AD-A038 675 SCIENCE APPLICATIONS INC LA JOLLA CALIF F/G 15/4
TABLES OF PROBABILITY OF DAMAGE CALCULATIONS FOR POINT AND CIRC--ETC(U)
JUL 76 J W FARSCHON, L N MATTESON DNA001-75-C-0320
UNCLASSIFIED SAI-76-664-LJ DNA-4051T NL

1 OF 1
AD A038675



END
DATE FILMED
5-77

AD A038675

DNA 4051T

TABLES OF PROBABILITY OF DAMAGE CALCULATIONS FOR POINT AND CIRCULAR NORMAL AREA TARGETS

Science Applications, Inc.
1200 Prospect Street
La Jolla, California 92037

19 July 1976

Topical Report

CONTRACT No. DNA 001-75-C-0320

APPROVED FOR PUBLIC RELEASE;
DISTRIBUTION UNLIMITED.

THIS WORK SPONSORED BY THE DEFENSE NUCLEAR AGENCY
UNDER RDT&E RMSS CODE B310075464 V99QAXNL96611 H2590D.

AD NO. DDC FILE COPY

Prepared for
Director
DEFENSE NUCLEAR AGENCY
Washington, D. C. 20305

DDC
RECEIVED
APR 27 1977
A

Destroy this report when it is no longer needed. Do not return to sender.



UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE

READ INSTRUCTIONS BEFORE COMPLETING FORM

1. REPORT NUMBER: DNA 4051T
2. GOVT ACCESSION NO.:
3. RECIPIENT'S CATALOG NUMBER:

4. TITLE (and Subtitle): TABLES OF PROBABILITY OF DAMAGE CALCULATIONS FOR POINT AND CIRCULAR NORMAL AREA TARGETS.

5. TYPE OF REPORT & PERIOD COVERED: Topical Report

6. PERFORMING ORG. REPORT NUMBER: SAI-76-664-LJ

7. AUTHOR(s): James W. Farschon
Laura N. Matteson

8. CONTRACT OR GRANT NUMBER(s): DNA 001-75-C-0320

9. PERFORMING ORGANIZATION NAME AND ADDRESS:
Science Applications, Inc.
1200 Prospect Street
La Jolla, California 92037

10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS:
NWED Subtask
V99QAXNL966-11

11. CONTROLLING OFFICE NAME AND ADDRESS:
Director
Defense Nuclear Agency
Washington, D.C. 20305

12. REPORT DATE: 19 July 1976

13. NUMBER OF PAGES: 68

14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office):

15. SECURITY CLASS (of this report): UNCLASSIFIED

15a. DECLASSIFICATION/DOWNGRADING SCHEDULE:

16. DISTRIBUTION STATEMENT (of this Report)

Approved for public release; distribution unlimited.

17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)

18. SUPPLEMENTARY NOTES

This work sponsored by the Defense Nuclear Agency under RDT&E RMSS Code B310075464 V99QAXNL96611 H2590D.

19. KEY WORDS (Continue on reverse side if necessary and identify by block number)

Circular Coverage Function
Circular Normal Area Target
Cumulative Lognormal Function
Damage Methodology
Distance Damage Function
Kill Probability
Offset Circle Probabilities
Point Target
Probability of Damage

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

This report contains tables of probabilities of damage to point or circular normal area targets. It includes an explanation of the geometric meaning and mathematical background of the tables, a description of the table organization, and several examples of their use.

DD FORM 1 JAN 73 1473 EDITION OF 1 NOV 65 IS OBSOLETE

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

388862

AB

TABLE OF CONTENTS

Section		Page
I	Introduction	3
II	Probability of Damage Analysis	4
III	Tabular Results	8
	3.1 Use of Adjusted CEP	8
	3.2 Table Organization	12
	3.2.1 Standard Parameter Set	12
	3.3 Use of Tables - Example Problems	13
	3.3.1 Example 1 - Point Target	13
	3.3.2 Example 2 - Area Target	13
	3.3.3 Example 3 - Table Interpolation	14
	3.3.4 Example 4 - Required Offset Distance for Given PD	16
	3.4 Limits of Tabular Evaluations	17
	3.4.1 Limit of PD Along Horizontal Axis	17
	3.4.2 Limit of PD Along Vertical Axis	17
Appendix	- Tables of Offset Circle Probabilities	19
A1	Distance Damage Sigma (σ_d) = 10% WR	20
A2	Distance Damage Sigma (σ_d) = 20% WR	28
A3	Distance Damage Sigma (σ_d) = 30% WR	37
A4	Distance Damage Sigma (σ_d) = 40% WR	47
A5	Distance Damage Sigma (σ_d) = 50% WR	57

ACCESSION for
NTIS White Section
DDC Buff Section
UNANNOUNCED
JUSTIFICATION
BY
DISTRIBUTION/AVAILABILITY CODES
Dist. AVAIL. and/or SPECIAL
A

LIST OF ILLUSTRATIONS

Figure		Page
1	Probability of Damage Distribution Functions --------	5
	1A. Distance Damage Function ----------	5
	1B. Impact Distribution ----------	5
	1C. Target Value Distribution ----------	5
2	Evaluation of CEP_a ----------	9
	2A. Limits of CEP_a ----------	9
	2B. Bounding Values of CEP_a ----------	9
3	CEP_a as a Function of CEP and R95-Small Scale -------	10
4	CEP_a as a Function of CEP and R95-Large Scale -------	11
5	Limits of Tabular Evaluations ----------	18
	5A. Initial Conditions ----------	18
	5B. Limit as $WR, D \to \infty$; D/WR Constant ----------	18
	5C. Limit as $D \to \infty$; WR, CEP_a Constant ----------	18

SECTION I

INTRODUCTION

This report contains tables of probabilities of damage to point or circular normal area targets using the cumulative lognormal damage function. The probability of damage for such a target is a combination of three probabilities: the probability that a target receives at least a certain amount of damage (called the distance damage function); the distribution of weapon impact points (CEP); and the density of the target area (R95). In order to easily evaluate the combined probabilities, we utilize analytic approximations for these separate distributions. The complement of the cumulative lognormal function is used as the analytic approximation to the distance damage function, and the circular normal function represents the joint density of the impact distribution and the target density.

Prior to 1972, the distance damage function was described by a circular normal distribution. The joint distribution of the distance damage function, impact distribution and target density was referred to as the circular coverage function.[1] Tabular evaluations of the circular coverage function had been in use for many years.[2] However, since 1972, the complement of the cumulative lognormal function has been used to approximate the damage function.[3] In adapting this approximation for use at Science Applications, Inc., adequate evaluations for comparison and verification could not be located. Consequently, these tables were produced for this purpose. The following pages give a brief description of the geometrical meaning and mathematical background of the tables and a brief discussion concerning the formulation and use of the tables. A more detailed explanation of the mathematical background and programming techniques used to generate these tables can be found in Reference 3.

---

1. H.H. Germond, "The Circular Coverage Function", Project RAND Research Memorandum RM-330, The Rand Corporation, 26 January 1950.
2. "Offset Circle Probabilities", R-234, The Rand Corporation, 14 March 1952.
3. "Mathematical Background and Programming Aids for the Physical Vulnerability System for Nuclear Weapons", DI-550-27-74, Defense Intelligence Agency, 1 November 1974.

SECTION II

PROBABILITY OF DAMAGE ANALYSIS

This Section gives a geometrical interpretation and a mathematical definition of the problem at hand. It is drawn largely from Reference 3 and unpublished material by the authors.

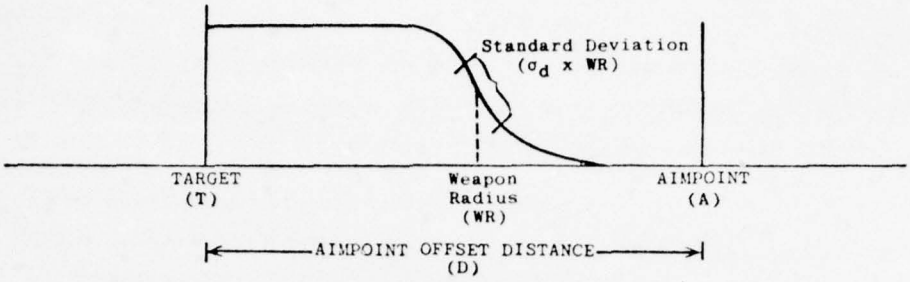
The basic problem is to calculate the probability of target damage from a single weapon. If the target has an extended area, the probability of damage is replaced by the expected fraction of the target damaged. In this report, the term "probability of damage" is used for both point and extended area targets. The solution of this problem requires the integration of three independent probability distributions--the distance damage function, the weapon impact distribution and the target density distribution. The distance damage function is represented by the complement of the cumulative lognormal function. The weapon impact distribution and the target density are represented by the circular coverage function. A geometric interpretation follows:

Assume that a weapon is aimed at point A, which is offset from the target T the distance D, as shown in Figure 1. The distance damage function is defined by the weapon radius (WR) and the distance damage sigma (σ_d) (see Figure 1A). WR is the radius of a circle centered at the impact point that contains as much area inside that is undamaged to a specified level as there is damaged outside. σ_d is the standard deviation of the distance damage function divided by the weapon radius. Analytically, we approximate P_d, the distance damage function by the complement of the cumulative lognormal function as

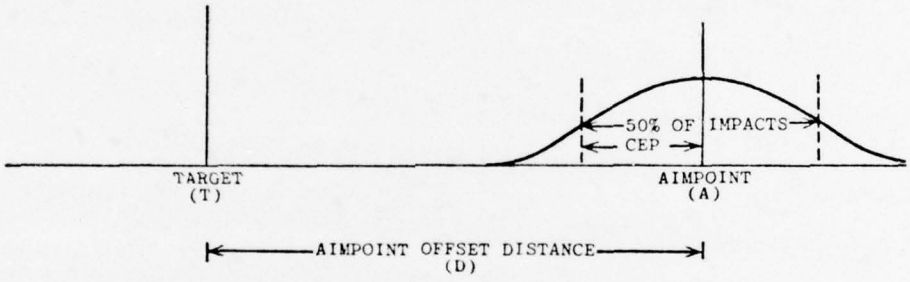
$$P_d(r) = \int_{-\infty}^{z(r)} \frac{1}{\sqrt{2\pi}} e^{-y^2/2} \, dy = .5\left(1 + \frac{|z|}{z} \operatorname{erf}\left(\frac{|z|}{\sqrt{2}}\right)\right)$$

$$z(r) = \frac{1}{\beta} \ln\left(WR \frac{e^{-\beta^2}}{r}\right)$$

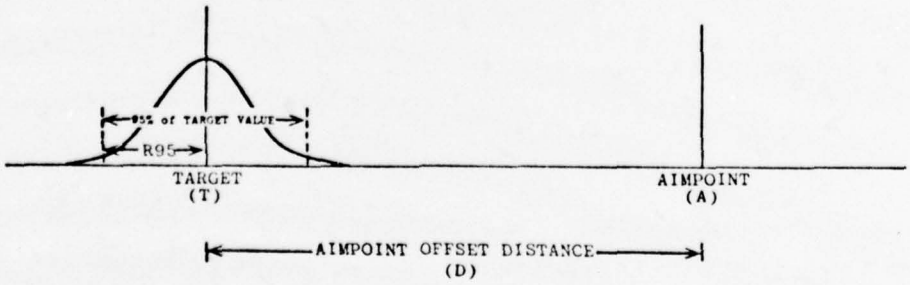
$$\beta = \left(-\ln\left(1 - \sigma_d^2\right)\right)^{1/2}$$



A. Distance Damage Function



B. Impact Distribution



C. Target Value Distribution

Figure 1. Probability of Damage Distribution Functions

Using the distance damage function, we can calculate an average probability of damage to a point target for each detonation point by weighting P_d by the probability that the weapon lands at that detonation point, called the impact distribution.

The circular normal impact distribution is depicted graphically in Figure 1B. It is defined by the Circular Error Probable (CEP), which is a circle about the aimpoint which contains 50 percent of the impacts. The probability that a weapon will impact within a distance $R \leq r \leq R + \Delta R$ of a target T, assuming an aimpoint offset of D is:

$$f(r) = \int_0^{2\pi} \frac{1}{2\pi\sigma_{CEP}^2} e^{-\left(\rho^2/2\sigma_{CEP}^2\right)} d\theta \; R \; \Delta R$$

$$\rho = R^2 + D^2 - 2RD \cos\theta$$

$$\sigma_{CEP} = CEP/\sqrt{2 \ln 2}$$

If we have an extended area target, we must consider the target density distribution. It is illustrated in Figure 1C and is also assumed to be a circular normal distribution. It is defined by the R95 radius which is a circle centered at the target which contains 95 percent of the target value distribution. Since the target density $f(t)$ and the delivery error $f(r)$ are independent normal distributions, the joint distribution is $f(r,t) = f(r) \cdot f(t)$, and it is referred to as a circular normal distribution. Also, the variances can be combined as $\sigma_a^2 = \sigma_t^2 + \sigma_{CEP}^2$, where σ_a^2 is the variance of the joint distribution. Hence,

$$CEP_a = \left(CEP^2 + \frac{\ln 2}{\ln 20} \cdot R95^2\right)^{1/2}.$$

To find the probability of achieving the desired level of damage, PD, to the specified target T, we must integrate all three distributions:

$$PD = \int_0^{\infty} P_d(r) \; f(r) \; dr.$$

This representation assumes that σ_a^2 replaces σ_{CEP}^2 in the f(r) equation shown above.

SECTION III

TABULAR RESULTS

This section explains how to use the tables. It includes a nomograph which tells when and how to replace CEP with the adjusted CEP (CEP_a) in order to account for distributed area targets. It also explains the organization of the tables in terms of the parameters used and gives several examples. Finally, it discusses the table limits as certain variables increase without limit.

3.1 USE OF ADJUSTED CEP

No CEP adjustment is necessary for point targets. For circular normal distributed area targets, the target density distribution can be included by adjusting the CEP as explained in Section 2. The exact equation for the adjusted CEP_a is:

$$CEP_a = \left[CEP^2 + \frac{\ln 2}{\ln 20} (R95 * 6076.1155)^2\right]^{1/2}$$

$$= \left[CEP^2 + 8542294 * R95^2\right]^{1/2}$$

The "ln 2/ln 20" term converts the 95th percentile of the R95 distribution to the 50th percentile used for CEP. The "6076.1155" factor converts nautical miles to feet.

As can be seen by the equation, CEP_a is composed of two terms, CEP and R95. Usually one or the other of these terms dominate. Figure 2A shows the limits of CEP_a for a wide range of values of CEP and R95. The diagonal line is for an R95 of zero and CEP_a equals CEP. The vertical lines are for when R95 dominates and CEP_a equals R95 times 2923. Also indicated are nomographs (Figures 3 and 4) from which one can obtain more precise values of CEP_a, given CEP and R95. Figure 2B shows when to use the nomographs and when to use the approximations. The boundaries were chosen to ensure an accuracy of at least .01 in the final probability of damage (PD) result.

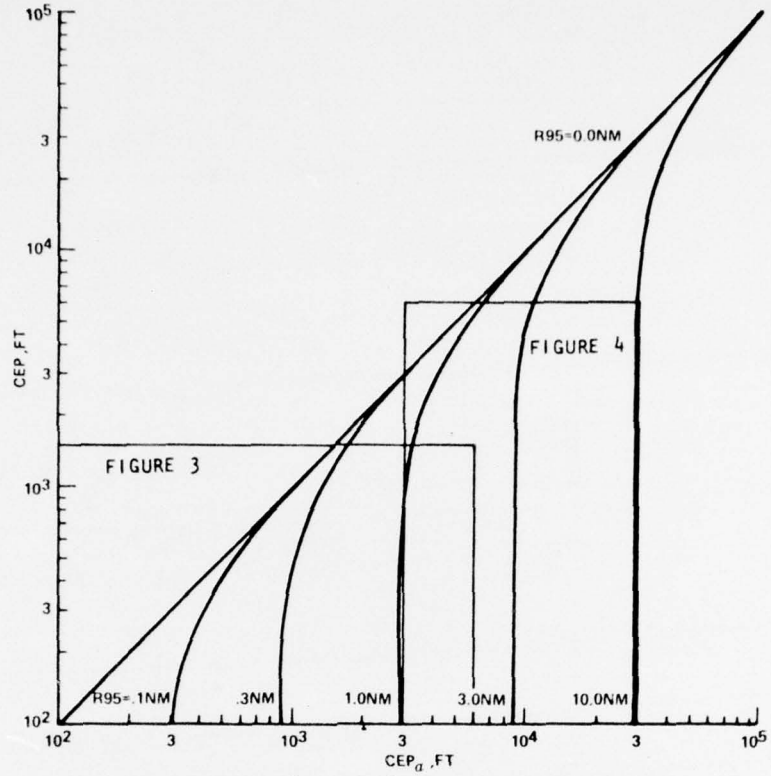


FIGURE 2A LIMITS OF CEP$_a$

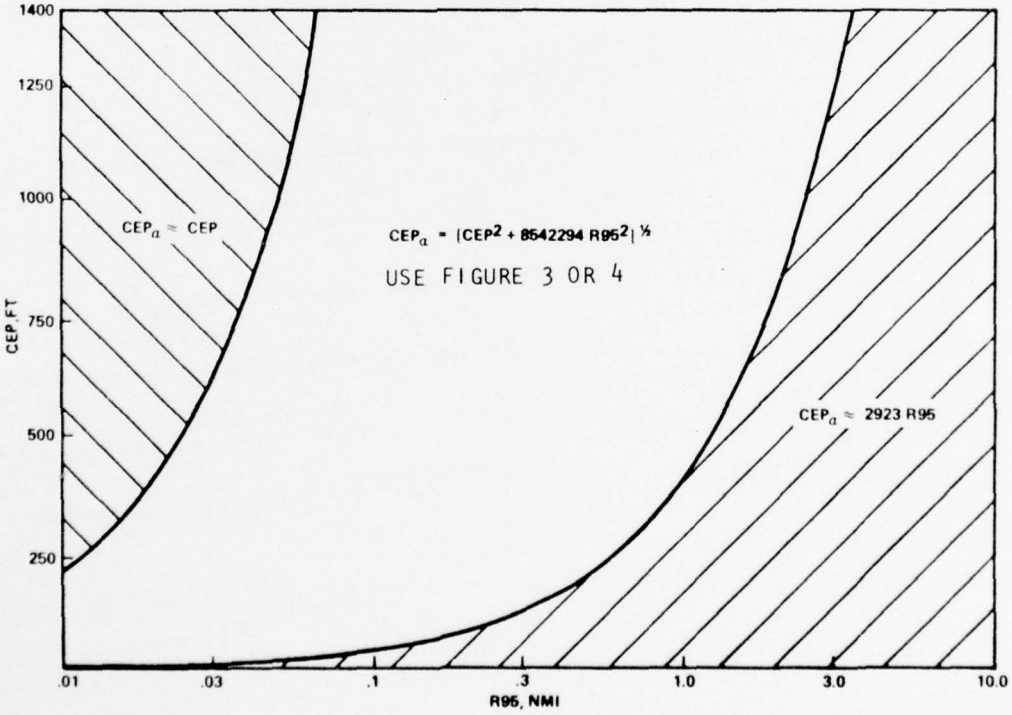


FIGURE 2B BOUNDING VALUES OF CEP$_a$

Figure 2. Evaluation of CEP$_a$

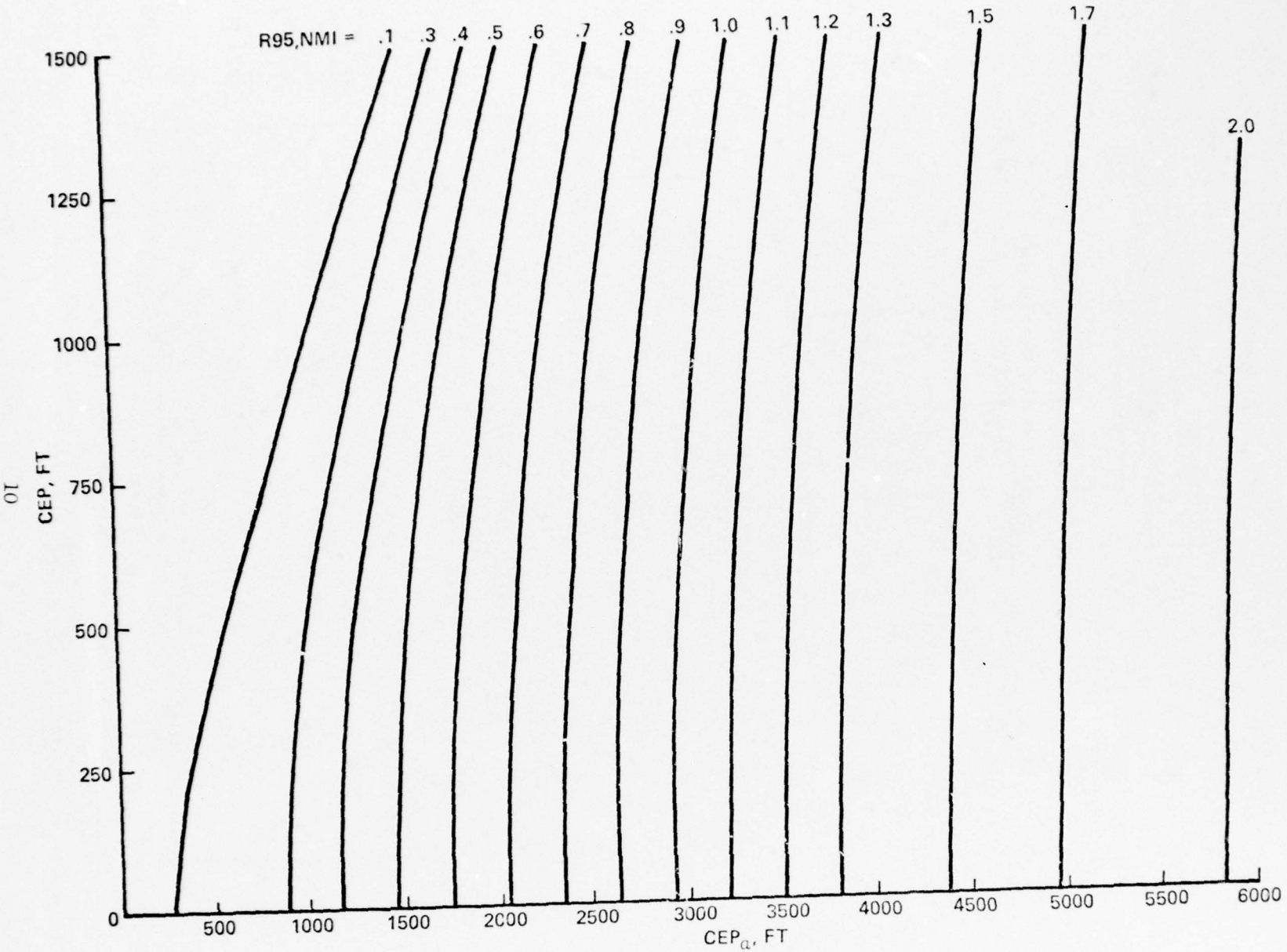


FIGURE 3 CEP$_a$ AS A FUNCTION OF CEP AND R95 – SMALL SCALE

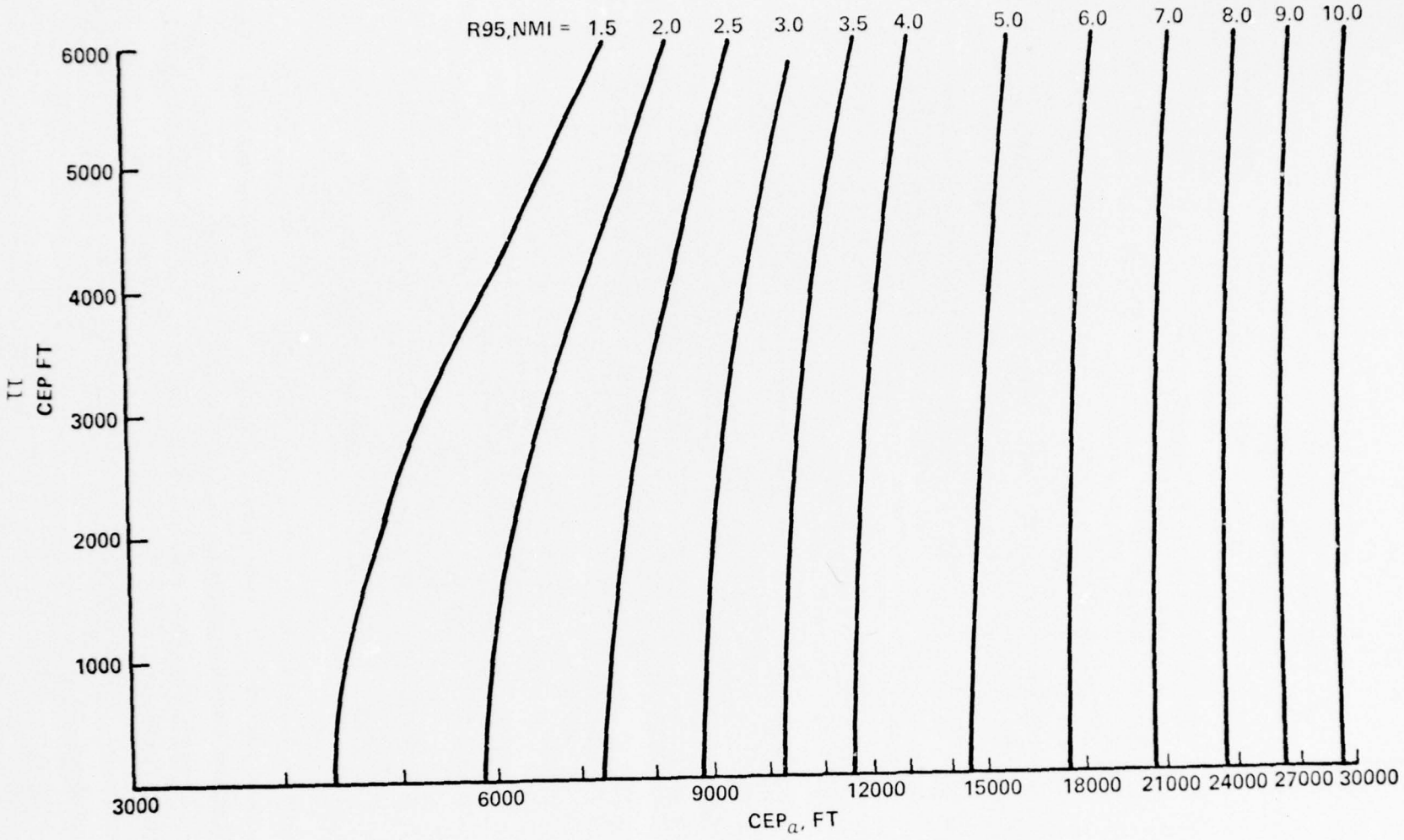


FIGURE 4 CEP$_a$ AS A FUNCTION OF CEP AND R95 – LARGE SCALE

3.2 TABLE ORGANIZATION

As explained in Section 2, in order to determine the probability of damage (PD) to a point or circular normal area target, it is necessary to integrate over three distributions. These distributions are represented by the following parameters:

Distance Damage Function: WR, σ_d

Weapon Impact Distribution: CEP, D

Target Density: R95

As mentioned above, the CEP and R95 can be combined as the adjusted CEP_a, leaving us with four parameters (WR, σ_d, CEP_a, D). By normalizing one of the parameters and by using separate tables for discrete values of σ_d we reduce the presentation format to double-entry tables of PD.

3.2.1 Standard Parameter Set

The probability of damage (PD) to a point or circular normal area target has been evaluated as a function of WR/CEP_a versus D/WR. WR is the weapon radius, CEP_a the circular error probable of the joint distribution of the target density and the impact distribution, σ_d x WR the standard deviation of the distance damage function, and D the offset distance from the aimpoint to the target. The standard data set is chosen as follows:

σ_d: 10, 20, 30, 40, 50% of WR

CEP_a: 1000 feet

WR/CEP_a: 0.0 - 20.0 in varying intervals

D/WR: 0.0 - 4.8 in varying intervals.

PD has been tabulated in terms of WR/CEP_a to eliminate CEP_a as a table input variable. The intervals have been chosen so that linear interpolation between tabulated values will give three digit accuracy (±.002). Interpolation between tables of σ_d is not recommended as the accuracy is unknown. The upper bounds on WR/CEP_a and D/WR were chosen to exhibit PD approaching definite limits. These limits are discussed in Section 3.4.

3.3 USE OF TABLES - EXAMPLE PROBLEMS

3.3.1 Example 1 - Point Target

A single bomb with a weapon radius of 2500 feet is aimed at a point 2000 feet from a point target. The weapon has a 1000 foot CEP accuracy and the standard deviation of the distance damage function sigma is thirty percent (30%) of the weapon radius. Hence,

$$\begin{aligned} CEP &= 1000 \text{ feet} \\ D &= 2000 \text{ feet} \\ WR &= 2500 \text{ feet} \\ \sigma_d &= 30\% \text{ of WR} \\ R95 &= 0 \end{aligned}$$

$$\begin{aligned} CEP_a &= CEP = 1000 \text{ feet} \\ WR/CEP_a &= 2500/1000 = 2.5 \\ D/WR &= 2000/2500 = 0.8 \end{aligned}$$

hecking the table for σ_d = 30% of WR (page 36), we obtain.

$$PD = .5572$$

3.3.2 Example 2 - Area Target

A weapon is aimed at a point 8000 feet away from the center of a circular normal distributed area whose R95 radius is one nautical mile. The weapon radius is 6.4 Kft and the distance damage function sigma is forty percent (40%) of the weapon radius. The CEP is 1300 ft. Hence,

$$\begin{aligned} CEP &= 1300 \text{ feet} \\ D &= 8000 \text{ feet} \\ WR &= 6400 \text{ feet} \\ \sigma_d &= 40\% \text{ of WR} \\ R95 &= 1 \text{ n.mi.} \end{aligned}$$

$$\begin{aligned} CEP_a &= \left[1300^2 + 8542294(1^2)\right]^{1/2} = 3200 \text{ feet} \\ WR/CEP_a &= 6400/3200 = 2.0 \\ D/WR &= 8000/6400 = 1.25 \end{aligned}$$

Checking the table for σ_d = 40% of WR (page 46), we obtain:

$$PD = .2201$$

3.3.3 Example 3 - Table Interpolation

In example 1, assume that the weapon radius is changed to 3000 feet and the CEP to 900 feet. Hence,

$$\begin{aligned} CEP &= 900 \text{ feet} \\ D &= 2000 \text{ feet} \\ WR &= 3000 \text{ feet} \\ \sigma_d &= 30\% \text{ of WR} \\ R95 &= 0 \end{aligned}$$

$$\begin{aligned} CEP_a &= CEP = 900 \text{ feet} \\ WR/CEP_a &= 3000/900 \approx 3\ 1/3 \\ D/WR &= 2000/3000 = 2/3 \end{aligned}$$

To find PD we must use double linear interpolation between the table entries from page 38.

		WR/CEP_a		
		3.20 C_1	3 1/3 B	3.40 C_2
D/WR	.66 D_1	.7214 T_{11}	B_1	.7320 T_{12}
	2/3 A	A_1	PD	A_2
	.68 D_2	.7037 T_{21}	B_2	.7139 T_{22}

Given the data in the table above, there are two equivalent ways to find the desired answer, PD. We can solve for A_1 and A_2 and then interpolate for PD , or we can solve for B_1 and B_2 and then PD. Both methods are shown below.

Interpolation Method A

$$A_1 = T_{11} + (T_{21}-T_{11})\left[(A-D_1)/(D_2-D_1)\right]$$
$$= .7214 + (.7037-.7214)[.00667/.0200]$$
$$= .715$$

$$A_2 = T_{12} + (T_{22}-T_{12})\left[(A-D_1)/(D_2-D_1)\right]$$
$$= .7320 + (.7139-.7320)[.00667/.0200]$$
$$= .726$$

$$PD = A_1 + (A_2-A_1)\left[(B-C_1)/(C_2-C_1)\right]$$
$$= .715 + (.726-.715)[.133/.200]$$
$$= .722$$

Interpolation Method B

$$B_1 = T_{11} + (T_{12}-T_{11})\left[(B-C_1)/(C_2-C_1)\right]$$
$$= .7214 + (.7320-.7214)[.133/.200]$$
$$= .728$$

$$B_2 = T_{21} + (T_{22}-T_{21})\left[(B-C_1)/(C_2-C_1)\right]$$
$$= .7037 + (.7139-.7037)[.133/.200]$$
$$= .710$$

$$PD = B_1 + (B_2-B_1)\left[(A-D_1)/(D_2-D_1)\right]$$
$$= .728 + (.710-.728)[.00667/.0200]$$
$$= .722$$

3.3.4 Example 4 - Required Offset Distance for Given PD

In example 2, assume that it is desired to restrict the damage to the area target to no more than ten percent (10%). What is the required aimpoint offset distance?

$$\begin{aligned} CEP &= 1300 \text{ feet} \\ WR &= 6400 \text{ feet} \\ \sigma_d &= 40\% \text{ of WR} \\ R95 &= 1 \text{ n.mi.} \\ PD &\leq 0.10 \end{aligned}$$

$$CEP_a = \left[1300^2 + 8542294(1^2)\right]^{1/2} = 3200 \text{ feet}$$

$$WR/CEP_a = 6400/3200 = 2.0$$

We must now interpolate in the table on page 46 to find the value of D/WR which will give PD = 0.10.

PD	.1120 P_1	.1000 P_A	.0991 P_2
D/WR	1.55 D_1	?? D_A	1.60 D_2

$$\begin{aligned} D_A &= D_1 + (D_2-D_1)\left[(P_A-P_1)/(P_2-P_1)\right] \\ &= 1.55 + .05\ [(.10-.1120)/(.0991-.1120)] \\ &= 1.5965 \end{aligned}$$

$$D = D_A * WR = 1.5965 * 6400 = 10218 \text{ feet}$$

3.4 LIMITS OF TABULAR EVALUATIONS

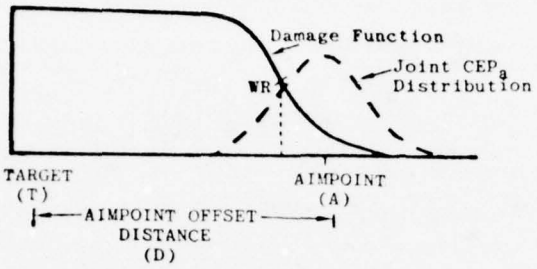
As mentioned in Section 3.2.1, the upper bounds on the table entries for WR/CEP_a and D/WR were chosen to show PD approaching definite limits as WR, CEP_a, and D increase/decrease without limit. In particular, the limit of PD as WR/CEP_a goes to infinity is the distance damage function and the limit of PD as D/WR goes to infinity is zero. A geometrical explanation of these limits is given below.

3.4.1 Limit of PD Along Horizontal Axis

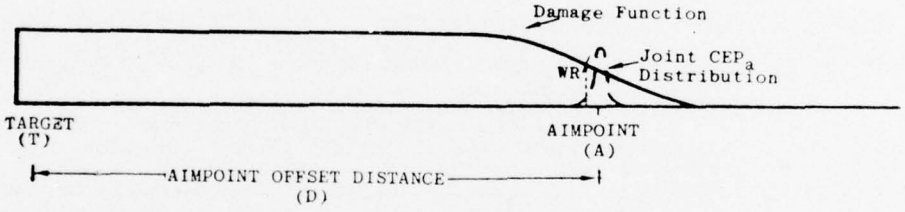
Consider the variation in PD as WR/CEP_a increases while D/WR remains constant. Assume CEP_a is a constant, so only WR is increasing as WR/CEP_a increases. Since D/WR maintains a constant value, D is also increasing as WR increases. Since D and WR are both increasing while CEP_a remains constant, eventually the distance damage function dominates the circular normal distribution, as illustrated in Figure 5A,B. Notice that the distance damage function decreases more gradually for a larger WR. This causes the circular normal distribution to be centered over a smaller and smaller portion of the damage curve. Consequently, PD goes to P_d as WR/CEP_a increases and D/WR remains constant. This effect is evident in the tabular results.

3.4.2 Limit of PD Along Vertical Axis

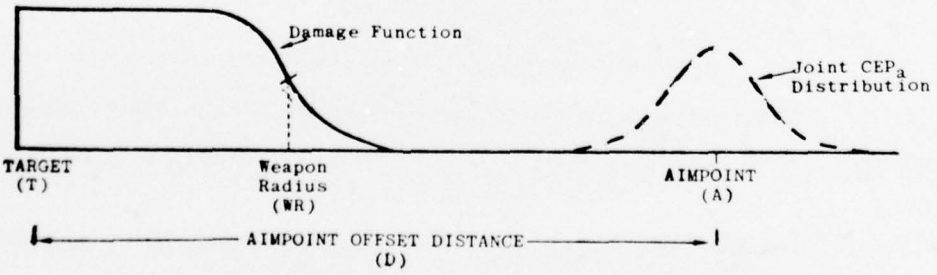
Consider the limit of PD as the offset distance D increases while WR/CEP_a remain constant. Since WR remains constant, D/WR increases as the offset distance increases. Eventually, the aimpoint A becomes so far offset from the target that the weapon does not interact with the target as shown in Figure 5C. In other words, the probability of damage to the target is 0; that is, PD goes to 0 as D/WR increases while WR/CEP_a remains constant. Graphically, as D increases the distributed values become separated so the probability of damage to the target decreases and becomes 0.



A. Initial Conditions



B. Limit as WR, D→∞; D/WR Constant



C. Limit as D→∞; WR, CEP$_a$ Constant

Figure 5. Limits of Tabular Evaluations

APPENDIX

TABLES OF OFFSET CIRCLE PROBABILITIES

Table		Page
A1	Distance Damage Sigma (σ_d) = 10% WR ----------	20
A2	Distance Damage Sigma (σ_d) = 20% WR ----------	28
A3	Distance Damage Sigma (σ_d) = 30% WR ----------	37
A4	Distance Damage Sigma (σ_d) = 40% WR ----------	47
A5	Distance Damage Sigma (σ_d) = 50% WR ----------	57

A1

OFFSET CIRCLE PROBABILITIES

DISTANCE DAMAGE SIGMA(σ_d) = 10% WR

WEAPON RADIUS/CEP_a (WR/CEP_a)

OFFSET DISTANCE/WEAPON RADIUS (D/WR)

	0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.70	0.80	0.90	1.00
0.00	.0017	.0069	.0155	.0273	.0424	.0604	.0813	.1047	.1306	.1586	.1884	.2198	.2863	.3557	.4260	.4952
0.10	.0017	.0069	.0155	.0273	.0423	.0604	.0812	.1046	.1304	.1583	.1881	.2194	.2855	.3545	.4242	.4928
0.20	.0017	.0069	.0155	.0273	.0423	.0603	.0810	.1043	.1299	.1576	.1870	.2179	.2831	.3508	.4190	.4858
0.30	.0017	.0069	.0154	.0273	.0422	.0601	.0807	.1038	.1291	.1563	.1853	.2156	.2791	.3447	.4104	.4744
0.40	.0017	.0069	.0154	.0272	.0421	.0598	.0802	.1030	.1279	.1546	.1828	.2123	.2736	.3363	.3986	.4588
0.50	.0017	.0069	.0154	.0271	.0419	.0595	.0796	.1020	.1264	.1524	.1798	.2081	.2667	.3259	.3839	.4394
0.60	.0017	.0069	.0154	.0271	.0417	.0591	.0789	.1009	.1246	.1498	.1761	.2032	.2585	.3136	.3667	.4168
0.70	.0017	.0069	.0154	.0270	.0415	.0586	.0781	.0995	.1225	.1468	.1719	.1975	.2491	.2996	.3473	.3915
0.80	.0017	.0069	.0153	.0269	.0412	.0581	.0772	.0980	.1201	.1433	.1671	.1911	.2387	.2842	.3262	.3641
0.90	.0017	.0069	.0153	.0267	.0409	.0575	.0761	.0962	.1175	.1395	.1618	.1841	.2275	.2677	.3037	.3353
1.00	.0017	.0069	.0152	.0266	.0406	.0569	.0749	.0943	.1146	.1354	.1562	.1766	.2155	.2504	.2804	.3057
1.10	.0017	.0068	.0152	.0264	.0402	.0561	.0737	.0923	.1115	.1310	.1501	.1687	.2030	.2325	.2567	.2759
1.20	.0017	.0068	.0151	.0263	.0399	.0554	.0723	.0901	.1082	.1263	.1438	.1604	.1901	.2143	.2329	.2464
1.30	.0017	.0068	.0151	.0261	.0394	.0545	.0708	.0878	.1048	.1214	.1372	.1518	.1771	.1962	.2095	.2178
1.40	.0017	.0068	.0150	.0259	.0390	.0537	.0693	.0853	.1011	.1163	.1304	.1431	.1639	.1783	.1868	.1905
1.50	.0017	.0068	.0149	.0257	.0385	.0527	.0677	.0828	.0974	.1111	.1235	.1343	.1509	.1609	.1651	.1648
1.60	.0017	.0068	.0149	.0255	.0380	.0518	.0660	.0801	.0935	.1058	.1165	.1255	.1381	.1441	.1446	.1411
1.70	.0017	.0068	.0148	.0253	.0375	.0507	.0643	.0774	.0896	.1004	.1095	.1167	.1257	.1281	.1255	.1195
1.80	.0017	.0068	.0147	.0250	.0369	.0497	.0625	.0746	.0856	.0950	.1025	.1081	.1137	.1131	.1080	.1001
1.90	.0017	.0067	.0146	.0248	.0364	.0486	.0606	.0718	.0816	.0895	.0956	.0996	.1023	.0991	.0920	.0829
2.00	.0017	.0067	.0145	.0245	.0358	.0474	.0587	.0689	.0775	.0842	.0888	.0915	.0915	.0862	.0777	.0679
2.20	.0017	.0067	.0144	.0239	.0345	.0451	.0548	.0631	.0695	.0737	.0758	.0760	.0718	.0637	.0539	.0440
2.40	.0017	.0066	.0142	.0233	.0332	.0427	.0509	.0573	.0616	.0637	.0638	.0621	.0551	.0457	.0360	.0273
2.60	.0017	.0066	.0139	.0227	.0318	.0402	.0469	.0516	.0541	.0543	.0528	.0498	.0413	.0318	.0232	.0161
2.80	.0017	.0065	.0137	.0221	.0304	.0376	.0430	.0461	.0469	.0458	.0431	.0393	.0302	.0215	.0143	.0091
3.00	.0017	.0065	.0135	.0214	.0289	.0351	.0391	.0408	.0403	.0381	.0346	.0304	.0216	.0141	.0085	.0049
3.20	.0017	.0064	.0132	.0207	.0275	.0325	.0354	.0359	.0343	.0313	.0274	.0231	.0151	.0089	.0049	.0025
3.40	.0017	.0064	.0129	.0199	.0260	.0301	.0318	.0312	.0289	.0254	.0213	.0172	.0103	.0055	.0027	.0012
3.60	.0017	.0063	.0127	.0192	.0245	.0276	.0284	.0270	.0240	.0203	.0164	.0126	.0068	.0033	.0014	.0006
3.80	.0017	.0063	.0124	.0184	.0230	.0253	.0251	.0231	.0198	.0160	.0124	.0091	.0044	.0019	.0007	.0002
4.00	.0017	.0062	.0121	.0176	.0215	.0230	.0221	.0196	.0162	.0125	.0092	.0064	.0028	.0011	.0003	.0001
4.50	.0017	.0060	.0113	.0157	.0180	.0178	.0157	.0126	.0093	.0064	.0041	.0025	.0008	.0002	.0000	.0000
5.00	.0017	.0058	.0105	.0138	.0147	.0133	.0107	.0076	.0050	.0030	.0017	.0009	.0002	.0000	.0000	.0000
5.50	.0016	.0056	.0097	.0120	.0118	.0097	.0070	.0044	.0025	.0013	.0006	.0003	.0000	.0000	.0000	.0000
6.00	.0016	.0054	.0089	.0102	.0092	.0069	.0044	.0024	.0012	.0005	.0002	.0001	.0000	.0000	.0000	.0000
6.50	.0016	.0052	.0080	.0086	.0071	.0047	.0026	.0012	.0005	.0002	.0001	.0000	.0000	.0000	.0000	.0000
7.00	.0016	.0049	.0072	.0072	.0053	.0031	.0015	.0006	.0002	.0001	.0000	.0000	.0000	.0000	.0000	.0000
7.50	.0016	.0047	.0065	.0059	.0039	.0020	.0008	.0003	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000
8.00	.0015	.0044	.0057	.0048	.0028	.0013	.0004	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
8.50	.0015	.0042	.0051	.0038	.0020	.0008	.0002	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
9.00	.0015	.0039	.0044	.0030	.0014	.0005	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
9.50	.0015	.0037	.0038	.0023	.0009	.0003	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
INFINITY	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000

A1
OFFSET CIRCLE PROBABILITIES
DISTANCE DAMAGE SIGMA (σ_d) = 10% WR

WEAPON RADIUS/CEP_a (WR/CEP_a)

OFFSET DISTANCE/WEAPON RADIUS (D/WR)

	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90	2.00	2.10	2.20	2.30	2.40	2.50	2.60
0.00	.5616	.6241	.6816	.7336	.7797	.8199	.8544	.8836	.9080	.9280	.9442	.9572	.9675	.9755	.9817	.9865
0.05	.5609	.6232	.6806	.7324	.7784	.8186	.8531	.8823	.9066	.9267	.9430	.9561	.9665	.9747	.9810	.9859
0.10	.5587	.6205	.6775	.7289	.7746	.8146	.8490	.8782	.9027	.9229	.9395	.9529	.9636	.9721	.9787	.9839
0.15	.5550	.6161	.6723	.7231	.7684	.8080	.8422	.8715	.8961	.9166	.9336	.9474	.9586	.9676	.9748	.9805
0.20	.5498	.6099	.6651	.7151	.7596	.7988	.8328	.8620	.8868	.9077	.9251	.9395	.9514	.9611	.9690	.9754
0.25	.5433	.6020	.6559	.7048	.7485	.7870	.8207	.8498	.8747	.8960	.9140	.9291	.9418	.9523	.9611	.9684
0.30	.5354	.5924	.6449	.6924	.7350	.7728	.8059	.8348	.8599	.8815	.9001	.9159	.9295	.9409	.9507	.9589
0.35	.5262	.5813	.6320	.6780	.7193	.7561	.7886	.8172	.8422	.8641	.8832	.8998	.9142	.9266	.9374	.9467
0.40	.5157	.5688	.6174	.6616	.7014	.7370	.7687	.7968	.8217	.8438	.8633	.8805	.8956	.9090	.9208	.9311
0.45	.5041	.5548	.6013	.6434	.6815	.7157	.7464	.7738	.7984	.8204	.8402	.8578	.8737	.8878	.9005	.9119
0.50	.4915	.5396	.5836	.6235	.6597	.6923	.7217	.7483	.7723	.7941	.8138	.8317	.8480	.8628	.8762	.8885
0.55	.4778	.5232	.5645	.6021	.6361	.6669	.6949	.7203	.7435	.7648	.7842	.8021	.8186	.8337	.8477	.8605
0.60	.4632	.5057	.5443	.5793	.6110	.6398	.6661	.6901	.7122	.7326	.7515	.7690	.7853	.8005	.8146	.8278
0.65	.4478	.4873	.5230	.5553	.5845	.6111	.6354	.6578	.6786	.6978	.7158	.7326	.7484	.7632	.7772	.7903
0.70	.4318	.4681	.5008	.5302	.5568	.5811	.6033	.6238	.6429	.6607	.6774	.6931	.7080	.7221	.7355	.7482
0.75	.4151	.4482	.4778	.5043	.5282	.5499	.5698	.5882	.6054	.6215	.6366	.6509	.6646	.6775	.6899	.7016
0.80	.3979	.4278	.4543	.4778	.4989	.5179	.5354	.5515	.5665	.5806	.5939	.6065	.6185	.6299	.6409	.6514
0.85	.3804	.4070	.4303	.4508	.4690	.4854	.5003	.5140	.5267	.5386	.5498	.5604	.5704	.5801	.5893	.5981
0.90	.3626	.3860	.4061	.4236	.4389	.4526	.4648	.4760	.4863	.4958	.5048	.5132	.5211	.5287	.5359	.5428
0.95	.3446	.3648	.3819	.3964	.4088	.4197	.4293	.4380	.4458	.4529	.4595	.4656	.4713	.4766	.4817	.4864
1.00	.3266	.3437	.3577	.3693	.3790	.3872	.3942	.4003	.4056	.4104	.4146	.4184	.4218	.4249	.4277	.4303
1.05	.3085	.3226	.3337	.3425	.3495	.3551	.3597	.3633	.3663	.3687	.3706	.3721	.3733	.3743	.3749	.3754
1.10	.2906	.3018	.3102	.3163	.3207	.3239	.3261	.3274	.3281	.3283	.3281	.3276	.3267	.3256	.3243	.3228
1.15	.2730	.2814	.2871	.2908	.2928	.2937	.2937	.2929	.2916	.2898	.2877	.2852	.2826	.2797	.2767	.2735
1.20	.2556	.2614	.2647	.2660	.2659	.2647	.2627	.2601	.2570	.2534	.2497	.2456	.2414	.2371	.2327	.2282
1.25	.2386	.2420	.2430	.2423	.2402	.2372	.2334	.2292	.2245	.2196	.2144	.2091	.2037	.1983	.1929	.1874
1.30	.2220	.2232	.2222	.2196	.2158	.2112	.2060	.2003	.1944	.1884	.1822	.1760	.1697	.1636	.1575	.1515
1.35	.2060	.2052	.2023	.1980	.1928	.1868	.1804	.1737	.1669	.1600	.1531	.1463	.1396	.1330	.1266	.1204
1.40	.1905	.1879	.1834	.1777	.1712	.1642	.1569	.1495	.1420	.1346	.1273	.1202	.1133	.1066	.1002	.0941
1.45	.1756	.1714	.1656	.1587	.1513	.1434	.1355	.1275	.1197	.1120	.1046	.0975	.0907	.0842	.0781	.0723
1.50	.1614	.1558	.1488	.1410	.1328	.1244	.1161	.1079	.0999	.0923	.0850	.0781	.0716	.0655	.0598	.0545
1.55	.1479	.1411	.1332	.1247	.1160	.1072	.0987	.0905	.0826	.0752	.0683	.0618	.0557	.0502	.0451	.0404
1.60	.1350	.1273	.1186	.1097	.1006	.0918	.0833	.0753	.0677	.0607	.0542	.0482	.0428	.0379	.0334	.0295
1.65	.1229	.1144	.1052	.0959	.0868	.0780	.0698	.0620	.0549	.0484	.0425	.0372	.0324	.0281	.0244	.0211
1.70	.1115	.1024	.0929	.0835	.0744	.0659	.0580	.0507	.0441	.0382	.0329	.0283	.0242	.0206	.0175	.0148
1.80	.0908	.0811	.0714	.0622	.0537	.0460	.0391	.0329	.0276	.0230	.0191	.0157	.0129	.0105	.0085	.0069
1.90	.0730	.0632	.0539	.0454	.0378	.0312	.0255	.0206	.0166	.0132	.0105	.0083	.0065	.0050	.0039	.0030
2.00	.0579	.0485	.0399	.0324	.0259	.0205	.0161	.0125	.0096	.0073	.0055	.0041	.0031	.0023	.0016	.0012
2.10	.0453	.0366	.0290	.0226	.0173	.0131	.0098	.0073	.0053	.0038	.0027	.0019	.0014	.0009	.0007	.0004
2.20	.0350	.0271	.0206	.0154	.0113	.0082	.0058	.0041	.0028	.0019	.0013	.0009	.0006	.0004	.0002	.0002
2.30	.0266	.0198	.0144	.0103	.0072	.0049	.0033	.0022	.0014	.0009	.0006	.0004	.0002	.0001	.0001	.0000
2.40	.0200	.0142	.0099	.0067	.0044	.0029	.0018	.0011	.0007	.0004	.0002	.0001	.0001	.0000	.0000	.0000
INFINITY	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000

OFFSET CIRCLE PROBABILITIES

DISTANCE DAMAGE SIGMA (σ_d) = 10% WR

WEAPON RADIUS/CEP_a (WR/CEP_a)

OFFSET DISTANCE/WEAPON RADIUS (D/WR)

	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90	2.00	2.10	2.20	2.30	2.40	2.50	2.60
2.50	.0148	.0100	.0066	.0042	.0027	.0016	.0010	.0006	.0003	.0002	.0001	.0001	.0000	.0000	.0000	.0000
2.60	.0108	.0070	.0043	.0026	.0016	.0009	.0005	.0003	.0001	.0001	.0000	.0000	.0000	.0000	.0000	.0000
2.70	.0077	.0047	.0028	.0016	.0009	.0005	.0002	.0001	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000
2.80	.0055	.0032	.0018	.0009	.0005	.0002	.0001	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
2.90	.0038	.0021	.0011	.0005	.0003	.0001	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
3.00	.0026	.0014	.0007	.0003	.0001	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
3.10	.0018	.0009	.0004	.0002	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
3.20	.0012	.0005	.0002	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
3.30	.0008	.0003	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
3.40	.0005	.0002	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
3.50	.0003	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
3.60	.0002	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
3.70	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
3.80	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
3.90	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
4.00	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
4.10	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
4.20	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
4.30	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
4.40	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
4.50	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
4.60	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
4.70	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
4.80	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
4.90	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
5.00	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
5.10	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
5.20	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
5.30	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
5.40	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
5.50	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
5.60	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
5.70	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
5.80	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
5.90	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
6.00	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
6.10	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
6.20	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
6.30	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
6.40	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
6.50	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
6.60	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
INFINITY	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000

OFFSET CIRCLE PROBABILITIES

DISTANCE DAMAGE SIGMA (σ_d) = 10% WR

WEAPON RADIUS/CEP$_a$ (WR/CEP$_a$)

OFFSET DISTANCE/WEAPON RADIUS (D/WR)

	2.60	2.80	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	4.80	5.00	5.20	5.40	5.60
0.00	.9865	.9928	.9963	.9981	.9991	.9996	.9998	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999
0.05	.9859	.9924	.9960	.9979	.9990	.9995	.9998	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999
0.10	.9839	.9910	.9951	.9973	.9986	.9993	.9996	.9998	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999
0.15	.9805	.9885	.9933	.9962	.9979	.9988	.9994	.9996	.9998	.9999	.9999	.9999	.9999	.9999	.9999	.9999
0.20	.9754	.9847	.9906	.9943	.9966	.9980	.9988	.9993	.9996	.9998	.9999	.9999	.9999	.9999	.9999	.9999
0.25	.9684	.9792	.9863	.9914	.9945	.9965	.9978	.9987	.9992	.9995	.9997	.9998	.9999	.9999	.9999	.9999
0.30	.9589	.9717	.9807	.9869	.9912	.9942	.9961	.9975	.9983	.9989	.9993	.9996	.9997	.9998	.9999	.9999
0.35	.9467	.9615	.9725	.9804	.9862	.9903	.9933	.9953	.9968	.9978	.9985	.9990	.9993	.9995	.9997	.9998
0.40	.9311	.9482	.9613	.9712	.9787	.9844	.9885	.9916	.9939	.9956	.9968	.9977	.9984	.9988	.9992	.9994
0.45	.9119	.9311	.9464	.9584	.9679	.9754	.9811	.9856	.9890	.9917	.9937	.9952	.9964	.9973	.9979	.9984
0.50	.8885	.9096	.9270	.9412	.9528	.9623	.9699	.9760	.9809	.9849	.9880	.9905	.9925	.9940	.9953	.9963
0.52	.8778	.8997	.9179	.9329	.9454	.9556	.9640	.9709	.9765	.9810	.9847	.9877	.9901	.9920	.9936	.9948
0.54	.8665	.8889	.9078	.9237	.9370	.9480	.9573	.9649	.9712	.9764	.9807	.9842	.9870	.9894	.9913	.9929
0.56	.8544	.8773	.8969	.9135	.9276	.9395	.9495	.9579	.9649	.9708	.9757	.9798	.9832	.9860	.9884	.9903
0.58	.8415	.8649	.8850	.9023	.9171	.9298	.9406	.9498	.9576	.9642	.9698	.9745	.9785	.9818	.9847	.9870
0.60	.8278	.8516	.8722	.8901	.9056	.9190	.9305	.9405	.9491	.9564	.9627	.9681	.9727	.9766	.9799	.9828
0.62	.8134	.8374	.8584	.8768	.8929	.9069	.9192	.9299	.9392	.9473	.9543	.9603	.9656	.9701	.9740	.9774
0.64	.7982	.8222	.8435	.8623	.8789	.8936	.9065	.9179	.9279	.9367	.9444	.9512	.9571	.9622	.9667	.9707
0.66	.7823	.8063	.8277	.8468	.8638	.8789	.8924	.9044	.9151	.9245	.9329	.9403	.9469	.9527	.9579	.9624
0.68	.7656	.7894	.8108	.8300	.8473	.8629	.8768	.8893	.9006	.9107	.9197	.9278	.9350	.9414	.9472	.9523
0.70	.7482	.7717	.7929	.8122	.8296	.8454	.8597	.8726	.8844	.8950	.9046	.9132	.9210	.9281	.9345	.9402
0.72	.7300	.7531	.7740	.7932	.8106	.8265	.8410	.8543	.8664	.8774	.8875	.8966	.9050	.9126	.9195	.9258
0.74	.7113	.7337	.7542	.7730	.7903	.8062	.8208	.8342	.8465	.8578	.8683	.8778	.8866	.8947	.9021	.9089
0.76	.6919	.7135	.7335	.7518	.7688	.7845	.7990	.8124	.8248	.8363	.8469	.8568	.8659	.8743	.8821	.8893
0.78	.6719	.6927	.7118	.7296	.7461	.7614	.7757	.7889	.8012	.8127	.8234	.8334	.8427	.8513	.8594	.8669
0.80	.6514	.6711	.6894	.7064	.7223	.7370	.7509	.7638	.7758	.7872	.7978	.8077	.8171	.8258	.8339	.8416
0.82	.6304	.6490	.6662	.6823	.6974	.7115	.7247	.7371	.7487	.7597	.7700	.7798	.7890	.7976	.8057	.8133
0.84	.6089	.6263	.6424	.6574	.6715	.6847	.6972	.7089	.7200	.7304	.7403	.7496	.7585	.7668	.7747	.7822
0.86	.5871	.6031	.6179	.6318	.6448	.6570	.6685	.6794	.6897	.6995	.7087	.7174	.7258	.7337	.7411	.7483
0.88	.5651	.5795	.5930	.6055	.6173	.6284	.6389	.6488	.6581	.6670	.6755	.6835	.6911	.6983	.7052	.7118
0.90	.5428	.5557	.5676	.5788	.5893	.5991	.6084	.6171	.6254	.6333	.6408	.6479	.6546	.6611	.6672	.6731
0.92	.5203	.5316	.5420	.5517	.5607	.5692	.5771	.5847	.5918	.5985	.6049	.6109	.6167	.6222	.6275	.6325
0.94	.4977	.5074	.5162	.5243	.5318	.5389	.5454	.5516	.5574	.5629	.5681	.5730	.5777	.5822	.5864	.5905
0.96	.4752	.4831	.4903	.4968	.5028	.5083	.5134	.5182	.5227	.5269	.5308	.5345	.5380	.5413	.5444	.5474
0.98	.4526	.4589	.4644	.4693	.4737	.4777	.4814	.4847	.4878	.4906	.4932	.4956	.4979	.5000	.5020	.5038
1.00	.4303	.4348	.4386	.4419	.4448	.4473	.4494	.4513	.4530	.4544	.4557	.4568	.4579	.4588	.4596	.4603
1.02	.4081	.4109	.4131	.4148	.4161	.4171	.4178	.4183	.4185	.4186	.4186	.4185	.4183	.4180	.4177	.4173
1.04	.3862	.3874	.3880	.3881	.3879	.3874	.3867	.3858	.3847	.3835	.3823	.3809	.3796	.3782	.3767	.3753
1.06	.3647	.3643	.3633	.3620	.3603	.3584	.3563	.3541	.3518	.3494	.3469	.3445	.3421	.3396	.3372	.3348
1.08	.3435	.3416	.3392	.3364	.3334	.3302	.3268	.3234	.3199	.3164	.3130	.3095	.3061	.3028	.2995	.2962
1.10	.3228	.3195	.3157	.3116	.3073	.3029	.2984	.2939	.2894	.2849	.2805	.2762	.2720	.2678	.2638	.2599
1.12	.3027	.2979	.2929	.2876	.2821	.2766	.2711	.2657	.2603	.2550	.2498	.2448	.2399	.2351	.2305	.2261

A1

OFFSET CIRCLE PROBABILITIES

DISTANCE DAMAGE SIGMA (σ_d) = 10% WR

WEAPON RADIUS/CEP_a (WR/CEP_a)

OFFSET DISTANCE/WEAPON RADIUS (D/WR)

	2.60	2.80	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	4.80	5.00	5.20	5.40	5.60
1.14	.2831	.2771	.2709	.2645	.2580	.2516	.2452	.2389	.2328	.2268	.2210	.2154	.2100	.2048	.1997	.1949
1.16	.2641	.2570	.2497	.2424	.2350	.2278	.2206	.2137	.2070	.2005	.1942	.1882	.1824	.1769	.1716	.1666
1.18	.2458	.2377	.2295	.2213	.2132	.2053	.1976	.1901	.1830	.1761	.1695	.1633	.1573	.1516	.1462	.1411
1.20	.2282	.2192	.2102	.2013	.1926	.1842	.1760	.1683	.1608	.1537	.1470	.1406	.1346	.1289	.1235	.1185
1.22	.2114	.2016	.1919	.1824	.1733	.1645	.1561	.1481	.1405	.1333	.1266	.1202	.1143	.1087	.1035	.0986
1.24	.1952	.1848	.1746	.1647	.1552	.1462	.1377	.1296	.1220	.1149	.1082	.1020	.0962	.0909	.0859	.0812
1.26	.1799	.1689	.1583	.1481	.1385	.1294	.1208	.1128	.1053	.0983	.0919	.0859	.0804	.0754	.0707	.0664
1.28	.1653	.1539	.1431	.1327	.1230	.1139	.1054	.0976	.0903	.0836	.0775	.0718	.0667	.0620	.0576	.0537
1.30	.1515	.1399	.1288	.1185	.1088	.0998	.0916	.0840	.0770	.0706	.0649	.0596	.0548	.0505	.0466	.0431
1.32	.1385	.1267	.1156	.1053	.0958	.0871	.0791	.0718	.0652	.0593	.0539	.0491	.0447	.0408	.0373	.0342
1.34	.1262	.1144	.1034	.0933	.0840	.0756	.0679	.0611	.0549	.0494	.0445	.0401	.0362	.0327	.0297	.0269
1.36	.1147	.1030	.0921	.0823	.0733	.0653	.0581	.0516	.0460	.0409	.0365	.0325	.0291	.0260	.0233	.0210
1.38	.1040	.0924	.0818	.0723	.0637	.0561	.0493	.0434	.0382	.0336	.0297	.0262	.0231	.0205	.0182	.0162
1.40	.0941	.0827	.0724	.0632	.0551	.0480	.0417	.0363	.0316	.0275	.0239	.0209	.0183	.0160	.0141	.0124
1.42	.0848	.0737	.0638	.0551	.0474	.0408	.0351	.0301	.0259	.0223	.0192	.0166	.0143	.0124	.0108	.0094
1.44	.0763	.0655	.0561	.0478	.0407	.0346	.0293	.0249	.0211	.0180	.0153	.0130	.0111	.0095	.0082	.0071
1.46	.0684	.0581	.0491	.0413	.0347	.0291	.0244	.0204	.0171	.0144	.0121	.0102	.0086	.0073	.0062	.0053
1.48	.0612	.0513	.0428	.0356	.0295	.0244	.0202	.0167	.0138	.0114	.0095	.0079	.0066	.0055	.0046	.0039
1.50	.0545	.0451	.0372	.0305	.0249	.0203	.0166	.0135	.0110	.0090	.0074	.0060	.0050	.0041	.0034	.0028
1.60	.0295	.0227	.0174	.0132	.0100	.0076	.0057	.0043	.0033	.0025	.0019	.0014	.0011	.0009	.0007	.0005
1.70	.0148	.0105	.0074	.0052	.0036	.0025	.0017	.0012	.0008	.0006	.0004	.0003	.0002	.0001	.0001	.0001
1.80	.0069	.0045	.0029	.0018	.0011	.0007	.0005	.0003	.0002	.0001	.0001	.0000	.0000	.0000	.0000	.0000
1.90	.0030	.0017	.0010	.0006	.0003	.0002	.0001	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
2.00	.0012	.0006	.0003	.0002	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
2.10	.0004	.0002	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
2.20	.0002	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
2.30	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
2.40	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
2.50	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
2.60	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
2.70	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
2.80	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
2.90	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
3.00	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
3.10	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
3.20	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
3.30	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
3.40	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
3.50	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
3.60	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
3.70	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
3.80	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
INFINITY	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000

A1

OFFSET CIRCLE PROBABILITIES

DISTANCE DAMAGE SIGMA (σ_d) = 10% WR

WEAPON RADIUS/CEP$_a$ (WR/CEP$_a$)

OFFSET DISTANCE/WEAPON RADIUS (D/WR)

	6.00	6.50	7.00	7.50	8.00	8.50	9.00	9.50	10.00	10.50	11.00	11.50	12.00	12.50	13.00	13.50
0.00	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999
0.05	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999
0.10	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999
0.15	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999
0.20	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999
0.25	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999
0.30	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999
0.35	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999
0.40	.9997	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999
0.45	.9991	.9996	.9998	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999
0.50	.9977	.9987	.9993	.9996	.9998	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999
0.52	.9966	.9980	.9988	.9993	.9996	.9997	.9998	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999
0.54	.9952	.9971	.9982	.9989	.9993	.9995	.9997	.9998	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999
0.56	.9933	.9957	.9973	.9982	.9988	.9992	.9995	.9996	.9998	.9998	.9999	.9999	.9999	.9999	.9999	.9999
0.58	.9907	.9938	.9959	.9972	.9981	.9987	.9991	.9994	.9995	.9997	.9998	.9998	.9999	.9999	.9999	.9999
0.60	.9873	.9913	.9940	.9958	.9970	.9979	.9985	.9989	.9992	.9994	.9995	.9996	.9997	.9998	.9998	.9999
0.62	.9829	.9878	.9913	.9937	.9954	.9966	.9974	.9981	.9985	.9989	.9991	.9993	.9994	.9996	.9996	.9997
0.64	.9772	.9832	.9876	.9907	.9930	.9947	.9959	.9968	.9975	.9980	.9984	.9987	.9989	.9991	.9993	.9994
0.66	.9700	.9773	.9826	.9866	.9896	.9918	.9935	.9948	.9958	.9966	.9972	.9977	.9980	.9984	.9986	.9988
0.68	.9611	.9696	.9761	.9810	.9848	.9878	.9900	.9918	.9932	.9943	.9952	.9959	.9965	.9970	.9974	.9977
0.70	.9501	.9600	.9676	.9736	.9784	.9821	.9851	.9874	.9893	.9909	.9922	.9932	.9941	.9948	.9954	.9959
0.72	.9368	.9480	.9569	.9640	.9697	.9743	.9781	.9812	.9837	.9858	.9875	.9889	.9902	.9912	.9921	.9928
0.74	.9209	.9333	.9434	.9517	.9585	.9640	.9686	.9725	.9757	.9784	.9806	.9826	.9842	.9856	.9869	.9879
0.76	.9021	.9157	.9269	.9363	.9440	.9506	.9561	.9607	.9646	.9680	.9709	.9734	.9756	.9774	.9791	.9805
0.78	.8804	.8948	.9070	.9173	.9260	.9335	.9398	.9452	.9499	.9540	.9575	.9606	.9633	.9657	.9678	.9696
0.80	.8555	.8705	.8834	.8945	.9040	.9122	.9193	.9254	.9308	.9355	.9397	.9433	.9466	.9494	.9520	.9543
0.82	.8273	.8427	.8559	.8675	.8775	.8863	.8940	.9007	.9067	.9119	.9166	.9208	.9245	.9278	.9308	.9335
0.84	.7959	.8111	.8245	.8362	.8465	.8556	.8636	.8707	.8770	.8827	.8877	.8922	.8963	.9000	.9033	.9063
0.86	.7614	.7761	.7891	.8006	.8108	.8198	.8279	.8351	.8415	.8473	.8526	.8573	.8615	.8654	.8689	.8721
0.88	.7240	.7377	.7499	.7608	.7705	.7792	.7869	.7939	.8002	.8059	.8110	.8157	.8199	.8237	.8272	.8304
0.90	.6840	.6964	.7073	.7172	.7260	.7339	.7410	.7475	.7533	.7585	.7633	.7676	.7716	.7752	.7785	.7815
0.92	.6419	.6524	.6618	.6702	.6778	.6846	.6908	.6963	.7013	.7059	.7100	.7138	.7172	.7204	.7232	.7259
0.94	.5980	.6064	.6139	.6206	.6266	.6321	.6369	.6413	.6453	.6489	.6522	.6552	.6579	.6603	.6626	.6647
0.96	.5529	.5590	.5643	.5691	.5734	.5772	.5806	.5836	.5863	.5888	.5910	.5930	.5949	.5965	.5981	.5994
0.98	.5072	.5108	.5139	.5166	.5189	.5210	.5228	.5243	.5257	.5270	.5280	.5290	.5299	.5307	.5314	.5320
1.00	.4614	.4626	.4634	.4640	.4644	.4647	.4648	.4649	.4649	.4649	.4648	.4648	.4647	.4645	.4644	.4643
1.02	.4163	.4150	.4136	.4122	.4107	.4093	.4079	.4066	.4053	.4041	.4030	.4019	.4009	.4000	.3991	.3983
1.04	.3724	.3688	.3653	.3620	.3589	.3560	.3532	.3506	.3482	.3460	.3439	.3420	.3403	.3386	.3371	.3357
1.06	.3301	.3245	.3193	.3143	.3098	.3055	.3016	.2980	.2947	.2917	.2889	.2863	.2840	.2818	.2798	.2779
1.08	.2900	.2827	.2760	.2697	.2640	.2588	.2540	.2497	.2457	.2421	.2388	.2357	.2330	.2305	.2281	.2260
1.10	.2524	.2438	.2359	.2287	.2222	.2163	.2109	.2061	.2017	.1977	.1942	.1909	.1879	.1852	.1828	.1805
1.12	.2177	.2081	.1994	.1916	.1846	.1783	.1727	.1676	.1631	.1590	.1553	.1520	.1490	.1463	.1439	.1416

A1

OFFSET CIRCLE PROBABILITIES

DISTANCE DAMAGE SIGMA (σ_d) = 10% WR

WEAPON RADIUS/CEP_a (WR/CEP_a)

OFFSET DISTANCE/WEAPON RADIUS (D/WR)

	6.00	6.50	7.00	7.50	8.00	8.50	9.00	9.50	10.00	10.50	11.00	11.50	12.00	12.50	13.00	13.50
1.14	.1859	.1757	.1666	.1585	.1513	.1450	.1393	.1343	.1298	.1258	.1223	.1191	.1162	.1136	.1113	.1092
1.16	.1373	.1468	.1376	.1295	.1225	.1163	.1108	.1060	.1018	.0980	.0947	.0917	.0891	.0867	.0846	.0827
1.18	.1317	.1214	.1124	.1046	.0978	.0920	.0869	.0824	.0786	.0752	.0722	.0695	.0672	.0651	.0632	.0615
1.20	.1093	.0992	.0907	.0834	.0771	.0718	.0672	.0632	.0597	.0567	.0541	.0518	.0498	.0480	.0464	.0450
1.22	.0897	.0803	.0723	.0656	.0600	.0552	.0512	.0477	.0447	.0422	.0400	.0380	.0364	.0349	.0336	.0324
1.24	.0730	.0642	.0570	.0510	.0461	.0419	.0384	.0355	.0330	.0309	.0291	.0275	.0261	.0249	.0239	.0230
1.26	.0587	.0508	.0444	.0392	.0349	.0314	.0285	.0261	.0240	.0223	.0208	.0196	.0185	.0175	.0167	.0160
1.28	.0468	.0398	.0342	.0297	.0261	.0232	.0208	.0188	.0172	.0158	.0147	.0137	.0129	.0121	.0115	.0110
1.30	.0369	.0308	.0261	.0223	.0193	.0169	.0150	.0134	.0122	.0111	.0102	.0095	.0088	.0083	.0078	.0074
1.32	.0289	.0236	.0196	.0165	.0141	.0122	.0107	.0095	.0085	.0077	.0070	.0064	.0060	.0056	.0052	.0049
1.34	.0223	.0179	.0146	.0121	.0101	.0087	.0075	.0066	.0058	.0052	.0047	.0043	.0040	.0037	.0035	.0032
1.36	.0171	.0134	.0107	.0087	.0072	.0061	.0052	.0045	.0040	.0035	.0032	.0029	.0026	.0024	.0022	.0021
1.38	.0130	.0100	.0078	.0062	.0051	.0042	.0035	.0030	.0026	.0023	.0021	.0019	.0017	.0016	.0014	.0013
1.40	.0097	.0073	.0056	.0044	.0035	.0029	.0024	.0020	.0017	.0015	.0013	.0012	.0011	.0010	.0009	.0008
1.42	.0072	.0053	.0040	.0031	.0024	.0019	.0016	.0013	.0011	.0010	.0009	.0008	.0007	.0006	.0006	.0005
1.44	.0053	.0038	.0028	.0021	.0016	.0013	.0011	.0009	.0007	.0006	.0005	.0005	.0004	.0004	.0004	.0003
1.46	.0039	.0027	.0020	.0014	.0011	.0009	.0007	.0006	.0005	.0004	.0003	.0003	.0003	.0002	.0002	.0002
1.48	.0028	.0019	.0013	.0010	.0007	.0006	.0004	.0004	.0003	.0002	.0002	.0002	.0002	.0001	.0001	.0001
1.50	.0020	.0013	.0009	.0007	.0005	.0004	.0003	.0002	.0002	.0002	.0001	.0001	.0001	.0001	.0001	.0001
1.60	.0003	.0002	.0001	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
1.70	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
INFINITY	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000

A1

OFFSET CIRCLE PROBABILITIES

DISTANCE DAMAGE SIGMA (σ_d) = 10% WR

OFFSET DISTANCE/WEAPON RADIUS (D/WR)

WEAPON RADIUS/CEP$_a$ (WR/CEP$_a$)

D/WR	13.00	13.50	14.00	14.50	15.00	15.50	16.00	16.50	17.00	17.50	18.00	18.50	19.00	19.50	20.00	P_{d_∞}
0.00	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999
0.50	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999
0.60	.9993	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999
0.65	.9990	.9991	.9993	.9994	.9995	.9995	.9996	.9996	.9997	.9997	.9997	.9998	.9998	.9998	.9998	.9999
0.67	.9981	.9983	.9986	.9987	.9989	.9990	.9991	.9992	.9993	.9993	.9994	.9995	.9995	.9995	.9996	.9999
0.69	.9965	.9969	.9973	.9976	.9978	.9980	.9982	.9984	.9985	.9986	.9987	.9988	.9989	.9990	.9990	.9998
0.71	.9939	.9945	.9951	.9955	.9959	.9963	.9965	.9968	.9970	.9972	.9974	.9976	.9977	.9979	.9980	.9995
0.73	.9897	.9906	.9914	.9921	.9927	.9932	.9937	.9941	.9944	.9948	.9951	.9953	.9955	.9958	.9960	.9988
0.75	.9834	.9846	.9857	.9866	.9875	.9883	.9889	.9895	.9901	.9905	.9910	.9914	.9917	.9921	.9924	.9972
0.77	.9739	.9756	.9770	.9783	.9795	.9805	.9814	.9823	.9830	.9837	.9843	.9849	.9854	.9859	.9864	.9939
0.79	.9605	.9626	.9644	.9661	.9676	.9689	.9702	.9713	.9723	.9732	.9740	.9748	.9755	.9762	.9768	.9878
0.81	.9421	.9446	.9469	.9489	.9508	.9524	.9539	.9553	.9566	.9578	.9588	.9598	.9607	.9616	.9624	.9773
0.83	.9179	.9207	.9233	.9257	.9279	.9298	.9316	.9333	.9348	.9362	.9375	.9386	.9397	.9408	.9417	.9607
0.85	.8870	.8901	.8930	.8956	.8979	.9001	.9021	.9040	.9057	.9072	.9087	.9100	.9113	.9125	.9135	.9359
0.87	.8490	.8522	.8551	.8578	.8603	.8626	.8647	.8667	.8685	.8701	.8717	.8731	.8744	.8757	.8768	.9013
0.89	.8037	.8069	.8097	.8124	.8148	.8171	.8191	.8211	.8228	.8245	.8260	.8274	.8288	.8300	.8312	.8559
0.91	.7516	.7545	.7571	.7595	.7617	.7638	.7657	.7674	.7691	.7706	.7720	.7733	.7745	.7757	.7767	.7997
0.93	.6935	.6959	.6981	.7001	.7019	.7036	.7052	.7067	.7080	.7093	.7105	.7116	.7126	.7135	.7144	.7336
0.95	.6307	.6325	.6341	.6355	.6369	.6381	.6393	.6403	.6413	.6422	.6431	.6439	.6446	.6453	.6460	.6596
0.97	.5649	.5659	.5668	.5676	.5684	.5691	.5698	.5704	.5709	.5714	.5719	.5723	.5727	.5731	.5735	.5807
0.99	.4978	.4980	.4983	.4984	.4986	.4987	.4989	.4990	.4991	.4992	.4992	.4993	.4994	.4994	.4995	.5000
1.01	.4314	.4310	.4305	.4300	.4296	.4292	.4289	.4285	.4282	.4279	.4276	.4273	.4270	.4268	.4266	.4209
1.03	.3676	.3665	.3654	.3644	.3635	.3626	.3618	.3611	.3604	.3597	.3591	.3586	.3580	.3575	.3570	.3464
1.05	.3078	.3061	.3046	.3032	.3019	.3007	.2995	.2985	.2975	.2966	.2958	.2950	.2942	.2935	.2929	.2786
1.07	.2532	.2512	.2493	.2476	.2461	.2446	.2433	.2420	.2409	.2398	.2388	.2379	.2370	.2362	.2354	.2191
1.09	.2047	.2024	.2004	.1986	.1969	.1953	.1938	.1925	.1913	.1901	.1890	.1880	.1871	.1862	.1854	.1686
1.11	.1625	.1603	.1582	.1563	.1546	.1530	.1515	.1502	.1490	.1478	.1467	.1458	.1448	.1440	.1432	.1269
1.13	.1268	.1246	.1226	.1208	.1192	.1177	.1163	.1150	.1138	.1128	.1118	.1108	.1100	.1092	.1084	.0935
1.15	.0972	.0952	.0934	.0917	.0902	.0888	.0876	.0864	.0854	.0844	.0835	.0827	.0819	.0812	.0805	.0675
1.17	.0733	.0715	.0699	.0684	.0671	.0659	.0648	.0638	.0629	.0620	.0613	.0605	.0599	.0593	.0587	.0478
1.19	.0543	.0528	.0514	.0501	.0490	.0480	.0471	.0462	.0455	.0448	.0441	.0435	.0430	.0425	.0420	.0332
1.21	.0396	.0383	.0371	.0361	.0352	.0344	.0336	.0329	.0323	.0317	.0312	.0308	.0303	.0299	.0295	.0227
1.23	.0284	.0273	.0264	.0256	.0249	.0242	.0236	.0231	.0226	.0221	.0217	.0214	.0210	.0207	.0204	.0152
1.25	.0200	.0192	.0185	.0178	.0173	.0168	.0163	.0159	.0155	.0152	.0149	.0146	.0143	.0141	.0139	.0100
1.27	.0139	.0133	.0127	.0122	.0118	.0114	.0111	.0108	.0105	.0102	.0100	.0098	.0096	.0094	.0093	.0065
1.29	.0095	.0090	.0086	.0083	.0080	.0077	.0074	.0072	.0070	.0068	.0066	.0065	.0064	.0062	.0061	.0041
1.31	.0064	.0061	.0058	.0055	.0053	.0051	.0049	.0047	.0046	.0045	.0043	.0042	.0041	.0040	.0040	.0026
1.33	.0043	.0040	.0038	.0036	.0034	.0033	.0032	.0031	.0030	.0029	.0028	.0027	.0027	.0026	.0025	.0016
1.35	.0028	.0026	.0025	.0023	.0022	.0021	.0020	.0020	.0019	.0018	.0018	.0017	.0017	.0016	.0016	.0010
1.37	.0018	.0017	.0016	.0015	.0014	.0013	.0013	.0012	.0012	.0011	.0011	.0011	.0010	.0010	.0010	.0006
1.39	.0012	.0011	.0010	.0009	.0009	.0008	.0008	.0008	.0007	.0007	.0007	.0007	.0006	.0006	.0006	.0004
1.41	.0007	.0007	.0006	.0006	.0006	.0005	.0005	.0005	.0005	.0004	.0004	.0004	.0004	.0004	.0004	.0002
INFINITY	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000

OFFSET CIRCLE PROBABILITIES

DISTANCE DAMAGE SIGMA (σ_d) = 20% WR

WEAPON RADIUS/CEP_a (WR/CEP_a)

OFFSET DISTANCE/WEAPON RADIUS (D/WR)

	0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.70	0.80	0.90	1.00
0.00	.0017	.0069	.0155	.0273	.0422	.0602	.0808	.1040	.1295	.1569	.1861	.2167	.2811	.3478	.4150	.4807
0.10	.0017	.0069	.0155	.0273	.0422	.0601	.0808	.1039	.1293	.1567	.1858	.2162	.2803	.3466	.4133	.4785
0.20	.0017	.0069	.0154	.0272	.0422	.0600	.0806	.1036	.1288	.1559	.1847	.2148	.2780	.3431	.4083	.4718
0.30	.0017	.0069	.0154	.0272	.0421	.0598	.0802	.1030	.1280	.1547	.1830	.2125	.2741	.3373	.4001	.4610
0.40	.0017	.0069	.0154	.0272	.0420	.0596	.0798	.1023	.1268	.1530	.1807	.2094	.2688	.3292	.3888	.4461
0.50	.0017	.0069	.0154	.0271	.0418	.0593	.0792	.1013	.1254	.1509	.1777	.2053	.2622	.3192	.3748	.4278
0.60	.0017	.0069	.0154	.0270	.0416	.0589	.0785	.1002	.1236	.1483	.1741	.2005	.2542	.3074	.3584	.4063
0.70	.0017	.0069	.0153	.0269	.0414	.0584	.0777	.0989	.1215	.1453	.1699	.1950	.2452	.2939	.3399	.3822
0.80	.0017	.0069	.0153	.0268	.0411	.0579	.0768	.0973	.1192	.1420	.1653	.1888	.2351	.2792	.3197	.3562
0.90	.0017	.0069	.0153	.0267	.0408	.0573	.0757	.0956	.1166	.1382	.1601	.1819	.2242	.2633	.2982	.3287
1.00	.0017	.0069	.0152	.0265	.0405	.0566	.0746	.0937	.1138	.1342	.1546	.1746	.2126	.2466	.2758	.3004
1.10	.0017	.0068	.0152	.0264	.0401	.0559	.0733	.0917	.1107	.1298	.1487	.1669	.2005	.2293	.2530	.2719
1.20	.0017	.0068	.0151	.0262	.0397	.0552	.0719	.0896	.1075	.1252	.1425	.1588	.1880	.2118	.2302	.2436
1.30	.0017	.0068	.0151	.0260	.0393	.0543	.0705	.0873	.1041	.1204	.1360	.1504	.1753	.1943	.2076	.2161
1.40	.0017	.0068	.0150	.0259	.0389	.0535	.0690	.0848	.1005	.1154	.1293	.1419	.1625	.1769	.1857	.1898
1.50	.0017	.0068	.0149	.0257	.0384	.0525	.0674	.0823	.0968	.1103	.1226	.1333	.1498	.1600	.1646	.1650
1.60	.0017	.0068	.0149	.0254	.0379	.0516	.0657	.0797	.0930	.1051	.1157	.1246	.1374	.1436	.1447	.1420
1.70	.0017	.0068	.0148	.0252	.0374	.0506	.0640	.0770	.0891	.0998	.1088	.1161	.1252	.1280	.1261	.1209
1.80	.0017	.0068	.0147	.0250	.0368	.0495	.0622	.0743	.0852	.0945	.1020	.1076	.1135	.1133	.1089	.1019
1.90	.0017	.0067	.0146	.0247	.0363	.0484	.0604	.0715	.0812	.0891	.0952	.0993	.1023	.0996	.0933	.0849
2.00	.0017	.0067	.0145	.0245	.0357	.0473	.0585	.0686	.0772	.0838	.0885	.0913	.0916	.0869	.0791	.0700
2.20	.0017	.0067	.0143	.0239	.0344	.0450	.0547	.0629	.0692	.0735	.0757	.0761	.0723	.0647	.0555	.0461
2.40	.0017	.0066	.0141	.0233	.0331	.0425	.0508	.0572	.0615	.0636	.0638	.0623	.0558	.0468	.0375	.0291
2.60	.0017	.0066	.0139	.0227	.0317	.0401	.0468	.0515	.0540	.0544	.0530	.0502	.0420	.0329	.0245	.0176
2.80	.0017	.0065	.0137	.0220	.0303	.0375	.0429	.0460	.0470	.0459	.0433	.0397	.0309	.0224	.0154	.0101
3.00	.0017	.0065	.0134	.0213	.0289	.0350	.0391	.0408	.0404	.0383	.0349	.0308	.0223	.0148	.0093	.0056
3.20	.0017	.0064	.0132	.0206	.0274	.0325	.0353	.0359	.0344	.0315	.0277	.0235	.0156	.0095	.0054	.0029
3.40	.0017	.0064	.0129	.0199	.0259	.0300	.0318	.0313	.0290	.0256	.0216	.0176	.0107	.0059	.0031	.0015
3.60	.0017	.0063	.0126	.0192	.0244	.0276	.0284	.0270	.0242	.0205	.0167	.0130	.0072	.0036	.0017	.0007
3.80	.0017	.0062	.0124	.0184	.0230	.0252	.0252	.0232	.0200	.0163	.0126	.0094	.0047	.0021	.0009	.0003
4.00	.0017	.0062	.0121	.0176	.0215	.0230	.0222	.0197	.0163	.0127	.0094	.0067	.0030	.0012	.0004	.0001
4.50	.0017	.0060	.0113	.0157	.0180	.0178	.0157	.0127	.0094	.0065	.0043	.0026	.0009	.0003	.0001	.0000
5.00	.0017	.0058	.0105	.0138	.0147	.0134	.0107	.0077	.0051	.0031	.0017	.0009	.0002	.0000	.0000	.0000
5.50	.0016	.0056	.0097	.0120	.0118	.0098	.0070	.0045	.0026	.0013	.0006	.0003	.0000	.0000	.0000	.0000
6.00	.0016	.0054	.0089	.0102	.0092	.0069	.0044	.0025	.0012	.0005	.0002	.0001	.0000	.0000	.0000	.0000
6.50	.0016	.0052	.0080	.0086	.0071	.0047	.0027	.0013	.0005	.0002	.0001	.0000	.0000	.0000	.0000	.0000
7.00	.0016	.0049	.0072	.0072	.0053	.0032	.0015	.0006	.0002	.0001	.0000	.0000	.0000	.0000	.0000	.0000
7.50	.0016	.0047	.0065	.0059	.0039	.0020	.0009	.0003	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000
8.00	.0015	.0044	.0057	.0048	.0028	.0013	.0005	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
8.50	.0015	.0042	.0051	.0038	.0020	.0008	.0002	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
9.00	.0015	.0039	.0044	.0030	.0014	.0005	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
9.50	.0015	.0037	.0038	.0023	.0009	.0003	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
∞	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000

A2

OFFSET CIRCLE PROBABILITIES

DISTANCE DAMAGE SIGMA (σ_d) = 20% WR

WEAPON RADIUS/CEP_a (WR/CEP_a)

OFFSET DISTANCE/WEAPON RADIUS (D/WR)

	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90	2.00	2.10	2.20	2.30	2.40	2.50	2.60
0.00	.5436	.6027	.6571	.7066	.7508	.7899	.8240	.8535	.8788	.9002	.9182	.9333	.9458	.9562	.9647	.9716
0.05	.5429	.6018	.6562	.7055	.7496	.7886	.8227	.8521	.8774	.8988	.9169	.9320	.9446	.9550	.9636	.9706
0.10	.5408	.5993	.6532	.7021	.7459	.7847	.8186	.8480	.8732	.8947	.9129	.9282	.9410	.9516	.9605	.9677
0.15	.5373	.5951	.6483	.6966	.7399	.7783	.8119	.8411	.8663	.8879	.9062	.9218	.9349	.9459	.9551	.9628
0.20	.5324	.5892	.6415	.6889	.7315	.7693	.8025	.8315	.8566	.8783	.8968	.9127	.9262	.9376	.9473	.9555
0.25	.5263	.5817	.6328	.6792	.7208	.7578	.7905	.8192	.8441	.8658	.8846	.9008	.9147	.9267	.9370	.9458
0.30	.5188	.5727	.6223	.6674	.7079	.7440	.7760	.8042	.8289	.8506	.8695	.8860	.9004	.9129	.9239	.9334
0.35	.5101	.5622	.6101	.6536	.6928	.7278	.7589	.7865	.8109	.8325	.8515	.8683	.8831	.8961	.9076	.9178
0.40	.5002	.5504	.5963	.6381	.6757	.7094	.7395	.7664	.7903	.8116	.8306	.8475	.8626	.8761	.8881	.8989
0.45	.4892	.5372	.5810	.6208	.6567	.6889	.7178	.7438	.7670	.7879	.8067	.8236	.8388	.8526	.8651	.8764
0.50	.4772	.5228	.5643	.6019	.6359	.6665	.6940	.7189	.7413	.7615	.7799	.7966	.8118	.8257	.8384	.8500
0.55	.4643	.5072	.5463	.5816	.6135	.6423	.6683	.6918	.7131	.7326	.7503	.7666	.7816	.7953	.8080	.8197
0.60	.4505	.4907	.5272	.5601	.5897	.6165	.6407	.6627	.6828	.7012	.7181	.7337	.7482	.7615	.7740	.7855
0.65	.4359	.4733	.5070	.5374	.5646	.5893	.6116	.6319	.6506	.6677	.6835	.6982	.7118	.7245	.7364	.7476
0.70	.4207	.4552	.4861	.5137	.5385	.5609	.5811	.5996	.6166	.6323	.6468	.6603	.6729	.6846	.6957	.7061
0.75	.4048	.4364	.4644	.4893	.5115	.5315	.5496	.5661	.5813	.5952	.6082	.6203	.6316	.6422	.6522	.6616
0.80	.3886	.4171	.4422	.4643	.4839	.5015	.5173	.5317	.5449	.5570	.5683	.5788	.5886	.5978	.6064	.6146
0.85	.3719	.3974	.4196	.4389	.4559	.4710	.4845	.4967	.5078	.5180	.5274	.5361	.5443	.5519	.5591	.5658
0.90	.3550	.3775	.3967	.4133	.4276	.4402	.4514	.4613	.4703	.4785	.4860	.4929	.4993	.5052	.5107	.5159
0.95	.3379	.3574	.3738	.3876	.3994	.4095	.4183	.4261	.4330	.4391	.4446	.4497	.4542	.4584	.4623	.4658
1.00	.3207	.3373	.3509	.3621	.3713	.3791	.3856	.3912	.3960	.4001	.4037	.4069	.4097	.4121	.4143	.4162
1.05	.3036	.3174	.3283	.3369	.3437	.3492	.3535	.3570	.3598	.3620	.3638	.3652	.3662	.3670	.3676	.3680
1.10	.2863	.2976	.3059	.3121	.3167	.3199	.3222	.3238	.3247	.3251	.3252	.3249	.3244	.3237	.3229	.3219
1.15	.2696	.2782	.2841	.2880	.2904	.2916	.2920	.2918	.2910	.2898	.2883	.2866	.2847	.2827	.2806	.2784
1.20	.2530	.2591	.2628	.2646	.2650	.2645	.2631	.2612	.2590	.2564	.2536	.2506	.2475	.2444	.2412	.2381
1.25	.2367	.2406	.2422	.2420	.2407	.2385	.2357	.2324	.2288	.2250	.2211	.2171	.2131	.2091	.2052	.2013
1.30	.2208	.2226	.2223	.2204	.2175	.2139	.2098	.2053	.2007	.1959	.1912	.1864	.1817	.1771	.1726	.1682
1.35	.2054	.2053	.2033	.1999	.1956	.1908	.1856	.1802	.1747	.1693	.1638	.1585	.1534	.1484	.1436	.1390
1.40	.1905	.1887	.1851	.1805	.1751	.1692	.1632	.1571	.1510	.1450	.1392	.1336	.1282	.1230	.1181	.1135
1.45	.1761	.1728	.1679	.1622	.1558	.1493	.1426	.1360	.1295	.1233	.1172	.1115	.1061	.1009	.0961	.0916
1.50	.1624	.1577	.1518	.1451	.1380	.1309	.1238	.1169	.1102	.1039	.0979	.0922	.0869	.0819	.0773	.0730
1.55	.1492	.1434	.1366	.1292	.1216	.1141	.1068	.0998	.0931	.0868	.0810	.0755	.0705	.0658	.0615	.0576
1.60	.1367	.1300	.1224	.1145	.1066	.0989	.0915	.0845	.0780	.0720	.0664	.0613	.0566	.0523	.0484	.0449
1.65	.1249	.1174	.1092	.1010	.0929	.0852	.0779	.0711	.0649	.0592	.0539	.0492	.0450	.0411	.0377	.0346
1.70	.1137	.1056	.0971	.0887	.0806	.0730	.0659	.0594	.0535	.0482	.0434	.0392	.0354	.0320	.0290	.0263
1.80	.0934	.0846	.0758	.0674	.0596	.0526	.0462	.0406	.0356	.0312	.0274	.0241	.0213	.0188	.0166	.0148
1.90	.0758	.0667	.0581	.0502	.0432	.0370	.0316	.0269	.0229	.0196	.0167	.0143	.0123	.0106	.0092	.0080
2.00	.0607	.0519	.0438	.0367	.0306	.0254	.0210	.0173	.0143	.0118	.0098	.0082	.0068	.0057	.0048	.0041
2.10	.0480	.0397	.0325	.0263	.0212	.0170	.0136	.0108	.0087	.0069	.0056	.0045	.0037	.0030	.0025	.0020
2.20	.0375	.0300	.0237	.0185	.0144	.0111	.0086	.0066	.0051	.0039	.0031	.0024	.0019	.0015	.0012	.0010
2.30	.0289	.0223	.0169	.0127	.0095	.0071	.0052	.0039	.0029	.0022	.0016	.0012	.0009	.0007	.0006	.0005
2.40	.0220	.0163	.0119	.0086	.0062	.0044	.0031	.0022	.0016	.0011	.0008	.0006	.0005	.0003	.0003	.0002

A2

OFFSET CIRCLE PROBABILITIES

DISTANCE DAMAGE SIGMA (σ_d) = 20% WR

WEAPON RADIUS/CEP_a (WR/CEP_a)

OFFSET DISTANCE/WEAPON RADIUS (D/WR)

	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90	2.00	2.10	2.20	2.30	2.40	2.50	2.60
2.50	.0165	.0117	.0082	.0057	.0039	.0027	.0018	.0012	.0009	.0006	.0004	.0003	.0002	.0002	.0001	.0001
2.60	.0122	.0083	.0056	.0037	.0024	.0016	.0010	.0007	.0004	.0003	.0002	.0001	.0001	.0001	.0001	.0000
2.70	.0089	.0058	.0037	.0023	.0015	.0009	.0006	.0004	.0002	.0001	.0001	.0001	.0000	.0000	.0000	.0000
2.80	.0065	.0040	.0024	.0015	.0009	.0005	.0003	.0002	.0001	.0001	.0000	.0000	.0000	.0000	.0000	.0000
2.90	.0046	.0027	.0016	.0009	.0005	.0003	.0002	.0001	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000
3.00	.0032	.0018	.0010	.0005	.0003	.0002	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
3.10	.0022	.0012	.0006	.0003	.0002	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
3.20	.0015	.0008	.0004	.0002	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
3.30	.0010	.0005	.0002	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
3.40	.0007	.0003	.0001	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
3.50	.0004	.0002	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
3.60	.0003	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
3.70	.0002	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
3.80	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
3.90	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
4.00	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
4.10	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
4.20	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
4.30	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
4.40	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
4.50	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000

A2

OFFSET CIRCLE PROBABILITIES

DISTANCE DAMAGE SIGMA (σ_d) = 20% WR

WEAPON RADIUS/CEP_a (WR/CEP_a)

OFFSET DISTANCE/WEAPON RADIUS (D/WR)

	2.60	2.80	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	4.80	5.00	5.20	5.40	5.60
0.00	.9716	.9818	.9885	.9927	.9955	.9972	.9983	.9989	.9993	.9996	.9997	.9998	.9999	.9999	.9999	.9999
0.05	.9706	.9810	.9878	.9923	.9951	.9969	.9981	.9988	.9992	.9995	.9997	.9998	.9999	.9999	.9999	.9999
0.10	.9677	.9786	.9859	.9907	.9939	.9960	.9974	.9983	.9989	.9993	.9995	.9997	.9998	.9999	.9999	.9999
0.15	.9628	.9745	.9825	.9880	.9918	.9944	.9961	.9973	.9982	.9987	.9991	.9994	.9996	.9997	.9998	.9998
0.20	.9555	.9683	.9774	.9839	.9885	.9917	.9941	.9957	.9969	.9977	.9984	.9988	.9991	.9993	.9995	.9996
0.25	.9458	.9599	.9703	.9779	.9835	.9877	.9908	.9930	.9947	.9960	.9970	.9977	.9982	.9986	.9989	.9992
0.30	.9334	.9489	.9606	.9696	.9765	.9817	.9857	.9888	.9912	.9931	.9945	.9957	.9965	.9972	.9978	.9982
0.35	.9178	.9348	.9480	.9585	.9667	.9732	.9784	.9825	.9858	.9884	.9905	.9922	.9935	.9946	.9955	.9963
0.40	.8989	.9172	.9320	.9439	.9536	.9615	.9679	.9732	.9775	.9810	.9839	.9864	.9884	.9901	.9915	.9927
0.45	.8764	.8959	.9120	.9253	.9364	.9457	.9534	.9599	.9654	.9700	.9739	.9772	.9801	.9825	.9846	.9863
0.50	.8500	.8704	.8876	.9022	.9146	.9251	.9341	.9419	.9485	.9542	.9592	.9635	.9672	.9705	.9733	.9759
0.52	.8384	.8590	.8765	.8915	.9043	.9154	.9248	.9330	.9401	.9463	.9517	.9564	.9605	.9641	.9673	.9701
0.54	.8261	.8469	.8647	.8800	.8932	.9047	.9146	.9232	.9308	.9374	.9431	.9482	.9527	.9567	.9602	.9634
0.56	.8132	.8341	.8521	.8677	.8812	.8930	.9033	.9124	.9203	.9273	.9335	.9389	.9438	.9481	.9520	.9554
0.58	.7997	.8206	.8387	.8545	.8683	.8804	.8910	.9004	.9087	.9161	.9226	.9284	.9336	.9383	.9424	.9462
0.60	.7855	.8063	.8245	.8404	.8544	.8667	.8777	.8873	.8959	.9036	.9104	.9166	.9221	.9270	.9315	.9356
0.62	.7708	.7914	.8095	.8255	.8396	.8521	.8632	.8731	.8819	.8899	.8970	.9034	.9092	.9144	.9191	.9235
0.64	.7554	.7758	.7938	.8097	.8238	.8364	.8476	.8577	.8667	.8748	.8822	.8888	.8948	.9003	.9052	.9098
0.66	.7395	.7596	.7773	.7930	.8071	.8196	.8309	.8411	.8502	.8585	.8659	.8727	.8789	.8845	.8897	.8944
0.68	.7231	.7426	.7600	.7755	.7894	.8019	.8131	.8233	.8324	.8407	.8483	.8552	.8615	.8672	.8725	.8774
0.70	.7061	.7251	.7421	.7572	.7709	.7832	.7942	.8043	.8134	.8217	.8293	.8362	.8425	.8483	.8537	.8586
0.72	.6886	.7070	.7234	.7382	.7515	.7635	.7743	.7842	.7932	.8014	.8089	.8157	.8220	.8278	.8331	.8381
0.74	.6707	.6884	.7042	.7184	.7312	.7428	.7534	.7630	.7718	.7798	.7871	.7938	.8000	.8057	.8110	.8158
0.76	.6524	.6692	.6843	.6979	.7102	.7214	.7315	.7408	.7492	.7569	.7640	.7706	.7766	.7821	.7872	.7920
0.78	.6337	.6496	.6639	.6768	.6885	.6991	.7088	.7176	.7256	.7330	.7398	.7460	.7518	.7571	.7620	.7665
0.80	.6146	.6296	.6430	.6552	.6661	.6761	.6852	.6935	.7011	.7080	.7144	.7203	.7257	.7307	.7353	.7396
0.82	.5952	.6092	.6217	.6330	.6432	.6525	.6609	.6686	.6756	.6821	.6880	.6935	.6985	.7031	.7074	.7114
0.84	.5757	.5885	.6000	.6104	.6198	.6283	.6360	.6430	.6495	.6553	.6608	.6657	.6703	.6745	.6784	.6820
0.86	.5559	.5676	.5781	.5875	.5959	.6036	.6105	.6169	.6226	.6279	.6328	.6372	.6413	.6450	.6485	.6517
0.88	.5359	.5465	.5559	.5643	.5718	.5786	.5847	.5903	.5953	.5999	.6042	.6080	.6116	.6148	.6178	.6206
0.90	.5159	.5253	.5335	.5409	.5474	.5533	.5586	.5633	.5677	.5716	.5751	.5784	.5814	.5841	.5866	.5888
0.92	.4958	.5040	.5111	.5173	.5229	.5278	.5322	.5362	.5398	.5430	.5458	.5485	.5508	.5530	.5550	.5568
0.94	.4758	.4827	.4886	.4938	.4983	.5023	.5059	.5090	.5118	.5142	.5165	.5184	.5202	.5218	.5233	.5246
0.96	.4558	.4614	.4662	.4703	.4739	.4769	.4795	.4818	.4838	.4856	.4871	.4885	.4897	.4907	.4916	.4924
0.98	.4359	.4403	.4440	.4470	.4495	.4516	.4534	.4549	.4561	.4571	.4580	.4587	.4593	.4598	.4603	.4606
1.00	.4162	.4194	.4219	.4239	.4254	.4266	.4275	.4282	.4287	.4290	.4293	.4294	.4294	.4294	.4294	.4293
1.02	.3967	.3987	.4001	.4011	.4017	.4020	.4020	.4020	.4017	.4014	.4011	.4006	.4001	.3996	.3991	.3986
1.04	.3775	.3784	.3787	.3787	.3783	.3778	.3771	.3763	.3754	.3744	.3735	.3725	.3716	.3706	.3697	.3688
1.06	.3586	.3583	.3577	.3567	.3555	.3541	.3527	.3512	.3497	.3482	.3467	.3453	.3439	.3425	.3412	.3400
1.08	.3400	.3387	.3371	.3352	.3332	.3311	.3290	.3269	.3248	.3228	.3208	.3190	.3172	.3154	.3138	.3123
1.10	.3219	.3196	.3170	.3143	.3115	.3087	.3060	.3033	.3008	.2983	.2959	.2937	.2915	.2895	.2876	.2858
1.12	.3041	.3009	.2975	.2940	.2906	.2872	.2839	.2807	.2777	.2748	.2721	.2695	.2671	.2648	.2627	.2607

A2

OFFSET CIRCLE PROBABILITIES

DISTANCE DAMAGE SIGMA (σ_d) = 20% WR

WEAPON RADIUS/CEP_a (WR/CEP_a)

OFFSET DISTANCE/WEAPON RADIUS (D/WR)

	2.60	2.80	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	4.80	5.00	5.20	5.40	5.60
1.14	.2868	.2827	.2786	.2744	.2703	.2664	.2626	.2590	.2556	.2524	.2494	.2466	.2439	.2414	.2391	.2369
1.16	.2701	.2652	.2603	.2555	.2509	.2465	.2423	.2383	.2346	.2311	.2279	.2248	.2220	.2193	.2169	.2146
1.18	.2538	.2482	.2427	.2374	.2323	.2275	.2229	.2187	.2147	.2110	.2075	.2043	.2014	.1986	.1961	.1937
1.20	.2381	.2318	.2258	.2200	.2145	.2093	.2045	.2000	.1959	.1920	.1884	.1851	.1821	.1793	.1767	.1743
1.22	.2229	.2161	.2096	.2034	.1976	.1922	.1871	.1825	.1782	.1742	.1706	.1672	.1641	.1613	.1587	.1563
1.24	.2084	.2011	.1941	.1876	.1816	.1760	.1708	.1660	.1616	.1576	.1539	.1506	.1475	.1447	.1421	.1397
1.26	.1944	.1867	.1794	.1727	.1664	.1607	.1554	.1506	.1462	.1422	.1385	.1352	.1321	.1293	.1268	.1245
1.28	.1810	.1730	.1655	.1586	.1522	.1464	.1411	.1363	.1319	.1279	.1243	.1210	.1180	.1153	.1128	.1106
1.30	.1682	.1599	.1523	.1452	.1388	.1330	.1277	.1229	.1186	.1147	.1112	.1080	.1051	.1025	.1001	.0979
1.32	.1561	.1476	.1398	.1327	.1263	.1205	.1153	.1106	.1064	.1026	.0992	.0961	.0933	.0908	.0885	.0865
1.34	.1445	.1359	.1281	.1210	.1147	.1089	.1038	.0993	.0952	.0915	.0882	.0853	.0826	.0802	.0781	.0761
1.36	.1336	.1249	.1171	.1101	.1038	.0982	.0933	.0888	.0849	.0814	.0782	.0754	.0729	.0707	.0687	.0668
1.38	.1232	.1146	.1068	.0999	.0938	.0884	.0835	.0793	.0755	.0722	.0692	.0666	.0642	.0621	.0602	.0585
1.40	.1135	.1049	.0972	.0905	.0845	.0793	.0747	.0706	.0670	.0639	.0611	.0586	.0564	.0544	.0527	.0511
1.42	.1043	.0958	.0883	.0817	.0760	.0710	.0665	.0627	.0593	.0564	.0537	.0514	.0494	.0476	.0460	.0445
1.44	.0957	.0873	.0800	.0737	.0682	.0633	.0592	.0555	.0524	.0496	.0472	.0450	.0432	.0415	.0400	.0387
1.46	.0876	.0795	.0724	.0663	.0610	.0564	.0525	.0491	.0461	.0436	.0413	.0393	.0376	.0361	.0347	.0335
1.48	.0801	.0721	.0653	.0595	.0544	.0501	.0464	.0433	.0405	.0381	.0361	.0343	.0327	.0313	.0301	.0290
1.50	.0730	.0654	.0588	.0533	.0485	.0445	.0410	.0381	.0355	.0333	.0314	.0298	.0284	.0271	.0260	.0250
1.60	.0449	.0388	.0338	.0297	.0263	.0235	.0213	.0194	.0178	.0164	.0153	.0143	.0135	.0128	.0121	.0116
1.70	.0263	.0219	.0184	.0157	.0135	.0118	.0105	.0093	.0084	.0077	.0071	.0065	.0061	.0057	.0054	.0051
1.80	.0148	.0118	.0096	.0079	.0066	.0057	.0049	.0043	.0038	.0034	.0031	.0029	.0026	.0025	.0023	.0022
1.90	.0080	.0061	.0048	.0038	.0031	.0026	.0022	.0019	.0017	.0015	.0013	.0012	.0011	.0010	.0010	.0009
2.00	.0041	.0030	.0023	.0018	.0014	.0011	.0010	.0008	.0007	.0006	.0006	.0005	.0005	.0004	.0004	.0004
2.10	.0020	.0014	.0010	.0008	.0006	.0005	.0004	.0003	.0003	.0003	.0002	.0002	.0002	.0002	.0002	.0001
2.20	.0010	.0007	.0005	.0003	.0003	.0002	.0002	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
2.30	.0005	.0003	.0002	.0001	.0001	.0001	.0001	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
2.40	.0002	.0001	.0001	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
2.50	.0001	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
2.60	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
2.70	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
2.80	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
∞	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000

A2

OFFSET CIRCLE PROBABILITIES

DISTANCE DAMAGE SIGMA (σ_d) = 20% WR

WEAPON RADIUS/CEP_a (WR/CEP_a)

OFFSET DISTANCE/WEAPON RADIUS (D/WR)

D/WR	6.00	6.50	7.00	7.50	8.00	8.50	9.00	9.50	10.00	10.50	11.00	11.50	12.00	12.50	13.00	13.50
0.00	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999
0.05	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999
0.10	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999
0.15	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999
0.20	.9998	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999
0.25	.9995	.9997	.9998	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999
0.30	.9988	.9993	.9996	.9997	.9998	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999
0.35	.9974	.9983	.9988	.9992	.9994	.9996	.9997	.9998	.9998	.9999	.9999	.9999	.9999	.9999	.9999	.9999
0.40	.9945	.9961	.9972	.9979	.9984	.9988	.9991	.9992	.9994	.9995	.9996	.9997	.9997	.9998	.9998	.9998
0.45	.9892	.9918	.9937	.9950	.9960	.9968	.9973	.9978	.9981	.9984	.9986	.9988	.9989	.9991	.9992	.9992
0.50	.9800	.9839	.9869	.9891	.9909	.9922	.9933	.9942	.9949	.9954	.9959	.9963	.9966	.9969	.9972	.9974
0.52	.9748	.9794	.9829	.9855	.9876	.9893	.9906	.9917	.9926	.9933	.9939	.9945	.9949	.9953	.9956	.9959
0.54	.9687	.9738	.9778	.9810	.9835	.9855	.9871	.9884	.9895	.9904	.9912	.9919	.9925	.9929	.9934	.9937
0.56	.9613	.9671	.9717	.9753	.9782	.9806	.9825	.9841	.9855	.9866	.9876	.9884	.9891	.9897	.9903	.9908
0.58	.9526	.9591	.9642	.9683	.9717	.9744	.9767	.9786	.9802	.9816	.9827	.9837	.9846	.9854	.9861	.9866
0.60	.9426	.9497	.9553	.9599	.9637	.9668	.9694	.9716	.9735	.9751	.9765	.9777	.9787	.9797	.9805	.9812
0.62	.9309	.9386	.9448	.9499	.9541	.9576	.9605	.9630	.9651	.9670	.9686	.9700	.9712	.9723	.9732	.9741
0.64	.9177	.9259	.9325	.9380	.9426	.9465	.9497	.9525	.9549	.9570	.9588	.9603	.9617	.9630	.9641	.9650
0.66	.9027	.9113	.9184	.9243	.9292	.9333	.9369	.9399	.9425	.9448	.9468	.9486	.9501	.9515	.9527	.9538
0.68	.8859	.8948	.9022	.9084	.9136	.9180	.9218	.9251	.9279	.9303	.9325	.9344	.9361	.9376	.9389	.9401
0.70	.8673	.8764	.8840	.8904	.8958	.9004	.9044	.9078	.9108	.9134	.9157	.9177	.9195	.9211	.9225	.9238
0.72	.8468	.8560	.8638	.8703	.8758	.8805	.8845	.8881	.8911	.8938	.8962	.8983	.9001	.9018	.9033	.9046
0.74	.8245	.8337	.8414	.8479	.8534	.8582	.8622	.8658	.8689	.8716	.8740	.8761	.8780	.8797	.8812	.8826
0.76	.8004	.8094	.8170	.8233	.8288	.8335	.8375	.8410	.8441	.8468	.8492	.8513	.8531	.8548	.8563	.8577
0.78	.7747	.7833	.7906	.7967	.8020	.8065	.8104	.8138	.8168	.8194	.8217	.8237	.8256	.8272	.8286	.8300
0.80	.7473	.7555	.7624	.7682	.7732	.7774	.7811	.7843	.7871	.7896	.7918	.7937	.7954	.7970	.7984	.7996
0.82	.7185	.7261	.7325	.7378	.7424	.7464	.7498	.7528	.7554	.7576	.7596	.7614	.7630	.7644	.7657	.7668
0.84	.6885	.6953	.7011	.7060	.7101	.7136	.7167	.7194	.7217	.7237	.7255	.7271	.7285	.7298	.7309	.7319
0.86	.6574	.6634	.6685	.6727	.6764	.6795	.6821	.6844	.6864	.6882	.6897	.6911	.6923	.6934	.6944	.6952
0.88	.6254	.6306	.6349	.6385	.6415	.6441	.6464	.6483	.6499	.6514	.6527	.6538	.6548	.6557	.6565	.6572
0.90	.5929	.5971	.6006	.6035	.6059	.6080	.6097	.6113	.6126	.6137	.6147	.6156	.6163	.6170	.6176	.6182
0.92	.5599	.5632	.5658	.5680	.5698	.5714	.5726	.5737	.5747	.5755	.5762	.5768	.5774	.5778	.5783	.5786
0.94	.5268	.5291	.5309	.5324	.5336	.5346	.5354	.5361	.5367	.5371	.5376	.5379	.5382	.5385	.5388	.5390
0.96	.4938	.4951	.4961	.4969	.4975	.4980	.4983	.4986	.4988	.4990	.4992	.4993	.4994	.4995	.4996	.4996
0.98	.4611	.4615	.4618	.4618	.4619	.4618	.4618	.4617	.4616	.4615	.4614	.4613	.4612	.4611	.4610	.4609
1.00	.4290	.4285	.4280	.4275	.4270	.4265	.4260	.4256	.4252	.4248	.4245	.4242	.4239	.4237	.4234	.4232
1.02	.3976	.3963	.3951	.3940	.3930	.3921	.3913	.3906	.3899	.3893	.3888	.3883	.3879	.3875	.3871	.3868
1.04	.3671	.3651	.3633	.3617	.3603	.3590	.3579	.3569	.3560	.3552	.3545	.3539	.3533	.3528	.3524	.3519
1.06	.3376	.3350	.3327	.3307	.3289	.3273	.3260	.3247	.3237	.3227	.3219	.3211	.3205	.3198	.3193	.3188
1.08	.3094	.3062	.3035	.3011	.2990	.2972	.2957	.2943	.2930	.2920	.2910	.2902	.2894	.2887	.2881	.2876
1.10	.2825	.2789	.2758	.2731	.2708	.2688	.2671	.2656	.2642	.2631	.2620	.2611	.2603	.2596	.2589	.2583
1.12	.2570	.2531	.2497	.2468	.2443	.2422	.2403	.2387	.2373	.2361	.2350	.2340	.2332	.2324	.2317	.2311

A2

OFFSET CIRCLE PROBABILITIES

DISTANCE DAMAGE SIGMA (σ_d) = 20% WR

WEAPON RADIUS/CEP_a (WR/CEP_a)

OFFSET DISTANCE/WEAPON RADIUS (D/WR)

	6.00	6.50	7.00	7.50	8.00	8.50	9.00	9.50	10.00	10.50	11.00	11.50	12.00	12.50	13.00	13.50
1.14	.2330	.2288	.2252	.2222	.2196	.2173	.2154	.2138	.2123	.2110	.2099	.2089	.2080	.2073	.2066	.2059
1.16	.2105	.2061	.2024	.1992	.1966	.1943	.1924	.1907	.1892	.1879	.1868	.1858	.1849	.1842	.1835	.1828
1.18	.1895	.1850	.1812	.1781	.1754	.1731	.1712	.1695	.1680	.1668	.1657	.1647	.1638	.1630	.1623	.1617
1.20	.1700	.1655	.1617	.1586	.1559	.1537	.1518	.1501	.1487	.1475	.1464	.1454	.1446	.1438	.1432	.1426
1.22	.1520	.1475	.1438	.1407	.1382	.1360	.1341	.1325	.1311	.1299	.1289	.1280	.1272	.1265	.1258	.1252
1.24	.1355	.1311	.1275	.1245	.1220	.1199	.1181	.1166	.1153	.1141	.1131	.1123	.1115	.1108	.1102	.1097
1.26	.1204	.1161	.1126	.1098	.1074	.1054	.1037	.1023	.1010	.0999	.0990	.0982	.0974	.0968	.0962	.0957
1.28	.1066	.1025	.0992	.0965	.0942	.0924	.0908	.0894	.0882	.0872	.0864	.0856	.0849	.0843	.0838	.0833
1.30	.0941	.0903	.0871	.0846	.0825	.0807	.0792	.0779	.0769	.0759	.0751	.0744	.0738	.0732	.0727	.0723
1.32	.0829	.0792	.0763	.0739	.0719	.0703	.0689	.0677	.0667	.0659	.0651	.0645	.0639	.0634	.0630	.0626
1.34	.0728	.0693	.0666	.0644	.0626	.0611	.0598	.0587	.0578	.0570	.0563	.0558	.0552	.0548	.0544	.0540
1.36	.0637	.0605	.0580	.0560	.0543	.0529	.0518	.0508	.0499	.0492	.0486	.0481	.0476	.0472	.0468	.0465
1.38	.0556	.0527	.0504	.0485	.0470	.0457	.0447	.0438	.0430	.0424	.0418	.0414	.0409	.0406	.0402	.0399
1.40	.0484	.0458	.0436	.0419	.0406	.0394	.0385	.0377	.0370	.0364	.0359	.0355	.0351	.0348	.0345	.0342
1.42	.0421	.0396	.0377	.0362	.0349	.0339	.0331	.0323	.0317	.0312	.0308	.0304	.0300	.0297	.0295	.0292
1.44	.0364	.0342	.0325	.0311	.0300	.0291	.0283	.0277	.0272	.0267	.0263	.0260	.0257	.0254	.0252	.0250
1.46	.0315	.0295	.0280	.0267	.0257	.0249	.0242	.0237	.0232	.0228	.0224	.0221	.0219	.0216	.0214	.0212
1.48	.0272	.0254	.0240	.0229	.0220	.0213	.0207	.0202	.0198	.0194	.0191	.0188	.0186	.0184	.0182	.0181
1.50	.0234	.0218	.0205	.0196	.0188	.0181	.0176	.0172	.0168	.0165	.0162	.0160	.0158	.0156	.0154	.0153
1.60	.0107	.0098	.0092	.0087	.0083	.0080	.0077	.0075	.0073	.0071	.0070	.0069	.0068	.0067	.0066	.0066
1.70	.0047	.0043	.0039	.0037	.0035	.0034	.0032	.0031	.0030	.0030	.0029	.0029	.0028	.0028	.0027	.0027
1.80	.0020	.0018	.0016	.0015	.0014	.0014	.0013	.0013	.0012	.0012	.0012	.0012	.0011	.0011	.0011	.0011
1.90	.0008	.0007	.0007	.0006	.0006	.0005	.0005	.0005	.0005	.0005	.0005	.0005	.0004	.0004	.0004	.0004
2.00	.0003	.0003	.0003	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002
2.10	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
∞	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000

A2

OFFSET CIRCLE PROBABILITIES

DISTANCE DAMAGE SIGMA (σ_d) = 20% WR

WEAPON RADIUS/CEP$_a$ (WR/CEP$_a$)

OFFSET DISTANCE/WEAPON RADIUS (D/WR)

D/WR	13.00	13.50	14.00	14.50	15.00	15.50	16.00	16.50	17.00	17.50	18.00	18.50	19.00	19.50	20.00	P_d ∞
0.00	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999
0.50	.9972	.9974	.9975	.9977	.9978	.9980	.9981	.9982	.9983	.9983	.9984	.9985	.9985	.9986	.9986	.9994
0.52	.9956	.9959	.9961	.9964	.9965	.9967	.9969	.9970	.9971	.9972	.9973	.9974	.9975	.9976	.9976	.9988
0.54	.9934	.9937	.9941	.9944	.9946	.9949	.9951	.9952	.9954	.9956	.9957	.9958	.9959	.9960	.9961	.9978
0.56	.9903	.9908	.9912	.9915	.9919	.9922	.9924	.9927	.9929	.9931	.9933	.9935	.9936	.9937	.9939	.9962
0.58	.9861	.9866	.9872	.9876	.9881	.9884	.9888	.9891	.9894	.9896	.9899	.9901	.9903	.9905	.9906	.9937
0.60	.9805	.9812	.9818	.9824	.9829	.9834	.9838	.9842	.9845	.9848	.9851	.9854	.9856	.9859	.9861	.9900
0.62	.9732	.9741	.9748	.9755	.9761	.9767	.9772	.9776	.9781	.9784	.9788	.9791	.9794	.9797	.9799	.9848
0.64	.9641	.9650	.9659	.9667	.9674	.9681	.9686	.9692	.9697	.9701	.9705	.9709	.9712	.9716	.9719	.9776
0.66	.9527	.9538	.9548	.9557	.9565	.9572	.9579	.9585	.9590	.9595	.9600	.9604	.9608	.9612	.9615	.9682
0.68	.9389	.9401	.9412	.9422	.9430	.9438	.9446	.9452	.9458	.9464	.9469	.9474	.9478	.9483	.9486	.9561
0.70	.9225	.9238	.9249	.9260	.9269	.9278	.9285	.9293	.9299	.9305	.9311	.9316	.9321	.9325	.9329	.9410
0.72	.9035	.9046	.9058	.9069	.9079	.9088	.9096	.9104	.9111	.9117	.9123	.9128	.9133	.9138	.9142	.9228
0.74	.8812	.8826	.8838	.8849	.8859	.8869	.8877	.8885	.8892	.8898	.8904	.8910	.8915	.8920	.8924	.9012
0.76	.8563	.8577	.8589	.8600	.8610	.8619	.8628	.8635	.8642	.8649	.8655	.8660	.8665	.8670	.8675	.8762
0.78	.8286	.8300	.8311	.8322	.8332	.8341	.8349	.8356	.8363	.8370	.8375	.8381	.8386	.8390	.8395	.8480
0.80	.7984	.7996	.8007	.8017	.8027	.8035	.8043	.8050	.8056	.8062	.8067	.8073	.8077	.8082	.8086	.8166
0.82	.7657	.7668	.7678	.7688	.7696	.7704	.7711	.7717	.7723	.7729	.7734	.7738	.7743	.7747	.7750	.7824
0.84	.7309	.7319	.7328	.7337	.7344	.7351	.7357	.7363	.7368	.7373	.7377	.7381	.7385	.7389	.7392	.7457
0.86	.6944	.6952	.6960	.6967	.6974	.6980	.6985	.6990	.6994	.6998	.7002	.7006	.7009	.7012	.7015	.7069
0.88	.6565	.6572	.6578	.6584	.6589	.6594	.6598	.6602	.6606	.6609	.6612	.6615	.6618	.6620	.6622	.6666
0.90	.6176	.6182	.6187	.6191	.6195	.6199	.6202	.6205	.6208	.6210	.6213	.6215	.6217	.6219	.6220	.6253
0.92	.5783	.5786	.5790	.5793	.5796	.5798	.5800	.5802	.5804	.5806	.5807	.5809	.5810	.5811	.5813	.5834
0.94	.5388	.5390	.5392	.5393	.5395	.5396	.5397	.5399	.5400	.5400	.5401	.5402	.5403	.5403	.5404	.5415
0.96	.4995	.4996	.4997	.4997	.4997	.4998	.4998	.4998	.4998	.4999	.4999	.4999	.4999	.4999	.4999	.5000
0.98	.4610	.4609	.4608	.4608	.4607	.4606	.4606	.4605	.4604	.4604	.4603	.4603	.4603	.4602	.4602	.4594
1.00	.4234	.4232	.4230	.4228	.4227	.4225	.4224	.4222	.4221	.4220	.4219	.4218	.4217	.4216	.4216	.4199
1.02	.3871	.3868	.3865	.3862	.3860	.3858	.3856	.3854	.3852	.3850	.3849	.3847	.3846	.3845	.3844	.3821
1.04	.3524	.3519	.3516	.3512	.3509	.3506	.3503	.3501	.3499	.3497	.3495	.3493	.3491	.3490	.3488	.3460
1.06	.3193	.3188	.3184	.3180	.3176	.3172	.3169	.3167	.3164	.3162	.3159	.3157	.3155	.3154	.3152	.3119
1.08	.2881	.2876	.2871	.2866	.2862	.2858	.2855	.2852	.2849	.2846	.2844	.2841	.2839	.2837	.2836	.2800
1.10	.2589	.2583	.2578	.2573	.2568	.2564	.2561	.2557	.2554	.2552	.2549	.2547	.2544	.2542	.2540	.2502
1.12	.2317	.2311	.2305	.2300	.2296	.2292	.2288	.2284	.2281	.2278	.2275	.2273	.2271	.2269	.2267	.2227
1.14	.2066	.2059	.2054	.2049	.2044	.2040	.2036	.2032	.2029	.2026	.2023	.2021	.2019	.2016	.2014	.1975
1.16	.1835	.1828	.1823	.1818	.1813	.1809	.1805	.1801	.1798	.1795	.1793	.1790	.1788	.1786	.1784	.1745
1.18	.1623	.1617	.1612	.1607	.1602	.1598	.1594	.1591	.1588	.1585	.1582	.1580	.1578	.1575	.1574	.1536
1.20	.1432	.1426	.1420	.1415	.1411	.1407	.1403	.1400	.1397	.1394	.1392	.1389	.1387	.1385	.1383	.1347
1.22	.1258	.1252	.1247	.1243	.1238	.1235	.1231	.1228	.1225	.1223	.1220	.1218	.1216	.1214	.1212	.1178
1.24	.1102	.1097	.1092	.1087	.1083	.1080	.1077	.1074	.1071	.1068	.1066	.1064	.1062	.1060	.1059	.1026
1.26	.0962	.0957	.0953	.0949	.0945	.0942	.0939	.0936	.0933	.0931	.0929	.0927	.0925	.0923	.0922	.0892
1.28	.0838	.0833	.0829	.0825	.0822	.0819	.0816	.0813	.0811	.0809	.0807	.0805	.0803	.0802	.0800	.0772
1.30	.0727	.0723	.0719	.0716	.0712	.0710	.0707	.0705	.0702	.0700	.0699	.0697	.0695	.0694	.0693	.0667

A2

OFFSET CIRCLE PROBABILITIES

DISTANCE DAMAGE SIGMA (σ_d) = 20% WR

WEAPON RADIUS/CEP$_a$ (WR/CEP$_a$)

OFFSET DISTANCE/WEAPON RADIUS (D/WR)

	13.00	13.50	14.00	14.50	15.00	15.50	16.00	16.50	17.00	17.50	18.00	18.50	19.00	19.50	20.00	P_d ∞
1.30	.0727	.0723	.0719	.0716	.0712	.0710	.0707	.0705	.0702	.0700	.0699	.0697	.0695	.0694	.0693	.0667
1.32	.0630	.0626	.0622	.0619	.0616	.0613	.0611	.0609	.0607	.0605	.0603	.0602	.0601	.0599	.0598	.0575
1.34	.0544	.0540	.0537	.0534	.0531	.0529	.0527	.0525	.0523	.0521	.0520	.0518	.0517	.0516	.0515	.0494
1.36	.0468	.0465	.0462	.0459	.0457	.0455	.0453	.0451	.0450	.0448	.0447	.0445	.0444	.0443	.0442	.0424
1.38	.0402	.0399	.0397	.0394	.0392	.0390	.0389	.0387	.0386	.0384	.0383	.0382	.0381	.0380	.0379	.0362
1.40	.0345	.0342	.0340	.0338	.0336	.0334	.0333	.0331	.0330	.0329	.0328	.0327	.0326	.0325	.0324	.0309
1.42	.0295	.0292	.0290	.0289	.0287	.0285	.0284	.0283	.0282	.0281	.0280	.0279	.0278	.0277	.0276	.0263
1.44	.0252	.0250	.0248	.0246	.0245	.0243	.0242	.0241	.0240	.0239	.0238	.0237	.0237	.0236	.0235	.0224
1.46	.0214	.0212	.0211	.0209	.0208	.0207	.0206	.0205	.0204	.0203	.0202	.0202	.0201	.0201	.0200	.0190
1.48	.0182	.0181	.0179	.0178	.0177	.0176	.0175	.0174	.0173	.0172	.0172	.0171	.0171	.0170	.0170	.0161
1.50	.0154	.0153	.0152	.0151	.0150	.0149	.0148	.0147	.0147	.0146	.0145	.0145	.0144	.0144	.0144	.0136
1.52	.0131	.0130	.0129	.0128	.0127	.0126	.0125	.0125	.0124	.0123	.0123	.0123	.0122	.0122	.0121	.0115
1.54	.0111	.0110	.0109	.0108	.0107	.0106	.0106	.0105	.0105	.0104	.0104	.0103	.0103	.0103	.0102	.0097
1.56	.0093	.0092	.0092	.0091	.0090	.0090	.0089	.0089	.0088	.0088	.0087	.0087	.0087	.0087	.0086	.0081
1.58	.0079	.0078	.0077	.0077	.0076	.0075	.0075	.0075	.0074	.0074	.0074	.0073	.0073	.0073	.0073	.0068
1.60	.0066	.0066	.0065	.0064	.0064	.0063	.0063	.0063	.0062	.0062	.0062	.0062	.0061	.0061	.0061	.0057
1.62	.0056	.0055	.0055	.0054	.0054	.0053	.0053	.0053	.0052	.0052	.0052	.0052	.0051	.0051	.0051	.0048
1.64	.0047	.0046	.0046	.0045	.0045	.0045	.0044	.0044	.0044	.0044	.0043	.0043	.0043	.0043	.0043	.0040
1.66	.0039	.0039	.0038	.0038	.0038	.0037	.0037	.0037	.0037	.0037	.0036	.0036	.0036	.0036	.0036	.0034
1.68	.0033	.0032	.0032	.0032	.0032	.0031	.0031	.0031	.0031	.0031	.0030	.0030	.0030	.0030	.0030	.0028
1.70	.0027	.0027	.0027	.0027	.0026	.0026	.0026	.0026	.0026	.0026	.0025	.0025	.0025	.0025	.0025	.0023
1.72	.0023	.0023	.0022	.0022	.0022	.0022	.0022	.0022	.0021	.0021	.0021	.0021	.0021	.0021	.0021	.0019
1.74	.0019	.0019	.0019	.0018	.0018	.0018	.0018	.0018	.0018	.0018	.0018	.0018	.0018	.0017	.0017	.0016
1.76	.0016	.0016	.0016	.0015	.0015	.0015	.0015	.0015	.0015	.0015	.0015	.0015	.0015	.0015	.0014	.0013
1.78	.0013	.0013	.0013	.0013	.0013	.0013	.0013	.0012	.0012	.0012	.0012	.0012	.0012	.0012	.0012	.0011
1.80	.0011	.0011	.0011	.0011	.0011	.0010	.0010	.0010	.0010	.0010	.0010	.0010	.0010	.0010	.0010	.0009
1.82	.0009	.0009	.0009	.0009	.0009	.0009	.0009	.0009	.0009	.0009	.0008	.0008	.0008	.0008	.0008	.0008
1.84	.0008	.0008	.0007	.0007	.0007	.0007	.0007	.0007	.0007	.0007	.0007	.0007	.0007	.0007	.0007	.0006
1.86	.0006	.0006	.0006	.0006	.0006	.0006	.0006	.0006	.0006	.0006	.0006	.0006	.0006	.0006	.0006	.0005
1.88	.0005	.0005	.0005	.0005	.0005	.0005	.0005	.0005	.0005	.0005	.0005	.0005	.0005	.0005	.0005	.0004
1.90	.0004	.0004	.0004	.0004	.0004	.0004	.0004	.0004	.0004	.0004	.0004	.0004	.0004	.0004	.0004	.0004
1.92	.0004	.0004	.0004	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003
1.94	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0002
1.96	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002
1.98	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002
2.00	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0001
2.02	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
2.04	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
2.06	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
2.08	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
2.10	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
2.12	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000

A3

OFFSET CIRCLE PROBABILITIES

DISTANCE DAMAGE SIGMA (σ_d) = 30%WR

WEAPON RADIUS/CEP_a(WR/CEP_a)

OFFSET DISTANCE/WEAPON RADIUS (D/WR)

	0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.70	0.80	0.90	1.00
0.00	.0017	.0069	.0154	.0272	.0420	.0597	.0799	.1026	.1273	.1538	.1817	.2109	.2717	.3346	.3961	.4566
0.10	.0017	.0069	.0154	.0272	.0420	.0596	.0799	.1025	.1271	.1535	.1814	.2104	.2709	.3329	.3946	.4546
0.20	.0017	.0069	.0154	.0271	.0419	.0595	.0797	.1022	.1266	.1528	.1804	.2091	.2687	.3296	.3900	.4485
0.30	.0017	.0069	.0154	.0271	.0418	.0593	.0794	.1016	.1258	.1517	.1788	.2069	.2651	.3242	.3824	.4385
0.40	.0017	.0069	.0154	.0271	.0417	.0591	.0789	.1009	.1247	.1500	.1765	.2039	.2601	.3167	.3720	.4249
0.50	.0017	.0069	.0154	.0270	.0416	.0588	.0784	.1000	.1233	.1480	.1737	.2001	.2539	.3074	.3591	.4080
0.60	.0017	.0069	.0153	.0269	.0414	.0584	.0777	.0989	.1216	.1455	.1702	.1955	.2464	.2964	.3439	.3882
0.70	.0017	.0069	.0153	.0268	.0411	.0579	.0769	.0976	.1196	.1426	.1663	.1902	.2379	.2838	.3268	.3661
0.80	.0017	.0069	.0153	.0267	.0409	.0574	.0760	.0961	.1173	.1394	.1618	.1843	.2284	.2700	.3080	.3421
0.90	.0017	.0069	.0152	.0266	.0406	.0569	.0749	.0944	.1148	.1358	.1569	.1778	.2181	.2552	.2881	.3167
1.00	.0017	.0068	.0152	.0264	.0403	.0562	.0738	.0926	.1121	.1319	.1516	.1708	.2072	.2395	.2673	.2905
1.10	.0017	.0068	.0151	.0263	.0399	.0555	.0726	.0906	.1091	.1277	.1459	.1634	.1957	.2233	.2460	.2641
1.20	.0017	.0068	.0151	.0261	.0395	.0548	.0713	.0885	.1060	.1232	.1399	.1557	.1839	.2069	.2247	.2378
1.30	.0017	.0068	.0150	.0260	.0391	.0539	.0698	.0863	.1027	.1186	.1337	.1477	.1718	.1903	.2035	.2122
1.40	.0017	.0068	.0150	.0258	.0387	.0531	.0684	.0839	.0992	.1138	.1273	.1396	.1597	.1739	.1829	.1876
1.50	.0017	.0068	.0149	.0256	.0382	.0522	.0668	.0814	.0956	.1088	.1208	.1313	.1476	.1579	.1630	.1642
1.60	.0017	.0068	.0148	.0253	.0377	.0512	.0652	.0789	.0919	.1038	.1142	.1230	.1357	.1423	.1442	.1425
1.70	.0017	.0068	.0147	.0251	.0372	.0502	.0635	.0763	.0881	.0986	.1075	.1147	.1241	.1275	.1264	.1224
1.80	.0017	.0067	.0147	.0249	.0367	.0492	.0617	.0736	.0843	.0935	.1009	.1066	.1128	.1134	.1100	.1042
1.90	.0017	.0067	.0146	.0246	.0361	.0481	.0599	.0708	.0804	.0883	.0943	.0986	.1020	.1002	.0949	.0878
2.00	.0017	.0067	.0145	.0244	.0355	.0470	.0581	.0681	.0765	.0831	.0879	.0908	.0917	.0879	.0813	.0734
2.20	.0017	.0067	.0143	.0238	.0343	.0447	.0543	.0624	.0688	.0731	.0754	.0760	.0730	.0664	.0581	.0497
2.40	.0017	.0066	.0141	.0232	.0330	.0423	.0504	.0568	.0612	.0634	.0638	.0626	.0568	.0487	.0402	.0324
2.60	.0017	.0066	.0139	.0226	.0316	.0399	.0466	.0513	.0538	.0544	.0532	.0507	.0433	.0348	.0270	.0204
2.80	.0017	.0065	.0137	.0220	.0302	.0374	.0427	.0459	.0469	.0461	.0437	.0404	.0323	.0242	.0175	.0123
3.00	.0017	.0065	.0134	.0213	.0288	.0349	.0389	.0408	.0405	.0385	.0354	.0316	.0235	.0164	.0110	.0072
3.20	.0017	.0064	.0132	.0206	.0273	.0324	.0353	.0359	.0346	.0318	.0283	.0243	.0168	.0108	.0067	.0040
3.40	.0017	.0064	.0129	.0198	.0258	.0299	.0317	.0313	.0292	.0260	.0222	.0184	.0117	.0069	.0039	.0022
3.60	.0017	.0063	.0126	.0191	.0244	.0275	.0284	.0271	.0245	.0210	.0172	.0137	.0080	.0043	.0022	.0012
3.80	.0017	.0062	.0123	.0184	.0229	.0252	.0252	.0233	.0203	.0167	.0132	.0100	.0053	.0026	.0012	.0006
4.00	.0017	.0062	.0120	.0176	.0214	.0230	.0222	.0199	.0166	.0131	.0099	.0072	.0035	.0016	.0007	.0003
4.50	.0017	.0060	.0113	.0157	.0179	.0178	.0158	.0128	.0097	.0068	.0046	.0029	.0011	.0004	.0001	.0000
5.00	.0017	.0058	.0105	.0138	.0147	.0134	.0108	.0079	.0055	.0033	.0019	.0011	.0003	.0001	.0000	.0000
5.50	.0016	.0056	.0097	.0119	.0118	.0098	.0071	.0046	.0027	.0015	.0007	.0004	.0001	.0000	.0000	.0000
6.00	.0016	.0054	.0089	.0102	.0093	.0070	.0045	.0026	.0013	.0006	.0003	.0001	.0000	.0000	.0000	.0000
6.50	.0016	.0052	.0080	.0086	.0071	.0048	.0027	.0013	.0006	.0002	.0001	.0000	.0000	.0000	.0000	.0000
7.00	.0016	.0049	.0072	.0072	.0054	.0032	.0016	.0007	.0002	.0001	.0000	.0000	.0000	.0000	.0000	.0000
7.50	.0016	.0047	.0065	.0059	.0040	.0021	.0009	.0003	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000
8.00	.0015	.0044	.0057	.0048	.0029	.0013	.0005	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
8.50	.0015	.0042	.0051	.0038	.0020	.0008	.0002	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
9.00	.0015	.0039	.0044	.0030	.0014	.0005	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
9.50	.0015	.0037	.0038	.0023	.0009	.0003	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
∞	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000

A3

OFFSET CIRCLE PROBABILITIES

DISTANCE DAMAGE SIGMA (σ_d) = 30% WR

WEAPON RADIUS/CEP_a (WR/CEP_a)

OFFSET DISTANCE/WEAPON RADIUS (D/WR)

D/WR	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90	2.00	2.10	2.20	2.30	2.40	2.50	2.60
0.00	.5143	.5686	.6188	.6648	.7064	.7438	.7772	.8068	.8329	.8557	.8757	.8931	.9081	.9212	.9324	.9421
0.05	.5137	.5678	.6179	.6637	.7053	.7426	.7759	.8054	.8314	.8542	.8742	.8916	.9066	.9197	.9310	.9407
0.10	.5118	.5654	.6151	.6606	.7018	.7388	.7719	.8012	.8271	.8498	.8697	.8871	.9022	.9153	.9267	.9366
0.15	.5086	.5616	.6106	.6554	.6961	.7326	.7652	.7942	.8199	.8424	.8622	.8796	.8948	.9080	.9196	.9296
0.20	.5041	.5562	.6043	.6483	.6881	.7240	.7560	.7845	.8098	.8321	.8518	.8691	.8844	.8977	.9095	.9198
0.25	.4984	.5493	.5963	.6392	.6780	.7130	.7443	.7722	.7970	.8190	.8384	.8557	.8709	.8844	.8963	.9069
0.30	.4916	.5410	.5866	.6282	.6658	.6997	.7301	.7572	.7814	.8030	.8222	.8392	.8544	.8680	.8800	.8908
0.35	.4836	.5314	.5754	.6154	.6516	.6843	.7136	.7398	.7633	.7843	.8030	.8198	.8349	.8484	.8606	.8715
0.40	.4745	.5205	.5626	.6010	.6356	.6668	.6949	.7200	.7426	.7629	.7811	.7976	.8124	.8257	.8379	.8489
0.45	.4645	.5084	.5485	.5850	.6179	.6475	.6741	.6981	.7196	.7391	.7566	.7725	.7869	.8000	.8120	.8229
0.50	.4534	.4952	.5332	.5675	.5985	.6264	.6515	.6741	.6944	.7129	.7296	.7448	.7587	.7713	.7829	.7936
0.55	.4416	.4810	.5166	.5488	.5777	.6037	.6271	.6482	.6673	.6846	.7003	.7146	.7278	.7398	.7510	.7612
0.60	.4289	.4658	.4991	.5289	.5557	.5797	.6013	.6208	.6384	.6544	.6689	.6823	.6945	.7058	.7162	.7259
0.65	.4155	.4499	.4806	.5081	.5326	.5545	.5742	.5919	.6079	.6225	.6358	.6480	.6592	.6695	.6791	.6880
0.70	.4016	.4332	.4614	.4864	.5086	.5284	.5460	.5619	.5763	.5893	.6012	.6121	.6221	.6313	.6399	.6478
0.75	.3870	.4160	.4416	.4640	.4839	.5014	.5171	.5311	.5437	.5551	.5655	.5750	.5837	.5917	.5991	.6060
0.80	.3721	.3984	.4212	.4412	.4587	.4740	.4875	.4996	.5104	.5201	.5290	.5370	.5443	.5511	.5572	.5630
0.85	.3568	.3803	.4006	.4180	.4331	.4462	.4577	.4678	.4768	.4848	.4921	.4986	.5045	.5099	.5148	.5193
0.90	.3412	.3621	.3797	.3947	.4074	.4184	.4278	.4360	.4432	.4495	.4551	.4601	.4646	.4687	.4723	.4756
0.95	.3255	.3437	.3588	.3713	.3818	.3906	.3980	.4044	.4098	.4145	.4186	.4221	.4252	.4279	.4303	.4324
1.00	.3097	.3253	.3379	.3481	.3564	.3632	.3687	.3732	.3770	.3801	.3827	.3848	.3866	.3880	.3892	.3902
1.05	.2939	.3069	.3172	.3252	.3314	.3362	.3399	.3428	.3450	.3466	.3478	.3486	.3492	.3495	.3496	.3496
1.10	.2781	.2888	.2968	.3026	.3069	.3099	.3120	.3133	.3140	.3143	.3142	.3139	.3134	.3127	.3118	.3109
1.15	.2625	.2709	.2767	.2807	.2831	.2844	.2850	.2849	.2843	.2834	.2822	.2809	.2794	.2778	.2762	.2745
1.20	.2471	.2533	.2572	.2593	.2601	.2599	.2591	.2577	.2560	.2541	.2520	.2498	.2475	.2452	.2429	.2407
1.25	.2320	.2362	.2383	.2387	.2380	.2365	.2344	.2320	.2293	.2265	.2236	.2207	.2178	.2150	.2122	.2095
1.30	.2173	.2196	.2200	.2189	.2169	.2142	.2112	.2078	.2043	.2008	.1973	.1939	.1905	.1873	.1842	.1812
1.35	.2029	.2036	.2024	.2000	.1969	.1932	.1893	.1852	.1811	.1770	.1731	.1693	.1656	.1621	.1588	.1556
1.40	.1890	.1881	.1856	.1821	.1780	.1735	.1689	.1642	.1597	.1552	.1510	.1469	.1431	.1394	.1360	.1328
1.45	.1755	.1733	.1696	.1652	.1602	.1551	.1500	.1449	.1400	.1353	.1309	.1268	.1229	.1192	.1158	.1127
1.50	.1626	.1591	.1545	.1492	.1437	.1381	.1326	.1272	.1222	.1174	.1129	.1088	.1049	.1013	.0980	.0950
1.55	.1502	.1457	.1403	.1344	.1283	.1224	.1166	.1112	.1060	.1013	.0969	.0928	.0891	.0857	.0825	.0797
1.60	.1384	.1330	.1269	.1205	.1141	.1080	.1021	.0967	.0916	.0869	.0827	.0788	.0752	.0720	.0691	.0665
1.65	.1272	.1211	.1144	.1077	.1011	.0949	.0890	.0836	.0787	.0742	.0702	.0665	.0632	.0602	.0576	.0551
1.70	.1166	.1098	.1028	.0958	.0892	.0830	.0773	.0720	.0673	.0631	.0593	.0559	.0528	.0501	.0477	.0456
1.80	.0971	.0896	.0822	.0751	.0686	.0627	.0574	.0527	.0486	.0449	.0417	.0389	.0364	.0343	.0324	.0307
1.90	.0800	.0722	.0648	.0580	.0519	.0466	.0419	.0379	.0344	.0314	.0288	.0266	.0247	.0230	.0216	.0204
2.00	.0652	.0575	.0504	.0441	.0387	.0341	.0301	.0268	.0240	.0216	.0196	.0179	.0165	.0153	.0142	.0133
2.10	.0526	.0452	.0387	.0331	.0284	.0245	.0213	.0187	.0165	.0147	.0132	.0119	.0109	.0100	.0093	.0086
2.20	.0419	.0351	.0293	.0245	.0206	.0174	.0149	.0128	.0111	.0098	.0087	.0078	.0071	.0065	.0060	.0055
2.30	.0331	.0269	.0219	.0179	.0147	.0122	.0102	.0087	.0074	.0065	.0057	.0051	.0046	.0042	.0038	.0035
2.40	.0258	.0204	.0162	.0129	.0103	.0084	.0069	.0058	.0049	.0042	.0037	.0033	.0029	.0027	.0024	.0022

A3

OFFSET CIRCLE PROBABILITIES

DISTANCE DAMAGE SIGMA (σ_d) = 30% WR

WEAPON RADIUS/CEP_a (WR/CEP_a)

OFFSET DISTANCE/WEAPON RADIUS (D/WR)

	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90	2.00	2.10	2.20	2.30	2.40	2.50	2.60
2.50	.0199	.0153	.0118	.0092	.0072	.0057	.0047	.0038	.0032	.0028	.0024	.0021	.0019	.0017	.0015	.0014
2.60	.0152	.0114	.0085	.0064	.0049	.0039	.0031	.0025	.0021	.0018	.0015	.0013	.0012	.0011	.0010	.0009
2.70	.0115	.0083	.0061	.0045	.0034	.0026	.0020	.0016	.0013	.0011	.0010	.0009	.0008	.0007	.0006	.0006
2.80	.0086	.0060	.0043	.0031	.0023	.0017	.0013	.0011	.0009	.0007	.0006	.0005	.0005	.0004	.0004	.0004
2.90	.0064	.0043	.0030	.0021	.0015	.0011	.0009	.0007	.0006	.0005	.0004	.0003	.0003	.0003	.0002	.0002
3.00	.0047	.0031	.0021	.0014	.0010	.0007	.0006	.0004	.0004	.0003	.0002	.0002	.0002	.0002	.0002	.0001
3.10	.0034	.0022	.0014	.0009	.0007	.0005	.0004	.0003	.0002	.0002	.0002	.0001	.0001	.0001	.0001	.0001
3.20	.0024	.0015	.0009	.0006	.0004	.0003	.0002	.0002	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
3.30	.0017	.0010	.0006	.0004	.0003	.0002	.0001	.0001	.0001	.0001	.0001	.0001	.0000	.0000	.0000	.0000
3.40	.0012	.0007	.0004	.0003	.0002	.0001	.0001	.0001	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000
3.50	.0009	.0005	.0003	.0002	.0001	.0001	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
3.60	.0006	.0003	.0002	.0001	.0001	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
3.70	.0004	.0002	.0001	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
3.80	.0003	.0001	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
3.90	.0002	.0001	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
4.00	.0001	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
4.10	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
4.20	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
4.30	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
4.40	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
4.50	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000

A3

OFFSET CIRCLE PROBABILITIES

DISTANCE DAMAGE SIGMA (σ_d) = 30% WR

WEAPON RADIUS/CEP_a (WR/CEP_a)

OFFSET DISTANCE/WEAPON RADIUS (D/WR)

	2.60	2.80	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	4.80	5.00	5.20	5.40	5.60
0.00	.9421	.9576	.9690	.9773	.9834	.9879	.9911	.9935	.9952	.9965	.9974	.9981	.9986	.9990	.9992	.9994
0.05	.9407	.9563	.9678	.9763	.9825	.9871	.9905	.9929	.9948	.9961	.9971	.9978	.9984	.9988	.9991	.9993
0.10	.9366	.9525	.9644	.9732	.9798	.9847	.9884	.9912	.9932	.9948	.9960	.9969	.9976	.9981	.9985	.9988
0.15	.9296	.9460	.9585	.9679	.9751	.9805	.9847	.9880	.9905	.9924	.9939	.9951	.9960	.9968	.9974	.9979
0.20	.9198	.9368	.9499	.9601	.9680	.9742	.9791	.9830	.9860	.9885	.9905	.9921	.9934	.9944	.9953	.9960
0.25	.9069	.9245	.9384	.9495	.9583	.9653	.9710	.9756	.9794	.9825	.9851	.9872	.9890	.9905	.9917	.9928
0.30	.8908	.9091	.9238	.9357	.9454	.9534	.9600	.9654	.9700	.9738	.9771	.9798	.9822	.9842	.9859	.9874
0.35	.8715	.8903	.9057	.9184	.9290	.9379	.9453	.9517	.9571	.9617	.9656	.9691	.9721	.9747	.9769	.9789
0.40	.8489	.8680	.8839	.8973	.9086	.9183	.9266	.9337	.9399	.9452	.9499	.9540	.9576	.9608	.9637	.9662
0.45	.8229	.8421	.8583	.8721	.8840	.8942	.9031	.9109	.9177	.9237	.9291	.9338	.9380	.9417	.9451	.9481
0.50	.7936	.8125	.8287	.8427	.8548	.8654	.8747	.8829	.8902	.8966	.9024	.9076	.9122	.9164	.9202	.9237
0.52	.7810	.7997	.8158	.8298	.8419	.8525	.8619	.8702	.8776	.8841	.8900	.8953	.9001	.9044	.9083	.9119
0.54	.7679	.7864	.8023	.8161	.8282	.8389	.8483	.8566	.8640	.8707	.8767	.8820	.8869	.8913	.8953	.8990
0.56	.7544	.7725	.7882	.8019	.8139	.8244	.8338	.8421	.8496	.8562	.8623	.8677	.8726	.8770	.8811	.8848
0.58	.7404	.7581	.7735	.7870	.7988	.8092	.8185	.8268	.8342	.8409	.8468	.8523	.8572	.8617	.8657	.8695
0.60	.7259	.7432	.7583	.7714	.7830	.7933	.8025	.8106	.8179	.8245	.8305	.8358	.8407	.8452	.8492	.8529
0.62	.7110	.7278	.7425	.7553	.7666	.7767	.7856	.7936	.8008	.8073	.8131	.8184	.8232	.8276	.8316	.8353
0.64	.6957	.7120	.7262	.7386	.7496	.7594	.7681	.7758	.7828	.7891	.7948	.8000	.8047	.8090	.8129	.8165
0.66	.6801	.6958	.7094	.7214	.7320	.7414	.7498	.7573	.7641	.7702	.7757	.7807	.7852	.7893	.7931	.7966
0.68	.6641	.6791	.6922	.7037	.7139	.7229	.7309	.7381	.7446	.7504	.7557	.7605	.7648	.7688	.7724	.7757
0.70	.6478	.6621	.6746	.6855	.6952	.7038	.7114	.7183	.7244	.7300	.7350	.7395	.7436	.7474	.7508	.7539
0.72	.6313	.6448	.6566	.6670	.6761	.6842	.6914	.6979	.7036	.7089	.7136	.7178	.7217	.7252	.7284	.7313
0.74	.6145	.6272	.6383	.6480	.6566	.6642	.6709	.6769	.6823	.6872	.6915	.6955	.6991	.7023	.7053	.7080
0.76	.5975	.6094	.6197	.6288	.6367	.6438	.6500	.6556	.6605	.6650	.6690	.6726	.6759	.6789	.6816	.6840
0.78	.5803	.5913	.6009	.6093	.6166	.6231	.6288	.6338	.6384	.6424	.6461	.6493	.6523	.6550	.6574	.6596
0.80	.5630	.5731	.5819	.5896	.5962	.6021	.6073	.6118	.6159	.6195	.6228	.6257	.6283	.6306	.6328	.6347
0.82	.5455	.5548	.5628	.5697	.5757	.5810	.5856	.5896	.5932	.5964	.5992	.6018	.6040	.6061	.6079	.6096
0.84	.5280	.5364	.5436	.5497	.5551	.5597	.5637	.5673	.5704	.5731	.5755	.5777	.5796	.5814	.5829	.5843
0.86	.5105	.5180	.5243	.5297	.5344	.5384	.5418	.5448	.5475	.5498	.5518	.5536	.5552	.5566	.5579	.5590
0.88	.4930	.4996	.5051	.5098	.5137	.5171	.5200	.5225	.5246	.5265	.5281	.5295	.5308	.5319	.5329	.5337
0.90	.4756	.4812	.4859	.4898	.4931	.4959	.4982	.5002	.5018	.5033	.5045	.5056	.5065	.5073	.5080	.5086
0.92	.4582	.4630	.4668	.4700	.4726	.4748	.4766	.4780	.4793	.4803	.4812	.4819	.4825	.4830	.4835	.4838
0.94	.4409	.4448	.4479	.4504	.4523	.4539	.4552	.4562	.4570	.4576	.4581	.4585	.4588	.4591	.4592	.4594
0.96	.4238	.4269	.4292	.4310	.4323	.4333	.4340	.4346	.4350	.4352	.4354	.4355	.4355	.4355	.4355	.4354
0.98	.4069	.4091	.4107	.4118	.4125	.4130	.4133	.4134	.4134	.4133	.4131	.4129	.4127	.4125	.4122	.4120
1.00	.3902	.3916	.3925	.3929	.3931	.3931	.3929	.3926	.3922	.3918	.3913	.3909	.3904	.3900	.3895	.3891
1.02	.3737	.3744	.3746	.3744	.3741	.3735	.3729	.3723	.3715	.3708	.3701	.3694	.3688	.3681	.3675	.3669
1.04	.3576	.3575	.3570	.3563	.3554	.3545	.3535	.3524	.3514	.3504	.3495	.3486	.3477	.3469	.3461	.3454
1.06	.3417	.3409	.3398	.3386	.3373	.3359	.3345	.3332	.3319	.3307	.3295	.3284	.3274	.3264	.3255	.3247
1.08	.3261	.3247	.3231	.3213	.3196	.3178	.3161	.3145	.3130	.3116	.3102	.3089	.3078	.3067	.3057	.3047
1.10	.3109	.3089	.3067	.3046	.3024	.3003	.2984	.2965	.2947	.2931	.2916	.2902	.2889	.2877	.2866	.2855
1.12	.2961	.2935	.2909	.2883	.2858	.2834	.2812	.2791	.2772	.2754	.2737	.2722	.2708	.2695	.2683	.2672

A3

OFFSET CIRCLE PROBABILITIES

DISTANCE DAMAGE SIGMA (σ_d) = 30% WR

WEAPON RADIUS/CEP$_a$ (WR/CEP$_a$)

OFFSET DISTANCE/WEAPON RADIUS (D/WR)

D/WR	2.60	2.80	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	4.80	5.00	5.20	5.40	5.60
1.14	.2816	.2785	.2754	.2725	.2697	.2671	.2646	.2624	.2603	.2583	.2566	.2550	.2535	.2521	.2509	.2497
1.16	.2675	.2640	.2605	.2573	.2542	.2513	.2487	.2463	.2441	.2420	.2402	.2385	.2370	.2355	.2342	.2331
1.18	.2539	.2499	.2461	.2426	.2393	.2362	.2334	.2309	.2286	.2265	.2246	.2228	.2212	.2198	.2184	.2172
1.20	.2407	.2363	.2322	.2284	.2249	.2217	.2188	.2162	.2138	.2116	.2097	.2079	.2063	.2048	.2035	.2022
1.22	.2279	.2232	.2189	.2149	.2112	.2079	.2049	.2022	.1997	.1975	.1955	.1937	.1921	.1906	.1893	.1880
1.24	.2155	.2106	.2060	.2019	.1981	.1947	.1916	.1889	.1864	.1841	.1821	.1803	.1787	.1772	.1759	.1746
1.26	.2036	.1984	.1937	.1894	.1855	.1821	.1790	.1762	.1737	.1715	.1695	.1677	.1660	.1646	.1632	.1620
1.28	.1922	.1868	.1819	.1775	.1736	.1701	.1670	.1642	.1617	.1595	.1575	.1557	.1541	.1527	.1513	.1502
1.30	.1812	.1756	.1707	.1662	.1622	.1587	.1556	.1528	.1504	.1482	.1462	.1445	.1429	.1415	.1402	.1390
1.32	.1706	.1650	.1599	.1554	.1515	.1480	.1449	.1421	.1397	.1375	.1356	.1339	.1324	.1310	.1297	.1286
1.34	.1605	.1548	.1497	.1452	.1413	.1378	.1347	.1320	.1296	.1275	.1256	.1240	.1225	.1211	.1199	.1188
1.36	.1508	.1451	.1400	.1355	.1316	.1282	.1252	.1225	.1202	.1181	.1163	.1147	.1132	.1119	.1108	.1097
1.38	.1416	.1358	.1308	.1263	.1225	.1191	.1162	.1136	.1113	.1093	.1076	.1060	.1046	.1033	.1022	.1012
1.40	.1328	.1270	.1220	.1177	.1139	.1106	.1077	.1052	.1030	.1011	.0994	.0979	.0965	.0953	.0943	.0933
1.42	.1244	.1187	.1138	.1095	.1058	.1026	.0998	.0974	.0952	.0934	.0918	.0903	.0890	.0879	.0869	.0859
1.44	.1165	.1108	.1059	.1018	.0981	.0950	.0924	.0900	.0880	.0862	.0846	.0833	.0820	.0809	.0800	.0791
1.46	.1089	.1034	.0986	.0945	.0910	.0880	.0854	.0832	.0812	.0795	.0780	.0767	.0755	.0745	.0736	.0728
1.48	.1018	.0963	.0916	.0877	.0843	.0814	.0789	.0768	.0749	.0733	.0719	.0706	.0695	.0685	.0677	.0669
1.50	.0950	.0897	.0851	.0813	.0780	.0752	.0729	.0708	.0690	.0675	.0661	.0650	.0639	.0630	.0622	.0614
1.60	.0665	.0619	.0581	.0550	.0524	.0502	.0484	.0468	.0455	.0443	.0433	.0424	.0417	.0410	.0404	.0398
1.70	.0456	.0419	.0389	.0365	.0346	.0330	.0316	.0305	.0295	.0287	.0280	.0273	.0268	.0263	.0259	.0255
1.80	.0307	.0279	.0257	.0239	.0225	.0214	.0204	.0196	.0189	.0184	.0179	.0175	.0171	.0168	.0165	.0162
1.90	.0204	.0183	.0167	.0155	.0145	.0137	.0131	.0125	.0121	.0117	.0114	.0111	.0108	.0106	.0104	.0103
2.00	.0133	.0119	.0108	.0099	.0093	.0087	.0083	.0079	.0076	.0074	.0072	.0070	.0068	.0067	.0066	.0065
2.10	.0086	.0076	.0069	.0063	.0059	.0055	.0052	.0050	.0048	.0046	.0045	.0044	.0043	.0042	.0041	.0041
2.20	.0055	.0049	.0044	.0040	.0037	.0035	.0033	.0032	.0030	.0029	.0028	.0028	.0027	.0026	.0026	.0025
2.30	.0035	.0031	.0028	.0025	.0023	.0022	.0021	.0020	.0019	.0018	.0018	.0017	.0017	.0017	.0016	.0016
2.40	.0022	.0020	.0018	.0016	.0015	.0014	.0013	.0012	.0012	.0012	.0011	.0011	.0011	.0010	.0010	.0010
2.50	.0014	.0012	.0011	.0010	.0009	.0009	.0008	.0008	.0007	.0007	.0007	.0007	.0007	.0006	.0006	.0006
2.60	.0009	.0008	.0007	.0006	.0006	.0005	.0005	.0005	.0005	.0005	.0004	.0004	.0004	.0004	.0004	.0004
2.70	.0006	.0005	.0004	.0004	.0004	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0002
2.80	.0004	.0003	.0003	.0003	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002
2.90	.0002	.0002	.0002	.0002	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
3.00	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
3.10	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
3.20	.0001	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
3.30	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
3.40	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
3.50	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
3.60	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
3.70	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
3.80	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000

OFFSET CIRCLE PROBABILITIES

DISTANCE DAMAGE SIGMA (σ_d) =

WEAPON RADIUS/CEP$_a$ (WR/CEP$_a$)

OFFSET DISTANCE/WEAPON RADIUS (D/WR)	6.00	6.50	7.00	7.50	8.00	8.50	9.00	9.50	10.00	10.50	11.00	11.50	12.00	12.50	13.00	13.50
0.00	.9997	.9998	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999
0.05	.9996	.9998	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999
0.10	.9993	.9996	.9998	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999
0.15	.9985	.9991	.9994	.9996	.9997	.9998	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999
0.20	.9971	.9980	.9986	.9990	.9993	.9995	.9996	.9997	.9998	.9998	.9998	.9999	.9999	.9999	.9999	.9999
0.25	.9945	.9959	.9969	.9977	.9982	.9986	.9988	.9991	.9992	.9994	.9995	.9995	.9996	.9997	.9997	.9997
0.30	.9898	.9921	.9937	.9949	.9958	.9965	.9970	.9975	.9978	.9981	.9983	.9985	.9987	.9988	.9989	.9990
0.35	.9822	.9854	.9878	.9897	.9911	.9923	.9932	.9940	.9946	.9951	.9955	.9959	.9962	.9965	.9967	.9969
0.40	.9705	.9747	.9781	.9807	.9828	.9845	.9859	.9871	.9881	.9889	.9896	.9902	.9908	.9912	.9916	.9920
0.45	.9534	.9586	.9628	.9662	.9690	.9714	.9733	.9749	.9763	.9775	.9786	.9795	.9803	.9810	.9816	.9821
0.50	.9297	.9358	.9408	.9448	.9482	.9511	.9535	.9556	.9573	.9589	.9602	.9614	.9624	.9633	.9641	.9649
0.52	.9181	.9245	.9297	.9340	.9376	.9406	.9432	.9454	.9473	.9489	.9504	.9516	.9527	.9537	.9546	.9554
0.54	.9053	.9119	.9173	.9218	.9255	.9287	.9314	.9337	.9357	.9374	.9389	.9403	.9415	.9425	.9434	.9443
0.56	.8913	.8981	.9036	.9082	.9120	.9153	.9181	.9204	.9225	.9243	.9259	.9273	.9285	.9296	.9306	.9314
0.58	.8760	.8828	.8884	.8931	.8970	.9003	.9031	.9056	.9077	.9095	.9111	.9126	.9138	.9149	.9159	.9168
0.60	.8595	.8663	.8719	.8766	.8805	.8838	.8867	.8891	.8912	.8931	.8947	.8961	.8974	.8985	.8995	.9004
0.62	.8417	.8485	.8540	.8586	.8625	.8658	.8686	.8711	.8732	.8750	.8766	.8780	.8793	.8804	.8814	.8823
0.64	.8228	.8294	.8348	.8393	.8431	.8463	.8491	.8515	.8535	.8553	.8569	.8583	.8595	.8606	.8616	.8625
0.66	.8027	.8091	.8143	.8187	.8223	.8255	.8281	.8304	.8324	.8341	.8357	.8370	.8382	.8392	.8402	.8410
0.68	.7816	.7876	.7926	.7968	.8003	.8033	.8058	.8080	.8099	.8115	.8130	.8142	.8154	.8164	.8173	.8180
0.70	.7595	.7652	.7699	.7738	.7771	.7799	.7823	.7843	.7861	.7876	.7890	.7902	.7912	.7921	.7930	.7937
0.72	.7365	.7418	.7462	.7499	.7529	.7555	.7577	.7596	.7612	.7626	.7638	.7649	.7659	.7667	.7675	.7682
0.74	.7127	.7177	.7217	.7250	.7278	.7301	.7321	.7338	.7353	.7366	.7377	.7387	.7396	.7403	.7410	.7416
0.76	.6884	.6928	.6964	.6994	.7019	.7040	.7058	.7073	.7086	.7098	.7107	.7116	.7124	.7131	.7137	.7142
0.78	.6634	.6674	.6706	.6732	.6754	.6773	.6788	.6801	.6813	.6823	.6831	.6839	.6845	.6851	.6857	.6861
0.80	.6381	.6415	.6443	.6466	.6485	.6501	.6514	.6525	.6535	.6543	.6550	.6557	.6562	.6567	.6572	.6576
0.82	.6125	.6154	.6178	.6197	.6212	.6226	.6237	.6246	.6254	.6261	.6267	.6272	.6276	.6280	.6284	.6287
0.84	.5867	.5891	.5910	.5926	.5939	.5949	.5958	.5965	.5972	.5977	.5982	.5986	.5989	.5992	.5995	.5998
0.86	.5609	.5628	.5643	.5655	.5665	.5673	.5679	.5685	.5690	.5694	.5697	.5700	.5702	.5705	.5707	.5709
0.88	.5352	.5366	.5377	.5386	.5392	.5398	.5402	.5406	.5409	.5412	.5414	.5416	.5418	.5419	.5421	.5422
0.90	.5096	.5106	.5113	.5119	.5123	.5126	.5128	.5131	.5132	.5134	.5135	.5136	.5137	.5137	.5138	.5138
0.92	.4844	.4849	.4853	.4855	.4857	.4858	.4859	.4859	.4860	.4860	.4860	.4860	.4860	.4860	.4860	.4860
0.94	.4596	.4597	.4597	.4597	.4596	.4595	.4594	.4593	.4592	.4592	.4591	.4590	.4589	.4589	.4588	.4588
0.96	.4352	.4349	.4347	.4344	.4341	.4338	.4336	.4334	.4332	.4330	.4329	.4327	.4326	.4325	.4324	.4323
0.98	.4114	.4108	.4102	.4097	.4093	.4088	.4085	.4082	.4079	.4076	.4074	.4072	.4070	.4068	.4067	.4065
1.00	.3883	.3873	.3865	.3858	.3852	.3846	.3841	.3837	.3834	.3830	.3827	.3825	.3822	.3820	.3818	.3817
1.02	.3658	.3646	.3636	.3627	.3619	.3612	.3607	.3601	.3597	.3593	.3590	.3587	.3584	.3582	.3579	.3577
1.04	.3441	.3426	.3414	.3404	.3395	.3387	.3381	.3375	.3370	.3365	.3361	.3358	.3355	.3352	.3350	.3348
1.06	.3231	.3215	.3201	.3190	.3180	.3171	.3164	.3157	.3152	.3147	.3143	.3139	.3136	.3133	.3130	.3128
1.08	.3030	.3012	.2997	.2984	.2973	.2964	.2956	.2950	.2944	.2939	.2934	.2930	.2927	.2924	.2921	.2918
1.10	.2837	.2818	.2802	.2788	.2777	.2767	.2759	.2752	.2746	.2740	.2735	.2731	.2728	.2724	.2722	.2719
1.12	.2653	.2632	.2615	.2601	.2589	.2579	.2571	.2563	.2557	.2552	.2547	.2542	.2539	.2535	.2532	.2530

A3

OFFSET CIRCLE PROBABILITIES

DISTANCE DAMAGE SIGMA (σ_d) = 30% WR

OFFSET DISTANCE/WEAPON RADIUS (D/WR)

	6.00	6.50	7.00	7.50	8.00	8.50	9.00	9.50	10.00	10.50	11.00	11.50	12.00	12.50	13.00	13.50
1.14	.2477	.2456	.2438	.2424	.2411	.2401	.2392	.2385	.2378	.2373	.2368	.2364	.2360	.2356	.2353	.2351
1.16	.2310	.2288	.2270	.2255	.2243	.2233	.2224	.2216	.2210	.2204	.2199	.2195	.2191	.2187	.2184	.2182
1.1	.2151	.2129	.2111	.2096	.2084	.2073	.2064	.2057	.2050	.2045	.2040	.2035	.2032	.2028	.2025	.2023
1.20	.2001	.1979	.1961	.1946	.1933	.1923	.1914	.1907	.1900	.1895	.1890	.1886	.1882	.1878	.1876	.1873
1.22	.1859	.1837	.1819	.1804	.1792	.1782	.1773	.1766	.1759	.1754	.1749	.1745	.1741	.1738	.1735	.1732
1.24	.1725	.1703	.1686	.1671	.1659	.1649	.1641	.1633	.1627	.1622	.1617	.1613	.1610	.1606	.1604	.1601
1.26	.1599	.1578	.1561	.1546	.1535	.1525	.1517	.1510	.1504	.1498	.1494	.1490	.1486	.1483	.1481	.1478
1.28	.1481	.1460	.1443	.1430	.1418	.1409	.1401	.1394	.1388	.1383	.1379	.1375	.1371	.1368	.1366	.1363
1.30	.1370	.1350	.1334	.1320	.1309	.1300	.1292	.1286	.1280	.1275	.1271	.1267	.1264	.1261	.1259	.1256
1.32	.1267	.1247	.1231	.1218	.1208	.1199	.1191	.1185	.1180	.1175	.1171	.1167	.1164	.1162	.1159	.1157
1.34	.1170	.1151	.1135	.1123	.1113	.1105	.1097	.1091	.1086	.1082	.1078	.1075	.1072	.1069	.1067	.1065
1.36	.1079	.1061	.1046	.1035	.1025	.1017	.1010	.1004	.0999	.0995	.0992	.0988	.0986	.0983	.0981	.0979
1.38	.0995	.0978	.0964	.0952	.0943	.0935	.0929	.0924	.0919	.0915	.0911	.0908	.0906	.0903	.0901	.0899
1.40	.0917	.0900	.0887	.0876	.0867	.0860	.0854	.0849	.0844	.0841	.0837	.0834	.0832	.0830	.0828	.0826
1.42	.0844	.0828	.0815	.0805	.0797	.0790	.0784	.0779	.0775	.0772	.0769	.0766	.0763	.0761	.0760	.0758
1.44	.0776	.0761	.0749	.0740	.0732	.0725	.0720	.0715	.0711	.0708	.0705	.0703	.0700	.0698	.0697	.0695
1.46	.0713	.0699	.0688	.0679	.0672	.0666	.0660	.0656	.0652	.0649	.0647	.0644	.0642	.0640	.0639	.0637
1.48	.0655	.0642	.0632	.0623	.0616	.0610	.0606	.0602	.0598	.0595	.0593	.0590	.0588	.0587	.0585	.0584
1.50	.0602	.0589	.0579	.0571	.0565	.0559	.0555	.0551	.0548	.0545	.0543	.0541	.0539	.0537	.0536	.0534
1.60	.0389	.0380	.0373	.0368	.0363	.0359	.0356	.0353	.0351	.0349	.0348	.0346	.0345	.0344	.0343	.0342
1.70	.0249	.0243	.0238	.0234	.0231	.0229	.0226	.0225	.0223	.0222	.0221	.0220	.0219	.0218	.0217	.0217
1.80	.0158	.0154	.0151	.0148	.0146	.0144	.0143	.0142	.0141	.0140	.0139	.0139	.0138	.0138	.0137	.0137
1.90	.0100	.0097	.0095	.0093	.0092	.0091	.0090	.0089	.0089	.0088	.0087	.0087	.0087	.0086	.0086	.0086
2.00	.0063	.0061	.0060	.0059	.0058	.0057	.0056	.0056	.0055	.0055	.0055	.0055	.0054	.0054	.0054	.0054
2.10	.0039	.0038	.0037	.0037	.0036	.0036	.0035	.0035	.0035	.0035	.0034	.0034	.0034	.0034	.0034	.0034
2.20	.0025	.0024	.0023	.0023	.0023	.0022	.0022	.0022	.0022	.0022	.0021	.0021	.0021	.0021	.0021	.0021
2.30	.0015	.0015	.0015	.0014	.0014	.0014	.0014	.0014	.0014	.0014	.0013	.0013	.0013	.0013	.0013	.0013
2.40	.0010	.0009	.0009	.0009	.0009	.0009	.0009	.0009	.0009	.0008	.0008	.0008	.0008	.0008	.0008	.0008
2.50	.0006	.0006	.0006	.0006	.0006	.0006	.0005	.0005	.0005	.0005	.0005	.0005	.0005	.0005	.0005	.0005
2.60	.0004	.0004	.0004	.0004	.0004	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003
2.70	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002
2.80	.0002	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
2.90	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
3.00	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
3.10	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
3.20	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
3.30	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
3.40	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
3.50	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
3.60	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
3.70	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
3.80	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000

A3

OFFSET CIRCLE PROBABILITIES

DISTANCE DAMAGE SIGMA (σ_d) = 30% WR

OFFSET DISTANCE/WEAPON RADIUS (D/WR)	WEAPON RADIUS/CEP$_a$ (WR/CEP$_a$)															P_d
	13.00	13.50	14.00	14.50	15.00	15.50	16.00	16.50	17.00	17.50	18.00	18.50	19.00	19.50	20.00	∞
0.00	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999
0.20	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999
0.25	.9997	.9997	.9998	.9998	.9998	.9998	.9998	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999
0.30	.9989	.9990	.9991	.9992	.9992	.9993	.9993	.9994	.9994	.9994	.9995	.9995	.9995	.9995	.9995	.9998
0.32	.9983	.9984	.9985	.9986	.9987	.9988	.9988	.9989	.9990	.9990	.9991	.9991	.9991	.9992	.9992	.9997
0.34	.9973	.9975	.9977	.9978	.9979	.9980	.9981	.9982	.9983	.9983	.9984	.9985	.9985	.9986	.9986	.9993
0.36	.9960	.9962	.9964	.9966	.9968	.9969	.9970	.9972	.9973	.9973	.9974	.9975	.9976	.9976	.9977	.9987
0.38	.9941	.9944	.9947	.9949	.9951	.9953	.9955	.9956	.9958	.9959	.9960	.9961	.9962	.9963	.9964	.9978
0.40	.9916	.9920	.9923	.9926	.9929	.9931	.9933	.9935	.9937	.9938	.9940	.9941	.9942	.9943	.9944	.9963
0.42	.9884	.9888	.9892	.9895	.9898	.9901	.9904	.9906	.9908	.9910	.9912	.9913	.9915	.9916	.9917	.9941
0.44	.9841	.9846	.9851	.9855	.9859	.9862	.9865	.9868	.9870	.9872	.9875	.9876	.9878	.9880	.9881	.9910
0.46	.9783	.9794	.9799	.9804	.9808	.9812	.9815	.9818	.9821	.9824	.9826	.9829	.9831	.9833	.9834	.9868
0.48	.9722	.9728	.9734	.9739	.9744	.9749	.9753	.9756	.9760	.9763	.9765	.9768	.9770	.9772	.9774	.9814
0.50	.9641	.9649	.9655	.9661	.9667	.9671	.9676	.9680	.9683	.9687	.9690	.9693	.9695	.9698	.9700	.9744
0.52	.9546	.9554	.9561	.9567	.9573	.9578	.9583	.9588	.9592	.9595	.9599	.9602	.9605	.9607	.9610	.9658
0.54	.9434	.9443	.9450	.9457	.9463	.9469	.9474	.9479	.9483	.9487	.9490	.9494	.9497	.9500	.9502	.9554
0.56	.9306	.9314	.9322	.9329	.9336	.9342	.9347	.9352	.9356	.9360	.9364	.9368	.9371	.9374	.9376	.9431
0.58	.9159	.9168	.9176	.9184	.9190	.9196	.9202	.9207	.9211	.9215	.9219	.9223	.9226	.9229	.9232	.9288
0.60	.8995	.9004	.9013	.9020	.9027	.9033	.9038	.9043	.9048	.9052	.9056	.9060	.9063	.9066	.9069	.9125
0.62	.8814	.8823	.8831	.8838	.8845	.8851	.8857	.8862	.8866	.8870	.8874	.8878	.8881	.8884	.8887	.8943
0.64	.8616	.8625	.8633	.8640	.8646	.8652	.8657	.8662	.8667	.8671	.8675	.8678	.8681	.8684	.8687	.8741
0.66	.8402	.8410	.8418	.8425	.8431	.8436	.8441	.8446	.8450	.8454	.8458	.8461	.8464	.8467	.8470	.8522
0.68	.8173	.8180	.8188	.8194	.8200	.8205	.8210	.8215	.8219	.8222	.8226	.8229	.8232	.8235	.8237	.8286
0.70	.7930	.7937	.7944	.7950	.7955	.7960	.7965	.7969	.7973	.7976	.7979	.7982	.7985	.7988	.7990	.8035
0.72	.7675	.7682	.7688	.7694	.7699	.7703	.7707	.7711	.7714	.7718	.7720	.7723	.7726	.7728	.7730	.7771
0.74	.7410	.7416	.7422	.7427	.7431	.7435	.7439	.7442	.7445	.7448	.7451	.7453	.7456	.7458	.7459	.7496
0.76	.7137	.7142	.7147	.7151	.7155	.7159	.7162	.7165	.7168	.7170	.7173	.7175	.7177	.7178	.7180	.7212
0.78	.6857	.6861	.6865	.6869	.6873	.6876	.6878	.6881	.6883	.6885	.6887	.6889	.6891	.6892	.6894	.6922
0.80	.6572	.6576	.6579	.6582	.6585	.6588	.6590	.6592	.6594	.6596	.6598	.6599	.6600	.6602	.6603	.6626
0.82	.6284	.6287	.6290	.6293	.6295	.6297	.6299	.6301	.6302	.6304	.6305	.6306	.6307	.6308	.6309	.6327
0.84	.5995	.5998	.6000	.6002	.6003	.6005	.6006	.6008	.6009	.6010	.6011	.6012	.6013	.6014	.6014	.6028
0.86	.5707	.5709	.5710	.5711	.5713	.5714	.5715	.5716	.5717	.5717	.5718	.5719	.5719	.5720	.5720	.5730
0.88	.5421	.5422	.5423	.5423	.5424	.5425	.5426	.5426	.5427	.5427	.5428	.5428	.5428	.5429	.5429	.5435
0.90	.5138	.5138	.5139	.5139	.5140	.5140	.5140	.5140	.5141	.5141	.5141	.5141	.5141	.5141	.5142	.5144
0.92	.4860	.4860	.4860	.4860	.4860	.4860	.4860	.4860	.4860	.4860	.4860	.4859	.4859	.4859	.4859	.4858
0.94	.4588	.4588	.4587	.4587	.4586	.4586	.4586	.4585	.4585	.4585	.4585	.4584	.4584	.4584	.4584	.4579
0.96	.4324	.4323	.4322	.4321	.4320	.4320	.4319	.4318	.4318	.4317	.4317	.4316	.4316	.4316	.4315	.4309
0.98	.4067	.4065	.4064	.4063	.4062	.4061	.4060	.4060	.4059	.4058	.4058	.4057	.4056	.4056	.4056	.4047
1.00	.3818	.3817	.3815	.3814	.3813	.3812	.3811	.3810	.3809	.3808	.3807	.3806	.3806	.3805	.3805	.3794
1.02	.3579	.3577	.3576	.3574	.3573	.3571	.3570	.3569	.3568	.3567	.3566	.3565	.3565	.3564	.3563	.3551
1.04	.3350	.3348	.3346	.3344	.3342	.3341	.3340	.3338	.3337	.3336	.3335	.3334	.3334	.3333	.3332	.3318
1.06	.3130	.3128	.3126	.3124	.3122	.3121	.3119	.3118	.3117	.3116	.3115	.3114	.3113	.3112	.3111	.3097

OFFSET CIRCLE PROBABILITIES

DISTANCE DAMAGE SIGMA (σ_d) = 30% WR

OFFSET DISTANCE/WEAPON RADIUS (D/WR)

	WEAPON RADIUS/CEP$_a$ (WR/CEP$_a$)															P_d
	13.00	13.50	14.00	14.50	15.00	15.50	16.00	16.50	17.00	17.50	18.00	18.50	19.00	19.50	20.00	∞
1.08	.2921	.2918	.2916	.2914	.2912	.2911	.2909	.2908	.2906	.2905	.2904	.2903	.2902	.2901	.2901	.2885
1.10	.2722	.2719	.2717	.2714	.2713	.2711	.2709	.2708	.2707	.2705	.2704	.2703	.2702	.2701	.2701	.2685
1.12	.2532	.2530	.2527	.2525	.2523	.2521	.2520	.2518	.2517	.2516	.2515	.2514	.2513	.2512	.2511	.2495
1.14	.2353	.2351	.2348	.2346	.2344	.2342	.2341	.2339	.2338	.2337	.2336	.2334	.2333	.2333	.2332	.2315
1.16	.2184	.2182	.2179	.2177	.2175	.2173	.2172	.2170	.2169	.2168	.2166	.2165	.2164	.2164	.2163	.2146
1.18	.2025	.2023	.2020	.2018	.2016	.2014	.2013	.2011	.2010	.2009	.2007	.2006	.2005	.2004	.2004	.1988
1.20	.1876	.1873	.1870	.1868	.1866	.1865	.1863	.1862	.1860	.1859	.1858	.1857	.1856	.1855	.1854	.1839
1.22	.1735	.1732	.1730	.1728	.1726	.1724	.1723	.1721	.1720	.1719	.1718	.1717	.1716	.1715	.1714	.1699
1.24	.1604	.1601	.1599	.1597	.1595	.1593	.1592	.1590	.1589	.1588	.1587	.1586	.1585	.1584	.1583	.1568
1.26	.1481	.1478	.1476	.1474	.1472	.1471	.1469	.1468	.1466	.1465	.1464	.1463	.1463	.1462	.1461	.1446
1.28	.1366	.1363	.1361	.1359	.1358	.1356	.1355	.1353	.1352	.1351	.1350	.1349	.1348	.1348	.1347	.1333
1.30	.1259	.1256	.1254	.1253	.1251	.1249	.1248	.1247	.1246	.1245	.1244	.1243	.1242	.1241	.1241	.1227
1.32	.1159	.1157	.1155	.1153	.1152	.1150	.1149	.1148	.1147	.1146	.1145	.1144	.1143	.1143	.1142	.1129
1.34	.1067	.1065	.1063	.1061	.1060	.1058	.1057	.1056	.1055	.1054	.1053	.1052	.1052	.1051	.1050	.1038
1.36	.0981	.0979	.0977	.0976	.0974	.0973	.0972	.0971	.0970	.0969	.0968	.0967	.0966	.0966	.0965	.0954
1.38	.0901	.0899	.0898	.0896	.0895	.0894	.0893	.0892	.0891	.0890	.0889	.0888	.0888	.0887	.0886	.0876
1.40	.0828	.0826	.0824	.0823	.0822	.0820	.0819	.0818	.0818	.0817	.0816	.0815	.0815	.0814	.0814	.0803
1.42	.0760	.0758	.0756	.0755	.0754	.0753	.0752	.0751	.0750	.0749	.0749	.0748	.0747	.0747	.0746	.0737
1.44	.0697	.0695	.0694	.0692	.0691	.0690	.0689	.0689	.0688	.0687	.0686	.0686	.0685	.0685	.0684	.0675
1.46	.0639	.0637	.0636	.0635	.0634	.0633	.0632	.0631	.0630	.0630	.0629	.0628	.0628	.0627	.0627	.0619
1.48	.0585	.0584	.0582	.0581	.0580	.0579	.0579	.0578	.0577	.0577	.0576	.0576	.0575	.0575	.0574	.0566
1.50	.0536	.0534	.0533	.0532	.0531	.0531	.0530	.0529	.0528	.0528	.0527	.0527	.0526	.0526	.0526	.0518
1.52	.0490	.0489	.0488	.0487	.0486	.0486	.0485	.0484	.0484	.0483	.0483	.0482	.0482	.0481	.0481	.0474
1.54	.0449	.0448	.0447	.0446	.0445	.0444	.0443	.0443	.0442	.0442	.0441	.0441	.0441	.0440	.0440	.0433
1.56	.0410	.0409	.0408	.0407	.0407	.0406	.0405	.0405	.0404	.0404	.0404	.0403	.0403	.0402	.0402	.0396
1.58	.0375	.0374	.0373	.0372	.0372	.0371	.0371	.0370	.0370	.0369	.0369	.0368	.0368	.0368	.0367	.0362
1.60	.0343	.0342	.0341	.0340	.0340	.0339	.0339	.0338	.0338	.0337	.0337	.0337	.0336	.0336	.0336	.0331
1.62	.0313	.0312	.0312	.0311	.0310	.0310	.0309	.0309	.0308	.0308	.0308	.0307	.0307	.0307	.0307	.0302
1.64	.0286	.0285	.0284	.0284	.0283	.0283	.0282	.0282	.0282	.0281	.0281	.0281	.0280	.0280	.0280	.0276
1.66	.0261	.0260	.0260	.0259	.0259	.0258	.0258	.0257	.0257	.0257	.0256	.0256	.0256	.0256	.0255	.0251
1.68	.0238	.0238	.0237	.0237	.0236	.0236	.0235	.0235	.0235	.0234	.0234	.0234	.0234	.0233	.0233	.0229
1.70	.0217	.0217	.0216	.0216	.0215	.0215	.0215	.0214	.0214	.0214	.0213	.0213	.0213	.0213	.0213	.0209
1.72	.0198	.0198	.0197	.0197	.0196	.0196	.0196	.0195	.0195	.0195	.0195	.0195	.0194	.0194	.0194	.0191
1.74	.0181	.0180	.0180	.0180	.0179	.0179	.0179	.0178	.0178	.0178	.0178	.0177	.0177	.0177	.0177	.0174
1.76	.0165	.0164	.0164	.0164	.0163	.0163	.0163	.0163	.0162	.0162	.0162	.0162	.0162	.0161	.0161	.0159
1.78	.0150	.0150	.0150	.0149	.0149	.0149	.0148	.0148	.0148	.0148	.0148	.0147	.0147	.0147	.0147	.0145
1.80	.0137	.0137	.0136	.0136	.0136	.0135	.0135	.0135	.0135	.0135	.0134	.0134	.0134	.0134	.0134	.0132
1.82	.0125	.0125	.0124	.0124	.0124	.0123	.0123	.0123	.0123	.0123	.0123	.0122	.0122	.0122	.0122	.0120
1.84	.0114	.0113	.0113	.0113	.0113	.0112	.0112	.0112	.0112	.0112	.0112	.0112	.0111	.0111	.0111	.0109
1.86	.0104	.0103	.0103	.0103	.0103	.0102	.0102	.0102	.0102	.0102	.0102	.0102	.0102	.0101	.0101	.0100
1.88	.0094	.0094	.0094	.0094	.0094	.0093	.0093	.0093	.0093	.0093	.0093	.0093	.0092	.0092	.0092	.0091
1.90	.0086	.0086	.0086	.0085	.0085	.0085	.0085	.0085	.0085	.0085	.0084	.0084	.0084	.0084	.0084	.0083

A3

OFFSET CIRCLE PROBABILITIES

DISTANCE DAMAGE SIGMA (σ_d) = 30% WR

OFFSET DISTANCE/WEAPON RADIUS (D/WR)

	WEAPON RADIUS/CEP$_a$ (WR/CEP$_a$)															P_d
	13.00	13.50	14.00	14.50	15.00	15.50	16.00	16.50	17.00	17.50	18.00	18.50	19.00	19.50	20.00	∞
1.92	.0078	.0078	.0078	.0078	.0078	.0077	.0077	.0077	.0077	.0077	.0077	.0077	.0077	.0077	.0077	.0075
1.94	.0071	.0071	.0071	.0071	.0071	.0071	.0070	.0070	.0070	.0070	.0070	.0070	.0070	.0070	.0070	.0069
1.96	.0065	.0065	.0065	.0064	.0064	.0064	.0064	.0064	.0064	.0064	.0064	.0064	.0064	.0064	.0063	.0062
1.98	.0059	.0059	.0059	.0059	.0059	.0058	.0058	.0058	.0058	.0058	.0058	.0058	.0058	.0058	.0058	.0057
2.00	.0054	.0054	.0054	.0053	.0053	.0053	.0053	.0053	.0053	.0053	.0053	.0053	.0053	.0053	.0053	.0052
2.10	.0034	.0034	.0034	.0033	.0033	.0033	.0033	.0033	.0033	.0033	.0033	.0033	.0033	.0033	.0033	.0032
2.20	.0021	.0021	.0021	.0021	.0021	.0021	.0021	.0021	.0021	.0021	.0021	.0021	.0021	.0021	.0021	.0020
2.30	.0013	.0013	.0013	.0013	.0013	.0013	.0013	.0013	.0013	.0013	.0013	.0013	.0013	.0013	.0013	.0013
2.40	.0008	.0008	.0008	.0008	.0008	.0008	.0008	.0008	.0008	.0008	.0008	.0008	.0008	.0008	.0008	.0008
2.50	.0005	.0005	.0005	.0005	.0005	.0005	.0005	.0005	.0005	.0005	.0005	.0005	.0005	.0005	.0005	.0005
2.60	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003
2.70	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002
2.80	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
2.90	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
3.00	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
3.10	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
3.20	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000

A4

OFFSET CIRCLE PROBABILITIES

DISTANCE DAMAGE SIGMA (σ_d) = 40% WR

WEAPON RADIUS/CEP_a (WR/CEP_a)

OFFSET DISTANCE/WEAPON RADIUS (D/WR)

	0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.70	0.80	0.90	1.00
0.00	.0017	.0069	.0154	.0270	.0415	.0586	.0784	.1001	.1235	.1485	.1746	.2016	.2573	.3137	.3695	.4236
0.10	.0017	.0069	.0154	.0270	.0415	.0587	.0783	.1000	.1234	.1483	.1743	.2012	.2566	.3127	.3682	.4218
0.20	.0017	.0069	.0153	.0270	.0415	.0586	.0781	.0997	.1229	.1476	.1734	.2000	.2546	.3098	.3640	.4164
0.30	.0017	.0069	.0153	.0269	.0414	.0585	.0778	.0992	.1222	.1465	.1719	.1979	.2513	.3049	.3572	.4074
0.40	.0017	.0069	.0153	.0269	.0413	.0582	.0774	.0985	.1211	.1450	.1698	.1951	.2468	.2982	.3479	.3953
0.50	.0017	.0069	.0153	.0268	.0411	.0579	.0769	.0976	.1198	.1430	.1671	.1916	.2411	.2897	.3364	.3802
0.60	.0017	.0069	.0153	.0267	.0409	.0575	.0762	.0965	.1181	.1407	.1639	.1874	.2343	.2798	.3227	.3625
0.70	.0017	.0069	.0152	.0266	.0407	.0571	.0754	.0953	.1163	.1380	.1602	.1825	.2265	.2684	.3073	.3427
0.80	.0017	.0069	.0152	.0265	.0404	.0566	.0745	.0939	.1141	.1350	.1560	.1770	.2178	.2559	.2905	.3212
0.90	.0017	.0068	.0152	.0264	.0402	.0560	.0735	.0923	.1117	.1316	.1514	.1710	.2084	.2425	.2725	.2985
1.00	.0017	.0068	.0151	.0263	.0398	.0554	.0725	.0905	.1091	.1279	.1465	.1645	.1984	.2283	.2538	.2750
1.10	.0017	.0068	.0151	.0261	.0395	.0547	.0713	.0886	.1063	.1240	.1412	.1577	.1879	.2135	.2346	.2513
1.20	.0017	.0068	.0150	.0260	.0391	.0540	.0700	.0866	.1033	.1198	.1356	.1505	.1770	.1985	.2152	.2276
1.30	.0017	.0068	.0150	.0258	.0387	.0532	.0686	.0845	.1002	.1154	.1298	.1430	.1659	.1834	.1960	.2045
1.40	.0017	.0068	.0149	.0256	.0383	.0524	.0672	.0822	.0969	.1108	.1238	.1354	.1546	.1684	.1773	.1822
1.50	.0017	.0068	.0148	.0254	.0378	.0515	.0657	.0799	.0935	.1062	.1176	.1277	.1435	.1536	.1591	.1610
1.60	.0017	.0068	.0148	.0252	.0373	.0506	.0641	.0774	.0900	.1014	.1114	.1199	.1324	.1393	.1418	.1411
1.70	.0017	.0067	.0147	.0250	.0368	.0496	.0625	.0749	.0864	.0965	.1051	.1122	.1216	.1255	.1253	.1226
1.80	.0017	.0067	.0146	.0247	.0363	.0486	.0608	.0723	.0827	.0916	.0989	.1045	.1111	.1125	.1102	.1057
1.90	.0017	.0067	.0145	.0245	.0357	.0475	.0590	.0697	.0790	.0867	.0927	.0970	.1009	.1001	.0961	.0905
2.00	.0017	.0067	.0144	.0242	.0352	.0464	.0573	.0670	.0753	.0818	.0866	.0896	.0913	.0886	.0833	.0768
2.20	.0017	.0067	.0143	.0237	.0340	.0442	.0536	.0616	.0678	.0722	.0747	.0756	.0735	.0681	.0612	.0541
2.40	.0017	.0066	.0141	.0231	.0327	.0419	.0499	.0562	.0605	.0630	.0636	.0628	.0581	.0512	.0438	.0371
2.60	.0017	.0066	.0138	.0225	.0314	.0395	.0461	.0508	.0535	.0543	.0534	.0514	.0450	.0375	.0306	.0247
2.80	.0017	.0065	.0136	.0218	.0300	.0371	.0424	.0456	.0468	.0462	.0443	.0413	.0341	.0269	.0208	.0161
3.00	.0017	.0065	.0134	.0212	.0286	.0346	.0387	.0406	.0406	.0389	.0362	.0328	.0254	.0189	.0138	.0102
3.20	.0017	.0064	.0131	.0205	.0271	.0322	.0351	.0359	.0348	.0324	.0291	.0256	.0186	.0130	.0090	.0064
3.40	.0017	.0064	.0129	.0197	.0257	.0298	.0316	.0314	.0296	.0266	.0232	.0196	.0133	.0088	.0058	.0039
3.60	.0017	.0063	.0126	.0190	.0242	.0274	.0284	.0273	.0249	.0217	.0182	.0149	.0094	.0058	.0036	.0024
3.80	.0017	.0062	.0123	.0183	.0228	.0251	.0253	.0236	.0207	.0174	.0141	.0111	.0065	.0038	.0022	.0014
4.00	.0017	.0062	.0120	.0175	.0214	.0229	.0223	.0202	.0171	.0138	.0108	.0081	.0044	.0024	.0014	.0008
4.50	.0017	.0060	.0113	.0156	.0179	.0179	.0160	.0132	.0101	.0074	.0052	.0035	.0016	.0007	.0004	.0002
5.00	.0017	.0058	.0105	.0137	.0147	.0135	.0110	.0082	.0057	.0037	.0023	.0014	.0005	.0002	.0001	.0001
5.50	.0016	.0056	.0096	.0119	.0118	.0099	.0073	.0049	.0030	.0017	.0009	.0005	.0002	.0001	.0000	.0000
6.00	.0016	.0054	.0088	.0102	.0093	.0071	.0047	.0027	.0015	.0007	.0004	.0002	.0000	.0000	.0000	.0000
6.50	.0016	.0051	.0080	.0086	.0072	.0049	.0029	.0015	.0007	.0003	.0001	.0001	.0000	.0000	.0000	.0000
7.00	.0016	.0049	.0072	.0072	.0054	.0033	.0017	.0008	.0003	.0001	.0000	.0000	.0000	.0000	.0000	.0000
7.50	.0016	.0047	.0065	.0059	.0040	.0022	.0010	.0004	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000
8.00	.0015	.0044	.0057	.0048	.0029	.0014	.0005	.0002	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000
8.50	.0015	.0042	.0051	.0038	.0021	.0008	.0003	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
9.00	.0015	.0039	.0044	.0030	.0014	.0005	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
9.50	.0015	.0037	.0038	.0024	.0010	.0003	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
∞	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000

OFFSET CIRCLE PROBABILITIES

DISTANCE DAMAGE SIGMA (σ_d) = 40% WR

WEAPON RADIUS/CEP_a (WR/CEP_a)

OFFSET DISTANCE/WEAPON RADIUS (D/WR)

	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90	2.00	2.10	2.20	2.30	2.40	2.50	2.60
0.00	.4752	.5239	.5692	.6112	.6498	.6850	.7171	.7462	.7724	.7961	.8174	.8365	.8537	.8690	.8828	.8951
0.05	.4747	.5232	.5684	.6102	.6487	.6838	.7158	.7448	.7710	.7946	.8158	.8349	.8520	.8673	.8810	.8933
0.10	.4729	.5210	.5659	.6074	.6455	.6803	.7119	.7406	.7665	.7899	.8110	.8299	.8469	.8621	.8758	.8880
0.15	.4701	.5176	.5618	.6026	.6401	.6744	.7055	.7337	.7592	.7822	.8029	.8216	.8384	.8535	.8670	.8792
0.20	.4661	.5127	.5561	.5961	.6327	.6662	.6966	.7241	.7490	.7715	.7918	.8101	.8266	.8414	.8548	.8669
0.25	.4610	.5065	.5488	.5877	.6233	.6558	.6853	.7120	.7361	.7580	.7777	.7955	.8115	.8261	.8392	.8511
0.30	.4549	.4991	.5401	.5777	.6120	.6433	.6717	.6974	.7206	.7416	.7606	.7778	.7934	.8075	.8203	.8319
0.35	.4477	.4905	.5299	.5660	.5989	.6288	.6559	.6805	.7026	.7227	.7409	.7573	.7723	.7858	.7982	.8095
0.40	.4396	.4807	.5184	.5529	.5842	.6125	.6382	.6614	.6824	.7014	.7186	.7342	.7484	.7613	.7731	.7839
0.45	.4306	.4698	.5057	.5383	.5679	.5945	.6187	.6404	.6601	.6779	.6940	.7086	.7220	.7341	.7452	.7554
0.50	.4208	.4580	.4919	.5225	.5501	.5751	.5975	.6177	.6359	.6524	.6673	.6809	.6932	.7045	.7148	.7243
0.55	.4102	.4453	.4770	.5056	.5312	.5542	.5749	.5934	.6101	.6252	.6388	.6512	.6625	.6728	.6823	.6909
0.60	.3989	.4317	.4612	.4876	.5112	.5322	.5510	.5679	.5830	.5966	.6089	.6200	.6301	.6394	.6478	.6556
0.65	.3869	.4175	.4447	.4689	.4903	.5093	.5262	.5413	.5547	.5668	.5777	.5875	.5964	.6045	.6119	.6187
0.70	.3744	.4026	.4275	.4494	.4687	.4857	.5006	.5139	.5257	.5362	.5456	.5541	.5618	.5687	.5750	.5808
0.75	.3615	.3873	.4098	.4294	.4465	.4614	.4745	.4860	.4961	.5050	.5130	.5201	.5265	.5323	.5375	.5422
0.80	.3481	.3715	.3917	.4090	.4240	.4369	.4480	.4577	.4662	.4736	.4802	.4860	.4911	.4957	.4998	.5035
0.85	.3345	.3554	.3733	.3884	.4012	.4122	.4215	.4295	.4363	.4423	.4474	.4519	.4558	.4593	.4624	.4651
0.90	.3206	.3392	.3547	.3677	.3784	.3875	.3950	.4013	.4067	.4112	.4150	.4183	.4211	.4235	.4255	.4273
0.95	.3065	.3228	.3361	.3469	.3558	.3630	.3688	.3736	.3775	.3807	.3833	.3854	.3872	.3886	.3897	.3906
1.00	.2924	.3064	.3175	.3264	.3334	.3388	.3431	.3464	.3490	.3510	.3524	.3535	.3543	.3549	.3552	.3554
1.05	.2783	.2901	.2992	.3061	.3113	.3152	.3180	.3200	.3214	.3222	.3227	.3229	.3228	.3226	.3222	.3217
1.10	.2642	.2739	.2811	.2862	.2898	.2922	.2937	.2945	.2948	.2946	.2942	.2936	.2928	.2919	.2910	.2900
1.15	.2502	.2579	.2633	.2668	.2689	.2700	.2703	.2700	.2693	.2684	.2672	.2659	.2645	.2631	.2617	.2602
1.20	.2364	.2423	.2460	.2480	.2487	.2486	.2478	.2466	.2452	.2435	.2417	.2398	.2380	.2362	.2344	.2326
1.25	.2229	.2270	.2291	.2298	.2293	.2282	.2265	.2245	.2224	.2201	.2178	.2155	.2133	.2112	.2091	.2071
1.30	.2096	.2122	.2129	.2123	.2108	.2087	.2063	.2037	.2010	.1982	.1956	.1930	.1905	.1881	.1859	.1838
1.35	.1967	.1978	.1972	.1956	.1932	.1903	.1873	.1841	.1810	.1780	.1750	.1722	.1696	.1671	.1647	.1625
1.40	.1841	.1839	.1822	.1796	.1765	.1730	.1695	.1660	.1625	.1592	.1561	.1532	.1504	.1479	.1455	.1433
1.45	.1720	.1706	.1679	.1645	.1608	.1568	.1529	.1491	.1454	.1420	.1388	.1358	.1331	.1305	.1282	.1261
1.50	.1602	.1578	.1543	.1503	.1460	.1417	.1375	.1335	.1298	.1263	.1231	.1201	.1174	.1149	.1127	.1106
1.55	.1490	.1457	.1415	.1369	.1323	.1277	.1234	.1193	.1155	.1120	.1088	.1059	.1033	.1009	.0988	.0968
1.60	.1382	.1341	.1294	.1244	.1195	.1148	.1103	.1062	.1025	.0991	.0960	.0932	.0907	.0884	.0864	.0846
1.65	.1279	.1232	.1180	.1127	.1076	.1028	.0984	.0944	.0907	.0874	.0845	.0818	.0795	.0774	.0755	.0738
1.70	.1182	.1129	.1073	.1019	.0967	.0919	.0876	.0836	.0801	.0770	.0742	.0717	.0695	.0676	.0658	.0643
1.80	.1001	.0941	.0882	.0826	.0775	.0729	.0688	.0653	.0621	.0593	.0569	.0548	.0529	.0513	.0498	.0486
1.90	.0841	.0778	.0718	.0664	.0616	.0573	.0537	.0505	.0478	.0454	.0434	.0416	.0401	.0388	.0376	.0366
2.00	.0701	.0637	.0580	.0529	.0485	.0447	.0415	.0388	.0365	.0346	.0329	.0315	.0303	.0292	.0283	.0275
2.10	.0580	.0518	.0464	.0418	.0379	.0347	.0319	.0297	.0278	.0262	.0249	.0238	.0228	.0220	.0212	.0206
2.20	.0475	.0418	.0369	.0328	.0294	.0267	.0244	.0226	.0211	.0198	.0188	.0179	.0171	.0165	.0159	.0155
2.30	.0387	.0334	.0291	.0255	.0227	.0204	.0186	.0171	.0159	.0150	.0141	.0135	.0129	.0124	.0120	.0116
2.40	.0313	.0266	.0228	.0198	.0175	.0156	.0141	.0130	.0120	.0113	.0106	.0101	.0097	.0093	.0090	.0087

A4

OFFSET CIRCLE PROBABILITIES

DISTANCE DAMAGE SIGMA (σ_d) = 40% WR

WEAPON RADIUS/CEP_a (WR/CEP_a)

OFFSET DISTANCE/WEAPON RADIUS (D/WR)

	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90	2.00	2.10	2.20	2.30	2.40	2.50	2.60
2.50	.0251	.0210	.0177	.0153	.0134	.0119	.0107	.0098	.0091	.0085	.0080	.0076	.0073	.0070	.0068	.0066
2.60	.0200	.0165	.0138	.0117	.0102	.0090	.0081	.0074	.0069	.0064	.0060	.0057	.0055	.0053	.0051	.0049
2.70	.0159	.0129	.0106	.0090	.0078	.0068	.0061	.0056	.0052	.0048	.0046	.0043	.0041	.0040	.0039	.0037
2.80	.0125	.0100	.0082	.0069	.0059	.0052	.0046	.0042	.0039	.0037	.0035	.0033	.0031	.0030	.0029	.0028
2.90	.0098	.0077	.0063	.0052	.0045	.0039	.0035	.0032	.0030	.0028	.0026	.0025	.0024	.0023	.0022	.0021
3.00	.0077	.0060	.0048	.0040	.0034	.0030	.0027	.0024	.0022	.0021	.0020	.0019	.0018	.0017	.0017	.0016
3.10	.0060	.0046	.0037	.0030	.0026	.0023	.0020	.0018	.0017	.0016	.0015	.0014	.0014	.0013	.0013	.0012
3.20	.0046	.0035	.0028	.0023	.0020	.0017	.0015	.0014	.0013	.0012	.0012	.0011	.0011	.0010	.0010	.0010
3.30	.0036	.0027	.0021	.0018	.0015	.0013	.0012	.0011	.0010	.0009	.0009	.0008	.0008	.0008	.0008	.0007
3.40	.0028	.0021	.0016	.0013	.0011	.0010	.0009	.0008	.0008	.0007	.0007	.0006	.0006	.0006	.0006	.0006
3.50	.0021	.0016	.0012	.0010	.0009	.0008	.0007	.0006	.0006	.0005	.0005	.0005	.0005	.0005	.0004	.0004
3.60	.0016	.0012	.0009	.0008	.0007	.0006	.0005	.0005	.0004	.0004	.0004	.0004	.0004	.0004	.0003	.0003
3.70	.0013	.0009	.0007	.0006	.0005	.0004	.0004	.0004	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003
3.80	.0010	.0007	.0006	.0005	.0004	.0003	.0003	.0003	.0003	.0003	.0002	.0002	.0002	.0002	.0002	.0002
3.90	.0007	.0005	.0004	.0004	.0003	.0003	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002
4.00	.0006	.0004	.0003	.0003	.0002	.0002	.0002	.0002	.0002	.0002	.0001	.0001	.0001	.0001	.0001	.0001
4.10	.0004	.0003	.0003	.0002	.0002	.0002	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
4.20	.0003	.0002	.0002	.0002	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
4.30	.0003	.0002	.0002	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
4.40	.0002	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0000	.0000
4.50	.0002	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
4.60	.0001	.0001	.0001	.0001	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
4.70	.0001	.0001	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
4.80	.0001	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
4.90	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
∞	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000

OFFSET CIRCLE PROBABILITIES

DISTANCE DAMAGE SIGMA (σ_d) = 40% WR

WEAPON RADIUS/CEP$_a$ (WR/CEP$_a$)

OFFSET DISTANCE/WEAPON RADIUS (D/WR)

	2.60	2.80	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	4.80	5.00	5.20	5.40	5.60
0.00	.8951	.9159	.9325	.9457	.9563	.9647	.9715	.9769	.9812	.9847	.9875	.9898	.9917	.9931	.9944	.9953
0.05	.8933	.9141	.9307	.9440	.9547	.9632	.9700	.9755	.9800	.9836	.9865	.9888	.9907	.9923	.9936	.9947
0.10	.8880	.9088	.9255	.9390	.9498	.9586	.9657	.9714	.9761	.9800	.9831	.9857	.9879	.9897	.9912	.9924
0.15	.8792	.9000	.9168	.9305	.9416	.9507	.9582	.9643	.9694	.9737	.9772	.9802	.9828	.9849	.9867	.9883
0.20	.8669	.8876	.9043	.9184	.9298	.9393	.9473	.9539	.9595	.9642	.9683	.9718	.9747	.9773	.9795	.9815
0.25	.8511	.8716	.8886	.9026	.9144	.9243	.9327	.9398	.9459	.9512	.9557	.9597	.9631	.9662	.9689	.9712
0.30	.8319	.8521	.8690	.8831	.8951	.9053	.9141	.9216	.9282	.9339	.9389	.9433	.9472	.9507	.9539	.9566
0.35	.8095	.8292	.8458	.8598	.8719	.8822	.8912	.8990	.9059	.9120	.9174	.9221	.9264	.9303	.9337	.9369
0.40	.7839	.8029	.8190	.8328	.8446	.8549	.8640	.8719	.8789	.8851	.8907	.8957	.9002	.9042	.9079	.9113
0.45	.7554	.7735	.7888	.8021	.8135	.8236	.8324	.8402	.8471	.8533	.8589	.8639	.8684	.8725	.8762	.6796
0.50	.7243	.7412	.7556	.7680	.7788	.7883	.7967	.8041	.8108	.8167	.8220	.8268	.8311	.8351	.8387	.8419
0.52	.7112	.7275	.7415	.7535	.7640	.7732	.7814	.7886	.7950	.8008	.8059	.8106	.8148	.8187	.8221	.8253
0.54	.6978	.7135	.7269	.7386	.7487	.7576	.7655	.7724	.7786	.7842	.7892	.7937	.7978	.8015	.8048	.8079
0.56	.6840	.6991	.7120	.7232	.7329	.7415	.7490	.7557	.7617	.7670	.7718	.7761	.7800	.7835	.7867	.7897
0.58	.6699	.6844	.6967	.7074	.7168	.7249	.7321	.7385	.7442	.7493	.7538	.7579	.7616	.7650	.7680	.7708
0.60	.6556	.6694	.6811	.6913	.7002	.7079	.7148	.7208	.7262	.7310	.7353	.7392	.7426	.7458	.7486	.7512
0.62	.6410	.6541	.6652	.6749	.6833	.6906	.6970	.7027	.7078	.7123	.7163	.7199	.7232	.7261	.7288	.7312
0.64	.6262	.6386	.6491	.6582	.6661	.6729	.6790	.6843	.6890	.6932	.6969	.7002	.7032	.7060	.7084	.7106
0.66	.6112	.6228	.6327	.6412	.6486	.6550	.6606	.6655	.6699	.6737	.6772	.6802	.6830	.6855	.6877	.6897
0.68	.5961	.6069	.6162	.6241	.6309	.6368	.6420	.6465	.6505	.6540	.6571	.6599	.6624	.6647	.6667	.6685
0.70	.5808	.5909	.5995	.6068	.6130	.6185	.6232	.6273	.6309	.6341	.6369	.6394	.6417	.6437	.6455	.6471
0.72	.5654	.5748	.5826	.5893	.5951	.6000	.6042	.6080	.6112	.6140	.6166	.6188	.6208	.6225	.6241	.6255
0.74	.5500	.5585	.5657	.5718	.5770	.5814	.5852	.5885	.5914	.5939	.5961	.5981	.5998	.6013	.6027	.6039
0.76	.5345	.5423	.5488	.5543	.5589	.5628	.5662	.5691	.5716	.5738	.5757	.5774	.5788	.5801	.5813	.5823
0.78	.5190	.5260	.5319	.5367	.5408	.5443	.5472	.5497	.5519	.5537	.5553	.5567	.5579	.5590	.5600	.5608
0.80	.5035	.5098	.5150	.5193	.5228	.5258	.5283	.5304	.5322	.5337	.5351	.5362	.5372	.5381	.5388	.5395
0.82	.4881	.4936	.4982	.5019	.5049	.5074	.5095	.5112	.5127	.5139	.5150	.5159	.5166	.5173	.5179	.5184
0.84	.4727	.4776	.4814	.4846	.4871	.4892	.4908	.4922	.4934	.4943	.4951	.4958	.4963	.4968	.4972	.4976
0.86	.4574	.4616	.4649	.4674	.4695	.4711	.4724	.4735	.4743	.4750	.4755	.4760	.4763	.4766	.4769	.4771
0.88	.4423	.4458	.4484	.4505	.4521	.4533	.4542	.4550	.4555	.4559	.4563	.4565	.4567	.4568	.4569	.4570
0.90	.4273	.4301	.4322	.4338	.4349	.4357	.4363	.4368	.4371	.4372	.4374	.4374	.4374	.4374	.4374	.4373
0.92	.4125	.4147	.4162	.4173	.4180	.4185	.4188	.4189	.4189	.4189	.4188	.4187	.4186	.4184	.4183	.4181
0.94	.3979	.3995	.4005	.4011	.4014	.4016	.4015	.4014	.4012	.4010	.4007	.4005	.4002	.3999	.3997	.3994
0.96	.3835	.3845	.3850	.3852	.3852	.3850	.3847	.3843	.3839	.3835	.3831	.3827	.3823	.3819	.3815	.3812
0.98	.3693	.3698	.3698	.3696	.3693	.3688	.3682	.3676	.3671	.3665	.3659	.3654	.3649	.3644	.3640	.3635
1.00	.3554	.3553	.3550	.3544	.3537	.3530	.3522	.3514	.3507	.3499	.3493	.3486	.3480	.3474	.3469	.3464
1.02	.3417	.3412	.3404	.3395	.3385	.3376	.3366	.3356	.3347	.3339	.3331	.3324	.3317	.3310	.3304	.3299
1.04	.3283	.3274	.3262	.3250	.3238	.3226	.3214	.3203	.3193	.3183	.3174	.3166	.3159	.3152	.3145	.3139
1.06	.3152	.3139	.3124	.3109	.3094	.3080	.3067	.3055	.3043	.3033	.3023	.3014	.3006	.2999	.2992	.2985
1.08	[illegible]	.3007	.2989	.2972	.2955	.2939	.2925	.2911	.2899	.2888	.2877	.2868	.2859	.2851	.2844	.2837
1.10	.2900	.2879	.2859	.2839	.2820	.2803	.2787	.2773	.2760	.2747	.2737	.2727	.2718	.2709	.2702	.2695
1.12	.2778	.2755	.2732	.2710	.2690	.2671	.2654	.2639	.2625	.2613	.2601	.2591	.2582	.2573	.2565	.2558

A4

OFFSET CIRCLE PROBABILITIES

DISTANCE DAMAGE SIGMA (σ_d) = 40% WR

WEAPON RADIUS/CEP_a (WR/CEP_a)

OFFSET DISTANCE/WEAPON RADIUS (D/WR)

D/WR	2.60	2.80	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	4.80	5.00	5.20	5.40	5.60
1.14	.2660	.2634	.2608	.2585	.2564	.2544	.2526	.2510	.2496	.2483	.2471	.2461	.2451	.2442	.2435	.2427
1.16	.2545	.2516	.2489	.2464	.2442	.2421	.2403	.2387	.2372	.2358	.2346	.2336	.2326	.2317	.2309	.2302
1.18	.2434	.2403	.2374	.2348	.2324	.2303	.2284	.2268	.2252	.2239	.2227	.2216	.2206	.2197	.2189	.2182
1.20	.2326	.2293	.2263	.2236	.2212	.2190	.2171	.2153	.2138	.2125	.2112	.2101	.2092	.2083	.2075	.2068
1.22	.2222	.2187	.2156	.2128	.2103	.2081	.2061	.2044	.2029	.2015	.2003	.1992	.1982	.1973	.1965	.1958
1.24	.2120	.2085	.2052	.2024	.1999	.1976	.1957	.1939	.1924	.1910	.1898	.1887	.1878	.1869	.1861	.1854
1.26	.2023	.1986	.1953	.1924	.1898	.1876	.1856	.1839	.1824	.1810	.1798	.1787	.1778	.1769	.1761	.1754
1.28	.1929	.1891	.1857	.1828	.1803	.1780	.1761	.1743	.1728	.1715	.1703	.1692	.1683	.1674	.1667	.1660
1.30	.1838	.1799	.1766	.1736	.1711	.1688	.1669	.1652	.1637	.1624	.1612	.1602	.1592	.1584	.1577	.1570
1.32	.1750	.1711	.1678	.1648	.1623	.1601	.1581	.1565	.1550	.1537	.1525	.1515	.1506	.1498	.1491	.1484
1.34	.1666	.1627	.1593	.1564	.1539	.1517	.1498	.1481	.1467	.1454	.1443	.1433	.1424	.1416	.1409	.1403
1.36	.1585	.1546	.1513	.1484	.1459	.1437	.1418	.1402	.1388	.1376	.1365	.1355	.1347	.1339	.1332	.1326
1.38	.1508	.1469	.1435	.1407	.1382	.1361	.1343	.1327	.1313	.1301	.1290	.1281	.1273	.1265	.1259	.1253
1.40	.1433	.1395	.1361	.1333	.1309	.1288	.1271	.1255	.1242	.1230	.1220	.1211	.1203	.1195	.1189	.1183
1.42	.1362	.1323	.1291	.1263	.1240	.1219	.1202	.1187	.1174	.1163	.1153	.1144	.1136	.1129	.1123	.1117
1.44	.1294	.1256	.1224	.1196	.1173	.1154	.1137	.1122	.1110	.1099	.1089	.1081	.1073	.1066	.1060	.1055
1.46	.1228	.1191	.1159	.1133	.1110	.1091	.1075	.1061	.1049	.1038	.1029	.1021	.1013	.1007	.1001	.0996
1.48	.1166	.1129	.1098	.1072	.1050	.1032	.1016	.1003	.0991	.0980	.0972	.0964	.0957	.0951	.0945	.0940
1.50	.1106	.1070	.1040	.1015	.0994	.0976	.0960	.0947	.0936	.0926	.0917	.0910	.0903	.0897	.0892	.0887
1.60	.0846	.0814	.0789	.0767	.0750	.0735	.0722	.0711	.0702	.0694	.0687	.0681	.0676	.0671	.0667	.0663
1.70	.0643	.0616	.0595	.0577	.0563	.0551	.0541	.0533	.0525	.0519	.0514	.0509	.0505	.0501	.0498	.0495
1.80	.0486	.0464	.0447	.0433	.0422	.0413	.0405	.0398	.0392	.0387	.0383	.0380	.0376	.0374	.0371	.0369
1.90	.0366	.0349	.0335	.0324	.0316	.0308	.0302	.0297	.0293	.0289	.0286	.0283	.0281	.0279	.0277	.0275
2.00	.0275	.0262	.0251	.0243	.0236	.0231	.0226	.0222	.0219	.0216	.0213	.0211	.0210	.0208	.0206	.0205
2.10	.0206	.0196	.0188	.0182	.0177	.0172	.0169	.0166	.0164	.0161	.0160	.0158	.0157	.0155	.0154	.0153
2.20	.0155	.0147	.0141	.0136	.0132	.0129	.0126	.0124	.0122	.0121	.0119	.0118	.0117	.0116	.0115	.0115
2.30	.0116	.0110	.0106	.0102	.0099	.0097	.0095	.0093	.0092	.0091	.0090	.0089	.0088	.0087	.0087	.0086
2.40	.0087	.0083	.0079	.0077	.0075	.0073	.0071	.0070	.0069	.0068	.0067	.0067	.0066	.0066	.0065	.0065
2.50	.0066	.0062	.0060	.0058	.0056	.0055	.0054	.0053	.0052	.0051	.0051	.0050	.0050	.0049	.0049	.0049
2.60	.0049	.0047	.0045	.0044	.0042	.0041	.0041	.0040	.0039	.0039	.0038	.0038	.0038	.0037	.0037	.0037
2.70	.0037	.0036	.0034	.0033	.0032	.0031	.0031	.0030	.0030	.0029	.0029	.0029	.0029	.0028	.0028	.0028
2.80	.0028	.0027	.0026	.0025	.0024	.0024	.0023	.0023	.0023	.0022	.0022	.0022	.0022	.0022	.0021	.0021
2.90	.0021	.0020	.0020	.0019	.0018	.0018	.0018	.0017	.0017	.0017	.0017	.0017	.0017	.0016	.0016	.0016
3.00	.0016	.0016	.0015	.0014	.0014	.0014	.0014	.0013	.0013	.0013	.0013	.0013	.0013	.0013	.0012	.0012
3.10	.0012	.0012	.0011	.0011	.0011	.0011	.0010	.0010	.0010	.0010	.0010	.0010	.0010	.0010	.0010	.0009
3.20	.0010	.0009	.0009	.0008	.0008	.0008	.0008	.0008	.0008	.0008	.0008	.0007	.0007	.0007	.0007	.0007
3.30	.0007	.0007	.0007	.0007	.0006	.0006	.0006	.0006	.0006	.0006	.0006	.0006	.0006	.0006	.0006	.0006
3.40	.0006	.0005	.0005	.0005	.0005	.0005	.0005	.0005	.0005	.0005	.0005	.0004	.0004	.0004	.0004	.0004
3.50	.0004	.0004	.0004	.0004	.0004	.0004	.0004	.0004	.0004	.0004	.0003	.0003	.0003	.0003	.0003	.0003
3.60	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003
3.70	.0003	.0003	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002
3.80	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002
∞	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000

OFFSET CIRCLE PROBABILITIES

DISTANCE DAMAGE SIGMA (σ_d) = 40% WR

WEAPON RADIUS/CEP$_a$ (WR/CEP$_a$)

OFFSET DISTANCE/WEAPON RADIUS (D/WR)

	6.00	6.50	7.00	7.50	8.00	8.50	9.00	9.50	10.00	10.50	11.00	11.50	12.00	12.50	13.00	13.50
0.00	.9968	.9980	.9987	.9992	.9995	.9996	.9998	.9998	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999
0.05	.9962	.9975	.9984	.9989	.9992	.9995	.9996	.9997	.9998	.9999	.9999	.9999	.9999	.9999	.9999	.9999
0.10	.9944	.9960	.9972	.9979	.9985	.9988	.9991	.9993	.9995	.9996	.9997	.9997	.9998	.9998	.9998	.9999
0.15	.9908	.9930	.9946	.9958	.9967	.9973	.9978	.9982	.9985	.9987	.9989	.9991	.9992	.9993	.9994	.9995
0.20	.9847	.9877	.9900	.9917	.9930	.9941	.9949	.9956	.9961	.9966	.9969	.9972	.9975	.9977	.9979	.9981
0.25	.9752	.9792	.9822	.9846	.9865	.9880	.9892	.9903	.9912	.9919	.9925	.9931	.9935	.9939	.9943	.9946
0.30	.9614	.9662	.9700	.9730	.9755	.9776	.9793	.9808	.9820	.9831	.9840	.9848	.9855	.9861	.9866	.9871
0.35	.9423	.9478	.9522	.9559	.9589	.9614	.9636	.9654	.9669	.9683	.9695	.9705	.9714	.9722	.9729	.9736
0.40	.9171	.9231	.9280	.9320	.9354	.9382	.9406	.9427	.9445	.9461	.9474	.9486	.9497	.9506	.9515	.9522
0.45	.8855	.8917	.8967	.9009	.9044	.9073	.9098	.9120	.9139	.9155	.9170	.9182	.9193	.9203	.9212	.9220
0.50	.8477	.8536	.8585	.8625	.8659	.8688	.8712	.8733	.8751	.8767	.8781	.8793	.8803	.8813	.8821	.8829
0.52	.8309	.8367	.8414	.8453	.8486	.8513	.8537	.8557	.8575	.8590	.8603	.8615	.8625	.8634	.8642	.8650
0.54	.8132	.8188	.8233	.8271	.8302	.8329	.8351	.8370	.8387	.8402	.8414	.8425	.8435	.8444	.8452	.8459
0.56	.7948	.8001	.8044	.8079	.8109	.8134	.8156	.8174	.8189	.8203	.8215	.8226	.8235	.8243	.8250	.8257
0.58	.7756	.7806	.7846	.7880	.7908	.7931	.7951	.7968	.7983	.7996	.8007	.8017	.8025	.8033	.8040	.8046
0.60	.7558	.7604	.7642	.7673	.7699	.7721	.7739	.7755	.7769	.7780	.7790	.7799	.7807	.7814	.7821	.7826
0.62	.7354	.7397	.7432	.7460	.7484	.7504	.7521	.7535	.7547	.7558	.7567	.7576	.7583	.7589	.7595	.7600
0.64	.7145	.7184	.7216	.7242	.7264	.7282	.7297	.7310	.7321	.7330	.7339	.7346	.7353	.7358	.7363	.7368
0.66	.6932	.6968	.6996	.7020	.7039	.7055	.7069	.7080	.7090	.7099	.7106	.7112	.7118	.7123	.7127	.7131
0.68	.6716	.6748	.6774	.6794	.6811	.6826	.6837	.6847	.6856	.6864	.6870	.6876	.6881	.6885	.6889	.6892
0.70	.6498	.6526	.6549	.6567	.6582	.6594	.6604	.6613	.6620	.6627	.6632	.6637	.6641	.6645	.6648	.6651
0.72	.6279	.6303	.6323	.6338	.6351	.6361	.6370	.6377	.6384	.6389	.6394	.6398	.6401	.6404	.6407	.6409
0.74	.6060	.6080	.6096	.6109	.6120	.6129	.6136	.6142	.6147	.6151	.6155	.6158	.6161	.6164	.6166	.6168
0.76	.5840	.5857	.5871	.5881	.5890	.5897	.5903	.5907	.5912	.5915	.5918	.5921	.5923	.5925	.5927	.5928
0.78	.5622	.5636	.5646	.5655	.5661	.5667	.5671	.5675	.5678	.5681	.5683	.5685	.5687	.5688	.5689	.5691
0.80	.5406	.5416	.5424	.5431	.5436	.5439	.5443	.5445	.5447	.5449	.5451	.5452	.5453	.5454	.5455	.5456
0.82	.5192	.5199	.5205	.5209	.5213	.5215	.5217	.5219	.5220	.5221	.5222	.5223	.5224	.5224	.5225	.5225
0.84	.4981	.4986	.4989	.4992	.4994	.4995	.4996	.4997	.4997	.4998	.4998	.4998	.4999	.4999	.4999	.4999
0.86	.4774	.4776	.4777	.4778	.4779	.4779	.4779	.4779	.4779	.4779	.4779	.4778	.4778	.4778	.4778	.4778
0.88	.4571	.4571	.4570	.4569	.4569	.4568	.4567	.4566	.4566	.4565	.4564	.4564	.4563	.4563	.4563	.4562
0.90	.4372	.4370	.4368	.4366	.4364	.4362	.4361	.4359	.4358	.4357	.4356	.4355	.4354	.4353	.4353	.4352
0.92	.4178	.4174	.4170	.4167	.4164	.4162	.4160	.4158	.4156	.4155	.4153	.4152	.4151	.4150	.4149	.4148
0.94	.3989	.3983	.3979	.3974	.3971	.3968	.3965	.3962	.3960	.3958	.3957	.3955	.3954	.3953	.3952	.3951
0.96	.3806	.3799	.3793	.3787	.3783	.3779	.3776	.3773	.3771	.3769	.3767	.3765	.3764	.3762	.3761	.3760
0.98	.3628	.3619	.3613	.3607	.3602	.3597	.3594	.3590	.3588	.3585	.3583	.3581	.3580	.3578	.3577	.3576
1.00	.3456	.3446	.3438	.3432	.3426	.3422	.3418	.3414	.3411	.3409	.3406	.3404	.3402	.3401	.3399	.3398
1.02	.3289	.3279	.3271	.3263	.3257	.3252	.3248	.3244	.3241	.3238	.3236	.3234	.3232	.3230	.3229	.3227
1.04	.3129	.3118	.3109	.3101	.3095	.3090	.3085	.3081	.3078	.3075	.3072	.3070	.3068	.3066	.3065	.3063
1.06	.2974	.2963	.2953	.2945	.2939	.2933	.2929	.2924	.2921	.2918	.2915	.2913	.2911	.2909	.2908	.2906
1.08	.2826	.2814	.2804	.2796	.2789	.2783	.2778	.2774	.2771	.2768	.2765	.2762	.2760	.2759	.2757	.2755
1.10	.2683	.2671	.2661	.2652	.2645	.2639	.2635	.2630	.2627	.2624	.2621	.2618	.2616	.2614	.2613	.2611
1.12	.2546	.2533	.2523	.2515	.2508	.2502	.2497	.2493	.2489	.2486	.2483	.2481	.2479	.2477	.2475	.2474

OFFSET CIRCLE PROBABILITIES

DISTANCE DAMAGE SIGMA (σ_d) = 40% WR

WEAPON RADIUS/CEP$_a$ (WR/CEP$_a$)

OFFSET DISTANCE/WEAPON RADIUS (D/WR)

	6.00	6.50	7.00	7.50	8.00	8.50	9.00	9.50	10.00	10.50	11.00	11.50	12.00	12.50	13.00	13.50
1.14	.2415	.2402	.2392	.2383	.2376	.2370	.2365	.2361	.2358	.2354	.2352	.2349	.2347	.2345	.2344	.2342
1.16	.2289	.2277	.2266	.2258	.2251	.2245	.2240	.2236	.2232	.2229	.2226	.2224	.2222	.2220	.2218	.2217
1.18	.2170	.2157	.2146	.2138	.2131	.2125	.2120	.2116	.2112	.2109	.2107	.2104	.2102	.2100	.2099	.2097
1.20	.2055	.2042	.2032	.2024	.2017	.2011	.2006	.2002	.1998	.1995	.1993	.1990	.1988	.1987	.1985	.1983
1.22	.1946	.1933	.1923	.1915	.1908	.1902	.1898	.1893	.1890	.1887	.1884	.1882	.1880	.1878	.1877	.1875
1.24	.1842	.1829	.1819	.1811	.1804	.1799	.1794	.1790	.1787	.1784	.1781	.1779	.1777	.1775	.1774	.1772
1.26	.1742	.1730	.1721	.1713	.1706	.1701	.1696	.1692	.1689	.1686	.1683	.1681	.1679	.1678	.1676	.1675
1.28	.1648	.1636	.1627	.1619	.1613	.1607	.1603	.1599	.1596	.1593	.1591	.1588	.1587	.1585	.1583	.1582
1.30	.1558	.1547	.1537	.1530	.1524	.1519	.1514	.1511	.1507	.1505	.1502	.1500	.1498	.1497	.1495	.1494
1.32	.1473	.1462	.1453	.1445	.1439	.1434	.1430	.1427	.1424	.1421	.1419	.1417	.1415	.1413	.1412	.1411
1.34	.1392	.1381	.1372	.1365	.1359	.1355	.1351	.1347	.1344	.1342	.1339	.1338	.1336	.1334	.1333	.1332
1.36	.1315	.1305	.1296	.1289	.1284	.1279	.1275	.1272	.1269	.1267	.1264	.1263	.1261	.1260	.1258	.1257
1.38	.1242	.1232	.1224	.1217	.1212	.1207	.1204	.1200	.1198	.1195	.1193	.1192	.1190	.1189	.1187	.1186
1.40	.1173	.1163	.1156	.1149	.1144	.1140	.1136	.1133	.1130	.1128	.1126	.1124	.1123	.1122	.1120	.1119
1.42	.1108	.1098	.1091	.1085	.1080	.1075	.1072	.1069	.1066	.1064	.1062	.1061	.1059	.1058	.1057	.1056
1.44	.1046	.1037	.1029	.1024	.1019	.1015	.1011	.1009	.1006	.1004	.1002	.1001	.0999	.0998	.0997	.0996
1.46	.0987	.0978	.0971	.0966	.0961	.0957	.0954	.0951	.0949	.0947	.0945	.0944	.0943	.0941	.0940	.0939
1.48	.0932	.0923	.0917	.0911	.0907	.0903	.0900	.0897	.0895	.0893	.0892	.0890	.0889	.0888	.0887	.0886
1.50	.0879	.0871	.0865	.0859	.0855	.0852	.0849	.0846	.0844	.0842	.0841	.0839	.0838	.0837	.0836	.0835
1.60	.0657	.0650	.0645	.0641	.0638	.0635	.0633	.0631	.0629	.0628	.0627	.0625	.0625	.0624	.0623	.0622
1.70	.0490	.0485	.0481	.0478	.0475	.0473	.0471	.0470	.0468	.0467	.0466	.0466	.0465	.0464	.0464	.0463
1.80	.0365	.0361	.0358	.0356	.0354	.0352	.0351	.0350	.0349	.0348	.0347	.0347	.0346	.0345	.0345	.0345
1.90	.0272	.0269	.0267	.0265	.0264	.0262	.0261	.0260	.0260	.0259	.0259	.0258	.0258	.0257	.0257	.0257
2.00	.0203	.0201	.0199	.0198	.0197	.0196	.0195	.0194	.0194	.0193	.0193	.0193	.0192	.0192	.0192	.0191
2.10	.0152	.0150	.0149	.0148	.0147	.0146	.0146	.0145	.0145	.0144	.0144	.0144	.0144	.0143	.0143	.0143
2.20	.0114	.0112	.0111	.0111	.0110	.0109	.0109	.0109	.0108	.0108	.0108	.0108	.0108	.0107	.0107	.0107
2.30	.0085	.0084	.0084	.0083	.0083	.0082	.0082	.0082	.0081	.0081	.0081	.0081	.0081	.0081	.0080	.0080
2.40	.0064	.0063	.0063	.0062	.0062	.0062	.0062	.0061	.0061	.0061	.0061	.0061	.0061	.0061	.0061	.0060
2.50	.0048	.0048	.0047	.0047	.0047	.0047	.0046	.0046	.0046	.0046	.0046	.0046	.0046	.0046	.0046	.0046
2.60	.0037	.0036	.0036	.0036	.0035	.0035	.0035	.0035	.0035	.0035	.0035	.0035	.0035	.0035	.0035	.0035
2.70	.0028	.0027	.0027	.0027	.0027	.0027	.0027	.0027	.0026	.0026	.0026	.0026	.0026	.0026	.0026	.0026
2.80	.0021	.0021	.0021	.0021	.0020	.0020	.0020	.0020	.0020	.0020	.0020	.0020	.0020	.0020	.0020	.0020
2.90	.0016	.0016	.0016	.0016	.0016	.0016	.0015	.0015	.0015	.0015	.0015	.0015	.0015	.0015	.0015	.0015
3.00	.0012	.0012	.0012	.0012	.0012	.0012	.0012	.0012	.0012	.0012	.0012	.0012	.0012	.0012	.0012	.0012
3.10	.0009	.0009	.0009	.0009	.0009	.0009	.0009	.0009	.0009	.0009	.0009	.0009	.0009	.0009	.0009	.0009
3.20	.0007	.0007	.0007	.0007	.0007	.0007	.0007	.0007	.0007	.0007	.0007	.0007	.0007	.0007	.0007	.0007
3.30	.0006	.0006	.0005	.0005	.0005	.0005	.0005	.0005	.0005	.0005	.0005	.0005	.0005	.0005	.0005	.0005
3.40	.0004	.0004	.0004	.0004	.0004	.0004	.0004	.0004	.0004	.0004	.0004	.0004	.0004	.0004	.0004	.0004
3.50	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003
3.60	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0002	.0002	.0002	.0002	.0002
3.70	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002
3.80	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002
∞	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000

OFFSET CIRCLE PROBABILITIES

DISTANCE DAMAGE SIGMA (σ_d) = 40% WR

OFFSET DISTANCE/WEAPON RADIUS (D/WR)	WEAPON RADIUS/CEP$_a$ (WR/CEP$_a$)															P_d
	13.00	13.50	14.00	14.50	15.00	15.50	16.00	16.50	17.00	17.50	18.00	18.50	19.00	19.50	20.00	∞
0.00	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999
0.20	.9979	.9981	.9982	.9984	.9985	.9986	.9987	.9987	.9988	.9989	.9989	.9990	.9990	.9991	.9991	.9997
0.25	.9943	.9946	.9949	.9951	.9953	.9955	.9957	.9959	.9960	.9961	.9962	.9964	.9965	.9965	.9966	.9981
0.30	.9866	.9871	.9875	.9879	.9883	.9886	.9889	.9891	.9894	.9896	.9898	.9900	.9901	.9903	.9904	.9932
0.32	.9820	.9825	.9830	.9835	.9839	.9842	.9846	.9849	.9851	.9854	.9856	.9858	.9860	.9862	.9864	.9896
0.34	.9763	.9769	.9774	.9779	.9784	.9788	.9791	.9795	.9798	.9801	.9803	.9806	.9808	.9810	.9812	.9848
0.36	.9693	.9700	.9706	.9711	.9716	.9721	.9725	.9728	.9732	.9735	.9738	.9740	.9743	.9745	.9747	.9788
0.38	.9611	.9618	.9624	.9630	.9635	.9640	.9645	.9649	.9652	.9656	.9659	.9661	.9664	.9666	.9669	.9713
0.40	.9515	.9522	.9529	.9535	.9541	.9546	.9550	.9554	.9558	.9562	.9565	.9568	.9571	.9573	.9576	.9622
0.42	.9404	.9412	.9419	.9425	.9431	.9436	.9441	.9445	.9449	.9453	.9456	.9459	.9462	.9465	.9467	.9515
0.44	.9280	.9288	.9295	.9301	.9307	.9312	.9317	.9321	.9325	.9329	.9333	.9336	.9339	.9341	.9344	.9393
0.46	.9141	.9149	.9156	.9162	.9168	.9173	.9178	.9183	.9187	.9190	.9194	.9197	.9200	.9202	.9205	.9254
0.48	.8988	.8996	.9003	.9009	.9015	.9020	.9025	.9029	.9033	.9037	.9040	.9043	.9046	.9049	.9051	.9099
0.50	.8821	.8829	.8836	.8842	.8848	.8853	.8857	.8862	.8865	.8869	.8872	.8875	.8878	.8881	.8883	.8930
0.52	.8642	.8650	.8656	.8662	.8668	.8672	.8677	.8681	.8685	.8688	.8691	.8694	.8697	.8699	.8702	.8746
0.54	.8452	.8459	.8465	.8471	.8476	.8480	.8484	.8488	.8492	.8495	.8498	.8501	.8503	.8506	.8508	.8550
0.56	.8250	.8257	.8263	.8268	.8273	.8277	.8281	.8285	.8288	.8291	.8294	.8296	.8299	.8301	.8303	.8342
0.58	.8040	.8046	.8051	.8056	.8060	.8064	.8068	.8071	.8074	.8077	.8080	.8082	.8084	.8086	.8088	.8125
0.60	.7821	.7826	.7831	.7836	.7840	.7843	.7847	.7850	.7852	.7855	.7857	.7860	.7862	.7863	.7865	.7898
0.62	.7595	.7600	.7604	.7608	.7612	.7615	.7618	.7621	.7624	.7626	.7628	.7630	.7632	.7633	.7635	.7665
0.64	.7363	.7368	.7372	.7375	.7379	.7382	.7384	.7387	.7389	.7391	.7393	.7395	.7396	.7398	.7399	.7426
0.66	.7127	.7131	.7135	.7138	.7141	.7144	.7146	.7148	.7150	.7152	.7154	.7155	.7157	.7158	.7159	.7182
0.68	.6889	.6892	.6895	.6898	.6900	.6903	.6905	.6907	.6908	.6910	.6911	.6913	.6914	.6915	.6916	.6936
0.70	.6648	.6651	.6654	.6656	.6658	.6660	.6662	.6663	.6665	.6666	.6667	.6668	.6670	.6670	.6671	.6688
0.72	.6407	.6409	.6412	.6413	.6415	.6417	.6418	.6420	.6421	.6422	.6423	.6424	.6425	.6425	.6426	.6440
0.74	.6166	.6168	.6170	.6171	.6173	.6174	.6175	.6176	.6177	.6178	.6179	.6180	.6180	.6181	.6182	.6193
0.76	.5927	.5928	.5930	.5931	.5932	.5933	.5934	.5935	.5935	.5936	.5937	.5937	.5938	.5938	.5939	.5947
0.78	.5689	.5691	.5692	.5692	.5693	.5694	.5695	.5695	.5696	.5696	.5697	.5697	.5698	.5698	.5698	.5704
0.80	.5455	.5456	.5457	.5457	.5458	.5458	.5459	.5459	.5460	.5460	.5460	.5460	.5461	.5461	.5461	.5465
0.82	.5225	.5225	.5226	.5226	.5226	.5227	.5227	.5227	.5227	.5227	.5228	.5228	.5228	.5228	.5228	.5230
0.84	.4999	.4999	.4999	.4999	.4999	.5000	.5000	.5000	.5000	.5000	.5000	.5000	.5000	.5000	.5000	.5000
0.86	.4778	.4778	.4778	.4778	.4778	.4777	.4777	.4777	.4777	.4777	.4777	.4777	.4777	.4777	.4777	.4775
0.88	.4563	.4562	.4562	.4561	.4561	.4561	.4561	.4560	.4560	.4560	.4560	.4560	.4560	.4559	.4559	.4556
0.90	.4353	.4352	.4352	.4351	.4351	.4350	.4350	.4350	.4349	.4349	.4349	.4348	.4348	.4348	.4348	.4344
0.92	.4149	.4148	.4148	.4147	.4146	.4146	.4145	.4145	.4145	.4144	.4144	.4144	.4143	.4143	.4143	.4138
0.94	.3952	.3951	.3950	.3949	.3949	.3948	.3947	.3947	.3946	.3946	.3945	.3945	.3945	.3944	.3944	.3938
0.96	.3761	.3760	.3759	.3758	.3757	.3757	.3756	.3755	.3755	.3754	.3754	.3753	.3753	.3753	.3752	.3746
0.98	.3577	.3576	.3575	.3574	.3573	.3572	.3571	.3571	.3570	.3569	.3569	.3568	.3568	.3568	.3567	.3560
1.00	.3399	.3398	.3397	.3396	.3395	.3394	.3393	.3393	.3392	.3391	.3391	.3390	.3390	.3390	.3389	.3381
1.02	.3229	.3227	.3226	.3225	.3224	.3223	.3222	.3222	.3221	.3220	.3220	.3219	.3219	.3218	.3218	.3210
1.04	.3065	.3063	.3062	.3061	.3060	.3059	.3058	.3057	.3057	.3056	.3055	.3055	.3054	.3054	.3054	.3045
1.06	.2908	.2906	.2905	.2904	.2903	.2902	.2901	.2900	.2899	.2899	.2898	.2897	.2897	.2896	.2896	.2887

OFFSET CIRCLE PROBABILITIES

DISTANCE DAMAGE SIGMA (σ_d) = 40% WR

OFFSET DISTANCE/WEAPON RADIUS (D/WR)

	WEAPON RADIUS/CEP$_a$ (WR/CEP$_a$)															P_d
	13.00	13.50	14.00	14.50	15.00	15.50	16.00	16.50	17.00	17.50	18.00	18.50	19.00	19.50	20.00	∞
1.08	.2757	.2755	.2754	.2753	.2752	.2751	.2750	.2749	.2748	.2748	.2747	.2747	.2746	.2746	.2745	.2736
1.10	.2613	.2611	.2610	.2609	.2608	.2607	.2606	.2605	.2604	.2604	.2603	.2602	.2602	.2601	.2601	.2592
1.12	.2475	.2474	.2472	.2471	.2470	.2469	.2468	.2467	.2466	.2466	.2465	.2465	.2464	.2464	.2463	.2454
1.14	.2344	.2342	.2341	.2340	.2338	.2337	.2337	.2336	.2335	.2334	.2334	.2333	.2333	.2332	.2332	.2323
1.16	.2218	.2217	.2215	.2214	.2213	.2212	.2211	.2210	.2210	.2209	.2208	.2208	.2207	.2207	.2206	.2198
1.18	.2099	.2097	.2096	.2095	.2094	.2093	.2092	.2091	.2090	.2090	.2089	.2088	.2088	.2087	.2087	.2078
1.20	.1985	.1983	.1982	.1981	.1980	.1979	.1978	.1977	.1977	.1976	.1975	.1975	.1974	.1974	.1973	.1965
1.22	.1877	.1875	.1874	.1873	.1872	.1871	.1870	.1869	.1869	.1868	.1867	.1867	.1866	.1866	.1865	.1857
1.24	.1774	.1772	.1771	.1770	.1769	.1768	.1767	.1767	.1766	.1765	.1765	.1764	.1764	.1763	.1763	.1755
1.26	.1676	.1675	.1674	.1673	.1672	.1671	.1670	.1669	.1668	.1668	.1667	.1667	.1666	.1666	.1665	.1658
1.28	.1583	.1582	.1581	.1580	.1579	.1578	.1577	.1577	.1576	.1575	.1575	.1574	.1574	.1573	.1573	.1565
1.30	.1495	.1494	.1493	.1492	.1491	.1490	.1490	.1489	.1488	.1488	.1487	.1487	.1486	.1486	.1485	.1478
1.32	.1412	.1411	.1410	.1409	.1408	.1407	.1406	.1406	.1405	.1405	.1404	.1404	.1403	.1403	.1402	.1395
1.34	.1333	.1332	.1331	.1330	.1329	.1328	.1328	.1327	.1326	.1326	.1325	.1325	.1324	.1324	.1324	.1317
1.36	.1258	.1257	.1256	.1255	.1254	.1254	.1253	.1252	.1252	.1251	.1251	.1250	.1250	.1250	.1249	.1243
1.38	.1187	.1186	.1185	.1184	.1184	.1183	.1182	.1182	.1181	.1181	.1180	.1180	.1179	.1179	.1179	.1172
1.40	.1120	.1119	.1118	.1118	.1117	.1116	.1115	.1115	.1114	.1114	.1113	.1113	.1113	.1112	.1112	.1106
1.42	.1057	.1056	.1055	.1054	.1054	.1053	.1052	.1052	.1051	.1051	.1050	.1050	.1050	.1049	.1049	.1043
1.44	.0997	.0996	.0995	.0994	.0994	.0993	.0993	.0992	.0992	.0991	.0991	.0990	.0990	.0990	.0989	.0984
1.46	.0940	.0939	.0939	.0938	.0937	.0937	.0936	.0936	.0935	.0935	.0934	.0934	.0934	.0933	.0933	.0928
1.48	.0887	.0886	.0885	.0884	.0884	.0883	.0883	.0882	.0882	.0881	.0881	.0881	.0880	.0880	.0880	.0875
1.50	.0836	.0835	.0835	.0834	.0833	.0833	.0832	.0832	.0831	.0831	.0831	.0830	.0830	.0830	.0830	.0825
1.52	.0789	.0788	.0787	.0786	.0786	.0785	.0785	.0784	.0784	.0784	.0783	.0783	.0783	.0782	.0782	.0778
1.54	.0743	.0743	.0742	.0741	.0741	.0740	.0740	.0740	.0739	.0739	.0738	.0738	.0738	.0738	.0737	.0733
1.56	.0701	.0700	.0700	.0699	.0698	.0698	.0698	.0697	.0697	.0696	.0696	.0696	.0696	.0695	.0695	.0691
1.58	.0661	.0660	.0659	.0659	.0658	.0658	.0658	.0657	.0657	.0657	.0656	.0656	.0656	.0656	.0655	.0651
1.60	.0623	.0622	.0622	.0621	.0621	.0620	.0620	.0620	.0619	.0619	.0619	.0618	.0618	.0618	.0618	.0614
1.62	.0587	.0587	.0586	.0586	.0585	.0585	.0584	.0584	.0584	.0583	.0583	.0583	.0583	.0582	.0582	.0579
1.64	.0554	.0553	.0552	.0552	.0552	.0551	.0551	.0550	.0550	.0550	.0550	.0549	.0549	.0549	.0549	.0545
1.66	.0522	.0521	.0521	.0520	.0520	.0519	.0519	.0519	.0519	.0518	.0518	.0518	.0518	.0518	.0517	.0514
1.68	.0492	.0491	.0491	.0490	.0490	.0490	.0489	.0489	.0489	.0489	.0488	.0488	.0488	.0488	.0488	.0485
1.70	.0464	.0463	.0463	.0462	.0462	.0462	.0461	.0461	.0461	.0461	.0460	.0460	.0460	.0460	.0460	.0457
1.72	.0437	.0437	.0436	.0436	.0435	.0435	.0435	.0435	.0434	.0434	.0434	.0434	.0434	.0433	.0433	.0430
1.74	.0412	.0411	.0411	.0411	.0410	.0410	.0410	.0410	.0409	.0409	.0409	.0409	.0409	.0408	.0408	.0406
1.76	.0388	.0388	.0387	.0387	.0387	.0387	.0386	.0386	.0386	.0386	.0385	.0385	.0385	.0385	.0385	.0382
1.78	.0366	.0366	.0365	.0365	.0365	.0364	.0364	.0364	.0364	.0364	.0363	.0363	.0363	.0363	.0363	.0361
1.80	.0345	.0345	.0344	.0344	.0344	.0343	.0343	.0343	.0343	.0343	.0343	.0342	.0342	.0342	.0342	.0340
1.82	.0325	.0325	.0325	.0324	.0324	.0324	.0324	.0323	.0323	.0323	.0323	.0323	.0323	.0323	.0322	.0320
1.84	.0307	.0306	.0306	.0306	.0305	.0305	.0305	.0305	.0305	.0305	.0304	.0304	.0304	.0304	.0304	.0302
1.86	.0289	.0289	.0289	.0288	.0288	.0288	.0288	.0287	.0287	.0287	.0287	.0287	.0287	.0287	.0287	.0285
1.88	.0273	.0272	.0272	.0272	.0272	.0271	.0271	.0271	.0271	.0271	.0271	.0270	.0270	.0270	.0270	.0268
1.90	.0257	.0257	.0256	.0256	.0256	.0256	.0256	.0256	.0255	.0255	.0255	.0255	.0255	.0255	.0255	.0253
∞	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000

OFFSET CIRCLE PROBABILITIES

DISTANCE DAMAGE SIGMA (σ_d) = 40% WR

WEAPON RADIUS/CEP_a (WR/CEP_a)

OFFSET DISTANCE/WEAPON RADIUS (D/WR)

	13.00	13.50	14.00	14.50	15.00	15.50	16.00	16.50	17.00	17.50	18.00	18.50	19.00	19.50	20.00	
1.92	.0242	.0242	.0242	.0242	.0241	.0241	.0241	.0241	.0241	.0241	.0241	.0240	.0240	.0240	.0240	.0239
1.94	.0229	.0228	.0228	.0228	.0228	.0227	.0227	.0227	.0227	.0227	.0227	.0227	.0227	.0227	.0226	.0225
1.96	.0216	.0215	.0215	.0215	.0215	.0215	.0214	.0214	.0214	.0214	.0214	.0214	.0214	.0214	.0214	.0212
1.98	.0203	.0203	.0203	.0203	.0202	.0202	.0202	.0202	.0202	.0202	.0202	.0202	.0202	.0202	.0201	.0200
2.00	.0192	.0191	.0191	.0191	.0191	.0191	.0191	.0191	.0190	.0190	.0190	.0190	.0190	.0190	.0190	.0189
2.10	.0143	.0143	.0143	.0143	.0143	.0143	.0142	.0142	.0142	.0142	.0142	.0142	.0142	.0142	.0142	.0141
2.20	.0107	.0107	.0107	.0107	.0107	.0107	.0107	.0107	.0107	.0107	.0106	.0106	.0106	.0106	.0106	.0106
2.30	.0080	.0080	.0080	.0080	.0080	.0080	.0080	.0080	.0080	.0080	.0080	.0080	.0080	.0080	.0080	.0079
2.40	.0061	.0060	.0060	.0060	.0060	.0060	.0060	.0060	.0060	.0060	.0060	.0060	.0060	.0060	.0060	.0060
2.50	.0046	.0046	.0046	.0046	.0046	.0045	.0045	.0045	.0045	.0045	.0045	.0045	.0045	.0045	.0045	.0045
2.60	.0035	.0035	.0034	.0034	.0034	.0034	.0034	.0034	.0034	.0034	.0034	.0034	.0034	.0034	.0034	.0034
2.70	.0026	.0026	.0026	.0026	.0026	.0026	.0026	.0026	.0026	.0026	.0026	.0026	.0026	.0026	.0026	.0026
2.80	.0020	.0020	.0020	.0020	.0020	.0020	.0020	.0020	.0020	.0020	.0020	.0020	.0020	.0020	.0020	.0020
2.90	.0015	.0015	.0015	.0015	.0015	.0015	.0015	.0015	.0015	.0015	.0015	.0015	.0015	.0015	.0015	.0015
3.00	.0012	.0012	.0012	.0012	.0012	.0012	.0012	.0012	.0012	.0012	.0012	.0012	.0012	.0012	.0012	.0011
3.10	.0009	.0009	.0009	.0009	.0009	.0009	.0009	.0009	.0009	.0009	.0009	.0009	.0009	.0009	.0009	.0009
3.20	.0007	.0007	.0007	.0007	.0007	.0007	.0007	.0007	.0007	.0007	.0007	.0007	.0007	.0007	.0007	.0007
∞	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000

OFFSET CIRCLE PROBABILITIES

DISTANCE DAMAGE SIGMA (σ_d) = 50% WR

WEAPON RADIUS/CEP$_a$ (WR/CEP$_a$)

OFFSET DISTANCE/WEAPON RADIUS (D/WR)

	0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.70	0.80	0.90	1.00
0.00	.0017	.0069	.0152	.0266	.0407	.0572	.0757	.0959	.1176	.1403	.1639	.1881	.2374	.2869	.3356	.3827
0.10	.0017	.0069	.0152	.0266	.0407	.0571	.0756	.0958	.1174	.1401	.1636	.1877	.2368	.2861	.3344	.3811
0.20	.0017	.0069	.0152	.0266	.0406	.0570	.0754	.0955	.1170	.1395	.1628	.1866	.2351	.2835	.3308	.3764
0.30	.0017	.0069	.0152	.0265	.0405	.0569	.0752	.0951	.1163	.1385	.1614	.1848	.2322	.2792	.3249	.3686
0.40	.0017	.0068	.0152	.0265	.0404	.0566	.0748	.0944	.1153	.1371	.1595	.1823	.2282	.2733	.3168	.3580
0.50	.0017	.0068	.0152	.0264	.0403	.0563	.0742	.0936	.1141	.1354	.1571	.1792	.2231	.2659	.3067	.3449
0.60	.0017	.0068	.0151	.0263	.0401	.0560	.0736	.0926	.1126	.1333	.1543	.1754	.2171	.2572	.2948	.3295
0.70	.0017	.0068	.0151	.0263	.0399	.0556	.0729	.0915	.1109	.1308	.1509	.1710	.2103	.2473	.2814	.3123
0.80	.0017	.0068	.0151	.0261	.0396	.0551	.0721	.0901	.1089	.1280	.1472	.1661	.2026	.2363	.2667	.2936
0.90	.0017	.0068	.0150	.0260	.0394	.0545	.0711	.0887	.1067	.1249	.1430	.1607	.1943	.2245	.2510	.2738
1.00	.0017	.0068	.0150	.0259	.0391	.0540	.0701	.0870	.1043	.1216	.1385	.1549	.1854	.2120	.2347	.2534
1.10	.0017	.0068	.0149	.0258	.0387	.0533	.0690	.0853	.1017	.1180	.1337	.1488	.1760	.1991	.2179	.2326
1.20	.0017	.0068	.0149	.0256	.0384	.0526	.0678	.0834	.0990	.1142	.1287	.1423	.1664	.1858	.2009	.2120
1.30	.0017	.0068	.0148	.0254	.0380	.0519	.0665	.0814	.0961	.1102	.1234	.1356	.1565	.1725	.1840	.1918
1.40	.0017	.0068	.0148	.0252	.0376	.0511	.0652	.0793	.0930	.1060	.1180	.1287	.1465	.1592	.1675	.1723
1.50	.0017	.0068	.0147	.0251	.0371	.0502	.0637	.0771	.0899	.1017	.1124	.1217	.1364	.1461	.1515	.1536
1.60	.0017	.0067	.0146	.0248	.0366	.0493	.0623	.0748	.0866	.0973	.1067	.1147	.1265	.1333	.1362	.1361
1.70	.0017	.0067	.0146	.0246	.0362	.0484	.0607	.0725	.0833	.0929	.1010	.1077	.1168	.1210	.1216	.1198
1.80	.0017	.0067	.0145	.0244	.0356	.0474	.0591	.0701	.0799	.0883	.0953	.1007	.1073	.1093	.1080	.1047
1.90	.0017	.0067	.0144	.0242	.0351	.0464	.0575	.0676	.0765	.0838	.0896	.0938	.0981	.0982	.0954	.0910
2.00	.0017	.0067	.0143	.0239	.0346	.0454	.0558	.0651	.0730	.0793	.0840	.0871	.0894	.0877	.0837	.0787
2.20	.0017	.0066	.0141	.0234	.0334	.0433	.0523	.0600	.0661	.0704	.0731	.0742	.0731	.0690	.0635	.0579
2.40	.0017	.0066	.0139	.0228	.0322	.0411	.0488	.0549	.0592	.0618	.0628	.0624	.0588	.0533	.0473	.0418
2.60	.0017	.0065	.0137	.0222	.0309	.0388	.0452	.0499	.0526	.0537	.0532	.0517	.0465	.0404	.0346	.0297
2.80	.0017	.0065	.0135	.0216	.0295	.0364	.0416	.0449	.0463	.0461	.0446	.0422	.0362	.0301	.0249	.0208
3.00	.0017	.0064	.0133	.0209	.9282	.0341	.0381	.0402	.0404	.0392	.0369	.0341	.0278	.0222	.0177	.0145
3.20	.0017	.0064	.0130	.0202	.0268	.0318	.0347	.0357	.0349	.0329	.0302	.0271	.0210	.0161	.0125	.0100
3.40	.0017	.0063	.0128	.0195	.0254	.0294	.0314	.0314	.0299	.0274	.0244	.0213	.0157	.0116	.0088	.0069
3.60	.0017	.0063	.0125	.0188	.0240	.0272	.0282	.0275	.0254	.0226	.0195	.0166	.0116	.0082	.0061	.0048
3.80	.0017	.0062	.0122	.0181	.0226	.0250	.0252	.0238	.0214	.0184	.0154	.0127	.0085	.0058	.0043	.0033
4.00	.0017	.0061	.0119	.0174	.0212	.0228	.0224	.0205	.0178	.0149	.0121	.0097	.0062	.0041	.0030	.0023
4.50	.0017	.0060	.0112	.0155	.0178	.0179	.0163	.0137	.0109	.0084	.0063	.0047	.0027	.0017	.0012	.0010
5.00	.0017	.0058	.0104	.0137	.0147	.0137	.0114	.0087	.0063	.0044	.0031	.0021	.0011	.0007	.0005	.0004
5.50	.0016	.0056	.0096	.0119	.0119	.0101	.0077	.0053	.0035	.0022	.0014	.0010	.0005	.0003	.0002	.0002
6.00	.0016	.0054	.0088	.0102	.0094	.0073	.0050	.0031	.0019	.0011	.0007	.0004	.0002	.0001	.0001	.0001
6.50	.0016	.0051	.0080	.0086	.0073	.0051	.0031	.0018	.0009	.0005	.0003	.0002	.0001	.0001	.0001	.0000
7.00	.0016	.0049	.0072	.0072	.0055	.0035	.0019	.0010	.0005	.0002	.0001	.0001	.0000	.0000	.0000	.0000
7.50	.0016	.0047	.0065	.0060	.0041	.0023	.0011	.0005	.0002	.0001	.0001	.0000	.0000	.0000	.0000	.0000
8.00	.0015	.0044	.0057	.0048	.0030	.0015	.0006	.0003	.0001	.0001	.0000	.0000	.0000	.0000	.0000	.0000
8.50	.0015	.0042	.0051	.0039	.0022	.0009	.0004	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
9.00	.0015	.0039	.0044	.0031	.0015	.0006	.0002	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
9.50	.0015	.0037	.0039	.0024	.0010	.0003	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
∞	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000

OFFSET CIRCLE PROBABILITIES

DISTANCE DAMAGE SIGMA (σ_d) = 50% WR

OFFSET DISTANCE/WEAPON RADIUS (D/WR)

WEAPON RADIUS/CEP$_a$ (WR/CEP$_a$)

D/WR	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90	2.00	2.10	2.20	2.30	2.40	2.50	2.60
0.00	.4277	.4704	.5105	.5481	.5830	.6155	.6456	.6733	.6989	.7225	.7442	.7642	.7825	.7994	.8149	.8291
0.05	.4272	.4698	.5098	.5472	.5820	.6144	.6443	.6720	.6975	.7210	.7426	.7624	.7807	.7974	.8128	.8270
0.10	.4257	.4679	.5076	.5446	.5791	.6111	.6407	.6680	.6931	.7163	.7376	.7572	.7751	.7917	.8069	.8208
0.15	.4232	.4648	.5039	.5404	.5742	.6056	.6346	.6613	.6859	.7086	.7294	.7485	.7660	.7822	.7970	.8106
0.20	.4197	.4606	.4988	.5344	.5675	.5980	.6262	.6521	.6760	.6979	.7180	.7365	.7534	.7690	.7833	.7965
0.25	.4153	.4551	.4924	.5270	.5589	.5884	.6156	.6405	.6634	.6844	.7037	.7214	.7376	.7525	.7661	.7787
0.30	.4099	.4486	.4846	.5180	.5487	.5769	.6029	.6267	.6484	.6684	.6866	.7033	.7187	.7327	.7456	.7575
0.35	.4037	.4410	.4756	.5075	.5368	.5637	.5882	.6107	.6312	.6499	.6670	.6826	.6969	.7101	.7221	.7332
0.40	.3966	.4324	.4655	.4958	.5235	.5488	.5718	.5928	.6119	.6293	.6451	.6595	.6727	.6848	.6959	.7060
0.45	.3888	.4229	.4542	.4828	.5088	.5324	.5538	.5732	.5908	.6067	.6212	.6344	.6464	.6573	.6674	.6765
0.50	.3802	.4125	.4420	.4688	.4930	.5148	.5344	.5522	.5682	.5826	.5957	.6075	.6182	.6280	.6369	.6451
0.55	.3709	.4014	.4290	.4538	.4760	.4960	.5139	.5299	.5443	.5571	.5688	.5792	.5887	.5972	.6050	.6121
0.60	.3611	.3896	.4151	.4379	.4582	.4763	.4923	.5066	.5193	.5307	.5408	.5499	.5581	.5654	.5721	.5781
0.65	.3507	.3771	.4006	.4214	.4397	.4559	.4701	.4826	.4937	.5035	.5121	.5199	.5268	.5329	.5384	.5434
0.70	.3398	.3642	.3856	.4043	.4206	.4349	.4473	.4581	.4675	.4758	.4831	.4895	.4951	.5001	.5046	.5085
0.75	.3285	.3508	.3701	.3868	.4012	.4135	.4241	.4333	.4412	.4480	.4539	.4590	.4635	.4674	.4709	.4739
0.80	.3169	.3371	.3543	.3690	.3814	.3920	.4009	.4084	.4148	.4203	.4249	.4289	.4323	.4352	.4377	.4398
0.85	.3051	.3231	.3383	.3510	.3616	.3704	.3777	.3837	.3887	.3929	.3963	.3992	.4016	.4036	.4052	.4066
0.90	.2930	.3090	.3222	.3330	.3418	.3489	.3547	.3593	.3631	.3660	.3684	.3703	.3718	.3730	.3739	.3746
0.95	.2808	.2948	.3060	.3150	.3222	.3277	.3321	.3354	.3380	.3399	.3414	.3424	.3431	.3435	.3438	.3439
1.00	.2685	.2805	.2900	.2973	.3028	.3070	.3100	.3122	.3137	.3147	.3153	.3156	.3156	.3155	.3152	.3148
1.05	.2562	.2664	.2741	.2798	.2839	.2867	.2886	.2898	.2903	.2905	.2904	.2900	.2895	.2888	.2881	.2873
1.10	.2440	.2524	.2585	.2627	.2654	.2671	.2679	.2682	.2680	.2674	.2667	.2658	.2648	.2638	.2627	.2616
1.15	.2318	.2386	.2431	.2460	.2475	.2482	.2481	.2475	.2467	.2456	.2443	.2430	.2417	.2403	.2390	.2377
1.20	.2199	.2250	.2282	.2298	.2303	.2300	.2292	.2279	.2265	.2249	.2233	.2217	.2200	.2185	.2170	.2155
1.25	.2081	.2118	.2137	.2142	.2138	.2127	.2112	.2094	.2075	.2056	.2037	.2018	.2000	.1983	.1966	.1951
1.30	.1965	.1989	.1997	.1992	.1980	.1962	.1942	.1920	.1897	.1875	.1854	.1833	.1814	.1796	.1779	.1764
1.35	.1853	.1865	.1862	.1849	.1829	.1806	.1782	.1756	.1731	.1707	.1685	.1663	.1643	.1625	.1608	.1592
1.40	.1743	.1744	.1732	.1712	.1687	.1660	.1631	.1604	.1577	.1552	.1528	.1507	.1487	.1468	.1451	.1436
1.45	.1637	.1629	.1609	.1582	.1553	.1522	.1491	.1462	.1434	.1409	.1385	.1363	.1343	.1325	.1309	.1294
1.50	.1535	.1518	.1491	.1460	.1427	.1393	.1361	.1331	.1303	.1277	.1253	.1232	.1213	.1195	.1180	.1165
1.55	.1436	.1412	.1380	.1344	.1308	.1273	.1240	.1210	.1182	.1156	.1133	.1113	.1094	.1077	.1062	.1049
1.60	.1341	.1311	.1274	.1236	.1198	.1162	.1129	.1098	.1071	.1046	.1024	.1004	.0986	.0971	.0957	.0944
1.65	.1251	.1215	.1175	.1134	.1095	.1059	.1026	.0996	.0969	.0945	.0924	.0905	.0889	.0874	.0861	.0849
1.70	.1165	.1124	.1081	.1039	.1000	.0964	.0931	.0902	.0876	.0854	.0834	.0816	.0801	.0787	.0775	.0764
1.80	.1004	.0958	.0912	.0869	.0830	.0796	.0765	.0739	.0716	.0696	.0678	.0663	.0650	.0638	.0628	.0619
1.90	.0861	.0812	.0765	.0724	.0687	.0655	.0627	.0604	.0584	.0566	.0551	.0538	.0527	.0517	.0509	.0501
2.00	.0734	.0684	.0639	.0600	.0566	.0537	.0513	.0493	.0475	.0461	.0448	.0437	.0428	.0420	.0413	.0407
2.10	.0623	.0574	.0532	.0496	.0465	.0440	.0419	.0402	.0387	.0375	.0365	.0356	.0348	.0342	.0336	.0331
2.20	.0526	.0480	.0441	.0409	.0382	.0360	.0343	.0328	.0316	.0306	.0297	.0290	.0284	.0278	.0274	.0269
2.30	.0442	.0400	.0364	.0336	.0313	.0295	.0280	.0268	.0258	.0249	.0242	.0237	.0231	.0227	.0223	.0220
2.40	.0370	.0332	.0301	.0276	.0257	.0241	.0229	.0219	.0211	.0204	.0198	.0193	.0189	.0186	.0183	.0180

OFFSET CIRCLE PROBABILITIES

DISTANCE DAMAGE SIGMA (σ_d) = 50% WR

WEAPON RADIUS/CEP$_a$ (WR/CEP$_a$)

OFFSET DISTANCE/WEAPON RADIUS (D/WR)

	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90	2.00	2.10	2.20	2.30	2.40	2.50	2.60
2.50	.0309	.0275	.0248	.0227	.0211	.0198	.0188	.0179	.0173	.0167	.0162	.0159	.0155	.0152	.0150	.0148
2.60	.0258	.0227	.0204	.0187	.0173	.0162	.0154	.0147	.0142	.0137	.0133	.0130	.0128	.0125	.0123	.0121
2.70	.0214	.0188	.0168	.0153	.0142	.0133	.0127	.0121	.0117	.0113	.0110	.0107	.0105	.0103	.0102	.0100
2.80	.0178	.0155	.0139	.0126	.0117	.0110	.0104	.0100	.0096	.0093	.0091	.0089	.0087	.0085	.0084	.0083
2.90	.0147	.0128	.0114	.0104	.0096	.0091	.0086	.0082	.0079	.0077	.0075	.0073	.0072	.0071	.0070	.0069
3.00	.0122	.0106	.0094	.0086	.0080	.0075	.0071	.0068	.0066	.0064	.0062	.0061	.0060	.0059	.0058	.0057
3.10	.0101	.0088	.0078	.0071	.0066	.0062	.0059	.0057	.0055	.0053	.0052	.0051	.0050	.0049	.0048	.0048
3.20	.0084	.0072	.0065	.0059	.0055	.0052	.0049	.0047	.0046	.0044	.0043	.0042	.0041	.0041	.0040	.0040
3.30	.0069	.0060	.0054	.0049	.0045	.0043	.0041	.0039	.0038	.0037	.0036	.0035	.0035	.0034	.0034	.0033
3.40	.0058	.0050	.0045	.0041	.0038	.0036	.0034	.0033	.0032	.0031	.0030	.0030	.0029	.0029	.0028	.0028
3.50	.0048	.0041	.0037	.0034	.0032	.0030	.0029	.0028	.0027	.0026	.0025	.0025	.0024	.0024	.0024	.0023
3.60	.0040	.0035	.0031	.0028	.0027	.0025	.0024	.0023	.0022	.0022	.0021	.0021	.0021	.0020	.0020	.0020
3.70	.0033	.0029	.0026	.0024	.0022	.0021	.0020	.0019	.0019	.0018	.0018	.0018	.0017	.0017	.0017	.0017
3.80	.0028	.0024	.0022	.0020	.0019	.0018	.0017	.0016	.0016	.0016	.0015	.0015	.0015	.0014	.0014	.0014
3.90	.0023	.0020	.0018	.0017	.0016	.0015	.0014	.0014	.0013	.0013	.0013	.0013	.0012	.0012	.0012	.0012
4.00	.0019	.0017	.0015	.0014	.0013	.0013	.0012	.0012	.0011	.0011	.0011	.0011	.0011	.0010	.0010	.0010
4.10	.0016	.0014	.0013	.0012	.0011	.0011	.0010	.0010	.0010	.0009	.0009	.0009	.0009	.0009	.0009	.0009
4.20	.0014	.0012	.0011	.0010	.0010	.0009	.0009	.0009	.0008	.0008	.0008	.0008	.0008	.0008	.0008	.0007
4.30	.0012	.0010	.0009	.0009	.0008	.0008	.0007	.0007	.0007	.0007	.0007	.0007	.0007	.0006	.0006	.0006
4.40	.0010	.0009	.0008	.0007	.0007	.0007	.0006	.0006	.0006	.0006	.0006	.0006	.0006	.0006	.0005	.0005
4.50	.0008	.0007	.0007	.0006	.0006	.0006	.0005	.0005	.0005	.0005	.0005	.0005	.0005	.0005	.0005	.0005
4.60	.0007	.0006	.0006	.0005	.0005	.0005	.0005	.0005	.0004	.0004	.0004	.0004	.0004	.0004	.0004	.0004
4.70	.0006	.0005	.0005	.0005	.0004	.0004	.0004	.0004	.0004	.0004	.0004	.0004	.0004	.0004	.0003	.0003
4.80	.0005	.0005	.0004	.0004	.0004	.0004	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003
4.90	.0004	.0004	.0004	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003
5.00	.0004	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002
5.10	.0003	.0003	.0003	.0003	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002
5.20	.0003	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002
5.30	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0001	.0001	.0001
5.40	.0002	.0002	.0002	.0002	.0002	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
5.50	.0002	.0002	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
5.60	.0002	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
5.70	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
5.80	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
5.90	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
6.00	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
6.10	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001
6.20	.0001	.0001	.0001	.0001	.0001	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
6.30	.0001	.0001	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
6.40	.0001	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
6.50	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
6.60	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
∞	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000

OFFSET CIRCLE PROBABILITIES

DISTANCE DAMAGE SIGMA (σ_d) = 50% WR

WEAPON RADIUS/CEP$_a$ (WR/CEP$_a$)

OFFSET DISTANCE/WEAPON RADIUS (D/WR)

	2.60	2.80	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	4.80	5.00	5.20	5.40	5.60
0.00	.8291	.8541	.8753	.8931	.9083	.9211	.9320	.9412	.9491	.9559	.9616	.9666	.9708	.9745	.9777	.9804
0.05	.8270	.8519	.8730	.8908	.9059	.9187	.9296	.9388	.9468	.9535	.9594	.9644	.9687	.9724	.9756	.9785
0.10	.8208	.8454	.8662	.8838	.8988	.9115	.9224	.9317	.9397	.9466	.9525	.9577	.9622	.9661	.9695	.9725
0.15	.8106	.8346	.8550	.8723	.8870	.8997	.9105	.9198	.9279	.9349	.9410	.9463	.9510	.9551	.9588	.9620
0.20	.7965	.8197	.8395	.8563	.8707	.8831	.8938	.9031	.9112	.9182	.9245	.9300	.9348	.9392	.9431	.9465
0.25	.7787	.8009	.8199	.8360	.8500	.8620	.8724	.8815	.8895	.8966	.9029	.9084	.9134	.9179	.9219	.9256
0.30	.7575	.7785	.7964	.8118	.8250	.8365	.8465	.8553	.8631	.8700	.8762	.8817	.8866	.8911	.8952	.8989
0.35	.7332	.7527	.7694	.7838	.7961	.8069	.8164	.8247	.8321	.8387	.8445	.8498	.8546	.8589	.8628	.8664
0.40	.7060	.7240	.7393	.7525	.7638	.7737	.7824	.7901	.7969	.8030	.8084	.8133	.8177	.8217	.8253	.8286
0.45	.6765	.6927	.7065	.7183	.7285	.7374	.7452	.7521	.7581	.7635	.7684	.7727	.7766	.7802	.7834	.7863
0.50	.6451	.6594	.6715	.6819	.6908	.6986	.7053	.7113	.7165	.7211	.7253	.7290	.7323	.7353	.7380	.7404
0.52	.6321	.6456	.6571	.6668	.6752	.6825	.6888	.6944	.6992	.7036	.7074	.7108	.7139	.7166	.7191	.7214
0.54	.6188	.6316	.6424	.6515	.6594	.6661	.6720	.6772	.6817	.6857	.6892	.6924	.6952	.6977	.6999	.7020
0.56	.6054	.6174	.6275	.6360	.6433	.6496	.6550	.6598	.6639	.6676	.6708	.6737	.6762	.6785	.6806	.6824
0.58	.5918	.6030	.6124	.6203	.6271	.6329	.6379	.6422	.6460	.6493	.6523	.6548	.6571	.6592	.6610	.6627
0.60	.5781	.5885	.5972	.6045	.6107	.6161	.6206	.6245	.6280	.6310	.6336	.6359	.6380	.6398	.6414	.6429
0.62	.5643	.5739	.5820	.5887	.5943	.5992	.6033	.6068	.6099	.6126	.6149	.6169	.6187	.6203	.6218	.6230
0.64	.5504	.5593	.5666	.5727	.5779	.5822	.5859	.5891	.5918	.5942	.5962	.5980	.5996	.6010	.6022	.6033
0.66	.5364	.5446	.5513	.5568	.5614	.5653	.5686	.5714	.5738	.5758	.5776	.5791	.5805	.5817	.5827	.5836
0.68	.5225	.5299	.5360	.5409	.5450	.5484	.5513	.5537	.5558	.5576	.5591	.5604	.5615	.5625	.5634	.5641
0.70	.5085	.5152	.5207	.5251	.5287	.5317	.5342	.5362	.5380	.5395	.5407	.5418	.5428	.5436	.5443	.5449
0.72	.4946	.5006	.5054	.5093	.5124	.5150	.5171	.5189	.5203	.5216	.5226	.5235	.5242	.5249	.5254	.5259
0.74	.4808	.4861	.4903	.4937	.4964	.4985	.5003	.5017	.5029	.5039	.5047	.5054	.5060	.5065	.5069	.5072
0.76	.4670	.4717	.4753	.4782	.4804	.4822	.4837	.4848	.4857	.4865	.4871	.4876	.4880	.4884	.4886	.4889
0.78	.4533	.4574	.4605	.4629	.4647	.4661	.4673	.4681	.4688	.4694	.4698	.4701	.4704	.4706	.4708	.4709
0.80	.4398	.4432	.4458	.4478	.4492	.4503	.4511	.4518	.4522	.4526	.4528	.4530	.4532	.4532	.4533	.4533
0.82	.4264	.4293	.4314	.4329	.4340	.4347	.4353	.4357	.4360	.4361	.4362	.4363	.4363	.4363	.4362	.4362
0.84	.4132	.4155	.4171	.4182	.4190	.4195	.4198	.4200	.4200	.4200	.4200	.4199	.4198	.4197	.4196	.4195
0.86	.4001	.4019	.4031	.4038	.4043	.4045	.4046	.4046	.4045	.4043	.4042	.4040	.4038	.4036	.4034	.4032
0.88	.3872	.3885	.3893	.3897	.3899	.3899	.3897	.3895	.3893	.3890	.3888	.3885	.3882	.3879	.3877	.3874
0.90	.3746	.3754	.3758	.3759	.3758	.3756	.3753	.3749	.3745	.3741	.3738	.3734	.3730	.3727	.3724	.3721
0.92	.3621	.3626	.3626	.3624	.3621	.3616	.3611	.3606	.3601	.3596	.3592	.3587	.3583	.3579	.3576	.3572
0.94	.3499	.3500	.3497	.3492	.3487	.3480	.3474	.3468	.3462	.3456	.3450	.3445	.3441	.3436	.3432	.3429
0.96	.3380	.3376	.3371	.3364	.3356	.3348	.3340	.3333	.3326	.3320	.3313	.3308	.3303	.3298	.3294	.3290
0.98	.3262	.3256	.3248	.3238	.3229	.3220	.3211	.3202	.3195	.3187	.3181	.3175	.3169	.3164	.3160	.3155
1.00	.3148	.3138	.3128	.3116	.3105	.3095	.3085	.3076	.3067	.3060	.3053	.3046	.3040	.3035	.3030	.3026
1.02	.3036	.3024	.3011	.2998	.2985	.2974	.2963	.2953	.2944	.2936	.2929	.2922	.2916	.2910	.2905	.2901
1.04	.2927	.2912	.2897	.2883	.2869	.2857	.2845	.2835	.2825	.2817	.2809	.2802	.2796	.2790	.2785	.2780
1.06	.2821	.2804	.2787	.2771	.2757	.2743	.2731	.2720	.2710	.2702	.2694	.2687	.2680	.2674	.2669	.2664
1.08	.2717	.2698	.2680	.2663	.2648	.2634	.2621	.2610	.2600	.2591	.2582	.2575	.2569	.2563	.2557	.2552
1.10	.2616	.2596	.2576	.2558	.2542	.2528	.2515	.2503	.2493	.2484	.2475	.2468	.2461	.2455	.2450	.2445
1.12	.2519	.2496	.2476	.2457	.2440	.2425	.2412	.2400	.2390	.2381	.2372	.2365	.2358	.2352	.2347	.2342

OFFSET CIRCLE PROBABILITIES

DISTANCE DAMAGE SIGMA (σ_d) = 50% WR

WEAPON RADIUS/CEP$_a$ (WR/CEP$_a$)

OFFSET DISTANCE/WEAPON RADIUS (D/WR)

D/WR	2.60	2.80	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	4.80	5.00	5.20	5.40	5.60
1.14	.2423	.2400	.2378	.2359	.2342	.2327	.2313	.2301	.2291	.2281	.2273	.2266	.2259	.2253	.2248	.2243
1.16	.2331	.2307	.2284	.2265	.2247	.2232	.2218	.2206	.2195	.2186	.2178	.2170	.2164	.2158	.2152	.2148
1.18	.2242	.2216	.2193	.2173	.2155	.2140	.2126	.2114	.2104	.2094	.2086	.2079	.2072	.2066	.2061	.2056
1.20	.2155	.2129	.2106	.2085	.2067	.2052	.2038	.2026	.2016	.2006	.1998	.1991	.1984	.1979	.1973	.1969
1.22	.2072	.2045	.2021	.2000	.1982	.1967	.1953	.1941	.1931	.1922	.1914	.1906	.1900	.1894	.1889	.1885
1.24	.1991	.1963	.1939	.1919	.1901	.1885	.1872	.1860	.1850	.1841	.1833	.1826	.1819	.1814	.1809	.1804
1.26	.1912	.1883	.1861	.1840	.1822	.1807	.1793	.1782	.1772	.1763	.1755	.1748	.1742	.1736	.1731	.1727
1.28	.1837	.1809	.1785	.1764	.1746	.1731	.1718	.1707	.1697	.1688	.1680	.1673	.1667	.1662	.1657	.1653
1.30	.1764	.1736	.1712	.1691	.1674	.1659	.1646	.1635	.1625	.1616	.1609	.1602	.1596	.1591	.1586	.1582
1.32	.1693	.1665	.1641	.1621	.1604	.1589	.1576	.1565	.1556	.1548	.1540	.1534	.1528	.1523	.1518	.1514
1.34	.1625	.1597	.1574	.1554	.1537	.1522	.1510	.1499	.1490	.1482	.1475	.1468	.1463	.1458	.1453	.1449
1.36	.1560	.1532	.1509	.1489	.1473	.1458	.1446	.1436	.1427	.1419	.1412	.1406	.1400	.1395	.1391	.1387
1.38	.1497	.1469	.1446	.1427	.1411	.1397	.1385	.1375	.1366	.1358	.1352	.1346	.1340	.1336	.1331	.1328
1.40	.1436	.1409	.1386	.1368	.1352	.1338	.1326	.1317	.1308	.1300	.1294	.1288	.1283	.1278	.1274	.1271
1.42	.1377	.1351	.1329	.1310	.1295	.1282	.1270	.1261	.1252	.1245	.1239	.1233	.1228	.1224	.1220	.1216
1.44	.1321	.1295	.1274	.1255	.1240	.1227	.1217	.1207	.1199	.1192	.1186	.1180	.1176	.1171	.1168	.1164
1.46	.1267	.1242	.1220	.1203	.1188	.1176	.1165	.1156	.1148	.1141	.1135	.1130	.1125	.1121	.1118	.1114
1.48	.1215	.1190	.1170	.1152	.1138	.1126	.1116	.1107	.1099	.1093	.1087	.1082	.1077	.1073	.1070	.1067
1.50	.1165	.1141	.1121	.1104	.1090	.1078	.1068	.1060	.1053	.1046	.1041	.1036	.1031	.1028	.1024	.1021
1.60	.0944	.0923	.0905	.0891	.0879	.0869	.0861	.0854	.0848	.0842	.0838	.0834	.0830	.0827	.0824	.0822
1.70	.0764	.0746	.0731	.0719	.0710	.0701	.0694	.0688	.0683	.0679	.0675	.0672	.0669	.0666	.0664	.0662
1.80	.0619	.0604	.0591	.0581	.0573	.0567	.0561	.0556	.0552	.0548	.0545	.0543	.0540	.0538	.0536	.0535
1.90	.0501	.0489	.0479	.0471	.0464	.0459	.0454	.0450	.0447	.0444	.0441	.0439	.0437	.0436	.0434	.0433
2.00	.0407	.0397	.0388	.0382	.0377	.0372	.0368	.0365	.0363	.0360	.0358	.0356	.0355	.0354	.0352	.0351
2.10	.0331	.0322	.0316	.0310	.0306	.0303	.0300	.0297	.0295	.0293	.0291	.0290	.0289	.0288	.0287	.0286
2.20	.0269	.0263	.0257	.0253	.0250	.0247	.0244	.0242	.0240	.0239	.0238	.0236	.0235	.0235	.0234	.0233
2.30	.0220	.0215	.0210	.0207	.0204	.0202	.0200	.0198	.0197	.0195	.0194	.0193	.0193	.0192	.0191	.0191
2.40	.0180	.0176	.0172	.0169	.0167	.0165	.0164	.0162	.0161	.0160	.0159	.0159	.0158	.0157	.0157	.0156
2.50	.0148	.0144	.0141	.0139	.0137	.0136	.0134	.0133	.0132	.0132	.0131	.0130	.0130	.0129	.0129	.0129
2.60	.0121	.0119	.0116	.0115	.0113	.0112	.0111	.0110	.0109	.0109	.0108	.0108	.0107	.0107	.0106	.0106
2.70	.0100	.0098	.0096	.0095	.0093	.0092	.0092	.0091	.0090	.0090	.0089	.0089	.0089	.0088	.0088	.0088
2.80	.0083	.0081	.0079	.0078	.0077	.0076	.0076	.0075	.0075	.0074	.0074	.0074	.0073	.0073	.0073	.0073
2.90	.0069	.0067	.0066	.0065	.0064	.0064	.0063	.0063	.0062	.0062	.0061	.0061	.0061	.0061	.0061	.0060
3.00	.0057	.0056	.0055	.0054	.0053	.0053	.0052	.0052	.0052	.0051	.0051	.0051	.0051	.0051	.0051	.0050
3.10	.0048	.0047	.0046	.0045	.0045	.0044	.0044	.0043	.0043	.0043	.0043	.0043	.0042	.0042	.0042	.0042
3.20	.0040	.0039	.0038	.0038	.0037	.0037	.0037	.0036	.0036	.0036	.0036	.0036	.0036	.0035	.0035	.0035
3.30	.0033	.0033	.0032	.0032	.0031	.0031	.0031	.0031	.0030	.0030	.0030	.0030	.0030	.0030	.0030	.0030
3.40	.0028	.0027	.0027	.0027	.0026	.0026	.0026	.0026	.0026	.0026	.0025	.0025	.0025	.0025	.0025	.0025
3.50	.0023	.0023	.0023	.0022	.0022	.0022	.0022	.0022	.0022	.0022	.0021	.0021	.0021	.0021	.0021	.0021
3.60	.0020	.0019	.0019	.0019	.0019	.0019	.0018	.0018	.0018	.0018	.0018	.0018	.0018	.0018	.0018	.0018
3.70	.0017	.0016	.0016	.0016	.0016	.0016	.0016	.0015	.0015	.0015	.0015	.0015	.0015	.0015	.0015	.0015
3.80	.0014	.0014	.0014	.0014	.0013	.0013	.0013	.0013	.0013	.0013	.0013	.0013	.0013	.0013	.0013	.0013
∞	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000

OFFSET CIRCLE PROBABILITIES

DISTANCE DAMAGE SIGMA (σ_d) = 50% WR

WEAPON RADIUS/CEP$_a$ (WR/CEP$_a$)

OFFSET DISTANCE/WEAPON RADIUS (D/WR)

D/WR	6.00	6.50	7.00	7.50	8.00	8.50	9.00	9.50	10.00	10.50	11.00	11.50	12.00	12.50	13.00	13.50
0.00	.9848	.9889	.9918	.9939	.9954	.9965	.9973	.9979	.9984	.9987	.9990	.9992	.9994	.9995	.9996	.9997
0.05	.9830	.9872	.9903	.9925	.9942	.9954	.9964	.9971	.9977	.9981	.9984	.9987	.9989	.9991	.9992	.9994
0.10	.9774	.9821	.9856	.9883	.9903	.9919	.9932	.9942	.9950	.9957	.9962	.9967	.9971	.9974	.9977	.9979
0.15	.9675	.9728	.9769	.9802	.9828	.9849	.9866	.9880	.9892	.9902	.9911	.9918	.9924	.9930	.9935	.9939
0.20	.9525	.9585	.9633	.9671	.9702	.9729	.9750	.9769	.9785	.9798	.9810	.9820	.9829	.9837	.9845	.9851
0.25	.9319	.9384	.9436	.9479	.9515	.9545	.9570	.9592	.9611	.9627	.9642	.9654	.9665	.9675	.9684	.9692
0.30	.9053	.9119	.9174	.9219	.9256	.9288	.9315	.9339	.9359	.9377	.9392	.9406	.9418	.9429	.9438	.9447
0.35	.8727	.8791	.8844	.8888	.8925	.8956	.8983	.9006	.9026	.9043	.9058	.9072	.9083	.9094	.9103	.9112
0.40	.8344	.8404	.8452	.8493	.8527	.8555	.8579	.8600	.8618	.8634	.8647	.8659	.8670	.8679	.8688	.8695
0.45	.7913	.7966	.8008	.8043	.8072	.8096	.8117	.8135	.8150	.8163	.8175	.8185	.8194	.8201	.8208	.8215
0.50	.7447	.7490	.7524	.7553	.7576	.7596	.7613	.7627	.7639	.7649	.7658	.7666	.7673	.7679	.7685	.7689
0.52	.7252	.7292	.7323	.7349	.7370	.7388	.7403	.7415	.7426	.7436	.7444	.7451	.7457	.7462	.7467	.7471
0.54	.7055	.7091	.7119	.7142	.7161	.7177	.7190	.7201	.7211	.7219	.7226	.7232	.7238	.7243	.7247	.7251
0.56	.6856	.6887	.6913	.6933	.6950	.6964	.6976	.6985	.6994	.7001	.7007	.7013	.7017	.7021	.7025	.7028
0.58	.6655	.6683	.6705	.6723	.6738	.6750	.6760	.6769	.6776	.6782	.6787	.6792	.6796	.6800	.6803	.6806
0.60	.6453	.6478	.6497	.6513	.6525	.6536	.6545	.6552	.6558	.6563	.6568	.6572	.6575	.6578	.6581	.6583
0.62	.6252	.6273	.6290	.6303	.6314	.6322	.6330	.6336	.6341	.6345	.6349	.6353	.6355	.6358	.6360	.6362
0.64	.6051	.6069	.6083	.6094	.6103	.6110	.6116	.6122	.6126	.6129	.6133	.6135	.6138	.6140	.6141	.6143
0.66	.5852	.5867	.5878	.5887	.5895	.5901	.5905	.5909	.5913	.5916	.5918	.5920	.5922	.5924	.5925	.5927
0.68	.5654	.5666	.5676	.5683	.5689	.5693	.5697	.5700	.5703	.5705	.5707	.5709	.5710	.5711	.5712	.5713
0.70	.5459	.5469	.5476	.5481	.5486	.5489	.5492	.5494	.5496	.5498	.5499	.5501	.5502	.5502	.5503	.5504
0.72	.5267	.5274	.5279	.5283	.5287	.5289	.5291	.5292	.5294	.5295	.5296	.5296	.5297	.5298	.5298	.5299
0.74	.5078	.5083	.5086	.5089	.5091	.5093	.5094	.5095	.5095	.5096	.5096	.5097	.5097	.5097	.5098	.5098
0.76	.4892	.4896	.4898	.4899	.4900	.4901	.4901	.4901	.4902	.4902	.4902	.4902	.4902	.4902	.4902	.4902
0.78	.4711	.4712	.4713	.4713	.4713	.4713	.4713	.4713	.4713	.4712	.4712	.4712	.4712	.4712	.4711	.4711
0.80	.4534	.4533	.4533	.4532	.4531	.4531	.4530	.4529	.4529	.4528	.4528	.4527	.4527	.4526	.4526	.4526
0.82	.4361	.4359	.4358	.4356	.4354	.4353	.4352	.4351	.4350	.4349	.4348	.4348	.4347	.4346	.4346	.4346
0.84	.4192	.4190	.4187	.4185	.4183	.4181	.4179	.4178	.4176	.4175	.4174	.4174	.4173	.4172	.4171	.4171
0.86	.4029	.4025	.4021	.4018	.4016	.4013	.4012	.4010	.4008	.4007	.4006	.4005	.4004	.4003	.4002	.4002
0.88	.3870	.3865	.3861	.3857	.3854	.3851	.3849	.3847	.3846	.3844	.3843	.3842	.3841	.3840	.3839	.3838
0.90	.3716	.3710	.3705	.3701	.3698	.3695	.3692	.3690	.3688	.3687	.3685	.3684	.3683	.3682	.3681	.3680
0.92	.3566	.3560	.3555	.3550	.3547	.3543	.3541	.3538	.3536	.3535	.3533	.3532	.3530	.3529	.3528	.3528
0.94	.3422	.3415	.3409	.3405	.3401	.3397	.3394	.3392	.3390	.3388	.3386	.3385	.3383	.3382	.3381	.3380
0.96	.3283	.3275	.3269	.3264	.3260	.3256	.3253	.3251	.3248	.3246	.3245	.3243	.3242	.3241	.3240	.3239
0.98	.3148	.3140	.3134	.3128	.3124	.3120	.3117	.3114	.3112	.3110	.3108	.3107	.3106	.3104	.3103	.3102
1.00	.3018	.3010	.3003	.2998	.2993	.2989	.2986	.2983	.2981	.2979	.2977	.2976	.2974	.2973	.2972	.2971
1.02	.2893	.2884	.2878	.2872	.2867	.2864	.2860	.2857	.2855	.2853	.2851	.2850	.2848	.2847	.2846	.2845
1.04	.2772	.2763	.2757	.2751	.2746	.2742	.2739	.2736	.2734	.2732	.2730	.2728	.2727	.2726	.2725	.2724
1.06	.2656	.2647	.2640	.2635	.2630	.2626	.2623	.2620	.2618	.2615	.2614	.2612	.2611	.2609	.2608	.2607
1.08	.2544	.2535	.2529	.2523	.2518	.2514	.2511	.2508	.2506	.2504	.2502	.2500	.2499	.2498	.2497	.2496
1.10	.2437	.2428	.2421	.2415	.2411	.2407	.2404	.2401	.2398	.2396	.2395	.2393	.2392	.2390	.2389	.2388
1.12	.2334	.2325	.2318	.2312	.2308	.2304	.2301	.2298	.2296	.2294	.2292	.2290	.2289	.2288	.2287	.2286

OFFSET CIRCLE PROBABILITIES

DISTANCE DAMAGE SIGMA (σ_d) = 50% WR

WEAPON RADIUS/CEP$_a$ (WR/CEP$_a$)

OFFSET DISTANCE/WEAPON RADIUS (D/WR)

	6.00	6.50	7.00	7.50	8.00	8.50	9.00	9.50	10.00	10.50	11.00	11.50	12.00	12.50	13.00	13.50
1.14	.2234	.2226	.2219	.2214	.2209	.2205	.2202	.2199	.2197	.2195	.2193	.2192	.2190	.2189	.2188	.2187
1.16	.2139	.2131	.2124	.2119	.2114	.2110	.2107	.2105	.2102	.2100	.2099	.2097	.2096	.2095	.2094	.2093
1.18	.2048	.2040	.2033	.2028	.2023	.2020	.2017	.2014	.2012	.2010	.2008	.2007	.2005	.2004	.2003	.2002
1.20	.1961	.1953	.1946	.1941	.1936	.1933	.1930	.1927	.1925	.1923	.1921	.1920	.1919	.1918	.1917	.1916
1.22	.1877	.1869	.1862	.1857	.1853	.1849	.1847	.1844	.1842	.1840	.1838	.1837	.1836	.1835	.1834	.1833
1.24	.1796	.1789	.1782	.1777	.1773	.1770	.1767	.1764	.1762	.1760	.1759	.1758	.1756	.1755	.1754	.1753
1.26	.1719	.1712	.1706	.1701	.1697	.1693	.1691	.1688	.1686	.1684	.1683	.1681	.1680	.1679	.1678	.1678
1.28	.1646	.1638	.1632	.1627	.1624	.1620	.1618	.1615	.1613	.1612	.1610	.1609	.1608	.1607	.1606	.1605
1.30	.1573	.1568	.1562	.1557	.1553	.1550	.1548	.1545	.1543	.1542	.1540	.1539	.1538	.1537	.1536	.1535
1.32	.1507	.1500	.1495	.1490	.1486	.1483	.1481	.1479	.1477	.1475	.1474	.1473	.1471	.1471	.1470	.1469
1.34	.1443	.1436	.1430	.1426	.1422	.1419	.1417	.1415	.1413	.1411	.1410	.1409	.1408	.1407	.1406	.1405
1.36	.1381	.1374	.1369	.1365	.1361	.1358	.1356	.1354	.1352	.1350	.1349	.1348	.1347	.1346	.1345	.1345
1.38	.1321	.1315	.1310	.1306	.1302	.1300	.1297	.1295	.1294	.1292	.1291	.1290	.1289	.1288	.1287	.1287
1.40	.1265	.1258	.1254	.1250	.1246	.1244	.1241	.1239	.1238	.1236	.1235	.1234	.1233	.1232	.1232	.1231
1.42	.1210	.1204	.1200	.1196	.1193	.1190	.1188	.1186	.1185	.1183	.1182	.1181	.1180	.1179	.1179	.1178
1.44	.1159	.1153	.1148	.1144	.1141	.1139	.1137	.1135	.1134	.1132	.1131	.1130	.1129	.1128	.1128	.1127
1.46	.1109	.1103	.1099	.1095	.1092	.1090	.1088	.1086	.1085	.1084	.1082	.1082	.1081	.1080	.1079	.1079
1.48	.1061	.1056	.1052	.1048	.1046	.1043	.1041	.1040	.1038	.1037	.1036	.1035	.1034	.1034	.1033	.1032
1.50	.1016	.1011	.1007	.1003	.1001	.0999	.0997	.0995	.0994	.0993	.0992	.0991	.0990	.0989	.0989	.0988
1.60	.0817	.0813	.0810	.0807	.0805	.0803	.0801	.0800	.0799	.0798	.0797	.0797	.0796	.0795	.0795	.0794
1.70	.0659	.0655	.0652	.0650	.0648	.0647	.0646	.0645	.0644	.0643	.0642	.0642	.0641	.0641	.0640	.0640
1.80	.0532	.0529	.0527	.0525	.0524	.0522	.0521	.0521	.0520	.0519	.0519	.0518	.0518	.0517	.0517	.0517
1.90	.0431	.0428	.0426	.0425	.0424	.0423	.0422	.0421	.0421	.0420	.0420	.0420	.0419	.0419	.0419	.0418
2.00	.0349	.0348	.0346	.0345	.0344	.0343	.0343	.0342	.0342	.0341	.0341	.0341	.0340	.0340	.0340	.0340
2.10	.0284	.0283	.0282	.0281	.0280	.0279	.0279	.0278	.0278	.0278	.0277	.0277	.0277	.0277	.0277	.0276
2.20	.0232	.0231	.0230	.0229	.0228	.0228	.0228	.0227	.0227	.0227	.0226	.0226	.0226	.0226	.0226	.0226
2.30	.0190	.0189	.0188	.0187	.0187	.0187	.0186	.0186	.0186	.0185	.0185	.0185	.0185	.0185	.0185	.0185
2.40	.0156	.0155	.0154	.0154	.0153	.0153	.0153	.0153	.0152	.0152	.0152	.0152	.0152	.0152	.0152	.0152
2.50	.0128	.0127	.0127	.0127	.0126	.0126	.0126	.0126	.0125	.0125	.0125	.0125	.0125	.0125	.0125	.0125
2.60	.0106	.0105	.0105	.0104	.0104	.0104	.0104	.0104	.0103	.0103	.0103	.0103	.0103	.0103	.0103	.0103
2.70	.0087	.0087	.0087	.0086	.0086	.0086	.0086	.0086	.0086	.0086	.0085	.0085	.0085	.0085	.0085	.0085
2.80	.0072	.0072	.0072	.0072	.0071	.0071	.0071	.0071	.0071	.0071	.0071	.0071	.0071	.0071	.0071	.0071
2.90	.0060	.0060	.0060	.0060	.0059	.0059	.0059	.0059	.0059	.0059	.0059	.0059	.0059	.0059	.0059	.0059
3.00	.0050	.0050	.0050	.0050	.0050	.0049	.0049	.0049	.0049	.0049	.0049	.0049	.0049	.0049	.0049	.0049
3.10	.0042	.0042	.0042	.0041	.0041	.0041	.0041	.0041	.0041	.0041	.0041	.0041	.0041	.0041	.0041	.0041
3.20	.0035	.0035	.0035	.0035	.0035	.0035	.0035	.0035	.0034	.0034	.0034	.0034	.0034	.0034	.0034	.0034
3.30	.0029	.0029	.0029	.0029	.0029	.0029	.0029	.0029	.0029	.0029	.0029	.0029	.0029	.0029	.0029	.0029
3.40	.0025	.0025	.0025	.0025	.0025	.0024	.0024	.0024	.0024	.0024	.0024	.0024	.0024	.0024	.0024	.0024
3.50	.0021	.0021	.0021	.0021	.0021	.0021	.0021	.0021	.0021	.0021	.0021	.0021	.0021	.0021	.0021	.0020
3.60	.0018	.0018	.0018	.0018	.0017	.0017	.0017	.0017	.0017	.0017	.0017	.0017	.0017	.0017	.0017	.0017
3.70	.0015	.0015	.0015	.0015	.0015	.0015	.0015	.0015	.0015	.0015	.0015	.0015	.0015	.0015	.0015	.0015
3.80	.0013	.0013	.0013	.0013	.0013	.0013	.0013	.0013	.0013	.0013	.0013	.0012	.0012	.0012	.0012	.0012
∞	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000

OFFSET CIRCLE PROBABILITIES

DISTANCE DAMAGE SIGMA (σ_d) = 50% WR

OFFSET DISTANCE/WEAPON RADIUS (D/WR)

	WEAPON RADIUS/CEP$_a$ (WR/CEP$_a$)															P_d
	13.00	13.50	14.00	14.50	15.00	15.50	16.00	16.50	17.00	17.50	18.00	18.50	19.00	19.50	20.00	∞
0.00	.9996	.9997	.9997	.9998	.9998	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999	.9999
0.05	.9992	.9994	.9994	.9995	.9996	.9996	.9997	.9997	.9998	.9998	.9998	.9998	.9999	.9999	.9999	.9999
0.10	.9977	.9979	.9981	.9983	.9984	.9986	.9987	.9988	.9989	.9990	.9990	.9991	.9991	.9992	.9992	.9999
0.15	.9935	.9939	.9942	.9946	.9949	.9951	.9954	.9956	.9958	.9960	.9961	.9963	.9964	.9965	.9966	.9987
0.20	.9845	.9851	.9856	.9862	.9866	.9870	.9874	.9877	.9880	.9883	.9886	.9888	.9891	.9893	.9895	.9931
0.25	.9684	.9692	.9699	.9706	.9711	.9717	.9721	.9726	.9730	.9734	.9737	.9740	.9743	.9746	.9748	.9797
0.30	.9438	.9447	.9454	.9462	.9468	.9474	.9479	.9484	.9488	.9492	.9496	.9499	.9503	.9505	.9508	.9562
0.35	.9103	.9112	.9119	.9126	.9132	.9138	.9143	.9148	.9152	.9156	.9159	.9163	.9166	.9169	.9171	.9223
0.40	.8688	.8695	.8702	.8708	.8714	.8719	.8723	.8727	.8731	.8735	.8738	.8741	.8744	.8746	.8748	.8794
0.45	.8208	.8215	.8220	.8225	.8230	.8234	.8238	.8241	.8244	.8247	.8250	.8252	.8254	.8256	.8258	.8296
0.50	.7685	.7689	.7694	.7698	.7701	.7704	.7707	.7710	.7712	.7715	.7717	.7718	.7720	.7722	.7723	.7752
0.55	.7136	.7140	.7143	.7146	.7148	.7151	.7153	.7155	.7156	.7158	.7159	.7161	.7162	.7163	.7164	.7185
0.60	.6581	.6583	.6585	.6587	.6589	.6591	.6592	.6593	.6594	.6596	.6596	.6597	.6598	.6599	.6600	.6613
0.65	.6033	.6034	.6036	.6037	.6038	.6039	.6040	.6040	.6041	.6042	.6042	.6043	.6043	.6044	.6044	.6052
0.70	.5503	.5504	.5504	.5505	.5505	.5506	.5506	.5507	.5507	.5507	.5508	.5508	.5508	.5508	.5508	.5512
0.75	.4999	.4999	.4999	.5000	.5000	.5000	.5000	.5000	.5000	.5000	.5000	.5000	.5000	.5000	.5000	.5000
0.80	.4526	.4526	.4525	.4525	.4525	.4525	.4524	.4524	.4524	.4524	.4524	.4524	.4524	.4523	.4523	.4521
0.85	.4086	.4086	.4085	.4085	.4084	.4084	.4084	.4083	.4083	.4083	.4082	.4082	.4082	.4081	.4081	.4077
0.90	.3681	.3680	.3679	.3679	.3678	.3678	.3677	.3677	.3676	.3676	.3676	.3675	.3675	.3675	.3674	.3670
0.95	.3310	.3309	.3308	.3307	.3307	.3306	.3306	.3305	.3305	.3304	.3304	.3303	.3303	.3303	.3303	.3297
1.00	.2972	.2971	.2970	.2969	.2969	.2968	.2968	.2967	.2967	.2966	.2966	.2965	.2965	.2965	.2964	.2959
1.05	.2666	.2665	.2664	.2663	.2663	.2662	.2661	.2661	.2660	.2660	.2659	.2659	.2659	.2658	.2658	.2652
1.10	.2389	.2388	.2388	.2387	.2386	.2385	.2385	.2384	.2384	.2383	.2383	.2383	.2382	.2382	.2382	.2376
1.15	.2140	.2139	.2139	.2138	.2137	.2137	.2136	.2135	.2135	.2135	.2134	.2134	.2134	.2133	.2133	.2127
1.20	.1917	.1916	.1915	.1914	.1914	.1913	.1912	.1912	.1912	.1911	.1911	.1910	.1910	.1910	.1910	.1904
1.25	.1716	.1715	.1714	.1714	.1713	.1713	.1712	.1712	.1711	.1711	.1710	.1710	.1710	.1710	.1709	.1704
1.30	.1536	.1535	.1535	.1534	.1534	.1533	.1533	.1532	.1532	.1531	.1531	.1531	.1531	.1530	.1530	.1526
1.35	.1375	.1375	.1374	.1373	.1373	.1373	.1372	.1372	.1371	.1371	.1371	.1370	.1370	.1370	.1370	.1366
1.40	.1232	.1231	.1230	.1230	.1229	.1229	.1229	.1228	.1228	.1228	.1227	.1227	.1227	.1227	.1227	.1223
1.45	.1103	.1103	.1102	.1102	.1101	.1101	.1101	.1100	.1100	.1100	.1099	.1099	.1099	.1099	.1099	.1095
1.50	.0989	.0988	.0988	.0987	.0987	.0986	.0986	.0986	.0986	.0985	.0985	.0985	.0985	.0985	.0984	.0981
1.60	.0793	.0794	.0794	.0794	.0793	.0793	.0793	.0793	.0792	.0792	.0792	.0792	.0792	.0791	.0791	.0789
1.70	.0640	.0640	.0640	.0639	.0639	.0639	.0639	.0638	.0638	.0638	.0638	.0638	.0638	.0638	.0638	.0635
1.80	.0517	.0517	.0517	.0516	.0516	.0516	.0516	.0516	.0515	.0515	.0515	.0515	.0515	.0515	.0515	.0513
1.90	.0419	.0418	.0418	.0418	.0418	.0418	.0418	.0417	.0417	.0417	.0417	.0417	.0417	.0417	.0417	.0415
2.00	.0340	.0340	.0339	.0339	.0339	.0339	.0339	.0339	.0339	.0339	.0339	.0338	.0338	.0338	.0338	.0337
2.20	.0226	.0226	.0226	.0225	.0225	.0225	.0225	.0225	.0225	.0225	.0225	.0225	.0225	.0225	.0225	.0224
2.40	.0152	.0152	.0151	.0151	.0151	.0151	.0151	.0151	.0151	.0151	.0151	.0151	.0151	.0151	.0151	.0151
2.60	.0103	.0103	.0103	.0103	.0103	.0103	.0103	.0103	.0103	.0103	.0103	.0103	.0103	.0103	.0103	.0102
2.80	.0071	.0071	.0071	.0071	.0071	.0071	.0071	.0071	.0071	.0070	.0070	.0070	.0070	.0070	.0070	.0070
3.00	.0049	.0049	.0049	.0049	.0049	.0049	.0049	.0049	.0049	.0049	.0049	.0049	.0049	.0049	.0049	.0049
3.20	.0034	.0034	.0034	.0034	.0034	.0034	.0034	.0034	.0034	.0034	.0034	.0034	.0034	.0034	.0034	.0034
∞	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000

DISTRIBUTION LIST

DEPARTMENT OF DEFENSE

Commandant
Armed Forces Staff College
ATTN: Library

Commander in Chief, Pacific, JCS
ATTN: J-32

Commander in Chief, Pacific
ATTN: IPAC 04

Director
Defense Advanced Rsch. Proj. Agency
ATTN: Strategic Tech. Ofc.
ATTN: Tactical Tech. Ofc.
ATTN: Technical Info. Officer

Director
Defense Communications Agency
ATTN: Code B210, Wpn. Sys. Anal. Div.
ATTN: Code B121, CCTC, Lib.

Defense Documentation Center
12 cy ATTN: TC

Director
Defense Intelligence Agency
5 cy ATTN: DB 4

Director
Defense Nuclear Agency
ATTN: STSI, Archives
ATTN: STVL
ATTN: RATN
ATTN: STNA
3 cy ATTN: DDST
3 cy ATTN: STTL
10 cy ATTN: VLWS

Headquarters
European Command
ATTN: J5
5 cy ATTN: J2T

Commander
Field Command
Defense Nuclear Agency
ATTN: FCPR

Commandant
Industrial College of the Armed Forces
ATTN: Tech. Lib.

Director
Joint Strat. Tgt. Planning Staff, JCS
ATTN: Doc. Con.
ATTN: JPTP
2 cy ATTN: JLTW

Chief
Livermore Div., Fld. Command
Lawrence Livermore Lab.
ATTN: FCPRL

DEPARTMENT OF DEFENSE (Continued)

Commandant
National War College
ATTN: NWCLB-CR

Office of the Secretary of Defense
Program Analysis & Evaluation
ATTN: Nuc. Wpns. Div.

Assistant to the Secretary of Defense
Atomic Energy

OJCS/J-3
ATTN: J-3, Nuclear Contingency Br.

OJCS/J-5
ATTN: J-5, Nuc/Bio/Chem Br.

OJCS/J-6
ATTN: J-6

Studies Analysis & Gaming Agency
Joint Chiefs of Staff
ATTN: Strat. Forces Div.
ATTN: General Purpose Forces Div.

DEPARTMENT OF THE ARMY

Asst. Chief of Staff for Force Dev.
ATTN: Dir. of Chem. & Nuc. Ops.

Deputy Chief of Staff for Ops. & Plans
ATTN: Doc. Con.

Commander
Harry Diamond Laboratories
2 cy ATTN: DRXDO-NP

Commander
U.S. Army Nuclear Agency
2 cy

Commandant
U.S. Army Armor School
ATTN: Library

Director
U.S. Army Ballistic Rsch. Labs.
ATTN: DRXRD-BMA, Effects Analysis Br.
ATTN: Tech. Lib.

Commandant
U.S. Army Comd. & General Staff College
ATTN: ACQ Library Div.

Commandant
U.S. Army War College
ATTN: Library

Commandant
U.S. Military Academy
ATTN: Doc. Lib.

DEPARTMENT OF THE NAVY

Chief of Naval Research
ATTN: Tech. Info. Services

DEPARTMENT OF THE NAVY (Continued)

Commander-in-Chief
U.S. Atlantic Fleet
3 cy ATTN: N22

Superintendent
Naval Academy
ATTN: Library

Superintendent
Naval Postgraduate School
ATTN: Code 2124, Tech. Rpts. Librarian

Director
Naval Research Lab.
ATTN: Library

Commanding Officer
Naval Schools Command
ATTN: Dir., NBC Def. Div., Code 62

Commander
Naval Sea Systems Command
ATTN: ORD-054111
ATTN: ORD-91313, Library

Commander
Naval Surface Weapons Center
ATTN: Code 1224, Navy Nuc. Prgms. Ofc.
ATTN: Code 730, Tech. Lib.

President
Naval War College
ATTN: Doc. Con.

Commanding Officer
Nuclear Weapons Tng. Center, Pacific
15 cy ATTN: Doc. Con.

Commander
Nuclear Weapons Tng. Group, Atlantic
15 cy ATTN: Doc. Con.

Commander-in-Chief
U.S. Atlantic Fleet
ATTN: Doc. Con.

Commander-in-Chief
U.S. Pacific Fleet
ATTN: Doc. Con.

DEPARTMENT OF THE AIR FORCE

AF Weapons Laboratory, AFSC
ATTN: DYT
ATTN: SUL

Commander in Chief
Strategic Air Command
ATTN: NRI-STINFO, Library
3 cy ATTN: ADINDS, Capt J. M. Anderson

ENERGY RESEARCH & DEVELOPMENT ADMINISTRATION

Los Alamos Scientific Laboratory
ATTN: Doc. Con. for Reports Lib.

University of California
Lawrence Livermore Laboratory
ATTN: Tech. Info. Dept., L-3

OTHER GOVERNMENT AGENCY

U.S. Arms Control & Disarmament Agency
ATTN: Sci. & Tech. Div.

DEPARTMENT OF DEFENSE CONTRACTORS

Aerospace Corporation
ATTN: Library

The BDM Corporation
ATTN: Dr. J. Braddock

General Electric Company
TEMPO-Center for Advanced Studies
ATTN: DASIAC

Institute for Defense Analyses
ATTN: IDA, Librarian, Ruth S. Smith

R & D Associates
2 cy ATTN: Doc. Con.

The Rand Corporation
ATTN: Milt Weiner

Science Applications, Inc.
ATTN: James W. Farschon
ATTN: Laura N. Matteson
20 cy ATTN: Doc. Con.

Science Applications, Inc.
ATTN: Doc. Con.

Stanford Research Institute
3 cy ATTN: Philip J. Dolan