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CELESTIAL COORDINATE TRANSFORMATIONS

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CELESTIAL COORDINATE TRANSFORMATIONS

SUMMARY

Three Fortran programs, required to give the coordinate transformations among the equatorial, ecliptic, and galactic systems, are listed and described. A brief review of spherical trigonometry is included. From the equations given for coordinate transformations and a development of the equatorial and ecliptic systems [1], a method for the general transformations was derived. These coordinate transformations were developed and programmed for use in the determination of the ecliptic (Zodiacal Light) with respect to the other systems for analysis of the S-073/T-027 AAP experiment data analysis.

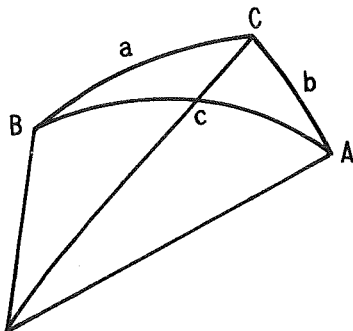
INTRODUCTION

In connection with the S-073/T-027 AAP experiment data analysis, there is some question regarding determination of position and view for any particular data point. It will be necessary to transfer among several different coordinate systems. This report provides tables for references and computer programs to facilitate these transfers. It includes the equatorial, ecliptic, and galactic systems of reference.

SPHERICAL TRIGONOMETRY

In dealing with the celestial coordinate systems, it is necessary to know certain rudiments of spherical trigonometry. There are three distinct types of angular measure. Angular distance between two points on a sphere is the arc subtended by the plane angle between the radii (lines of sight) from the center (observer) to these points. It is an arc of the great circle (intersection of a plane through the center and the surface of the sphere) through the two points. The second type of angular measure is an arc of a small circle (i. e., one that lies in a plane that does not pass through the center of the sphere). The third type is the angle of intersection of two great circles.

Also basic to this study are the equations defining a spherical triangle (completely on the surface of the sphere) of angles A, B, C and of opposing sides a, b, c (Fig. 1).



$$\cos a = \cos b \cos c + \sin b \sin c \cos A$$

$$\frac{\sin A}{\sin a} = \frac{\sin B}{\sin b} = \frac{\sin C}{\sin c}$$

$$\sin a \cos B = \cos b \sin c - \sin b \cos c \cos A$$

Figure 1. Spherical triangle.

THE CELESTIAL SPHERE/COORDINATE SYSTEMS

The celestial sphere describes the seemingly spherical surface studded with heavenly bodies surrounding the earth and centered at the observer. Celestial bodies can be located by position on the surface of this "sphere" (Fig. 2). General coordinates $(\alpha, \delta) = (\lambda, \beta)$ are defined as follows:

1. Celestial longitude: alpha (α), looking at the great circle (an equator) from the north-defined pole, is measured counterclockwise from a fixed arbitrary point $(0, 0)$. (In the equatorial system, longitude is called right ascension.)
2. Celestial latitude: delta (δ) is the angular distance from the great circle (equator) to the point along the α -meridian (another great circle passing through the pole, perpendicular to the great circle (equator) at the center of the sphere, and intersecting it at α). Delta is assigned positive values when approaching the north-defined pole and negative values when retreating on the other side of the great circle (equator). (In the equatorial system, latitude is called declination.)

This same method of measurement is used in each of the following discussions; each system has its own great circle and pole.

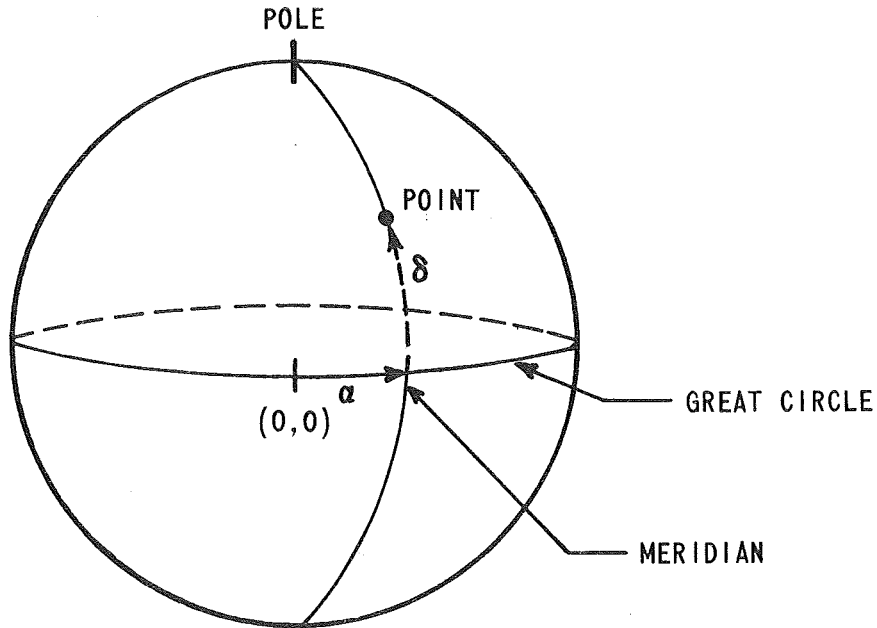


Figure 2. Celestial sphere: great circle and North Pole.

Discussed here are three basic frames of reference for finding position. The first is the equatorial (geocentric) system. The equatorial plane, determined by the plane through the earth's equator, describes a great circle on the celestial sphere. The ecliptic (heliocentric) plane is determined by the path of earth's orbit around the sun in the solar system. The great circles of these two systems intersect at the First Point of Aries. This is considered the point $(\alpha, \delta) = (0^\circ, 0^\circ)$ for these two systems. Finally, the galactic plane is formed by the Milky Way. The Milky Way is a relatively "flat" galaxy, so for our purposes, it can be adequately represented by a plane. The need for these different systems is because of the tilt of the earth's axis in the solar system and of the latter's positioning within the galaxy. This is shown in Figure 3, and greatly exaggerated to make the geometry clear.

The equatorial and ecliptic poles are separated by epsilon, $\epsilon = 23^\circ 27' 8.26''$, on the 270° (equatorial) meridian. This shift in the planes is called the obliquity of the ecliptic (Fig. 4).

The "new" galactic pole ($\alpha = 192^\circ 15'$, $\delta = 27^\circ 24'$) is also removed from the equatorial pole by an obliquity; call it E, equal to 62.6° . In addition, the $(0^\circ, 0^\circ)$ point of the galactic plane is at $(192.25^\circ, 0^\circ)$ in the equatorial system, so there is a phase shift along the great circle, as well as the obliquity, E (Fig. 5).

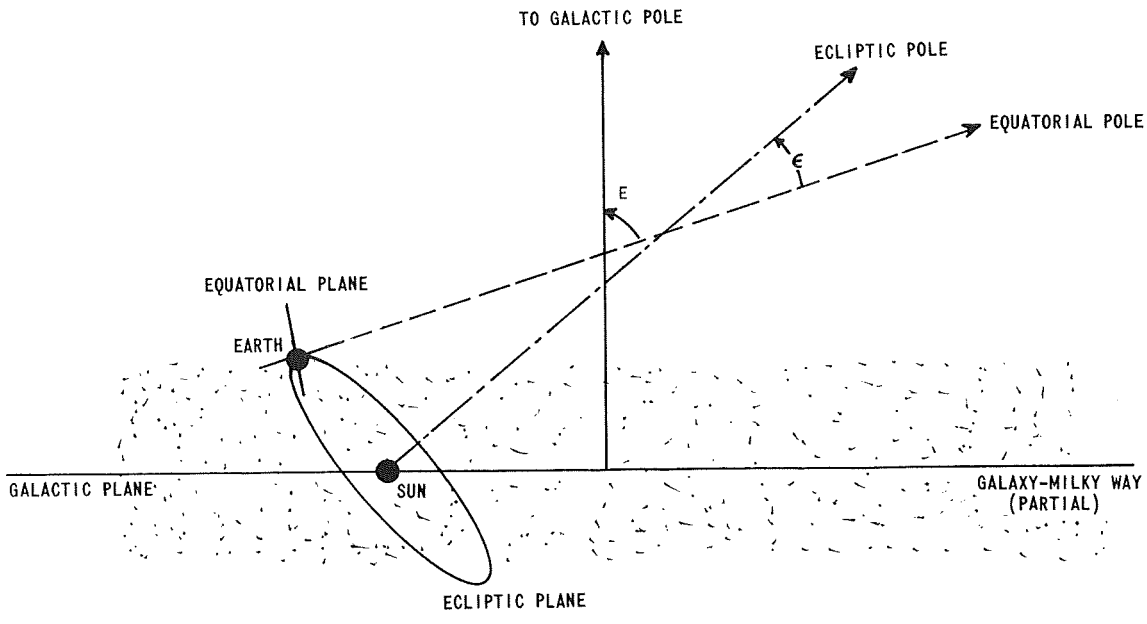


Figure 3. Schematic diagram of coordinate system relationships.

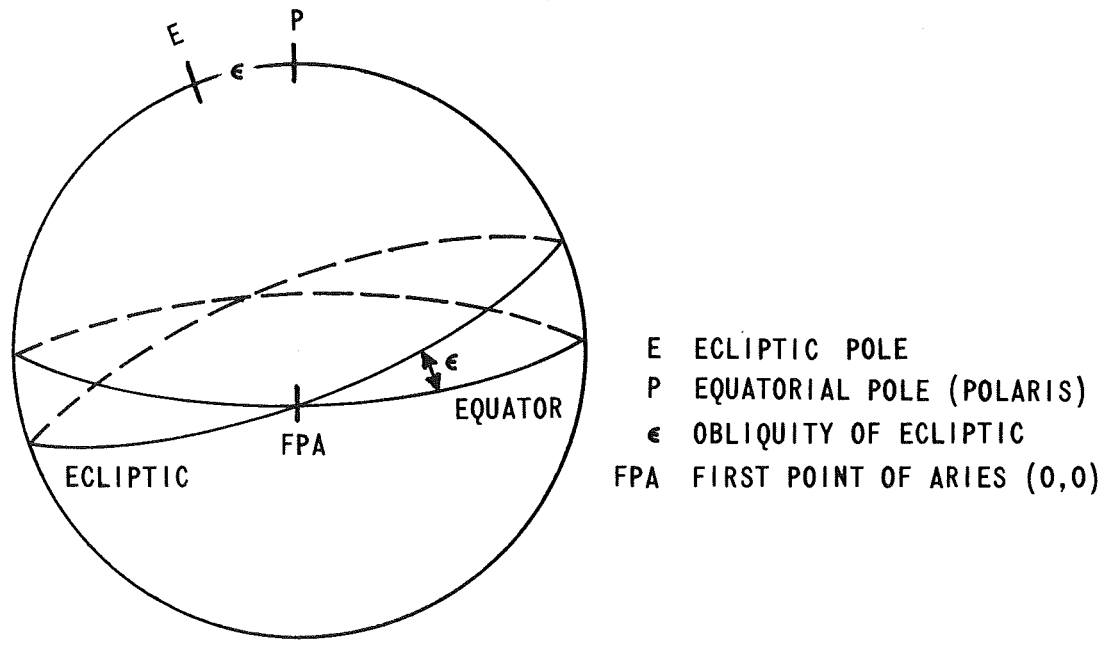


Figure 4. Celestial sphere: equatorial and ecliptic.

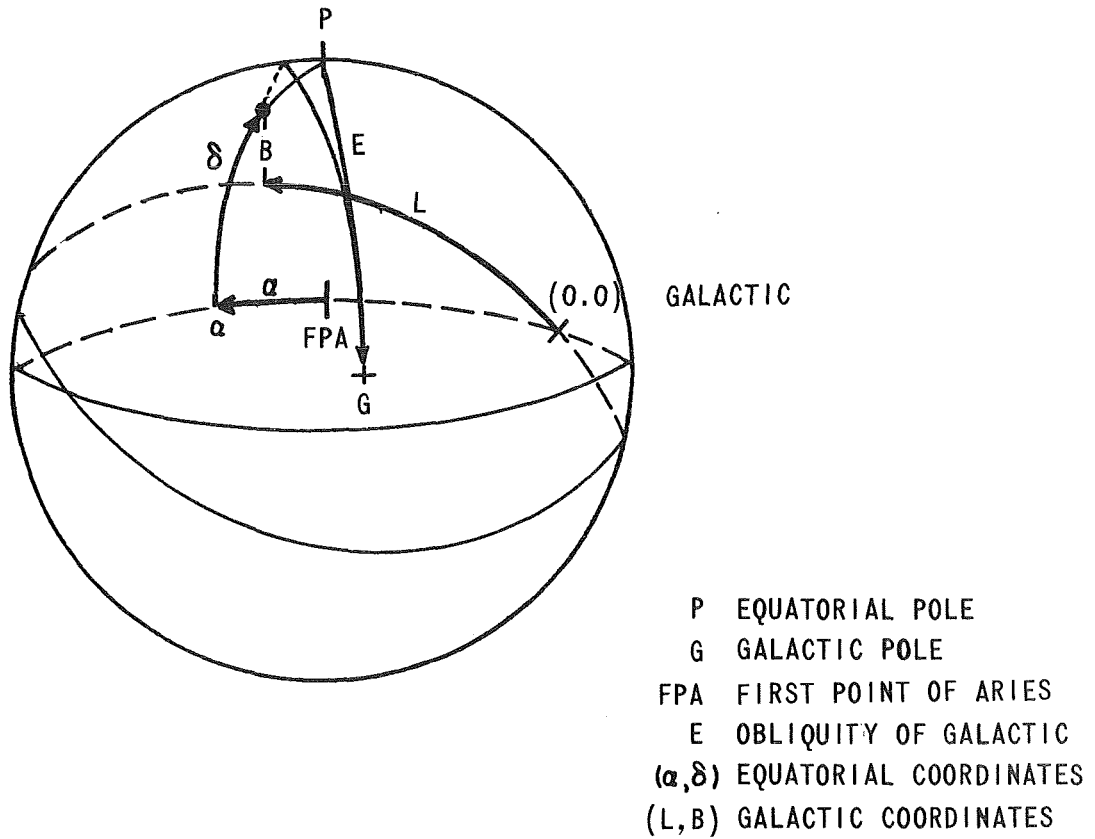


Figure 5. Celestial sphere: equatorial and galactic.

Using the equations for spherical trigonometry, the equations for coordinate transformations can be derived (Fig. 6).

$$\left. \begin{array}{l} \text{EQT} \rightarrow \text{ECL} \end{array} \right\} \begin{array}{l} \sin \beta = \cos \epsilon \sin \delta - \sin \epsilon \cos \delta \sin \alpha \\ \cos \beta \sin \lambda = \sin \epsilon \sin \delta + \cos \epsilon \cos \delta \sin \alpha \\ \cos \beta \cos \lambda = \cos \delta \cos \alpha \end{array} \quad (1)$$

$$\left. \begin{array}{l} \text{ECL} \rightarrow \text{EQT} \end{array} \right\} \begin{array}{l} \sin \delta = \cos \epsilon \sin \beta + \sin \epsilon \sin \beta \sin \lambda \\ \cos \delta \sin \alpha = \cos \epsilon \cos \beta \sin \lambda - \sin \epsilon \sin \beta \\ \cos \delta \cos \alpha = \cos \beta \cos \lambda \end{array} \quad (2)$$

(α, δ) is transformed to (λ, β) or vice versa. α, λ and δ, β are equivalent parameters in the equatorial and ecliptic systems. The corresponding coordinates in the galactic system are (L, B).

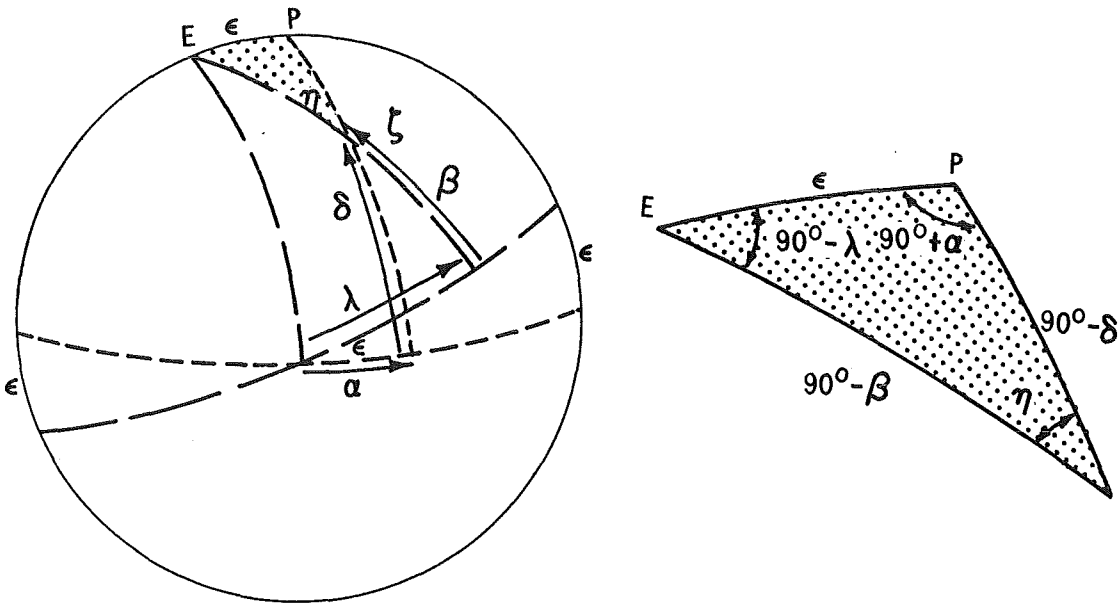


Figure 6. Coordinate relationships: equatorial and ecliptic.

The second sets can be derived from the first by exchanging $\alpha \leftrightarrow \lambda$, $\delta \leftrightarrow \beta$, $\epsilon \leftrightarrow -\epsilon$. Now, the same principle can be applied to the change from the equatorial to the galactic system, with the addition of a rotation by the equatorial great circle of 192.25° . Alpha and delta are still the equatorial parameters, but now L and B refer to the galactic parameters. However, the reverse transformation, galactic to equatorial, will require special handling because of the rotation shift.

PROGRAMMING

Examining these equations, λ and β or L and B will be indeterminate in some cases when the spherical triangle becomes a line (the two poles and the point are colinear or are on the same great circle). Special handling was programmed for these cases.

The transformation from ecliptic to galactic can be obtained from the other two by calling subroutines.

Three tables* were printed from Fortran IV programs:

- Table 1. Equatorial Coordinates to Ecliptic Coordinates
- Table 2. Equatorial Coordinates to Galactic Coordinates
- Table 3. Ecliptic Coordinates to Galactic Coordinates

Alpha and delta are the longitude and latitude, respectively, of the first system, and lambda and beta are the corresponding parameters for the new, transformed system.

Here, for programming convenience, the coordinates are listed in degrees and fractions of degrees, as opposed to hours ($= 15^\circ$) or any other form of designating measurement.

CONCLUSION

A graphical representation of the celestial sphere has been prepared from the tables, depicting the equatorial, ecliptic, and galactic great circles on an Aitoff Projection (Fig. 7).

* For convenience, Tables 1, 2, and 3 have been placed after the Conclusion.

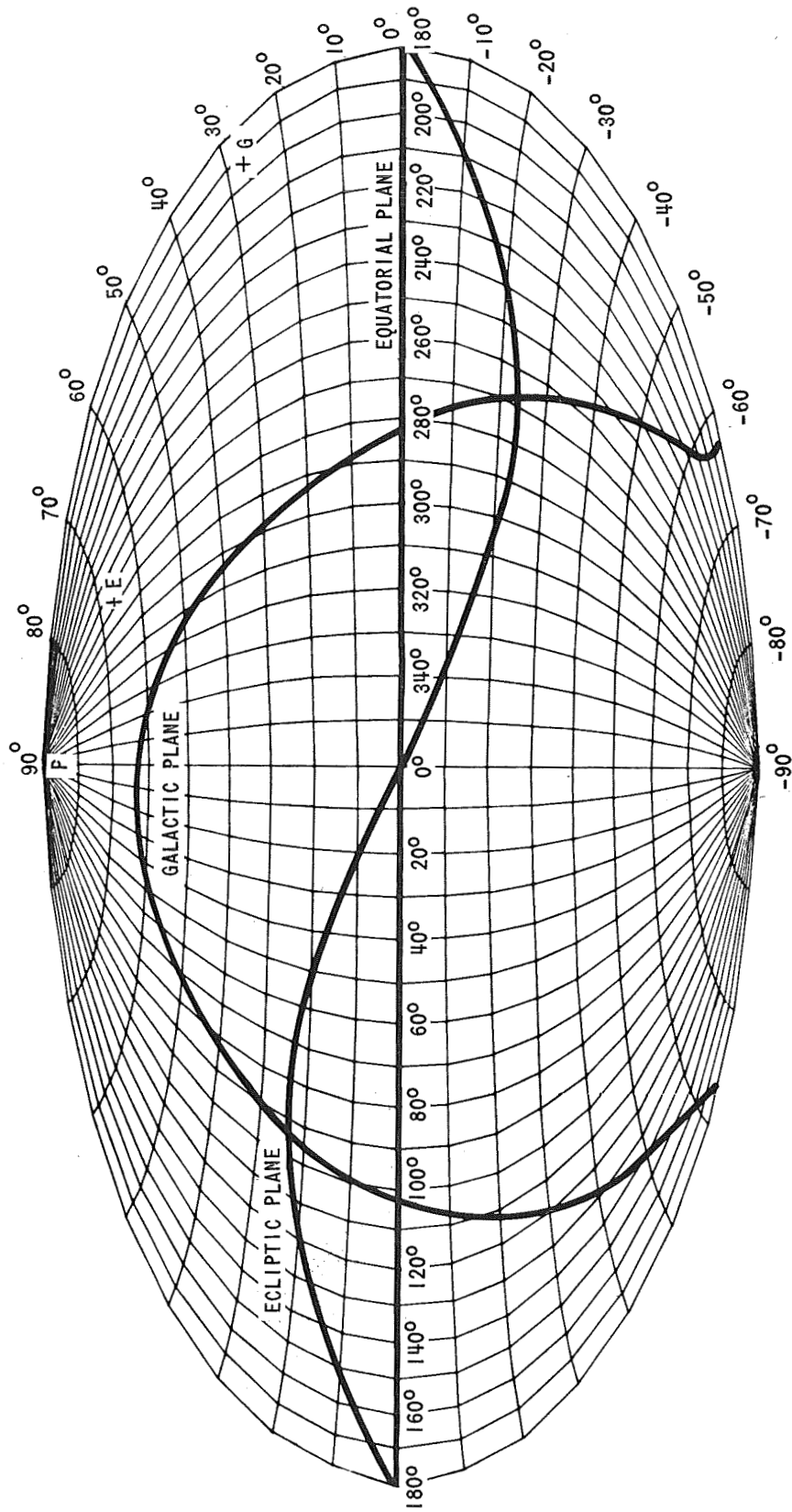


Figure 7. Aitoff projection of equatorial coordinate system with three great circles: equatorial, ecliptic, and galactic planes.

PROGRAM LISTING FOR TABLES 1, 2, AND 3

```

SUBROUTINE EQTECL(EP,E,ALP,DEL,FLAM,BETA)
C   THIS SUBROUTINE IS THE COORDINATE TRANSFER FROM EQUATORIAL
C   TO ECLIPTIC COORDINATES IN THE CELESTIAL SPHERE
C   AND VICE VERSA
C
C   SVAR IS SINE OF VAR, CVAR IS COSINE OF VAR
C   READ ALPHA AND DELTA FOR EQUATORIAL TO ECLIPTIC
C   READ LAMBDA,BETA AND MINUS EPSILON FOR ECLIPTIC TO EQUATORIAL
C   EPSILON IS THE ANGULAR DISTANCE BETWEEN THE EQUATORIAL AND THE
C   ECLIPTIC POLES ON THE CELESTIAL SPHERE
C   E = EPSILON (DEGREES)   EP = EPSILON (RADIAN)
C   EPSILON= 23.45222222 DEG = .4093184946 RAD
C   M=5
C   M1=6
C   PI=3.14159265
C   ARRAY=ALP
C   DRRAY=DEL
C   THE NEXT 9 STEPS TAKE CARE OF THE TROUBLE SPOTS WHERE THE
C   SPHERICAL TRIANGLE BECOMES AN ARC
C   IF (ALP-90.)5,9,5
5  IF (ALP-270.)10,8,10
8  BETA=DEL+E
   FLAM=ALP
   GO TO 11
9  BETA=DEL-E
   FLAM=ALP
   GO TO 11
10 CONTINUE
   ALP=ALP*PI/180.
   DEL=DEL*PI/180.
C   THESE STEPS FOLLOW FROM SPHERICAL TRIGONOMETRY
   SBETA=COS(EP)*SIN(DEL)-SIN(EP)*COS(DEL)*SIN(ALP)
   CBETA=SQRT(1.-SBETA**2)
   SLAM=(SIN(EP)*SIN(DEL)+COS(EP)*COS(DEL)*SIN(ALP))/CBETA
   CLAM=(COS(DEL)*COS(ALP))/CBETA
   BETA=ATAN2(SBETA,CBETA)
   FLAM=ATAN2(SLAM,CLAM)
   ALP=ALP*180./PI
   DEL=DEL*180./PI
   FLAM=FLAM*180./PI
   BETA=BETA*180./PI
11 CONTINUE
   IF (FLAM)500,501,501
500 FLAM=FLAM+360.
501 CONTINUE
   ALP=ARRAY
   DEL=DRRAY
   RETURN
END

```

PROGRAM LISTING FOR TABLES 1, 2, AND 3 (Continued)

```

SUBROUTINE F0TGAL(ALP,DFL,FLAM,BETA)
C THIS SUBROUTINE IS THE COORDINATE TRANSFER FROM EQUATORIAL
C TO GALACTIC COORDINATES IN THE CELESTIAL SPHERE
C
C SVAR IS SINE OF VAR, CVAR IS COSINE OF VAR
C EPSILON IS THE ANGULAR DISTANCE BETWEEN THE EQUATORIAL AND THE
C GALACTIC POLES ON THE CELESTIAL SPHERE
C E = EPSILON (DEGREES) EP = EPSILON (RADIAN)
C EPSILON=62.6 DEG= 1.09257611 RAD
M1=6
M=5
PI=3.14159265
E=62.6
EP=1.0925761
ARRAY=ALP
ORRAY=DEL
A=ALP-282.25
C THE FOLLOWING SIX STEPS TAKE INTO ACCOUNT THE DISPLACEMENT OF THE
C INTERSECTION OF THE GREAT EQUATORIAL CIRCLES OF THE TWO SYSTEMS
C FROM THE FIRST POINT OF ARIES
IF (A)5,4+4
4 ALP=A
GO TO 6
5 ALP=360.+A
6 CONTINUE
C THE NEXT 6 STEPS TAKE CARE OF THE TROUBLE SPOTS WHERE THE
C SPHERICAL TRIANGLE BECOMES AN ARC
IF (ALP-90.)21,22,21
21 IF (ALP-270.)23,22,23
22 FLAM=90.
BETA=DEL-E
GO TO 50
23 CONTINUE
ALP=ALP*PI/180.
DEL=DFL*PI/180.
C THESE STEPS FOLLOW FROM SPHERICAL TRIGONOMETRY
SBETA=COS(EP)*SIN(DEL)-SIN(EP)*COS(DEL)*SIN(ALP)
CBETA=SQRT(1.-SBETA**2)
SLAM=(SIN(EP)*SIN(DFL)+COS(EP)*COS(DEL)*SIN(ALP))/CBETA
CLAM=(COS(DFL)*COS(ALP))/CBETA
BETA=ATAN2(SBETA,CBETA)
FLAM=ATAN2(SLAM,CLAM)
FLAM=FLAM*180./PI
BETA=BETA*180./PI
50 CONTINUE
IF (FLAM)500,501,501
500 FLAM=FLAM+360.
501 CONTINUE
ALP=ARRAY
DFL=ORRAY
RETURN
END

```

PROGRAM LISTING FOR TABLES 1, 2, AND 3 (Concluded)

```

SUBROUTINE GALEQT (FLAM, BETA, ALP, DEL, FRRAY, BRRAY)
C   EPSILON   EP = -1.09257611 RADIANS   E = -62.6 DEGREES
C   THIS SUBROUTINE COMPUTES THE TRANSFORMATION OF GALACTIC TO
C   EQUATORIAL COORDINATES
C   INPUT     GALACTIC COORDINATES LAMBDA AND BETA
C   OUTPUT    EQUATORIAL COORDINATES ALPHA AND DELTA
C   EPSILON IS THE ANGULAR DISTANCE BETWEEN THE EQUATORIAL AND THE
C   GALACTIC POLE ON THE CELESTIAL SPHERE
M=5
M1=6
EP=-1.0925761
E=-62.6
PI=3.14159265
FRRAY=FLAM
BRRAY=BETA
IF (FLAM-90.) 5, 9, 5
5 IF (FLAM-270.) 10, 8, 10
9 IF (BETA-27.4) 25, 25, 24
25 DEL=BETA-E
    ALP=FLAM
    GO TO 11
24 DEL=180.-BETA+E
    ALP=180.+FLAM
    GO TO 11
8 IF (BETA+27.4) 26, 26, 27
26 ALP=180.-FLAM
    DEL=- (180.-E+BETA)
    GO TO 11
27 DEL=BETA+E
    ALP=FLAM
    GO TO 11
10 CONTINUE
    FLAM=FLAM*PI/180.
    BETA=BETA*PI/180.
    SDEL=COS (EP)*SIN (BETA)-SIN (EP)*COS (BETA)*SIN (FLAM)
    CDEL=SQRT (1.-SDEL**2)
    SALP=(SIN (EP)*SIN (BETA)+COS (EP)*COS (BETA)*SIN (FLAM))/CDEL
    CALP=(COS (BETA)*COS (FLAM))/CDEL
    DEL=ATAN2 (SDEL, CDEL)
    ALP=ATAN2 (SALP, CALP)
    ALP=ALP*180./PI
    DEL=DEL*180./PI
    FLAM=FLAM*180./PI
    BETA=BETA*180./PI
11 CONTINUE
    IF (ALP-77.75) 14, 13, 13
13 ALP=ALP-77.75
    GO TO 15
14 ALP=ALP+282.25
15 CONTINUE
    RETURN
    END

```

TABLE 1. EQUATORIAL COORDINATES TO ECLIPTIC COORDINATES

EQUATORIAL COORDINATES TO ECLIPTIC COORDINATES			
ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
.0000000	-90.0000000	270.0000038	-66.5477762
.0000000	-85.0000000	282.3981056	-66.0501747
.0000000	-80.0000000	293.8957520	-64.6159935
.0000000	-75.0000000	303.9510422	-62.3912559
.0000000	-70.0000000	312.4439964	-59.5494313
.0000000	-65.0000000	319.5199127	-56.2469196
.0000000	-60.0000000	325.4203873	-52.6066389
.0000000	-55.0000000	330.3869553	-48.7190657
.0000000	-50.0000000	334.6250572	-44.6491194
.0000000	-45.0000000	338.2982292	-40.4432254
.0000000	-40.0000000	341.5333443	-36.1348948
.0000000	-35.0000000	344.4283638	-31.7486935
.0000000	-30.0000000	347.0594139	-27.3030016
.0000000	-25.0000000	349.4864845	-22.8118787
.0000000	-20.0000000	351.7577858	-18.2863727
.0000000	-15.0000000	353.9130096	-13.7354119
.0000000	-10.0000000	355.9858322	-9.1664708
.0000000	-5.0000000	358.0058212	-4.5860367
.0000000	.0000000	.0000000	.0000000
.0000000	5.0000000	1.9941822	4.5860367
.0000000	10.0000000	4.0141707	9.1664708
.0000000	15.0000000	6.0869917	13.7354119
.0000000	20.0000000	8.2422167	18.2863727
.0000000	25.0000000	10.5135164	22.8118787
.0000000	30.0000000	12.9405891	27.3030016
.0000000	35.0000000	15.5716386	31.7486935
.0000000	40.0000000	18.4666581	36.1348948
.0000000	45.0000000	21.7017729	40.4432254
.0000000	50.0000000	25.3749428	44.6491194
.0000000	55.0000000	29.6130476	48.7190657
.0000000	60.0000000	34.5796142	52.6066389
.0000000	65.0000000	40.4800873	56.2469196
.0000000	70.0000000	47.5560069	59.5494313
.0000000	75.0000000	56.0489602	62.3912559
.0000000	80.0000000	66.1042500	64.6159935
.0000000	85.0000000	77.6018944	66.0501747
.0000000	90.0000000	89.9999962	66.5477762
5.0000000	-90.0000000	270.0000038	-66.5477762
5.0000000	-85.0000000	282.5664177	-66.4805154
5.0000000	-80.0000000	294.5875854	-65.4333496
5.0000000	-75.0000000	305.3314285	-63.5226159
5.0000000	-70.0000000	314.5067944	-60.9186196
5.0000000	-65.0000000	322.1714287	-57.7898684
5.0000000	-60.0000000	328.5458565	-54.2749462
5.0000000	-55.0000000	333.8817482	-50.4778976
5.0000000	-50.0000000	338.4038963	-46.4737835
5.0000000	-45.0000000	342.2946815	-42.3161812
5.0000000	-40.0000000	345.6964607	-38.0435185
5.0000000	-35.0000000	348.7190208	-33.6837287
5.0000000	-30.0000000	351.4472389	-29.2575092
5.0000000	-25.0000000	353.9475136	-24.7805204
5.0000000	-20.0000000	356.2726593	-20.2649207
5.0000000	-15.0000000	358.4656754	-15.7204037
5.0000000	-10.0000000	.5625124	-11.1549571
5.0000000	-5.0000000	2.5942580	-6.5753990
5.0000000	.0000000	4.5888040	-1.9877950
5.0000000	5.0000000	6.5722707	2.6022023
5.0000000	10.0000000	8.5702567	7.1890631
5.0000000	15.0000000	10.6090436	11.7670964
5.0000000	20.0000000	12.7168682	16.3301573
5.0000000	25.0000000	14.9253573	20.8712978
5.0000000	30.0000000	17.2712731	25.3823371
5.0000000	35.0000000	19.7987459	29.8532965
5.0000000	40.0000000	22.5621717	34.2716246
5.0000000	45.0000000	25.6301000	38.6210823
5.0000000	50.0000000	29.0903490	42.8801537
5.0000000	55.0000000	33.0565953	47.0197129
5.0000000	60.0000000	37.6761580	50.9996114
5.0000000	65.0000000	43.1371813	54.7638021
5.0000000	70.0000000	49.6695681	58.2337780
5.0000000	75.0000000	57.5255632	61.3010902
5.0000000	80.0000000	66.9131880	63.8225069
5.0000000	85.0000000	77.8545990	65.6269903
5.0000000	90.0000000	89.9999962	66.5477762

TABLE 1. (Continued)

ALPHA (LAMBDA)	DELTA (BETA)	LAMBDA (ALPHA)	BETA (DELTA)
DEGREES	DEGREES	DEGREES	DEGREES
10.000000	-90.000000	270.000038	-66.5477762
10.000000	-85.000000	282.6447372	-66.9150553
10.000000	-80.000000	295.1478539	-66.2705212
10.000000	-75.000000	306.6010590	-64.6915674
10.000000	-70.000000	316.5122070	-62.3382134
10.000000	-65.000000	324.8205605	-59.3892565
10.000000	-60.000000	331.7107899	-56.0002079
10.000000	-55.000000	337.4426117	-52.2905955
10.000000	-50.000000	342.2628708	-48.3471897
10.000000	-45.000000	346.3763351	-44.2317176
10.000000	-40.000000	349.9437714	-39.9801999
10.000000	-35.000000	353.0889244	-35.6481099
10.000000	-30.000000	355.9068947	-31.2380001
10.000000	-25.000000	358.4714279	-26.7655602
10.000000	-20.000000	360.5925	-22.2536795
10.000000	-15.000000	3.0610547	-17.7096164
10.000000	-10.000000	5.1713563	-13.1418573
10.000000	-5.000000	7.2042509	-8.5575215
10.000000	0.000000	9.1886294	-3.9628259
10.000000	5.000000	11.1510272	.636550
10.000000	10.000000	13.1169362	5.2351882
10.000000	15.000000	15.1120107	9.8275017
10.000000	20.000000	17.1633029	14.4808043
10.000000	25.000000	19.3006110	18.9699652
10.000000	30.000000	21.5580807	23.5060413
10.000000	35.000000	23.9762201	28.0072691
10.000000	40.000000	26.6045065	32.4625068
10.000000	45.000000	29.5048592	36.8574834
10.000000	50.000000	32.7562929	41.1738947
10.000000	55.000000	36.4610467	45.3851709
10.000000	60.000000	40.7522578	49.4580589
10.000000	65.000000	45.6023539	53.3938625
10.000000	70.000000	51.0206519	57.1979696
10.000000	75.000000	57.0862899	60.8559588
10.000000	80.000000	63.8264332	64.3666667
10.000000	85.000000	71.1860885	67.737384
10.000000	90.000000	79.9999962	66.5477762
15.000000	-90.000000	270.000038	-66.5477762
15.000000	-85.000000	282.6276245	-67.3506460
15.000000	-80.000000	295.5602036	-67.1230394
15.000000	-75.000000	307.7422638	-65.8941860
15.000000	-70.000000	318.4522934	-63.8049974
15.000000	-65.000000	327.47113783	-61.0416532
15.000000	-60.000000	334.9283409	-57.7729398
15.000000	-55.000000	341.0877151	-54.1512165
15.000000	-50.000000	346.2220230	-50.2618561
15.000000	-45.000000	350.5631905	-46.1809797
15.000000	-40.000000	354.2942636	-41.9587507
15.000000	-35.000000	357.5556717	-37.6306756
15.000000	-30.000000	359.4549866	-33.2231879
15.000000	-25.000000	3.0729606	-28.7547686
15.000000	-20.000000	5.4750854	-24.2600477
15.000000	-15.000000	7.7116933	-19.6902242
15.000000	-10.000000	9.8201242	-15.1142405
15.000000	-5.000000	11.8469987	-10.5194868
15.000000	0.000000	13.8103172	-5.9122898
15.000000	5.000000	15.7411205	-1.2983143
15.000000	10.000000	17.6668750	3.3171298
15.000000	15.000000	19.6067066	7.9288070
15.000000	20.000000	21.5926099	12.5312898
15.000000	25.000000	23.6507382	17.1186638
15.000000	30.000000	25.8128879	21.6841912
15.000000	35.000000	28.1163249	26.2198739
15.000000	40.000000	30.6061511	30.7158828
15.000000	45.000000	33.3384395	35.1597466
15.000000	50.000000	36.3844604	39.5352116
15.000000	55.000000	39.8363881	43.8205466
15.000000	60.000000	43.8147602	47.9860620
15.000000	65.000000	48.4775357	51.9903984
15.000000	70.000000	54.0288396	55.7751922
15.000000	75.000000	60.7209563	59.2574611
15.000000	80.000000	68.8326349	62.3215265
15.000000	85.000000	78.5906258	64.8130140
15.000000	90.000000	89.9999962	66.5477762

TABLE 1. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
20.000000	-90.000000	270.0000038	-66.5477762
20.000000	-85.000000	282.5099144	-67.7839670
20.000000	-80.000000	295.8061676	-67.9859152
20.000000	-75.000000	308.7333374	-67.1261559
20.000000	-70.000000	320.3166809	-65.3156137
20.000000	-65.000000	330.1290588	-62.7435942
20.000000	-60.000000	338.2151451	-59.6034675
20.000000	-55.000000	344.8394775	-56.0533772
20.000000	-50.000000	350.3054581	-52.2096834
20.000000	-45.000000	354.8786964	-48.1543446
20.000000	-40.000000	358.7696495	-43.9444985
20.000000	-35.000000	2.1388554	-39.6202579
20.000000	-30.000000	5.1075621	-35.2102351
20.000000	-25.000000	7.7677784	-30.7352653
20.000000	-20.000000	10.1902438	-26.2108827
20.000000	-15.000000	12.4303714	-21.6489675
20.000000	-10.000000	14.5325849	-17.0588717
20.000000	-5.000000	16.5335078	-12.4481859
20.000000	0.000000	18.4643433	-7.8233089
20.000000	5.000000	20.3526974	-3.1898506
20.000000	10.000000	22.2240660	1.4470342
20.000000	15.000000	24.1031160	6.0823694
20.000000	20.000000	26.0148878	10.7110988
20.000000	25.000000	27.9860358	15.3278195
20.000000	30.000000	30.0462151	19.9264710
20.000000	35.000000	32.2297697	24.4999666
20.000000	40.000000	34.5778699	29.0396955
20.000000	45.000000	37.1413574	33.5348349
20.000000	50.000000	39.9846087	37.9713864
20.000000	55.000000	43.1908236	42.3307428
20.000000	60.000000	46.8691816	46.5875759
20.000000	65.000000	51.1641722	50.7066326
20.000000	70.000000	56.2663617	54.6379600
20.000000	75.000000	62.4208932	58.3099966
20.000000	80.000000	69.9216967	61.6204457
20.000000	85.000000	79.0627899	64.4272289
20.000000	90.000000	89.9999962	66.5477762
25.000000	-90.000000	270.0000038	-66.5477762
25.000000	-85.000000	282.2869072	-68.2115211
25.000000	-80.000000	295.8649902	-68.8536186
25.000000	-75.000000	309.5473366	-68.3826609
25.000000	-70.000000	322.0919571	-66.8666430
25.000000	-65.000000	332.8002930	-64.4916029
25.000000	-60.000000	341.5923958	-61.4718618
25.000000	-55.000000	348.7258148	-57.9901128
25.000000	-50.000000	354.5422935	-54.1817188
25.000000	-45.000000	359.3502998	-50.1412153
25.000000	-40.000000	3.3945644	-45.9335341
25.000000	-35.000000	6.8601135	-41.6035190
25.000000	-30.000000	9.8849318	-37.1826282
25.000000	-25.000000	12.5722899	-32.6934071
25.000000	-20.000000	15.0004643	-28.1524105
25.000000	-15.000000	17.2298818	-23.5721040
25.000000	-10.000000	19.3082719	-18.9621584
25.000000	-5.000000	21.2743661	-14.3302962
25.000000	0.000000	23.1606100	-9.6829119
25.000000	5.000000	24.9951980	-5.0255147
25.000000	10.000000	26.8036797	-0.3630648
25.000000	15.000000	28.6102908	4.2997462
25.000000	20.000000	30.4391823	8.9582466
25.000000	25.000000	32.3156147	13.6075346
25.000000	30.000000	34.2672710	18.2422066
25.000000	35.000000	36.3258181	22.8560333
25.000000	40.000000	38.5288467	27.4415331
25.000000	45.000000	40.9224725	31.9893866
25.000000	50.000000	43.5648537	36.4876361
25.000000	55.000000	46.5310721	40.9204683
25.000000	60.000000	49.9199362	45.2664337
25.000000	65.000000	53.8632817	49.4957051
25.000000	70.000000	58.5379181	53.5659022
25.000000	75.000000	64.1786203	57.4157739
25.000000	80.000000	71.0845890	60.9561214
25.000000	85.000000	79.5971193	64.0586224
25.000000	90.000000	89.9999962	66.5477762

TABLE 1. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
30.000000	-90.000000	270.000030	-66.5477762
30.000000	-85.000000	281.9545479	-68.6296635
30.000000	-80.000000	295.7134933	-69.7199383
30.000000	-75.000000	310.1504860	-69.6582365
30.000000	-70.000000	323.7603188	-68.4544678
30.000000	-65.000000	335.4938011	-66.2821646
30.000000	-60.000000	345.0875740	-63.3778453
30.000000	-55.000000	352.7817841	-59.9536805
30.000000	-50.000000	358.9678268	-56.1679215
30.000000	-45.000000	4.0101075	-52.1297493
30.000000	-40.000000	8.1968603	-47.9127598
30.000000	-35.000000	11.7430898	-43.5667615
30.000000	-30.000000	14.8065575	-39.1260304
30.000000	-25.000000	17.5033860	-34.6146898
30.000000	-20.000000	19.9201710	-30.0501618
30.000000	-15.000000	22.1227195	-25.4453621
30.000000	-10.000000	24.1622026	-20.9101420
30.000000	-5.000000	26.0794835	-16.1527584
30.000000	0.000000	27.9082291	-11.4780240
30.000000	5.000000	29.6771839	-6.7927817
30.000000	10.000000	31.4119167	-2.1012476
30.000000	15.000000	33.1362348	2.5921990
30.000000	20.000000	34.8734145	7.2832841
30.000000	25.000000	36.6473846	11.9676048
30.000000	30.000000	38.4839764	16.6403918
30.000000	35.000000	40.4123602	21.2962205
30.000000	40.000000	42.4668393	25.9286511
30.000000	45.000000	44.6891909	30.5297437
30.000000	50.000000	47.1318893	35.0893774
30.000000	55.000000	49.8625894	39.5942407
30.000000	60.000000	52.9705167	44.0263333
30.000000	65.000000	56.5755153	48.3606582
30.000000	70.000000	60.8405523	52.5616026
30.000000	75.000000	65.9876080	56.5773230
30.000000	80.000000	72.3132000	60.3311062
30.000000	85.000000	80.1883345	63.7092547
30.000000	90.000000	89.9999962	66.5477762
35.000000	-90.000000	270.000030	-66.5477762
35.000000	-85.000000	281.5096779	-69.0346079
35.000000	-80.000000	295.3261337	-70.5778904
35.000000	-75.000000	310.5000381	-70.9465780
35.000000	-70.000000	325.2976303	-70.0752726
35.000000	-65.000000	338.2212410	-68.1117373
35.000000	-60.000000	348.7368965	-65.3156328
35.000000	-55.000000	357.0519104	-61.9352541
35.000000	-50.000000	3.6249958	-58.1568027
35.000000	-45.000000	8.8955334	-54.1065445
35.000000	-40.000000	13.2076762	-49.8675652
35.000000	-35.000000	16.8132315	-45.4947262
35.000000	-30.000000	19.8931587	-41.0244400
35.000000	-25.000000	22.5780203	-36.4836597
35.000000	-20.000000	24.9634089	-31.8889320
35.000000	-15.000000	27.1207125	-27.2539151
35.000000	-10.000000	29.1045403	-22.5884888
35.000000	-5.000000	30.9578004	-17.9003060
35.000000	0.000000	32.7152658	-13.1954956
35.000000	5.000000	34.4061193	-8.4791619
35.000000	10.000000	36.0558610	-3.7557267
35.000000	15.000000	37.6877999	0.9707794
35.000000	20.000000	39.3243150	5.6964964
35.000000	25.000000	40.9880285	10.4175184
35.000000	30.000000	42.7029853	15.1296865
35.000000	35.000000	44.4959993	19.8283341
35.000000	40.000000	46.3982878	24.5079844
35.000000	45.000000	48.4476080	29.1619546
35.000000	50.000000	50.6911721	33.7817764
35.000000	55.000000	53.1897516	38.3563781
35.000000	60.000000	56.0236187	42.8708267
35.000000	65.000000	59.3011870	47.3044114
35.000000	70.000000	63.1715565	51.6275725
35.000000	75.000000	67.8420725	55.7969975
35.000000	80.000000	73.6001949	59.7477326
35.000000	85.000000	80.8313160	63.3810205
35.000000	90.000000	89.9999962	66.5477762

TABLE 1. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
40.000000	-90.000000	270.000000	-66.5477781
40.000000	-85.000000	280.9503021	-69.4224663
40.000000	-80.000000	294.6753159	-71.4196138
40.000000	-75.000000	310.5414925	-72.2402239
40.000000	-70.000000	326.6703873	-71.7249422
40.000000	-65.000000	340.9985809	-69.9767323
40.000000	-60.000000	352.5890656	-67.2787123
40.000000	-55.000000	1.5933074	-63.9245057
40.000000	-50.000000	8.5660633	-60.1349540
40.000000	-45.000000	14.0498313	-56.0562162
40.000000	-40.000000	18.4613204	-51.7815132
40.000000	-35.000000	22.0973308	-47.3705816
40.000000	-30.000000	25.1656318	-42.8625650
40.000000	-25.000000	27.8126326	-38.2838935
40.000000	-20.000000	30.1432834	-33.6527481
40.000000	-15.000000	32.2345223	-28.9824078
40.000000	-10.000000	34.1441793	-24.2825222
40.000000	-5.000000	35.9169540	-19.5604873
40.000000	0.000000	37.5884809	-14.8221377
40.000000	5.000000	39.1881762	-10.0722474
40.000000	10.000000	40.7413082	-5.3148898
40.000000	15.000000	42.2705693	-0.5537092
40.000000	20.000000	43.7973704	4.2078657
40.000000	25.000000	45.3429918	8.9664263
40.000000	30.000000	46.9297218	13.7183969
40.000000	35.000000	48.5821009	18.4598255
40.000000	40.000000	50.3284187	23.1861298
40.000000	45.000000	52.2026405	27.8917584
40.000000	50.000000	54.2470531	32.5697370
40.000000	55.000000	56.5159845	37.2109828
40.000000	60.000000	59.0812550	41.8032928
40.000000	65.000000	62.0403032	46.3297524
40.000000	70.000000	65.5283918	50.7661862
40.000000	75.000000	69.7368307	55.0769820
40.000000	80.000000	74.9388924	59.2081180
40.000000	85.000000	81.5210972	63.0756497
40.000000	90.000000	89.9999971	66.5477753
45.000000	-90.000000	270.000000	-66.5477781
45.000000	-85.000000	280.2758980	-69.7892866
45.000000	-80.000000	293.7320938	-72.2362471
45.000000	-75.000000	310.2048988	-73.5301447
45.000000	-70.000000	327.8308029	-73.9989048
45.000000	-65.000000	343.8484268	-71.8734808
45.000000	-60.000000	356.7110634	-69.2594519
45.000000	-55.000000	6.4799439	-65.9089670
45.000000	-50.000000	13.8544779	-62.0864310
45.000000	-45.000000	19.5223470	-57.9609108
45.000000	-40.000000	23.9947009	-53.6360035
45.000000	-35.000000	27.6226640	-49.1757216
45.000000	-30.000000	30.6441729	-44.6207318
45.000000	-25.000000	33.2223167	-39.9977407
45.000000	-20.000000	35.4712830	-35.3249097
45.000000	-15.000000	37.4730916	-30.6150050
45.000000	-10.000000	39.2882900	-25.8773050
45.000000	-5.000000	40.9628987	-21.1187711
45.000000	0.000000	42.5330272	-16.3448136
45.000000	5.000000	44.0280051	-11.5597906
45.000000	10.000000	45.4726186	-6.7673711
45.000000	15.000000	46.8887615	-1.9707223
45.000000	20.000000	48.2967501	2.8270234
45.000000	25.000000	49.7164555	7.6230996
45.000000	30.000000	51.1683884	12.4144449
45.000000	35.000000	52.6748562	17.1977775
45.000000	40.000000	54.2613192	21.9693267
45.000000	45.000000	55.9581366	26.7245772
45.000000	50.000000	57.8029189	31.4578815
45.000000	55.000000	59.8438902	36.1619310
45.000000	60.000000	62.1448390	40.8269277
45.000000	65.000000	64.7925892	45.4393101
45.000000	70.000000	67.9086294	49.9796886
45.000000	75.000000	71.6671734	54.4192896
45.000000	80.000000	76.3231678	58.7141819
45.000000	85.000000	82.2528706	62.7947073
45.000000	90.000000	89.9999971	66.5477753

TABLE 1. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
50.000000	-90.000000	270.000038	-66.5477781
50.000000	-85.000000	279.4877129	-70.1311054
50.000000	-80.000000	292.4675369	-73.0178394
50.000000	-75.000000	309.4003067	-74.8051271
50.000000	-70.000000	328.7085762	-75.0918798
50.000000	-65.000000	346.8040428	-73.7981930
50.000000	-60.000000	1.1973200	-71.2485104
50.000000	-55.000000	11.8083311	-67.8731203
50.000000	-50.000000	19.5665898	-63.9919157
50.000000	-45.000000	25.3680618	-59.7997322
50.000000	-40.000000	29.8460841	-55.4099598
50.000000	-35.000000	33.4156113	-50.8896418
50.000000	-30.000000	36.3470106	-46.2798705
50.000000	-25.000000	38.8197885	-41.6068788
50.000000	-20.000000	40.9564118	-36.8880959
50.000000	-15.000000	42.8429565	-32.1355319
50.000000	-10.000000	44.5417886	-27.3577738
50.000000	-5.000000	46.0995255	-22.5611613
50.000000	.000000	47.5521693	-17.7505591
50.000000	5.000000	48.9285274	-12.9298226
50.000000	10.000000	50.2525678	-8.1021498
50.000000	15.000000	51.5451355	-3.2703102
50.000000	20.000000	52.8252764	1.5631752
50.000000	25.000000	54.1113381	6.3958765
50.000000	30.000000	55.4219985	11.2253196
50.000000	35.000000	56.7773318	16.0488441
50.000000	40.000000	58.2000327	20.8639288
50.000000	45.000000	59.7169690	25.6654785
50.000000	50.000000	61.3612747	30.4505305
50.000000	55.000000	63.1753416	35.2128391
50.000000	60.000000	65.2152376	39.9447165
50.000000	65.000000	67.5575113	44.6355391
50.000000	70.000000	70.3099155	49.2700872
50.000000	75.000000	73.6287661	53.8257608
50.000000	80.000000	77.7473640	58.2676468
50.000000	85.000000	83.0219803	62.5396066
50.000000	90.000000	89.9999971	66.5477753
55.000000	-90.000000	270.0000038	-66.5477781
55.000000	-85.000000	278.5890770	-70.4440212
55.000000	-80.000000	290.8549881	-73.7532988
55.000000	-75.000000	308.0125351	-76.0509214
55.000000	-70.000000	329.1964226	-76.7974043
55.000000	-65.000000	349.9167938	-75.7468414
55.000000	-60.000000	6.1846535	-73.2337875
55.000000	-55.000000	17.7046950	-69.7970314
55.000000	-50.000000	25.7924650	-65.8276920
55.000000	-45.000000	31.6458433	-61.5481563
55.000000	-40.000000	36.0527682	-57.0795751
55.000000	-35.000000	39.4995389	-52.4898953
55.000000	-30.000000	42.2886872	-47.8191161
55.000000	-25.000000	44.6140466	-43.0919909
55.000000	-20.000000	46.6042066	-38.3245611
55.000000	-15.000000	48.3475246	-33.5276694
55.000000	-10.000000	49.9068136	-28.7089329
55.000000	-5.000000	51.3282638	-23.8738949
55.000000	.000000	52.6470041	-19.0267508
55.000000	5.000000	53.8907461	-14.1707836
55.000000	10.000000	55.0822201	-9.3086766
55.000000	15.000000	56.2409177	-4.4427242
55.000000	20.000000	57.3843837	0.4250148
55.000000	25.000000	58.5292954	5.2925838
55.000000	30.000000	59.6929114	10.1580169
55.000000	35.000000	60.8915343	15.0192255
55.000000	40.000000	62.1466193	19.8738604
55.000000	45.000000	63.4811244	24.7191496
55.000000	50.000000	64.9238529	29.5516734
55.000000	55.000000	66.5115662	34.3670440
55.000000	60.000000	68.2928772	39.1598119
55.000000	65.000000	70.3342981	43.9207006
55.000000	70.000000	72.7299337	48.6593309
55.000000	75.000000	75.6175737	53.2980561
55.000000	80.000000	79.2062073	57.8700500
55.000000	85.000000	83.8739088	62.3115945
55.000000	90.000000	89.9999981	66.5477753

TABLE 1. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
60.000000	-90.000000	270.000038	-66.5477781
60.000000	-85.000000	277.5856628	-70.7242556
60.000000	-80.000000	288.8734093	-74.4304495
60.000000	-75.000000	305.8964844	-77.2490292
60.000000	-70.000000	329.1233215	-78.5069532
60.000000	-65.000000	353.2707977	-77.7149744
60.000000	-60.000000	11.8769147	-75.1986122
60.000000	-55.000000	24.3329244	-71.6543713
60.000000	-50.000000	32.6343498	-67.5644255
60.000000	-45.000000	38.4144692	-63.1775169
60.000000	-40.000000	42.6473384	-58.6182413
60.000000	-35.000000	45.8918657	-53.9522767
60.000000	-30.000000	48.4779258	-49.2165923
60.000000	-25.000000	50.6088591	-44.4333215
60.000000	-20.000000	52.4156647	-39.6164532
60.000000	-15.000000	53.9863157	-34.7752523
60.000000	-10.000000	55.3821950	-29.9161236
60.000000	-5.000000	56.6477222	-25.0436676
60.000000	.000000	57.8162112	-20.1613116
60.000000	5.000000	58.9135876	-15.2717154
60.000000	10.000000	59.9608464	-10.3770225
60.000000	15.000000	60.9757576	-5.4790449
60.000000	20.000000	61.9741178	-.5793843
60.000000	25.000000	62.9707489	4.3204514
60.000000	30.000000	63.9803720	9.2189676
60.000000	35.000000	65.0184689	14.1145904
60.000000	40.000000	66.1022415	19.0055716
60.000000	45.000000	67.2517891	23.8898547
60.000000	50.000000	68.4916859	28.7649293
60.000000	55.000000	69.8532200	33.6275730
60.000000	60.000000	71.3777514	38.4735107
60.000000	65.000000	73.1219635	43.2968421
60.000000	70.000000	75.1663771	48.0891023
60.000000	75.000000	77.6297927	52.8376608
60.000000	80.000000	80.6947498	57.5227408
60.000000	85.000000	84.6542673	62.1117778
60.000000	90.000000	89.9999981	66.5477753
65.000000	-90.000000	270.000038	-66.5477781
65.000000	-85.000000	276.4856758	-70.9682560
65.000000	-80.000000	286.5119820	-75.0362167
65.000000	-75.000000	302.8764534	-78.3751383
65.000000	-70.000000	328.2021255	-80.2081423
65.000000	-65.000000	357.0146523	-79.6972752
65.000000	-60.000000	18.5858891	-77.1184607
65.000000	-55.000000	31.9002602	-73.4096251
65.000000	-50.000000	40.2000384	-69.1659155
65.000000	-45.000000	45.7252822	-64.6547794
65.000000	-40.000000	49.6521401	-59.9968214
65.000000	-35.000000	52.6003222	-55.2512698
65.000000	-30.000000	54.9151669	-50.4449068
65.000000	-25.000000	56.8011484	-45.6111188
65.000000	-20.000000	58.3861899	-40.7462478
65.000000	-15.000000	59.7542892	-35.8626599
65.000000	-10.000000	60.9630203	-30.9653673
65.000000	-5.000000	62.0534296	-26.0579259
65.000000	.000000	63.0559077	-21.1429565
65.000000	5.000000	63.9938231	-16.2224650
65.000000	10.000000	64.8858824	-11.2980574
65.000000	15.000000	65.7477465	-6.3710723
65.000000	20.000000	66.5931749	-1.4426833
65.000000	25.000000	67.4349394	3.4860177
65.000000	30.000000	68.2855921	8.4139599
65.000000	35.000000	69.1582193	13.3400255
65.000000	40.000000	70.0672455	18.2629967
65.000000	45.000000	71.0294333	23.1814017
65.000000	50.000000	72.0651941	28.0935252
65.000000	55.000000	73.2004623	32.9971213
65.000000	60.000000	74.4695034	37.8892317
65.000000	65.000000	75.9193296	42.7657766
65.000000	70.000000	77.6169443	47.6209059
65.000000	75.000000	79.6617985	52.4458666
65.000000	80.000000	82.2083092	57.2268920
65.000000	85.000000	85.5087805	61.9411039
65.000000	90.000000	89.9999981	66.5477753

TABLE 1. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
70.000000	-90.000000	270.000038	-66.5477781
70.000000	-85.000000	275.2999382	-71.1727810
70.000000	-80.000000	283.7756729	-75.5570412
70.000000	-75.000000	298.7573700	-79.3973188
70.000000	-70.000000	325.9206009	-81.8807936
70.000000	-65.000000	1.4381818	-81.6864815
70.000000	-60.000000	26.7961383	-78.9548140
70.000000	-55.000000	40.6520729	-75.0145350
70.000000	-50.000000	48.5869455	-70.5882893
70.000000	-45.000000	53.6104770	-65.9429541
70.000000	-40.000000	57.0720859	-61.1844387
70.000000	-35.000000	59.6186895	-56.3608937
70.000000	-30.000000	61.5900426	-51.4969244
70.000000	-25.000000	63.1795096	-46.6063013
70.000000	-20.000000	64.5047216	-41.6973248
70.000000	-15.000000	65.6413260	-36.7752914
70.000000	-10.000000	66.6403437	-31.8437524
70.000000	-5.000000	67.5376682	-26.9052024
70.000000	.000000	68.3595724	-21.9614573
70.000000	5.000000	69.1260529	-17.0139000
70.000000	10.000000	69.8529654	-12.0636195
70.000000	15.000000	70.5534506	-7.1115252
70.000000	20.000000	71.2389536	-2.1583992
70.000000	25.000000	71.9199915	2.7950328
70.000000	30.000000	72.6068172	7.7480667
70.000000	35.000000	73.3100309	12.6999742
70.000000	40.000000	74.0412483	17.6499584
70.000000	45.000000	74.8138933	22.5970929
70.000000	50.000000	75.6442633	27.5402551
70.000000	55.000000	76.5530233	32.4780169
70.000000	60.000000	77.5674620	37.4084907
70.000000	65.000000	78.7250471	42.3290739
70.000000	70.000000	80.0793161	47.2360353
70.000000	75.000000	81.7101135	52.1237822
70.000000	80.000000	83.7424107	56.9834871
70.000000	85.000000	86.3832712	61.8003726
70.000000	90.000000	89.9999990	66.5477753
75.000000	-90.000000	270.0000038	-66.5477781
75.000000	-85.000000	274.0418434	-71.3350067
75.000000	-80.000000	280.6909561	-75.9795675
75.000000	-75.000000	293.3627434	-80.2746801
75.000000	-70.000000	321.3045235	-83.4875345
75.000000	-65.000000	7.1905330	-83.6703348
75.000000	-60.000000	37.2490802	-80.6437521
75.000000	-55.000000	50.8361402	-76.4045897
75.000000	-50.000000	57.8524790	-71.7805014
75.000000	-45.000000	62.0672226	-67.0025930
75.000000	-40.000000	64.8866463	-62.1499982
75.000000	-35.000000	66.9227581	-57.2559958
75.000000	-30.000000	68.4793872	-52.3368235
75.000000	-25.000000	69.7231817	-47.4013004
75.000000	-20.000000	70.7532349	-42.4546366
75.000000	-15.000000	71.6320276	-37.5001044
75.000000	-10.000000	72.4011431	-32.5398750
75.000000	-5.000000	73.0895147	-27.5754564
75.000000	.000000	73.7181273	-22.6079376
75.000000	5.000000	74.3028164	-17.6381423
75.000000	10.000000	74.8560390	-12.6667156
75.000000	15.000000	75.3880434	-7.6941928
75.000000	20.000000	75.9076862	-2.7210273
75.000000	25.000000	76.4230480	2.2523590
75.000000	30.000000	76.9419498	7.2255616
75.000000	35.000000	77.4724274	12.1981629
75.000000	40.000000	78.0232401	17.1697166
75.000000	45.000000	78.6044741	22.1396909
75.000000	50.000000	79.2283354	27.1074548
75.000000	55.000000	79.9102783	32.0722075
75.000000	60.000000	80.6706991	37.0328889
75.000000	65.000000	81.5376244	41.9880385
75.000000	70.000000	82.5511675	46.9355602
75.000000	75.000000	83.7713614	51.8723178
75.000000	80.000000	85.2927580	56.7933331
75.000000	85.000000	87.2736444	61.6902418
75.000000	90.000000	89.9999990	66.5477753

TABLE 1. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
80.000000	-90.000000	270.000038	-66.5477781
80.000000	-85.000000	272.7271271	-71.4526215
80.000000	-80.000000	277.3101959	-76.2915792
80.000000	-75.000000	286.6175003	-80.9581690
80.000000	-70.000000	312.4257507	-84.9494295
80.000000	-65.000000	16.0555699	-85.6202974
80.000000	-60.000000	50.9592586	-82.0768938
80.000000	-55.000000	62.6051221	-77.4984322
80.000000	-50.000000	67.9703989	-72.5875334
80.000000	-45.000000	71.0404787	-67.7947912
80.000000	-40.000000	73.0430174	-62.8644805
80.000000	-35.000000	74.4676113	-57.9139533
80.000000	-30.000000	75.5460033	-52.9513593
80.000000	-25.000000	76.4017553	-47.9810166
80.000000	-20.000000	77.1067839	-43.0054388
80.000000	-15.000000	77.7058802	-38.0261836
80.000000	-10.000000	78.2285299	-33.0442772
80.000000	-5.000000	78.6950760	-28.0604253
80.000000	0.000000	79.1201687	-23.0751357
80.000000	5.000000	79.5147963	-18.0887918
80.000000	10.000000	79.8875532	-13.1016879
80.000000	15.000000	80.2454700	-8.1140726
80.000000	20.000000	80.5945883	-3.1261504
80.000000	25.000000	80.9403954	1.8618857
80.000000	30.000000	81.2881699	6.8498536
80.000000	35.000000	81.6433134	11.8375652
80.000000	40.000000	82.0116920	16.8248200
80.000000	45.000000	82.4000368	21.8113835
80.000000	50.000000	82.8164797	26.7969728
80.000000	55.000000	83.2713060	31.7812304
80.000000	60.000000	83.7780819	36.7636871
80.000000	65.000000	84.3554525	41.7436962
80.000000	70.000000	85.0301428	46.7203269
80.000000	75.000000	85.8422461	51.6921883
80.000000	80.000000	86.8551788	56.6570621
80.000000	85.000000	88.1758690	61.6112137
80.000000	90.000000	89.9999990	66.5477753
85.000000	-90.000000	270.000038	-66.5477781
85.000000	-85.000000	271.3734818	-71.5238991
85.000000	-80.000000	273.7125893	-76.4831553
85.000000	-75.000000	278.6725578	-81.3963251
85.000000	-70.000000	295.8923569	-86.0857754
85.000000	-65.000000	34.7319403	-87.4311647
85.000000	-60.000000	68.7889423	-83.0821495
85.000000	-55.000000	75.8427811	-78.2061777
85.000000	-50.000000	78.7859278	-73.2574987
85.000000	-45.000000	80.4113426	-68.2857704
85.000000	-40.000000	81.4534998	-63.3038783
85.000000	-35.000000	82.1875925	-58.3166270
85.000000	-30.000000	82.7397718	-53.3262153
85.000000	-25.000000	83.1760244	-48.3337855
85.000000	-20.000000	83.5342779	-43.3400025
85.000000	-15.000000	83.8379450	-38.3452721
85.000000	-10.000000	84.1023378	-33.3498602
85.000000	-5.000000	84.3379660	-28.3539507
85.000000	0.000000	84.5523634	-23.3576710
85.000000	5.000000	84.7511587	-18.3611197
85.000000	10.000000	84.9387426	-13.3643738
85.000000	15.000000	85.1186943	-8.3674965
85.000000	20.000000	85.2940741	-3.3705388
85.000000	25.000000	85.4676580	1.6264496
85.000000	30.000000	85.6421051	6.6234227
85.000000	35.000000	85.8201313	11.6203336
85.000000	40.000000	86.0046759	16.6171319
85.000000	45.000000	86.1991091	21.6137598
85.000000	50.000000	86.4074974	26.6101429
85.000000	55.000000	86.6349735	31.6061957
85.000000	60.000000	86.8883133	36.6018000
85.000000	65.000000	87.1768293	41.5967927
85.000000	70.000000	87.5138788	46.5909429
85.000000	75.000000	87.9195271	51.5839052
85.000000	80.000000	88.4255962	56.5751195
85.000000	85.000000	89.0859699	61.5636511
85.000000	90.000000	89.9999990	66.5477753

TABLE 1. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
90.000000	-90.000000	90.000000	-113.4522219
90.000000	-85.000000	90.000000	-108.4522219
90.000000	-80.000000	90.000000	-103.4522219
90.000000	-75.000000	90.000000	-98.4522219
90.000000	-70.000000	90.000000	-93.4522219
90.000000	-65.000000	90.000000	-88.4522219
90.000000	-60.000000	90.000000	-83.4522219
90.000000	-55.000000	90.000000	-78.4522219
90.000000	-50.000000	90.000000	-73.4522219
90.000000	-45.000000	90.000000	-68.4522219
90.000000	-40.000000	90.000000	-63.4522223
90.000000	-35.000000	90.000000	-58.4522223
90.000000	-30.000000	90.000000	-53.4522223
90.000000	-25.000000	90.000000	-48.4522223
90.000000	-20.000000	90.000000	-43.4522223
90.000000	-15.000000	90.000000	-38.4522223
90.000000	-10.000000	90.000000	-33.4522223
90.000000	-5.000000	90.000000	-28.4522223
90.000000	.000000	90.000000	-23.4522223
90.000000	5.000000	90.000000	-18.4522223
90.000000	10.000000	90.000000	-13.4522223
90.000000	15.000000	90.000000	-8.4522223
90.000000	20.000000	90.000000	-3.4522223
90.000000	25.000000	90.000000	1.5477777
90.000000	30.000000	90.000000	6.5477777
90.000000	35.000000	90.000000	11.5477777
90.000000	40.000000	90.000000	16.5477777
90.000000	45.000000	90.000000	21.5477777
90.000000	50.000000	90.000000	26.5477777
90.000000	55.000000	90.000000	31.5477777
90.000000	60.000000	90.000000	36.5477777
90.000000	65.000000	90.000000	41.5477781
90.000000	70.000000	90.000000	46.5477781
90.000000	75.000000	90.000000	51.5477781
90.000000	80.000000	90.000000	56.5477781
90.000000	85.000000	90.000000	61.5477781
90.000000	90.000000	90.000000	66.5477781
95.000000	-90.000000	270.000000	-66.5477781
95.000000	-85.000000	268.6265221	-71.5238991
95.000000	-80.000000	266.2874184	-76.4831553
95.000000	-75.000000	261.3274498	-81.3963251
95.000000	-70.000000	244.1076622	-86.0857754
95.000000	-65.000000	145.2680340	-87.4311647
95.000000	-60.000000	111.2110415	-83.0821495
95.000000	-55.000000	104.1572065	-78.2061796
95.000000	-50.000000	101.2140627	-73.2574987
95.000000	-45.000000	99.5886488	-68.2857704
95.000000	-40.000000	98.5464935	-63.3038797
95.000000	-35.000000	97.8123999	-58.3166270
95.000000	-30.000000	97.2602224	-53.3262153
95.000000	-25.000000	96.8239689	-48.3337855
95.000000	-20.000000	96.4657173	-43.3400025
95.000000	-15.000000	96.1620502	-38.3452721
95.000000	-10.000000	95.8976574	-33.3498602
95.000000	-5.000000	95.6620293	-28.3539507
95.000000	.000000	95.4476337	-23.3576710
95.000000	5.000000	95.2488356	-18.3611197
95.000000	10.000000	95.0612507	-13.3643738
95.000000	15.000000	94.8813009	-8.3674967
95.000000	20.000000	94.7059221	-3.3705388
95.000000	25.000000	94.5323381	1.6264496
95.000000	30.000000	94.3578901	6.6234227
95.000000	35.000000	94.1798649	11.6203336
95.000000	40.000000	93.9953203	16.6171319
95.000000	45.000000	93.8008862	21.6137598
95.000000	50.000000	93.5924997	26.6101429
95.000000	55.000000	93.3650227	31.6061952
95.000000	60.000000	93.1116838	36.6018000
95.000000	65.000000	92.8231688	41.5967927
95.000000	70.000000	92.4861193	46.5909429
95.000000	75.000000	92.0804710	51.5839052
95.000000	80.000000	91.5744028	56.5751195
95.000000	85.000000	90.9140301	61.5636511
95.000000	90.000000	90.0000010	66.5477753

TABLE 1. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
100.0000000	-90.0000000	270.0000000	-66.5477781
100.0000000	-85.0000000	267.2728767	-71.4526215
100.0000000	-80.0000000	262.6898079	-76.2915792
100.0000000	-75.0000000	253.3825073	-80.9581690
100.0000000	-70.0000000	227.5742607	-84.9494295
100.0000000	-65.0000000	163.9444237	-85.6202974
100.0000000	-60.0000000	129.0407295	-82.0768938
100.0000000	-55.0000000	117.3948698	-77.4984322
100.0000000	-50.0000000	112.0295944	-72.6875334
100.0000000	-45.0000000	108.9595146	-67.7947922
100.0000000	-40.0000000	106.9569769	-62.8644805
100.0000000	-35.0000000	105.5323839	-57.9139533
100.0000000	-30.0000000	104.4539928	-52.9513593
100.0000000	-25.0000000	103.5982399	-47.9810181
100.0000000	-20.0000000	102.8932123	-43.0054388
100.0000000	-15.0000000	102.2941151	-38.0261846
100.0000000	-10.0000000	101.7714672	-33.0442772
100.0000000	-5.0000000	101.3049192	-28.0604253
100.0000000	.0000000	100.8788275	-23.0751357
100.0000000	5.0000000	100.4851999	-18.0887918
100.0000000	10.0000000	100.1124430	-13.1016879
100.0000000	15.0000000	99.7545271	-8.1140729
100.0000000	20.0000000	99.4054079	-3.1261506
100.0000000	25.0000000	99.0596018	1.8618855
100.0000000	30.0000000	98.7118263	6.9498536
100.0000000	35.0000000	98.3566847	11.8375652
100.0000000	40.0000000	97.9883070	16.8248200
100.0000000	45.0000000	97.5999613	21.8113823
100.0000000	50.0000000	97.1835175	26.7969728
100.0000000	55.0000000	96.7286911	31.7812304
100.0000000	60.0000000	96.2219172	36.7636871
100.0000000	65.0000000	95.6445456	41.7436962
100.0000000	70.0000000	94.9698563	46.7203269
100.0000000	75.0000000	94.1577520	51.6921883
100.0000000	80.0000000	93.1448292	56.6570621
100.0000000	85.0000000	91.8241310	61.6112137
100.0000000	90.0000000	90.0000010	66.5477753
105.0000000	-90.0000000	270.0000000	-66.5477781
105.0000000	-85.0000000	265.9581604	-71.3350067
105.0000000	-80.0000000	259.3090477	-75.9795675
105.0000000	-75.0000000	246.6372643	-80.2746801
105.0000000	-70.0000000	218.6954803	-83.4875345
105.0000000	-65.0000000	172.8094616	-83.6703348
105.0000000	-60.0000000	142.7509136	-80.6437540
105.0000000	-55.0000000	129.1638508	-76.4045897
105.0000000	-50.0000000	122.1475143	-71.7805014
105.0000000	-45.0000000	117.9327717	-67.0025930
105.0000000	-40.0000000	115.1133499	-62.1499996
105.0000000	-35.0000000	113.0772362	-57.2559958
105.0000000	-30.0000000	111.5206480	-52.3368235
105.0000000	-25.0000000	110.2768145	-47.4013014
105.0000000	-20.0000000	109.2467604	-42.4546371
105.0000000	-15.0000000	108.3679686	-37.5001044
105.0000000	-10.0000000	107.5988541	-32.5398760
105.0000000	-5.0000000	106.9104805	-27.5754564
105.0000000	.0000000	106.2818689	-22.6079376
105.0000000	5.0000000	105.6971788	-17.6381423
105.0000000	10.0000000	105.1439581	-12.6667156
105.0000000	15.0000000	104.6119598	-7.6941929
105.0000000	20.0000000	104.0923109	-2.7210277
105.0000000	25.0000000	103.5769491	2.2523586
105.0000000	30.0000000	103.0580473	7.2255616
105.0000000	35.0000000	102.5275698	12.1981629
105.0000000	40.0000000	101.9767561	17.1697152
105.0000000	45.0000000	101.3955250	22.1396885
105.0000000	50.0000000	100.7716637	27.1074548
105.0000000	55.0000000	100.0897198	32.0722075
105.0000000	60.0000000	99.3292980	37.0328879
105.0000000	65.0000000	98.4623728	41.9880385
105.0000000	70.0000000	97.4488316	46.9355602
105.0000000	75.0000000	96.2286367	51.8723178
105.0000000	80.0000000	94.7072411	56.7933331
105.0000000	85.0000000	92.7263556	61.6902418
105.0000000	90.0000000	90.0000010	66.5477753

TABLE 1. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
110.000000	-90.000000	270.000000	-66.5477781
110.000000	-85.000000	264.7000694	-71.1727810
110.000000	-80.000000	256.2243309	-75.5570431
110.000000	-75.000000	241.2426376	-79.3973188
110.000000	-70.000000	214.0794029	-81.8807964
110.000000	-65.000000	178.5618153	-81.6864853
110.000000	-60.000000	153.2038555	-78.9548140
110.000000	-55.000000	139.3479214	-75.0145369
110.000000	-50.000000	131.4130478	-70.5882893
110.000000	-45.000000	126.3895178	-65.9429550
110.000000	-40.000000	122.9279099	-61.1844392
110.000000	-35.000000	120.3813057	-56.3608952
110.000000	-30.000000	118.4099522	-51.4969249
110.000000	-25.000000	116.8204851	-46.6063018
110.000000	-20.000000	115.4952755	-41.6973248
110.000000	-15.000000	114.3586702	-36.7752914
110.000000	-10.000000	113.3596525	-31.8437529
110.000000	-5.000000	112.4623280	-26.9052036
110.000000	.000000	111.6404238	-21.9614589
110.000000	5.000000	110.8739433	-17.0139000
110.000000	10.000000	110.1470327	-12.0636195
110.000000	15.000000	109.4465466	-7.1115255
110.000000	20.000000	108.7610426	-2.1583997
110.000000	25.000000	108.0800047	2.7950321
110.000000	30.000000	107.3931799	7.7480663
110.000000	35.000000	106.6899662	12.6999729
110.000000	40.000000	105.9587498	17.6499584
110.000000	45.000000	105.1861048	22.5970929
110.000000	50.000000	104.3557339	27.5402551
110.000000	55.000000	103.4469748	32.4780164
110.000000	60.000000	102.4325371	37.4084907
110.000000	65.000000	101.2749500	42.3290739
110.000000	70.000000	99.9206810	47.2360344
110.000000	75.000000	98.2898846	52.1237822
110.000000	80.000000	96.2575884	56.9834862
110.000000	85.000000	93.6167269	61.8003726
110.000000	90.000000	90.0000010	66.5477753
115.000000	-90.000000	270.0000000	-66.5477781
115.000000	-85.000000	263.5143318	-70.9682560
115.000000	-80.000000	253.4880219	-75.0362177
115.000000	-75.000000	237.1235504	-78.3751383
115.000000	-70.000000	211.7978783	-80.2081451
115.000000	-65.000000	182.9853477	-79.6972780
115.000000	-60.000000	161.4141064	-77.1184607
115.000000	-55.000000	148.0997334	-73.4096260
115.000000	-50.000000	139.7999573	-69.1659164
115.000000	-45.000000	134.2747116	-64.6547813
115.000000	-40.000000	130.3478565	-59.9968224
115.000000	-35.000000	127.3996735	-55.2512698
115.000000	-30.000000	125.0848303	-50.4499073
115.000000	-25.000000	123.1988478	-45.6111202
115.000000	-20.000000	121.6138067	-40.7462482
115.000000	-15.000000	120.2457085	-35.8626599
115.000000	-10.000000	119.0369768	-30.9653683
115.000000	-5.000000	117.9465666	-26.0579283
115.000000	.000000	116.9440880	-21.1429565
115.000000	5.000000	116.0061750	-16.2224665
115.000000	10.000000	115.1141138	-11.2980574
115.000000	15.000000	114.2522507	-6.3710729
115.000000	20.000000	113.4068222	-1.4426837
115.000000	25.000000	112.5650578	3.4860173
115.000000	30.000000	111.7144051	8.4139596
115.000000	35.000000	110.8417788	13.3400255
115.000000	40.000000	109.9327517	18.2629867
115.000000	45.000000	108.9705639	23.1814017
115.000000	50.000000	107.9348040	28.0935252
115.000000	55.000000	106.7995358	32.9971204
115.000000	60.000000	105.5304947	37.8892317
115.000000	65.000000	104.0806684	42.7657762
115.000000	70.000000	102.3830547	47.6209054
115.000000	75.000000	100.3381996	52.4458666
115.000000	80.000000	97.7916908	57.2268910
115.000000	85.000000	94.4912186	61.9411039
115.000000	90.000000	90.0000019	66.5477753

TABLE 1. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
120.0000000	-90.0000000	270.0000000	-66.5477781
120.0000000	-85.0000000	262.4143410	-70.7242556
120.0000000	-80.0000000	251.1265945	-74.4304495
120.0000000	-75.0000000	234.1035194	-77.2490311
120.0000000	-70.0000000	210.8766823	-78.5069561
120.0000000	-65.0000000	186.7291985	-77.7149754
120.0000000	-60.0000000	168.1230774	-75.1986141
120.0000000	-55.0000000	155.6670704	-71.6543732
120.0000000	-50.0000000	147.3656445	-67.5644255
120.0000000	-45.0000000	141.5855236	-63.1775169
120.0000000	-40.0000000	137.3526554	-58.6182423
120.0000000	-35.0000000	134.1081276	-53.9522781
120.0000000	-30.0000000	131.5220680	-49.2165942
120.0000000	-25.0000000	129.3911362	-44.4333234
120.0000000	-20.0000000	127.5843296	-39.6164541
120.0000000	-15.0000000	126.0136795	-34.7752533
120.0000000	-10.0000000	124.6177988	-29.9161248
120.0000000	-5.0000000	123.3522720	-25.0436690
120.0000000	0.0000000	122.1837845	-20.1613128
120.0000000	5.0000000	121.0864077	-15.2717167
120.0000000	10.0000000	120.0391483	-10.3770248
120.0000000	15.0000000	119.0242395	-5.4790459
120.0000000	20.0000000	118.0259770	-0.5793852
120.0000000	25.0000000	117.0292463	4.3204503
120.0000000	30.0000000	116.0196257	9.2189666
120.0000000	35.0000000	114.9815264	14.1145892
120.0000000	40.0000000	113.8977556	19.0055702
120.0000000	45.0000000	112.7482080	23.8898547
120.0000000	50.0000000	111.5083113	28.7649293
120.0000000	55.0000000	110.1467772	33.6275721
120.0000000	60.0000000	108.6222448	38.4735103
120.0000000	65.0000000	106.8780336	43.2968421
120.0000000	70.0000000	104.8336210	48.0891018
120.0000000	75.0000000	102.3702059	52.8376594
120.0000000	80.0000000	99.3052492	57.5227408
120.0000000	85.0000000	95.3457317	62.1117778
120.0000000	90.0000000	90.0000019	66.5477753
125.0000000	-90.0000000	270.0000000	-66.5477781
125.0000000	-85.0000000	261.4109268	-70.4440212
125.0000000	-80.0000000	249.1450157	-73.7532988
125.0000000	-75.0000000	231.9874687	-76.0509214
125.0000000	-70.0000000	210.8035812	-76.7974043
125.0000000	-65.0000000	190.0832100	-75.7468414
125.0000000	-60.0000000	173.8153439	-73.2337899
125.0000000	-55.0000000	162.2953014	-69.7970333
125.0000000	-50.0000000	154.2075310	-65.8276949
125.0000000	-45.0000000	148.3541527	-61.5481572
125.0000000	-40.0000000	143.9472256	-57.0795760
125.0000000	-35.0000000	140.5004559	-52.4898958
125.0000000	-30.0000000	137.7113094	-47.8191175
125.0000000	-25.0000000	135.3859501	-43.0919914
125.0000000	-20.0000000	133.3957882	-38.3245625
125.0000000	-15.0000000	131.6524715	-33.5276704
125.0000000	-10.0000000	130.0931816	-28.7089336
125.0000000	-5.0000000	128.6717319	-23.8738961
125.0000000	0.0000000	127.3529930	-19.0267508
125.0000000	5.0000000	126.1092510	-14.1707836
125.0000000	10.0000000	124.9177771	-9.3086776
125.0000000	15.0000000	123.7590799	-4.4427251
125.0000000	20.0000000	122.6156139	0.250139
125.0000000	25.0000000	121.4707012	5.2925829
125.0000000	30.0000000	120.3075876	10.1580157
125.0000000	35.0000000	119.1084642	15.0192255
125.0000000	40.0000000	117.8533792	19.8738604
125.0000000	45.0000000	116.5188732	24.7191484
125.0000000	50.0000000	115.0761933	29.5516717
125.0000000	55.0000000	113.4884329	34.3670430
125.0000000	60.0000000	111.7071199	39.1594119
125.0000000	65.0000000	109.6657000	43.9207006
125.0000000	70.0000000	107.2700653	48.6393309
125.0000000	75.0000000	104.3824244	53.2980561
125.0000000	80.0000000	100.7937918	57.8700500
125.0000000	85.0000000	96.1760893	62.3115945
125.0000000	90.0000000	90.0000019	66.5477753

TABLE 1. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
130.000000	-90.000000	270.000000	-66.5477781
130.000000	-85.000000	260.5122871	-70.1311073
130.000000	-80.000000	247.5324669	-73.0178394
130.000000	-75.000000	230.5996971	-74.8051271
130.000000	-70.000000	211.2914276	-75.0918798
130.000000	-65.000000	193.1959572	-73.7981930
130.000000	-60.000000	178.8026772	-71.2485123
130.000000	-55.000000	168.1916637	-67.8731203
130.000000	-50.000000	160.4334068	-63.9919171
130.000000	-45.000000	154.6319332	-59.7997341
130.000000	-40.000000	150.1539135	-55.4099627
130.000000	-35.000000	146.5843849	-50.8896427
130.000000	-30.000000	143.6529865	-46.2798705
130.000000	-25.000000	141.1802082	-41.6068797
130.000000	-20.000000	139.0435848	-36.8880973
130.000000	-15.000000	137.1570396	-32.1355333
130.000000	-10.000000	135.4582081	-27.3577738
130.000000	-5.000000	133.9004726	-22.5611625
130.000000	.000000	132.4478283	-17.7505591
130.000000	5.000000	131.0714703	-12.9298226
130.000000	10.000000	129.7474289	-8.1021506
130.000000	15.000000	128.4548607	-3.2703108
130.000000	20.000000	127.1747208	1.5631745
130.000000	25.000000	125.8886595	6.3958758
130.000000	30.000000	124.5779991	11.2253196
130.000000	35.000000	123.2226667	16.0488441
130.000000	40.000000	121.7999649	20.8634288
130.000000	45.000000	120.2830296	25.6654773
130.000000	50.000000	118.6387234	30.4505298
130.000000	55.000000	116.8246574	35.2128377
130.000000	60.000000	114.7847614	39.9447165
130.000000	65.000000	112.4424887	44.6355391
130.000000	70.000000	109.6900826	49.2700872
130.000000	75.000000	106.3712320	53.8257608
130.000000	80.000000	102.2526369	58.2676468
130.000000	85.000000	96.9780197	62.5396051
130.000000	90.000000	90.0000019	66.5477753
135.000000	-90.000000	270.000000	-66.5477781
135.000000	-85.000000	259.7241058	-69.7892866
135.000000	-80.000000	246.2679100	-72.2362490
135.000000	-75.000000	229.7951050	-73.5301447
135.000000	-70.000000	212.1691971	-73.3989058
135.000000	-65.000000	196.1515732	-71.8734827
135.000000	-60.000000	183.2889366	-69.2594538
135.000000	-55.000000	173.5200520	-65.9089680
135.000000	-50.000000	166.1455173	-62.0868334
135.000000	-45.000000	160.4776478	-57.9609122
135.000000	-40.000000	156.0052948	-53.6360059
135.000000	-35.000000	152.3773327	-49.1757240
135.000000	-30.000000	149.3558216	-44.6207328
135.000000	-25.000000	146.7776794	-39.9977427
135.000000	-20.000000	144.5287132	-35.3249106
135.000000	-15.000000	142.5269051	-30.6150060
135.000000	-10.000000	140.7117062	-25.8773062
135.000000	-5.000000	139.0370979	-21.1187723
135.000000	.000000	137.4669685	-16.3448148
135.000000	5.000000	135.9719906	-11.5597929
135.000000	10.000000	134.5273381	-6.7673723
135.000000	15.000000	133.1112347	-1.9707733
135.000000	20.000000	131.7032471	2.8270221
135.000000	25.000000	130.2835407	7.6230984
135.000000	30.000000	128.8316059	12.4144449
135.000000	35.000000	127.3251400	17.1977761
135.000000	40.000000	125.7386770	21.9693267
135.000000	45.000000	124.0418606	26.7245760
135.000000	50.000000	122.1970797	31.4578807
135.000000	55.000000	120.1561069	36.1619306
135.000000	60.000000	117.8551636	40.8269267
135.000000	65.000000	115.2074080	45.4393091
135.000000	70.000000	112.0913677	49.9796677
135.000000	75.000000	108.3328247	54.4192896
135.000000	80.000000	103.6768312	58.7141814
135.000000	85.000000	97.7471294	62.7947073
135.000000	90.000000	90.0000019	66.5477753

TABLE 1. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
140.000000	-90.000000	270.000000	-66.5477781
140.000000	-85.000000	259.0497017	-69.4224663
140.000000	-80.000000	245.3246841	-71.4196157
140.000000	-75.000000	229.4585114	-72.2402248
140.000000	-70.000000	213.3296127	-71.7249432
140.000000	-65.000000	199.0014191	-69.9767332
140.000000	-60.000000	187.4109306	-67.2787132
140.000000	-55.000000	178.4066868	-63.9245071
140.000000	-50.000000	171.4339314	-60.1349573
140.000000	-45.000000	165.9501629	-56.0562191
140.000000	-40.000000	161.5386753	-51.7815151
140.000000	-35.000000	157.9026642	-47.3705840
140.000000	-30.000000	154.8343620	-42.8625674
140.000000	-25.000000	152.1873646	-38.2838464
140.000000	-20.000000	149.8567123	-33.6527991
140.000000	-15.000000	147.7654705	-28.9824102
140.000000	-10.000000	145.8558140	-24.2825236
140.000000	-5.000000	144.0830421	-19.5604899
140.000000	0.000000	142.4115143	-14.8221391
140.000000	5.000000	140.8118172	-10.0722483
140.000000	10.000000	139.2586861	-5.3148912
140.000000	15.000000	137.7794254	-0.5537107
140.000000	20.000000	136.2026253	4.2078642
140.000000	25.000000	134.6570053	8.9664252
140.000000	30.000000	133.0702744	13.7183957
140.000000	35.000000	131.4178944	18.4598255
140.000000	40.000000	129.6715794	23.1861284
140.000000	45.000000	127.7973557	27.8917572
140.000000	50.000000	125.7529440	32.5697355
140.000000	55.000000	123.4840136	37.2109814
140.000000	60.000000	120.9187422	41.8032913
140.000000	65.000000	117.9596939	46.3297520
140.000000	70.000000	114.4716072	50.7661853
140.000000	75.000000	110.2631674	55.0769806
140.000000	80.000000	105.0611067	59.2081175
140.000000	85.000000	98.4789019	63.0756497
140.000000	90.000000	90.0000019	66.5477753
145.000000	-90.000000	269.9999962	-66.5477762
145.000000	-85.000000	258.4903259	-69.0346079
145.000000	-80.000000	244.6738663	-70.5778904
145.000000	-75.000000	229.4999619	-70.9465799
145.000000	-70.000000	214.7023735	-70.0752726
145.000000	-65.000000	201.7787590	-68.1117392
145.000000	-60.000000	191.2631035	-65.3156397
145.000000	-55.000000	182.9480896	-61.9352555
145.000000	-50.000000	176.3750038	-58.1568046
145.000000	-45.000000	171.1044655	-54.1065459
145.000000	-40.000000	166.7923222	-49.8675661
145.000000	-35.000000	163.1867638	-45.4947281
145.000000	-30.000000	160.1068401	-41.0249405
145.000000	-25.000000	157.4219761	-36.4836607
145.000000	-20.000000	155.0365906	-31.8889327
145.000000	-15.000000	152.8792858	-27.2539165
145.000000	-10.000000	150.8954582	-22.5884902
145.000000	-5.000000	149.0421982	-17.9003060
145.000000	0.000000	147.2847328	-13.1954981
145.000000	5.000000	145.5938778	-8.4791627
145.000000	10.000000	143.9841376	-3.7557276
145.000000	15.000000	142.3122005	0.9707786
145.000000	20.000000	140.6756802	5.6964957
145.000000	25.000000	139.0119686	10.4175184
145.000000	30.000000	137.2970142	15.1296865
145.000000	35.000000	135.5039997	19.8283329
145.000000	40.000000	133.6017094	24.5079844
145.000000	45.000000	131.5523911	29.1619534
145.000000	50.000000	129.3088264	33.7817764
145.000000	55.000000	126.8102474	38.3563762
145.000000	60.000000	123.9763803	42.8708253
145.000000	65.000000	120.6988125	47.3044109
145.000000	70.000000	116.8284426	51.6275725
145.000000	75.000000	112.1579266	55.7969971
145.000000	80.000000	106.9998060	59.7477326
145.000000	85.000000	99.1686831	63.3810205
145.000000	90.000000	90.0000048	66.5477762

TABLE 1. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
150.000000	-90.000000	269.9999962	-66.5477762
150.000000	-85.000000	258.0454521	-68.6296644
150.000000	-80.000000	244.2865105	-69.7199392
150.000000	-75.000000	229.8495178	-69.6582384
150.000000	-70.000000	216.2396851	-68.4544697
150.000000	-65.000000	204.5061989	-66.2821665
150.000000	-60.000000	194.9124260	-63.3778462
150.000000	-55.000000	187.2182159	-59.9536819
150.000000	-50.000000	181.0321693	-56.1679230
150.000000	-45.000000	175.9898891	-52.1297512
150.000000	-40.000000	171.8031387	-47.9127622
150.000000	-35.000000	168.2569065	-43.5667624
150.000000	-30.000000	165.1934376	-39.1260314
150.000000	-25.000000	162.4966106	-34.6146922
150.000000	-20.000000	160.0798264	-30.0501630
150.000000	-15.000000	157.8772755	-25.4453633
150.000000	-10.000000	155.8377953	-20.8101432
150.000000	-5.000000	153.9205132	-16.1522610
150.000000	.000000	152.0917683	-11.4780265
150.000000	5.000000	150.3228149	-6.7927828
150.000000	10.000000	148.5880814	-2.1012488
150.000000	15.000000	146.8637619	2.5921978
150.000000	20.000000	145.1265831	7.2832830
150.000000	25.000000	143.3526134	11.9676034
150.000000	30.000000	141.5160198	16.6403918
150.000000	35.000000	139.5876369	21.2962205
150.000000	40.000000	137.5331573	25.9286499
150.000000	45.000000	135.3108053	30.5297422
150.000000	50.000000	132.8681087	35.0893774
150.000000	55.000000	130.1374073	39.5942402
150.000000	60.000000	127.0294800	44.0263333
150.000000	65.000000	123.4244833	48.3606567
150.000000	70.000000	119.1594458	52.5616021
150.000000	75.000000	114.0123911	56.5773225
150.000000	80.000000	107.6867981	60.3311057
150.000000	85.000000	99.8116655	63.7092543
150.000000	90.000000	90.0000008	66.5477762
155.000000	-90.000000	269.9999962	-66.5477762
155.000000	-85.000000	257.7130966	-68.2115211
155.000000	-80.000000	244.1350136	-68.8536196
155.000000	-75.000000	230.4526634	-68.3826609
155.000000	-70.000000	217.9080429	-66.8666449
155.000000	-65.000000	207.1997070	-64.4916039
155.000000	-60.000000	198.4076042	-61.4718633
155.000000	-55.000000	191.2741852	-57.9901142
155.000000	-50.000000	185.4577065	-54.1817212
155.000000	-45.000000	180.6497002	-50.1412168
155.000000	-40.000000	176.6054325	-45.9335361
155.000000	-35.000000	173.1398830	-41.6035204
155.000000	-30.000000	170.1150646	-37.1826291
155.000000	-25.000000	167.4277058	-32.6934085
155.000000	-20.000000	164.9995327	-28.1528117
155.000000	-15.000000	162.7701149	-23.5721052
155.000000	-10.000000	160.6917267	-18.9621599
155.000000	-5.000000	158.7256317	-14.3302974
155.000000	.000000	156.8393841	-9.6829134
155.000000	5.000000	155.0047989	-5.0255162
155.000000	10.000000	153.1963177	-.3630663
155.000000	15.000000	151.3897076	4.2997447
155.000000	20.000000	149.5608139	8.9582450
155.000000	25.000000	147.6843815	13.6075335
155.000000	30.000000	145.7327251	18.2422051
155.000000	35.000000	143.6741791	22.8560319
155.000000	40.000000	141.4711494	27.4415317
155.000000	45.000000	139.0775242	31.9893847
155.000000	50.000000	136.4351444	36.4876347
155.000000	55.000000	133.4689255	40.9204683
155.000000	60.000000	130.0800610	45.2664328
155.000000	65.000000	126.1367168	49.4957051
155.000000	70.000000	121.4620800	53.5659008
155.000000	75.000000	115.8213778	57.4157734
155.000000	80.000000	108.9154100	60.9561195
155.000000	85.000000	100.4028807	64.0586224
155.000000	90.000000	90.0000008	66.5477762

TABLE 1. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
160.000000	-90.000000	269.9999962	-66.5477762
160.000000	-85.000000	257.4900856	-67.7839670
160.000000	-80.000000	244.1938324	-67.9859152
160.000000	-75.000000	231.2666626	-67.1261568
160.000000	-70.000000	219.6833191	-65.3156147
160.000000	-65.000000	209.8709412	-62.7435946
160.000000	-60.000000	201.7848549	-59.6034689
160.000000	-55.000000	195.1605225	-56.0533781
160.000000	-50.000000	189.6945419	-52.2096853
160.000000	-45.000000	185.1213036	-48.1543465
160.000000	-40.000000	181.2303505	-43.9445009
160.000000	-35.000000	177.8611412	-39.6202593
160.000000	-30.000000	174.8924351	-35.2102356
160.000000	-25.000000	172.2322178	-30.7352655
160.000000	-20.000000	169.8097515	-26.2108839
160.000000	-15.000000	167.5696259	-21.6489687
160.000000	-10.000000	165.4674129	-17.0588717
160.000000	-5.000000	163.4664898	-12.4481871
160.000000	.000000	161.5356541	-7.8233102
160.000000	5.000000	159.6473007	-3.1898519
160.000000	10.000000	157.7759304	1.4470329
160.000000	15.000000	155.8968811	6.0823683
160.000000	20.000000	153.9851093	10.7110976
160.000000	25.000000	152.0139618	15.3278168
160.000000	30.000000	149.9537830	19.9264698
160.000000	35.000000	147.7702274	24.4999654
160.000000	40.000000	145.4221268	29.0396941
160.000000	45.000000	142.8586426	33.5348330
160.000000	50.000000	140.0153904	37.9713850
160.000000	55.000000	136.8091736	42.3307424
160.000000	60.000000	133.1308174	46.5875745
160.000000	65.000000	128.8358269	50.7066326
160.000000	70.000000	123.7336378	54.6379590
160.000000	75.000000	117.5791063	58.3099961
160.000000	80.000000	110.0783033	61.6204457
160.000000	85.000000	100.9372101	64.4272289
160.000000	90.000000	90.0000048	66.5477762
165.000000	-90.000000	269.9999962	-66.5477762
165.000000	-85.000000	257.3723793	-67.3506460
165.000000	-80.000000	244.4398003	-67.1230354
165.000000	-75.000000	232.2577362	-65.8941879
165.000000	-70.000000	221.5477066	-63.8049889
165.000000	-65.000000	212.5286217	-61.0416517
165.000000	-60.000000	205.0716591	-57.7779812
165.000000	-55.000000	198.9122849	-54.1512184
165.000000	-50.000000	193.7779770	-50.2618580
165.000000	-45.000000	189.4368057	-46.1809807
165.000000	-40.000000	185.7057266	-41.9587531
165.000000	-35.000000	182.4443245	-37.6308770
165.000000	-30.000000	179.5454998	-33.2231889
165.000000	-25.000000	176.9270363	-28.7547712
165.000000	-20.000000	174.5249119	-24.2400515
165.000000	-15.000000	172.2883034	-19.6902254
165.000000	-10.000000	170.1758728	-15.1182443
165.000000	-5.000000	168.1529999	-10.5194881
165.000000	.000000	166.1896801	-5.9122912
165.000000	5.000000	164.2588749	-1.2983159
165.000000	10.000000	162.3351212	3.3171278
165.000000	15.000000	160.3932896	7.9288052
165.000000	20.000000	158.4073868	12.5312885
165.000000	25.000000	156.3492603	17.1186624
165.000000	30.000000	154.1871090	21.6841896
165.000000	35.000000	151.8836708	26.2198727
165.000000	40.000000	149.3938465	30.7158811
165.000000	45.000000	146.6615582	35.1597457
165.000000	50.000000	143.6155376	39.5352101
165.000000	55.000000	140.1636086	43.8205462
165.000000	60.000000	136.1852360	47.9860601
165.000000	65.000000	131.5224609	51.9903979
165.000000	70.000000	125.9711580	55.7751393
165.000000	75.000000	119.2790422	59.2574601
165.000000	80.000000	111.1673651	62.3215265
165.000000	85.000000	101.4093742	64.8130140
165.000000	90.000000	90.0000048	66.5477762

TABLE 1. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
170.000000	-90.000000	269.9999962	-66.5477762
170.000000	-85.000000	257.3552666	-66.9150553
170.000000	-80.000000	244.8521500	-66.2705231
170.000000	-75.000000	233.3989410	-64.6915684
170.000000	-70.000000	223.4877892	-62.3382149
170.000000	-65.000000	215.1794395	-59.3892584
170.000000	-60.000000	208.2892151	-56.0002093
170.000000	-55.000000	202.5573883	-52.2905984
170.000000	-50.000000	197.7371254	-48.3471866
170.000000	-45.000000	193.6236610	-44.2317190
170.000000	-40.000000	190.0562248	-39.9881463
170.000000	-35.000000	186.9110756	-35.6481123
170.000000	-30.000000	184.0931015	-31.2348015
170.000000	-25.000000	181.5285771	-26.7655630
170.000000	-20.000000	179.1594124	-22.2536807
170.000000	-15.000000	176.9389400	-17.7096190
170.000000	-10.000000	174.8286381	-13.1418599
170.000000	-5.000000	172.7957439	-8.5575236
170.000000	.000000	170.8113651	-3.9628280
170.000000	5.000000	168.8489685	.6365530
170.000000	10.000000	166.8830585	5.2351861
170.000000	15.000000	164.8879852	9.8275998
170.000000	20.000000	162.8366928	14.4080017
170.000000	25.000000	160.6993866	18.9699640
170.000000	30.000000	158.4419136	23.5060401
170.000000	35.000000	156.0237751	28.0072680
170.000000	40.000000	153.3954906	32.4625053
170.000000	45.000000	150.4951382	36.8574824
170.000000	50.000000	147.2437038	41.1734428
170.000000	55.000000	143.5389500	45.3851690
170.000000	60.000000	139.2877398	49.4580574
170.000000	65.000000	134.1976452	53.3438621
170.000000	70.000000	128.1713467	56.9746966
170.000000	75.000000	120.9137087	60.2554569
170.000000	80.000000	112.1735659	63.0565653
170.000000	85.000000	101.8139505	65.2137384
170.000000	90.000000	90.0000048	66.5477762
175.000000	-90.000000	269.9999962	-66.5477762
175.000000	-85.000000	257.4335861	-66.4805174
175.000000	-80.000000	245.4124146	-65.4333496
175.000000	-75.000000	234.6685753	-63.5226164
175.000000	-70.000000	225.4932556	-60.9186215
175.000000	-65.000000	217.8285713	-57.7898703
175.000000	-60.000000	211.4544135	-54.2749481
175.000000	-55.000000	206.1182480	-50.4778991
175.000000	-50.000000	201.5961037	-46.4737859
175.000000	-45.000000	197.7053146	-42.3161836
175.000000	-40.000000	194.3035393	-38.0435205
175.000000	-35.000000	191.2809792	-33.6837301
175.000000	-30.000000	188.5527573	-29.2575107
175.000000	-25.000000	186.0524864	-24.7805231
175.000000	-20.000000	183.7273369	-20.2649231
175.000000	-15.000000	181.5343246	-15.7204063
175.000000	-10.000000	179.4374897	-11.1549599
175.000000	-5.000000	177.4057388	-6.5754007
175.000000	.000000	175.4111919	-1.9877967
175.000000	5.000000	173.4277248	2.6022006
175.000000	10.000000	171.4297390	7.1890614
175.000000	15.000000	169.3909512	11.7670952
175.000000	20.000000	167.2831268	16.3301561
175.000000	25.000000	165.0746403	20.8712966
175.000000	30.000000	162.7287216	25.3823357
175.000000	35.000000	160.2012520	29.8532953
175.000000	40.000000	157.4378242	34.2716231
175.000000	45.000000	154.3698959	38.6210809
175.000000	50.000000	150.9096489	42.8801517
175.000000	55.000000	146.9434013	47.0197110
175.000000	60.000000	142.3238392	50.9996095
175.000000	65.000000	136.8628178	54.7637997
175.000000	70.000000	130.3304310	58.2337756
175.000000	75.000000	122.4744358	61.3010898
175.000000	80.000000	113.0868130	63.8225069
175.000000	85.000000	102.1454020	65.6269884
175.000000	90.000000	90.0000048	66.5477762

TABLE 1. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
180.000000	-90.000000	269.9999962	-66.5477762
180.000000	-85.000000	257.6018944	-66.0501747
180.000000	-80.000000	246.1042519	-64.6159935
180.000000	-75.000000	236.0489616	-62.3912559
180.000000	-70.000000	227.5560074	-59.5499328
180.000000	-65.000000	220.4800873	-56.2469201
180.000000	-60.000000	214.5796127	-52.6066389
180.000000	-55.000000	209.6130447	-48.7190661
180.000000	-50.000000	205.3749428	-44.6491203
180.000000	-45.000000	201.7017708	-40.4432268
180.000000	-40.000000	198.4666557	-36.1348963
180.000000	-35.000000	195.5716400	-31.7486951
180.000000	-30.000000	192.9405861	-27.3030028
180.000000	-25.000000	190.5135117	-22.8118799
180.000000	-20.000000	188.2422142	-18.2863739
180.000000	-15.000000	186.0869904	-13.7354144
180.000000	-10.000000	184.0141678	-9.1668721
180.000000	-5.000000	181.9941788	-4.5860381
180.000000	0.000000	179.9999981	-0.0000014
180.000000	5.000000	178.0058136	4.5860353
180.000000	10.000000	175.9858246	9.1664695
180.000000	15.000000	173.9130039	13.7354105
180.000000	20.000000	171.7577801	18.2863712
180.000000	25.000000	169.4864807	22.8118775
180.000000	30.000000	167.0594101	27.3030005
180.000000	35.000000	164.4283581	31.7486930
180.000000	40.000000	161.5333385	36.1348939
180.000000	45.000000	158.2982235	40.4432249
180.000000	50.000000	154.6250553	44.6491175
180.000000	55.000000	150.3869495	48.7190657
180.000000	60.000000	145.4203835	52.6066375
180.000000	65.000000	139.5199108	56.2469182
180.000000	70.000000	132.4439926	59.5494304
180.000000	75.000000	123.9510393	62.3912559
180.000000	80.000000	113.8957510	64.6159935
180.000000	85.000000	102.3981056	66.0501747
180.000000	90.000000	90.0000048	66.5477762
185.000000	-90.000000	269.9999962	-66.5477762
185.000000	-85.000000	257.8545990	-65.6269903
185.000000	-80.000000	246.9131889	-63.8225069
185.000000	-75.000000	237.5255661	-61.3010917
185.000000	-70.000000	229.6695671	-58.2337785
185.000000	-65.000000	223.1371803	-54.7638021
185.000000	-60.000000	217.6761551	-50.9996119
185.000000	-55.000000	213.0565948	-47.0197139
185.000000	-50.000000	209.0903473	-42.8801551
185.000000	-45.000000	205.6301003	-38.6210837
185.000000	-40.000000	202.5621719	-34.2716260
185.000000	-35.000000	199.7987442	-29.8532977
185.000000	-30.000000	197.2712708	-25.3823371
185.000000	-25.000000	194.9253540	-20.8712990
185.000000	-20.000000	192.7168655	-16.3301599
185.000000	-15.000000	190.6090431	-11.7670990
185.000000	-10.000000	188.5702553	-7.1890640
185.000000	-5.000000	186.5722694	-2.6022034
185.000000	0.000000	184.5888023	1.9877939
185.000000	5.000000	182.5942535	6.5753980
185.000000	10.000000	180.5625114	11.1549560
185.000000	15.000000	178.4656696	15.7204025
185.000000	20.000000	176.2726555	20.2649193
185.000000	25.000000	173.9475060	24.7805204
185.000000	30.000000	171.4472320	29.2575080
185.000000	35.000000	168.7190151	33.6837277
185.000000	40.000000	165.6964607	38.0435175
185.000000	45.000000	162.2946796	42.3161812
185.000000	50.000000	158.4038906	46.4737821
185.000000	55.000000	153.8817463	50.4778957
185.000000	60.000000	148.5458527	54.2749457
185.000000	65.000000	142.1714268	57.7898679
185.000000	70.000000	134.5067425	60.9186187
185.000000	75.000000	125.3314257	63.5226159
185.000000	80.000000	114.5875845	65.4333487
185.000000	85.000000	102.5664148	66.4805164
185.000000	90.000000	90.0000048	66.5477762

TABLE 1. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
190.000000	-90.000000	269.9999962	-66.5477762
190.000000	-85.000000	258.1860504	-65.2137384
190.000000	-80.000000	247.8264313	-63.0565667
190.000000	-75.000000	239.0862885	-60.2554588
190.000000	-70.000000	231.8286514	-56.9746990
190.000000	-65.000000	225.8023529	-53.3438640
190.000000	-60.000000	220.7522545	-49.4580598
190.000000	-55.000000	216.4610443	-45.3851714
190.000000	-50.000000	212.7562904	-41.1734452
190.000000	-45.000000	209.5048561	-36.8574848
190.000000	-40.000000	206.6045036	-32.4625087
190.000000	-35.000000	203.9762192	-28.0072703
190.000000	-30.000000	201.5580788	-23.5060425
190.000000	-25.000000	199.3006058	-18.9699664
190.000000	-20.000000	197.1632996	-14.4080055
190.000000	-15.000000	195.1120071	-9.8276031
190.000000	-10.000000	193.1169319	-5.2351896
190.000000	-5.000000	191.1510239	-.6365565
190.000000	.000000	189.1886253	3.9628245
190.000000	5.000000	187.2042465	8.5575199
190.000000	10.000000	185.1713524	13.1418560
190.000000	15.000000	183.0610504	17.7096152
190.000000	20.000000	180.8405762	22.2536783
190.000000	25.000000	178.4714241	26.7655590
190.000000	30.000000	175.9068909	31.2347989
190.000000	35.000000	173.0889187	35.6481080
190.000000	40.000000	169.9437656	39.9881425
190.000000	45.000000	166.3763294	44.2317152
190.000000	50.000000	162.2628651	48.3471832
190.000000	55.000000	157.4426079	52.2905946
190.000000	60.000000	151.7107811	56.0002065
190.000000	65.000000	144.8205566	59.3892555
190.000000	70.000000	136.5122051	62.3382130
190.000000	75.000000	126.6010551	64.6915665
190.000000	80.000000	115.1478529	66.2705212
190.000000	85.000000	102.6447353	66.9150553
190.000000	90.000000	90.0000048	66.5477762
195.000000	-90.000000	269.9999962	-66.5477762
195.000000	-85.000000	258.5906258	-64.8130140
195.000000	-80.000000	248.8326340	-62.3215265
195.000000	-75.000000	240.7209549	-59.2574620
195.000000	-70.000000	234.0288391	-55.7751422
195.000000	-65.000000	228.4775352	-51.9903989
195.000000	-60.000000	223.8147583	-47.9860630
195.000000	-55.000000	219.8363876	-43.8205481
195.000000	-50.000000	216.3844566	-39.5352125
195.000000	-45.000000	213.3384361	-35.1597486
195.000000	-40.000000	210.6061478	-30.7158842
195.000000	-35.000000	208.1163216	-26.2198768
195.000000	-30.000000	205.8128815	-21.6841948
195.000000	-25.000000	203.6507339	-17.1186664
195.000000	-20.000000	201.5926056	-12.5312923
195.000000	-15.000000	199.6067009	-7.9288085
195.000000	-10.000000	197.6648712	-3.3171311
195.000000	-5.000000	195.7411194	1.2983126
195.000000	.000000	193.8103142	5.9122878
195.000000	5.000000	191.8469925	10.5194830
195.000000	10.000000	189.8241196	15.1142391
195.000000	15.000000	187.7116890	19.6902225
195.000000	20.000000	185.4750824	24.2400465
195.000000	25.000000	183.0729561	28.7547672
195.000000	30.000000	180.4544907	33.2231851
195.000000	35.000000	177.5556679	37.6308742
195.000000	40.000000	174.2942638	41.9587488
195.000000	45.000000	170.5631866	46.1809769
195.000000	50.000000	166.2220192	50.2618546
195.000000	55.000000	161.0877113	54.1512160
195.000000	60.000000	154.9283371	57.7779379
195.000000	65.000000	147.4713745	61.0416493
195.000000	70.000000	138.4522896	63.8049860
195.000000	75.000000	127.7422600	65.8941860
195.000000	80.000000	115.5602007	67.1230354
195.000000	85.000000	102.6276207	67.3506460
195.000000	90.000000	90.0000048	66.5477762

TABLE 1. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
200.000000	-90.000000	269.9999962	-66.5477762
200.000000	-85.000000	259.0627899	-64.4272289
200.000000	-80.000000	249.9216957	-61.6204467
200.000000	-75.000000	242.4208946	-58.3099966
200.000000	-70.000000	236.2663612	-54.6379609
200.000000	-65.000000	231.1641731	-50.7066336
200.000000	-60.000000	226.8691788	-46.5875773
200.000000	-55.000000	223.1908188	-42.3307447
200.000000	-50.000000	219.9846077	-37.9713869
200.000000	-45.000000	217.1413536	-33.5348349
200.000000	-40.000000	214.5778694	-29.0396955
200.000000	-35.000000	212.2297668	-24.4999678
200.000000	-30.000000	210.0462112	-19.9264722
200.000000	-25.000000	207.9860344	-15.3278207
200.000000	-20.000000	206.0188849	-10.7111012
200.000000	-15.000000	204.1031113	-6.0823708
200.000000	-10.000000	202.2240639	-1.4470355
200.000000	-5.000000	200.3526955	3.1898492
200.000000	.000000	198.4643440	7.8233075
200.000000	5.000000	196.5335045	12.4481845
200.000000	10.000000	194.5325813	17.0588706
200.000000	15.000000	192.4303703	21.6489661
200.000000	20.000000	190.1902428	26.2108815
200.000000	25.000000	187.7677765	30.7352641
200.000000	30.000000	185.1075592	35.2102332
200.000000	35.000000	182.1388512	39.6202564
200.000000	40.000000	178.7696438	43.9444981
200.000000	45.000000	174.8786907	48.1543431
200.000000	50.000000	170.3054562	52.2096815
200.000000	55.000000	164.8394756	56.0533757
200.000000	60.000000	158.2151394	59.6034665
200.000000	65.000000	150.1290569	62.7435932
200.000000	70.000000	140.3156771	65.3156137
200.000000	75.000000	128.7333355	67.1261559
200.000000	80.000000	115.8061676	67.9859142
200.000000	85.000000	102.5099144	67.7839670
200.000000	90.000000	90.0000048	66.5477762
205.000000	-90.000000	269.9999962	-66.5477762
205.000000	-85.000000	259.5971222	-64.0586224
205.000000	-80.000000	251.0845871	-60.9561214
205.000000	-75.000000	244.1786194	-57.4157758
205.000000	-70.000000	238.5379143	-53.5659041
205.000000	-65.000000	233.8632812	-49.4957066
205.000000	-60.000000	229.9199333	-45.2664347
205.000000	-55.000000	226.5310707	-40.9204698
205.000000	-50.000000	223.5648537	-36.4876370
205.000000	-45.000000	220.9224701	-31.9893870
205.000000	-40.000000	218.5288429	-27.4415343
205.000000	-35.000000	216.3258133	-22.8560345
205.000000	-30.000000	214.2672631	-18.2422078
205.000000	-25.000000	212.3156090	-13.6075360
205.000000	-20.000000	210.4391785	-8.9582481
205.000000	-15.000000	208.6102867	-4.2997477
205.000000	-10.000000	206.8036766	.3630632
205.000000	-5.000000	204.9951935	5.0255131
205.000000	.000000	203.1606064	9.6829101
205.000000	5.000000	201.2743607	14.3302923
205.000000	10.000000	199.3082657	18.9621572
205.000000	15.000000	197.2298775	23.5721030
205.000000	20.000000	195.0004616	28.1524076
205.000000	25.000000	192.5722847	32.6934047
205.000000	30.000000	189.8849297	37.1826258
205.000000	35.000000	186.8601112	41.6035166
205.000000	40.000000	183.3945618	45.9335322
205.000000	45.000000	179.3502941	50.1412120
205.000000	50.000000	174.5422878	54.1817169
205.000000	55.000000	168.7258072	57.9901118
205.000000	60.000000	161.5923920	61.4718614
205.000000	65.000000	152.8002872	64.4916010
205.000000	70.000000	142.0919533	66.8666401
205.000000	75.000000	129.5473347	68.3826590
205.000000	80.000000	115.8649883	68.8536186
205.000000	85.000000	102.2869062	68.2115211
205.000000	90.000000	90.0000048	66.5477762

TABLE 1. (Continued)

ALPHA (LAMBOA) DEGREES	DELTA (BETA) DEGREES	LAMBOA (ALPHA) DEGREES	BETA (DELTA) DEGREES
210.000000	-90.000000	769.9999962	-66.5477762
210.000000	-85.000000	760.1883354	-63.7092547
210.000000	-80.000000	252.3131981	-60.3311062
210.000000	-75.000000	245.9876060	-56.5773230
210.000000	-70.000000	240.8405533	-52.5616026
210.000000	-65.000000	236.5755119	-48.3606582
210.000000	-60.000000	232.9705162	-44.0263352
210.000000	-55.000000	229.8625870	-39.5942421
210.000000	-50.000000	227.1318855	-35.0893784
210.000000	-45.000000	224.6891899	-30.5297444
210.000000	-40.000000	222.4668350	-25.9286520
210.000000	-35.000000	220.4123611	-21.2962217
210.000000	-30.000000	218.4893745	-16.6403930
210.000000	-25.000000	216.6473846	-11.9676061
210.000000	-20.000000	214.8734131	-7.2832854
210.000000	-15.000000	213.1362305	-2.5922002
210.000000	-10.000000	211.4119110	2.1012464
210.000000	-5.000000	209.6771812	6.7927803
210.000000	.000000	207.9082260	11.4780240
210.000000	5.000000	206.0794830	16.1522572
210.000000	10.000000	204.1621971	20.8101408
210.000000	15.000000	202.1227188	25.4453609
210.000000	20.000000	199.9201698	30.0501609
210.000000	25.000000	197.5033798	34.6146889
210.000000	30.000000	194.8065529	39.1260285
210.000000	35.000000	191.7430840	43.5667601
210.000000	40.000000	188.1968575	47.9127584
210.000000	45.000000	184.0101051	52.1297488
210.000000	50.000000	178.9678230	56.1679196
210.000000	55.000000	172.7817802	59.9536796
210.000000	60.000000	165.0875702	63.3778434
210.000000	65.000000	155.4937954	66.2821627
210.000000	70.000000	143.7603149	68.4544668
210.000000	75.000000	130.1504822	69.6582365
210.000000	80.000000	115.7134905	69.7199383
210.000000	85.000000	101.9545479	68.6296635
210.000000	90.000000	90.0000048	66.5477762
215.000000	-90.000000	269.9999962	-66.5477762
215.000000	-85.000000	260.8313179	-63.3810205
215.000000	-80.000000	253.6001968	-59.7477326
215.000000	-75.000000	247.8420715	-55.7969975
215.000000	-70.000000	243.1715546	-51.6275725
215.000000	-65.000000	239.3011894	-47.3044128
215.000000	-60.000000	236.0236168	-42.8708267
215.000000	-55.000000	233.1897507	-38.3563781
215.000000	-50.000000	230.6911697	-33.7817774
215.000000	-45.000000	228.4476051	-29.1619573
215.000000	-40.000000	226.3982849	-24.5079858
215.000000	-35.000000	224.4959984	-19.8283341
215.000000	-30.000000	222.7029839	-15.1296878
215.000000	-25.000000	220.9880295	-10.4175198
215.000000	-20.000000	219.3243141	-5.6964971
215.000000	-15.000000	217.6877975	-.9707801
215.000000	-10.000000	216.0558586	3.7557258
215.000000	-5.000000	214.4061165	8.4791609
215.000000	.000000	212.7152634	13.1954956
215.000000	5.000000	210.9577980	17.9003048
215.000000	10.000000	209.1045380	22.5884876
215.000000	15.000000	207.1207085	27.2539139
215.000000	20.000000	204.9634056	31.8889315
215.000000	25.000000	202.5780182	36.4836597
215.000000	30.000000	199.8931541	41.0249391
215.000000	35.000000	196.8132286	45.4947257
215.000000	40.000000	193.2076759	49.8675647
215.000000	45.000000	188.8955307	54.1065440
215.000000	50.000000	183.6249962	58.1568007
215.000000	55.000000	177.0519066	61.9352522
215.000000	60.000000	168.7368927	65.3156328
215.000000	65.000000	158.2212372	68.1117373
215.000000	70.000000	145.2976284	70.0752716
215.000000	75.000000	130.5000381	70.9465780
215.000000	80.000000	115.3261337	70.5778904
215.000000	85.000000	101.5096769	69.0346079
215.000000	90.000000	90.0000048	66.5477762

TABLE 1. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
220.000000	-90.000000	270.000000	-66.5477753
220.000000	-85.000000	261.5210991	-63.0756497
220.000000	-80.000000	254.9388924	-59.2081180
220.000000	-75.000000	249.7368317	-55.0769820
220.000000	-70.000000	245.5283890	-50.7661867
220.000000	-65.000000	242.0403023	-46.3297534
220.000000	-60.000000	239.0812531	-41.8032928
220.000000	-55.000000	236.5159836	-37.2109833
220.000000	-50.000000	234.2470512	-32.5697370
220.000000	-45.000000	232.2026405	-27.8917596
220.000000	-40.000000	230.3284187	-23.1861298
220.000000	-35.000000	228.5820999	-18.4598267
220.000000	-30.000000	226.9297180	-13.7183969
220.000000	-25.000000	225.3429909	-8.9664270
220.000000	-20.000000	223.7973671	-4.2078663
220.000000	-15.000000	222.2705688	.5537086
220.000000	-10.000000	220.7413063	5.3148891
220.000000	-5.000000	219.1881752	10.0722474
220.000000	.000000	217.5884781	14.8221377
220.000000	5.000000	215.9169540	19.5604873
220.000000	10.000000	214.1441803	24.2825222
220.000000	15.000000	212.2345238	28.9824078
220.000000	20.000000	210.1432838	33.6527467
220.000000	25.000000	207.8126297	38.2838435
220.000000	30.000000	205.1656303	42.8625646
220.000000	35.000000	202.0973282	47.3705797
220.000000	40.000000	198.4613190	51.7815123
220.000000	45.000000	194.0498314	56.0562162
220.000000	50.000000	188.5660591	60.1349535
220.000000	55.000000	181.5933037	63.9245048
220.000000	60.000000	172.5890617	67.2787104
220.000000	65.000000	160.9985790	69.9767303
220.000000	70.000000	146.6703854	71.7249403
220.000000	75.000000	130.5414906	72.2402239
220.000000	80.000000	114.6753159	71.4196138
220.000000	85.000000	100.9503021	69.4224663
220.000000	90.000000	90.0000019	66.5477781
225.000000	-90.000000	270.0000000	-66.5477753
225.000000	-85.000000	262.2528725	-62.7947087
225.000000	-80.000000	256.3231697	-58.7141819
225.000000	-75.000000	251.6671715	-54.4192896
225.000000	-70.000000	247.9086304	-49.9796691
225.000000	-65.000000	244.7925911	-45.4393101
225.000000	-60.000000	242.1448326	-40.8269281
225.000000	-55.000000	239.8438873	-36.1619315
225.000000	-50.000000	237.8029175	-31.4578817
225.000000	-45.000000	235.9581337	-26.7245772
225.000000	-40.000000	234.2613182	-21.9693279
225.000000	-35.000000	232.6748543	-17.1977775
225.000000	-30.000000	231.1683884	-12.4144461
225.000000	-25.000000	229.7164536	-7.6231005
225.000000	-20.000000	228.2967491	-2.8270240
225.000000	-15.000000	226.8887596	1.9707714
225.000000	-10.000000	225.4726143	6.7673703
225.000000	-5.000000	224.0280037	11.5597906
225.000000	.000000	222.5330238	16.3448105
225.000000	5.000000	220.9628944	21.1187699
225.000000	10.000000	219.2882881	25.8773050
225.000000	15.000000	217.4730873	30.6150038
225.000000	20.000000	215.4712791	35.3249078
225.000000	25.000000	213.2223129	39.9977393
225.000000	30.000000	210.6441727	44.6207314
225.000000	35.000000	207.6226616	49.1757212
225.000000	40.000000	203.9946976	53.6360030
225.000000	45.000000	199.5223427	57.9609103
225.000000	50.000000	193.8544769	62.0864310
225.000000	55.000000	186.4799423	65.9089642
225.000000	60.000000	176.7110577	69.2594509
225.000000	65.000000	163.8484230	71.8734808
225.000000	70.000000	147.8308010	73.3989029
225.000000	75.000000	130.2048969	73.5301428
225.000000	80.000000	113.7320929	72.2362471
225.000000	85.000000	100.2758961	69.7892857
225.000000	90.000000	90.0000019	66.5477781

TABLE 1. (Continued)

ALPHA (LAMDA) DEGREES	DELTA (BETA) DEGREES	LAMDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
230.000000	-90.000000	270.000000	-66.5477753
230.000000	-85.000000	263.0219803	-62.5396066
230.000000	-80.000000	257.7473640	-58.2676468
230.000000	-75.000000	253.6287651	-53.8257608
230.000000	-70.000000	250.3099136	-49.2700877
230.000000	-65.000000	247.5575104	-44.6355400
230.000000	-60.000000	245.2152367	-39.9447179
230.000000	-55.000000	243.1753387	-35.2128401
230.000000	-50.000000	241.3612747	-30.4505320
230.000000	-45.000000	239.7169685	-25.6654785
230.000000	-40.000000	238.2000313	-20.8634303
230.000000	-35.000000	236.7773285	-16.0488441
230.000000	-30.000000	235.4219933	-11.2253209
230.000000	-25.000000	234.1113358	-6.3958774
230.000000	-20.000000	232.8252754	-1.5631762
230.000000	-15.000000	231.5451355	3.2703091
230.000000	-10.000000	230.2525635	8.1021489
230.000000	-5.000000	228.9285240	12.9298214
230.000000	.000000	227.5521660	17.7505579
230.000000	5.000000	226.0995216	22.5611613
230.000000	10.000000	224.5417862	27.3577726
230.000000	15.000000	222.8429527	32.1355309
230.000000	20.000000	220.9564095	36.8880939
230.000000	25.000000	218.8197823	41.6068778
230.000000	30.000000	216.4470078	46.2798686
230.000000	35.000000	213.84156075	50.8896408
230.000000	40.000000	209.8460808	55.4099593
230.000000	45.000000	205.3680573	59.7997313
230.000000	50.000000	199.5665855	63.9919133
230.000000	55.000000	191.8083267	67.8731203
230.000000	60.000000	181.1973152	71.2485094
230.000000	65.000000	166.8040390	73.7981920
230.000000	70.000000	148.7085743	75.0918779
230.000000	75.000000	129.4003067	74.8051262
230.000000	80.000000	112.4675360	73.0178385
230.000000	85.000000	99.4877129	70.1311054
230.000000	90.000000	90.0000019	66.5477781
235.000000	-90.000000	270.0000000	-66.5477753
235.000000	-85.000000	263.8239098	-62.3115945
235.000000	-80.000000	259.2062073	-57.8700500
235.000000	-75.000000	255.6175728	-53.2980580
235.000000	-70.000000	252.7299309	-48.6393318
235.000000	-65.000000	250.3342972	-43.9207015
235.000000	-60.000000	248.2928772	-39.1594124
235.000000	-55.000000	246.5115623	-34.3670444
235.000000	-50.000000	244.9238510	-29.5516746
235.000000	-45.000000	243.4811211	-24.7191508
235.000000	-40.000000	242.1466141	-19.8738618
235.000000	-35.000000	240.8915291	-15.0192268
235.000000	-30.000000	239.6924057	-10.1580169
235.000000	-25.000000	238.5292931	-5.2925848
235.000000	-20.000000	237.3843803	-0.4250158
235.000000	-15.000000	236.2409134	4.4427231
235.000000	-10.000000	235.0822182	9.3086755
235.000000	-5.000000	233.8907433	14.1707823
235.000000	.000000	232.6469994	19.0267496
235.000000	5.000000	231.3282585	23.8738937
235.000000	10.000000	229.9068069	28.7089300
235.000000	15.000000	228.3475189	33.5276675
235.000000	20.000000	226.6042023	38.3245606
235.000000	25.000000	224.6140404	43.0919895
235.000000	30.000000	222.2886810	47.8191147
235.000000	35.000000	219.4995346	52.4898934
235.000000	40.000000	216.0527649	57.0795732
235.000000	45.000000	211.6458359	61.5481539
235.000000	50.000000	205.7924576	65.8276911
235.000000	55.000000	197.7046890	69.7970295
235.000000	60.000000	186.1846504	73.2337847
235.000000	65.000000	169.9167862	75.7468386
235.000000	70.000000	149.1964207	76.7974033
235.000000	75.000000	128.0125351	76.0509195
235.000000	80.000000	110.8549862	73.7532988
235.000000	85.000000	98.5890779	70.4440212
235.000000	90.000000	90.0000019	66.5477781

TABLE 1. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
240.000000	-90.000000	270.000000	-66.5477753
240.000000	-85.000000	264.6542664	-62.1117778
240.000000	-80.000000	260.6947479	-57.5227423
240.000000	-75.000000	257.6297913	-52.8376608
240.000000	-70.000000	255.1663742	-48.0891032
240.000000	-65.000000	253.1219635	-43.2968426
240.000000	-60.000000	251.3777504	-38.4735122
240.000000	-55.000000	249.8532181	-33.6275740
240.000000	-50.000000	248.4916840	-28.7649312
240.000000	-45.000000	247.2517891	-23.8898563
240.000000	-40.000000	246.1022377	-19.0055716
240.000000	-35.000000	245.0184669	-14.1145904
240.000000	-30.000000	243.9803696	-9.2189685
240.000000	-25.000000	242.9707451	-4.3204524
240.000000	-20.000000	241.9781135	.5793832
240.000000	-15.000000	240.9757538	5.4790438
240.000000	-10.000000	239.9608421	10.3770225
240.000000	-5.000000	238.9135818	15.2717154
240.000000	.000000	237.8162079	20.1613102
240.000000	5.000000	236.6477165	25.0436664
240.000000	10.000000	235.3821907	29.9161222
240.000000	15.000000	233.9863091	34.7752509
240.000000	20.000000	232.4156570	39.6164517
240.000000	25.000000	230.6088524	44.4333200
240.000000	30.000000	228.4779205	49.2165899
240.000000	35.000000	225.8918571	53.9522753
240.000000	40.000000	222.6473312	58.6182399
240.000000	45.000000	218.4144630	63.1775150
240.000000	50.000000	212.6343422	67.5644226
240.000000	55.000000	204.3329163	71.6543684
240.000000	60.000000	191.8769112	75.1986094
240.000000	65.000000	173.2707920	77.7149715
240.000000	70.000000	149.1233196	78.5069513
240.000000	75.000000	125.8964872	77.2490292
240.000000	80.000000	108.8734102	74.4304476
240.000000	85.000000	97.5856638	70.7242556
240.000000	90.000000	90.0000019	66.5477781
245.000000	-90.000000	270.0000000	-66.5477753
245.000000	-85.000000	265.5087814	-61.9411039
245.000000	-80.000000	262.2083092	-57.2268920
245.000000	-75.000000	259.6617966	-52.4458671
245.000000	-70.000000	257.6169395	-47.6209073
245.000000	-65.000000	255.9193268	-42.7657785
245.000000	-60.000000	254.4695015	-37.8892317
245.000000	-55.000000	253.2004585	-32.9971213
245.000000	-50.000000	252.0651894	-28.0935252
245.000000	-45.000000	251.0294304	-23.1814029
245.000000	-40.000000	250.0672417	-18.2629867
245.000000	-35.000000	249.1582146	-13.3400269
245.000000	-30.000000	248.2855873	-8.4139611
245.000000	-25.000000	247.4349327	-3.4860188
245.000000	-20.000000	246.5931702	1.4426822
245.000000	-15.000000	245.7477417	6.3710710
245.000000	-10.000000	244.8858795	11.2980562
245.000000	-5.000000	243.9938164	16.2224650
245.000000	.000000	243.0559006	21.1429553
245.000000	5.000000	242.0534210	26.0579243
245.000000	10.000000	240.9630127	30.9653661
245.000000	15.000000	239.7542839	35.8626590
245.000000	20.000000	238.4861809	40.7462454
245.000000	25.000000	236.8011398	45.6111178
245.000000	30.000000	234.9151573	50.4499054
245.000000	35.000000	232.6003151	55.2512693
245.000000	40.000000	229.6521301	59.9968204
245.000000	45.000000	225.7252731	64.6547775
245.000000	50.000000	220.2000275	69.1659136
245.000000	55.000000	211.9002495	73.4096241
245.000000	60.000000	198.5858803	77.1184597
245.000000	65.000000	177.0146465	79.6972733
245.000000	70.000000	148.2021236	80.2081404
245.000000	75.000000	122.8764591	78.3751354
245.000000	80.000000	106.5119848	75.0362167
245.000000	85.000000	96.4856739	70.9682560
245.000000	90.000000	90.0000019	66.5477781

TABLE 1. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
250.000000	-90.000000	270.000000	-66.5477753
250.000000	-85.000000	266.3832703	-61.8003726
250.000000	-80.000000	263.7424126	-56.9834871
250.000000	-75.000000	261.7101135	-52.1237822
250.000000	-70.000000	260.0793152	-47.2360353
250.000000	-65.000000	258.7250481	-42.3290739
250.000000	-60.000000	257.5678591	-37.4084907
250.000000	-55.000000	256.5530243	-32.4780169
250.000000	-50.000000	255.6442604	-27.5402551
250.000000	-45.000000	254.8138924	-22.5970929
250.000000	-40.000000	254.0412445	-17.6499584
250.000000	-35.000000	253.3100319	-12.6999742
250.000000	-30.000000	252.6068153	-7.7480671
250.000000	-25.000000	251.9199905	-2.7950330
250.000000	-20.000000	251.2389526	2.1583988
250.000000	-15.000000	250.5534515	7.1115246
250.000000	-10.000000	249.8529625	12.0636195
250.000000	-5.000000	249.1260529	17.0139000
250.000000	.000000	248.3595695	21.9614573
250.000000	5.000000	247.5376663	26.9052024
250.000000	10.000000	246.6403389	31.8437524
250.000000	15.000000	245.6413231	36.7752910
250.000000	20.000000	244.5047188	41.6973238
250.000000	25.000000	243.3179508	46.6062999
250.000000	30.000000	241.9900383	51.4969230
250.000000	35.000000	239.6186867	56.3608932
250.000000	40.000000	237.0720787	61.1844387
250.000000	45.000000	233.6104736	65.9429541
250.000000	50.000000	228.5869408	70.5882883
250.000000	55.000000	220.6520691	75.0145350
250.000000	60.000000	206.7961311	78.9548120
250.000000	65.000000	181.4381828	81.6864815
250.000000	70.000000	145.9206009	81.8807936
250.000000	75.000000	118.7573700	79.3973169
250.000000	80.000000	103.7756739	75.5570412
250.000000	85.000000	95.2999372	71.1727810
250.000000	90.000000	90.0000010	66.5477781
255.000000	-90.000000	270.000000	-66.5477753
255.000000	-85.000000	267.2736435	-61.6902418
255.000000	-80.000000	265.2927589	-56.7933335
255.000000	-75.000000	263.7713623	-51.8723178
255.000000	-70.000000	262.5511665	-46.9355602
255.000000	-65.000000	261.5376244	-41.9880385
255.000000	-60.000000	260.6707001	-37.0328889
255.000000	-55.000000	259.9102783	-32.0722084
255.000000	-50.000000	259.2283363	-27.1074548
255.000000	-45.000000	258.6044731	-22.1396909
255.000000	-40.000000	258.0232391	-17.1697166
255.000000	-35.000000	257.4724274	-12.1981654
255.000000	-30.000000	256.9419479	-7.2255619
255.000000	-25.000000	256.4230461	-2.2523592
255.000000	-20.000000	255.9076843	2.7210271
255.000000	-15.000000	255.3880424	7.6941923
255.000000	-10.000000	254.8560371	12.6667156
255.000000	-5.000000	254.3028145	17.6381423
255.000000	.000000	253.7181282	22.6079376
255.000000	5.000000	253.0895157	27.5754564
255.000000	10.000000	252.4011421	32.5398746
255.000000	15.000000	251.6320267	37.5001044
255.000000	20.000000	250.7532349	42.4546351
255.000000	25.000000	249.7231789	47.4013000
255.000000	30.000000	248.4793472	52.3368235
255.000000	35.000000	246.9227562	57.2559958
255.000000	40.000000	244.8866425	62.1499968
255.000000	45.000000	242.0672188	67.0025930
255.000000	50.000000	237.8524780	71.7805014
255.000000	55.000000	230.8361359	76.4045877
255.000000	60.000000	217.2490730	80.6437521
255.000000	65.000000	187.1905327	83.6703348
255.000000	70.000000	141.3045235	83.4875345
255.000000	75.000000	113.3627434	80.2746782
255.000000	80.000000	100.6909561	75.9795656
255.000000	85.000000	94.0418415	71.3350067
255.000000	90.000000	90.0000010	66.5477781

TABLE 1. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
260.000000	-90.000000	270.000000	-66.5477753
260.000000	-85.000000	268.1758690	-61.6112137
260.000000	-80.000000	266.8551788	-56.6570621
260.000000	-75.000000	265.8422470	-51.6921883
260.000000	-70.000000	265.0301399	-46.7203269
260.000000	-65.000000	264.3554535	-41.7436962
260.000000	-60.000000	263.7780800	-36.7636871
260.000000	-55.000000	263.2713051	-31.7812304
260.000000	-50.000000	262.8164787	-26.7969728
260.000000	-45.000000	262.4000359	-21.8113835
260.000000	-40.000000	262.0116920	-16.8248200
260.000000	-35.000000	261.6433144	-11.8375652
260.000000	-30.000000	261.2881660	-6.8498539
260.000000	-25.000000	260.9403954	-1.8618859
260.000000	-20.000000	260.5945892	3.1261503
260.000000	-15.000000	260.2454681	8.1140726
260.000000	-10.000000	259.8875504	13.1016879
260.000000	-5.000000	259.5147934	18.0887918
260.000000	.000000	259.1201668	23.0751357
260.000000	5.000000	258.6950760	28.0604253
260.000000	10.000000	258.2285271	33.0442772
260.000000	15.000000	257.7058792	38.0261836
260.000000	20.000000	257.1067810	43.0054388
260.000000	25.000000	256.4017525	47.9810166
260.000000	30.000000	255.5460014	52.9513593
260.000000	35.000000	254.4676094	57.9139533
260.000000	40.000000	253.0430145	62.8644805
260.000000	45.000000	251.0404739	67.7947912
260.000000	50.000000	247.9703941	72.6875334
260.000000	55.000000	242.6051178	77.4984322
260.000000	60.000000	230.9592514	82.0768938
260.000000	65.000000	196.0555649	85.6202974
260.000000	70.000000	132.4257545	84.9494295
260.000000	75.000000	106.6175051	80.9581690
260.000000	80.000000	97.3101978	76.2915792
260.000000	85.000000	92.7271261	71.4526215
260.000000	90.000000	90.0000010	66.5477781
265.000000	-90.000000	270.000000	-66.5477753
265.000000	-85.000000	269.0859680	-61.5636511
265.000000	-80.000000	268.4255981	-56.5751195
265.000000	-75.000000	267.9195290	-51.5839052
265.000000	-70.000000	267.5138779	-46.5909429
265.000000	-65.000000	267.1768303	-41.5967927
265.000000	-60.000000	266.8883133	-36.6018000
265.000000	-55.000000	266.6349754	-31.6061957
265.000000	-50.000000	266.4074974	-26.6101429
265.000000	-45.000000	266.1991119	-21.6137598
265.000000	-40.000000	266.0046768	-16.6171319
265.000000	-35.000000	265.8201294	-11.6203336
265.000000	-30.000000	265.6421051	-6.6234229
265.000000	-25.000000	265.4676552	-1.6264497
265.000000	-20.000000	265.2940750	3.3705386
265.000000	-15.000000	265.1186943	8.3674963
265.000000	-10.000000	264.9387436	13.3643738
265.000000	-5.000000	264.7511559	18.3611197
265.000000	.000000	264.5523605	23.3576698
265.000000	5.000000	264.3379631	28.3539507
265.000000	10.000000	264.1023369	33.3498602
265.000000	15.000000	263.8379440	38.3452721
265.000000	20.000000	263.5342751	43.3400021
265.000000	25.000000	263.1760216	48.3337855
265.000000	30.000000	262.7397690	53.3262148
265.000000	35.000000	262.1875877	58.3166270
265.000000	40.000000	261.4534950	63.3038783
265.000000	45.000000	260.4113388	68.2857704
265.000000	50.000000	258.7859230	73.2574987
265.000000	55.000000	255.8427734	78.2061777
265.000000	60.000000	248.7889328	83.0821457
265.000000	65.000000	214.7319221	87.4311647
265.000000	70.000000	115.8923693	86.0857754
265.000000	75.000000	98.6725636	81.3963251
265.000000	80.000000	93.7125893	76.4831553
265.000000	85.000000	91.3734798	71.5238991
265.000000	90.000000	90.0000010	66.5477781

TABLE 1. (Continued)

ALPHA (LAMDA) DEGREES	DELTA (BETA) DEGREES	LAMDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
270.000000	-90.000000	270.000000	-66.5477781
270.000000	-85.000000	270.000000	-61.5477781
270.000000	-80.000000	270.000000	-56.5477781
270.000000	-75.000000	270.000000	-51.5477781
270.000000	-70.000000	270.000000	-46.5477781
270.000000	-65.000000	270.000000	-41.5477781
270.000000	-60.000000	270.000000	-36.5477777
270.000000	-55.000000	270.000000	-31.5477777
270.000000	-50.000000	270.000000	-26.5477777
270.000000	-45.000000	270.000000	-21.5477777
270.000000	-40.000000	270.000000	-16.5477777
270.000000	-35.000000	270.000000	-11.5477777
270.000000	-30.000000	270.000000	-6.5477777
270.000000	-25.000000	270.000000	-1.5477777
270.000000	-20.000000	270.000000	3.4522223
270.000000	-15.000000	270.000000	8.4522223
270.000000	-10.000000	270.000000	13.4522223
270.000000	-5.000000	270.000000	18.4522223
270.000000	.000000	270.000000	23.4522223
270.000000	5.000000	270.000000	28.4522223
270.000000	10.000000	270.000000	33.4522223
270.000000	15.000000	270.000000	38.4522223
270.000000	20.000000	270.000000	43.4522223
270.000000	25.000000	270.000000	48.4522223
270.000000	30.000000	270.000000	53.4522223
270.000000	35.000000	270.000000	58.4522223
270.000000	40.000000	270.000000	63.4522223
270.000000	45.000000	270.000000	68.4522219
270.000000	50.000000	270.000000	73.4522219
270.000000	55.000000	270.000000	78.4522219
270.000000	60.000000	270.000000	83.4522219
270.000000	65.000000	270.000000	88.4522219
270.000000	70.000000	270.000000	93.4522219
270.000000	75.000000	270.000000	98.4522219
270.000000	80.000000	270.000000	103.4522219
270.000000	85.000000	270.000000	108.4522219
270.000000	90.000000	270.000000	113.4522219
275.000000	-90.000000	270.000038	-66.5477753
275.000000	-85.000000	270.9140320	-61.5636511
275.000000	-80.000000	271.5744019	-56.5751195
275.000000	-75.000000	272.0804672	-51.5839052
275.000000	-70.000000	272.4861183	-46.5909819
275.000000	-65.000000	272.8731659	-41.5967927
275.000000	-60.000000	273.1116829	-36.6018000
275.000000	-55.000000	273.3650208	-31.6061952
275.000000	-50.000000	273.5924988	-26.6101429
275.000000	-45.000000	273.8008882	-21.6137598
275.000000	-40.000000	273.9953194	-16.6171319
275.000000	-35.000000	274.1798630	-11.6203336
275.000000	-30.000000	274.3578873	-6.6234725
275.000000	-25.000000	274.5323334	-1.6264493
275.000000	-20.000000	274.7059174	3.3705390
275.000000	-15.000000	274.8812981	8.3674967
275.000000	-10.000000	275.0612488	13.3643738
275.000000	-5.000000	275.2488327	18.3611197
275.000000	.000000	275.4476280	23.3576710
275.000000	5.000000	275.6620255	28.3539507
275.000000	10.000000	275.8976517	33.3498602
275.000000	15.000000	276.1620445	38.3452721
275.000000	20.000000	276.4657135	43.3400025
275.000000	25.000000	276.8239632	48.3337860
275.000000	30.000000	277.2602158	53.3262153
275.000000	35.000000	277.8123932	58.3166270
275.000000	40.000000	278.5464859	63.3038797
275.000000	45.000000	279.5886383	68.2857704
275.000000	50.000000	281.2140503	73.2574987
275.000000	55.000000	284.1571922	78.2061796
275.000000	60.000000	291.2110214	83.0821495
275.000000	65.000000	325.2680054	87.4311647
275.000000	70.000000	64.1076851	86.0857821
275.000000	75.000000	81.3274584	81.3963251
275.000000	80.000000	86.2874193	76.4831553
275.000000	85.000000	88.6265230	71.5238991
275.000000	90.000000	89.9999990	66.5477781

TABLE 1. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
280.000000	-90.000000	270.000038	-66.5477753
280.000000	-85.000000	271.8241310	-61.6112137
280.000000	-80.000000	273.1448212	-56.6570611
280.000000	-75.000000	274.1577492	-51.6921878
280.000000	-70.000000	274.9698524	-46.7203264
280.000000	-65.000000	275.6445427	-41.7436962
280.000000	-60.000000	276.2219124	-36.7636871
280.000000	-55.000000	276.7286873	-31.7812302
280.000000	-50.000000	277.1835136	-26.7969716
280.000000	-45.000000	277.5999565	-21.8113823
280.000000	-40.000000	277.9883041	-16.8248200
280.000000	-35.000000	278.3566780	-11.8375652
280.000000	-30.000000	278.7118225	-6.8498531
280.000000	-25.000000	279.0595970	-1.8618850
280.000000	-20.000000	279.4054031	3.1261511
280.000000	-15.000000	279.7545242	8.1140734
280.000000	-10.000000	280.1124382	13.1016902
280.000000	-5.000000	280.4851952	18.0887918
280.000000	.000000	280.8798218	23.0751386
280.000000	5.000000	281.3049126	28.0604265
280.000000	10.000000	281.7714615	33.0442781
280.000000	15.000000	282.2941093	38.0261855
280.000000	20.000000	282.8932037	43.0054398
280.000000	25.000000	283.5982323	47.9810181
280.000000	30.000000	284.4539833	52.9513597
280.000000	35.000000	285.3523753	57.9139543
280.000000	40.000000	286.3056664	62.8644819
280.000000	45.000000	288.3595070	67.7947922
280.000000	50.000000	292.0295830	72.6875343
280.000000	55.000000	297.3948555	77.4984341
280.000000	60.000000	309.0407104	82.0768957
280.000000	65.000000	343.9444084	85.6202974
280.000000	70.000000	47.5742731	88.9494343
280.000000	75.000000	73.3825150	80.9581718
280.000000	80.000000	82.6898108	76.2915412
280.000000	85.000000	87.2728777	71.4526215
280.000000	90.000000	89.9999990	66.5477781
285.000000	-90.000000	270.000038	-66.5477753
285.000000	-85.000000	272.7263565	-61.6902418
285.000000	-80.000000	274.7072411	-56.7933331
285.000000	-75.000000	276.2286377	-51.8723178
285.000000	-70.000000	277.4488297	-46.9355602
285.000000	-65.000000	278.4623718	-41.9880376
285.000000	-60.000000	279.3292961	-37.0328879
285.000000	-55.000000	280.0897179	-32.0722075
285.000000	-50.000000	280.7716599	-27.1074548
285.000000	-45.000000	281.3955231	-22.1396885
285.000000	-40.000000	281.9767570	-17.1697152
285.000000	-35.000000	282.5275688	-12.1981629
285.000000	-30.000000	283.0580444	-7.2255613
285.000000	-25.000000	283.5769463	-2.2523583
285.000000	-20.000000	284.0923080	2.7210280
285.000000	-15.000000	284.6119499	7.6941934
285.000000	-10.000000	285.1439552	12.6667168
285.000000	-5.000000	285.6971779	17.6381423
285.000000	.000000	286.2818642	22.6079376
285.000000	5.000000	286.9104767	27.5754564
285.000000	10.000000	287.5988503	32.5398760
285.000000	15.000000	288.3679657	37.5001054
285.000000	20.000000	289.2467575	42.4546371
285.000000	25.000000	290.2768097	47.4013014
285.000000	30.000000	291.5206451	52.3368239
285.000000	35.000000	293.0772324	57.2559972
285.000000	40.000000	295.1133461	62.1499996
285.000000	45.000000	297.9327660	67.0025940
285.000000	50.000000	302.1475067	71.7805033
285.000000	55.000000	309.1638451	76.4045906
285.000000	60.000000	322.7509041	80.6437540
285.000000	65.000000	352.8094597	83.6703396
285.000000	70.000000	38.6954856	83.4875383
285.000000	75.000000	66.6372690	80.2746801
285.000000	80.000000	79.3090487	75.9795675
285.000000	85.000000	85.9581604	71.3350067
285.000000	90.000000	89.9999990	66.5477781

TABLE 1. (Continued)

ALPHA (ALPHA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
290.000000	-90.000000	270.0000038	-66.5477753
290.000000	-85.000000	273.6167297	-61.8003726
290.000000	-80.000000	276.2575874	-56.9834862
290.000000	-75.000000	278.2898865	-52.1237822
290.000000	-70.000000	279.9206810	-47.2360394
290.000000	-65.000000	281.2749519	-42.3290739
290.000000	-60.000000	282.4325371	-37.4084902
290.000000	-55.000000	283.4469757	-32.4780164
290.000000	-50.000000	284.3557320	-27.5402551
290.000000	-45.000000	285.1861038	-22.5970929
290.000000	-40.000000	285.9587479	-17.6499584
290.000000	-35.000000	286.6899643	-12.6999729
290.000000	-30.000000	287.3931808	-7.7480661
290.000000	-25.000000	288.0800056	-2.7950319
290.000000	-20.000000	288.7610435	2.1583999
290.000000	-15.000000	289.4465446	7.1115260
290.000000	-10.000000	290.1470299	12.0636210
290.000000	-5.000000	290.8739433	17.0139000
290.000000	.000000	291.6404228	21.9614589
290.000000	5.000000	292.4623260	26.9052036
290.000000	10.000000	293.3596535	31.8437536
290.000000	15.000000	294.3586693	36.7752919
290.000000	20.000000	295.4952736	41.6973257
290.000000	25.000000	296.8204842	46.6063018
290.000000	30.000000	298.4099503	51.4969249
290.000000	35.000000	300.3813057	56.3608956
290.000000	40.000000	302.9279099	61.1844411
290.000000	45.000000	306.3895149	65.9429560
290.000000	50.000000	311.4130478	70.5882912
290.000000	55.000000	319.3479195	75.0145369
290.000000	60.000000	333.2038536	78.9548168
290.000000	65.000000	358.5618134	81.6864853
290.000000	70.000000	34.0744034	81.8807964
290.000000	75.000000	61.2426386	79.3973188
290.000000	80.000000	76.2243319	75.5570431
290.000000	85.000000	84.7000656	71.1727810
290.000000	90.000000	89.9999990	66.5477781
295.000000	-90.000000	270.0000038	-66.5477753
295.000000	-85.000000	274.4912186	-61.9411039
295.000000	-80.000000	277.7916908	-57.2268910
295.000000	-75.000000	280.3381996	-52.4458652
295.000000	-70.000000	282.3830566	-47.6209054
295.000000	-65.000000	284.0806694	-42.7657762
295.000000	-60.000000	285.5304947	-37.8892298
295.000000	-55.000000	286.7995338	-32.9971204
295.000000	-50.000000	287.9388030	-28.0935237
295.000000	-45.000000	288.9705658	-23.1814017
295.000000	-40.000000	289.9327507	-18.2629855
295.000000	-35.000000	290.8417778	-13.3400255
295.000000	-30.000000	291.7144051	-8.4139591
295.000000	-25.000000	292.5650558	-3.4860169
295.000000	-20.000000	293.4068222	1.4426841
295.000000	-15.000000	294.2522507	6.3710730
295.000000	-10.000000	295.1141129	11.2980574
295.000000	-5.000000	296.0061722	16.2224665
295.000000	.000000	296.9440880	21.1429565
295.000000	5.000000	297.9465675	26.0579283
295.000000	10.000000	299.0369759	30.9653685
295.000000	15.000000	300.2457047	35.8626599
295.000000	20.000000	301.6138039	40.7462482
295.000000	25.000000	303.1988449	45.6111202
295.000000	30.000000	305.0848274	50.4499087
295.000000	35.000000	307.3996696	55.2512698
295.000000	40.000000	310.3478546	59.9968233
295.000000	45.000000	314.2747116	64.6547813
295.000000	50.000000	319.7999573	69.1659174
295.000000	55.000000	328.0997314	73.4096260
295.000000	60.000000	341.4141045	77.1184626
295.000000	65.000000	2.9853451	79.6972780
295.000000	70.000000	31.7978783	80.2081451
295.000000	75.000000	57.1235504	78.3751402
295.000000	80.000000	73.4880209	75.0362177
295.000000	85.000000	83.5143290	70.9682560
295.000000	90.000000	89.9999981	66.5477781

TABLE 1. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
300.000000	-90.000000	270.0000038	-66.5477753
300.000000	-85.000000	275.3457336	-62.1117778
300.000000	-80.000000	279.3052483	-57.5227408
300.000000	-75.000000	282.3702087	-52.8376594
300.000000	-70.000000	284.8336220	-48.0891018
300.000000	-65.000000	286.8780327	-43.2968407
300.000000	-60.000000	288.6222458	-38.4735103
300.000000	-55.000000	290.1467781	-33.6275721
300.000000	-50.000000	291.5083122	-28.7649283
300.000000	-45.000000	292.7482071	-23.8898535
300.000000	-40.000000	293.8977547	-19.0055702
300.000000	-35.000000	294.9815292	-14.1145892
300.000000	-30.000000	296.0196228	-9.2189655
300.000000	-25.000000	297.0292473	-4.3204501
300.000000	-20.000000	298.0258789	0.5793856
300.000000	-15.000000	299.0242386	5.4790462
300.000000	-10.000000	300.0391502	10.3770248
300.000000	-5.000000	301.0864067	15.2717167
300.000000	0.000000	302.1837845	20.1613128
300.000000	5.000000	303.3522720	25.0436690
300.000000	10.000000	304.6177979	29.9161248
300.000000	15.000000	306.0136795	34.7752538
300.000000	20.000000	307.5843277	39.6169551
300.000000	25.000000	309.3911362	44.4333234
300.000000	30.000000	311.5220680	49.2165942
300.000000	35.000000	314.1081276	53.9522781
300.000000	40.000000	317.3526535	58.6182437
300.000000	45.000000	321.5855217	63.1775188
300.000000	50.000000	327.3656425	67.5648274
300.000000	55.000000	335.6670685	71.6543732
300.000000	60.000000	348.1230812	75.1986141
300.000000	65.000000	6.7291973	77.7149773
300.000000	70.000000	30.8766806	78.5069561
300.000000	75.000000	54.1035199	77.2490311
300.000000	80.000000	71.1265945	74.8304495
300.000000	85.000000	82.4143391	70.7242556
300.000000	90.000000	89.9999981	66.5477781
305.000000	-90.000000	270.0000038	-66.5477753
305.000000	-85.000000	276.1760902	-62.3115945
305.000000	-80.000000	280.7937927	-57.8700490
305.000000	-75.000000	284.3824234	-53.2980561
305.000000	-70.000000	287.7200653	-48.6393299
305.000000	-65.000000	289.6656990	-43.9207006
305.000000	-60.000000	291.7071190	-39.1594119
305.000000	-55.000000	293.4884300	-34.3670421
305.000000	-50.000000	295.0761414	-29.5516717
305.000000	-45.000000	296.5188713	-24.7191484
305.000000	-40.000000	297.8533783	-19.8738589
305.000000	-35.000000	299.1084633	-15.0192227
305.000000	-30.000000	300.3075867	-10.1580157
305.000000	-25.000000	301.4706993	-5.2925822
305.000000	-20.000000	302.6156120	-0.4250133
305.000000	-15.000000	303.7590790	4.4427257
305.000000	-10.000000	304.9177742	9.3086780
305.000000	-5.000000	306.1092491	14.1707836
305.000000	0.000000	307.3529892	19.0267537
305.000000	5.000000	308.6717300	23.8738961
305.000000	10.000000	310.0931816	28.7089350
305.000000	15.000000	311.6524696	33.5276709
305.000000	20.000000	313.3957863	38.3245640
305.000000	25.000000	315.3859482	43.0919933
305.000000	30.000000	317.7113075	47.8191180
305.000000	35.000000	320.5004539	52.4898973
305.000000	40.000000	323.9472237	57.0795784
305.000000	45.000000	328.3541489	61.5481577
305.000000	50.000000	334.2075272	65.8276949
305.000000	55.000000	342.2952995	69.7970343
305.000000	60.000000	353.8153419	73.2337894
305.000000	65.000000	10.0832067	75.7468433
305.000000	70.000000	30.8035796	76.7978072
305.000000	75.000000	51.9874692	76.0509233
305.000000	80.000000	69.1450176	73.7533007
305.000000	85.000000	81.4109249	70.4440212
305.000000	90.000000	89.9999981	66.5477781

TABLE 1. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
310.000000	-90.000000	270.0000038	-66.5477753
310.000000	-85.000000	276.9780197	-62.5396051
310.000000	-80.000000	282.2526360	-58.2676468
310.000000	-75.000000	286.3712311	-53.8257604
310.000000	-70.000000	289.6900826	-49.2700872
310.000000	-65.000000	292.4424858	-44.6355376
310.000000	-60.000000	294.7847595	-39.9447155
310.000000	-55.000000	296.8246536	-35.2128377
310.000000	-50.000000	298.6387215	-30.4505293
310.000000	-45.000000	300.2830276	-25.6654758
310.000000	-40.000000	301.7999611	-20.8634276
310.000000	-35.000000	303.2226639	-16.0488427
310.000000	-30.000000	304.5779953	-11.2253183
310.000000	-25.000000	305.8886566	-6.3958746
310.000000	-20.000000	307.1747169	-1.5631732
310.000000	-15.000000	308.4548569	3.2703120
310.000000	-10.000000	309.7474251	8.1021520
310.000000	-5.000000	311.0714684	12.9298238
310.000000	.000000	312.4478226	17.7505605
310.000000	5.000000	313.9004669	22.5611637
310.000000	10.000000	315.4582062	27.3577776
310.000000	15.000000	317.1570358	32.1355348
310.000000	20.000000	319.0435791	36.8880978
310.000000	25.000000	321.1802025	41.6068811
310.000000	30.000000	323.6529808	46.2798719
310.000000	35.000000	326.5843811	50.8896446
310.000000	40.000000	330.1539078	55.4099636
310.000000	45.000000	334.6319313	59.7997355
310.000000	50.000000	340.4334030	63.9919190
310.000000	55.000000	348.1916618	67.8731232
310.000000	60.000000	358.8026733	71.2485142
310.000000	65.000000	13.1959521	73.7981958
310.000000	70.000000	31.2914245	75.0918818
310.000000	75.000000	50.5996962	74.8051291
310.000000	80.000000	67.5324669	73.0178394
310.000000	85.000000	80.5122890	70.1311073
310.000000	90.000000	89.9999971	66.5477781
315.000000	-90.000000	270.0000038	-66.5477753
315.000000	-85.000000	277.7471275	-62.7947073
315.000000	-80.000000	283.6768303	-58.7141814
315.000000	-75.000000	288.3328247	-54.4192891
315.000000	-70.000000	292.0913658	-49.9796672
315.000000	-65.000000	295.2074051	-45.4393091
315.000000	-60.000000	297.8551598	-40.8269258
315.000000	-55.000000	300.1561050	-36.1619287
315.000000	-50.000000	302.1970749	-31.4578795
315.000000	-45.000000	304.0418587	-26.7245746
315.000000	-40.000000	305.7386742	-21.9693255
315.000000	-35.000000	307.3251381	-17.1977737
315.000000	-30.000000	308.8316040	-12.4144439
315.000000	-25.000000	310.2835388	-7.6230972
315.000000	-20.000000	311.7032433	-2.8270208
315.000000	-15.000000	313.1112328	1.9707748
315.000000	-10.000000	314.5273743	6.7673737
315.000000	-5.000000	315.9719887	11.5597942
315.000000	.000000	317.4669647	16.3448160
315.000000	5.000000	319.0370991	21.1187737
315.000000	10.000000	320.7117004	25.8773077
315.000000	15.000000	322.5269012	30.6150079
315.000000	20.000000	324.5287094	35.3249121
315.000000	25.000000	326.7776756	39.9977431
315.000000	30.000000	329.3558159	44.6207342
315.000000	35.000000	332.3773232	49.1757255
315.000000	40.000000	336.0052910	53.6360078
315.000000	45.000000	340.4776421	57.9609146
315.000000	50.000000	346.1455116	62.0864353
315.000000	55.000000	353.5200462	65.9089708
315.000000	60.000000	3.2889307	69.2594557
315.000000	65.000000	16.1515691	71.8734446
315.000000	70.000000	32.1691971	73.3989077
315.000000	75.000000	49.7951045	73.5301466
315.000000	80.000000	66.2679110	72.2362490
315.000000	85.000000	79.7241058	69.7892866
315.000000	90.000000	89.9999971	66.5477781

TABLE 1. (Continued)

ALPHA (LAMDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
320.000000	-90.000000	270.000000	-66.5477753
320.000000	-85.000000	278.4789047	-63.0756497
320.000000	-80.000000	285.0611076	-59.2081175
320.000000	-75.000000	290.2631683	-55.0769806
320.000000	-70.000000	294.4716072	-50.7661853
320.000000	-65.000000	297.9596939	-46.3297520
320.000000	-60.000000	300.9187431	-41.8032913
320.000000	-55.000000	303.4840126	-37.2109814
320.000000	-50.000000	305.7529449	-32.5697355
320.000000	-45.000000	307.7973557	-27.8917572
320.000000	-40.000000	309.6715775	-23.1861284
320.000000	-35.000000	311.4178963	-18.4598243
320.000000	-30.000000	313.0702744	-13.7183957
320.000000	-25.000000	314.6570015	-8.9664245
320.000000	-20.000000	316.2026253	-4.2078637
320.000000	-15.000000	317.7294273	.5537111
320.000000	-10.000000	319.2586861	5.3148918
320.000000	-5.000000	320.8118172	10.0722483
320.000000	.000000	322.4115143	14.8221403
320.000000	5.000000	324.0830421	19.5604911
320.000000	10.000000	325.8558159	24.2825251
320.000000	15.000000	327.7654724	28.9824102
320.000000	20.000000	329.8567123	33.6527500
320.000000	25.000000	332.1873627	38.2838469
320.000000	30.000000	334.8343620	42.8625689
320.000000	35.000000	337.9026642	47.3705840
320.000000	40.000000	341.5386772	51.7815161
320.000000	45.000000	345.9501610	56.0562205
320.000000	50.000000	351.4339333	60.1349578
320.000000	55.000000	358.4066887	63.9245071
320.000000	60.000000	7.4109294	67.2787151
320.000000	65.000000	19.0014169	69.9767351
320.000000	70.000000	33.3296127	71.7249432
320.000000	75.000000	49.4585109	72.2402248
320.000000	80.000000	65.3246851	71.4196157
320.000000	85.000000	79.0496998	69.4224663
320.000000	90.000000	89.9999971	66.5477781
325.000000	-90.000000	270.000000	-66.5477762
325.000000	-85.000000	279.1686859	-63.3810205
325.000000	-80.000000	286.3998032	-59.7477322
325.000000	-75.000000	292.1579247	-55.7969952
325.000000	-70.000000	296.8284416	-51.6275711
325.000000	-65.000000	300.6988106	-47.3044109
325.000000	-60.000000	303.9761794	-42.8708243
325.000000	-55.000000	306.8102455	-38.3563757
325.000000	-50.000000	309.3088264	-33.7817750
325.000000	-45.000000	311.5523872	-29.1619520
325.000000	-40.000000	313.6017075	-24.5079832
325.000000	-35.000000	315.5039978	-19.8283315
325.000000	-30.000000	317.2970085	-15.1296653
325.000000	-25.000000	319.0119667	-10.4175160
325.000000	-20.000000	320.6756783	-5.6964939
325.000000	-15.000000	322.3121948	-.9707769
325.000000	-10.000000	323.9441338	3.7557292
325.000000	-5.000000	325.5938759	8.4791642
325.000000	.000000	327.2847290	13.1954995
325.000000	5.000000	329.0421944	17.9003072
325.000000	10.000000	330.8954544	22.5884914
325.000000	15.000000	332.8792801	27.2539179
325.000000	20.000000	335.0365868	31.8889346
325.000000	25.000000	337.4219742	36.4836631
325.000000	30.000000	340.1068344	41.0249434
325.000000	35.000000	343.1867638	45.4947295
325.000000	40.000000	346.7923164	49.8675680
325.000000	45.000000	351.1044617	54.1065483
325.000000	50.000000	356.3750000	58.1568046
325.000000	55.000000	2.9480833	61.9352574
325.000000	60.000000	11.2630994	65.3156366
325.000000	65.000000	21.7787580	68.1117401
325.000000	70.000000	34.7023687	70.0752754
325.000000	75.000000	49.4999628	70.9465809
325.000000	80.000000	64.6738663	70.5778923
325.000000	85.000000	78.4903259	69.0346079
325.000000	90.000000	89.9999962	66.5477762

TABLE 1. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
330.000000	-90.000000	270.0000038	-66.5477762
330.000000	-85.000000	279.8116646	-63.7092543
330.000000	-80.000000	287.6867981	-60.3311057
330.000000	-75.000000	294.0123901	-56.5773211
330.000000	-70.000000	299.1594467	-52.5616016
330.000000	-65.000000	303.4244804	-48.3606567
330.000000	-60.000000	307.0294800	-44.0263324
330.000000	-55.000000	310.1374054	-39.5942388
330.000000	-50.000000	312.8681068	-35.0693755
330.000000	-45.000000	315.3108063	-30.5297910
330.000000	-40.000000	317.5331573	-25.9286482
330.000000	-35.000000	319.5876350	-21.2962179
330.000000	-30.000000	321.5160179	-16.6403906
330.000000	-25.000000	323.3526077	-11.9676034
330.000000	-20.000000	325.1265793	-7.2832815
330.000000	-15.000000	326.8637581	-2.5921961
330.000000	-10.000000	328.5880775	2.1012505
330.000000	-5.000000	330.3228111	6.7927886
330.000000	.000000	332.0917625	11.4780279
330.000000	5.000000	333.9205093	16.1522622
330.000000	10.000000	335.8377914	20.8101449
330.000000	15.000000	337.8772736	25.4453645
330.000000	20.000000	340.0798225	30.0501652
330.000000	25.000000	342.4966087	34.6146932
330.000000	30.000000	345.1934357	39.1260328
330.000000	35.000000	348.2569046	43.5667644
330.000000	40.000000	351.8031349	47.9127636
330.000000	45.000000	355.9898872	52.1297526
330.000000	50.000000	1.0321659	56.1679249
330.000000	55.000000	7.2182118	59.9536839
330.000000	60.000000	14.9124222	63.3778477
330.000000	65.000000	24.5061992	66.2821674
330.000000	70.000000	36.2396812	68.4544706
330.000000	75.000000	49.8495159	69.6582394
330.000000	80.000000	64.2865105	69.7199392
330.000000	85.000000	78.0454540	68.6296644
330.000000	90.000000	89.9999962	66.5477762
335.000000	-90.000000	270.0000038	-66.5477762
335.000000	-85.000000	280.4028816	-64.0586214
335.000000	-80.000000	288.9154091	-60.9561195
335.000000	-75.000000	295.8213768	-57.4157734
335.000000	-70.000000	301.4620781	-53.5659008
335.000000	-65.000000	306.1367149	-49.4957032
335.000000	-60.000000	310.0800591	-45.2664313
335.000000	-55.000000	313.4689255	-40.9204659
335.000000	-50.000000	316.4351425	-36.4876332
335.000000	-45.000000	319.0775223	-31.9893830
335.000000	-40.000000	321.4711494	-27.4415305
335.000000	-35.000000	323.6741753	-22.8560307
335.000000	-30.000000	325.7327232	-18.2422040
335.000000	-25.000000	327.6843796	-13.6075307
335.000000	-20.000000	329.5608101	-8.9582434
335.000000	-15.000000	331.3897018	-4.2997429
335.000000	-10.000000	333.1963120	3.3630681
335.000000	-5.000000	335.0047951	5.0255181
335.000000	.000000	336.8393822	9.6829153
335.000000	5.000000	338.7256279	14.3302989
335.000000	10.000000	340.6917191	18.9621611
335.000000	15.000000	342.7701111	23.5721095
335.000000	20.000000	344.9995308	28.1524129
335.000000	25.000000	347.4277090	32.6934109
335.000000	30.000000	350.1150627	37.1826315
335.000000	35.000000	353.1398811	41.6035223
335.000000	40.000000	356.6054268	45.9335384
335.000000	45.000000	.6496950	50.1412187
335.000000	50.000000	5.4577003	54.1817231
335.000000	55.000000	11.2741821	57.9901171
335.000000	60.000000	18.4075994	61.4718666
335.000000	65.000000	27.1997056	64.4916058
335.000000	70.000000	37.9080420	66.8666449
335.000000	75.000000	50.4526620	68.3826609
335.000000	80.000000	64.1350117	68.8536215
335.000000	85.000000	77.7130928	68.2115231
335.000000	90.000000	89.9999962	66.5477762

TABLE 1. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
340.000000	-90.000000	270.0000038	-66.5477762
340.000000	-85.000000	280.9372101	-64.4272280
340.000000	-80.000000	290.0783043	-61.6204457
340.000000	-75.000000	297.5791054	-58.3099952
340.000000	-70.000000	303.7336349	-54.6379585
340.000000	-65.000000	308.8358231	-50.7066302
340.000000	-60.000000	313.1308136	-46.5875731
340.000000	-55.000000	316.8091736	-42.3307400
340.000000	-50.000000	320.0153847	-37.9713831
340.000000	-45.000000	322.8586349	-33.5348306
340.000000	-40.000000	325.4221230	-29.0396917
340.000000	-35.000000	327.7702217	-24.4999628
340.000000	-30.000000	329.9537773	-19.9264672
340.000000	-25.000000	332.0139580	-15.3278155
340.000000	-20.000000	333.9851036	-10.7110960
340.000000	-15.000000	335.8968773	-6.0823658
340.000000	-10.000000	337.7759285	-1.4470304
340.000000	-5.000000	339.6472969	3.1898544
340.000000	0.000000	341.5356483	7.8233127
340.000000	5.000000	343.4664841	12.4481883
340.000000	10.000000	345.4674072	17.0588744
340.000000	15.000000	347.5696220	21.6489713
340.000000	20.000000	349.8097458	26.2108879
340.000000	25.000000	352.2322121	30.7352695
340.000000	30.000000	354.8924294	35.2102389
340.000000	35.000000	357.8611374	39.6202626
340.000000	40.000000	1.2303425	43.9445038
340.000000	45.000000	5.1212979	48.1543479
340.000000	50.000000	9.6945336	52.2096877
340.000000	55.000000	15.1605147	56.0533800
340.000000	60.000000	21.7848527	59.6034718
340.000000	65.000000	29.8709357	62.7435985
340.000000	70.000000	39.6833167	65.3156176
340.000000	75.000000	51.2666612	67.1261587
340.000000	80.000000	64.1938314	67.9859171
340.000000	85.000000	77.4900866	67.7839670
340.000000	90.000000	89.9999962	66.5477762
345.000000	-90.000000	270.0000038	-66.5477762
345.000000	-85.000000	281.4093742	-64.8130131
345.000000	-80.000000	291.1673622	-62.3215246
345.000000	-75.000000	299.2790413	-59.2574587
345.000000	-70.000000	305.9711571	-55.7751389
345.000000	-65.000000	311.5224609	-51.9903960
345.000000	-60.000000	316.1852341	-47.9860587
345.000000	-55.000000	320.1636086	-43.8205438
345.000000	-50.000000	323.6155319	-39.5352077
345.000000	-45.000000	326.6615524	-35.1597433
345.000000	-40.000000	329.3938408	-30.7158785
345.000000	-35.000000	331.8836670	-26.2198703
345.000000	-30.000000	334.1871033	-21.6841884
345.000000	-25.000000	336.3492546	-17.1186609
345.000000	-20.000000	338.4073830	-12.5312859
345.000000	-15.000000	340.3932838	-7.9288028
345.000000	-10.000000	342.3351173	-3.3171251
345.000000	-5.000000	344.2588692	1.2983185
345.000000	0.000000	346.1896744	5.9122939
345.000000	5.000000	348.1529961	10.5194893
345.000000	10.000000	350.1758652	15.1142458
345.000000	15.000000	352.2882996	19.6902292
345.000000	20.000000	354.5249062	24.2400541
345.000000	25.000000	356.9270325	28.7547724
345.000000	30.000000	359.5454979	33.2231913
345.000000	35.000000	2.4443190	37.6308794
345.000000	40.000000	5.7057223	41.9587555
345.000000	45.000000	9.4368001	46.1809835
345.000000	50.000000	13.7779677	50.2618604
345.000000	55.000000	18.9122794	54.1512222
345.000000	60.000000	25.0716529	57.7779431
345.000000	65.000000	32.5286179	61.0416541
345.000000	70.000000	41.5477037	63.8049908
345.000000	75.000000	52.2577357	65.8941898
345.000000	80.000000	64.4397974	67.1230373
345.000000	85.000000	77.3723793	67.3506479
345.000000	90.000000	89.9999962	66.5477762

TABLE 1. (Concluded)

ALPHA (LAMRDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
350.000000	-90.000000	270.0000038	-66.5477762
350.000000	-85.000000	281.8139496	-65.2137365
350.000000	-80.000000	292.1735687	-63.0565653
350.000000	-75.000000	300.9137077	-60.2554569
350.000000	-70.000000	308.1713448	-56.9746962
350.000000	-65.000000	314.1976433	-53.3438611
350.000000	-60.000000	319.2477379	-49.4580564
350.000000	-55.000000	323.5389481	-45.3851676
350.000000	-50.000000	327.2437019	-41.1734409
350.000000	-45.000000	330.4951363	-36.8574810
350.000000	-40.000000	333.3954887	-32.4625044
350.000000	-35.000000	336.0237732	-28.0072668
350.000000	-30.000000	338.4419136	-23.5060384
350.000000	-25.000000	340.6993828	-18.9699628
350.000000	-20.000000	342.8366928	-14.4080005
350.000000	-15.000000	344.8879852	-9.8275983
350.000000	-10.000000	346.8830566	-5.2351847
350.000000	-5.000000	348.8489647	-0.6365516
350.000000	.000000	350.8113632	3.9628294
350.000000	5.000000	352.7957420	8.5575250
350.000000	10.000000	354.8286362	13.1418611
350.000000	15.000000	356.9389381	17.7096205
350.000000	20.000000	359.1594124	22.2536924
350.000000	25.000000	1.5285670	26.7655642
350.000000	30.000000	4.0930982	31.2348037
350.000000	35.000000	6.9110709	35.6481123
350.000000	40.000000	10.0562229	39.9881473
350.000000	45.000000	13.6236581	44.2317200
350.000000	50.000000	17.7371252	48.3471875
350.000000	55.000000	22.5573823	52.2905989
350.000000	60.000000	28.2892129	56.0002108
350.000000	65.000000	35.1794353	59.3892589
350.000000	70.000000	43.4877896	62.3382154
350.000000	75.000000	53.3989415	64.6915684
350.000000	80.000000	64.8521471	66.2705250
350.000000	85.000000	77.3552647	66.9150572
350.000000	90.000000	89.9999962	66.5477762
355.000000	-90.000000	270.0000038	-66.5477762
355.000000	-85.000000	282.1454010	-65.6269884
355.000000	-80.000000	293.0868111	-63.8225055
355.000000	-75.000000	302.4744339	-61.3010888
355.000000	-70.000000	310.3304291	-58.2337742
355.000000	-65.000000	316.8628159	-54.7637982
355.000000	-60.000000	322.3238373	-50.9996076
355.000000	-55.000000	326.9434013	-47.0197086
355.000000	-50.000000	330.9096451	-42.8801508
355.000000	-45.000000	334.3698921	-38.6210794
355.000000	-40.000000	337.4378204	-34.2716212
355.000000	-35.000000	340.2012482	-29.8532937
355.000000	-30.000000	342.7287178	-25.3823330
355.000000	-25.000000	345.0746346	-20.8712935
355.000000	-20.000000	347.2831230	-16.3301547
355.000000	-15.000000	349.3909492	-11.7670938
355.000000	-10.000000	351.4297371	-7.1890593
355.000000	-5.000000	353.4277229	-2.6021985
355.000000	.000000	355.4111900	1.9877988
355.000000	5.000000	357.4057350	6.5754027
355.000000	10.000000	359.4374809	11.1549610
355.000000	15.000000	1.5343187	15.7204076
355.000000	20.000000	3.7273327	20.2649245
355.000000	25.000000	6.0524808	24.7805259
355.000000	30.000000	8.5527536	29.2575130
355.000000	35.000000	11.2809749	33.6837320
355.000000	40.000000	14.3035320	38.0435214
355.000000	45.000000	17.7053111	42.3161950
355.000000	50.000000	21.5960989	46.4737868
355.000000	55.000000	26.1182466	50.4779005
355.000000	60.000000	31.4541407	54.2749500
355.000000	65.000000	37.8285680	57.7898726
355.000000	70.000000	45.4932528	60.9186225
355.000000	75.000000	54.6685719	63.5226173
355.000000	80.000000	65.4124155	65.4333506
355.000000	85.000000	77.4335842	66.4805174
355.000000	90.000000	89.9999962	66.5477762

TABLE 2. EQUATORIAL COORDINATES TO GALACTIC COORDINATES

ALPHA (LAMBDA) DEGREES	DELTA (RFTA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
.0000000	-90.0000000	270.0000038	-27.4000032
.0000000	-85.0000000	271.2533417	-32.2805243
.0000000	-80.0000000	272.6493683	-37.1472578
.0000000	-75.0000000	274.2375031	-41.9953637
.0000000	-70.0000000	276.0874214	-46.8179708
.0000000	-65.0000000	278.3012466	-51.6049027
.0000000	-60.0000000	281.0349121	-56.3403974
.0000000	-55.0000000	284.5376816	-60.9987302
.0000000	-50.0000000	289.2279549	-65.5352917
.0000000	-45.0000000	295.8418503	-69.8671026
.0000000	-40.0000000	305.7029953	-73.8283215
.0000000	-35.0000000	320.9812012	-77.0732098
.0000000	-30.0000000	343.4977760	-78.9511681
.0000000	-25.0000000	5.5578051	-78.7549629
.0000000	-20.0000000	30.8198993	-76.5752411
.0000000	-15.0000000	44.9533067	-73.1657343
.0000000	-10.0000000	54.1059198	-69.1206245
.0000000	-5.0000000	60.3040223	-64.7437153
.0000000	.0000000	64.7421579	-60.1810212
.0000000	5.0000000	68.0844641	-55.5064812
.0000000	10.0000000	70.7112894	-50.7603693
.0000000	15.0000000	72.8512230	-45.9661698
.0000000	20.0000000	74.6484795	-41.1384225
.0000000	25.0000000	76.1982145	-36.2865882
.0000000	30.0000000	77.5658207	-31.4171033
.0000000	35.0000000	78.7979708	-26.5345392
.0000000	40.0000000	79.9292173	-21.6422477
.0000000	45.0000000	80.9860983	-16.7428043
.0000000	50.0000000	81.9898186	-11.8328257
.0000000	55.0000000	82.9580584	-6.9302967
.0000000	60.0000000	83.9062929	-2.0204215
.0000000	65.0000000	84.8487968	2.8900048
.0000000	70.0000000	85.7995119	7.7996419
.0000000	75.0000000	86.7728596	12.7071080
.0000000	80.0000000	87.7846231	17.6108861
.0000000	85.0000000	88.8530045	22.5092237
.0000000	90.0000000	89.9999990	27.3999991
5.0000000	-90.0000000	270.0000038	-27.4000032
5.0000000	-85.0000000	270.7460632	-32.3580303
5.0000000	-80.0000000	271.5788574	-37.3111558
5.0000000	-75.0000000	272.5293503	-42.2576213
5.0000000	-70.0000000	273.6419106	-47.1949000
5.0000000	-65.0000000	274.9830093	-52.1191969
5.0000000	-60.0000000	276.6573868	-57.0244961
5.0000000	-55.0000000	278.8404007	-61.9006548
5.0000000	-50.0000000	281.8484955	-66.7291670
5.0000000	-45.0000000	286.3097382	-71.4725475
5.0000000	-40.0000000	293.6300926	-76.0435333
5.0000000	-35.0000000	307.3877678	-80.1976995
5.0000000	-30.0000000	336.0483170	-83.1315699
5.0000000	-25.0000000	18.6223156	-83.0678186
5.0000000	-20.0000000	46.5850816	-80.0639896
5.0000000	-15.0000000	60.0054479	-75.8868294
5.0000000	-10.0000000	67.1835661	-71.3071003
5.0000000	-5.0000000	71.5763817	-66.5596762
5.0000000	.0000000	74.5472498	-61.7290039
5.0000000	5.0000000	76.7080421	-56.8515668
5.0000000	10.0000000	78.3682070	-51.9454565
5.0000000	15.0000000	79.6997337	-47.0206151
5.0000000	20.0000000	80.8055983	-42.0829558
5.0000000	25.0000000	81.7512732	-37.1362176
5.0000000	30.0000000	82.5805359	-32.1828914
5.0000000	35.0000000	83.3239822	-27.2247171
5.0000000	40.0000000	84.0038786	-22.2629514
5.0000000	45.0000000	84.6370964	-17.2985516
5.0000000	50.0000000	85.2369509	-12.3322687
5.0000000	55.0000000	85.8144360	-7.3647262
5.0000000	60.0000000	86.3790894	-2.3964601
5.0000000	65.0000000	86.9396486	2.5720383
5.0000000	70.0000000	87.5046043	7.5402871
5.0000000	75.0000000	88.0827103	12.5077947
5.0000000	80.0000000	88.6835461	17.4740224
5.0000000	85.0000000	89.3181677	22.4383419
5.0000000	90.0000000	89.9999990	27.3999991

TABLE 2. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
10.000000	-90.000000	270.000000	-27.400000
10.000000	-85.000000	270.232189	-32.395953
10.000000	-80.000000	270.491648	-37.391428
10.000000	-75.000000	270.788250	-42.386256
10.000000	-70.000000	271.136264	-47.380188
10.000000	-65.000000	271.557304	-52.372845
10.000000	-60.000000	272.085945	-57.363624
10.000000	-55.000000	272.781456	-62.351488
10.000000	-50.000000	273.754859	-67.334491
10.000000	-45.000000	275.241359	-72.308514
10.000000	-40.000000	277.840080	-77.263007
10.000000	-35.000000	283.638095	-82.160829
10.000000	-30.000000	306.666515	-86.735983
10.000000	-25.000000	49.427584	-86.863961
10.000000	-20.000000	73.976823	-82.319155
10.000000	-15.000000	79.969187	-77.424801
10.000000	-10.000000	82.624492	-72.471303
10.000000	-5.000000	84.134669	-67.497694
10.000000	.000000	85.120133	-62.514900
10.000000	5.000000	85.822588	-57.527159
10.000000	10.000000	86.355575	-52.536456
10.000000	15.000000	86.779498	-47.543849
10.000000	20.000000	87.129514	-42.549952
10.000000	25.000000	87.427546	-37.555149
10.000000	30.000000	87.688045	-32.559691
10.000000	35.000000	87.921001	-27.563755
10.000000	40.000000	88.133624	-22.567460
10.000000	45.000000	88.331389	-17.570908
10.000000	50.000000	88.518392	-12.574170
10.000000	55.000000	88.698305	-7.577306
10.000000	60.000000	88.874073	-2.580371
10.000000	65.000000	89.048461	2.416589
10.000000	70.000000	89.224141	7.413525
10.000000	75.000000	89.403865	12.410392
10.000000	80.000000	89.590640	17.407135
10.000000	85.000000	89.787942	22.403693
10.000000	90.000000	89.999990	27.399991
15.000000	-90.000000	270.000000	-27.400000
15.000000	-85.000000	269.716259	-32.393954
15.000000	-80.000000	269.399211	-37.387196
15.000000	-75.000000	269.036804	-42.379472
15.000000	-70.000000	268.611625	-47.370409
15.000000	-65.000000	268.097339	-52.359443
15.000000	-60.000000	267.451809	-57.345676
15.000000	-55.000000	266.602932	-62.327561
15.000000	-50.000000	265.415889	-67.302215
15.000000	-45.000000	263.606094	-72.263515
15.000000	-40.000000	260.453907	-77.195908
15.000000	-35.000000	253.501331	-82.045386
15.000000	-30.000000	227.798922	-86.453671
15.000000	-25.000000	136.408879	-86.558090
15.000000	-20.000000	109.361825	-82.184197
15.000000	-15.000000	102.206780	-77.339184
15.000000	-10.000000	98.994098	-72.408101
15.000000	-5.000000	97.158773	-67.447348
15.000000	.000000	95.958679	-62.472975
15.000000	5.000000	95.102271	-57.491250
15.000000	10.000000	94.452073	-52.505179
15.000000	15.000000	93.934666	-47.516148
15.000000	20.000000	93.507257	-42.525276
15.000000	25.000000	93.143292	-37.533017
15.000000	30.000000	92.825112	-32.539798
15.000000	35.000000	92.540534	-27.545864
15.000000	40.000000	92.280765	-22.551404
15.000000	45.000000	92.039193	-17.556547
15.000000	50.000000	91.810620	-12.561419
15.000000	55.000000	91.590781	-7.566102
15.000000	60.000000	91.375988	-2.570680
15.000000	65.000000	91.162874	2.424779
15.000000	70.000000	90.948178	7.420203
15.000000	75.000000	90.728535	12.415524
15.000000	80.000000	90.500276	17.410661
15.000000	85.000000	90.259152	22.405519
15.000000	90.000000	90.000010	27.399991

TABLE 2. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
20.000000	-90.000000	270.000000	-27.400003
20.000000	-85.000000	269.202838	-32.352052
20.000000	-80.000000	268.313156	-37.298506
20.000000	-75.000000	267.297988	-42.237362
20.000000	-70.000000	266.110179	-47.165748
20.000000	-65.000000	264.679187	-52.079334
20.000000	-60.000000	262.894138	-56.971306
20.000000	-55.000000	260.570064	-61.830176
20.000000	-50.000000	257.375137	-66.635076
20.000000	-45.000000	252.657165	-71.344009
20.000000	-40.000000	244.983337	-75.860675
20.000000	-35.000000	230.853431	-79.922736
20.000000	-30.000000	202.763172	-82.724013
20.000000	-25.000000	162.700069	-82.645528
20.000000	-20.000000	135.426532	-79.753252
20.000000	-15.000000	121.727628	-75.659102
20.000000	-10.000000	114.243363	-71.129872
20.000000	-5.000000	109.618318	-66.414952
20.000000	.000000	106.474427	-61.606914
20.000000	5.000000	104.180990	-56.746156
20.000000	10.000000	102.415594	-51.852983
20.000000	15.000000	100.997865	-46.938582
20.000000	20.000000	99.819349	-42.009635
20.000000	25.000000	98.810877	-37.070376
20.000000	30.000000	97.926101	-32.123623
20.000000	35.000000	97.132580	-27.171352
20.000000	40.000000	96.406664	-22.214997
20.000000	45.000000	95.730423	-17.255646
20.000000	50.000000	95.089684	-12.294189
20.000000	55.000000	94.472744	-7.331217
20.000000	60.000000	93.869436	-2.367464
20.000000	65.000000	93.270458	2.596550
20.000000	70.000000	92.666716	7.560277
20.000000	75.000000	92.048910	12.523157
20.000000	80.000000	91.406806	17.484569
20.000000	85.000000	90.728607	22.443802
20.000000	90.000000	90.000001	27.399999
25.000000	-90.000000	270.000000	-27.400003
25.000000	-85.000000	268.696468	-32.270619
25.000000	-80.000000	267.244934	-37.126328
25.000000	-75.000000	265.594343	-41.961912
25.000000	-70.000000	263.672836	-46.769972
25.000000	-65.000000	261.375439	-51.539518
25.000000	-60.000000	258.542421	-56.253821
25.000000	-55.000000	254.920032	-60.885267
25.000000	-50.000000	250.086002	-65.386590
25.000000	-45.000000	243.308124	-69.670643
25.000000	-40.000000	233.302310	-73.566131
25.000000	-35.000000	218.060390	-76.725978
25.000000	-30.000000	196.106483	-78.525112
25.000000	-25.000000	171.024768	-78.316850
25.000000	-20.000000	150.333231	-76.191742
25.000000	-15.000000	136.291872	-72.848187
25.000000	-10.000000	127.053549	-68.856732
25.000000	-5.000000	120.735104	-64.520311
25.000000	.000000	116.183008	-59.988370
25.000000	5.000000	112.741364	-55.337832
25.000000	10.000000	110.029288	-50.611027
25.000000	15.000000	107.815783	-45.832815
25.000000	20.000000	105.954227	-41.018652
25.000000	25.000000	104.347407	-36.178636
25.000000	30.000000	102.928304	-31.319653
25.000000	35.000000	101.648977	-26.446602
25.000000	40.000000	100.473845	-21.563087
25.000000	45.000000	99.375530	-16.671872
25.000000	50.000000	98.332130	-11.775160
25.000000	55.000000	97.325358	-6.874786
25.000000	60.000000	96.339189	-1.972353
25.000000	65.000000	95.358829	2.930661
25.000000	70.000000	94.369822	7.832810
25.000000	75.000000	93.357204	12.732600
25.000000	80.000000	92.304602	17.628391
25.000000	85.000000	91.193136	22.518298
25.000000	90.000000	90.000001	27.399999

TABLE 2. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
30.000000	-90.000000	270.000000	-27.4000032
30.000000	-85.000000	268.2015839	-32.1503835
30.000000	-80.000000	266.2056084	-36.8725352
30.000000	-75.000000	263.9471588	-41.5569177
30.000000	-70.000000	261.3370934	-46.1902170
30.000000	-65.000000	258.2495537	-50.7532225
30.000000	-60.000000	254.5019341	-55.2172046
30.000000	-55.000000	249.8233376	-59.5376062
30.000000	-50.000000	243.8072815	-63.6427937
30.000000	-45.000000	235.8550758	-67.4142389
30.000000	-40.000000	225.1694756	-70.6549597
30.000000	-35.000000	211.0250816	-73.0569906
30.000000	-30.000000	193.6947067	-74.2318249
30.000000	-25.000000	175.4432335	-73.9082050
30.000000	-20.000000	159.3073349	-72.1675711
30.000000	-15.000000	146.6810265	-69.3656807
30.000000	-10.000000	137.2567978	-65.8697748
30.000000	-5.000000	130.2109299	-61.9384933
30.000000	.000000	124.8214245	-57.7310882
30.000000	5.000000	120.5771828	-53.3431034
30.000000	10.000000	117.1358814	-48.8328929
30.000000	15.000000	114.2687769	-44.2372999
30.000000	20.000000	111.8203459	-39.5804477
30.000000	25.000000	109.6821918	-34.8787165
30.000000	30.000000	107.7766409	-30.1436231
30.000000	35.000000	106.0464029	-25.3835397
30.000000	40.000000	104.4479284	-20.6047592
30.000000	45.000000	102.9469976	-15.8121866
30.000000	50.000000	101.5157557	-11.0097834
30.000000	55.000000	100.1305752	-6.2008957
30.000000	60.000000	98.7704964	-1.3884771
30.000000	65.000000	97.4159546	3.4247219
30.000000	70.000000	96.0476980	8.2359904
30.000000	75.000000	94.6457100	13.0425144
30.000000	80.000000	93.1880722	17.8411951
30.000000	85.000000	91.6495857	22.6284621
30.000000	90.000000	90.0000010	27.3999991
35.000000	-90.000000	270.000000	-27.4000032
35.000000	-85.000000	267.7224731	-31.9924068
35.000000	-80.000000	265.2056313	-36.5398521
35.000000	-75.000000	262.3758507	-41.0278244
35.000000	-70.000000	259.1353531	-45.4365129
35.000000	-65.000000	255.3520546	-49.7381568
35.000000	-60.000000	250.8457565	-53.8928962
35.000000	-55.000000	245.3713455	-57.8422613
35.000000	-50.000000	238.6050758	-61.4994006
35.000000	-45.000000	230.1558723	-64.7358761
35.000000	-40.000000	219.6574554	-67.3694487
35.000000	-35.000000	207.0257797	-69.1693754
35.000000	-30.000000	192.8458023	-69.9098263
35.000000	-25.000000	178.4592514	-69.4756193
35.000000	-20.000000	165.3268070	-67.9360971
35.000000	-15.000000	154.2523918	-65.4990826
35.000000	-10.000000	145.2920341	-62.4018431
35.000000	-5.000000	138.1207695	-58.8413286
35.000000	.000000	132.3398304	-54.9592814
35.000000	5.000000	127.6046286	-50.8521633
35.000000	10.000000	123.6501675	-46.5848336
35.000000	15.000000	120.2807894	-42.2013216
35.000000	20.000000	117.3531942	-37.7321038
35.000000	25.000000	114.7616673	-33.1987791
35.000000	30.000000	112.4270086	-28.6170678
35.000000	35.000000	110.2886591	-23.9987195
35.000000	40.000000	108.2991753	-19.3527842
35.000000	45.000000	106.4203272	-14.6864500
35.000000	50.000000	104.6202888	-10.0056406
35.000000	55.000000	102.8715582	-5.3154327
35.000000	60.000000	101.1493330	-.6203771
35.000000	65.000000	99.4301682	4.0752399
35.000000	70.000000	97.6907730	8.7671555
35.000000	75.000000	95.9068289	13.4509150
35.000000	80.000000	94.0516863	18.1216066
35.000000	85.000000	92.0948429	22.7735689
35.000000	90.000000	90.0000010	27.3999991

TABLE 2. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
40.000000	-90.000000	270.000000	-27.4000032
40.000000	-85.000000	267.2632370	-31.7980840
40.000000	-80.000000	264.2546387	-36.1317978
40.000000	-75.000000	260.8974533	-40.3815355
40.000000	-70.000000	257.0938759	-44.5212307
40.000000	-65.000000	252.7189026	-48.5156078
40.000000	-60.000000	247.6143723	-52.3163061
40.000000	-55.000000	241.5867615	-55.8566427
40.000000	-50.000000	234.4176140	-59.0454230
40.000000	-45.000000	225.9040108	-61.7617960
40.000000	-40.000000	215.9521027	-63.8568692
40.000000	-35.000000	204.7228622	-65.1719637
40.000000	-30.000000	192.7443199	-65.5802116
40.000000	-25.000000	180.8273506	-65.0369253
40.000000	-20.000000	169.7576313	-63.6009808
40.000000	-15.000000	160.0095711	-61.4070444
40.000000	-10.000000	151.6983051	-58.6144142
40.000000	-5.000000	144.7062359	-55.3685789
40.000000	.000000	138.8239422	-51.7859888
40.000000	5.000000	133.8350029	-47.9539442
40.000000	10.000000	129.5507679	-43.9361348
40.000000	15.000000	125.8181067	-39.7787619
40.000000	20.000000	122.5163069	-35.5155697
40.000000	25.000000	119.5509424	-31.1715541
40.000000	30.000000	116.8478193	-26.7655745
40.000000	35.000000	114.3479261	-22.3121676
40.000000	40.000000	112.0034485	-17.8228323
40.000000	45.000000	109.7747221	-13.3069267
40.000000	50.000000	107.6278839	-8.7723180
40.000000	55.000000	105.5330114	-4.2258785
40.000000	60.000000	103.4626265	.3261222
40.000000	65.000000	101.3903608	4.8776982
40.000000	70.000000	99.2897758	9.4228368
40.000000	75.000000	97.1331148	13.9552075
40.000000	80.000000	94.8899975	18.4678180
40.000000	85.000000	92.5258522	22.9526200
40.000000	90.000000	90.0000010	27.3999991
45.000000	-90.000000	270.000000	-27.4000032
45.000000	-85.000000	266.8277092	-31.5691142
45.000000	-80.000000	263.3612976	-35.6526017
45.000000	-75.000000	259.5262756	-39.6261649
45.000000	-70.000000	255.2324181	-43.4584589
45.000000	-65.000000	250.3719254	-47.1087103
45.000000	-60.000000	244.8204536	-50.5237703
45.000000	-55.000000	238.4448547	-53.6349750
45.000000	-50.000000	231.1239700	-56.3558831
45.000000	-45.000000	222.7898216	-58.5832124
45.000000	-40.000000	213.44894180	-60.2047238
45.000000	-35.000000	203.4453430	-61.1172791
45.000000	-30.000000	193.0644035	-61.2527847
45.000000	-25.000000	182.8518829	-60.6004210
45.000000	-20.000000	173.2626305	-59.2105551
45.000000	-15.000000	164.5854893	-57.1774235
45.000000	-10.000000	156.9219551	-54.6127186
45.000000	-5.000000	150.2356434	-51.6241369
45.000000	.000000	144.4177656	-48.3042364
45.000000	5.000000	139.3360386	-44.7275934
45.000000	10.000000	134.8617306	-40.9523120
45.000000	15.000000	130.8810558	-37.0230403
45.000000	20.000000	127.2979031	-32.9740396
45.000000	25.000000	124.0326986	-28.8317854
45.000000	30.000000	121.0198536	-24.6169472
45.000000	35.000000	118.2050180	-20.3461339
45.000000	40.000000	115.5425663	-16.0326443
45.000000	45.000000	112.9934473	-11.6877140
45.000000	50.000000	110.5233908	-7.3209862
45.000000	55.000000	108.1013861	-2.9410625
45.000000	60.000000	105.6983776	1.4440643
45.000000	65.000000	103.2860632	5.8266440
45.000000	70.000000	100.8357773	10.1988045
45.000000	75.000000	98.3173122	14.5521997
45.000000	80.000000	95.6976719	18.8775933
45.000000	85.000000	92.9396210	23.1643836
45.000000	90.000000	90.0000010	27.3999991

TABLE 2. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
50.000000	-90.000000	270.000000	-27.4000032
50.000000	-85.000000	266.4194450	-31.3074861
50.000000	-80.000000	262.5332146	-35.1071248
50.000000	-75.000000	258.2738190	-38.7707825
50.000000	-70.000000	253.5644264	-42.2633944
50.000000	-65.000000	248.3206711	-45.5412526
50.000000	-60.000000	242.4561882	-48.5503654
50.000000	-55.000000	235.8945694	-51.2254720
50.000000	-50.000000	228.5900841	-53.4908295
50.000000	-45.000000	220.5571594	-55.2643561
50.000000	-40.000000	211.9012604	-56.4665537
50.000000	-35.000000	202.8339806	-57.0339699
50.000000	-30.000000	193.6525307	-56.9335065
50.000000	-25.000000	184.6801529	-56.1711802
50.000000	-20.000000	176.1931591	-54.7904706
50.000000	-15.000000	168.3716583	-52.8611970
50.000000	-10.000000	161.2911587	-50.4648728
50.000000	-5.000000	154.9446907	-47.6823845
50.000000	.000000	149.2746010	-44.5865879
50.000000	5.000000	144.1997566	-41.2393484
50.000000	10.000000	139.6334915	-37.6914353
50.000000	15.000000	135.4933186	-33.9837861
50.000000	20.000000	131.7051373	-30.1492224
50.000000	25.000000	128.2042618	-26.2141144
50.000000	30.000000	124.9348707	-22.1998367
50.000000	35.000000	121.8487978	-18.1239560
50.000000	40.000000	118.9041300	-14.0011889
50.000000	45.000000	116.0638266	-9.8441602
50.000000	50.000000	113.2944422	-5.6640081
50.000000	55.000000	110.5649614	-1.4709011
50.000000	60.000000	107.8457394	2.7255284
50.000000	65.000000	105.1074772	6.9157879
50.000000	70.000000	102.3202257	11.0901252
50.000000	75.000000	99.4523592	15.2381349
50.000000	80.000000	96.4694853	19.3482845
50.000000	85.000000	93.3332462	23.4074001
50.000000	90.000000	90.0000010	27.3999991
55.000000	-90.000000	270.000000	-27.4000032
55.000000	-85.000000	266.0416756	-31.0154483
55.000000	-80.000000	261.7768669	-34.5007486
55.000000	-75.000000	257.1487770	-37.8251691
55.000000	-70.000000	252.0976868	-40.9518023
55.000000	-65.000000	246.5650063	-43.8367209
55.000000	-60.000000	240.5006142	-46.4286098
55.000000	-55.000000	233.8744507	-48.6694961
55.000000	-50.000000	226.6919098	-50.4972706
55.000000	-45.000000	219.0101051	-51.8506808
55.000000	-40.000000	210.9482384	-52.6767883
55.000000	-35.000000	202.6835747	-52.9395452
55.000000	-30.000000	194.4284210	-52.6268311
55.000000	-25.000000	186.3933563	-51.7530341
55.000000	-20.000000	178.7512436	-50.3559976
55.000000	-15.000000	171.6157684	-48.4897256
55.000000	-10.000000	165.0389748	-46.2158103
55.000000	-5.000000	159.0225067	-43.5961633
55.000000	.000000	153.5339794	-40.6882429
55.000000	5.000000	148.5221424	-37.5427308
55.000000	10.000000	143.9280643	-34.2029181
55.000000	15.000000	139.6921654	-30.7051320
55.000000	20.000000	135.7580109	-27.0796225
55.000000	25.000000	132.0739651	-23.3515732
55.000000	30.000000	128.5935421	-19.5420861
55.000000	35.000000	125.2750578	-15.6690596
55.000000	40.000000	122.0809526	-11.7479354
55.000000	45.000000	118.9769726	-7.7923228
55.000000	50.000000	115.9313211	-3.8145508
55.000000	55.000000	112.9138050	.1738668
55.000000	60.000000	109.8950138	4.1610009
55.000000	65.000000	106.8454962	8.1381093
55.000000	70.000000	103.7349577	12.0912205
55.000000	75.000000	100.5314140	16.0087178
55.000000	80.000000	97.2003651	19.8768501
55.000000	85.000000	93.7039223	23.6799927
55.000000	90.000000	90.0000010	27.3999991

TABLE 2. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
60.000000	-90.000000	270.000000	-27.4000032
60.000000	-85.000000	265.6972847	-30.6954834
60.000000	-80.000000	261.0975800	-33.8392982
60.000000	-75.000000	256.1572418	-36.7995768
60.000000	-70.000000	250.8352051	-39.5395732
60.000000	-65.000000	245.0978012	-42.0176396
60.000000	-60.000000	238.9256821	-44.1878848
60.000000	-55.000000	232.3225212	-46.0019073
60.000000	-50.000000	225.3238678	-47.4118919
60.000000	-45.000000	218.0033875	-48.3750577
60.000000	-40.000000	210.4724464	-48.8588820
60.000000	-35.000000	202.8705368	-48.8459034
60.000000	-30.000000	195.3472748	-48.3366032
60.000000	-25.000000	188.0410728	-47.3493133
60.000000	-20.000000	181.0614967	-45.9172211
60.000000	-15.000000	174.4801540	-44.0834932
60.000000	-10.000000	168.3307686	-41.8960781
60.000000	-5.000000	162.6155796	-39.4033060
60.000000	.000000	157.3142891	-36.6508813
60.000000	5.000000	152.3926945	-33.6802077
60.000000	10.000000	147.8094997	-30.5277693
60.000000	15.000000	143.5210190	-27.2251942
60.000000	20.000000	139.4840984	-23.7996836
60.000000	25.000000	135.6576252	-20.2746315
60.000000	30.000000	132.0031891	-16.6702554
60.000000	35.000000	128.4851170	-13.0042250
60.000000	40.000000	125.0702143	-9.2922308
60.000000	45.000000	121.7273102	-5.5484958
60.000000	50.000000	118.4267187	-1.7862333
60.000000	55.000000	115.1396399	1.9819274
60.000000	60.000000	111.8375635	5.7435412
60.000000	65.000000	108.4916630	9.4859605
60.000000	70.000000	105.0721827	13.1959267
60.000000	75.000000	101.5478630	16.8591552
60.000000	80.000000	97.8853931	20.4598660
60.000000	85.000000	94.0489607	23.9802687
60.000000	90.000000	90.0000010	27.3999991
65.000000	-90.000000	270.000000	-27.4000032
65.000000	-85.000000	265.3887863	-30.3502846
65.000000	-80.000000	260.4995575	-33.1289377
65.000000	-75.000000	255.3029518	-35.7045331
65.000000	-70.000000	249.7761688	-38.0423908
65.000000	-65.000000	243.9073524	-40.1052098
65.000000	-60.000000	237.7007103	-41.8543539
65.000000	-55.000000	231.1815872	-43.2519236
65.000000	-50.000000	224.3999329	-44.2636166
65.000000	-45.000000	217.4304085	-44.8620305
65.000000	-40.000000	210.3677406	-45.0298281
65.000000	-35.000000	203.3173714	-44.7619886
65.000000	-30.000000	196.3833122	-44.0664907
65.000000	-25.000000	189.6563416	-42.9632354
65.000000	-20.000000	183.2056503	-41.4815130
65.000000	-15.000000	177.0753708	-39.6567369
65.000000	-10.000000	171.2855854	-37.5272012
65.000000	-5.000000	165.8363380	-35.1313925
65.000000	.000000	160.7128067	-32.5060945
65.000000	5.000000	155.8903427	-29.6852703
65.000000	10.000000	151.3385792	-26.6995718
65.000000	15.000000	147.0245190	-23.5762892
65.000000	20.000000	142.9145184	-20.3395643
65.000000	25.000000	138.9755211	-17.0107598
65.000000	30.000000	135.1756401	-13.6088896
65.000000	35.000000	131.4843750	-10.1510489
65.000000	40.000000	127.8725262	-6.6528497
65.000000	45.000000	124.3119755	-3.1288302
65.000000	50.000000	120.7753410	.4071636
65.000000	55.000000	117.2356014	3.9416054
65.000000	60.000000	113.6656904	7.4609265
65.000000	65.000000	110.0380869	10.9511561
65.000000	70.000000	106.3244514	14.3975432
65.000000	75.000000	102.4952974	17.7841713
65.000000	80.000000	98.5198097	21.0935409
65.000000	85.000000	94.3657990	24.3061390
65.000000	90.000000	90.0000010	27.3999991

TABLE 2. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
70.000000	-90.000000	270.000000	-27.400000
70.000000	-85.000000	265.118328	-29.982717
70.000000	-80.000000	259.985927	-32.376086
70.000000	-75.000000	254.587604	-34.550659
70.000000	-70.000000	248.916915	-36.475485
70.000000	-65.000000	242.979354	-38.119127
70.000000	-60.000000	236.795215	-39.451164
70.000000	-55.000000	230.401462	-40.444190
70.000000	-50.000000	223.851623	-41.075645
70.000000	-45.000000	217.213050	-41.330619
70.000000	-40.000000	210.561546	-41.202719
70.000000	-35.000000	203.974178	-40.695132
70.000000	-30.000000	197.521820	-39.820195
70.000000	-25.000000	191.263036	-38.598066
70.000000	-20.000000	185.240432	-37.054763
70.000000	-15.000000	179.479721	-35.219962
70.000000	-10.000000	173.991025	-33.124949
70.000000	-5.000000	168.771520	-30.800973
70.000000	.000000	163.808578	-28.278071
70.000000	5.000000	159.082792	-25.584348
70.000000	10.000000	154.570486	-22.745653
70.000000	15.000000	150.245637	-19.785514
70.000000	20.000000	146.081234	-16.725267
70.000000	25.000000	142.050119	-13.584286
70.000000	30.000000	138.125474	-10.380283
70.000000	35.000000	134.281016	-7.129623
70.000000	40.000000	130.491006	-3.847653
70.000000	45.000000	126.730176	-.549037
70.000000	50.000000	122.973495	2.751947
70.000000	55.000000	119.195982	6.041055
70.000000	60.000000	115.372458	9.303790
70.000000	65.000000	111.477361	12.525067
70.000000	70.000000	107.444601	15.688895
70.000000	75.000000	103.367522	18.778051
70.000000	80.000000	99.099043	21.773740
70.000000	85.000000	94.652029	24.655317
70.000000	90.000000	90.000000	27.399991
75.000000	-90.000000	270.000000	-27.400000
75.000000	-85.000000	264.887653	-29.595797
75.000000	-80.000000	259.558812	-31.587334
75.000000	-75.000000	254.011192	-33.348542
75.000000	-70.000000	248.251770	-34.853507
75.000000	-65.000000	242.298392	-36.077580
75.000000	-60.000000	236.180642	-36.998812
75.000000	-55.000000	229.939455	-37.599390
75.000000	-50.000000	223.625137	-37.867063
75.000000	-45.000000	217.293975	-37.796198
75.000000	-40.000000	211.003627	-37.388296
75.000000	-35.000000	204.808387	-36.651850
75.000000	-30.000000	198.754888	-35.601603
75.000000	-25.000000	192.879760	-34.257267
75.000000	-20.000000	187.207351	-32.642103
75.000000	-15.000000	181.750900	-30.781436
75.000000	-10.000000	176.513284	-28.701380
75.000000	-5.000000	171.488954	-26.427795
75.000000	.000000	166.665897	-23.985631
75.000000	5.000000	162.027513	-21.398450
75.000000	10.000000	157.554132	-18.688259
75.000000	15.000000	153.224233	-15.875482
75.000000	20.000000	149.015323	-12.979035
75.000000	25.000000	144.904495	-10.016519
75.000000	30.000000	140.868602	-7.004422
75.000000	35.000000	136.884853	-3.958375
75.000000	40.000000	132.930400	-.893398
75.000000	45.000000	128.982543	2.175823
75.000000	50.000000	125.018612	5.234687
75.000000	55.000000	121.015868	8.268401
75.000000	60.000000	116.951459	11.261718
75.000000	65.000000	112.802406	14.198646
75.000000	70.000000	108.545701	17.062327
75.000000	75.000000	104.158530	19.834562
75.000000	80.000000	99.618715	22.496005
75.000000	85.000000	94.905391	25.025345
75.000000	90.000000	90.000000	27.399991

TABLE 2. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
80.000000	-90.000000	270.000000	-27.4000008
80.000000	-85.000000	264.6981468	-29.1926565
80.000000	-80.000000	259.2194061	-30.7693722
80.000000	-75.000000	253.5723228	-32.1086240
80.000000	-70.000000	247.7737274	-33.1904178
80.000000	-65.000000	241.8489494	-33.9973297
80.000000	-60.000000	235.8311844	-34.5155401
80.000000	-55.000000	229.7599525	-34.7357807
80.000000	-50.000000	223.6785507	-34.6540117
80.000000	-45.000000	217.6310425	-34.2717395
80.000000	-40.000000	211.6590233	-33.5958991
80.000000	-35.000000	205.7988586	-32.6383224
80.000000	-30.000000	200.0796127	-31.4149089
80.000000	-25.000000	194.5220490	-29.9445989
80.000000	-20.000000	189.1384277	-28.2483404
80.000000	-15.000000	183.9331703	-26.3481135
80.000000	-10.000000	178.9039021	-24.2661448
80.000000	-5.000000	174.0427380	-22.0243073
80.000000	0.000000	169.3375816	-19.6437049
80.000000	5.000000	164.7732544	-17.1444528
80.000000	10.000000	160.3324718	-14.5455765
80.000000	15.000000	155.9965801	-11.8650278
80.000000	20.000000	151.7460823	-9.1197809
80.000000	25.000000	147.5610390	-6.3259648
80.000000	30.000000	143.4212570	-3.4990474
80.000000	35.000000	139.3064556	-.6540264
80.000000	40.000000	135.1963196	2.1943629
80.000000	45.000000	131.0705280	5.0314325
80.000000	50.000000	126.9087744	7.8423316
80.000000	55.000000	122.6908197	10.6118329
80.000000	60.000000	118.3965855	13.3241352
80.000000	65.000000	114.0063295	15.9626706
80.000000	70.000000	109.5009604	18.5099542
80.000000	75.000000	104.8624830	20.9474554
80.000000	80.000000	100.0746479	23.2555580
80.000000	85.000000	95.1238146	25.4135926
80.000000	90.000000	90.0000019	27.4000008
85.000000	-90.000000	270.000000	-27.4000008
85.000000	-85.000000	264.5508041	-28.7765160
85.000000	-80.000000	258.9680862	-29.9289320
85.000000	-75.000000	253.2685127	-30.8411226
85.000000	-70.000000	247.4750366	-31.4995203
85.000000	-65.000000	241.6160774	-31.8938451
85.000000	-60.000000	235.7241058	-32.0177388
85.000000	-55.000000	229.8337173	-31.8691723
85.000000	-50.000000	223.9794006	-31.4505763
85.000000	-45.000000	218.1933441	-30.7686865
85.000000	-40.000000	212.5035133	-29.8341088
85.000000	-35.000000	206.9323082	-28.6606750
85.000000	-30.000000	201.4958305	-27.2647035
85.000000	-25.000000	196.2037506	-25.6642203
85.000000	-20.000000	191.0597000	-23.8782458
85.000000	-15.000000	186.0619659	-21.9261873
85.000000	-10.000000	181.2043533	-19.8273702
85.000000	-5.000000	176.4771023	-17.6006920
85.000000	0.000000	171.8677235	-15.2644308
85.000000	5.000000	167.3617268	-12.8361266
85.000000	10.000000	162.9432163	-10.3325784
85.000000	15.000000	158.5953426	-7.7698897
85.000000	20.000000	154.3006496	-5.1635631
85.000000	25.000000	150.0413017	-2.5286324
85.000000	30.000000	145.7992649	.1201916
85.000000	35.000000	141.5564041	2.7683565
85.000000	40.000000	137.2945938	5.4013042
85.000000	45.000000	132.9958096	8.0042995
85.000000	50.000000	128.6422424	10.5622735
85.000000	55.000000	124.2164793	13.0596718
85.000000	60.000000	119.7017460	15.4803329
85.000000	65.000000	115.0822506	17.8073928
85.000000	70.000000	110.3436594	20.0232384
85.000000	75.000000	105.4736958	22.1095362
85.000000	80.000000	100.4628878	24.0473359
85.000000	85.000000	95.3054132	25.8172874
85.000000	90.000000	90.0000019	27.4000008

TABLE 2. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
90.000000	-90.000000	270.000000	-27.400000
90.000000	-85.000000	264.446266	-28.350660
90.000000	-80.000000	258.804489	-29.072715
90.000000	-75.000000	253.096439	-29.555988
90.000000	-70.000000	247.347599	-29.793417
90.000000	-65.000000	241.585815	-29.781465
90.000000	-60.000000	235.839698	-29.520308
90.000000	-55.000000	230.136940	-29.013840
90.000000	-50.000000	224.502706	-28.269431
90.000000	-45.000000	218.958370	-27.297538
90.000000	-40.000000	213.520637	-26.111588
90.000000	-35.000000	208.201099	-24.725238
90.000000	-30.000000	203.006271	-23.156072
90.000000	-25.000000	197.937829	-21.420769
90.000000	-20.000000	192.993469	-19.536777
90.000000	-15.000000	188.166919	-17.521549
90.000000	-10.000000	183.449272	-15.392247
90.000000	-5.000000	178.829284	-13.165635
90.000000	.000000	174.293991	-10.857946
90.000000	5.000000	169.829177	-8.484901
90.000000	10.000000	165.419752	-6.061734
90.000000	15.000000	161.050029	-3.603270
90.000000	20.000000	156.703943	-1.124024
90.000000	25.000000	152.365238	1.361671
90.000000	30.000000	148.017595	3.839550
90.000000	35.000000	143.644739	6.295270
90.000000	40.000000	139.230709	8.714290
90.000000	45.000000	134.759761	11.081749
90.000000	50.000000	130.216999	13.382371
90.000000	55.000000	125.588234	15.600387
90.000000	60.000000	120.860597	17.719506
90.000000	65.000000	116.023122	19.722934
90.000000	70.000000	111.067050	21.593459
90.000000	75.000000	105.986619	23.313625
90.000000	80.000000	100.779719	24.865994
90.000000	85.000000	95.448519	26.233517
90.000000	90.000000	90.000019	27.400000
95.000000	-90.000000	270.000000	-27.400000
95.000000	-85.000000	264.384803	-27.918403
95.000000	-80.000000	258.727596	-28.207369
95.000000	-75.000000	253.052143	-28.262857
95.000000	-70.000000	247.383243	-28.084005
95.000000	-65.000000	241.745319	-27.673560
95.000000	-60.000000	236.161099	-27.036976
95.000000	-55.000000	230.650405	-26.182891
95.000000	-50.000000	225.229396	-25.122316
95.000000	-45.000000	219.909980	-23.868295
95.000000	-40.000000	214.699680	-22.435269
95.000000	-35.000000	209.601791	-20.838725
95.000000	-30.000000	204.615676	-19.094707
95.000000	-25.000000	199.737319	-17.219481
95.000000	-20.000000	194.959827	-15.229267
95.000000	-15.000000	190.273988	-13.140057
95.000000	-10.000000	185.688762	-10.967497
95.000000	-5.000000	181.131729	-8.726856
95.000000	.000000	176.649452	-6.433089
95.000000	5.000000	172.207789	-4.100493
95.000000	10.000000	167.792081	-1.743574
95.000000	15.000000	163.387449	.623662
95.000000	20.000000	158.978851	2.987213
95.000000	25.000000	154.551321	5.333042
95.000000	30.000000	150.090059	7.646987
95.000000	35.000000	145.580667	9.914638
95.000000	40.000000	141.009327	12.121296
95.000000	45.000000	136.363153	14.251882
95.000000	50.000000	131.630270	16.290923
95.000000	55.000000	126.800661	18.222578
95.000000	60.000000	121.866238	20.030723
95.000000	65.000000	116.821540	21.699031
95.000000	70.000000	111.664279	23.211470
95.000000	75.000000	106.395834	24.552092
95.000000	80.000000	101.021693	25.705941
95.000000	85.000000	95.551691	26.659252
95.000000	90.000000	90.000019	27.400000

TABLE 2. (Continued)

ALPHA (LAMDA) DEGREES	DELTA (BETA) DEGREES	LAMDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
100.000000	-90.000000	270.000000	-27.400000
100.000000	-85.000000	264.3663712	-27.4830680
100.000000	-80.000000	258.7358398	-27.3394263
100.000000	-75.000000	253.1312218	-26.9710441
100.000000	-70.000000	247.5739403	-26.3828871
100.000000	-65.000000	242.0829542	-25.5826876
100.000000	-60.000000	236.6739349	-24.5805724
100.000000	-55.000000	231.3587151	-23.3886402
100.000000	-50.000000	226.1450958	-22.0204926
100.000000	-45.000000	221.0369301	-20.4907999
100.000000	-40.000000	216.0343513	-18.8148849
100.000000	-35.000000	211.1342125	-17.0083897
100.000000	-30.000000	206.3305588	-15.0870134
100.000000	-25.000000	201.6151161	-13.0663159
100.000000	-20.000000	196.9777641	-10.9616005
100.000000	-15.000000	192.4069595	-8.7878534
100.000000	-10.000000	187.8900948	-6.5597255
100.000000	-5.000000	183.4137840	-4.2915669
100.000000	.000000	178.9641295	-1.9974797
100.000000	5.000000	174.5269108	.3086054
100.000000	10.000000	170.0877686	2.6128398
100.000000	15.000000	165.6323700	4.9013621
100.000000	20.000000	161.1465549	7.1602042
100.000000	25.000000	156.6165447	9.3752044
100.000000	30.000000	152.0291386	11.5319365
100.000000	35.000000	147.3719807	13.6156607
100.000000	40.000000	142.6338654	15.6113036
100.000000	45.000000	137.8051262	17.5034850
100.000000	50.000000	132.8780632	19.2765920
100.000000	55.000000	127.8474207	20.9149213
100.000000	60.000000	122.7108908	22.4028845
100.000000	65.000000	117.4695597	23.7253013
100.000000	70.000000	112.1283169	24.8677411
100.000000	75.000000	106.6960468	25.8169611
100.000000	80.000000	101.1856489	26.5613446
100.000000	85.000000	95.6137323	27.0913644
100.000000	90.000000	90.0000019	27.4000008
105.000000	-90.000000	270.0000000	-27.4000008
105.000000	-85.000000	264.3905945	-27.0479589
105.000000	-80.000000	258.8271523	-26.4752808
105.000000	-75.000000	253.3289223	-25.6895230
105.000000	-70.000000	247.9118881	-24.7006743
105.000000	-65.000000	242.5882339	-23.5207384
105.000000	-60.000000	237.3660851	-22.1632528
105.000000	-55.000000	232.2495842	-20.6428580
105.000000	-50.000000	227.2391205	-18.9748785
105.000000	-45.000000	222.3317604	-17.1749706
105.000000	-40.000000	217.5217171	-15.2588705
105.000000	-35.000000	212.8008347	-13.2421740
105.000000	-30.000000	208.1590881	-11.1402333
105.000000	-25.000000	203.5849915	-8.9680737
105.000000	-20.000000	199.0659599	-6.7403880
105.000000	-15.000000	194.5886307	-4.4715601
105.000000	-10.000000	190.1390953	-2.1757195
105.000000	-5.000000	185.7031212	.1331837
105.000000	.000000	181.2663116	2.4412887
105.000000	5.000000	176.8142967	4.7347295
105.000000	10.000000	172.3328590	6.9995395
105.000000	15.000000	167.8081512	9.2215637
105.000000	20.000000	163.2268810	11.3863847
105.000000	25.000000	158.5765743	13.4792731
105.000000	30.000000	153.8458939	15.4851604
105.000000	35.000000	149.0250072	17.3886673
105.000000	40.000000	144.1060085	19.1741691
105.000000	45.000000	139.0834160	20.8259335
105.000000	50.000000	133.9546471	22.3283193
105.000000	55.000000	128.7205124	23.6660697
105.000000	60.000000	123.3856010	24.8246453
105.000000	65.000000	117.9585123	25.7906611
105.000000	70.000000	112.4518833	26.5523238
105.000000	75.000000	106.8921058	27.0999050
105.000000	80.000000	101.2687616	27.4261527
105.000000	85.000000	95.6337147	27.5266433
105.000000	90.000000	90.0000019	27.4000008

TABLE 2. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
110.0000000	-90.0000000	270.0000000	-27.4000008
110.0000000	-85.0000000	264.4567909	-26.6163411
110.0000000	-80.0000000	258.9990425	-25.6211553
110.0000000	-75.0000000	253.6402702	-24.4269259
110.0000000	-70.0000000	248.3895683	-23.0477896
110.0000000	-65.0000000	243.2516708	-21.4990420
110.0000000	-60.0000000	238.2272186	-19.7966785
110.0000000	-55.0000000	233.3132439	-17.9570205
110.0000000	-50.0000000	228.5036888	-15.9964178
110.0000000	-45.0000000	223.7899780	-13.9310279
110.0000000	-40.0000000	219.1615486	-11.7766930
110.0000000	-35.0000000	214.6062965	-9.5488646
110.0000000	-30.0000000	210.1109848	-7.2625952
110.0000000	-25.0000000	205.6615753	-4.9325686
110.0000000	-20.0000000	201.2434731	-2.5731649
110.0000000	-15.0000000	196.8417320	-1.985455
110.0000000	-10.0000000	192.4412575	2.1772447
110.0000000	-5.0000000	188.0269318	4.5401703
110.0000000	.0000000	183.5837784	6.8760964
110.0000000	5.0000000	179.0971298	9.1706864
110.0000000	10.0000000	174.5528316	11.4093115
110.0000000	15.0000000	169.975019	13.5769840
110.0000000	20.0000000	165.2388172	15.6583225
110.0000000	25.0000000	160.4459286	17.6375422
110.0000000	30.0000000	155.5498905	19.4985337
110.0000000	35.0000000	150.5441856	21.2249668
110.0000000	40.0000000	145.4252949	22.8004978
110.0000000	45.0000000	140.1932220	24.2090497
110.0000000	50.0000000	134.8519859	25.4351823
110.0000000	55.0000000	129.4099369	26.4645300
110.0000000	60.0000000	123.8798857	27.2842994
110.0000000	65.0000000	118.2788296	27.8837814
110.0000000	70.0000000	112.6274300	28.2548289
110.0000000	75.0000000	106.9490538	28.3922603
110.0000000	80.0000000	101.2685766	28.2941267
110.0000000	85.0000000	95.6109905	27.9618218
110.0000000	90.0000000	90.0000019	27.4000008
115.0000000	-90.0000000	270.0000000	-27.4000008
115.0000000	-85.0000000	264.5640182	-26.1914151
115.0000000	-80.0000000	259.2486496	-24.7830775
115.0000000	-75.0000000	254.0600967	-23.1915429
115.0000000	-70.0000000	248.9997292	-21.4341345
115.0000000	-65.0000000	244.0646820	-19.5284851
115.0000000	-60.0000000	239.2485123	-17.4921677
115.0000000	-55.0000000	234.5418968	-15.3424641
115.0000000	-50.0000000	229.9332657	-13.0961959
115.0000000	-45.0000000	225.4093704	-10.7696466
115.0000000	-40.0000000	220.9557457	-8.3785751
115.0000000	-35.0000000	216.5570679	-5.9382347
115.0000000	-30.0000000	212.1974525	-3.4634697
115.0000000	-25.0000000	207.8606567	-1.9688154
115.0000000	-20.0000000	203.5302467	1.5313776
115.0000000	-15.0000000	199.1897392	4.0228110
115.0000000	-10.0000000	194.8227386	6.4911034
115.0000000	-5.0000000	190.4130630	8.9216610
115.0000000	.0000000	185.9449310	11.2995551
115.0000000	5.0000000	181.4031858	13.6094229
115.0000000	10.0000000	176.7736015	15.8353956
115.0000000	15.0000000	172.0432625	17.9610603
115.0000000	20.0000000	167.2010555	19.9694841
115.0000000	25.0000000	162.2382450	21.8433018
115.0000000	30.0000000	157.1491299	23.5649033
115.0000000	35.0000000	151.9317436	25.1166899
115.0000000	40.0000000	146.5885048	26.4814699
115.0000000	45.0000000	141.1267529	27.6429262
115.0000000	50.0000000	135.5590553	28.5861993
115.0000000	55.0000000	129.9031296	29.2984807
115.0000000	60.0000000	124.1813822	29.7696326
115.0000000	65.0000000	118.4199018	29.9927144
115.0000000	70.0000000	112.6471319	29.9643648
115.0000000	75.0000000	106.8921738	29.6850169
115.0000000	80.0000000	101.1830788	29.1588564
115.0000000	85.0000000	95.5452194	28.3935890
115.0000000	90.0000000	90.0000019	27.4000008

TABLE 2. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
120.0000000	-90.0000000	270.0000000	-27.4000008
120.0000000	-85.0000000	264.7110405	-25.7763050
120.0000000	-80.0000000	259.5727844	-23.9668584
120.0000000	-75.0000000	254.5830956	-21.9913182
120.0000000	-70.0000000	249.7353554	-19.8692026
120.0000000	-65.0000000	245.0193825	-17.6195712
120.0000000	-60.0000000	240.4222946	-15.2608023
120.0000000	-55.0000000	235.9292374	-12.8105216
120.0000000	-50.0000000	231.5239983	-10.2855778
120.0000000	-45.0000000	227.1894417	-7.7021073
120.0000000	-40.0000000	222.9078484	-5.0756347
120.0000000	-35.0000000	218.6611557	-2.4212077
120.0000000	-30.0000000	214.4311104	.2464458
120.0000000	-25.0000000	210.1993675	2.9127564
120.0000000	-20.0000000	205.9476013	5.5631373
120.0000000	-15.0000000	201.6575851	8.1828156
120.0000000	-10.0000000	197.3112984	10.7566646
120.0000000	-5.0000000	192.8911095	13.2690570
120.0000000	.0000000	188.3800316	15.7037323
120.0000000	5.0000000	183.7620621	18.0436976
120.0000000	10.0000000	179.0226612	20.2711906
120.0000000	15.0000000	174.1493855	22.3676922
120.0000000	20.0000000	169.1326427	24.3140445
120.0000000	25.0000000	163.9665680	26.0906715
120.0000000	30.0000000	158.6499729	27.6779363
120.0000000	35.0000000	153.1872158	29.0566425
120.0000000	40.0000000	147.5889244	30.2086692
120.0000000	45.0000000	141.8723240	31.1177204
120.0000000	50.0000000	136.0610561	31.7701130
120.0000000	55.0000000	130.1843414	32.1555467
120.0000000	60.0000000	124.2755089	32.2677345
120.0000000	65.0000000	118.3699741	32.1048193
120.0000000	70.0000000	112.5029354	31.6694949
120.0000000	75.0000000	106.7070942	30.9688265
120.0000000	80.0000000	101.0107412	30.0137932
120.0000000	85.0000000	95.4363785	28.8186219
120.0000000	90.0000000	90.0000019	27.4000008
125.0000000	-90.0000000	270.0000000	-27.4000008
125.0000000	-85.0000000	264.8964005	-25.3740263
125.0000000	-80.0000000	259.9679642	-23.1780686
125.0000000	-75.0000000	255.2038307	-20.8338416
125.0000000	-70.0000000	250.5896111	-18.3620996
125.0000000	-65.0000000	246.1084175	-15.7824821
125.0000000	-60.0000000	241.7417297	-13.1134973
125.0000000	-55.0000000	237.4700279	-10.3726035
125.0000000	-50.0000000	233.2732201	-7.5763128
125.0000000	-45.0000000	229.1309204	-4.7403827
125.0000000	-40.0000000	225.0226288	-1.8800007
125.0000000	-35.0000000	220.9278069	.9900043
125.0000000	-30.0000000	216.8258934	3.8549469
125.0000000	-25.0000000	212.6963387	6.7000664
125.0000000	-20.0000000	208.5186348	9.5103093
125.0000000	-15.0000000	204.2723312	12.2701176
125.0000000	-10.0000000	199.9372330	14.9632282
125.0000000	-5.0000000	195.4935989	17.5724986
125.0000000	.0000000	190.9225426	20.0797546
125.0000000	5.0000000	186.2065964	22.4657109
125.0000000	10.0000000	181.3304787	24.7099485
125.0000000	15.0000000	176.2821159	26.7910244
125.0000000	20.0000000	171.0538425	28.6867249
125.0000000	25.0000000	165.6437321	30.3744798
125.0000000	30.0000000	160.0569439	31.8320100
125.0000000	35.0000000	154.3067951	33.0381575
125.0000000	40.0000000	148.4153557	33.9738936
125.0000000	45.0000000	142.4132385	34.6233974
125.0000000	50.0000000	136.3383961	34.9750991
125.0000000	55.0000000	130.2339344	35.0225196
125.0000000	60.0000000	124.1451292	34.7647753
125.0000000	65.0000000	118.1160975	34.2066431
125.0000000	70.0000000	112.1866713	33.3581901
125.0000000	75.0000000	106.3899174	32.2340217
125.0000000	80.0000000	100.7506189	30.8522402
125.0000000	85.0000000	95.2847881	29.2336075
125.0000000	90.0000000	90.0000019	27.4000008

TABLE 2. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
130.000000	-90.000000	270.000000	-27.3999991
130.000000	-85.000000	265.1184082	-24.9874773
130.000000	-80.000000	260.4304504	-22.4220209
130.000000	-75.000000	255.9167480	-19.7263582
130.000000	-70.000000	251.5557594	-16.9215562
130.000000	-65.000000	247.3247604	-14.0271025
130.000000	-60.000000	243.2005157	-11.0610517
130.000000	-55.000000	239.1596680	-8.0402521
130.000000	-50.000000	235.1789513	-4.9805843
130.000000	-45.000000	231.2352638	-1.8972279
130.000000	-40.000000	227.3056335	1.1950748
130.000000	-35.000000	223.3671532	4.2617476
130.000000	-30.000000	219.3968697	7.3481082
130.000000	-25.000000	215.3717194	10.3791006
130.000000	-20.000000	211.2684669	13.3590279
130.000000	-15.000000	207.0637665	16.2712839
130.000000	-10.000000	202.7343254	19.0981059
130.000000	-5.000000	198.2572556	21.8203499
130.000000	.000000	193.6106796	24.4173181
130.000000	5.000000	188.7746162	26.8666592
130.000000	10.000000	183.7322540	29.1444006
130.000000	15.000000	178.4715672	31.2251582
130.000000	20.000000	172.9872532	33.0825915
130.000000	25.000000	167.2828236	34.6901402
130.000000	30.000000	161.3724689	36.0220947
130.000000	35.000000	155.2823448	37.0549397
130.000000	40.000000	149.0506592	37.7688880
130.000000	45.000000	142.7262421	38.1493864
130.000000	50.000000	136.3654213	38.1883659
130.000000	55.000000	130.0276031	37.8849874
130.000000	60.000000	123.7702351	37.2457209
130.000000	65.000000	117.6441841	36.2837410
130.000000	70.000000	111.6902609	35.0177736
130.000000	75.000000	105.9373903	33.4706249
130.000000	80.000000	100.4024153	31.6676328
130.000000	85.000000	95.0911131	29.6352706
130.000000	90.000000	90.0000019	27.4000008
135.000000	-90.000000	270.0000000	-27.3999991
135.000000	-85.000000	265.3751526	-24.6194193
135.000000	-80.000000	260.9562721	-21.7037537
135.000000	-75.000000	256.7161446	-18.6757381
135.000000	-70.000000	252.6270676	-15.5559384
135.000000	-65.000000	248.6615410	-12.3630404
135.000000	-60.000000	244.7925720	-9.1141552
135.000000	-55.000000	240.9938087	-5.8251633
135.000000	-50.000000	237.2394676	-2.5110459
135.000000	-45.000000	233.5041618	.8137799
135.000000	-40.000000	229.7626915	4.1351433
135.000000	-35.000000	225.9897995	7.4387938
135.000000	-30.000000	222.1599350	10.7100773
135.000000	-25.000000	218.2470474	13.9336165
135.000000	-20.000000	214.2244644	17.0929680
135.000000	-15.000000	210.0649261	20.1702948
135.000000	-10.000000	205.7407722	23.1460268
135.000000	-5.000000	201.2244263	25.9985683
135.000000	.000000	196.4893036	28.7040427
135.000000	5.000000	191.5112000	31.2361631
135.000000	10.000000	186.2703133	33.5663037
135.000000	15.000000	180.7538910	35.6638350
135.000000	20.000000	174.9593945	37.4968781
135.000000	25.000000	168.8978024	39.0335393
135.000000	30.000000	162.5963764	40.2436371
135.000000	35.000000	156.0999184	41.1008549
135.000000	40.000000	149.4696989	41.5850167
135.000000	45.000000	142.7794495	41.6841226
135.000000	50.000000	136.1088142	41.3956542
135.000000	55.000000	129.5354862	40.7268767
135.000000	60.000000	123.1277809	39.6940107
135.000000	65.000000	116.9392214	38.3205180
135.000000	70.000000	111.0060005	36.6348896
135.000000	75.000000	105.3471289	34.6683903
135.000000	80.000000	99.9665766	32.4530959
135.000000	85.000000	94.8563929	30.0203941
135.000000	90.000000	90.0000010	27.4000008

TABLE 2. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
140.000000	-90.000000	270.000000	-27.399999
140.000000	-85.000000	265.664547	-24.272464
140.000000	-80.000000	261.541221	-21.028010
140.000000	-75.000000	257.596160	-17.688475
140.000000	-70.000000	253.796745	-14.273222
140.000000	-65.000000	250.117950	-10.799601
140.000000	-60.000000	246.511768	-7.283374
140.000000	-55.000000	242.967975	-3.739155
140.000000	-50.000000	239.452796	-1.807907
140.000000	-45.000000	235.938992	3.378253
140.000000	-40.000000	232.399364	6.924531
140.000000	-35.000000	228.806278	10.444251
140.000000	-30.000000	225.131328	13.922897
140.000000	-25.000000	221.344936	17.344835
140.000000	-20.000000	217.416126	20.692905
140.000000	-15.000000	213.312431	23.947964
140.000000	-10.000000	209.000087	27.088450
140.000000	-5.000000	204.444652	30.089914
140.000000	.000000	199.612239	32.924663
140.000000	5.000000	194.471618	35.561505
140.000000	10.000000	188.997421	37.965809
140.000000	15.000000	183.174457	40.100007
140.000000	20.000000	177.003047	41.924763
140.000000	25.000000	170.504456	43.400950
140.000000	30.000000	163.725080	44.492485
140.000000	35.000000	156.737421	45.169717
140.000000	40.000000	149.636219	45.412834
140.000000	45.000000	142.529401	45.214436
140.000000	50.000000	135.525583	44.580571
140.000000	55.000000	128.721326	43.529892
140.000000	60.000000	122.191664	42.091197
140.000000	65.000000	115.985663	40.300077
140.000000	70.000000	110.172008	38.195491
140.000000	75.000000	104.617862	35.816857
140.000000	80.000000	99.444397	33.201993
140.000000	85.000000	94.582043	30.385853
140.000000	90.000000	90.000000	27.400003
145.000000	-90.000000	270.000000	-27.399999
145.000000	-85.000000	265.984317	-23.949055
145.000000	-80.000000	262.190912	-20.399219
145.000000	-75.000000	258.550781	-16.770664
145.000000	-70.000000	255.057839	-13.080980
145.000000	-65.000000	251.668590	-9.345757
145.000000	-60.000000	248.351661	-5.579100
145.000000	-55.000000	245.077201	-1.794106
145.000000	-50.000000	241.816288	1.996718
145.000000	-45.000000	238.540294	5.781052
145.000000	-40.000000	235.220264	9.546369
145.000000	-35.000000	231.826283	13.279526
145.000000	-30.000000	228.326877	16.966351
145.000000	-25.000000	224.688413	20.591162
145.000000	-20.000000	220.874675	24.136246
145.000000	-15.000000	216.846492	27.581276
145.000000	-10.000000	212.561821	30.902680
145.000000	-5.000000	207.976360	34.072904
145.000000	.000000	203.045105	37.059902
145.000000	5.000000	197.725341	39.826536
145.000000	10.000000	191.981563	42.330557
145.000000	15.000000	185.792645	44.525234
145.000000	20.000000	179.160940	46.361061
145.000000	25.000000	172.121784	47.788939
145.000000	30.000000	164.750206	48.764774
145.000000	35.000000	157.160871	49.254956
145.000000	40.000000	149.498115	49.241412
145.000000	45.000000	141.916967	48.724653
145.000000	50.000000	134.560588	47.723683
145.000000	55.000000	127.541678	46.272812
145.000000	60.000000	120.933084	44.416538
145.000000	65.000000	114.768155	42.204084
145.000000	70.000000	109.047747	39.684873
145.000000	75.000000	103.749739	36.905434
145.000000	80.000000	98.838091	33.907743
145.000000	85.000000	94.269853	30.728660
145.000000	90.000000	90.000000	27.400003

TABLE 2. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
150.000000	-90.000000	270.000000	-27.399999
150.000000	-85.000000	266.332038	-23.651454
150.000000	-80.000000	262.870739	-19.821445
150.000000	-75.000000	259.573780	-15.927985
150.000000	-70.000000	256.403152	-11.986344
150.000000	-65.000000	253.324306	-8.010100
150.000000	-60.000000	250.305244	-4.011471
150.000000	-55.000000	247.315662	-.001854
150.000000	-50.000000	244.326103	4.007768
150.000000	-45.000000	241.307093	8.006411
150.000000	-40.000000	238.228302	11.982623
150.000000	-35.000000	235.057774	15.924360
150.000000	-30.000000	231.760952	19.817912
150.000000	-25.000000	228.299823	23.647950
150.000000	-20.000000	224.632074	27.396579
150.000000	-15.000000	220.710327	31.042632
150.000000	-10.000000	216.481754	34.560776
150.000000	-5.000000	211.888359	37.920475
150.000000	.000000	206.868614	41.084924
150.000000	5.000000	201.361335	44.010107
150.000000	10.000000	195.312976	46.644310
150.000000	15.000000	188.689361	48.928707
150.000000	20.000000	181.491769	50.799770
150.000000	25.000000	173.774358	52.194244
150.000000	30.000000	165.656156	53.056813
150.000000	35.000000	157.318161	53.349112
150.000000	40.000000	148.980625	53.057349
150.000000	45.000000	140.861560	52.195296
150.000000	50.000000	133.143717	50.801290
150.000000	55.000000	125.945608	48.930638
150.000000	60.000000	119.371456	46.646594
150.000000	65.000000	113.272573	44.012888
150.000000	70.000000	107.764812	41.087748
150.000000	75.000000	102.744650	37.923496
150.000000	80.000000	98.150813	34.563962
150.000000	85.000000	93.922007	31.045951
150.000000	90.000000	90.000000	27.400003
155.000000	-90.000000	270.000000	-27.399999
155.000000	-85.000000	266.705131	-23.381738
155.000000	-80.000000	263.605938	-19.298582
155.000000	-75.000000	260.658732	-15.165678
155.000000	-70.000000	257.825214	-10.995957
155.000000	-65.000000	255.071056	-6.800761
155.000000	-60.000000	252.364730	-2.590268
155.000000	-55.000000	249.676382	1.625955
155.000000	-50.000000	246.976764	5.838587
155.000000	-45.000000	244.236251	10.038154
155.000000	-40.000000	241.423793	14.214634
155.000000	-35.000000	238.505809	18.357027
155.000000	-30.000000	235.445022	22.452879
155.000000	-25.000000	232.199100	26.487425
155.000000	-20.000000	228.719230	30.443320
155.000000	-15.000000	224.948616	34.299162
155.000000	-10.000000	220.821144	38.028509
155.000000	-5.000000	216.260696	41.598335
155.000000	.000000	211.182048	44.967271
155.000000	5.000000	205.495044	48.083791
155.000000	10.000000	199.114563	50.884813
155.000000	15.000000	191.979290	53.295714
155.000000	20.000000	184.080588	55.233321
155.000000	25.000000	175.496475	56.613657
155.000000	30.000000	166.415690	57.364928
155.000000	35.000000	157.128213	57.443028
155.000000	40.000000	147.971696	56.843149
155.000000	45.000000	139.253224	55.601137
155.000000	50.000000	131.187051	53.783796
155.000000	55.000000	123.875305	51.473638
155.000000	60.000000	117.326196	48.754891
155.000000	65.000000	111.487576	45.704545
155.000000	70.000000	106.277746	42.388403
155.000000	75.000000	101.606552	38.860546
155.000000	80.000000	97.387108	35.164505
155.000000	85.000000	93.541052	31.335056
155.000000	90.000000	90.000000	27.400003

TABLE 2. (Continued)

ALPHA (LAMBDA) DEGREES	DFLTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
160.0000000	-90.0000000	270.0000000	-27.3999991
160.0000000	-85.0000000	267.1008987	-23.1417756
160.0000000	-80.0000000	264.3815689	-18.8338282
160.0000000	-75.0000000	261.7990112	-14.4884328
160.0000000	-70.0000000	259.3161926	-10.1159317
160.0000000	-65.0000000	256.9003181	-5.7253318
160.0000000	-60.0000000	254.5213890	-1.3247756
160.0000000	-55.0000000	252.1509132	3.0780537
160.0000000	-50.0000000	249.7607384	7.4755828
160.0000000	-45.0000000	247.3219261	11.8599889
160.0000000	-40.0000000	244.8035164	16.2228365
160.0000000	-35.0000000	242.1712151	20.5546503
160.0000000	-30.0000000	239.3858414	24.8443971
160.0000000	-25.0000000	236.4014587	29.0788281
160.0000000	-20.0000000	233.1631660	33.2416058
160.0000000	-15.0000000	229.6044273	37.3121471
160.0000000	-10.0000000	225.6441307	41.2640481
160.0000000	-5.0000000	221.1837807	45.0629978
160.0000000	.0000000	216.1059799	48.6640706
160.0000000	5.0000000	210.2768440	52.0084887
160.0000000	10.0000000	203.5573845	55.0203852
160.0000000	15.0000000	195.8314743	57.6049256
160.0000000	20.0000000	187.0577240	59.6512442
160.0000000	25.0000000	177.3399925	61.0438075
160.0000000	30.0000000	166.9814453	61.6852365
160.0000000	35.0000000	156.4612732	61.5243907
160.0000000	40.0000000	146.3085423	60.5745034
160.0000000	45.0000000	136.9421673	58.9082665
160.0000000	50.0000000	128.5830402	56.6336117
160.0000000	55.0000000	121.2685528	53.8663340
160.0000000	60.0000000	114.9197474	50.7117233
160.0000000	65.0000000	109.4066172	47.2570162
160.0000000	70.0000000	104.5899734	43.5709443
160.0000000	75.0000000	100.3417826	39.7063560
160.0000000	80.0000000	96.5521908	35.7035880
160.0000000	85.0000000	93.1299114	31.5935154
160.0000000	90.0000000	90.0000010	27.4000032
165.0000000	-90.0000000	270.0000000	-27.3999991
165.0000000	-85.0000000	267.5165215	-22.9332221
165.0000000	-80.0000000	265.1925392	-18.4302979
165.0000000	-75.0000000	262.9877357	-13.9005505
165.0000000	-70.0000000	260.8678818	-9.3517814
165.0000000	-65.0000000	258.8029213	-4.7907649
165.0000000	-60.0000000	256.7653999	-0.2236359
165.0000000	-55.0000000	254.7291527	4.3437739
165.0000000	-50.0000000	252.6680565	8.9056537
165.0000000	-45.0000000	250.5548515	13.4559076
165.0000000	-40.0000000	248.3597946	17.9878395
165.0000000	-35.0000000	246.0491447	22.4937756
165.0000000	-30.0000000	243.5832863	26.9645588
165.0000000	-25.0000000	240.9143028	31.3889174
165.0000000	-20.0000000	237.9828568	35.7525535
165.0000000	-15.0000000	234.7140465	40.0368662
165.0000000	-10.0000000	231.0120888	44.2171121
165.0000000	-5.0000000	226.7538109	48.2597356
165.0000000	.0000000	221.7818375	52.1185608
165.0000000	5.0000000	215.9005089	55.7295308
165.0000000	10.0000000	208.8827019	59.0041838
165.0000000	15.0000000	200.5048294	61.8235164
165.0000000	20.0000000	190.6360664	64.0375357
165.0000000	25.0000000	179.3906689	65.4807911
165.0000000	30.0000000	167.2680206	66.0131893
165.0000000	35.0000000	155.1008797	65.5748940
165.0000000	40.0000000	143.7408123	64.2155151
165.0000000	45.0000000	133.7267666	62.0696669
165.0000000	50.0000000	125.2060785	59.3025346
165.0000000	55.0000000	118.0643835	56.0666766
165.0000000	60.0000000	112.0821590	52.4842763
165.0000000	65.0000000	107.0304079	48.6465487
165.0000000	70.0000000	102.7098074	44.6196375
165.0000000	75.0000000	98.9593220	40.4512138
165.0000000	80.0000000	95.6527252	36.1758790
165.0000000	85.0000000	92.6918478	31.8191049
165.0000000	90.0000000	90.0000010	27.4000032

TABLE 2. (Continued)

ALPHA (LAMDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
170.000000	-90.000000	270.000000	-27.3999991
170.000000	-85.000000	267.9490929	-22.7575133
170.000000	-80.000000	266.0336266	-18.0905731
170.000000	-75.000000	264.2178383	-13.4057130
170.000000	-70.000000	262.4716988	-8.7083734
170.000000	-65.000000	260.7689972	-4.0032699
170.000000	-60.000000	259.0858040	.7053190
170.000000	-55.000000	257.3991966	5.4132963
170.000000	-50.000000	255.6860695	10.1165394
170.000000	-45.000000	253.9219627	14.8106599
170.000000	-40.000000	252.0796814	19.4907653
170.000000	-35.000000	250.1277161	24.1511281
170.000000	-30.000000	248.0281105	28.7847891
170.000000	-25.000000	245.7336464	33.3829608
170.000000	-20.000000	243.1838379	37.9342146
170.000000	-15.000000	240.2992973	42.4232111
170.000000	-10.000000	236.9735641	46.8287959
170.000000	-5.000000	233.0614853	51.1209888
170.000000	.000000	228.3633690	55.2562423
170.000000	5.000000	222.6060982	59.1699510
170.000000	10.000000	215.4297562	62.7651625
170.000000	15.000000	206.4098663	65.8977919
170.000000	20.000000	195.1885300	68.3650103
170.000000	25.000000	181.8058853	69.9193277
170.000000	30.000000	167.1108189	70.3425779
170.000000	35.000000	152.6658058	69.5642605
170.000000	40.000000	139.8840542	67.7100639
170.000000	45.000000	129.3447514	65.0188017
170.000000	50.000000	120.9220543	61.7290821
170.000000	55.000000	114.2135715	58.0257907
170.000000	60.000000	108.8073206	54.0372782
170.000000	65.000000	104.3696184	49.8493686
170.000000	70.000000	100.6513071	45.5193720
170.000000	75.000000	97.4709415	41.0861301
170.000000	80.000000	94.6964254	36.5765748
170.000000	85.000000	92.2304459	32.0098648
170.000000	90.000000	90.0000010	27.4000032
175.000000	-90.000000	270.000000	-27.3999991
175.000000	-85.000000	268.3956070	-22.6158581
175.000000	-80.000000	266.8994713	-17.8168476
175.000000	-75.000000	265.4820328	-13.0070536
175.000000	-70.000000	264.1186790	-8.1898637
175.000000	-65.000000	262.7880135	-3.3682106
175.000000	-60.000000	261.4704933	1.4552388
175.000000	-55.000000	260.1473160	6.2779140
175.000000	-50.000000	258.7993584	11.0972065
175.000000	-45.000000	257.4061050	15.9103098
175.000000	-40.000000	255.9443970	20.7140398
175.000000	-35.000000	254.3868828	25.5046272
175.000000	-30.000000	252.6999092	30.2773895
175.000000	-25.000000	250.8405266	35.0263157
175.000000	-20.000000	248.7520981	39.7433844
175.000000	-15.000000	246.3575706	44.4175367
175.000000	-10.000000	243.5489693	49.0329952
175.000000	-5.000000	240.1705170	53.5664177
175.000000	.000000	235.9914703	57.9819736
175.000000	5.000000	230.6630020	62.2224860
175.000000	10.000000	223.6568222	66.1933699
175.000000	15.000000	214.2107086	69.7347116
175.000000	20.000000	201.4248123	72.5818253
175.000000	25.000000	184.9157829	74.3505869
175.000000	30.000000	166.1557598	74.6629696
175.000000	35.000000	148.4390755	73.4363184
175.000000	40.000000	134.1507378	70.9660511
175.000000	45.000000	123.4829540	67.6612740
175.000000	50.000000	115.6134663	63.8367162
175.000000	55.000000	109.6951065	59.6889653
175.000000	60.000000	105.1103802	55.3343711
175.000000	65.000000	101.4474230	50.8424745
175.000000	70.000000	98.4348774	46.2562051
175.000000	75.000000	95.8912420	41.6031027
175.000000	80.000000	93.6920643	36.9015150
175.000000	85.000000	91.7495718	32.1641245
175.000000	90.000000	90.0000010	27.4000032

TABLE 2. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
180.0000000	-90.0000000	270.0000000	-27.39999991
180.0000000	-85.0000000	268.8530045	-22.5092237
180.0000000	-80.0000000	267.7846260	-17.6108875
180.0000000	-75.0000000	266.7728615	-12.7071080
180.0000000	-70.0000000	265.7995110	-7.7996420
180.0000000	-65.0000000	264.8487968	-2.8900052
180.0000000	-60.0000000	263.9062920	2.0204213
180.0000000	-55.0000000	262.9580574	6.9302962
180.0000000	-50.0000000	261.9898148	11.8382527
180.0000000	-45.0000000	260.9860954	16.7428043
180.0000000	-40.0000000	259.9292145	21.6422462
180.0000000	-35.0000000	258.7979698	26.5345366
180.0000000	-30.0000000	257.5658150	31.4171031
180.0000000	-25.0000000	256.1982117	36.2865858
180.0000000	-20.0000000	254.6484756	41.1384215
180.0000000	-15.0000000	252.8512192	45.9661684
180.0000000	-10.0000000	250.7112846	50.7603683
180.0000000	-5.0000000	248.0844574	55.5064793
180.0000000	.0000000	244.7421532	60.1810188
180.0000000	5.0000000	240.3040161	64.7437134
180.0000000	10.0000000	234.1059113	69.1206217
180.0000000	15.0000000	224.9532967	73.1657314
180.0000000	20.0000000	210.8198929	76.5752373
180.0000000	25.0000000	189.5578003	78.7549582
180.0000000	30.0000000	163.4977779	78.9511662
180.0000000	35.0000000	140.9812069	77.0732079
180.0000000	40.0000000	125.7030001	73.8283205
180.0000000	45.0000000	115.8418550	69.8671026
180.0000000	50.0000000	109.2279587	65.5352898
180.0000000	55.0000000	104.5376825	60.9987292
180.0000000	60.0000000	101.0349159	56.3403969
180.0000000	65.0000000	98.3012447	51.6049018
180.0000000	70.0000000	96.0874224	46.8179708
180.0000000	75.0000000	94.2375011	41.9953637
180.0000000	80.0000000	92.6493702	37.1472578
180.0000000	85.0000000	91.2533398	32.2805243
180.0000000	90.0000000	90.0000010	27.4000032
185.0000000	-90.0000000	270.0000000	-27.39999991
185.0000000	-85.0000000	269.3181725	-22.4383419
185.0000000	-80.0000000	268.6835480	-17.4740224
185.0000000	-75.0000000	268.0827103	-12.45077974
185.0000000	-70.0000000	267.5046043	-7.5402875
185.0000000	-65.0000000	266.9396477	-2.5720388
185.0000000	-60.0000000	266.3790894	2.3964599
185.0000000	-55.0000000	265.8144341	7.3647257
185.0000000	-50.0000000	265.2369499	12.3322687
185.0000000	-45.0000000	264.6370964	17.2985516
185.0000000	-40.0000000	264.0038757	22.2629514
185.0000000	-35.0000000	263.3239784	27.2247155
185.0000000	-30.0000000	262.5805321	32.1828909
185.0000000	-25.0000000	261.7512665	37.1362176
185.0000000	-20.0000000	260.8055916	42.0829539
185.0000000	-15.0000000	259.6997299	47.0206137
185.0000000	-10.0000000	258.3682022	51.9454560
185.0000000	-5.0000000	256.7080345	56.8515654
185.0000000	.0000000	254.5472412	61.7290025
185.0000000	5.0000000	251.5763702	66.5596733
185.0000000	10.0000000	247.1835556	71.3070984
185.0000000	15.0000000	240.0054321	75.8868265
185.0000000	20.0000000	226.5850601	80.0639849
185.0000000	25.0000000	198.6223030	83.0678148
185.0000000	30.0000000	156.0483265	83.1315660
185.0000000	35.0000000	127.3877802	80.1976967
185.0000000	40.0000000	113.6301060	76.0435295
185.0000000	45.0000000	106.3097448	71.4725456
185.0000000	50.0000000	101.8485003	66.7291660
185.0000000	55.0000000	98.8404055	61.9006538
185.0000000	60.0000000	96.6573877	57.0244956
185.0000000	65.0000000	94.9830093	52.1191964
185.0000000	70.0000000	93.6419125	47.1949000
185.0000000	75.0000000	92.5293512	42.2576213
185.0000000	80.0000000	91.5788584	37.3111558
185.0000000	85.0000000	90.7460623	32.3580303
185.0000000	90.0000000	90.0000010	27.4000032

TABLE 2. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
190.0000000	-90.0000000	270.0000000	-27.3999991
190.0000000	-85.0000000	269.7879448	-22.4036953
190.0000000	-80.0000000	269.5906410	-17.4071357
190.0000000	-75.0000000	269.4038658	-12.4103925
190.0000000	-70.0000000	269.2241440	-7.4135255
190.0000000	-65.0000000	269.0484619	-2.4165894
190.0000000	-60.0000000	268.8740730	2.5803712
190.0000000	-55.0000000	268.6983032	7.5773060
190.0000000	-50.0000000	268.5184021	12.5741701
190.0000000	-45.0000000	268.3313408	17.5709085
190.0000000	-40.0000000	268.1336250	22.5674605
190.0000000	-35.0000000	267.9210014	27.5637555
190.0000000	-30.0000000	267.6880455	32.5596910
190.0000000	-25.0000000	267.4275475	37.5551496
190.0000000	-20.0000000	267.1295128	42.5499520
190.0000000	-15.0000000	266.7794952	47.5438490
190.0000000	-10.0000000	266.3555756	52.5364561
190.0000000	-5.0000000	265.8225861	57.5271592
190.0000000	.0000000	265.1201324	62.5149007
190.0000000	5.0000000	264.1346626	67.4976940
190.0000000	10.0000000	262.6244888	72.4713030
190.0000000	15.0000000	259.9691811	77.4248018
190.0000000	20.0000000	253.9768143	82.3191557
190.0000000	25.0000000	229.4275627	86.8639612
190.0000000	30.0000000	126.6665325	86.7359838
190.0000000	35.0000000	103.6381035	82.1608295
190.0000000	40.0000000	97.8400841	77.2630072
190.0000000	45.0000000	95.2413616	72.3085146
190.0000000	50.0000000	93.7548637	67.3344917
190.0000000	55.0000000	92.7814569	62.3514848
190.0000000	60.0000000	92.0859451	57.3636246
190.0000000	65.0000000	91.5573044	52.3728452
190.0000000	70.0000000	91.1362658	47.3801885
190.0000000	75.0000000	90.7882471	42.3862562
190.0000000	80.0000000	90.4916439	37.3914289
190.0000000	85.0000000	90.2321882	32.3959532
190.0000000	90.0000000	90.0000010	27.4000032
195.0000000	-90.0000000	270.0000038	-27.3999991
195.0000000	-85.0000000	270.2591515	-22.4055197
195.0000000	-80.0000000	270.5002785	-17.4106610
195.0000000	-75.0000000	270.7285385	-12.4155242
195.0000000	-70.0000000	270.9481773	-7.4202036
195.0000000	-65.0000000	271.1628761	-2.4247797
195.0000000	-60.0000000	271.3759880	2.5706804
195.0000000	-55.0000000	271.5907822	7.5661023
195.0000000	-50.0000000	271.8106194	12.5614190
195.0000000	-45.0000000	272.0391922	17.5565472
195.0000000	-40.0000000	272.2807655	22.5514004
195.0000000	-35.0000000	272.5405312	27.5458646
195.0000000	-30.0000000	272.8251076	32.5397983
195.0000000	-25.0000000	273.1432915	37.5330176
195.0000000	-20.0000000	273.5072556	42.5252576
195.0000000	-15.0000000	273.9346008	47.5161486
195.0000000	-10.0000000	274.4520226	52.5051179
195.0000000	-5.0000000	275.1022682	57.4912500
195.0000000	.0000000	275.9586754	62.4729757
195.0000000	5.0000000	277.1587677	67.4473486
195.0000000	10.0000000	278.9940872	72.4081011
195.0000000	15.0000000	282.2067680	77.3391848
195.0000000	20.0000000	289.3618088	82.1841974
195.0000000	25.0000000	316.4088631	86.5580902
195.0000000	30.0000000	47.7990198	86.4536715
195.0000000	35.0000000	73.5013466	82.0453863
195.0000000	40.0000000	80.4539165	77.1959085
195.0000000	45.0000000	83.6061001	72.2635155
195.0000000	50.0000000	85.4158926	67.3022156
195.0000000	55.0000000	86.6029339	62.3275614
195.0000000	60.0000000	87.4518118	57.3456769
195.0000000	65.0000000	88.0973387	52.3594437
195.0000000	70.0000000	88.6116238	47.3706095
195.0000000	75.0000000	89.0368004	42.3794723
195.0000000	80.0000000	89.3992100	37.3871965
195.0000000	85.0000000	89.7162571	32.3939543
195.0000000	90.0000000	89.9999990	27.4000032

TABLE 2. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
200.0000000	-90.0000000	270.0000038	-27.3999991
200.0000000	-85.0000000	270.7286072	-22.4438052
200.0000000	-80.0000000	271.4068069	-17.4845698
200.0000000	-75.0000000	272.0489120	-12.5231574
200.0000000	-70.0000000	272.6667175	-7.5602775
200.0000000	-65.0000000	273.2704430	-2.5965502
200.0000000	-60.0000000	273.8694344	2.3674648
200.0000000	-55.0000000	274.4727440	7.3312173
200.0000000	-50.0000000	275.0896835	12.2941489
200.0000000	-45.0000000	275.7304230	17.2556460
200.0000000	-40.0000000	276.4066620	22.2149997
200.0000000	-35.0000000	277.1325798	27.1713543
200.0000000	-30.0000000	277.9261017	32.1236238
200.0000000	-25.0000000	278.8108749	37.0703764
200.0000000	-20.0000000	279.8193474	42.0096374
200.0000000	-15.0000000	280.9978638	46.9385834
200.0000000	-10.0000000	282.4155884	51.8529835
200.0000000	-5.0000000	284.1809845	56.7461567
200.0000000	.0000000	286.4744186	61.6069160
200.0000000	5.0000000	289.6183128	66.4149961
200.0000000	10.0000000	294.2433548	71.1298723
200.0000000	15.0000000	301.7276154	75.6591043
200.0000000	20.0000000	315.4265213	79.7532549
200.0000000	25.0000000	342.7000618	82.6455326
200.0000000	30.0000000	22.7631819	82.7240152
200.0000000	35.0000000	50.8534417	79.9227390
200.0000000	40.0000000	64.9833469	75.8606787
200.0000000	45.0000000	72.6571722	71.3440428
200.0000000	50.0000000	77.3751411	66.6350765
200.0000000	55.0000000	80.5700693	61.8301768
200.0000000	60.0000000	82.8941374	56.9713068
200.0000000	65.0000000	84.6791887	52.0793352
200.0000000	70.0000000	86.1101789	47.1657448
200.0000000	75.0000000	87.2979898	42.2373624
200.0000000	80.0000000	88.3131552	37.2985067
200.0000000	85.0000000	89.2028389	32.3520522
200.0000000	90.0000000	89.9999990	27.4000032
205.0000000	-90.0000000	270.0000038	-27.3999991
205.0000000	-85.0000000	271.1931381	-22.5182898
205.0000000	-80.0000000	272.3046036	-17.6283917
205.0000000	-75.0000000	273.3572044	-12.7326009
205.0000000	-70.0000000	274.3698235	-7.8328103
205.0000000	-65.0000000	275.3588295	-2.9306614
205.0000000	-60.0000000	276.3391876	1.9723537
205.0000000	-55.0000000	277.3253555	6.8747866
205.0000000	-50.0000000	278.3321304	11.7751609
205.0000000	-45.0000000	279.3755264	16.6718738
205.0000000	-40.0000000	280.4738426	21.5630882
205.0000000	-35.0000000	281.6489754	26.4466028
205.0000000	-30.0000000	282.9282990	31.3196549
205.0000000	-25.0000000	284.3473969	36.1786366
205.0000000	-20.0000000	285.9542160	41.0186520
205.0000000	-15.0000000	287.8157845	45.8328152
205.0000000	-10.0000000	290.0292816	50.6110287
205.0000000	-5.0000000	292.7413559	55.3378329
205.0000000	.0000000	296.1829987	59.9883733
205.0000000	5.0000000	300.7350960	64.5203152
205.0000000	10.0000000	307.0535393	68.8567352
205.0000000	15.0000000	316.2918625	72.8481894
205.0000000	20.0000000	330.3332214	76.1917448
205.0000000	25.0000000	351.0247612	78.3168516
205.0000000	30.0000000	16.1064861	78.5251160
205.0000000	35.0000000	38.0604005	76.7259808
205.0000000	40.0000000	53.3023186	73.5661325
205.0000000	45.0000000	63.3081722	69.6706457
205.0000000	50.0000000	70.0860081	65.3865910
205.0000000	55.0000000	74.9200354	60.8852682
205.0000000	60.0000000	78.5424309	56.2538233
205.0000000	65.0000000	81.3754368	51.5395727
205.0000000	70.0000000	83.6728373	46.7699723
205.0000000	75.0000000	85.5943403	41.9619126
205.0000000	80.0000000	87.2449331	37.1263289
205.0000000	85.0000000	88.6964674	32.2706199
205.0000000	90.0000000	89.9999990	27.4000032

TABLE 2. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
210.000000	-90.000000	270.000038	-27.3999991
210.000000	-85.000000	271.6495857	-22.6288621
210.000000	-80.000000	273.1880722	-17.8411951
210.000000	-75.000000	274.6457100	-13.0425144
210.000000	-70.000000	276.0476952	-8.2359899
210.000000	-65.000000	277.4159546	-3.4247214
210.000000	-60.000000	278.7704926	1.3884777
210.000000	-55.000000	280.1305733	6.2008963
210.000000	-50.000000	281.5157547	11.0097860
210.000000	-45.000000	282.9469948	15.8121881
210.000000	-40.000000	284.4479256	20.6047592
210.000000	-35.000000	286.0464020	25.3835397
210.000000	-30.000000	287.7766380	30.1436241
210.000000	-25.000000	289.6821861	34.8787189
210.000000	-20.000000	291.8203430	39.5804486
210.000000	-15.000000	294.2687721	44.2373018
210.000000	-10.000000	297.1358757	48.8328962
210.000000	-5.000000	300.5771790	53.3431044
210.000000	.000000	304.8214188	57.7310901
210.000000	5.000000	310.2109222	61.9384952
210.000000	10.000000	317.2567902	65.8697777
210.000000	15.000000	326.6810188	69.3656845
210.000000	20.000000	339.3073311	72.1675739
210.000000	25.000000	355.4432335	73.9082088
210.000000	30.000000	13.6947094	74.2318287
210.000000	35.000000	31.0250871	73.0569944
210.000000	40.000000	45.1694841	70.6549625
210.000000	45.000000	55.8550816	67.4142408
210.000000	50.000000	63.8072858	63.6427960
210.000000	55.000000	69.8233414	59.5376072
210.000000	60.000000	74.5019350	55.2172050
210.000000	65.000000	78.2495527	50.7532234
210.000000	70.000000	81.3370953	46.1902180
210.000000	75.000000	83.9471579	41.5569177
210.000000	80.000000	86.2056103	36.8725352
210.000000	85.000000	88.2015820	32.1503835
210.000000	90.000000	89.9999990	27.4000032
215.000000	-90.000000	270.000038	-27.3999991
215.000000	-85.000000	272.0948448	-22.7735689
215.000000	-80.000000	274.0516853	-18.1216066
215.000000	-75.000000	275.9068298	-13.4509150
215.000000	-70.000000	277.6907730	-8.7671553
215.000000	-65.000000	279.4301682	-4.0752395
215.000000	-60.000000	281.1493340	.6203775
215.000000	-55.000000	282.8715591	5.3158331
215.000000	-50.000000	284.6202888	10.0056406
215.000000	-45.000000	286.4203262	14.6864512
215.000000	-40.000000	288.2991753	19.3527842
215.000000	-35.000000	290.2886581	23.9987209
215.000000	-30.000000	292.4270096	28.6170695
215.000000	-25.000000	294.7616653	33.1987801
215.000000	-20.000000	297.3531914	37.7321038
215.000000	-15.000000	300.2807846	42.2013235
215.000000	-10.000000	303.6501656	46.5848341
215.000000	-5.000000	307.6046257	50.8521647
215.000000	.000000	312.3398285	54.9592819
215.000000	5.000000	318.1207657	58.8413286
215.000000	10.000000	325.2920303	62.4018450
215.000000	15.000000	334.2523918	65.4990854
215.000000	20.000000	345.3268051	67.9360991
215.000000	25.000000	358.4592514	69.4756193
215.000000	30.000000	12.8458010	69.9098282
215.000000	35.000000	27.0257804	69.1693754
215.000000	40.000000	39.6574574	67.3694487
215.000000	45.000000	50.1558747	64.7358780
215.000000	50.000000	58.6050792	61.4999011
215.000000	55.000000	65.3713465	57.8422623
215.000000	60.000000	70.8457575	53.8928976
215.000000	65.000000	75.3520555	49.7381577
215.000000	70.000000	79.1353531	45.4365129
215.000000	75.000000	82.3758516	41.0278244
215.000000	80.000000	85.2056332	36.5398521
215.000000	85.000000	87.7224741	31.9924068
215.000000	90.000000	89.9999990	27.4000032

TABLE 2. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
220.000000	-90.000000	270.0000038	-27.3999991
220.000000	-85.000000	272.5258522	-22.9526200
220.000000	-80.000000	274.8899994	-18.4678180
220.000000	-75.000000	277.1331177	-13.9552075
220.000000	-70.000000	279.2897758	-9.4228361
220.000000	-65.000000	281.3903618	-4.8776976
220.000000	-60.000000	283.4626274	-.3261215
220.000000	-55.000000	285.5330124	4.2258793
220.000000	-50.000000	287.6278801	8.7723192
220.000000	-45.000000	289.7747192	13.3069293
220.000000	-40.000000	292.0034447	17.8228335
220.000000	-35.000000	294.3479271	22.3121688
220.000000	-30.000000	296.8478165	26.7655756
220.000000	-25.000000	299.5509415	31.1715560
220.000000	-20.000000	302.5163040	35.5155721
220.000000	-15.000000	305.8181038	39.7787642
220.000000	-10.000000	309.5507660	43.9361382
220.000000	-5.000000	313.8349991	47.9539461
220.000000	.000000	318.8239403	51.7859912
220.000000	5.000000	324.7062340	55.3685822
220.000000	10.000000	331.6983032	58.6144185
220.000000	15.000000	340.0095673	61.4070482
220.000000	20.000000	349.7576294	63.6009851
220.000000	25.000000	.8273513	65.0369291
220.000000	30.000000	12.7443198	65.5802155
220.000000	35.000000	24.7228613	65.1719666
220.000000	40.000000	35.9521041	63.8568726
220.000000	45.000000	45.9040132	61.7617993
220.000000	50.000000	54.4176154	59.0454254
220.000000	55.000000	61.5867634	55.8566446
220.000000	60.000000	67.6143723	52.3163080
220.000000	65.000000	72.7189045	48.5156097
220.000000	70.000000	77.0938759	44.5212307
220.000000	75.000000	80.8974524	40.3815355
220.000000	80.000000	84.2546377	36.1317987
220.000000	85.000000	87.2632351	31.7980840
220.000000	90.000000	89.9999990	27.4000032
225.000000	-90.000000	270.0000038	-27.3999991
225.000000	-85.000000	272.9396210	-23.1643836
225.000000	-80.000000	275.6976700	-18.8775933
225.000000	-75.000000	278.3173141	-14.5521997
225.000000	-70.000000	280.8357773	-10.1988045
225.000000	-65.000000	283.2460641	-5.8266437
225.000000	-60.000000	285.6983795	-1.4440638
225.000000	-55.000000	288.1013870	2.9410628
225.000000	-50.000000	290.5233917	7.3209866
225.000000	-45.000000	292.9934464	11.6877155
225.000000	-40.000000	295.5425644	16.0326443
225.000000	-35.000000	298.2050171	20.3461351
225.000000	-30.000000	301.0198517	24.6169872
225.000000	-25.000000	304.0326996	28.8317871
225.000000	-20.000000	307.2979050	32.9740410
225.000000	-15.000000	310.8810577	37.0230417
225.000000	-10.000000	314.8617325	40.9523125
225.000000	-5.000000	319.3360367	44.7275944
225.000000	.000000	324.4177666	48.3042378
225.000000	5.000000	330.2356415	51.6241384
225.000000	10.000000	336.9219551	54.6127205
225.000000	15.000000	344.5854912	57.1774249
225.000000	20.000000	353.2626305	59.2105565
225.000000	25.000000	2.8518797	60.6004210
225.000000	30.000000	13.0644006	61.2527862
225.000000	35.000000	23.4453413	61.1172805
225.000000	40.000000	33.4894195	60.2047248
225.000000	45.000000	42.7898216	58.5832129
225.000000	50.000000	51.1239691	56.3558841
225.000000	55.000000	58.4448519	53.6349759
225.000000	60.000000	64.8204536	50.5237718
225.000000	65.000000	70.3719234	47.1087103
225.000000	70.000000	75.2324162	43.4584589
225.000000	75.000000	79.5262766	39.6261649
225.000000	80.000000	83.3612976	35.6526031
225.000000	85.000000	86.8277063	31.5691142
225.000000	90.000000	89.9999990	27.4000032

TABLE 2. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
230.000000	-90.000000	270.000038	-27.3999991
230.000000	-85.000000	273.3332491	-23.4079001
230.000000	-80.000000	276.4694862	-19.3482845
230.000000	-75.000000	279.4523582	-15.2381349
230.000000	-70.000000	282.3202248	-11.0901252
230.000000	-65.000000	285.1074791	-6.9157873
230.000000	-60.000000	287.8457413	-2.7255277
230.000000	-55.000000	290.5649605	1.4709017
230.000000	-50.000000	293.2944412	5.5664089
230.000000	-45.000000	296.0638275	9.8441608
230.000000	-40.000000	298.9041290	14.0011903
230.000000	-35.000000	301.8487968	18.1239560
230.000000	-30.000000	304.8348717	22.1998382
230.000000	-25.000000	308.042618	26.2141159
230.000000	-20.000000	311.7051353	30.1492245
230.000000	-15.000000	315.4933167	33.9837880
230.000000	-10.000000	319.6334915	37.6914372
230.000000	-5.000000	324.1997566	41.2393503
230.000000	.000000	329.2746010	44.5865893
230.000000	5.000000	334.9446907	47.6823874
230.000000	10.000000	341.2911606	50.4648752
230.000000	15.000000	348.3716583	52.8611999
230.000000	20.000000	356.1931610	54.7904720
230.000000	25.000000	4.6801500	56.1711826
230.000000	30.000000	13.6525306	56.9335079
230.000000	35.000000	22.8339796	57.0339704
230.000000	40.000000	31.9012585	56.4665542
230.000000	45.000000	40.5571613	55.2643561
230.000000	50.000000	48.5900836	53.4908309
230.000000	55.000000	55.8945713	51.2254725
230.000000	60.000000	62.4561901	48.5503659
230.000000	65.000000	68.3206701	45.5412526
230.000000	70.000000	73.5644245	42.2633948
230.000000	75.000000	78.2738161	38.7707829
230.000000	80.000000	82.5332136	35.1071248
230.000000	85.000000	86.4194431	31.3074863
230.000000	90.000000	89.9999990	27.4000032
235.000000	-90.000000	270.000038	-27.3999991
235.000000	-85.000000	273.7039223	-23.6799927
235.000000	-80.000000	277.2003670	-19.8768501
235.000000	-75.000000	280.5314178	-16.0087178
235.000000	-70.000000	283.7349586	-12.0912205
235.000000	-65.000000	286.8454971	-8.1381090
235.000000	-60.000000	289.8950157	-4.1618004
235.000000	-55.000000	292.9138031	-0.1738661
235.000000	-50.000000	295.9313202	3.8145514
235.000000	-45.000000	298.9769745	7.7923236
235.000000	-40.000000	302.0809517	11.7479366
235.000000	-35.000000	305.2750587	15.6690611
235.000000	-30.000000	308.5935440	19.5420876
235.000000	-25.000000	312.0739670	23.3515732
235.000000	-20.000000	315.7580109	27.0796242
235.000000	-15.000000	319.6921654	30.7051342
235.000000	-10.000000	323.9280663	34.2029200
235.000000	-5.000000	328.5221443	37.5427322
235.000000	.000000	333.5339775	40.6882443
235.000000	5.000000	339.0225067	43.5961637
235.000000	10.000000	345.0389748	46.2158136
235.000000	15.000000	351.6157684	48.4897265
235.000000	20.000000	358.7512474	50.3554990
235.000000	25.000000	6.3933562	51.7530351
235.000000	30.000000	14.4284183	52.6268330
235.000000	35.000000	22.6835771	52.9395466
235.000000	40.000000	30.9482381	52.6767902
235.000000	45.000000	39.0101056	51.8506827
235.000000	50.000000	46.6919088	50.4972725
235.000000	55.000000	53.8744488	48.6694975
235.000000	60.000000	60.5006142	46.4286108
235.000000	65.000000	66.5650072	43.8367209
235.000000	70.000000	72.0976868	40.9518037
235.000000	75.000000	77.1487761	37.8251691
235.000000	80.000000	81.7768660	34.5007496
235.000000	85.000000	86.0416746	31.0154483
235.000000	90.000000	89.9999990	27.4000032

TABLE 2. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
240.000000	-90.000000	270.000038	-27.3999991
240.000000	-85.000000	274.0489616	-23.9802687
240.000000	-80.000000	277.8853912	-20.4598660
240.000000	-75.000000	281.5478630	-16.8591552
240.000000	-70.000000	285.0721855	-13.1959251
240.000000	-65.000000	288.4916611	-9.4859591
240.000000	-60.000000	291.8375626	-5.7435395
240.000000	-55.000000	295.1396370	-1.9819255
240.000000	-50.000000	298.4267159	1.7862355
240.000000	-45.000000	301.7273102	5.5484982
240.000000	-40.000000	305.0702133	9.2922338
240.000000	-35.000000	308.4851151	13.0042266
240.000000	-30.000000	312.0031891	16.6702578
240.000000	-25.000000	315.6576233	20.2746341
240.000000	-20.000000	319.4840927	23.7996874
240.000000	-15.000000	323.5210190	27.2251971
240.000000	-10.000000	327.8094978	30.5277729
240.000000	-5.000000	332.3926926	33.6802106
240.000000	0.000000	337.3142891	36.6508851
240.000000	5.000000	342.6155739	39.4033103
240.000000	10.000000	348.3307686	41.8960814
240.000000	15.000000	354.4801521	44.0834990
240.000000	20.000000	1.0614929	45.9172263
240.000000	25.000000	8.0410699	47.3493176
240.000000	30.000000	15.3472714	48.3366075
240.000000	35.000000	22.8705356	48.8459077
240.000000	40.000000	30.4724460	48.8588853
240.000000	45.000000	38.0033884	48.3750615
240.000000	50.000000	45.3238683	47.4118962
240.000000	55.000000	52.3225198	46.0019097
240.000000	60.000000	58.9256859	44.1878872
240.000000	65.000000	65.0978003	42.0176415
240.000000	70.000000	70.8352032	39.5395761
240.000000	75.000000	76.1572409	36.7995782
240.000000	80.000000	81.0975780	33.8392997
240.000000	85.000000	85.6972837	30.6954844
240.000000	90.000000	89.9999990	27.4000032
245.000000	-90.000000	270.000038	-27.3999991
245.000000	-85.000000	274.3658028	-24.3061390
245.000000	-80.000000	278.5198097	-21.0935395
245.000000	-75.000000	282.4952965	-17.7841702
245.000000	-70.000000	286.3244514	-14.3975419
245.000000	-65.000000	290.0380859	-10.9511547
245.000000	-60.000000	293.6656914	-7.4609246
245.000000	-55.000000	297.2356033	-3.9416033
245.000000	-50.000000	300.7753410	-0.4071610
245.000000	-45.000000	304.3119736	3.1288330
245.000000	-40.000000	307.8725243	6.6528525
245.000000	-35.000000	311.4843712	10.1510526
245.000000	-30.000000	315.1756401	13.6088922
245.000000	-25.000000	318.9755211	17.0107639
245.000000	-20.000000	322.9145164	20.3395669
245.000000	-15.000000	327.0245171	23.5762916
245.000000	-10.000000	331.3385773	26.6995769
245.000000	-5.000000	335.8903389	29.6852744
245.000000	0.000000	340.7128067	32.5060983
245.000000	5.000000	345.8363342	35.1313972
245.000000	10.000000	351.2855835	37.5272064
245.000000	15.000000	357.0753708	39.6567421
245.000000	20.000000	3.2056489	41.4815173
245.000000	25.000000	9.6563386	42.9632416
245.000000	30.000000	16.3833117	44.0664964
245.000000	35.000000	23.3173735	44.7619925
245.000000	40.000000	30.3677394	45.0298328
245.000000	45.000000	37.4304080	44.8620343
245.000000	50.000000	44.3999338	44.2636204
245.000000	55.000000	51.1815886	43.2519264
245.000000	60.000000	57.7007093	41.8543563
245.000000	65.000000	63.9073515	40.1052127
245.000000	70.000000	69.7761688	38.0423918
245.000000	75.000000	75.3029499	35.7045341
245.000000	80.000000	80.4995575	33.1289387
245.000000	85.000000	85.3887873	30.3502846
245.000000	90.000000	89.9999990	27.4000032

TABLE 2. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
250.0000000	-90.0000000	270.0000038	-27.3999991
250.0000000	-85.0000000	274.6520309	-24.6553171
250.0000000	-80.0000000	279.0990448	-21.7737408
250.0000000	-75.0000000	283.3675232	-18.7780497
250.0000000	-70.0000000	287.4846039	-15.6888943
250.0000000	-65.0000000	291.4773598	-12.5250666
250.0000000	-60.0000000	295.3724556	-9.3037877
250.0000000	-55.0000000	299.1959801	-6.0410536
250.0000000	-50.0000000	302.9734955	-2.7519451
250.0000000	-45.0000000	306.7301750	.5490367
250.0000000	-40.0000000	310.4910049	3.8476565
250.0000000	-35.0000000	314.2810097	7.1296268
250.0000000	-30.0000000	318.1254730	10.3802873
250.0000000	-25.0000000	322.0501175	13.5842912
250.0000000	-20.0000000	326.0812302	16.7252731
250.0000000	-15.0000000	330.2456322	19.7855198
250.0000000	-10.0000000	334.5704842	22.7456577
250.0000000	-5.0000000	339.0827904	25.5843520
250.0000000	.0000000	343.8085785	28.2780762
250.0000000	5.0000000	348.7715187	30.8009789
250.0000000	10.0000000	353.9910240	33.1249533
250.0000000	15.0000000	359.4797211	35.2199664
250.0000000	20.0000000	5.2404299	37.0547686
250.0000000	25.0000000	11.2630358	38.5980711
250.0000000	30.0000000	17.5218198	39.8220004
250.0000000	35.0000000	23.9741781	40.6951375
250.0000000	40.0000000	30.5615451	41.2027235
250.0000000	45.0000000	37.2130504	41.3306236
250.0000000	50.0000000	43.8516235	41.0756497
250.0000000	55.0000000	50.4014635	40.4441218
250.0000000	60.0000000	56.7952142	39.4511676
250.0000000	65.0000000	62.9793558	38.1191306
250.0000000	70.0000000	68.9169178	36.4754877
250.0000000	75.0000000	74.5876026	34.5506606
250.0000000	80.0000000	79.9859276	32.3760872
250.0000000	85.0000000	85.1183252	29.9827185
250.0000000	90.0000000	89.9999990	27.4000008
255.0000000	-90.0000000	270.0000038	-27.3999991
255.0000000	-85.0000000	274.9053917	-25.0253451
255.0000000	-80.0000000	279.6187172	-22.4960055
255.0000000	-75.0000000	284.1585312	-19.8346562
255.0000000	-70.0000000	288.5457001	-17.0623701
255.0000000	-65.0000000	292.8024063	-14.1986833
255.0000000	-60.0000000	296.9514618	-11.2617182
255.0000000	-55.0000000	301.0158691	-8.2684000
255.0000000	-50.0000000	305.0186119	-5.2346857
255.0000000	-45.0000000	308.9825439	-2.1758214
255.0000000	-40.0000000	312.9304008	.8934006
255.0000000	-35.0000000	316.8848534	3.9583771
255.0000000	-30.0000000	320.8686028	7.0044252
255.0000000	-25.0000000	324.9044495	10.0165209
255.0000000	-20.0000000	329.0153236	12.9790388
255.0000000	-15.0000000	333.2242393	15.8754852
255.0000000	-10.0000000	337.5541306	18.6882639
255.0000000	-5.0000000	342.0275116	21.3984530
255.0000000	.0000000	346.6659012	23.9856353
255.0000000	5.0000000	351.4889526	26.4278021
255.0000000	10.0000000	356.5132866	28.7013824
255.0000000	15.0000000	1.7508979	30.7814417
255.0000000	20.0000000	7.2073495	32.6421061
255.0000000	25.0000000	12.8797574	34.2572703
255.0000000	30.0000000	18.7549846	35.6016068
255.0000000	35.0000000	24.8083844	36.6518579
255.0000000	40.0000000	31.0036278	37.3882985
255.0000000	45.0000000	37.2939744	37.7961998
255.0000000	50.0000000	43.6251359	37.8670654
255.0000000	55.0000000	49.9394469	37.5993924
255.0000000	60.0000000	56.1806402	36.9988136
255.0000000	65.0000000	62.2983918	36.0775819
255.0000000	70.0000000	68.2517691	34.8535037
255.0000000	75.0000000	74.0111914	33.3485436
255.0000000	80.0000000	79.5588093	31.5873344
255.0000000	85.0000000	84.8876534	29.5957973
255.0000000	90.0000000	89.9999981	27.4000008

TABLE 2. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (TETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
260.000000	-90.000000	270.000000	-27.400000
260.000000	-85.000000	275.1238136	-25.4135926
260.000000	-80.000000	280.0746498	-23.2555580
260.000000	-75.000000	284.8624840	-20.9474542
260.000000	-70.000000	289.5009613	-18.5099528
260.000000	-65.000000	294.0063286	-15.9626706
260.000000	-60.000000	298.3965836	-13.3241339
260.000000	-55.000000	302.6908188	-10.6118329
260.000000	-50.000000	306.9087753	-7.8423305
260.000000	-45.000000	311.0705299	-5.0314314
260.000000	-40.000000	315.1963734	-2.1943616
260.000000	-35.000000	319.3064575	.6540277
260.000000	-30.000000	323.4212570	3.4990487
260.000000	-25.000000	327.5610390	6.3259664
260.000000	-20.000000	331.7460823	9.1197820
260.000000	-15.000000	335.9965782	11.8650292
260.000000	-10.000000	340.3324699	14.5455779
260.000000	-5.000000	344.7732544	17.1444542
260.000000	.000000	349.3375816	19.6437063
260.000000	5.000000	354.0427399	22.0243084
260.000000	10.000000	358.9039040	24.2661471
260.000000	15.000000	363.9331705	26.3481135
260.000000	20.000000	369.1384282	28.2483418
260.000000	25.000000	374.5220459	29.9446018
260.000000	30.000000	380.0796149	31.4149103
260.000000	35.000000	385.7988555	32.6383233
260.000000	40.000000	391.6590240	33.5959001
260.000000	45.000000	397.6310410	34.2717419
260.000000	50.000000	403.6785507	34.6540127
260.000000	55.000000	409.7599502	34.7357807
260.000000	60.000000	415.8311844	34.5155416
260.000000	65.000000	421.8489461	33.9973311
260.000000	70.000000	427.7737274	33.1904187
260.000000	75.000000	433.5723238	32.1086240
260.000000	80.000000	439.2194042	30.7693722
260.000000	85.000000	444.6981468	29.1926565
260.000000	90.000000	449.9999981	27.4000000
265.000000	-90.000000	270.000000	-27.400000
265.000000	-85.000000	275.3054161	-25.8172874
265.000000	-80.000000	280.4628906	-24.0473330
265.000000	-75.000000	285.4736877	-22.1095362
265.000000	-70.000000	290.3436623	-20.0232384
265.000000	-65.000000	295.0822525	-17.8073928
265.000000	-60.000000	299.7017479	-15.4803315
265.000000	-55.000000	304.2164803	-13.0596718
265.000000	-50.000000	308.6422424	-10.5622709
265.000000	-45.000000	312.9958115	-8.0042983
265.000000	-40.000000	317.2945938	-5.4013032
265.000000	-35.000000	321.5564041	-2.7683555
265.000000	-30.000000	325.7992668	-.1201902
265.000000	-25.000000	330.0413017	2.5286338
265.000000	-20.000000	334.3006477	5.1635646
265.000000	-15.000000	338.5953407	7.7698913
265.000000	-10.000000	342.9432144	10.3325797
265.000000	-5.000000	347.3617287	12.8361275
265.000000	.000000	351.8677254	15.2644321
265.000000	5.000000	356.4711042	17.6006947
265.000000	10.000000	1.2043521	19.8273716
265.000000	15.000000	6.0619637	21.9261887
265.000000	20.000000	11.0596986	23.8782470
265.000000	25.000000	16.2037485	25.6642215
265.000000	30.000000	21.4958267	27.2647047
265.000000	35.000000	26.9323089	28.6606762
265.000000	40.000000	32.5035124	29.8341103
265.000000	45.000000	38.1933432	30.7686880
265.000000	50.000000	43.9793997	31.4505773
265.000000	55.000000	49.8337145	31.8691726
265.000000	60.000000	55.7241054	32.0177402
265.000000	65.000000	61.6160784	31.8938463
265.000000	70.000000	67.4750385	31.4995205
265.000000	75.000000	73.2685137	30.8411229
265.000000	80.000000	78.9680853	29.9289320
265.000000	85.000000	84.5508051	28.7765160
265.000000	90.000000	89.9999981	27.4000000

TABLE 2. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
270.000000	-90.000000	270.000038	-27.4000008
270.000000	-85.000000	275.4485207	-26.2335157
270.000000	-80.000000	280.7797203	-24.8659945
270.000000	-75.000000	285.9866719	-23.3136256
270.000000	-70.000000	291.0670509	-21.5934587
270.000000	-65.000000	296.0231209	-19.7229342
270.000000	-60.000000	300.8605995	-17.7195063
270.000000	-55.000000	305.5882034	-15.6003852
270.000000	-50.000000	310.2169991	-13.3823700
270.000000	-45.000000	314.7597961	-11.0817484
270.000000	-40.000000	319.2307129	-8.7142893
270.000000	-35.000000	323.6447639	-6.2952694
270.000000	-30.000000	328.0175972	-3.8395492
270.000000	-25.000000	332.3652382	-1.3616701
270.000000	-20.000000	336.7039413	1.1240265
270.000000	-15.000000	341.0500259	3.6032716
270.000000	-10.000000	345.4197502	6.0617362
270.000000	-5.000000	349.8291779	8.4849032
270.000000	0.000000	354.2933911	10.8579472
270.000000	5.000000	358.8292847	13.1656364
270.000000	10.000000	3.4492733	15.3922502
270.000000	15.000000	8.1669177	17.5215464
270.000000	20.000000	12.9934648	19.5367789
270.000000	25.000000	17.9378929	21.4207704
270.000000	30.000000	23.0062726	23.1560755
270.000000	35.000000	28.2010982	24.7252400
270.000000	40.000000	33.5206323	26.1111617
270.000000	45.000000	38.9583693	27.2975397
270.000000	50.000000	44.5027022	28.2694325
270.000000	55.000000	50.1369357	29.0139404
270.000000	60.000000	55.8396969	29.5203099
270.000000	65.000000	61.5858126	29.7819667
270.000000	70.000000	67.3475971	29.7934179
270.000000	75.000000	73.0964384	29.5559895
270.000000	80.000000	78.8044853	29.0727155
270.000000	85.000000	84.4462643	28.3506603
270.000000	90.000000	89.9999981	27.4000009
275.000000	-90.000000	270.0000038	-27.4000009
275.000000	-85.000000	275.5516930	-26.6592522
275.000000	-80.000000	281.0216942	-25.7059410
275.000000	-75.000000	286.3958359	-24.5520928
275.000000	-70.000000	291.6642799	-23.2114692
275.000000	-65.000000	296.8215408	-21.6990819
275.000000	-60.000000	301.8662376	-20.0307231
275.000000	-55.000000	306.8006630	-18.2225773
275.000000	-50.000000	311.6302719	-16.2909205
275.000000	-45.000000	316.3631134	-14.2518797
275.000000	-40.000000	321.0093346	-12.1212953
275.000000	-35.000000	325.5806694	-9.9146361
275.000000	-30.000000	330.0900612	-7.6469812
275.000000	-25.000000	334.6513191	-5.3330399
275.000000	-20.000000	338.9788551	-2.9872104
275.000000	-15.000000	343.3874474	-.6236598
275.000000	-10.000000	347.7920837	1.7435776
275.000000	-5.000000	352.2077789	4.1004963
275.000000	0.000000	356.6494522	6.4330120
275.000000	5.000000	1.1317266	8.7268592
275.000000	10.000000	5.6687595	10.9675009
275.000000	15.000000	10.2739853	13.1400584
275.000000	20.000000	14.9598254	15.2292706
275.000000	25.000000	19.7373173	17.2194841
275.000000	30.000000	24.6156743	19.0947113
275.000000	35.000000	29.6017876	20.8387282
275.000000	40.000000	34.6996851	22.4352729
275.000000	45.000000	39.9099803	23.8682988
275.000000	50.000000	45.2293949	25.1223330
275.000000	55.000000	50.6504035	26.1828947
275.000000	60.000000	56.1610889	27.0369778
275.000000	65.000000	61.7453203	27.6735613
275.000000	70.000000	67.3832426	28.0840831
275.000000	75.000000	73.0521441	28.2628591
275.000000	80.000000	78.7275944	28.2073708
275.000000	85.000000	84.3848028	27.9184031
275.000000	90.000000	89.9999981	27.4000008

TABLE 2. (Continued)

ALPHA(LAMBDA) DEGREES	DELTA(BETA) DEGREES	LAMBDA(ALPHA) DEGREES	BETA(DELTA) DEGREES
280.000000	-90.000000	270.0000038	-27.4000008
280.000000	-85.000000	275.6137352	-27.0913644
280.000000	-80.000000	281.1856499	-26.5613432
280.000000	-75.000000	286.6960487	-25.8169596
280.000000	-70.000000	292.1283150	-24.8677399
280.000000	-65.000000	297.4695625	-23.7252984
280.000000	-60.000000	302.7108917	-22.4028831
280.000000	-55.000000	307.8474236	-20.9149199
280.000000	-50.000000	312.8780632	-19.2765908
280.000000	-45.000000	317.8051262	-17.5034823
280.000000	-40.000000	322.6338654	-15.6113012
280.000000	-35.000000	327.3719826	-13.6156567
280.000000	-30.000000	332.0291405	-11.5319335
280.000000	-25.000000	336.6165466	-9.3752016
280.000000	-20.000000	341.1465530	-7.1602012
280.000000	-15.000000	345.6323700	-4.9013590
280.000000	-10.000000	350.0877686	-2.6128367
280.000000	-5.000000	354.5269089	-.3086023
280.000000	.000000	358.9641304	1.9974829
280.000000	5.000000	3.4137823	4.2915700
280.000000	10.000000	7.8900923	6.5597286
280.000000	15.000000	12.4069580	8.7878565
280.000000	20.000000	16.9777613	10.9616044
280.000000	25.000000	21.6151123	13.0663183
280.000000	30.000000	26.3305569	15.0870160
280.000000	35.000000	31.1342115	17.0083911
280.000000	40.000000	36.0343509	18.8148873
280.000000	45.000000	41.0369287	20.4908011
280.000000	50.000000	46.1450958	22.0204954
280.000000	55.000000	51.3587127	23.3886416
280.000000	60.000000	56.6739349	24.5805736
280.000000	65.000000	62.0829587	25.5826905
280.000000	70.000000	67.5739393	26.3828883
280.000000	75.000000	73.1312199	26.9710455
280.000000	80.000000	78.7358389	27.3394275
280.000000	85.000000	84.3663692	27.4830680
280.000000	90.000000	89.9999981	27.4000008
285.000000	-90.000000	270.0000038	-27.4000008
285.000000	-85.000000	275.6337166	-27.5266445
285.000000	-80.000000	281.2687645	-27.4261527
285.000000	-75.000000	286.8821068	-27.0999064
285.000000	-70.000000	292.4518852	-26.5523250
285.000000	-65.000000	297.9585152	-25.7906640
285.000000	-60.000000	303.3856049	-24.8246481
285.000000	-55.000000	308.7205162	-23.6660726
285.000000	-50.000000	313.9546509	-22.3283243
285.000000	-45.000000	319.0834198	-20.8259363
285.000000	-40.000000	324.1060104	-19.1741743
285.000000	-35.000000	329.0250092	-17.3886714
285.000000	-30.000000	333.8458977	-15.4851655
285.000000	-25.000000	338.5765762	-13.4792770
285.000000	-20.000000	343.2268829	-11.3863899
285.000000	-15.000000	347.8081551	-9.2215685
285.000000	-10.000000	352.3328629	-6.9995443
285.000000	-5.000000	356.8143005	-4.7347344
285.000000	.000000	1.2663159	-2.4412935
285.000000	5.000000	5.7031224	-.1331884
285.000000	10.000000	10.1390973	2.1757148
285.000000	15.000000	14.5886320	4.4715555
285.000000	20.000000	19.0659640	6.7403834
285.000000	25.000000	23.5849931	8.9640693
285.000000	30.000000	28.1590912	11.1402283
285.000000	35.000000	32.8008351	13.2421702
285.000000	40.000000	37.5217171	15.2588655
285.000000	45.000000	42.3317637	17.1749668
285.000000	50.000000	47.2391214	18.9748747
285.000000	55.000000	52.2495847	20.6428556
285.000000	60.000000	57.3660851	22.1632500
285.000000	65.000000	62.5882320	23.5207343
285.000000	70.000000	67.9118881	24.7006731
285.000000	75.000000	73.3289213	25.6895218
285.000000	80.000000	78.8271532	26.4752808
285.000000	85.000000	84.3905916	27.0479577
285.000000	90.000000	89.9999981	27.4000008

TABLE 2. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
290.000000	-90.000000	270.000000	-27.400000
290.000000	-85.000000	275.610992	-27.961821
290.000000	-80.000000	281.268577	-28.294127
290.000000	-75.000000	286.949054	-28.392261
290.000000	-70.000000	292.627430	-28.254830
290.000000	-65.000000	298.278831	-27.883784
290.000000	-60.000000	303.879886	-27.284306
290.000000	-55.000000	309.409938	-26.464531
290.000000	-50.000000	314.851989	-25.435185
290.000000	-45.000000	320.193229	-24.209052
290.000000	-40.000000	325.425296	-22.800506
290.000000	-35.000000	330.544189	-21.224970
290.000000	-30.000000	335.549892	-19.498538
290.000000	-25.000000	340.445930	-17.637547
290.000000	-20.000000	345.238829	-15.658325
290.000000	-15.000000	349.937507	-13.576989
290.000000	-10.000000	354.552837	-11.409314
290.000000	-5.000000	359.097133	-9.170690
290.000000	.000000	3.583779	-6.876100
290.000000	5.000000	8.026934	-4.540174
290.000000	10.000000	12.441260	-2.177248
290.000000	15.000000	16.841734	.198541
290.000000	20.000000	21.243472	2.573161
290.000000	25.000000	25.661579	4.932565
290.000000	30.000000	30.110989	7.262591
290.000000	35.000000	34.606296	9.548861
290.000000	40.000000	39.161500	11.776891
290.000000	45.000000	43.789980	13.931025
290.000000	50.000000	48.503687	15.996415
290.000000	55.000000	53.313248	17.957019
290.000000	60.000000	58.227219	19.796674
290.000000	65.000000	63.251669	21.499040
290.000000	70.000000	68.389564	23.047789
290.000000	75.000000	73.640267	24.426924
290.000000	80.000000	78.999043	25.621154
290.000000	85.000000	84.456792	26.616339
290.000000	90.000000	89.999981	27.400000
295.000000	-90.000000	270.000000	-27.400000
295.000000	-85.000000	275.545219	-28.393589
295.000000	-80.000000	281.183078	-29.158857
295.000000	-75.000000	286.892173	-29.685016
295.000000	-70.000000	292.647132	-29.964366
295.000000	-65.000000	298.419902	-29.992744
295.000000	-60.000000	304.181381	-29.769634
295.000000	-55.000000	309.903133	-29.298481
295.000000	-50.000000	315.559053	-28.586200
295.000000	-45.000000	321.126754	-27.642924
295.000000	-40.000000	326.588504	-26.481499
295.000000	-35.000000	331.931743	-25.116691
295.000000	-30.000000	337.149131	-23.564904
295.000000	-25.000000	342.238246	-21.843303
295.000000	-20.000000	347.201057	-19.969483
295.000000	-15.000000	352.043263	-17.961061
295.000000	-10.000000	356.773603	-15.835398
295.000000	-5.000000	1.403186	-13.609427
295.000000	.000000	5.944931	-11.299553
295.000000	5.000000	10.413063	-8.921662
295.000000	10.000000	14.822739	-6.491105
295.000000	15.000000	19.189739	-4.022812
295.000000	20.000000	23.530246	-1.531379
295.000000	25.000000	27.860657	.968813
295.000000	30.000000	32.197453	3.463468
295.000000	35.000000	36.557068	5.938232
295.000000	40.000000	40.955743	8.378578
295.000000	45.000000	45.409369	10.769646
295.000000	50.000000	49.933263	13.096193
295.000000	55.000000	54.541896	15.342464
295.000000	60.000000	59.248512	17.492167
295.000000	65.000000	64.064680	19.528482
295.000000	70.000000	68.999726	21.434134
295.000000	75.000000	74.060093	23.191541
295.000000	80.000000	79.248649	24.783077
295.000000	85.000000	84.564015	26.191415
295.000000	90.000000	89.999981	27.400000

TABLE 2. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
300.000000	-90.000000	270.0000038	-27.4000008
300.000000	-85.000000	275.4363823	-28.8186219
300.000000	-80.000000	281.0107422	-30.0137939
300.000000	-75.000000	286.7070923	-30.9688275
300.000000	-70.000000	292.5029373	-31.6694965
300.000000	-65.000000	298.3699760	-32.1048203
300.000000	-60.000000	304.2755127	-32.2677369
300.000000	-55.000000	310.1843414	-32.1555486
300.000000	-50.000000	316.0610580	-31.7701149
300.000000	-45.000000	321.8723259	-31.1177223
300.000000	-40.000000	327.5889282	-30.2086716
300.000000	-35.000000	333.1872177	-29.0566449
300.000000	-30.000000	338.6499748	-27.6779389
300.000000	-25.000000	343.9665718	-26.0906744
300.000000	-20.000000	349.1326447	-24.3140483
300.000000	-15.000000	354.1493874	-22.3676949
300.000000	-10.000000	359.0226631	-20.2711933
300.000000	-5.000000	3.7620637	-18.0437002
300.000000	.000000	8.3800349	-15.7037349
300.000000	5.000000	12.8911114	-13.2690607
300.000000	10.000000	17.3112972	-10.7566670
300.000000	15.000000	21.6575861	-8.1828181
300.000000	20.000000	25.9476047	-5.5631399
300.000000	25.000000	30.1933690	-2.9127588
300.000000	30.000000	34.4311104	-.2464482
300.000000	35.000000	38.6611586	2.4212056
300.000000	40.000000	42.9078488	5.0756325
300.000000	45.000000	47.1894407	7.7021056
300.000000	50.000000	51.5239997	10.2855763
300.000000	55.000000	55.9292397	12.8105203
300.000000	60.000000	60.4222927	15.2608011
300.000000	65.000000	65.0193834	17.6195700
300.000000	70.000000	69.7353535	19.8692026
300.000000	75.000000	74.5830927	21.9913156
300.000000	80.000000	79.5727825	23.9668584
300.000000	85.000000	84.7110395	25.7763050
300.000000	90.000000	89.9999981	27.4000008
305.000000	-90.000000	270.0000038	-27.4000008
305.000000	-85.000000	275.2847900	-29.2336075
305.000000	-80.000000	280.7506218	-30.8522906
305.000000	-75.000000	286.3899155	-32.2340231
305.000000	-70.000000	292.1866722	-33.3581915
305.000000	-65.000000	298.1160965	-34.2066450
305.000000	-60.000000	304.1451302	-34.7647777
305.000000	-55.000000	310.2339363	-35.0225229
305.000000	-50.000000	316.3383980	-34.9751015
305.000000	-45.000000	322.4132385	-34.6234002
305.000000	-40.000000	328.4153557	-33.9738970
305.000000	-35.000000	334.3067970	-33.0381622
305.000000	-30.000000	340.0569458	-31.8320131
305.000000	-25.000000	345.6437378	-30.3744826
305.000000	-20.000000	351.0538445	-28.6867287
305.000000	-15.000000	356.2821198	-26.7910283
305.000000	-10.000000	1.3304792	-24.7099509
305.000000	-5.000000	6.2065975	-22.4657135
305.000000	.000000	10.9225473	-20.0797596
305.000000	5.000000	15.4936030	-17.5725024
305.000000	10.000000	19.9372346	-14.9632323
305.000000	15.000000	24.2723320	-12.2701203
305.000000	20.000000	28.5186329	-9.5103122
305.000000	25.000000	32.6963420	-6.7000694
305.000000	30.000000	36.8258929	-3.8549497
305.000000	35.000000	40.9278049	-.9900071
305.000000	40.000000	45.0226312	1.8799984
305.000000	45.000000	49.1309214	4.7403803
305.000000	50.000000	53.2732210	7.5763106
305.000000	55.000000	57.4700303	10.3726013
305.000000	60.000000	61.7417297	13.1134959
305.000000	65.000000	66.1084166	15.7824795
305.000000	70.000000	70.5896091	18.3620985
305.000000	75.000000	75.2038317	20.8338416
305.000000	80.000000	79.9679623	23.1780674
305.000000	85.000000	84.8964005	25.3740263
305.000000	90.000000	89.9999981	27.4000008

TABLE 2. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA ALPHA DEGREES	BETA (DELTA) DEGREES
310.000000	-90.000000	270.000038	-27.4000008
310.000000	-85.000000	275.0911140	-29.6352706
310.000000	-80.000000	280.4024162	-31.6676338
310.000000	-75.000000	285.9373932	-33.4706259
310.000000	-70.000000	291.6902618	-35.0177751
310.000000	-65.000000	297.6441841	-36.2837420
310.000000	-60.000000	303.7702370	-37.2457228
310.000000	-55.000000	310.0276031	-37.8849888
310.000000	-50.000000	316.3654213	-38.1883678
310.000000	-45.000000	322.7262421	-38.1493878
310.000000	-40.000000	329.0506630	-37.7688904
310.000000	-35.000000	335.2823448	-37.0549417
310.000000	-30.000000	341.3724709	-36.0220957
310.000000	-25.000000	347.2828255	-34.6901417
310.000000	-20.000000	352.9872551	-33.0825934
310.000000	-15.000000	358.4715691	-31.2251611
310.000000	-10.000000	3.7322555	-29.1444030
310.000000	-5.000000	8.7746191	-26.8666618
310.000000	.000000	13.6106817	-24.4173193
310.000000	5.000000	18.2572582	-21.8203526
310.000000	10.000000	22.7343264	-19.0981073
310.000000	15.000000	27.0637681	-16.2712851
310.000000	20.000000	31.2684672	-13.3590305
310.000000	25.000000	35.3717189	-10.3791029
310.000000	30.000000	39.3968701	-7.3481103
310.000000	35.000000	43.3671522	-4.2817495
310.000000	40.000000	47.3056340	-1.1950765
310.000000	45.000000	51.2352657	1.8972262
310.000000	50.000000	55.1789536	4.9805828
310.000000	55.000000	59.1596699	8.0402509
310.000000	60.000000	63.2005148	11.0610491
310.000000	65.000000	67.3247604	14.0271025
310.000000	70.000000	71.5557566	16.9215550
310.000000	75.000000	75.9167480	19.7263567
310.000000	80.000000	80.4304504	22.4220209
310.000000	85.000000	85.1184053	24.9874773
310.000000	90.000000	89.9999981	27.3999991
315.000000	-90.000000	270.000038	-27.4000008
315.000000	-85.000000	274.8563957	-30.0203948
315.000000	-80.000000	279.9665794	-32.4530959
315.000000	-75.000000	285.3471298	-34.6683912
315.000000	-70.000000	291.0060005	-36.6348906
315.000000	-65.000000	296.9392204	-38.3205194
315.000000	-60.000000	303.1277809	-39.6940131
315.000000	-55.000000	309.5354881	-40.7264782
315.000000	-50.000000	316.1088181	-41.3956566
315.000000	-45.000000	322.7794495	-41.6841249
315.000000	-40.000000	329.4696999	-41.5850201
315.000000	-35.000000	336.0999184	-41.1008568
315.000000	-30.000000	342.5963783	-40.2436409
315.000000	-25.000000	348.8978081	-39.0335417
315.000000	-20.000000	354.9593964	-37.4968824
315.000000	-15.000000	.7538912	-35.6638384
315.000000	-10.000000	6.2703146	-33.5663066
315.000000	-5.000000	11.5112011	-31.2361665
315.000000	.000000	16.4893038	-28.7040451
315.000000	5.000000	21.2244258	-25.9985721
315.000000	10.000000	25.7407730	-23.1460307
315.000000	15.000000	30.0649290	-20.1702974
315.000000	20.000000	34.2244654	-17.0929706
315.000000	25.000000	38.2470465	-13.9336189
315.000000	30.000000	42.1599379	-10.7100798
315.000000	35.000000	45.9898033	-7.4387959
315.000000	40.000000	49.7626920	-4.1351454
315.000000	45.000000	53.5041623	-.8137819
315.000000	50.000000	57.2394671	2.5110443
315.000000	55.000000	60.9938092	5.8251618
315.000000	60.000000	64.7925711	9.1141539
315.000000	65.000000	68.6615410	12.3630404
315.000000	70.000000	72.6270685	15.5559371
315.000000	75.000000	76.7161417	18.6757367
315.000000	80.000000	80.9562693	21.7037525
315.000000	85.000000	85.3751516	24.6194193
315.000000	90.000000	89.9999990	27.3999991

TABLE 2. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
320.0000000	-90.0000000	270.0000038	-27.4000032
320.0000000	-85.0000000	274.5820427	-30.3858590
320.0000000	-80.0000000	279.4443970	-33.2019935
320.0000000	-75.0000000	284.6178627	-35.8168597
320.0000000	-70.0000000	290.1269889	-38.1954923
320.0000000	-65.0000000	295.9856682	-40.3000789
320.0000000	-60.0000000	302.1916656	-42.0911994
320.0000000	-55.0000000	308.7213287	-43.5298953
320.0000000	-50.0000000	315.5255852	-44.5805759
320.0000000	-45.0000000	322.5294037	-45.2144384
320.0000000	-40.0000000	329.6362190	-45.4128375
320.0000000	-35.0000000	336.7374229	-45.1697216
320.0000000	-30.0000000	343.7250824	-44.4924893
320.0000000	-25.0000000	350.5044594	-43.4009547
320.0000000	-20.0000000	357.0030518	-41.9247680
320.0000000	-15.0000000	3.1744599	-40.1000133
320.0000000	-10.0000000	8.9974225	-37.9658141
320.0000000	-5.0000000	14.4716223	-35.5615096
320.0000000	.0000000	19.6122408	-32.9246674
320.0000000	5.0000000	24.4446564	-30.0899186
320.0000000	10.0000000	29.0000918	-27.0884540
320.0000000	15.0000000	33.3124337	-23.9479699
320.0000000	20.0000000	37.4161286	-20.6929078
320.0000000	25.0000000	41.3449383	-17.3448391
320.0000000	30.0000000	45.1313295	-13.9228996
320.0000000	35.0000000	48.8062797	-10.4442536
320.0000000	40.0000000	52.3993649	-6.9245341
320.0000000	45.0000000	55.9389987	-3.3782556
320.0000000	50.0000000	59.4527993	.1807886
320.0000000	55.0000000	62.9679775	3.7391532
320.0000000	60.0000000	66.5117693	7.2833724
320.0000000	65.0000000	70.1118517	10.7996000
320.0000000	70.0000000	73.7967463	14.2732214
320.0000000	75.0000000	77.5961618	17.6884742
320.0000000	80.0000000	81.5412226	21.0280092
320.0000000	85.0000000	85.6645451	24.2724631
320.0000000	90.0000000	89.9999990	27.3999991
325.0000000	-90.0000000	270.0000038	-27.4000032
325.0000000	-85.0000000	274.2698555	-30.7286613
325.0000000	-80.0000000	278.8380928	-33.9077477
325.0000000	-75.0000000	283.7497406	-36.9054360
325.0000000	-70.0000000	289.0477448	-39.6848760
325.0000000	-65.0000000	294.7681541	-42.2040863
325.0000000	-60.0000000	300.9330864	-44.4165401
325.0000000	-55.0000000	307.5416794	-46.2728157
325.0000000	-50.0000000	314.5605888	-47.7236857
325.0000000	-45.0000000	321.9169693	-48.7246556
325.0000000	-40.0000000	329.4981194	-49.2414155
325.0000000	-35.0000000	337.1608734	-49.2549591
325.0000000	-30.0000000	344.7502098	-48.7647781
325.0000000	-25.0000000	352.1217842	-47.7889419
325.0000000	-20.0000000	359.1609459	-46.3610654
325.0000000	-15.0000000	5.7926478	-44.5252380
325.0000000	-10.0000000	11.9815657	-42.3305621
325.0000000	-5.0000000	17.7253447	-39.8265386
325.0000000	.0000000	23.0451088	-37.0599055
325.0000000	5.0000000	27.9763646	-34.0729070
325.0000000	10.0000000	32.5618229	-30.9026711
325.0000000	15.0000000	36.8464932	-27.5612788
325.0000000	20.0000000	40.8746781	-24.1362488
325.0000000	25.0000000	44.6884203	-20.5911653
325.0000000	30.0000000	48.3268766	-16.9663527
325.0000000	35.0000000	51.8262877	-13.2795277
325.0000000	40.0000000	55.2202663	-9.5463691
325.0000000	45.0000000	58.5402956	-5.7810543
325.0000000	50.0000000	61.8162880	-1.9967201
325.0000000	55.0000000	65.0772028	1.7941049
325.0000000	60.0000000	68.3516626	5.5790986
325.0000000	65.0000000	71.6685915	9.3457566
325.0000000	70.0000000	75.0578365	13.0809809
325.0000000	75.0000000	78.5507793	16.7706664
325.0000000	80.0000000	82.1809092	20.3992198
325.0000000	85.0000000	85.9843168	23.9490552
325.0000000	90.0000000	89.9999990	27.3999991

TABLE 2. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
330.000000	-90.000000	270.0000038	-27.4000032
330.000000	-85.000000	273.9220085	-31.0459511
330.000000	-80.000000	278.1508904	-34.5639634
330.000000	-75.000000	282.7446518	-37.9234996
330.000000	-70.000000	287.7648163	-41.0877504
330.000000	-65.000000	293.2725716	-44.0126877
330.000000	-60.000000	299.3214569	-46.6465964
330.000000	-55.000000	305.9456062	-48.9306407
330.000000	-50.000000	313.1437187	-50.8017924
330.000000	-45.000000	320.8615646	-52.1952991
330.000000	-40.000000	328.9800606	-53.0573525
330.000000	-35.000000	337.3181610	-53.3491149
330.000000	-30.000000	345.6561584	-53.0568156
330.000000	-25.000000	353.7743607	-52.1942477
330.000000	-20.000000	1.4917672	-50.7997732
330.000000	-15.000000	8.6893624	-48.9287114
330.000000	-10.000000	15.3129761	-46.6443133
330.000000	-5.000000	21.3613391	-44.0101099
330.000000	.000000	26.8686175	-41.0849280
330.000000	5.000000	31.8883600	-37.9204783
330.000000	10.000000	36.4817548	-34.5607791
330.000000	15.000000	40.7103281	-31.0426345
330.000000	20.000000	44.6320744	-27.3965795
330.000000	25.000000	48.2998238	-23.6479518
330.000000	30.000000	51.7609525	-19.8179150
330.000000	35.000000	55.0577774	-15.9243619
330.000000	40.000000	58.2283049	-11.9826835
330.000000	45.000000	61.3070812	-8.0064130
330.000000	50.000000	64.3261003	-4.0077702
330.000000	55.000000	67.3156662	.0018533
330.000000	60.000000	70.3052444	4.0114708
330.000000	65.000000	73.3243055	8.0100992
330.000000	70.000000	76.4031525	11.9863442
330.000000	75.000000	79.5737791	15.9279841
330.000000	80.000000	82.8707380	19.8214450
330.000000	85.000000	86.3320351	23.6514542
330.000000	90.000000	89.9999990	27.3999991
335.000000	-90.000000	270.0000038	-27.4000032
335.000000	-85.000000	273.5410538	-31.3350561
335.000000	-80.000000	277.3871078	-35.1645050
335.000000	-75.000000	281.6065521	-38.8605466
335.000000	-70.000000	286.2777481	-42.3884053
335.000000	-65.000000	291.4875755	-45.7045474
335.000000	-60.000000	297.3261986	-48.7548923
335.000000	-55.000000	303.8753052	-51.4736400
335.000000	-50.000000	311.1870537	-53.7838011
335.000000	-45.000000	319.2532234	-55.6011395
335.000000	-40.000000	327.9715988	-56.8431516
335.000000	-35.000000	337.1282158	-57.4430294
335.000000	-30.000000	346.4157028	-57.3649297
335.000000	-25.000000	355.4964752	-56.6136594
335.000000	-20.000000	4.0805600	-55.2333226
335.000000	-15.000000	11.9792905	-53.2957144
335.000000	-10.000000	19.1145632	-50.8848157
335.000000	-5.000000	25.4950452	-48.0837932
335.000000	.000000	31.1820502	-44.9672732
335.000000	5.000000	36.2606978	-41.5983372
335.000000	10.000000	40.8211460	-38.0285120
335.000000	15.000000	44.9486179	-34.2991638
335.000000	20.000000	48.7192316	-30.4433224
335.000000	25.000000	52.1991019	-26.4874258
335.000000	30.000000	55.44450226	-22.4528279
335.000000	35.000000	58.5058112	-18.3570275
335.000000	40.000000	61.4237919	-14.2146358
335.000000	45.000000	64.2362528	-10.0381542
335.000000	50.000000	66.9767647	-5.8385882
335.000000	55.000000	69.6763821	-1.6259557
335.000000	60.000000	72.3647327	2.5902676
335.000000	65.000000	75.0710554	6.8007603
335.000000	70.000000	77.8252134	10.9959579
335.000000	75.000000	80.6587362	15.1656578
335.000000	80.000000	83.6059361	19.2985582
335.000000	85.000000	86.7051306	23.3817382
335.000000	90.000000	89.9999990	27.3999991

TABLE 2. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA ALPHA DEGREES	BETA (DELTA) DEGREES
340.000000	-90.000000	270.0000038	-27.4000032
340.000000	-85.000000	273.1299133	-31.5935154
340.000000	-80.000000	276.5521927	-35.7035890
340.000000	-75.000000	280.3417854	-39.7063575
340.000000	-70.000000	284.5899734	-43.5709453
340.000000	-65.000000	289.4066162	-47.2570171
340.000000	-60.000000	294.9197464	-50.7117238
340.000000	-55.000000	301.2685509	-53.8663344
340.000000	-50.000000	308.5830421	-56.6336141
340.000000	-45.000000	316.9421692	-58.9082689
340.000000	-40.000000	326.3085442	-60.5745063
340.000000	-35.000000	336.4612732	-61.5243931
340.000000	-30.000000	346.9814453	-61.6852403
340.000000	-25.000000	357.3399963	-61.0438108
340.000000	-20.000000	7.0577246	-59.6512475
340.000000	-15.000000	15.8314772	-57.6049280
340.000000	-10.000000	23.5573852	-55.0203676
340.000000	-5.000000	30.2768486	-52.0084910
340.000000	.000000	36.1059818	-48.6640720
340.000000	5.000000	41.1837854	-45.0630002
340.000000	10.000000	45.6441345	-41.2640510
340.000000	15.000000	49.6044288	-37.3121495
340.000000	20.000000	53.1631689	-33.2416067
340.000000	25.000000	56.4014611	-29.0788293
340.000000	30.000000	59.3858414	-24.8443983
340.000000	35.000000	62.1712155	-20.5546515
340.000000	40.000000	64.8035164	-16.2228377
340.000000	45.000000	67.3219271	-11.8599901
340.000000	50.000000	69.7607393	-7.4755839
340.000000	55.000000	72.1509113	-3.0780545
340.000000	60.000000	74.5213890	1.3247747
340.000000	65.000000	76.9003210	5.7253312
340.000000	70.000000	79.3161917	10.1159291
340.000000	75.000000	81.7990103	14.4884328
340.000000	80.000000	84.3815670	18.8338282
340.000000	85.000000	87.1008968	23.1417756
340.000000	90.000000	89.9999990	27.3999991
345.000000	-90.000000	270.0000038	-27.4000032
345.000000	-85.000000	272.6918488	-31.8191049
345.000000	-80.000000	275.6527252	-36.1758795
345.000000	-75.000000	278.9593239	-40.4512138
345.000000	-70.000000	282.7098083	-44.6196384
345.000000	-65.000000	287.0304070	-48.6465487
345.000000	-60.000000	292.0821571	-52.4842777
345.000000	-55.000000	298.0643845	-56.0666766
345.000000	-50.000000	305.2060776	-59.3025360
345.000000	-45.000000	313.7267685	-62.0696688
345.000000	-40.000000	323.7408104	-64.2155180
345.000000	-35.000000	335.1008797	-65.5748968
345.000000	-30.000000	347.2680244	-66.0131903
345.000000	-25.000000	359.3906708	-65.4807930
345.000000	-20.000000	10.6360664	-64.0375385
345.000000	-15.000000	20.5048363	-61.8235197
345.000000	-10.000000	28.8827057	-59.0041857
345.000000	-5.000000	35.9005132	-55.7295322
345.000000	.000000	41.7818394	-52.1185627
345.000000	5.000000	46.7538137	-48.2597370
345.000000	10.000000	51.0120926	-44.2171135
345.000000	15.000000	54.7140489	-40.0368681
345.000000	20.000000	57.9828572	-35.7525544
345.000000	25.000000	60.9143028	-31.3889177
345.000000	30.000000	63.5832872	-26.9645600
345.000000	35.000000	66.0491495	-22.4937768
345.000000	40.000000	68.3597975	-17.9878421
345.000000	45.000000	70.5548525	-13.4559076
345.000000	50.000000	72.6680574	-8.9056545
345.000000	55.000000	74.7291508	-4.3437746
345.000000	60.000000	76.7654009	.2236353
345.000000	65.000000	78.8029222	4.7907645
345.000000	70.000000	80.8678827	9.3517808
345.000000	75.000000	82.9877357	13.9005505
345.000000	80.000000	85.1925411	18.4302967
345.000000	85.000000	87.5165224	22.9332221
345.000000	90.000000	89.9999990	27.3999991

TABLE 2. (Concluded)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
350.000000	-90.000000	270.000000	-27.400003
350.000000	-85.000000	272.230445	-32.009865
350.000000	-80.000000	274.696422	-36.576575
350.000000	-75.000000	277.470943	-41.086130
350.000000	-70.000000	280.651306	-45.519372
350.000000	-65.000000	284.369617	-49.849369
350.000000	-60.000000	288.807319	-54.037278
350.000000	-55.000000	294.213569	-58.025793
350.000000	-50.000000	300.922050	-61.729084
350.000000	-45.000000	309.344749	-65.018803
350.000000	-40.000000	319.884052	-67.710067
350.000000	-35.000000	332.665802	-69.564263
350.000000	-30.000000	347.110820	-70.342582
350.000000	-25.000000	1.805886	-69.919332
350.000000	-20.000000	15.188532	-68.365016
350.000000	-15.000000	26.409873	-65.897795
350.000000	-10.000000	35.429764	-62.765166
350.000000	-5.000000	42.606107	-59.169956
350.000000	.000000	48.363376	-55.256246
350.000000	5.000000	53.061490	-51.120992
350.000000	10.000000	56.973569	-46.828797
350.000000	15.000000	60.299302	-42.423214
350.000000	20.000000	63.183841	-37.934216
350.000000	25.000000	65.733649	-33.382963
350.000000	30.000000	68.028116	-28.784790
350.000000	35.000000	70.127718	-24.151131
350.000000	40.000000	72.079683	-19.490765
350.000000	45.000000	73.921963	-14.810661
350.000000	50.000000	75.686073	-10.116539
350.000000	55.000000	77.399197	-5.413297
350.000000	60.000000	79.085807	-.705319
350.000000	65.000000	80.769001	4.003269
350.000000	70.000000	82.471700	8.708372
350.000000	75.000000	84.217837	13.405718
350.000000	80.000000	86.033625	18.090573
350.000000	85.000000	87.949090	22.757513
350.000000	90.000000	89.999990	27.399991
355.000000	-90.000000	270.000000	-27.400003
355.000000	-85.000000	271.749572	-32.164124
355.000000	-80.000000	273.692066	-36.901515
355.000000	-75.000000	275.891232	-41.603102
355.000000	-70.000000	278.434879	-46.256205
355.000000	-65.000000	281.444722	-50.842474
355.000000	-60.000000	285.110373	-55.334373
355.000000	-55.000000	289.695102	-59.688967
355.000000	-50.000000	295.613460	-63.836718
355.000000	-45.000000	303.482948	-67.661276
355.000000	-40.000000	314.150730	-70.966054
355.000000	-35.000000	328.439071	-73.436326
355.000000	-30.000000	346.155761	-74.662974
355.000000	-25.000000	4.915786	-74.350593
355.000000	-20.000000	21.424824	-72.581831
355.000000	-15.000000	34.210719	-69.734716
355.000000	-10.000000	43.656836	-66.193373
355.000000	-5.000000	50.663016	-62.222490
355.000000	.000000	55.991478	-57.981979
355.000000	5.000000	60.170527	-53.566421
355.000000	10.000000	63.548974	-49.032997
355.000000	15.000000	66.357573	-44.417539
355.000000	20.000000	68.752103	-39.743386
355.000000	25.000000	70.840531	-35.026318
355.000000	30.000000	72.699913	-30.277391
355.000000	35.000000	74.386866	-25.504628
355.000000	40.000000	75.944398	-20.714040
355.000000	45.000000	77.406106	-15.910309
355.000000	50.000000	78.799362	-11.097208
355.000000	55.000000	80.147320	-6.277915
355.000000	60.000000	81.470497	-1.455239
355.000000	65.000000	82.788014	3.368209
355.000000	70.000000	84.118678	8.189863
355.000000	75.000000	85.482038	13.007053
355.000000	80.000000	86.899471	17.816841
355.000000	85.000000	88.395607	22.615851
355.000000	90.000000	89.999990	27.399991

TABLE 3. ECLIPTIC COORDINATES TO GALACTIC COORDINATES

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
.0000000	-90.000000	243.3690643	-29.8118808
.0000000	-85.000000	243.2965889	-34.8115067
.0000000	-80.000000	243.2147255	-39.8110838
.0000000	-75.000000	243.1199913	-44.8105936
.0000000	-70.000000	243.0072212	-49.8100128
.0000000	-65.000000	242.8684044	-54.8092933
.0000000	-60.000000	242.6902580	-59.8083720
.0000000	-55.000000	242.4490738	-64.8071241
.0000000	-50.000000	242.0977211	-69.8053074
.0000000	-45.000000	241.5272179	-74.8023567
.0000000	-40.000000	240.4153748	-79.7966013
.0000000	-35.000000	237.2102470	-84.7799921
.0000000	-30.000000	171.1724072	-89.3788481
.0000000	-25.000000	70.7077436	-85.1501207
.0000000	-20.000000	67.1290245	-80.1686659
.0000000	-15.000000	65.9472370	-75.1747837
.0000000	-10.000000	65.3521919	-70.1778612
.0000000	-5.000000	64.9894896	-65.1797371
.0000000	.0000000	64.7421579	-60.1810212
.0000000	5.0000000	64.5603228	-55.1819630
.0000000	10.000000	64.4191113	-50.1826935
.0000000	15.000000	64.3047190	-45.1832833
.0000000	20.000000	64.2088432	-40.1837773
.0000000	25.000000	64.1261568	-35.1842074
.0000000	30.000000	64.0530806	-30.1845870
.0000000	35.000000	63.9870787	-25.1849306
.0000000	40.000000	63.9262924	-20.1852453
.0000000	45.000000	63.8692946	-15.1855395
.0000000	50.000000	63.8149400	-10.1858189
.0000000	55.000000	63.7622695	-5.1860931
.0000000	60.000000	63.7104301	-.1863593
.0000000	65.000000	63.6586189	4.8133719
.0000000	70.000000	63.6060362	9.8130985
.0000000	75.000000	63.5518384	14.8128191
.0000000	80.000000	63.4950733	19.8125265
.0000000	85.000000	63.4346156	24.8122144
.0000000	90.000000	63.3690600	29.8118796
5.0000000	-90.000000	243.3690643	-29.8118808
5.0000000	-85.000000	242.7665830	-34.7859488
5.0000000	-80.000000	242.0874519	-39.7566724
5.0000000	-75.000000	241.13019714	-44.7228141
5.0000000	-70.000000	240.3686829	-49.6825600
5.0000000	-65.000000	239.2230034	-54.6330991
5.0000000	-60.000000	237.7593613	-59.5698199
5.0000000	-55.000000	235.7924690	-64.4845905
5.0000000	-50.000000	232.9655151	-69.3616190
5.0000000	-45.000000	228.4998970	-74.1658649
5.0000000	-40.000000	220.3750954	-78.8031254
5.0000000	-35.000000	202.0995636	-82.9363413
5.0000000	-30.000000	156.9717560	-85.0708504
5.0000000	-25.000000	111.0653086	-83.0304670
5.0000000	-20.000000	92.3322849	-78.9217110
5.0000000	-15.000000	84.0565929	-74.2914791
5.0000000	-10.000000	79.5290985	-69.4900074
5.0000000	-5.000000	76.6716299	-64.6143274
5.0000000	.0000000	74.6876602	-59.7003007
5.0000000	5.0000000	73.2135725	-54.7640357
5.0000000	10.000000	72.0610647	-49.8137932
5.0000000	15.000000	71.1231184	-44.8542509
5.0000000	20.000000	70.3343363	-39.8882508
5.0000000	25.000000	69.6524115	-34.9176340
5.0000000	30.000000	69.0485687	-29.9436412
5.0000000	35.000000	68.5023975	-24.9671619
5.0000000	40.000000	67.9987898	-19.9888399
5.0000000	45.000000	67.5261230	-15.0091890
5.0000000	50.000000	67.0750408	-10.0286050
5.0000000	55.000000	66.6376476	-5.0474271
5.0000000	60.000000	66.2069397	-.0659658
5.0000000	65.000000	65.7763157	4.9155021
5.0000000	70.000000	65.3391867	9.8966868
5.0000000	75.000000	64.8885612	14.8772913
5.0000000	80.000000	64.4165783	19.8569753
5.0000000	85.000000	63.9139290	24.8353353
5.0000000	90.000000	63.3690600	29.8118796

TABLE 3. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
10.000000	-90.000000	243.3690643	-29.8118808
10.000000	-85.000000	242.2427826	-34.7204704
10.000000	-80.000000	240.9741554	-39.6173830
10.000000	-75.000000	239.5122070	-44.4983926
10.000000	-70.000000	237.7831268	-49.3573484
10.000000	-65.000000	235.6753883	-54.1848569
10.000000	-60.000000	233.0121307	-58.9658589
10.000000	-55.000000	229.4969254	-63.6746144
10.000000	-50.000000	224.6004639	-68.2637615
10.000000	-45.000000	217.3130493	-72.6378269
10.000000	-40.000000	205.6315956	-76.5843945
10.000000	-35.000000	186.0691414	-79.6042862
10.000000	-30.000000	157.1983662	-80.7411547
10.000000	-25.000000	129.0069714	-79.3724098
10.000000	-20.000000	110.3899803	-76.2258310
10.000000	-15.000000	99.2723713	-72.2216921
10.000000	-10.000000	92.2873306	-67.8198175
10.000000	-5.000000	87.5608110	-63.2157807
10.000000	.000000	84.1477985	-58.4983001
10.000000	5.000000	81.5497704	-53.7118163
10.000000	10.000000	79.4857559	-48.8806648
10.000000	15.000000	77.7871246	-44.0191941
10.000000	20.000000	76.3470020	-39.1363816
10.000000	25.000000	75.0943556	-34.2381582
10.000000	30.000000	73.9799128	-29.3286028
10.000000	35.000000	72.9681644	-24.4106414
10.000000	40.000000	72.0325108	-19.4864600
10.000000	45.000000	71.1522388	-14.5577593
10.000000	50.000000	70.3105412	-9.6259148
10.000000	55.000000	69.4931288	-4.6920876
10.000000	60.000000	68.6872206	.2426750
10.000000	65.000000	67.8807220	5.1773907
10.000000	70.000000	67.0615034	10.1110654
10.000000	75.000000	66.2166786	15.0426601
10.000000	80.000000	65.3317528	19.9709816
10.000000	85.000000	64.3896132	24.8946333
10.000000	90.000000	63.3690600	29.8118796
15.000000	-90.000000	243.3690643	-29.8118808
15.000000	-85.000000	241.7286568	-34.6156588
15.000000	-80.000000	239.8868065	-39.3947802
15.000000	-75.000000	237.7744598	-44.1405921
15.000000	-70.000000	235.2939682	-48.8406911
15.000000	-65.000000	232.3025780	-53.4765868
15.000000	-60.000000	228.5843353	-58.0195627
15.000000	-55.000000	223.8020210	-62.4228964
15.000000	-50.000000	217.4168358	-66.6068907
15.000000	-45.000000	208.5752945	-70.4296808
15.000000	-40.000000	196.0660248	-73.6355286
15.000000	-35.000000	178.8631573	-75.7997637
15.000000	-30.000000	158.0848656	-76.4148092
15.000000	-25.000000	138.0492859	-75.2850418
15.000000	-20.000000	122.3030252	-72.7500582
15.000000	-15.000000	111.0466299	-69.3205442
15.000000	-10.000000	103.0635509	-65.3676519
15.000000	-5.000000	97.2379951	-61.1057625
15.000000	.000000	92.8241768	-56.6535635
15.000000	5.000000	89.3552713	-52.0785003
15.000000	10.000000	86.5376110	-47.4206710
15.000000	15.000000	84.1813974	-42.7050900
15.000000	20.000000	82.1598568	-37.9480700
15.000000	25.000000	80.3854094	-33.1606827
15.000000	30.000000	78.7954779	-28.3507500
15.000000	35.000000	77.3438702	-23.5239828
15.000000	40.000000	75.9953175	-18.6847126
15.000000	45.000000	74.7219028	-13.8363439
15.000000	50.000000	73.5006313	-8.9816725
15.000000	55.000000	72.3117266	-4.1230954
15.000000	60.000000	71.1373053	.7372304
15.000000	65.000000	69.9603119	5.5972461
15.000000	70.000000	68.7635403	10.4548719
15.000000	75.000000	67.5286598	15.3078996
15.000000	80.000000	66.2350674	20.1538270
15.000000	85.000000	64.8584843	24.9897013
15.000000	90.000000	63.3690600	29.8118796

TABLE 3. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
20.000000	-90.000000	243.3690643	-29.8118808
20.000000	-85.000000	241.2291565	-34.4724593
20.000000	-80.000000	238.8367805	-39.0913401
20.000000	-75.000000	236.1105919	-43.6545000
20.000000	-70.000000	232.9392319	-48.1422606
20.000000	-65.000000	229.1670151	-52.5261798
20.000000	-60.000000	224.5728569	-56.7638750
20.000000	-55.000000	218.8418732	-60.7904425
20.000000	-50.000000	211.5368347	-64.5045738
20.000000	-45.000000	202.1056862	-67.7482777
20.000000	-40.000000	190.0357475	-70.2871237
20.000000	-35.000000	175.3316650	-71.8227234
20.000000	-30.000000	159.1620808	-72.0947218
20.000000	-25.000000	143.6465931	-71.0485954
20.000000	-20.000000	130.4532661	-68.8794823
20.000000	-15.000000	119.9990044	-65.8889503
20.000000	-10.000000	111.9016953	-62.3426790
20.000000	-5.000000	105.5921764	-58.4279962
20.000000	.000000	100.5810404	-54.2664766
20.000000	5.000000	96.5065308	-49.9357562
20.000000	10.000000	93.1132593	-45.4860601
20.000000	15.000000	90.2219667	-40.9507194
20.000000	20.000000	87.7053719	-36.3524928
20.000000	25.000000	85.4713411	-31.7074161
20.000000	30.000000	83.4515924	-27.0271246
20.000000	35.000000	81.5941992	-22.3203285
20.000000	40.000000	79.8584957	-17.5937648
20.000000	45.000000	78.2115993	-12.8528242
20.000000	50.000000	76.6259251	-8.1019989
20.000000	55.000000	75.0773525	-3.3451958
20.000000	60.000000	73.5437746	1.4140211
20.000000	65.000000	72.0038786	6.1722220
20.000000	70.000000	70.4360256	10.9259166
20.000000	75.000000	68.8170652	15.6713722
20.000000	80.000000	67.1210136	20.4043601
20.000000	85.000000	65.3173962	25.1199052
20.000000	90.000000	63.3690600	29.8118796
25.000000	-90.000000	243.3690643	-29.8118808
25.000000	-85.000000	240.7486191	-34.2921581
25.000000	-80.000000	237.8346214	-38.7103891
25.000000	-75.000000	234.5399055	-43.0468202
25.000000	-70.000000	230.7500305	-47.2744756
25.000000	-65.000000	226.3137627	-51.3557339
25.000000	-60.000000	221.0326157	-55.2372327
25.000000	-55.000000	214.6541977	-58.8426089
25.000000	-50.000000	206.8836136	-62.0633159
25.000000	-45.000000	197.4446259	-64.7504883
25.000000	-40.000000	186.2359962	-66.7176485
25.000000	-35.000000	173.5747986	-67.7721395
25.000000	-30.000000	160.3290596	-67.7832794
25.000000	-25.000000	147.6450500	-66.7495651
25.000000	-20.000000	136.4010201	-64.7995358
25.000000	-15.000000	126.9251680	-62.1253715
25.000000	-10.000000	119.1223583	-58.9141212
25.000000	-5.000000	112.7180223	-55.3155251
25.000000	.000000	107.4167614	-51.4389110
25.000000	5.000000	102.9650927	-47.3612075
25.000000	10.000000	99.1634331	-43.1361728
25.000000	15.000000	95.8596764	-38.8017044
25.000000	20.000000	92.9387054	-34.3849559
25.000000	25.000000	90.3128910	-29.9058104
25.000000	30.000000	87.9145718	-25.3791554
25.000000	35.000000	85.6905060	-20.8164501
25.000000	40.000000	83.5977707	-16.2267587
25.000000	45.000000	81.6007738	-11.6174968
25.000000	50.000000	79.6689749	-6.9949580
25.000000	55.000000	77.7751513	-2.3647018
25.000000	60.000000	75.8939533	2.2681182
25.000000	65.000000	74.0006475	6.8984826
25.000000	70.000000	72.0699062	11.5212353
25.000000	75.000000	70.0745630	16.1308360
25.000000	80.000000	67.9841633	20.7210040
25.000000	85.000000	65.7632437	25.2843609
25.000000	90.000000	63.3690600	29.8118796

TABLE 3. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
30.000000	-90.000000	243.3690643	-29.8118808
30.000000	-85.000000	240.2911491	-34.0763574
30.000000	-80.000000	236.8898582	-38.2560158
30.000000	-75.000000	233.0787277	-42.3256235
30.000000	-70.000000	228.7499008	-46.2517858
30.000000	-65.000000	223.7704430	-49.9898033
30.000000	-60.000000	217.9819565	-53.4796305
30.000000	-55.000000	211.2097626	-56.6413016
30.000000	-50.000000	203.2924767	-59.3712845
30.000000	-45.000000	194.1460037	-61.5436482
30.000000	-40.000000	183.8623657	-63.0222597
30.000000	-35.000000	172.7979317	-63.6891932
30.000000	-30.000000	161.5532990	-63.4828396
30.000000	-25.000000	150.7930546	-62.4228849
30.000000	-20.000000	141.0163155	-60.6019473
30.000000	-15.000000	132.4487343	-58.1510110
30.000000	-10.000000	125.0861654	-55.2039371
30.000000	-5.000000	118.7977161	-51.8768120
30.000000	.000000	113.4101772	-48.2618375
30.000000	5.000000	108.7543964	-44.4290576
30.000000	10.000000	104.6835575	-40.4307632
30.000000	15.000000	101.0768461	-36.3058920
30.000000	20.000000	97.8369923	-32.0836792
30.000000	25.000000	94.8860703	-27.7863593
30.000000	30.000000	92.1613092	-23.4311540
30.000000	35.000000	89.6114664	-19.0317128
30.000000	40.000000	87.1939125	-14.5991024
30.000000	45.000000	84.8722782	-10.1425996
30.000000	50.000000	82.6145916	-5.6702433
30.000000	55.000000	80.3917208	-1.1892751
30.000000	60.000000	78.1760731	3.2934758
30.000000	65.000000	75.9403563	7.7712685
30.000000	70.000000	73.6564150	12.2371221
30.000000	75.000000	71.2939596	16.6834724
30.000000	80.000000	68.8191671	21.1017632
30.000000	85.000000	66.1929827	25.4819567
30.000000	90.000000	63.3690600	29.8118796
35.000000	-90.000000	243.3690643	-29.8118808
35.000000	-85.000000	239.8605461	-33.8269596
35.000000	-80.000000	236.0108757	-37.7329874
35.000000	-75.000000	231.7401733	-41.5000610
35.000000	-70.000000	226.9549026	-45.0899744
35.000000	-65.000000	221.5493279	-48.4538522
35.000000	-60.000000	215.4122162	-51.5297537
35.000000	-55.000000	208.4432068	-54.2410073
35.000000	-50.000000	200.5835228	-56.4970460
35.000000	-45.000000	191.8612099	-58.1993070
35.000000	-40.000000	182.4374542	-59.2545609
35.000000	-35.000000	172.6216564	-59.5947137
35.000000	-30.000000	162.8228893	-59.1958656
35.000000	-25.000000	153.4456501	-58.0859437
35.000000	-20.000000	144.7883396	-56.3358231
35.000000	-15.000000	137.0002594	-54.0398312
35.000000	-10.000000	130.1006851	-51.2962751
35.000000	-5.000000	124.0260105	-48.1947417
35.000000	.000000	118.6740932	-44.8107142
35.000000	5.000000	113.9336929	-41.2050076
35.000000	10.000000	109.6998892	-37.4255486
35.000000	15.000000	105.8802376	-33.5098014
35.000000	20.000000	102.3959236	-29.4871027
35.000000	25.000000	99.1806650	-25.3806124
35.000000	30.000000	96.1787539	-21.2088835
35.000000	35.000000	93.3429937	-16.9870501
35.000000	40.000000	90.6328087	-12.7277378
35.000000	45.000000	88.0125370	-8.4417937
35.000000	50.000000	85.4500093	-4.1388357
35.000000	55.000000	82.9152508	.1722805
35.000000	60.000000	80.3793449	4.4830604
35.000000	65.000000	77.8133259	8.7849921
35.000000	70.000000	75.1870890	13.0691730
35.000000	75.000000	72.4682341	17.3259094
35.000000	80.000000	69.6207666	21.5442343
35.000000	85.000000	66.6036444	25.7113469
35.000000	90.000000	63.3690600	29.8118796

TABLE 3. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
40.000000	-90.000000	243.3690605	-29.8118808
40.000000	-85.000000	239.4602776	-33.5461440
40.000000	-80.000000	235.2048225	-37.1466508
40.000000	-75.000000	230.5341835	-40.5800834
40.000000	-70.000000	225.3743134	-43.8055091
40.000000	-65.000000	219.6505814	-46.7730637
40.000000	-60.000000	213.2976303	-49.4232583
40.000000	-55.000000	206.2759895	-51.6877298
40.000000	-50.000000	198.5950546	-53.4926157
40.000000	-45.000000	190.3374329	-54.7656865
40.000000	-40.000000	181.6726265	-55.4470663
40.000000	-35.000000	172.8454266	-55.5011339
40.000000	-30.000000	164.1340466	-54.9249549
40.000000	-25.000000	155.7926712	-53.7489996
40.000000	-20.000000	148.0053082	-52.0298142
40.000000	-15.000000	140.8689346	-49.8383632
40.000000	-10.000000	134.4038010	-47.2488480
40.000000	-5.000000	128.5770092	-44.3308988
40.000000	.000000	123.3262424	-41.1456270
40.000000	5.000000	118.5775833	-37.7445087
40.000000	10.000000	114.2564106	-34.1699238
40.000000	15.000000	110.2930899	-30.4563823
40.000000	20.000000	106.6251612	-26.6319597
40.000000	25.000000	103.1976738	-22.7196059
40.000000	30.000000	99.9625483	-18.7383122
40.000000	35.000000	96.8775606	-14.7040302
40.000000	40.000000	93.9051790	-10.6304600
40.000000	45.000000	91.0114355	-6.5296785
40.000000	50.000000	88.1648731	-2.4126579
40.000000	55.000000	85.3355293	1.7102768
40.000000	60.000000	82.4939928	5.8290218
40.000000	65.000000	79.6104612	9.9333256
40.000000	70.000000	76.6537943	14.0123451
40.000000	75.000000	73.5905313	18.0542390
40.000000	80.000000	70.3838263	22.0456212
40.000000	85.000000	66.9923391	25.9709721
40.000000	90.000000	63.3690634	29.8118796
45.000000	-90.000000	243.3690605	-29.8118808
45.000000	-85.000000	239.0934563	-33.2363358
45.000000	-80.000000	234.4775963	-36.5028172
45.000000	-75.000000	229.4676895	-39.5761790
45.000000	-70.000000	224.0116768	-42.4150372
45.000000	-65.000000	218.0656433	-44.9715333
45.000000	-60.000000	211.6035690	-47.1920643
45.000000	-55.000000	204.6300659	-49.0194931
45.000000	-50.000000	197.1936607	-50.3973918
45.000000	-45.000000	189.3956261	-51.2763143
45.000000	-40.000000	181.3877525	-51.6210790
45.000000	-35.000000	173.3550911	-51.4170289
45.000000	-30.000000	165.4868202	-50.6728988
45.000000	-25.000000	157.9455299	-49.4190907
45.000000	-20.000000	150.8462715	-47.7020798
45.000000	-15.000000	144.2506428	-45.5771604
45.000000	-10.000000	138.1733494	-43.1017804
45.000000	-5.000000	132.5949478	-40.3307428
45.000000	.000000	127.4750509	-37.3134980
45.000000	5.000000	122.7629738	-34.0931005
45.000000	10.000000	118.4049044	-30.7062538
45.000000	15.000000	114.3482552	-27.1839006
45.000000	20.000000	110.5437889	-23.5520670
45.000000	25.000000	106.9464436	-19.8327429
45.000000	30.000000	103.5153027	-16.0446715
45.000000	35.000000	100.2131920	-12.2040834
45.000000	40.000000	97.0060139	-8.3253092
45.000000	45.000000	93.8620205	-4.4213285
45.000000	50.000000	90.7510700	-0.5042318
45.000000	55.000000	87.6438656	3.4143495
45.000000	60.000000	84.5112095	7.3228337
45.000000	65.000000	81.3232403	11.2092891
45.000000	70.000000	78.0487032	15.0610056
45.000000	75.000000	74.6541748	18.8640566
45.000000	80.000000	71.1033335	22.6027462
45.000000	85.000000	67.3562899	26.2590470
45.000000	90.000000	63.3690634	29.8118796

TABLE 3. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
50.000000	-90.000000	243.3690605	-29.8118808
50.000000	-85.000000	238.7627983	-32.9001780
50.000000	-80.000000	233.8338470	-35.8076758
50.000000	-75.000000	228.5449142	-38.4991426
50.000000	-70.000000	222.8659706	-40.9349594
50.000000	-65.000000	216.7803764	-43.0717998
50.000000	-60.000000	210.2923698	-44.8642440
50.000000	-55.000000	203.4346771	-46.2675495
50.000000	-50.000000	196.2737007	-47.2415853
50.000000	-45.000000	188.9092979	-47.7554464
50.000000	-40.000000	181.4668274	-47.7916970
50.000000	-35.000000	174.0821724	-47.3490829
50.000000	-30.000000	166.8833942	-46.4427071
50.000000	-25.000000	159.9748859	-45.1017046
50.000000	-20.000000	153.4282818	-43.3651066
50.000000	-15.000000	147.2811489	-41.2772408
50.000000	-10.000000	141.5415630	-38.8836360
50.000000	-5.000000	136.1955204	-36.2280655
50.000000	.000000	131.2145824	-33.3507619
50.000000	5.000000	126.5622292	-30.2876318
50.000000	10.000000	122.1984797	-27.0701528
50.000000	15.000000	118.0829363	-23.7256413
50.000000	20.000000	114.1764498	-20.2777698
50.000000	25.000000	110.4419746	-16.7471302
50.000000	30.000000	106.8447733	-13.1518070
50.000000	35.000000	103.3523016	-9.5079159
50.000000	40.000000	99.9338398	-5.8300838
50.000000	45.000000	96.5600548	-2.1319165
50.000000	50.000000	93.2024717	1.5735970
50.000000	55.000000	89.8329334	5.2736923
50.000000	60.000000	86.4230547	8.9554379
50.000000	65.000000	82.9436607	12.6053534
50.000000	70.000000	79.3642778	16.2089834
50.000000	75.000000	75.6526546	19.7504756
50.000000	80.000000	71.7744083	23.2120724
50.000000	85.000000	67.6928291	26.5735984
50.000000	90.000000	63.3690634	29.8118796
55.000000	-90.000000	243.3690605	-29.8118808
55.000000	-85.000000	238.4706306	-32.5405073
55.000000	-80.000000	233.2770348	-35.0676913
55.000000	-75.000000	227.7677269	-37.3598738
55.000000	-70.000000	221.9327850	-39.3811736
55.000000	-65.000000	215.7775421	-41.0946612
55.000000	-60.000000	209.3269997	-42.4643269
55.000000	-55.000000	202.6288223	-43.4576979
55.000000	-50.000000	195.7531929	-44.0488968
55.000000	-45.000000	188.7885399	-44.2214699
55.000000	-40.000000	181.8331413	-43.9704642
55.000000	-35.000000	174.9842110	-43.3030667
55.000000	-30.000000	168.3273296	-42.2376571
55.000000	-25.000000	161.9286919	-40.8015852
55.000000	-20.000000	155.8316441	-39.0281858
55.000000	-15.000000	150.0572624	-36.9538279
55.000000	-10.000000	144.6076756	-34.6153784
55.000000	-5.000000	139.4706573	-32.0483494
55.000000	.000000	134.6241703	-29.2858014
55.000000	5.000000	130.0402508	-26.3577855
55.000000	10.000000	125.6879339	-23.2912326
55.000000	15.000000	121.5352535	-20.1101189
55.000000	20.000000	117.5504618	-16.8357697
55.000000	25.000000	113.7026949	-13.4872521
55.000000	30.000000	109.9622440	-10.0817763
55.000000	35.000000	106.3005304	-6.6351122
55.000000	40.000000	102.6899290	-3.1619743
55.000000	45.000000	99.1034861	.3236069
55.000000	50.000000	95.5145741	3.8079199
55.000000	55.000000	91.8965368	7.2772204
55.000000	60.000000	88.2223215	10.7173758
55.000000	65.000000	84.4641438	14.11135076
55.000000	70.000000	80.5932245	17.4496105
55.000000	75.000000	76.5796347	20.7081628
55.000000	80.000000	72.3923187	23.8697009
55.000000	85.000000	67.9994287	26.9128424
55.000000	90.000000	63.3690634	29.8118796

TABLE 3. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
60.000000	-90.000000	243.3690605	-29.8118808
60.000000	-85.000000	238.2188835	-32.1603045
60.000000	-80.000000	232.8095016	-34.2895155
60.000000	-75.000000	227.1360397	-36.1692286
60.000000	-70.000000	221.2053528	-37.7688923
60.000000	-65.000000	215.0386696	-39.0591536
60.000000	-60.000000	208.6731339	-40.0137353
60.000000	-55.000000	202.1614494	-40.6115046
60.000000	-50.000000	195.5690765	-40.8384280
60.000000	-45.000000	188.9690056	-40.6890006
60.000000	-40.000000	182.4349747	-40.1668587
60.000000	-35.000000	176.0344868	-39.2843747
60.000000	-30.000000	169.8232059	-38.0613585
60.000000	-25.000000	163.8415833	-36.5231962
60.000000	-20.000000	158.1140499	-34.6987767
60.000000	-15.000000	152.6502380	-32.6185369
60.000000	-10.000000	147.4474583	-30.3129148
60.000000	-5.000000	142.4936066	-27.8112240
60.000000	.000000	137.7700348	-25.1409657
60.000000	5.000000	133.2539082	-22.3275051
60.000000	10.000000	128.9200363	-19.3940094
60.000000	15.000000	124.7421608	-16.3615484
60.000000	20.000000	120.6939076	-13.2493132
60.000000	25.000000	116.7487278	-10.0749141
60.000000	30.000000	112.8811302	-6.8546600
60.000000	35.000000	109.0657024	-3.6038963
60.000000	40.000000	105.2775211	-.3373136
60.000000	45.000000	101.4918861	2.9307394
60.000000	50.000000	97.6841145	6.1859561
60.000000	55.000000	93.8293371	9.4137319
60.000000	60.000000	89.9023352	12.5988935
60.000000	65.000000	85.8774223	15.7253472
60.000000	70.000000	81.7284336	18.7757823
60.000000	75.000000	77.4289122	21.7313597
60.000000	80.000000	72.9524994	24.5714116
60.000000	85.000000	68.2737026	27.2732232
60.000000	90.000000	63.3690634	29.8118796
65.000000	-90.000000	243.3690605	-29.8118808
65.000000	-85.000000	238.0090637	-31.7626917
65.000000	-80.000000	232.4325905	-33.4798985
65.000000	-75.000000	226.6481972	-34.9378972
65.000000	-70.000000	220.6753960	-36.1125617
65.000000	-65.000000	214.5453224	-36.9826622
65.000000	-60.000000	208.3000870	-37.5313025
65.000000	-55.000000	201.9906197	-37.7472911
65.000000	-50.000000	195.6730881	-37.6260972
65.000000	-45.000000	189.4043045	-37.1702719
65.000000	-40.000000	183.2371101	-36.3892059
65.000000	-35.000000	177.2163754	-35.2983184
65.000000	-30.000000	171.3764591	-33.9177647
65.000000	-25.000000	165.7401161	-32.2709999
65.000000	-20.000000	160.3188763	-30.3833423
65.000000	-15.000000	155.1143456	-28.2807395
65.000000	-10.000000	150.1200657	-25.9888108
65.000000	-5.000000	145.3234501	-23.5321796
65.000000	.000000	140.7075558	-20.9340954
65.000000	5.000000	136.2525845	-18.2162535
65.000000	10.000000	131.9370079	-15.3987947
65.000000	15.000000	127.7383890	-12.5004017
65.000000	20.000000	123.6339130	-9.5384694
65.000000	25.000000	119.6006956	-6.5293353
65.000000	30.000000	115.6159286	-3.4885241
65.000000	35.000000	111.6569414	-.4309988
65.000000	40.000000	107.7011290	2.6285841
65.000000	45.000000	103.7259150	5.6755958
65.000000	50.000000	99.7086401	8.6951909
65.000000	55.000000	95.6265421	11.6720254
65.000000	60.000000	91.4567480	14.5900242
65.000000	65.000000	87.1763983	17.4321041
65.000000	70.000000	82.7629032	20.1799629
65.000000	75.000000	78.1944189	22.8139024
65.000000	80.000000	73.4505529	25.3126535
65.000000	85.000000	68.5134315	27.6534019
65.000000	90.000000	63.3690634	29.8118796

TABLE 3. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
70.000000	-90.000000	243.3690605	-29.8118808
70.000000	-85.000000	237.8423004	-31.3508761
70.000000	-80.000000	232.1467094	-32.6456470
70.000000	-75.000000	226.3013039	-33.6763120
70.000000	-70.000000	220.3338242	-34.4258375
70.000000	-65.000000	214.2798767	-34.8810816
70.000000	-60.000000	208.1810722	-35.0337396
70.000000	-55.000000	202.0822754	-34.8809724
70.000000	-50.000000	196.0283508	-34.4256215
70.000000	-45.000000	190.0609131	-33.6759949
70.000000	-40.000000	184.2155571	-32.6452308
70.000000	-35.000000	178.5200176	-31.3503735
70.000000	-30.000000	172.9933224	-29.8112955
70.000000	-25.000000	167.6458759	-28.0496340
70.000000	-20.000000	162.4802494	-26.0878525
70.000000	-15.000000	157.4923916	-23.9484513
70.000000	-10.000000	152.6729755	-21.6534078
70.000000	-5.000000	148.0087109	-19.2238233
70.000000	.000000	143.4834633	-16.6797347
70.000000	5.000000	139.0792103	-14.0400273
70.000000	10.000000	134.7767239	-11.3225071
70.000000	15.000000	130.5560741	-8.5439972
70.000000	20.000000	126.3969641	-5.7204897
70.000000	25.000000	122.2789288	-2.8673452
70.000000	30.000000	118.1814346	.0005065
70.000000	35.000000	114.0839405	2.8683526
70.000000	40.000000	109.9658918	5.7214866
70.000000	45.000000	105.8067656	8.5449821
70.000000	50.000000	101.5860072	11.3234730
70.000000	55.000000	97.2835712	14.0409667
70.000000	60.000000	92.8792772	16.6806421
70.000000	65.000000	88.3539772	19.2246933
70.000000	70.000000	83.6896505	21.6542304
70.000000	75.000000	78.8701792	23.9492316
70.000000	80.000000	73.8822622	26.0885785
70.000000	85.000000	68.7165756	28.0502949
70.000000	90.000000	63.3690634	29.8118796
75.000000	-90.000000	243.3690605	-29.8118808
75.000000	-85.000000	237.7193298	-30.9281397
75.000000	-80.000000	231.9514847	-31.7935317
75.000000	-75.000000	226.0915489	-32.3946066
75.000000	-70.000000	220.1711845	-32.7215915
75.000000	-65.000000	214.2259598	-32.7690129
75.000000	-60.000000	208.2930870	-32.5360689
75.000000	-55.000000	202.4089699	-32.0266757
75.000000	-50.000000	196.6067963	-31.2492285
75.000000	-45.000000	190.9146652	-30.2160006
75.000000	-40.000000	185.3542557	-28.9424448
75.000000	-35.000000	179.9403324	-27.4463062
75.000000	-30.000000	174.6808167	-25.7468524
75.000000	-25.000000	169.5773773	-23.8640800
75.000000	-20.000000	164.6263008	-21.8181479
75.000000	-15.000000	159.8194923	-19.6289115
75.000000	-10.000000	155.1454582	-17.3156273
75.000000	-5.000000	150.5901909	-14.8967781
75.000000	.000000	146.1378727	-12.3900182
75.000000	5.000000	141.7714920	-9.8121722
75.000000	10.000000	137.4732399	-7.1793433
75.000000	15.000000	133.2248096	-4.5070132
75.000000	20.000000	129.0076408	-1.8101973
75.000000	25.000000	124.8030205	.8963843
75.000000	30.000000	120.5921879	3.5981373
75.000000	35.000000	116.3564053	6.2803977
75.000000	40.000000	112.0770426	8.9282736
75.000000	45.000000	107.7356892	11.5264542
75.000000	50.000000	103.3143501	14.0590690
75.000000	55.000000	98.7956953	16.5095425
75.000000	60.000000	94.1634445	18.8605034
75.000000	65.000000	89.4029026	21.0937521
75.000000	70.000000	84.5016365	23.1902843
75.000000	75.000000	79.4503136	25.1304202
75.000000	80.000000	74.2436199	26.8940542
75.000000	85.000000	68.8812952	28.4610651
75.000000	90.000000	63.3690634	29.8118796

TABLE 3. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
80.000000	-90.000000	243.3690605	-29.8118808
80.000000	-85.000000	237.6405144	-30.4978011
80.000000	-80.000000	231.8458366	-30.9302559
80.000000	-75.000000	226.0144577	-31.1025569
80.000000	-70.000000	220.1780624	-31.0119805
80.000000	-65.000000	214.3686638	-30.6599643
80.000000	-60.000000	208.6165924	-30.0519927
80.000000	-55.000000	202.9487190	-29.1972718
80.000000	-50.000000	197.3871269	-28.1081870
80.000000	-45.000000	191.9483070	-26.7996516
80.000000	-40.000000	186.6428680	-25.2884037
80.000000	-35.000000	181.4757500	-23.5923469
80.000000	-30.000000	176.4467812	-21.7299454
80.000000	-25.000000	171.5513611	-19.7197909
80.000000	-20.000000	166.7813091	-17.5802052
80.000000	-15.000000	162.1256180	-15.3290401
80.000000	-10.000000	157.5711422	-12.9835525
80.000000	-5.000000	153.1031895	-10.5603377
80.000000	.000000	148.7060070	-8.0753696
80.000000	5.000000	144.3630905	-5.5440630
80.000000	10.000000	140.0574780	-2.9813931
80.000000	15.000000	135.7719383	-.4019990
80.000000	20.000000	131.4891033	2.1796393
80.000000	25.000000	127.1915932	4.7490746
80.000000	30.000000	122.8621187	7.2917325
80.000000	35.000000	118.4836216	9.7927511
80.000000	40.000000	114.0394287	12.2368701
80.000000	45.000000	109.5135183	14.6083021
80.000000	50.000000	104.8908186	16.8906441
80.000000	55.000000	100.1576576	19.0668442
80.000000	60.000000	95.3022871	21.1192329
80.000000	65.000000	90.3155546	23.0296030
80.000000	70.000000	85.1916580	24.7794302
80.000000	75.000000	79.9290037	26.3501675
80.000000	80.000000	74.5308342	27.7236624
80.000000	85.000000	69.0059700	28.8827491
80.000000	90.000000	63.3690634	29.8118796
85.000000	-90.000000	243.3690605	-29.8118808
85.000000	-85.000000	237.6058617	-30.0631883
85.000000	-80.000000	231.8280869	-30.0624192
85.000000	-75.000000	226.0650711	-29.8095806
85.000000	-70.000000	220.3452606	-29.3084819
85.000000	-65.000000	214.6945839	-28.5665102
85.000000	-60.000000	209.1350822	-27.5942018
85.000000	-55.000000	203.6839905	-26.4047146
85.000000	-50.000000	198.3533134	-25.0131896
85.000000	-45.000000	193.1498108	-23.4361579
85.000000	-40.000000	188.0753441	-21.6909561
85.000000	-35.000000	183.1274261	-19.7952735
85.000000	-30.000000	178.2998924	-17.7667739
85.000000	-25.000000	173.5836296	-15.6228344
85.000000	-20.000000	168.9672050	-13.3803673
85.000000	-15.000000	164.4374447	-11.0557604
85.000000	-10.000000	159.9799118	-8.6648623
85.000000	-5.000000	155.5792866	-6.2229922
85.000000	.000000	151.2196579	-3.7450548
85.000000	5.000000	146.8847408	-1.2456304
85.000000	10.000000	142.5580502	1.2609048
85.000000	15.000000	138.2230358	3.7602417
85.000000	20.000000	133.8632030	6.2380015
85.000000	25.000000	129.4622784	8.6796057
85.000000	30.000000	125.0043478	11.0701506
85.000000	35.000000	120.4741020	13.3943026
85.000000	40.000000	115.8571081	15.6362174
85.000000	45.000000	111.1401997	17.7795062
85.000000	50.000000	106.3119593	19.8072505
85.000000	55.000000	101.3632841	21.7020662
85.000000	60.000000	96.2880402	23.4462917
85.000000	65.000000	91.0837507	25.0222332
85.000000	70.000000	85.7522764	26.4125912
85.000000	75.000000	80.3004923	27.6008046
85.000000	80.000000	74.7403765	28.5717444
85.000000	85.000000	69.0892143	29.3122773
85.000000	90.000000	63.3690634	29.8118796

TABLE 3. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
90.000000	-90.000000	243.3690643	-29.8118796
90.000000	-85.000000	237.6150627	-29.6276202
90.000000	-80.000000	231.8960457	-29.1964555
90.000000	-75.000000	226.2381172	-28.5247197
90.000000	-70.000000	220.6639366	-27.6219656
90.000000	-65.000000	215.1917229	-26.5004635
90.000000	-60.000000	209.8346672	-25.1746221
90.000000	-55.000000	204.6008377	-23.6603799
90.000000	-50.000000	199.4934006	-21.9746487
90.000000	-45.000000	194.5110970	-20.1348133
90.000000	-40.000000	189.6488953	-18.1583552
90.000000	-35.000000	184.8986473	-16.0625544
90.000000	-30.000000	180.2497444	-13.8643060
90.000000	-25.000000	175.6897011	-11.5800116
90.000000	-20.000000	171.2046490	-9.2255490
90.000000	-15.000000	166.7797298	-6.8162960
90.000000	-10.000000	162.3994179	-4.3671945
90.000000	-5.000000	158.0477467	-1.8928447
90.000000	.000000	153.7085037	.5923799
90.000000	5.000000	149.3653698	3.0742055
90.000000	10.000000	145.0020599	5.5383272
90.000000	15.000000	140.6024609	7.9702789
90.000000	20.000000	136.1507874	10.3553104
90.000000	25.000000	131.6317997	12.6782831
90.000000	30.000000	127.0310650	14.9235855
90.000000	35.000000	122.3353195	17.0750909
90.000000	40.000000	117.5329084	19.1161554
90.000000	45.000000	112.6143150	21.0296795
90.000000	50.000000	107.5727921	22.7982612
90.000000	55.000000	102.4050207	24.4044211
90.000000	60.000000	97.1117840	25.8309445
90.000000	65.000000	91.6985331	27.0613184
90.000000	70.000000	86.1757641	28.0802574
90.000000	75.000000	80.5591145	28.8742995
90.000000	80.000000	74.8690081	29.4323988
90.000000	85.000000	69.1299009	29.7464776
90.000000	90.000000	63.3690667	29.8118796
95.000000	-90.000000	243.3690605	-29.8118796
95.000000	-85.000000	237.6150641	-29.1943760
95.000000	-80.000000	231.8960457	-28.5386359
95.000000	-75.000000	226.2381067	-27.2566493
95.000000	-70.000000	221.1256447	-25.9627583
95.000000	-65.000000	215.8493385	-24.4730263
95.000000	-60.000000	210.7036209	-22.8046217
95.000000	-55.000000	205.6881828	-20.9752910
95.000000	-50.000000	200.7986069	-19.0029180
95.000000	-45.000000	196.0271187	-16.9052117
95.000000	-40.000000	191.3632469	-14.6994675
95.000000	-35.000000	186.7944946	-12.4024825
95.000000	-30.000000	182.3068504	-10.0304573
95.000000	-25.000000	177.8852348	-7.5990595
95.000000	-20.000000	173.5138321	-5.1234624
95.000000	-15.000000	169.1763554	-2.6184468
95.000000	-10.000000	164.8562374	-.0985093
95.000000	-5.000000	160.5367718	2.4219854
95.000000	.000000	156.2012539	4.9286901
95.000000	5.000000	151.8330898	7.4071125
95.000000	10.000000	147.4159737	9.8425010
95.000000	15.000000	142.9340401	12.2197173
95.000000	20.000000	138.3721447	14.5231456
95.000000	25.000000	133.7161751	16.7366078
95.000000	30.000000	128.9534931	18.8433721
95.000000	35.000000	124.0734615	20.8261633
95.000000	40.000000	119.0680599	22.6673131
95.000000	45.000000	113.9325838	24.3489270
95.000000	50.000000	108.6663818	25.8532443
95.000000	55.000000	103.2734985	27.1630259
95.000000	60.000000	97.7631769	28.2621078
95.000000	65.000000	92.1500425	29.1359987
95.000000	70.000000	86.4539013	29.7724714
95.000000	75.000000	80.6992474	30.1622527
95.000000	80.000000	74.9137907	30.2995021
95.000000	85.000000	69.1271687	30.1821134
95.000000	90.000000	63.3690634	29.8118808

TABLE 3. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
100.000000	-90.000000	243.3690605	-29.8118796
100.000000	-85.000000	237.7621422	-28.7666805
100.000000	-80.000000	232.2781563	-27.4950244
100.000000	-75.000000	226.9294434	-26.0136700
100.000000	-70.000000	221.7223663	-24.3406954
100.000000	-65.000000	216.6578293	-22.4948835
100.000000	-60.000000	211.7320061	-20.4951653
100.000000	-55.000000	206.9371834	-18.3602765
100.000000	-50.000000	202.2625923	-16.1084659
100.000000	-45.000000	197.6951485	-13.7573515
100.000000	-40.000000	193.2201042	-11.3238606
100.000000	-35.000000	188.8215256	-8.8242538
100.000000	-30.000000	184.4827080	-6.2741727
100.000000	-25.000000	180.1864166	-3.6887674
100.000000	-20.000000	175.9151478	-1.0828066
100.000000	-15.000000	171.6512184	1.5291533
100.000000	-10.000000	167.3769226	4.1326367
100.000000	-5.000000	163.0745964	6.7130606
100.000000	.000000	158.7267685	9.2555958
100.000000	5.000000	154.3162861	11.7450228
100.000000	10.000000	149.8265476	14.1656021
100.000000	15.000000	145.2417927	16.5009565
100.000000	20.000000	140.5475178	18.7340479
100.000000	25.000000	135.7309856	20.8471384
100.000000	30.000000	130.7818966	22.8218772
100.000000	35.000000	125.6931419	24.6394849
100.000000	40.000000	120.4616480	26.2810163
100.000000	45.000000	115.0891972	27.7277763
100.000000	50.000000	109.5831461	28.9618573
100.000000	55.000000	103.9568968	29.9667995
100.000000	60.000000	98.2298918	30.7282903
100.000000	65.000000	92.4271631	31.2349093
100.000000	70.000000	86.5782194	31.4787450
100.000000	75.000000	80.7154970	31.4558904
100.000000	80.000000	74.8722343	31.1667421
100.000000	85.000000	69.0804729	30.6158895
100.000000	90.000000	63.3690634	29.8118808
105.000000	-90.000000	243.3690605	-29.8118796
105.000000	-85.000000	237.8978996	-28.3476777
105.000000	-80.000000	232.5859795	-26.6714547
105.000000	-75.000000	227.4364090	-24.8037074
105.000000	-70.000000	222.4464264	-22.7651663
105.000000	-65.000000	217.6084824	-20.5762928
105.000000	-60.000000	212.9112663	-18.2569387
105.000000	-55.000000	208.3407211	-15.8261313
105.000000	-50.000000	203.8808136	-13.3020012
105.000000	-45.000000	199.5141983	-10.7017944
105.000000	-40.000000	195.2226753	-8.0419332
105.000000	-35.000000	190.9875259	-5.3381404
105.000000	-30.000000	186.7897530	-2.6056232
105.000000	-25.000000	182.6102066	.1407975
105.000000	-20.000000	178.4296780	2.8864675
105.000000	-15.000000	174.2289524	5.6167287
105.000000	-10.000000	169.9888992	8.3167224
105.000000	-5.000000	165.6905346	10.9712121
105.000000	.000000	161.3151855	13.5643961
105.000000	5.000000	156.8447266	16.0797703
105.000000	10.000000	152.2619133	18.5000074
105.000000	15.000000	147.5508900	20.8068807
105.000000	20.000000	142.6978264	22.9812760
105.000000	25.000000	137.6917706	25.0032687
105.000000	30.000000	132.5256042	26.8523462
105.000000	35.000000	127.1971178	28.5077801
105.000000	40.000000	121.7100801	29.9491336
105.000000	45.000000	116.0751019	31.1569600
105.000000	50.000000	110.3101349	32.1136336
105.000000	55.000000	104.4403696	32.8042207
105.000000	60.000000	98.4973955	33.2173767
105.000000	65.000000	92.5175667	33.3460693
105.000000	70.000000	86.5397358	33.1880555
105.000000	75.000000	80.6026516	32.7460675
105.000000	80.000000	74.7422695	32.0276260
105.000000	85.000000	68.9895830	31.0444827
105.000000	90.000000	63.3690634	29.8118808

TABLE 3. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
110.000000	-90.000000	243.3690605	-29.8118796
110.000000	-85.000000	238.0732841	-27.9404066
110.000000	-80.000000	232.9669380	-25.8735297
110.000000	-75.000000	228.0432396	-23.6343343
110.000000	-70.000000	223.2904625	-21.2451363
110.000000	-65.000000	218.6932755	-18.7271693
110.000000	-60.000000	214.2338829	-16.1004226
110.000000	-55.000000	209.8929062	-13.3836814
110.000000	-50.000000	205.6500473	-10.5945741
110.000000	-45.000000	201.4845047	-7.7497391
110.000000	-40.000000	197.3752670	-4.8650029
110.000000	-35.000000	193.3012466	-1.9555847
110.000000	-30.000000	189.2413559	.9636702
110.000000	-25.000000	185.1745033	3.8780855
110.000000	-20.000000	181.0796051	6.7728947
110.000000	-15.000000	176.9355621	9.6330343
110.000000	-10.000000	172.7213345	12.4429046
110.000000	-5.000000	168.4160156	15.1861689
110.000000	.000000	163.9991055	17.8455522
110.000000	5.000000	159.4508476	20.4026761
110.000000	10.000000	154.7528248	22.8379641
110.000000	15.000000	149.8887482	25.1305988
110.000000	20.000000	144.8455257	27.2586107
110.000000	25.000000	139.6145267	29.1991248
110.000000	30.000000	134.1930656	30.9287860
110.000000	35.000000	128.5858536	32.4244256
110.000000	40.000000	122.8062515	33.6639142
110.000000	45.000000	116.8769836	34.6272593
110.000000	50.000000	110.8299999	35.2977567
110.000000	55.000000	104.7052679	35.6631236
110.000000	60.000000	98.5483961	35.7164297
110.000000	65.000000	92.4074211	35.4566493
110.000000	70.000000	86.3291769	34.8887496
110.000000	75.000000	80.3558693	34.0232658
110.000000	80.000000	74.5223684	32.8755345
110.000000	85.000000	68.8546019	31.4645650
110.000000	90.000000	63.3690634	29.8118808
115.000000	-90.000000	243.3690605	-29.8118796
115.000000	-85.000000	238.2866096	-27.5478015
115.000000	-80.000000	233.4171715	-25.1065733
115.000000	-75.000000	228.7440987	-22.5127466
115.000000	-70.000000	224.2473221	-19.7892005
115.000000	-65.000000	219.9047203	-16.9570980
115.000000	-60.000000	215.6930542	-14.0359590
115.000000	-55.000000	211.5886726	-11.0438582
115.000000	-50.000000	207.5678615	-7.9976187
115.000000	-45.000000	203.6070557	-4.9130970
115.000000	-40.000000	199.6828842	-1.8054344
115.000000	-35.000000	195.7721252	1.3106590
115.000000	-30.000000	191.8516312	4.4206343
115.000000	-25.000000	187.8982010	7.5098278
115.000000	-20.000000	183.8884926	10.5631874
115.000000	-15.000000	179.7989635	13.5649860
115.000000	-10.000000	175.6059284	16.4985666
115.000000	-5.000000	171.2856903	19.3460755
115.000000	.000000	166.8149223	22.0882342
115.000000	5.000000	162.1712589	24.7041492
115.000000	10.000000	157.3342323	27.1712182
115.000000	15.000000	152.2865410	29.4651358
115.000000	20.000000	147.0157661	31.5601242
115.000000	25.000000	141.5163708	33.4293861
115.000000	30.000000	135.7918930	35.0458603
115.000000	35.000000	129.8569241	36.3833380
115.000000	40.000000	123.7384291	37.4178371
115.000000	45.000000	117.4758930	38.1292186
115.000000	50.000000	111.1197653	38.5027356
115.000000	55.000000	104.7282181	38.5303364
115.000000	60.000000	98.3624420	38.2114172
115.000000	65.000000	92.0814152	37.5528765
115.000000	70.000000	85.9370871	36.5684810
115.000000	75.000000	79.9708290	35.2776060
115.000000	80.000000	74.2116356	33.7037339
115.000000	85.000000	68.6759920	31.8728232
115.000000	90.000000	63.3690634	29.8118808

TABLE 3. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
120.000000	-90.000000	243.3690605	-29.8118796
120.000000	-85.000000	238.5359840	-27.1726601
120.000000	-80.000000	233.9326172	-24.3756597
120.000000	-75.000000	229.5330811	-21.4457793
120.000000	-70.000000	225.3099976	-18.4055545
120.000000	-65.000000	221.2356110	-15.2753752
120.000000	-60.000000	217.2823868	-12.0737677
120.000000	-55.000000	213.4233627	-8.8177149
120.000000	-50.000000	209.6322021	-5.5229921
120.000000	-45.000000	205.8831367	-2.2045104
120.000000	-40.000000	202.1507797	1.1233521
120.000000	-35.000000	198.4099121	4.4464361
120.000000	-30.000000	194.6352386	7.7504843
120.000000	-25.000000	190.8011246	11.0207832
120.000000	-20.000000	186.8814430	14.2418851
120.000000	-15.000000	182.8494301	17.3972299
120.000000	-10.000000	178.6777134	20.4688237
120.000000	-5.000000	174.3385620	23.4369299
120.000000	.000000	169.8043766	26.2797301
120.000000	5.000000	165.0486355	28.9731038
120.000000	10.000000	160.0473652	31.4905145
120.000000	15.000000	154.7811890	33.8030882
120.000000	20.000000	149.2380695	35.8797971
120.000000	25.000000	143.4165173	37.6891851
120.000000	30.000000	137.3288937	39.1988049
120.000000	35.000000	131.0040894	40.3788381
120.000000	40.000000	124.4886436	41.2033606
120.000000	45.000000	117.8453922	41.6528134
120.000000	50.000000	111.1491785	41.7159958
120.000000	55.000000	104.4800940	41.3912954
120.000000	60.000000	97.9155254	40.6868911
120.000000	65.000000	91.5228138	39.6198158
120.000000	70.000000	85.3540831	38.2141690
120.000000	75.000000	79.4439440	36.4988732
120.000000	80.000000	73.8098946	34.5054383
120.000000	85.000000	68.4545946	32.2659969
120.000000	90.000000	63.3690634	29.8118808
125.000000	-90.000000	243.3690605	-29.8118796
125.000000	-85.000000	238.8193133	-26.8176270
125.000000	-80.000000	234.5090103	-23.6855538
125.000000	-75.000000	230.4041862	-20.4398763
125.000000	-70.000000	226.4715080	-17.1020126
125.000000	-65.000000	222.6788750	-13.6909943
125.000000	-60.000000	218.9956055	-10.2239254
125.000000	-55.000000	215.3923759	-6.7164031
125.000000	-50.000000	211.8409424	-3.1829475
125.000000	-45.000000	208.3138466	.3626254
125.000000	-40.000000	204.7839813	3.9068238
125.000000	-35.000000	201.2242126	7.4361185
125.000000	-30.000000	197.6069412	10.9365783
125.000000	-25.000000	193.9037399	14.3934995
125.000000	-20.000000	190.0850182	17.7910078
125.000000	-15.000000	186.1198006	21.1116416
125.000000	-10.000000	181.9757080	24.3359165
125.000000	-5.000000	177.6192150	27.4418831
125.000000	.000000	173.0163517	30.4046896
125.000000	5.000000	168.1340694	33.1962352
125.000000	10.000000	162.9424858	35.7850018
125.000000	15.000000	157.4181995	38.1361408
125.000000	20.000000	151.5487099	40.2121119
125.000000	25.000000	145.3376770	41.9739461
125.000000	30.000000	138.8100796	43.3833346
125.000000	35.000000	132.0158825	44.4055190
125.000000	40.000000	125.0302305	45.0126410
125.000000	45.000000	117.9488459	45.1869898
125.000000	50.000000	110.8785362	44.9233017
125.000000	55.000000	103.9248104	44.2295046
125.000000	60.000000	97.1798000	43.1256142
125.000000	65.000000	90.7137060	41.6411757
125.000000	70.000000	84.5712299	39.8119435
125.000000	75.000000	78.7726269	37.6765594
125.000000	80.000000	73.3178072	35.2738538
125.000000	85.000000	68.1916389	32.6408958
125.000000	90.000000	63.3690634	29.8118808

TABLE 3. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
130.000000	-90.000000	243.3690605	-29.8118796
130.000000	-85.000000	239.1343346	-26.4851887
130.000000	-80.000000	235.1419029	-23.0407059
130.000000	-75.000000	231.3513145	-19.5010962
130.000000	-70.000000	227.7248230	-15.8859973
130.000000	-65.000000	224.2273827	-12.2126287
130.000000	-60.000000	220.8263016	-8.4963473
130.000000	-55.000000	217.4908028	-4.7511389
130.000000	-50.000000	214.1914558	-.9900827
130.000000	-45.000000	210.8995972	2.7742467
130.000000	-40.000000	207.5867195	6.5293814
130.000000	-35.000000	204.2238655	10.2625496
130.000000	-30.000000	200.7810440	13.9603068
130.000000	-25.000000	197.2266350	17.6080630
130.000000	-20.000000	193.5268860	21.1896598
130.000000	-15.000000	189.6454887	24.6867931
130.000000	-10.000000	185.5433922	28.0784688
130.000000	-5.000000	181.1789856	31.3403592
130.000000	.000000	176.5089531	34.4441729
130.000000	5.000000	171.4901123	37.3570733
130.000000	10.000000	166.0827389	40.0413289
130.000000	15.000000	160.2558212	42.4544148
130.000000	20.000000	153.9943657	44.5498495
130.000000	25.000000	147.3082371	46.2792320
130.000000	30.000000	140.2406693	47.5955925
130.000000	35.000000	132.8733273	48.4580679
130.000000	40.000000	125.3240957	48.8371096
130.000000	45.000000	117.7355595	48.7189655
130.000000	50.000000	110.2559137	48.1079812
130.000000	55.000000	103.0180521	47.0258393
130.000000	60.000000	96.1235285	45.5080910
130.000000	65.000000	89.6355457	43.5991364
130.000000	70.000000	83.5805979	41.3471379
130.000000	75.000000	77.9556122	38.7999144
130.000000	80.000000	72.7369757	36.0022449
130.000000	85.000000	67.8887548	32.9944391
130.000000	90.000000	63.3690634	29.8118808
135.000000	-90.000000	243.3690605	-29.8118796
135.000000	-85.000000	239.4786148	-26.1776602
135.000000	-80.000000	235.8266754	-22.4452684
135.000000	-75.000000	232.3682289	-18.6350873
135.000000	-70.000000	229.0627975	-14.7645025
135.000000	-65.000000	225.8737946	-10.8485897
135.000000	-60.000000	222.7676659	-6.9007222
135.000000	-55.000000	219.7130966	-2.9331115
135.000000	-50.000000	216.6801758	1.0427647
135.000000	-45.000000	213.6395760	5.0157092
135.000000	-40.000000	210.5617638	8.9744321
135.000000	-35.000000	207.4161987	12.9071257
135.000000	-30.000000	204.1704941	16.8010292
135.000000	-25.000000	200.7896042	20.6419466
135.000000	-20.000000	197.2350006	24.4136729
135.000000	-15.000000	193.4638977	28.0973403
135.000000	-10.000000	189.4287071	31.6706548
135.000000	-5.000000	185.0769119	35.1069741
135.000000	.000000	180.3517799	38.3743587
135.000000	5.000000	175.1946373	41.4345803
135.000000	10.000000	169.5495110	44.2424068
135.000000	15.000000	163.3712845	46.7454634
135.000000	20.000000	156.6378975	48.8853240
135.000000	25.000000	149.3658199	50.6005321
135.000000	30.000000	141.6249790	51.8320680
135.000000	35.000000	133.5461082	52.5310264
135.000000	40.000000	125.3127213	52.6668239
135.000000	45.000000	117.1350641	52.2332578
135.000000	50.000000	109.2135286	51.2498293
135.000000	55.000000	101.7061071	49.7576904
135.000000	60.000000	94.7115202	47.8121004
135.000000	65.000000	88.2700577	45.4741879
135.000000	70.000000	82.3759642	42.8043475
135.000000	75.000000	76.9933128	39.8580613
135.000000	80.000000	72.0700369	36.6840048
135.000000	85.000000	67.5479755	33.3236737
135.000000	90.000000	63.3690634	29.8118808

TABLE 3. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
140.000000	-90.000000	243.3690605	-29.8118796
140.000000	-85.000000	239.8495941	-25.8971670
140.000000	-80.000000	236.5585670	-21.9030268
140.000000	-75.000000	233.4485397	-17.8470590
140.000000	-70.000000	230.4780769	-13.7440562
140.000000	-65.000000	227.6104240	-9.6067533
140.000000	-60.000000	224.8123093	-5.4464103
140.000000	-55.000000	222.0527840	-1.2733330
140.000000	-50.000000	219.3021965	2.9026854
140.000000	-45.000000	216.5311928	7.0719796
140.000000	-40.000000	213.7097282	11.2246011
140.000000	-35.000000	210.8060799	15.3499267
140.000000	-30.000000	207.7857590	19.4361897
140.000000	-25.000000	204.6103363	23.4699266
140.000000	-20.000000	201.2361794	27.4353485
140.000000	-15.000000	197.6131554	31.3135111
140.000000	-10.000000	193.6833267	35.0813160
140.000000	-5.000000	189.3800621	38.7102408
140.000000	.000000	184.6280708	42.1648769
140.000000	5.000000	179.3455315	45.4012837
140.000000	10.000000	173.4499779	48.3654957
140.000000	15.000000	166.8704395	50.9927554
140.000000	20.000000	159.5679035	53.2085447
140.000000	25.000000	151.5634022	54.9329448
140.000000	30.000000	142.9662380	56.0895629
140.000000	35.000000	133.9859505	56.6184387
140.000000	40.000000	124.9104261	56.4894543
140.000000	45.000000	116.0487595	55.7101274
140.000000	50.000000	107.6634035	54.3235869
140.000000	55.000000	99.9252234	52.3978944
140.000000	60.000000	92.9063110	50.0121837
140.000000	65.000000	86.6006413	47.2450538
140.000000	70.000000	80.9537363	44.1675143
140.000000	75.000000	75.8881989	40.8401079
140.000000	80.000000	71.3207703	37.3127365
140.000000	85.000000	67.1717300	33.6258163
140.000000	90.000000	63.3690634	29.8118808
145.000000	-90.000000	243.3690643	-29.8118784
145.000000	-85.000000	240.2445679	-25.6456325
145.000000	-80.000000	237.3326569	-21.4174294
145.000000	-75.000000	234.5857048	-17.1417689
145.000000	-70.000000	231.9630394	-12.8306961
145.000000	-65.000000	229.4291382	-8.4945154
145.000000	-60.000000	226.9520798	-4.1423291
145.000000	-55.000000	224.5021896	.2174814
145.000000	-50.000000	222.0508804	4.5768994
145.000000	-45.000000	219.5695114	8.9278742
145.000000	-40.000000	217.0282402	13.2619764
145.000000	-35.000000	214.3948479	17.5699997
145.000000	-30.000000	211.6333656	21.8415034
145.000000	-25.000000	208.7025185	26.0642240
145.000000	-20.000000	205.5538826	30.2233715
145.000000	-15.000000	202.1297035	34.3006687
145.000000	-10.000000	198.3604698	38.2730622
145.000000	-5.000000	194.1624641	42.1110883
145.000000	.000000	189.4359970	45.7766991
145.000000	5.000000	184.0659027	49.2205915
145.000000	10.000000	177.9274559	52.3793540
145.000000	15.000000	170.9029427	55.1731238
145.000000	20.000000	162.9152031	57.5057898
145.000000	25.000000	153.9804401	59.2706852
145.000000	30.000000	144.2661552	60.3651271
145.000000	35.000000	134.1144428	60.7132273
145.000000	40.000000	123.9867573	60.2885528
145.000000	45.000000	114.3376074	59.1231933
145.000000	50.000000	105.4926453	57.2968354
145.000000	55.000000	97.6022587	54.9134855
145.000000	60.000000	90.6706123	52.0792389
145.000000	65.000000	84.6143999	48.8887343
145.000000	70.000000	79.3140221	45.4201365
145.000000	75.000000	74.6451988	41.7353230
145.000000	80.000000	70.4941607	37.8823438
145.000000	85.000000	66.7628527	33.8982830
145.000000	90.000000	63.3690610	29.8118834

TABLE 3. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
150.000000	-90.000000	243.3690643	-29.8118784
150.000000	-85.000000	240.6607285	-25.4247789
150.000000	-80.000000	238.1438942	-20.9915490
150.000000	-75.000000	235.7729912	-16.5234895
150.000000	-70.000000	233.5097847	-12.0298944
150.000000	-65.000000	231.3212662	-7.5186823
150.000000	-60.000000	229.1778946	-2.9968463
150.000000	-55.000000	227.0522079	1.5291369
150.000000	-50.000000	224.9175224	6.0530098
150.000000	-45.000000	222.7467537	10.5684030
150.000000	-40.000000	220.5111923	15.0685278
150.000000	-35.000000	218.1791153	19.5458074
150.000000	-30.000000	215.7141953	23.9914584
150.000000	-25.000000	213.0735130	28.3949118
150.000000	-20.000000	210.2050323	32.7430525
150.000000	-15.000000	207.0443420	37.0191960
150.000000	-10.000000	203.5105553	41.2015929
150.000000	-5.000000	199.5013008	45.2613683
150.000000	.000000	194.8872910	49.1595559
150.000000	5.000000	189.5082512	52.8431158
150.000000	10.000000	183.1747551	56.2397404
150.000000	15.000000	175.6862621	59.2524519
150.000000	20.000000	166.8826332	61.7566590
150.000000	25.000000	156.7447472	63.6060433
150.000000	30.000000	145.5239697	64.6560278
150.000000	35.000000	133.7992420	64.8060284
150.000000	40.000000	122.3375034	64.0403805
150.000000	45.000000	111.8047085	62.4355636
150.000000	50.000000	102.5599079	60.1271024
150.000000	55.000000	94.6581421	57.2643576
150.000000	60.000000	87.9715405	53.9802938
150.000000	65.000000	82.3048353	50.3807850
150.000000	70.000000	77.4618149	46.5455709
150.000000	75.000000	73.2720366	42.5333414
150.000000	80.000000	69.5964537	38.3871303
150.000000	85.000000	66.3245525	34.1387119
150.000000	90.000000	63.3690610	29.8118834
155.000000	-90.000000	243.3690643	-29.8118784
155.000000	-85.000000	241.0951653	-25.2361102
155.000000	-80.000000	238.9871063	-20.6280799
155.000000	-75.000000	237.0034981	-15.9959855
155.000000	-70.000000	235.1100845	-11.3465260
155.000000	-65.000000	233.2775459	-6.6853899
155.000000	-60.000000	231.4797173	-2.0176017
155.000000	-55.000000	229.6922035	2.6521597
155.000000	-50.000000	227.8911171	7.3193231
155.000000	-45.000000	226.0518913	11.9791791
155.000000	-40.000000	224.1480370	16.6266301
155.000000	-35.000000	222.1496544	21.2558765
155.000000	-30.000000	220.0216827	25.8600440
155.000000	-25.000000	217.7215347	30.4306788
155.000000	-20.000000	215.1959457	34.9570374
155.000000	-15.000000	212.3765678	39.4250221
155.000000	-10.000000	209.1738586	43.8156691
155.000000	-5.000000	205.4685593	48.1027913
155.000000	.000000	201.1002884	52.2493505
155.000000	5.000000	195.8539581	56.2019801
155.000000	10.000000	189.4483528	59.8827405
155.000000	15.000000	181.5428276	63.1781344
155.000000	20.000000	171.8014774	65.9282360
155.000000	25.000000	160.0792713	67.9273529
155.000000	30.000000	146.7342758	68.9597120
155.000000	35.000000	132.8036575	68.8827448
155.000000	40.000000	119.6324930	67.7079611
155.000000	45.000000	108.1730461	65.5936632
155.000000	50.000000	98.6968107	62.7582421
155.000000	55.000000	91.0161953	59.4022021
155.000000	60.000000	84.7870913	55.6787529
155.000000	65.000000	79.6750593	51.6958442
155.000000	70.000000	75.4081535	47.5274801
155.000000	75.000000	71.7795143	43.2244043
155.000000	80.000000	68.6351318	38.8218985
155.000000	85.000000	65.8603897	34.3449955
155.000000	90.000000	63.3690610	29.8118834

TABLE 3. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
160.000000	-90.000000	243.3690643	-29.8118784
160.000000	-85.000000	241.5448875	-25.0809073
160.000000	-80.000000	239.8570213	-20.3293095
160.000000	-75.000000	238.2701569	-15.5624808
160.000000	-70.000000	236.7553902	-10.7848084
160.000000	-65.000000	235.2881355	-6.0000085
160.000000	-60.000000	233.8464775	-1.2113665
160.000000	-55.000000	232.4099197	3.5780353
160.000000	-50.000000	230.9582367	8.3651716
160.000000	-45.000000	229.4703751	13.1468822
160.000000	-40.000000	227.9232788	17.9196932
160.000000	-35.000000	226.2904549	22.6795998
160.000000	-30.000000	224.5401459	27.4217587
160.000000	-25.000000	222.6328316	32.1400995
160.000000	-20.000000	220.5176811	36.8267193
160.000000	-15.000000	218.1272659	41.4709916
160.000000	-10.000000	215.3696289	46.0581598
160.000000	-5.000000	212.1160698	50.5670519
160.000000	.000000	208.1821556	54.9662547
160.000000	5.000000	203.2990761	59.2076259
160.000000	10.000000	197.0739784	63.2150617
160.000000	15.000000	188.9515076	66.8657160
160.000000	20.000000	178.2419586	69.9627714
160.000000	25.000000	164.4135284	72.2139654
160.000000	30.000000	147.8814335	73.2737474
160.000000	35.000000	130.6686668	72.9187126
160.000000	40.000000	115.3215590	71.2290163
160.000000	45.000000	103.0656443	68.5175676
160.000000	50.000000	93.7229118	65.1165419
160.000000	55.000000	86.6182394	61.2702990
160.000000	60.000000	81.1149569	57.1353660
160.000000	65.000000	76.7412558	52.8085628
160.000000	70.000000	73.1710863	48.3503780
160.000000	75.000000	70.1816301	43.7996278
160.000000	80.000000	67.6189098	39.1820583
160.000000	85.000000	65.3742590	34.5153108
160.000000	90.000000	63.3690610	29.8118834
165.000000	-90.000000	243.3690643	-29.8118784
165.000000	-85.000000	242.0068283	-24.9602227
165.000000	-80.000000	240.7482529	-20.0971222
165.000000	-75.000000	239.5657310	-15.2256383
165.000000	-70.000000	238.4368515	-10.3482491
165.000000	-65.000000	237.3426323	-5.4670547
165.000000	-60.000000	236.2661476	-.5839055
165.000000	-55.000000	235.1915398	4.2994453
165.000000	-50.000000	234.1030426	9.1812726
165.000000	-45.000000	232.9840851	14.0597517
165.000000	-40.000000	231.8162766	18.9328551
165.000000	-35.000000	230.5781670	23.7982121
165.000000	-30.000000	229.2435913	28.6529226
165.000000	-25.000000	227.7793350	33.4932814
165.000000	-20.000000	226.1416283	38.3143797
165.000000	-15.000000	224.2707558	43.1094575
165.000000	-10.000000	222.0823975	47.8688831
165.000000	-5.000000	219.4530602	52.5783300
165.000000	.000000	216.1950150	57.2155771
165.000000	5.000000	212.0114365	61.7444024
165.000000	10.000000	206.4155273	66.1024628
165.000000	15.000000	198.5920601	70.1762190
165.000000	20.000000	187.2270508	73.7498722
165.000000	25.000000	170.6886501	76.4221458
165.000000	30.000000	148.9220543	77.5957842
165.000000	35.000000	126.4004107	76.8627024
165.000000	40.000000	108.4792070	74.4910126
165.000000	45.000000	96.0181456	71.0876207
165.000000	50.000000	87.4883671	67.1083975
165.000000	55.000000	81.4500847	62.8052545
165.000000	60.000000	76.9826069	58.3102212
165.000000	65.000000	73.5356836	53.6948919
165.000000	70.000000	70.7762403	49.0002947
165.000000	75.000000	68.4955530	44.2512879
165.000000	80.000000	66.5576077	39.4637179
165.000000	85.000000	64.8703232	34.6481380
165.000000	90.000000	63.3690610	29.8118834

TABLE 3. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
170.000000	-90.000000	243.3690643	-29.8118784
170.000000	-85.000000	242.4778748	-24.8748701
170.000000	-80.000000	241.6553497	-19.9329798
170.000000	-75.000000	240.8828621	-14.9875352
170.000000	-70.000000	240.1453590	-10.0396067
170.000000	-65.000000	239.4301262	-5.0900998
170.000000	-60.000000	238.7258377	-.1398126
170.000000	-55.000000	238.0218544	4.8108930
170.000000	-50.000000	237.3075333	9.7600675
170.000000	-45.000000	236.5716057	14.7081053
170.000000	-40.000000	235.8014641	19.6537156
170.000000	-35.000000	234.9822273	24.5958397
170.000000	-30.000000	234.0954933	29.5331626
170.000000	-25.000000	233.1175766	34.4639983
170.000000	-20.000000	232.0166740	39.3860636
170.000000	-15.000000	230.7484818	44.2961769
170.000000	-10.000000	229.2486839	49.1896968
170.000000	-5.000000	227.4196892	54.0595336
170.000000	.0000000	225.1056480	58.8942504
170.000000	5.0000000	222.0423622	63.6742082
170.000000	10.0000000	217.7484665	68.3627968
170.000000	15.0000000	211.2703323	72.8844738
170.000000	20.0000000	200.5615807	77.0627375
170.000000	25.0000000	181.3450279	80.4360809
170.000000	30.0000000	149.7112007	81.9233932
170.000000	35.0000000	117.5267563	80.5839014
170.000000	40.0000000	97.6553869	77.2814436
170.000000	45.0000000	86.6062841	73.1321402
170.000000	50.0000000	79.9587412	68.6236830
170.000000	55.0000000	75.5732937	63.9419608
170.000000	60.0000000	72.4561882	59.1659622
170.000000	65.0000000	70.1082458	54.3337045
170.000000	70.0000000	68.2567234	49.4654989
170.000000	75.0000000	66.7413359	44.5730953
170.000000	80.0000000	65.4620142	39.6637759
170.000000	85.0000000	64.3529902	34.7422891
170.000000	90.0000000	63.3690610	29.8118834
175.000000	-90.000000	243.3690643	-29.8118784
175.000000	-85.000000	242.9548645	-24.8254225
175.000000	-80.000000	242.5728111	-19.8379147
175.000000	-75.000000	242.2140770	-14.8496455
175.000000	-70.000000	241.8715744	-9.8608426
175.000000	-65.000000	241.5393143	-4.8717079
175.000000	-60.000000	241.2119560	.1175899
175.000000	-55.000000	240.8844833	5.1068849
175.000000	-50.000000	240.5518608	10.0960108
175.000000	-45.000000	240.2087364	15.0847914
175.000000	-40.000000	239.8490753	20.0730305
175.000000	-35.000000	239.4657211	25.0604942
175.000000	-30.000000	239.0497513	30.0468888
175.000000	-25.000000	238.5895653	35.0318356
175.000000	-20.000000	238.0694580	40.0148215
175.000000	-15.000000	237.4672089	44.9951124
175.000000	-10.000000	236.7500610	49.9716372
175.000000	-5.000000	235.8671265	54.9427171
175.000000	.0000000	234.7345810	59.9055896
175.000000	5.0000000	233.2035065	64.8553314
175.000000	10.0000000	230.9817314	69.7822323
175.000000	15.0000000	227.4108086	74.6641788
175.000000	20.0000000	220.6666832	79.4385910
175.000000	25.0000000	203.8149834	83.8496208
175.000000	30.0000000	149.4161873	86.2530670
175.000000	35.0000000	97.3228703	83.6611872
175.000000	40.0000000	81.3236818	79.2180672
175.000000	45.0000000	74.8115854	74.4357004
175.000000	50.0000000	71.3300924	69.5507555
175.000000	55.0000000	69.1512728	64.6224346
175.000000	60.0000000	67.6439276	59.6719117
175.000000	65.0000000	66.5257874	54.7085614
175.000000	70.0000000	65.6522102	49.7371755
175.000000	75.0000000	64.9414330	44.7604394
175.000000	80.0000000	64.3436937	39.7800002
175.000000	85.0000000	63.8268437	34.7969098
175.000000	90.0000000	63.3690610	29.8118834

TABLE 3. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
180.000000	-90.000000	243.3690643	-29.8118784
180.000000	-85.000000	243.4346161	-24.8122156
180.000000	-80.000000	243.4950752	-19.8125279
180.000000	-75.000000	243.5518341	-14.8128216
180.000000	-70.000000	243.6060333	-9.8130995
180.000000	-65.000000	243.6586151	-4.8133751
180.000000	-60.000000	243.7104263	.1863576
180.000000	-55.000000	243.7622681	5.1860887
180.000000	-50.000000	243.8149338	10.1858163
180.000000	-45.000000	243.8692856	15.1855345
180.000000	-40.000000	243.9262848	20.1852400
180.000000	-35.000000	243.9870682	25.1849258
180.000000	-30.000000	244.0530701	30.1845832
180.000000	-25.000000	244.1261482	35.1842060
180.000000	-20.000000	244.2088318	40.1837759
180.000000	-15.000000	244.3047028	45.1832790
180.000000	-10.000000	244.4190941	50.1826892
180.000000	-5.000000	244.5603065	55.1819592
180.000000	.000000	244.7421455	60.1810184
180.000000	5.000000	244.9894829	65.1797380
180.000000	10.000000	245.3521805	70.1778622
180.000000	15.000000	245.9472198	75.1747828
180.000000	20.000000	247.1290092	80.1686678
180.000000	25.000000	250.7076759	85.1501207
180.000000	30.000000	351.1724510	89.3788872
180.000000	35.000000	57.2102599	84.7798992
180.000000	40.000000	60.4154029	79.7966013
180.000000	45.000000	61.5272326	74.8023586
180.000000	50.000000	62.0977354	69.8053102
180.000000	55.000000	62.4490809	64.8071260
180.000000	60.000000	62.6902614	59.8083735
180.000000	65.000000	62.8684015	54.8092933
180.000000	70.000000	63.0072231	49.8100128
180.000000	75.000000	63.1199899	44.8105936
180.000000	80.000000	63.2147255	39.8110833
180.000000	85.000000	63.2965875	34.8115072
180.000000	90.000000	63.3690610	29.8118834
185.000000	-90.000000	243.3690643	-29.8118784
185.000000	-85.000000	243.9139290	-24.8353379
185.000000	-80.000000	244.4165764	-19.8569794
185.000000	-75.000000	244.8885612	-14.8772955
185.000000	-70.000000	245.3391838	-9.8966883
185.000000	-65.000000	245.7763138	-4.9155053
185.000000	-60.000000	246.2069359	.0659632
185.000000	-55.000000	246.6376419	5.0474246
185.000000	-50.000000	247.0750351	10.0286009
185.000000	-45.000000	247.5261192	15.0091864
185.000000	-40.000000	247.9987869	19.9888399
185.000000	-35.000000	248.5023918	24.9671593
185.000000	-30.000000	249.0485611	29.9436386
185.000000	-25.000000	249.6524010	34.9176302
185.000000	-20.000000	250.3343277	39.8882508
185.000000	-15.000000	251.1231041	44.8542476
185.000000	-10.000000	252.0610657	49.8137932
185.000000	-5.000000	253.2135582	54.7640333
185.000000	.000000	254.6876526	59.7003016
185.000000	5.000000	256.6716270	64.6143274
185.000000	10.000000	259.5290909	69.4900074
185.000000	15.000000	264.0565796	74.2914820
185.000000	20.000000	272.3322716	78.9217129
185.000000	25.000000	291.0652885	83.0304670
185.000000	30.000000	336.9717445	85.0708504
185.000000	35.000000	22.0995777	82.9363451
185.000000	40.000000	40.3750997	78.8031235
185.000000	45.000000	48.4998994	74.1658640
185.000000	50.000000	52.9655242	69.3616199
185.000000	55.000000	55.7924776	64.4845934
185.000000	60.000000	57.7593641	59.5698218
185.000000	65.000000	59.2230010	54.6330976
185.000000	70.000000	60.3686843	49.6825614
185.000000	75.000000	61.3019686	44.7228131
185.000000	80.000000	62.0874500	39.7566724
185.000000	85.000000	62.7669830	34.7859502
185.000000	90.000000	63.3690610	29.8118834

TABLE 3. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
190.000000	-90.000000	243.3690643	-29.8118784
190.000000	-85.000000	244.3896141	-24.8996345
190.000000	-80.000000	245.3317528	-19.9709828
190.000000	-75.000000	246.2166748	-15.0426627
190.000000	-70.000000	247.0615005	-10.1110704
190.000000	-65.000000	247.8807182	-5.1773934
190.000000	-60.000000	248.6872177	-.2426767
190.000000	-55.000000	249.4931259	4.6920856
190.000000	-50.000000	250.3105354	9.6259131
190.000000	-45.000000	251.1522331	14.5577593
190.000000	-40.000000	252.0325050	19.4864600
190.000000	-35.000000	252.9681549	24.4106402
190.000000	-30.000000	253.9799042	29.3286014
190.000000	-25.000000	255.0943489	34.2381582
190.000000	-20.000000	256.3469963	39.1363831
190.000000	-15.000000	257.7871170	44.0191932
190.000000	-10.000000	259.4857445	48.8806658
190.000000	-5.000000	261.5497627	53.7118168
190.000000	.000000	264.1477852	58.4983001
190.000000	5.000000	267.5607986	63.2157822
190.000000	10.000000	272.2873116	67.8198204
190.000000	15.000000	279.2723694	72.2216930
190.000000	20.000000	290.3899651	76.2258329
190.000000	25.000000	309.0069466	79.3724146
190.000000	30.000000	337.1983643	80.7411594
190.000000	35.000000	6.0691504	79.6042881
190.000000	40.000000	25.6316092	76.5843983
190.000000	45.000000	37.3130560	72.6378279
190.000000	50.000000	44.6004696	68.2637653
190.000000	55.000000	49.4969282	63.6746154
190.000000	60.000000	53.0121355	58.9658608
190.000000	65.000000	55.6753931	54.1848598
190.000000	70.000000	57.7831287	49.3573489
190.000000	75.000000	59.5122066	44.4983935
190.000000	80.000000	60.9741526	39.6173830
190.000000	85.000000	62.2427797	34.7204719
190.000000	90.000000	63.3690610	29.8118834
195.000000	-90.000000	243.3690643	-29.8118784
195.000000	-85.000000	244.8584862	-24.9897037
195.000000	-80.000000	246.2350655	-20.1538298
195.000000	-75.000000	247.5286598	-15.3079023
195.000000	-70.000000	248.7635384	-10.4548743
195.000000	-65.000000	249.9603081	-5.5972472
195.000000	-60.000000	251.1373024	-.7372315
195.000000	-55.000000	252.3117218	4.1230934
195.000000	-50.000000	253.5006256	8.9816720
195.000000	-45.000000	254.7218933	13.8363426
195.000000	-40.000000	255.9953079	18.6847115
195.000000	-35.000000	257.3438644	23.5239828
195.000000	-30.000000	258.7954712	28.3507524
195.000000	-25.000000	260.3853989	33.1606836
195.000000	-20.000000	262.1598549	37.9480700
195.000000	-15.000000	264.1813927	42.7050900
195.000000	-10.000000	266.5376053	47.4206715
195.000000	-5.000000	269.3552628	52.0785012
195.000000	.000000	272.8241730	56.6535659
195.000000	5.000000	277.2379837	61.1057639
195.000000	10.000000	283.0635338	65.3676558
195.000000	15.000000	291.0466118	69.3205490
195.000000	20.000000	302.3030128	72.7500629
195.000000	25.000000	318.0492706	75.2850504
195.000000	30.000000	338.0848656	76.4148188
195.000000	35.000000	358.8631706	75.7997656
195.000000	40.000000	16.0660310	73.6355286
195.000000	45.000000	28.5753014	70.4296837
195.000000	50.000000	37.4168439	66.6068964
195.000000	55.000000	43.8020244	62.4228988
195.000000	60.000000	48.5843363	58.0195637
195.000000	65.000000	52.3025765	53.4765887
195.000000	70.000000	55.2939706	48.8406916
195.000000	75.000000	57.7744608	44.1405954
195.000000	80.000000	59.8868070	39.3947840
195.000000	85.000000	61.7286572	34.6156607
195.000000	90.000000	63.3690610	29.8118834

TABLE 3. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
200.000000	-90.000000	243.3690643	-29.8118784
200.000000	-85.000000	245.3173981	-25.1199069
200.000000	-80.000000	247.1210098	-20.4043627
200.000000	-75.000000	248.8170662	-15.6713748
200.000000	-70.000000	250.4360237	-10.9259177
200.000000	-65.000000	252.0038757	-6.1722247
200.000000	-60.000000	253.5437660	-1.4140228
200.000000	-55.000000	255.0773468	3.3451945
200.000000	-50.000000	256.6259232	8.1019995
200.000000	-45.000000	258.2115898	12.8528242
200.000000	-40.000000	259.8584862	17.5937636
200.000000	-35.000000	261.5941963	22.3203301
200.000000	-30.000000	263.4515915	27.0271270
200.000000	-25.000000	265.41713402	31.7074180
200.000000	-20.000000	267.7053680	36.3524947
200.000000	-15.000000	270.2219658	40.9507203
200.000000	-10.000000	273.1132584	45.4860625
200.000000	-5.000000	276.5065308	49.9357572
200.000000	.000000	280.5810471	54.2664785
200.000000	5.000000	285.5921707	58.4279995
200.000000	10.000000	291.8016914	62.3426824
200.000000	15.000000	299.9989891	65.8889551
200.000000	20.000000	310.4532585	68.8794870
200.000000	25.000000	323.6465912	71.0485973
200.000000	30.000000	339.1620750	72.0947304
200.000000	35.000000	355.3316689	71.8227253
200.000000	40.000000	10.0357476	70.2871265
200.000000	45.000000	22.1056910	67.7482824
200.000000	50.000000	31.5368378	64.5045767
200.000000	55.000000	38.8418794	60.7904477
200.000000	60.000000	44.5728579	56.7638750
200.000000	65.000000	49.1670198	52.5261836
200.000000	70.000000	52.9392338	48.1422625
200.000000	75.000000	56.1105876	43.6544986
200.000000	80.000000	58.8367805	39.0913420
200.000000	85.000000	61.2291541	34.4728607
200.000000	90.000000	63.3690610	29.8118834
205.000000	-90.000000	243.3690643	-29.8118784
205.000000	-85.000000	245.7632446	-25.2843635
205.000000	-80.000000	247.9841614	-20.7210066
205.000000	-75.000000	250.0745583	-16.1308374
205.000000	-70.000000	252.0699043	-11.5212353
205.000000	-65.000000	254.0006409	-6.8984841
205.000000	-60.000000	255.8939514	-2.2681195
205.000000	-55.000000	257.7751465	2.3647014
205.000000	-50.000000	259.6689682	6.9949580
205.000000	-45.000000	261.6007690	11.6174995
205.000000	-40.000000	263.5977707	16.2267601
205.000000	-35.000000	265.6905060	20.8164513
205.000000	-30.000000	267.9145699	25.3791578
205.000000	-25.000000	270.3128853	29.9058130
205.000000	-20.000000	272.9387054	34.3849592
205.000000	-15.000000	275.8596687	38.8017073
205.000000	-10.000000	279.1634254	43.1361752
205.000000	-5.000000	282.9650879	47.3612099
205.000000	.000000	287.4167557	51.4389143
205.000000	5.000000	292.7180138	55.3155293
205.000000	10.000000	299.1223564	58.9141235
205.000000	15.000000	306.9251595	62.1253777
205.000000	20.000000	316.4010124	64.7995434
205.000000	25.000000	327.6450462	66.7495737
205.000000	30.000000	340.3290596	67.7832842
205.000000	35.000000	353.5747948	67.7721462
205.000000	40.000000	6.2359979	66.7176561
205.000000	45.000000	17.4446249	64.7504883
205.000000	50.000000	26.8836162	62.0633202
205.000000	55.000000	34.6542029	58.8426108
205.000000	60.000000	41.0326180	55.2372355
205.000000	65.000000	46.3137655	51.3557339
205.000000	70.000000	50.7500339	47.2744784
205.000000	75.000000	54.5399084	43.0468225
205.000000	80.000000	57.8346210	38.7103920
205.000000	85.000000	60.7486196	34.2921596
205.000000	90.000000	63.3690610	29.8118834

TABLE 3. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
210.000000	-90.000000	243.3690643	-29.8118784
210.000000	-85.000000	246.1929817	-25.4819555
210.000000	-80.000000	248.8191681	-21.1017644
210.000000	-75.000000	251.2939606	-16.6834733
210.000000	-70.000000	253.6564140	-12.2371234
210.000000	-65.000000	255.9403572	-7.7712688
210.000000	-60.000000	258.1760674	-3.2934750
210.000000	-55.000000	260.3917198	1.1892751
210.000000	-50.000000	262.6145859	5.6702434
210.000000	-45.000000	264.8722801	10.1426009
210.000000	-40.000000	267.1939125	14.5991024
210.000000	-35.000000	269.6114616	19.0317128
210.000000	-30.000000	272.1613045	23.4311566
210.000000	-25.000000	274.8860664	27.7863607
210.000000	-20.000000	277.8369904	32.0836802
210.000000	-15.000000	281.0768394	36.3058939
210.000000	-10.000000	284.6835518	40.4307652
210.000000	-5.000000	288.7543907	44.4290609
210.000000	.000000	293.4101715	48.2618389
210.000000	5.000000	298.7977142	51.8768153
210.000000	10.000000	305.0861549	55.2039413
210.000000	15.000000	312.4487267	58.1510167
210.000000	20.000000	321.0163155	60.6019497
210.000000	25.000000	330.7930527	62.4228878
210.000000	30.000000	341.5532990	63.4828434
210.000000	35.000000	352.7979355	63.6891932
210.000000	40.000000	3.8623667	63.0222621
210.000000	45.000000	14.1460094	61.5436492
210.000000	50.000000	23.2924795	59.3712921
210.000000	55.000000	31.2097640	56.6413021
210.000000	60.000000	37.9819613	53.4796333
210.000000	65.000000	43.7704411	49.9898043
210.000000	70.000000	48.7498999	46.2517896
210.000000	75.000000	53.0787258	42.3256254
210.000000	80.000000	56.8898573	38.2560182
210.000000	85.000000	60.2911482	34.0763588
210.000000	90.000000	63.3690610	29.8118834
215.000000	-90.000000	243.3690643	-29.8118784
215.000000	-85.000000	246.6036453	-25.7113485
215.000000	-80.000000	249.6207657	-21.5442357
215.000000	-75.000000	252.4682350	-17.3259094
215.000000	-70.000000	255.1870880	-13.0691730
215.000000	-65.000000	257.8133240	-8.7849934
215.000000	-60.000000	260.3793411	-4.4830616
215.000000	-55.000000	262.9152489	-1.1722796
215.000000	-50.000000	265.4500084	4.1388376
215.000000	-45.000000	268.0125351	8.4417945
215.000000	-40.000000	270.6328087	12.7277378
215.000000	-35.000000	273.3429947	16.9870515
215.000000	-30.000000	276.1787491	21.2088847
215.000000	-25.000000	279.1806602	25.3806124
215.000000	-20.000000	282.3959198	29.4871049
215.000000	-15.000000	285.8802299	33.5098047
215.000000	-10.000000	289.6998863	37.4255505
215.000000	-5.000000	293.9336853	41.2050095
215.000000	.000000	298.6740875	44.8107162
215.000000	5.000000	304.0260048	48.1947451
215.000000	10.000000	310.1006851	51.2962780
215.000000	15.000000	317.0002594	54.0398331
215.000000	20.000000	324.7883339	56.3358274
215.000000	25.000000	333.4456520	58.0859451
215.000000	30.000000	342.8228874	59.1958704
215.000000	35.000000	352.6216545	59.5947165
215.000000	40.000000	2.4374528	59.2545638
215.000000	45.000000	11.8612137	58.1993103
215.000000	50.000000	20.5835211	56.4970512
215.000000	55.000000	28.4432082	54.2410107
215.000000	60.000000	35.4122195	51.5297561
215.000000	65.000000	41.5493298	48.4538522
215.000000	70.000000	46.9549041	45.0899754
215.000000	75.000000	51.7401724	41.5000625
215.000000	80.000000	56.0108743	37.7329874
215.000000	85.000000	59.8605461	33.8269610
215.000000	90.000000	63.3690610	29.8118834

TABLE 3. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
220.000000	-90.000000	243.3690643	-29.8118796
220.000000	-85.000000	246.9923401	-25.9709697
220.000000	-80.000000	250.3838272	-22.0456212
220.000000	-75.000000	253.5905304	-18.0542402
220.000000	-70.000000	256.6537933	-14.0123451
220.000000	-65.000000	259.6104584	-9.9333252
220.000000	-60.000000	262.4939919	-5.8290227
220.000000	-55.000000	265.3355293	-1.7102751
220.000000	-50.000000	268.1648712	2.4126576
220.000000	-45.000000	271.0114365	6.5296785
220.000000	-40.000000	273.9051781	10.6304600
220.000000	-35.000000	276.8775597	14.7040315
220.000000	-30.000000	279.9625473	18.7383122
220.000000	-25.000000	283.1976700	22.7196074
220.000000	-20.000000	286.6251640	26.6319597
220.000000	-15.000000	290.2930946	30.4563823
220.000000	-10.000000	294.2564087	34.1699252
220.000000	-5.000000	298.5775795	37.7445111
220.000000	.000000	303.3262444	41.1456285
220.000000	5.000000	308.5770073	44.3308988
220.000000	10.000000	314.4038010	47.2488489
220.000000	15.000000	320.8689308	49.8383656
220.000000	20.000000	328.0053062	52.0298185
220.000000	25.000000	335.7926712	53.7490025
220.000000	30.000000	344.1340446	54.9249616
220.000000	35.000000	352.8454247	55.5011387
220.000000	40.000000	1.6726238	55.4470663
220.000000	45.000000	10.3374333	54.7656879
220.000000	50.000000	18.5950520	53.4926214
220.000000	55.000000	26.2759886	51.6877308
220.000000	60.000000	33.2976308	49.4232616
220.000000	65.000000	39.6505823	46.7730646
220.000000	70.000000	45.3743157	43.8055115
220.000000	75.000000	50.5341840	40.5800867
220.000000	80.000000	55.2048221	37.1466508
220.000000	85.000000	59.4602776	33.5461435
220.000000	90.000000	63.3690600	29.8118808
225.000000	-90.000000	243.3690643	-29.8118796
225.000000	-85.000000	247.3562889	-26.2590482
225.000000	-80.000000	251.1033325	-22.6027489
225.000000	-75.000000	254.6541710	-18.8640580
225.000000	-70.000000	258.0487022	-15.0610056
225.000000	-65.000000	261.3232384	-11.2092891
225.000000	-60.000000	264.5112076	-7.3228332
225.000000	-55.000000	267.6438675	-3.4143480
225.000000	-50.000000	270.7510719	.5042318
225.000000	-45.000000	273.8620186	4.4213308
225.000000	-40.000000	277.0060120	8.3253103
225.000000	-35.000000	280.2131920	12.2040846
225.000000	-30.000000	283.5153008	16.0446730
225.000000	-25.000000	286.9464378	19.8327465
225.000000	-20.000000	290.5437851	23.5520737
225.000000	-15.000000	294.3482552	27.1839030
225.000000	-10.000000	298.4049072	30.7062538
225.000000	-5.000000	302.7629662	34.0931063
225.000000	.000000	307.4750519	37.3135023
225.000000	5.000000	312.5949478	40.3307447
225.000000	10.000000	318.1733437	43.1017847
225.000000	15.000000	324.2506371	45.5771646
225.000000	20.000000	330.8462715	47.7020822
225.000000	25.000000	337.9455299	49.4190941
225.000000	30.000000	345.4868240	50.6729007
225.000000	35.000000	353.3550949	51.4170289
225.000000	40.000000	1.3877541	51.6210814
225.000000	45.000000	9.3956294	51.2763200
225.000000	50.000000	17.1936591	50.3973932
225.000000	55.000000	24.6300666	49.0194941
225.000000	60.000000	31.6035700	47.1920681
225.000000	65.000000	38.0656457	44.9715314
225.000000	70.000000	44.0116763	42.4150362
225.000000	75.000000	49.4676905	39.5761814
225.000000	80.000000	54.4775958	36.5028167
225.000000	85.000000	59.0934548	33.2363358
225.000000	90.000000	63.3690600	29.8118808

TABLE 3. (Continued)

ALPHA (L AHRDA) DEGREES	DELTA (SFTA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
230.000000	-90.000000	243.3690643	-29.8118796
230.000000	-85.000000	247.6928291	-26.5735970
230.000000	-80.000000	251.7744064	-23.2120736
230.000000	-75.000000	255.6526527	-19.7504771
230.000000	-70.000000	259.3642769	-16.2089834
230.000000	-65.000000	262.9436607	-12.6053534
230.000000	-60.000000	266.4230537	-8.9554374
230.000000	-55.000000	269.8329315	-5.2736923
230.000000	-50.000000	273.2024689	-1.5735940
230.000000	-45.000000	276.5600510	2.1319191
230.000000	-40.000000	279.9338379	5.8300853
230.000000	-35.000000	283.3522987	9.5079181
230.000000	-30.000000	286.8447723	13.1518108
230.000000	-25.000000	290.4419708	16.7471328
230.000000	-20.000000	294.1764488	20.2777698
230.000000	-15.000000	298.0829353	23.7256427
230.000000	-10.000000	302.1984787	27.0701554
230.000000	-5.000000	306.5622253	30.2876356
230.000000	.000000	311.2145805	33.3507657
230.000000	5.000000	316.1955223	36.2280679
230.000000	10.000000	321.5415573	38.8836422
230.000000	15.000000	327.2811508	41.2772436
230.000000	20.000000	333.4282837	43.3651109
230.000000	25.000000	339.9748840	45.1017075
230.000000	30.000000	346.8833923	46.4427137
230.000000	35.000000	354.0821762	47.3490863
230.000000	40.000000	1.4668291	47.7917032
230.000000	45.000000	8.9092931	47.7554464
230.000000	50.000000	16.2737010	47.2415876
230.000000	55.000000	23.4346776	46.2675509
230.000000	60.000000	30.2923696	44.8642483
230.000000	65.000000	36.7803750	43.0718017
230.000000	70.000000	42.8659692	40.9349599
230.000000	75.000000	48.5449133	38.4991426
230.000000	80.000000	53.8338461	35.8076787
230.000000	85.000000	58.7627964	32.9001813
230.000000	90.000000	63.3690600	29.8118808
235.000000	-90.000000	243.3690643	-29.8118796
235.000000	-85.000000	247.9994316	-26.9124413
235.000000	-80.000000	252.3923187	-23.86697035
235.000000	-75.000000	256.5796318	-20.7081628
235.000000	-70.000000	260.5932236	-17.4496119
235.000000	-65.000000	264.4641418	-14.1135101
235.000000	-60.000000	268.2223206	-10.7173758
235.000000	-55.000000	271.8965378	-7.2772171
235.000000	-50.000000	275.5145721	-3.8079182
235.000000	-45.000000	279.1034851	-.3236035
235.000000	-40.000000	282.6899261	3.1619771
235.000000	-35.000000	286.3005295	6.6351165
235.000000	-30.000000	289.9622421	10.0817814
235.000000	-25.000000	293.7026901	13.4872559
235.000000	-20.000000	297.5504570	16.8357747
235.000000	-15.000000	301.5352516	20.1101243
235.000000	-10.000000	305.6879311	23.2912390
235.000000	-5.000000	310.0402489	26.3577895
235.000000	.000000	314.6241684	29.2858064
235.000000	5.000000	319.4706573	32.0483518
235.000000	10.000000	324.6076775	34.6153812
235.000000	15.000000	330.0572586	36.9538345
235.000000	20.000000	335.8316460	39.0281882
235.000000	25.000000	341.9286919	40.8015885
235.000000	30.000000	348.3273277	42.2376647
235.000000	35.000000	354.9842110	43.3030758
235.000000	40.000000	1.8331383	43.9704719
235.000000	45.000000	8.7885408	44.2214737
235.000000	50.000000	15.7531910	44.0488992
235.000000	55.000000	22.6288211	43.4577045
235.000000	60.000000	29.3269997	42.4643297
235.000000	65.000000	35.7775402	41.0946655
235.000000	70.000000	41.9327860	39.3811750
235.000000	75.000000	47.7677274	37.3598752
235.000000	80.000000	53.2770333	35.0676932
235.000000	85.000000	58.4706302	32.5405073
235.000000	90.000000	63.3690600	29.8118808

TABLE 3. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
240.0000000	-90.0000000	243.3690643	-29.8118796
240.0000000	-85.0000000	248.2737045	-27.2732220
240.0000000	-80.0000000	252.9524994	-24.5714116
240.0000000	-75.0000000	257.4289093	-21.7313597
240.0000000	-70.0000000	261.7284317	-18.7757812
240.0000000	-65.0000000	265.8774223	-15.7253458
240.0000000	-60.0000000	269.9023361	-12.5988910
240.0000000	-55.0000000	273.8293343	-9.4137309
240.0000000	-50.0000000	277.6841087	-6.1859522
240.0000000	-45.0000000	281.4918861	-2.9307383
240.0000000	-40.0000000	285.2775192	.3373175
240.0000000	-35.0000000	289.0657005	3.6039010
240.0000000	-30.0000000	292.8811264	6.8546646
240.0000000	-25.0000000	296.7487259	10.0749203
240.0000000	-20.0000000	300.6938057	13.2493172
240.0000000	-15.0000000	304.7421608	16.3615520
240.0000000	-10.0000000	308.9200325	19.3940144
240.0000000	-5.0000000	313.2539024	22.3275118
240.0000000	.0000000	317.7700386	25.1409671
240.0000000	5.0000000	322.4936028	27.8112302
240.0000000	10.0000000	327.4474564	30.3129203
240.0000000	15.0000000	332.6502380	32.6185427
240.0000000	20.0000000	338.1140480	34.6987844
240.0000000	25.0000000	343.8415833	36.5232034
240.0000000	30.0000000	349.8232079	38.0613599
240.0000000	35.0000000	356.0344887	39.2843776
240.0000000	40.0000000	2.4349710	40.1668668
240.0000000	45.0000000	8.9690049	40.6890044
240.0000000	50.0000000	15.5690764	40.8384318
240.0000000	55.0000000	22.1614499	40.6115079
240.0000000	60.0000000	28.6731367	40.0137391
240.0000000	65.0000000	35.0386720	39.0591583
240.0000000	70.0000000	41.2053504	37.7688961
240.0000000	75.0000000	47.1360416	36.1692324
240.0000000	80.0000000	52.8095021	34.2895169
240.0000000	85.0000000	58.2188821	32.1603074
240.0000000	90.0000000	63.3690600	29.8118808
245.0000000	-90.0000000	243.3690643	-29.8118796
245.0000000	-85.0000000	248.5134315	-27.6534019
245.0000000	-80.0000000	253.4505539	-25.3126547
245.0000000	-75.0000000	258.1944160	-22.8139024
245.0000000	-70.0000000	262.7629013	-20.1799614
245.0000000	-65.0000000	267.1763954	-17.4321029
245.0000000	-60.0000000	271.4567490	-14.5900218
245.0000000	-55.0000000	275.6265411	-11.6720227
245.0000000	-50.0000000	279.7086372	-8.6951873
245.0000000	-45.0000000	283.7259102	-5.6755918
245.0000000	-40.0000000	287.7011261	-2.6285793
245.0000000	-35.0000000	291.6569405	.4310031
245.0000000	-30.0000000	295.6159248	3.4885282
245.0000000	-25.0000000	299.6006889	6.5293417
245.0000000	-20.0000000	303.6339111	9.5384769
245.0000000	-15.0000000	307.7383881	12.5004082
245.0000000	-10.0000000	311.9370079	15.3988024
245.0000000	-5.0000000	316.2525787	18.2162623
245.0000000	.0000000	320.7075539	20.9340997
245.0000000	5.0000000	325.3234482	23.5321839
245.0000000	10.0000000	330.1200638	25.9888132
245.0000000	15.0000000	335.1143417	28.2807484
245.0000000	20.0000000	340.3188744	30.3833482
245.0000000	25.0000000	345.7401161	32.2710061
245.0000000	30.0000000	351.3764572	33.9177771
245.0000000	35.0000000	357.2163734	35.2983274
245.0000000	40.0000000	3.2371039	36.3892140
245.0000000	45.0000000	9.4043020	37.1702781
245.0000000	50.0000000	15.6730840	37.6261048
245.0000000	55.0000000	21.9906213	37.7472954
245.0000000	60.0000000	28.3000863	37.5313077
245.0000000	65.0000000	34.5453267	36.9826670
245.0000000	70.0000000	40.6753979	36.1125693
245.0000000	75.0000000	46.6481948	34.9378996
245.0000000	80.0000000	52.4325886	33.4799004
245.0000000	85.0000000	58.0090642	31.7626927
245.0000000	90.0000000	63.3690600	29.8118808

TABLE 3. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
250.000000	-90.000000	243.3690643	-29.8118796
250.000000	-85.000000	248.7165756	-28.0502949
250.000000	-80.000000	253.8822632	-26.0885797
250.000000	-75.000000	258.8701782	-23.9492316
250.000000	-70.000000	263.6896515	-21.6542304
250.000000	-65.000000	268.3539772	-19.2246959
250.000000	-60.000000	272.8792763	-16.6806421
250.000000	-55.000000	277.2835732	-14.0409656
250.000000	-50.000000	281.5860863	-11.3234730
250.000000	-45.000000	285.8067627	-8.5449802
250.000000	-40.000000	289.9658890	-5.7214843
250.000000	-35.000000	294.0839386	-2.8683511
250.000000	-30.000000	298.1814346	-.0005039
250.000000	-25.000000	302.2789307	2.8673465
250.000000	-20.000000	306.3969650	5.7204919
250.000000	-15.000000	310.5560760	8.5440004
250.000000	-10.000000	314.7767220	11.3225121
250.000000	-5.000000	319.0792122	14.0400287
250.000000	5.000000	323.4834633	16.6797388
250.000000	10.000000	328.0087128	19.2238247
250.000000	15.000000	332.6729774	21.6534116
250.000000	20.000000	337.4923935	23.9484513
250.000000	25.000000	342.4802437	26.0878601
250.000000	30.000000	347.6458740	28.0496404
250.000000	35.000000	352.9933205	29.8112981
250.000000	40.000000	358.5200157	31.3503757
250.000000	45.000000	4.2155526	32.6452384
250.000000	50.000000	10.0609128	33.6759996
250.000000	55.000000	16.0283513	34.4256253
250.000000	60.000000	22.0822749	34.8809724
250.000000	65.000000	28.1810694	35.0337439
250.000000	70.000000	34.2798734	34.8810830
250.000000	75.000000	40.3338208	34.4258385
250.000000	80.000000	46.3013015	33.6763163
250.000000	85.000000	52.1467090	32.6456480
250.000000	90.000000	57.8423004	31.3508775
250.000000	-90.000000	63.3690600	29.8118808
255.000000	-85.000000	243.3690643	-29.8118796
255.000000	-80.000000	248.8812943	-28.4610651
255.000000	-75.000000	254.2436180	-26.8940516
255.000000	-70.000000	259.4503136	-25.1304202
255.000000	-65.000000	264.5016403	-23.1902854
255.000000	-60.000000	269.4029045	-21.0937495
255.000000	-55.000000	274.1634445	-18.8605034
255.000000	-50.000000	278.7956924	-16.5095398
255.000000	-45.000000	283.3143501	-14.0590678
255.000000	-40.000000	287.7356911	-11.5264518
255.000000	-35.000000	292.0770416	-8.9282694
255.000000	-30.000000	296.3564072	-6.2803968
255.000000	-25.000000	300.5921860	-3.5981349
255.000000	-20.000000	304.8030205	-.8963815
255.000000	-15.000000	309.0076408	1.8102001
255.000000	-10.000000	313.2248077	4.5070175
255.000000	-5.000000	317.4732361	7.1793467
255.000000	5.000000	321.7714958	9.8121746
255.000000	10.000000	326.1378746	12.3900182
255.000000	15.000000	330.5901871	14.8967806
255.000000	20.000000	335.1454582	17.3156338
255.000000	25.000000	339.8194923	19.6289127
255.000000	30.000000	344.6262970	21.8181541
255.000000	35.000000	349.5773773	23.8640840
255.000000	40.000000	354.6808167	25.7468574
255.000000	45.000000	359.9403305	27.4463103
255.000000	50.000000	5.3542516	28.9424481
255.000000	55.000000	10.9146615	30.2160051
255.000000	60.000000	16.6067984	31.2492270
255.000000	65.000000	22.4089677	32.0266800
255.000000	70.000000	28.2930870	32.5360723
255.000000	75.000000	34.2259583	32.7690182
255.000000	80.000000	40.1711841	32.7215924
255.000000	85.000000	46.0915504	32.3946052
255.000000	90.000000	51.9514832	31.7935317
255.000000	90.000000	57.7193303	30.9281425
255.000000	90.000000	63.3690600	29.8118808

TABLE 3. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
260.000000	-90.000000	243.3690643	-29.8118796
260.000000	-85.000000	249.0059700	-28.8827503
260.000000	-80.000000	254.5308342	-27.7236600
260.000000	-75.000000	259.9290047	-26.3501675
260.000000	-70.000000	265.1916580	-24.7794302
260.000000	-65.000000	270.3155556	-23.0295978
260.000000	-60.000000	275.3022881	-21.1192288
260.000000	-55.000000	280.1576576	-19.0668416
260.000000	-50.000000	284.8908195	-16.8906429
260.000000	-45.000000	289.5135193	-14.6082996
260.000000	-40.000000	294.0394287	-12.2368687
260.000000	-35.000000	298.4836197	-9.7927492
260.000000	-30.000000	302.8621178	-7.2917293
260.000000	-25.000000	307.1915932	-4.7490737
260.000000	-20.000000	311.4891052	-2.1796352
260.000000	-15.000000	315.7719383	.4020020
260.000000	-10.000000	320.0574760	2.9813944
260.000000	-5.000000	324.3630867	5.5440668
260.000000	.000000	328.7060051	8.0753738
260.000000	5.000000	333.1031914	10.5603403
260.000000	10.000000	337.5711403	12.9835563
260.000000	15.000000	342.1256142	15.3290453
260.000000	20.000000	346.7813110	17.5802052
260.000000	25.000000	351.5513611	19.7197948
260.000000	30.000000	356.4467773	21.7299550
260.000000	35.000000	1.4757499	23.5923495
260.000000	40.000000	6.6428656	25.2884080
260.000000	45.000000	11.9483058	26.7996545
260.000000	50.000000	17.3871276	28.1081946
260.000000	55.000000	22.9487147	29.1972756
260.000000	60.000000	28.6165936	30.0519948
260.000000	65.000000	34.3686686	30.6599643
260.000000	70.000000	40.1780629	31.0119829
260.000000	75.000000	46.0144558	31.1025569
260.000000	80.000000	51.8458376	30.9302571
260.000000	85.000000	57.6405139	30.4978027
260.000000	90.000000	63.3690600	29.8118808
265.000000	-90.000000	243.3690643	-29.8118796
265.000000	-85.000000	249.0892143	-29.3122761
265.000000	-80.000000	254.7403793	-28.5717432
265.000000	-75.000000	260.3004951	-27.6008031
265.000000	-70.000000	265.7522774	-26.4125900
265.000000	-65.000000	271.0837555	-25.0222242
265.000000	-60.000000	276.2880402	-23.4462900
265.000000	-55.000000	281.3632851	-21.7020636
265.000000	-50.000000	286.3119583	-19.8072462
265.000000	-45.000000	291.1402016	-17.7795036
265.000000	-40.000000	295.8571053	-15.6362135
265.000000	-35.000000	300.4741020	-13.3942971
265.000000	-30.000000	305.0043488	-11.0701492
265.000000	-25.000000	309.4622765	-8.6796007
265.000000	-20.000000	313.8632050	-6.2379983
265.000000	-15.000000	318.2230339	-3.7602394
265.000000	-10.000000	322.5580482	-1.2608999
265.000000	-5.000000	326.8847427	1.2456324
265.000000	.000000	331.2196541	3.7450603
265.000000	5.000000	335.5792847	6.2229942
265.000000	10.000000	339.9799118	8.6648611
265.000000	15.000000	344.4374466	11.0557626
265.000000	20.000000	348.9672089	13.3803660
265.000000	25.000000	353.5836296	15.6228359
265.000000	30.000000	358.2998924	17.7667751
265.000000	35.000000	3.1274218	19.7952750
265.000000	40.000000	8.0753435	21.6909573
265.000000	45.000000	13.1498125	23.4361553
265.000000	50.000000	18.3533103	25.0131907
265.000000	55.000000	23.6839898	26.4047120
265.000000	60.000000	29.1350834	27.5942044
265.000000	65.000000	34.6945882	28.5665102
265.000000	70.000000	40.3452582	29.3084855
265.000000	75.000000	46.0650692	29.8095806
265.000000	80.000000	51.8280883	30.0624182
265.000000	85.000000	57.6058612	30.0631905
265.000000	90.000000	63.3690600	29.8118808

TABLE 3. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
270.000000	-90.000000	243.3690681	-29.8118808
270.000000	-85.000000	249.1299019	-29.7464788
270.000000	-80.000000	254.8690109	-29.4323988
270.000000	-75.000000	260.5591164	-28.8742995
270.000000	-70.000000	266.1757660	-28.0802574
270.000000	-65.000000	271.6985359	-27.0613184
270.000000	-60.000000	277.1117859	-25.8309445
270.000000	-55.000000	282.4050217	-24.4044211
270.000000	-50.000000	287.5727921	-22.7982597
270.000000	-45.000000	292.6143150	-21.0296795
270.000000	-40.000000	297.5329094	-19.1161530
270.000000	-35.000000	302.3353195	-17.0750909
270.000000	-30.000000	307.0310631	-14.9235855
270.000000	-25.000000	311.6318016	-12.6782919
270.000000	-20.000000	316.1507912	-10.3553090
270.000000	-15.000000	320.6024628	-7.9702777
270.000000	-10.000000	325.0020638	-5.5383257
270.000000	-5.000000	329.3653717	-3.0742041
270.000000	.000000	333.7085037	-.5923784
270.000000	5.000000	338.0477486	1.8928463
270.000000	10.000000	342.3994179	4.3671962
270.000000	15.000000	346.7797318	6.8162977
270.000000	20.000000	351.2046471	9.2255508
270.000000	25.000000	355.6897011	11.5800128
270.000000	30.000000	249.7437	13.8643086
270.000000	35.000000	4.8986474	16.0625556
270.000000	40.000000	9.6488965	18.1583567
270.000000	45.000000	14.5110974	20.1348159
270.000000	50.000000	19.4933984	21.9746499
270.000000	55.000000	24.6008394	23.6603827
270.000000	60.000000	29.8346684	25.1746237
270.000000	65.000000	35.1917214	26.5004647
270.000000	70.000000	40.6639376	27.6219656
270.000000	75.000000	46.2381144	28.5247209
270.000000	80.000000	51.8960447	29.1964567
270.000000	85.000000	57.6150632	29.6276214
270.000000	90.000000	63.3690634	29.8118808
275.000000	-90.000000	243.3690643	-29.8118808
275.000000	-85.000000	249.1271706	-30.1821125
275.000000	-80.000000	254.9137917	-30.2995007
275.000000	-75.000000	260.6992493	-30.1622508
275.000000	-70.000000	266.4539108	-29.7724669
275.000000	-65.000000	272.1500435	-29.1359987
275.000000	-60.000000	277.7631721	-28.2621062
275.000000	-55.000000	283.2734985	-27.1630247
275.000000	-50.000000	288.6663818	-25.8532403
275.000000	-45.000000	293.9325829	-24.3489242
275.000000	-40.000000	299.0680580	-22.6673079
275.000000	-35.000000	304.0734634	-20.8261607
275.000000	-30.000000	308.9534912	-18.8433669
275.000000	-25.000000	313.7161751	-16.7366052
275.000000	-20.000000	318.3721428	-14.5231405
275.000000	-15.000000	322.9340401	-12.2197134
275.000000	-10.000000	327.4159698	-9.8429494
275.000000	-5.000000	331.8330879	-7.4071084
275.000000	.000000	336.2012482	-4.9286837
275.000000	5.000000	340.5367699	-2.4219810
275.000000	10.000000	344.8562355	.0985152
275.000000	15.000000	349.1763535	2.6184499
275.000000	20.000000	353.5138283	5.1234699
275.000000	25.000000	357.8852310	7.5990658
275.000000	30.000000	2.3068474	10.0304611
275.000000	35.000000	6.7944924	12.4024851
275.000000	40.000000	11.3632452	14.6994715
275.000000	45.000000	16.0271153	16.9052143
275.000000	50.000000	20.7986062	19.0029204
275.000000	55.000000	25.6881785	20.9752946
275.000000	60.000000	30.7036204	22.8046253
275.000000	65.000000	35.8493381	24.4730299
275.000000	70.000000	41.1256418	25.9627607
275.000000	75.000000	46.5281081	27.2566543
275.000000	80.000000	52.0470662	28.3386395
275.000000	85.000000	57.6674585	29.1943777
275.000000	90.000000	63.3690600	29.8118796

TABLE 3. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
280.000000	-90.000000	243.3690643	-29.8118808
280.000000	-85.000000	249.0804749	-30.6158884
280.000000	-80.000000	254.8722382	-31.1667399
280.000000	-75.000000	260.7154999	-31.4558883
280.000000	-70.000000	266.5782242	-31.4787412
280.000000	-65.000000	272.4271660	-31.2349093
280.000000	-60.000000	278.2298927	-30.7282879
280.000000	-55.000000	283.9568939	-29.9667966
280.000000	-50.000000	289.5831490	-28.9618542
280.000000	-45.000000	295.0891953	-27.7277739
280.000000	-40.000000	300.4616470	-26.2810152
280.000000	-35.000000	305.6931419	-24.6394837
280.000000	-30.000000	310.7818947	-22.8218760
280.000000	-25.000000	315.7309837	-20.8471355
280.000000	-20.000000	320.5475159	-18.7340465
280.000000	-15.000000	325.2417946	-16.5009592
280.000000	-10.000000	329.8265495	-14.1655967
280.000000	-5.000000	334.3162842	-11.7450176
280.000000	.000000	338.7267685	-9.2555884
280.000000	5.000000	343.0745926	-6.7130519
280.000000	10.000000	347.3769188	-4.1326277
280.000000	15.000000	351.6512184	-1.5291535
280.000000	20.000000	355.9151459	1.0828126
280.000000	25.000000	.1864136	3.6887719
280.000000	30.000000	4.4826990	6.2741833
280.000000	35.000000	8.8215234	8.8242583
280.000000	40.000000	13.2201005	11.3238645
280.000000	45.000000	17.6951444	13.7573552
280.000000	50.000000	22.2625864	16.1084726
280.000000	55.000000	26.9371800	18.3602831
280.000000	60.000000	31.7320037	20.4951718
280.000000	65.000000	36.6578279	22.4948859
280.000000	70.000000	41.7223630	24.3407006
280.000000	75.000000	46.9294395	26.0136714
280.000000	80.000000	52.2781539	27.4950244
280.000000	85.000000	57.7621417	28.7666826
280.000000	90.000000	63.3690600	29.8118796
285.000000	-90.000000	243.3690643	-29.8118808
285.000000	-85.000000	248.9895821	-31.0444827
285.000000	-80.000000	254.7422714	-32.0276260
285.000000	-75.000000	260.6026535	-32.7460666
285.000000	-70.000000	266.5397377	-33.1880512
285.000000	-65.000000	272.5175667	-33.3460693
285.000000	-60.000000	278.4973984	-33.2173767
285.000000	-55.000000	284.4403687	-32.8042207
285.000000	-50.000000	290.3101349	-32.1136312
285.000000	-45.000000	296.0751038	-31.1569600
285.000000	-40.000000	301.7100792	-29.9491336
285.000000	-35.000000	307.1971169	-28.5077801
285.000000	-30.000000	312.5256042	-26.8523500
285.000000	-25.000000	317.6917725	-25.0032687
285.000000	-20.000000	322.6978302	-22.9812787
285.000000	-15.000000	327.5508919	-20.8068831
285.000000	-10.000000	332.2619133	-18.5000074
285.000000	-5.000000	336.8447266	-16.0797703
285.000000	.000000	341.3151894	-13.5643961
285.000000	5.000000	345.6905365	-10.9712145
285.000000	10.000000	349.9889030	-8.3167280
285.000000	15.000000	354.2289543	-5.6167323
285.000000	20.000000	358.4296799	-2.8864702
285.000000	25.000000	2.6102080	-.1408001
285.000000	30.000000	6.7897543	2.6056194
285.000000	35.000000	10.9875244	5.3381356
285.000000	40.000000	15.2226720	8.0419329
285.000000	45.000000	19.5141993	10.7017932
285.000000	50.000000	23.8808129	13.3020079
285.000000	55.000000	28.3407197	15.8261313
285.000000	60.000000	32.9112625	18.2569425
285.000000	65.000000	37.6084785	20.5762944
285.000000	70.000000	42.4464240	22.7651691
285.000000	75.000000	47.4364090	24.8037074
285.000000	80.000000	52.5859790	26.6714573
285.000000	85.000000	57.8979006	28.3476765
285.000000	90.000000	63.3690600	29.8118796

TABLE 3. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
290.000000	-90.000000	243.3690643	-29.8118808
290.000000	-85.000000	248.8546028	-31.4645629
290.000000	-80.000000	254.5223694	-32.8755336
290.000000	-75.000000	260.3558693	-34.0232654
290.000000	-70.000000	266.3291779	-34.8887496
290.000000	-65.000000	272.4074211	-35.4566493
290.000000	-60.000000	278.5483971	-35.7164297
290.000000	-55.000000	284.7052650	-35.6631227
290.000000	-50.000000	290.8299980	-35.2977552
290.000000	-45.000000	296.8769836	-34.6272607
290.000000	-40.000000	302.8062515	-33.6639166
290.000000	-35.000000	308.5858536	-32.4244270
290.000000	-30.000000	314.1930695	-30.9287889
290.000000	-25.000000	319.6145287	-29.1991262
290.000000	-20.000000	324.8455276	-27.2586131
290.000000	-15.000000	329.8887520	-25.1306026
290.000000	-10.000000	334.7528267	-22.8379703
290.000000	-5.000000	339.4508476	-20.4026802
290.000000	.000000	343.9991074	-17.8455560
290.000000	5.000000	348.4160194	-15.1861740
290.000000	10.000000	352.7213364	-12.4429084
290.000000	15.000000	356.9355659	-9.6330385
290.000000	20.000000	1.0796048	-6.7729010
290.000000	25.000000	5.1745057	-3.8780920
290.000000	30.000000	9.2413579	-.9636783
290.000000	35.000000	13.3012474	1.9555818
290.000000	40.000000	17.3752682	4.8650004
290.000000	45.000000	21.4845071	7.7497361
290.000000	50.000000	25.6500480	10.5945715
290.000000	55.000000	29.8929090	13.3836750
290.000000	60.000000	34.2338829	16.1004188
290.000000	65.000000	38.6932740	18.7271707
290.000000	70.000000	43.2904606	21.2451415
290.000000	75.000000	48.0432401	23.6343343
290.000000	80.000000	52.9669366	25.8735285
290.000000	85.000000	58.0732822	27.9404066
290.000000	90.000000	63.3690600	29.8118796
295.000000	-90.000000	243.3690643	-29.8118808
295.000000	-85.000000	248.8546028	-31.8728230
295.000000	-80.000000	254.2116356	-33.7037330
295.000000	-75.000000	259.9708328	-35.2776055
295.000000	-70.000000	265.9370880	-36.5684810
295.000000	-65.000000	272.0814171	-37.5528765
295.000000	-60.000000	278.3624420	-38.2114172
295.000000	-55.000000	284.7282181	-38.5303373
295.000000	-50.000000	291.1197662	-38.5027356
295.000000	-45.000000	297.4758911	-38.1292195
295.000000	-40.000000	303.7384300	-37.4178386
295.000000	-35.000000	309.8569260	-36.3833380
295.000000	-30.000000	315.7918930	-35.0458627
295.000000	-25.000000	321.5163727	-33.4293866
295.000000	-20.000000	327.0157661	-31.5601263
295.000000	-15.000000	332.2865410	-29.4651358
295.000000	-10.000000	337.3342361	-27.1712210
295.000000	-5.000000	342.1712646	-24.7041571
295.000000	.000000	346.8149261	-22.0882380
295.000000	5.000000	351.2856903	-19.3460793
295.000000	10.000000	355.6059303	-16.4985693
295.000000	15.000000	359.7989693	-13.5649898
295.000000	20.000000	3.8884939	-10.5631913
295.000000	25.000000	7.8982027	-7.5098309
295.000000	30.000000	11.8516335	-4.4206389
295.000000	35.000000	15.7721269	-1.3106627
295.000000	40.000000	19.6828859	1.8054314
295.000000	45.000000	23.6070585	4.9130905
295.000000	50.000000	27.5678623	7.9976146
295.000000	55.000000	31.5886717	11.0438545
295.000000	60.000000	35.6930561	14.0359576
295.000000	65.000000	39.9047184	16.9570930
295.000000	70.000000	44.2473245	19.7891967
295.000000	75.000000	48.7440977	22.5127478
295.000000	80.000000	53.4171710	25.1065772
295.000000	85.000000	58.2866096	27.5478058
295.000000	90.000000	63.3690600	29.8118796

TABLE 3. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
300.000000	-90.000000	243.3690643	-29.8118808
300.000000	-85.000000	248.4545975	-32.2659969
300.000000	-80.000000	253.8098946	-34.5054369
300.000000	-75.000000	259.4439468	-36.4988732
300.000000	-70.000000	265.3540802	-38.2141681
300.000000	-65.000000	271.5228157	-39.6198158
300.000000	-60.000000	277.9155235	-40.6868911
300.000000	-55.000000	284.4800949	-41.3912969
300.000000	-50.000000	291.1491776	-41.7159958
300.000000	-45.000000	297.8453903	-41.6528144
300.000000	-40.000000	304.4886436	-41.2033615
300.000000	-35.000000	311.0040894	-40.3788395
300.000000	-30.000000	317.3288956	-39.1988082
300.000000	-25.000000	323.4165192	-37.6891890
300.000000	-20.000000	329.2380676	-35.8799825
300.000000	-15.000000	334.7811890	-33.8030906
300.000000	-10.000000	340.0473671	-31.4905164
300.000000	-5.000000	345.0486374	-28.9731073
300.000000	.000000	349.8043785	-26.2797327
300.000000	5.000000	354.3385620	-23.4369323
300.000000	10.000000	358.6777153	-20.4688315
300.000000	15.000000	2.8494280	-17.3972337
300.000000	20.000000	6.8814445	-14.2418915
300.000000	25.000000	10.8011265	-11.0207895
300.000000	30.000000	14.6352361	-7.7504864
300.000000	35.000000	18.4099143	-4.4464440
300.000000	40.000000	22.1507795	-1.1233541
300.000000	45.000000	25.8831351	2.2045073
300.000000	50.000000	29.6322050	5.5229857
300.000000	55.000000	33.4233637	8.8177084
300.000000	60.000000	37.2823896	12.0737640
300.000000	65.000000	41.2356110	15.2753716
300.000000	70.000000	45.3099980	18.4055490
300.000000	75.000000	49.5330796	21.4457741
300.000000	80.000000	53.9326158	24.3756623
300.000000	85.000000	58.5359831	27.1726601
300.000000	90.000000	63.3690600	29.8118796
305.000000	-90.000000	243.3690643	-29.8118808
305.000000	-85.000000	248.1916389	-32.6408958
305.000000	-80.000000	253.3178101	-35.2738528
305.000000	-75.000000	258.7726288	-37.6765580
305.000000	-70.000000	264.5712318	-39.8119392
305.000000	-65.000000	270.7137070	-41.6411729
305.000000	-60.000000	277.1797981	-43.1256123
305.000000	-55.000000	283.9248085	-44.2295041
305.000000	-50.000000	290.8785400	-44.9233017
305.000000	-45.000000	297.9488487	-45.1869898
305.000000	-40.000000	305.0302315	-45.0126410
305.000000	-35.000000	312.0158844	-44.4055190
305.000000	-30.000000	318.8100815	-43.3833370
305.000000	-25.000000	325.3376770	-41.9739485
305.000000	-20.000000	331.5487137	-40.2121143
305.000000	-15.000000	337.4182014	-38.1361432
305.000000	-10.000000	342.9424896	-35.7850060
305.000000	-5.000000	348.1340714	-33.1962380
305.000000	.000000	353.0163536	-30.4046886
305.000000	5.000000	357.6192169	-27.4418867
305.000000	10.000000	1.9757101	-24.3359201
305.000000	15.000000	6.1198015	-21.1116455
305.000000	20.000000	10.0850190	-17.7910118
305.000000	25.000000	13.9037423	-14.3935033
305.000000	30.000000	17.6069434	-10.9365821
305.000000	35.000000	21.2242107	-7.4361234
305.000000	40.000000	24.7839830	-3.9068273
305.000000	45.000000	28.3138475	-.3626286
305.000000	50.000000	31.8409436	3.1829445
305.000000	55.000000	35.3923750	6.7163994
305.000000	60.000000	38.9956088	10.2239214
305.000000	65.000000	42.6788750	13.6909916
305.000000	70.000000	46.4715066	17.1020088
305.000000	75.000000	50.4041867	20.4398739
305.000000	80.000000	54.5090084	23.6855526
305.000000	85.000000	58.8193116	26.8176270
305.000000	90.000000	63.3690600	29.8118796

TABLE 3. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
310.0000000	-90.0000000	243.3690643	-29.8118808
310.0000000	-85.0000000	247.8887558	-32.9944377
310.0000000	-80.0000000	252.7369766	-36.0022430
310.0000000	-75.0000000	257.9556160	-38.7999139
310.0000000	-70.0000000	263.5805969	-41.3471360
310.0000000	-65.0000000	269.6355476	-43.5991325
310.0000000	-60.0000000	276.1235313	-45.5080895
310.0000000	-55.0000000	283.0180511	-47.0258374
310.0000000	-50.0000000	290.2559128	-48.1079798
310.0000000	-45.0000000	297.7355576	-48.7189674
310.0000000	-40.0000000	305.3240929	-48.8371077
310.0000000	-35.0000000	312.8733253	-48.4580669
310.0000000	-30.0000000	320.2406654	-47.5955925
310.0000000	-25.0000000	327.3082352	-46.2792306
310.0000000	-20.0000000	333.9943657	-44.5498495
310.0000000	-15.0000000	340.2558250	-42.4544139
310.0000000	-10.0000000	346.0827370	-40.0413342
310.0000000	-5.0000000	351.4901123	-37.3570733
310.0000000	.0000000	356.5089531	-34.4441729
310.0000000	5.0000000	1.1789852	-31.3403618
310.0000000	10.0000000	5.5433877	-28.0784676
310.0000000	15.0000000	9.6454867	-24.6867931
310.0000000	20.0000000	13.5268863	-21.1896598
310.0000000	25.0000000	17.2266362	-17.6080685
310.0000000	30.0000000	20.7810431	-13.9603068
310.0000000	35.0000000	24.2238655	-10.2625537
310.0000000	40.0000000	27.5867183	-6.5293811
310.0000000	45.0000000	30.8995979	-2.7742503
310.0000000	50.0000000	34.1914554	.9900800
310.0000000	55.0000000	37.4908013	4.7511393
310.0000000	60.0000000	40.8262992	8.4963443
310.0000000	65.0000000	44.2273822	12.2126263
310.0000000	70.0000000	47.7248259	15.8859947
310.0000000	75.0000000	51.3513150	19.5010951
310.0000000	80.0000000	55.1419005	23.0407047
310.0000000	85.0000000	59.1343307	26.44851902
310.0000000	90.0000000	63.3690600	29.8118796
315.0000000	-90.0000000	243.3690643	-29.8118808
315.0000000	-85.0000000	247.5479774	-33.3236709
315.0000000	-80.0000000	252.0700378	-36.6840048
315.0000000	-75.0000000	256.9933167	-39.8580599
315.0000000	-70.0000000	262.3759689	-42.8043451
315.0000000	-65.0000000	268.2700615	-45.4741869
315.0000000	-60.0000000	274.7115211	-47.8120966
315.0000000	-55.0000000	281.7061043	-49.7576880
315.0000000	-50.0000000	289.2135277	-51.2498269
315.0000000	-45.0000000	297.1350632	-52.2332568
315.0000000	-40.0000000	305.3127213	-52.6668220
315.0000000	-35.0000000	313.5461082	-52.5310240
315.0000000	-30.0000000	321.6249771	-51.8320699
315.0000000	-25.0000000	329.3658218	-50.6005311
315.0000000	-20.0000000	336.6378975	-48.8853245
315.0000000	-15.0000000	343.3712845	-46.7454638
315.0000000	-10.0000000	349.5495071	-44.2428054
315.0000000	-5.0000000	355.1946335	-41.4345813
315.0000000	.0000000	351.7758	-38.3743582
315.0000000	5.0000000	5.0769081	-35.1069765
315.0000000	10.0000000	9.4287058	-31.6706557
315.0000000	15.0000000	13.4638962	-28.0973454
315.0000000	20.0000000	17.2349999	-24.4136729
315.0000000	25.0000000	20.7896061	-20.6419489
315.0000000	30.0000000	24.1704948	-16.8010330
315.0000000	35.0000000	27.4161994	-12.9071311
315.0000000	40.0000000	30.5617657	-8.9744363
315.0000000	45.0000000	33.6395760	-5.0157135
315.0000000	50.0000000	36.6801758	-1.0427685
315.0000000	55.0000000	39.7130961	2.9331075
315.0000000	60.0000000	42.7676649	6.9007185
315.0000000	65.0000000	45.8737941	10.8485857
315.0000000	70.0000000	49.0627980	14.7645013
315.0000000	75.0000000	52.3682275	18.6350861
315.0000000	80.0000000	55.8266764	22.4452648.
315.0000000	85.0000000	59.4786129	26.1776602
315.0000000	90.0000000	63.3690600	29.8118796

TABLE 3. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
320.0000000	-90.0000000	243.3690643	-29.8118808
320.0000000	-85.0000000	247.1717300	-33.6258163
320.0000000	-80.0000000	251.3207703	-37.3127365
320.0000000	-75.0000000	255.8881989	-40.8401079
320.0000000	-70.0000000	260.9537392	-44.1675143
320.0000000	-65.0000000	266.6006432	-47.2450514
320.0000000	-60.0000000	272.9063110	-50.0121822
320.0000000	-55.0000000	279.9252205	-52.3978963
320.0000000	-50.0000000	287.6633987	-54.3235888
320.0000000	-45.0000000	296.0487595	-55.7101278
320.0000000	-40.0000000	304.9104233	-56.4894562
320.0000000	-35.0000000	313.9859467	-56.6184406
320.0000000	-30.0000000	322.9662361	-56.0895634
320.0000000	-25.0000000	331.5634041	-54.9329495
320.0000000	-20.0000000	339.5679054	-53.2085485
320.0000000	-15.0000000	346.8704414	-50.9927602
320.0000000	-10.0000000	353.4499779	-48.3655028
320.0000000	-5.0000000	359.3455353	-45.4012880
320.0000000	.0000000	4.6280738	-42.1648803
320.0000000	5.0000000	9.3800629	-38.7102456
320.0000000	10.0000000	13.6833282	-35.0813208
320.0000000	15.0000000	17.6131585	-31.3135176
320.0000000	20.0000000	21.2361832	-27.4353514
320.0000000	25.0000000	24.6103337	-23.4699266
320.0000000	30.0000000	27.7857640	-19.4361923
320.0000000	35.0000000	30.8060849	-15.3499330
320.0000000	40.0000000	33.7097278	-11.2246038
320.0000000	45.0000000	36.5311909	-7.0719819
320.0000000	50.0000000	39.3021975	-2.9026905
320.0000000	55.0000000	42.0527859	1.2733300
320.0000000	60.0000000	44.8123116	5.4464049
320.0000000	65.0000000	47.6104269	9.6067511
320.0000000	70.0000000	50.4780769	13.7440550
320.0000000	75.0000000	53.4485407	17.8470566
320.0000000	80.0000000	56.5585675	21.9030240
320.0000000	85.0000000	59.8495932	25.8971658
320.0000000	90.0000000	63.3690600	29.8118796
325.0000000	-90.0000000	243.3690643	-29.8118808
325.0000000	-85.0000000	246.7628517	-33.8982816
325.0000000	-80.0000000	250.4941635	-37.8823428
325.0000000	-75.0000000	254.6452026	-41.7353210
325.0000000	-70.0000000	259.3140259	-45.4201355
325.0000000	-65.0000000	264.6144028	-48.8887343
325.0000000	-60.0000000	270.6706161	-52.0792365
325.0000000	-55.0000000	277.6022644	-54.9134841
325.0000000	-50.0000000	285.4926453	-57.2968354
325.0000000	-45.0000000	294.3376045	-59.1231933
325.0000000	-40.0000000	303.9867554	-60.2885509
325.0000000	-35.0000000	314.1144371	-60.7132297
325.0000000	-30.0000000	324.2661514	-60.3651266
325.0000000	-25.0000000	333.9804382	-59.2706881
325.0000000	-20.0000000	342.9151993	-57.5057926
325.0000000	-15.0000000	350.9029427	-55.1731253
325.0000000	-10.0000000	357.9274559	-52.3793521
325.0000000	-5.0000000	4.0658978	-49.2205915
325.0000000	.0000000	9.4359928	-45.7766991
325.0000000	5.0000000	14.1624613	-42.1110911
325.0000000	10.0000000	18.3604681	-38.2730627
325.0000000	15.0000000	22.1297016	-34.3006678
325.0000000	20.0000000	25.5538831	-30.2233751
325.0000000	25.0000000	28.7025206	-26.0642290
325.0000000	30.0000000	31.6333647	-21.8415034
325.0000000	35.0000000	34.3948474	-17.5700037
325.0000000	40.0000000	37.0282383	-13.2619764
325.0000000	45.0000000	39.5695076	-8.9278744
325.0000000	50.0000000	42.0508795	-4.5769026
325.0000000	55.0000000	44.5021877	-.2174855
325.0000000	60.0000000	46.9520774	4.1423268
325.0000000	65.0000000	49.4291406	8.4945126
325.0000000	70.0000000	51.9630399	12.8306935
325.0000000	75.0000000	54.5857029	17.1417634
325.0000000	80.0000000	57.3326569	21.4174283
325.0000000	85.0000000	60.2445669	25.6456313
325.0000000	90.0000000	63.3690600	29.8118796

TABLE 3. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
330.000000	-90.000000	243.3690643	-29.8118808
330.000000	-85.000000	246.3245544	-34.1387110
330.000000	-80.000000	249.5964508	-38.3871293
330.000000	-75.000000	253.2720375	-42.5333405
330.000000	-70.000000	257.4618187	-46.5455709
330.000000	-65.000000	262.3048363	-50.3807836
330.000000	-60.000000	267.9715385	-53.9802918
330.000000	-55.000000	274.6581459	-57.2643547
330.000000	-50.000000	282.5599060	-60.1271014
330.000000	-45.000000	291.8047028	-62.4355626
330.000000	-40.000000	302.3375015	-64.0403795
330.000000	-35.000000	313.7992363	-64.8060322
330.000000	-30.000000	325.5239639	-64.6560307
330.000000	-25.000000	336.7447433	-63.6060462
330.000000	-20.000000	346.8826294	-61.7566609
330.000000	-15.000000	355.6862640	-59.2524552
330.000000	-10.000000	3.1747506	-56.2397385
330.000000	-5.000000	9.5082495	-52.8431158
330.000000	.000000	14.8872888	-49.1595583
330.000000	5.000000	19.5012958	-45.2613683
330.000000	10.000000	23.5105515	-41.2015929
330.000000	15.000000	27.0443382	-37.0191960
330.000000	20.000000	30.2050304	-32.7430539
330.000000	25.000000	33.0735130	-28.3949118
330.000000	30.000000	35.7141938	-23.9914622
330.000000	35.000000	38.1791124	-19.5458112
330.000000	40.000000	40.5111909	-15.0685292
330.000000	45.000000	42.7467542	-10.5684069
330.000000	50.000000	44.9175215	-6.0530136
330.000000	55.000000	47.0522079	-1.5291405
330.000000	60.000000	49.1778955	2.9968442
330.000000	65.000000	51.3212652	7.5186802
330.000000	70.000000	53.5097861	12.0298921
330.000000	75.000000	55.7729883	16.5234866
330.000000	80.000000	58.1438932	20.9915464
330.000000	85.000000	60.6607265	25.4247801
330.000000	90.000000	63.3690600	29.8118796
335.000000	-90.000000	243.3690643	-29.8118808
335.000000	-85.000000	245.8603935	-34.3449941
335.000000	-80.000000	248.6351357	-38.8218985
335.000000	-75.000000	251.7795143	-43.2244039
335.000000	-70.000000	255.4081573	-47.5274801
335.000000	-65.000000	259.6750603	-51.6958423
335.000000	-60.000000	264.7870979	-55.6787529
335.000000	-55.000000	271.0162010	-59.4022007
335.000000	-50.000000	278.6968155	-62.7582397
335.000000	-45.000000	288.1730499	-65.5936604
335.000000	-40.000000	299.6324883	-67.7079582
335.000000	-35.000000	312.8036537	-68.8827448
335.000000	-30.000000	326.7342682	-68.9597139
335.000000	-25.000000	340.0792656	-67.9273558
335.000000	-20.000000	351.8014755	-65.9282341
335.000000	-15.000000	1.5428177	-63.1781349
335.000000	-10.000000	9.4483448	-59.8827362
335.000000	-5.000000	15.8539516	-56.2019830
335.000000	.000000	21.1002874	-52.2493548
335.000000	5.000000	25.4685547	-48.1027913
335.000000	10.000000	29.1738577	-43.8156700
335.000000	15.000000	32.3765674	-39.4250240
335.000000	20.000000	35.1959448	-34.9570379
335.000000	25.000000	37.7215366	-30.4306843
335.000000	30.000000	40.0216823	-25.8600481
335.000000	35.000000	42.1496520	-21.2558780
335.000000	40.000000	44.1480370	-16.6266325
335.000000	45.000000	46.0518928	-11.9791843
335.000000	50.000000	47.8911166	-7.3193254
335.000000	55.000000	49.6922011	-2.6521633
335.000000	60.000000	51.4797163	2.0175983
335.000000	65.000000	53.2775431	6.6853866
335.000000	70.000000	55.1100841	11.3465247
335.000000	75.000000	57.0034971	15.9959842
335.000000	80.000000	58.9871078	20.6280775
335.000000	85.000000	61.0951633	25.2361102
335.000000	90.000000	63.3690600	29.8118796

TABLE 3. (Continued)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
340.0000000	-90.0000000	243.3690643	-29.8118808
340.0000000	-85.0000000	245.3742599	-34.5153108
340.0000000	-80.0000000	247.6189117	-39.1820569
340.0000000	-75.0000000	250.1816330	-43.7996278
340.0000000	-70.0000000	253.1710892	-48.3503757
340.0000000	-65.0000000	256.7412643	-52.8085604
340.0000000	-60.0000000	261.1149597	-57.1353617
340.0000000	-55.0000000	266.6182518	-61.2702966
340.0000000	-50.0000000	273.7229233	-65.1165380
340.0000000	-45.0000000	283.0656509	-68.5175648
340.0000000	-40.0000000	295.3215714	-71.2290134
340.0000000	-35.0000000	310.6686592	-72.9187117
340.0000000	-30.0000000	327.8814201	-73.2737474
340.0000000	-25.0000000	344.4135170	-72.2139654
340.0000000	-20.0000000	358.2419472	-69.9627695
340.0000000	-15.0000000	8.9514974	-66.8657160
340.0000000	-10.0000000	17.0739720	-63.2150631
340.0000000	-5.0000000	23.2990744	-59.2076287
340.0000000	.0000000	28.1821494	-54.9662557
340.0000000	5.0000000	32.1160679	-50.5670552
340.0000000	10.0000000	35.3696322	-46.0581660
340.0000000	15.0000000	38.1272635	-41.4709945
340.0000000	20.0000000	40.5176787	-36.8267174
340.0000000	25.0000000	42.6328316	-32.1400995
340.0000000	30.0000000	44.5401411	-27.4217598
340.0000000	35.0000000	46.2904506	-22.6795998
340.0000000	40.0000000	47.9232759	-17.9196959
340.0000000	45.0000000	49.4703703	-13.1468822
340.0000000	50.0000000	50.9582329	-8.3651730
340.0000000	55.0000000	52.4099178	-3.5780389
340.0000000	60.0000000	53.8464761	1.2113654
340.0000000	65.0000000	55.2881336	6.0000070
340.0000000	70.0000000	56.7553906	10.7848073
340.0000000	75.0000000	58.2701526	15.5624769
340.0000000	80.0000000	59.8570213	20.3293068
340.0000000	85.0000000	61.5448818	25.0809097
340.0000000	90.0000000	63.3690600	29.8118796
345.0000000	-90.0000000	243.3690643	-29.8118808
345.0000000	-85.0000000	244.8703270	-34.6481390
345.0000000	-80.0000000	246.5576096	-39.4637165
345.0000000	-75.0000000	248.4955559	-44.2512860
345.0000000	-70.0000000	250.7762413	-49.0002933
345.0000000	-65.0000000	253.5356903	-53.6948919
345.0000000	-60.0000000	256.9826164	-58.3102207
345.0000000	-55.0000000	261.4500961	-62.8052516
345.0000000	-50.0000000	267.4883766	-67.1083946
345.0000000	-45.0000000	276.0181618	-71.0876179
345.0000000	-40.0000000	288.4792137	-74.4910126
345.0000000	-35.0000000	306.4004097	-76.8627024
345.0000000	-30.0000000	328.9220428	-77.5957842
345.0000000	-25.0000000	350.6886444	-76.4221420
345.0000000	-20.0000000	7.2270437	-73.7498722
345.0000000	-15.0000000	18.5920498	-70.1762209
345.0000000	-10.0000000	26.4155195	-66.1024628
345.0000000	-5.0000000	32.0114336	-61.7444029
345.0000000	.0000000	36.1950083	-57.2155790
345.0000000	5.0000000	39.4530568	-52.5783319
345.0000000	10.0000000	42.0823951	-47.8688874
345.0000000	15.0000000	44.2707539	-43.1094608
345.0000000	20.0000000	46.1416235	-38.3143806
345.0000000	25.0000000	47.7793336	-33.4932833
345.0000000	30.0000000	49.2435908	-28.6529238
345.0000000	35.0000000	50.5781636	-23.7982144
345.0000000	40.0000000	51.8162732	-18.9328563
345.0000000	45.0000000	52.9840817	-14.0597517
345.0000000	50.0000000	54.1030426	-9.1812742
345.0000000	55.0000000	55.1915417	-4.2994497
345.0000000	60.0000000	56.2661481	.5839040
345.0000000	65.0000000	57.3426299	5.4670514
345.0000000	70.0000000	58.4368529	10.3482465
345.0000000	75.0000000	59.5657306	15.2256370
345.0000000	80.0000000	60.7482500	20.0971210
345.0000000	85.0000000	62.0068254	24.9602251
345.0000000	90.0000000	63.3690600	29.8118796

TABLE 3. (Concluded)

ALPHA (LAMBDA) DEGREES	DELTA (BETA) DEGREES	LAMBDA (ALPHA) DEGREES	BETA (DELTA) DEGREES
350.000000	-90.000000	243.3690643	-29.8118808
350.000000	-85.000000	244.3529930	-34.7422876
350.000000	-80.000000	245.4620171	-39.6637750
350.000000	-75.000000	246.7413368	-44.5730939
350.000000	-70.000000	248.2567215	-49.4654980
350.000000	-65.000000	250.1082497	-54.3337059
350.000000	-60.000000	252.4561882	-59.1659617
350.000000	-55.000000	255.5732994	-63.9419618
350.000000	-50.000000	259.9587402	-68.6236811
350.000000	-45.000000	266.6062851	-73.1321402
350.000000	-40.000000	277.6553879	-77.2814436
350.000000	-35.000000	297.5267601	-80.5839014
350.000000	-30.000000	329.7111969	-81.9233904
350.000000	-25.000000	1.3450169	-80.4360781
350.000000	-20.000000	20.5615821	-77.0627413
350.000000	-15.000000	31.2703373	-72.8844795
350.000000	-10.000000	37.7484727	-68.3628025
350.000000	-5.000000	42.0423694	-63.6742125
350.000000	.000000	45.1056514	-58.8942537
350.000000	5.000000	47.4196882	-54.0595341
350.000000	10.000000	49.2486882	-49.1897001
350.000000	15.000000	50.7484856	-44.2961812
350.000000	20.000000	52.0166731	-39.3860674
350.000000	25.000000	53.1175728	-34.4639978
350.000000	30.000000	54.0954981	-29.5331666
350.000000	35.000000	54.9822259	-24.5958421
350.000000	40.000000	55.8014660	-19.6537182
350.000000	45.000000	56.5716062	-14.7081065
350.000000	50.000000	57.3075290	-9.7600684
350.000000	55.000000	58.0218525	-4.8104954
350.000000	60.000000	58.7258410	.1398109
350.000000	65.000000	59.4301262	5.0900977
350.000000	70.000000	60.1453571	10.0396043
350.000000	75.000000	60.8828616	14.9875352
350.000000	80.000000	61.6553512	19.9329770
350.000000	85.000000	62.4778705	24.8748715
350.000000	90.000000	63.3690600	29.8118796
355.000000	-90.000000	243.3690643	-29.8118808
355.000000	-85.000000	243.8768471	-34.7969093
355.000000	-80.000000	244.3436966	-39.7800016
355.000000	-75.000000	244.9414368	-44.7604394
355.000000	-70.000000	245.6522102	-49.7371755
355.000000	-65.000000	246.5257950	-54.7085619
355.000000	-60.000000	247.6439323	-59.6719084
355.000000	-55.000000	249.1512756	-64.6224318
355.000000	-50.000000	251.3300972	-69.5507555
355.000000	-45.000000	254.8115845	-74.4356966
355.000000	-40.000000	261.3236771	-79.2180653
355.000000	-35.000000	277.3229065	-83.6611872
355.000000	-30.000000	329.4161606	-86.2530727
355.000000	-25.000000	23.8149369	-83.8496208
355.000000	-20.000000	40.6666613	-79.4385910
355.000000	-15.000000	47.4107962	-74.6641788
355.000000	-10.000000	50.9817247	-69.7822323
355.000000	-5.000000	53.2035069	-64.8553333
355.000000	.000000	54.7345862	-59.9055939
355.000000	5.000000	55.8671303	-54.9427199
355.000000	10.000000	56.7500634	-49.9716396
355.000000	15.000000	57.4672160	-44.9951148
355.000000	20.000000	58.0694561	-40.0148239
355.000000	25.000000	58.5895658	-35.0318398
355.000000	30.000000	59.0497475	-30.0468910
355.000000	35.000000	59.4657187	-25.0604970
355.000000	40.000000	59.8490734	-20.0730345
355.000000	45.000000	60.2087331	-15.0847914
355.000000	50.000000	60.5518584	-10.0960108
355.000000	55.000000	60.8844833	-5.1068884
355.000000	60.000000	61.2119565	-.1175929
355.000000	65.000000	61.5393128	4.8717050
355.000000	70.000000	61.8715749	9.8608402
355.000000	75.000000	62.2140765	14.8496443
355.000000	80.000000	62.5728083	19.8379133
355.000000	85.000000	62.9548631	24.8254237
355.000000	90.000000	63.3690600	29.8118796

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1. Clemence, Gerald M. and Woolard, Edgar W.: Spherical Astronomy, Academic Press, New York and London, 1966.

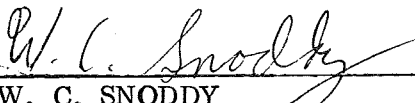
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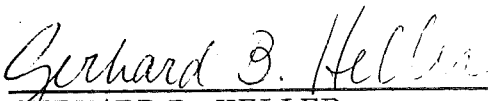
By Nadine A. Bicket and Gilmer A Gary

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This document has also been reviewed and approved for technical accuracy.



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