143	1.	2.3	4014.	3308.
1000.	7.8	1201.	.300	1.	5.0	3677.	2973.
1500.	8.1	1817.	.476	2.	8.3	3349.	2649.
2000.	8.5	2444.	.671	3.	12.4	3030.	2334.
2500.	8.9	3086.	.892	4.	17.4	2718.	2027.
3000.	9.4	3745.	1.144	6.	23.7	2412.	1726.
3500.	9.9	4428.	1.437	8.	31.8	2106.	1426.

ALT. 20000.

500.	7.4	595.	.141	1.	2.2	4113.	3408.
1000.	7.6	1195.	.292	1.	4.7	3870.	3168.
1500.	7.8	1802.	.454	2.	7.6	3632.	2934.
2000.	8.1	2414.	.629	3.	10.9	3400.	2706.
2500.	8.3	3032.	.818	4.	14.6	3172.	2483.
3000.	8.6	3658.	1.023	5.	18.9	2948.	2265.
3500.	8.9	4290.	1.247	6.	23.8	2728.	2051.

ALT. 30000.

500.	7.3	594.	.139	1.	2.1	4190.	3485.
1000.	7.4	1191.	.285	1.	4.5	4019.	3318.
1500.	7.6	1790.	.438	2.	7.0	3852.	3156.
2000.	7.8	2392.	.600	2.	9.8	3688.	2996.
2500.	7.9	2999.	.770	3.	12.9	3526.	2839.
3000.	8.1	3606.	.949	4.	16.2	3366.	2684.
3500.	8.3	4216.	1.138	5.	19.8	3209.	2533.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 5.0
ANGLE OFF 50.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	8.9	581.	.139	1.	1.9	4023.	3393.
1000.	9.2	1170.	.292	1.	4.4	3693.	3067.
1500.	9.7	1765.	.461	2.	7.3	3375.	2752.
2000.	10.1	2369.	.648	3.	10.7	3066.	2447.
2500.	10.6	2982.	.857	4.	14.9	2765.	2151.
3000.	11.1	3609.	1.094	5.	20.2	2470.	1861.
3500.	11.6	4250.	1.363	7.	26.8	2179.	1576.

ALT. 20000.

500.	8.8	579.	.137	1.	1.8	4120.	3491.
1000.	9.0	1164.	.284	1.	4.0	3883.	3258.
1500.	9.3	1752.	.441	2.	6.6	3651.	3031.
2000.	9.6	2343.	.609	3.	9.3	3425.	2810.
2500.	9.9	2940.	.791	3.	12.5	3204.	2594.
3000.	10.2	3540.	.986	4.	16.1	2987.	2383.
3500.	10.5	4146.	1.198	6.	20.3	2774.	2177.

ALT. 30000.

500.	8.7	579.	.136	1.	1.9	4194.	3566.
1000.	8.9	1161.	.278	1.	3.9	4028.	3405.
1500.	9.0	1744.	.427	2.	6.1	3865.	3247.
2000.	9.2	2328.	.583	2.	8.5	3704.	3092.
2500.	9.4	2913.	.747	3.	11.1	3547.	2940.
3000.	9.6	3501.	.919	4.	13.9	3392.	2791.
3500.	9.8	4088.	1.100	5.	17.0	3239.	2645.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 6.0
 ANGLE OFF 0.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	0.0	627.	.150	1.	3.4	3997.	3153.
1000.	0.0	1267.	.317	1.	7.6	3643.	2799.
1500.	0.0	1925.	.506	2.	12.6	3297.	2454.
2000.	0.0	2607.	.719	3.	18.9	2959.	2117.
2500.	0.0	3313.	.965	5.	26.6	2625.	1784.
3000.	0.0	4053.	1.253	6.	36.6	2292.	1453.
3500.	0.0	4839.	1.602	9.	50.0	1953.	1117.

ALT. 20000.

500.	0.0	624.	.148	1.	3.3	4102.	3258.
1000.	0.0	1260.	.307	1.	7.1	3846.	3003.
1500.	0.0	1905.	.480	2.	11.5	3596.	2753.
2000.	0.0	2560.	.668	3.	16.5	3351.	2509.
2500.	0.0	3230.	.873	4.	22.4	3110.	2268.
3000.	0.0	3912.	1.098	5.	29.2	2872.	2032.
3500.	0.0	4610.	1.348	6.	37.2	2636.	1798.

ALT. 30000.

500.	0.0	623.	.146	1.	3.2	4182.	3338.
1000.	0.0	1252.	.300	1.	6.8	4003.	3160.
1500.	0.0	1888.	.462	2.	10.7	3828.	2984.
2000.	0.0	2531.	.634	3.	15.1	3654.	2812.
2500.	0.0	3180.	.816	3.	19.9	3484.	2642.
3000.	0.0	3835.	1.009	4.	25.1	3315.	2475.
3500.	0.0	4496.	1.214	5.	31.0	3149.	2309.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC.
ANGLE OFF 10.0 DEG.

ALT. 10000. FT.
TGT. VEL 844. FT./SEC.

TGT. GEES 6.0
ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	2.0	624.	.149	1.	3.3	3999.	3165.
1000.	2.1	1263.	.316	1.	7.5	3645.	2812.
1500.	2.2	1917.	.504	2.	12.5	3301.	2470.
2000.	2.3	2591.	.716	3.	18.6	2963.	2136.
2500.	2.4	3288.	.960	5.	26.3	2632.	1807.
3000.	2.6	4015.	1.245	6.	36.1	2301.	1480.
3500.	2.7	4787.	1.591	9.	49.3	1964.	1148.

ALT. 20000.

500.	2.0	622.	.147	1.	3.3	4102.	3268.
1000.	2.0	1254.	.306	1.	7.0	3846.	3016.
1500.	2.1	1894.	.478	2.	11.3	3599.	2769.
2000.	2.2	2547.	.665	3.	16.3	3354.	2526.
2500.	2.3	3209.	.869	4.	22.0	3114.	2289.
3000.	2.3	3884.	1.094	5.	28.7	2877.	2055.
3500.	2.4	4571.	1.341	6.	36.6	2642.	1824.

ALT. 30000.

500.	2.0	621.	.145	1.	3.2	4182.	3348.
1000.	2.0	1247.	.299	1.	6.7	4004.	3172.
1500.	2.1	1880.	.461	2.	10.6	3829.	2999.
2000.	2.1	2517.	.631	3.	14.8	3657.	2829.
2500.	2.1	3161.	.812	3.	19.5	3486.	2661.
3000.	2.2	3809.	1.004	4.	24.7	3319.	2496.
3500.	2.2	4461.	1.208	5.	30.4	3153.	2334.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC.
ANGLE OFF 20.0 DEG.

ALT. 10000. FT.
TGT. VEL 844. FT./SEC.

TGT. GEES 6.0
ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	4.0	619.	.148	1.	3.3	4001.	3193.
1000.	4.1	1249.	.313	1.	7.2	3651.	2846.
1500.	4.3	1893.	.498	2.	11.9	3311.	2509.
2000.	4.5	2556.	.707	3.	17.8	2978.	2180.
2500.	4.8	3238.	.945	4.	25.2	2650.	1857.
3000.	5.0	3947.	1.223	6.	34.6	2324.	1537.
3500.	5.3	4690.	1.556	8.	46.9	1994.	1214.

ALT. 20000.

500.	3.9	616.	.146	1.	3.1	4105.	3297.
1000.	4.0	1240.	.303	1.	6.7	3853.	3048.
1500.	4.2	1873.	.473	2.	10.8	3606.	2805.
2000.	4.3	2515.	.658	3.	15.6	3364.	2566.
2500.	4.4	3165.	.858	4.	21.0	3127.	2333.
3000.	4.6	3826.	1.078	5.	27.4	2892.	2104.
3500.	4.8	4496.	1.321	6.	34.8	2660.	1878.

ALT. 30000.

500.	3.9	616.	.144	1.	3.1	4183.	3376.
1000.	4.0	1235.	.296	1.	6.5	4007.	3203.
1500.	4.0	1859.	.456	2.	10.1	3834.	3033.
2000.	4.1	2489.	.625	3.	14.2	3663.	2866.
2500.	4.2	3121.	.803	3.	18.6	3495.	2702.
3000.	4.3	3758.	.992	4.	23.5	3329.	2540.
3500.	4.4	4398.	1.193	5.	28.9	3165.	2381.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 6.0
ANGLE OFF 30.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	5.8	609.	.146	1.	3.1	4007.	3242.
1000.	6.0	1228.	.308	1.	6.7	3662.	2901.
1500.	6.3	1860.	.488	2.	11.2	3327.	2570.
2000.	6.6	2505.	.692	3.	16.6	3000.	2248.
2500.	7.0	3165.	.922	4.	23.3	2680.	1933.
3000.	7.3	3848.	1.189	6.	31.8	2362.	1622.
3500.	7.8	4556.	1.503	8.	43.0	2043.	1312.

ALT. 20000.

500.	5.7	608.	.144	1.	3.0	4108.	3344.
1000.	5.9	1220.	.298	1.	6.3	3860.	3100.
1500.	6.1	1841.	.465	2.	10.1	3617.	2861.
2000.	6.3	2469.	.645	3.	14.5	3379.	2628.
2500.	6.5	3102.	.841	4.	19.5	3146.	2401.
3000.	6.7	3745.	1.055	5.	25.3	2916.	2177.
3500.	6.9	4394.	1.289	6.	32.1	2690.	1957.

ALT. 30000.

500.	5.7	606.	.142	1.	2.9	4186.	3422.
1000.	5.8	1216.	.291	1.	6.0	4012.	3252.
1500.	5.9	1829.	.449	2.	9.4	3842.	3086.
2000.	6.0	2444.	.614	2.	13.2	3674.	2923.
2500.	6.2	3064.	.789	3.	17.3	3508.	2763.
3000.	6.3	3685.	.973	4.	21.7	3345.	2606.
3500.	6.5	4309.	1.169	5.	26.7	3184.	2451.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 6.0
 ANGLE OFF 40.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	7.4	597.	.143	1.	2.8	4014.	3309.
1000.	7.8	1200.	.300	1.	6.0	3677.	2976.
1500.	8.1	1814.	.476	2.	10.0	3349.	2653.
2000.	8.5	2439.	.671	3.	14.8	3030.	2340.
2500.	8.9	3076.	.892	4.	20.8	2718.	2034.
3000.	9.4	3726.	1.144	6.	28.2	2412.	1735.
3500.	9.9	4397.	1.437	8.	37.8	2106.	1438.

ALT. 20000.

500.	7.4	595.	.141	1.	2.7	4113.	3409.
1000.	7.6	1194.	.292	1.	5.7	3870.	3171.
1500.	7.8	1800.	.454	2.	9.1	3632.	2938.
2000.	8.1	2409.	.629	3.	13.0	3400.	2711.
2500.	8.3	3024.	.818	4.	17.4	3172.	2490.
3000.	8.6	3643.	1.023	5.	22.6	2948.	2273.
3500.	8.9	4267.	1.247	6.	28.4	2728.	2061.

ALT. 30000.

500.	7.3	593.	.139	1.	2.6	4190.	3486.
1000.	7.4	1190.	.285	1.	5.4	4019.	3321.
1500.	7.6	1788.	.438	2.	8.5	3852.	3159.
2000.	7.8	2388.	.600	2.	11.8	3688.	3001.
2500.	7.9	2991.	.770	3.	15.5	3526.	2845.
3000.	8.1	3594.	.949	4.	19.4	3366.	2692.
3500.	8.3	4197.	1.138	5.	23.7	3209.	2543.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 6.0
ANGLE OFF 50.0 DEG. TGT. VEL 844. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	8.9	581.	.139	1.	2.3	4023.	3394.
1000.	9.2	1169.	.292	1.	5.2	3693.	3070.
1500.	9.7	1763.	.461	2.	8.7	3375.	2756.
2000.	10.1	2363.	.648	3.	12.8	3066.	2454.
2500.	10.6	2972.	.857	4.	17.7	2765.	2159.
3000.	11.1	3591.	1.094	5.	24.0	2470.	1872.
3500.	11.6	4220.	1.363	7.	31.7	2179.	1591.

ALT. 20000.

500.	8.8	579.	.137	1.	2.1	4120.	3493.
1000.	9.0	1163.	.284	1.	4.8	3883.	3261.
1500.	9.3	1750.	.441	2.	7.9	3651.	3035.
2000.	9.6	2338.	.609	3.	11.1	3425.	2816.
2500.	9.9	2932.	.791	3.	15.0	3204.	2601.
3000.	10.2	3526.	.986	4.	19.2	2987.	2393.
3500.	10.5	4123.	1.198	6.	24.2	2774.	2189.

ALT. 30000.

500.	8.7	579.	.136	1.	2.3	4194.	3567.
1000.	8.9	1160.	.278	1.	4.7	4028.	3407.
1500.	9.0	1741.	.427	2.	7.4	3865.	3251.
2000.	9.2	2324.	.583	2.	10.2	3704.	3097.
2500.	9.4	2905.	.747	3.	13.2	3547.	2947.
3000.	9.6	3489.	.919	4.	16.6	3392.	2800.
3500.	9.8	4070.	1.100	5.	20.2	3239.	2656.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 1.0
 ANGLE OFF 0.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	0.0	660.	.158	1.	0.0	3978.	2966.
1000.	0.0	1343.	.338	1.	0.0	3603.	2590.
1500.	0.0	2054.	.543	2.	0.0	3234.	2222.
2000.	0.0	2804.	.782	4.	0.0	2869.	1856.
2500.	0.0	3607.	1.066	5.	0.0	2503.	1490.
3000.	0.0	4498.	1.418	7.	0.0	2125.	1112.
3500.	0.0	5565.	1.899	10.	0.0	1708.	695.

ALT. 20000.

500.	0.0	657.	.156	1.	0.0	4088.	3076.
1000.	0.0	1330.	.326	1.	0.0	3818.	2806.
1500.	0.0	2020.	.511	2.	0.0	3554.	2541.
2000.	0.0	2730.	.716	3.	0.0	3292.	2279.
2500.	0.0	3466.	.943	4.	0.0	3033.	2020.
3000.	0.0	4234.	1.198	5.	0.0	2775.	1762.
3500.	0.0	5045.	1.488	7.	0.0	2515.	1502.

ALT. 30000.

500.	0.0	655.	.154	1.	0.0	4172.	3159.
1000.	0.0	1321.	.317	1.	0.0	3984.	2971.
1500.	0.0	1996.	.490	2.	0.0	3799.	2786.
2000.	0.0	2685.	.674	3.	0.0	3615.	2602.
2500.	0.0	3387.	.871	4.	0.0	3434.	2421.
3000.	0.0	4104.	1.082	5.	0.0	3254.	2241.
3500.	0.0	4840.	1.309	6.	0.0	3075.	2062.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 1.0
ANGLE OFF 10.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	2.4	659.	.158	1.	0.0	3979.	2975.
1000.	2.5	1338.	.337	1.	0.0	3605.	2601.
1500.	2.7	2045.	.540	2.	0.0	3239.	2235.
2000.	2.8	2790.	.777	3.	0.0	2875.	1871.
2500.	3.0	3587.	1.058	5.	0.0	2512.	1507.
3000.	3.2	4470.	1.406	7.	0.0	2136.	1131.
3500.	3.4	5518.	1.876	10.	0.0	1726.	720.

ALT. 20000.

500.	2.4	655.	.155	1.	0.0	4089.	3085.
1000.	2.5	1324.	.324	1.	0.0	3821.	2817.
1500.	2.6	2012.	.509	2.	0.0	3557.	2552.
2000.	2.6	2718.	.712	3.	0.0	3296.	2292.
2500.	2.7	3449.	.938	4.	0.0	3039.	2034.
3000.	2.8	4213.	1.191	5.	0.0	2781.	1777.
3500.	3.0	5018.	1.478	7.	0.0	2523.	1518.

ALT. 30000.

500.	2.4	654.	.153	1.	0.0	4173.	3169.
1000.	2.4	1316.	.316	1.	0.0	3985.	2982.
1500.	2.5	1990.	.488	2.	0.0	3800.	2797.
2000.	2.5	2674.	.671	3.	0.0	3618.	2614.
2500.	2.6	3373.	.867	4.	0.0	3437.	2433.
3000.	2.7	4087.	1.077	5.	0.0	3258.	2254.
3500.	2.7	4818.	1.302	6.	0.0	3080.	2076.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 1.0
 ANGLE OFF 20.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	4.8	651.	.156	1.	0.0	3984.	3006.
1000.	5.0	1323.	.332	1.	0.0	3614.	2635.
1500.	5.2	2020.	.533	2.	0.0	3251.	2272.
2000.	5.5	2751.	.764	3.	0.0	2894.	1913.
2500.	5.8	3530.	1.037	5.	0.0	2536.	1555.
3000.	6.2	4387.	1.372	7.	0.0	2170.	1187.
3500.	6.7	5384.	1.812	10.	0.0	1776.	791.

ALT. 20000.

500.	4.7	648.	.153	1.	0.0	4092.	3115.
1000.	4.9	1310.	.320	1.	0.0	3826.	2849.
1500.	5.0	1987.	.502	2.	0.0	3566.	2588.
2000.	5.2	2684.	.702	3.	0.0	3309.	2330.
2500.	5.4	3404.	.924	4.	0.0	3054.	2074.
3000.	5.6	4152.	1.170	5.	0.0	2801.	1821.
3500.	5.8	4938.	1.448	7.	0.0	2548.	1566.

ALT. 30000.

500.	4.7	646.	.151	1.	0.0	4175.	3198.
1000.	4.8	1301.	.312	1.	0.0	3990.	3013.
1500.	4.9	1966.	.482	2.	0.0	3807.	2829.
2000.	5.0	2643.	.663	3.	0.0	3626.	2648.
2500.	5.1	3330.	.855	4.	0.0	3448.	2469.
3000.	5.2	4034.	1.061	4.	0.0	3271.	2292.
3500.	5.4	4754.	1.282	6.	0.0	3095.	2116.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 1.0
ANGLE OFF 30.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PPCJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	7.0	640.	.153	1.	0.0	3990.	3058.
1000.	7.3	1296.	.325	1.	0.0	3628.	2694.
1500.	7.7	1977.	.520	2.	0.0	3273.	2336.
2000.	8.0	2688.	.743	3.	0.0	2924.	1984.
2500.	8.5	3441.	1.005	5.	0.0	2576.	1634.
3000.	9.0	4257.	1.318	7.	0.0	2224.	1278.
3500.	9.7	5184.	1.719	9.	0.0	1853.	903.

ALT. 20000.

500.	6.9	637.	.151	1.	0.0	4097.	3165.
1000.	7.1	1285.	.314	1.	0.0	3836.	2903.
1500.	7.3	1949.	.492	2.	0.0	3580.	2646.
2000.	7.6	2629.	.686	3.	0.0	3329.	2392.
2500.	7.9	3329.	.900	4.	0.0	3080.	2142.
3000.	8.2	4055.	1.137	5.	0.0	2833.	1893.
3500.	8.5	4813.	1.403	7.	0.0	2588.	1645.

ALT. 30000.

500.	6.8	635.	.149	1.	0.0	4178.	3247.
1000.	7.0	1277.	.306	1.	0.0	3996.	3064.
1500.	7.1	1930.	.472	2.	0.0	3817.	2884.
2000.	7.3	2591.	.649	3.	0.0	3640.	2706.
2500.	7.5	3265.	.836	3.	0.0	3465.	2530.
3000.	7.6	3951.	1.036	4.	0.0	3292.	2355.
3500.	7.8	4651.	1.250	5.	0.0	3120.	2182.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC.
ANGLE OFF 40.0 DEG.

ALT. 10000. FT.
TGT. VEL 1013. FT./SEC.

TGT. GEES 1.0
ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	9.0	623.	.149	1.	0.0	4000.	3132.
1000.	9.4	1263.	.316	1.	0.0	3645.	2774.
1500.	9.8	1921.	.503	2.	0.0	3301.	2426.
2000.	10.3	2605.	.716	3.	0.0	2963.	2084.
2500.	10.9	3324.	.962	4.	0.0	2629.	1744.
3000.	11.5	4093.	1.252	6.	0.0	2293.	1403.
3500.	12.2	4943.	1.610	8.	0.0	1946.	1050.

ALT. 20000.

500.	8.8	621.	.147	1.	0.0	4103.	3236.
1000.	9.1	1254.	.306	1.	0.0	3849.	2979.
1500.	9.4	1898.	.478	2.	0.0	3600.	2728.
2000.	9.7	2555.	.664	3.	0.0	3355.	2480.
2500.	10.1	3232.	.869	4.	0.0	3114.	2236.
3000.	10.4	3929.	1.095	5.	0.0	2876.	1995.
3500.	10.8	4652.	1.345	6.	0.0	2639.	1754.

ALT. 30000.

500.	8.8	620.	.145	1.	0.0	4182.	3317.
1000.	9.0	1246.	.298	1.	0.0	4005.	3137.
1500.	9.2	1880.	.459	2.	0.0	3830.	2961.
2000.	9.4	2524.	.630	3.	0.0	3658.	2786.
2500.	9.6	3177.	.812	3.	0.0	3487.	2614.
3000.	9.8	3840.	1.003	4.	0.0	3319.	2444.
3500.	10.0	4515.	1.208	5.	0.0	3153.	2276.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 1.0
ANGLE OFF 50.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	10.7	604.	.144	1.	0.0	4010.	3227.
1000.	11.2	1223.	.305	1.	0.0	3667.	2879.
1500.	11.7	1855.	.484	2.	0.0	3335.	2540.
2000.	12.2	2510.	.685	3.	0.0	3009.	2209.
2500.	12.8	3190.	.914	4.	0.0	2690.	1883.
3000.	13.5	3907.	1.180	6.	0.0	2372.	1558.
3500.	14.3	4680.	1.495	8.	0.0	2051.	1228.

ALT. 20000.

500.	10.6	602.	.142	1.	0.0	4111.	3329.
1000.	10.9	1215.	.296	1.	0.0	3864.	3078.
1500.	11.2	1837.	.461	2.	0.0	3623.	2833.
2000.	11.6	2470.	.639	3.	0.0	3387.	2593.
2500.	12.0	3116.	.833	4.	0.0	3154.	2357.
3000.	12.4	3780.	1.045	5.	0.0	2926.	2123.
3500.	12.8	4463.	1.278	6.	0.0	2700.	1893.

ALT. 30000.

500.	10.5	602.	.141	1.	0.0	4187.	3406.
1000.	10.7	1209.	.289	1.	0.0	4015.	3232.
1500.	10.9	1823.	.444	2.	0.0	3846.	3060.
2000.	11.1	2443.	.608	2.	0.0	3679.	2891.
2500.	11.4	3071.	.782	3.	0.0	3515.	2723.
3000.	11.6	3709.	.965	4.	0.0	3352.	2558.
3500.	11.9	4355.	1.159	5.	0.0	3192.	2395.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC.
ANGLE OFF 0.0 DEG.

ALT. 10000. FT.
TGT. VEL 1013. FT./SEC.

TGT. GEES 2.0
ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PRCJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	0.0	660.	.158	1.	1.1	3978.	2966.
1000.	0.0	1343.	.338	1.	2.4	3603.	2590.
1500.	0.0	2054.	.543	2.	4.0	3234.	2222.
2000.	0.0	2803.	.782	4.	6.1	2869.	1856.
2500.	0.0	3605.	1.066	5.	8.8	2503.	1490.
3000.	0.0	4493.	1.418	7.	12.5	2125.	1112.
3500.	0.0	5554.	1.899	10.	19.1	1708.	696.

ALT. 20000.

500.	0.0	657.	.156	1.	1.0	4088.	3076.
1000.	0.0	1330.	.326	1.	2.2	3818.	2806.
1500.	0.0	2019.	.511	2.	3.6	3554.	2541.
2000.	0.0	2730.	.716	3.	5.2	3292.	2279.
2500.	0.0	3465.	.943	4.	7.2	3033.	2020.
3000.	0.0	4231.	1.198	5.	9.4	2775.	1762.
3500.	0.0	5039.	1.488	7.	12.2	2515.	1503.

ALT. 30000.

500.	0.0	655.	.154	1.	1.0	4172.	3159.
1000.	0.0	1321.	.317	1.	2.1	3984.	2971.
1500.	0.0	1996.	.490	2.	3.3	3799.	2786.
2000.	0.0	2685.	.674	3.	4.7	3615.	2603.
2500.	0.0	3386.	.871	4.	6.2	3434.	2421.
3000.	0.0	4102.	1.082	5.	8.0	3254.	2241.
3500.	0.0	4836.	1.309	6.	9.9	3075.	2062.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 2.0
ANGLE OFF 10.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	2.4	658.	.158	1.	1.1	3979.	2976.
1000.	2.5	1338.	.337	1.	2.4	3605.	2602.
1500.	2.7	2043.	.540	2.	4.0	3239.	2236.
2000.	2.8	2787.	.777	3.	6.2	2875.	1873.
2500.	3.0	3581.	1.058	5.	9.0	2512.	1509.
3000.	3.2	4459.	1.406	7.	13.0	2136.	1134.
3500.	3.4	5497.	1.876	10.	19.1	1726.	724.

ALT. 20000.

500.	2.4	655.	.155	1.	1.0	4089.	3086.
1000.	2.5	1324.	.324	1.	2.2	3821.	2818.
1500.	2.6	2011.	.509	2.	3.6	3557.	2554.
2000.	2.6	2716.	.712	3.	5.2	3296.	2294.
2500.	2.7	3445.	.938	4.	7.2	3039.	2037.
3000.	2.8	4206.	1.191	5.	9.5	2781.	1780.
3500.	3.0	5006.	1.478	7.	12.4	2523.	1522.

ALT. 30000.

500.	2.4	654.	.153	1.	1.0	4173.	3169.
1000.	2.4	1316.	.316	1.	2.1	3985.	2982.
1500.	2.5	1989.	.488	2.	3.3	3800.	2798.
2000.	2.5	2672.	.671	3.	4.7	3618.	2616.
2500.	2.6	3369.	.867	4.	6.2	3437.	2436.
3000.	2.7	4081.	1.077	5.	7.9	3258.	2257.
3500.	2.7	4809.	1.302	6.	9.9	3080.	2079.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 2.0
 ANGLE OFF 20.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	4.8	651.	.156	1.	1.0	3984.	3007.
1000.	5.0	1322.	.332	1.	2.3	3614.	2637.
1500.	5.2	2017.	.533	2.	4.0	3251.	2275.
2000.	5.5	2746.	.764	3.	6.1	2894.	1917.
2500.	5.8	3521.	1.037	5.	8.9	2536.	1560.
3000.	6.2	4370.	1.372	7.	13.0	2170.	1193.
3500.	6.7	5354.	1.812	10.	19.2	1776.	799.

ALT. 20000.

500.	4.7	647.	.153	1.	.9	4092.	3116.
1000.	4.9	1309.	.320	1.	2.1	3826.	2851.
1500.	5.0	1985.	.502	2.	3.5	3566.	2590.
2000.	5.2	2680.	.702	3.	5.1	3309.	2334.
2500.	5.4	3397.	.924	4.	7.0	3054.	2079.
3000.	5.6	4141.	1.170	5.	9.3	2801.	1827.
3500.	5.8	4920.	1.448	7.	12.1	2548.	1574.

ALT. 30000.

500.	4.7	646.	.151	1.	.9	4175.	3199.
1000.	4.8	1300.	.312	1.	2.0	3990.	3014.
1500.	4.9	1965.	.482	2.	3.2	3807.	2832.
2000.	5.0	2639.	.663	3.	4.5	3626.	2652.
2500.	5.1	3324.	.855	4.	6.0	3448.	2474.
3000.	5.2	4024.	1.061	5.	7.7	3271.	2298.
3500.	5.4	4739.	1.282	6.	9.5	3095.	2123.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 2.0
ANGLE OFF 30.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	7.0	640.	.153	1.	1.1	3990.	3059.
1000.	7.3	1295.	.325	1.	2.2	3628.	2696.
1500.	7.7	1974.	.520	2.	3.8	3273.	2340.
2000.	8.0	2682.	.743	3.	5.8	2924.	1990.
2500.	8.5	3430.	1.005	5.	8.5	2576.	1642.
3000.	9.0	4236.	1.318	7.	12.4	2224.	1288.
3500.	9.7	5148.	1.719	9.	18.2	1853.	915.

ALT. 20000.

500.	6.9	636.	.151	1.	.9	4097.	3167.
1000.	7.1	1284.	.314	1.	2.0	3836.	2906.
1500.	7.3	1946.	.492	2.	3.3	3580.	2650.
2000.	7.6	2623.	.686	3.	4.8	3329.	2398.
2500.	7.9	3319.	.900	4.	6.6	3080.	2149.
3000.	8.2	4040.	1.137	5.	8.8	2833.	1902.
3500.	8.5	4789.	1.403	7.	11.5	2588.	1656.

ALT. 30000.

500.	6.8	635.	.149	1.	.9	4178.	3248.
1000.	7.0	1276.	.306	1.	1.9	3996.	3067.
1500.	7.1	1928.	.472	2.	3.0	3817.	2888.
2000.	7.3	2586.	.649	3.	4.2	3640.	2711.
2500.	7.5	3257.	.836	3.	5.6	3465.	2537.
3000.	7.6	3938.	1.036	4.	7.2	3292.	2364.
3500.	7.8	4632.	1.250	5.	9.0	3120.	2193.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC.
ANGLE OFF 40.0 DEG.

ALT. 10000. FT.
TGT. VEL 1013. FT./SEC.

TGT. GEES 2.0
ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	9.0	622.	.149	1.	.7	4000.	3134.
1000.	9.4	1262.	.316	1.	2.1	3645.	2778.
1500.	9.8	1917.	.503	2.	3.4	3301.	2431.
2000.	10.3	2598.	.716	3.	5.3	2963.	2091.
2500.	10.9	3310.	.962	4.	7.8	2629.	1754.
3000.	11.5	4070.	1.252	6.	11.2	2293.	1416.
3500.	12.2	4904.	1.610	9.	16.3	1946.	1066.

ALT. 20000.

500.	8.8	621.	.147	1.	.8	4103.	3238.
1000.	9.1	1253.	.306	1.	1.9	3849.	2983.
1500.	9.4	1894.	.478	2.	3.0	3600.	2733.
2000.	9.7	2549.	.664	3.	4.3	3355.	2488.
2500.	10.1	3221.	.869	4.	6.0	3114.	2246.
3000.	10.4	3911.	1.095	5.	8.0	2876.	2006.
3500.	10.8	4625.	1.345	6.	10.4	2639.	1769.

ALT. 30000.

500.	8.8	619.	.145	1.	.8	4182.	3318.
1000.	9.0	1245.	.298	1.	1.7	4005.	3141.
1500.	9.2	1877.	.459	2.	2.7	3830.	2966.
2000.	9.4	2518.	.630	3.	3.9	3658.	2793.
2500.	9.6	3167.	.812	3.	5.1	3487.	2623.
3000.	9.8	3824.	1.003	4.	6.5	3319.	2455.
3500.	10.0	4492.	1.208	5.	8.1	3153.	2289.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 2.0
ANGLE OFF 50.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	10.7	604.	.144	1.	.6	4010.	3229.
1000.	11.2	1221.	.305	1.	1.8	3667.	2883.
1500.	11.7	1851.	.484	2.	3.0	3335.	2547.
2000.	12.2	2502.	.685	3.	4.7	3009.	2218.
2500.	12.8	3175.	.914	4.	6.8	2690.	1895.
3000.	13.5	3882.	1.180	6.	9.7	2372.	1573.
3500.	14.3	4640.	1.495	8.	14.0	2051.	1246.

ALT. 20000.

500.	10.6	602.	.142	1.	.6	4111.	3331.
1000.	10.9	1213.	.296	1.	1.6	3864.	3083.
1500.	11.2	1833.	.461	2.	2.7	3623.	2840.
2000.	11.6	2462.	.639	3.	3.8	3387.	2602.
2500.	12.0	3104.	.833	4.	5.3	3154.	2368.
3000.	12.4	3761.	1.045	5.	7.0	2926.	2138.
3500.	12.8	4433.	1.278	6.	9.0	2700.	1910.

ALT. 30000.

500.	10.5	602.	.141	1.	.9	4187.	3409.
1000.	10.7	1207.	.289	1.	1.5	4015.	3236.
1500.	10.9	1819.	.444	2.	2.4	3846.	3066.
2000.	11.1	2436.	.608	2.	3.3	3679.	2899.
2500.	11.4	3060.	.782	3.	4.4	3515.	2734.
3000.	11.6	3691.	.965	4.	5.7	3352.	2572.
3500.	11.9	4331.	1.159	5.	7.0	3192.	2411.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 3.0
 ANGLE OFF 0.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	0.0	660.	.158	1.	1.7	3978.	2966.
1000.	0.0	1343.	.338	1.	3.9	3603.	2590.
1500.	0.0	2053.	.543	2.	6.5	3234.	2222.
2000.	0.0	2802.	.782	4.	9.9	2869.	1856.
2500.	0.0	3602.	1.066	5.	14.3	2503.	1491.
3000.	0.0	4486.	1.418	7.	20.4	2125.	1113.
3500.	0.0	5537.	1.899	10.	29.5	1708.	697.

ALT. 20000.

500.	0.0	657.	.156	1.	1.7	4088.	3076.
1000.	0.0	1330.	.326	1.	3.6	3818.	2806.
1500.	0.0	2019.	.511	2.	5.9	3554.	2541.
2000.	0.0	2729.	.716	3.	8.6	3292.	2279.
2500.	0.0	3463.	.943	4.	11.7	3033.	2020.
3000.	0.0	4227.	1.198	5.	15.4	2775.	1763.
3500.	0.0	5031.	1.488	7.	20.0	2515.	1503.

ALT. 30000.

500.	0.0	655.	.154	1.	1.6	4172.	3159.
1000.	0.0	1321.	.317	1.	3.5	3984.	2971.
1500.	0.0	1996.	.490	2.	5.5	3799.	2786.
2000.	0.0	2684.	.674	3.	7.7	3615.	2603.
2500.	0.0	3384.	.871	4.	10.2	3434.	2421.
3000.	0.0	4099.	1.082	5.	13.0	3254.	2242.
3500.	0.0	4831.	1.309	6.	16.1	3075.	2063.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 3.0
ANGLE OFF 10.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	2.4	658.	.158	1.	1.7	3979.	2976.
1000.	2.5	1337.	.337	1.	3.9	3605.	2603.
1500.	2.7	2042.	.540	2.	6.5	3239.	2237.
2000.	2.8	2785.	.777	3.	10.0	2875.	1874.
2500.	3.0	3576.	1.058	5.	14.5	2512.	1511.
3000.	3.2	4448.	1.406	7.	20.7	2136.	1137.
3500.	3.4	5473.	1.876	10.	30.3	1726.	728.

ALT. 20000.

500.	2.4	655.	.155	1.	1.7	4089.	3086.
1000.	2.5	1323.	.324	1.	3.6	3821.	2819.
1500.	2.6	2010.	.509	2.	5.9	3557.	2555.
2000.	2.6	2714.	.712	3.	8.5	3296.	2295.
2500.	2.7	3441.	.938	4.	11.6	3039.	2038.
3000.	2.8	4198.	1.191	5.	15.4	2781.	1782.
3500.	3.0	4993.	1.478	7.	20.0	2523.	1525.

ALT. 30000.

500.	2.4	654.	.153	1.	1.7	4173.	3170.
1000.	2.4	1316.	.316	1.	3.4	3985.	2983.
1500.	2.5	1988.	.488	2.	5.4	3800.	2799.
2000.	2.5	2670.	.671	3.	7.6	3618.	2617.
2500.	2.6	3366.	.867	4.	10.1	3437.	2437.
3000.	2.7	4075.	1.077	5.	12.9	3258.	2259.
3500.	2.7	4799.	1.302	6.	16.0	3080.	2082.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 3.0
 ANGLE OFF 20.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	4.8	650.	.156	1.	1.6	3984.	3008.
1000.	5.0	1321.	.332	1.	3.8	3614.	2638.
1500.	5.2	2016.	.533	2.	6.4	3251.	2277.
2000.	5.5	2742.	.764	3.	9.7	2894.	1920.
2500.	5.8	3514.	1.037	5.	14.1	2536.	1563.
3000.	6.2	4356.	1.372	7.	20.3	2170.	1198.
3500.	6.7	5326.	1.812	10.	29.6	1776.	805.

ALT. 20000.

500.	4.7	647.	.153	1.	1.5	4092.	3117.
1000.	4.9	1309.	.320	1.	3.5	3826.	2852.
1500.	5.0	1983.	.502	2.	5.6	3566.	2592.
2000.	5.2	2677.	.702	3.	8.2	3309.	2336.
2500.	5.4	3391.	.924	4.	11.3	3054.	2083.
3000.	5.6	4131.	1.170	5.	14.9	2801.	1831.
3500.	5.8	4903.	1.448	7.	19.4	2548.	1579.

ALT. 30000.

500.	4.7	646.	.151	1.	1.5	4175.	3200.
1000.	4.8	1300.	.312	1.	3.3	3990.	3016.
1500.	4.9	1963.	.482	2.	5.2	3807.	2834.
2000.	5.0	2637.	.663	3.	7.4	3626.	2654.
2500.	5.1	3319.	.855	4.	9.7	3448.	2477.
3000.	5.2	4016.	1.061	5.	12.4	3271.	2302.
3500.	5.4	4727.	1.282	6.	15.4	3095.	2127.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 3.0
ANGLE OFF 30.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	7.0	639.	.153	1.	1.7	3990.	3060.
1000.	7.3	1294.	.325	1.	3.5	3628.	2698.
1500.	7.7	1972.	.520	2.	6.0	3273.	2343.
2000.	8.0	2677.	.743	3.	9.1	2924.	1994.
2500.	8.5	3421.	1.005	5.	13.3	2576.	1647.
3000.	9.0	4220.	1.318	7.	19.0	2224.	1295.
3500.	9.7	5118.	1.719	9.	27.5	1853.	924.

ALT. 20000.

500.	6.9	636.	.151	1.	1.5	4097.	3167.
1000.	7.1	1283.	.314	1.	3.2	3836.	2908.
1500.	7.3	1945.	.492	2.	5.3	3580.	2652.
2000.	7.6	2620.	.686	3.	7.7	3329.	2402.
2500.	7.9	3312.	.900	4.	10.5	3080.	2154.
3000.	8.2	4028.	1.137	5.	14.0	2833.	1909.
3500.	8.5	4770.	1.403	7.	18.1	2588.	1664.

ALT. 30000.

500.	6.8	635.	.149	1.	1.5	4178.	3249.
1000.	7.0	1276.	.306	1.	3.0	3996.	3069.
1500.	7.1	1926.	.472	2.	4.9	3817.	2890.
2000.	7.3	2583.	.649	3.	6.9	3640.	2715.
2500.	7.5	3250.	.836	3.	9.1	3465.	2541.
3000.	7.6	3928.	1.036	4.	11.6	3292.	2369.
3500.	7.8	4617.	1.250	5.	14.4	3120.	2200.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 3.0
 ANGLE OFF 40.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	9.0	622.	.149	1.	1.3	4000.	3135.
1000.	9.4	1261.	.316	1.	3.2	3645.	2780.
1500.	9.8	1915.	.503	2.	5.4	3301.	2435.
2000.	10.3	2593.	.716	3.	8.3	2963.	2096.
2500.	10.9	3301.	.962	5.	12.0	2629.	1761.
3000.	11.5	4052.	1.252	6.	17.1	2293.	1424.
3500.	12.2	4874.	1.610	9.	24.4	1946.	1076.

ALT. 20000.

500.	8.8	621.	.147	1.	1.3	4103.	3239.
1000.	9.1	1252.	.306	1.	3.0	3849.	2985.
1500.	9.4	1892.	.478	2.	4.8	3600.	2737.
2000.	9.7	2544.	.664	3.	6.9	3355.	2493.
2500.	10.1	3213.	.869	4.	9.6	3114.	2252.
3000.	10.4	3897.	1.095	5.	12.6	2876.	2014.
3500.	10.8	4604.	1.345	6.	16.3	2639.	1778.

ALT. 30000.

500.	8.8	619.	.145	1.	1.3	4182.	3319.
1000.	9.0	1244.	.298	1.	2.7	4005.	3143.
1500.	9.2	1875.	.459	2.	4.4	3830.	2969.
2000.	9.4	2514.	.630	3.	6.2	3658.	2798.
2500.	9.6	3160.	.812	3.	8.2	3487.	2629.
3000.	9.8	3813.	1.003	4.	10.4	3319.	2463.
3500.	10.0	4476.	1.208	5.	12.9	3153.	2298.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 3.0
ANGLE OFF 50.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	10.7	603.	.144	1.	1.1	4010.	3230.
1000.	11.2	1220.	.305	1.	2.8	3667.	2886.
1500.	11.7	1849.	.484	2.	4.7	3335.	2551.
2000.	12.2	2496.	.685	3.	7.3	3009.	2224.
2500.	12.8	3164.	.914	4.	10.4	2690.	1903.
3000.	13.5	3864.	1.180	6.	14.7	2372.	1583.
3500.	14.3	4611.	1.495	8.	20.6	2051.	1259.

ALT. 20000.

500.	10.6	602.	.142	1.	1.1	4111.	3332.
1000.	10.9	1212.	.296	1.	2.6	3864.	3085.
1500.	11.2	1830.	.461	2.	4.2	3623.	2844.
2000.	11.6	2457.	.639	3.	6.1	3387.	2608.
2500.	12.0	3095.	.833	4.	8.3	3154.	2376.
3000.	12.4	3747.	1.045	5.	10.9	2926.	2147.
3500.	12.8	4412.	1.278	6.	14.0	2700.	1921.

ALT. 30000.

500.	10.5	602.	.141	1.	1.3	4187.	3410.
1000.	10.7	1206.	.289	1.	2.4	4015.	3239.
1500.	10.9	1817.	.444	2.	3.8	3846.	3070.
2000.	11.1	2432.	.608	2.	5.4	3679.	2905.
2500.	11.4	3052.	.782	3.	7.1	3515.	2742.
3000.	11.6	3680.	.965	4.	9.0	3352.	2581.
3500.	11.9	4313.	1.159	5.	11.2	3192.	2422.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 4.0
 ANGLE OFF 0.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	0.0	660.	.158	1.	2.4	3978.	2966.
1000.	0.0	1343.	.338	1.	5.3	3603.	2590.
1500.	0.0	2053.	.543	2.	8.9	3234.	2222.
2000.	0.0	2800.	.782	4.	13.6	2869.	1857.
2500.	0.0	3598.	1.066	5.	19.6	2503.	1491.
3000.	0.0	4476.	1.418	7.	27.9	2125.	1114.
3500.	0.0	5513.	1.899	11.	40.6	1708.	698.

ALT. 20000.

500.	0.0	657.	.156	1.	2.3	4088.	3076.
1000.	0.0	1330.	.326	1.	5.0	3818.	2806.
1500.	0.0	2019.	.511	2.	8.1	3554.	2541.
2000.	0.0	2728.	.716	3.	11.7	3292.	2280.
2500.	0.0	3460.	.943	4.	16.0	3033.	2021.
3000.	0.0	4220.	1.198	5.	21.1	2775.	1763.
3500.	0.0	5019.	1.488	7.	27.4	2515.	1504.

ALT. 30000.

500.	0.0	655.	.154	1.	2.2	4172.	3159.
1000.	0.0	1321.	.317	1.	4.7	3984.	2972.
1500.	0.0	1995.	.490	2.	7.5	3799.	2786.
2000.	0.0	2683.	.674	3.	10.6	3615.	2603.
2500.	0.0	3382.	.871	4.	14.0	3434.	2422.
3000.	0.0	4094.	1.082	5.	17.8	3254.	2242.
3500.	0.0	4823.	1.309	6.	22.1	3075.	2064.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 4.0
ANGLE OFF 10.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	2.4	658.	.158	1.	2.4	3979.	2976.
1000.	2.5	1337.	.337	1.	5.3	3605.	2603.
1500.	2.7	2041.	.540	2.	8.9	3239.	2238.
2000.	2.8	2782.	.777	3.	13.6	2875.	1876.
2500.	3.0	3569.	1.058	5.	19.7	2512.	1513.
3000.	3.2	4434.	1.406	7.	28.1	2136.	1140.
3500.	3.4	5444.	1.876	10.	41.0	1726.	732.

ALT. 20000.

500.	2.4	655.	.155	1.	2.3	4089.	3086.
1000.	2.5	1323.	.324	1.	4.9	3821.	2819.
1500.	2.6	2009.	.509	2.	8.0	3557.	2556.
2000.	2.6	2711.	.712	3.	11.6	3296.	2297.
2500.	2.7	3436.	.938	4.	15.9	3039.	2040.
3000.	2.8	4190.	1.191	5.	21.0	2781.	1785.
3500.	3.0	4977.	1.478	7.	27.2	2523.	1528.

ALT. 30000.

500.	2.4	654.	.153	1.	2.2	4173.	3170.
1000.	2.4	1315.	.316	1.	4.7	3985.	2984.
1500.	2.5	1987.	.488	2.	7.4	3800.	2800.
2000.	2.5	2668.	.671	3.	10.4	3618.	2618.
2500.	2.6	3362.	.867	4.	13.8	3437.	2439.
3000.	2.7	4068.	1.077	5.	17.6	3258.	2261.
3500.	2.7	4788.	1.302	6.	21.8	3080.	2085.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 4.0
 ANGLE OFF 20.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	4.8	650.	.156	1.	2.3	3984.	3008.
1000.	5.0	1321.	.332	1.	5.1	3614.	2640.
1500.	5.2	2014.	.533	2.	8.6	3251.	2279.
2000.	5.5	2738.	.764	3.	13.1	2894.	1923.
2500.	5.8	3506.	1.037	5.	19.0	2536.	1567.
3000.	6.2	4340.	1.372	7.	27.2	2170.	1203.
3500.	6.7	5294.	1.812	10.	39.5	1776.	812.

ALT. 20000.

500.	4.7	647.	.153	1.	2.1	4092.	3117.
1000.	4.9	1308.	.320	1.	4.7	3826.	2853.
1500.	5.0	1982.	.502	2.	7.7	3566.	2594.
2000.	5.2	2673.	.702	3.	11.2	3309.	2339.
2500.	5.4	3385.	.924	4.	15.3	3054.	2086.
3000.	5.6	4119.	1.170	5.	20.2	2801.	1835.
3500.	5.8	4884.	1.448	7.	26.2	2548.	1584.

ALT. 30000.

500.	4.7	646.	.151	1.	2.1	4175.	3200.
1000.	4.8	1299.	.312	1.	4.5	3990.	3017.
1500.	4.9	1962.	.482	2.	7.1	3807.	2836.
2000.	5.0	2634.	.663	3.	10.0	3626.	2657.
2500.	5.1	3314.	.855	4.	13.2	3448.	2481.
3000.	5.2	4007.	1.061	5.	16.9	3271.	2306.
3500.	5.4	4713.	1.282	6.	21.0	3095.	2132.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 4.0
ANGLE OFF 30.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	7.0	639.	.153	1.	2.2	3990.	3061.
1000.	7.3	1293.	.325	1.	4.7	3628.	2700.
1500.	7.7	1970.	.520	2.	8.1	3273.	2346.
2000.	8.0	2673.	.743	3.	12.3	2924.	1998.
2500.	8.5	3411.	1.005	5.	17.8	2576.	1652.
3000.	9.0	4202.	1.318	7.	25.3	2224.	1301.
3500.	9.7	5085.	1.719	9.	36.3	1853.	932.

ALT. 20000.

500.	6.9	636.	.151	1.	2.1	4097.	3168.
1000.	7.1	1283.	.314	1.	4.4	3836.	2909.
1500.	7.3	1943.	.492	2.	7.2	3580.	2655.
2000.	7.6	2615.	.686	3.	10.4	3329.	2405.
2500.	7.9	3305.	.900	4.	14.3	3080.	2159.
3000.	8.2	4015.	1.137	5.	18.9	2833.	1915.
3500.	8.5	4749.	1.403	7.	24.4	2588.	1671.

ALT. 30000.

500.	6.8	635.	.149	1.	2.0	4178.	3250.
1000.	7.0	1275.	.306	1.	4.2	3996.	3070.
1500.	7.1	1924.	.472	2.	6.7	3817.	2893.
2000.	7.3	2579.	.649	3.	9.3	3640.	2718.
2500.	7.5	3244.	.836	3.	12.4	3465.	2546.
3000.	7.6	3918.	1.036	4.	15.7	3292.	2375.
3500.	7.8	4601.	1.250	5.	19.5	3120.	2207.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC.
ANGLE OFF 40.0 DEG.

ALT. 10000. FT.
TGT. VEL 1013. FT./SEC.

TGT. GEES 4.0
ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PRCJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	9.0	622.	.149	1.	1.8	4000.	3136.
1000.	9.4	1260.	.316	1.	4.4	3645.	2782.
1500.	9.8	1912.	.503	2.	7.3	3301.	2438.
2000.	10.3	2587.	.716	3.	11.1	2963.	2101.
2500.	10.9	3290.	.962	5.	16.0	2629.	1767.
3000.	11.5	4034.	1.252	6.	22.6	2293.	1432.
3500.	12.2	4841.	1.610	9.	32.0	1946.	1087.

ALT. 20000.

500.	8.8	620.	.147	1.	1.8	4103.	3240.
1000.	9.1	1251.	.306	1.	4.1	3849.	2987.
1500.	9.4	1890.	.478	2.	6.5	3600.	2740.
2000.	9.7	2540.	.664	3.	9.4	3355.	2497.
2500.	10.1	3204.	.869	4.	12.9	3114.	2258.
3000.	10.4	3884.	1.095	5.	17.0	2876.	2022.
3500.	10.8	4582.	1.345	6.	21.8	2639.	1788.

ALT. 30000.

500.	8.8	619.	.145	1.	1.8	4182.	3320.
1000.	9.0	1243.	.298	1.	3.8	4005.	3145.
1500.	9.2	1873.	.459	2.	6.0	3830.	2973.
2000.	9.4	2510.	.630	3.	8.5	3658.	2803.
2500.	9.6	3153.	.812	3.	11.2	3487.	2635.
3000.	9.8	3802.	1.003	4.	14.1	3319.	2470.
3500.	10.0	4458.	1.208	5.	17.5	3153.	2307.

20.0MM. PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 4.0
ANGLE OFF 50.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PRCJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	10.7	603.	.144	1.	1.5	4010.	3231.
1000.	11.2	1219.	.305	1.	3.8	3667.	2888.
1500.	11.7	1846.	.484	2.	6.3	3335.	2556.
2000.	12.2	2490.	.685	3.	9.7	3009.	2230.
2500.	12.8	3154.	.914	4.	13.8	2690.	1910.
3000.	13.5	3846.	1.180	6.	19.3	2372.	1593.
3500.	14.3	4580.	1.495	8.	26.9	2051.	1272.

ALT. 20000.

500.	10.6	602.	.142	1.	1.5	4111.	3333.
1000.	10.9	1211.	.296	1.	3.5	3864.	3088.
1500.	11.2	1828.	.461	2.	5.7	3623.	2848.
2000.	11.6	2452.	.639	3.	8.2	3387.	2613.
2500.	12.0	3086.	.833	4.	11.2	3154.	2383.
3000.	12.4	3732.	1.045	5.	14.6	2926.	2156.
3500.	12.8	4390.	1.278	6.	18.7	2700.	1933.

ALT. 30000.

500.	10.5	602.	.141	1.	1.8	4187.	3411.
1000.	10.7	1205.	.289	1.	3.3	4015.	3242.
1500.	10.9	1814.	.444	2.	5.2	3846.	3074.
2000.	11.1	2427.	.608	2.	7.3	3679.	2910.
2500.	11.4	3045.	.782	3.	9.6	3515.	2749.
3000.	11.6	3667.	.965	4.	12.2	3352.	2589.
3500.	11.9	4295.	1.159	5.	15.1	3192.	2432.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 5.0
 ANGLE OFF 0.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	0.0	660.	.158	1.	3.0	3978.	2966.
1000.	0.0	1342.	.338	1.	6.7	3603.	2590.
1500.	0.0	2052.	.543	2.	11.3	3234.	2222.
2000.	0.0	2798.	.782	4.	17.2	2869.	1857.
2500.	0.0	3592.	1.066	5.	24.9	2503.	1492.
3000.	0.0	4463.	1.418	7.	35.3	2125.	1115.
3500.	0.0	5482.	1.899	11.	51.4	1708.	700.

ALT. 20000.

500.	0.0	657.	.156	1.	2.9	4088.	3076.
1000.	0.0	1330.	.326	1.	6.3	3818.	2806.
1500.	0.0	2018.	.511	2.	10.2	3554.	2541.
2000.	0.0	2726.	.716	3.	14.8	3292.	2280.
2500.	0.0	3456.	.943	4.	20.3	3033.	2021.
3000.	0.0	4213.	1.198	5.	26.8	2775.	1764.
3500.	0.0	5005.	1.488	7.	34.7	2515.	1505.

ALT. 30000.

500.	0.0	655.	.154	1.	2.8	4172.	3160.
1000.	0.0	1321.	.317	1.	6.0	3984.	2972.
1500.	0.0	1995.	.490	2.	9.5	3799.	2787.
2000.	0.0	2681.	.674	3.	13.4	3615.	2603.
2500.	0.0	3379.	.871	4.	17.7	3434.	2422.
3000.	0.0	4088.	1.082	5.	22.5	3254.	2243.
3500.	0.0	4812.	1.309	6.	28.0	3075.	2065.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 5.0
ANGLE OFF 10.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	2.4	658.	.158	1.	3.0	3979.	2977.
1000.	2.5	1337.	.337	1.	6.6	3605.	2604.
1500.	2.7	2040.	.540	2.	11.2	3239.	2239.
2000.	2.8	2778.	.777	3.	17.1	2875.	1877.
2500.	3.0	3562.	1.058	5.	24.7	2512.	1516.
3000.	3.2	4418.	1.406	7.	35.3	2136.	1143.
3500.	3.4	5408.	1.876	10.	51.5	1726.	736.

ALT. 20000.

500.	2.4	655.	.155	1.	2.9	4089.	3087.
1000.	2.5	1323.	.324	1.	6.2	3821.	2820.
1500.	2.6	2007.	.509	2.	10.1	3557.	2557.
2000.	2.6	2708.	.712	3.	14.6	3296.	2298.
2500.	2.7	3431.	.938	4.	20.0	3039.	2042.
3000.	2.8	4179.	1.191	5.	26.5	2781.	1787.
3500.	3.0	4959.	1.478	7.	34.4	2523.	1532.

ALT. 30000.

500.	2.4	654.	.153	1.	2.8	4173.	3170.
1000.	2.4	1315.	.316	1.	5.9	3985.	2984.
1500.	2.5	1986.	.488	2.	9.4	3800.	2801.
2000.	2.5	2666.	.671	3.	13.2	3618.	2620.
2500.	2.6	3357.	.867	4.	17.4	3437.	2441.
3000.	2.7	4060.	1.077	5.	22.2	3258.	2264.
3500.	2.7	4775.	1.302	6.	27.6	3080.	2088.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC.
ANGLE OFF 20.0 DEG.

ALT. 10000. FT.
TGT. VEL 1013. FT./SEC.

TGT. GEES 5.0
ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	4.8	650.	.156	1.	2.8	3984.	3009.
1000.	5.0	1320.	.332	1.	6.4	3614.	2641.
1500.	5.2	2012.	.533	2.	10.9	3251.	2281.
2000.	5.5	2734.	.764	3.	16.5	2894.	1925.
2500.	5.8	3497.	1.037	5.	23.9	2536.	1571.
3000.	6.2	4322.	1.372	7.	34.0	2170.	1208.
3500.	6.7	5256.	1.812	10.	49.2	1776.	818.

ALT. 20000.

500.	4.7	647.	.153	1.	2.7	4092.	3118.
1000.	4.9	1308.	.320	1.	6.0	3826.	2854.
1500.	5.0	1980.	.502	2.	9.7	3566.	2596.
2000.	5.2	2670.	.702	3.	14.1	3309.	2341.
2500.	5.4	3378.	.924	4.	19.3	3054.	2089.
3000.	5.6	4107.	1.170	5.	25.4	2801.	1840.
3500.	5.8	4863.	1.448	7.	32.9	2548.	1590.

ALT. 30000.

500.	4.7	646.	.151	1.	2.7	4175.	3201.
1000.	4.8	1298.	.312	1.	5.6	3990.	3018.
1500.	4.9	1960.	.482	2.	9.0	3807.	2837.
2000.	5.0	2631.	.663	3.	12.7	3626.	2659.
2500.	5.1	3308.	.855	4.	16.7	3448.	2484.
3000.	5.2	3997.	1.061	5.	21.3	3271.	2310.
3500.	5.4	4697.	1.282	6.	26.4	3095.	2138.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 5.0
ANGLE OFF 30.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	7.0	639.	.153	1.	2.8	3990.	3062.
1000.	7.3	1292.	.325	1.	6.0	3628.	2701.
1500.	7.7	1968.	.520	2.	10.1	3273.	2348.
2000.	8.0	2667.	.743	3.	15.4	2924.	2002.
2500.	8.5	3401.	1.005	5.	22.2	2576.	1657.
3000.	9.0	4183.	1.318	7.	31.5	2224.	1308.
3500.	9.7	5048.	1.719	9.	45.0	1853.	941.

ALT. 20000.

500.	6.9	636.	.151	1.	2.6	4097.	3169.
1000.	7.1	1282.	.314	1.	5.5	3836.	2911.
1500.	7.3	1941.	.492	2.	9.1	3580.	2658.
2000.	7.6	2611.	.686	3.	13.1	3329.	2409.
2500.	7.9	3297.	.900	4.	17.9	3080.	2164.
3000.	8.2	4001.	1.137	5.	23.6	2833.	1921.
3500.	8.5	4727.	1.403	7.	30.5	2588.	1679.

ALT. 30000.

500.	6.8	634.	.149	1.	2.6	4178.	3251.
1000.	7.0	1274.	.306	1.	5.3	3996.	3072.
1500.	7.1	1922.	.472	2.	8.4	3817.	2895.
2000.	7.3	2576.	.649	3.	11.8	3640.	2722.
2500.	7.5	3237.	.836	3.	15.6	3465.	2550.
3000.	7.6	3906.	1.036	4.	19.8	3292.	2381.
3500.	7.8	4583.	1.250	5.	24.5	3120.	2214.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 5.0
 ANGLE OFF 40.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	9.0	622.	.149	1.	2.3	4000.	3137.
1000.	9.4	1259.	.316	1.	5.5	3645.	2784.
1500.	9.8	1910.	.503	2.	9.1	3301.	2442.
2000.	10.3	2582.	.716	3.	13.8	2963.	2106.
2500.	10.9	3280.	.962	5.	19.9	2629.	1774.
3000.	11.5	4014.	1.252	6.	28.0	2293.	1441.
3500.	12.2	4806.	1.610	9.	39.4	1946.	1098.

ALT. 20000.

500.	8.8	620.	.147	1.	2.3	4103.	3241.
1000.	9.1	1250.	.306	1.	5.1	3849.	2989.
1500.	9.4	1887.	.478	2.	8.2	3600.	2743.
2000.	9.7	2535.	.664	3.	11.8	3355.	2502.
2500.	10.1	3196.	.869	4.	16.1	3114.	2264.
3000.	10.4	3869.	1.095	5.	21.2	2876.	2030.
3500.	10.8	4559.	1.345	6.	27.2	2639.	1797.

ALT. 30000.

500.	8.8	619.	.145	1.	2.2	4182.	3321.
1000.	9.0	1242.	.298	1.	4.8	4005.	3147.
1500.	9.2	1871.	.459	2.	7.5	3830.	2976.
2000.	9.4	2506.	.630	3.	10.6	3658.	2807.
2500.	9.6	3146.	.812	3.	14.0	3487.	2641.
3000.	9.8	3790.	1.003	4.	17.8	3319.	2477.
3500.	10.0	4440.	1.208	5.	21.9	3153.	2316.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 5.0
ANGLE OFF 50.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	10.7	603.	.144	1.	1.9	4010.	3233.
1000.	11.2	1218.	.305	1.	4.8	3667.	2891.
1500.	11.7	1843.	.484	2.	7.9	3335.	2560.
2000.	12.2	2484.	.685	3.	12.0	3009.	2236.
2500.	12.8	3143.	.914	4.	17.1	2690.	1918.
3000.	13.5	3827.	1.180	6.	23.8	2372.	1603.
3500.	14.3	4548.	1.495	8.	32.9	2051.	1285.

ALT. 20000.

500.	10.6	601.	.142	1.	1.9	4111.	3335.
1000.	10.9	1210.	.296	1.	4.5	3864.	3090.
1500.	11.2	1825.	.461	2.	7.2	3623.	2852.
2000.	11.6	2447.	.639	3.	10.3	3387.	2619.
2500.	12.0	3077.	.833	4.	13.9	3154.	2391.
3000.	12.4	3718.	1.045	5.	19.2	2926.	2166.
3500.	12.8	4367.	1.278	6.	23.2	2700.	1944.

ALT. 30000.

500.	10.5	601.	.141	1.	2.2	4187.	3412.
1000.	10.7	1204.	.289	1.	4.1	4015.	3244.
1500.	10.9	1812.	.444	2.	6.6	3846.	3078.
2000.	11.1	2423.	.608	2.	9.2	3679.	2916.
2500.	11.4	3037.	.782	3.	12.1	3515.	2756.
3000.	11.6	3655.	.965	4.	15.3	3352.	2598.
3500.	11.9	4276.	1.159	5.	18.9	3192.	2443.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC.
ANGLE OFF 0.0 DEG.

ALT. 10000. FT.
TGT. VEL 1013. FT./SEC.

TGT. GEES 6.0
ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	0.0	660.	.158	1.	3.6	3978.	2966.
1000.	0.0	1342.	.338	1.	8.1	3603.	2590.
1500.	0.0	2051.	.543	2.	13.7	3234.	2222.
2000.	0.0	2795.	.782	4.	20.8	2869.	1858.
2500.	0.0	3586.	1.066	5.	30.0	2503.	1492.
3000.	0.0	4447.	1.418	7.	42.8	2125.	1116.
3500.	0.0	5445.	1.899	11.	62.3	1708.	703.

ALT. 20000.

500.	0.0	657.	.156	1.	3.5	4088.	3076.
1000.	0.0	1330.	.326	1.	7.6	3818.	2806.
1500.	0.0	2017.	.511	2.	12.3	3554.	2542.
2000.	0.0	2724.	.716	3.	17.9	3292.	2280.
2500.	0.0	3451.	.943	4.	24.5	3033.	2022.
3000.	0.0	4203.	1.198	5.	32.4	2775.	1765.
3500.	0.0	4986.	1.488	7.	42.0	2515.	1507.

ALT. 30000.

500.	0.0	655.	.154	1.	3.4	4172.	3160.
1000.	0.0	1321.	.317	1.	7.2	3984.	2972.
1500.	0.0	1994.	.490	2.	11.4	3799.	2787.
2000.	0.0	2680.	.674	3.	16.1	3615.	2604.
2500.	0.0	3375.	.871	4.	21.4	3434.	2423.
3000.	0.0	4081.	1.082	5.	27.2	3254.	2244.
3500.	0.0	4800.	1.309	6.	33.8	3075.	2066.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 6.0
ANGLE OFF 10.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	2.4	658.	.158	1.	3.6	3979.	2977.
1000.	2.5	1336.	.337	1.	8.0	3605.	2605.
1500.	2.7	2038.	.540	2.	13.5	3239.	2240.
2000.	2.8	2774.	.777	4.	20.6	2875.	1879.
2500.	3.0	3553.	1.058	5.	29.8	2512.	1518.
3000.	3.2	4399.	1.406	7.	42.5	2136.	1146.
3500.	3.4	5367.	1.876	11.	62.1	1726.	741.

ALT. 20000.

500.	2.4	655.	.155	1.	3.5	4089.	3087.
1000.	2.5	1322.	.324	1.	7.5	3821.	2820.
1500.	2.6	2006.	.509	2.	12.2	3557.	2558.
2000.	2.6	2705.	.712	3.	17.7	3296.	2300.
2500.	2.7	3424.	.938	4.	24.2	3039.	2044.
3000.	2.8	4167.	1.191	5.	31.9	2781.	1790.
3500.	3.0	4937.	1.478	7.	41.4	2523.	1535.

ALT. 30000.

500.	2.4	654.	.153	1.	3.4	4173.	3170.
1000.	2.4	1315.	.316	1.	7.1	3985.	2985.
1500.	2.5	1985.	.488	2.	11.3	3800.	2802.
2000.	2.5	2663.	.671	3.	15.9	3618.	2621.
2500.	2.6	3352.	.867	4.	21.0	3437.	2443.
3000.	2.7	4051.	1.077	5.	26.8	3258.	2266.
3500.	2.7	4759.	1.302	6.	33.3	3080.	2091.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC.
ANGLE OFF 20.0 DEG.

ALT. 10000. FT.
TGT. VEL 1013. FT./SEC.

TGT. GEES 6.0
ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	4.8	650.	.156	1.	3.4	3984.	3010.
1000.	5.0	1319.	.332	1.	7.7	3614.	2642.
1500.	5.2	2010.	.533	2.	13.1	3251.	2283.
2000.	5.5	2729.	.764	3.	19.8	2894.	1928.
2500.	5.8	3487.	1.037	5.	28.6	2536.	1575.
3000.	6.2	4301.	1.372	7.	40.8	2170.	1213.
3500.	6.7	5214.	1.812	10.	58.9	1776.	826.

ALT. 20000.

500.	4.7	647.	.153	1.	3.3	4092.	3118.
1000.	4.9	1307.	.320	1.	7.2	3826.	2855.
1500.	5.0	1978.	.502	2.	11.7	3566.	2598.
2000.	5.2	2666.	.702	3.	16.9	3309.	2344.
2500.	5.4	3370.	.924	4.	23.2	3054.	2093.
3000.	5.6	4093.	1.170	5.	30.6	2801.	1844.
3500.	5.8	4839.	1.448	7.	39.6	2548.	1596.

ALT. 30000.

500.	4.7	645.	.151	1.	3.2	4175.	3201.
1000.	4.8	1298.	.312	1.	6.8	3990.	3019.
1500.	4.9	1959.	.482	2.	10.8	3807.	2839.
2000.	5.0	2627.	.663	3.	15.3	3626.	2662.
2500.	5.1	3302.	.855	4.	20.1	3448.	2487.
3000.	5.2	3986.	1.061	5.	25.6	3271.	2314.
3500.	5.4	4679.	1.282	6.	31.8	3095.	2143.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 6.0
ANGLE OFF 30.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	7.0	639.	.153	1.	3.3	3990.	3062.
1000.	7.3	1292.	.325	1.	7.2	3628.	2703.
1500.	7.7	1965.	.520	2.	12.2	3273.	2351.
2000.	8.0	2662.	.743	3.	18.5	2924.	2006.
2500.	8.5	3390.	1.005	5.	26.6	2576.	1662.
3000.	9.0	4162.	1.318	7.	37.6	2224.	1316.
3500.	9.7	5007.	1.719	9.	53.5	1853.	951.

ALT. 20000.

500.	6.9	636.	.151	1.	3.1	4097.	3170.
1000.	7.1	1281.	.314	1.	6.7	3836.	2913.
1500.	7.3	1938.	.492	2.	10.9	3580.	2660.
2000.	7.6	2607.	.686	3.	15.8	3329.	2413.
2500.	7.9	3288.	.900	4.	21.5	3080.	2169.
3000.	8.2	3987.	1.137	5.	28.3	2833.	1927.
3500.	8.5	4702.	1.403	7.	36.5	2588.	1687.

ALT. 30000.

500.	6.8	634.	.149	1.	3.1	4178.	3252.
1000.	7.0	1273.	.306	1.	6.4	3996.	3074.
1500.	7.1	1921.	.472	2.	10.1	3817.	2898.
2000.	7.3	2572.	.649	3.	14.2	3640.	2725.
2500.	7.5	3230.	.836	3.	18.7	3465.	2555.
3000.	7.6	3894.	1.036	4.	23.8	3292.	2387.
3500.	7.8	4564.	1.250	6.	29.4	3120.	2221.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC.
ANGLE OFF 40.0 DEG.

ALT. 10000. FT.
TGT. VEL 1013. FT./SEC.

TGT. GEES 6.0
ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	9.0	622.	.149	1.	2.8	4000.	3138.
1000.	9.4	1258.	.316	1.	6.6	3645.	2786.
1500.	9.8	1907.	.503	2.	10.9	3301.	2445.
2000.	10.3	2576.	.716	3.	16.6	2963.	2111.
2500.	10.9	3268.	.962	5.	23.7	2629.	1781.
3000.	11.5	3993.	1.252	6.	33.3	2293.	1450.
3500.	12.2	4768.	1.610	9.	46.6	1946.	1110.

ALT. 20000.

500.	8.8	620.	.147	1.	2.8	4103.	3242.
1000.	9.1	1249.	.306	1.	6.2	3849.	2991.
1500.	9.4	1885.	.478	2.	9.9	3600.	2747.
2000.	9.7	2530.	.664	3.	14.2	3355.	2507.
2500.	10.1	3186.	.869	4.	19.3	3114.	2270.
3000.	10.4	3854.	1.095	5.	25.3	2876.	2038.
3500.	10.8	4534.	1.345	6.	32.5	2639.	1807.

ALT. 30000.

500.	8.8	618.	.145	1.	2.7	4182.	3322.
1000.	9.0	1241.	.298	1.	5.7	4005.	3149.
1500.	9.2	1869.	.459	2.	9.1	3830.	2979.
2000.	9.4	2501.	.630	3.	12.8	3658.	2812.
2500.	9.6	3138.	.812	3.	16.9	3487.	2647.
3000.	9.8	3777.	1.003	4.	21.3	3319.	2485.
3500.	10.0	4420.	1.208	5.	26.3	3153.	2325.

20.0MM PROJECTILE

MUZZLE VEL 3350. FT./SEC. ALT. 10000. FT. TGT. GEES 6.0
ANGLE OFF 50.0 DEG. TGT. VEL 1013. FT./SEC. ATK. VEL 1013. FT./SEC.

SIGHT RANGE FT.	LEAD ANGLE DEG.	PROJ. RANGE FT.	TIME OF FLIGHT SEC.	GRAVITY DROP MILS.	PRED. BIAS MILS.	PROJ. VELOCITY FT./SEC.	STRIKE VELOCITY FT./SEC.
500.	10.7	603.	.144	1.	2.4	4010.	3234.
1000.	11.2	1217.	.305	1.	5.7	3667.	2894.
1500.	11.7	1840.	.484	2.	9.5	3335.	2564.
2000.	12.2	2478.	.685	3.	14.4	3009.	2242.
2500.	12.8	3132.	.914	4.	20.4	2690.	1926.
3000.	13.5	3807.	1.180	6.	28.2	2372.	1614.
3500.	14.3	4513.	1.495	8.	38.9	2051.	1298.

ALT. 20000.

500.	10.6	601.	.142	1.	2.3	4111.	3336.
1000.	10.9	1209.	.296	1.	5.3	3864.	3093.
1500.	11.2	1823.	.461	2.	8.6	3623.	2856.
2000.	11.6	2442.	.639	3.	12.3	3387.	2625.
2500.	12.0	3068.	.833	4.	16.7	3154.	2398.
3000.	12.4	3702.	1.045	5.	21.8	2926.	2175.
3500.	12.8	4343.	1.278	6.	27.7	2700.	1956.

ALT. 30000.

500.	10.5	601.	.141	1.	2.6	4187.	3414.
1000.	10.7	1203.	.289	1.	5.0	4015.	3247.
1500.	10.9	1810.	.444	2.	7.9	3846.	3082.
2000.	11.1	2418.	.608	2.	11.1	3679.	2921.
2500.	11.4	3029.	.782	3.	14.5	3515.	2763.
3000.	11.6	3642.	.965	4.	18.3	3352.	2607.
3500.	11.9	4257.	1.159	5.	22.6	3192.	2454.

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